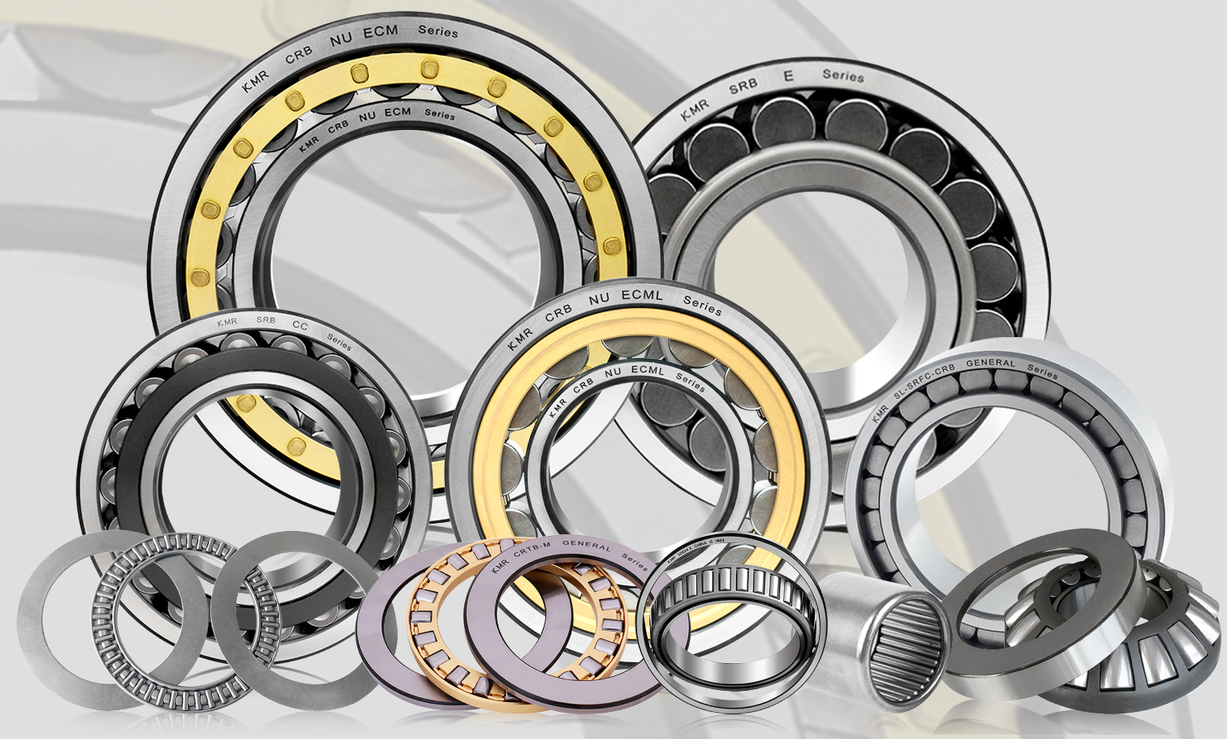


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KMR Bearings

Roller bearing

Shangdong KMR Science &Technology CO.,Ltd

Cylindrical Roller Bearings with Cages

Features

Single row cylindrical roller bearings with cages are composed of inner ring, outer ring and cylindrical roller main parts.
According to the different settings of the inner and outer ring flanges/ribs, it can be subdivided into NU, NJ, N, NUP and other different designs. The function of the cage is to avoid mutual interference between the rollers when the bearing is running.

Cylindrical roller bearings with cages have good rigidity and can withstand high radial loads. They are more suitable for high speed applications than full complement design bearings. Bearings with the suffix E are optimized for higher load carrying capacity and for higher load conditions.

Single row cylindrical roller bearings with cages are usually detachable with one ring for easy assembly and disassembly, and can be used as non-locating, semi-locating and locating bearings.

Compared with standard bearings, the raceways of KMR bearings have a smaller surface roughness Ra and higher geometric accuracy. Therefore, KMR bearings have higher load capacity and longer life in bearings of the same size. In some applications, this means that smaller bearings can be used.

Axial load capacity

The axial load carrying capacity depends on: the size of the sliding contact surface between the flange and the roller end, the sliding velocity at the flange, the lubrication on the contact surface, and the inclination between the bearing rings. It is forbidden to sustain axial load without radial load.

Operating temperature

Single row cylindrical roller bearings with cages are suitable for operating temperatures from –30 °C to +150 °C. For continuous operating temperatures above +120 °C, please contact us.
Bearings with nylon cages (suffix P) are suitable for operating temperatures up to +120 °C. The bearing operating life largely depends on the lubricant used.

Axial displacement

The relative axial displacement "s" of the inner and outer rings in one direction is given in the model dimension table.

Cages

The suffix M designates bearings with roller-guided brass cages.
The cage of cylindrical roller bearings with the suffix P is glass fiber reinforced nylon 66.
Aged lubricating oil and additives in the oil will reduce the working life of the nylon cage at high temperature, and the oil change interval must be strictly followed.

Locating bearings

NUP-type and NJ-type cylindrical roller bearings with L-shaped bevel angle rings are locating bearings. Not only can it bear radial force, but also can bear bidirectional axial force, so as to realize the bidirectional axial positioning of the shaft.

Bearings with a loose flange ring

NUP-type cylindrical roller bearings have two integral flanges on the outer ring, and one integral flange and one non-integral flange on inner ring, i.e. a loose flange ring, on the inner ring.

Dimensional accuracy

The dimensional and geometrical tolerances of the bearings are in accordance with ISO 492.

Lubricating

Grease or oil lubrication is available from the end face.

Bearings with L-shaped angle rings (thrust collars)

L-shaped angle rings are used with NU design bearings to locate the shaft axially in one direction.
L-shaped angle rings are used with NJ design bearings to locate the shaft axially in both directions.

Semi-locating bearings

NJ-type cylindrical roller bearings are semi-locating bearings. Semi-locating bearings can bear high radial loads, and can also bear one-way axial loads. The shaft can be positioned in one direction, and can be used as a floating bearing in the other direction. NJ-type cylindrical roller bearings have two integral flanges on the outer ring and one on the inner ring.

High Load Capacity Cylindrical Roller Bearings

Features

Full complement cylindrical roller bearings do not have cages that separate the rollers. Therefore, full complement roller bearings can be fitted with the most rollers and can withstand higher loads. However, the contact between the rollers increases the risk of friction, heat and wear. Its allowable rotational speed has to be reduced. Under extremely severe working conditions, these shortcomings will drastically reduce the service life of the bearing.

In order to achieve the maximum load capacity of full complement bearings and the good running performance of bearings with cages at the same time, KMR has developed high capacity cylindrical roller bearings. This type of bearing combines the advantages of both types bearings. Specifically designed and developed for applications such as industrial gearboxes, wind turbine gearboxes or mining equipment.

KMR high-load capacity cylindrical roller bearings are equipped with more rollers than EC design cylindrical roller bearings. This not only maintains the original ISO basic dimensions, but also maintains the internal geometry of the EC design, which increases dynamic and static load capacity and extends bearing life.



Reduced risk of roller slippage

KMR high capacity cylindrical roller bearings are specially designed to meet the requirements of wind turbines and applications requiring high load capacity. In these applications, bearings often operate below the required minimum load. In these cases, the inertial forces between the rollers and cage and the friction of the lubricant can have a decisive influence on the rolling conditions of the bearing and can lead to damaging sliding between the rollers and the raceways.

KMR's high-capacity cylindrical roller bearings with inner ring guided cages can reduce this risk. When the bearing is operated below the recommended minimum radial load, the slip rate of the bearing equipped with an inner ring guided cage is greatly reduced compared with a conventional cylindrical roller bearing equipped with a cage of the same size. The risk of sliding damage is lower for bearings in the 22- size series than for bearings in the 23- series. Bearings in the 22- series have a smaller cross-section and smaller rollers, resulting in lower inertial forces. Blackening the rollers can further reduce the risk of internal bearing sliding damage during initial start-up.

Single row full complement cylindrical roller bearings

Features

Single row full complement cylindrical roller bearings consist of inner and outer rings and cylindrical rollers guided by ribs. Due to having as many rolling elements as possible, the bearing has extremely high radial load capacity and rigidity, and is especially suitable for compact structural designs. However, limited by kinematic conditions, this type of bearing cannot reach the high limit speed of cylindrical roller bearings with cages.

Single row full complement cylindrical roller bearings are semi-locating bearings. Compared with standard bearings, the raceways of KMR bearings have a smaller surface roughness Ra and higher geometric accuracy. Therefore, KMR bearings have higher load capacity and longer life in bearings of the same size.

Semi-locating bearings

NCF-type and NJG-type with single row design are semi-locating bearings. These types of bearings can bear very high radial load and unidirectional axial load, and can realize the axial positioning of the shaft in one direction. In the other direction, it can be used as a floating bearing.

The inner ring of the NJG type has only one rib and the roller assembly can be self-retaining. Therefore, the inner ring can be separated. This makes bearing installation and removal easier. During the handling and transportation of NCF type bearings, in order to prevent the bearings from falling apart, a snap ring is installed on the side of the outer ring without ribs. The snap ring cannot bear axial force.



Minimum radial load

For bearings in continuous operation, the minimum radial load must be Fr min = Cor/60.
If Fr min<Cor/60, please contact us.

Dimensional accuracy

The dimensional and geometrical tolerances of the bearings are in accordance with ISO 492.

Operating temperature

Full complement cylindrical roller bearings are suitable for operating temperatures from –30°C to +150°C.

Axial load capacity

Semi-locating radial cylindrical roller bearings can bear radial force and one-way axial force. It is forbidden for the bearing to bear continuous axial load without radial load.



Double Row Full Complement Cylindrical Roller Bearings

Features

Double row full complement cylindrical roller bearings include outer rings, inner rings and cylindrical rollers guided by ribs. Due to the largest number of rolling elements, this type of bearing has a super high radial load capacity and rigidity, and is especially suitable for the design of compact structure. However, limited by kinematic conditions, this type of bearing cannot reach the high limit speed of cylindrical roller bearings with cages. Double row full complement cylindrical roller bearings include non-locating, semi-locating and locating bearings. The relative deflection of the inner and outer rings is not allowed.

Non-locating bearings/Floating bearings

NNCL is a floating bearing type and can only bear radial force. In the process of handling and transportation, in order to prevent the bearing from falling apart, a snap ring is installed inside the outer ring, and the snap ring cannot bear axial force.

Dimensional accuracy

The dimensional and geometrical tolerances of the bearings are in accordance with ISO 492.

Locating bearings

NNC-type is for positioning bearings, the inner ring is the same as NNCL and NNCF, and the outer ring is a split structure, fixed by ring fasteners.

NNF-type is for sealed locating bearings. Its inner ring is split, with three ribs, and is fixed by a fixed ring. The outer ring has a single rib, which can be used for axial positioning in two directions. The width of the inner ring is 1mm higher than that of the outer ring, and there are two snap ring grooves on the outer surface of the outer ring for easy installation.

Semi-locating bearings

NNCF type is a semi-locating bearing. This type of bearing can bear high radial load and unidirectional axial load, so it can realize the axial positioning of the shaft in one direction. In the other direction, it is used as a floating bearing.

In the process of handling and transportation, in order to prevent the bearing from falling apart, a snap ring is installed on the side of the outer ring without ribs, and the snap ring cannot bear axial force.

Operating temperature

Unsealed full complement cylindrical roller bearings are suitable for an operating temperature range of –30 °C to +120 °C.
Limited by the grease and sealing materials, the NNF-sealed cylindrical roller bearings are suitable for operating temperatures from –30°C to +80°C.

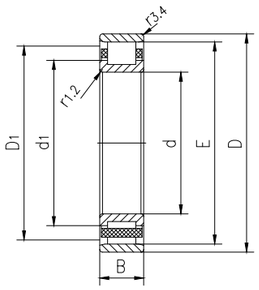


Suffixes of available designs

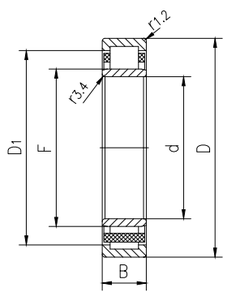
Suffix	Meaning
A	Deviating or modiied internal design
CV	Modiied internal design, full complement roller set
EC	Optimized internal design incorporating more and/or larger rollers and with modiied roller end / lange contact
ADB	Modiied internal design and seal (for NNF 50 series)
B	Improved seal and grease
DA	Modiied internal design and seal (for 3194•• series)
K	Tapered bore, taper 1:12
N	Snap ring groove in the outer ring
NR	Snap ring groove in the outer ring, with associated snap ring
N1	One locating slot (notch) in one outer ring side face
N2	Two locating slots (notches) in one outer ring side face, 180° apart
-2LS	Contact seal, PUR, on both sides
FR	Pin-type steel cage, pierced rollers
J	Stamped steel cage, roller centred
JA	Sheet steel cage, outer ring centred
JB	Sheet steel cage, inner ring centred
L	Machined light alloy cage, roller centred
LA	Machined light alloy cage, outer ring centred
LB	Machined light alloy cage, inner ring centred
LL	Machined light alloy cage, window-type, inner or outer ring centred (depending on bearing design)
M	Machined brass cage, roller centred
MA(S)	Machined brass cage, outer ring centred. The S indicates a lubrication groove in the guiding surface.
MB	Machined brass cage, inner ring centred
MH	Machined brass cage, inner ring raceway centred
ML	Machined brass cage, window-type, inner or outer ring centred (depending on bearing design)
MP	Machined brass cage, window-type, inner or outer ring centred (depending on bearing size)
MR	Machined brass cage, window-type, roller centred
P	Glass ibre reinforced PA66 cage, roller centred
PA	Glass ibre reinforced PA66 cage, outer ring centred
PH	Glass ibre reinforced PEEK cage, roller centred

Suffix	Meaning
PHA	Glass ibre reinforced PEEK cage, outer ring centred
V	Full complement of rollers (no cage)
VH	Full complement of rollers (no cage), self-retaining
HA1	Case-hardened inner and outer rings
HA2	Case-hardened outer ring
HA3	Case-hardened inner ring
HB1	Bainite-hardened inner and outer rings
HB3	Bainite-hardened inner ring
HN1	Inner and outer rings with special surface heat treatment
L4B	Bearing rings and rollers black oxidized
L5B	Rollers black oxidized
L7B	Inner ring and rollers black oxidized
CN	Normal radial internal clearance; only used together with an additional letter that identiies a
C2	Radial internal clearance smaller than Normal
C3	Radial internal clearance greater than Normal
C4	Radial internal clearance greater than C3
C5	Radial internal clearance greater than C4
DR	Set of two matched bearings
TR	Set of three matched bearings
QR	Set of four matched bearings
S1	Bearing rings heat stabilized for operating temperatures ≤ 200 °C (390 °F)
S2	Bearing rings heat stabilized for operating temperatures ≤ 250 °C (480 °F)
W33	Annular groove and three lubrication holes in the outer ring
PEX	KMR Explorer bearing, used only when same-sized conventional and KMR Explorer bearingsare available
VA301	Bearing for railway vehicle traction motors
VA305	VA301 + special inspection routines
VA350	Bearing for railway axleboxes
VA380	Bearing for railway axleboxes in accordance with EN 12080, class 1
VA3091	VA301 + external surfaces of the outer ring are coated with aluminium oxide
VC025	Bearing with special wear-resistant raceways for applications in heavily contaminated environments
VE901	Modiied internal design
VQ015	Inner ring with crowned raceway for increased permissible misalignment

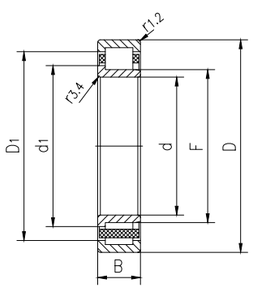
Single row cylindrical roller bearings



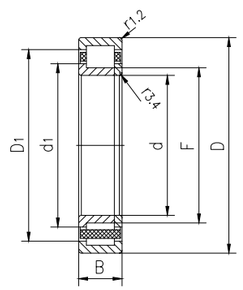
N



NU

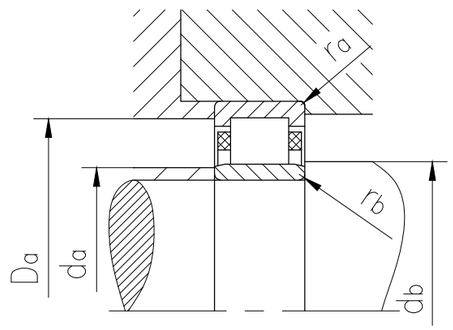


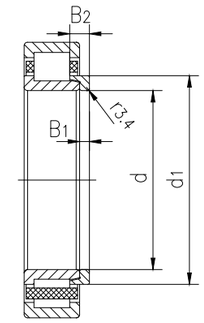
NJ



NUP

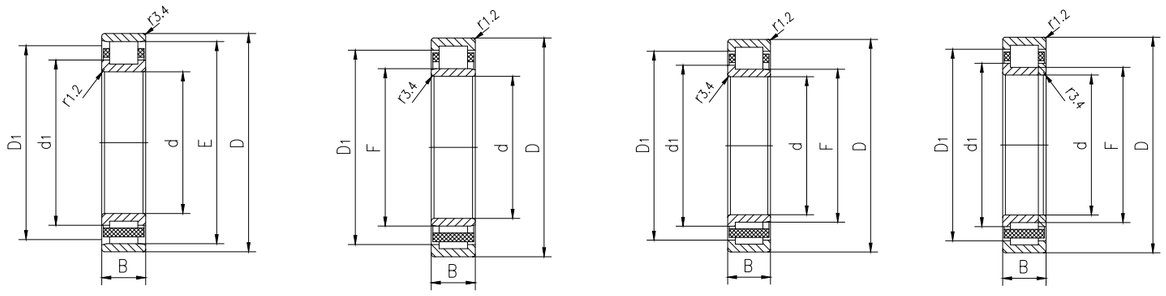
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NU202ECP	PHA	–	15	35	11	–	27.7	19.3	0.6	0.3	1	–	–	17.4	18.4	21	31.3	0.6	0.3
NJ202ECP	PHA	–	15	35	11	21.9	27.7	19.3	0.6	0.3	1	–	–	18.2	18.4	23	31.3	0.6	–
N203ECP	PH	–	17	40	12	25	–	35.1	0.6	0.3	1	–	–	20.7	33	37	37.1	0.6	0.3
NU203ECP	PHA	–	17	40	12	–	32.35	22.1	0.6	0.3	1	–	–	19.9	21.1	24	36	0.6	0.3
NJ203ECP	PHA	–	17	40	12	25	32.35	22.1	0.6	0.6	1	–	–	20.7	21.1	27	36	0.6	–
NUP203ECP	PHA	–	17	40	12	25	32.35	22.1	0.6	0.3	–	–	–	20.7	–	27	36	0.6	–
NU2203ECP	–	–	17	40	16	–	32.35	22.1	0.6	0.3	1.5	–	–	19.9	21.1	24	36	0.6	0.3
NJ2203ECP	–	–	17	40	16	25	32.35	22.1	0.6	0.3	1.5	–	–	20.7	21.1	27	36	0.6	–
NUP2203ECP	–	–	17	40	16	25	32.35	22.1	0.6	0.3	–	–	–	20.7	–	27	36	0.6	–
N303ECP	–	–	17	47	14	27.7	–	40.2	1	0.6	1	–	–	22.1	38	42	42.7	1	0.6
NJ303ECP	–	–	17	47	14	27.7	36.75	24.2	1	0.6	1	–	–	22.1	23.1	29	41.7	1	–
NU303ECP	–	–	17	47	14	–	36.75	24.2	1	0.6	1	–	–	21.1	23.1	26	41.7	1	0.6
N204ECP	–	–	20	47	14	29.7	–	41.5	1	0.6	1	–	–	25	40	43	43.5	1	0.6
NJ204ECP	ML,PHA	–	20	47	14	29.7	38.44	26.5	1	0.6	1	–	–	25	25.4	31	41.7	1	–
NU204ECP	ML,PHA	–	20	47	14	–	38.44	26.5	1	0.6	1	–	–	24	25.4	28	41.7	1	0.6
NUP204ECP	ML,PHA	–	20	47	14	29.7	38.44	26.5	1	0.6	–	–	–	25	–	31	41.7	1	–
NJ2204ECP	–	–	20	47	18	29.7	38.3	26.5	1	0.6	2	–	–	25	25.4	31	41.7	1	–
NU2204ECP	–	–	20	47	18	–	38.3	26.5	1	0.6	2	–	–	24	25.4	28	41.7	1	0.6
NU304ECP	–	HJ304EC	20	52	15	–	41.85	27.5	1.1	0.6	0.9	4	6.5	24.1	26.2	29	45.4	1	0.6
N304ECP	–	–	20	52	15	31.2	–	45.5	1.1	0.6	0.9	–	–	26.1	44	47	48	1	0.6
NJ304ECP	–	HJ304EC	20	52	15	31.2	41.85	27.5	1.1	0.6	0.9	4	6.5	26.1	26.2	33	45.4	1	–
NUP304ECP	–	–	20	52	15	31.2	41.85	27.5	1.1	0.6	–	–	–	26.1	–	33	45.4	1	–
NU2304ECP	–	–	20	52	21	–	41.85	27.5	1.1	0.6	1.9	–	–	24.1	26.2	29	45.4	1	0.6
NJ2304ECP	–	–	20	52	21	31.2	41.85	27.5	1.1	0.6	1.9	–	–	26.1	26.2	33	45.4	1	–
NUP2304ECP	–	–	20	52	21	31.2	41.85	27.5	1.1	0.6	–	–	–	26.1	–	33	45.4	1	–
NU1005		–	25	47	12	–	38.8	30.5	0.6	0.3	1.5	–	–	27.1	29.5	32	43.1	0.6	0.3
N205ECP	–	–	25	52	15	34.7	–	46.5	1	0.6	1.3	–	–	29.9	45	48	48.5	1	0.6
NU205ECP	J,ML,PH,PHA	HJ205EC	25	52	15	–	43.3	31.5	1	0.6	1.3	3	6	28.9	30.4	33	46.4	1	0.6
NJ205ECP	J,ML,PH,PHA	–	25	52	15	34.7	43.3	31.5	1	0.6	1.3	–	–	29.9	30.4	36	46.4	1	–
NUP205ECP	J,ML,PH,PHA	–	25	52	15	34.7	43.3	31.5	1	0.6	–	–	–	29.9	–	36	46.4	1	–
NU2205ECP	ML,PH	HJ2205EC	25	52	18	–	43.3	31.5	1	0.6	1.8	3	6.5	28.9	30.4	33	46.4	1	0.6
NJ2205ECP	ML,PH	HJ2205EC	25	52	18	34.7	43.3	31.5	1	0.6	1.8	3	6.5	29.9	30.4	36	46.4	1	–
NUP2205ECP	ML,PH	–	25	52	18	34.7	43.3	31.5	1	0.6	–	–	–	29.9	–	36	46.4	1	–
N305ECP	–	–	25	62	17	38.1	–	54	1.1	1.1	1.3	–	–	31	52	56	56.4	1	1
NU305ECP	J,ML	HJ 305 EC	25	62	17	–	50.15	34	1.1	1.1	1.3	4	7	31	32.5	36	54.9	1	1
NJ305ECP	J,ML	HJ 306 EC	25	62	17	38.1	50.15	34	1.1	1.1	1.3	4	7	31	32.5	40	54.9	1	–
NUP305ECP	J,ML	–	25	62	17	38.1	50.15	34	1.1	1.1	–	–	–	31	–	40	54.9	1	–





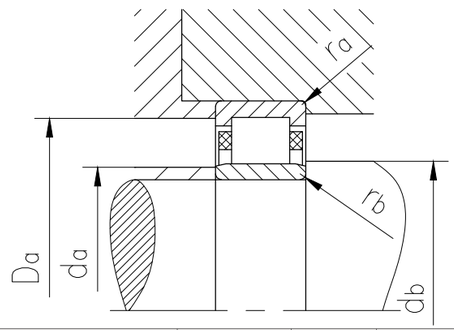
Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NU202ECP	PHA	–	0.047	–	13.13	10.71	1.28	23100	27300	0.15
NJ202ECP	PHA	–	0.048	–	13.125	10.71	1.281	23100	27300	0.15
N203ECP	PH	–	0.066	–	21	15.015	1.8165	21000	23100	0.12
NU203ECP	PHA	–	0.068	–	21	15.015	1.8165	21000	23100	0.15
NJ203ECP	PHA	–	0.069	–	21	15.015	1.8165	21000	23100	0.15
NUP203ECP	PHA	–	0.072	–	21	15.015	1.8165	21000	23100	0.15
NU2203ECP	–	–	0.087	–	28.875	22.68	2.7825	21000	23100	0.2
NJ2203ECP	–	–	0.093	–	28.875	22.68	2.7825	21000	23100	0.2
NUP2203ECP	–	–	0.097	–	28.875	22.68	2.7825	21000	23100	0.2
N303ECP		–	0.12	–	29.925	21.42	2.6775	17850	21000	0.12
NJ303ECP	–	–	0.12	–	29.925	21.42	2.6775	17850	21000	0.15
NU303ECP	–	–	0.12	–	29.925	21.42	2.6775	17850	21000	0.15
N204ECP	–	–	0.11	–	29.925	23.1	2.8875	17850	19950	0.12
NJ204ECP	ML,PHA	–	0.11	–	29.925	23.1	2.8875	17850	19950	0.15
NU204ECP	ML,PHA	–	0.11	–	29.925	23.1	2.8875	17850	19950	0.15
NUP204ECP	ML,PHA	–	0.12	–	29.925	23.1	2.8875	17850	19950	0.15
NJ2204ECP	–	–	0.14	–	36.225	28.875	3.6225	17850	19950	0.2
NU2204ECP	–	–	0.14	–	36.225	28.875	3.6225	17850	19950	0.2
NU304ECP	–	HJ304EC	0.14	0.017	37.275	27.3	3.4125	15750	18900	0.15
N304ECP	–	–	0.15	–	37.275	27.3	3.4125	15750	18900	0.12
NJ304ECP	–	HJ304EC	0.15	0.017	37.275	27.3	3.4125	15750	18900	0.15
NUP304ECP	–	–	0.16	–	37.275	27.3	3.4125	15750	18900	0.15
NU2304ECP	–	–	0.21	–	49.875	39.9	5.04	15750	18900	0.25
NJ2304ECP	–	–	0.22	–	49.875	39.9	5.04	15750	18900	0.25
NUP2304ECP	–	–	0.22	–	49.875	39.9	5.04	15750	18900	0.25
NU1005		–	0.082	–	14.91	13.86	1.47	18900	18900	0.1
N205ECP	–	–	0.13	–	34.125	28.35	3.5175	15750	16800	0.12
NU205ECP	J,ML,PH,PHA	HJ205EC	0.13	0.015	34.125	28.35	3.5175	15750	16800	0.15
NJ205ECP	J,ML,PH,PHA	–	0.14	–	34.125	28.35	3.5175	15750	16800	0.15
NUP205ECP	J,ML,PH,PHA	–	0.14	–	34.125	28.35	3.5175	15750	16800	0.15
NU2205ECP	ML,PH	HJ2205EC	0.16	0.014	40.95	35.7	4.4625	15750	16800	0.2
NJ2205ECP	ML,PH	HJ2205EC	0.17	0.014	40.95	35.7	4.4625	15750	16800	0.2
NUP2205ECP	ML,PH	–	0.17	–	40.95	35.7	4.4625	15750	16800	0.2
N305ECP	–	–	0.23	–	48.825	38.325	4.7775	12600	15750	0.12
NU305ECP	J,ML	HJ 305 EC	0.23	0.025	48.825	38.325	4.7775	12600	15750	0.15
NJ305ECP	J,ML	HJ 306 EC	0.24	0.025	48.825	38.325	4.7775	12600	15750	0.15
NUP305ECP	J,ML	–	0.25	–	48.825	38.325	4.7775	12600	15750	0.15

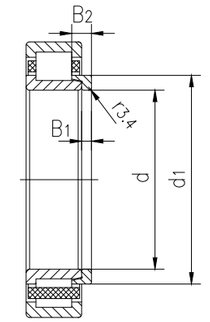
Single row cylindrical roller bearings



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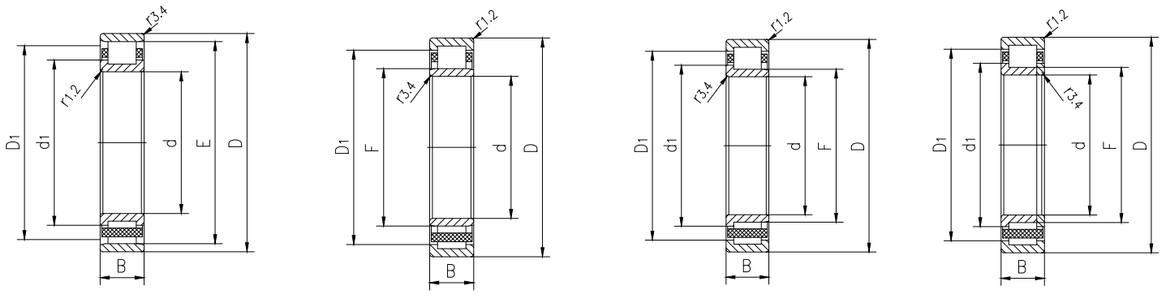
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NU2305ECP	J,ML	HJ 2305 EC	25	62	24	–	50.15	34	1.1	1.1	2.3	4	8	31	32.5	36	54.9	1	1
NJ2305ECP	J,ML	HJ 2306 EC	25	62	24	38.1	50.15	34	1.1	1.1	2.3	4	8	31	32.5	40	54.9	1	–
NUP2305ECP	J,ML	–	25	62	24	38.1	50.15	34	1.1	1.1	–	–	–	31	–	40	54.9	1	–
NU1006–		–	30	55	13	–	45.56	36.5	1	0.6	1.6	–	–	32.9	35.6	38	49.8	1	0.6
N206ECP	–	–	30	62	16	41.2	–	55.5	1	0.6	1.3	–	–	35.3	54	57	58.1	1	0.6
NU206ECP	J,ML,PH	HJ 206 EC	30	62	16	–	51.95	37.5	1	0.6	1.3	4	7	34.3	36.1	39	55.9	1	0.6
NJ206ECP	J,ML,PH	HJ 207 EC	30	62	16	41.2	51.95	37.5	1	0.6	1.3	4	7	35.3	36.1	43	55.9	1	–
NUP206ECP	J,ML,PH	–	30	62	16	41.2	51.95	37.5	1	0.6	–	–	–	35.3	–	43	55.9	1	–
NJ2206ECP	J,ML,PH	–	30	62	20	41.2	51.95	37.5	1	0.6	1.8	–	–	35.3	36.1	43	55.9	1	–
NU2206ECP	J,ML,PH	–	30	62	20	–	51.95	37.5	1	0.6	1.8	–	–	34.3	36.1	39	55.9	1	0.6
NUP2206ECP	J,ML,PH	–	30	62	20	41.2	51.95	37.5	1	0.6	–	–	–	35.3	–	43	55.9	1	–
N306ECP	–	–	30	72	19	45	–	62.5	1.1	1.1	1.4	–	–	37	61	64	65.5	1	1
NU306ECP	J,M,ML	HJ 306 EC	30	72	19	–	58.35	40.5	1.1	1.1	1.4	5	8.5	37	39	43	65.1	1	1
NJ306ECP	J,M,ML	HJ 307 EC	30	72	19	45	58.35	40.5	1.1	1.1	1.4	5	8.5	37	39	47	65.1	1	–
NUP306ECP	J,M,ML	–	30	72	19	45	58.35	40.5	1.1	1.1	–	–	–	37	–	47	65.1	1	–
NU2306ECP	ML,PH	–	30	72	27	–	58.35	40.5	1.1	1.1	2.4	–	–	37	39	43	65.1	1	1
NJ2306ECP	ML,PH	–	30	72	27	45	58.35	40.5	1.1	1.1	2.4	–	–	37	39	47	65.1	1	–
NUP2306ECP	ML,PH	–	30	72	27	45	58.35	40.5	1.1	1.1	–	–	–	37	–	47	65.1	1	–
NU406MA		HJ 406	30	90	23	–	66.1	45	1.5	1.5	1.6	7	12	41	43	47	81	1.5	1.5
NJ406MA		HJ 406	30	90	23	50.5	66.1	45	1.5	1.5	1.6	7	12	41	43	53	81	1.5	–
NU1007ECP	PH	–	35	62	14	–	53.95	42	1	0.6	1	–	–	38	41	44	56.5	1	0.6
NU207ECP	J,M,ML,PH,PHA	HJ 207 EC	35	72	17	–	60.2	44	1.1	0.6	1.3	4	7	39.8	42.2	46	65.1	1	0.6
N207ECP	–	–	35	72	17	48.1	–	64	1.1	0.6	1.3	–	–	41.8	62	66	67.2	1	0.6
NJ207ECP	J,M,ML,PH,PHA	HJ 207 EC	35	72	17	48.1	60.2	44	1.1	0.6	1.3	4	7	41.8	42.2	50	65.1	1	–
NUP207ECP	J,M,ML,PH,PHA	–	35	72	17	48.1	60.2	44	1.1	0.6	–	–	–	41.8	–	50	65.1	1	–
NU2207ECP	J,ML,PH	–	35	72	23	–	60.2	44	1.1	0.6	2.8	–	–	39.8	42.2	46	65.1	1	0.6
NJ2207ECP	J,ML,PH	–	35	72	23	48.1	60.2	44	1.1	0.6	2.8	–	–	41.8	42.2	50	65.1	1	–
NUP2207ECP	J,ML,PH	–	35	72	23	48.1	60.2	44	1.1	0.6	–	–	–	42	–	50	65.1	1	–
NU307ECP	J,M,ML,PH	HJ 307 EC	35	80	21	–	65.8	46.2	1.5	1.1	1.2	6	9.5	42	44	48	72.2	1.5	1
N307ECP	–	–	35	80	21	51	–	70.2	1.5	1.1	1.2	–	–	43	68	72	73.4	1.5	1
NJ307ECP	J,M,ML,PH	HJ 307 EC	35	80	21	51	65.8	46.2	1.5	1.1	1.2	6	9.5	43	44	53	72.2	1.5	–
NUP307ECP	J,M,ML,PH	–	35	80	21	51	65.8	46.2	1.5	1.1	–	–	–	44	–	53	72.2	1.5	–
NU2307ECP	PH	–	35	80	31	–	65.8	46.2	1.5	1.1	2.7	–	–	42	44	48	72.2	1.5	1
NJ2307ECP	PH	–	35	80	31	51	65.8	46.2	1.5	1.1	2.7	–	–	43	44	53	72.2	1.5	–
NUP2307ECP	PH	–	35	80	31	51	65.8	46.2	1.5	1.1	–	–	–	43	–	53	72.2	1.5	–
NJ407	–	–	35	100	25	59	77.15	53	1.5	1.5	1.7	–	–	48	51	61	90	1.5	–
NU407	–	–	35	100	25	–	77.15	53	1.5	1.5	1.7	–	–	48	51	55	90	1.5	1.5





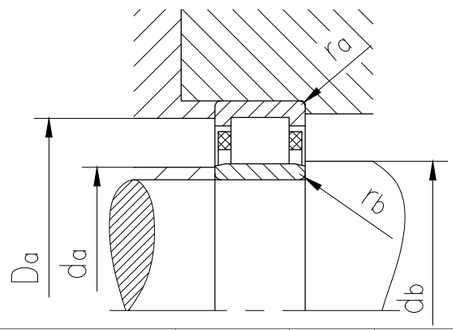
Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NU2305ECP	J,ML	HJ 2305 EC	0.34	0.023	67.2	57.75	7.2975	12600	15750	0.25
NJ2305ECP	J,ML	HJ 2306 EC	0.35	0.023	67.2	57.75	7.2975	12600	15750	0.25
NUP2305ECP	J,ML	–	0.36	–	67.2	57.75	7.2975	12600	15750	0.25
NU1006–		–	0.11	–	18.795	18.165	1.953	15750	15750	0.1
N206ECP	–	–	0.2	–	46.2	38.325	4.725	13650	14700	0.12
NU206ECP	J,ML,PH	HJ 206 EC	0.2	0.025	46.2	38.325	4.725	13650	14700	0.15
NJ206ECP	J,ML,PH	HJ 207 EC	0.21	0.025	46.2	38.325	4.7775	13650	14700	0.15
NUP206ECP	J,ML,PH	–	0.21	–	46.2	38.325	4.7775	13650	14700	0.15
NJ2206ECP	J,ML,PH	–	0.26	–	57.75	51.45	6.405	13650	14700	0.2
NU2206ECP	J,ML,PH	–	0.26	–	57.75	51.45	6.405	13650	14700	0.2
NUP2206ECP	J,ML,PH	–	0.27	–	57.75	51.45	6.405	13650	14700	0.2
N306ECP	–	–	0.36	–	61.425	50.4	6.51	11550	12600	0.12
NU306ECP	J,M,ML	HJ 306 EC	0.36	0.042	61.425	50.4	6.51	11550	12600	0.15
NJ306ECP	J,M,ML	HJ 307 EC	0.37	0.042	61.425	50.4	6.51	11550	12600	0.15
NUP306ECP	J,M,ML	–	0.38	–	61.425	50.4	6.51	11550	12600	0.15
NU2306ECP	ML,PH	–	0.53	–	87.15	78.75	10.1325	11550	12600	0.25
NJ2306ECP	ML,PH	–	0.54	–	87.15	78.75	10.1325	11550	12600	0.25
NUP2306ECP	ML,PH	–	0.54	–	87.15	78.75	10.1325	11550	12600	0.25
NU406MA		HJ 406	0.75	0.08	63.525	55.65	7.14	9450	11550	0.15
NJ406MA		HJ 406	0.78	0.08	63.525	55.65	7.14	9450	11550	0.15
NU1007ECP	PH	–	0.16	–	37.59	39.9	4.7775	13650	13650	0.1
NU207ECP	M,ML,PH,PH	HJ 207 EC	0.29	0.033	58.8	50.4	6.405	11550	12600	0.15
N207ECP	–	–	0.3	–	58.8	50.4	6.405	11550	12600	0.12
NJ207ECP	M,ML,PH,PH	HJ 207 EC	0.3	0.033	58.8	50.4	6.405	11550	12600	0.15
NUP207ECP	M,ML,PH,PH	–	0.31	–	58.8	50.4	6.405	11550	12600	0.15
NU2207ECP	J,ML,PH	–	0.4	–	72.975	66.15	8.5575	11550	12600	0.2
NJ2207ECP	J,ML,PH	–	0.41	–	72.975	66.15	8.5575	11550	12600	0.2
NUP2207ECP	J,ML,PH	–	0.42	–	72.975	66.15	8.5575	11550	12600	0.2
NU307ECP	J,M,ML,PH	HJ 307 EC	0.47	0.058	78.75	66.15	8.5575	9975	11550	0.15
N307ECP	–	–	0.48	–	78.75	66.15	8.5575	9975	11550	0.12
NJ307ECP	J,M,ML,PH	HJ 307 EC	0.49	0.058	78.75	66.15	8.5575	9975	11550	0.15
NUP307ECP	J,M,ML,PH	–	0.49	–	78.75	66.15	8.5575	9975	11550	0.15
NU2307ECP	PH	–	0.72	–	111.3	102.9	13.335	9975	11550	0.25
NJ2307ECP	PH	–	0.73	–	111.3	102.9	13.335	9975	11550	0.25
NUP2307ECP	PH	–	0.76	–	111.3	102.9	13.335	9975	11550	0.25
NJ407	–	–	1	–	80.325	72.975	9.45	8400	9975	0.15
NU407	–	–	1	–	80.325	72.975	9.45	8400	9975	0.15

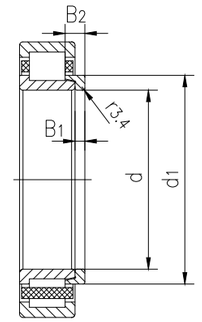
Single row cylindrical roller bearings



N NU NJ NUP

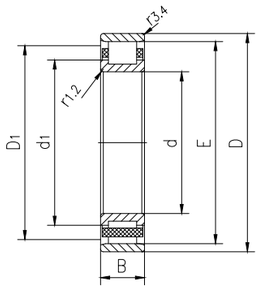
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NU1008ML	–	–	40	68	15	–	57.6	47	1	0.6	2.4	–	–	43	46	49	62.3	1	0.6
N208ECP	PH	–	40	80	18	54	–	71.5	1.1	1.1	1.4	–	–	47	69	73	74.1	1	1
NU208ECP	J,M,ML,PH	HJ 208 EC	40	80	18	–	67.4	49.5	1.1	1.1	1.4	5	8.5	47	48	51	72.8	1	1
NJ208ECP	J,M,ML,PH	HJ 209 EC	40	80	18	54	67.4	49.5	1.1	1.1	1.4	5	8.5	47	48	56	72.8	1	–
NUP208ECP	J,M,ML,PH	–	40	80	18	54	67.4	49.5	1.1	1.1	–	–	–	47	–	56	72.8	1	–
NU2208ECP	J,ML,PH	HJ 2208 EC	40	80	23	–	67.4	49.5	1.1	1.1	1.9	5	9	47	48	51	72.8	1	1
NJ2208ECP	J,ML,PH	HJ 2208 EC	40	80	23	54	67.4	49.5	1.1	1.1	1.9	5	9	47	48	56	72.8	1	–
NUP2208ECP	J,ML,PH	–	40	80	23	54	67.4	49.5	1.1	1.1	–	–	–	47	–	56	72.8	1	–
N308ECP	M	–	40	90	23	57.5	–	80	1.5	1.5	1.4	–	–	48	78	82	83.2	1.5	1.5
NU308ECP	J,M,ML,PH	HJ 308 EC	40	90	23	–	75	52	1.5	1.5	1.4	7	11	48	50	54	81.8	1.5	1.5
NJ308ECP	J,M,ML,PH	HJ 308 EC	40	90	23	57.5	75	52	1.5	1.5	1.4	7	11	48	50	60	81.8	1.5	–
NUP308ECP	J,M,ML,PH	–	40	90	23	57.5	75	52	1.5	1.5	–	–	–	48	–	60	81.8	1.5	–
NU2308ECP	J,M,ML,PH	–	40	90	33	–	75	52	1.5	1.5	2.9	–	–	48	50	54	81.8	1.5	1.5
NJ2308ECP	J,M,ML,PH	–	40	90	33	57.5	75	52	1.5	1.5	2.9	–	–	48	50	60	81.8	1.5	–
NUP2308ECP	J,M,ML,PH	–	40	90	33	57.5	75	52	1.5	1.5	–	–	–	48	–	60	81.8	1.5	–
NJ408	M.MA	–	40	110	27	64.8	85.3	58	2	2	2.5	–	–	52	56	67	99	2	–
NU408	M.MA	–	40	110	27	–	85.3	58	2	2	2.5	–	–	52	56	60	99	2	2
NU1009ECP	–	–	45	75	16	–	65.3	52.5	1	0.6	0.9	–	–	48.4	51	54	69.8	1	0.6
NJ1009ECP	PH	–	45	75	16	56	65.3	52.5	1	0.6	0.9	–	–	48.4	51	57.5	69.8	1	–
NU209ECP	J,M,ML	HJ 209 EC	45	85	19	–	72.4	54.5	1.1	1.1	1.2	5	8.5	52	53	56	77.6	1	1
N209ECP	M	–	45	85	19	59	–	76.5	1.1	1.1	1.2	–	–	52	74	78	79.1	1	1
NJ209ECP	J,M,ML	HJ 209 EC	45	85	19	59	72.4	54.5	1.1	1.1	1.2	5	8.5	52	53	61	77.6	1	–
NUP209ECP	J,M,ML	–	45	85	19	59	72.4	54.5	1.1	1.1	–	–	–	52	–	61	77.6	1	–
NU2209ECP	J.PH	–	45	85	23	–	72.4	54.5	1.1	1.1	1.7	–	–	52	53	56	77.6	1	1
NJ2209ECP	J.PH	–	45	85	23	59	72.4	54.5	1.1	1.1	1.7	–	–	52	53	61	77.6	1	–
NUP2209ECP	J.PH	–	45	85	23	59	72.4	54.5	1.1	1.1	–	–	–	52	–	61	77.6	1	–
N309ECP	–	–	45	100	25	64.4	–	88.5	1.5	1.5	1.7	–	–	54	86	91	92.3	1.5	1.5
NJ309ECP	J,M,ML,PH	HJ 309 EC	45	100	25	64.4	83.2	58.5	1.5	1.5	1.7	7	12	54	56	67	91.4	1.5	–
NU309ECP	J,M,ML,PH	HJ 310 EC	45	100	25	–	83.2	58.5	1.5	1.5	1.7	7	12	54	56	60	91.4	1.5	1.5
NUP309ECP	J,M,ML,PH	–	45	100	25	64.4	83.2	58.5	1.5	1.5	–	–	–	54	–	67	91.4	1.5	–
NU2309ECP	ML	–	45	100	36	–	83.2	58.5	1.5	1.5	3.2	–	–	54	56	60	91.4	1.5	1.5
NJ2309ECP	ML	–	45	100	36	64.4	83.2	58.5	1.5	1.5	3.2	–	–	54	56	67	91.4	1.5	–
NUP2309ECP	ML	–	45	100	36	64.4	83.2	58.5	1.5	1.5	–	–	–	54	–	67	91.4	1.5	–
NJ409	–	HJ 409	45	120	29	71.8	93.4	64.5	2	2	2.5	8	14	58	62	75	108	2	–
NU409	–	HJ 409	45	120	29	–	93.4	64.5	2	2	2.5	8	14	58	62	66	108	2	2
NU1010ECP	–	–	50	80	16	–	70.5	57.5	1	0.6	1	–	–	57	56	59	74.6	1	0.6
NU210ECP	J,M,ML,PH	HJ 210 EC	50	90	20	–	77.4	59.5	1.1	1.1	1.5	5	9	57	57.5	61	82.4	1	1



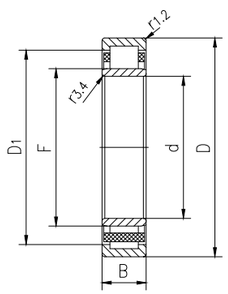


Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NU1008ML	–	–	0.23	–	26.355	27.3	3.15	12600	18900	0.15
N208ECP	PH	–	0.37	–	65.1	55.65	7.035	9975	11550	0.12
NU208ECP	J,M,ML,PH	HJ 208 EC	0.37	0.047	65.1	55.65	7.035	9975	11550	0.15
NJ208ECP	J,M,ML,PH	HJ 209 EC	0.38	0.047	65.1	55.65	7.035	9975	11550	0.15
NUP208ECP	J,M,ML,PH	–	0.39	–	65.1	55.65	7.035	9975	11550	0.15
NU2208ECP	J,ML,PH	HJ 2208 EC	0.49	0.048	85.575	78.75	10.1325	9975	11550	0.2
NJ2208ECP	J,ML,PH	HJ 2208 EC	0.5	0.048	85.575	78.75	10.1325	9975	11550	0.2
NUP2208ECP	J,ML,PH	–	0.51	–	85.575	78.75	10.1325	9975	11550	0.2
N308ECP	M	–	0.65	–	97.65	81.9	10.71	8400	9975	0.12
NU308ECP	J,M,ML,PH	HJ 308 EC	0.65	0.084	97.65	81.9	10.71	8400	9975	0.15
NJ308ECP	J,M,ML,PH	HJ 308 EC	0.67	0.084	97.65	81.9	10.71	8400	9975	0.15
NUP308ECP	J,M,ML,PH	–	0.68	–	97.65	81.9	10.71	8400	9975	0.15
NU2308ECP	J,M,ML,PH	–	0.93	–	135.45	126	16.065	8400	9975	0.25
NJ2308ECP	J,M,ML,PH	–	0.95	–	135.45	126	16.065	8400	9975	0.25
NUP2308ECP	J,M,ML,PH	–	0.98	–	135.45	126	16.065	8400	9975	0.25
NJ408	M.MA	–	1.3	–	101.64	94.5	12.18	7350	8925	0.15
NU408	M.MA	–	1.3	–	101.64	94.5	12.18	7350	8925	0.15
NU1009ECP	–	–	0.25	–	46.83	54.6	6.615	11550	11550	0.1
NJ1009ECP	PH	–	0.26	–	46.83	54.6	6.615	11550	11550	0.1
NU209ECP	J,M,ML	HJ 209 EC	0.42	0.052	72.975	67.2	8.5575	9450	9975	0.15
N209ECP	M	–	0.43	–	72.975	67.2	8.5575	9450	9975	0.12
NJ209ECP	J,M,ML	HJ 209 EC	0.44	0.052	72.975	67.2	8.5575	9450	9975	0.15
NUP209ECP	J,M,ML	–	0.44	–	72.975	67.2	8.5575	9450	9975	0.15
NU2209ECP	J.PH	–	0.52	–	89.25	85.575	11.13	9450	9975	0.2
NJ2209ECP	J.PH	–	0.54	–	89.25	85.575	11.13	9450	9975	0.2
NUP2209ECP	J.PH	–	0.55	–	89.25	85.575	11.13	9450	9975	0.2
N309ECP	–	–	0.88	–	117.6	105	13.545	7875	8925	0.12
NJ309ECP	J,M,ML,PH	HJ 309 EC	0.89	0.11	117.6	105	13.545	7875	8925	0.15
NU309ECP	J,M,ML,PH	HJ 310 EC	0.9	0.11	117.6	105	13.545	7875	8925	0.15
NUP309ECP	J,M,ML,PH	–	0.93	–	117.6	105	13.545	7875	8925	0.15
NU2309ECP	ML	–	1.3	–	168	160.65	21	7875	8925	0.25
NJ2309ECP	ML	–	1.35	–	168	160.65	21	7875	8925	0.25
NUP2309ECP	ML	–	1.35	–	168	160.65	21	7875	8925	0.25
NJ409		HJ 409	1.65	0.18	111.3	107.1	14.07	7035	7875	0.15
NU409		HJ 409	1.65	0.18	111.3	107.1	14.07	7035	7875	0.15
NU1010ECP	–	–	0.27	–	49.14	58.8	7.035	9975	9975	0.1
NU210ECP	J,M,ML,PH	HJ 210 EC	0.47	0.058	77.175	72.975	9.24	8925	9450	0.15

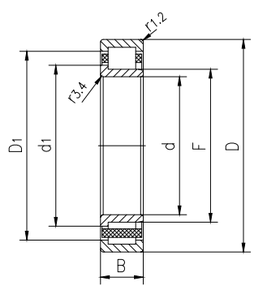
Single row cylindrical roller bearings



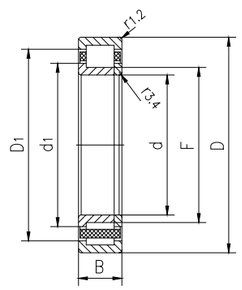
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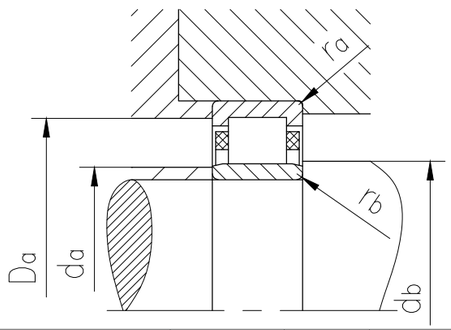


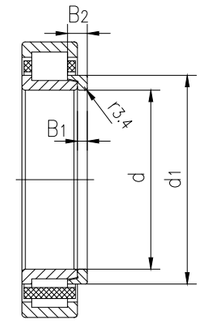
NJ



NUP

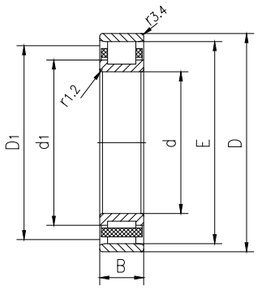
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
N210ECP	M	–	50	90	20	64	–	81.5	1.1	1.1	1.5	–	–	57	79	83	84	1	1
NJ210ECP	J,M,ML,PH	–	50	90	20	64	77.4	59.5	1.1	1.1	1.5	–	–	57	57.5	66	82.4	1	–
NUP210ECP	J,M,ML,PH	–	50	90	20	64	77.4	59.5	1.1	1.1	–	–	–	57	–	66	82.4	1	–
NU2210ECP	J,M,ML,PH	–	50	90	23	–	77.4	59.5	1.1	1.1	1.5	–	–	57	57.5	61	82.4	1	1
NJ2210ECP	J,M,ML,PH	–	50	90	23	64	77.4	59.5	1.1	1.1	1.5	–	–	57	57.5	66	82.4	1	–
NUP2210ECP	J,M,ML,PH	–	50	90	23	64	77.4	59.5	1.1	1.1	–	–	–	57	–	66	82.4	1	–
N310ECP	–	–	50	110	27	71.2	–	97	2	2	1.9	–	–	60	95	99	101	2	2
NU310ECP	J,M,ML,PH	HJ 310 EC	50	110	27	–	91.4	65	2	2	1.9	8	13	60	63	67	99.6	2	2
NJ310ECP	J,M,ML,PH	HJ 310 EC	50	110	27	71.2	91.4	65	2	2	1.9	8	13	60	63	73	99.6	2	–
NUP310ECP	J,M,ML,PH	–	50	110	27	71.2	91.4	65	2	2	–	–	–	60	–	73	99.6	2	–
NJ2310ECP	ML,PH	–	50	110	40	71.2	91.4	65	2	2	3.4	–	–	60	63	73	99.6	2	–
NU2310ECP	ML,PH	–	50	110	40	–	91.4	65	2	2	3.4	–	–	60	63	67	99.6	2	2
NUP2310ECP	ML,PH	–	50	110	40	71.2	91.4	65	2	2	–	–	–	60	–	73	99.6	2	–
NU410	–	HJ 410	50	130	31	–	101.6	70.8	2.1	2.1	2.6	9	15	64	68	73	116	2	2
NJ410	–	HJ 410	50	130	31	78.8	101.6	70.8	2.1	2.1	2.6	9	15	64	68	81	116	2	–
NU1011ECP	ML	–	55	90	18	–	79	64.5	1.1	1	0.5	–	–	59.7	63	66	83	1	1
NJ1011ECP	ML	–	55	90	18	68	79	64.5	1.1	1	0.5	–	–	60	63	70	83	2	–
N211ECP	–	–	55	100	21	70.8	–	90	1.5	1.1	1	–	–	63	88	92	93	1.5	1
NU211ECP	J,M,ML	HJ 211 EC	55	100	21	–	85.6	66	1.5	1.1	1	6	9.5	62	64	68	91.4	1.5	1
NJ211ECP	J,M,ML	HJ 211 EC	55	100	21	70.8	85.6	66	1.5	1.1	1	6	9.5	63	64	73	91.4	1.5	–
NUP211ECP	J,M,ML	–	55	100	21	70.8	85.6	66	1.5	1.1	–	–	–	63	–	73	91.4	1.5	–
NU2211ECP	J,M,ML,PH	HJ 2211 EC	55	100	25	–	85.6	66	1.5	1.1	1.5	6	10	62	64	68	91.4	1.5	1
NJ2211ECP	J,M,ML,PH	HJ 2211 EC	55	100	25	70.8	85.6	66	1.5	1.1	1.5	6	10	63	64	73	91.4	1	–
NUP2211ECP	J,M,ML,PH	–	55	100	25	70.8	85.6	66	1.5	1.1	–	–	–	63	–	73	91.4	1.5	–
N311ECP	M	–	55	120	29	77.5	–	106.5	2	2	2	–	–	65	104	109	111	2	2
NU311ECP	J,M,ML	HJ 311 EC	55	120	29	–	100.3	70.5	2	2	2	9	14	65	68	73	109.2	2	2
NJ311ECP	J,M,ML	HJ 311 EC	55	120	29	77.5	100.3	70.5	2	2	2	9	14	65	68	80	109.2	2	–
NUP311ECP	M,M,ML	–	55	120	29	77.5	100.3	70.5	2	2	–	–	–	65	–	80	109.2	2	–
NJ2311ECP	PHPH	HJ 2311 EC	55	120	43	77.5	100.3	70.5	2	2	3.5	9	16	65	68	80	109.2	2	–
NU2311ECP	PHPH	HJ 2311 EC	55	120	43	–	100.3	70.5	2	2	3.5	9	16	65	68	73	109.2	2	2
NUP2311ECP	PHPH	–	55	120	43	77.5	100.3	70.5	2	2	–	–	–	65	–	80	109.2	2	–
NU411	–	–	55	140	33	–	109.45	77.2	2.1	2.1	2.6	–	–	69	74	79	126	2	2
NJ411	–	–	55	140	33	85.2	109.45	77.2	2.1	2.1	2.6	–	–	69	74	88	126	2	–
NU1012ML	–	–	60	95	18	–	81.8	69.5	1.1	1	2.9	–	–	64.6	68	71	88	1	1
N212ECP	–	–	60	110	22	77.5	–	100	1.5	1.5	1.4	–	–	68	98	102	103	1.5	1.5
NU212ECP	M,M,ML	HJ 212 EC	60	110	22	–	95	72	1.5	1.5	1.4	6	10	68	70	74	101	1.5	1.5
NJ212ECP	M,M,ML	HJ 212 EC	60	110	22	77.5	95	72	1.5	1.5	1.4	6	10	68	70	80	101	1.5	–



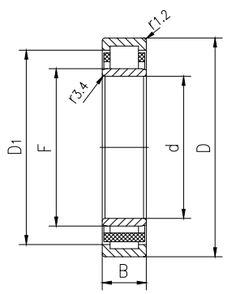


Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
N210ECP	M	–	0.48	–	77.175	72.975	9.24	8925	9450	0.12
NJ210ECP	J,M,ML,PH	–	0.49	–	77.175	72.975	9.24	8925	9450	0.15
NUP210ECP	J,M,ML,PH	–	0.5	–	77.175	72.975	9.24	8925	9450	0.15
NU2210ECP	J,M,ML,PH	–	0.56	–	94.5	92.4	11.97	8925	9450	0.2
NJ2210ECP	J,M,ML,PH	–	0.57	–	94.5	92.4	11.97	8925	9450	0.2
NUP2210ECP	J,M,ML,PH	–	0.59	–	94.5	92.4	11.97	8925	9450	0.2
N310ECP	–	–	1.1	–	133.35	117.6	15.75	7035	8400	0.12
NU310ECP	J,M,ML,PH	HJ 310 EC	1.1	0.15	133.35	117.6	15.75	7035	8400	0.15
NJ310ECP	J,M,ML,PH	HJ 310 EC	1.15	0.15	133.35	117.6	15.75	7035	8400	0.15
NUP310ECP	J,M,ML,PH	–	1.15	–	133.35	117.6	15.75	7035	8400	0.15
NJ2310ECP	ML,PH	–	1.75	–	195.3	195.3	25.725	7035	8400	0.25
NU2310ECP	ML,PH	–	1.75	–	195.3	195.3	25.725	7035	8400	0.25
NUP2310ECP	ML,PH	–	1.75	–	195.3	195.3	25.725	7035	8400	0.25
NU410		HJ 410	2	0.15	136.5	133.35	17.43	6300	7350	0.15
NJ410		HJ 410	2.05	0.15	136.5	133.35	17.43	6300	7350	0.15
NU1011ECP	ML	–	0.39	–	60.06	72.975	8.715	8925	8925	0.1
NJ1011ECP	ML	–	0.42	–	60.06	72.975	8.715	8925	8925	0.1
N211ECP	–	–	0.65	–	101.325	99.75	12.81	7875	8400	0.12
NU211ECP	J,M,ML	HJ 211 EC	0.66	0.083	101.325	99.75	12.81	7875	8400	0.15
NJ211ECP	J,M,ML	HJ 211 EC	0.67	0.083	101.325	99.75	12.81	7875	8400	0.15
NUP211ECP	J,M,ML	–	0.68	–	101.325	99.75	12.81	7875	8400	0.15
NU2211ECP	J,M,ML,PH	HJ 2211 EC	0.79	0.085	119.7	123.9	16.065	7875	8400	0.2
NJ2211ECP	J,M,ML,PH	HJ 2211 EC	0.81	0.085	119.7	123.9	16.065	7875	8400	0.2
NUP2211ECP	J,M,ML,PH	–	0.82	–	119.7	123.9	16.065	7875	8400	0.2
N311ECP	M	–	1.45	–	163.8	150.15	19.53	6300	7350	0.12
NU311ECP	J,M,ML	HJ 311 EC	1.45	0.19	163.8	150.15	19.53	6300	7350	0.15
NJ311ECP	J,M,ML	HJ 311 EC	1.5	0.19	163.8	150.15	19.53	6300	7350	0.15
NUP311ECP	M,M,ML	–	1.5	–	163.8	150.15	19.53	6300	7350	0.15
NJ2311ECP	PHPH	HJ 2311 EC	2.25	0.19	243.6	243.6	32.025	6300	7350	0.25
NU2311ECP	PHPH	HJ 2311 EC	2.25	0.19	243.6	243.6	32.025	6300	7350	0.25
NUP2311ECP	PHPH	–	2.3	–	243.6	243.6	32.025	6300	7350	0.25
NU411		–	2.5	–	149.1	147	19.53	5880	6615	0.15
NJ411		–	2.55	–	149.1	147	19.53	5880	6615	0.15
NU1012ML		–	0.5	–	39.27	46.2	5.565	8400	13650	0.15
N212ECP		–	0.79	–	113.4	107.1	14.07	7035	7875	0.12
NU212ECP	M,M,ML	HJ 212 EC	0.8	0.1	113.4	107.1	14.07	7035	7875	0.15
NJ212ECP	M,M,ML	HJ 212 EC	0.82	0.1	113.4	107.1	14.07	7035	7875	0.15

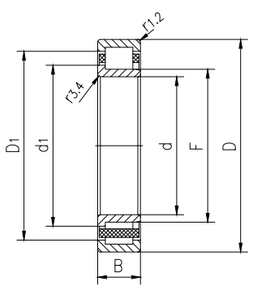
Single row cylindrical roller bearings



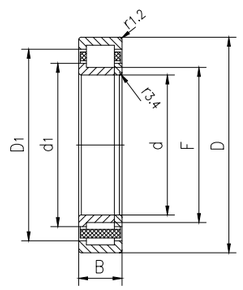
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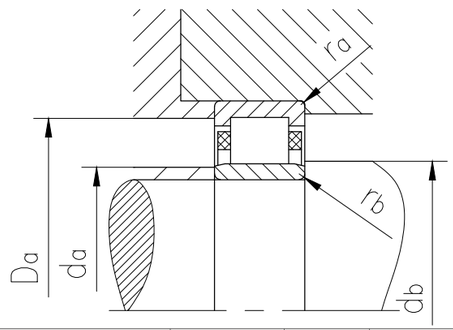


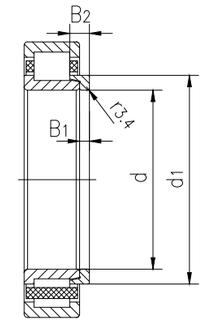
NJ



NUP

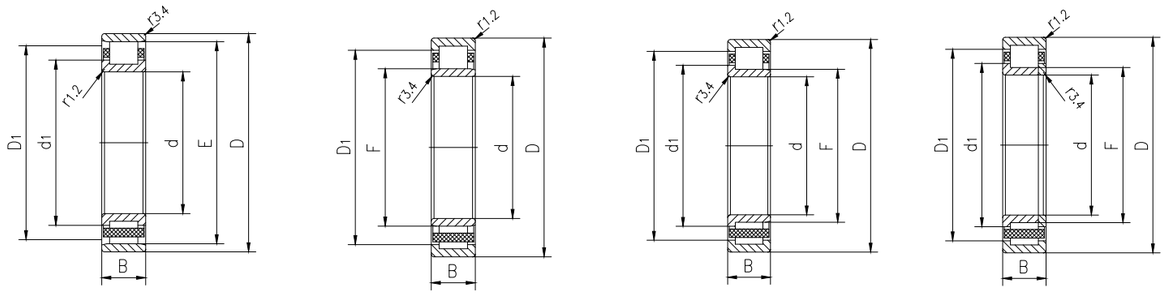
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NUP212ECP	M,M,ML	–	60	110	22	77.5	95	72	1.5	1.5	–	–	–	68	–	80	101	1.5	–
NU2212ECP	M,M,ML,PH	HJ 212 EC	60	110	28	–	95	72	1.5	1.5	1.4	6	10	68	70	74	101	1.5	1.5
NJ2212ECP	M,M,ML,PH	HJ 212 EC	60	110	28	77.5	95	72	1.5	1.5	1.4	6	10	68	70	80	101	1.5	–
NUP2212ECP	M,M,ML,PH	–	60	110	28	77.5	95	72	1.5	1.5	–	–	–	68	–	80	101	1.5	–
N312ECP	MM	–	60	130	31	84.3	–	115	2.1	2.1	2.1	–	–	72	113	118	119	2	2
NU312ECP	M,M,ML,PH	HJ 312 EC	60	130	31	–	108.5	77	2.1	2.1	2.1	9	15	72	74	79	118.1	2	2
NJ312ECP	M,M,ML,PH	HJ 312 EC	60	130	31	84.3	108.5	77	2.1	2.1	2.1	9	15	72	74	87	118.1	2	–
NUP312ECP	M,M,ML,PH	–	60	130	31	84.3	108.5	77	2.1	2.1	–	–	–	72	–	87	118.1	2	–
NU2312ECP	ML,ML,PH	HJ 2312 EC	60	130	46	–	108.5	77	2.1	2.1	3.6	9	16	72	74	79	118.1	2	2
NJ2312ECP	ML,ML,PH	HJ 2312 EC	60	130	46	84.3	108.5	77	2.1	2.1	3.6	9	16	72	74	87	118.1	2	–
NUP2312ECP	ML,ML,PH	–	60	130	46	84.3	108.5	77	2.1	2.1	–	–	–	72	–	87	118.1	2	–
NU412	–	–	60	150	35	–	118.5	83	2.1	2.1	2.5	–	–	74	80	85	136	2	2
NJ412	–	–	60	150	35	91.8	118.5	83	2.1	2.1	2.5	–	–	74	80	94	136	2	–
NU1013ML	–	–	65	100	18	–	86.6	74.5	1.1	1	2.9	–	–	69.6	72	76	94	1	1
NU1013ECP	–	–	65	100	18	–	88.5	74	1.1	1	1	–	–	69.6	72	76	94	1	1
NU213ECP	M,M,ML,PH	HJ 213 EC	65	120	23	–	103.2	78.5	1.5	1.5	1.4	6	10	74	76	81	110.6	1.5	1.5
N213ECP	–	–	65	120	23	84.4	–	108.5	1.5	1.5	1.4	–	–	74	106	111	112	1.5	1.5
NJ213ECP	M,M,ML,PH	HJ 213 EC	65	120	23	84.4	103.2	78.5	1.5	1.5	1.4	6	10	74	76	87	110.6	1.5	–
NUP213ECP	M,M,ML,PH	–	65	120	23	84.4	103.2	78.5	1.5	1.5	–	–	–	76	–	87	110.6	1.5	–
NU2213ECP	ML,ML,PH	HJ 2213 EC	65	120	31	–	103.2	78.5	1.5	1.5	1.9	6	11	74	76	81	110.6	1.5	1.5
NJ2213ECP	ML,ML,PH	HJ 2213 EC	65	120	31	84.4	103.2	78.5	1.5	1.5	1.9	6	11	74	76	87	110.6	1.5	–
NUP2213ECP	ML,ML,PH	–	65	120	31	84.4	103.2	78.5	1.5	1.5	–	–	–	74	–	87	110.6	1.5	–
N313ECP	–	–	65	140	33	90.5	–	124.5	2.1	2.1	2.2	–	–	77	122	127	129	2	2
NU313ECP	M,M,ML,PH	HJ 313 EC	65	140	33	–	117.4	82.5	2.1	2.1	2.2	10	16	77	80	85	127.8	2	2
NJ313ECP	M,M,ML,PH	HJ 313 EC	65	140	33	90.5	117.4	82.5	2.1	2.1	2.2	10	16	77	80	93	127.8	2	–
NUP313ECP	J,M,ML,PH	–	65	140	33	90.5	117.4	82.5	2.1	2.1	–	–	–	77	–	93	127.8	2	–
NU2313ECP	ML,PH	HJ 2313 EC	65	140	48	–	117.4	82.5	2.1	2.1	4.7	10	18	77	80	85	127.8	2	2
NJ2313ECP	ML,PH	HJ 2313 EC	65	140	48	90.5	117.4	82.5	2.1	2.1	4.7	10	18	77	80	93	127.8	2	–
NUP2313ECP	ML,PH	–	65	140	48	90.5	117.4	82.5	2.1	2.1	–	–	–	77	–	93	127.8	2	–
NU413	–	HJ 413	65	160	37	–	126.85	89.3	2.1	2.1	2.6	11	18	78	86	91	146	2	2
NJ413	–	HJ 413	65	160	37	98.5	126.85	89.3	2.1	2.1	2.6	11	18	78	86	101	146	2	–
NU1014ML	–	–	70	110	20	–	95.7	80	1.1	1	3	–	–	74.6	78	82	104	1	1
NU1014ECP	–	HJ 1014 EC	70	110	20	–	97.55	79.5	1.1	1	1.3	5	10	74.6	78	82	104	1	1
N214ECP	M	–	70	125	24	89.4	–	113.5	1.5	1.5	1.2	–	–	79	111	116	117	1.5	1.5
NU214ECP	J,M,ML,PH	HJ 214 EC	70	125	24	–	108.3	83.5	1.5	1.5	1.2	7	11	79	81	86	115.4	1.5	1.5
NJ214ECP	J,M,ML,PH	HJ 214 EC	70	125	24	89.4	108.3	83.5	1.5	1.5	1.2	7	11	79	81	92	115.4	1.5	–
NUP214ECP	J,M,ML,PH	–	70	125	24	89.4	108.3	83.5	1.5	1.5	–	–	–	79	–	92	115.4	1.5	–





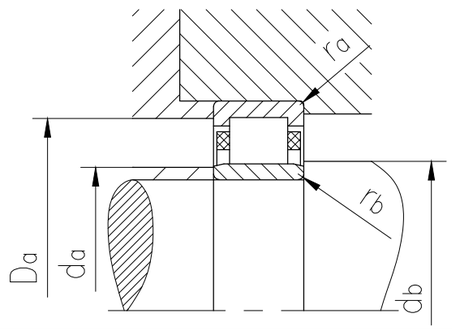
Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NUP212ECP	M,M,ML	–	0.86	–	113.4	107.1	14.07	7035	7875	0.15
NU2212ECP	M,M,ML,PH	HJ 212 EC	1.05	0.1	153.3	160.65	21	7035	7875	0.2
NJ2212ECP	M,M,ML,PH	HJ 212 EC	1.1	0.1	153.3	160.65	21	7035	7875	0.2
NUP2212ECP	M,M,ML,PH	–	1.1	–	153.3	160.65	21	7035	7875	0.2
N312ECP	MM	–	1.75	–	181.65	168	22.26	5880	7035	0.12
NU312ECP	M,M,ML,PH	HJ 312 EC	1.75	0.23	181.65	168	22.26	5880	7035	0.15
NJ312ECP	M,M,ML,PH	HJ 312 EC	1.85	0.23	181.65	168	22.26	5880	7035	0.15
NUP312ECP	M,M,ML,PH	–	1.9	–	181.65	168	22.26	5880	7035	0.15
NU2312ECP	ML,ML,PH	HJ 2312 EC	2.75	0.24	273	278.25	36.225	5880	7035	0.25
NJ2312ECP	ML,ML,PH	HJ 2312 EC	2.8	0.24	273	278.25	36.225	5880	7035	0.25
NUP2312ECP	ML,ML,PH	–	2.85	–	273	278.25	36.225	5880	7035	0.25
NU412		–	3	–	176.4	181.65	23.1	5250	6300	0.15
NJ412		–	3.05	–	176.4	181.65	23.1	5250	6300	0.15
NU1013ML		–	0.51	–	39.9	48.825	5.775	7875	12600	0.15
NU1013ECP		–	0.45	–	65.835	85.575	10.29	7875	7875	0.1
NU213ECP	M,M,ML,PH	HJ 213 EC	1	0.12	128.1	123.9	16.38	6615	7035	0.15
N213ECP		–	1.05	–	128.1	123.9	16.38	6615	7035	0.12
NJ213ECP	M,M,ML,PH	HJ 213 EC	1.05	0.12	128.1	123.9	16.38	6615	7035	0.15
NUP213ECP	M,M,ML,PH	–	1.05	–	128.1	123.9	16.38	6615	7035	0.15
NU2213ECP	ML,ML,PH	HJ 2213 EC	1.4	0.12	178.5	189	25.2	6615	7035	0.2
NJ2213ECP	ML,ML,PH	HJ 2213 EC	1.45	0.12	178.5	189	25.2	6615	7035	0.2
NUP2213ECP	ML,ML,PH	–	1.45	–	178.5	189	25.2	6615	7035	0.2
N313ECP		–	2.2	–	222.6	205.8	26.775	5565	6300	0.12
NU313ECP	M,M,ML,PH	HJ 313 EC	2.2	0.27	222.6	205.8	26.775	5565	6300	0.15
NJ313ECP	M,M,ML,PH	HJ 313 EC	2.3	0.27	222.6	205.8	26.775	5565	6300	0.15
NUP313ECP	J,M,ML,PH	–	2.35	–	222.6	205.8	26.775	5565	6300	0.15
NU2313ECP	ML,PH	HJ 2313 EC	3.2	0.3	299.25	304.5	39.9	5565	6300	0.25
NJ2313ECP	ML,PH	HJ 2313 EC	3.35	0.3	299.25	304.5	39.9	5565	6300	0.25
NUP2313ECP	ML,PH	–	3.45	–	299.25	304.5	39.9	5565	6300	0.25
NU413	–	HJ 413	3.55	0.42	192.15	199.5	25.2	5040	5880	0.15
NJ413	–	HJ 413	3.65	0.42	192.15	199.5	25.2	5040	5880	0.15
NU1014ML	–	–	0.7	–	58.905	70.35	8.4	7350	11550	0.15
NU1014ECP	–	HJ 1014 EC	0.61	0.082	80.325	97.65	12.6	7350	7350	0.1
N214ECP	M	–	1.1	–	143.85	143.85	18.9	6300	6615	0.12
NU214ECP	J,M,ML,PH	HJ 214 EC	1.15	0.15	143.85	143.85	18.9	6300	6615	0.15
NJ214ECP	J,M,ML,PH	HJ 214 EC	1.2	0.15	143.85	143.85	18.9	6300	6615	0.15
NUP214ECP	J,M,ML,PH	–	1.2	–	143.85	143.85	18.9	6300	6615	0.15

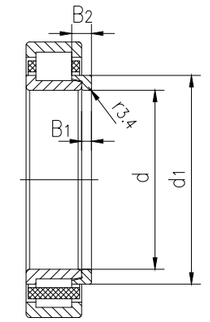
Single row cylindrical roller bearings



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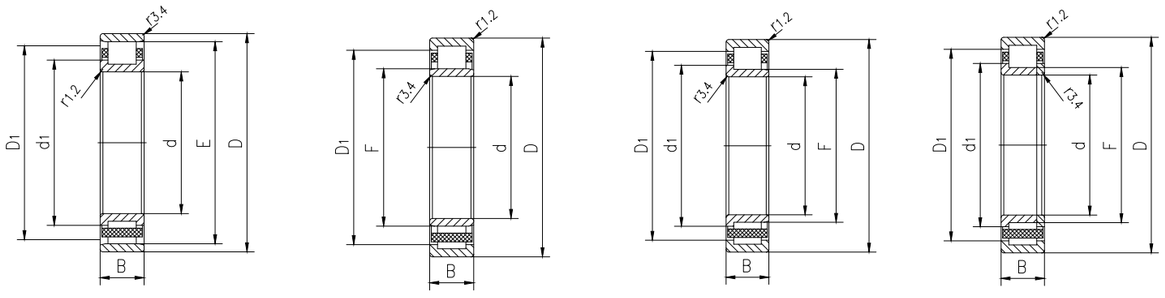
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NJ2214ECP	J,M,ML,PH	HJ 2214 EC	70	125	31	89.4	108.2	83.5	1.5	1.5	1.7	7	12	79	81	92	115.4	1.5	–
NU2214ECP	J,M,ML,PH	HJ 2214 EC	70	125	31	–	108.2	83.5	1.5	1.5	1.7	7	12	79	81	86	115.4	1.5	1.5
NUP2214ECP	J,M,ML,PH	–	70	125	31	89.4	108.2	83.5	1.5	1.5	–	–	–	79	–	92	115.4	1.5	–
N314ECP	M	–	70	150	35	97.3	–	133	2.1	2.1	1.8	–	–	82	130	136	138	2	2
NU314ECP	J,M,ML,PH	HJ 314 EC	70	150	35	–	125.6	89	2.1	2.1	1.8	10	16	82	86	92	137.5	2	2
NJ314ECP	J,M,ML,PH	HJ 314 EC	70	150	35	97.3	125.6	89	2.1	2.1	1.8	10	16	82	86	100	137.5	2	–
NUP314ECP	J,M,ML,PH	–	70	150	35	97.3	125.6	89	2.1	2.1	–	–	–	82	–	100	137.5	2	–
NU2314ECP	ML,PH	HJ 2314 EC	70	150	51	–	125.6	89	2.1	2.1	4.8	10	19	82	86	92	137.5	2	2
NJ2314ECP	ML,PH	HJ 2314 EC	70	150	51	97.3	125.6	89	2.1	2.1	4.8	10	19	82	86	100	137.5	2	–
NUP2314ECP	ML,PH	–	70	150	51	97.3	125.6	89	2.1	2.1	–	–	–	82	–	100	137.5	2	–
NU414MA		HJ 414	70	180	42	–	141	100	3	3	3.5	12	20	87	97	102	164	2.5	2.5
NJ414MA		HJ 414	70	180	42	110	141	100	3	3	3.5	12	20	87	97	113	164	2.5	–
NU1015ML	M	–	75	115	20	–	100.4	85	1.1	1	3	–	–	80	83	87	109	1	1
N215ECP	–	–	75	130	25	94.3	–	118.5	1.5	1.5	1.2	–	–	84	116	121	122	1.5	1.5
NU215ECP	J,M,ML,PH	HJ 215 EC	75	130	25	–	113.3	88.5	1.5	1.5	1.2	7	11	84	86	91	121.5	1.5	1.5
NJ215ECP	J,M,ML,PH	HJ 215 EC	75	130	25	94.3	113.3	88.5	1.5	1.5	1.2	7	11	84	86	97	121.5	1.5	–
NUP215ECP	J,M,ML,PH	–	75	130	25	94.3	113.3	88.5	1.5	1.5	–	–	–	84	–	97	121.5	1.5	–
NJ2215ECP	J,ML,PH	–	75	130	31	94.3	113.2	88.5	1.5	1.5	1.7	–	–	84	86	97	121.5	1.5	–
NU2215ECP	J,ML,PH	–	75	130	31	–	113.2	88.5	1.5	1.5	1.7	–	–	84	86	91	121.5	1.5	1.5
NUP2215ECP	J,ML,PH	–	75	130	31	94.3	113.2	88.5	1.5	1.5	–	–	–	84	–	97	121.5	1.5	–
N315ECP	M	–	75	160	37	104	–	143	2.1	2.1	1.8	–	–	87	140	146	148	2	2
NU315ECP	J,M,ML,PH	HJ 315 EC	75	160	37	–	135	95	2.1	2.1	1.8	11	17	87	92	97	148	2	2
NJ315ECP	J,M,ML,PH	HJ 315 EC	75	160	37	104	135	95	2.1	2.1	1.8	11	17	87	92	107	148	2	–
NUP315ECP	J,M,ML,PH	–	75	160	37	104	135	95	2.1	2.1	–	–	–	87	–	107	148	2	–
NU2315ECP	J,ML	HJ 2315 EC	75	160	55	–	135	95	2.1	2.1	4.8	11	20	87	92	97	148	2	2
NJ2315ECP	J,ML	HJ 2315 EC	75	160	55	104	135	95	2.1	2.1	4.8	11	20	87	92	107	148	2	–
NUP2315ECP	J,ML	–	75	160	55	104	135	95	2.1	2.1	–	–	–	87	–	107	148	2	–
NU415	–	HJ 415	75	190	45	–	149.1	104.5	3	3	3.8	13	22	91	101	107	174	2.5	2.5
NJ415	–	HJ 415	75	190	45	116	149.1	104.5	3	3	3.8	13	22	91	101	119	174	2.5	–
NU1016	–	–	80	125	22	–	108.55	91.5	1.1	1	3.3	–	–	86	90	94	119	1	1
NJ1016ECML	M	–	80	125	22	96.2	111.6	91.5	1.1	1	1.5	–	–	86	90	99	119	1	–
N216ECP	–	–	80	140	26	101	–	127.3	2	2	1.4	–	–	90	125	130	131	2	2
NJ216ECP	J,M,ML,PH	HJ 216 EC	80	140	26	101	121.7	95.3	2	2	1.4	8	13	90	93	104	129.8	2	–
NU216ECP	J,M,ML,PH	HJ 216 EC	80	140	26	–	121.7	95.3	2	2	1.4	8	13	90	93	98	129.8	2	2
NUP216ECP	J,M,ML,PH	–	80	140	26	101	121.7	95.3	2	2	–	–	–	90	–	104	129.8	2	–
NU2216ECP	J,M,ML,PH	HJ 216 EC	80	140	33	–	121.7	95.3	2	2	1.4	8	13	90	93	98	129.8	2	2
NUP2216ECP	J,M,ML,PH	–	80	140	33	101	121.7	95.3	2	2	–	–	–	90	–	104	129.8	2	–





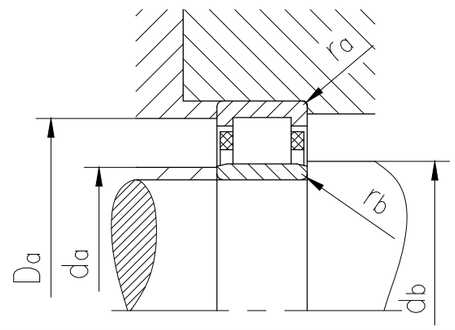
Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NJ2214ECP	J,M,ML,PH	HJ 2214 EC	1.5	0.15	189	202.65	26.775	6300	6615	0.2
NU2214ECP	J,M,ML,PH	HJ 2214 EC	1.5	0.15	189	202.65	26.775	6300	6615	0.2
NUP2214ECP	J,M,ML,PH	–	1.55	–	189	202.65	26.775	6300	6615	0.2
N314ECP	M	–	2.65	–	247.8	239.4	30.45	5040	5880	0.12
NU314ECP	J,M,ML,PH	HJ 314 EC	2.7	0.32	247.8	239.4	30.45	5040	5880	0.15
NJ314ECP	J,M,ML,PH	HJ 314 EC	2.75	0.32	247.8	239.4	30.45	5040	5880	0.15
NUP314ECP	J,M,ML,PH	–	2.85	–	247.8	239.4	30.45	5040	5880	0.15
NU2314ECP	ML,PH	HJ 2314 EC	3.95	0.35	330.75	341.25	43.575	5040	5880	0.25
NJ2314ECP	ML,PH	HJ 2314 EC	4	0.35	330.75	341.25	43.575	5040	5880	0.25
NUP2314ECP	ML,PH	–	4.15	–	330.75	341.25	43.575	5040	5880	0.25
NU414MA		HJ 414	5.25	0.61	240.45	252	31.5	4515	5250	0.15
NJ414MA		HJ 414	5.45	0.61	240.45	252	31.5	4515	5250	0.15
NU1015ML	M	–	0.75	–	61.215	74.55	8.925	7035	10500	0.15
N215ECP	–	–	1.2	–	157.5	163.8	21.42	5880	6300	0.12
NU215ECP	J,M,ML,PH	HJ 215 EC	1.25	0.16	157.5	163.8	21.42	5880	6300	0.15
NJ215ECP	J,M,ML,PH	HJ 215 EC	1.3	0.16	157.5	163.8	21.42	5880	6300	0.15
NUP215ECP	J,M,ML,PH	–	1.3	–	157.5	163.8	21.42	5880	6300	0.15
NJ2215ECP	J,ML,PH	–	1.6	–	195.3	218.4	28.35	5880	6300	0.2
NU2215ECP	J,ML,PH	–	1.6	–	195.3	218.4	28.35	5880	6300	0.2
NUP2215ECP	J,ML,PH	–	1.6	–	195.3	218.4	28.35	5880	6300	0.2
N315ECP	M	–	3.3	–	294	278.25	35.175	4725	5565	0.12
NU315ECP	J,M,ML,PH	HJ 315 EC	3.3	0.39	294	278.25	35.175	4725	5565	0.15
NJ315ECP	J,M,ML,PH	HJ 315 EC	3.35	0.39	294	278.25	35.175	4725	5565	0.15
NUP315ECP	J,M,ML,PH	–	3.45	–	294	278.25	35.175	4725	5565	0.15
NU2315ECP	J,ML	HJ 2315 EC	4.8	0.42	399	420	52.5	4725	5565	0.25
NJ2315ECP	J,ML	HJ 2315 EC	5	0.42	399	420	52.5	4725	5565	0.25
NUP2315ECP	J,ML	–	5.1	–	399	420	52.5	4725	5565	0.25
NU415	–	HJ 415	6.2	0.71	277.2	294	35.7	4200	5040	0.15
NJ415	–	HJ 415	6.4	0.71	277.2	294	35.7	4200	5040	0.15
NU1016	–	–	0.88	–	67.62	81.9	10.29	6615	6615	0.1
NJ1016ECML	M	–	1.05	–	103.95	133.35	17.115	6300	9975	0.15
N216ECP	–	–	1.55	–	168	174.3	22.26	5565	5880	0.12
NJ216ECP	J,M,ML,PH	HJ 216 EC	1.55	0.21	168	174.3	22.26	5565	5880	0.15
NU216ECP	J,M,ML,PH	HJ 216 EC	1.55	0.21	168	174.3	22.26	5565	5880	0.15
NUP216ECP	J,M,ML,PH	–	1.55	–	168	174.3	22.26	5565	5880	0.15
NU2216ECP	J,M,ML,PH	HJ 216 EC	1.95	0.21	222.6	257.25	32.55	5565	5880	0.2
NUP2216ECP	J,M,ML,PH	–	2	–	222.6	257.25	32.55	5565	5880	0.2

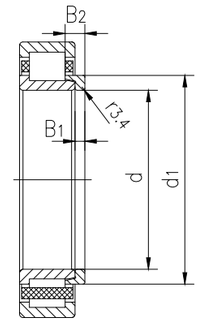
Single row cylindrical roller bearings



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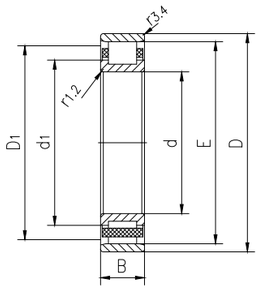
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NJ2216ECP	J,M,ML,PH	HJ 216 EC	80	140	33	101	121.7	95.3	2	2	1.4	8	13	90	93	104	129.8	2	–
NU316ECP	J,M,ML,PH	HJ 316 EC	80	170	39	–	142.7	101	2.1	2.1	2.1	11	17	92	98	104	157.8	2	2
N316ECP	M	–	80	170	39	110	–	151	2.1	2.1	2.1	–	–	92	148	154	157	2	2
NJ316ECP	J,M,ML,PH	HJ 316 EC	80	170	39	110	142.7	101	2.1	2.1	2.1	11	17	92	98	113	157.8	2	–
NUP316ECP	J,M,ML,PH	–	80	170	39	110	142.7	101	2.1	2.1	–	–	–	92	–	113	157.8	2	–
NU2316ECP	M,ML	HJ 2316 EC	80	170	58	–	142.7	101	2.1	2.1	5.1	11	20	92	98	104	157.8	2	2
NJ2316ECP	M,ML	HJ 2316 EC	80	170	58	110	142.7	101	2.1	2.1	5.1	11	20	92	98	113	157.8	2	–
NUP2316ECP	M,ML	–	80	170	58	110	142.7	101	2.1	2.1	–	–	–	92	–	113	157.8	2	–
NU416	–	HJ 416	80	200	48	–	158.1	110	3	3	3.7	13	22	96	107	112	184	2.5	2.5
NJ416	–	HJ 416	80	200	48	122	158.1	110	3	3	3.7	13	22	96	107	125	184	2.5	–
NU1017ML	–	–	85	130	22	–	114	96.5	1.1	1	3.3	–	–	91	94	99	123	1	1
NJ1017ML	–	–	85	130	22	101	114	96.5	1.1	1	3.3	–	–	91	94	104	123	1	–
NUP1017ML	–	–	85	130	22	101	114	96.5	1.1	1	–	–	–	91	–	104	123	1	–
N217ECP	M	–	85	150	28	107	–	136.5	2	2	1.5	–	–	96	134	139	140	2	2
NJ217ECP	J,M,ML	HJ 217 EC	85	150	28	107	130.3	100.5	2	2	1.5	8	13	96	98	110	138.5	2	–
NU217ECP	J,M,ML	HJ 217 EC	85	150	28	–	130.3	100.5	2	2	1.5	8	13	96	98	103	138.5	2	2
NUP217ECP	J,M,ML	–	85	150	28	107	130.3	100.5	2	2	–	–	–	96	–	110	138.5	2	–
NU2217ECP	J,M,ML,PH	–	85	150	36	–	130.3	100.5	2	2	2	–	–	96	98	103	138.5	2	2
NJ2217ECP	J,M,ML,PH	–	85	150	36	107	130.3	100.5	2	2	2	–	–	96	98	110	138.5	2	–
NUP2217ECP	J,M,ML,PH	–	85	150	36	107	130.3	100.5	2	2	–	–	–	96	–	110	138.5	2	–
N317ECP	M	–	85	180	41	117	–	160	3	3	2.3	–	–	99	157	163	166	2.5	2.5
NU317ECP	J,M,ML,PH	HJ 317 EC	85	180	41	–	151.4	108	3	3	2.3	12	19	99	105	111	165.5	2.5	2.5
NJ317ECP	J,M,ML,PH	HJ 317 EC	85	180	41	117	151.4	108	3	3	2.3	12	19	99	105	120	165.5	2.5	–
NUP317ECP	J,M,ML,PH	–	85	180	41	117	151.4	108	3	3	–	–	–	99	–	120	165.5	2.5	–
NU2317ECP	J,M,ML	HJ 2317 EC	85	180	60	–	151.4	108	3	3	5.8	12	22	99	105	111	165.5	2.5	2.5
NJ2317ECP	J,M,ML	HJ 2317 EC	85	180	60	117	151.4	108	3	3	5.8	12	22	99	105	120	165.5	2.5	–
NUP2317ECP	J,M,ML	–	85	180	60	117	151.4	108	3	3	–	–	–	99	–	120	165.5	2.5	–
NU1018ML	M	–	90	140	24	–	122.1	103	1.5	1.1	3.5	–	–	96	101	106	133	1.5	1
NJ1018ML	M	–	90	140	24	108	122.1	103	1.5	1.1	3.5	–	–	96	101	111	133	1.5	–
N218ECP	M	–	90	160	30	114	–	145	2	2	1.8	–	–	101	142	148	149	2	2
NJ218ECP	J,M,ML	HJ 218 EC	90	160	30	114	138.45	107	2	2	1.8	9	14	101	104	117	149	2	–
NU218ECP	J,M,ML	HJ 218 EC	90	160	30	–	138.45	107	2	2	1.8	9	14	101	104	110	149	2	2
NUP218ECP	J,M,ML	–	90	160	30	114	138.45	107	2	2	–	–	–	101	–	117	149	2	–
NU2218ECP	J,M,ML	HJ 2218 EC	90	160	40	–	138.5	107	2	2	2.6	9	15	101	104	110	149	2	2
NJ2218ECP	J,M,ML	HJ 2218 EC	90	160	40	114	138.5	107	2	2	2.6	9	15	101	104	117	149	2	–
NUP2218ECP	J,M,ML	–	90	160	40	114	138.5	107	2	2	–	–	–	101	–	117	149	2	–
NU318ECP	J,M,ML	HJ 318 EC	90	190	43	–	160.3	113.5	3	3	2.5	12	19	104	110	116	175.3	2.5	2.5



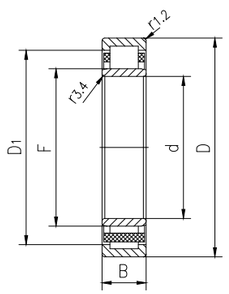


Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NJ2216ECP	J,M,ML,PH	HJ 216 EC	2.05	0.21	222.6	257.25	32.55	5565	5880	0.2
NU316ECP	J,M,ML,PH	HJ 316 EC	3.85	0.44	315	304.5	37.8	4515	5250	0.15
N316ECP	M	–	3.9	–	315	304.5	37.8	4515	5250	0.12
NJ316ECP	J,M,ML,PH	HJ 316 EC	4	0.44	315	304.5	37.8	4515	5250	0.15
NUP316ECP	J,M,ML,PH	–	4.1	–	315	304.5	37.8	4515	5250	0.15
NU2316ECP	M,ML	HJ 2316 EC	5.75	0.48	435.75	462	57.75	4515	5250	0.25
NJ2316ECP	M,ML	HJ 2316 EC	5.95	0.48	435.75	462	57.75	4515	5250	0.25
NUP2316ECP	M,ML	–	6	–	435.75	462	57.75	4515	5250	0.25
NU416	–	HJ 416	7.25	0.8	318.15	336	40.95	3990	4725	0.15
NJ416	–	HJ 416	7.55	0.8	318.15	336	40.95	3990	4725	0.15
NU1017ML	–	–	1.05	–	71.61	90.825	11.34	6300	9450	0.15
NJ1017ML	–	–	1.1	–	71.61	90.825	11.34	6300	9450	0.15
NUP1017ML	–	–	1.1	–	71.61	90.825	11.34	6300	9450	0.15
N217ECP	M	–	1.9	–	199.5	210	26.25	5040	5565	0.12
NJ217ECP	J,M,ML	HJ 217 EC	1.9	0.24	199.5	210	26.25	5040	5565	0.15
NU217ECP	J,M,ML	HJ 217 EC	1.9	0.24	199.5	210	26.25	5040	5565	0.15
NUP217ECP	J,M,ML	–	1.9	–	199.5	210	26.25	5040	5565	0.15
NU2217ECP	J,M,ML,PH	–	2.5	–	262.5	294	36.225	5040	5565	0.2
NJ2217ECP	J,M,ML,PH	–	2.55	–	262.5	294	36.225	5040	5565	0.2
NUP2217ECP	J,M,ML,PH	–	2.6	–	262.5	294	36.225	5040	5565	0.2
N317ECP	M	–	4.55	–	357	351.75	43.575	4200	5040	0.12
NU317ECP	J,M,ML,PH	HJ 317 EC	4.65	0.55	357	351.75	43.575	4200	5040	0.15
NJ317ECP	J,M,ML,PH	HJ 317 EC	4.8	0.55	357	351.75	43.575	4200	5040	0.15
NUP317ECP	J,M,ML,PH	–	4.9	–	357	351.75	43.575	4200	5040	0.15
NU2317ECP	J,M,ML	HJ 2317 EC	6.85	0.59	477.75	514.5	63	4200	5040	0.25
NJ2317ECP	J,M,ML	HJ 2317 EC	7	0.59	477.75	514.5	63	4200	5040	0.25
NUP2317ECP	J,M,ML	–	7	–	477.75	514.5	63	4200	5040	0.25
NU1018ML	M	–	1.35	–	84.945	109.2	13.335	5880	8925	0.15
NJ1018ML	M	–	1.4	–	84.945	109.2	13.335	5880	8925	0.15
N218ECP	M	–	2.3	–	218.4	231	28.35	4725	5250	0.12
NJ218ECP	J,M,ML	HJ 218 EC	2.3	0.31	218.4	231	28.35	4725	5250	0.15
NU218ECP	J,M,ML	HJ 218 EC	2.3	0.31	218.4	231	28.35	4725	5250	0.15
NUP218ECP	J,M,ML	–	2.45	–	218.4	231	28.35	4725	5250	0.15
NU2218ECP	J,M,ML	HJ 2218 EC	3.15	0.31	294	330.75	40.95	4725	5250	0.2
NJ2218ECP	J,M,ML	HJ 2218 EC	3.25	0.31	294	330.75	40.95	4725	5250	0.2
NUP2218ECP	J,M,ML	–	3.3	–	294	330.75	40.95	4725	5250	0.2
NU318ECP	J,M,ML	HJ 318 EC	5.25	0.62	383.25	378	45.15	3990	4725	0.15

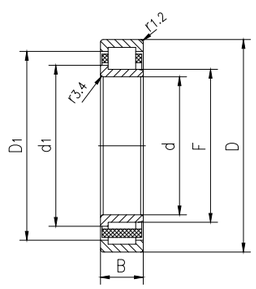
Single row cylindrical roller bearings



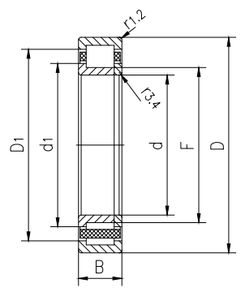
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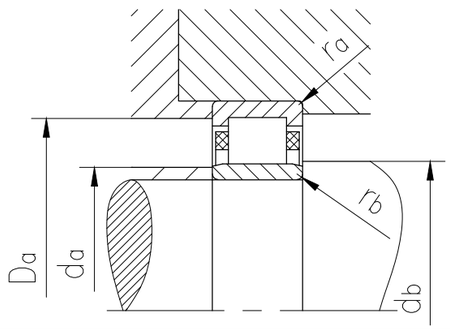


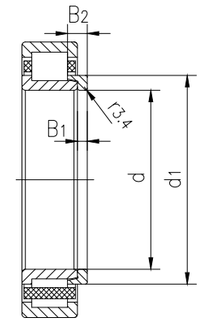
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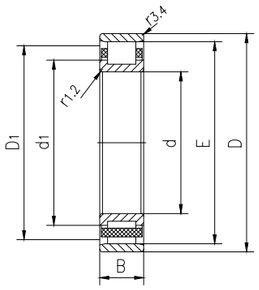
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
N318ECP	M	–	90	190	43	124	–	169.5	3	3	2.5	–	–	104	166	173	175	2.5	2.5
NJ318ECP	J,M,ML	HJ 318 EC	90	190	43	124	160.3	113.5	3	3	2.5	12	19	104	110	127	175.3	2.5	–
NUP318ECJ	M,ML,P	–	90	190	43	124	160.3	113.5	3	3	–	–	–	104	–	127	175.3	2.5	–
NU2318ECP	J,M,ML	HJ 2318 EC	90	190	64	–	160.3	113.5	3	3	6	12	22	104	110	116	175.3	2.5	2.5
NJ2318ECP	J,M,ML	HJ 2318 EC	90	190	64	124	160.3	113.5	3	3	6	12	22	104	110	127	175.3	2.5	–
NUP2318ECP	J,M,ML	–	90	190	64	124	160.3	113.5	3	3	–	–	–	104	–	127	175.3	2.5	–
NU418M		–	90	225	54	–	179.5	123.5	4	4	4.9	–	–	108	120	126	205	3	3
NU1019ML	–	–	95	145	24	–	127.1	108	1.5	1.1	3.5	–	–	101	106	111	138	1.5	1
N219ECP	–	–	95	170	32	120	–	154.5	2.1	2.1	1.7	–	–	107	152	157	159	2	2
NU219ECP	J,M,ML	HJ 219 EC	95	170	32	–	147.4	112.5	2.1	2.1	1.7	9	14	107	110	115	157.8	2	2
NJ219ECP	J,M,ML	HJ 219 EC	95	170	32	120	147.4	112.5	2.1	2.1	1.7	9	14	107	110	123	157.8	2	–
NUP219ECP	J,M,ML	–	95	170	32	120	147.4	112.5	2.1	2.1	–	–	–	107	–	123	157.8	2	–
NU2219ECP	J,ML	–	95	170	43	–	147.4	112.5	2.1	2.1	3	–	–	107	110	115	157.8	2	2
NJ2219ECP	J,ML	–	95	170	43	120	147.4	112.5	2.1	2.1	3	–	–	107	110	123	157.8	2	–
NUP2219ECP	J,ML	–	95	170	43	120	147.4	112.5	2.1	2.1	–	–	–	107	–	123	157.8	2	–
N319ECP	M	–	95	200	45	132	–	177.5	3	3	2.9	–	–	110	174	181	185	2.5	2.5
NU319ECP	J,M,ML	HJ 319 EC	95	200	45	–	168.3	121.5	3	3	2.9	13	21	110	118	125	185	2.5	2.5
NJ319ECP	J,M,ML	HJ 319 EC	95	200	45	132	168.3	121.5	3	3	2.9	13	21	110	118	135	185	2.5	–
NUP319ECP	J,M,ML	–	95	200	45	132	168.3	121.5	3	3	–	–	–	110	–	135	185	2.5	–
NU2319ECP	J,ML	HJ 2319 EC	95	200	67	–	168.3	121.5	3	3	6.9	13	25	110	118	125	185	2.5	2.5
NJ2319ECJ	ML.P	HJ 2319 EC	95	200	67	132	168.3	121.5	3	3	6.9	13	25	110	118	135	185	2.5	–
NUP2319ECJ	ML.P	–	95	200	67	132	168.3	121.5	3	3	–	–	–	110	–	135	185	2.5	–
NU419M	–	–	95	240	55	–	188	133.5	4	4	5	–	–	114	130	136	220	3	3
NU1020ML	M	–	100	150	24	–	132.1	113	1.5	1.1	3.5	–	–	106	111	116	143	1.5	1
NU220ECP	J,M,ML	HJ 220 EC	100	180	34	–	155.6	119	2.1	2.1	1.7	10	15	113	116	122	167.5	2	2
N220ECP	–	–	100	180	34	127	–	163	2.1	2.1	1.7	–	–	113	160	166	168	2	2
NJ220ECP	J,M,ML	HJ 220 EC	100	180	34	127	155.6	119	2.1	2.1	1.7	10	15	113	116	130	167.5	2	–
NUP220ECP	J,M,ML	–	100	180	34	127	155.6	119	2.1	2.1	–	–	–	113	–	130	167.5	2	–
NU2220ECP	J,M,ML,PH	HJ 2220 EC	100	180	46	–	155.6	119	2.1	2.1	2.5	10	16	113	116	122	167.5	2	2
NJ2220ECP	J,M,ML,PH	HJ 2220 EC	100	180	46	127	155.6	119	2.1	2.1	2.5	10	16	113	116	130	167.5	2	–
NUP2220ECP	J,M,ML,PH	–	100	180	46	127	155.6	119	2.1	2.1	–	–	–	113	–	130	167.5	2	–
N320ECP	M	–	100	215	47	139	–	191.5	3	3	2.9	–	–	114	188	195	200	2.5	2.5
NU320ECP	J,M,ML	HJ 320 EC	100	215	47	–	181.1	127.5	3	3	2.9	13	21	114	124	131	199.6	2.5	2.5
NJ320ECJ	M,ML,P	HJ 320 EC	100	215	47	139	181.1	127.5	3	3	2.9	13	21	114	124	142	199.6	2.5	–
NUP320ECJ	M,ML,P	–	100	215	47	139	181.1	127.5	3	3	–	–	–	114	–	142	199.6	2.5	–
NJ2320ECJ	M,ML,P	HJ 2320 EC	100	215	73	139	181.1	127.5	3	3	5.9	13	24	114	124	142	199.6	2.5	–
NU2320ECP	J,M,ML	HJ 2320 EC	100	215	73	–	181.1	127.5	3	3	5.9	13	24	114	124	131	199.6	2.5	2.5



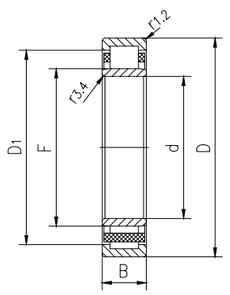


Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
N318ECP	M	–	5.3	–	383.25	378	45.15	3990	4725	0.12
NJ318ECP	J,M,ML	HJ 318 EC	5.45	0.62	383.25	378	45.15	3990	4725	0.15
NUP318ECJ	M,ML,P	–	5.55	–	383.25	378	45.15	3990	4725	0.15
NU2318ECP	J,M,ML	HJ 2318 EC	8	0.66	525	567	68.775	3990	4725	0.25
NJ2318ECP	J,M,ML	HJ 2318 EC	8.15	0.66	525	567	68.775	3990	4725	0.25
NUP2318ECP	J,M,ML	–	8.25	–	525	567	68.775	3990	4725	0.25
NU418M		–	10	–	399	435.75	50.4	3570	4200	0.15
NU1019ML	–	–	1.45	–	88.41	115.5	13.86	4515	4200	0.15
N219ECP	–	–	2.85	–	267.75	278.25	34.125	4515	5040	0.12
NU219ECP	J,M,ML	HJ 219 EC	2.85	0.33	267.75	278.25	34.125	4515	5040	0.15
NJ219ECP	J,M,ML	HJ 219 EC	2.9	0.33	267.75	278.25	34.125	4515	5040	0.15
NUP219ECP	J,M,ML	–	2.9	–	267.75	278.25	34.125	4515	5040	0.15
NU2219ECP	J,ML	–	3.8	–	341.25	393.75	47.775	4515	5040	0.2
NJ2219ECP	J,ML	–	3.95	–	341.25	393.75	47.775	4515	5040	0.2
NUP2219ECP	J,ML	–	4	–	341.25	393.75	47.775	4515	5040	0.2
N319ECP	M	–	6.2	–	409.5	409.5	48.825	3780	4515	0.12
NU319ECP	J,M,ML	HJ 319 EC	6.2	0.78	409.5	409.5	48.825	3780	4515	0.15
NJ319ECP	J,M,ML	HJ 319 EC	6.3	0.78	409.5	409.5	48.825	3780	4515	0.15
NUP319ECP	J,M,ML	–	6.3	–	409.5	409.5	48.825	3780	4515	0.15
NU2319ECP	J,ML	HJ 2319 EC	9.35	0.76	556.5	614.25	72.975	3780	4515	0.25
NJ2319ECJ	ML.P	HJ 2319 EC	9.55	0.76	556.5	614.25	72.975	3780	4515	0.25
NUP2319ECJ	ML.P	–	9.7	–	556.5	614.25	72.975	3780	4515	0.25
NU419M	–	–	13.5	–	433.65	477.75	54.6	3360	3780	0.15
NU1020ML	M	–	1.45	–	90.09	119.7	14.385	5250	7875	0.15
NU220ECP	J,M,ML	HJ 220 EC	3.35	0.43	299.25	320.25	38.325	4200	4725	0.15
N220ECP	–	–	3.45	–	299.25	320.25	38.325	4200	4725	0.12
NJ220ECP	J,M,ML	HJ 220 EC	3.45	0.43	299.25	320.25	38.325	4200	4725	0.15
NUP220ECP	J,M,ML	–	3.6	–	299.25	320.25	38.325	4200	4725	0.15
NU2220ECP	J,M,ML,PH	HJ 2220 EC	4.75	0.43	399	472.5	56.7	4200	4725	0.2
NJ2220ECP	J,M,ML,PH	HJ 2220 EC	4.8	0.43	399	472.5	56.7	4200	4725	0.2
NUP2220ECP	J,M,ML,PH	–	4.8	–	399	472.5	56.7	4200	4725	0.2
N320ECP	M	–	7.35	–	472.5	462	53.55	3360	3990	0.12
NU320ECP	J,M,ML	HJ 320 EC	7.45	0.87	472.5	462	53.55	3360	3990	0.15
NJ320ECJ	M,ML,P	HJ 320 EC	7.65	0.87	472.5	462	53.55	3360	3990	0.15
NUP320ECJ	M,ML,P	–	7.7	–	472.5	462	53.55	3360	3990	0.15
NJ2320ECJ	M,ML,P	HJ 2320 EC	12	0.91	703.5	771.75	89.25	3360	3990	0.25
NU2320ECP	J,M,ML	HJ 2320 EC	12	0.91	703.5	771.75	89.25	3360	3990	0.25

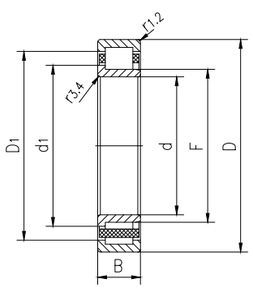
Single row cylindrical roller bearings



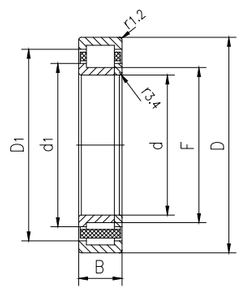
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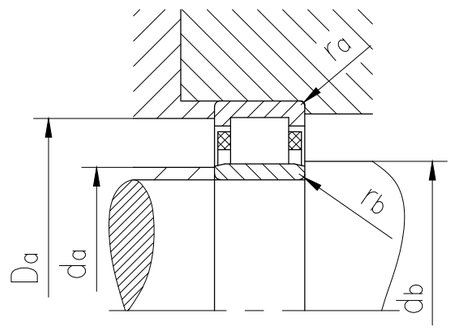


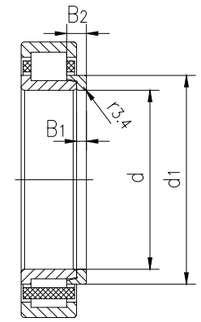
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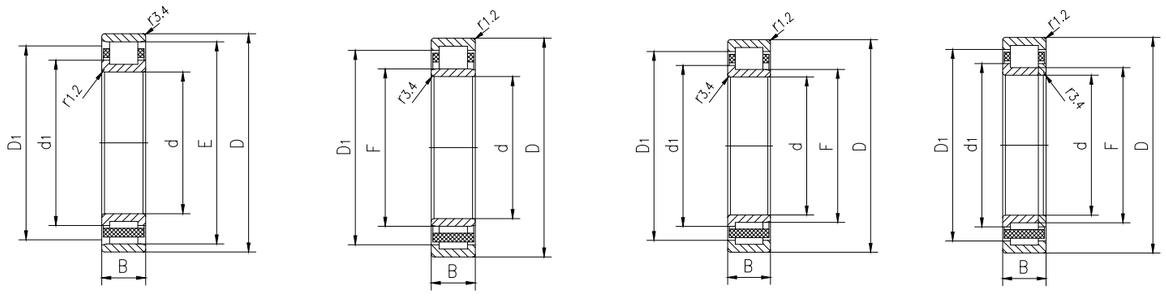
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NUP2320ECJ	M,ML,P	–	100	215	73	139	181.1	127.5	3	3	–	–	–	114	–	142	199.6	2.5	–
NU420M	–	HJ 420	100	250	58	–	197.45	139	4	4	4.9	16	27	119	135	142	230	3	3
NU1021ML	–	–	105	160	26	–	140.8	119.5	2	1.1	3.8	–	–	111	117	122	151	2	1
N221ECP	–	–	105	190	36	134	–	173	2.1	2.1	2	–	–	117	170	176	178	2	2
NU221ECP	J,ML	HJ 221 EC	105	190	36	–	164	125	2.1	2.1	2	10	16	117	122	128	177.3	2	2
NJ221ECP	J,ML	HJ 221 EC	105	190	36	134	164	125	2.1	2.1	2	10	16	117	122	137	177.3	2	–
NUP221ECP	J,ML	–	105	190	36	134	164	125	2.1	2.1	–	–	–	117	–	137	177.3	2	–
NU321ECP	J,ML	–	105	225	49	–	189	133	3	3	3.4	–	–	119	129	136	209.4	2.5	2.5
N321ECP	–	–	105	225	49	145	–	201	3	3	3.4	–	–	119	198	205	210	2.5	2.5
NJ321ECP	J,ML	–	105	225	49	145	189	133	3	3	3.4	–	–	119	129	148	209.4	2.5	–
NU421M	–	–	105	260	60	–	206.3	144.5	4	4	4.9	–	–	124	140	147	241	3	3
NU1022ML	M	–	110	170	28	–	149.7	125	2	1.1	3.8	–	–	116	122	128	160	2	1
NU222ECP	J,M,ML	HJ 222 EC	110	200	38	–	172.5	132.5	2.1	2.1	2.1	11	17	122	129	135	187	2	2
N222ECP	M	–	110	200	38	141	–	180.5	2.1	2.1	2.1	–	–	122	177	184	188	2	2
NJ222ECP	J,M,ML	HJ 222 EC	110	200	38	141	172.5	132.5	2.1	2.1	2.1	11	17	122	129	144	187	2	–
NUP222ECP	J,M,ML	–	110	200	38	141	172.5	132.5	2.1	2.1	–	–	–	122	–	144	187	2	–
NJ2222ECP	J,ML	–	110	200	53	141	172.5	132.5	2.1	2.1	3.7	–	–	122	129	144	187	2	–
NU2222ECP	J,ML	–	110	200	53	–	172.5	132.5	2.1	2.1	3.7	–	–	122	129	135	187	2	2
NUP2222ECP	J,ML	–	110	200	53	141	172.5	132.5	2.1	2.1	–	–	–	122	–	144	187	2	–
N322ECP	M	–	110	240	50	155	–	211	3	3	3	–	–	124	208	215	225	2.5	2.5
NJ322ECJ	M,ML,P	HJ 322 EC	110	240	50	155	200	143	3	3	3	14	22	124	139	159	225.2	2.5	–
NU322ECP	J,M,ML	HJ 322 EC	110	240	50	–	200	143	3	3	3	14	22	124	139	146	225.2	2.5	2.5
NUP322ECP	J,M,ML	–	110	240	50	155	200	143	3	3	–	–	–	124	–	159	225.2	2.5	–
NJ2322ECP	ML	HJ 2322 EC	110	240	80	155	200	143	3	3	7.5	14	27	124	139	159	225.2	2.5	–
NU2322ECP	ML	HJ 2322 EC	110	240	80	–	200	143	3	3	7.5	14	27	124	139	146	225.2	2.5	2.5
NUP2322ECP	ML	–	110	240	80	155	200	143	3	3	–	–	–	124	–	159	225.2	2.5	–
NJ422M	–	HJ 422	110	280	65	171	219.65	155	4	4	4.8	30		131	151	175	260	3	–
NU1024ML	M	–	120	180	28	–	159.7	135	2	1.1	3.8	–	–	126	133	138	171	2	1
N224ECP	M	–	120	215	40	153	–	195.5	2.1	2.1	1.9	–	–	132	192	199	203	2	2
NU224ECP	J,M,ML	HJ 224 EC	120	215	40	–	186.55	143.5	2.1	2.1	1.9	11	17	132	140	146	201.6	2	2
NJ224ECP	J,M,ML	HJ 224 EC	120	215	40	153	186.55	143.5	2.1	2.1	1.9	11	17	132	140	156	201.6	2	–
NUP224ECJ	M,ML,P	–	120	215	40	153	186.55	143.5	2.1	2.1	–	–	–	132	–	156	201.6	2	–
NU2224ECP	J,M,ML	HJ 2224 EC	120	215	58	–	186.9	143.5	2.1	2.1	3.8	11	20	132	140	146	201.6	2	2
NJ2224ECJ	M,ML,P	HJ 2224 EC	120	215	58	153	186.9	143.5	2.1	2.1	3.8	11	20	132	140	156	201.6	2	–
NUP2224ECP	J,M,ML	–	120	215	58	153	186.9	143.5	2.1	2.1	–	–	–	132	–	156	201.6	2	–
N324ECP	M	–	120	260	55	168	–	230	3	3	3.7	–	–	134	226	235	245	2.5	2.5
NU324ECP	J,M,ML	HJ 324 EC	120	260	55	–	217.8	154	3	3	3.7	14	23	134	150	157	244.8	2.5	2.5





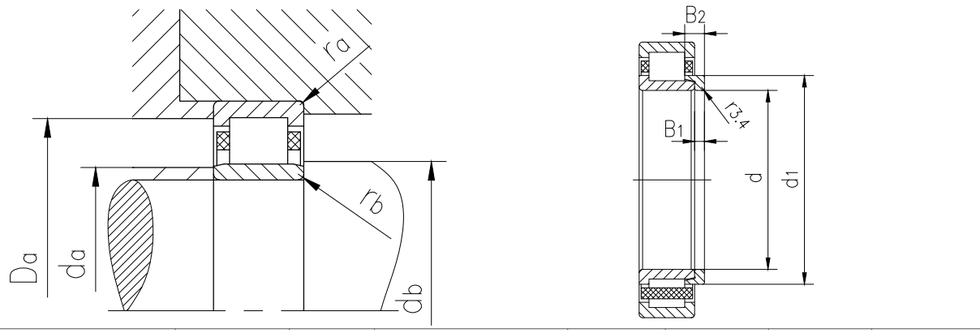
Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NUP2320ECJ	M,ML,P	–	12.5	–	703.5	771.75	89.25	3360	3990	0.25
NU420M	–	HJ 420	15.5	1.5	479.85	546	61.425	3150	3780	0.15
NU1021ML	–	–	1.9	–	106.05	143.85	16.8	5040	7875	0.15
N221ECP	–	–	3.9	–	315	330.75	38.325	3990	4515	0.12
NU221ECP	J,ML	HJ 221 EC	3.95	0.5	315	330.75	38.325	3990	4515	0.15
NJ221ECP	J,ML	HJ 221 EC	4	0.5	315	330.75	38.325	3990	4515	0.15
NUP221ECP	J,ML	–	4.2	–	315	330.75	38.325	3990	4515	0.15
NU321ECP	J,ML	–	8.5	–	525	525	59.85	3360	3990	0.15
N321ECP	–	–	8.6	–	525	525	59.85	3360	3990	0.12
NJ321ECP	J,ML	–	9.05	–	525	525	59.85	3360	3990	0.15
NU421M	–	–	17.5	–	526.05	598.5	67.2	2940	3570	0.15
NU1022ML	M	–	2.3	–	134.4	174.3	20.265	4725	7350	0.15
NU222ECP	J,M,ML	HJ 222 EC	4.7	0.62	351.75	383.25	44.625	3780	4200	0.15
N222ECP	M	–	4.8	–	351.75	383.25	44.625	3780	4200	0.12
NJ222ECP	J,M,ML	HJ 222 EC	4.8	0.62	351.75	383.25	44.625	3780	4200	0.15
NUP222ECP	J,M,ML	–	5	–	351.75	383.25	44.625	3780	4200	0.15
NJ2222ECP	J,ML	–	6.7	–	462	546	64.05	3780	4200	0.2
NU2222ECP	J,ML	–	6.7	–	462	546	64.05	3780	4200	0.2
NUP2222ECP	J,ML	–	7	–	462	546	64.05	3780	4200	0.2
N322ECP	M	–	10	–	556.5	567	64.05	3150	3570	0.12
NJ322ECJ	M,ML,P	HJ 322 EC	10.5	1.2	556.5	567	64.05	3150	3570	0.15
NU322ECP	J,M,ML	HJ 322 EC	10.5	1.2	556.5	567	64.05	3150	3570	0.15
NUP322ECP	J,M,ML	–	10.5	–	556.5	567	64.05	3150	3570	0.15
NJ2322ECP	ML	HJ 2322 EC	17	1.25	819	945	107.1	3150	3570	0.25
NU2322ECP	ML	HJ 2322 EC	17	1.25	819	945	107.1	3150	3570	0.25
NUP2322ECP	ML	–	17.5	–	819	945	107.1	3150	3570	0.25
NJ422M	–	HJ 422	22.5	17	577.5	661.5	72.975	2730	3360	0.15
NU1024ML	M	–	2.55	–	140.7	192.15	21.84	4200	6615	0.15
N224ECP	M	–	5.75	–	409.5	451.5	51.45	3570	3780	0.12
NU224ECP	J,M,ML	HJ 224 EC	5.75	0.71	409.5	451.5	51.45	3570	3780	0.15
NJ224ECP	J,M,ML	HJ 224 EC	5.85	0.71	409.5	451.5	51.45	3570	3780	0.15
NUP224ECJ	M,ML,P	–	5.95	–	409.5	451.5	51.45	3570	3780	0.15
NU2224ECP	J,M,ML	HJ 2224 EC	8.2	0.73	546	661.5	75.6	3570	3780	0.2
NJ2224ECJ	M,ML,P	HJ 2224 EC	8.65	0.73	546	661.5	75.6	3570	3780	0.2
NUP2224ECP	J,M,ML	–	8.65	–	546	661.5	75.6	3570	3780	0.2
N324ECP	M	–	13	–	640.5	651	72.975	2940	3360	0.12
NU324ECP	J,M,ML	HJ 324 EC	13	1.4	640.5	651	72.975	2940	3360	0.15

Single row cylindrical roller bearings



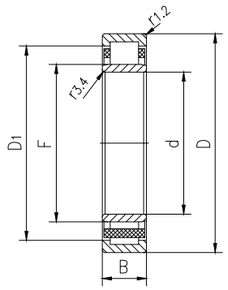
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Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NJ324ECJ	M,ML,P	HJ 324 EC	120	260	55	168	217.8	154	3	3	3.7	14	23	134	150	171	244.8	2.5	–
NUP324ECP	J,M,ML	–	120	260	55	168	217.8	154	3	3	–	–	–	134	–	171	244.8	2.5	–
NU2324ECML	M	HJ 2324 EC	120	260	86	–	218.7	154	3	3	7.2	14	26	134	150	157	244.8	2.5	2.5
NJ2324ECML	M	HJ 2324 EC	120	260	86	168	218.7	154	3	3	7.2	14	26	134	150	171	244.8	2.5	–
NUP2324ECML	M	–	120	260	86	168	218.7	154	3	3	–	–	–	134	–	171	244.8	2.5	–
NU424	M	HJ 424	120	310	72	–	238.5	170	5	5	6.3	17	31	144	165	173	286	4	4
NU1026ML	M	–	130	200	33	–	175.2	148	2	1.1	4.7	–	–	137	145	151	191	2	1
NJ1026ML	M	–	130	200	33	154	175.2	148	2	1.1	4.7	–	–	137	145	158	191	2	–
N226ECP	–	–	130	230	40	164	–	209.5	3	3	2.1	–	–	144	206	213	217	2.5	2.5
NU226ECP	J,M,ML	HJ 226 EC	130	230	40	–	200.3	153.5	3	3	2.1	11	17	144	150	157	215.4	2.5	2.5
NUP226ECJ	M,ML,P	–	130	230	40	164	200.3	153.5	3	3	–	–	–	144	–	167	215.4	2.5	–
NJ226ECP	J,M,ML	HJ 226 EC	130	230	40	164	200.3	153.5	3	3	2.1	11	17	144	150	167	215.4	2.5	–
NU2226ECP	ML	HJ 2226 EC	130	230	64	–	200.3	153.5	3	3	4.3	11	21	144	150	157	215.4	2.5	2.5
NUP2226ECP	–	–	130	230	64	164	200.3	153.5	3	3	–	–	–	144	–	167	215.4	2.5	–
NJ2226ECML	P	HJ 2226 EC	130	230	64	164	201.2	153.5	3	3	4.3	11	21	144	150	167	215.4	2.5	–
NU326ECP	J,M,ML	HJ 326 EC	130	280	58	–	234.2	167	4	4	3.7	14	23	147	163	170	261.4	3	3
NJ326ECJ	M,ML,P	HJ 326 EC	130	280	58	181	234.2	167	4	4	3.7	14	23	147	163	184	261.4	3	–
N326ECM	P	–	130	280	58	181	–	247	4	4	3.7	–	–	147	243	251	262	3	3
NUP326ECP	J,M,ML	–	130	280	58	181	234.2	167	4	4	–	–	–	147	–	184	261.4	3	–
NU2326ECML	PA	HJ 2326 EC	130	280	93	–	235.2	167	4	4	8.7	14	28	147	163	170	261.4	3	3
NJ2326ECML	PA	HJ 2326 EC	130	280	93	181	235.2	167	4	4	8.7	14	28	147	163	184	261.4	3	–
NUP2326ECML	–	–	130	280	93	181	235.2	167	4	4	–	–	–	147	–	184	261.4	3	–
NU1028ML	M	–	140	210	33	–	184.2	158	2	1.1	4.4	–	–	147	155	161	201	2	1
NUP228ECJ	M,ML	–	140	250	42	179	215.78	169	3	3	–	–	–	154	–	182	235	2.5	–
NJ228ECJ	M,ML	HJ 228 EC	140	250	42	179	215.78	169	3	3	2.5	11	18	154	165	182	235	2.5	–
NU228ECM	J,ML	HJ 228 EC	140	250	42	–	215.78	169	3	3	2.5	11	18	154	165	172	235	2.5	2.5
NU2228ECML	PA	HJ 2228 EC	140	250	68	–	216.7	169	3	3	4.4	11	23	154	165	172	235	2.5	2.5
NJ2228ECML	PA	HJ 2228 EC	140	250	68	179	216.7	169	3	3	4.4	11	23	154	165	182	235	2.5	–
NUP2228ECML	–	–	140	250	68	179	216.7	169	3	3	–	–	–	154	–	182	235	2.5	–
NJ328ECJ	M,ML	HJ 328 EC	140	300	62	195	250.6	180	4	4	3.7	15	25	157	175	199	282.5	3	–
NU328ECM	J,ML	HJ 328 EC	140	300	62	–	250.6	180	4	4	3.7	15	25	157	175	183	282.5	3	3
NUP328ECM	–	–	140	300	62	195	250.6	180	4	4	–	–	–	157	–	199	282.5	3	–
NU2328ECML	–	HJ 2328 EC	140	300	102	–	251.7	180	4	4	9.7	15	31	157	175	183	282.5	3	3
NJ2328ECML	–	HJ 2328 EC	140	300	102	195	251.7	180	4	4	9.7	15	31	157	175	199	282.5	3	–
NUP2328ECML	–	–	140	300	102	195	251.7	180	4	4	–	–	–	157	–	199	282.5	3	–
NU1030ML	M	–	150	225	35	–	199.05	169.5	2.1	1.5	4.9	–	–	158	167	173	215	2	1.5
NUP230ECJ	M,ML	–	150	270	45	193	232.2	182	3	3	–	–	–	164	–	196	254.6	2.5	–

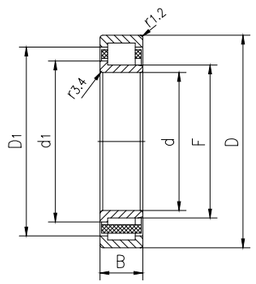


Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NJ324ECJ	M,ML,P	HJ 324 EC	13.5	1.4	640.5	651	72.975	2940	3360	0.15
NUP324ECP	J,M,ML	–	14	–	640.5	651	72.975	2940	3360	0.15
NU2324ECML	M	HJ 2324 EC	22.5	1.45	960.75	1092	121.8	2940	5250	0.38
NJ2324ECML	M	HJ 2324 EC	23	1.45	960.75	1092	121.8	2940	5250	0.38
NUP2324ECML	M	–	23.5	–	960.75	1092	121.8	2940	5250	0.38
NU424	M	HJ 424	27.5	2.6	676.2	771.75	81.9	2520	2940	0.15
NU1026ML	M	–	3.85	–	173.25	235.2	26.25	3990	5880	0.15
NJ1026ML	M	–	3.9	–	173.25	235.2	26.25	3990	5880	0.15
N226ECP	–	–	6.45	–	435.75	477.75	53.55	3360	3570	0.12
NU226ECP	J,M,ML	HJ 226 EC	6.45	0.75	435.75	477.75	53.55	3360	3570	0.15
NUP226ECJ	M,ML,P	–	6.5	–	435.75	477.75	53.55	3360	3570	0.15
NJ226ECP	J,M,ML	HJ 226 EC	6.6	0.75	435.75	477.75	53.55	3360	3570	0.15
NU2226ECP	ML	HJ 2226 EC	10	0.83	640.5	771.75	87.15	3360	3570	0.2
NUP2226ECP	–	–	10.5	–	640.5	771.75	87.15	3360	3570	0.2
NJ2226ECML	P	HJ 2226 EC	12	0.83	640.5	771.75	87.15	3360	5565	0.3
NU326ECP	J,M,ML	HJ 326 EC	16	1.65	756	787.5	85.575	2520	3150	0.15
NJ326ECJ	M,ML,P	HJ 326 EC	16.5	1.65	756	787.5	85.575	2520	3150	0.15
N326ECM	P	–	18	–	756	787.5	85.575	2520	3150	0.12
NUP326ECP	J,M,ML	–	19.5	–	756	787.5	85.575	2520	3150	0.15
NU2326ECML	PA	HJ 2326 EC	28.5	1.6	1113	1312.5	143.85	2520	4725	0.38
NJ2326ECML	PA	HJ 2326 EC	29.5	1.6	1113	1312.5	143.85	2520	4725	0.38
NUP2326ECML	–	–	29.5	–	1113	1312.5	143.85	2520	4725	0.38
NU1028ML	M	–	4.05	–	187.95	267.75	29.4	3780	5565	0.15
NUP228ECJ	M,ML	–	8.45	–	472.5	535.5	59.85	2940	3360	0.15
NJ228ECJ	M,ML	HJ 228 EC	8.6	0.97	472.5	535.5	59.85	2940	3360	0.15
NU228ECM	J,ML	HJ 228 EC	9.4	0.97	472.5	535.5	59.85	2940	3360	0.15
NU2228ECML	PA	HJ 2228 EC	15	1.05	687.75	871.5	97.65	2940	5040	0.3
NJ2228ECML	PA	HJ 2228 EC	15.5	1.05	687.75	871.5	97.65	2940	5040	0.3
NUP2228ECML	–	–	15.5	–	687.75	871.5	97.65	2940	5040	0.3
NJ328ECJ	M,ML	HJ 328 EC	20	2.05	819	871.5	92.4	2520	2940	0.15
NU328ECM	J,ML	HJ 328 EC	22.5	2.05	819	871.5	92.4	2520	2940	0.15
NUP328ECM	–	–	23.5	–	819	871.5	92.4	2520	2940	0.15
NU2328ECML	–	HJ 2328 EC	36	2.15	1260	1501.5	157.5	2520	4515	0.38
NJ2328ECML	–	HJ 2328 EC	36.5	2.15	1260	1501.5	157.5	2520	4515	0.38
NUP2328ECML	–	–	37	–	1260	1501.5	157.5	2520	4515	0.38
NU1030ML	M	–	4.9	–	207.9	304.5	33.075	3360	5250	0.15
NUP230ECJ	M,ML	–	10.5	–	535.5	630	67.2	2730	2940	0.15

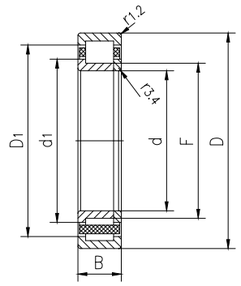
Single row cylindrical roller bearings



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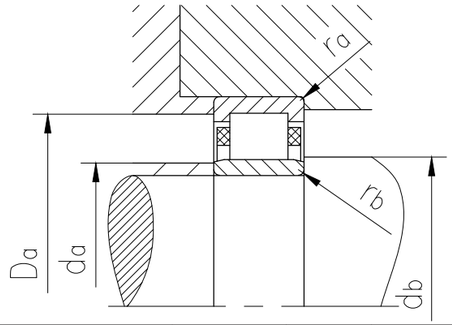


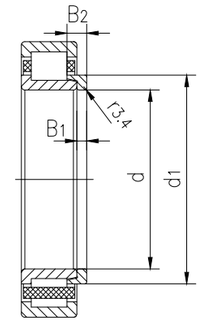
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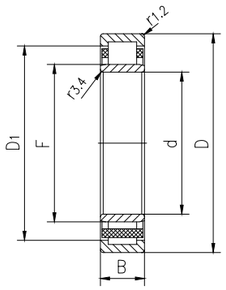
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NU230ECM	J,ML	HJ 230 EC	150	270	45	–	232.2	182	3	3	2.5	12	20	164	178	186	254.6	2.5	2.5
NJ230ECM	J,ML	HJ 230 EC	150	270	45	193	232.2	182	3	3	2.5	12	20	164	178	196	254.6	2.5	–
NU2230ECM	ML	HJ 2230 EC	150	270	73	–	232.2	182	3	3	4.9	12	25	164	178	186	254.6	2.5	2.5
NJ2230ECM	ML	HJ 2230 EC	150	270	73	194	232.2	182	3	3	4.9	12	25	164	178	197	254.6	2.5	–
NU330ECM	ML	HJ 330 EC	150	320	65	–	268.7	193	4	4	4	15	25	167	188	196	302.2	3	3
NJ330ECML	M	HJ 330 EC	150	320	65	209	269.8	193	4	4	4	15	25	167	188	213	302.2	3	–
NU2330ECML	–	–	150	320	108	–	269.8	193	4	4	10.5	–	–	167	188	196	302.2	3	3
NJ2330ECML	–	–	150	320	108	209	269.8	193	4	4	10.5	–	–	167	188	213	302.2	3	–
NU1032ML	M	HJ 1032	160	240	38	–	210.8	180	2.1	1.5	5.2	10	19	167	177	183	230	2	1.5
NU232ECM	ML	HJ 232 EC	160	290	48	–	248.6	195	3	3	2.7	12	20	175	191	198	274.2	2.5	2.5
NUP232ECM	–	–	160	290	48	206	248.6	195	3	3	–	–	–	175	–	210	274.2	2.5	–
NJ232ECML	M	HJ 232 EC	160	290	48	206	249.6	195	3	3	2.7	12	20	175	191	210	274.2	2.5	–
NU2232ECML	M	HJ 2232 EC	160	290	80	–	251.1	193	3	3	4.5	12	25	174	189	196	274.2	2.5	2.5
NJ2232ECML	M	HJ 2232 EC	160	290	80	205	251.1	193	3	3	4.5	12	25	174	189	209	274.2	2.5	–
NJ332ECML	M	HJ 332 EC	160	340	68	221	286	204	4	4	4	15	25	177	199	225	321.9	3	–
NU332ECML	M	HJ 332 EC	160	340	68	–	286	204	4	4	4	15	25	177	199	207	321.9	3	3
NU2332ECML	–	–	160	340	114	–	286	204	4	4	11	–	–	177	199	207	321.9	3	3
NJ2332ECML	–	–	160	340	114	221	286	204	4	4	11	–	–	177	199	225	321.9	3	–
NU1034ML	M	HJ 1034	170	260	42	–	226.9	193	2.1	2.1	5.8	11	21	180	189	197	250	2	2
NJ1034ML	M	HJ 1034	170	260	42	201	226.9	193	2.1	2.1	5.8	11	21	180	189	206	250	2	–
NJ234ECML	M	HJ 234 EC	170	310	52	220	268.5	207	4	4	2.9	12	20	188	203	224	292.4	3	–
NU234ECML	M	HJ 234 EC	170	310	52	–	268.5	207	4	4	2.9	12	20	188	203	210	292.4	3	3
NU2234ECML	–	HJ 2234 EC	170	310	86	–	269.9	205	4	4	4.2	12	24	187	201	208	292.4	3	3
NJ2234ECML	–	HJ 2234 EC	170	310	86	220	269.9	205	4	4	4.2	12	24	187	201	226	292	3	–
NU334ECM	–	–	170	360	72	–	300.45	218	4	4	4.6	–	–	187	213	221	341.6	3	3
NJ2334ECML	–	–	170	360	120	234	300.2	216	4	4	10	–	–	186	211	238	341.6	3	–
NU2334ECML	–	–	170	360	120	–	300.2	216	4	4	10	–	–	186	211	219	341.6	3	3
NJ1036ML	M	–	180	280	46	215	246.1	205	2.1	2.1	6.1	–	–	190	202	218	270	2	–
NU1036ML	M	HJ 1036	180	280	46	–	246.1	205	2.1	2.1	6.1	23		190	202	208	270	2	2
NJ236ECML	M	HJ 236 EC	180	320	52	230	278.6	217	4	4	2.9	12	20	198	213	234	302.2	3	–
NU236ECML	M	HJ 236 EC	180	320	52	–	278.6	217	4	4	2.9	12	20	198	213	220	302.2	3	3
NJ2236ECML	M	HJ 2236 EC	180	320	86	229	280	215	4	4	4.2	12	24	197	211	233	302.2	3	–
NU2236ECML	M	HJ 2236 EC	180	320	86	–	280	215	4	4	4.2	12	24	197	211	218	302.2	3	3
NU336ECM	–	–	180	380	75	–	318.6	231	4	4	4.2	–	–	197	226	234	361.3	3	3
NJ336ECM	–	–	180	380	75	250	318.6	231	4	4	4.2	–	–	197	226	254.5	361	3	–
NU2336ECML	–	–	180	380	126	–	321.4	227	4	4	10.5	–	–	196	222	230	361.3	3	3
NJ2336ECML	–	–	180	380	126	248	321.4	227	4	4	10.5	–	–	196	222	252	361	3	–



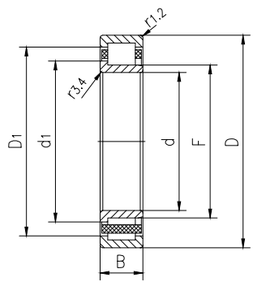


Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NU230ECM	J,ML	HJ 230 EC	11.5	1.25	535.5	630	67.2	2730	2940	0.15
NJ230ECM	J,ML	HJ 230 EC	12	1.25	535.5	630	67.2	2730	2940	0.15
NU2230ECM	ML	HJ 2230 EC	18.5	1.35	771.75	976.5	105	2730	2940	0.2
NJ2230ECM	ML	HJ 2230 EC	19	1.35	771.75	976.5	105	2730	2940	0.2
NU330ECM	ML	HJ 330 EC	26.5	2.3	945	1013.25	105	2310	2730	0.15
NJ330ECML	M	HJ 330 EC	26.5	2.3	945	1013.25	105	2310	4200	0.23
NU2330ECML	–	–	42.5	–	1438.5	1711.5	178.5	2310	4200	0.38
NJ2330ECML	–	–	43	–	1438.5	1711.5	178.5	2310	4200	0.38
NU1032ML	M	HJ 1032	6	0.72	240.45	341.25	37.275	3150	5040	0.15
NU232ECM	ML	HJ 232 EC	14	1.5	614.25	714	75.6	2520	2730	0.15
NUP232ECM	–	–	15.5	–	614.25	714	75.6	2520	2730	0.15
NJ232ECML	M	HJ 232 EC	14.5	1.5	614.25	714	75.6	2520	4200	0.23
NU2232ECML	M	HJ 2232 EC	23	1.55	976.5	1260	135.45	2520	4200	0.3
NJ2232ECML	M	HJ 2232 EC	23.5	1.55	976.5	1260	135.45	2520	4200	0.3
NJ332ECML	M	HJ 332 EC	31	2.6	1050	1134	117.6	2100	3780	0.23
NU332ECML	M	HJ 332 EC	31	2.6	1050	1134	117.6	2100	3780	0.23
NU2332ECML	–	–	50	–	1312.5	1816.5	181.65	1890	3780	0.38
NJ2332ECML	–	–	50.5	–	1312.5	1816.5	181.65	1890	3780	0.38
NU1034ML	M	HJ 1034	8	0.93	288.75	420	43.575	2940	4515	0.15
NJ1034ML	M	HJ 1034	8.2	0.93	288.75	420	43.575	2940	4515	0.15
NJ234ECML	M	HJ 234 EC	17.5	1.65	729.75	855.75	89.25	2310	3990	0.23
NU234ECML	M	HJ 234 EC	17.5	1.65	729.75	855.75	89.25	2310	3990	0.23
NU2234ECML	–	HJ 2234 EC	28	1.8	1113	1407	147	2310	3990	0.3
NJ2234ECML	–	HJ 2234 EC	29	1.8	1113	1407	147	2310	3990	0.3
NU334ECM	–	–	33	–	999.6	1239	121.8	1785	2310	0.15
NJ2334ECML	–	–	60.5	–	1522.5	2142	214.2	1785	3570	0.38
NU2334ECML	–	–	60.5	–	1522.5	2142	214.2	1785	3570	0.38
NJ1036ML	M	–	10.5	–	352.8	498.75	53.55	2730	4200	0.15
NU1036ML	M	HJ 1036	10.5	12	352.8	498.75	53.55	2730	4200	0.15
NJ236ECML	M	HJ 236 EC	18.5	1.7	756	892.5	92.4	2310	3780	0.23
NU236ECML	M	HJ 236 EC	18.5	1.7	756	892.5	92.4	2310	3780	0.23
NJ2236ECML	M	HJ 2236 EC	30	1.9	1155	1501.5	153.3	2310	3780	0.3
NU2236ECML	M	HJ 2236 EC	30	1.9	1155	1501.5	153.3	2310	3780	0.3
NU336ECM	–	–	42.5	–	1071	1354.5	131.25	1680	2310	0.15
NJ336ECM	–	–	44	–	1071	1354.5	131.25	1680	2310	0.15
NU2336ECML	–	–	69.5	–	1690.5	2352	226.8	1680	3360	0.38
NJ2336ECML	–	–	70.5	–	1690.5	2352	226.8	1680	3360	0.38

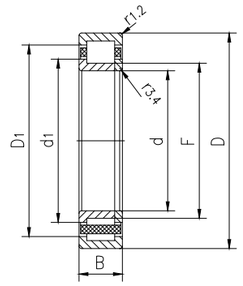
Single row cylindrical roller bearings



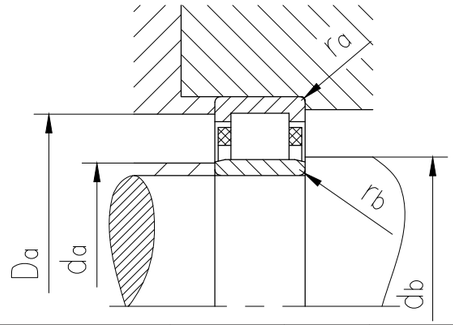
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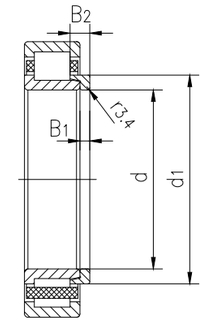


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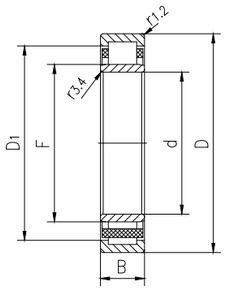




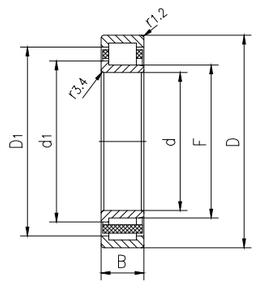
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NJ1038ML	M	HJ 1038	190	290	46	225	256.1	215	2.1	2.1	6.1	12	23	200	212	231	280	2	–
NU1038ML	M	HJ 1038	190	290	46	–	256.1	215	2.1	2.1	6.1	12	23	200	212	219	280	2	2
NJ238ECML	M	HJ 238 EC	190	340	55	244	295	230	4	4	3	13	22	207	226	248	321.9	3	–
NU238ECML	M	HJ 238 EC	190	340	55	–	295	230	4	4	3	13	22	207	226	233	321.9	3	3
NUP238ECML	M	–	190	340	55	244	295	230	4	4	–	–	–	207	–	248	321.9	3	–
NU2238ECML	M	–	190	340	92	–	296.4	228	4	4	5	–	–	207	224	231	321.9	3	3
NJ2238ECML	M	–	190	340	92	243	296.4	228	4	4	5	–	–	207	224	247	322	3	–
NU338ECM	–	HJ 338 EC	190	400	78	–	336.3	245	5	5	4.3	18	29	210	240	249	380	4	4
NU2338ECML	–	–	190	400	132	–	342.75	240	5	5	9.5	–	–	209	234	244	380	4	4
NJ2338ECML	–	–	190	400	132	262	342.75	240	5	5	9.5	–	–	209	234	266	378	4	–
NU1040ML	M	HJ 1040	200	310	51	–	269	229	2.1	2.1	7	13	26	211	225	234	300	2	2
NU240ECML	M	HJ 240	200	360	58	–	311.5	243	4	4	2.6	14	23	217	238	247	341.6	3	3
NJ240ECML	M	HJ 240	200	360	58	258	311.5	243	4	4	2.6	14	23	217	238	262	341.6	3	–
NJ2240ECML	–	–	200	360	98	256	312.9	241	4	4	5.1	–	–	217	236	260	342	3	–
NU2240ECML	–	–	200	360	98	–	312.9	241	4	4	5.1	–	–	217	236	245	341.6	3	3
NJ340ECML	–	–	200	420	80	278	352.4	258	5	5	6	–	–	220	253	282	400	4	–
NU340ECML	–	–	200	420	80	–	352.4	258	5	5	6	–	–	220	253	262	399.8	4	4
NU2340ECML	–	–	200	420	138	–	357.6	253	5	5	9.4	–	–	220	247	257	399.8	4	4
NJ2340ECML	–	–	200	420	138	278	357.6	253	5	5	9.4	–	–	220	247	282	399.8	4	–
NJ1044ML	M	HJ 1044	220	340	56	262	296.2	250	3	3	7.5	14	27	233	246	266	328	2.5	–
NU1044ML	-	HJ 1044	220	340	56	–	296.2	250	3	3	7.5	14	27	233	246	254	328	2.5	2.5
NJ244ECML	M	HJ 244 EC	220	400	65	284	343.7	268	4	4	2.3	15	25	238	263	288	383	3	–
NU244ECML	M	HJ 244 EC	220	400	65	–	343.7	268	4	4	2.3	15	25	238	263	272	383	3	3
NUP244ECML	M	–	220	400	65	284	343.7	268	4	4	–	–	–	238	–	288	383	3	–
NU2244ECML	–	–	220	400	108	–	350	259	4	4	7.9	–	–	237	254	263	383	3	3
NJ2244ECML	–	–	220	400	108	278	350	259	4	4	7.9	–	–	237	254	282	383	3	–
NJ344M	–	–	220	460	88	307	371	284	5	5	5.2	–	–	240	277	311	440	4	–
NU344M	–	–	220	460	88	–	371	284	5	5	5.2	–	–	240	277	288	440	4	4
NU2344ECML	–	–	220	460	145	–	391	277	5	5	10.4	–	–	238	272	272	442	4	4
NU1048ML	M	HJ 1048	240	360	56	–	316.2	270	3	3	7.5	14	27	252	266	274	348	2.5	2.5
NU248MA	–	–	240	440	72	–	365	295	4	4	3.4	–	–	257	288	299	423	3	3
NJ248MA	–	–	240	440	72	313	365	295	4	4	3.4	–	–	257	288	317	423	3	–
NUP248MA	–	–	240	440	72	313	365	295	4	4	–	–	–	257	–	316	423	3	–
NU2248MA	–	–	240	440	120	–	365	295	4	4	4.3	–	–	257	284	299	423	3	3
NJ2248MA	–	–	240	440	120	313	365	295	4	4	4.3	–	–	257	284	317	423	3	–
NU348MA	–	–	240	500	95	–	410	310	5	5	5	–	–	258	305	314	482	4	4
NJ348MA	–	–	240	500	95	322	403	310	5	5	5.6	–	–	260	302	339	480	4	–

Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NJ1038ML	M	HJ 1038	11	1.35	364.35	525	55.65	1680	3990	0.15
NU1038ML	M	HJ 1038	11	1.35	364.35	525	55.65	1680	3990	0.15
NJ238ECML	M	HJ 238 EC	22	2.2	840	1013.25	102.9	2100	3570	0.23
NU238ECML	M	HJ 238 EC	22.5	2.2	840	1013.25	102.9	2100	3570	0.23
NUP238ECML	M	–	22.5	–	840	1013.25	102.9	2100	3570	0.23
NU2238ECML	M	–	35.5	–	1281	1680	168	2100	3570	0.3
NJ2238ECML	M	–	37	–	1281	1680	168	2100	3570	0.3
NU338ECM	–	HJ 338 EC	50	4.3	1197	1575	150.15	1575	2100	0.15
NU2338ECML	–	–	80.5	–	1921.5	2677.5	247.8	1575	3150	0.38
NJ2338ECML	–	–	82	–	1921.5	2677.5	247.8	1575	3150	0.38
NU1040ML	M	HJ 1040	14	1.65	399	598.5	61.425	2520	3780	0.15
NU240ECML	M	HJ 240	26.5	2.55	924	1113	111.3	1995	3360	0.23
NJ240ECML	M	HJ 240	27	2.55	924	1113	111.3	1995	3360	0.23
NJ2240ECML	–	–	44	–	1438.5	1890	189	1995	3360	0.3
NU2240ECML	–	–	44	–	1438.5	1890	189	1995	3360	0.3
NJ340ECML	–	–	56.5	–	1291.5	1711.5	157.5	1470	2940	0.23
NU340ECML	–	–	57	–	1291.5	1711.5	157.5	1470	2940	0.23
NU2340ECML	–	–	92.5	–	2079	2940	267.75	1470	2940	0.38
NJ2340ECML	–	–	94	–	2079	2940	267.75	1470	2940	0.38
NJ1044ML	M	HJ 1044	18.5	2.15	519.75	771.75	77.175	2310	3360	0.15
NU1044ML	-	HJ 1044	18.5	2.15	519.75	771.75	77.175	2310	3360	0.15
NJ244ECML	M	HJ 244 EC	37	3.25	1113	1354.5	131.25	1785	3150	0.23
NU244ECML	M	HJ 244 EC	37	3.25	1113	1354.5	131.25	1785	3150	0.23
NUP244ECML	M	–	37.5	–	1113	1354.5	131.25	1785	3150	0.23
NU2244ECML	–	–	58	–	1648.5	2394	222.6	1680	3150	0.3
NJ2244ECML	–	–	60	–	1648.5	2394	222.6	1680	3150	0.3
NJ344M	–	–	73.5	–	1270.5	1711.5	157.5	1575	1785	0.15
NU344M	–	–	75	–	1270.5	1711.5	157.5	1575	1785	0.15
NU2344ECML	–	–	118	–	2499	3622.5	325.5	1365	2730	0.1
NU1048ML	M	HJ 1048	19.5	2.25	549.15	840	81.9	2100	3150	0.15
NU248MA	–	–	51.5	–	999.6	1438.5	135.45	1680	2310	0.15
NJ248MA	–	–	53	–	999.6	1438.5	135.45	1680	2310	0.15
NUP248MA	–	–	53	–	999.6	1438.5	135.45	1680	2310	0.15
NU2248MA	–	–	84	–	1522.5	2478	226.8	1575	2310	0.2
NJ2248MA	–	–	86	–	1522.5	2478	235.2	1575	2310	0.2
NU348MA	–	–	94.5	–	1522.5	2100	189	1365	2100	0.1
NJ348MA	–	–	98.5	–	1522.5	2100	189	1365	2100	0.15

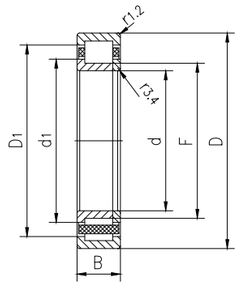
Single row cylindrical roller bearings



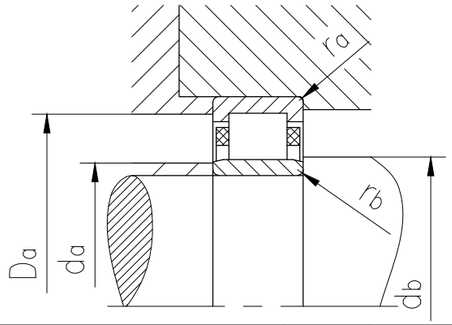
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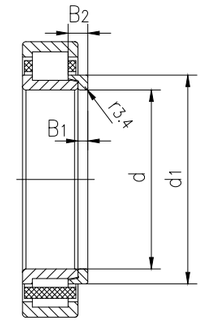


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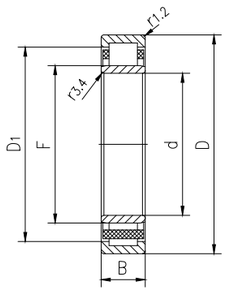




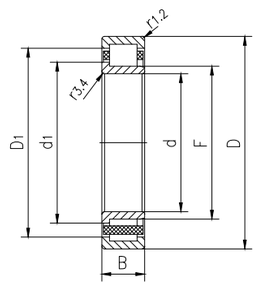
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NU2348ECML	–	–	240	500	155	–	425	299	5	5	1.5	–	–	258	294	314	482	4	4
NU1052ML	M	HJ 1052	260	400	65	–	353.1	296	4	4	8	16	32	275	292	300	385	3	3
NJ1052ML	M	HJ 1052	260	400	65	309	353.1	296	4	4	8	16	32	275	292	313	385	3	–
NU252MA	–	–	260	480	80	–	397	320	5	5	3.4	–	–	280	313	324	460	4	4
NJ252MA	–	–	260	480	80	340	397	320	5	5	3.4	–	–	280	313	344	460	4	–
NUP252MA	–	–	260	480	80	340	397	320	5	5	–	–	–	280	–	344	460	4	–
NJ2252MA	–	–	260	480	130	340	397	320	5	5	4.3	–	–	280	309	344	460	4	–
NU2252MA	–	–	260	480	130	–	397	320	5	5	4.3	–	–	280	309	324	460	4	4
NU352ECMA	–	–	260	540	102	–	455	337	6	6	4.2	–	–	286	330	341	514	5	5
NJ2352ECMA	–	–	260	540	165	350	458	324	6	6	5	–	–	284	320	355	516	5	–
NU2352ECMA	–	–	260	540	165	–	463	324	6	6	1.8	–	–	286	310	323	514	5	5
NU1056ML	M	HJ 1056	280	420	65	–	373.1	316	4	4	8	16	32	295	312	321	405	3	3
NU3156ECMA	–	–	280	460	146	–	406	321	5	5	0.4	–	–	300	316	325	440	4	4
NJ256MA	–	–	280	500	80	360	417	340	5	5	3.8	–	–	300	333	364	480	4	–
NU256MA	–	–	280	500	80	–	417	340	5	5	3.8	–	–	300	333	344	480	4	4
NU2256ECML	–	–	280	500	130	–	433	333	5	5	4.5	–	–	298	328	331	482	4	4
NU2356MA	–	–	280	580	175	–	467	362	6	6	6.6	–	–	306	347	366	554	5	5
NJ1060MA	–	–	300	460	74	356	402	340	4	4	9.7	–	–	317	335	360	443	3	–
NU1060MA	–	–	300	460	74	–	402	340	4	4	9.7	–	–	317	335	344	443	3	3
NU2060ECMA	–	–	300	460	95	–	410	341	4	4	4.1	–	–	317	336	345	443	3	3
NU260M	–	–	300	540	85	–	451	364	5	5	4.8	–	–	320	358	368	520	4	4
NU2260MA	–	–	300	540	140	–	451	364	5	5	5.6	–	–	320	352	368	520	4	4
NU360ECM	–	–	300	620	109	–	505	385	7.5	7.5	4	–	–	328	380	368	592	6	6
NU2360ECMA	–	–	300	620	185	–	535	371	7.5	7.5	11	–	–	332	365	375	588	6	6
NU1964ECMA	–	–	320	440	56	–	404	348	3	3	1.5	–	–	333	347	355	427	2.5	2.5
NJ1064MA	–	–	320	480	74	376	422	360	4	4	9.7	–	–	335	355	380	465	3	–
NU1064MA	–	–	320	480	74	–	422	360	4	4	9.7	–	–	335	355	364	465	3	3
NU264ECM	–	–	320	580	92	–	494	392	5	5	4.8	–	–	338	386	394	562	4	4
NU2264ECML	–	–	320	580	150	–	506	380	5	5	5	–	–	338	376	394	562	4	4
NU2364ECMA	–	–	320	670	200	–	565	405	7.5	7.5	11	–	–	348	400	394	642	6	6
NU1968ECMA	–	–	340	460	56	–	421	370	3	3	1.8	–	–	353	365	374	447	2.5	2.5
NJ2968ECMA	–	–	340	460	72	377	421	367	3	3	3.8	–	–	353	363	381	447	2.5	–
NU3068MA	–	–	340	520	133	–	465	385	5	5	7	–	–	360	380	389	502	4	4
NU3168ECMA	–	–	340	580	190	–	507	390.5	5	5	14	–	–	360	388	403	560	4	4
NU2268MA	–	–	340	620	165	–	515	416	6	6	8	–	–	366	401	421	594	5	5
NU2368ECMA	–	–	340	710	212	–	602	425	7.5	7.5	11	–	–	368	420	389	682	6	6
NU1972ECMP	–	–	360	480	56	–	438	387.5	3	3	2	–	–	375	382	392	465	2.5	2.5

Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NU2348ECML	–	–	137	–	2887.5	4200	362.25	1260	2520	0.38
NU1052ML	M	HJ 1052	29.5	3.4	658.35	1013.25	101.325	1890	2940	0.15
NJ1052ML	M	HJ 1052	30	3.4	658.35	1013.25	101.325	1890	2940	0.15
NU252MA	–	–	68.5	–	1228.5	1785	157.5	1470	2100	0.15
NJ252MA	–	–	69	–	1228.5	1785	157.5	1470	2100	0.15
NUP252MA	–	–	72	–	1228.5	1785	157.5	1470	2100	0.23
NJ2252MA	–	–	112	–	1879.5	3150	278.25	1365	2100	0.3
NU2252MA	–	–	110	–	1879.5	3150	278.25	1470	2100	0.2
NU352ECMA	–	–	121	–	2037	2835	247.8	1155	1890	0.15
NJ2352ECMA	–	–	196	–	3297	4777.5	420	1155	1995	0.4
NU2352ECMA	–	–	193	–	3349.5	4777.5	420	1155	1890	0.25
NU1056ML	M	HJ 1056	31	3.6	693	1113	107.1	1785	2730	0.15
NU3156ECMA	–	–	101	–	2404.5	4095	945	1260	2100	0.21
NJ256MA	–	–	73	–	1197	1890	840	1470	1995	0.15
NU256MA	–	–	71.5	–	1249.5	1890	840	1470	1995	0.15
NU2256ECML	–	–	115	–	2446.5	3937.5	787.5	1260	2310	0.3
NU2356MA	–	–	230	–	2835	4515	315	1050	1785	0.25
NJ1060MA	–	–	46	–	900.9	1438.5	135.45	1575	2100	0.1
NU1060MA	–	–	46	–	900.9	1438.5	135.45	1575	2100	0.15
NU2060ECMA	–	–	62	–	1585.5	2730	257.25	1365	2100	0.14
NU260M	–	–	89.5	–	1491	2226	192.15	1365	1470	0.15
NU2260MA	–	–	145	–	2194.5	3622.5	315	1260	1890	0.2
NU360ECM	–	–	174	–	2446.5	3517.5	294	997.5	1260	0.1
NU2360ECMA	–	–	270	–	4221	6142.5	504	997.5	1680	0.27
NU1964ECMA	–	–	26	–	727.65	1260	115.5	1575	2100	0.11
NJ1064MA	–	–	48	–	924	1501.5	138.6	1470	1470	0.1
NU1064MA	–	–	48.5	–	924	1501.5	138.6	1470	1470	0.15
NU264ECM	–	–	115	–	1921.5	2887.5	243.6	1050	1260	0.13
NU2264ECML	–	–	176	–	3349.5	5250	435.75	1050	1995	0.1
NU2364ECMA	–	–	370	–	4966.5	7875	630	892.5	1575	0.15
NU1968ECMA	–	–	27.5	–	716.1	1260	113.4	1470	1995	0.07
NJ2968ECMA	–	–	37	–	1071	2142	195.3	1470	1995	0.07
NU3068MA	–	–	109	–	2310	4357.5	383.25	1155	1785	0.15
NU3168ECMA	–	–	217	–	3643.5	6142.5	514.5	997.5	1680	0.27
NU2268MA	–	–	226	–	2772	4725	383.25	1050	1575	0.3
NU2368ECMA	–	–	439	–	5890.5	9082.5	714	840	1470	0.15
NU1972ECMP	–	–	29	–	820.05	1533	135.45	1470	2100	0.1

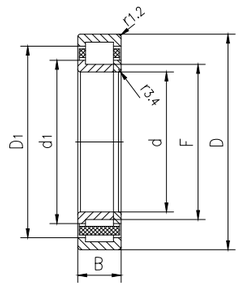
Single row cylindrical roller bearings



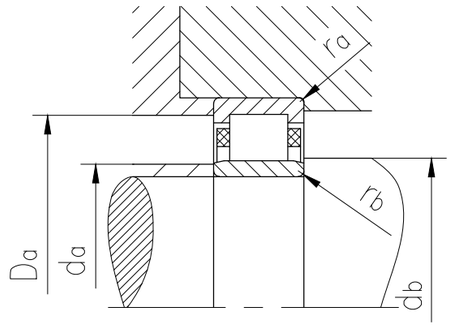
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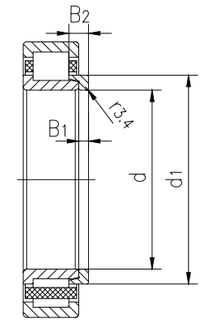


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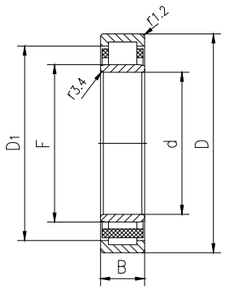




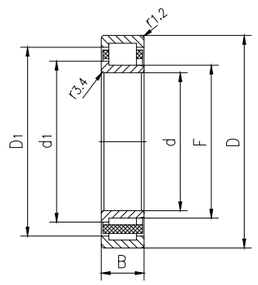
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NU1072MA	–	–	360	540	82	–	475	405	5	5	6.5	–	–	378	400	410	522	4	4
NU3172ECMA	–	–	360	600	192	–	475	420	5	5	9.4	–	–	380	407	425	580	4	4
NU2272MA	–	–	360	650	170	–	542	437	6	6	16.7	–	–	386	428	442	624	5	5
NU2372ECMA	–	–	360	750	224	–	617	465	7.5	7.5	10	–	–	392	453	470	718	6	6
NU1876ECMP	–	–	380	480	46	–	449	406	2.1	2.1	2.5	–	–	390	400	410	470	1	1
NJ1876ECMP	–	–	380	480	46	415	449	406	2.1	2.1	1.5	–	–	392	400	421	469	2	–
NU1076MA	–	–	380	560	82	–	495	425	5	5	10.8	–	–	398	420	430	542	4	4
NJ1076MA	–	–	380	560	82	443	495	425	5	5	10.8	–	–	398	420	448	542	4	–
NU3076ECMP	–	–	380	560	135	–	506	425	5	5	8.5	–	–	398	417	430	542	4	4
NU2276ECMA	–	–	380	680	175	–	595	451	6	6	8.3	–	–	406	445	457	654	5	5
NU1880MP	–	–	400	500	46	–	465	423	2.1	2.1	3.3	–	–	410	419	428	490	2	2
NJ1880MP	–	–	400	500	46	433	465	423	2.1	2.1	3.3	–	–	410	419	436	490	2	–
NUP1880MP	–	–	400	500	46	432	464	423	2.1	2.1	–	–	–	410	–	438	488	2	–
NJ2980ECMA	–	–	400	540	82	448	495	435	4	4	0.9	–	–	415	430	454	525	3	–
NU3980ECMA	–	–	400	540	106	–	500	434.5	4	4	4	–	–	415	429	439	524	3	3
NU1080MA	–	–	400	600	90	–	527	450	5	5	14	–	–	418	446	455	582	4	4
NJ1080MA	–	–	400	600	90	472	526	450	5	5	5	–	–	418	445	478	582	4	–
NU1884MP	–	–	420	520	46	–	488	447	2.1	2.1	3.3	–	–	431	442	452	508	2	2
NU2984ECMA	–	–	420	560	82	–	512	449	4	4	2.4	–	–	435	444	463	545	3	3
NUP3984ECMA	–	–	420	560	106	468	518	455	4	4	–	–	–	436	–	472	544	3	–
NU1084MA	–	–	420	620	90	–	547	470	5	5	14	–	–	438	466	475	602	4	4
NU3184ECMA	–	–	420	700	224	–	613	485	6	6	14.2	–	–	446	478	490	694	5	5
NU1988MA	–	–	440	600	74	–	544	482	4	4	5.5	–	–	455	477	487	585	3	3
NU2988ECML	–	–	440	600	95	–	552	481.5	4	4	2.4	–	–	455	476	487	584	3	3
NJ2988ECML	–	–	440	600	95	496	551	481.5	4	4	1.5	–	–	455	475	502	585	3	–
NU2088ECMA	–	–	440	650	122	–	577	487	6	6	11.9	–	–	463	483	492	627	5	5
NU3188ECMA/HB1	–	–	440	720	226	–	637	509	6	6	12.5	–	–	466	500	514	694	5	5
NJ2892ECMA	–	–	460	580	72	499	543	489	3	3	1.1	–	–	473	485	505	567	2.5	–
NJ2992ECMA	–	–	460	620	95	508	566	495	4	4	4	–	–	475	490	515	605	3	–
NUP3992ECMA	–	–	460	620	118	515	571	501	4	4	–	–	–	476	–	520	604	3	–
NU1092MA	–	–	460	680	100	–	600	516	6	6	15.9	–	–	483	511	521	657	5	5
NU3192ECMA/HB1	–	–	460	760	240	–	662	529.3	7.5	7.5	13	–	–	492	519	534	728	6	6
NU1292MA	–	–	460	830	165	–	715	554	7.5	7.5	6.4	–	–	492	542	559	798	6	6
NU2292MA	–	–	460	830	212	–	706	554	7.5	7.5	16.5	–	–	492	542	559	798	6	6
NU1996MA	–	–	480	650	78	–	592	525	5	5	6.5	–	–	498	517	530	632	4	4
NU1096MA	–	–	480	700	100	–	620	536	6	6	15.9	–	–	503	531	541	677	5	5
NU2096ECMA	–	–	480	700	128	–	629	533	6	6	12.7	–	–	503	529	538	677	5	5

Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NU1072MA	–	–	67.5	–	1155	1921.5	171.15	1365	1680	0.15
NU3172ECMA	–	–	226	–	3580.5	6405	514.5	945	1575	0.21
NU2272MA	–	–	257	–	3066	5145	420	997.5	1470	0.2
NU2372ECMA	–	–	510	–	2110.5	8557.5	661.5	892.5	1365	0.25
NU1876ECMP	–	–	20	–	589.05	1176	102.9	315	2100	0.1
NJ1876ECMP	–	–	21	–	589.05	1176	102.9	315	2100	0.1
NU1076MA	–	–	70	–	1197	2026.5	178.5	210	1680	0.15
NJ1076MA	–	–	71	–	1197	2026.5	178.5	210	1680	0.1
NU3076ECMP	–	–	109	–	2499	4987.5	420	1050	1890	0.17
NU2276ECMA	–	–	288	–	4158	6720	535.5	892.5	1365	0.2
NU1880MP	–	–	21.5	–	600.6	1239	105	1365	1995	0.05
NJ1880MP	–	–	22	–	600.6	1239	101.325	1365	1995	0.05
NUP1880MP	–	–	22.5	–	600.6	1239	101.325	1365	1995	0.1
NJ2980ECMA	–	–	57	–	1449	2940	257.25	1260	1680	0.15
NU3980ECMA	–	–	74.5	–	1848	3937.5	336	1050	1575	0.1
NU1080MA	–	–	90	–	1449	2436	205.8	1155	1575	0.15
NJ1080MA	–	–	93	–	1449	2436	205.8	1155	1575	0.15
NU1884MP	–	–	22	–	600.6	1260	107.1	1260	1890	0.1
NU2984ECMA	–	–	60	–	1470	2992.5	267.75	1155	1575	0.07
NUP3984ECMA	–	–	79.5	–	1764	3832.5	325.5	997.5	1575	0.15
NU1084MA	–	–	94	–	1491	2572.5	210	1155	1470	0.15
NU3184ECMA	–	–	365	–	5197.5	9450	729.75	787.5	1365	0.21
NU1988MA	–	–	53	–	1113	2100	178.5	1155	1470	0.07
NU2988ECML	–	–	81	–	1963.5	4095	357	1155	1680	0.07
NJ2988ECML	–	–	83	–	1963.5	4095	357	1155	1680	0.15
NU2088ECMA	–	–	145	–	2677.5	5145	409.5	8925	1365	0.14
NU3188ECMA/HB1	–	–	388	–	5376	10500	803.25	735	1260	0.21
NJ2892ECMA	–	–	48	–	1134	2520	202.65	1155	1470	0.07
NJ2992ECMA	–	–	89	–	1806	3780	325.5	10.5	1365	0.07
NUP3992ECMA	–	–	112	–	2152.5	4777.5	393.75	892.5	1365	0.15
NU1092MA	–	–	115	–	1732.5	2992.5	235.2	997.5	1260	0.15
NU3192ECMA/HB1	–	–	450	–	5544	10132.5	771.75	703.5	1155	0.27
NU1292MA	–	–	415	–	4389	7140	535.5	787.5	1155	0.13
NU2292MA	–	–	527	–	5376	9082.5	687.75	735	1155	0.2
NU1996MA	–	–	76	–	1228.5	2352	192.15	997.5	1365	0.07
NU1096MA	–	–	130	–	1764	3150	243.6	945	1260	0.15
NU2096ECMA	–	–	179	–	3003	5880	451.5	787.5	1260	0.14

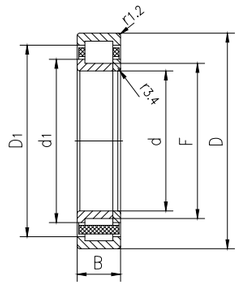
Single row cylindrical roller bearings



NU

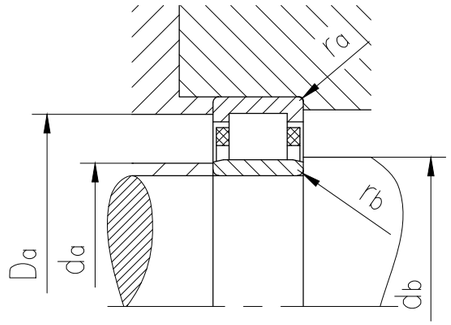


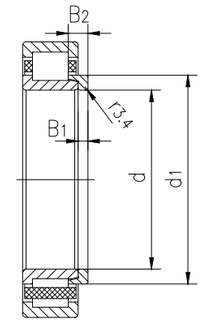
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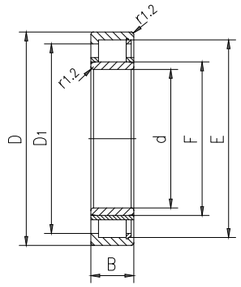
Type			Main dimensions			Dimensions								Shoulder and chamfer dimensions					
Bearings with standard cage	Optional Standard Cage	Corner ring	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	B_1	B_2	d_a min.	d_a max.	d_b、D_a min.	D_a max.	r_a max.	r_b max.
-			mm			mm								mm					
NU3196ECMA/HB1	–	–	480	790	248	–	699	547	7.5	7.5	16	–	–	512	536	552	758	6	6
NU29/500ECMA	–	–	500	670	100	–	619	539.5	5	5	3	–	–	518	534	549	652	4	4
NU10/500MA	–	–	500	720	100	–	640	556	6	6	11.2	–	–	523	550	561	697	5	5
NU20/500ECMA	–	–	500	720	128	–	649	553	6	6	12.7	–	–	523	549	558	697	5	5
NU30/500ECMA	–	–	500	720	167	–	650	540.8	6	6	8.6	–	–	523	532	546	697	5	5
NU31/500ECMA/HB1	–	–	500	830	264	–	728	576	7.5	7.5	14.5	–	–	532	564	581	798	6	6
NU12/500MA	–	–	500	920	185	–	780	603.1	7.5	7.5	13.9	–	–	532	593	610	888	6	6
NUP29/530ECMA	–	–	530	710	106	590	656	573	5	5	–	–	–	548	–	595	692	4	–
NU10/530MA	–	–	530	780	112	–	692	593	6	6	10.4	–	–	553	585	598	757	5	5
NU20/530ECMA	–	–	530	780	145	–	704	591	6	6	6.8	–	–	553	587	596	757	5	5
NU31/530ECMA/HB1	–	–	530	870	272	–	764	612	7.5	7.5	3	–	–	562	605	617	838	6	6
NU29/560ECMA	–	–	560	750	112	–	693	608	5	5	4.5	–	–	578	600	613	732	4	4
NU10/560MA	–	–	560	820	115	–	726	625	6	6	12.3	–	–	583	617	630	797	5	5
NU20/560ECMA	–	–	560	820	150	–	741	626	6	6	6.7	–	–	583	616	631	797	5	5
NU12/560MA	–	–	560	1030	206	–	892	668	9.5	9.5	10.3	–	–	600	657	674	990	8	8
NU22/560ECMA	–	–	560	1030	272	–	900	664	9.5	9.5	3	–	–	594	658	674	990	8	8
NU18/600ECMA/HB1	–	–	600	730	60	–	681	632	3	3	0.7	–	–	613	625	637	717	2.5	2.5
NU10/600MA	–	–	600	870	118	–	779	667	6	6	14	–	–	623	658	672	847	5	5
NU20/600ECMA	–	–	600	870	155	–	793	661	6	6	6.1	–	–	623	652	667	847	5	5
NJ18/630ECMA/HB1	–	–	630	780	69	682	724	667	4	4	1.5	–	–	645	662	685	765	3	–
NU19/630ECMA/HB1	–	–	630	850	100	–	785	683	6	6	4.5	–	–	653	678	688	827	5	5
NU29/630ECMA/HB1	–	–	630	850	128	–	782	683	6	6	7.1	–	–	653	678	688	827	5	5
NJ29/630ECMA/HB1	–	–	630	850	128	703	782	683	6	6	7.1	–	–	653	678	709	827	5	–
NU20/630ECMA	–	–	630	920	170	–	832	699	7.5	7.5	8.7	–	–	658	690	705	892	6	6
NJ28/710ECMA	–	–	710	870	95	766	817	751	4	4	1.5	–	–	728	745	771	853	3	–
NU29/710ECMA	–	–	710	950	140	–	875	766	6	6	8.7	–	–	734	760	772	648	5	5
NU10/710ECMA	–	–	710	1030	140	–	939	778	7.5	7.5	17	–	–	738	769	783	1002	6	6
NU20/710ECMA/HB1	–	–	710	1030	185	–	939	787	7.5	7.5	10	–	–	738	780	793	1002	6	6
NU10/750ECMA/HB1	–	–	750	1090	150	–	993	830	7.5	7.5	12.8	–	–	778	823	838	1062	6	6
NU20/750ECMA	–	–	750	1090	195	–	993	832	7.5	7.5	12.8	–	–	778	823	838	1062	6	6
NU18/800ECMA	–	–	800	980	82	–	920	846	5	5	1	–	–	818	840	861	962	4	4
NU20/800ECMA	–	–	800	1150	200	–	1051	882	7.5	7.5	2	–	–	828	868	888	1122	6	6
NU28/850MA	–	–	850	1030	106	–	961	902	5	5	7	–	–	868	891	908	1012	4	4
NU20/850ECMA	–	–	850	1220	212	–	1110	942	7.5	7.5	2	–	–	878	936	956	1190	6	6
NU18/900ECMA	–	–	900	1090	85	–	1026	948	5	5	4.7	–	–	918	942	956	1072	4	4
NU29/900ECMA/HB1	–	–	900	1180	165	–	1096	969	6	6	5.9	–	–	923	958	975	1157	5	5
NU18/1000MA/HB1	–	–	1000	1220	100	–	1143	1053	6	6	12.1	–	–	1023	1040	1060	1197	5	5
NUP18/1000MA/HB1	–	–	1000	1220	100	1072	1146	1053	6	6	–	–	–	1025	–	1080	1196	5	–



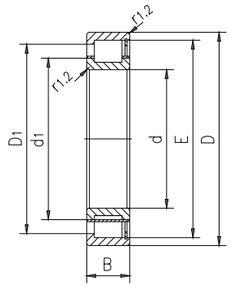


Type			Weight	Weight of corner ring	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
Bearings with standard cage	Optional Standard Cage	Corner ring			Dynamic C	Static C_0	P_u			k_r
-			kg	kg	kN			r/min		-
NU3196ECMA/HB1	–	–	507	–	6237	11340	840	661.5	1155	0.21
NU29/500ECMA	–	–	107	–	2152.5	4462.5	372.75	945	1260	0.1
NU10/500MA	–	–	135	–	1806	3255	247.8	945	1155	0.15
NU20/500ECMA	–	–	180	–	3066	6142.5	462	787.5	1155	0.14
NU30/500ECMA	–	–	233	–	3990	7717.5	588	787.5	1155	0.21
NU31/500ECMA/HB1	–	–	595	–	6762	12600	924	630	1050	0.21
NU12/500MA	–	–	575	–	5544	8925	651	703.5	997.5	0.17
NUP29/530ECMA	–	–	130	–	2499	5250	409.5	892.5	1155	0.15
NU10/530MA	–	–	190	–	2404.5	4252.5	320.25	840	1050	0.15
NU20/530ECMA	–	–	253	–	3927	7717.5	577.5	703.5	1050	0.2
NU31/530ECMA/HB1	–	–	660	–	7854	15330	1092	588	997.5	0.21
NU29/560ECMA	–	–	145	–	2583	58485	472.5	840	1050	0.07
NU10/560MA	–	–	210	–	2446.5	4462.5	325.5	787.5	1050	0.15
NU20/560ECMA	–	–	290	–	3990	8032.5	588	661.5	1050	0.14
NU12/560MA	–	–	805	–	7570.5	11760	819	588	840	0.13
NU22/560ECMA	–	–	1090	–	10395	17430	1218	556.5	840	0.1
NU18/600ECMA/HB1	–	–	54	–	941.85	2184	113.4	840	1050	0.05
NU10/600MA	–	–	240	–	2887.5	5355	383.25	735	945	0.15
NU20/600ECMA	–	–	325	–	4389	8400	598.5	630	945	0.14
NJ18/630ECMA/HB1	–	–	75	–	1155	2625	192.15	787.5	997.5	0.1
NU19/630ECMA/HB1	–	–	168	–	2352	4620	330.75	735	945	0.07
NU29/630ECMA/HB1	–	–	224	–	3465	7560	535.5	735	945	0.07
NJ29/630ECMA/HB1	–	–	230	–	3465	7560	535.5	735	945	0.07
NU20/630ECMA	–	–	400	–	4966.5	9975	703.5	588	892.5	0.14
NJ28/710ECMA	–	–	130	–	2037	5250	393.75	661.5	892.5	0.15
NU29/710ECMA	–	–	297	–	3927	8715	598.5	630	840	0.1
NU10/710ECMA	–	–	415	–	4914	8715	598.5	588	787.5	0.15
NU20/710ECMA/HB1	–	–	540	–	6237	12600	855.75	504	735	0.14
NU10/750ECMA/HB1	–	–	487	–	4966.5	9240	614.25	451.5	703.5	0.15
NU20/750ECMA	–	–	635	–	7392	15330	1029	451.5	703.5	0.14
NU18/800ECMA	–	–	137	–	1806	4357.5	199.5	556.5	735	0.15
NU20/800ECMA	–	–	715	–	7392	15330	997.5	420	661.5	0.14
NU28/850MA	–	–	193	–	2226	6300	252	525	703.5	0.07
NU20/850ECMA	–	–	880	–	8841	19530	1260	378	588	0.17
NU18/900ECMA	–	–	169	–	2079	5145	252	472.5	630	0.05
NU29/900ECMA/HB1	–	–	514	–	5544	13125	840	451.5	588	0.07
NU18/1000MA/HB1	–	–	265	–	2772	6877.5	420	420	556.5	0.05
NUP18/1000MA/HB1	–	–	269	–	2772	6877.5	420	420	556.5	0.2

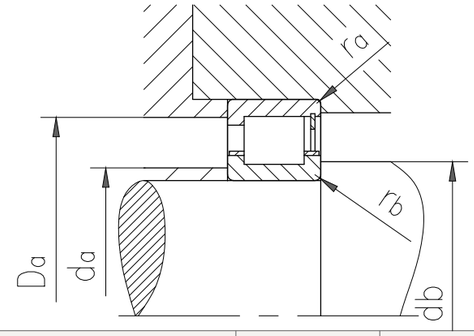
High-capacity cylindrical roller bearings



NUH



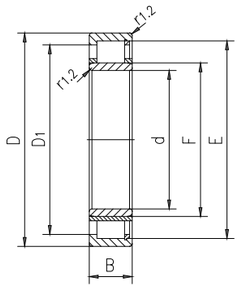
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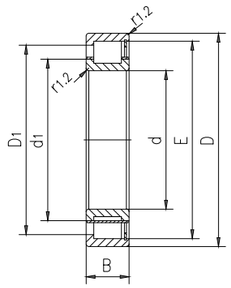
Type	Main dimensions			Dimensions					Shoulder and chamfer dimensions					
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	s max.	d_a min.	d_a max.	d_b min.	D_a min.	D_a max.	r_a max.
-	mm			mm					mm					
NUH2220NUH	100	180	46	–	156	119	2.1	1	113	116	122	159	167	2
NUH2320NUH	100	215	73	–	182	127.5	3	2.2	114	124	131	186	199	2.5
NUH2222NUH	110	200	53	–	173	132.5	2.1	2.2	122	129	135	177	187	2
NUH2322NUH	110	240	80	–	200	143	3	2.3	124	139	146	206	225	2.5
NUH2224NUH	120	215	58	–	187	143.5	2.1	2.2	132	140	146	191	201	2
NUH2324NUH	120	260	86	–	218	154	3	2.4	134	150	157	224	244	2.5
NUH2226NUH	130	230	64	–	201	153.5	3	2.6	144	150	157	205	215	2.5
NUH2326NUH	130	280	93	–	235	167	4	3.1	147	163	170	241	261	3
NCF2326NCF	130	280	93	181	235	247	4	8.7	147	174	–	241	261	3
NUH2228NUH	140	250	68	–	216	169	3	3.2	154	165	172	220	235	2.5
NCF2228NCF	140	250	68	179	216	225	3	4.4	154	174	–	220	235	2.5
NUH2328NUH	140	300	102	–	251	180	4	3.9	157	175	183	257	282	3
NCF2328NCF	140	300	102	195	251	264	4	9.7	157	188	–	257	282	3
NUH2230NUH	150	270	73	–	233	182	3	3.3	164	178	186	237	254	2.5
NCF2230NCF	150	270	73	193	233	242	3	4.9	164	188	–	237	254	2.5
NUH2330NUH	150	320	108	–	285	193	4	4.1	167	188	196	284	302	3
NCF2330NCF	150	320	108	209	269	283	4	10.5	167	201	–	276	302	3
NUH2232NUH	160	290	80	–	250	193	3	3	174	189	196	256	274	2.5
NCF2232NCF	160	290	80	205	250	261	3	4.5	174	199	–	256	274	2.5
NUH2332NUH	160	340	114	–	285	204	4	2.5	177	199	207	292	321	3
NCF2332NCF	160	340	114	221	281	300	4	11	177	213	–	290	321	3
NCF2332NCF	160	340	114	221	281	300	4	11	177	213	–	290	321	3
NUH2332NUH	160	340	114	–	285	204	4	2.5	177	199	207	292	321	3
NUH2234NUH	170	310	86	–	269	205	4	2.4	187	201	208	275	292	3
NCF2234NCF	170	310	86	219	270	281	4	4.2	187	212	–	275	292	3
NUH2334NUH	170	360	120	–	301	216	4	3.8	186	211	219	308	341	3
NCF2334NCF	170	360	120	234	301	316	4	10	186	225	–	308	341	3
NCF2334NCF	170	360	120	234	301	316	4	10	186	225	–	308	341	3
NUH2334NUH	170	360	120	–	301	216	4	3.8	186	211	219	308	341	3
NUH2334NUH	180	320	86	–	279	215	4	2.4	197	211	218	285	302	3
NUH2236NUH	180	320	86	229	279	291	4	4.2	197	222	–	285	302	3
NCF2236NCF	180	380	126	–	322	227	4	3.7	196	222	230	330	361	3
NUH2336NUH	180	380	126	247	320	339	4	10.5	196	237	–	329	361	3
NCF2336NCF	180	380	126	247	320	339	4	10.5	196	237	–	329	361	3
NCF2336NCF	180	380	126	–	322	227	4	3.7	196	222	230	311	361	3
NUH2336NUH	190	340	92	–	296	228	4	3.1	207	224	231	302	321	3
NUH2238NUH	190	340	92	242	293	308	4	5	207	235	–	300	321	3

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NUH2220NUH	5.1	420	498.75	59.85	4200	4725	0.16
NUH2320NUH	13	745.5	840	96.075	3360	3990	0.2
NUH2222NUH	7.3	488.25	577.5	67.2	3780	4200	0.16
NUH2322NUH	18	871.5	1013.25	115.5	3150	3570	0.2
NUH2224NUH	9	577.5	703.5	80.325	3570	3780	0.16
NUH2324NUH	22.5	1013.25	1176	131.25	2940	3360	0.2
NUH2226NUH	11	661.5	819	92.4	3360	3570	0.16
NUH2326NUH	28	1176	1407	153.3	2520	3150	0.2
NCF2326NCF	29	1176	1407	153.3	2520	3570	0.2
NUH2228NUH	14.5	714	924	101.325	2940	3360	0.16
NCF2228NCF	14.5	714	924	101.325	2940	3780	0.16
NUH2328NUH	35	1312.5	1606.5	171.15	2520	2940	0.2
NCF2328NCF	35.5	1312.5	1606.5	171.15	2520	3360	0.2
NUH2230NUH	18	819	1092	117.6	2730	2940	0.16
NCF2230NCF	18	819	1092	117.6	2730	3570	0.16
NUH2330NUH	42	1491	1848	192.15	2310	2730	0.2
NCF2330NCF	43.5	1501.5	1848	192.15	2310	3150	0.2
NUH2232NUH	23	1029	1333.5	140.7	2520	2730	0.16
NCF2232NCF	23.5	1029	1333.5	140.7	2520	3150	0.16
NUH2332NUH	50.5	1470	2100	205.8	1890	2520	0.2
NCF2332NCF	50.5	1470	2100	205.8	1890	2940	0.2
NCF2332NCF	50.5	1680	2100	205.8	2100	2940	0.2
NUH2332NUH	50.5	1680	2100	205.8	2100	2520	0.2
NUH2234NUH	28.5	1680	1606.5	163.8	2310	2520	0.16
NCF2234NCF	28	1218	1606.5	163.8	2310	2940	0.16
NUH2334NUH	59.5	1617	2310	226.8	1785	2310	0.2
NCF2334NCF	58.5	1617	2310	226.8	1785	2730	0.2
NCF2334NCF	58.5	1848	2310	226.8	1995	2730	0.2
NUH2334NUH	59.5	1848	2310	226.8	1995	2310	0.2
NUH2334NUH	29.5	1260	1680	174.3	2310	2520	0.16
NUH2236NUH	30	1260	1680	174.3	2310	2940	0.16
NCF2236NCF	68	1806	2520	243.6	1680	2310	0.2
NUH2336NUH	67.5	1806	2520	243.6	1680	2520	0.2
NCF2336NCF	67.5	2058	2520	243.6	1890	2520	0.2
NCF2336NCF	68	2058	2520	243.6	1890	2310	0.2
NUH2336NUH	36	1386	1848	189	2100	2310	0.16
NUH2238NUH	36.5	1386	1848	189	2100	2730	0.16

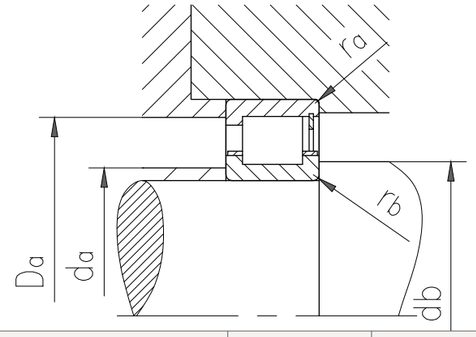
High-capacity cylindrical roller bearings



NUH



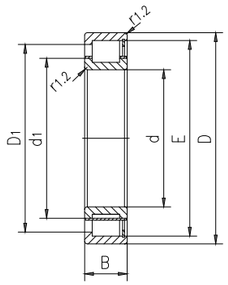
NCF



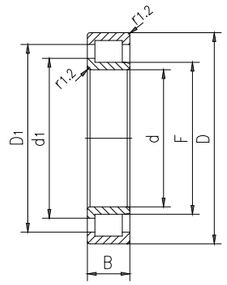
Type	Main dimensions			Dimensions					Shoulder and chamfer dimensions					
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	s max.	d_a min.	d_a max.	d_b min.	D_a min.	D_a max.	r_a max.
-	mm			mm					mm					
NUH2220NUH	100	180	46	–	156	119	2.1	1	113	116	122	159	167	2
NCF2238NCF	190	400	132	–	342	240	5	4.1	209	234	244	351	380	4
NUH2338NUH	190	400	132	262	342	360	5	9.5	209	251	–	351	380	4
NCF2338NCF	190	400	132	262	342	360	5	9.5	209	251	–	351	380	4
NCF2338NCF	190	400	132	–	342	240	5	4.1	209	234	244	351	380	4
NUH2338NUH	200	360	98	–	312	241	4	3.4	217	236	245	318	341	3
NUH2240NUH	200	360	98	256	312	325	4	5.1	217	249	–	318	341	3
NCF2240NCF	200	420	138	–	358	253	5	4.3	220	247	257	367	399	4
NUH2340NUH	200	420	138	275	356	377	5	9.4	220	264	–	367	399	4
NCF2340NCF	200	420	138	275	356	377	5	9.4	220	264	–	367	399	4
NCF2340NCF	200	420	138	–	358	253	5	4.3	220	247	257	367	399	4
NUH2340NUH	220	400	108	–	350	259	4	2.5	237	254	263	359	383	3
NUH2244NUH	220	400	108	279	349	367	4	7.9	237	269	–	358	383	3
NCF2244NCF	220	400	108	–	350	259	4	2.5	237	254	263	359	383	3
NUH2244NUH	220	400	108	279	349	367	4	7.9	237	269	–	358	383	3
NCF2244NCF	220	460	145	–	392	277	5	3	240	270	281	334	439	4
NUH2344NUH	220	460	145	302	392	413	5	10.4	240	290	–	386	440	4
NCF2344NCF	220	460	145	–	392	277	5	3	240	270	281	334	439	4
NUH2344NUH	240	440	120	–	312	287	4	3.5	258	294	299	299	422	3
NUH2248NUH	240	440	120	–	312	287	4	3.5	258	294	299	299	422	3
NUH2248NUH	240	500	155	–	426	299	5	3.1	260	298	303	362	479	4
NUH2348NUH	240	500	155	–	426	299	5	3.1	260	298	303	362	479	4

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic	Static				k_r
-	kg	C	C_0	P_u			-
NUH2220NUH	5.1	kN			r/min		0.16
NCF2238NCF	78.5	2037	2887.5	267.75	1575	2100	0.2
NUH2338NUH	78	2037	2887.5	267.75	1575	2310	0.2
NCF2338NCF	78	2352	2887.5	267.75	1785	2310	0.2
NCF2338NCF	78.5	2352	2887.5	267.75	1785	2100	0.2
NUH2338NUH	43.5	1533	2100	210	1995	2310	0.16
NUH2240NUH	43	1533	2100	210	1995	2520	0.16
NCF2240NCF	92.5	2310	3360	315	1470	1995	0.2
NUH2340NUH	91.5	2310	3360	315	1470	2310	0.2
NCF2340NCF	91.5	2677.5	3360	315	1680	2310	0.2
NCF2340NCF	92.5	2677.5	3360	315	1680	1995	0.2
NUH2340NUH	59	1848	2730	252	1680	1995	0.16
NUH2244NUH	58.5	1848	2730	252	1680	2310	0.16
NCF2244NCF	59	2100	2730	252	1785	1995	0.16
NUH2244NUH	58.5	2100	2730	252	1785	2310	0.16
NCF2244NCF	116	2635.5	3832.5	351.75	1365	1785	0.2
NUH2344NUH	116	2635.5	3832.5	351.75	1365	2100	0.2
NCF2344NCF	116	3045	3832.5	351.75	1470	1785	0.2
NUH2344NUH	80	2079	3202.5	288.75	1470	1785	0.16
NUH2248NUH	80	2392.95	3202.5	288.75	1680	1785	0.16
NUH2248NUH	143	2887.5	4200	362.25	1260	1575	0.2
NUH2348NUH	143	3307.5	4200	362.25	1365	1575	0.2

Single row full complement cylindrical roller bearings

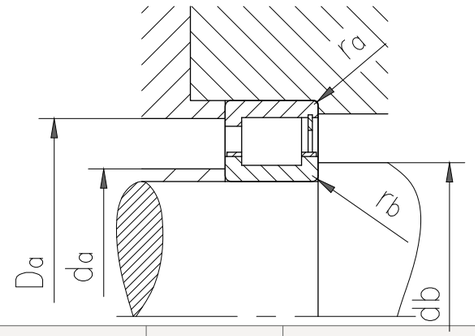


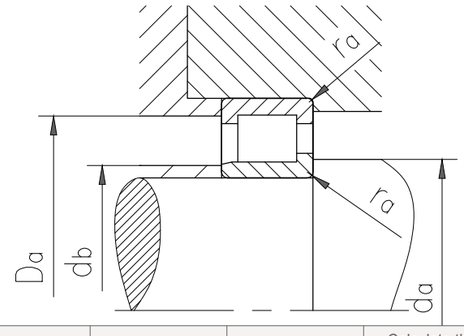
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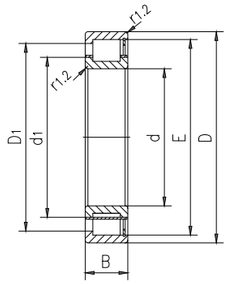
Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions							
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm							
NCF3004NCF	20	42	16	29	33	36.81	0.6	0.3	1.5	24	26.9	–	38	39	0.6	0.3
NCF3005NCF	25	47	16	34	39	42.51	0.6	0.3	1.5	29	32.3	–	43	44	0.6	0.3
NJG2305NJG	25	62	24	36.1	48.2	31.74	1.1	–	1.7	31	33.9	30	55	–	1	–
NCF3006NCF	30	55	19	40	45	49.6	1	0.3	2	35	37.8	–	50	52	1	0.3
NJG2306NJG	30	72	27	43.2	56.4	38.36	1.1	–	1.8	37	40.8	36.5	64	–	1	–
NCF3007NCF	35	62	20	45	51	55.52	1	0.3	2	40	42.8	–	57	58	1	0.3
NJG2307NJG	35	80	31	50.4	65.8	44.75	1.5	–	2	43	47.6	42	71	–	1.5	–
NCF3008NCF	40	68	21	50	58	61.74	1	0.3	2	45	47.9	–	63	65	1	0.3
NJG2308NJG	40	90	33	57.6	75.2	51.15	1.5	–	2.4	49	54.4	49	81	–	1.5	–
NCF3009NCF	45	75	23	55	62	66.85	1	0.3	2	50	53	–	70	71	1	0.3
NJG309NJG	45	100	25	62.5	80.1	56.14	1.5	–	1.7	54	59.3	54	91	–	1.5	–
NJG2309NJG	45	100	36	62.5	80.1	56.14	1.5	–	2.4	54	59.3	54	91	–	1.5	–
NCF3010NCF	50	80	23	59	68	72.33	1	0.3	2	54	56.7	–	75	76	1	0.3
NCF3011NCF	55	90	26	68	79	83.54	1.1	0.6	2	62	65.8	–	84	86	1	0.6
NJG2311NJG	55	120	43	75.5	98.6	67.14	2	–	2.6	65	71.3	64	109	–	2	–
NCF2912NCF	60	85	16	69	74.5	78.65	1	0.6	1	64	66.8	–	80	80	1	0.5
NCF3012NCF	60	95	26	71	82	86.74	1.1	0.6	2	66	68.9	–	89	91	1	0.5
NCF2913NCF	65	90	16	75.5	81	85.24	1	0.6	1	70	73.4	–	85	86	1	0.5
NCF3013NCF	65	100	26	78	88	93.09	1.1	0.6	2	71	75.6	–	94	95	1	0.5
NJG2313NJG	65	140	48	89.9	116	80.7	2.1	–	3	77	85.3	78	128	–	2	–
NCF2914NCF	70	100	19	80.5	88.5	92.5	1	0.6	1	75	78.5	–	95	96	1	0.5
NCF3014NCF	70	110	30	81	95	100.28	1.1	0.6	3	75	78.6	–	104	105	1	0.5
NJG2314NJG	70	150	51	93.8	121	84.2	2.1	–	3	81	89	81	138	–	2	–
NCF2915NCF	75	105	19	86	93	97.5	1	0.6	1	80	83.8	–	100	101	1	0.5
NCF3015NCF	75	115	30	89	103	107.9	1.1	0.6	3	81	86.5	–	109	110	1	0.5
NJG2315NJG	75	160	55	101	131	91.2	2.1	–	3	87	96.1	88	147	–	2	–
NCF2916NCF	80	110	19	90.5	99	102.7	1	0.6	1	85	88.6	–	105	106	1	0.5
NCF3016NCF	80	125	34	95	111	116.99	1.1	0.6	4	86	92	–	119	120	1	0.5
NJG2316NJG	80	170	58	109	141	98.3	2.1	–	4	92	104	95	157	–	2	–
NCF2917NCF	85	120	22	96	105	109.5	1.1	1	1	90	93.8	–	114	114	1	1
NCF3017NCF	85	130	34	99	116	121.44	1.1	0.6	4	91	96.2	–	123	125	1	0.5
NJG2317NJG	85	180	60	118	149	107	3	–	4	100	113	104	165	–	2.5	–
NCF2918NCF	90	125	22	102	111	115.6	1.1	1	1	96	99.8	–	119	119	1	1
NCF3018NCF	90	140	37	106	124	130.11	1.5	1	4	97	103	–	133	133	1.5	1



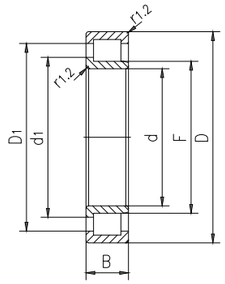


Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NCF3004NCF	0.11	29.505	29.925	3.255	8925	1050	0.3
NCF3005NCF	0.12	33.495	37.275	3.99	7350	9450	0.3
NJG2305NJG	0.38	71.61	71.4	8.925	4725	5880	0.35
NCF3006NCF	0.2	41.58	46.2	5.565	1365	1575	0.3
NJG2306NJG	0.56	88.41	90.825	11.55	4200	5040	0.35
NCF3007NCF	0.26	50.82	58.8	6.8775	5565	7035	0.3
NJG2307NJG	0.75	113.4	119.7	15.015	3570	4515	0.35
NCF3008NCF	0.31	60.06	72.975	8.5575	5040	6300	0.3
NJG2308NJG	1	152.25	163.8	21	3150	3780	0.35
NCF3009NCF	0.4	63.525	81.9	9.6075	4515	5565	0.3
NJG309NJG	0.94	115.5	117.6	14.7	7875	9450	0.35
NJG2309NJG	1.4	180.6	205.8	26.775	2940	3570	0.35
NCF3010NCF	0.43	80.325	102.9	12.39	4200	5250	0.3
NCF3011NCF	0.64	110.25	147	18.165	3570	4515	0.3
NJG2311NJG	2.3	244.65	273	35.175	2310	2940	0.35
NCF2912NCF	0.27	57.75	84	9.6075	3780	4725	0.2
NCF3012NCF	0.69	111.3	153.3	19.215	3570	4200	0.3
NCF2913NCF	0.31	61.215	92.4	10.71	3360	4200	0.2
NCF3013NCF	0.73	117.6	171.15	21	3150	3990	0.3
NJG2313NJG	3.55	318.15	378	48.825	1995	2520	0.35
NCF2914NCF	0.49	80.325	121.8	14.385	3150	3990	0.2
NCF3014NCF	1	134.4	181.65	23.52	6300	7350	0.3
NJG2314NJG	4.4	352.8	420	52.5	1890	2310	0.35
NCF2915NCF	0.52	83.16	131.25	15.33	2940	3780	0.2
NCF3015NCF	1.05	140.7	199.5	25.725	2730	3360	0.3
NJG2315NJG	5.35	415.8	504	63	1680	2100	0.35
NCF2916NCF	0.55	84.945	138.6	16.38	2730	3570	0.2
NCF3016NCF	1.45	173.25	239.4	30.45	2520	3150	0.3
NJG2316NJG	6.4	479.85	598.5	74.55	1575	1995	0.35
NCF2917NCF	0.81	107.1	174.3	21.42	6615	6615	0.2
NCF3017NCF	1.5	180.6	247.8	31.5	2520	3150	0.3
NJG2317NJG	7.4	508.2	651	80.325	1470	1890	0.35
NCF2918NCF	0.84	110.25	184.8	21.84	2520	3150	0.2
NCF3018NCF	1.95	207.9	294	37.275	2310	2940	0.3

Single row full complement cylindrical roller bearings

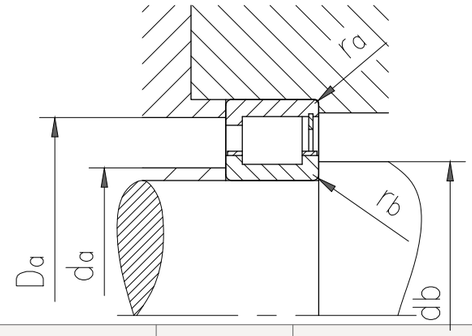


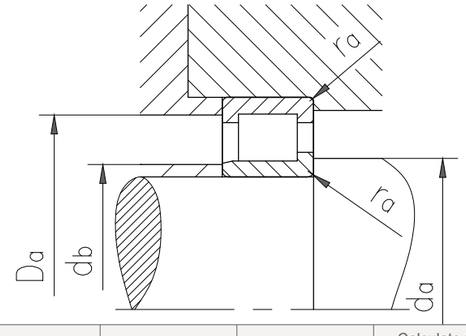
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NJG

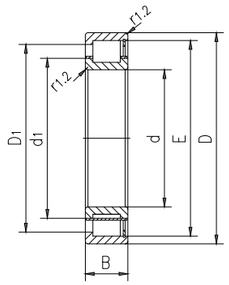
Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions							
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm							
NJG2318NJG	90	190	64	117	152	108.8	3	–	4	102	111	102	176	–	2.5	–
NCF2920NCF	100	140	24	114	126	130.6	1.1	1	1.3	106	111	–	134	134	1	1
NCF3020NCF	100	150	37	115	134	139.65	1.5	1	4	107	112	–	142	143	1.5	1
NJG2320NJG	100	215	73	133	173	122.8	3	–	4	114	128	119	201	–	2.5	–
NCF2922NCF	110	150	24	124	136	141.1	1.1	1	1.3	116	122	–	144	144	1	1
NCF3022NCF	110	170	45	127	149	156.13	2	1	5.5	119	124	–	160	163	2	1
NJG2322NJG	110	240	80	151	198	134.3	3	–	5	124	143	130	225	–	2.5	–
NCF2924NCF	120	165	27	136	149	154.3	1.1	1	1.3	126	133	–	159	159	1	1
NCF3024NCF	120	180	46	139	160	167.58	2	1	5.5	129	135	–	170	174	2	1
NCF2224NCF	120	215	58	150	184	192.32	2.1	2.1	4	131	145	–	204	204	2	2
NJG2324NJG	120	260	86	164	213	147.39	3	–	5	134	156	143	245	–	2.5	–
NCF2926NCF	130	180	30	147	161	167.1	1.5	1.1	2	138	144	–	172	173	1.5	1
NCF3026NCF	130	200	52	149	175	183.81	2	1	5.5	138	144	–	190	193	2	1
NJG2326NJG	130	280	93	175	226	157.9	4	–	6	147	166	153	263	–	3	–
NCF2928NCF	140	190	30	158	173	180	1.5	1.1	2	148	155	–	182	183	1.5	1
NCF3028NCF	140	210	53	163	189	197.82	2	1	5.5	150	158	–	200	203	2	1
NCF2228NCF	140	250	68	173	212	221.92	3	3	5	153	167	–	236	236	2.5	2.5
NJG2328NJG	140	300	102	187	241	168.5	4	–	6.5	157	178	163	283	–	3	–
NCF2930NCF	150	210	36	169	189	196.4	2	1.1	2	159	166	–	201	203	2	1
NCF3030NCF	150	225	56	170	198	206.8	2.1	1.1	7	159	165	–	214	217	2	1
NCF2230NCF	150	270	73	184	227	236.71	3	3	6	163	178	–	256	256	2.5	2.5
NJG2330NJG	150	320	108	202	261	182.5	4	–	6.5	168	192	178	302	–	3	–
NCF2932NCF	160	220	36	180	200	207.2	2	1.1	2.5	169	177	–	211	211	2	1
NCF3032NCF	160	240	60	185	215	224.86	2.1	1.1	7	171	180	–	230	233	2	1
NCF2232NCF	160	290	80	208	255	266.36	3	3	6	176	201	–	276	276	2.5	2.5
NCF2934NCF	170	230	36	191	211	218	2	1.1	2.5	179	188	–	221	223	2	1
NCF3034NCF	170	260	67	198	232	242.85	2.1	1.1	7	181	192	–	249	252	2	1
NCF2234NCF	170	310	86	219	269	281.09	4	4	7	189	212	–	295	294	3	3
NJG2334NJG	170	360	120	227	291	203.55	4	–	7	187	215	198	342	–	3	–
NCF2936NCF	180	250	42	203	223	232	2	1.1	2.5	189	199	–	241	243	2	1
NCF3036NCF	180	280	74	212	248	260.22	2.1	2.1	7	192	206	–	269	269	2	2
NJG2336NJG	180	380	126	245	309	221.75	4	–	8	199	233	215	361	–	3	–
NCF2938NCF	190	260	42	212	236	244	2	1.1	2	199	208	–	250	252	2	1
NCF3038NCF	190	290	75	222	258	269.76	2.1	2.1	8	202	216	–	279	279	2	2



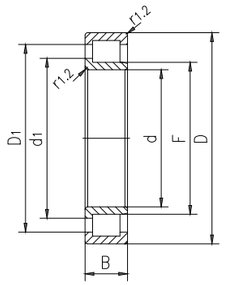


Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NJG2318NJG	8.75	577.5	714	87.15	1470	1785	0.35
NCF2920NCF	1.1	134.4	210	25.725	21	2730	0.2
NCF3020NCF	2.15	219.45	325.5	39.375	21	2730	0.3
NJG2320NJG	13	739.2	945	111.3	1260	1575	0.35
NCF2922NCF	1.2	140.7	231	27.3	1995	2520	0.2
NCF3022NCF	3.5	288.75	420	50.4	3990	4725	0.3
NJG2322NJG	17.5	900.9	1113	128.1	1155	1365	0.35
NCF2924NCF	1.75	180.6	304.5	36.225	4515	4515	0.2
NCF3024NCF	3.8	306.6	462	54.6	1785	2100	0.3
NCF2224NCF	9.05	537.6	771.75	89.25	1470	1785	0.3
NJG2324NJG	22.5	999.6	1312.5	147	10.5	1260	0.35
NCF2926NCF	2.35	215.25	378	42.525	1680	2100	0.2
NCF3026NCF	5.8	433.65	651	75.6	1575	1995	0.3
NJG2326NJG	28	1134	1501.5	163.8	997.5	1260	0.35
NCF2928NCF	2.4	231	409.5	45.15	1575	1995	0.2
NCF3028NCF	6.1	462	714	81.9	1470	1890	0.3
NCF2228NCF	14.5	727.65	1071	119.7	1260	1575	0.3
NJG2328NJG	35.5	1291.5	1743	189	892.5	1155	0.35
NCF2930NCF	3.75	306.6	514.5	57.75	1470	1785	0.2
NCF3030NCF	7.5	479.85	745.5	84	1365	1785	0.3
NCF2230NCF	18.5	820.05	1281	138.6	997.5	1260	0.3
NJG2330NJG	42.5	1522.5	2026.5	205.8	840	1050	0.35
NCF2932NCF	4	318.15	556.5	61.425	1365	1680	0.2
NCF3032NCF	9.1	537.6	840	94.5	1260	1575	0.3
NCF2232NCF	23	1039.5	1575	168	997.5	1260	0.3
NCF2934NCF	4.3	329.7	588	63	1260	1575	0.2
NCF3034NCF	12.5	704.55	1113	123.9	1155	1470	0.3
NCF2234NCF	28.5	1155	1785	184.8	945	1155	0.3
NJG2334NJG	59.5	1848	2572.5	247.8	735	945	0.35
NCF2936NCF	6.2	410.55	729.75	78.75	1155	1470	0.2
NCF3036NCF	16.5	820.05	1312.5	140.7	1155	1365	0.3
NJG2336NJG	69.5	1963.5	2782.5	267.75	703.5	840	0.35
NCF2938NCF	6.5	462	819	85.575	1155	1470	0.2
NCF3038NCF	17	831.6	1354.5	147	10.5	1365	0.3

Single row full complement cylindrical roller bearings

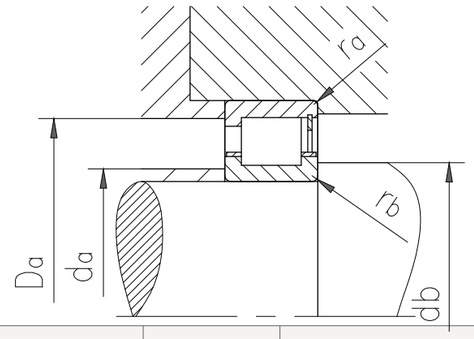


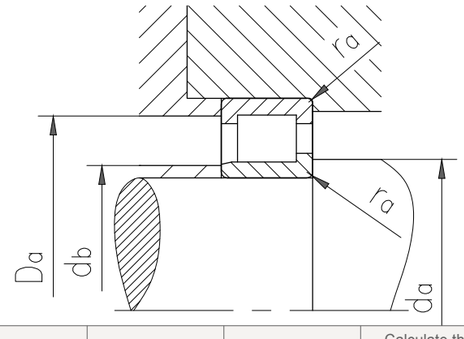
NCF



NJG

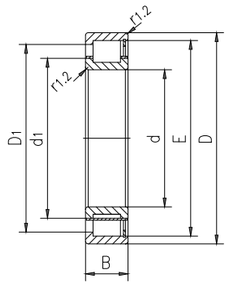
Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions							
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm							
NCF2238NCF	190	340	92	243	296	310.68	4	4	7	209	235	–	325	324	3	3
NJG2338NJG	190	400	132	250	320	224.544	5	–	8	210	239	222	378	–	4	–
NCF1840NCF	200	250	24	218	231	237.5	1.5	1.1	1.8	207	215	–	243	244	1.5	1
NCF2940NCF	200	280	48	226	253	262	2.1	1.5	3	211	222	–	269	271	2	1.5
NCF3040NCF	200	310	82	237	275	287.75	2.1	2.1	9	213	230	–	299	299	2	2
NJG2340NJG	200	420	138	266	342	238.65	5	–	9	221	252	232	398	–	4	–
NCF1844NCF	220	270	24	238	252	258	1.5	1.1	1.8	227	235	–	263	264	1.5	1
NCF2944NCF	220	300	48	247	274	283	2.1	1.5	3	231	243	–	289	291	2	1.5
NCF3044NCF	220	340	90	255	298	312.2	3	3	9	233	248	–	327	327	2.5	2.5
NCF2244NCF	220	400	108	277	349	366	4	4	8	239	268	–	385	383	3	3
NJG2344NJG	220	460	145	295	383	266.7	5	–	10	240	281	259	440	–	4	–
NCF1848NCF	240	300	28	263	279	287	2	1.1	1.8	249	259	–	291	294	2	1
NCF2948NCF	240	320	48	267	294	303	2.1	1.5	3	251	263	–	309	311	2	1.5
NCF3048NCF	240	360	92	278	321	335.1	3	3	11	254	271	–	347	347	2.5	2.5
NJG2348NJG	240	500	155	310	403	287.75	5	–	10	260	295	282	480	–	4	–
NCF1852NCF	260	320	28	283	299	307.2	2	1.1	1.8	269	279	–	311	313	2	1
NCF2952NCF	260	360	60	291	323	333.7	2.1	1.5	3.5	271	287	–	348	350	2	1.5
NCF3052NCF	260	400	104	304	358	375.97	4	4	11	277	295	–	384	384	3	3
NJG2352NJG	260	540	165	349	456	315.9	6	–	11	286	332	308	514	–	5	–
NCF1856NCF	280	350	33	307	325	334	2	1.1	2.5	290	303	–	341	343	2	1
NCF2956NCF	280	380	60	314	348	359.1	2.1	1.5	3	291	309	–	368	370	2	1.5
NCF3056NCF	280	420	106	319	373	390.3	4	4	11	295	310	–	404	404	3	3
NCF1860NCF	300	380	38	331	353	363	2.1	1.5	3	311	326	–	369	372	2	1.5
NCF2960NCF	300	420	72	341	375	390.5	3	3	5	314	334	–	405	405	2.5	2.5
NCF3060NCF	300	460	118	355	413	433	4	4	14	315	344	–	445	445	3	3
NCF1864NCF	320	400	38	351	373	383	2.1	1.5	3	331	346	–	389	392	2	1.5
NCF2964NCF	320	440	72	359	401	411	3	3	5	333	353	–	427	427	2.5	2.5
NCF3064NCF	320	480	121	368	434	449.5	4	4	14	335	359	–	465	465	3	3
NCF1868NCF	340	420	38	371	393	403	2.1	1.5	3	351	366	–	409	412	2	1.5
NCF2968NCF	340	460	72	378	421	431	3	3	5	353	373	–	447	447	2.5	2.5
NCF3068NCF	340	520	133	395	468	485.65	5	5	14	358	384	–	502	502	4	4
NCF1872NCF	360	440	38	388	413	418.9	2.1	2.1	3	371	384	–	429	433	2	2
NCF2972NCF	360	480	72	404	437	451.5	3	3	5	373	396	–	467	467	2.5	2.5
NCF3072NCF	360	540	134	412	486	503.45	5	5	14	378	402	–	522	522	4	4





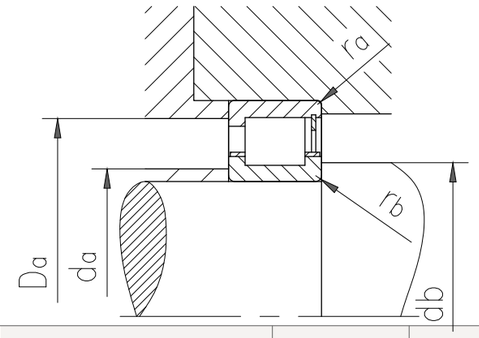
Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NCF2238NCF	35.5	1312.5	1995	205.8	840	10.5	0.3
NJG2338NJG	80	2268	3150	294	661.5	840	0.35
NCF1840NCF	2.6	184.8	351.75	34.125	1155	1470	0.1
NCF2940NCF	9.1	554.4	1013.25	105	10.5	1365	0.2
NCF3040NCF	22.5	958.65	1606.5	168	997.5	1260	0.3
NJG2340NJG	92	2404.5	3360	304.5	630	787.5	0.35
NCF1844NCF	2.85	192.15	383.25	36.225	10.5	1260	0.1
NCF2944NCF	9.9	577.5	1113	111.3	945	1260	0.2
NCF3044NCF	29.5	1134	1890	195.3	892.5	1155	0.3
NCF2244NCF	58	1921.5	2887.5	267.75	735	892.5	0.3
NJG2344NJG	111	2835	3937.5	351.75	556.5	703.5	0.35
NCF1848NCF	4.4	273	535.5	49.875	945	1155	0.1
NCF2948NCF	10.5	612.15	1197	119.7	892.5	1155	0.2
NCF3048NCF	32	1197	2058	210	840	10.5	0.3
NJG2348NJG	147	3297	4620	409.5	504	630	0.35
NCF1852NCF	4.55	283.5	577.5	52.5	840	10.5	0.1
NCF2952NCF	18	773.85	1501.5	150.15	787.5	997.5	0.2
NCF3052NCF	46.5	1617	2677.5	262.5	735	945	0.3
NJG2352NJG	177	3759	5250	451.5	451.5	556.5	0.35
NCF1856NCF	7.1	358.05	729.75	67.2	787.5	997.5	0.1
NCF2956NCF	19.5	924	1816.5	174.3	735	945	0.2
NCF3056NCF	50	1648.5	2782.5	273	703.5	892.5	0.3
NCF1860NCF	10	438.9	892.5	78.75	703.5	892.5	0.1
NCF2960NCF	31	1176	2310	218.4	661.5	840	0.2
NCF3060NCF	65.5	1995	3412.5	315	630	787.5	0.3
NCF1864NCF	10.5	462	945	84	661.5	840	0.1
NCF2964NCF	33	1197	2478	231	630	787.5	0.2
NCF3064NCF	71	2079	3622.5	325.5	588	735	0.3
NCF1868NCF	11	468.3	997.5	87.15	630	787.5	0.1
NCF2968NCF	35	1249.5	2625	239.4	588	735	0.2
NCF3068NCF	95	2499	4357.5	372.75	556.5	703.5	0.3
NCF1872NCF	11.5	422.1	945	80.325	588	735	0.1
NCF2972NCF	36.5	1291.5	2730	252	556.5	703.5	0.2
NCF3072NCF	105	2541	4515	383.25	525	661.5	0.3

Single row full complement cylindrical roller bearings



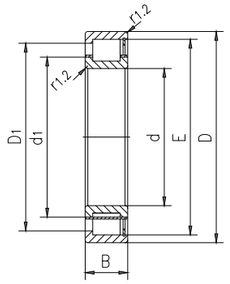
NCF

Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions							
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm							
NCF1876NCF	380	480	46	416	448	458	2.1	2.1	3.5	391	411	–	469	473	2	2
NCF2976NCF	380	520	82	427	474	488	4	4	5	395	420	–	505	505	3	3
NCF3076NCF	380	560	135	431	504	520.5	5	5	14	398	420	–	542	542	4	4
NCF1880NCF	400	500	46	433	465	475	2.1	2.1	3.5	411	428	–	489	493	2	2
NCF2980NCF	400	540	82	449	499	511	4	4	5	415	442	–	525	525	3	3
NCF3080NCF	400	600	148	460	540	558	5	5	14	418	449	–	582	582	4	4
NCF1884NCF	420	520	46	457	489	499	2.1	2.1	3.5	431	452	–	509	513	2	2
NCF2984NCF	420	560	82	462	512	524	4	4	5	435	455	–	545	545	3	3
NCF3084NCF	420	620	150	480	559	577.6	5	5	15	438	469	–	602	602	4	4
NCF1888NCF	440	540	46	474	506	516	2.1	2.1	3.5	451	469	–	529	533	2	2
NCF2888NCF	440	540	60	474	508	516	2.1	2.1	3.5	451	469	–	529	533	2	2
NCF2988NCF	440	600	95	502	545	565.5	4	4	6	455	492	–	585	585	3	3
NCF2892NCF	460	580	72	501	543	553	3	3	5	473	495	–	567	567	2.5	2.5
NCF2992NCF	460	620	95	516	558	579	4	4	6	475	506	–	605	605	3	3
NCF3092NCF	460	680	163	522	611	632.97	6	6	16	483	511	–	657	657	5	5
NCF1896NCF	480	600	56	522	561	573.5	3	3	5	493	516	–	587	587	2.5	2.5
NCF2896NCF	480	600	72	520	562	573.5	3	3	5	493	515	–	587	587	2.5	2.5
NCF2996NCF	480	650	100	538	584	615	5	5	7	498	527	–	632	632	4	4
NCF3096NCF	480	700	165	546	628	654	6	6	16	503	532	–	677	677	5	5
NCF18/500NCF	500	620	56	542	582	594	3	3	5	513	536	–	607	607	2.5	2.5
NCF28/500NCF	500	620	72	541	582	594	3	3	2.4	513	536	–	607	607	2.5	2.5
NCF29/500NCF	500	670	100	553	611	634.5	5	5	7	518	544	–	652	652	4	4
NCF30/500NCF	500	720	167	565	650	676	6	6	16	523	553	–	697	697	5	5
NCF18/530NCF	530	650	56	573	612	624.5	3	3	5	543	567	–	637	637	2.5	2.5
NCF28/530NCF	530	650	72	572	614	624.5	3	3	5	543	566	–	637	637	2.5	2.5
NCF29/530NCF	530	710	106	598	648	673	5	5	7	548	587	–	692	692	4	4
NCF30/530NCF	530	780	185	610	702	732	6	6	16	553	595	–	757	757	5	5
NCF18/560NCF	560	680	56	603	643	655	3	3	5	573	597	–	667	667	2.5	2.5
NCF28/560NCF	560	680	72	606	637	655	3	3	4.3	573	599	–	667	667	2.5	2.5
NCF29/560NCF	560	750	112	628	682	709	5	5	7	578	615	–	732	732	4	4
NCF30/560NCF	560	820	195	642	738	770	6	6	16	583	626	–	797	797	5	5
NCF18/600NCF	600	730	60	644	684	696	3	3	7	613	638	–	717	717	2.5	2.5
NCF28/600NCF	600	730	78	642	685	696	3	3	5.4	613	637	–	717	717	2.5	2.5
NCF29/600NCF	600	800	118	662	726	754	5	5	7	618	652	–	782	782	4	4



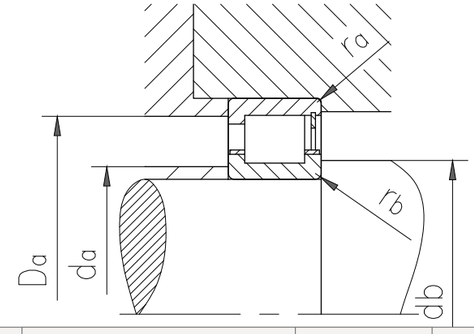
Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NCF1876NCF	19.5	658.35	1354.5	119.7	556.5	703.5	0.1
NCF2976NCF	52	1648.5	3412.5	315	525	661.5	0.2
NCF3076NCF	110	2835	5355	446.25	504	630	0.3
NCF1880NCF	20.5	658.35	1407	123.9	525	661.5	0.1
NCF2980NCF	54.5	1732.5	3622.5	325.5	504	630	0.2
NCF3080NCF	145	3118.5	5775	472.5	472.5	588	0.3
NCF1884NCF	20.5	693	1501.5	128.1	504	630	0.1
NCF2984NCF	57	1732.5	3780	330.75	472.5	588	0.2
NCF3084NCF	150	3181.5	5985	477.75	451.5	556.5	0.3
NCF1888NCF	22	704.55	1533	131.25	472.5	588	0.1
NCF2888NCF	30	1113	2835	243.6	472.5	588	0.11
NCF2988NCF	80	2110.5	4620	399	451.5	556.5	0.2
NCF2892NCF	44	1365	3202.5	273	451.5	556.5	0.11
NCF2992NCF	83	2152.5	4725	409.5	420	525	0.2
NCF3092NCF	195	3874.5	7297.5	567	399	504	0.3
NCF1896NCF	35.5	981.75	2142	178.5	420	525	0.1
NCF2896NCF	46	1386	3307.5	278.25	420	525	0.11
NCF2996NCF	93	2404.5	5145	425.25	399	504	0.2
NCF3096NCF	205	3927	7560	577.5	378	472.5	0.3
NCF18/500NCF	35.5	999.6	2226	181.65	399	504	0.1
NCF28/500NCF	47	1407	3517.5	288.75	399	504	0.11
NCF29/500NCF	100	2499	5565	451.5	378	472.5	0.2
NCF30/500NCF	215	3990	7875	598.5	378	472.5	0.3
NCF18/530NCF	38.5	1039.5	2352	189	378	472.5	0.1
NCF28/530NCF	49.5	1470	3622.5	299.25	378	472.5	0.11
NCF29/530NCF	120	2835	6300	488.25	357	451.5	0.2
NCF30/530NCF	300	5491.5	11130	819	336	420	0.3
NCF18/560NCF	39	1071	2478	195.3	357	451.5	0.1
NCF28/560NCF	54	1491	3832.5	315	357	451.5	0.11
NCF29/560NCF	140	3181.5	7035	514.5	336	420	0.2
NCF30/560NCF	345	6121.5	12390	908.25	315	399	0.3
NCF18/600NCF	51.5	1102.5	2677.5	205.8	336	420	0.1
NCF28/600NCF	67.5	1648.5	4515	357	336	420	0.11
NCF29/600NCF	170	3528	7875	577.5	315	399	0.2

Single row full complement cylindrical roller bearings



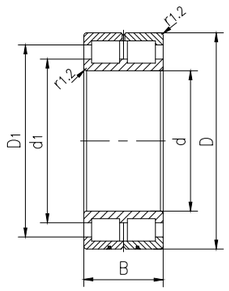
NCF

Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions						
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm						
NCF18/630NCF	630	780	69	681	725	739	4	4	8	645	674	–	765	765	3	3
NCF28/630NCF	630	780	88	680	728	741.4	4	4	8	645	674	–	765	765	3	3
NCF29/630NCF	630	850	128	709	788	807	6	6	8	653	698	–	827	827	5	5
NCF18/670NCF	670	820	69	725	769	783	4	4	8	685	718	–	805	805	3	3
NCF28/670NCF	670	820	88	724	772	783	4	4	8	685	718	–	805	805	3	3
NCF29/670NCF	670	900	136	748	827	846	6	6	10	693	737	–	877	877	5	5
NCF18/710NCF	710	870	74	767	815	831	4	4	8	725	759	–	855	855	3	3
NCF28/710NCF	710	870	95	766	818	831	4	4	8	725	759	–	855	855	3	3
NCF29/710NCF	710	950	140	790	876	896	6	6	10	733	761	–	927	927	5	5
NCF18/750NCF	750	920	78	811	863	880	5	5	8	768	802	–	902	902	4	4
NCF28/750NCF	750	920	100	810	867	878	5	5	8	768	799	–	902	902	4	4
NCF29/750NCF	750	1000	145	832	918	938	6	6	11	773	820	–	977	977	5	5
NCF18/800NCF	800	980	82	863	922	936	5	5	9	818	855	–	962	962	4	4
NCF28/800NCF	800	980	106	863	922	936	5	5	10	818	855	–	962	962	4	4
NCF29/800NCF	800	1060	150	891	981	1002	6	6	11	823	860	–	1037	1037	5	5
NCF18/850NCF	850	1030	82	911	972	986	5	5	9	868	903	–	1012	1012	4	4
NCF28/850NCF	850	1030	106	911	972	986	5	5	10	868	903	–	1012	1012	4	4
NCF29/850NCF	850	1120	155	943	1039	1061	6	6	13	873	914	–	1097	1097	5	5
NCF18/900NCF	900	1090	85	966	1029	1044	5	5	9	918	957	–	1072	1072	4	4
NCF28/900NCF	900	1090	112	966	1029	1044	5	5	10	918	957	–	1072	1072	4	4
NCF29/900NCF	900	1180	165	996	1096	1120	6	6	13	923	982	–	1127	1127	5	5
NCF18/950NCF	950	1150	90	1021	1087	1103	5	5	10	968	1012	–	1132	1132	4	4
NCF28/950NCF	950	1150	118	1021	1087	1103	5	5	12	968	1012	–	1132	1132	4	4
NCF29/950NCF	950	1250	175	1048	1154	1179	7.5	7.5	14	978	1033	–	1222	1222	6	6
NCF18/1000NCF	1000	1220	100	1073	1148	1165	6	6	12	1023	1063	–	1197	1197	5	5
NCF28/1000NCF	1000	1220	128	1073	1148	1165	6	6	12	1023	1063	–	1197	1197	5	5
NCF29/1000NCF	1000	1320	185	1113	1226	1252	7.5	7.5	14	1028	1091	–	1292	1292	6	6
NCF18/1120NCF	1120	1360	106	1206	1290	1310	6	6	12	1143	1194	–	1337	1337	5	5

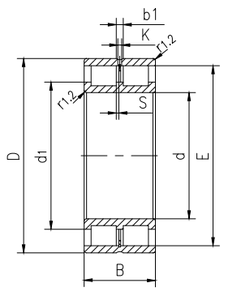


Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NCF18/630NCF	72.5	1312.5	3045	243.6	315	378	0.1
NCF28/630NCF	92	2037	5250	409.5	315	378	0.11
NCF29/630NCF	205	3927	9082.5	640.5	294	357	0.2
NCF18/670NCF	74	1365	3307.5	257.25	294	357	0.1
NCF28/670NCF	98	2037	5565	435.75	294	357	0.11
NCF29/670NCF	245	4105.5	9450	661.5	273	336	0.2
NCF18/710NCF	92.5	1617	3937.5	299.25	273	336	0.1
NCF28/710NCF	115	2446.5	6615	504	273	336	0.11
NCF29/710NCF	275	4504.5	10500	729.75	252	315	0.2
NCF18/750NCF	105	1848	4515	330.75	252	315	0.1
NCF28/750NCF	139	2772	7297.5	546	252	315	0.11
NCF29/750NCF	313	4683	11130	745.5	231	294	0.2
NCF18/800NCF	126	2037	5040	362.25	231	294	0.1
NCF28/800NCF	169	2887.5	7875	577.5	231	294	0.11
NCF29/800NCF	359	5197.5	12600	840	210	273	0.2
NCF18/850NCF	131	2152.5	5460	393.75	210	273	0.1
NCF28/850NCF	175	3003	8400	598.5	210	273	0.11
NCF29/850NCF	406	5491.5	13335	871.5	199.5	252	0.2
NCF18/900NCF	154	2352	5985	425.25	199.5	252	0.1
NCF28/900NCF	210	3349.5	9607.5	687.75	199.5	252	0.11
NCF29/900NCF	472	6237	15330	997.5	178.5	231	0.2
NCF18/950NCF	185	2541	6615	446.25	178.5	231	0.1
NCF28/950NCF	240	3580.5	10290	687.75	178.5	231	0.11
NCF29/950NCF	565	6930	17115	1071	168	210	0.2
NCF18/1000NCF	230	3066	7875	477.75	168	210	0.1
NCF28/1000NCF	309	4336.5	12180	756	168	210	0.11
NCF29/1000NCF	680	7854	19530	1218	157.5	189	0.2
NCF18/1120NCF	298	3927	10132.5	614.25	136.5	178.5	0.1

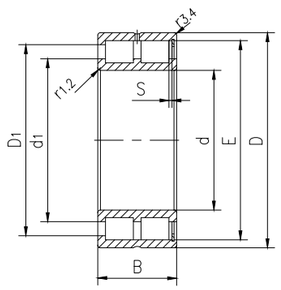
Double row full complement cylindrical roller bearings



NNC

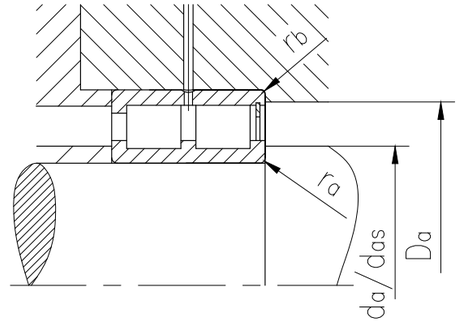


NNCL



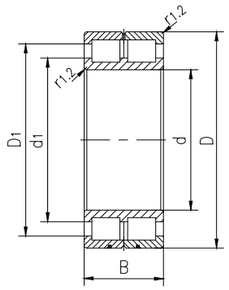
NNCF

Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions							
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm							
NNCF5004CV	20	42	30	28.4	33.2	–	4.5	3	0.6	0.3	1	23.2	25.6	38.7	0.5	0.3
NNCF5005CV	25	47	30	34.5	38.5	–	4.5	3	0.6	0.3	1	28.7	31.5	43.5	0.5	0.3
NNCF5006CV	30	55	34	40	45.5	–	4.5	3	1	0.3	1.5	34.7	37.8	50	1	0.3
NNCF5007CV	35	62	36	45	51.5	–	4.5	3	1	0.3	1.5	40.2	42.6	57	1	0.3
NNCF5008CV	40	68	38	50.5	57.2	–	4.5	3	1	0.3	1.5	44.8	47.7	63	1	0.3
NNCF5009CV	45	75	40	55.3	62.5	–	4.5	3	1	0.3	1.5	51	52.8	70	1	0.3
NNCF5010CV	50	80	40	59	67.5	–	4.5	3	1	0.3	1.5	56	56.7	74	1	0.3
NNCF5011CV	55	90	46	68.5	78.7	–	4.5	3.5	1.1	0.6	1.5	61	64.8	84	1	0.5
NNCF4912CV	60	85	25	70.5	73.5	–	4.5	3.5	1	1	1	65	67.6	80	1	1
NNCL4912CV	60	85	25	70.5	–	77.51	4.5	3.5	1	–	1	65	–	80	1	–
NNC4912CV	60	85	25	70.5	73.5	–	4.5	3.5	1	–	–	65	67.6	80	1	–
NNCF5012CV	60	95	46	71.5	82	–	4.5	3.5	1.1	0.6	1.5	66	68.9	89	1	0.5
NNCF5013CV	65	100	46	78	88.3	–	4.5	3.5	1.1	0.6	1.5	72	75	94	1	0.5
NNCF4914CV	70	100	30	83	87	–	4.5	3.5	1	1	1	76	79	95	1	1
NNCL4914CV	70	100	30	83	–	91.87	4.5	3.5	1	–	1	76	–	95	1	–
NNC4914CV	70	100	30	83	87	–	4.5	3.5	1	–	–	76	79	95	1	–
NNCF5014CV	70	110	54	81.5	95	–	5	3.5	1.1	0.6	3	76	79	105	1	0.5
NNCF5015CV	75	115	54	89	103	–	5	3.5	1.1	0.6	3	81	85	109	1	0.5
NNCF4916CV	80	110	30	92	96	–	5	3.5	1	1	1	85	88	105	1	1
NNCL4916CV	80	110	30	92	–	100.78	5	3.5	1	–	1	85	–	105	1	–
NNC4916CV	80	110	30	92	96	–	5	3.5	1	–	–	85	88	105	1	–
NNCF5016CV	80	125	60	95	111	–	5	3.5	1.1	0.6	3.5	86	91	119	1	0.5
NNCF5017CV	85	130	60	99.5	116	–	5	3.5	1.1	0.6	3.5	91	95	124	1	0.5
NNCF4918CV	90	125	35	103	110	–	5	3.5	1.1	1.1	1.5	96	99	119	1	1
NNCL4918CV	90	125	35	103	–	115.2	5	3.5	1.1	–	1.5	96	–	119	1	–
NNC4918CV	90	125	35	103	110	–	5	3.5	1.1	–	–	96	99	119	1	–
NNCF5018CV	90	140	67	106	124	–	5	3.5	1.5	1	4	98	102	133	1.5	1
NNCF4920CV	100	140	40	116	125	–	5	3.5	1.1	1.1	2	106	111	134	1	1
NNCL4920CV	100	140	40	116	–	129.6	5	3.5	1.1	–	2	106	–	134	1	–
NNC4920CV	100	140	40	116	125	–	5	3.5	1.1	–	–	106	111	134	1	–
NNCF5020CV	100	150	67	116	134	–	6	3.5	1.5	1	4	108	113	143	1.5	1
NNCF4922CV	110	150	40	125	134	–	6	3.5	1.1	1.1	2	116	121	144	1	1
NNCL4922CV	110	150	40	125	–	138.2	6	3.5	1.1	–	2	116	–	144	1	–
NNC4922CV	110	150	40	125	134	–	6	3.5	1.1	–	–	116	121	144	1	–
NNCF5022CV	110	170	80	127	149	–	6	3.5	2	1	5	120	124	161	2	1

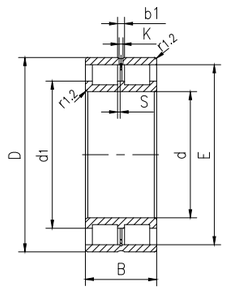


Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NNCF5004CV	0.2	54.915	59.85	6.51	8925	10500	0.5
NNCF5005CV	0.23	62.37	74.55	8.0325	7350	9450	0.5
NNCF5006CV	0.35	77.385	92.4	10.5	6300	7875	0.5
NNCF5007CV	0.46	94.185	117.6	13.545	5565	7035	0.5
NNCF5008CV	0.56	111.3	147	17.85	5040	6300	0.5
NNCF5009CV	0.71	117.6	163.8	19.215	4515	5565	0.5
NNCF5010CV	0.76	149.1	205.8	24.78	4200	5250	0.5
NNCF5011CV	1.15	199.5	294	36.225	3570	4515	0.5
NNCF4912CV	0.48	82.005	143.85	15.015	3780	4725	0.25
NNCL4912CV	0.47	82.005	143.85	15.015	3780	4725	0.25
NNC4912CV	0.49	82.005	143.85	15.015	3780	4725	0.25
NNCF5012CV	1.25	207.9	315	38.325	3570	4200	0.5
NNCF5013CV	1.3	219.45	341.25	42	3150	3990	0.5
NNCF4914CV	0.77	119.7	202.65	23.52	3150	3990	0.25
NNCL4914CV	0.75	119.7	202.65	23.52	3150	3990	0.25
NNC4914CV	0.78	119.7	202.65	23.52	3150	3990	0.25
NNCF5014CV	1.85	249.9	362.25	47.25	2940	3780	0.5
NNCF5015CV	1.95	263.55	399	51.45	2730	3360	0.5
NNCF4916CV	0.87	127.05	226.8	26.25	2730	3570	0.25
NNCL4916CV	0.85	127.05	226.8	26.25	2730	3570	0.25
NNC4916CV	0.88	127.05	226.8	26.25	2730	3570	0.25
NNCF5016CV	2.6	323.4	477.75	61.425	2520	3150	0.5
NNCF5017CV	2.7	329.7	498.75	63	2520	3150	0.5
NNCF4918CV	1.35	169.05	315	37.275	2520	3150	0.25
NNCL4918CV	1.3	169.05	315	37.275	2520	3150	0.25
NNC4918CV	1.35	169.05	315	37.275	2520	3150	0.25
NNCF5018CV	3.6	387.45	588	72.975	2310	2940	0.5
NNCF4920CV	1.95	219.45	420	48.825	2100	2730	0.25
NNCL4920CV	1.9	219.45	420	48.825	2100	2730	0.25
NNC4920CV	1.95	219.45	420	48.825	2100	2730	0.25
NNCF5020CV	3.95	410.55	651	78.75	2100	2730	0.5
NNCF4922CV	2.1	231	451.5	51.45	1995	2520	0.25
NNCL4922CV	2.1	231	451.5	51.45	1995	2520	0.25
NNC4922CV	2.15	231	451.5	51.45	1995	2520	0.25
NNCF5022CV	6.3	537.6	840	99.75	1890	2310	0.5

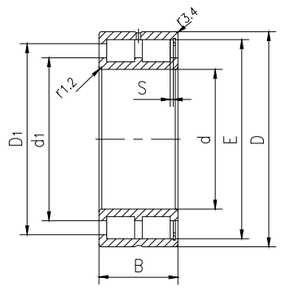
Double row full complement cylindrical roller bearings



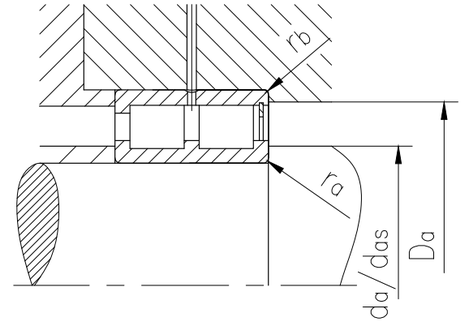
NNC



NNCL



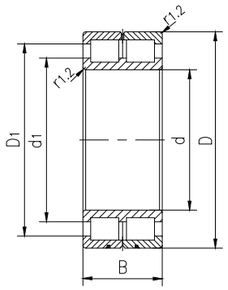
NNCF



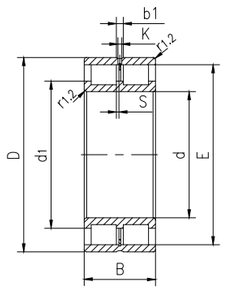
Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions						
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm						
NNCF4924CV	120	165	45	139	148	–	6	3.5	1.1	1.1	3	126	136	159	1	1
NNCL4924CV	120	165	45	139	–	153.55	6	3.5	1.1	–	3	126	–	159	1	–
NNC4924CV	120	165	45	139	148	–	6	3.5	1.1	–	–	126	133	159	1	–
NNCF5024CV	120	180	80	139	160	–	6	3.5	2	1	5	130	130	171	2	1
NNCF4926CV	130	180	50	149	160	–	6	3.5	1.5	1.5	4	138	144	173	1.5	1.5
NNCL4926CV	130	180	50	149	–	165.4	6	3.5	1.5	–	4	138	–	173	1.5	–
NNC4926CV	130	180	50	149	160	–	6	3.5	1.5	–	–	138	144	173	1.5	–
NNCF5026CV	130	200	95	149	175	–	7	4	2	1	5	141	145	190	2	1
NNCF4928CV	140	190	50	160	170	–	6	3.5	1.5	1.5	4	148	154	182	1.5	1.5
NNCL4928CV	140	190	50	160	–	175.9	6	3.5	1.5	–	4	148	–	182	1.5	–
NNC4928CV	140	190	50	160	170	–	6	3.5	1.5	–	–	148	154	182	1.5	–
NNCF5028CV	140	210	95	163	189	–	7	4	2	1	5	151	157	200	2	1
NNCF4830CV	150	190	40	166	173	–	7	4	1.1	1.1	2	156	161	184	1	1
NNCL4830CV	150	190	40	166	–	178.3	7	4	1.1	–	2	156	–	184	1	–
NNC4830CV	150	190	40	166	173	–	7	4	1.1	–	–	156	161	184	1	–
NNCF4930CV	150	210	60	171	187	–	7	4	2	2	4	159	165	201	2	2
NNCL4930CV	150	210	60	171	–	192.77	7	4	2	–	4	159	–	201	2	–
NNC4930CV	150	210	60	171	187	–	7	4	2	–	–	159	165	201	2	–
NNCF5030CV	150	225	100	170	198	–	7	4	2	1.1	6	160	166	217	2	1
NNCF4832CV	160	200	40	174	182	–	7	4	1.1	1.1	2	166	170	194	1	1
NNCL4832CV	160	200	40	174	–	186.9	7	4	1.1	–	2	166	–	194	1	–
NNC4832CV	160	200	40	174	182	–	7	4	1.1	–	–	166	170	194	1	–
NNCF4932CV	160	220	60	185	200	–	7	4	2	2	4	170	177	211	2	2
NNCL4932CV	160	220	60	185	–	206.16	7	4	2	–	4	170	–	211	2	–
NNC4932CV	160	220	60	185	200	–	7	4	2	–	–	170	177	211	2	–
NNCF5032CV	160	240	109	185	216	–	7	4	2.1	1.1	6	171	178	231	2	1
NNCF4834CV	170	215	45	187	196	–	7	4	1.1	1.1	3	176	182	209	1	1
NNCL4834CV	170	215	45	187	–	201.3	7	4	1.1	–	3	176	–	209	1	–
NNC4834CV	170	215	45	187	196	–	7	4	1.1	–	–	176	182	209	1	–
NNCF4934CV	170	230	60	194	209	–	7	4	2	2	4	180	187	220	2	2
NNCL4934CV	170	230	60	194	–	215.08	7	4	2	–	4	180	–	220	2	–
NNC4934CV	170	230	60	194	209	–	7	4	2	–	–	180	187	220	2	–

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NNCF4924CV	2.9	254.1	504	55.65	1785	2310	0.25
NNCL4924CV	2.85	254.1	504	55.65	1785	2310	0.25
NNC4924CV	2.95	254.1	504	55.65	1785	2310	0.25
NNCF5024CV	6.75	565.95	924	109.2	1785	2100	0.5
NNCF4926CV	3.9	311.85	556.5	63	1680	2100	0.25
NNCL4926CV	3.8	311.85	556.5	63	1680	2100	0.25
NNC4926CV	3.95	311.85	556.5	63	1680	2100	0.25
NNCF5026CV	10	803.25	1312.5	150.15	1575	1995	0.5
NNCF4928CV	4.15	323.4	598.5	66.15	1575	1995	0.25
NNCL4928CV	4.1	323.4	598.5	66.15	1575	1995	0.25
NNC4928CV	4.2	323.4	598.5	66.15	1575	1995	0.25
NNCF5028CV	11	849.45	1438.5	160.65	1470	1890	0.5
NNCF4830CV	2.8	267.75	614.25	63	1575	1890	0.2
NNCL4830CV	2.7	267.75	614.25	63	1575	1890	0.2
NNC4830CV	2.9	267.75	614.25	63	1575	1890	0.2
NNCF4930CV	6.55	450.45	871.5	96.075	1470	1785	0.25
NNCL4930CV	6.45	450.45	871.5	96.075	1470	1785	0.25
NNC4930CV	6.65	450.45	871.5	96.075	1470	1785	0.25
NNCF5030CV	13.5	884.1	1501.5	168	1365	1785	0.5
NNCF4832CV	3	273	640.5	65.1	1470	1785	0.2
NNCL4832CV	2.9	273	640.5	65.1	1470	1785	0.2
NNC4832CV	3.1	273	640.5	65.1	1470	1785	0.2
NNCF4932CV	6.9	468.3	960.75	101.325	1365	1680	0.25
NNCL4932CV	6.8	468.3	960.75	101.325	1365	1680	0.25
NNC4932CV	7	468.3	960.75	101.325	1365	1680	0.25
NNCF5032CV	16	999.6	1680	189	1260	1575	0.5
NNCF4834CV	4	300.3	687.75	68.775	1365	1680	0.2
NNCL4834CV	3.9	300.3	687.75	68.775	1365	1680	0.2
NNC4834CV	4	300.3	687.75	68.775	1365	1680	0.2
NNCF4934CV	7.2	479.85	997.5	105	1260	1575	0.25
NNCL4934CV	7.1	479.85	997.5	105	1260	1575	0.25
NNC4934CV	7.35	479.85	997.5	105	1260	1575	0.25

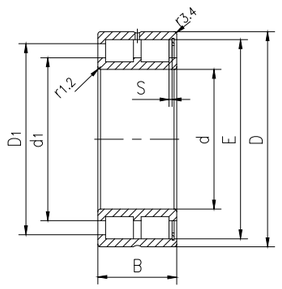
Double row full complement cylindrical roller bearings



NNC

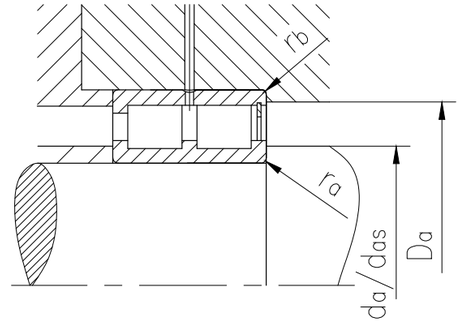


NNCL



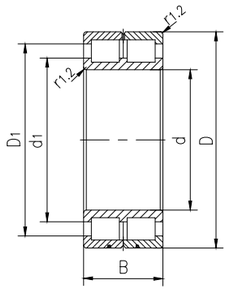
NNCF

Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions						
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm						
NNCF5034CV	170	260	122	198	232	–	7	4	2.1	1.1	6	181	193	251	2	1
NNCF4836CV	180	225	45	200	209	–	7	4	1.1	1.1	3	186	193	219	1	1
NNCL4836CV	180	225	45	200	–	214.1	7	4	1.1	–	3	186	–	219	1	–
NNC4836CV	180	225	45	200	209	–	7	4	1.1	–	–	186	193	219	1	–
NNCF4936CV	180	250	69	206	224	–	7	4	2	2	4	190	198	240	2	2
NNCL4936CV	180	250	69	206	–	230.5	7	4	2	–	4	190	–	240	2	–
NNC4936CV	180	250	69	206	224	–	7	4	2	–	–	190	198	240	2	–
NNCF5036CV	180	280	136	212	248	–	8	4	2.1	2.1	8	191	206	270	2	2
NNCF4838CV	190	240	50	209	219	–	7	4	1.5	1.5	4	197	203	233	1.5	1.5
NNCL4838CV	190	240	50	209	–	225	7	4	1.5	–	4	197	–	233	1.5	–
NNC4838CV	190	240	50	209	219	–	7	4	1.5	–	–	197	203	233	1.5	–
NNCF4938CV	190	260	69	216	233	–	7	4	2	2	4	201	208	250	2	2
NNCL4938CV	190	260	69	216	–	240.7	7	4	2	–	4	201	–	250	2	–
NNC4938CV	190	260	69	216	233	–	7	4	2	–	–	201	208	250	2	–
NNCF5038CV	190	290	136	222	258	–	8	4	2.1	2.1	8	202	216	280	2	2
NNCF4840CV	200	250	50	220	230	–	7	4	1.5	1.5	4	207	213	243	1.5	1.5
NNCL4840CV	200	250	50	220	–	235.5	7	4	1.5	–	4	207	–	243	1.5	–
NNC4840CV	200	250	50	220	230	–	7	4	1.5	–	–	207	213	243	1.5	–
NNCF4940CV	200	280	80	233	252	–	8	4	2.1	2.1	5	211	219	269	2	2
NNCL4940CV	200	280	80	233	–	259.34	8	4	2.1	–	5	211	–	269	2	–
NNC4940CV	200	280	80	233	252	–	8	4	2.1	–	–	211	221	269	2	–
NNCF5040CV	200	310	150	237	275	–	8	4	2.1	2.1	9	212	224	300	2	2
NNCF4844CV	220	270	50	241	251	–	7	4	1.5	1.5	4	227	233	263	1.5	1.5
NNCL4844CV	220	270	50	241	–	256.5	7	4	1.5	–	4	227	–	263	1.5	–
NNC4844CV	220	270	50	241	251	–	7	4	1.5	–	–	227	233	263	1.5	–
NNCF4944CV	220	300	80	248	269	–	8	4	2.1	2.1	5	232	240	288	2	2
NNCL4944CV	220	300	80	248	–	276.52	8	4	2.1	–	5	232	–	288	2	–
NNC4944CV	220	300	80	248	269	–	8	4	2.1	–	–	232	240	288	2	–
NNCF5044CV	220	340	160	255	302	–	8	6	3	3	9	235	245	327	2.5	2.5
NNCF4848CV	240	300	60	261	275	–	8	4	2	2	4	249	254	292	2	2
NNCL4848CV	240	300	60	261	–	281.9	8	4	2	–	4	249	–	292	2	–

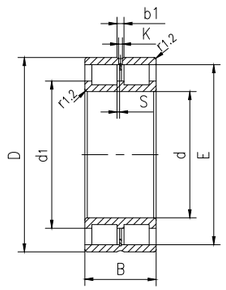


Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NNCF5034CV	23	1291.5	2226	247.8	1155	1470	0.5
NNCF4836CV	4.2	311.85	729.75	72.975	1260	1575	0.2
NNCL4836CV	4.1	311.85	729.75	72.975	1260	1575	0.2
NNC4836CV	4.3	311.85	729.75	72.975	1260	1575	0.2
NNCF4936CV	10.5	623.7	1281	133.35	1155	1470	0.25
NNCL4936CV	10.5	623.7	1281	133.35	1155	1470	0.25
NNC4936CV	11	623.7	1281	133.35	1155	1470	0.25
NNCF5036CV	30.5	1491	2625	283.5	1155	1365	0.5
NNCF4838CV	5.5	375.9	787.5	80.325	1155	1470	0.2
NNCL4838CV	5.3	375.9	787.5	80.325	1155	1470	0.2
NNC4838CV	5.65	375.9	787.5	80.325	1155	1470	0.2
NNCF4938CV	11	635.25	1354.5	138.6	1155	1470	0.25
NNCL4938CV	11	635.25	1354.5	138.6	1155	1470	0.25
NNC4938CV	11	635.25	1354.5	138.6	1155	1470	0.25
NNCF5038CV	31.5	1543.5	2730	294	1050	1365	0.5
NNCF4840CV	5.8	387.45	840	84	1155	1470	0.2
NNCL4840CV	5.7	387.45	840	84	1155	1470	0.2
NNC4840CV	5.9	387.45	840	84	1155	1470	0.2
NNCF4940CV	15.5	739.2	1575	160.65	1050	1365	0.25
NNCL4940CV	15.5	739.2	1575	160.65	1050	1365	0.25
NNC4940CV	16	739.2	1575	160.65	1050	1365	0.25
NNCF5040CV	41	1764	3202.5	336	997.5	1260	0.5
NNCF4844CV	6.3	399	908.25	89.25	1050	1260	0.2
NNCL4844CV	6.2	399	908.25	89.25	1050	1260	0.2
NNC4844CV	6.4	399	908.25	89.25	1050	1260	0.2
NNCF4944CV	17	773.85	1680	168	997.5	1260	0.25
NNCL4944CV	17	773.85	1680	168	997.5	1260	0.25
NNC4944CV	17	773.85	1680	168	997.5	1260	0.25
NNCF5044CV	52.5	2110.5	3780	393.75	892.5	1155	0.5
NNCF4848CV	9.9	565.95	1354.5	131.25	945	1155	0.2
NNCL4848CV	9.8	565.95	1354.5	131.25	945	1155	0.2

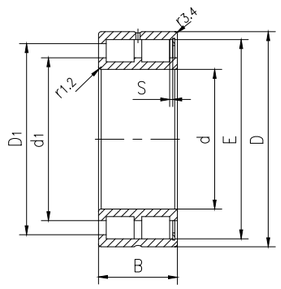
Double row full complement cylindrical roller bearings



NNC

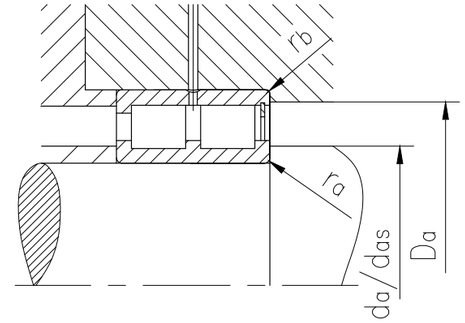


NNCL



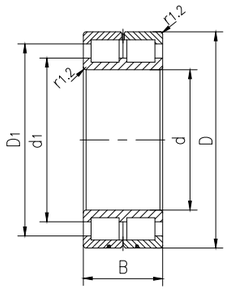
NNCF

Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions							
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm							
NNC4848CV	240	300	60	261	275	–	8	4	2	–	–	249	254	292	2	–
NNCF4948CV	240	320	80	271	291	–	8	4	2.1	2.1	5	251	261	308	2	2
NNCL4948CV	240	320	80	271	–	299.46	8	4	2.1	–	5	251	–	308	2	–
NNC4948CV	240	320	80	271	291	–	8	4	2.1	–	–	251	261	308	2	–
NNCF5048CV	240	360	160	276	324	–	9.4	5	3	3	9	256	267	347	2.5	2.5
NNCF4852CV	260	320	60	283	297	–	8	4	2	2	4	269	276	311	2	2
NNCL4852CV	260	320	60	283	–	304.2	8	4	2	–	4	269	–	311	2	–
NNC4852CV	260	320	60	283	297	–	8	4	2	–	–	269	276	311	2	–
NNCF4952CV	260	360	100	295	321	–	9.4	5	2.1	2.1	6	272	283	349	2	2
NNCL4952CV	260	360	100	295	–	331.33	9.4	5	2.1	–	6	272	–	349	2	–
NNC4952CV	260	360	100	295	321	–	9.4	5	2.1	–	–	272	283	349	2	–
NNCF5052CV	260	400	190	302	362	–	9.4	5	4	4	10	278	291	384	3	3
NNCF4856CV	280	350	69	308	326	–	8	4	2	2	4	290	299	341	2	2
NNCL4856CV	280	350	69	308	–	332.4	8	4	2	–	4	290	–	341	2	–
NNC4856CV	280	350	69	308	326	–	8	4	2	–	–	290	299	341	2	–
NNCF4956CV	280	380	100	317	343	–	9.4	5	2.1	2.1	6	293	312	368	2	2
NNCL4956CV	280	380	100	317	–	353.34	9.4	5	2.1	–	6	293	–	368	2	–
NNC4956CV	280	380	100	317	343	–	9.4	5	2.1	–	–	293	305	368	2	–
NNCF5056CV	280	420	190	318	372	–	9.4	5	4	4	10	299	310	404	3	3
NNCF4860CV	300	380	80	330	349	–	9.4	5	2.1	2.1	6	310	319	370	2	2
NNCL4860CV	300	380	80	330	–	356.7	9.4	5	2.1	–	6	310	–	370	2	–
NNC4860CV	300	380	80	330	349	–	9.4	5	2.1	–	–	310	319	370	2	–
NNCF4960CV	300	420	118	340	374	–	9.4	5	3	3	6	315	335	406	2.5	2.5
NNCL4960CV	300	420	118	340	–	385.51	9.4	5	3	–	6	315	–	406	2.5	–
NNC4960CV	300	420	118	341	374	–	9.4	5	3	–	–	315	328	406	2.5	–
NNCF5060CV	300	460	218	352	418	–	9.4	5	4	4	9	319	336	443	3	3
NNCF4864CV	320	400	80	352	372	–	9.4	5	2.1	2.1	6	331	341	390	2	2
NNCL4864CV	320	400	80	352	–	379.7	9.4	5	2.1	–	6	331	–	390	2	–
NNC4864CV	320	400	80	352	372	–	9.4	5	2.1	–	–	331	341	390	2	–
NNCF4964CV	320	440	118	368	401	–	9.4	5	3	3	6	336	352	425	2.5	2.5
NNCL4964CV	320	440	118	368	–	412.27	9.4	5	3	–	6	336	–	425	2.5	–
NNC4964CV	320	440	118	368	401	–	9.4	5	3	–	–	336	352	425	2.5	–

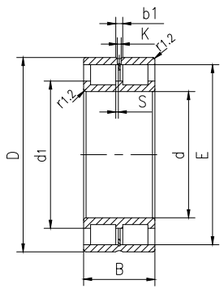


Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NNC4848CV	10	565.95	1354.5	131.25	945	1155	0.2
NNCF4948CV	18.5	820.05	1848	181.65	892.5	1155	0.25
NNCL4948CV	18	820.05	1848	181.65	892.5	1155	0.25
NNC4948CV	18.5	820.05	1848	181.65	892.5	1155	0.25
NNCF5048CV	56	2226	4095	420	840	1050	0.5
NNCF4852CV	11	589.05	1470	138.6	840	1050	0.2
NNCL4852CV	10.5	589.05	1470	138.6	840	1050	0.2
NNC4852CV	11	589.05	1470	138.6	840	1050	0.2
NNCF4952CV	31.5	1228.5	2677.5	257.25	787.5	997.5	0.25
NNCL4952CV	31	1228.5	2677.5	257.25	787.5	997.5	0.25
NNC4952CV	32	1228.5	2677.5	257.25	787.5	997.5	0.25
NNCF5052CV	85.5	3003	5355	525	735	945	0.5
NNCF4856CV	16	773.85	1953	181.65	787.5	997.5	0.2
NNCL4856CV	15.5	773.85	1953	181.65	787.5	997.5	0.2
NNC4856CV	16	773.85	1953	181.65	787.5	997.5	0.2
NNCF4956CV	33.5	1270.5	2835	267.75	735	945	0.25
NNCL4956CV	33	1270.5	2835	267.75	735	945	0.25
NNC4956CV	34	1270.5	2835	267.75	735	945	0.25
NNCF5056CV	90.5	3066	5565	546	703.5	892.5	0.5
NNCF4860CV	22.5	900.9	2226	205.8	735	892.5	0.2
NNCL4860CV	22	900.9	2226	205.8	735	892.5	0.2
NNC4860CV	23	900.9	2226	205.8	735	892.5	0.2
NNCF4960CV	52.5	1764	3937.5	372.75	703.5	840	0.25
NNCL4960CV	52	1764	3937.5	372.75	703.5	840	0.25
NNC4960CV	53	1764	3937.5	372.75	703.5	840	0.25
NNCF5060CV	130	3696	6877.5	630	630	787.5	0.5
NNCF4864CV	23.5	941.85	2394	218.4	661.5	840	0.2
NNCL4864CV	23	941.85	2394	218.4	661.5	840	0.2
NNC4864CV	24	941.85	2394	218.4	661.5	840	0.2
NNCF4964CV	55.5	1848	4252.5	393.75	630	787.5	0.25
NNCL4964CV	55	1848	4252.5	393.75	630	787.5	0.25
NNC4964CV	56	1848	4252.5	393.75	630	787.5	0.25

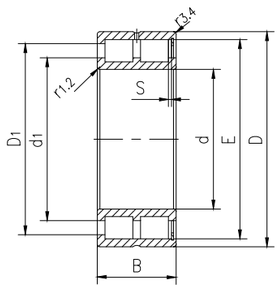
Double row full complement cylindrical roller bearings



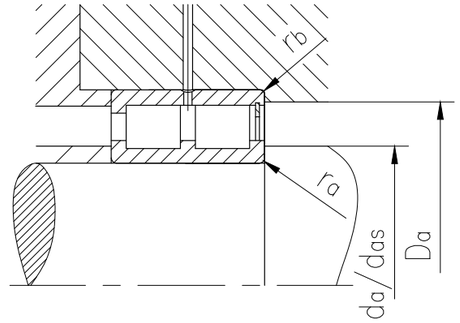
NNC



NNCL



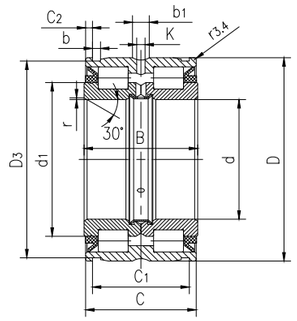
NNCF

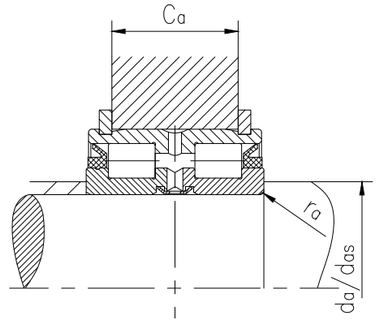


Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions						
	d	D	B	d_1 ≈	D_1 ≈	F、E	$r_{1,2}$ min.	$r_{3,4}$ min.	s max.	d_a min.	d_{as}	d_b max.	D_a max.	D_b max.	r_a max.	r_b max.
-	mm			mm						mm						
NNCF5064CV	320	480	218	370	434	–	9.4	5	4	4	9	339	360	462	3	3
NNCF4868CV	340	420	80	368	390	–	9.4	5	2.1	2.1	6	351	360	410	2	2
NNCL4868CV	340	420	80	368	–	396.9	9.4	5	2.1	–	6	351	–	410	2	–
NNC4868CV	340	420	80	369	369	–	9.4	5	2.1	–	–	551	360	410	2	–
NNCF4968CV	340	460	118	385	419	–	9.4	5	3	3	6	356	371	445	2.5	2.5
NNCL4968CV	340	460	118	385	–	430.11	9.4	5	3	–	6	356	–	445	2.5	–
NNC4968CV	340	460	118	385	419	–	9.4	5	3	–	–	356	371	445	2.5	–
NNCF5068CV	340	520	243	395	468	–	9.4	5	5	5	11	362	384	500	4	4
NNCF4872CV	360	440	80	391	413	–	9.4	5	2.1	2.1	6	371	381	429	2	2
NNCL4872CV	360	440	80	391	–	419.8	9.4	5	2.1	–	6	371	–	429	2	–
NNC4872CV	360	440	80	391	413	–	9.4	5	2.1	–	–	371	381	429	2	–
NNCF4972CV	360	480	118	404	437	–	9.4	5	3	3	6	375	390	464	2.5	2.5
NNCL4972CV	360	480	118	404	–	447.95	9.4	5	3	–	6	375	–	464	2.5	–
NNC4972CV	360	480	118	404	437	–	9.4	5	3	–	–	375	390	464	2.5	–
NNCF5072CV	360	540	243	412	486	–	9.4	5	5	5	11	383	402	519	4	4
NNCF4876CV	380	480	100	419	447	–	9.4	5	2.1	2.1	6	391	405	469	2	2
NNCL4876CV	380	480	100	419	–	455.8	9.4	5	2.1	–	6	391	–	469	2	–
NNC4876CV	380	480	100	419	447	–	9.4	5	2.1	–	–	391	405	469	2	–
NNCF4976CV	380	520	140	430	469	–	9.4	5	4	4	7	398	414	502	3	3
NNCL4976CV	380	520	140	430	–	481.35	9.4	5	4	–	7	398	–	502	3	–
NNC4976CV	380	520	140	430	469	–	9.4	5	4	–	–	398	414	502	3	–
NNCF5076CV	380	560	243	485	531	–	9.4	5	5	5	11	403	417	539	4	4
NNCF4880CV	400	500	100	434	462	–	9.4	5	2.1	2.1	6	411	423	488	2	2
NNCL4880CV	400	500	100	434	–	470.59	9.4	5	2.1	–	6	411	–	488	2	–
NNC4880CV	400	500	100	434	462	–	9.4	5	2.1	–	–	411	423	488	2	–
NNCF4980CV	400	540	140	451	489	–	9.4	5	4	4	7	418	435	521	3	3
NNCL4980CV	400	540	140	451	–	501.74	9.4	5	4	–	7	418	–	521	3	–
NNC4980CV	400	540	140	451	489	–	9.4	5	4	–	–	418	435	521	3	–
NNCF5080CV	400	600	272	460	540	–	9.4	5	5	5	11	424	442	578	4	4

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic C	Static C_0	P_u			k_r
-	kg	kN			r/min		-
NNCF5064CV	135	3874.5	7297.5	651	588	735	0.5
NNCF4868CV	25	958.65	2520	226.8	630	787.5	0.2
NNCL4868CV	25.5	958.65	2520	226.8	630	787.5	0.2
NNC4868CV	25.5	958.65	2520	226.8	630	787.5	0.2
NNCF4968CV	58.5	1879.5	4462.5	409.5	588	735	0.25
NNCL4968CV	58	1879.5	4462.5	409.5	588	735	0.25
NNC4968CV	59	1879.5	4462.5	409.5	588	735	0.25
NNCF5068CV	185	4620	8715	745.5	556.5	703.5	0.5
NNCF4872CV	26.5	981.75	2677.5	235.2	588	735	0.2
NNCL4872CV	26	981.75	2677.5	235.2	588	735	0.2
NNC4872CV	27	981.75	2677.5	235.2	588	735	0.2
NNCF4972CV	61.5	1921.5	4725	425.25	556.5	703.5	0.25
NNCL4972CV	61	1921.5	4725	425.25	556.5	703.5	0.25
NNC4972CV	62	1921.5	4725	425.25	556.5	703.5	0.25
NNCF5072CV	195	4389	9082.5	771.75	525	661.5	0.5
NNCF4876CV	45	1470	3832.5	330.75	556.5	703.5	0.2
NNCL4876CV	44	1470	3832.5	330.75	556.5	703.5	0.2
NNC4876CV	45.5	1470	3832.5	330.75	556.5	703.5	0.2
NNCF4976CV	91.5	2499	5985	525	525	661.5	0.25
NNCL4976CV	90.5	2499	5985	525	525	661.5	0.25
NNC4976CV	92.5	2499	5985	525	525	661.5	0.25
NNCF5076CV	200	4914	9607.5	787.5	504	630	0.5
NNCF4880CV	46	1491	3937.5	341.25	525	661.5	0.2
NNCL4880CV	46	1491	3937.5	341.25	525	661.5	0.2
NNC4880CV	46.5	1491	3937.5	341.25	525	661.5	0.2
NNCF4980CV	95.5	2541	6300	546	504	630	0.25
NNCL4980CV	94.5	2541	6300	546	504	630	0.25
NNC4980CV	96.5	2541	6300	546	504	630	0.25
NNCF5080CV	270	5775	11550	945	472.5	588	0.5

Sealed double row full complement cylindrical roller bearings

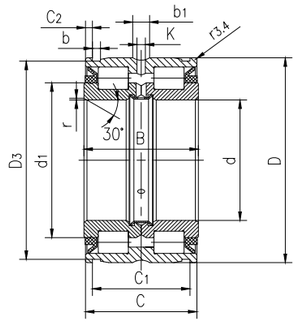


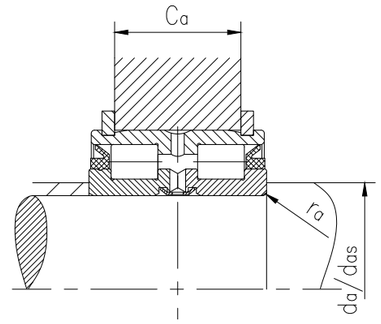


Type	Applicable stop ring		Main dimensions				Dimensions									Shoulder and chamfer dimensions				
	Seeger	DIN 471	d	D	B	C	d_1 ≈	D_3	C_1 +0.2	C_2	b	b_1	K	r min.	$r_{3,4}$ min.	d_a min.	d_{as}	C_{a1} -0.2	C_{a2} -0.2	r_a max.
-	-		mm				mm									mm				
NNF5004ADB-2LSV	SW42	42x1.75	20	42	30	29	30.6	40.2	24.7	2.15	1.8	6.5	3.5	0.5	0.3	24	28.8	21.5	21	0.3
NNF5005ADB-2LSV	SW47	47x1.75	25	47	30	29	35.4	45.2	24.7	2.15	1.8	6.5	3.5	0.5	0.3	29	33.6	21.5	21	0.3
NNF5006ADB-2LSV	SW55	55x2	30	55	34	33	40.6	53	28.2	2.4	2.1	7.5	4.5	0.5	0.3	34	38.7	25	24	0.3
NNF5007ADB-2LSV	SW62	62x2	35	62	36	35	46.1	60	30.2	2.4	2.1	7.5	4.5	0.5	0.3	39	44	27	26	0.3
NNF5008ADB-2LSV	SW68	68x2.5	40	68	38	37	51.4	65.8	32.2	2.4	2.7	7.5	4.5	0.8	0.6	44	49.2	28	27	0.4
NNF5009ADB-2LSV	SW75	75x2.5	45	75	40	39	57	72.8	34.2	2.4	2.7	8.5	4.5	0.8	0.6	49	54.7	30	29	0.4
NNF5010ADB-2LSV	SW80	80x2.5	50	80	40	39	61.8	77.8	34.2	2.4	2.7	8.5	4.5	0.8	0.6	54	59.5	30	29	0.4
NNF5011ADB-2LSV	SW90	90x3	55	90	46	45	68.6	87.4	40.2	2.4	3.2	8.5	4.5	1	0.6	60	66.1	35	34	0.6
NNF5012ADB-2LSV	SW95	95x3	60	95	46	45	73.7	92.4	40.2	2.4	3.2	9.5	5	1	0.6	65	71.2	35	34	0.6
NNF5013ADB-2LSV	SW100	100x3	65	100	46	45	78.8	97.4	40.2	2.4	3.2	9.5	5	1	0.6	70	76.3	35	34	0.6
NNF5014ADB-2LSV	SW110	110x4	70	110	54	53	84.5	107.1	48.2	2.4	4.2	9.5	5	1	0.6	75	82	43	40	0.6
NNF5015ADB-2LSV	SW115	115x4	75	115	54	53	90	112.1	48.2	2.4	4.2	9.5	5	1	0.6	80	87	43	40	0.6
NNF5016B-2LS	SW125	125x4	80	125	60	59	97	122.1	54.2	2.4	4.2	6	3.5	1.5	0.6	86	94.3	49	46	1
NNF5017B-2LS	SW130	130x4	85	130	60	59	101	127.1	54.2	2.4	4.2	6	3.5	1.5	0.6	91	100	49	46	1
NNF5018B-2LS	SW140	140x4	90	140	67	66	109	137	59.2	3.4	4.2	6	3.5	1.5	0.6	96	106	54	51	1
NNF5019B-2LS	SW145	145x4	95	145	67	66	113	142	59.2	3.4	4.2	6	3.5	1.5	0.6	101	110	54	51	1
NNF5020B-2LS	SW150	150x4	100	150	67	66	118	147	59.2	3.4	4.2	6	3.5	1.5	0.6	106	115	54	51	1
NNF5022B-2LS	SW170	170x4	110	170	80	79	132	167	70.2	4.4	4.2	6	3.5	1.8	0.6	117	128	65	62	1.5
NNF5024B-2LS	SW180	180x4	120	180	80	79	141	176	71.2	3.9	4.2	6	3.5	1.8	0.6	127	138	65	63	1.5
319426B-2LS	SW190	190x4	130	190	80	79	151	186	71.2	3.9	4.2	6	3.5	1.8	0.6	137	147	65	63	1.5
NNF5026B-2LS	SW200	200x4	130	200	95	94	155	196	83.2	5.4	4.2	7	4	1.8	0.6	137	150	77	75	1.5

Type	Applicable stop ring		Weight	Basic load rating		Fatigue load limit	Maximum speed	Calculate the coefficient
	Seeger	DIN 471		Dynamic C	Static C_0	P_u		k_r
-	-		kg	kN			r/min	-
NNF5004ADB-2LSV	SW42	42x1.75	0.2	47.985	57.75	5.985	3570	0.4
NNF5005ADB-2LSV	SW47	47x1.75	0.24	52.605	68.775	7.14	3150	0.4
NNF5006ADB-2LSV	SW55	55x2	0.37	60.06	78.75	8.19	2730	0.4
NNF5007ADB-2LSV	SW62	62x2	0.48	73.92	102.9	11.13	2310	0.4
NNF5008ADB-2LSV	SW68	68x2.5	0.56	90.09	121.8	13.86	2100	0.4
NNF5009ADB-2LSV	SW75	75x2.5	0.7	107.1	153.3	17.85	1890	0.4
NNF5010ADB-2LSV	SW80	80x2.5	0.76	113.4	168	19.53	1785	0.4
NNF5011ADB-2LSV	SW90	90x3	1.2	134.4	202.65	23.94	1575	0.4
NNF5012ADB-2LSV	SW95	95x3	1.25	140.7	218.4	26.25	1470	0.4
NNF5013ADB-2LSV	SW100	100x3	1.35	144.9	235.2	27.825	1365	0.4
NNF5014ADB-2LSV	SW110	110x4	1.85	196.35	299.25	36.225	1260	0.4
NNF5015ADB-2LSV	SW115	115x4	1.95	235.2	325.5	42	1155	0.4
NNF5016B-2LS	SW125	125x4	2.7	263.55	435.75	55.65	1050	0.4
NNF5017B-2LS	SW130	130x4	2.85	283.5	451.5	57.75	1050	0.4
NNF5018B-2LS	SW140	140x4	3.7	334.95	577.5	72.975	945	0.4
NNF5019B-2LS	SW145	145x4	3.9	346.5	598.5	74.55	945	0.4
NNF5020B-2LS	SW150	150x4	3.95	352.8	598.5	71.4	892.5	0.4
NNF5022B-2LS	SW170	170x4	6.45	433.65	729.75	85.575	787.5	0.4
NNF5024B-2LS	SW180	180x4	6.9	450.45	787.5	90.825	735	0.4
319426B-2LS	SW190	190x4	7.3	468.3	855.75	96.075	703.5	0.4
NNF5026B-2LS	SW200	200x4	10.5	646.8	1092	126	661.5	0.4

Sealed double row full complement cylindrical roller bearings





Type	Applicable stop ring		Main dimensions				Dimensions									Shoulder and chamfer dimensions				
	Seeger	DIN 471	d	D	B	C	d_1 ≈	D_3	C_1 +0.2	C_2	b	b_1	K	r min.	$r_{3,4}$ min.	d_a min.	d_{as}	C_{a1} -0.2	C_{a2} -0.2	r_a max.
-	-		mm				mm									mm				
319428DA-2LS	SW200	200x4	140	200	80	79	160	196	71.2	3.9	4.2	7	4	1.8	0.6	147	156	65	63	1
NNF5028B-2LS	SW210	210x5	140	210	95	94	167	206	83.2	5.4	5.2	7	4	1.8	0.6	147	162	77	73	1.5
319430B-2LS	SW210	210x5	150	210	80	79	170	206	71.2	3.9	5.2	7	4	1.8	0.6	157	166	65	61	1.5
NNF5030B-2LS	SW225	225x5	150	225	100	99	177	221	87.2	5.9	5.2	7	4	2	0.6	157	172	81	77	2
319432DA-2LS	SW220	220x5	160	220	80	79	184	216	71.2	3.9	5.2	7	4	1.8	0.6	167	180	65	61	1
NNF5032B-2LS	SW240	240x5	160	240	109	108	191	236	95.2	6.4	5.2	7	4	2	0.6	167	186	89	85	2
319434B-2LS	SW230	230x5	170	230	80	79	194	226	71.2	3.9	5.2	7	4	1.8	0.6	177	190	65	61	1.5
NNF5034B-2LS	SW260	260x5	170	260	122	121	203	254	107	6.9	5.2	7	4	2	0.6	177	197	99	97	2
319436DA-2LS	SW240	240x5	180	240	80	79	203	236	71.2	3.9	5.2	7	4	1.8	0.6	187	199	65	61	1
NNF5036B-2LS	SW280	280x5	180	280	136	135	220	274	118	8.4	5.2	8	4	2	0.6	187	214	110	108	2
319438DA-2LS	SW260	260x5	190	260	80	79	218	254	73.2	2.9	5.2	7	4	1.8	0.6	197	214	65	63	1
NNF5038B-2LS	SW290	290x5	190	290	136	135	228	284	118	8.4	5.2	8	4	2	0.6	197	222	110	108	2
319440B-2LS	SW270	270x5	200	270	80	79	227	264	73.2	2.9	5.2	7	4	1.8	0.6	207	223	65	63	1.5
NNF5040B-2LS	SW310	310x6	200	310	150	149	245	304	128	10.4	6.3	8	4	2	0.6	207	239	120	116	2
319444B-2LS	SW300	300x5	220	300	95	94	250	295	83.2	5.4	5.2	8	6	1.8	1	227	246	75	73	1.5
NNF5044B-2LS	SW340	340x6	220	340	160	159	263	334	138	10.4	6.3	9.5	6	2	1	227	256	130	126	2
319448B-2LS	SW320	320x6	240	320	95	94	269	314	83.2	5.4	6.3	8	6	1.8	1	247	265	75	71	1.5
NNF5048B-2LS	SW360	360x6	240	360	160	159	282	354	138	10.4	6.3	9.5	6	2	1	247	275	130	126	2
319452B-2LS	SW340	340x6	260	340	95	94	291	334	83.2	5.4	6.3	8	6	1.8	1	267	286	75	71	1.5
NNF5052B-2LS	SW400	400x6	260	400	190	189	309	394	162	13.4	6.3	9.5	6	2	1.1	268	300	154	150	2
NNF5056B-2LS	SW420	420x7	280	420	190	189	333	413	163	12.9	7.3	9.5	6	2	1.1	288	324	154	149	2

Type	Applicable stop ring		Weight	Basic load rating		Fatigue load limit	Maximum speed	Calculate the coefficient
	Seeger	DIN 471		Dynamic C	Static C_0	P_u		k_r
-	-		kg	kN			r/min	-
319428DA-2LS	SW200	200x4	8	491.4	908.25	101.325	661.5	0.4
NNF5028B-2LS	SW210	210x5	11	676.2	1176	133.35	630	0.4
319430B-2LS	SW210	210x5	8.4	508.2	960.75	105	630	0.4
NNF5030B-2LS	SW225	225x5	13.5	785.4	1354.5	150.15	588	0.4
319432DA-2LS	SW220	220x5	8.8	526.05	1050	111.3	556.5	0.4
NNF5032B-2LS	SW240	240x5	16.5	820.05	1470	160.65	525	0.4
319434B-2LS	SW230	230x5	9.2	537.6	1113	115.5	556.5	0.4
NNF5034B-2LS	SW260	260x5	22.5	1060.5	1890	202.65	504	0.4
319436DA-2LS	SW240	240x5	9.8	554.4	1155	119.7	504	0.4
NNF5036B-2LS	SW280	280x5	31	1228.5	2226	239.4	472.5	0.4
319438DA-2LS	SW260	260x5	12.5	577.5	1239	126	472.5	0.4
NNF5038B-2LS	SW290	290x5	31.5	1249.5	2310	247.8	451.5	0.4
319440B-2LS	SW270	270x5	13	612.15	1438.5	143.85	451.5	0.4
NNF5040B-2LS	SW310	310x6	42	1522.5	3045	315	420	0.4
319444B-2LS	SW300	300x5	19	924	1953	199.5	399	0.4
NNF5044B-2LS	SW340	340x6	54	1690.5	3255	330.75	378	0.4
319448B-2LS	SW320	320x6	20	999.6	2142	210	378	0.4
NNF5048B-2LS	SW360	360x6	57.5	1764	3517.5	351.75	357	0.4
319452B-2LS	SW340	340x6	22	1039.5	2268	222.6	357	0.4
NNF5052B-2LS	SW400	400x6	86	2541	4882.5	477.75	315	0.4
NNF5056B-2LS	SW420	420x7	91	2677.5	5250	514.5	294	0.4

Tapered Roller Bearing

Features

Tapered roller bearings consist of an inner ring, an outer ring, a window cage, and tapered rollers. Inner and outer rings with roller and cage assemblies can be mounted separately.

According to the number of rows, tapered roller bearings can be divided into single row tapered roller bearings, double row tapered roller bearings and so on. KMR can provide metric and inch bearings, and those with the letter K in the model number are inch bearings. In new designs, metric tapered roller bearings are preferred.

Cage

Tapered roller bearings use stamped steel cages by default.

Contact angle

The axial load capacity depends on the contact angle, that is, the larger the contact angle, the greater the axial load that the bearing can bear.

Angle misalignment compensation

The improved contact line between the tapered rollers and the inner and outer ring raceways optimizes the stress distribution at the contact point. So that prevent edge stress and allows compensation of bearing misalignment.

When the load ratio P/Cr<0.2, the relative inclination angle of the inner and outer rings of the bearing cannot exceed 4'.

paired bearing

Tapered roller bearings with the suffix DF are face-to-face paired bearing sets that can withstand large bidirectional axial loads. Tapered roller bearings with the suffix DB are back-to-back paired bearing sets that can withstand bidirectional axial loads. It can also withstand overturning moment. Tapered roller bearings with the suffix DT are bearing groups arranged in series. This configuration can be used when the bearing capacity of a single set of bearings is insufficient. This configuration can only bear one-way axial force.

The internal axial clearance of matched bearings is determined by the spacer ring between the two outer rings.

Radial and axial load carrying capacity

Tapered roller bearings can bear axial loads in one direction and high radial loads. Usually two tapered roller bearings are paired in a symmetrical arrangement.

Lubricating

Standard design and paired tapered roller bearings can be lubricated with oil or grease.

Operating temperature

The applicable operating temperature range of tapered roller bearings is -30°C to +150°C.

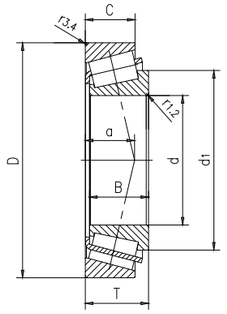




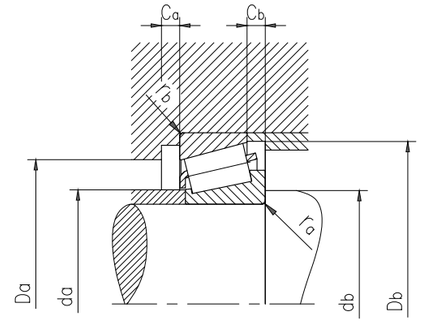
Suffix for an existing design

Suffix	Meaning
A C D	Deviating or modiied internal design, combinations are possible
B	Steep contact angle
E	KMR Explorer bearing (only for double row bearings)
G	Helical groove in the inner ring bore (only for double row bearings)
R	Flanged outer ring
T..	A number immediately following the T identiies the total width of matched bearings,
X	arranged back-to-back or in tandem.
TN9	Glass ibre reinforced PA66 cage, roller centred
TNH	Glass ibre reinforced PEEK cage, roller centred
HA1	Case-hardened inner and outer rings
HA2	Case-hardened outer ring
HA3	Case-hardened inner ring
HA4	Case-hardened inner and outer rings and rollers
HA5	Case-hardened rollers
HA6	Case-hardened outer ring(s) and rollers
HA7	Case-hardened inner ring(s) and rollers
HB1	Bainite-hardened inner and outer rings
HB2	Bainite-hardened outer ring(s)
HN3	Inner ring with special surface heat treatment
L4B	Bearing rings and rollers with special surface coating
/1	Deviating width tolerances of cups and cones for inch bearings (table 4, page 678)
C...	Axial internal clearance (only for double row bearings) The three- or four-digit number immediately following the C is the mean axial internal clearance in µm.
CLO	Geometrical tolerances to ABMA tolerance class 0 (inch bearing)
CLOO	Geometrical tolerances to ABMA tolerance class 00 (inch bearing)
P5	Geometrical tolerances to P5 tolerance class
U..	U combined with a one- or two-digit number identiies tighter total width tolerance, e.g.: U2 → +5/0 µm U4 → +10/0 µm
W	Modiied ring width tolerance to +5/0 µm
DB..	Two bearings matched for mounting back-to-back. A number immediately following the DB identiies the design of the ring spacers.
DF..	Two bearings matched for mounting face-to-face. A number immediately following the DF identiies the design of the ring spacer.
DT..	Two bearings matched for mounting in tandem. A number immediately following the DT identiies the design of the ring spacers.
C...	Special clearance The two- or three-digit number immediately following the C is the mean axial internal clearance in µm. The range remains the same as speciied in table 6, page 679.

Metric single row tapered roller bearings

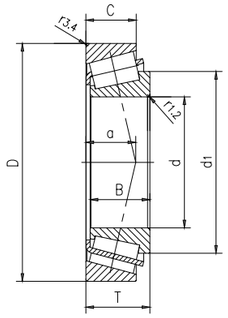


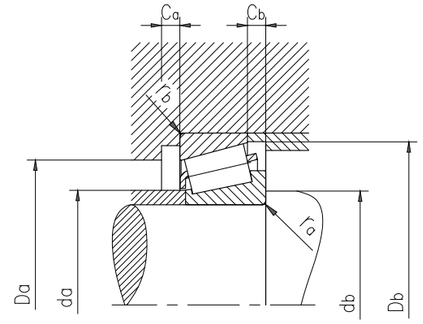
Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
30202	2CC	15	35	11.75	25.6	11	9.25	0.6	0.6	8	20	20.5	30	30.5	32	2	2.5	0.6	0.6
30302	2FB	15	42	14.25	27.8	13	11	1	1	9	22	21.5	36	36.5	38	2	3	1	1
30203	2DB	17	40	13.25	29	12	11	1	1	9	23	23.5	34	34.5	37	2	2	1	1
30303	2FB	17	47	15.25	30.5	14	12	1	1	10	25	23.5	40	41.5	42	2	3	1	1
32303	2FD	17	47	20.25	30.7	19	16	1	1	12	24	23.5	39	41.5	43	3	4	1	1
32004X	3CC	20	42	15	32.1	15	12	0.6	0.6	10	25	25.5	36	37.5	39	3	3	0.6	0.6
30204	2DB	20	47	15.25	33.7	14	12	1	1	11	28	26.5	40	41.5	43	2	3	1	1
30304	2FB	20	52	16.25	34.4	15	13	1.5	1.5	11	28	27.5	44	45.5	47	2	3	1.5	1.5
32304	2FD	20	52	22.25	34.6	21	18	1.5	1.5	13	27	27.5	43	45.5	47	3	4	1.5	1.5
320/22X	3CC	22	44	15	34.3	15	11.5	0.6	0.6	10	27	27.5	38	39	41	3	3.5	0.6	0.6
32005X	4CC	25	47	15	37.5	15	11.5	0.6	0.6	11	30	31	40	42	44	3	3.5	0.6	0.6
30205	3CC	25	52	16.25	38	15	13	1	1	12	32	31.5	44	46	48	2	3	1	1
32205B	5CD	25	52	19.25	41.5	18	15	1	1	15	30	32	41	46.5	50	3	4	1	1
32205	2CD	25	52	19.25	38.4	18	16	1	1	13	31	32	44	46	50	3	3	1	1
33205	2CE	25	52	22	38.7	22	18	1	1	13	31	32	43	46	49	4	4	1	1
31305	7FB	25	62	18.25	45.8	17	13	1.5	1.5	19	34	33	47	55	59	3	5	1.5	1.5
30305	2FB	25	62	18.25	41.5	17	15	1.5	1.5	12	35	33	54	55	57	2	3	1.5	1.5
32305	2FD	25	62	25.25	41.7	24	20	1.5	1.5	15	33	33	52	55	57	3	5	1.5	1.5
320/28X	4CC	28	52	16	41.3	16	12	1	1	12	34	35	45	46	49	3	4	1	1
302/28	3DC	28	58	17.25	42	16	14	1	1	13	35	35	50	52	54	2	3	1	1
322/28B	5CD	28	58	20.25	43.9	19	16	1	1	16	33	35	46	52	55	3	4	1	1
32006X	4CC	30	55	17	43.6	17	13	1	1	13	36	37	48	49	52	3	4	1	1
30206	3DB	30	62	17.25	45.3	16	14	1	1	13	38	37	53	56	57	2	3	1	1
32206	3DC	30	62	21.25	45.2	20	17	1	1	15	37	37	52	56	58	3	4	1	1
33206	2DE	30	62	25	45.8	25	19.5	1	1	15	37	37	53	56	59	4	5.5	1	1
31306	7FB	30	72	20.75	52.7	19	14	1.5	1.5	22	40	38.5	55	65	68	3	6.5	1.5	1.5
30306	2FB	30	72	20.75	48.4	19	16	1.5	1.5	14	41	38	62	64	66	3	4.5	1.5	1.5
32306	2FD	30	72	28.75	48.7	27	23	1.5	1.5	17	39	38	59	65	66	4	5.5	1.5	1.5
JL26749/710	L26700	32	53	14.5	43.6	15	11.5	3.6	1.3	11	38	44	48	46.5	50	2	3	3.6	1.3
320/32X	4CC	32	58	17	46.2	17	13	1	1	13	38	39	50	52	55	3	4	1	1
32007X	4CC	35	62	18	49.6	18	14	1	1	14	41	42	54	56	59	4	4	1	1
30207	3DB	35	72	18.25	51.9	17	15	1.5	1.5	14	44	43.5	62	64	67	3	3	1.5	1.5
32207	3DC	35	72	24.25	52.4	23	19	1.5	1.5	17	43	43.5	61	64	67	3	5	1.5	1.5
33207	2DE	35	72	28	53.4	28	22	1.5	1.5	18	43	43.5	61	64	68	5	6	1.5	1.5
31307	7FB	35	80	22.75	59.6	21	15	2	1.5	24	45	44.5	62	72	76	3	7.5	2	1.5
30307	2FB	35	80	22.75	54.5	21	18	2	1.5	16	46	44.5	70	72	74	3	4.5	2	1.5
32307B	5FE	35	80	32.75	59.3	31	25	2	1.5	24	43	44.5	61	72	76	4	7.5	2	1.5



Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
30202	2CC	0.055	19.425	15.33	1.5015	17850	21000	0.35	1.7	0.9
30302	2FB	0.094	29.085	21	2.184	15750	18900	0.28	2.1	1.1
30203	2DB	0.079	24.57	19.53	1.9215	15750	18900	0.35	1.7	0.9
30303	2FB	0.13	35.91	26.25	2.835	13650	16800	0.28	2.1	1.1
32303	2FD	0.17	44.94	35.175	3.8325	12600	16800	0.28	2.1	1.1
32004X	3CC	0.099	31.185	28.35	2.7825	13650	16800	0.37	1.6	0.9
30204	2DB	0.12	35.805	29.4	3.15	12600	15750	0.35	1.7	0.9
30304	2FB	0.17	43.995	34.125	3.7275	12600	14700	0.3	2	1.1
32304	2FD	0.23	57.015	47.775	5.25	11550	14700	0.3	2	1.1
320/22X	3CC	0.1	32.445	30.45	2.9925	13650	15750	0.4	1.5	0.8
32005X	4CC	0.11	34.86	34.125	3.4125	12600	14700	0.43	1.4	0.8
30205	3CC	0.15	40.005	35.175	3.6225	11550	13650	0.37	1.6	0.9
32205B	5CD	0.19	46.725	46.2	4.8825	10500	13650	0.57	1.05	0.6
32205	2CD	0.19	52.92	47.775	5.145	11550	13650	0.35	1.7	0.9
33205	2CE	0.22	60.795	58.8	6.3	10500	13650	0.35	1.7	0.9
31305	7FB	0.27	48.93	42	4.62	8925	11550	0.83	0.72	0.4
30305	2FB	0.26	58.065	45.15	4.9875	9975	12600	0.3	2	1.1
32305	2FD	0.36	77.805	66.15	7.455	9450	12600	0.3	2	1.1
320/28X	4CC	0.14	40.95	39.9	4.2	10500	13650	0.43	1.4	0.8
302/28	3DC	0.2	48.93	43.575	4.62	10500	12600	0.37	1.6	0.9
322/28B	5CD	0.25	54.495	52.5	5.775	9975	12600	0.57	1.05	0.6
32006X	4CC	0.17	46.095	46.2	4.7775	10500	12600	0.43	1.4	0.8
30206	3DB	0.23	52.5	46.2	5.04	9450	11550	0.37	1.6	0.9
32206	3DC	0.29	64.89	59.85	6.615	9450	11550	0.37	1.6	0.9
33206	2DE	0.35	83.685	80.325	8.925	8925	11550	0.35	1.7	0.9
31306	7FB	0.39	61.215	52.5	5.985	7875	9975	0.83	0.72	0.4
30306	2FB	0.38	72.66	58.8	6.72	8400	10500	0.31	1.9	1.1
32306	2FD	0.55	99.75	89.25	10.1325	7875	10500	0.31	1.9	1.1
JL26749/710	L26700	0.12	34.65	37.275	3.8325	10500	12600	0.33	1.8	1
320/32X	4CC	0.19	47.355	48.825	5.04	9450	11550	0.46	1.3	0.7
32007X	4CC	0.23	54.915	56.7	6.1425	8925	10500	0.46	1.3	0.7
30207	3DB	0.33	66.36	58.8	6.405	8400	9975	0.37	1.6	0.9
32207	3DC	0.44	85.26	81.9	8.925	8400	9975	0.37	1.6	0.9
33207	2DE	0.53	109.2	111.3	12.39	7350	9975	0.35	1.7	0.9
31307	7FB	0.52	79.17	70.35	8.19	6615	8925	0.83	0.72	0.4
30307	2FB	0.51	93.345	77.175	8.715	7875	9450	0.31	1.9	1.1
32307B	5FE	0.8	120.75	119.7	13.545	6615	8925	0.54	1.1	0.6

Metric single row tapered roller bearings

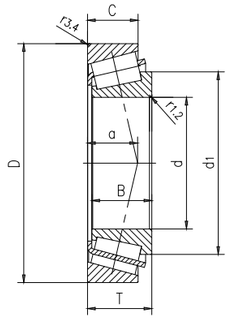


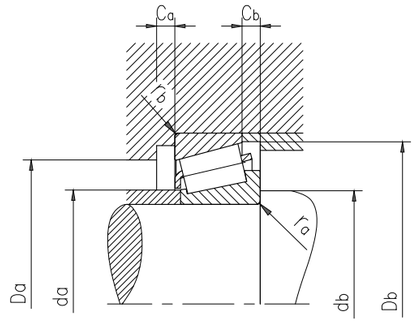


Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
32307	2FE	35	80	32.75	54.8	31	25	2	1.5	20	44	44.5	66	72	74	4	7.5	2	1.5
JL69349/310	L69300	38	63	17	52.2	17	13.5	3.6	1.3	14	44	50.5	55	56	60	3	3.5	3.6	1.3
JL69345/310	L69300	38	63	17	52.2	19	13.5	3.6	1.3	14	44	50.5	55	56	60	3	3.5	3.6	1.3
JL69349A/310	L69300	38	63	17	52.2	17	13.5	1.3	1.3	14	44	46	55	56	60	3	3.5	1.3	1.3
JL69349X/310	L69300	38	63	17	52.2	17	13.5	2.3	1.3	14	44	48	55	56	60	3	3.5	2.3	1.3
32008X	3CD	40	68	19	54.7	19	14.5	1	1	14	46	47.5	60	61	65	4	4.5	1	1
33108	2CE	40	75	26	57.5	26	20.5	1.5	1.5	17	47	48.5	65	67	71	4	5.5	1.5	1.5
30208	3DB	40	80	19.75	57.5	18	16	1.5	1.5	16	49	48.5	69	72	74	3	3.5	1.5	1.5
32208	3DC	40	80	24.75	58.4	23	19	1.5	1.5	18	49	48.5	68	72	75	3	5.5	1.5	1.5
33208	2DE	40	80	32	59.7	32	25	1.5	1.5	20	47	48.5	67	72	76	5	7	1.5	1.5
T2EE040	2EE	40	85	33	61.2	32.5	28	2.5	2	21	48	50.5	70	76	80	5	5	2.5	2
31308	7FB	40	90	25.25	67.1	23	17	2	1.5	28	51	50	71	82	86	3	8	2	1.5
30308	2FB	40	90	25.25	62.5	23	20	2	1.5	19	53	49.5	77	82	82	3	5	2	1.5
32308B	5FD	40	90	35.25	67.1	33	27	2	1.5	27	50	50	67	82	84	4	8	2	1.5
32308	2FD	40	90	35.25	62.9	33	27	2	1.5	22	51	49.5	73	82	82	4	8	2	1.5
32009X	3CC	45	75	20	60.7	20	15.5	1	1	16	52	52.5	67	68	72	4	4.5	1	1
33109	3CE	45	80	26	63	26	20.5	1.5	1.5	18	52	53.5	69	72	77	4	5.5	1.5	1.5
30209	3DB	45	85	20.75	63.1	19	16	1.5	1.5	17	54	53.5	74	77	80	3	4.5	1.5	1.5
32209	3DC	45	85	24.75	64.1	23	19	1.5	1.5	19	54	53.5	73	77	80	3	5.5	1.5	1.5
33209	3DE	45	85	32	65.3	32	25	1.5	1.5	21	52	53.5	72	77	81	5	7	1.5	1.5
T7FC045	7FC	45	95	29	73.4	26.5	20	2.5	2.5	32	54	56	71	85	91	3	9	2.5	2.5
T2ED045	2ED	45	95	36	68.7	35	30	2.5	2.5	23	55	56	80	85	89	6	6	2.5	2.5
31309	7FB	45	100	27.25	74.7	25	18	2	1.5	31	57	55	79	92	95	4	9	2	1.5
30309	2FB	45	100	27.25	70.2	25	22	2	1.5	20	59	55	86	92	92	3	5	2	1.5
32309B	5FD	45	100	38.25	76.1	36	30	2	1.5	29	56	55	76	92	94	5	8	2	1.5
32309	2FD	45	100	38.25	71.1	36	30	2	1.5	24	57	55	82	92	93	4	8	2	1.5
32910	2BC	50	72	15	62.2	15	12	1	1	13	56	57.5	66	65	69	3	3	1	1
32010X	3CC	50	80	20	65.9	20	15.5	1	1	17	57	57.5	72	73	77	4	4.5	1	1
33010	2CE	50	80	24	65.3	24	19	1	1	17	57	57.5	72	73	76	4	5	1	1
JLM104948	LM104900	50	82	21.5	65.1	21.5	17	3.6	1.2	15	57	63	74	75	78	4	4.5	3.6	1.2
JLM104945/910	LM104900	50	82	21.501	65.2	27.7	17	3	0.5	15	57	61.5	74	76	78	4	4.5	3	0.5
33110	3CE	50	85	26	68	26	20	1.5	1.5	20	57	59	74	77	82	4	6	1.5	1.5
30210	3DB	50	90	21.75	68	20	17	1.5	1.5	19	59	59	79	82	85	3	4.5	1.5	1.5
32210	3DC	50	90	24.75	68.6	23	19	1.5	1.5	20	58	59	78	82	85	3	5.5	1.5	1.5
JM205149/110	M205100	50	90	28	68.8	28	23	3	2.5	20	58	62	78	80	85	5	5	3	2.5
JM205149/110A	M205100	50	90	28	68.8	28	23	3	0.8	20	58	62	78	83	85	5	5	3	0.8
33210	3DE	50	90	32	70.8	32	24.5	1.5	1.5	22	57	59	77	82	87	5	7.5	1.5	1.5

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
32307	2FE	0.75	122.85	111.3	12.81	7035	9450	0.31	1.9	1.1
JL69349/310	L69300	0.2	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
JL69345/310	L69300	0.21	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
JL69349A/310	L69300	0.21	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
JL69349X/310	L69300	0.21	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
32008X	3CD	0.28	67.935	74.55	8.0325	7875	9975	0.37	1.6	0.9
33108	2CE	0.5	102.375	109.2	11.97	7350	9450	0.35	1.7	0.9
30208	3DB	0.42	79.59	71.4	8.0325	7350	8925	0.37	1.6	0.9
32208	3DC	0.53	96.18	90.825	10.29	7350	8925	0.37	1.6	0.9
33208	2DE	0.73	134.4	138.6	15.75	6615	8925	0.35	1.7	0.9
T2EE040	2EE	0.9	157.5	157.5	18.165	7035	8400	0.35	1.7	0.9
31308	7FB	0.72	95.655	85.575	9.975	5880	7875	0.83	0.72	0.4
30308	2FB	0.73	111.3	99.75	11.34	6615	8400	0.35	1.7	0.9
32308B	5FD	1.1	140.7	147	16.8	5880	7875	0.54	1.1	0.6
32308	2FD	1.05	150.15	147	16.8	6300	8400	0.35	1.7	0.9
32009X	3CC	0.34	75.285	84	9.24	7350	8925	0.4	1.5	0.8
33109	3CE	0.55	109.2	119.7	13.545	7035	8400	0.37	1.6	0.9
30209	3DB	0.47	85.68	80.325	9.0825	6615	8400	0.4	1.5	0.8
32209	3DC	0.58	103.635	102.9	11.55	6615	8400	0.4	1.5	0.8
33209	3DE	0.79	138.6	150.15	17.115	6300	7875	0.4	1.5	0.8
T7FC045	7FC	0.93	115.5	117.6	13.335	5565	7350	0.88	0.68	0.4
T2ED045	2ED	1.2	191.1	195.3	21.84	6300	7350	0.33	1.8	1
31309	7FB	0.95	118.65	107.1	13.125	5250	7035	0.83	0.72	0.4
30309	2FB	0.97	138.6	126	15.015	5880	7350	0.35	1.7	0.9
32309B	5FD	1.5	174.3	184.8	21	5250	7035	0.54	1.1	0.6
32309	2FD	1.4	181.65	178.5	21.42	5565	7350	0.35	1.7	0.9
32910	2BC	0.19	43.365	55.65	5.88	7350	8925	0.35	1.7	0.9
32010X	3CC	0.38	78.855	92.4	10.1325	6615	8400	0.43	1.4	0.8
33010	2CE	0.45	89.04	107.1	11.97	6615	8400	0.31	1.9	1.1
JLM104948	LM104900	0.43	93.345	105	11.55	6615	8400	0.3	2	1.1
JLM104945/910	LM104900	0.46	93.345	105	11.55	6615	8400	0.3	2	1.1
33110	3CE	0.58	111.3	128.1	14.07	6300	7875	0.4	1.5	0.8
30210	3DB	0.54	97.755	96.075	10.92	6300	7875	0.43	1.4	0.8
32210	3DC	0.62	106.05	105	11.97	6300	7875	0.43	1.4	0.8
JM205149/110	M205100	0.75	136.5	147	16.8	6300	7875	0.33	1.8	1
JM205149/110A	M205100	0.75	136.5	147	16.8	6300	7875	0.33	1.8	1
33210	3DE	0.86	149.1	168	19.215	5565	7350	0.4	1.5	0.8

Metric single row tapered roller bearings

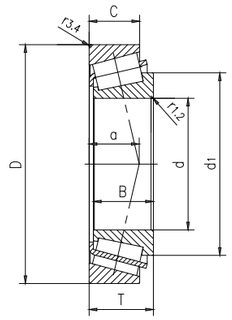




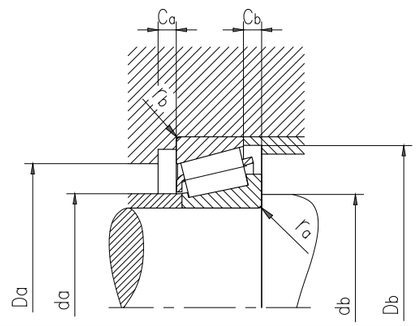
Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
T2ED050	2ED	50	100	36	73.5	35	30	2.5	2.5	24	59	61	84	90	94	6	6	2.5	2.5
T7F050	7FC	50	105	32	81.3	29	22	3	3	35	60	62	78	94	100	4	10	3	3
31310	7FB	50	110	29.25	81.5	27	19	2.5	2	33	63	61	87	101	104	4	10	2.5	2
30310	2FB	50	110	29.25	77.2	27	23	2.5	2	22	66	61	95	101	102	4	6	2.5	2
32310B	5FD	50	110	42.25	83.1	40	33	2.5	2	33	62	61.5	83	101	103	5	9	2.5	2
32310	2FD	50	110	42.25	77.7	40	33	2.5	2	27	63	61	90	101	102	5	9	2.5	2
32911	2BC	55	80	17	68.8	17	14	1	1	14	62	62.5	73	73	76	3	3	1	1
32011X	3CC	55	90	23	73.3	23	17.5	1.5	1.5	19	63	64	81	82	86	4	5.5	1.5	1.5
33011	2CE	55	90	27	73.1	27	21	1.5	1.5	19	64	64	81	82	86	5	6	1.5	1.5
33111	3CE	55	95	30	75.1	30	23	1.5	1.5	22	63	64	83	87	91	5	7	1.5	1.5
30211	3DB	55	100	22.75	74.7	21	18	2	1.5	20	64	65	88	92	94	4	4.5	2	1.5
32211	3DC	55	100	26.75	75.3	25	21	2	1.5	22	64	65	87	92	95	4	5.5	2	1.5
33211	3DE	55	100	35	78.1	35	27	2	1.5	24	63	65	85	92	96	6	8	2	1.5
T2ED055	2ED	55	110	39	80.9	39	32	2.5	2.5	26	65	66	93	100	104	7	7	2.5	2.5
T7FC055	7FC	55	115	34	89.5	31	23.5	3	3	38	66	67.5	86	104	109	4	10.5	3	3
31311	7FB	55	120	31.5	88.4	29	21	2.5	2	37	68	66.5	94	111	113	4	10.5	2.5	2
30311	2FB	55	120	31.5	84	29	25	2.5	2	23	72	66.5	104	110	111	4	6.5	2.5	2
32311B	5FD	55	120	45.5	90.5	43	35	2.5	2	36	67	66.5	91	111	112	5	10.5	2.5	2
32311	2FD	55	120	45.5	84.6	43	35	2.5	2	29	68	66.5	99	110	111	5	10.5	2.5	2
32912	2BC	60	85	17	73.8	17	14	1	1	15	67	68	78	78	81	3	3	1	1
32012X	4CC	60	95	23	77.8	23	17.5	1.5	1.5	20	67	69	85	87	91	4	5.5	1.5	1.5
JLM508748/710	LM508700	60	95	24	78.5	24	19	5	2.5	20	68	76	84	85	91	4	5	5	2.5
33012	2CE	60	95	27	77.2	27	21	1.5	1.5	19	67	69	85	87	90	5	6	1.5	1.5
33112	3CE	60	100	30	80.5	30	23	1.5	1.5	23	68	69	88	92	96	5	7	1.5	1.5
30212	3EB	60	110	23.75	80.9	22	19	2	1.5	21	70	70	96	101	103	3	4.5	2	1.5
32212	3EC	60	110	29.75	81.9	28	24	2	1.5	24	69	70.5	95	102	104	4	5.5	2	1.5
33212	3EE	60	110	38	85.3	38	29	2	1.5	27	69	70.5	93	102	105	6	9	2	1.5
T2EE060	2EE	60	115	40	85.6	39	33	2.5	2.5	27	70	71.5	98	104	109	6	7	2.5	2.5
T7FC060	7FC	60	125	37	97.2	33.5	26	3	3	40	72	72.5	94	113	119	4	11	3	3
31312	7FB	60	130	33.5	96	31	22	3	2.5	39	74	72.5	103	119	123	5	11.5	3	2.5
30312	2FB	60	130	33.5	91.8	31	26	3	2.5	25	77	72.5	112	119	120	5	7.5	3	2.5
32312B	5FD	60	130	48.5	98.6	46	37	3	2.5	38	73	72.5	99	119	122	6	11.5	3	2.5
32312	2FD	60	130	48.5	91.9	46	37	3	2.5	31	74	72.5	107	119	120	6	11.5	3	2.5
32913	2BC	65	90	17	78.8	17	14	1	1	16	71	73	83	83	86	3	3	1	1
32013X	4CC	65	100	23	83.3	23	17.5	1.5	1.5	22	73	74	90	92	97	4	5.5	1.5	1.5
33013	2CE	65	100	27	82.6	27	21	1.5	1.5	21	72	74	89	92	96	5	6	1.5	1.5
JLM710949/910	LM710900	65	105	24	84.1	23	18.5	3	1	23	73	77.5	93	97	101	4	5.5	3	1

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
T2ED050	2ED	1.3	198.45	210	23.52	5880	7035	0.35	1.7	0.9
T7F050	7FC	1.25	140.7	143.85	16.8	5040	6615	0.88	0.68	0.4
31310	7FB	1.2	137.55	126	15.015	4725	6300	0.83	0.72	0.4
30310	2FB	1.25	161.7	147	17.43	5565	6615	0.35	1.7	0.9
32310B	5FD	1.95	205.8	226.8	25.725	4725	6300	0.54	1.1	0.6
32310	2FD	1.85	221.55	222.6	25.2	5040	6615	0.35	1.7	0.9
32911	2BC	0.28	54.285	72.975	7.56	6615	7875	0.31	1.9	1.1
32011X	3CC	0.56	104.37	121.8	13.545	5880	7350	0.4	1.5	0.8
33011	2CE	0.66	116.55	143.85	16.065	5880	7350	0.31	1.9	1.1
33111	3CE	0.85	142.8	163.8	18.48	5880	7035	0.37	1.6	0.9
30211	3DB	0.7	116.55	111.3	12.6	5565	7035	0.4	1.5	0.8
32211	3DC	0.84	136.5	135.45	15.75	5565	7035	0.4	1.5	0.8
33211	3DE	1.15	178.5	199.5	22.68	5040	6615	0.4	1.5	0.8
T2ED055	2ED	1.7	231	243.6	27.3	5250	6300	0.35	1.7	0.9
T7FC055	7FC	1.6	162.75	171.15	20.265	4515	5880	0.88	0.68	0.4
31311	7FB	1.55	156.45	143.85	17.43	4515	5880	0.83	0.72	0.4
30311	2FB	1.55	184.8	171.15	20.265	5040	5880	0.35	1.7	0.9
32311B	5FD	2.5	244.65	273	31.5	4515	5880	0.54	1.1	0.6
32311	2FD	2.35	257.25	262.5	29.925	4515	5880	0.35	1.7	0.9
32912	2BC	0.3	55.86	78.75	8.19	6300	7350	0.33	1.8	1
32012X	4CC	0.59	106.05	128.1	14.07	5565	7035	0.43	1.4	0.8
JLM508748/710	LM508700	0.62	108.15	138.6	15.75	5565	7035	0.4	1.5	0.8
33012	2CE	0.7	118.65	150.15	16.8	5565	7035	0.33	1.8	1
33112	3CE	0.92	151.2	178.5	20.58	5565	6615	0.4	1.5	0.8
30212	3EB	0.88	126	119.7	13.86	5250	6300	0.4	1.5	0.8
32212	3EC	1.15	162.75	168	19.53	5250	6300	0.4	1.5	0.8
33212	3EE	1.55	217.35	247.8	27.825	4725	6300	0.4	1.5	0.8
T2EE060	2EE	1.85	250.95	273	31.5	5040	5880	0.33	1.8	1
T7FC060	7FC	2.05	199.5	214.2	25.725	4200	5565	0.83	0.72	0.4
31312	7FB	1.9	185.85	174.3	21.42	3990	5565	0.83	0.72	0.4
30312	2FB	1.95	218.4	205.8	24.78	4515	5565	0.35	1.7	0.9
32312B	5FD	3.1	284.55	320.25	37.275	3990	5250	0.54	1.1	0.6
32312	2FD	2.9	296.1	304.5	35.7	4200	5565	0.35	1.7	0.9
32913	2BC	0.32	57.435	84	8.5575	5880	7035	0.35	1.7	0.9
32013X	4CC	0.63	108.15	133.35	14.7	5250	6300	0.46	1.3	0.7
33013	2CE	0.75	124.95	160.65	18.165	5250	6615	0.35	1.7	0.9
JLM710949/910	LM710900	0.76	128.1	143.85	16.8	5250	6300	0.46	1.3	0.7

Metric single row tapered roller bearings

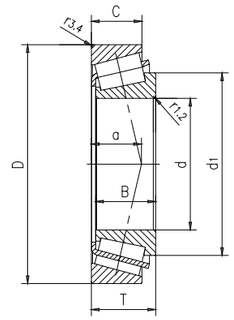


Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
JM511946/910	M511900	65	110	28	87.9	28	22.5	3	2.5	23	75	77.5	96	99	104	5	5.5	3	2.5
T2DD065	2DD	65	110	31	85.7	31	25	2	2	23	74	75.5	97	100	105	5	6	2	2
33113	3DE	65	110	34	88.3	34	26.5	1.5	1.5	25	74	74.5	96	101	106	6	7.5	1.5	1.5
30213	3EB	65	120	24.75	89	23	20	2	1.5	23	78	75.5	106	111	113	4	4.5	2	1.5
32213	3EC	65	120	32.75	90.3	31	27	2	1.5	26	76	75.5	104	111	115	4	5.5	2	1.5
33213	3EE	65	120	41	92.5	41	32	2	1.5	29	75	75.5	102	111	115	6	9	2	1.5
T7FC065	7FC	65	130	37	102	33.5	26	3	3	44	77	78	98	118	124	4	11	3	3
31313	7GB	65	140	36	103	33	23	3	2.5	42	80	78	111	129	132	5	13	3	2.5
30313	2GB	65	140	36	98.7	33	28	3	2.5	27	84	78	122	129	130	5	8	3	2.5
32313B	5GD	65	140	51	105	48	39	3	2.5	41	79	78	107	129	131	6	12	3	2.5
32313	2GD	65	140	51	99.2	48	39	3	2.5	33	81	78	117	129	130	6	12	3	2.5
32914	2BC	70	100	20	84.7	20	16	1	1	17	77	78	93	92	96	4	4	1	1
32014X	4CC	70	110	25	89.9	25	19	1.5	1.5	23	78	79.5	98	101	105	5	6	1.5	1.5
33014	2CE	70	110	31	88.9	31	25.5	1.5	1.5	22	78	79.5	99	101	105	5	5.5	1.5	1.5
33114	3DE	70	120	37	95.3	37	29	2	1.5	27	80	80.5	104	111	115	6	8	2	1.5
30214	3EB	70	125	26.25	94	24	21	2	1.5	25	82	80.5	110	116	118	4	5	2	1.5
32214	3EC	70	125	33.25	95	31	27	2	1.5	28	81	80.5	108	116	119	4	6	2	1.5
33214	3EE	70	125	41	97.4	41	32	2	1.5	30	80	80.5	107	116	120	6	9	2	1.5
T2ED070	2ED	70	130	43	98.1	42	35	3	2.5	30	81	82.5	111	119	123	7	8	3	2.5
T7FC070	7FC	70	140	39	110	35.5	27	3	3	46	82	83	106	128	133	5	12	3	3
31314	7GB	70	150	38	111	35	25	3	2.5	45	85	83	118	139	141	5	13	3	2.5
30314	2GB	70	150	38	105	35	30	3	2.5	29	90	83	130	139	140	5	8	3	2.5
32314B	5GD	70	150	54	113	51	42	3	2.5	43	85	83	115	139	141	7	12	3	2.5
32314	2GD	70	150	54	106	51	42	3	2.5	35	87	83	125	139	140	6	12	3	2.5
32915	2BC	75	105	20	89.7	20	16	1	1	18	82	83.5	98	97	101	4	4	1	1
32015X	4CC	75	115	25	95.1	25	19	1.5	1.5	24	83	84.5	103	106	110	5	6	1.5	1.5
33015	2CE	75	115	31	95	31	25.5	1.5	1.5	23	84	84.5	104	106	110	6	5.5	1.5	1.5
JM714249/210	M714200	75	120	31	98.1	29.5	25	3	2.5	28	84	87.5	104	109	115	5	6	3	2.5
33115	3DE	75	125	37	100	37	29	2	1.5	28	84	85.5	109	116	120	6	8	2	1.5
30215	4DB	75	130	27.25	99.8	25	22	2	1.5	26	87	85.5	115	121	124	4	5	2	1.5
32215	4DC	75	130	33.25	100	31	27	2	1.5	29	85	85.5	114	121	125	4	6	2	1.5
33215	3DE	75	130	41	102	41	31	2	1.5	31	84	86	111	121	125	6	10	2	1.5
JH415647/610	H415600	75	145	51	111	51	42	3	2.5	35	89	88	123	134	139	9	9	3	2.5
T3FE075	3FE	75	145	52	111	51	43	5	3	39	88	92	117	133	138	7	9	5	3
T7FC075	7FC	75	150	42	116	38	29	3	3	50	88	88	114	138	143	5	13	3	3
31315	7GB	75	160	40	118	37	26	3	2.5	48	91	88	127	149	151	5	14	3	2.5
30315	2GB	75	160	40	112	37	31	3	2.5	30	96	88	139	149	149	5	9	3	2.5

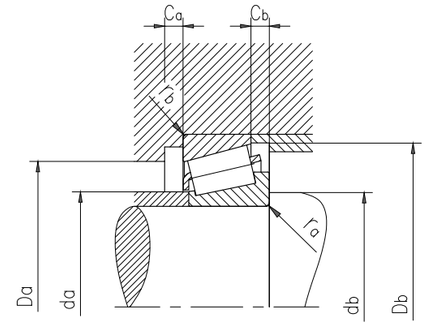


Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
JM511946/910	M511900	1.05	159.6	192.15	22.26	5040	5880	0.4	1.5	0.8
T2DD065	2DD	1.15	178.5	202.65	23.52	5040	6300	0.33	1.8	1
33113	3DE	1.3	183.75	218.4	25.2	5040	5880	0.4	1.5	0.8
30213	3EB	1.1	148.05	140.7	17.115	4725	5880	0.4	1.5	0.8
32213	3EC	1.5	195.3	202.65	23.94	4725	5880	0.4	1.5	0.8
33213	3EE	2	250.95	283.5	32.025	4200	5565	0.4	1.5	0.8
T7FC065	7FC	2.2	203.7	226.8	26.775	3990	5250	0.88	0.68	0.4
31313	7GB	2.35	213.15	202.65	24.78	3780	5040	0.83	0.72	0.4
30313	2GB	2.4	252	239.4	28.875	4200	5040	0.35	1.7	0.9
32313B	5GD	3.75	320.25	362.25	42	3780	5040	0.54	1.1	0.6
32313	2GD	3.5	339.15	351.75	42	3780	5040	0.35	1.7	0.9
32914	2BC	0.49	90.09	117.6	13.335	5250	6300	0.31	1.9	1.1
32014X	4CC	0.85	131.25	160.65	18.165	4725	5880	0.43	1.4	0.8
33014	2CE	1.05	166.95	205.8	23.94	5040	5880	0.28	2.1	1.1
33114	3DE	1.7	221.55	262.5	29.925	4515	5565	0.37	1.6	0.9
30214	3EB	1.25	162.75	163.8	18.9	4515	5565	0.43	1.4	0.8
32214	3EC	1.6	204.75	218.4	25.725	4515	5565	0.43	1.4	0.8
33214	3EE	2.1	259.35	299.25	34.125	3990	5250	0.4	1.5	0.8
T2ED070	2ED	2.5	303.45	341.25	39.9	4200	5250	0.33	1.8	1
T7FC070	7FC	2.65	229.95	252	28.875	3570	4725	0.88	0.68	0.4
31314	7GB	2.85	240.45	231	28.35	3570	4725	0.83	0.72	0.4
30314	2GB	2.95	284.55	273	32.55	3990	4725	0.35	1.7	0.9
32314B	5GD	4.55	363.3	420	47.25	3570	4515	0.54	1.1	0.6
32314	2GD	4.3	381.15	399	47.25	3570	4725	0.35	1.7	0.9
32915	2BC	0.51	91.14	121.8	13.86	5040	5880	0.33	1.8	1
32015X	4CC	0.91	136.5	171.15	19.53	4515	5565	0.46	1.3	0.7
33015	2CE	1.2	175.35	239.4	27.3	4515	5565	0.3	2	1.1
JM714249/210	M714200	1.3	178.5	226.8	26.25	4515	5565	0.44	1.35	0.8
33115	3DE	1.8	226.8	278.25	31.5	4200	5250	0.4	1.5	0.8
30215	4DB	1.4	179.55	184.8	21.42	4200	5250	0.43	1.4	0.8
32215	4DC	1.65	206.85	222.6	25.725	4200	5250	0.43	1.4	0.8
33215	3DE	2.2	267.75	315	35.7	3780	5040	0.43	1.4	0.8
JH415647/610	H415600	3.9	399	472.5	53.55	3780	4725	0.37	1.6	0.9
T3FE075	3FE	3.95	382.2	472.5	52.5	3780	4725	0.43	1.4	0.8
T7FC075	7FC	3.25	261.45	294	32.55	3360	4515	0.88	0.68	0.4
31315	7GB	3.4	267.75	257.25	30.45	3360	4515	0.83	0.72	0.4
30315	2GB	3.5	316.05	304.5	35.7	3570	4515	0.35	1.7	0.9

Metric single row tapered roller bearings

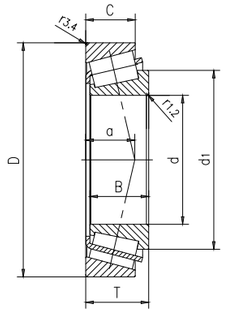


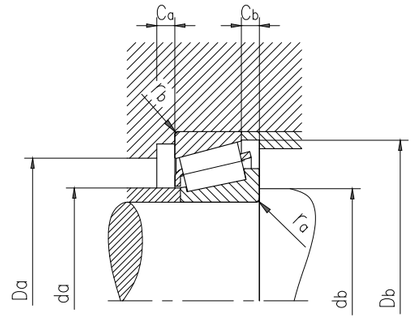
Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
32315B	5GD	75	160	58	119	55	45	3	2.5	46	89	88	122	149	151	7	13	3	2.5
32315	2GD	75	160	58	113	55	45	3	2.5	37	92	88	133	149	149	7	13	3	2.5
32916	2BC	80	110	20	94.8	20	16	1	1	19	86	88.5	102	102	106	4	4	1	1
32016X	3CC	80	125	29	103	29	22	1.5	1.5	26	90	90	112	116	120	6	7	1.5	1.5
33016	2CE	80	125	36	102	36	29.5	1.5	1.5	25	90	89.5	112	116	119	6	6.5	1.5	1.5
JM515649/610	M	80	130	35	104	34	28.5	3	2.5	28	90	93	114	119	124	6	6.5	3	2.5
33116	3DE	80	130	37	105	37	29	2	1.5	30	89	91	114	121	126	6	8	2	1.5
30216	3EB	80	140	28.25	105	26	22	2.5	2	27	92	92	124	130	132	4	6	2.5	2
32216	3EC	80	140	35.25	106	33	28	2.5	2	30	91	92	122	130	134	5	7	2.5	2
33216	3EE	80	140	46	110	46	35	2.5	2	34	90	92	119	130	135	7	11	2.5	2
T7FC080	7FC	80	160	45	125	41	31	3	3	53	94	93.5	121	148	152	5	14	3	3
31316	7GB	80	170	42.5	125	39	27	3	2.5	51	97	93.5	134	159	159	5	15.5	3	2.5
30316	2GB	80	170	42.5	122	39	33	3	2.5	33	103	93.5	148	158	159	5	9.5	3	2.5
32316B	5GD	80	170	61.5	128	58	48	3	2.5	49	97	93.5	130	159	160	7	13.5	3	2.5
32316	2GD	80	170	61.5	120	58	48	3	2.5	40	98	93.5	142	159	159	7	13.5	3	2.5
32917	2CC	85	120	23	101	23	18	1.5	1.5	21	93	94.5	111	111	115	4	5	1.5	1.5
32017X	4CC	85	130	29	108	29	22	1.5	1.5	27	95	95	117	121	125	6	7	1.5	1.5
JM716649/610	M716600	85	130	30	107	29	24	3	2.5	29	94	98	115	119	125	5	6	3	2.5
33017	2CE	85	130	36	107	36	29.5	1.5	1.5	26	95	95	118	121	125	6	6.5	1.5	1.5
33117	3DE	85	140	41	112	41	32	2.5	2	32	95	97	122	130	135	7	9	2.5	2
30217	3EB	85	150	30.5	112	28	24	2.5	2	29	97	97	132	140	141	5	6.5	2.5	2
32217	3EC	85	150	38.5	113	36	30	2.5	2	33	97	97	130	140	142	5	8.5	2.5	2
33217	3EE	85	150	49	117	49	37	2.5	2	36	96	97	128	140	144	7	12	2.5	2
T7FC085	7FC	85	170	48	132	45	33	4	4	53	100	100	131	156	161	6	15	4	4
31317	7GB	85	180	44.5	131	41	28	4	3	53	104	100	143	167	169	5	16.5	4	3
30317	2GB	85	180	44.5	126	41	34	4	3	34	108	100	156	167	167	5	10.5	4	3
32317B	5GD	85	180	63.5	135	60	49	4	3	51	102	100	138	168	169	7	14.5	4	3
32317	2GD	85	180	63.5	127	60	49	4	3	41	103	100	150	167	167	7	14.5	4	3
32918	2CC	90	125	23	106	23	18	1.5	1.5	22	98	100	116	116	120	4	5	1.5	1.5
32018X	3CC	90	140	32	115	32	24	2	1.5	29	100	101	125	131	134	6	8	2	1.5
33018	2CE	90	140	39	114	39	32.5	2	1.5	27	101	101	127	131	135	7	6.5	2	1.5
JM718149A/110	M718100	90	145	35	117	34	27	6	2.5	32	100	109	127	134	139	6	8	6	2.5
JM718149/110	M718100	90	145	35	117	34	27	3	2.5	32	100	103	127	134	139	6	8	3	2.5
33118	3DE	90	150	45	120	45	35	2.5	2	34	101	102	130	140	144	7	10	2.5	2
30218	3FB	90	160	32.5	120	30	26	2.5	2	31	104	102	140	150	150	5	6.5	2.5	2
32218	3FC	90	160	42.5	121	40	34	2.5	2	35	103	102	138	150	152	5	8.5	2.5	2
33218	3FE	90	160	55	125	55	42	2.5	2	40	101	102	135	150	154	8	13	2.5	2



Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
32315B	5GD	5.55	430.5	498.75	55.65	3360	4200	0.54	1.1	0.6
32315	2GD	5.2	436.8	462	53.55	3360	4515	0.35	1.7	0.9
32916	2BC	0.54	94.185	131.25	14.7	4725	5880	0.35	1.7	0.9
32016X	3CC	1.3	176.4	226.8	25.725	4200	5250	0.43	1.4	0.8
33016	2CE	1.65	217.35	299.25	33.6	4200	5250	0.28	2.1	1.1
JM515649/610	M	1.75	226.8	288.75	32.55	4200	5040	0.4	1.5	0.8
33116	3DE	1.85	232.05	294	32.55	4200	5040	0.43	1.4	0.8
30216	3EB	1.6	193.2	192.15	22.26	3990	5040	0.43	1.4	0.8
32216	3EC	2.05	239.4	257.25	29.925	3990	4725	0.43	1.4	0.8
33216	3EE	2.9	323.4	393.75	43.575	3570	4725	0.43	1.4	0.8
T7FC080	7FC	4	294	330.75	37.275	3150	4200	0.88	0.68	0.4
31316	7GB	4.05	289.8	278.25	32.025	3150	4200	0.83	0.72	0.4
30316	2GB	4.15	349.65	336	38.325	3360	4200	0.35	1.7	0.9
32316B	5GD	6.65	462	546	59.85	3360	3990	0.54	1.1	0.6
32316	2GD	6.2	424.2	525	58.8	3360	4200	0.35	1.7	0.9
32917	2CC	0.78	120.75	163.8	18.48	4200	5250	0.33	1.8	1
32017X	4CC	1.35	179.55	235.2	26.775	3990	5040	0.44	1.35	0.8
JM716649/610	M716600	1.4	180.6	239.4	27.3	3990	5040	0.44	1.35	0.8
33017	2CE	1.75	234.15	325.5	36.225	3990	5040	0.3	2	1.1
33117	3DE	2.45	281.4	357	39.9	3780	4725	0.4	1.5	0.8
30217	3EB	2.05	226.8	231	26.775	3780	4515	0.43	1.4	0.8
32217	3EC	2.6	276.15	299.25	35.175	3780	4515	0.43	1.4	0.8
33217	3EE	3.55	370.65	451.5	50.4	3360	4515	0.43	1.4	0.8
T7FC085	7FC	4.85	349.65	399	45.15	2940	3990	0.79	0.76	0.4
31317	7GB	4.6	311.85	299.25	33.6	2940	3990	0.83	0.72	0.4
30317	2GB	4.85	390.6	383.25	42.525	3150	3990	0.35	1.7	0.9
32317B	5GD	7.6	437.85	588	65.1	3150	3780	0.54	1.1	0.6
32317	2GD	7.1	456.75	556.5	63	3150	3990	0.35	1.7	0.9
32918	2CC	0.83	124.95	174.3	19.215	4200	5040	0.35	1.7	0.9
32018X	3CC	1.75	218.4	283.5	32.55	3780	4515	0.43	1.4	0.8
33018	2CE	2.2	279.3	372.75	40.95	3780	4725	0.27	2.2	1.3
JM718149A/110	M718100	2.15	258.3	320.25	35.175	3780	4515	0.44	1.35	0.8
JM718149/110	M718100	2.15	258.3	320.25	35.175	3780	4515	0.44	1.35	0.8
33118	3DE	3.1	325.5	409.5	45.15	3570	4515	0.4	1.5	0.8
30218	3FB	2.5	252	257.25	29.925	3570	4200	0.43	1.4	0.8
32218	3FC	3.35	324.45	357	39.9	3570	4200	0.43	1.4	0.8
33218	3FE	4.6	435.75	546	59.85	3150	4200	0.43	1.4	0.8

Metric single row tapered roller bearings

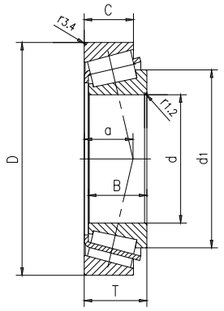


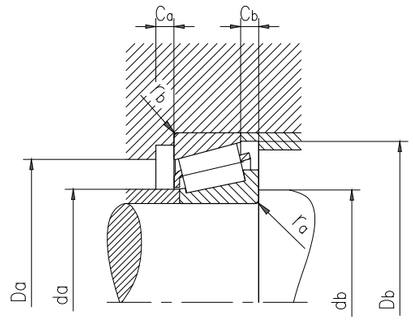


Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
31318	7GB	90	190	46.5	138	43	30	4	3	57	110	105	151	177	179	5	16.5	4	3
30318	2GB	90	190	46.5	133	43	36	4	3	36	114	105	165	177	176	6	10.5	4	3
32318	2GD	90	190	67.5	133	64	53	4	3	44	109	105	157	177	177	7	14.5	4	3
32318B	5GD	90	190	67.5	141	64	53	4	3	55	107	105	145	177	179	7	14.5	4	3
32919	2CC	95	130	23	112	23	18	1.5	1.5	23	103	105	121	121	125	4	5	1.5	1.5
32019X	4CC	95	145	32	120	32	24	2	1.5	31	106	106	130	136	140	6	8	2	1.5
33019	2CE	95	145	39	118	39	32.5	2	1.5	28	105	106	131	136	139	7	6.5	2	1.5
30219	3FB	95	170	34.5	126	32	27	3	2.5	32	110	108	149	158	159	5	7.5	3	2.5
32219	3FC	95	170	45.5	128	43	37	3	2.5	38	109	108	145	158	161	5	8.5	3	2.5
33219	3FE	95	170	58	132	58	44	3	2.5	42	107	108	144	158	163	9	14	3	2.5
31319	7GB	95	200	49.5	145	45	32	4	3	59	114	111	157	187	187	5	17.5	4	3
30319	2GB	95	200	49.5	139	45	38	4	3	38	119	111	172	187	184	7	11.5	4	3
32319	2GD	95	200	71.5	141	67	55	4	3	47	115	111	166	187	186	8	16.5	4	3
32920	2CC	100	140	25	119	25	20	1.5	1.5	23	110	110	131	131	135	5	5	1.5	1.5
T4CB100	4CB	100	145	24	121	22.5	17.5	3	3	29	109	113	133	133	140	4	6.5	3	3
32020X	4CC	100	150	32	125	32	24	2	1.5	32	110	111	134	141	144	6	8	2	1.5
33020	2CE	100	150	39	122	39	32.5	2	1.5	28	109	111	135	141	143	7	6.5	2	1.5
T2EE100	2EE	100	165	47	129	46	39	3	3	35	111	113	145	152	157	7	8	3	3
30220	3FB	100	180	37	134	34	29	3	2.5	35	116	113	157	168	168	5	8	3	2.5
32220	3FC	100	180	49	136	46	39	3	2.5	40	115	113	154	168	171	5	10	3	2.5
33220	3FE	100	180	63	139	63	48	3	2.5	44	112	113	151	168	172	10	15	3	2.5
30320	2GB	100	215	51.5	149	47	39	4	3	40	128	116	184	202	197	6	12.5	4	3
31320X	7GB	100	215	56.5	158	51	35	4	3	64	121	116	168	202	202	7	21.5	4	3
32320	2GD	100	215	77.5	152	73	60	4	3	51	123	116	177	202	200	8	17.5	4	3
32921	2CC	105	145	25	124	25	20	1.5	1.5	25	114	115	135	135	140	5	5	1.5	1.5
32021X	4DC	105	160	35	132	35	26	2.5	2	34	116	117	143	149	154	6	9	2.5	2
33021	2DE	105	160	43	131	43	34	2.5	2	30	117	117	145	149	153	7	9	2.5	2
30221	3FB	105	190	39	143	36	30	3	2.5	37	123	118	165	178	177	5	9	3	2.5
32221	3FC	105	190	53	143	50	43	3	2.5	44	121	119	161	178	180	6	10	3	2.5
30321	2GB	105	225	53.5	155	49	41	4	3	41	133	121	193	212	206	7	12.5	4	3
31321X	7GB	105	225	58	165	53	36	4	3	67	127	121	176	212	211	7	22	4	3
32321	2GD	105	225	81.5	158	77	63	4	3	53	129	121	185	212	209	9	18.5	4	3
32922	2CC	110	150	25	129	25	20	1.5	1.5	26	119	120	140	140	145	5	5	1.5	1.5
JM822049/010	M822000	110	165	35	137	35	26.5	3	2.5	37	119	123	145	153	158	6	8.5	3	2.5
32022X	4DC	110	170	38	140	38	29	2.5	2	36	123	122	152	159	163	7	9	2.5	2
33022	2DE	110	170	47	139	47	37	2.5	2	33	123	122	152	159	161	7	10	2.5	2
33122	3EE	110	180	56	146	56	43	2.5	2	43	122	123	155	169	174	9	13	2.5	2

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
31318	7GB	5.4	297.15	330.75	37.275	2520	3570	0.83	0.72	0.4
30318	2GB	5.65	370.65	420	46.2	2730	3780	0.35	1.7	0.9
32318	2GD	8.4	511.35	640.5	68.775	2730	3780	0.35	1.7	0.9
32318B	5GD	8.95	567	661.5	72.975	2940	3570	0.54	1.1	0.6
32919	2CC	0.86	127.05	181.65	19.53	3990	4725	0.35	1.7	0.9
32019X	4CC	1.85	216.3	283.5	32.025	3570	4515	0.44	1.35	0.8
33019	2CE	2.3	285.6	393.75	42.525	3570	4515	0.28	2.1	1.1
30219	3FB	3	279.3	288.75	33.075	3360	3990	0.43	1.4	0.8
32219	3FC	4.1	365.4	409.5	45.15	3360	3990	0.43	1.4	0.8
33219	3FE	5.45	483	588	65.1	2940	3990	0.4	1.5	0.8
31319	7GB	6.3	329.7	372.75	40.95	2520	3570	0.83	0.72	0.4
30319	2GB	6.45	370.65	409.5	44.625	2730	3570	0.35	1.7	0.9
32319	2GD	9.8	561.75	703.5	75.6	2520	3570	0.35	1.7	0.9
32920	2CC	1.15	154.35	214.2	23.52	3570	4515	0.33	1.8	1
T4CB100	4CB	1.2	161.7	199.5	21.84	3570	4515	0.48	1.25	0.7
32020X	4CC	1.9	219.45	294	32.55	3360	4200	0.46	1.3	0.7
33020	2CE	2.4	291.9	409.5	43.575	3570	4200	0.28	2.1	1.1
T2EE100	2EE	3.9	402.15	504	54.6	3360	3990	0.31	1.9	1.1
30220	3FB	3.65	319.2	336	37.8	3150	3780	0.43	1.4	0.8
32220	3FC	4.95	409.5	462	50.4	3150	3780	0.43	1.4	0.8
33220	3FE	6.75	558.6	687.75	74.55	2730	3780	0.4	1.5	0.8
30320	2GB	7.95	452.55	514.5	55.65	2520	3360	0.35	1.7	0.9
31320X	7GB	8.6	418.95	488.25	53.55	2310	3150	0.83	0.72	0.4
32320	2GD	12.5	647.85	819	87.15	2310	3360	0.35	1.7	0.9
32921	2CC	1.2	156.45	222.6	23.94	3570	4200	0.35	1.7	0.9
32021X	4DC	2.45	260.4	351.75	39.375	3360	3990	0.44	1.35	0.8
33021	2DE	3	318.15	451.5	47.775	3360	3990	0.28	2.1	1.1
30221	3FB	4.3	349.65	372.75	42	2940	3570	0.43	1.4	0.8
32221	3FC	6	465.15	535.5	57.75	2940	3150	0.43	1.4	0.8
30321	2GB	9.1	485.1	556.5	59.85	2310	3150	0.35	1.7	0.9
31321X	7GB	9.65	450.45	525	55.65	2100	3150	0.83	0.72	0.4
32321	2GD	14	677.25	855.75	89.25	2100	3150	0.35	1.7	0.9
32922	2CC	1.25	161.7	235.2	25.2	3360	4200	0.35	1.7	0.9
JM822049/010	M822000	2.55	268.8	372.75	39.375	3150	3780	0.5	1.2	0.7
32022X	4DC	3.05	302.4	409.5	42	3150	3780	0.43	1.4	0.8
33022	2DE	3.85	360.15	525	55.65	3150	3780	0.28	2.1	1.1
33122	3EE	5.5	477.75	661.5	68.775	2940	3570	0.43	1.4	0.8

Metric single row tapered roller bearings

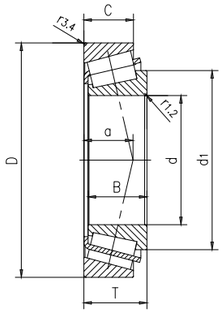




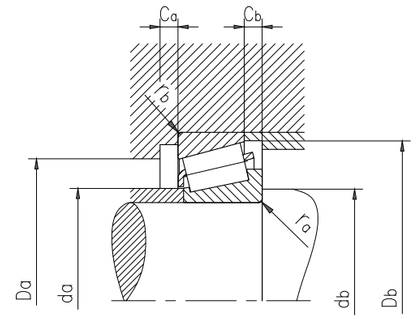
Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
30222	3FB	110	200	41	149	38	32	3	2.5	39	129	124	174	188	187	6	9	3	2.5
32222	3FC	110	200	56	151	53	46	3	2.5	46	127	124	170	188	190	6	10	3	2.5
30322	2GB	110	240	54.5	166	50	42	4	3	42	142	126	206	226	220	8	12.5	4	3
31322X	7GB	110	240	63	176	57	38	4	3	72	136	126	188	227	224	8	25	4	3
32322	2GD	110	240	84.5	169	80	65	4	3	55	138	126	198	227	222	9	19.5	4	3
32924	2CC	120	165	29	142	29	23	1.5	1.5	28	130	130	154	155	160	5	6	1.5	1.5
T4CB120	4CB	120	170	27	143	25	19.5	3	3	34	131	133	157	157	164	5	7.5	3	3
32024X	4DC	120	180	38	150	38	29	2.5	2	38	132	133	161	169	173	7	9	2.5	2
33024	2DE	120	180	48	149	48	38	2.5	2	36	132	133	160	169	171	6	10	2.5	2
30224	4FB	120	215	43.5	161	40	34	3	2.5	42	141	134	187	203	201	6	9.5	3	2.5
32224	4FD	120	215	61.5	164	58	50	3	2.5	51	137	134	181	203	204	7	11.5	3	2.5
30324	2GB	120	260	59.5	178	55	46	4	3	47	153	136	221	246	237	8	13.5	4	3
31324X	7GB	120	260	68	191	62	42	4	3	78	146	136	203	246	244	9	26	4	3
32324	2GD	120	260	90.5	181	86	69	4	3	59	148	136	213	246	239	10	21.5	4	3
32926	2CC	130	180	32	153	32	25	2	1.5	31	141	142	167	170	173	6	7	2	1.5
32026X	4EC	130	200	45	165	45	34	2.5	2	42	144	143	178	189	192	7	11	2.5	2
33026	2EE	130	200	55	165	55	43	2.5	2	42	144	143	178	189	192	8	12	2.5	2
30226	4FB	130	230	43.75	173	40	34	4	3	44	152	146	203	216	217	6	9.5	4	3
32226	4FD	130	230	67.75	176	64	54	4	3	55	146	146	193	216	219	7	13.5	4	3
30326	2GB	130	280	63.75	192	58	49	5	4	50	165	149	239	264	255	8	14.5	5	4
31326X	7GB	130	280	72	204	66	44	5	4	83	157	149	218	264	261	8	28	5	4
32326	2GD	130	280	98.75	196	93	78	5	5	65	160	149	230	262	260	10	20.5	5	5
32928	2CC	140	190	32	164	32	25	2	1.5	33	151	152	177	180	184	6	7	2	1.5
T4CB140	4CB	140	195	29	165	27	21	3	3	40	150	154	180	182	189	6	8	3	3
32028X	4DC	140	210	45	175	45	34	2.5	2	45	153	153	187	199	202	8	11	2.5	2
30228	4FB	140	250	45.75	187	42	36	4	3	47	164	156	219	236	234	8	9.5	4	3
32228	4FD	140	250	71.75	191	68	58	4	3	59	159	156	210	236	238	8	13.5	4	3
30328	2GB	140	300	67.75	205	62	53	5	4	54	176	159	255	284	273	8	14.5	5	4
31328X	7GB	140	300	77	220	70	47	5	4	90	169	159	235	284	280	9	30	5	4
32328	2GD	140	300	107.75	212	102	85	5	4	71	172	159	247	284	280	12	22.5	5	4
T4DB150	4DB	150	210	32	177	30	23	3	3	41	162	164	194	196	203	5	9	3	3
32930	2DC	150	210	38	177	38	30	2.5	2	35	163	163	194	198	202	7	8	2.5	2
32030X	4DC	150	225	48	187	48	36	3	2.5	48	165	164	200	212	216	8	12	3	2.5
33030	2EE	150	225	59	188	59	46	3	2.5	48	165	164	200	212	217	8	13	3	2.5
30230	4GB	150	270	49	200	45	38	4	3	50	176	167	234	256	250	9	11	4	3
32230	4GD	150	270	77	205	73	60	4	3	64	171	167	226	256	254	8	17	4	3
30330	2GB	150	320	72	223	65	55	5	4	58	189	169	273	303	292	9	17	5	4

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
30222	3FB	5.05	343.35	425.25	45.15	2730	3360	0.43	1.4	0.8
32222	3FC	7.1	515.55	598.5	64.05	2730	3360	0.43	1.4	0.8
30322	2GB	11	532.35	614.25	65.1	2310	2940	0.35	1.7	0.9
31322X	7GB	12	515.55	614.25	64.05	1995	2940	0.83	0.72	0.4
32322	2GD	16.5	708.75	871.5	90.825	1995	2940	0.35	1.7	0.9
32924	2CC	1.8	214.2	320.25	33.6	3150	3780	0.35	1.7	0.9
T4CB120	4CB	1.75	204.75	262.5	27.825	2940	3780	0.48	1.25	0.7
32024X	4DC	3.3	313.95	435.75	44.625	2940	3570	0.46	1.3	0.7
33024	2DE	4.2	373.8	567	58.8	2940	3570	0.3	2	1.1
30224	4FB	6.15	437.85	488.25	51.45	2520	3150	0.43	1.4	0.8
32224	4FD	9.05	601.65	729.75	75.6	2520	3150	0.43	1.4	0.8
30324	2GB	13.5	631.05	745.5	77.175	2100	2730	0.35	1.7	0.9
31324X	7GB	15.5	606.9	729.75	75.6	1785	2520	0.83	0.72	0.4
32324	2GD	21.5	897.75	1176	115.5	1890	2730	0.35	1.7	0.9
32926	2CC	2.4	257.25	383.25	39.9	2730	3360	0.33	1.8	1
32026X	4EC	4.95	407.4	567	57.75	2520	3150	0.43	1.4	0.8
33026	2EE	6.15	493.5	714	72.975	2520	3150	0.35	1.7	0.9
30226	4FB	6.85	473.55	514.5	53.55	2310	2940	0.43	1.4	0.8
32226	4FD	11	619.5	871.5	89.25	2100	2940	0.43	1.4	0.8
30326	2GB	17	712.95	840	85.575	1890	2520	0.35	1.7	0.9
31326X	7GB	18.5	679.35	819	84	1680	2520	0.83	0.72	0.4
32326	2GD	27.5	1069.95	1407	138.6	1680	2520	0.35	1.7	0.9
32928	2CC	2.55	264.6	409.5	42	2730	3150	0.35	1.7	0.9
T4CB140	4CB	2.4	253.05	341.25	35.175	2520	3150	0.5	1.2	0.7
32028X	4DC	5.25	424.2	614.25	61.425	2520	2940	0.46	1.3	0.7
30228	4FB	8.7	473.55	598.5	61.425	1995	2730	0.43	1.4	0.8
32228	4FD	14	725.55	1050	105	1995	2730	0.43	1.4	0.8
30328	2GB	20.5	826.35	997.5	97.65	1785	2310	0.35	1.7	0.9
31328X	7GB	22.5	773.85	945	94.5	1575	2310	0.83	0.72	0.4
32328	2GD	34.5	1281	1743	163.8	1680	2310	0.35	1.7	0.9
T4DB150	4DB	3.1	301.35	409.5	42	2310	2940	0.46	1.3	0.7
32930	2DC	3.95	363.3	556.5	54.6	2310	2940	0.33	1.8	1
32030X	4DC	6.4	478.8	687.75	68.775	2310	2730	0.46	1.3	0.7
33030	2EE	8.05	511.35	908.25	89.25	2310	2730	0.37	1.6	0.9
30230	4GB	10.5	477.75	588	59.85	1890	2520	0.43	1.4	0.8
32230	4GD	18	821.1	1197	117.6	1785	2520	0.43	1.4	0.8
30330	2GB	25	922.95	1113	109.2	1680	2100	0.35	1.7	0.9

Metric single row tapered roller bearings

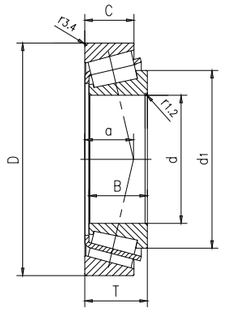


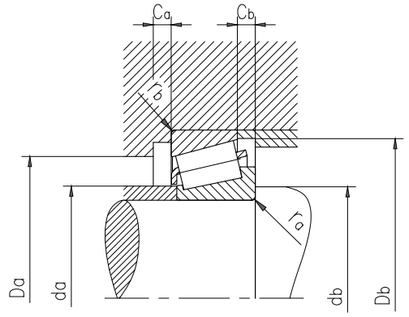
Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
31330X	7GB	150	320	82	234	75	50	5	4	96	181	169	251	304	300	9	32	5	4
T4DB160	4DB	160	220	32	187	30	23	3	3	44	172	174	204	206	213	5	9	3	3
32932	2DC	160	220	38	188	38	30	2.5	2	38	173	173	204	208	212	7	8	2.5	2
32032X	4EC	160	240	51	200	51	38	3	2.5	51	176	175	213	227	231	8	13	3	2.5
T4EE160	4EE	160	245	61	204	59	50	6	4	57	174	181	212	229	236	10	11	6	4
30232	4GB	160	290	52	215	48	40	4	3	53	190	177	252	276	269	7	12	4	3
32232	4GD	160	290	84	222	80	67	4	3	69	183	177	242	276	274	10	17	4	3
30332	2GB	160	340	75	233	68	58	5	4	61	201	179	290	323	310	9	17	5	4
T4DB170	4DB	170	230	32	197	30	23	3	3	44	182	184	215	216	223	6	9	3	3
32934	3DC	170	230	38	200	38	30	2.5	2	41	183	183	213	218	222	7	8	2.5	2
32034X	4EC	170	260	57	214	57	43	3	2.5	55	188	185	230	247	249	10	14	3	2.5
30234	4GB	170	310	57	231	52	43	5	4	58	203	189	269	293	288	8	14	5	4
32234	4GD	170	310	91	238	86	71	5	4	75	196	189	259	293	294	10	20	5	4
30334	2GB	170	360	80	248	72	62	5	4	65	213	190	307	343	329	9	18	5	4
T4DB180	4DB	180	240	32	207	30	23	3	3	47	191	195	224	226	233	6	9	3	3
32936	4DC	180	250	45	216	45	34	2.5	2	53	194	194	225	238	241	8	11	2.5	2
32036X	3FD	180	280	64	230	64	48	3	2.5	59	200	195	247	267	267	10	16	3	2.5
30236	4GB	180	320	57	240	52	43	5	4	60	212	199	278	303	297	8	14	5	4
32236	4GD	180	320	91	247	86	71	5	4	77	205	199	267	303	303	10	20	5	4
32938	4DC	190	260	45	227	45	34	2.5	2	54	205	204	235	248	251	8	11	2.5	2
JM738249/210	M738200	190	260	46	227	44	36.5	3	2.5	54	205	205	235	247	252	8	9.5	3	2.5
32038X	4FD	190	290	64	240	64	48	3	2.5	62	210	205	257	276	279	10	16	3	2.5
30238	4GB	190	340	60	254	55	46	5	4	63	225	210	298	323	318	8	14	5	4
32238	4GD	190	340	97	261	92	75	5	4	80	217	210	286	323	323	12	22	5	4
T4DB200	4DB	200	270	37	232	34	27	3	3	53	214	215	251	255	262	6	10	3	3
32940	3EC	200	280	51	240	51	39	3	2.5	53	217	215	257	266	271	9	12	3	2.5
32040X	4FD	200	310	70	254	70	53	3	2.5	65	222	215	273	296	297	11	17	3	2.5
30240	4GB	200	360	64	269	58	48	5	4	67	237	220	315	343	336	9	16	5	4
32240	3GD	200	360	104	274	98	82	4	4	82	231	218	302	343	340	11	22	4	4
T2DC220	2DC	220	285	41	249	40	33	4	3	45	233	237	270	270	277	7	8	4	3
32944	3EC	220	300	51	259	51	39	3	2.5	58	235	236	275	286	290	9	12	3	2.5
32044X	4FD	220	340	76	280	76	57	4	3	72	244	238	300	325	326	12	19	4	3
30244	3GB	220	400	72	295	65	54	5	4	73	259	240	348	382	371	10	18	5	4
32244	4GD	220	400	114	306	108	90	5	4	95	253	240	334	382	379	13	24	5	4
T4EB240	4EB	240	320	42	276	39	30	3	3	60	256	256	299	305	310	8	12	3	3
32948	4EC	240	320	51	280	51	39	3	2.5	64	255	256	294	306	311	9	12	3	2.5
T2EE240	2EE	240	320	57	277	56	46	6	4	57	254	262	296	303	311	9	11	6	4



Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
31330X	7GB	27	873.6	1071	105	1470	2100	0.83	0.72	0.4
T4DB160	4DB	3.25	269.85	435.75	43.575	2310	2730	0.48	1.25	0.7
32932	2DC	4.2	366.45	567	55.65	2310	2730	0.35	1.7	0.9
32032X	4EC	7.8	558.6	819	80.325	2100	2520	0.46	1.3	0.7
T4EE160	4EE	10.5	681.45	1029	101.325	2100	2520	0.44	1.35	0.8
30232	4GB	13	594.3	771.75	75.6	1680	2310	0.43	1.4	0.8
32232	4GD	23	980.7	1470	138.6	1680	2310	0.43	1.4	0.8
30332	2GB	29	1018.5	1239	119.7	1575	2100	0.35	1.7	0.9
T4DB170	4DB	3.45	322.35	462	45.15	2100	2730	0.46	1.3	0.7
32934	3DC	4.5	368.55	614.25	57.75	2100	2520	0.37	1.6	0.9
32034X	4EC	10.5	656.25	960.75	92.4	1995	2310	0.44	1.35	0.8
30234	4GB	16.5	689.85	908.25	87.15	1575	2100	0.43	1.4	0.8
32234	4GD	28.5	1128.75	1711.5	157.5	1575	2100	0.43	1.4	0.8
30334	2GB	34.5	1158.15	1407	135.45	1470	1890	0.35	1.7	0.9
T4DB180	4DB	3.65	324.45	472.5	46.2	2100	2520	0.48	1.25	0.7
32936	4DC	6.65	456.75	771.75	71.4	1995	2310	0.48	1.25	0.7
32036X	3FD	14	832.65	1218	115.5	1785	2310	0.43	1.4	0.8
30236	4GB	17	660.45	855.75	84	1575	2100	0.46	1.3	0.7
32236	4GD	29.5	1122.45	1711.5	157.5	1470	1995	0.46	1.3	0.7
32938	4DC	7	465.15	803.25	75.6	1890	2310	0.48	1.25	0.7
JM738249/210	M738200	7.1	465.15	803.25	75.6	1890	2310	0.48	1.25	0.7
32038X	4FD	15	846.3	1260	117.6	1680	2100	0.44	1.35	0.8
30238	4GB	20.5	801.15	1050	99.75	1470	1890	0.43	1.4	0.8
32238	4GD	36	1330.35	2026.5	184.8	1365	1890	0.43	1.4	0.8
T4DB200	4DB	5.45	421.05	630	59.85	1785	2310	0.48	1.25	0.7
32940	3EC	9.5	617.4	997.5	92.4	1785	2100	0.4	1.5	0.8
32040X	4FD	19	840	1438.5	133.35	1470	1995	0.43	1.4	0.8
30240	4GB	24.5	887.25	1176	111.3	1365	1785	0.43	1.4	0.8
32240	3GD	42.5	1365	2100	189	1365	1785	0.4	1.5	0.8
T2DC220	2DC	6.45	513.45	871.5	78.75	1680	2100	0.31	1.9	1.1
32944	3EC	10	631.05	1050	96.075	1575	1995	0.43	1.4	0.8
32044X	4FD	24.5	1002.75	1743	157.5	1365	1785	0.43	1.4	0.8
30244	3GB	34.5	1111.95	1470	133.35	1260	1680	0.43	1.4	0.8
32244	4GD	59.5	1806	2835	243.6	1155	1575	0.43	1.4	0.8
T4EB240	4EB	8.45	480.9	855.75	77.175	1470	1785	0.46	1.3	0.7
32948	4EC	11	655.2	1134	101.325	1470	1785	0.46	1.3	0.7
T2EE240	2EE	12.5	799.05	1386	123.9	1470	1785	0.35	1.7	0.9

Metric single row tapered roller bearings

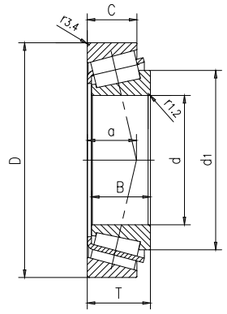




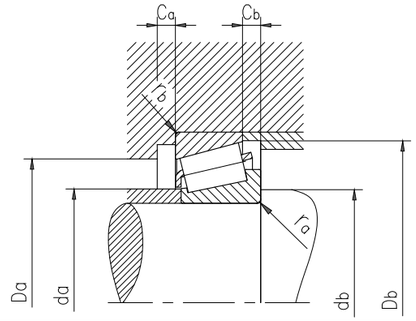
Type		Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
			d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-			mm			mm						mm								
32048X	4FD		240	360	76	300	76	57	4	3	77	262	258	318	345	346	12	19	4	3
30248	3GB		240	440	79	324	72	60	4	4	80	285	261	383	420	409	8	19	4	4
32248	4GD		240	440	127	346	120	100	5	4	105	276	262	365	420	415	7	27	4	3
32952	3EC		260	360	63.5	308	63.5	48	3	2.5	68	280	276	328	345	347	11	15.5	3	2.5
32052X	4FC		260	400	87	328	87	65	5	4	84	288	281	352	382	383	14	22	5	4
32252	4GD		260	480	137	366	130	106	5	5	112	303	286	401	458	454	10	31	5	4
32956	4EC		280	380	63.5	329	63.5	48	3	2.5	74	299	297	348	365	368	11	15.5	3	2.5
32056X	4FC		280	420	87	348	87	65	5	4	89	306	301	370	402	402	14	22	5	4
32256	4GD		280	500	137	384	130	106	6	5	116	319	302	418	478	473	10	31	5	4
32960	3FD		300	420	76	359	76	57	4	3	79	325	319	383	404	405	13	19	4	3
32060X	4GD		300	460	100	377	100	74	5	4	97	330	322	404	440	439	10	26	4	3
32260	4GD		300	540	149	412	140	115	6	5	126	343	326	453	518	511	10	34	5	4
32964	3FD		320	440	76	379	76	57	4	3	84	343	337	402	424	426	9	19	3	2.5
32064X	4GD		320	480	100	399	100	74	5	4	103	350	342	424	460	461	10	26	4	3
32264	4GD		320	580	159	442	150	125	6	5	133	368	343	486	559	550	12	34	6	5
32968	4FD		340	460	76	399	76	57	4	3	90	361	357	421	444	446	14	19	3	2.5
32972	4FD		360	480	76	419	76	57	4	3	96	380	377	439	464	466	10	19	3	2.5

Type		Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
				Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-			kg	kN			r/min		-		
32048X	4FD		26.5	1038.45	1890	163.8	1260	1680	0.46	1.3	0.7
30248	3GB		47	1365	1848	163.8	1050	1470	0.43	1.4	0.8
32248	4GD		81.5	2013.9	3517.5	283.5	1050	1365	0.43	1.4	0.8
32952	3EC		19	955.5	1606.5	140.7	1365	1680	0.4	1.5	0.8
32052X	4FC		38	1303.05	2310	199.5	1155	1470	0.43	1.4	0.8
32252	4GD		105	2457	3832.5	315	945	1260	0.43	1.4	0.8
32956	4EC		20	997.5	1743	150.15	1260	1470	0.43	1.4	0.8
32056X	4FC		40.5	1352.4	2478	210	1050	1365	0.46	1.3	0.7
32256	4GD		108	2530.5	4095	325.5	892.5	1260	0.44	1.35	0.8
32960	3FD		31.5	1182.3	2352	195.3	997.5	1365	0.4	1.5	0.8
32060X	4GD		58	1726.2	3150	257.25	945	1260	0.43	1.4	0.8
32260	4GD		140	3081.75	4987.5	383.25	840	1155	0.43	1.4	0.8
32964	3FD		33.5	1213.8	2478	202.65	945	1260	0.43	1.4	0.8
32064X	4GD		64	1746.15	3255	262.5	892.5	1155	0.46	1.3	0.7
32264	4GD		174	3520.65	5775	435.75	787.5	1050	0.43	1.4	0.8
32968	4FD		35	1221.15	2520	205.8	892.5	1260	0.44	1.35	0.8
32972	4FD		37	1250.55	2677.5	214.2	840	1155	0.46	1.3	0.7

Inch single row tapered roller bearings

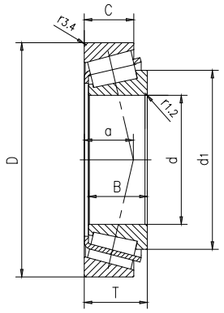


Type	Series	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
A4059/A4138	A4000	15	34.988	10.998	25.3	10.988	8.73	0.8	1.3	8	20	20.5	28	29	31	2	2	0.8	1.3
11590/11520	11500	15.875	42.862	14.288	31.1	14.288	9.525	1.5	1.5	12	23	23.5	32	36.5	38	2	4.5	1.5	1.5
LM11749/710	LM11700	17.462	39.878	13.843	28.7	14.605	10.668	1.3	1.3	8	23	24.5	35	34	36	2	3	1.3	1.3
LM11949/910	LM11900	19.05	45.237	15.494	31.4	16.6373	12.065	1.3	1.3	9	26	26	38	39	41	3	3	1.3	1.3
M12649/610	M12600	21.43	50.005	17.526	34.6	18.288	13.97	1.3	1.3	10	28	28.5	43	43.5	46	3	3.5	1.3	1.3
LM12749/710	LM12700	22	45.237	15.494	34.8	16.637	12.065	1.3	1.3	10	28	29	39	39	42	3	3	1.3	1.3
LM12749/711	LM12700	22	45.974	15.494	34.8	16.637	12.065	1.3	1.3	10	28	29	39	40	42	3	3	1.3	1.3
1380/13281300		22.225	52.388	19.368	36	20.168	14.288	1.5	1.5	11	29	30	45	45.5	48	4	5	1.5	1.5
L44643/610	L44600	25.4	50.292	14.224	39.6	14.732	10.668	1.3	1.3	10	33	32.5	44	44	47	2	3.5	1.3	1.3
15578/1552015500		1	57.15	17.462	42.3	17.462	13.495	1.3	1.5	12	35	33	49	50	53	3	3.5	1.3	1.5
M84548/510	M84500	1	57.15	19.431	42.5	19.431	14.732	1.5	1.5	15	33	33.5	45	50	53	3	4.5	1.5	1.5
15101/1524515000		1	62	19.05	45.8	20.638	14.288	0.8	1.3	12	38	32	54	55	58	4	4.5	0.8	1.3
15103S/15243	15000	26.162	61.912	19.05	45.8	19.939	14.288	0.8	2	12	38	33	54	54	58	4	4.5	0.8	2
15103S/15245	15000	1.03	62	19.05	45.8	19.939	14.288	0.8	1.3	12	38	33	54	55	58	4	4.5	0.8	1.3
L44649/610	L44600	26.988	50.292	14.224	39.6	14.732	10.668	3.5	1.3	10	33	38.5	44	44	47	2	3.5	3.5	1.3
1982/1924A	1900	27.487	57.159	19.845	42	19.355	15.875	2.5	0.8	13	35	37.5	49	51	54	3	3.5	2.5	0.8
1985/1922	1900	28.575	57.15	19.845	42.1	19.355	15.875	0.8	1.5	13	35	35	49	50	54	3	3.5	0.8	1.5
1988/1922	1900	1.125	57.15	19.845	42	19.355	15.875	3.5	1.5	13	35	40.5	49	50	54	3	3.5	3.5	1.5
M86647/610	M86600	1.125	64.292	21.433	50.1	21.433	16.67	1.5	1.5	17	38	36.5	51	57	60	3	4.5	1.5	1.5
L45449/410	L45400	29	50.292	14.224	40.7	14.732	10.668	3.5	1.3	10	34	41	45	44	48	3	3.5	3.5	1.3
M86649/610	M86600	30.162	64.292	21.433	50.1	21.433	16.67	1.5	1.5	17	38	38.5	51	57	60	3	4.5	1.5	1.5
M88043/010	M88000	1.1875	68.262	22.225	52.3	22.28	17.462	2.4	1.6	18	41	40	54	61	64	3	4.5	2.4	1.6
LM67048/010	LM67000	31.75	59.131	15.875	45.6	16.77	11.811	3.6	1.3	12	38	44	51	52	55	3	4	3.6	1.3
15123/15243	15000	1.25	61.912	18.161	45.7	19.05	14.288	3.6	2	12	38	44	54	54	58	4	3.5	3.6	2
15123/15245	15000	1.25	62	18.161	45.7	19.05	14.288	3.6	1.3	12	38	44	54	55	58	4	3.5	3.6	1.3
HM88542/510	HM88500	1.25	73.025	29.37	56.9	27.783	23.02	1.2	3.3	23	42	39.5	55	62	69	3	6	1.2	3.3
M88048/010	M88000	33.338	68.262	22.225	52.3	22.28	17.462	0.8	1.6	18	41	40	54	61	64	3	4.5	0.8	1.6
14131/14276	14000	1.3125	69.012	19.845	50.7	19.583	15.875	0.8	1.3	15	43	40	57	62	63	3	3.5	0.8	1.3
LM48548/510	LM48500	34.925	65.088	18.034	50	18.288	13.97	3.6	1.3	14	42	47.5	57	58	61	3	4	3.6	1.3
LM48548A/510	LM48500	1.375	65.088	18.034	50	18.288	13.97	0.8	1.3	14	42	41.5	57	58	61	3	4	0.8	1.3
14137A/14276	14000	1.375	69.012	19.845	50.7	19.583	15.875	1.5	1.3	15	43	43	57	62	63	3	3.5	1.5	1.3
HM88649X/610	HM88600	1.375	72.233	25.4	56.6	25.4	19.842	1	2.3	20	42	42.5	57	63	68	5	5.5	1	2.3
HM88649/610	HM88600	1.375	72.233	25.4	56.6	25.4	19.842	2.3	2.3	20	42	45	57	63	68	5	5.5	2.3	2.3
25877/25821	25800	1.375	73.025	23.812	52.5	24.608	19.05	1.5	0.8	15	44	43	62	67	67	5	4.5	1.5	0.8
23690/23620	23600	1.375	73.025	26.988	52.3	26.975	22.225	3.5	1.5	18	42	47	59	65	67	3	4.5	3.5	1.5
HM89446/410	HM89400	1.375	76.2	29.37	59.3	28.575	23.02	3.5	3.3	23	44	47.5	58	65	72	3	6	3.5	3.3
L68149/110	L68100	34.987	59.131	15.875	48.4	16.764	11.938	3.5	1.3	13	41	47	52	52	56	3	3.5	3.5	1.3
L68149/111	L68100	1.3774	59.975	15.875	48.4	16.764	11.938	3.5	1.3	13	41	47	52	53	56	3	3.5	3.5	1.3
HM88648/610	HM88600	35.717	72.233	25.4	56.6	25.4	19.842	3.5	2.3	20	42	48	57	63	68	5	5.5	3.5	2.3
25880/25820	25800	36.487	73.025	23.812	52.5	24.608	19.05	1.5	2.3	15	44	45	62	64	67	5	4.5	1.5	2.3

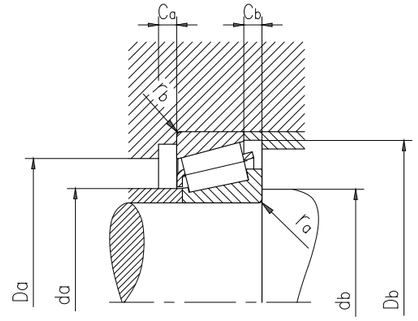


Type	Series	Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0	P_u	reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
A4059/A4138	A4000	0.051	17.325	13.86	1.3545	1785	231	0.46	1.3	0.7
11590/11520	11500	0.1	22.575	18.48	1.89	1365	1785	0.72	0.84	0.45
LM11749/710	LM11700	0.082	27.45	21.84	2.226	1575	189	0.28	2.1	1.1
LM11949/910	LM11900	0.12	35.49	28.875	3.45	1365	168	0.3	2	1.1
M12649/610	M12600	0.17	47.67	39.9	4.3575	126	1575	0.28	2.1	1.1
LM12749/710	LM12700	0.12	35.595	32.55	3.36	126	1575	0.31	1.9	1.1
LM12749/711	LM12700	0.12	35.595	32.55	3.36	126	1575	0.31	1.9	1.1
1380/13281300		0.2	54.75	46.2	5.4	1155	147	0.3	2	1.1
L44643/610	L44600	0.13	33.6	31.5	3.15	1155	1365	0.37	1.6	0.9
15578/1552015500		0.22	51.555	47.775	5.145	15	126	0.35	1.7	0.9
M84548/510	M84500	0.24	51.24	47.25	5.25	15	126	0.54	1.1	0.6
15101/1524515000		0.3	62.475	59.85	6.51	945	1155	0.35	1.7	0.9
15103S/15243	15000	0.29	62.475	59.85	6.51	945	1155	0.35	1.7	0.9
15103S/15245	15000	0.29	62.475	59.85	6.51	945	1155	0.35	1.7	0.9
L44649/610	L44600	0.12	33.6	31.5	3.15	1155	1365	0.37	1.6	0.9
1982/1924A	1900	0.23	58.38	53.55	5.88	15	126	0.33	1.8	1
1985/1922	1900	0.23	61.11	57.75	6.3	15	126	0.33	1.8	1
1988/1922	1900	0.23	61.11	57.75	6.3	15	126	0.33	1.8	1
M86647/610	M86600	0.35	63.42	64.5	7.14	8925	1155	0.54	1.1	0.6
L45449/410	L45400	0.11	33.39	34.125	3.5175	1155	1365	0.37	1.6	0.9
M86649/610	M86600	0.34	63.42	64.5	7.14	8925	1155	0.54	1.1	0.6
M88043/010	M88000	0.41	7.455	72.975	8.19	84	15	0.54	1.1	0.6
LM67048/010	LM67000	0.18	44.94	43.575	4.62	9975	1155	0.4	1.5	0.8
15123/15243	15000	0.24	62.475	59.85	6.51	945	1155	0.35	1.7	0.9
15123/15245	15000	0.24	62.475	59.85	6.51	945	1155	0.35	1.7	0.9
HM88542/510	HM88500	0.62	9.825	99.75	1.92	7875	945	0.54	1.1	0.6
M88048/010	M88000	0.38	7.455	72.975	8.19	84	15	0.54	1.1	0.6
14131/14276	14000	0.35	69.9	7.35	7.7175	84	15	0.37	1.6	0.9
LM48548/510	LM48500	0.25	6.9	59.85	6.51	8925	15	0.37	1.6	0.9
LM48548A/510	LM48500	0.26	6.9	59.85	6.51	8925	15	0.37	1.6	0.9
14137A/14276	14000	0.34	69.9	7.35	7.7175	84	15	0.37	1.6	0.9
HM88649X/610	HM88600	0.5	87.15	94.5	1.5	7875	945	0.54	1.1	0.6
HM88649/610	HM88600	0.5	87.15	94.5	1.5	7875	945	0.54	1.1	0.6
25877/25821	25800	0.48	93.555	92.4	1.29	84	945	0.3	2	1.1
23690/23620	23600	0.53	99.33	97.65	1.92	84	945	0.37	1.6	0.9
HM89446/410	HM89400	0.66	99.96	111.3	12.39	735	84	0.54	1.1	0.6
L68149/110	L68100	0.17	42.63	46.2	4.725	945	1155	0.43	1.4	0.8
L68149/111	L68100	0.18	42.63	46.2	4.725	945	1155	0.43	1.4	0.8
HM88648/610	HM88600	0.49	87.15	94.5	1.5	7875	945	0.54	1.1	0.6
25880/25820	25800	0.46	93.555	92.4	1.29	84	9975	0.3	2	1.1

Inch single row tapered roller bearings

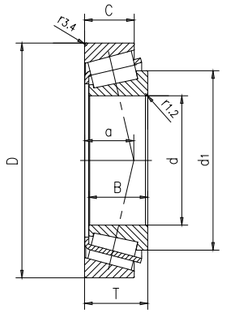


Type	Series	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
HM89449/410	HM89400	36.512	76.2	29.37	59.3	28.575	23.02	3.5	3.3	23	44	49	58	65	72	3	6	3.5	3.3
LM29748/710	LM29700	38.1	65.088	18.034	52	18.288	13.97	3.6	1.3	13	44	51	58	58	61	3	4	3.6	1.3
LM29749/710	LM29700	1.5	65.088	18.034	51.8	18.288	13.97	2.3	1.3	13	45	48	58	58	61	3	4	2.3	1.3
LM29749/711	LM29700	1.5	65.088	19.812	51.8	18.288	15.748	2.3	1.3	15	45	48	57	58	61	2	4	2.3	1.3
16150/16284	16000	1.5	72.238	20.638	53.8	20.638	15.875	3.5	1.3	16	45	51	60	65	66	3	4.5	3.5	1.3
16150/16283	16000	1.5	72.238	23.813	53.8	20.638	19.05	3.5	2.3	19	45	51	58	63	66	3	4.5	3.5	2.3
2788/2720	2700	1.5	76.2	23.812	54.8	25.654	19.05	3.5	3.3	15	46	51	64	65	69	5	4.5	3.5	3.3
3490/3420	3400	1.5	79.375	29.37	57.3	29.771	23.812	3.5	3.3	20	46	51	65	68	73	4	5.5	3.5	3.3
HM801346X/310	HM801300	1.5	82.55	29.37	64.1	28.575	23.02	2.3	3.3	24	49	48.5	64	71	78	4	6	2.3	3.3
HM801346/310	HM801300	1.5	82.55	29.37	64.1	28.575	23.02	0.8	3.3	24	49	45.5	64	71	78	4	6	0.8	3.3
25572/25520	25500	1.5	82.931	23.812	62.2	25.4	19.05	0.8	0.8	16	53	45.5	71	76	76	5	4.5	0.8	0.8
418/414	415	1.5	88.5	26.988	58.8	29.083	22.225	3.5	1.5	16	49	51	73	81	78	5	4.5	3.5	1.5
2789/2729	2700	39.688	76.2	23.812	54.8	25.654	19.05	3.5	0.8	15	46	52	64	70	69	5	4.5	3.5	0.8
344/332	335	40	80	21	57.6	22.403	17.826	3.5	1.3	14	50	53	72	73	75	4	3	3.5	1.3
344/332AA	335	1.5748	80	21	57.6	22.403	17.826	3.5	0.8	14	50	53	72	74	75	4	3	3.5	0.8
344A/332	335	1.5748	80	21	57.6	22.403	17.826	0.8	1.3	14	50	47	72	73	75	4	3	0.8	1.3
LM300849/811	LM300800	41	68	17.5	55.4	18	13.5	3.6	1.5	13	47	54	61	60	64	3	4	3.6	1.5
18590/18520	18500	41.275	73.025	16.667	56.2	17.463	12.7	3.5	1.5	13	50	54	66	65	68	3	3.5	3.5	1.5
LM501349/310	LM501300	1.625	73.431	19.558	57.7	19.812	14.732	3.5	0.8	15	48	54	64	67	69	4	4.5	3.5	0.8
LM501349/314	LM501300	1.625	73.431	21.43	57.7	19.812	16.604	3.5	0.8	17	48	54	63	67	69	3	4.5	3.5	0.8
11162/11300	11000	1.625	76.2	18.009	58.2	17.384	14.288	1.5	1.5	16	50	49.5	65	68	71	3	3.5	1.5	1.5
11163/11300	11000	1.625	76.2	18.009	58.2	17.384	14.288	0.8	1.5	16	50	48.5	65	68	71	3	3.5	0.8	1.5
24780/24720	24700	1.625	76.2	22.225	57.7	23.02	17.462	3.5	0.8	17	49	54	65	70	71	4	4.5	3.5	0.8
M802048/011	M802000	1.625	82.55	26.543	62.3	25.654	20.193	3.5	3.3	22	49	54	66	71	78	4	6	3.5	3.3
3585/3525	3500	1.625	87.312	30.162	63.1	30.886	23.812	1.5	3.3	19	53	50	73	76	80	4	6	1.5	3.3
HM803146/110	HM803100	1.625	88.9	30.162	69	29.37	23.02	3.5	3.3	25	53	54	70	77	84	4	7	3.5	3.3
526/522	525	1.625	101.6	34.925	72.9	36.068	26.988	3.5	3.3	21	61	55	87	90	94	6	7.5	3.5	3.3
25577/25520	25500	42.875	82.931	23.812	62.2	25.4	19.05	3.5	0.8	16	53	56	71	76	76	5	4.5	3.5	0.8
25577/25523	25500	42.875	82.931	26.988	62.2	25.4	22.225	3.5	2.3	20	53	56	70	73	76	3	4.5	3.5	2.3
25580/25520	25500	44.45	82.931	23.812	62.2	25.4	19.05	3.5	0.8	16	53	57	71	76	76	5	4.5	3.5	0.8
25580/25522	25500	1.75	82.931	26.988	62.2	25.4	22.225	3.5	2.3	20	53	57	70	73	76	3	4.5	3.5	2.3
25580/25523	25500	1.75	82.931	26.988	62.2	25.4	22.225	3.5	2.3	20	53	57	70	73	76	3	4.5	3.5	2.3
HM803149/110	HM803000	1.75	88.9	30.162	69	29.37	23.02	3.5	3.3	25	53	58	70	77	84	4	7	3.5	3.3
3782/3720	3700	1.75	93.264	30.163	71.2	30.302	23.812	3.5	3.3	21	60	58	80	81	87	4	6	3.5	3.3
53178/53377	53000	1.75	95.25	30.958	69.3	28.3	20.638	2	2.3	30	53	55	72	86	89	4	10	2	2.3
HM903249/210	HM903200	1.75	95.25	30.958	71.6	28.575	22.225	3.5	0.8	30	53	58	71	89	90	4	8.5	3.5	0.8
HM807040/010	HM-807000	1.75	104.775	36.512	81.5	36.512	28.575	3.5	3.3	28	63	58	85	93	100	6	7.5	3.5	3.3
535/532X	535	1.75	107.95	36.512	76.5	36.957	28.575	3.5	3.3	23	64	58	90	96	97	5	7.5	3.5	3.3
535/532A	535	1.75	111.125	38.1	76.5	36.957	30.162	3.5	3.3	25	64	58	89	99	97	4	7.5	3.5	3.3
358X/354X	355	45	85	20.638	62.4	21.692	17.462	2	1.5	15	55	55	76	77	80	3	3	2	1.5

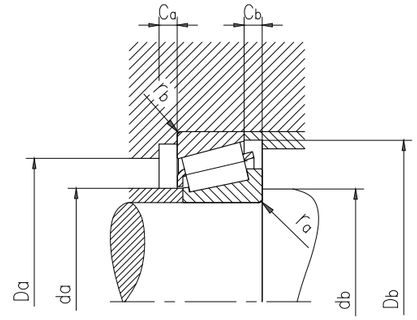


Type	Series	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
HM89449/410	HM89400	0.64	99.96	111.3	12.39	735	8925	0.54	1.1	0.6
LM29748/710	LM29700	0.23	55.65	59.85	6.45	84	15	0.33	1.8	1
LM29749/710	LM29700	0.24	55.65	59.85	6.45	84	15	0.33	1.8	1
LM29749/711	LM29700	0.25	55.65	59.85	6.45	84	15	0.33	1.8	1
16150/16284	16000	0.36	63.315	63	6.8775	84	9975	0.4	1.5	0.8
16150/16283	16000	0.39	63.315	63	6.8775	84	9975	0.4	1.5	0.8
2788/2720	2700	0.5	96.75	97.65	1.92	7875	945	0.3	2	1.1
3490/3420	3400	0.68	117.6	115.5	13.125	735	8925	0.37	1.6	0.9
HM801346X/310	HM801300	0.77	111.3	123.9	14.7	735	84	0.54	1.1	0.6
HM801346/310	HM801300	0.78	111.3	123.9	14.7	735	84	0.54	1.1	0.6
25572/25520	25500	0.65	14.55	111.3	12.39	735	84	0.33	1.8	1
418/414	415	0.83	129.15	119.7	13.86	735	8925	0.26	2.3	1.3
2789/2729	2700	0.48	96.75	97.65	1.92	7875	945	0.3	2	1.1
344/332	335	0.47	91.98	84	9.675	735	8925	0.27	2.2	1.3
344/332AA	335	0.47	91.98	84	9.675	735	8925	0.27	2.2	1.3
344A/332	335	0.48	91.98	84	9.675	735	8925	0.27	2.2	1.3
LM300849/811	LM300800	0.24	56.28	61.425	6.615	84	9975	0.35	1.7	0.9
18590/18520	18500	0.28	6.585	58.8	6.51	7875	945	0.35	1.7	0.9
LM501349/310	LM501300	0.34	7.98	71.4	8.325	7875	945	0.4	1.5	0.8
LM501349/314	LM501300	0.36	7.98	71.4	8.325	7875	945	0.4	1.5	0.8
11162/11300	11000	0.34	58.485	58.8	6.45	735	945	0.48	1.25	0.7
11163/11300	11000	0.34	58.485	58.8	6.45	735	945	0.48	1.25	0.7
24780/24720	24700	0.44	88.41	9.825	1.1325	735	945	0.4	1.5	0.8
M802048/011	M802000	0.62	95.76	96.75	11.13	735	84	0.54	1.1	0.6
3585/3525	3500	0.85	132.3	138.6	15.75	6615	84	0.31	1.9	1.1
HM803146/110	HM803100	0.91	121.8	133.35	15.33	63	7875	0.54	1.1	0.6
526/522	525	1.45	193.2	199.5	22.68	588	735	0.28	2.1	1.1
25577/25520	25500	0.59	14.55	111.3	12.39	735	84	0.33	1.8	1
25577/25523	25500	0.63	14.55	111.3	12.6	735	84	0.33	1.8	1
25580/25520	25500	0.57	14.55	111.3	12.39	735	84	0.33	1.8	1
25580/25522	25500	0.61	14.55	111.3	12.39	735	84	0.33	1.8	1
25580/25523	25500	0.61	14.55	111.3	12.39	735	84	0.33	1.8	1
HM803149/110	HM803000	0.86	121.8	133.35	15.33	63	7875	0.54	1.1	0.6
3782/3720	3700	0.98	14.7	153.3	17.85	588	735	0.33	1.8	1
53178/53377	53000	0.93	113.4	11.325	11.97	5565	735	0.75	0.8	0.45
HM903249/210	HM903200	1	13.2	128.1	14.7	5565	735	0.75	0.8	0.45
HM807040/010	HM-807000	1.65	189	214.2	23.52	525	6615	0.48	1.25	0.7
535/532X	535	1.7	192.15	199.5	22.68	5565	6615	0.3	2	1.1
535/532A	535	1.85	192.15	199.5	22.68	5565	6615	0.3	2	1.1
358X/354X	355	0.5	91.665	85.575	9.765	6.3	84	0.31	1.9	1.1

Inch single row tapered roller bearings

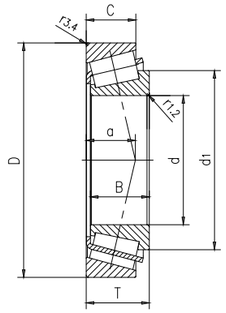


Type	Series	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
3586/3525	3500	45.237	87.312	30.162	63.1	30.886	23.812	3.5	3.3	19	53	58	73	76	80	4	6	3.5	3.3
LM102949/910	LM102900	45.242	73.431	19.558	59.4	19.812	15.748	3.5	0.8	14	52	58	66	67	70	3	3.5	3.5	0.8
LM603049/011	LM603000	1.7812	77.788	19.842	62	19.842	15.08	3.5	0.8	17	52	58	68	71	74	4	4.5	3.5	0.8
LM603049/011AA	LM603000	1.7812	77.788	19.842	62	19.842	15.08	3.5	0.3	17	52	58	68	72	74	4	4.5	3.5	0.3
LM603049/012	LM603000	1.7812	77.788	21.43	62	19.842	16.667	3.5	0.8	18	52	58	67	71	74	3	4.5	3.5	0.8
25590/25520	25500	45.618	82.931	23.812	62.1	25.4	19.05	3.5	0.8	16	53	58	71	76	76	5	4.5	3.5	0.8
25590/25523	25500	1.796	82.931	26.988	62.1	25.4	22.225	3.5	2.3	20	53	58	70	73	76	3	4.5	3.5	2.3
25590/25522	25500	1.796	83.058	23.876	62.1	25.4	19.114	3.5	2	17	53	58	71	74	76	5	4.5	3.5	2
LM503349A/310	LM503300	46	75	18	61	18	14	3.6	1.6	15	53	59	67	67	71	3	4	3.6	1.6
LM503349/310	LM503300	1.811	75	18	61	18	14	2.3	1.6	15	53	56	67	67	71	3	4	2.3	1.6
18690/18620	18600	46.038	79.375	17.462	60.2	17.462	13.495	2.8	1.5	14	53	57	69	71	73	3	3.5	2.8	1.5
359S/354X	355	1.8125	85	20.638	62.4	21.692	17.462	2.3	1.5	15	55	57	76	77	80	3	3	2.3	1.5
369S/362A	365	47.625	88.9	20.638	66.2	22.225	16.513	2.3	1.3	16	58	58	80	81	83	4	4	2.3	1.3
HM804846/810	HM804800	1.875	95.25	30.162	73.6	29.37	23.02	3.5	3.3	25	57	61	76	84	90	5	7	3.5	3.3
528R/522	525	1.875	101.6	34.925	72.9	36.068	26.988	8	3.3	21	61	70	87	90	94	6	7.5	8	3.3
65390/65320	65300	49.212	114.3	44.45	79.3	44.45	34.925	3.5	3.3	31	60	63	89	102	105	5	9.5	3.5	3.3
LM104949/911	LM104900	50.8	82.55	21.59	65.2	22.225	16.51	3.5	1.3	15	57	64	75	75	78	5	5	3.5	1.3
18790/18720	18700	2	85	17.462	66	17.462	13.495	3.5	1.5	16	59	64	75	77	79	3	3.5	3.5	1.5
368A/362A	365	2	88.9	20.638	66.2	22.225	16.513	3.5	1.3	16	58	64	80	81	83	4	4	3.5	1.3
368A/362X	365	2	90	25	66.2	22.225	20	3.5	2	20	58	64	78	81	83	3	5	3.5	2
3780/3720	3700	2	93.264	30.162	71.2	30.302	23.812	3.5	3.3	21	60	64	80	81	87	4	6	3.5	3.3
HM807046/010	HM807000	2	104.775	36.512	81.5	36.512	28.575	3.5	3.3	28	63	64	85	93	100	6	7.5	3.5	3.3
4580/4535	4500	2	104.775	39.688	79.5	40.157	33.338	3.5	3.3	27	65	64	87	93	98	5	6	3.5	3.3
537/532X	535	2	107.95	36.512	76.5	36.957	28.575	3.5	3.3	23	64	64	90	96	97	5	7.5	3.5	3.3
LM806649/610	LM806600	53.975	88.9	19.05	72.1	19.05	13.492	2.3	2	20	62	65	78	80	84	4	5.5	2.3	2
33895/33821	33800	2.125	95.25	27.783	72.5	28.575	22.225	1.5	2.3	20	61	63	83	85	90	6	5.5	1.5	2.3
33895/33822	33800	2.125	95.25	27.783	72.5	28.575	22.225	1.5	0.8	20	61	63	83	88	90	6	5.5	1.5	0.8
539/532X	535	2.125	107.95	36.512	76.5	36.957	28.575	3.5	3.3	23	64	67	90	96	97	5	7.5	3.5	3.3
539/532A	535	2.125	111.125	38.1	76.5	36.957	30.162	3.5	3.3	25	64	67	89	99	97	4	7.5	3.5	3.3
72212/72487	72000	2.125	123.825	36.512	89.2	32.791	25.4	3.5	3.3	36	67	68	93	112	114	4	11	3.5	3.3
387A/382A	385	57.15	96.838	21	74.2	21.946	15.875	3.5	0.8	17	65	70	87	90	91	5	5	3.5	0.8
387/382A	385	2.25	96.838	21	74.1	21.946	15.875	2.3	0.8	17	65	68	87	90	91	5	5	2.3	0.8
387A/382S	385	2.25	96.838	25.4	74.2	21.946	20.274	3.5	2.3	21	65	70	85	87	91	3	5	3.5	2.3
387/382	385	2.25	98.425	21	74.1	21.946	17.826	2.3	0.8	17	65	68	87	91	92	5	3	2.3	0.8
462/453X	455	2.25	104.775	30.162	79	29.317	24.605	2.3	3.3	23	68	68	91	93	98	4	5.5	2.3	3.3
39580/39520	39500	2.25	112.712	30.162	88.3	30.162	23.812	3.5	3.3	23	76	71	100	100	107	6	6	3.5	3.3
39581/39520	39500	2.25	112.712	30.162	88.3	30.162	23.812	8	3.3	23	76	80	100	100	107	6	6	8	3.3
39580/39528	39500	2.25	119.985	32.751	88.3	30.162	26.949	3.5	0.8	25	76	71	99	113	107	4	5.5	3.5	0.8
39581/39528	39500	2.25	119.985	32.751	88.3	30.162	26.949	8	0.8	25	76	80	99	113	107	4	5.5	8	0.8
HM911244/210	HM911200	59.987	130.175	34.099	97.1	30.924	23.812	3.5	3.3	40	74	74	102	118	124	5	10	3.5	3.3

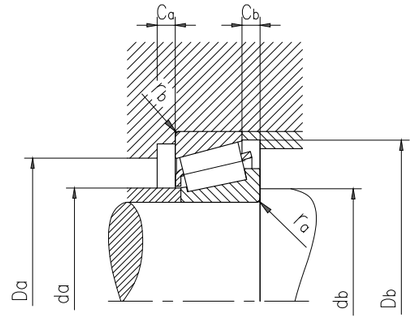


Type	Series	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
3586/3525	3500	0.78	132.3	138.6	15.75	6615	84	0.31	1.9	1.1
LM102949/910	LM102900	0.31	69.3	78.75	8.5575	735	8925	0.3	2	1.1
LM603049/011	LM603000	0.37	7.14	72.975	8.325	735	8925	0.43	1.4	0.8
LM603049/011AA	LM603000	0.37	7.14	72.975	8.325	735	8925	0.43	1.4	0.8
LM603049/012	LM603000	0.39	7.14	72.975	8.325	735	8925	0.43	1.4	0.8
25590/25520	25500	0.55	14.55	111.3	12.39	735	84	0.33	1.8	1
25590/25523	25500	0.59	14.55	111.3	12.39	735	84	0.33	1.8	1
25590/25522	25500	0.55	14.55	111.3	12.39	735	84	0.33	1.8	1
LM503349A/310	LM503300	0.3	65.25	74.55	8.325	735	8925	0.4	1.5	0.8
LM503349/310	LM503300	0.3	65.25	74.55	8.325	735	8925	0.4	1.5	0.8
18690/18620	18600	0.33	64.155	65.1	7.14	735	8925	0.37	1.6	0.9
359S/354X	355	0.49	91.665	85.575	9.765	735	84	0.31	1.9	1.1
369S/362A	365	0.55	98.7	96.75	1.92	6615	7875	0.31	1.9	1.1
HM804846/810	HM804800	0.99	139.65	153.3	18.165	588	735	0.54	1.1	0.6
528R/522	525	1.3	193.2	199.5	22.68	588	735	0.28	2.1	1.1
65390/65320	65300	2.2	237.3	235.2	26.25	525	6615	0.43	1.4	0.8
LM104949/911	LM104900	0.43	93.345	15	11.55	6615	84	0.3	2	1.1
18790/18720	18700	0.37	65.25	68.775	7.56	6615	84	0.4	1.5	0.8
368A/362A	365	0.5	98.7	96.75	1.92	6615	7875	0.31	1.9	1.1
368A/362X	365	0.58	98.7	96.75	1.92	6615	7875	0.31	1.9	1.1
3780/3720	3700	0.87	14.7	153.3	17.85	588	735	0.33	1.8	1
HM807046/010	HM807000	1.5	189	214.2	23.52	525	6615	0.48	1.25	0.7
4580/4535	4500	1.65	24.75	235.2	26.25	5565	6615	0.33	1.8	1
537/532X	535	1.55	192.15	199.5	22.68	5565	6615	0.3	2	1.1
LM806649/610	LM806600	0.44	75.75	81.9	9.45	63	735	0.54	1.1	0.6
33895/33821	33800	0.81	135.45	143.85	16.8	588	735	0.33	1.8	1
33895/33822	33800	0.81	135.45	143.85	16.8	588	735	0.33	1.8	1
539/532X	535	1.45	192.15	199.5	22.68	5565	6615	0.3	2	1.1
539/532A	535	1.65	192.15	199.5	22.68	5565	6615	0.3	2	1.1
72212/72487	72000	2	182.7	168	2.58	4515	588	0.75	0.8	0.45
387A/382A	385	0.59	14.895	17.1	12.18	588	735	0.35	1.7	0.9
387/382A	385	0.59	14.895	17.1	12.18	588	735	0.35	1.7	0.9
387A/382S	385	0.65	14.895	17.1	12.18	588	735	0.35	1.7	0.9
387/382	385	0.64	14.895	17.1	12.18	588	735	0.35	1.7	0.9
462/453X	455	1.05	157.5	168	19.53	5565	6615	0.33	1.8	1
39580/39520	39500	1.4	183.75	214.2	24.78	4725	588	0.33	1.8	1
39581/39520	39500	1.4	183.75	214.2	24.78	4725	588	0.33	1.8	1
39580/39528	39500	1.75	183.75	214.2	24.78	4725	588	0.33	1.8	1
39581/39528	39500	1.75	183.75	214.2	24.78	4725	588	0.33	1.8	1
HM911244/210	HM911200	2.05	196.35	189	23.1	399	525	0.83	0.72	0.4

Inch single row tapered roller bearings

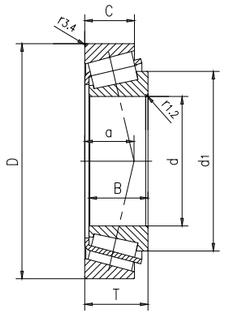


Type	Series	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
6391/K-6320	6300	2.3617	135.755	53.975	97.5	56.007	44.45	3.5	3.3	34	78	74	110	123	125	7	9.5	3.5	3.3
HM911245/210	HM911200	60.325	130.175	36.512	97.2	33.39	23.812	5	3.3	40	74	77	102	118	124	5	12.5	5	3.3
395/394A	395	63.5	110	22	86.5	21.996	18.824	3.5	1.3	20	77	77	98	102	105	4	3	3.5	1.3
39585/39520	39500	2.5	112.712	30.162	88.4	30.162	23.812	3.5	3.3	23	76	77	100	100	107	6	6	3.5	3.3
3982/3920	3980	2.5	112.712	30.163	87.9	30.048	23.812	3.5	3.3	25	75	77	96	101	105	4	6	3.5	3.3
6379/K-6320	6300	65.088	135.755	53.975	97.5	56.007	44.45	3.5	3.3	34	78	79	110	123	125	7	9.5	3.5	3.3
395S/394A	395	66.675	110	22	86.5	21.996	18.824	3.5	1.3	20	77	80	98	102	105	4	3	3.5	1.3
395A/394A	395	2.625	110	22	86.5	21.996	18.824	0.8	1.3	20	77	75	98	102	105	4	3	0.8	1.3
3984/3920	3900	2.625	112.712	30.162	87.9	30.048	23.812	3.5	3.3	25	75	80	96	101	105	4	6	3.5	3.3
39590/39520	39500	2.625	112.712	30.162	88.3	30.162	23.812	3.5	3.3	23	76	80	100	100	107	6	6	3.5	3.3
39590/39528	39500	2.625	119.985	32.751	88.3	30.162	26.949	3.5	0.8	25	76	80	99	113	107	4	5.5	3.5	0.8
HM212049/011	HM212000	2.625	122.238	38.1	90.9	38.354	29.718	3.5	3.3	26	76	80	106	110	115	7	8	3.5	3.3
6386/K-6320	6300	2.625	135.755	53.975	97.5	56.007	44.45	4.3	3.3	34	78	82	110	123	125	7	9.5	4.3	3.3
29675/29620	29600	69.85	112.712	25.4	94.4	25.4	19.05	1.5	3.3	26	82	80	100	100	108	4	6	1.5	3.3
482/472	475	2.75	120	29.795	92.5	29.007	24.237	3.5	2	25	80	84	103	110	112	4	5.5	3.5	2
47487/47420	47400	2.75	120	32.545	94.3	32.545	26.195	3.5	3.3	25	81	84	105	108	113	6	6	3.5	3.3
47487/47420A	47400	2.75	120	32.545	94.3	32.545	26.195	3.5	0.5	25	81	84	105	113	113	6	6	3.5	0.5
566/563	565	2.75	127	36.512	97.6	36.17	28.575	3.5	3.3	28	83	84	109	115	119	5	7.5	3.5	3.3
655/652	655	2.75	152.4	41.275	113	41.275	31.75	3.5	3.3	32	96	84	125	140	138	6	9.5	3.5	3.3
33281/33462	33000	71.438	117.475	30.162	94.1	30.162	23.812	3.5	3.3	26	81	85	101	105	111	5	6	3.5	3.3
H715345/311	H715300	2.8125	136.525	46.038	110	46.038	36.513	3.5	3.3	36	88	86	113	124	132	7	9.5	3.5	3.3
29685/29620	29600	73.025	112.712	25.4	94.4	25.4	19.05	3.5	3.3	26	82	87	100	100	108	4	6	3.5	3.3
33287/33462	33000	2.875	117.475	30.162	94.1	30.162	23.812	3.5	3.3	26	81	87	101	105	111	5	6	3.5	3.3
567/563	565	2.875	127	36.512	97.6	36.17	28.575	3.5	3.3	28	83	87	109	115	119	5	7.5	3.5	3.3
HM215249/210	HM215200	76	132	39	102	39	32	7	3.5	27	88	97	116	119	126	7	7	7	3.5
L814749/710	L814700	76.2	109.538	19.05	94.5	19.05	15.083	1.5	1.5	23	85	86	98	101	105	3	3.5	1.5	1.5
42687/42620	42600	3	127	30.162	101	31	22.225	3.5	3.3	26	88	90	112	114	120	5	7.5	3.5	3.3
47678/47620	47600	3	133.35	33.338	107	33.338	26.195	6.4	3.3	29	93	96	117	121	126	5	7	6.4	3.3
575/572	575	3	139.992	36.512	109	36.098	28.575	3.5	3.3	30	94	90	120	127	131	5	7.5	3.5	3.3
9285/9220	9200	3	161.925	49.212	121	46.038	31.75	3.5	3.3	47	93	91	128	149	153	7	17	3.5	3.3
34306/34478	34000	77.788	121.442	24.608	97.8	23.012	17.462	3.5	2	25	88	92	108	112	114	3	7	3.5	2
42690/42620	42600	3.0625	127	30.163	101	31	22.225	3.5	3.3	26	88	92	112	114	120	5	7.5	3.5	3.3
580/572	575	82.55	139.992	36.512	109	36.098	28.575	3.5	3.3	30	94	97	120	127	131	5	7.5	3.5	3.3
663/653	655	3.25	146.05	41.275	113	41.275	31.75	3.5	3.3	32	96	97	125	133	138	6	9.5	3.5	3.3
749A/742	745	3.25	150.089	44.45	113	46.672	36.512	3.5	3.3	31	95	97	130	137	142	8	7.5	3.5	3.3
497/492A	495	85.725	133.35	30.163	108	29.769	22.225	3.5	3.3	29	95	100	119	121	128	5	7.5	3.5	3.3
665/653	655	3.375	146.05	41.275	113	41.275	31.75	3.5	3.3	32	96	100	125	133	138	6	9.5	3.5	3.3
593/592A	593	88.9	152.4	39.688	121	36.322	30.162	3.5	3.3	36	104	103	128	139	141	4	9.5	3.5	3.3
HM518445/410	HM518400	3.5	152.4	39.688	119	39.688	30.162	6.4	3.3	32	102	109	135	139	146	7	9.5	6.4	3.3
6580/6535	6500	3.5	161.925	53.975	125	55.1	42.862	3.5	3.3	39	102	103	134	149	153	8	11	3.5	3.3

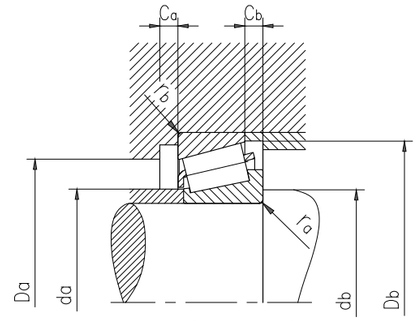


Type	Series	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
6391/K-6320	6300	3.95	37.65	42	47.775	42	525	0.33	1.8	1
HM911245/210	HM911200	2.1	196.35	189	23.52	399	525	0.83	0.72	0.4
395/394A	395	0.84	113.4	123.9	14.7	54	63	0.4	1.5	0.8
39585/39520	39500	1.25	183.75	214.2	24.78	4725	588	0.33	1.8	1
3982/3920	3980	1.25	159.6	192.15	22.26	54	588	0.4	1.5	0.8
6379/K-6320	6300	3.7	37.65	42	47.775	42	525	0.33	1.8	1
395S/394A	395	0.78	113.4	123.9	14.7	54	63	0.4	1.5	0.8
395A/394A	395	0.79	113.4	123.9	14.7	54	63	0.4	1.5	0.8
3984/3920	3900	1.15	159.6	192.15	22.26	54	588	0.4	1.5	0.8
39590/39520	39500	1.2	183.75	214.2	24.78	4725	588	0.33	1.8	1
39590/39528	39500	1.55	183.75	214.2	24.78	4725	588	0.33	1.8	1
HM212049/011	HM212000	1.85	24.45	257.25	29.4	4725	5565	0.33	1.8	1
6386/K-6320	6300	3.65	37.65	42	47.775	42	525	0.33	1.8	1
29675/29620	29600	0.97	127.5	163.8	18.48	4725	5565	0.48	1.25	0.7
482/472	475	1.35	171.15	195.3	22.68	4725	5565	0.37	1.6	0.9
47487/47420	47400	1.5	197.4	239.4	27.825	4515	5565	0.35	1.7	0.9
47487/47420A	47400	1.5	197.4	239.4	27.825	4515	5565	0.35	1.7	0.9
566/563	565	1.95	227.85	267.75	3.45	4515	525	0.37	1.6	0.9
655/652	655	3.65	283.5	336	37.275	378	4515	0.4	1.5	0.8
33281/33462	33000	1.25	159.6	199.5	22.68	4725	5565	0.44	1.35	0.8
H715345/311	H715300	3.1	286.65	372.75	4.95	399	4725	0.48	1.25	0.7
29685/29620	29600	0.89	127.5	163.8	18.48	4725	5565	0.48	1.25	0.7
33287/33462	33000	1.2	159.6	199.5	22.68	4725	5565	0.44	1.35	0.8
567/563	565	1.85	227.85	267.75	3.45	4515	525	0.37	1.6	0.9
HM215249/210	HM215200	2.15	267.75	32.25	36.225	42	54	0.33	1.8	1
L814749/710	L814700	0.57	75.75	17.1	11.55	4725	588	0.5	1.2	0.7
42687/42620	42600	1.45	179.55	214.2	25.2	42	525	0.43	1.4	0.8
47678/47620	47600	1.95	212.1	273	31.5	399	54	0.4	1.5	0.8
575/572	575	2.45	238.35	294	32.55	399	4725	0.4	1.5	0.8
9285/9220	9200	4.4	333.9	351.75	39.9	315	42	0.72	0.84	0.45
34306/34478	34000	0.92	12.75	14.7	16.65	4515	5565	0.46	1.3	0.7
42690/42620	42600	1.4	179.55	214.2	25.2	42	525	0.43	1.4	0.8
580/572	575	2.2	238.35	294	32.55	399	4725	0.4	1.5	0.8
663/653	655	2.8	283.5	336	37.275	378	4515	0.4	1.5	0.8
749A/742	745	3.4	368.55	425.25	48.825	378	4515	0.33	1.8	1
497/492A	495	1.45	186.9	231	26.775	399	4725	0.44	1.35	0.8
665/653	655	2.65	283.5	336	37.275	378	4515	0.4	1.5	0.8
593/592A	593	2.8	248.85	32.25	35.175	357	4515	0.44	1.35	0.8
HM518445/410	HM518400	2.85	315	372.75	4.95	357	42	0.4	1.5	0.8
6580/6535	6500	4.8	424.2	535.5	58.8	336	42	0.4	1.5	0.8

Inch single row tapered roller bearings

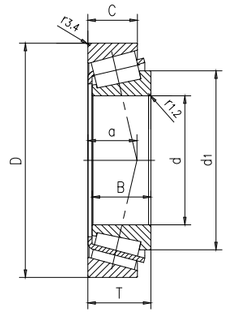


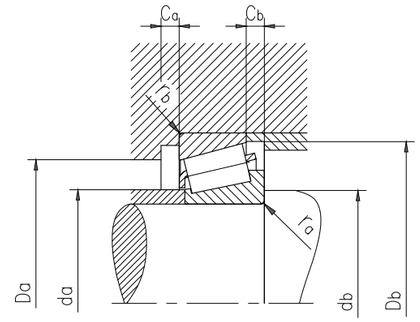
Type	Series	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
HM218248/210	HM218200	90	147	40	116	40	32.5	7	3.5	29	101	111	130	134	140	7	7.5	7	3.5
6581X/6535	6500	3.5433	161.925	53.975	125	55.1	42.862	3	3.3	39	102	104	134	149	153	8	11	3	3.3
47890/47820	47800	92.075	146.05	33.338	120	34.925	26.195	3.5	3.3	32	105	106	128	133	139	6	7	3.5	3.3
598/592A	595	3.625	152.4	39.688	121	36.322	30.162	3.5	3.3	36	104	107	128	139	141	4	9.5	3.5	3.3
47896/47820	47800	95.25	146.05	33.338	120	34.925	26.195	3.5	3.3	32	105	110	128	133	139	6	7	3.5	3.3
594A/592A	595	3.75	152.4	39.688	121	36.322	30.162	5	3.3	36	104	113	128	139	141	4	9.5	5	3.3
594/592A	595	3.75	152.4	39.688	121	36.322	30.162	3.5	3.3	36	104	110	128	139	141	4	9.5	3.5	3.3
683/672	675	3.75	168.275	41.275	133	41.275	30.162	3.5	3.3	38	114	110	143	155	157	6	11	3.5	3.3
90381/90744	90300	96.838	188.912	50.8	145	46.038	31.75	3.5	3.3	61	114	112	148	176	179	6	19	3.5	3.3
HH224334/310	HH224300	99.975	212.725	66.675	158	66.675	53.975	3.5	3.3	46	132	115	184	199	202	10	12.5	3.5	3.3
HM220149A/110	HM220100	100	157	42	127	42	34	5	3.5	31	111	118	140	143	151	7	8	5	3.5
HM220149/110	HM220100	3.937	157	42	127	42	34	8	3.5	31	111	124	140	143	151	7	8	8	3.5
687/672	675	101.6	168.275	41.275	133	41.275	30.162	3.5	3.3	38	114	116	143	155	157	6	11	3.5	3.3
HH221449/410	HH221400	4	190.5	57.15	142	57.531	46.038	8	3.3	40	119	126	163	177	179	9	11	8	3.3
HH224335/310	HH224300	4	212.725	66.675	158	66.675	53.975	7	3.3	46	132	124	184	199	202	10	12.5	7	3.3
37425/37625	37000	107.95	158.75	23.02	132	21.438	15.875	3.5	3.3	36	120	123	140	145	149	4	7	3.5	3.3
56425/56650	56000	4.25	165.1	36.512	137	36.512	26.988	3.5	3.3	37	119	123	145	152	158	6	9.5	3.5	3.3
64432/64708	64000	110	180	41.275	146	41.275	30.162	3.5	3.3	41	126	125	155	167	171	6	11	3.5	3.3
64450/64700	64000	114.3	177.8	41.275	146	41.275	30.162	3.5	3.3	41	126	129	155	164	171	6	11	3.5	3.3
68450/68712	68000	4.5	180.975	34.925	144	31.75	25.4	3.5	3.3	39	129	129	158	167	170	4	9.5	3.5	3.3
HH224346/310	HH224300	4.5	212.725	66.675	158	66.675	53.975	7	3.3	46	131	137	184	199	202	10	12.5	7	3.3
938/932	935	4.5	212.725	66.675	154	66.675	53.975	7	3.3	46	130	137	175	199	193	8	12.5	7	3.3
HH224349/310	HH224300	114.975	212.725	66.675	158	66.675	53.975	7	3.3	46	132	137	184	199	202	10	12.5	7	3.3
HM624749/710	HM624700	120.65	190.5	46.038	156	46.038	34.925	3.5	1.5	41	135	136	167	180	182	8	11	3.5	1.5
48290/48220	48200	127	182.562	39.688	154	38.1	33.338	3.5	3.3	34	140	142	165	169	174	6	6	3.5	3.3
67388/67322	67300	5	196.85	46.038	164	46.038	38.1	3.5	3.3	39	146	142	177	183	189	7	7.5	3.5	3.3
798/792	795	5	206.375	47.625	167	50.013	34.925	3.3	3.3	45	144	142	178	192	195	8	12.5	3.3	3.3
L327249/210	L327200	133.35	177.008	25.4	155	26.195	20.638	1.5	1.5	28	145	144	165	167	170	5	4.5	1.5	1.5
67391/67322	67300	5.25	196.85	46.038	164	46.038	38.1	8	3.3	39	146	158	177	183	189	7	7.5	8	3.3
95525/95925	95000	5.25	234.95	63.5	178	63.5	49.213	9.7	3.3	48	152	161	198	221	217	10	14	9.7	3.3
898/892	895	139.7	228.6	57.15	181	57.15	44.45	3.5	3.3	49	155	155	195	214	215	8	12.5	3.5	3.3
HM231132/110	HM231100	5	236.538	57.15	187	56.642	44.45	3.5	3.3	44	165	156	210	222	223	9	12.5	3.5	3.3
HM231148/110	HM231100	149.225	236.538	57.15	187	56.642	44.45	6.4	3.3	44	165	171	210	222	223	10	12.5	6.4	3.3
LM330448/410	LM330400	152.4	203.2	41.275	180	41.275	34.925	3.3	3.3	38	166	168	186	189	197	5	6	3.3	3.3
M231649/610	M231600	6	222.25	46.83	185	46.83	34.925	3.5	1.5	40	169	168	200	211	210	7	11.5	3.5	1.5
LM241148/110	LM241100	203.987	276.225	42.862	236	46.038	34.133	3.5	3.3	44	220	221	257	261	265	7	8.5	3.5	3.3
67985/67920	67900	206.375	282.575	46.038	246	46.038	36.512	3.5	3.3	60	222	223	254	267	272	8	9.5	3.5	3.3
H242649/610	H242600	8.125	336.55	98.425	268	100.013	77.788	3.3	3.3	72	231	223	290	321	318	14	20.5	3.3	3.3
LM742747/710	LM742700	216.408	285.75	46.038	253	49.212	34.925	3.5	3.3	60	230	233	261	270	277	7	11	3.5	3.3
M244249A/210	M244200	220.662	314.325	61.912	264	66.675	49.212	1.5	3.3	56	241	234	284	299	300	9	12.5	1.5	3.3



Type	Series	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
HM218248/210	HM218200	2.55	294	372.75	4.95	357	4515	0.33	1.8	1
6581X/6535	6500	4.75	424.2	535.5	58.8	336	42	0.4	1.5	0.8
47890/47820	47800	2.1	219.45	294	33.75	357	4515	0.44	1.35	0.8
598/592A	595	2.7	248.85	32.25	35.175	357	4515	0.44	1.35	0.8
47896/47820	47800	1.95	219.45	294	33.75	357	4515	0.44	1.35	0.8
594A/592A	595	2.55	248.85	32.25	35.175	357	4515	0.44	1.35	0.8
594/592A	595	2.55	248.85	32.25	35.175	357	4515	0.44	1.35	0.8
683/672	675	3.75	32.4	383.25	4.95	315	399	0.48	1.25	0.7
90381/90744	90300	5.75	365.4	393.75	43.575	273	357	0.88	0.68	0.4
HH224334/310	HH224300	11.5	649.95	871.5	92.4	231	315	0.33	1.8	1
HM220149A/110	HM220100	2.9	318.15	42	44.625	336	42	0.33	1.8	1
HM220149/110	HM220100	2.9	318.15	42	44.625	336	42	0.33	1.8	1
687/672	675	3.45	32.4	383.25	4.95	315	399	0.48	1.25	0.7
HH221449/410	HH221400	7	563.85	661.5	71.4	294	357	0.33	1.8	1
HH224335/310	HH224300	11	649.95	871.5	92.4	231	315	0.33	1.8	1
37425/37625	37000	1.4	13.2	171.15	19.215	336	399	0.6	1	0.6
56425/56650	56000	2.7	268.8	372.75	39.375	315	378	0.5	1.2	0.7
64432/64708	64000	3.95	322.35	435.75	44.625	294	357	0.52	1.15	0.6
64450/64700	64000	3.6	322.35	435.75	44.625	294	357	0.52	1.15	0.6
68450/68712	68000	2.95	238.35	294	31.5	294	357	0.5	1.2	0.7
HH224346/310	HH224300	10	649.95	871.5	92.4	231	315	0.33	1.8	1
938/932	935	10	657.3	83.25	85.575	273	336	0.33	1.8	1
HH224349/310	HH224300	10	649.95	871.5	92.4	231	315	0.33	1.8	1
HM624749/710	HM624700	4.85	47.4	567	58.8	273	336	0.43	1.4	0.8
48290/48220	48200	3.3	295.5	462	46.2	273	336	0.3	2	1.1
67388/67322	67300	5.2	414.75	614.25	63	252	315	0.35	1.7	0.9
798/792	795	6.1	445.2	614.25	64.5	252	315	0.46	1.3	0.7
L327249/210	L327200	1.7	174.3	294	29.4	273	336	0.35	1.7	0.9
67391/67322	67300	4.65	414.75	614.25	63	2625	315	0.35	1.7	0.9
95525/95925	95000	11	717.15	945	96.75	231	294	0.37	1.6	0.9
898/892	895	8.95	66.9	84	84	231	294	0.43	1.4	0.8
HM231132/110	HM231100	10	66.45	892.5	9.825	231	273	0.31	1.9	1.1
HM231148/110	HM231100	9.05	66.45	892.5	9.825	231	273	0.31	1.9	1.1
LM330448/410	LM330400	3.7	263.55	54	47.775	252	294	0.35	1.7	0.9
M231649/610	M231600	5.85	42	661.5	65.1	231	273	0.33	1.8	1
LM241148/110	LM241100	7.2	51.9	819	75.6	1785	21	0.31	1.9	1.1
67985/67920	67900	8.45	488.25	871.5	8.325	168	21	0.5	1.2	0.7
H242649/610	H242600	34	1291.5	2268	199.5	1365	189	0.33	1.8	1
LM742747/710	LM742700	7.9	489.3	892.5	8.325	168	21	0.48	1.25	0.7
M244249A/210	M244200	15	823.2	1386	123.9	1575	189	0.33	1.8	1

Inch single row tapered roller bearings

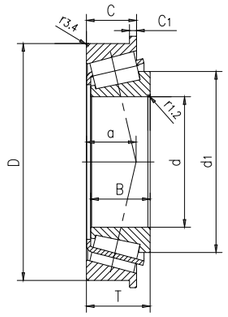


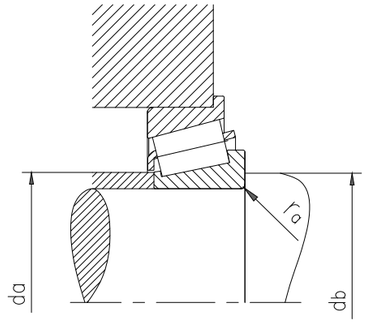


Type	Series	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d_1 ≈	B	C	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	D_a min.	D_a max.	D_b min.	C_a min.	C_b min.	r_a max.	r_b max.
-		mm			mm						mm								
LM245846/810	LM245800	230.188	317.5	47.625	268	52.388	36.512	3.3	3.3	49	249	247	296	302	304	9	11	3.3	3.3
544091/544118	544000	231.775	300.038	33.338	260	31.75	23.812	3.5	3.3	49	247	249	278	284	284	5	9.5	3.5	3.3
LM245848/810	LM245800	9.125	317.5	47.625	268	52.388	36.512	3.3	3.3	49	249	249	296	302	304	9	11	3.3	3.3
LM545848/810	LM545800	234.848	314.325	49.212	271	53.975	36.512	3.5	3.3	57	250	252	291	299	304	9	12.5	3.5	3.3
M349547/510	M349500	255.6	342.9	57.15	296	63.5	44.45	1.5	3.3	59	273	269	318	327	331	9	12.5	1.5	3.3
M349549/510	M349500	257.175	342.9	57.15	296	57.15	44.45	6.4	3.3	59	273	281	318	327	331	9	12.5	6.4	3.3
M249747/710	M249700	358.775	71.438	1	303	76.2	53.975	1.5	3.3	64	276	271	326	343	343	11	17	1.5	3.3
38880/38820	38800	263.525	325.438	28.575	293	28.575	25.4	1.5	1.5	48	282	277	307	313	313	4	3	1.5	1.5
LM451345/310	LM451300	10.375	355.6	57.15	309	57.15	44.45	3.5	3.3	61	285	281	329	339	343	10	12.5	3.5	3.3
L555249/210	L555200	292.1	374.65	47.625	330	47.625	34.925	3.5	3.3	64	310	310	350	358	361	9	12.5	3.5	3.3
L357049/010	L357000	304.8	393.7	50.8	347	50.8	38.1	6.4	3.3	64	327	329	368	377	379	7	12.5	6.4	3.3
LM757049/010	LM757000	304.8	406.4	63.5	356	63.5	47.625	6.4	3.3	79	327	329	370	389	391	10	15.5	6.4	3.3
HM259048/010/HA4	HM259000	317.5	447.675	85.725		3.375	2.6875	0.14	0.13										
HM261049/010	HM261000	333.375	469.9	90.488		3.5625	2.1825	0.25	0.13										
LM361649/610	LM361600	342.9	450.85	66.675		2.625	2.0625	0.33	0.14										
LM361649/610A/610	LM361600	343.154	450.85	66.675		2.625	2.0625	0.33	0.14										
HM262749/710	HM262700	346.075	488.95	95.25		3.75	2.9375	0.25	0.13										
L865547/512	L865500	381	479.425	49.213		1.875	1.375	0.25	0.13										
LM567949/910/HA1	LM567900	406.4	549.275	85.725		3.3125	2.4257	0.25	0.13										
LM869448/410	LM869400	431.8	571.5	74.612		2.9375	2.0625	0.13	0.13										
L570649/610	L570600	457.2	573.088	74.612		2.9375	2.25	0.25	0.25										

Type	Series	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-		kg	kN			r/min		-		
LM245846/810	LM245800	11	583.8	129	94.5	1575	189	0.31	1.9	1.1
544091/544118	544000	5.2	28.35	446.25	4.95	1575	1995	0.4	1.5	0.8
LM245848/810	LM245800	10.5	583.8	129	94.5	1575	189	0.31	1.9	1.1
LM545848/810	LM545800	10.5	638.4	15	96.75	1575	189	0.4	1.5	0.8
M349547/510	M349500	15	732.9	147	131.25	1365	168	0.35	1.7	0.9
M349549/510	M349500	14	732.9	147	131.25	1365	168	0.35	1.7	0.9
M249747/710	M249700	21.5	31.5	1848	163.8	1365	168	0.33	1.8	1
38880/38820	38800	5.3	286.65	577.5	5.4	147	1785	0.37	1.6	0.9
LM451345/310	LM451300	16	828.45	147	128.1	1365	168	0.35	1.7	0.9
L555249/210	L555200	12.5	565.95	1197	12.9	126	1575	0.4	1.5	0.8
L357049/010	L357000	15	687.75	1281	19.2	1155	147	0.35	1.7	0.9
LM757049/010	LM757000	22.5	813.75	1785	15.15	1155	1365	0.44	1.35	0.8
HM259048/010/HA4	HM259000	41	1431.15	2835	231	945	126	0.33	1.8	1
HM261049/010	HM261000	47	1499.4	2992.5	243.6	892.5	126	0.33	1.8	1
LM361649/610	LM361600	28	15	231	189	945	126	0.35	1.7	0.9
LM361649/610A/610	LM361600	28	15	231	189	945	126	0.35	1.7	0.9
HM262749/710	HM262700	55	169.65	337.5	267.75	892.5	1155	0.33	1.8	1
L865547/512	L865500	20	669.9	1575	126	84	1155	0.5	1.2	0.7
LM567949/910/HA1	LM567900	53.5	154.35	322.5	247.8	735	997.5	0.4	1.5	0.8
LM869448/410	LM869400	49	122.25	2677.5	214.2	73.5	945	0.54	1.1	0.6
L570649/610	L570600	43.5	1265.25	315	239.4	73.5	945	0.4	1.5	0.8

Single row tapered roller bearings with a langed outer ring

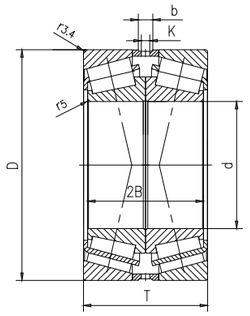




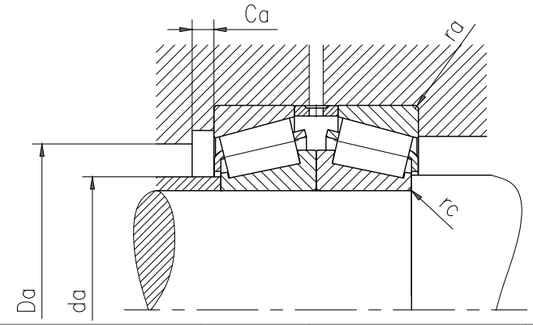
Type	Main dimensions			Dimensions								Shoulder and chamfer dimensions		
	d	D	T	d_1 ≈	D_1	B	C	C_1	$r_{1,2}$ min.	$r_{3,4}$ min.	a	d_a max.	d_b min.	r_a max.
-	mm			mm								mm		
30307R	35	80	22.75	54.5	85	21	18	4.5	2	1.5	16	46	44.5	2
32008XR	40	68	19	54.7	72	19	14.5	3.5	1	1	14	46	47.5	1
30208R	40	80	19.75	57.5	85	18	16	4	1.5	1.5	16	49	48.5	1.5
32309BR	45	100	38.25	76.1	106	36	30	7	2	1.5	29	56	55	2
32311BR	55	120	45.5	90.5	127	43	35	8	2.5	2	36	67	67	2.5
33113R	65	110	34	88.3	116	34	26.5	5.5	1.5	1.5	25	74	75	1.5
30313R	65	140	36	98.7	147	33	28	6	3	2.5	27	84	78	3

Type	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient		
		Dynamic C	Static C_0		reference speed	Maximum speed	e	Y	Y_0
-	kg	kN			r/min		-		
30307R	0.53	93.345	77.175	8.715	7875	9450	0.31	1.9	1.1
32008XR	0.29	67.935	74.55	8.0325	7875	9975	0.37	1.6	0.9
30208R	0.44	79.59	71.4	8.0325	7350	8925	0.37	1.6	0.9
32309BR	1.55	174.3	184.8	21	5250	7035	0.54	1.1	0.6
32311BR	2.55	244.65	273	31.5	4515	5880	0.54	1.1	0.6
33113R	1.3	183.75	218.4	25.2	5040	5880	0.4	1.5	0.8
30313R	2.5	252	239.4	28.875	4200	5040	0.35	1.7	0.9

Matched bearings arranged face-to-face

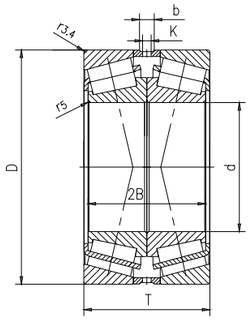


Type	Main dimensions			Dimensions					Shoulder and chamfer dimensions					
	d	D	T	2B	b	K	$r_{3,4}$ min.	r_5 min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.	r_c max.
-	mm			mm					mm					
31305/DF	25	62	36.5	34	6	4	1.5	0.6	34	47	55	3	1.5	0.6
30206/DF	30	62	34.5	32	3	3	1	0.3	38	53	56	2	1	0.3
32206/DF	30	62	42.5	40	4	3	1	0.3	37	52	56	3	1	0.3
31306/DF	30	72	41.5	38	8	5.5	1.5	0.6	40	55	65	3	1.5	0.6
30306/DF	30	72	41.5	38	6	3	1.5	0.6	41	62	64	3	1.5	0.6
32007X/DF	35	62	36	36	5	3	1	0.3	41	54	56	4	1	0.3
32207/DF	35	72	48.5	46	5	3	1.5	0.6	43	61	64	3	1.5	0.6
33207/DF	35	72	56	56	7	4	1.5	0.6	43	61	64	5	1.5	0.6
31307/DF	35	80	45.5	42	8	6	1.5	0.6	45	62	72	3	1.5	0.6
30307/DF	35	80	45.5	42	5	3	1.5	0.6	46	70	72	3	1.5	0.6
33108/DF	40	75	52	52	7	4	1.5	0.6	47	65	67	4	1.5	0.6
30208/DF	40	80	39.5	36	4	3	1.5	0.6	49	69	72	3	1.5	0.6
31308/DF	40	90	50.5	46	11	8	1.5	0.6	51	71	82	3	1.5	0.6
32009X/DF	45	75	40	40	5	4.5	1	0.3	52	67	68	4	1	0.3
32209/DF	45	85	49.5	46	7	3	1.5	0.6	54	73	77	3	1.5	0.6
31309/DF	45	100	54.5	50	10	8.5	1.5	0.6	57	79	92	4	1.5	0.6
30309/DF	45	100	54.5	50	6	3	1.5	0.6	59	86	92	3	1.5	0.6
32010X/DF	50	80	40	40	5	4.5	1	0.3	57	72	73	4	1	0.3
33010/DF	50	80	48	48	6	4	1	0.3	57	72	73	4	1	0.3
30210/DF	50	90	43.5	40	4	3	1.5	0.6	59	79	82	3	1.5	0.6
32210/DF	50	90	49.5	46	7	3	1.5	0.6	58	78	82	3	1.5	0.6
33210/DF	50	90	64	64	9	5	1.5	0.6	57	77	82	5	1.5	0.6
31310/DF	50	110	58.5	54	10	7.5	2	0.6	63	87	101	4	2	0.6
32011X/DF	55	90	46	46	7	4.5	1.5	0.6	63	81	82	4	1.5	0.6
33011/DF	55	90	54	54	7	4.5	1.5	0.6	64	81	82	5	1.5	0.6
30211/DF	55	100	45.5	42	6	3	1.5	0.6	64	88	92	4	1.5	0.6
32211/DF	55	100	53.5	50	7	3	1.5	0.6	64	87	92	4	1.5	0.6
31311/DF	55	120	63	58	10	7.5	2	0.6	68	94	111	4	2	0.6
30311/DF	55	120	63	58	8	4.5	2	0.6	72	104	110	4	2	0.6
32012X/DF	60	95	46	46	7	4.5	1.5	0.6	67	85	87	4	1.5	0.6
30212/DF	60	110	47.5	44	4	3	1.5	0.6	70	96	101	3	1.5	0.6
32212/DF	60	110	59.5	56	7	3	1.5	0.6	69	95	102	4	1.5	0.6
33212/DF	60	110	76	76	10	7.5	1.5	0.6	69	93	102	6	1.5	0.6
31312/DF	60	130	67	62	13	10	2.5	1	74	103	119	5	2.5	1
30312/DF	60	130	67	62	9	6	2.5	1	77	112	119	5	2.5	1
32312/DF	60	130	97	92	15	6	2.5	1	74	107	119	6	2.5	1
32013X/DF	65	100	46	46	7	4.5	1.5	0.6	73	90	92	4	1.5	0.6

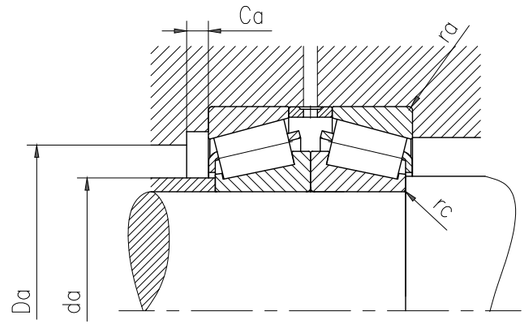


Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient			
		Dynamic C	Static C_0	P_u	reference speed	Maximum speed	e	Y_1	Y_2	Y_0
-	kg	kN			r/min		-			
31305/DF	0.55	79.9	80	83.895	84	9.0825	7035	11550	1.2	0.8
30206/DF	0.48	85.7	88	89.985	92.4	10.1325	7875	11550	2.7	1.8
32206/DF	0.59	106	116	111.3	121.8	13.335	7875	11550	2.7	1.8
31306/DF	0.82	100	100	105	105	11.97	5880	9975	1.2	0.8
30306/DF	0.81	119	112	124.95	117.6	13.335	7035	10500	3.3	2.2
32007X/DF	0.46	89.7	108	94.185	113.4	12.18	7350	10500	2.2	1.4
32207/DF	0.91	139	156	145.95	163.8	17.85	6615	9975	2.7	1.8
33207/DF	1.1	178	212	186.9	222.6	24.78	6615	9975	2.9	1.8
31307/DF	1.1	129	134	135.45	140.7	16.38	5250	8925	1.2	0.8
30307/DF	1.05	152	150	159.6	157.5	17.43	6300	9450	3.3	2.2
33108/DF	1.05	167	208	175.35	218.4	23.94	6300	9450	2.9	1.8
30208/DF	0.87	130	137	136.5	143.85	16.065	5880	8925	2.7	1.8
31308/DF	1.5	156	163	163.8	171.15	19.95	4725	7875	1.2	0.8
32009X/DF	0.71	123	160	129.15	168	18.48	5880	8925	2.5	1.6
32209/DF	1.2	169	196	177.45	205.8	23.1	5565	8400	2.5	1.6
31309/DF	2	194	204	203.7	214.2	25.725	4200	7035	1.2	0.8
30309/DF	2	227	240	238.35	252	29.925	4725	7350	2.9	1.8
32010X/DF	0.78	129	176	135.45	184.8	20.265	5565	8400	2.3	1.6
33010/DF	0.92	145	204	152.25	214.2	23.94	5565	8400	3.3	2.2
30210/DF	1.1	160	183	168	192.15	21.84	5040	7875	2.3	1.6
32210/DF	1.3	173	200	181.65	210	23.94	5040	7875	2.3	1.6
33210/DF	1.75	243	320	255.15	336	38.325	5040	7350	2.5	1.6
31310/DF	2.55	224	240	235.2	252	29.925	3780	6300	1.2	0.8
32011X/DF	1.15	170	232	178.5	243.6	27.3	4725	7350	2.5	1.6
33011/DF	1.35	191	270	200.55	283.5	32.025	4725	7350	3.3	2.2
30211/DF	1.45	190	212	199.5	222.6	25.2	4725	7035	2.5	1.6
32211/DF	1.75	222	260	233.1	273	31.5	4515	7035	2.5	1.6
31311/DF	3.25	256	275	268.8	288.75	35.175	3570	5880	1.2	0.8
30311/DF	3.25	302	325	317.1	341.25	40.95	3990	5880	2.9	1.8
32012X/DF	1.2	173	245	181.65	257.25	28.35	4515	7035	2.3	1.6
30212/DF	1.8	207	228	217.35	239.4	27.825	4200	6300	2.5	1.6
32212/DF	2.4	266	320	279.3	336	39.375	4200	6300	2.5	1.6
33212/DF	3.15	354	475	371.7	498.75	55.65	3990	6300	2.5	1.6
31312/DF	4.05	303	335	318.15	351.75	42.525	3150	5565	1.2	0.8
30312/DF	4.1	357	390	374.85	409.5	49.875	3780	5565	2.9	1.8
32312/DF	6.05	483	585	507.15	614.25	71.4	3360	5565	2.9	1.8
32013X/DF	1.3	176	255	184.8	267.75	29.4	4200	6300	2.2	1.4

Matched bearings arranged face-to-face

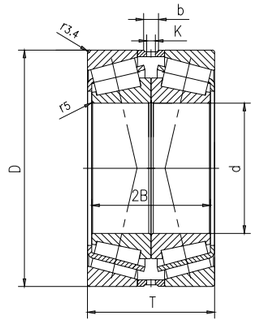


Type	Main dimensions			Dimensions					Shoulder and chamfer dimensions					
	d	D	T	2B	b	K	$r_{3.4}$ min.	r_5 min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.	r_c max.
-	mm			mm					mm					
33013/DF	65	100	54	54	7	4.5	1.5	0.6	72	89	92	5	1.5	0.6
30213/DF	65	120	49.5	46	5	3	1.5	0.6	78	106	111	4	1.5	0.6
32213/DF	65	120	65.5	62	7	3	1.5	0.6	76	104	111	4	1.5	0.6
31313/DF	65	140	72	66	12	9	2.5	1	80	111	129	5	2.5	1
32014X/DF	70	110	50	50	6	4.5	1.5	0.6	78	98	101	5	1.5	0.6
33014/DF	70	110	62	62	6	4.5	1.5	0.6	78	99	101	5	1.5	0.6
33114/DF	70	120	74	74	9	6	1.5	0.6	80	104	111	6	1.5	0.6
32214/DF	70	125	66.5	62	7	3	1.5	0.6	81	108	116	4	1.5	0.6
31314/DF	70	150	76	70	10	7.5	2.5	1	85	118	139	5	2.5	1
33015/DF	75	115	62	62	7	5	1.5	0.6	84	104	106	6	1.5	0.6
33015/DFC240	75	115	62	62	7	5	1.5	0.6	84	104	106	6	1.5	0.6
33115/DF	75	125	74	74	9	7	1.5	0.6	84	109	116	6	1.5	0.6
30215/DF	75	130	54.5	50	4	3	1.5	0.6	87	115	121	4	1.5	0.6
32215/DF	75	130	66.5	62	7	3	1.5	0.6	85	114	121	4	1.5	0.6
33215/DF	75	130	82	82	11	7.5	1.5	0.6	84	111	121	6	1.5	0.6
31315/DF	75	160	80	74	15	10	2.5	1	91	127	149	5	2.5	1
32315/DF	75	160	116	110	15	7.5	2.5	1	92	133	149	7	2.5	1
32016X/DF	80	125	58	58	5	2	1.5	0.6	90	112	116	6	1.5	0.6
33116/DF	80	130	74	74	9	6	1.5	0.6	89	114	121	6	1.5	0.6
32216/DF	80	140	70.5	66	4	4.5	2	0.6	91	122	130	5	2	0.6
33216/DF	80	140	92	92	13	7.5	2	0.6	90	119	130	7	2	0.6
31316/DF	80	170	85	78	15	10	2.5	1	97	134	159	5	2.5	1
32316/DF	80	170	123	116	15	7.5	2.5	1	98	142	159	7	2.5	1
32017X/DF	85	130	58	58	8	4.5	1.5	0.6	95	117	121	6	1.5	0.6
33017/DF	85	130	72	72	6	4.5	1.5	0.6	95	118	121	6	1.5	0.6
30217/DF	85	150	61	56	6	4.5	2	0.6	97	132	140	5	2	0.6
32217/DF	85	150	77	72	10	4.5	2	0.6	97	130	140	5	2	0.6
33217/DF	85	150	98	98	10	7.5	2	0.6	96	128	140	7	2	0.6
31317/DF	85	180	89	82	15	10	3	1	104	143	167	5	3	1
32018X/DF	90	140	64	64	8	6	1.5	0.6	100	125	131	6	1.5	0.6
33018/DF	90	140	78	78	8	6	1.5	0.6	101	127	131	7	1.5	0.6
30218/DF	90	160	65	60	6	4.5	2	0.6	104	140	150	5	2	0.6
32218/DF	90	160	85	80	10	4.5	2	0.6	103	138	150	5	2	0.6
31318/DF	90	190	93	86	15	10	3	1	110	151	177	5	3	1
32318/DF	90	190	135	128	16	7.5	3	1	109	157	177	7	3	1
32019X/DF	90	95	145	64	9	6	1.5	0.6	106	130	136	6	1.5	0.6
33019/DF	90	145	78	78	8	4.5	1.5	0.6	105	131	136	7	1.5	0.6

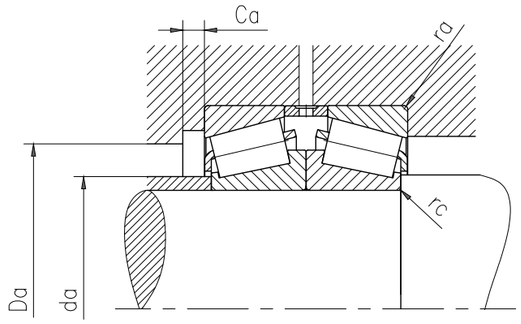


Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient			
		Dynamic C	Static C_0	P_u	reference speed	Maximum speed	e	Y_1	Y_2	Y_0
-	kg	kN			r/min		-			
33013/DF	1.55	204	310	214.2	325.5	36.225	4200	6615	2.9	1.8
30213/DF	2.3	242	270	254.1	283.5	34.125	3780	5880	2.5	1.6
32213/DF	3.1	320	390	336	409.5	47.775	3780	5880	2.5	1.6
31313/DF	5	348	380	365.4	399	49.875	2940	5040	1.2	0.8
32014X/DF	1.75	214	305	224.7	320.25	36.225	3990	5880	2.3	1.6
33014/DF	2.2	273	400	286.65	420	47.775	3990	5880	3.6	2.5
33114/DF	3.45	361	500	379.05	525	59.85	3780	5565	2.7	1.8
32214/DF	3.3	334	415	350.7	435.75	51.45	3570	5565	2.3	1.6
31314/DF	6.1	393	440	412.65	462	56.7	2730	4725	1.2	0.8
33015/DF	2.4	286	455	300.3	477.75	54.6	3780	5565	3.4	2.2
33015/DFC240	2.4	286	455	300.3	477.75	54.6	3780	5565	3.4	2.2
33115/DF	3.65	370	530	388.5	556.5	63	3570	5250	2.5	1.6
30215/DF	2.85	293	355	307.65	372.75	43.575	3570	5250	2.3	1.6
32215/DF	3.4	337	425	353.85	446.25	51.45	3360	5250	2.3	1.6
33215/DF	4.5	436	600	457.8	630	71.4	3360	5040	2.3	1.6
31315/DF	7.15	438	490	459.9	514.5	61.425	2520	4515	1.2	0.8
32315/DF	11	713	880	748.65	924	107.1	2730	4515	2.9	1.8
32016X/DF	2.65	288	430	302.4	451.5	51.45	3360	5250	2.3	1.6
33116/DF	3.8	379	560	397.95	588	65.1	3360	5040	2.3	1.6
32216/DF	4.25	391	490	410.55	514.5	59.85	3150	4725	2.3	1.6
33216/DF	5.95	527	750	553.35	787.5	87.15	3150	4725	2.3	1.6
31316/DF	8.65	473	530	496.65	556.5	64.05	2520	4200	1.2	0.8
32316/DF	13	693	1000	727.65	1050	117.6	2730	4200	2.9	1.8
32017X/DF	2.8	293	450	307.65	472.5	53.55	3360	5040	2.3	1.4
33017/DF	3.5	382	620	401.1	651	72.975	3360	5040	3.4	2.2
30217/DF	4.25	370	440	388.5	462	53.55	3150	4515	2.3	1.6
32217/DF	5.4	451	570	473.55	598.5	68.775	2940	4515	2.3	1.6
33217/DF	7.3	606	850	636.3	892.5	101.325	2940	4515	2.3	1.6
31317/DF	9.9	510	570	535.5	598.5	67.2	2310	3990	1.2	0.8
32018X/DF	3.65	356	540	373.8	567	65.1	3150	4515	2.3	1.6
33018/DF	4.5	457	710	479.85	745.5	81.9	3150	4725	3.7	2.5
30218/DF	5.2	411	490	431.55	514.5	59.85	2940	4200	2.3	1.6
32218/DF	6.85	529	680	555.45	714	80.325	2730	4200	2.3	1.6
31318/DF	11.5	486	630	510.3	661.5	74.55	1995	3570	1.2	0.8
32318/DF	17.5	835	1220	876.75	1281	138.6	2310	3780	2.9	1.8
32019X/DF	3.8	64	353	67.2	370.65	567	2940	4515	2.3	1.4
33019/DF	4.7	467	735	490.35	771.75	85.575	2940	4515	3.6	2.5

Matched bearings arranged face-to-face

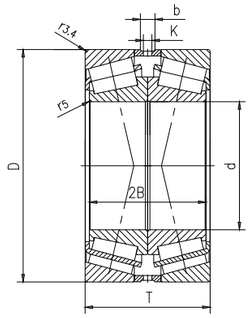


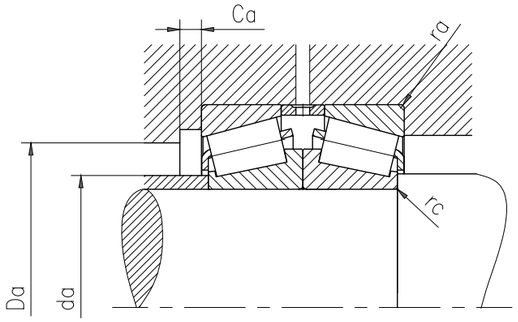
Type	Main dimensions			Dimensions					Shoulder and chamfer dimensions					
	d	D	T	2B	b	K	$r_{3,4}$ min.	r_5 min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.	r_c max.
-	mm			mm					mm					
32219/DF	90	170	91	86	10	6	2.5	1	109	145	158	5	2.5	1
31319/DF	100	200	99	90	15	10	3	1	114	157	187	5	3	1
32920/DF	100	140	50	50	6	3	1.5	0.6	110	131	131	5	1.5	0.6
32020X/DF	100	150	64	64	10	8	1.5	0.6	110	134	141	6	1.5	0.6
30220/DF	100	180	74	68	8	6	2.5	1	116	157	168	5	2.5	1
32220/DF	100	180	98	92	8	6	2.5	1	115	154	168	5	2.5	1
30320/DF	100	215	103	94	14	7	3	1	128	184	202	6	3	1
31320X/DF	105	215	113	102	13	10	3	1	121	168	202	7	3	1
2632320/DF	105	215	155	146	18	12	3	1	123	177	202	8	3	1
32021X/DF	105	160	70	70	10	7.5	2	0.6	116	143	149	6	2	0.6
30221/DF	110	190	78	72	10	4	2.5	1	123	165	178	5	2.5	1
32221/DF	110	190	106	100	11	7.5	2.5	1	121	161	178	6	2.5	1
32022X/DF	110	170	76	76	10	7.5	2	0.6	123	152	159	7	2	0.6
32022X/DFC200	110	170	76	76	10	7.5	2	0.6	123	152	159	7	2	0.6
33122/DF	110	180	112	112	15	7.5	2	0.6	122	155	169	9	2	0.6
30222/DF	110	200	82	76	10	7.5	2.5	1	129	174	188	6	2.5	1
32222/DF	110	200	112	106	11	7.5	2.5	1	127	170	188	6	2.5	1
31322X/DF	110	240	126	114	13	10	3	1	136	188	227	8	3	1
32322/DF	110	240	169	160	11	8	3	1	138	198	227	9	3	1
32024X/DF	120	180	76	76	10	7.5	2	0.6	132	161	169	7	2	0.6
33024/DF	120	180	96	96	10	7.5	2	0.6	132	160	169	6	2	0.6
30224/DF	120	215	87	80	10	7.5	2.5	1	141	187	203	6	2.5	1
32224/DF	120	215	123	116	10	7.5	2.5	1	137	181	203	7	2.5	1
30324/DF	120	260	119	110	15	8	3	1	153	221	246	8	3	1
31324X/DF	120	260	136	124	24	14	3	1	146	203	246	9	3	1
32324/DF	120	260	181	172	21	7.5	3	1	148	213	246	10	3	1
32926/DF	130	180	64	64	6	4.5	1.5	0.6	141	167	170	6	1.5	0.6
32226/DF	130	230	135.5	128	10	7.5	3	1	146	193	216	7	3	1
30226/DF	130	230	87.5	80	10	7.5	3	1	152	203	216	6	3	1
30326/DF	130	280	127.5	116	17	10	4	1.5	165	239	264	8	4	1.5
31326X/DF	130	280	144	132	20	15	4	1.5	157	218	264	8	4	1.5
32928/DF	140	190	64	64	9	6	1.5	0.6	151	177	180	6	1.5	0.6
32028X/DF	140	210	90	90	13	7.5	2	0.6	153	187	199	8	2	0.6
32228/DF	140	250	143.5	136	10	7.5	3	1	159	210	236	8	3	1
30228/DF	140	250	91.5	84	10	7.5	3	1	164	219	236	8	3	1
31328X/DF	140	300	154	140	20	15	4	1.5	169	235	284	9	4	1.5
32030X/DF	150	225	96	96	10	7.5	2.5	1	165	200	212	8	2.5	1



Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient			
		Dynamic C	Static C_0	P_u	reference speed	Maximum speed	e	Y_1	Y_2	Y_0
-	kg	kN			r/min		-			
32219/DF	8.4	597	780	626.85	819	90.825	2730	3990	2.3	1.6
31319/DF	13.5	539	710	565.95	745.5	81.9	1890	3570	1.2	0.8
32920/DF	2.35	252	405	264.6	425.25	47.25	2940	4515	3	2
32020X/DF	3.9	359	560	376.95	588	65.1	2730	4200	2.2	1.4
30220/DF	7.5	521	640	547.05	672	75.6	2520	3780	2.3	1.6
32220/DF	10	668	880	701.4	924	101.325	2520	3780	2.3	1.6
30320/DF	17	739	980	775.95	1029	111.3	1995	3360	2.9	1.8
31320X/DF	18.5	685	930	719.25	976.5	107.1	1785	3150	1.2	0.8
2632320/DF	26	1057	1560	1109.85	1638	174.3	1995	3360	2.9	1.8
32021X/DF	5.05	426	670	447.3	703.5	77.175	2730	3990	2.3	1.4
30221/DF	9	571	710	599.55	745.5	84	2310	3570	2.3	1.6
32221/DF	12.5	760	1020	798	1071	115.5	2310	3570	2.3	1.6
32022X/DF	6.3	494	780	518.7	819	84	2520	3780	2.3	1.6
32022X/DFC200	6.3	494	780	518.7	819	84	2520	3780	2.3	1.6
33122/DF	11.5	781	1250	820.05	1312.5	138.6	2310	3570	2.3	1.6
30222/DF	10.5	561	800	589.05	840	90.825	2310	3360	2.3	1.6
32222/DF	14.5	842	1140	884.1	1197	128.1	1260	3360	2.3	1.6
31322X/DF	26	841	1160	883.05	1218	128.1	1575	2940	1.2	0.8
32322/DF	35	1158	1660	1215.9	1743	181.65	1785	2940	2.9	1.8
32024X/DF	6.75	513	830	538.65	871.5	89.25	2310	3570	2.2	1.4
33024/DF	8.6	611	1080	641.55	1134	117.6	2310	3570	3.4	2.2
30224/DF	12.5	716	915	751.8	960.75	102.9	2100	3150	2.3	1.6
32224/DF	18.5	983	1400	1032.15	1470	153.3	1680	2730	2.3	1.6
30324/DF	29	1031	1400	1082.55	1470	153.3	1680	2730	2.9	1.8
31324X/DF	32.5	992	1400	1041.6	1470	153.3	1470	2520	1.2	0.8
32324/DF	45	1466	2240	1539.3	2352	231	1680	2730	2.9	1.8
32926/DF	4.95	420	735	441	771.75	80.325	2310	3360	3	2
32226/DF	23	1012	1660	1062.6	1743	178.5	1680	2940	2.3	1.6
30226/DF	14	774	980	812.7	1029	107.1	1890	2940	2.3	1.6
30326/DF	35	1165	1600	1223.25	1680	171.15	1470	2520	2.9	1.8
31326X/DF	39.5	1110	1560	1165.5	1638	168	1365	2520	1.2	0.8
32928/DF	5.2	432	780	453.6	819	84	2100	3150	2.9	1.8
32028X/DF	11	692	1160	726.6	1218	121.8	1995	2940	2.2	1.4
32228/DF	29.5	1185	2000	1244.25	2100	210	1575	2730	2.3	1.6
30228/DF	18	773	1140	811.65	1197	121.8	1575	2730	2.3	1.6
31328X/DF	49	1264	1800	1327.2	1890	189	1260	2310	1.2	0.8
32030X/DF	13.5	782	1320	821.1	1386	138.6	1890	2730	2.2	1.4

Matched bearings arranged face-to-face

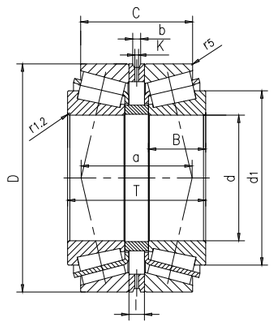


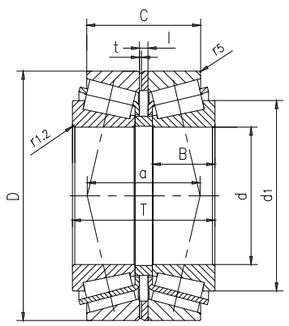


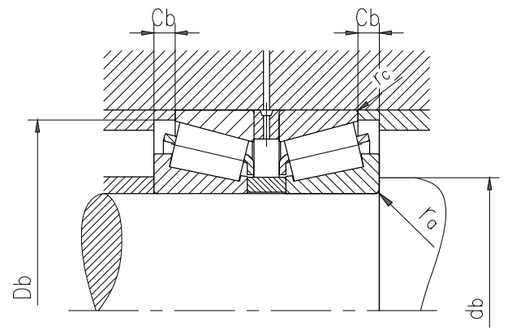
Type	Main dimensions			Dimensions					Shoulder and chamfer dimensions					
	d	D	T	2B	b	K	$r_{3,4}$ min.	r_5 min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.	r_c max.
-	mm			mm					mm					
30230/DF	150	270	98	90	15	10	3	1	176	234	256	9	3	1
32230/DF	150	270	154	146	10	7.5	3	1	171	226	256	8	3	1
30330/DF	150	320	144	130	19	10	4	1.5	189	273	303	9	4	1.5
31330X/DF	150	320	164	150	20	15	4	1.5	181	251	304	9	4	1.5
32032X/DF	160	240	102	102	11	9	2.5	1	176	213	227	8	2.5	1
30232/DF	160	290	104	96	15	10	3	1	190	252	276	7	3	1
32232/DF	160	290	168	160	10	7.5	3	1	183	242	276	10	3	1
32034X/DF	170	260	114	114	15	10	2.5	1	188	230	247	10	2.5	1
30234/DF	170	310	114	104	16	10	4	1.5	203	269	293	8	4	1.5
32234/DF	170	310	182	172	15	10	4	1.5	196	259	293	10	4	1.5
32936/DF	180	250	90	90	10	7.5	2	0.6	194	225	238	8	2	0.6
32036X/DF	180	280	128	128	15	10	2.5	1	200	247	267	10	2.5	1
30236/DF	180	320	114	104	15	10	4	1.5	212	278	303	8	4	1.5
32236/DF	180	320	182	172	16	12	4	1.5	205	267	303	10	4	1.5
32938/DF	190	260	90	90	10	7.5	2	0.6	205	235	248	8	2	0.6
32038X/DF	190	290	128	128	15	10	2.5	1	210	257	276	10	2.5	1
32038X/L4BDF	190	290	128	128	15	10	2.5	1	210	257	276	10	2.5	1
30238/DF	190	340	120	110	16	10	4	1.5	225	298	323	8	4	1.5
32040X/DF	200	310	140	140	15	10	2.5	1	222	273	296	11	2.5	1
30240/DF	200	360	128	116	19	12	4	1.5	237	315	343	9	4	1.5
32240/DF	200	360	208	196	15	10	4	1	231	302	343	11	4	1
32944/DF	220	300	102	102	10	7.5	2.5	1	235	275	286	9	2.5	1
32044X/DF	220	340	152	152	20	15	3	1	244	300	325	12	3	1
32248/DF	220	400	144	130	15	10	4	1.5	259	348	382	10	4	1.5
32244/DF	220	400	228	216	25	18	4	1.5	253	334	382	13	4	1.5
32948/DF	240	320	102	102	12	7.5	2.5	1	255	294	306	9	2.5	1
32048X/DF	240	360	152	152	20	15	3	1	262	318	345	12	3	1
32248/DF	240	440	254	240	20	16	4	1.5	276	365	420	7	3	1.5
32052X/DF	260	400	174	174	25	15	4	1.5	288	352	382	14	4	1.5
32252/DF	260	480	274	260	35	16	5	1.5	303	401	458	10	1.5	1.5
32052/DF	280	420	174	174	20	15	4	1.5	306	370	402	14	4	1.5
32252/DF	280	500	274	260	20	16	5	1.5	319	418	478	10	4	1.5
32060X/DF	300	460	200	200	20	12	4	1.5	330	404	440	10	1.5	1.5
32260/DF	300	540	280	298	36	18	5	1.5	343	453	518	10	4	1.5
32964/DF	320	440	152	152	17	15	3	1	343	402	424	9	1	1
32064X/DF	320	480	200	200	20	16	4	1.5	350	424	460	15	1.5	1.5
32968/DF	340	460	152	152	18	16	3	1	361	421	444	10	1	1
32972/DF	360	480	152	152	22	16	3	1	380	439	464	10	2.5	1

Type	Weight	Basic load rating		Fatigue load limit P_u	Rated speed		Calculate the coefficient			
		Dynamic C	Static C_0		reference speed	Maximum speed	e	Y_1	Y_2	Y_0
-	kg	kN			r/min		-			
30230/DF	22	781	1120	820.05	1176	119.7	1470	2520	2.3	1.6
32230/DF	37.5	1341	2280	1408.05	2394	235.2	1470	2520	2.3	1.6
30330/DF	52	1507	2120	1582.35	2226	218.4	1365	2100	2.9	1.8
31330X/DF	58.5	1427	2040	1498.35	2142	210	1155	2100	1.2	0.8
32032X/DF	16	912	1560	957.6	1638	160.65	1680	2520	2.2	1.4
30232/DF	27.5	971	1460	1019.55	1533	150.15	1365	2310	2.3	1.6
32232/DF	48	1602	2800	1682.1	2940	278.25	1365	2310	2.3	1.6
32034X/DF	21.5	1071	1830	1124.55	1921.5	184.8	1575	2310	2.3	1.4
30234/DF	34.5	1126	1730	1182.3	1816.5	174.3	1260	2100	2.3	1.6
32234/DF	59.5	1843	3250	1935.15	3412.5	315	1260	2100	2.3	1.6
32936/DF	14	746	1460	783.3	1533	143.85	1575	2310	2.1	1.4
32036X/DF	29	1360	2320	1428	2436	231	1470	2310	2.3	1.6
30236/DF	35.5	1079	1630	1132.95	1711.5	168	1260	2100	2.2	1.4
32236/DF	61	1833	3250	1924.65	3412.5	315	1155	1995	2.2	1.4
32938/DF	14.5	760	1530	798	1606.5	150.15	1470	2310	2.1	1.4
32038X/DF	30.5	1381	2400	1450.05	2520	235.2	1365	2100	2.3	1.4
32038X/L4BDF	30.5	1381	2400	1450.05	2520	235.2	1365	2100	2.3	1.4
30238/DF	42.5	1308	2000	1373.4	2100	199.5	1155	1890	2.3	1.6
32040X/DF	39	1372	2750	1440.6	2887.5	267.75	1155	1995	2.3	1.6
30240/DF	52	1448	2240	1520.4	2352	222.6	1050	1785	2.3	1.6
32240/DF	88	2229	4000	2340.45	4200	378	1050	1785	2.5	1.6
32944/DF	21	1030	2000	1081.5	2100	192.15	1260	1995	2.3	1.6
32044X/DF	51	1637	3350	1718.85	3517.5	315	1050	1785	2.3	1.6
32248/DF	72	1816	2800	1906.8	2940	267.75	997.5	1680	2.3	1.6
32244/DF	124	2949	5400	3096.45	5670	488.25	945	1575	2.3	1.6
32948/DF	22.5	1069	2160	1122.45	2268	202.65	1260	1785	2.2	1.4
32048X/DF	54.5	1695	3550	1779.75	3727.5	330.75	997.5	1680	2.2	1.4
32248/DF	172	3300	6550	3465	6877.5	577.5	1050	1575	2.3	1.6
32052X/DF	79	2127	4400	2233.35	4620	399	892.5	1470	2.3	1.6
32252/DF	213	4013	7350	4213.65	7717.5	630	787.5	1260	2.3	1.6
32052/DF	84	2208	4750	2318.4	4987.5	420	840	1365	2.2	1.4
32252/DF	226	2410	7800	2530.5	8190	651	735	1260	2.3	1.4
32060X/DF	119	2818	6000	2958.9	6300	514.5	787.5	1365	2.3	1.6
32260/DF	290	2935	9500	3081.75	9975	771.75	661.5	1260	2.3	1.6
32964/DF	69	1982	4650	2081.1	4882.5	409.5	787.5	1260	2.3	1.6
32064X/DF	104	2852	6200	2994.6	6510	525	735	1155	2.2	1.4
32968/DF	73	1995	4800	2094.75	5040	409.5	735	1260	2.3	1.4
32972/DF	302	2043	5100	2145.15	5355	425.25	703.5	1155	2.2	1.4

Matched bearings arranged in tandem



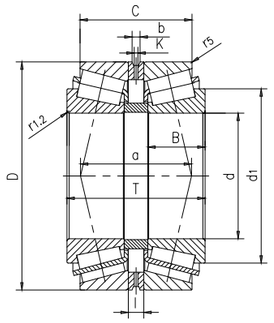


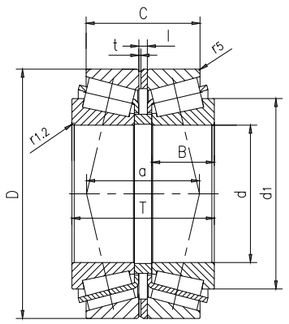


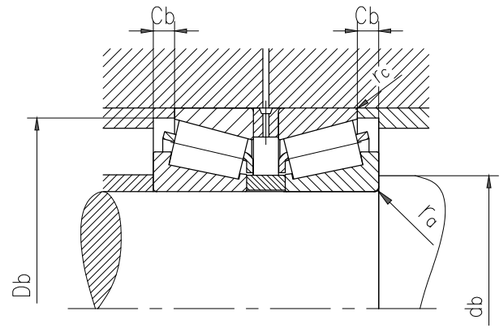
Type	Main dimensions			Dimensions						Shoulder and chamfer dimensions							
	d	D	T	d_1 ≈	C	l	b	k	t	$r_{1,2}$ min.	r_5 min.	a	d_b min.	D_b min.	C_b min.	r_a max.	r_c max.
-	mm			mm						mm							
33207T64/DB	35	72	64	53.4	52	8	4	1.5	–	1.5	0.6	44	43.5	68	6	1.5	0.6
32008T41.5	40	68	41.5	54.7	32.5	3.5	–	–	1.5	1	0.3	33	47.5	65	4.5	1	0.3
30308T72/DB	40	90	72	62.5	61.5	21.5	9	6	–	2	0.6	60	49.5	82	5	2	0.6
31309T62.5/DB	45	100	62.5	74.7	44	8	5	3	–	2	0.6	70	55	95	9	2	0.6
32010T50	50	80	50	65.9	41	10	6	4	–	1	0.3	45	58	77	4.5	1	0.3
32210T67.5/DB	50	90	67.5	68.6	56	18	10	2	–	1.5	0.6	60	59	85	5.5	1.5	0.6
33011T59/DB	55	90	59	73.1	47	5	–	–	2	1.5	0.6	43	64	86	6	1.5	0.6
33111T88/DB	55	95	88	75.1	74	28	16	8	–	1.5	0.6	72	64	91	7	1.5	0.6
32012T65	60	95	65	77.8	54	19	7	4.5	–	1.5	0.6	60	69	91	5.5	1.5	0.6
30212T53/DB	60	110	53	80.9	43.5	5.5	–	–	2	2	0.6	49	70	103	4.5	2	0.6
32013T53	65	100	53	83.3	42	7	4	3	–	1.5	0.6	51	74	97	5.5	1.5	0.6
33013T60/DB	65	100	60	82.6	48	6	–	–	2	1.5	0.6	48	74	96	6	1.5	0.6
30313T82/DB	65	140	82	98.7	66	10	4	2	–	3	1	65	78	130	8	3	1
32014T63	70	110	63	89.9	51	13	3	2	–	1.5	0.6	60	80	105	6	1.5	0.6
33014T108.8/DB	70	110	108.8	88.9	97.8	46.8	10	4.5	–	1.5	0.6	92	80	105	5.5	1.5	0.6
30214T59/DB	70	125	59	94	48.5	6.5	–	–	2	2	0.6	57	81	118	5	2	0.6
32216T78/DB	70	150	84	105	68	8	4	3	–	3	1	66	83	140	8	3	1
30215T70/DB	75	130	70	99.8	59.5	15.5	8.6	5	–	2	0.6	69	86	124	5	2	0.6
32215T78/DB	75	130	78	100	65.5	11.5	7	2	–	2	0.6	70	86	125	6	2	0.6
32216T78/DB	80	140	78	106	63.5	7.5	4	3	–	2.5	0.6	68	92	134	7	2.5	0.6
32017T66	85	130	66	108	52	8	4	3	–	1.5	0.6	64	95	125	7	1.5	0.6
32217T87/DB	85	150	87	113	70	10	6	3	–	2.5	0.6	76	97	142	8.5	2.5	0.6
33217T145/DB	85	150	145	117	121	47	26	14	–	2.5	0.6	120	97	144	12	2.5	0.6
32317T132/DB	85	180	132	127	103	5	–	–	3	4	1	88	101	167	16.5	4	1
31317T133.19/DB	85	180	133.19	131	100.19	44.19	15	10	–	4	1	152	101	169	14.5	4	1
33118T104/DB	90	150	104	120	84	14	8	4	–	2.5	0.6	83	102	144	10	2.5	0.6
32219T105/DB	95	170	105	128	88	14	4.5	3	–	3	1	91	109	161	8.5	3	1
33020T88/DB	100	150	88	122	75	10	6	3	–	2	0.6	68	111	143	6.5	2	0.6
33220T135/DB	100	180	135	134	84	26	9	3	–	3	1	97	114	168	8	3	1
30220T100/DB	100	180	100	136	87	9	4	3	–	3	1	91	114	171	10	3	1
32220T107/DB	100	180	107	139	105	9	4	3	–	3	1	99	114	172	15	3	1
31320T125X/DB	100	215	125	158	82	12	7	3	–	4	1	142	116	202	21.5	4	1
30221T88/DB	105	190	88	143	70	10	5	2	–	3	1	85	119	177	9	3	1
32022T84X/DB	110	170	84	140	66	8	4.5	3	–	2.5	0.6	80	123	163	9	2.5	0.6
32222T122/DB	110	200	122	151	102	10	5	3	–	3	1	103	124	190	10	3	1
31322T140X/DB	110	240	140	176	90	14	8	6	–	4	1	159	127	224	25	4	1
30224T133/DB	120	215	133	161	114	46	10	7.5	–	3	1	131	134	201	9.5	3	1

Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient			
		Dynamic C	Static C_0	P_u	Reference speed	Maximum speed	e	Y_1	Y_2	Y_0
-	kg	kN			r/min		-			
33207T64/DB	1.15	186.9	222.6	24.78	6615	9975	0.35	1.9	2.9	1.8
32008T41.5	0.58	116.55	150.15	16.065	6615	9975	0.37	1.8	2.7	1.8
30308T72/DB	1.9	191.1	199.5	22.68	5565	8400	0.35	1.9	2.9	1.8
31309T62.5/DB	2.1	203.7	214.2	25.725	4200	7035	0.83	0.81	1.2	0.8
32010T50	0.86	135.45	184.8	20.265	5565	8400	0.43	1.6	2.3	1.6
32210T67.5/DB	1.5	181.65	210	23.94	5040	7875	0.43	1.6	2.3	1.6
33011T59/DB	1.4	200.55	283.5	32.025	4725	7350	0.31	2.2	3.3	2.2
33111T88/DB	2.1	243.6	325.5	37.275	4725	7035	0.37	1.8	2.7	1.8
32012T65	1.45	181.65	257.25	28.35	4515	7035	0.43	1.6	2.3	1.6
30212T53/DB	1.9	217.35	239.4	27.825	4200	6300	0.4	1.7	2.5	1.6
32013T53	1.35	184.8	267.75	29.4	4200	6300	0.46	1.5	2.2	1.4
33013T60/DB	1.6	214.2	325.5	36.225	4200	6615	0.35	1.9	2.9	1.8
30313T82/DB	5.3	431.55	477.75	57.75	3360	5040	0.35	1.9	2.9	1.8
32014T63	1.9	224.7	320.25	36.225	3990	6300	0.43	1.6	2.3	1.6
33014T108.8/DB	3.05	286.65	420	47.775	3990	5880	0.28	2.4	3.6	2.5
30214T59/DB	2.7	280.35	325.5	37.8	3570	5565	0.43	1.6	2.3	1.6
32216T78/DB	4.4	488.25	546	65.1	3150	4725	0.35	1.9	2.9	1.8
30215T70/DB	3.2	307.65	372.75	43.575	3570	5250	0.43	1.6	2.3	1.6
32215T78/DB	3.7	353.85	446.25	51.45	3360	5250	0.43	1.6	2.3	1.6
32216T78/DB	4.4	410.55	514.5	59.85	3150	4725	0.43	1.6	2.3	1.6
32017T66	2.85	307.65	472.5	53.55	3360	4515	0.44	1.5	2.3	1.4
32217T87/DB	5.65	473.55	598.5	68.775	2940	4515	0.43	1.6	2.3	1.6
33217T145/DB	9	636.3	892.5	101.325	2730	3990	0.43	1.6	2.3	1.6
32317T132/DB	14.5	900.9	1113	126	2310	3990	0.35	1.9	2.9	1.8
31317T133.19/DB	12	535.5	598.5	67.2	126	2.1	0.83	0.81	1.2	0.8
33118T104/DB	6.7	558.6	819	89.25	2940	4515	0.4	1.7	2.5	1.6
32219T105/DB	9	626.85	819	90.825	2730	3990	0.43	1.6	2.3	1.6
33020T88/DB	5	500.85	803.25	87.15	2940	4200	0.28	2.4	3.6	2.5
33220T135/DB	14	957.6	1386	147	2520	3780	0.43	1.6	2.3	1.6
30220T100/DB	8.85	547.05	672	75.6	2520	3780	0.43	1.6	2.3	1.6
32220T107/DB	10.5	701.4	924	101.325	2520	3780	0.4	1.7	2.5	1.6
31320T125X/DB	19	719.25	976.5	107.1	1785	3150	0.83	0.81	1.2	0.8
30221T88/DB	9.35	599.55	745.5	84	2310	3570	0.43	1.6	2.3	1.6
32022T84X/DB	6.5	518.7	819	84	2520	3780	0.43	1.6	2.3	1.6
32222T122/DB	15	884.1	1197	128.1	2310	3360	0.43	1.6	2.3	1.6
31322T140X/DB	26	883.05	1218	128.1	1575	2940	0.83	0.81	1.2	0.8
30224T133/DB	16	751.8	960.75	102.9	2100	3150	0.43	1.6	2.3	1.6

Matched bearings arranged in tandem



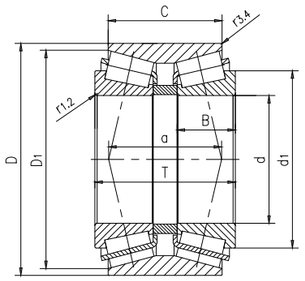




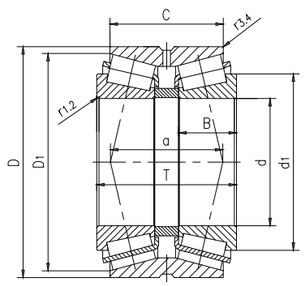
Type	Main dimensions			Dimensions									Shoulder and chamfer dimensions				
	d	D	T	d_1 ≈	C	l	b	k	t	$r_{1,2}$ min.	r_5 min.	a	d_b min.	D_b min.	C_b min.	r_a max.	r_c max.
-	mm			mm						mm							
32926T76/DB	130	180	76	153	62	12	7	3	–	2	0.6	75	142	173	7	2	0.6
32026T102X/DB	130	200	102	165	80	12	8	6	–	2.5	0.6	98	143	192	11	2.5	0.6
32226T142/DB	130	230	142	176	114.5	6.5	–	–	3	4	1	118	147	219	13.5	4	1
30326T142/DB	130	280	142	192	112.5	14.5	6	3	–	5	1.5	116	149	255	14.5	5	1.5
31326T164X/DB	130	280	164	204	108	20	8	6	–	5	1.5	188	149	261	28	5	1.5
32028T130X/DB	140	210	130	175	108	40	10.7	6	–	2.5	0.6	131	154	202	11	2.5	0.6
30228T102/DB	140	250	102	187	82.5	10.5	5.5	4	–	4	1	105	157	234	9.5	4	1
30228T106/DB	140	250	106	187	86.5	14.5	5.5	4	–	4	1	109	157	234	9.5	4	1
32228T158/DB	140	250	158	191	130.5	14.5	4	3	–	4	1	134	157	238	13.5	4	1
31328T170X/DB	140	300	170	220	110	16	7.5	6	–	5	1.5	196	160	280	30	5	1.5
32030T112X/DB	150	225	112	187	88	16	4	3	–	3	1	114	165	216	12	3	1
33030T132/DB	150	225	132	188	106	14	8	3	–	3	1	110	165	217	13	3	1
32230T164/DB	150	270	164	205	130	10	5	2	–	4	1	138	167	254	17	4	1
30230T168/DB	150	270	168	200	146	70	6	4.5	–	4	1	171	167	250	11	4	1
31330T179X/DB	150	320	179	234	115	15	8	6	–	5	1.5	207	170	300	32	5	1.5
30232T114/DB	160	290	114	215	90	10	4.5	3	–	4	1	118	177	269	12	4	1
32232T179/DB	160	290	179	222	145	11	6	4.5	–	4	1	150	178	274	17	4	1
32234T194/DB	170	310	194	238	154	12	6	4.5	–	5	1.5	162	190	294	20	5	1.5
32936T103/DB	180	250	103	216	81	13	7.5	5	–	2.5	0.6	120	194	241	11	2.5	0.6
32036T138X/DB	180	280	138	230	106	10	4	3	–	3	1	128	196	267	16	3	1
32236T192/DB	180	320	192	247	152	10	5	2	–	5	1.5	165	200	303	20	5	1.5
32938T102/DB	190	260	102	227	80	12	6.5	5	–	2.5	0.6	122	204	251	11	2.5	0.6
30238T136/DB	190	340	136	254	108	16	9	4.5	–	5	1.5	142	210	318	14	5	1.5
32240T228/DB	200	360	288	274	244	80	13.5	8	–	4	1	245	218	340	22	4	1
32044T164X/DB	220	340	164	280	126	12	6.4	5	–	4	1	156	238	326	19	4	1
32244T248/DB	220	400	248	200	20	8	5	–	5	1.5	210	241	379	24	5	1.5	0.43
32948T114/DB	240	320	114	280	90	12	7	4.5	–	3	1	140	256	311	12	3	1
32048T164X/DB	240	360	164	300	126	12	6	4.5	–	4	1	167	259	346	19	4	1
32052T189X/DB	260	400	189	328	145	15	9	6	–	5	1.5	183	281	383	22	5	1.5
32956T170/DB	280	380	170	329	139	43	20	10	–	3	1	191	297	368	15.5	3	1
32064T220X/DB	320	480	220	399	168	20	10	6	–	5	1.5	226	342	461	26	4	5

Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient			
		Dynamic C	Static C_0	P_u	Reference speed	Maximum speed	e	Y_1	Y_2	Y_0
-	kg	kN			r/min		-			
32926T76/DB	5.25	441	771.75	80.325	2310	3360	0.33	2	3	2
32026T102X/DB	10.5	699.3	1134	1155	2100	3150	0.43	1.6	2.3	1.6
32226T142/DB	23	1062.6	1743	178.5	1680	2940	0.43	1.6	2.3	1.6
30326T142/DB	36.5	1223.25	1680	171.15	1470	2520	0.35	1.9	2.9	1.8
31326T164X/DB	41	1165.5	1638	168	1365	2520	0.83	0.81	1.2	0.8
32028T130X/DB	13	726.6	1218	121.8	1995	2940	0.46	1.5	2.2	1.4
30228T102/DB	18.5	811.65	1197	121.8	1575	2730	0.43	1.6	2.3	1.6
30228T106/DB	19	811.65	1197	121.8	1575	2730	0.43	1.6	2.3	1.6
32228T158/DB	30	1244.25	2100	210	1575	2730	0.43	1.6	2.3	1.6
31328T170X/DB	49	1327.2	1890	189	1260	2310	0.83	0.81	1.2	0.8
32030T112X/DB	14	821.1	1386	138.6	1890	2730	0.46	1.5	2.2	1.4
33030T132/DB	17	877.8	1816.5	178.5	1785	2730	0.37	1.8	2.7	1.8
32230T164/DB	37.5	1408.05	2394	235.2	1470	2520	0.43	1.6	2.3	1.6
30230T168/DB	32	820.05	1176	119.7	1470	2520	0.43	1.6	2.3	1.6
31330T179X/DB	58.5	1498.35	2142	210	1155	2100	0.83	0.81	1.2	0.8
30232T114/DB	28	1019.55	1533	150.15	1365	2310	0.43	1.6	2.3	1.6
32232T179/DB	49	1682.1	2940	278.25	1365	2310	0.43	1.6	2.3	1.6
32234T194/DB	60	1935.15	3412.5	315	1260	2100	0.43	1.6	2.3	1.6
32936T103/DB	14.5	783.3	1533	143.85	1575	2310	0.48	1.4	2.1	1.4
32036T138X/DB	29.5	1428	2436	231	1470	2310	0.43	1.6	2.3	1.6
32236T192/DB	61	1924.65	3412.5	315	1155	1995	0.46	1.5	2.2	1.4
32938T102/DB	15	798	1606.5	150.15	1470	2310	0.48	1.4	2.1	1.4
30238T136/DB	44.5	1373.4	2100	199.5	1155	1890	0.43	1.6	2.3	1.6
32240T228/DB	105	2340.45	4200	378	1050	1785	0.4	1.7	2.5	1.6
32044T164X/DB	51.5	1718.85	3517.5	315	1050	1785	0.43	1.6	2.3	1.6
32244T248/DB	126	3096.45	5670	488.25	945	1575	1.6	2.3	1.6	
32948T114/DB	23.5	1122.45	2268	202.65	1260	1785	0.46	1.5	2.2	1.4
32048T164X/DB	54.5	1779.75	3727.5	330.75	997.5	1680	0.46	1.5	2.2	1.4
32052T189X/DB	79.5	2233.35	4620	399	892.5	1470	0.43	1.6	2.3	1.6
32956T170/DB	47.5	1710.45	3517.5	299.25	997.5	1470	0.43	1.6	2.3	1.6
32064T220X/DB	128	2994.6	6510	525	735	1155	0.46	1.5	2.2	1.4

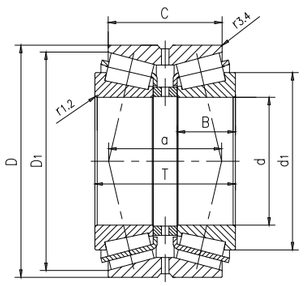
Double row tapered roller bearings, TDO design



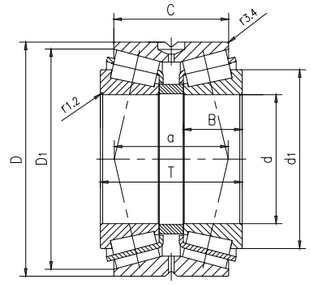
TDO



TDO/D



TDO/D2

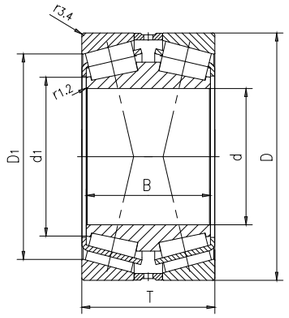


TDO/XDC

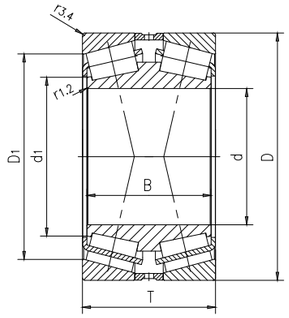
Type	Design Variations/features	Main dimensions				Dimensions				
		d	D	T	C	d_1 ≈	D_1 ≈	$r_{1,2}$ min.	$r_{3,4}$ min.	a
-		mm				mm				
BT2B332767A	TDO/D	101.6	146.05	49.212	38.94	106	142	1.5	0.8	54
BT2B328957	TDO/D	155	200	66	54	161	189	1.5	0.6	75
331945	TDO/D	228.6	488.95	254	152.4	400	456	6.4	1.5	326
BT2B328615	TDO/D	254	422.275	173.038	128.66	331	400	6.8	1.5	153
BT2B331782	TDO/D	10	422.275	178.592	139.7	331	400	6.8	1.5	158
617479B	TDO/XDC	260	440	144	128					
BT2B328130	TDO	10.2362	480	284	220	387	465	5	1.5	205
BT2B328383/HA1	TDO/D2	300	500	203	152	357	403	6.4	1.5	162
BT2B332504/HA2	TDO/XDC	300.038	422.275	174.625	136.525	376	428	3.5	1.5	170
BT2B332516A/HA1	TDO/XDC	317.5	447.675	180.975	146.05	401	454	3.3	1.5	184
BT2B332845/HA2	TDO/D	330.2	482.6	177.8	127	398	452	6.4	1.5	180
331775B	TDO/XDC	333.375	469.9	190.5	152.4	394	442	3	1	161
BT2B332830	TDO/D	340	460	160	128	422	496	4.8	1.5	180
BT2B332802A	TDO/D	342.9	533.4	174.625	123.825	413	467	6.4	1.5	186
331981	TDO/D	346.075	488.95	200.025	158.75	398	428	3.5	1.5	151
BT2B332505/HA2	TDO/XDC	355.6	444.5	136.525	111.125	431	481	6.4	1.5	197
BT2B332506/HA2	TDO/D	14	501.65	155.575	107.95	414	462	3	1	169
BT2B332603/HA1	TDO/D	368.249	523.875	214.312	169.862	438	499	6.4	1.5	196
BT2B332754	TDO/XDC	368.3	596.9	203.2	133.35	469	552	9.7	2.3	220
331606A	TDO/XDC	371.475	501.65	155.575	107.95	431	481	6.4	1.5	198
BT2B328020	TDO/D	380	520	148	112	438	497	4	1.5	162
331197A	TDO/D	384.175	546.1	222.25	177.8	457	521	6.4	0.6	205
BT2B328389	TDO/XDC	406.4	539.75	142.875	101.6	473	516	6.4	1.5	215
331656	TDO/XDC	415.925	590.55	244.475	193.675	497	563	6.4	1.5	225
BT2B332604/HA1	TDO/D	431.8	571.5	155.575	111.125	500	547	3.3	1.5	254
BT2B332237A/HA1	TDO/XDC	17	571.5	192.088	146.05	500	550	6.4	1.5	234

Type	Design Variations/features	Weight	Basic load rating		Fatigue load limit P_u	Compare data for load rating			Calculate the coefficient			
			Dynamic C	Static C_0		Radial C_r	Axial C_{fa}	Thrust coefficient K	e	Y_1	Y_2	Y_0
-		kg	kN			kN		-	-			
BT2B332767A	TDO/D	2.45	28.35	393.75	42.525	74.55	26.46	1.61	0.37	1.8	2.7	1.8
BT2B328957	TDO/D	4.85	327.6	651	63	87.15	3.345	1.66	0.35	1.9	2.9	1.8
331945	TDO/D	205	33.15	4725	49.5	819	762.3	0.62	0.94	0.72	1.07	0.7
BT2B328615	TDO/D	87.5	2511.6	4252.5	372.75	614.25	22.65	1.76	0.33	2	3	2
BT2B331782	TDO/D	97.5	2511.6	4252.5	372.75	614.25	22.65	1.76	0.33	2	3	2
617479B	TDO/XDC	86.5	293.7	3622.5	32.25							
BT2B328130	TDO	210	4546.5	7717.5	63	771.75	311.85	1.43	0.4	1.7	2.5	1.6
BT2B328383/HA1	TDO/D2	140	3141.6	5355	446.25	567	184.8	1.73	0.33	2	3	2
BT2B332504/HA2	TDO/XDC	71.5	2285.85	4987.5	42	651	214.2	1.74	0.33	2	3	2
BT2B332516A/HA1	TDO/XDC	84	2647.5	567	462	614.25	236.25	1.49	0.4	1.7	2.5	1.6
BT2B332845/HA2	TDO/D	100	1357.65	525	435.75	687.75	227.85	1.73	0.33	2	3	2
331775B	TDO/XDC	98	2774.1	5985	488.25	567	175.35	1.86	0.31	2.2	3.3	2.2
BT2B332830	TDO/D	71	235.8	5145	42	651	212.1	1.76	0.33	2	3	2
BT2B332802A	TDO/D	130	2667	462	383.25	729.75	241.5	1.74	0.33	2	3	2
331981	TDO/D	110	2976.75	6615	535.5	341.25	15	1.9	0.31	2.2	3.3	2.2
BT2B332505/HA2	TDO/XDC	46	142.65	3832.5	315	54	217.35	1.33	0.44	1.5	2.3	1.4
BT2B332506/HA2	TDO/D	87	274.8	4462.5	362.25	567	183.75	1.77	0.33	2	3	2
BT2B332603/HA1	TDO/D	140	3549	7875	614.25	871.5	286.65	1.76	0.33	2	3	2
BT2B332754	TDO/XDC	188	3433.5	6142.5	488.25	84	346.5	1.41	0.4	1.7	2.5	1.6
331606A	TDO/XDC	76.5	274.8	4462.5	362.25	54	217.35	1.33	0.44	1.5	2.3	1.4
BT2B328020	TDO/D	80	243.45	4725	383.25	588	175.35	1.92	0.3	2.3	3.4	2.2
331197A	TDO/D	161	391.2	8715	672	96.75	316.5	1.76	0.33	2	3	2
BT2B328389	TDO/XDC	82.5	197.85	462	362.25	462	217.35	1.23	0.48	1.4	2.1	1.4
331656	TDO/XDC	205	4383.75	1132.5	756	192	348.6	1.76	0.33	2	3	2
BT2B332604/HA1	TDO/D	100	122.25	5355	425.25	535.5	294	1.07	0.54	1.25	1.8	1.3
BT2B332237A/HA1	TDO/XDC	127	2989.35	7297.5	556.5	729.75	316.5	1.33	0.44	1.5	2.3	1.4

Double row tapered roller bearings, TDO design



Type	Main dimensions				Dimensions			
	d	D	T	B	d_1 ≈	D_1 ≈	$r_{1,2}$ min.	$r_{3,4}$ min.
-	mm				mm			
BT2B332683/HA1	203.2	368.3	158.75	152.4	237	310	3.3	3.3
BT2B332931	240	480	220	200	284	377	2.5	5
BT2B332536/HA1	254	438.15	165.1	165.1	295	380	3.3	6.4
332168	300	440	105	105	340	377	4	4
331951	300.038	422.275	150.812	150.812	327	375	3.3	3.3
BT2B332685/HA1	303.212	495.3	263.525	263.525	338	417	3.3	6.4
BT2B334087/HA3	305.033	560	199.263	200	355	450	3.3	6.4
332068	305.033	560	200	200	369	446	3.3	6
332169A	305.07	500	200	200	352	405	6.4	4.8
332169AA	305.07	500	200	200	352	405	6.4	4.8
331617	305.07	560	199.237	199.237	369	446	3.3	18
BT2B328699G/HA1	317.5	422.275	128.588	128.588	341	382	1.5	3.3
BT2B328695A/HA1	333.375	469.9	166.688	166.688	364	419	3.3	3.3
331713A	342.9	533.4	139.7	146.05	393	474	3.3	3.3
331713B	342.9	533.4	139.7	146.05	393	474	3.3	3.3
332240A	343.052	457.098	122.238	122.238	369	410	1.5	3.3
BT2B332913/HB1	346.075	488.95	104.775	95.25	391	429	1.5	6.4
331527C	346.075	488.95	174.625	174.625	378	434	3.3	3.3
BT2B328410C/HA1	346.075	488.95	174.625	174.625	378	434	3.3	3.3
BT2-8000/HA3	360	560	160	160	400	480	3	5
BT2B331836	368.3	523.875	185.738	185.738	401	464	3.3	6.4
BT2B332468A/HA1	14.5	523.875	185.738	185.738	401	464	3.3	6.4
BT2-8009/HA3	380	560	200	200	420	474	5	5
331158A	384.175	546.1	193.675	193.675	417	484	3.3	6.4
BT2B331837	384.175	546.1	193.675	193.675	417	484	3.3	6.4
BT2B328580/HA1	384.175	546.1	193.675	193.675	417	484	3.3	6.4
BT28010/HA3VA901	386	574	220	220	416	498	3	5
BT2B328705/HA1	390	546.1	141.288	141.288	435	491	3.3	6.4
BT2B328896/HA3	390	570	200	200	426	475	5	5
BT2B328934/HA3	390	590	200	200	426	474	5	5
BT2B331840C/HA1	406.4	546.1	138.113	138.113	435	491	1.5	6.4
BT2B328874/HA1	408.4	546.1	120	98	442	480	1	3
BT2B328466/HA1	408.4	546.1	150	125	437	470	1.5	3.3
331714B	409.575	546.1	161.925	161.925	439	496	1.5	6.4
331445	415.925	590.55	209.55	209.55	454	523	3.3	6.4
BT2B328283/HA1	415.925	590.55	209.55	209.55	523	3.3	6.4	0.33
BT2B334013/HA1	430	535	84	84	462	494	1	3
BT2B328523/HA1	450	595	178	178	488	540	3	6



Type	Weight	Basic load rating		Fatigue load limit P_u	Compare data for load rating			Calculate the coefficient			
		Dynamic C	Static C_0		Radial C_f	Axial C_{fa}	Thrust coefficient K	e	Y_1	Y_2	Y_0
-	kg	kN			kN		-	-			
BT2B332683/HA1	75	284.25	3517.5	32.25	514.5	22.65	1.45	0.4	1.7	2.5	1.6
BT2B332931	183	3795.75	5775	488.25	945	665.7	0.82	0.72	0.94	1.4	0.9
BT2B332536/HA1	100	2819.25	4462.5	383.25	73.5	244.65	1.63	0.35	1.9	2.9	1.8
332168	48.5	1129.8	2142	189	273	235.2	0.67	0.88	0.77	1.15	0.8
331951	70	2285.85	4987.5	42	567	184.8	1.73	0.33	2	3	2
BT2B332685/HA1	212	5164.95	129	787.5	1281	423.15	1.76	0.33	2	3	2
BT2B334087/HA3	205	176.85	5565	451.5	83.25	689.85	0.67	0.88	0.77	1.15	0.8
332068	200	176.85	5565	451.5	83.25	689.85	0.67	0.88	0.77	1.15	0.8
332169A	150	287.7	546	446.25	714	611.1	0.67	0.88	0.77	1.15	0.8
332169AA	150	287.7	546	446.25	714	611.1	0.67	0.88	0.77	1.15	0.8
331617	200	3257.1	5565	451.5	83.25	689.85	0.67	0.88	0.77	1.15	0.8
BT2B328699G/HA1	51.5	1874.25	4357.5	362.25	462	143.85	1.83	0.31	2.2	3.3	2.2
BT2B328695A/HA1	92.5	2774.1	5985	488.25	687.75	227.85	1.73	0.33	2	3	2
331713A	115	1441.65	462	383.25	651	212.1	1.76	0.33	2	3	2
331713B	115	1441.65	462	383.25	651	212.1	1.76	0.33	2	3	2
332240A	54	169.5	357	294	49.5	193.2	1.24	0.48	1.4	2.1	1.4
BT2B332913/HB1	62	78.75	2887.5	239.4	315	155.4	1.17	0.5	1.35	2	1.3
331527C	110	2976.75	6615	535.5	729.75	241.5	1.74	0.33	2	3	2
BT2B328410C/HA1	113	2976.75	6615	535.5	729.75	241.5	1.74	0.33	2	3	2
BT2-8000/HA3	140	2683.8	4882.5	49.5	661.5	472.5	0.8	0.72	0.94	1.4	0.9
BT2B331836	133	3549	7875	614.25	871.5	286.65	1.76	0.33	2	3	2
BT2B332468A/HA1	140	3549	7875	614.25	871.5	286.65	1.76	0.33	2	3	2
BT2-8009/HA3	165	1697.85	6877.5	546	771.75	611.1	0.73	0.79	0.85	1.25	0.8
331158A	152	391.2	8715	672	96.75	316.5	1.76	0.33	2	3	2
BT2B331837	152	391.2	8715	672	96.75	316.5	1.76	0.33	2	3	2
BT2B328580/HA1	166	391.2	8715	672	96.75	316.5	1.76	0.33	2	3	2
BT28010/HA3VA901	185	3115.35	6877.5	535.5	771.75	628.95	0.71	0.83	0.81	1.2	0.8
BT2B328705/HA1	102	2455.95	5355	425.25	598.5	277.2	1.23	0.48	1.4	2.1	1.4
BT2B328896/HA3	170	3115.35	6877.5	535.5	771.75	628.95	0.71	0.83	0.81	1.2	0.8
BT2B328934/HA3	200	3115.35	6877.5	535.5	771.75	628.95	0.71	0.83	0.81	1.2	0.8
BT2B331840C/HA1	89	2455.95	5355	425.25	598.5	277.2	1.23	0.48	1.4	2.1	1.4
BT2B328874/HA1	76.5	1683.15	3622.5	299.25	49.5	345.45	0.68	0.88	0.77	1.15	0.8
BT2B328466/HA1	99	261.15	4987.5	393.75	54	46.35	0.71	0.83	0.81	1.2	0.8
331714B	110	282.45	6877.5	525	687.75	281.4	1.4	0.43	1.6	2.3	1.6
331445	192	4383.75	1132.5	756	192	348.6	1.76	0.33	2	3	2
BT2B328283/HA1	192	4383.75	1132.5	756	42	348.6	1.76	2	3	2	1
BT2B334013/HA1	44.5	1134	315	252	273	149.1	1.06	0.54	1.25	1.8	1.3
BT2B328523/HA1	140	3327.45	8557.5	64.5	819	268.8	1.76	0.33	2	3	2

Spherical roller bearings

Features

Spherical roller bearings are double row inseparable bearings, including outer rings with spherical raceways, inner rings with double raceways and drum rollers with cages.
It has the characteristic of compensating the misalignment of the shaft. They're suitable for heavy load conditions. There are two types of inner rings, cylindrical bore and tapered bore.

Spherical roller bearings provide: E-type design, CC-type design, CA-type design.

E-type structure design: It consists of symmetrical rollers, a floating guide ring between two rows of rollers, an inner ring without ribs, two hardened stamped steel cages and an outer ring.

This type of bearing is a patented product of KMR. Its dynamic load rating has been increased by an average of 25% to 35%. Therefore, under the same conditions, the rated life of the bearing is 2.0-3.5 times that of the traditional structure bearing of the same type

CC type structure design: It consists of symmetrical rollers, two stamped steel cages, an inner ring without ribs, a floating guide ring between two rows of rollers and an outer ring.

CA-type structural design: It consists of symmetrical rollers, fork-shaped machined brass or steel cages, inner and outer rings with ribs.

Radial and axial load carrying capacity

Spherical roller bearings can bearing bidirectional axial forces and extremely high radial forces. The optimized fit between the rollers and the raceways ensures a uniform stress distribution in the bearing.

Bearings with Tapered bore

The inner ring of the spherical roller bearing has a tapered bore design.

Seals

KMR has a sealed series of spherical roller bearings.

Bearings with Cylindrical bore

All series of spherical roller bearing inner rings have a cylindrical bore design.

Spherical Roller Bearings for Vibrating Machinery

For machines that required eccentric motion, such as vibrating screens and compactors, KMR has developed a series of spherical roller bearings suitable for applications in vibration situations. These bearings are in the 223 series, with a cylindrical or tapered bore, with shaft diameters ranging from 40 to 240 mm, and a standard radial internal clearance of C4.

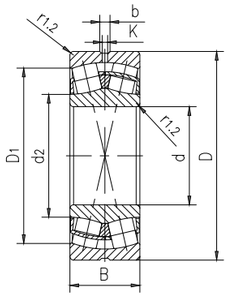
Existing bearings for vibrating machinery have been tested and verified to prove that they can greatly reduce the temperature and prolong the service life of the machine. KMR spherical roller bearings for vibration machinery have the following advantages: Applied in all kinds of vibrating machinery, it shows excellent performance. The performance of KMR bearings allows the design of more compact arrangements. High wear resistance even in polluted environments.



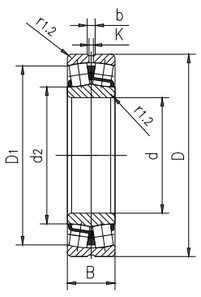
suffix for an existing design

Suffix	Meaning
BC	Bearing for wind turbine main shafts with roller-guided cast iron cage
CA CAC	Retaining langes on the inner ring, guide ring centred on the inner ring, machined brass
CC(J) CJ	Flangeless inner ring, guide ring centred on the inner ring, two stamped steel cages
CCJA EJA	Flangeless inner ring, guide ring centred on the outer ring raceway, two stamped steel cages
E	Optimized internal design for increased load carrying capacity 213, 222 and 223 series: Flangeless inner ring and two stamped steel cages Annular groove and three lubrication holes in the outer ring d ≤ 65 mm: Guide ring centred on the inner ring d > 65 mm: Guide ring centred on the cage
-CS -2CS	Contact seal, NBR, on one or both sides
-CS2 -2CS2	Contact seal, FKM, on one or both sides
-CS5 -2CS5	Contact seal, HNBR, on one or both sides
-RS -2RS	Contact seal, NBR, on one or both sides
-RS5 -2RS5	Contact seal, HNBR, on one or both sides
K	Tapered bore, taper 1:12
K30	Tapered bore, taper 1:30
F	Machined steel cage, inner ring centred
FA	Machined steel cage, outer ring centred
J	Stamped steel cage, inner ring centred
JA	Stamped steel cage, outer ring centred
MA	Machined brass cage, outer ring centred
C08	Running accuracy to P5 tolerance class
C083	C08 + C3
C084	C08 + C4
C2	Radial internal clearance smaller than Normal
C3	Radial internal clearance greater than Normal
C4	Radial internal clearance greater than C3
C5	Radial internal clearance greater than C4
P5	Dimensional and running accuracy to P5 tolerance class
P6	Dimensional and running accuracy to P6 tolerance class
P62	P6 + C2
235220	Case-hardened inner ring with a helical groove in the bore
HA3	Case-hardened inner ring

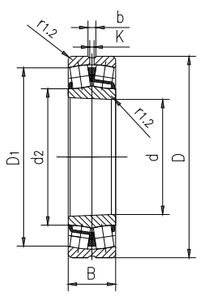
Spherical roller bearings



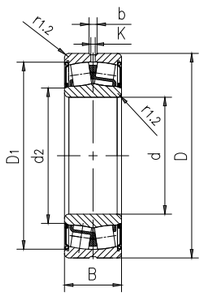
Cylindrical bore (CC)



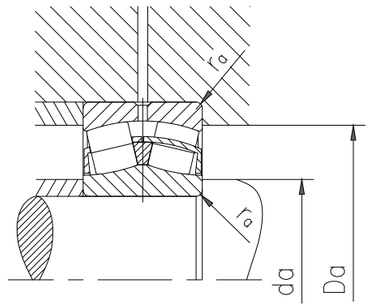
Cylindrical bore (E)



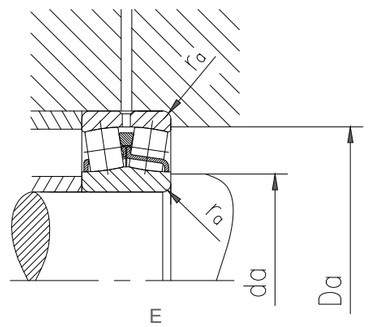
Tapered bore(E)



Sealed (E)



CC

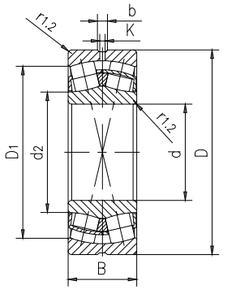


E

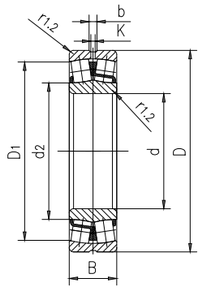
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
22205/20E	–	20	52	18	31.3	44.2	3.7	2	1	25.6	–	46.4	1
22205E	22205EK	25	52	18	31.3	44.2	3.7	2	1	30.6	–	46.4	1
BS2-2205-2RS/VT143	–	25	52	23	30	46.6	4.4	2	1	30	30	46.4	1
21305CC	–	25	62	17	35.7	50.7	–	–	1.1	32	–	55	1
22206E	22206EK	30	62	20	37.6	53	3.7	2	1	35.6	–	56.4	1
BS2-2206-2RS/VT143	–	30	62	25	35.8	56.4	4.4	2	1	35.5	35.5	56.4	1
21306CC	–	30	72	19	43.3	58.8	–	–	1.1	37	–	65	1
22207E	22207EK	35	72	23	44.5	61.8	3.7	2	1.1	42	–	65	1
BS2-2207-2RS/VT143	–	35	72	28	42.4	65.3	4.4	2	1.1	42	42	65	1
21307CC	–	35	80	21	47.2	65.6	–	–	1.5	44	–	71	1.5
22208E	22208EK	40	80	23	49.6	69.4	6	3	1.1	47	–	73	1
BS2-2208-2RS/VT143	BS2-2208-2RSK/VT143	40	80	28	47.2	72.8	6	3	1.1	47	47	73	1
21308E	21308EK	40	90	23	60	79.8	5.5	3	1.5	49	–	81	1.5
22308E/VA405	–	40	90	33	49.9	74.3	6	3	1.5	49	–	81	1.5
22308E	22308EK	40	90	33	49.9	74.3	6	3	1.5	49	–	81	1.5
BS2-2308-2RS/VT143	–	40	90	38	47.5	79.3	6	3	1.5	47.5	47.5	81	1.5
22209E	22209EK	45	85	23	54.4	74.4	5.5	3	1.1	52	–	78	1
BS2-2209-2RS/VT143	BS2-2209-2RSK/VT143	45	85	28	52.5	77.8	6	3	1.1	52	52	78	1
21309E	21309EK	45	100	25	65.3	88	6	3	1.5	54	–	91	1.5
22309E/VA405	–	45	100	36	57.6	83.4	6	3	1.5	54	–	91	1.5
22309E	22309EK	45	100	36	57.6	83.4	6	3	1.5	54	–	91	1.5
BS2-2309-2RS/VT143	–	45	100	42	55	88.5	6	3	1.5	54	55	91	1.5
22210E	22210EK	50	90	23	60	79	5.5	3	1.1	57	–	83	1
BS2-2210-2RS/VT143	BS2-2210-2RSK/VT143	50	90	28	58.1	82.3	6	3	1.1	57	58	83	1
21310E	21310EK	50	110	27	72.7	96.8	6	3	2	61	–	99	2
22310E/VA405	–	50	110	40	63.9	91.9	6	3	2	61	–	99	2
22310E	22310EK	50	110	40	63.9	91.9	6	3	2	61	–	99	2
BS2-2310-2RS/VT143	–	50	110	45	61.5	96.8	6	3	2	61	61	99	2
22211E	22211EK	55	100	25	65.3	88	6	3	1.5	64	–	91	1.5
BS2-2211-2RS/VT143	BS2-2211-2RSK/VT143	55	100	31	63.5	92	6	3	1.5	63.5	63.5	91	1.5
21311E	21311EK	55	120	29	72.7	96.2	6	3	2	66	–	109	2
22311E	22311EK	55	120	43	70.1	102	5.5	3	2	66	–	109	2
22311E/VA405	22311EK/VA405	55	120	43	70.1	102	5.5	3	2	66	–	109	2
BS2-2311-2RS/VT143	–	55	120	49	67.5	107	6	3	2	66	67	109	2
22212E	22212EK	60	110	28	72.7	96.5	6	3	1.5	69	–	101	1.5
BS2-2212-2RS/VT143	BS2-2212-2RSK/VT143	60	110	34	69.7	101	6	3	1.5	69	69	101	1.5

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
22205/20E	–	0.28	52.395	46.2	4.9875	13650	17850	–	–	0.35	1.9	2.9	1.8
22205E	22205EK	0.26	52.395	46.2	4.9875	13650	17850	–	–	0.35	1.9	2.9	1.8
BS2-2205-2RS/VT143	–	0.26	52.395	46.2	4.9875	-	6405	–	–	0.35	1.9	2.9	1.8
21305CC	–	0.28	51.555	43.575	4.7775	9765	12600	–	–	0.3	2.3	3.4	2.2
22206E	22206EK	0.29	69.405	63	6.72	10500	14700	–	–	0.31	2.2	3.3	2.2
BS2-2206-2RS/VT143	–	0.34	69.405	63	6.72	-	5355	–	–	0.31	2.2	3.3	2.2
21306CC	–	0.41	68.985	64.05	7.14	8610	10500	–	–	0.27	2.5	3.7	2.5
22207E	22207EK	0.45	93.24	89.25	9.765	9450	12600	–	–	0.31	2.2	3.3	2.2
BS2-2207-2RS/VT143	–	0.52	93.24	89.25	9.765	-	4515	–	–	0.31	2.2	3.3	2.2
21307CC	–	0.55	83.16	75.6	8.5575	7665	9975	–	–	0.28	2.4	3.6	2.5
22208E	22208EK	0.53	103.425	94.5	10.29	8400	11550	–	–	0.28	2.4	3.6	2.5
BS2-2208-2RS/VT143	BS2-2208-2RSK/VT143	0.57	103.425	94.5	10.29	-	4095	–	–	0.28	2.4	3.6	2.5
21308E	21308EK	0.75	112.35	113.4	12.39	7350	9975	–	–	0.24	2.8	4.2	2.8
22308E/VA405	–	1.05	162.75	147	15.75	6300	8400	115g	31g	0.37	1.8	2.7	1.8
22308E	22308EK	1.05	162.75	147	15.75	6300	8400	–	–	0.37	1.8	2.7	1.8
BS2-2308-2RS/VT143	–	1.2	162.75	147	15.75	-	4095	–	–	0.37	1.8	2.7	1.8
22209E	22209EK	0.58	109.2	102.9	11.34	7875	10500	–	–	0.26	2.6	3.9	2.5
BS2-2209-2RS/VT143	BS2-2209-2RSK/VT143	0.66	109.2	102.9	11.34	-	3675	–	–	0.26	2.6	3.9	2.5
21309E	21309EK	0.99	135.45	133.35	14.385	6615	8925	–	–	0.24	2.8	4.2	2.8
22309E/VA405	–	1.4	199.5	192.15	20.58	5565	7350	97g	29g	0.37	1.8	2.7	1.8
22309E	22309EK	1.4	199.5	192.15	20.58	5565	7350	–	–	0.37	1.8	2.7	1.8
BS2-2309-2RS/VT143	–	1.6	199.5	192.15	20.58	-	3570	–	–	0.37	1.8	2.7	1.8
22210E	22210EK	0.63	112.35	113.4	12.39	7350	9975	–	–	0.24	2.8	4.2	2.8
BS2-2210-2RS/VT143	BS2-2210-2RSK/VT143	0.7	112.35	113.4	12.39	-	3360	–	–	0.24	2.8	4.2	2.8
21310E	21310EK	1.35	166.95	174.3	19.53	5880	7875	–	–	0.24	2.8	4.2	2.8
22310E/VA405	–	1.9	239.4	235.2	25.2	5040	6615	85g	28g	0.37	1.8	2.7	1.8
22310E	22310EK	1.9	239.4	235.2	25.2	5040	6615	–	–	0.37	1.8	2.7	1.8
BS2-2310-2RS/VT143	–	2.1	239.4	235.2	25.2	-	3150	–	–	0.37	1.8	2.7	1.8
22211E	22211EK	0.84	135.45	133.35	14.385	6615	8925	–	–	0.24	2.8	4.2	2.8
BS2-2211-2RS/VT143	BS2-2211-2RSK/VT143	1	135.45	133.35	14.385	-	3045	–	–	0.24	2.8	4.2	2.8
21311E	21311EK	1.7	166.95	174.3	19.53	5880	7875	–	–	0.24	2.8	4.2	2.8
22311E	22311EK	2.45	294	294	31.5	4515	5880	–	–	0.35	1.9	2.9	1.8
22311E/VA405	22311EK/VA405	2.45	294	294	31.5	4515	5880	78g	26g	0.35	1.9	2.9	1.8
BS2-2311-2RS/VT143	–	2.8	294	294	31.5	-	2940	–	–	0.35	1.9	2.9	1.8
22212E	22212EK	1.15	166.95	174.3	19.53	5880	7875	–	–	0.24	2.8	4.2	2.8
BS2-2212-2RS/VT143	BS2-2212-2RSK/VT143	1.3	166.95	174.3	19.53	-	2835	–	–	0.24	2.8	4.2	2.8

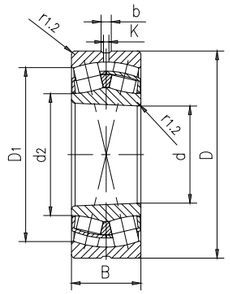
Spherical roller bearings



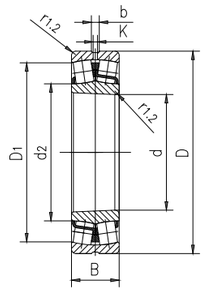
Cylindrical bore (CC)



Cylindrical bore (E)

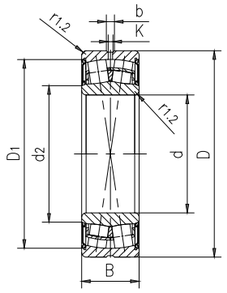


Tapered bore(CC)

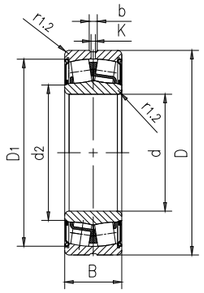


Tapered bore(E)

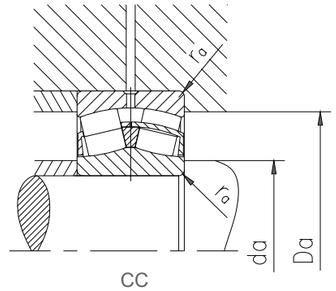
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
22312E	22312EK	60	130	46	77.9	110	8.3	4.5	2.1	72	–	118	2
22312E/VA405	22312EK/VA405	60	130	46	77.9	110	8.3	4.5	2.1	72	–	118	2
BS2-2312-2RS/VT143	–	60	130	53	75	117	8.3	4.5	2.1	72	75	118	2
24013-2RS5W/VT143	–	65	100	35	71.6	93.5	–	–	1.1	71	71	94	1
24013CC/W33	24013CCK30/W33	65	100	35	73.9	87.3	3.7	2	1.1	71	–	94	1
22213E	22213EK	65	120	31	80.1	106	6	3	1.5	74	–	111	1.5
BS2-2213-2RS/VT143	BS2-2213-2RSK/VT143	65	120	38	76.5	110	6	3	1.5	74	76	111	1.5
21313E	21313EK	65	140	33	94.7	124	6	3	2.1	77	–	128	2
22313E	22313EK	65	140	48	81.6	118	8.3	4.5	2.1	77	–	128	2
22313E/VA405	22313EK/VA405	65	140	48	81.6	118	8.3	4.5	2.1	77	–	128	2
BS2-2313-2RS/VT143	–	65	140	56	78.7	125	8.3	4.5	2.1	77	78	128	2
22214E	22214EK	70	125	31	83	111	6	3	1.5	79	–	116	1.5
BS2-2214-2RS/VT143	BS2-2214-2RSK/VT143	70	125	38	80.1	116	6	3	1.5	79	80	116	1.5
21314E	21314EK	70	150	35	101	133	6	3	2.1	82	–	138	2
22314E	22314EK	70	150	51	90.3	128	8.3	4.5	2.1	82	–	138	2
22314E/VA405	22314EK/VA405	70	150	51	90.3	128	8.3	4.5	2.1	82	–	138	2
BS2-2314-2RS/VT143	–	70	150	60	86.7	136	8.3	4.5	2.1	82	86	138	2
24015-2RS5/VT143	–	75	115	40	81.8	106	6	3	1.1	81	81	109	1
24015CC/W33	BS2-2214-2RSK/VT143	75	115	40	84.2	100	5.5	3	1.1	81	–	109	1
22215E	22215EK	75	130	31	87.8	115	6	3	1.5	84	–	121	1.5
BS2-2215-2RS/VT143	BS2-2215-2RSK/VT143	75	130	38	84.5	120	6	3	1.5	84	84	121	1.5
21315E	21315EK	75	160	37	101	133	6	3	2.1	87	–	148	2
22315E	22315EK	75	160	55	92.8	135	8.3	4.5	2.1	87	–	148	2
22315EJA/VA405	22315EKJA/VA405	75	160	55	92.8	135	8.3	4.5	2.1	87	–	148	2
BS2-2315-2RS/VT143	BS2-2315-2RSK/VT143	75	160	64	89.9	140	8.3	4.5	2.1	87	89	148	2
22216E	22216EK	80	140	33	94.7	124	6	3	2	91	–	129	2
BS2-2216-2RS/VT143	BS2-2216-2RSK/VT143	80	140	40	91.7	129	6	3	2	91	91	129	2
21316E	21316EK	80	170	39	106	141	6	3	2.1	92	–	158	2
22316E	22316EK	80	170	58	98.3	143	8.3	4.5	2.1	92	–	158	2
22316EJA/VA405	22316EKJA/VA405	80	170	58	98.3	143	8.3	4.5	2.1	92	–	158	2
BS2_2316_2RS/VT143		80	170	67	94.2	150	8.3	4.5	2.1	92	94	158	2
22217E	22217EK	85	150	36	101	133	6	3	2	96	–	139	2
BS2-2217-2RS/VT143	BS2-2217-2RSK/VT143	85	150	44	98.2	137	6	3	2	96	98	139	2
21317E	21317EK	85	180	41	106	141	6	3	3	99	–	166	2.5
22317E	22317EK	85	180	60	108	154	8.3	4.5	3	99	–	166	2.5
22317EJA/VA405	22317EKJA/VA405	85	180	60	108	154	8.3	4.5	3	99	–	166	2.5



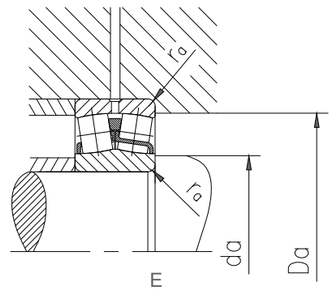
Sealed (CC / 2RS / 2RS5)



Sealed (E)



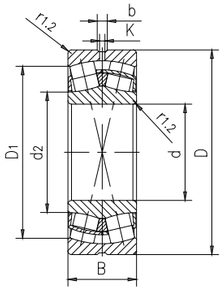
CC



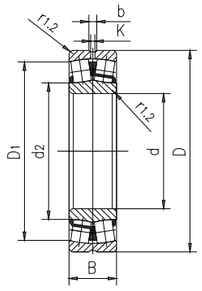
E

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed	Spin	Linear	e	Y_1	Y_2	Y_0
			C	C_0	P_u								
-		kg	kN			r/min		m/s^2		-			
22312E	22312EK	3.1	341.25	351.75	37.8	4200	5565	–	–	0.35	1.9	2.9	1.8
22312E/VA405	22312EK/VA405	3.1	341.25	351.75	37.8	4200	5565	70g	25g	0.35	1.9	2.9	1.8
BS2-2312-2RS/VT143	–	3.4	341.25	351.75	37.8	-	2625	–	–	0.35	1.9	2.9	1.8
24013-2RS5W/VT143	–	0.95	143.85	181.65	21.42	-	2730	–	–	0.27	2.5	3.7	2.5
24013CC/W33	24013CCK30/W33	0.95	143.85	181.65	21.42	4515	6615	–	–	0.27	2.5	3.7	2.5
22213E	22213EK	1.55	207.9	226.8	25.2	5250	7350	–	–	0.24	2.8	4.2	2.8
BS2-2213-2RS/VT143	BS2-2213-2RSK/VT143	1.6	207.9	226.8	25.2	-	2520	–	–	0.24	2.8	4.2	2.8
21313E	21313EK	2.55	255.15	283.5	30.45	4515	6300	–	–	0.22	3	4.6	2.8
22313E	22313EK	3.75	374.85	378	39.9	3990	5250	–	–	0.35	1.9	2.9	1.8
22313E/VA405	22313EK/VA405	3.75	374.85	378	39.9	3990	525	69g	24g	0.35	1.9	2.9	1.8
BS2-2313-2RS/VT143	–	4.15	374.85	378	39.9	-	2520	–	–	0.35	1.9	2.9	1.8
22214E	22214EK	1.55	223.65	239.4	26.775	5250	7035	–	–	0.23	2.9	4.4	2.8
BS2-2214-2RS/VT143	BS2-2214-2RSK/VT143	1.8	223.65	239.4	26.775	-	2415	–	–	0.23	2.9	4.4	2.8
21314E	21314EK	3.1	305.55	341.25	36.225	4200	5880	–	–	0.22	3	4.6	2.8
22314E	22314EK	4.55	433.65	451.5	47.25	3570	4725	–	–	0.33	2	3	2
22314E/VA405	22314EK/VA405	4.55	433.65	451.5	47.25	3570	4725	61g	23g	0.33	2	3	2
BS2-2314-2RS/VT143	–	5.1	433.65	451.5	47.25	-	2205	–	–	0.33	2	3	2
24015-2RS5/VT143	–	1.55	190.05	243.6	29.925	-	2415	–	–	0.28	2.4	3.6	2.5
24015CC/W33	BS2-2214-2RSK/VT143	1.55	190.05	243.6	29.925	3990	5565	–	–	0.28	2.4	3.6	2.5
22215E	22215EK	1.7	227.85	252	27.825	5040	6615	–	–	0.22	3	4.6	2.8
BS2-2215-2RS/VT143	BS2-2215-2RSK/VT143	2.1	227.85	252	27.825	-	2310	–	–	0.22	3	4.6	2.8
21315E	21315EK	3.75	305.55	341.25	36.225	4200	5880	–	–	0.22	3	4.6	2.8
22315E	22315EK	5.55	485.1	498.75	50.4	3360	4515	–	–	0.35	1.9	2.9	1.8
22315EJA/VA405	22315EKJA/VA405	5.55	485.1	498.75	50.4	3360	4515	88g	23g	0.35	1.9	2.9	1.8
BS2-2315-2RS/VT143	BS2-2315-2RSK/VT143	6.5	485.1	498.75	50.4	-	2205	–	–	0.35	1.9	2.9	1.8
22216E	22216EK	2.1	255.15	283.5	30.45	4515	6300	–	–	0.22	3	4.6	2.8
BS2-2216-2RS/VT143	BS2-2216-2RSK/VT143	2.4	255.15	283.5	30.45	-	2100	–	–	0.22	3	4.6	2.8
21316E	21316EK	4.45	347.55	393.75	40.95	3990	5565	–	–	0.24	2.8	4.2	2.8
22316E	22316EK	6.6	541.8	556.5	56.7	3150	4200	–	–	0.35	1.9	2.9	1.8
22316EJA/VA405	22316EKJA/VA405	6.6	541.8	556.5	56.7	3150	4200	80g	22g	0.35	1.9	2.9	1.8
BS2_2316_2RS/VT143		7.2	541.8	556.5	56.7	-	2100	–	–	0.35	1.9	2.9	1.8
22217E	22217EK	2.7	305.55	341.25	36.225	4200	5880	–	–	0.22	3	4.6	2.8
BS2-2217-2RS/VT143	BS2-2217-2RSK/VT143	3	305.55	341.25	36.225	-	1995	–	–	0.22	3	4.6	2.8
21317E	21317EK	5.2	347.55	393.75	40.95	3990	5565	–	–	0.24	2.8	4.2	2.8
22317E	22317EK	7.65	605.85	651	64.05	2940	3990	–	–	0.33	2	3	2
22317EJA/VA405	22317EKJA/VA405	7.65	605.85	651	64.05	2940	3990	74g	21g	0.33	2	3	2

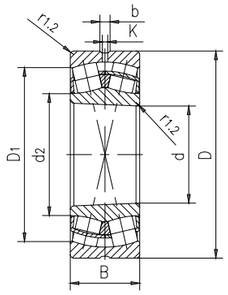
Spherical roller bearings



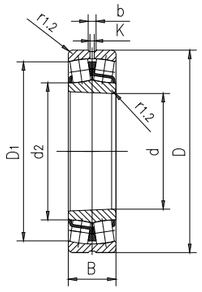
Cylindrical bore (CC)



Cylindrical bore (E)

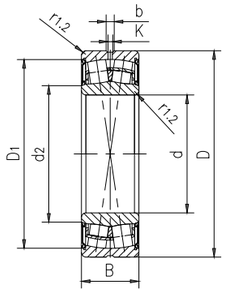


Tapered bore(CC)

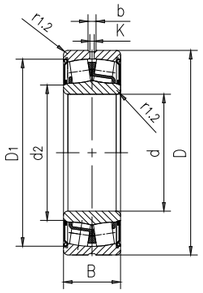


Tapered bore(E)

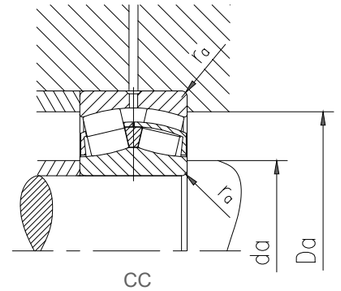
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
22218E	22218EK	90	160	40	106	141	6	3	2	101	–	149	2
BS2-2218-2RS/VT143	BS2-2218-2RSK/VT143	90	160	48	102	146	6	3	2	101	102	149	2
23218CC/W33	23218CCK/W33	90	160	52.4	106	137	5.5	3	2	101	–	149	2
21318E	21318EK	90	190	43	112	150	8.3	4.5	3	104	–	176	2.5
22318E	22318EK	90	190	64	113	161	11.1	6	3	104	–	176	2.5
22318EJA/VA405	22318EKJA/VA405	90	190	64	113	161	11.1	6	3	104	–	176	2.5
BS2-2318-2RS5/VT143	BS2-2318-2RS5K/VT143	90	190	73	109	165	11.1	6	3	104	109	176	2.5
22219E	22219EK	95	170	43	112	150	8.3	4.5	2.1	107	–	158	2
4.65	BS2-2219-2RS/VT143	95	170	51	109	155	8.3	4.5	2.1	107	109	158	2
21319E	21319EK	95	200	45	118	159	8.3	4.5	3	109	–	186	2.5
22319E	22319EK	95	200	67	118	168	11.1	6	3	109	–	186	2.5
22319EJA/VA405	22319EKJA/VA405	95	200	67	118	168	11.1	6	3	109	–	186	2.5
24020-2RS5/VT143	–	100	150	50	108	138	6	3	1.5	107	108	143	1.5
24020CC/W33	24020CCK30/W33	100	150	50	111	132	6	3	1.5	107	–	143	1.5
23120CC/W33	23120CCK/W33	100	165	52	115	144	6	3	2	111	–	154	2
23120-2RS5/VT143	–	100	165	52	112	149	6	3	2	111	112	154	2
24120CC/W33	24120CCK30/W33	100	165	65	113	141	4.4	2	2	111	–	154	2
24120-2RS5/VT143	–	100	165	65	110	147	4.4	2	2	110	110	154	2
22220E	22220EK	100	180	46	118	159	8.3	4.5	2.1	112	–	168	2
BS2-2220-2RS5/VT143	BS2-2220-2RS5K/VT143	100	180	55	114	163	8.3	4.5	2.1	112	114	168	2
23220CC/W33	23220CCK/W33	100	180	60.3	117	153	8.3	4.5	2.1	112	–	168	2
23220-2RS/VT143	–	100	180	60.3	114	159	8.3	4.5	2.1	112	114	168	2
23220-2RS5/VT143	–	100	180	60.3	114	159	8.3	4.5	2.1	112	114	168	2
21320E	21320EK	100	215	47	118	159	8.3	4.5	3	114	–	201	2.5
22320E	22320EK	100	215	73	130	184	11.1	6	3	114	–	201	2.5
22320EJA/VA405	22320EKJA/VA405	100	215	73	130	184	11.1	6	3	114	–	201	2.5
22320EJA/VA406	–	100	215	73	130	184	11.1	6	3	114	–	201	2.5
23022-2RS/VT143	–	110	170	45	122	156	6	3	2	119	122	161	2
23022CC/W33	23022CCK/W33	110	170	45	125	151	6	3	2	119	–	161	2
24022CC/W33	24022CCK30/W33	110	170	60	122	149	5.5	3	2	119	–	161	2
24022-2RS5/VT143	–	110	170	60	120	154	6	3	2	119	120	161	2
23122CC/W33	23122CCK/W33	110	180	56	126	157	8.3	4.5	2	121	–	169	2
23122-2CS5/VT143	23122-2CS5K/VT143	110	180	56	122	166	8.3	4.5	2	121	122	169	2
24122CC/W33	24122CCK30/W33	110	180	69	123	153	6	3	2	121	–	169	2
24122-2CS5/VT143	–	110	180	69	120	163	6	3	2	121	121	169	2
22222E	22222EK	110	200	53	130	178	8.3	4.5	2.1	122	–	188	2



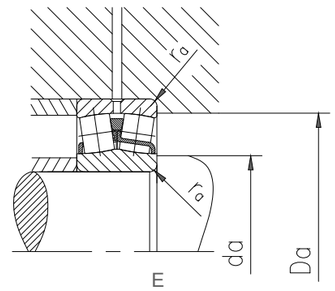
Sealed (CC / 2RS / 2RS5)



Sealed (E)



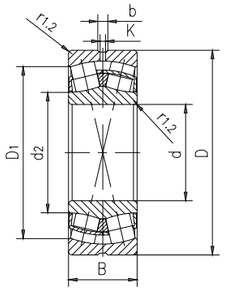
CC



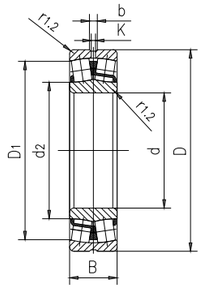
E

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed	Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	C	C_0	P_u	r/min		m/s^2		-			
22218E	22218EK	3.4	347.55	393.75	40.95	3990	5565	–	–	0.24	2.8	4.2	2.8
BS2-2218-2RS/VT143	BS2-2218-2RSK/VT143	3.7	347.55	393.75	40.95	-	1890	–	–	0.24	2.8	4.2	2.8
23218CC/W33	23218CCK/W33	4.65	390.6	462	50.4	2940	3990	–	–	0.31	2.2	3.3	2.2
21318E	21318EK	6.1	412.65	472.5	47.775	3780	5040	–	–	0.24	2.8	4.2	2.8
22318E	22318EK	9.05	668.85	729.75	70.35	2730	3780	–	–	0.33	2	3	2
22318EJA/VA405	22318EKJA/VA405	9.05	668.85	729.75	70.35	2730	3780	68g	21g	0.33	2	3	2
BS2-2318-2RS5/VT143	BS2-2318-2RS5K/VT143	9.8	668.85	729.75	70.35	-	1785	–	–	0.33	2	3	2
22219E	22219EK	4.15	412.65	472.5	47.775	3780	5040	–	–	0.24	2.8	4.2	2.8
4.65	BS2-2219-2RS/VT143	700	412.65	472.5	47.775	-	1.05	–	–	0.24	2.8	4.2	2.8
21319E	21319EK	7.05	454.65	514.5	51.45	3570	4725	–	–	0.24	2.8	4.2	2.8
22319E	22319EK	10.5	733.95	803.25	77.175	2730	3570	–	–	0.33	2	3	2
22319EJA/VA405	22319EKJA/VA405	10.5	733.95	803.25	77.175	2730	3570	64g	20g	0.33	2	3	2
24020-2RS5/VT143	–	3.15	310.8	435.75	47.775	-	1785	–	–	0.28	2.4	3.6	2.5
24020CC/W33	24020CCK30/W33	3.15	310.8	435.75	47.775	2940	4200	–	–	0.28	2.4	3.6	2.5
23120CC/W33	23120CCK/W33	4.55	404.25	514.5	55.65	3150	4200	–	–	0.3	2.3	3.4	2.2
23120-2RS5/VT143	–	4.55	405.3	514.5	55.65	-	1785	–	–	0.27	2.5	3.7	2.5
24120CC/W33	24120CCK30/W33	5.65	491.4	672	71.4	2520	3360	–	–	0.37	1.8	2.7	1.8
24120-2RS5/VT143	–	5.65	493.5	672	71.4	-	1785	–	–	0.35	1.9	2.9	1.8
22220E	22220EK	4.9	454.65	514.5	51.45	3570	4725	–	–	0.24	2.8	4.2	2.8
BS2-2220-2RS5/VT143	BS2-2220-2RS5K/VT143	5.5	454.65	514.5	51.45	-	1680	–	–	0.24	2.8	4.2	2.8
23220CC/W33	23220CCK/W33	6.85	522.9	630	66.15	2520	3570	–	–	0.33	2	3	2
23220-2RS/VT143	–	6.85	523.95	630	66.15	-	1680	–	–	0.3	2.3	3.4	2.2
23220-2RS5/VT143	–	6.85	523.95	630	66.15	-	1680	–	–	0.3	2.3	3.4	2.2
21320E	21320EK	8.6	454.65	514.5	51.45	3570	4725	–	–	0.24	2.8	4.2	2.8
22320E	22320EK	13.5	889.35	997.5	92.4	2520	3150	–	–	0.33	2	3	2
22320EJA/VA405	22320EKJA/VA405	13.5	889.35	997.5	92.4	2520	3150	56g	20g	0.33	2	3	2
22320EJA/VA406	–	13.5	889.35	997.5	92.4	2520	3150	56g	20g	0.33	2	3	2
23022-2RS/VT143	–	3.8	342.3	462	48.825	-	1575	–	–	0.21	3.2	4.8	3.2
23022CC/W33	23022CCK/W33	3.8	342.3	462	48.825	3570	4515	–	–	0.23	2.9	4.4	2.8
24022CC/W33	24022CCK30/W33	5	458.85	651	70.35	2520	3780	–	–	0.33	2	3	2
24022-2RS5/VT143	–	5	459.9	651	70.35	-	1680	–	–	0.3	2.3	3.4	2.2
23122CC/W33	23122CCK/W33	5.75	472.5	614.25	64.05	2940	3780	–	–	0.3	2.3	3.4	2.2
23122-2CS5/VT143	23122-2CS5K/VT143	5.75	473.55	614.25	64.05	-	840	–	–	0.27	2.5	3.7	2.5
24122CC/W33	24122CCK30/W33	7.1	565.95	787.5	81.9	2100	3150	–	–	0.37	1.8	2.7	1.8
24122-2CS5/VT143	–	7.1	567	787.5	81.9	-	661.5	–	–	0.35	1.9	2.9	1.8
22222E	22222EK	7	600.6	672	66.15	2100	4200	–	–	0.25	2.7	4	2.5

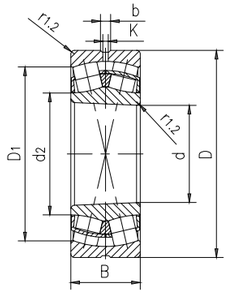
Spherical roller bearings



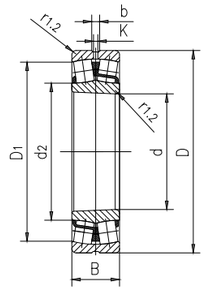
Cylindrical bore (CC)



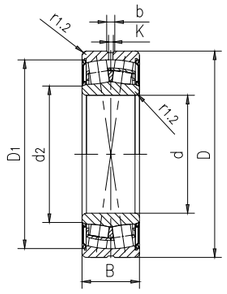
Cylindrical bore (E)



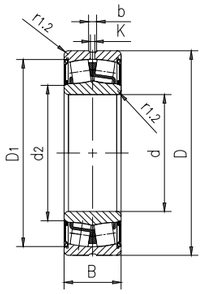
Tapered bore(CC)



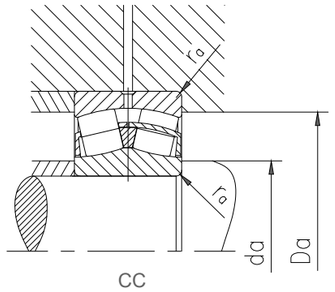
Tapered bore(E)



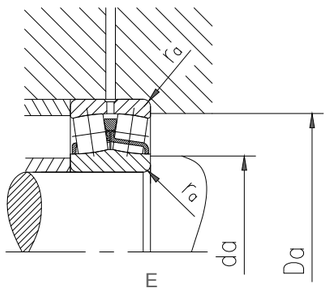
Sealed (CC / 2RS5 / 2RS5)



Sealed (E)



CC

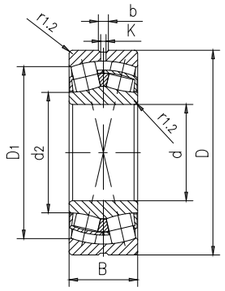


E

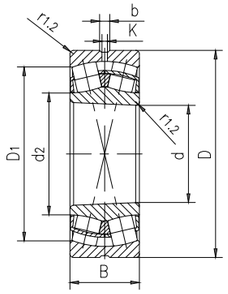
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
23222-2CS5/VT143	23222-2CS5K/VT143	110	200	69.8	130	169	8.3	4.5	2.1	122	–	188	2
22322E	22322EK	110	240	80	126	178	8.3	4.5	2.1	122	126	188	2
22322EJA/VA405	22322EKJA/VA405	110	240	80	143	204	13.9	7.5	3	124	–	226	2.5
22322EJA/VA406	–	110	240	80	143	204	13.9	7.5	3	124	–	226	2.5
23024CC/W33	23024CCK/W33	120	180	46	135	163	6	3	2	129	–	171	2
23024-2RS5/VT143	–	120	180	46	132	168	6	3	2	129	132	171	2
24024CC/W33	24024CCK30/W33	120	180	60	132	159	6	3	2	129	–	171	2
24024-2CS5/VT143	–	120	180	60	130	166	6	3	2	129	130	171	2
23124CC/W33	23124CCK/W33	120	200	62	139	174	8.3	4.5	2	131	–	189	2
23124-2CS5/VT143	–	120	200	62	135	183	8.3	4.5	2	131	135	189	2
24124CC/W33	24124CCK30/W33	120	200	80	135	168	6	3	2	131	–	189	2
24124-2CS5/VT143	–	120	200	80	132	179	6	3	2	131	132	189	2
22224E	22224EK	120	215	58	141	189	11.1	6	2.1	132	–	203	2
BS2-2224-2RS5/VT143	BS2-2224-2RS5K/VT143	120	215	69	136	194	11.1	6	2.1	132	136	203	2
23224CC/W33	23224CCK/W33	120	215	76	141	182	8.3	4.5	2.1	132	–	203	2
23224-2CS5/VT143	23224-2CS5K/VT143	120	215	76	137	193	8.3	4.5	2.1	132	137	203	2
22324CC/W33	22324CCK/W33	120	260	86	152	216	13.9	7.5	3	134	–	246	2.5
22324CCJA/W33VA405	22324CCKJA/W33VA405	120	260	86	152	216	13.9	7.5	3	134	–	246	2.5
22324CCJA/W33VA406	–	120	260	86	152	216	13.9	7.5	3	134	–	246	2.5
22324-2CS5/VT143	22324-2CS5K/VT143	120	260	86	147	229	13.9	7.5	3	134	147	246	2.5
23026CC/W33	23026CCK/W33	130	200	52	148	180	8.3	4.5	2	139	–	191	2
23026-2CS5/VT143	23026-2CS5K/VT143	130	200	52	145	186	8.3	4.5	2	139	145	191	2
24026CC/W33	24026CCK30/W33	130	200	69	145	175	6	3	2	139	–	191	2
24026-2CS5/VT143	–	130	200	69	140	183	6	3	2	139	140	191	2
23126CC/W33	23126CCK/W33	130	210	64	148	184	8.3	4.5	2	141	–	199	2
24126CC/W33	24126CCK30/W33	130	210	80	146	180	6	3	2	141	–	199	2
24126-2CS5/VT143	–	130	210	80	141	190	6	3	2	141	141	199	2
22226E	22226EK	130	230	64	154	190	–	–	2.1	142	–	208	2
229750J/C3R505	–	130	220	73	152	201	11.1	6	3	144	–	216	2.5
BS2-2226-2CS5/VT143	BS2-2226-2CS5K/VT143	130	230	75	147	205	11.1	6	3	144	147	216	2.5
23226CC/W33	23226CCK/W33	130	230	80	151	196	8.3	4.5	3	144	–	216	2.5
23226-2CS5/VT143	23226-2CS5K/VT143	130	230	80	147	209	8.3	4.5	3	144	147	216	2.5
22326CC/W33	22326CCK/W33	130	280	93	164	233	16.7	9	4	147	–	263	3
22326CCJA/W33VA405	22326CCKJA/W33VA405	130	280	93	164	233	16.7	9	4	147	–	263	3
22326CCJA/W33VA406	–	130	280	93	164	233	16.7	9	4	147	–	263	3
22326-2CS5/VT143	22326-2CS5K/VT143	130	280	93	159	246	16.7	9	4	147	159	263	3

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed	Spin	Linear	e	Y_1	Y_2	Y_0
			C	C_0	P_u								
-		kg	kN			r/min		m/s^2		-			
23222-2CS5/VT143	23222-2CS5K/VT143	9.85	658.35	803.25	80.325	-	672	–	–	0.33	2	3	2
22322E	22322EK	18.5	1038.45	1176	105	2100	2940	–	–	0.33	2	3	2
22322EJA/VA405	22322EKJA/VA405	18.5	1038.45	1176	105	2100	2940	–	–	0.33	2	3	2
22322EJA/VA406	–	18.5	1038.45	1176	105	2100	2940	53g	19g	0.33	2	3	2
23024CC/W33	23024CCK/W33	4.2	384.3	525	54.6	3360	4200	–	–	0.22	3	4.6	2.8
23024-2RS5/VT143	–	4.2	385.35	525	54.6	-	1470	–	–	0.2	3.4	5	3.2
24024CC/W33	24024CCK30/W33	5.45	478.8	703.5	71.4	2520	3570	–	–	0.3	2.3	3.4	2.2
24024-2CS5/VT143	–	5.45	479.85	703.5	71.4	-	703.5	–	–	0.28	2.4	3.6	2.5
23124CC/W33	23124CCK/W33	8	560.7	729.75	74.55	2730	3570	–	–	0.28	2.4	3.6	2.5
23124-2CS5/VT143	–	7.55	561.75	729.75	74.55	-	756	–	–	0.27	2.5	3.7	2.5
24124CC/W33	24124CCK30/W33	10.5	712.95	997.5	99.75	1995	2730	–	–	0.37	1.8	2.7	1.8
24124-2CS5/VT143	–	10.5	714	997.5	99.75	-	588	–	–	0.37	1.8	2.7	1.8
22224E	22224EK	8.7	684.6	803.25	77.175	2940	3990	–	–	0.26	2.6	3.9	2.5
BS2-2224-2RS5/VT143	BS2-2224-2RS5K/VT143	9.75	684.6	803.25	77.175	-	1470	–	–	0.26	2.6	3.9	2.5
23224CC/W33	23224CCK/W33	12	768.6	976.5	97.65	2100	2940	–	–	0.35	1.9	2.9	1.8
23224-2CS5/VT143	23224-2CS5K/VT143	12	770.7	976.5	97.65	-	630	–	–	0.33	2	3	2
22324CC/W33	22324CCK/W33	23	1069.95	105	1260	2100	2730	–	–	0.35	1.9	2.9	1.8
22324CCJA/W33VA405	22324CCKJA/W33VA405	23	1069.95	105	1260	2100	2730	96g	21g	0.35	1.9	2.9	1.8
22324CCJA/W33VA406	–	23	1069.95	105	1260	2100	2730	96g	21g	0.35	1.9	2.9	1.8
22324-2CS5/VT143	22324-2CS5K/VT143	23	1073.1	1176	105	-	630	–	–	0.33	2	3	2
23026CC/W33	23026CCK/W33	6	474.6	640.5	64.05	2940	3780	–	–	0.23	2.9	4.4	2.8
23026-2CS5/VT143	23026-2CS5K/VT143	6	474.6	640.5	65.1	-	840	–	–	0.21	3.2	4.8	3.2
24026CC/W33	24026CCK30/W33	8.05	597.45	855.75	85.575	2100	3150	–	–	0.31	2.2	3.3	2.2
24026-2CS5/VT143	–	8.05	598.5	871.5	85.575	-	630	–	–	0.3	2.3	3.4	2.2
23126CC/W33	23126CCK/W33	8.8	615.3	819	81.9	2520	3360	–	–	0.28	2.4	3.6	2.5
24126CC/W33	24126CCK30/W33	11	733.95	1050	105	1785	2520	–	–	0.35	1.9	2.9	1.8
24126-2CS5/VT143	–	11	736.05	1050	105	-	556.5	–	–	0.33	2	3	2
22226E	22226EK	11	795.9	976.5	92.4	2730	3780	–	–	0.31	2.2	3.3	2.2
229750J/C3R505	–	11.5	672	976.5	97.65	2730	2520	–	–	0.27	2.5	3.7	2.5
BS2-2226-2CS5/VT143	BS2-2226-2CS5K/VT143	11	795.9	976.5	92.4	-	735	–	–	0.27	2.5	3.7	2.5
23226CC/W33	23226CCK/W33	14.5	867.3	1113	109.2	1995	2730	–	–	0.33	2	3	2
23226-2CS5/VT143	23226-2CS5K/VT143	14.5	869.4	1113	109.2	-	556.5	–	–	0.31	2.2	3.3	2.2
22326CC/W33	22326CCK/W33	29	1234.8	1386	119.7	1890	2520	–	–	0.35	1.9	2.9	1.8
22326CCJA/W33VA405	22326CCKJA/W33VA405	29	1234.8	1386	119.7	1890	2520	87g	20g	0.35	1.9	2.9	1.8
22326CCJA/W33VA406	–	29	1234.8	1386	119.7	1890	2520	87g	20g	0.35	1.9	2.9	1.8
22326-2CS5/VT143	22326-2CS5K/VT143	29	1236.9	1386	119.7	-	525	–	–	0.33	2	3	2

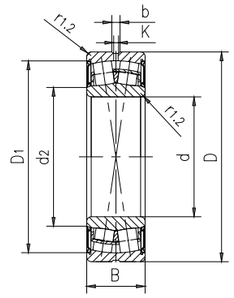
Spherical roller bearings



Cylindrical bore (CC)

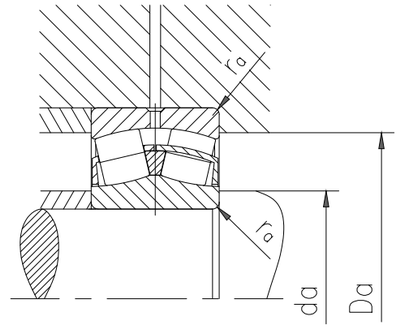


Tapered bore(CC)



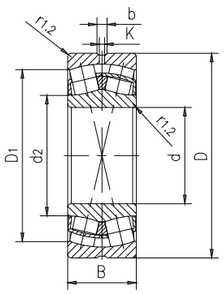
Sealed (CC / 2CS5)

Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
23028CC/W33	23028CCK/W33	140	210	53	158	190	8.3	4.5	2	149	–	201	2
24028CC/W33	24028CCK30/W33	140	210	69	155	185	6	3	2	149	–	201	2
24028-2CS5/VT143	–	140	210	69	151	195	6	3	2	149	151	201	2
23128CC/W33	23128CCK/W33	140	225	68	159	197	8.3	4.5	2.1	152	–	213	2
24128CC/W33	24128CCK30/W33	140	225	85	156	193	8.3	4.5	2.1	152	–	213	2
24128-2CS5/VT143	24128-2CS5K30/VT143	140	225	85	153	203	8.3	4.5	2.1	152	153	213	2
22228CC/W33	22228CCK/W33	140	250	68	166	216	11.1	6	3	154	–	236	2.5
22228-2CS5/VT143	22228-2CS5K/VT143	140	250	68	161	225	11.1	6	3	154	161	236	2.5
23228CC/W33	23228CCK/W33	140	250	88	165	212	11.1	6	3	154	–	236	2.5
23228-2CS5/VT143	23228-2CS5K/VT143	140	250	88	161	225	11.1	6	3	154	161	236	2.5
22328CC/W33	22328CCK/W33	140	300	102	175	247	16.7	9	4	157	–	283	3
22328CCJA/W33VA405	22328CCKJA/W33VA405	140	300	102	175	247	16.7	9	4	157	–	283	3
22328CCJA/W33VA406	–	140	300	102	175	247	16.7	9	4	157	–	283	3
22328-2CS5/VT143	22328-2CS5K/VT143	140	300	102	169	261	16.7	9	4	157	169	283	3
23030CC/W33	23030CCK/W33	150	225	56	169	203	8.3	4.5	2.1	161	–	214	2
23030-2CS5/VT143	23030-2CS5K/VT143	150	225	56	165	211	8.3	4.5	2.1	161	165	214	2
24030CC/W33	24030CCK30/W33	150	225	75	165	197	6	3	2.1	161	–	214	2
24030-2CS5/VT143	–	150	225	75	162	206	6	3	2.1	161	162	214	2
23130CC/W33	23130CCK/W33	150	250	80	172	216	11.1	6	2.1	162	–	238	2
23130-2CS5/VT143	23130-2CS5K/VT143	150	250	80	168	226	11.1	6	2.1	162	168	238	2
24130CC/W33	24130CCK30/W33	150	250	100	169	211	8.3	4.5	2.1	162	–	238	2
24130-2CS5/VT143	24130-2CS5K30/VT143	150	250	100	163	222	8.3	4.5	2.1	162	163	238	2
22230CC/W33	22230CCK/W33	150	270	73	178	234	13.9	7.5	3	164	–	256	2.5
22230-2CS5/VT143	23230-2CS5K/VT143	150	270	73	174	248	13.9	7.5	3	164	174	256	2.5
22330CC/W33	22330CCK/W33	150	270	96	175	228	11.1	6	3	164	–	256	2.5
23230-2CS5/VT143	23230-2CS5K/VT143	150	270	96	171	243	11.1	6	3	164	171	256	2.5
23230CC/W33	23230CCK/W33	150	320	108	188	266	16.7	9	4	167	–	303	3
22330CCJA/W33VA405	22330CCKJA/W33VA405	150	320	108	188	266	16.7	9	4	167	–	303	3
22330CCJA/W33VA406	–	150	320	108	188	266	16.7	9	4	167	–	303	3
22330-2CS5/VT143	22330-2CS5K/VT143	150	320	108	181	281	16.7	9	4	167	181	303	3
23032CC/W33	23032CCK/W33	160	240	60	180	217	11.1	6	2.1	171	–	229	2
23032-2CS5/VT143	23032-2CS5K/VT143	160	240	60	177	225	11.1	6	2.1	171	177	229	2
24032CC/W33	24032CCK30/W33	160	240	80	176	211	8.3	4.5	2.1	171	–	229	2
24032-2CS5/VT143	–	160	240	80	173	218	8.3	4.5	2.1	171	173	229	2
23132CC/W33	23132CCK/W33	160	270	86	184	234	13.9	7.5	2.1	172	–	258	2
23132-2CS5/VT143	23132-2CS5K/VT143	160	270	86	180	244	13.9	7.5	2.1	172	180	258	2

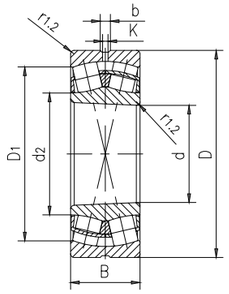


Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
23028CC/W33	23028CCK/W33	6.55	509.25	714	71.4	2730	3570	–	–	0.22	3	4.6	2.8
24028CC/W33	24028CCK30/W33	8.55	630	945	92.4	2100	2940	–	–	0.3	2.3	3.4	2.2
24028-2CS5/VT143	–	8.55	631.05	945	92.4	-	588	–	–	0.28	2.4	3.6	2.5
23128CC/W33	23128CCK/W33	10.5	691.95	945	92.4	2310	2940	–	–	0.28	2.4	3.6	2.5
24128CC/W33	24128CCK30/W33	13.5	835.8	1218	117.6	1680	2310	–	–	0.35	1.9	2.9	1.8
24128-2CS5/VT143	24128-2CS5K30/VT143	13.5	836.85	1218	117.6	-	472.5	–	–	0.35	1.9	2.9	1.8
22228CC/W33	22228CCK/W33	14	780.15	945	90.825	2520	3360	–	–	0.26	2.6	3.9	2.5
22228-2CS5/VT143	22228-2CS5K/VT143	14	781.2	945	90.825	-	703.5	–	–	0.24	2.8	4.2	2.8
23228CC/W33	23228CCK/W33	19	1010.1	1312.5	126	1785	2520	–	–	0.33	2	3	2
23228-2CS5/VT143	23228-2CS5K/VT143	19	1011.15	1312.5	126	-	504	–	–	0.33	2	3	2
22328CC/W33	22328CCK/W33	36.5	1424.85	1638	138.6	1785	2310	–	–	0.35	1.9	2.9	1.8
22328CCJA/W33VA405	22328CCKJA/W33VA405	36.5	1424.85	1638	138.6	1785	2310	87g	20g	0.35	1.9	2.9	1.8
22328CCJA/W33VA406	–	36.5	1424.85	1638	138.6	1785	2310	87g	20g	0.35	1.9	2.9	1.8
22328-2CS5/VT143	22328-2CS5K/VT143	36.5	1426.95	1638	138.6	-	451.5	–	–	0.33	2	3	2
23030CC/W33	23030CCK/W33	7.95	557.55	787.5	77.175	2520	3360	–	–	0.22	3	4.6	2.8
23030-2CS5/VT143	23030-2CS5K/VT143	7.95	558.6	787.5	77.175	-	703.5	–	–	0.2	3.4	5	3.2
24030CC/W33	24030CCK30/W33	10.5	714	1092	105	1890	2730	–	–	0.3	2.3	3.4	2.2
24030-2CS5/VT143	–	10.5	715.05	1092	105	-	556.5	–	–	0.28	2.4	3.6	2.5
23130CC/W33	23130CCK/W33	16	927.15	1260	119.7	2100	2730	–	–	0.3	2.3	3.4	2.2
23130-2CS5/VT143	23130-2CS5K/VT143	16	928.2	1260	119.7	-	588	–	–	0.28	2.4	3.6	2.5
24130CC/W33	24130CCK30/W33	20	1106.7	1606.5	153.3	1470	2100	–	–	0.37	1.8	2.7	1.8
24130-2CS5/VT143	24130-2CS5K30/VT143	20	1108.8	1606.5	153.3	-	420	–	–	0.37	1.8	2.7	1.8
22230CC/W33	22230CCK/W33	18	942.9	1134	107.1	2310	3150	–	–	0.26	2.6	3.9	2.5
22230-2CS5/VT143	23230-2CS5K/VT143	18	943.95	1134	107.1	-	661.5	–	–	0.24	2.8	4.2	2.8
22330CC/W33	22330CCK/W33	24.5	1185.45	1533	143.85	1680	2310	–	–	0.35	1.9	2.9	1.8
23230-2CS5/VT143	23230-2CS5K/VT143	24.5	1188.6	1533	143.85	-	451.5	–	–	0.33	2	3	2
23230CC/W33	23230CCK/W33	43.5	1615.95	1848	153.3	1680	2100	–	–	0.35	1.9	2.9	1.8
22330CCJA/W33VA405	22330CCKJA/W33VA405	43.5	1615.95	1848	153.3	1680	2100	72g	19g	0.35	1.9	2.9	1.8
22330CCJA/W33VA406	–	43.5	1615.95	1848	153.3	1680	2100	72g	19g	0.35	1.9	2.9	1.8
22330-2CS5/VT143	22330-2CS5K/VT143	43.5	1618.05	1848	153.3	-	420	–	–	0.33	2	3	2
23032CC/W33	23032CCK/W33	9.7	1694.7	924	87.15	2520	3150	–	–	0.22	3	4.6	2.8
23032-2CS5/VT143	23032-2CS5K/VT143	9.7	645.75	924	87.15	-	703.5	–	–	0.2	3.4	5	3.2
24032CC/W33	24032CCK30/W33	13	822.15	1260	119.7	1785	2520	–	–	0.3	2.3	3.4	2.2
24032-2CS5/VT143	–	13	823.2	2205	119.7	-	472.5	–	–	0.28	2.4	3.6	2.5
23132CC/W33	23132CCK/W33	20.5	1080.45	1438.5	135.45	1995	2520	–	–	0.3	2.3	3.4	2.2
23132-2CS5/VT143	23132-2CS5K/VT143	20.5	1081.5	1470	135.45	-	556.5	–	–	0.28	2.4	3.6	2.5

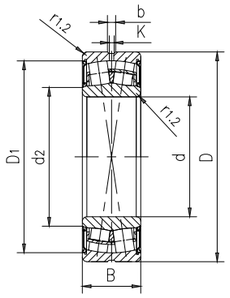
Spherical roller bearings



Cylindrical bore (CC)

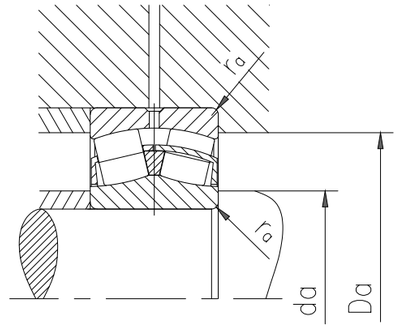


Tapered bore(CC)



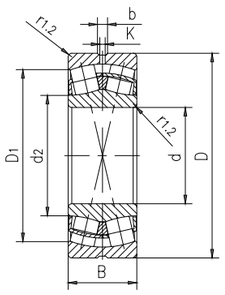
Sealed (CC / 2CS5)

Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
24132-2CS5/VT143	–	160	270	109	176	239	8.3	4.5	2.1	172	176	258	2
22232CC/W33	22232CCK/W33	160	290	80	191	250	13.9	7.5	3	174	–	276	2.5
22232-2CS5/VT143	22232-2CS5K/VT143	160	290	80	185	264	13.9	7.5	3	174	185	276	2.5
23232CC/W33	23232CCK/W33	160	290	104	188	244	13.9	7.5	3	174	–	276	2.5
22332CC/W33	22332CCK/W33	160	340	114	200	282	16.7	9	4	177	–	323	3
22332CCJA/W33VA405	22332CCKJA/W33VA405	160	340	114	200	282	16.7	9	4	177	–	323	3
22332CCJA/W33VA406	–	160	340	114	200	282	16.7	9	4	177	–	323	3
22332-2CS5/VT143	22332-2CS5K/VT143	160	340	114	193	296	16.7	9	4	177	193	323	3
23034CC/W33	23034CCK/W33	170	260	67	191	232	11.1	6	2.1	181	–	249	2
23034-2CS5/VT143	23034-2CS5K/VT143	170	260	67	188	243	11.1	6	2.1	181	188	249	2
24034CC/W33	24034CCK30/W33	170	260	90	188	226	8.3	4.5	2.1	181	–	249	2
24034-2CS5/VT143	–	170	260	90	184	235	8.3	4.5	2.1	181	184	249	2
23134CC/W33	23134CCK/W33	170	280	88	195	244	13.9	7.5	2.1	182	–	268	2
23134-2CS5/VT143	23134-2CS5K/VT143	170	280	88	190	256	13.9	7.5	2.1	182	190	268	2
24134CC/W33	24134CCK30/W33	170	280	109	190	237	8.3	4.5	2.1	182	–	268	2
24134-2CS5/VT143	–	170	280	109	185	248	8.3	4.5	2.1	182	185	268	2
22234CC/W33	22234CCK/W33	170	310	86	203	267	16.7	9	4	187	–	293	3
22234-2CS5/VT143	22234-2CS5K/VT143	170	310	86	198	282	16.7	9	4	187	198	293	3
23234CC/W33	23234CCK/W33	170	310	110	200	261	13.9	7.5	4	187	–	293	3
22334CC/W33	22334CCK/W33	170	360	120	213	300	16.7	9	4	187	–	343	3
22334CCJA/W33VA405	22334CCKJA/W33VA405	170	360	120	213	300	16.7	9	4	187	–	343	3
22334CCJA/W33VA406	–	170	360	120	213	300	16.7	9	4	187	–	343	3
23936CC/W33	23936CCK/W33	180	250	52	199	231	6	3	2	189	–	241	2
23036CC/W33	23036CCK/W33	180	280	74	204	249	13.9	7.5	2.1	191	–	269	2
23036-2CS5/VT143	23036-2CS5K/VT143	180	280	74	199	262	13.9	7.5	2.1	191	199	269	2
24036CC/W33	24036CCK30/W33	180	280	100	201	243	8.3	4.5	2.1	191	–	269	2
24036-2CS5/VT143	–	180	280	100	194	251	8.3	4.5	2.1	191	194	269	2
23136CC/W33	23136CCK/W33	180	300	96	207	259	13.9	7.5	3	194	–	286	2.5
23136-2CS5/VT143	23136-2CS5K/VT143	180	300	96	202	272	13.9	7.5	3	194	202	286	2.5
24136CC/W33	24136CCK30/W33	180	300	118	203	253	11.1	6	3	194	–	286	2.5
24136-2CS5/VT143	–	180	300	118	198	266	11.1	6	3	194	198	286	2.5
22236CC/W33	22236CCK/W33	180	320	86	213	278	16.7	9	4	197	–	303	3
22236-2CS5/VT143	22236-2CS5K/VT143	180	320	86	208	289	16.7	9	4	197	208	303	3
23236CC/W33	23236CCK/W33	180	320	112	211	271	13.9	7.5	4	197	–	303	3
22336CC/W33	22336CCK/W33	180	380	126	224	317	22.3	12	4	197	–	363	3
22336CCJA/W33VA405	22336CCKJA/W33VA405	180	380	126	224	317	22.3	12	4	197	–	363	3

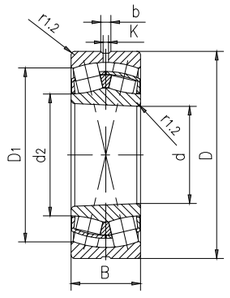


Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
24132-2CS5/VT143	–	25	1290.45	1848	171.15	-	399	–	–	0.37	1.8	2.7	1.8
22232CC/W33	22232CCK/W33	22.5	1095.15	1354.5	123.9	2100	2940	–	–	0.26	2.6	3.9	2.5
22232-2CS5/VT143	22232-2CS5K/VT143	22.5	1096.2	1354.5	123.9	-	630	–	–	0.25	2.7	4	2.5
23232CC/W33	23232CCK/W33	31	1345.05	1743	160.65	1575	2310	–	–	0.35	1.9	2.9	1.8
22332CC/W33	22332CCK/W33	52	1764	2058	168	1575	1995	–	–	0.35	1.9	2.9	1.8
22332CCJA/W33VA405	22332CCKJA/W33VA405	52	1764	2058	168	1575	1995	69g	18g	0.35	1.9	2.9	1.8
22332CCJA/W33VA406	–	52	1764	2058	168	1575	1995	69g	18g	0.35	1.9	2.9	1.8
22332-2CS5/VT143	22332-2CS5K/VT143	52	1767.15	2058	168	-	399	–	–	0.33	2	3	2
23034CC/W33	23034CCK/W33	13	782.25	1113	105	2310	2940	–	–	0.23	2.9	4.4	2.8
23034-2CS5/VT143	23034-2CS5K/VT143	13	783.3	1134	105	-	661.5	–	–	0.22	3	4.6	2.8
24034CC/W33	24034CCK30/W33	17.5	1011.15	1533	143.85	1680	2520	–	–	0.33	2	3	2
24034-2CS5/VT143	–	17.5	1014.3	1575	143.85	-	420	–	–	0.3	2.3	3.4	2.2
23134CC/W33	23134CCK/W33	22	1140.3	1575	143.85	1890	2520	–	–	0.3	2.3	3.4	2.2
23134-2CS5/VT143	23134-2CS5K/VT143	22	1142.4	1575	143.85	-	504	–	–	0.28	2.4	3.6	2.5
24134CC/W33	24134CCK30/W33	27.5	1333.5	1953	178.5	1260	1890	–	–	0.37	1.8	2.7	1.8
24134-2CS5/VT143	–	27.5	1336.65	1953	178.5	-	378	–	–	0.35	1.9	2.9	1.8
22234CC/W33	22234CCK/W33	28.5	1242.15	1533	138.6	1995	2730	–	–	0.27	2.5	3.7	2.5
22234-2CS5/VT143	22234-2CS5K/VT143	28.5	1244.25	1533	140.7	-	525	–	–	0.25	2.7	4	2.5
23234CC/W33	23234CCK/W33	37.5	1545.6	2026.5	181.65	1470	2100	–	–	0.35	1.9	2.9	1.8
22334CC/W33	22334CCK/W33	61	1956.15	2268	184.8	1470	1890	–	–	0.33	2	3	2
22334CCJA/W33VA405	22334CCKJA/W33VA405	61	1956.15	2268	184.8	1470	1890	65g	18g	0.33	2	3	2
22334CCJA/W33VA406	–	61	1956.15	2268	184.8	1470	1890	65g	18g	0.33	2	3	2
23936CC/W33	23936CCK/W33	7.9	544.95	871.5	80.325	2730	2940	–	–	0.18	3.8	5.6	3.6
23036CC/W33	23036CCK/W33	17	927.15	1312.5	119.7	2100	2730	–	–	0.24	2.8	4.2	2.8
23036-2CS5/VT143	23036-2CS5K/VT143	17	928.2	1333.5	119.7	-	588	–	–	0.22	3	4.6	2.8
24036CC/W33	24036CCK30/W33	23	1190.7	1816.5	163.8	1575	2310	–	–	0.33	2	3	2
24036-2CS5/VT143	–	23	1192.8	1816.5	163.8	-	399	–	–	0.31	2.2	3.3	2.2
23136CC/W33	23136CCK/W33	28	1326.15	1848	168	1785	2310	–	–	0.3	2.3	3.4	2.2
23136-2CS5/VT143	23136-2CS5K/VT143	28	1327.2	1890	168	-	451.5	–	–	0.28	2.4	3.6	2.5
24136CC/W33	24136CCK30/W33	34.5	1521.45	2268	205.8	1155	1680	–	–	0.37	1.8	2.7	1.8
24136-2CS5/VT143	–	34.5	1524.6	2268	205.8	-	378	–	–	0.37	1.8	2.7	1.8
22236CC/W33	22236CCK/W33	29.5	1298.85	1638	147	1890	2730	–	–	0.26	2.6	3.9	2.5
22236-2CS5/VT143	22236-2CS5K/VT143	29	1300.95	1638	147	-	556.5	–	–	0.24	2.8	4.2	2.8
23236CC/W33	23236CCK/W33	39.5	1634.85	2226	195.3	1365	1995	–	–	0.35	1.9	2.9	1.8
22336CC/W33	22336CCK/W33	71.5	2180.85	2572.5	202.65	1365	1785	–	–	0.35	1.9	2.9	1.8
22336CCJA/W33VA405	22336CCKJA/W33VA405	71.5	2180.85	2572.5	202.65	1365	1785	59g	17g	0.35	1.9	2.9	1.8

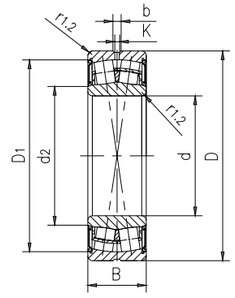
Spherical roller bearings



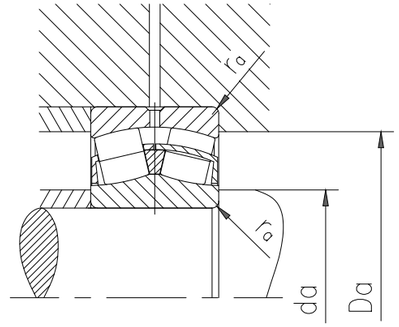
Cylindrical bore (CC)



Tapered bore(CC)



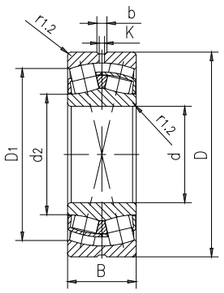
Sealed (CC / 2CS5)



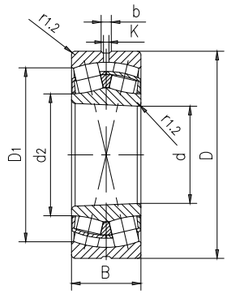
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
23938CC/W33	23938CCK/W33	190	260	52	209	240	6	3	2	199	–	251	2
23038CC/W33	23038CCK/W33	190	290	75	216	261	13.9	7.5	2.1	201	–	279	2
24038CC/W33	24038CCK30/W33	190	290	100	210	253	8.3	4.5	2.1	201	–	279	2
23138CC/W33	23138CCK/W33	190	320	104	220	275	13.9	7.5	3	204	–	306	2.5
23138-2CS5/VT143	23138-2CS5K/VT143	190	320	104	215	288	13.9	7.5	3	204	215	306	2.5
24138CC/W33	24138CCK30/W33	190	320	128	215	268	11.1	6	3	204	–	306	2.5
24138-2CS5/VT143	–	190	320	128	210	282	11.1	6	3	204	210	306	2.5
22238CC/W33	22238CCK/W33	190	340	92	225	294	16.7	9	4	207	–	323	3
22238-2CS5/VT143	22238-2CS5K/VT143	190	340	92	220	306	16.7	9	4	207	220	323	3
23238CC/W33	23238CCK/W33	190	340	120	222	287	16.7	9	4	207	–	323	3
22338CC/W33	22338CCK/W33	190	400	132	236	333	22.3	12	5	210	–	380	4
22338CCJA/W33VA405	22338CCKJA/W33VA405	190	400	132	236	333	22.3	12	5	210	–	380	4
22338CCJA/W33VA406	–	190	400	132	236	333	22.3	12	5	210	–	380	4
22338-2CS5/VT143	–	190	400	132	228	352	22.3	12	5	210	228	380	4
23940CC/W33	23940CCK/W33	200	280	60	222	258	8.3	4.5	2.1	211	–	269	2
23040CC/W33	23040CCK/W33	200	310	82	228	278	13.9	7.5	2.1	211	–	299	2
23040-2CS5/VT143	23040-2CS5K/VT143	200	310	82	223	286	13.9	7.5	2.1	211	223	299	2
24040CC/W33	24040CCK30/W33	200	310	109	223	268	11.1	6	2.1	211	–	299	2
23140CC/W33	23140CCK/W33	200	340	112	231	293	16.7	9	3	214	–	326	2.5
23140-2CS5/VT143	23140-2CS5K/VT143	200	340	112	227	306	16.7	9	3	214	227	326	2.5
24140CC/W33	24140CCK30/W33	200	340	140	226	284	11.1	6	3	214	–	326	2.5
24140-2CS5/VT143	–	200	340	140	221	294	11.1	6	3	214	221	326	2.5
22240CC/W33	22240CCK/W33	200	360	98	238	313	16.7	9	4	217	–	343	3
22240-2CS5/VT143	22240-2CS5K/VT143	200	360	98	232	324	16.7	9	4	217	232	343	3
23240CC/W33	23240CCK/W33	200	360	128	235	304	16.7	9	4	217	–	343	3
23240-2CS5/VT143	23240-2CS5K/VT143	200	360	128	230	320	16.7	9	4	217	230	343	3
22340CC/W33	22340CCK/W33	200	420	138	249	351	22.3	12	5	220	–	400	4
22340CCJA/W33VA405	22340CCKJA/W33VA405	200	420	138	249	351	22.3	12	5	220	–	400	4
22340CCJA/W33VA406	–	200	420	138	249	351	22.3	12	5	220	–	400	4
23944CC/W33	23944CCK/W33	220	300	60	241	278	8.3	4.5	2.1	231	–	289	2
23944-2CS/VT143	–	220	300	60	238	284	8.3	4.5	2.1	231	238	289	2
23044CC/W33	23044CCK/W33	220	340	90	250	306	13.9	7.5	3	233	–	327	2.5
23044-2CS5/VT143	23044-2CS5K/VT143	220	340	90	245	314	13.9	7.5	3	233	245	327	2.5
24044CC/W33	24044CCK30/W33	220	340	118	244	295	11.1	6	3	233	–	327	2.5
23144CC/W33	23144CCK/W33	220	370	120	255	320	16.7	9	4	237	–	353	3
23144-2CS5/VT143	23144-2CS5K/VT143	220	370	120	249	332	16.7	9	4	237	249	353	3

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
23938CC/W33	23938CCK/W33	8.3	523.95	840	80.325	2520	2730	–	–	0.16	4.2	6.3	4
23038CC/W33	23038CCK/W33	18	961.8	1407	128.1	1995	2520	–	–	0.23	2.9	4.4	2.8
24038CC/W33	24038CCK30/W33	24.5	1222.2	1890	171.15	1470	2100	–	–	0.31	2.2	3.3	2.2
23138CC/W33	23138CCK/W33	35	1528.8	2184	192.15	1575	2100	–	–	0.31	2.2	3.3	2.2
23138-2CS5/VT143	23138-2CS5K/VT143	35	1530.9	2184	192.15	-	420	–	–	0.3	2.3	3.4	2.2
24138CC/W33	24138CCK30/W33	43	1734.6	2625	222.6	1155	1575	–	–	0.4	1.7	2.5	1.6
24138-2CS5/VT143	–	43	1737.75	2625	222.6	-	357	–	–	0.37	1.8	2.7	1.8
22238CC/W33	22238CCK/W33	36.5	1409.1	1785	157.5	1785	2520	–	–	0.26	2.6	3.9	2.5
22238-2CS5/VT143	22238-2CS5K/VT143	35	1412.25	1785	157.5	-	504	–	–	0.24	2.8	4.2	2.8
23238CC/W33	23238CCK/W33	48	1846.95	2520	218.4	1365	1890	–	–	0.35	1.9	2.9	1.8
22338CC/W33	22338CCK/W33	82.5	2343.6	2782.5	218.4	1260	1680	–	–	0.35	1.9	2.9	1.8
22338CCJA/W33VA405	22338CCKJA/W33VA405	82.5	2343.6	2782.5	218.4	1260	1680	57g	17g	0.35	1.9	2.9	1.8
22338CCJA/W33VA406	–	82.5	2343.6	2782.5	218.4	1260	1680	57g	17g	0.35	1.9	2.9	1.8
22338-2CS5/VT143	–	77.5	2347.8	2782.5	218.4	-	357	–	–	0.33	2	3	2
23940CC/W33	23940CCK/W33	11.5	683.55	1092	97.65	2310	2520	–	–	0.19	3.6	5.3	3.6
23040CC/W33	23040CCK/W33	23.5	1110.9	1606.5	143.85	1890	2310	–	–	0.24	2.8	4.2	2.8
23040-2CS5/VT143	23040-2CS5K/VT143	22	1111.95	1606.5	143.85	-	504	–	–	0.22	3	4.6	2.8
24040CC/W33	24040CCK30/W33	31	1420.65	2226	195.3	1365	1995	–	–	0.33	2	3	2
23140CC/W33	23140CCK/W33	43	1748.25	2478	214.2	1575	1995	–	–	0.31	2.2	3.3	2.2
23140-2CS5/VT143	23140-2CS5K/VT143	43	1751.4	2478	214.2	-	399	–	–	0.3	2.3	3.4	2.2
24140CC/W33	24140CCK30/W33	53.5	1958.25	2940	243.6	1050	1470	–	–	0.4	1.7	2.5	1.6
24140-2CS5/VT143	–	53.5	1964.55	2940	243.6	-	336	–	–	0.37	1.8	2.7	1.8
22240CC/W33	22240CCK/W33	43.5	1602.3	2026.5	174.3	1680	2310	–	–	0.26	2.6	3.9	2.5
22240-2CS5/VT143	22240-2CS5K/VT143	42	1605.45	2026.5	174.3	-	451.5	–	–	0.24	2.8	4.2	2.8
23240CC/W33	23240CCK/W33	58	2044.35	2835	239.4	1260	1785	–	–	0.35	1.9	2.9	1.8
23240-2CS5/VT143	23240-2CS5K/VT143	58	2047.5	2835	243.6	-	357	–	–	0.33	2	3	2
22340CC/W33	22340CCK/W33	95	2560.95	3045	235.2	1260	1575	–	–	0.33	2	3	2
22340CCJA/W33VA405	22340CCKJA/W33VA405	95	2560.95	3045	235.2	1260	1575	55g	17g	0.33	2	3	2
22340CCJA/W33VA406	–	95	2560.95	3045	235.2	1260	1575	55g	17g	0.33	2	3	2
23944CC/W33	23944CCK/W33	12.5	694.05	1134	97.65	2100	2310	–	–	0.16	4.2	6.3	4
23944-2CS/VT143	–	12.5	695.1	1134	97.65	-	630	–	–	0.15	4.5	6.7	4.5
23044CC/W33	23044CCK/W33	30.5	1324.05	1953	171.15	1680	2100	–	–	0.24	2.8	4.2	2.8
23044-2CS5/VT143	23044-2CS5K/VT143	29	1325.1	1953	171.15	-	451.5	–	–	0.22	3	4.6	2.8
24044CC/W33	24044CCK30/W33	40	1709.4	2730	222.6	1260	1785	–	–	0.33	2	3	2
23144CC/W33	23144CCK/W33	53.5	1982.4	2887.5	243.6	1365	1785	–	–	0.3	2.3	3.4	2.2
23144-2CS5/VT143	23144-2CS5K/VT143	53.5	1985.55	2887.5	243.6	-	378	–	–	0.28	2.4	3.6	2.5

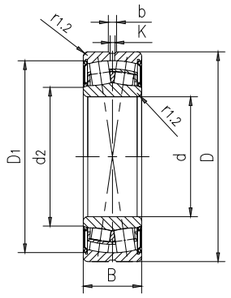
Spherical roller bearings



Cylindrical bore (CC)

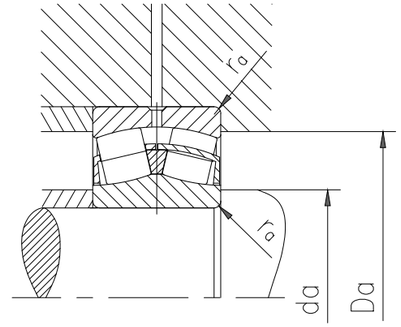


Tapered bore(CC)



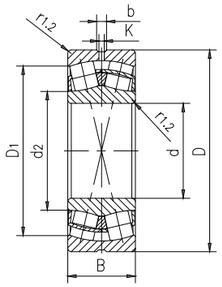
Sealed (CC / 2CS5)

Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
22244CC/W33	22244CCK/W33	220	400	108	263	346	16.7	9	4	237	–	383	3
22244-2CS5/VT143	22244-2CS5K/VT143	220	400	108	257	359	16.7	9	4	237	257	383	3
23244CC/W33	23244CCK/W33	220	400	144	259	338	16.7	9	4	237	–	383	3
22344CC/W33	22344CCK/W33	220	460	145	279	389	22.3	12	5	240	–	440	4
22344CCJA/W33VA405	22344CCKJA/W33VA405	220	460	145	279	389	22.3	12	5	240	–	440	4
22344-2CS5/VT143	22344-2CS5K/VT143	220	460	145	270	406	22.3	12	5	240	270	440	4
23948CC/W33	23948CCK/W33	240	320	60	261	298	8.3	4.5	2.1	251	–	309	2
23048CC/W33	23048CCK/W33	240	360	92	271	326	13.9	7.5	3	253	–	347	2.5
23048-2CS5/VT143	23048-2CS5K/VT143	240	360	92	265	333	13.9	7.5	3	253	265	347	2.5
24048CC/W33	24048CCK30/W33	240	360	118	265	316	11.1	6	3	253	–	347	2.5
23148CC/W33	23148CCK/W33	240	400	128	277	348	16.7	9	4	257	–	383	3
23148-2CS5/VT143	23148-2CS5K/VT143	240	400	128	270	360	16.7	9	4	257	270	383	3
24148CC/W33	24148CCK30/W33	240	400	160	271	336	11.1	6	4	257	–	383	3
22248CC/W33	22248CCK/W33	240	440	120	290	383	22.3	12	4	257	–	423	3
23248CC/W33	23248CCK/W33	240	440	160	286	374	22.3	12	4	257	–	423	3
22348CC/W33	22348CCK/W33	240	500	155	303	423	22.3	12	5	260	–	480	4
22348CCJA/W33VA405	22348CCKJA/W33VA405	240	500	155	303	423	22.3	12	5	260	–	480	4
23952CC/W33	23952CCK/W33	260	360	75	287	331	8.3	4.5	2.1	271	–	349	2
23052CC/W33	23052CCK/W33	260	400	104	295	360	16.7	9	4	275	–	385	3
23052-2CS5/VT143	23052-2CS5K/VT143	260	400	104	289	369	16.7	9	4	275	289	385	3
24052CC/W33	24052CCK30/W33	260	400	140	289	347	11.1	6	4	275	–	385	3
23152CC/W33	23152CCK/W33	260	440	144	301	380	16.7	9	4	277	–	423	3
23152-2CS5/VT143	23152-2CS5K/VT143	260	440	144	293	398	16.7	9	4	277	293	423	3
24152CC/W33	24152CCK30/W33	260	440	180	293	368	13.9	7.5	4	277	–	423	3
24152-2CS5/VT143	–	260	440	180	286	391	13.9	7.5	4	277	286	423	3
22252CC/W33	22252CCK/W33	260	480	130	312	421	22.3	12	5	280	–	460	4
23252CC/W33	23252CCK/W33	260	480	174	312	408	22.3	12	5	280	–	460	4
22352CC/W33	22352CCK/W33	260	540	165	328	458	22.3	12	6	286	–	514	5
23956CC/W33	23956CCK/W33	280	380	75	308	352	11.1	6	2.1	291	–	369	2
23056CC/W33	23056CCK/W33	280	420	106	315	380	16.7	9	4	295	–	405	3
24056CC/W33	24056CCK30/W33	280	420	140	309	368	11.1	6	4	295	–	405	3
23156CC/W33	23156CCK/W33	280	460	146	321	401	16.7	9	5	300	–	440	4
23156-2CS5/VT143	23156-2CS5K/VT143	280	460	146	314	417	16.7	9	5	300	314	440	4
24156CC/W33	24156CCK30/W33	280	460	180	314	390	13.9	7.5	5	300	–	440	4
24156-2CS5/VT143	24156-2CS5K30/VT143	280	460	180	307	413	13.9	7.5	5	300	307	440	4
22256CC/W33	22256CCK/W33	280	500	130	333	441	22.3	12	5	300	–	480	4

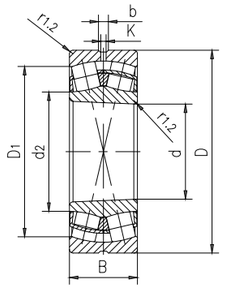


Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
22244CC/W33	22244CCK/W33	60.5	1926.75	2478	205.8	1575	2100	–	–	0.27	2.5	3.7	2.5
22244-2CS5/VT143	22244-2CS5K/VT143	58	1930.95	2478	210	-	399	–	–	0.25	2.7	4	2.5
23244CC/W33	23244CCK/W33	81.5	2609.25	3622.5	299.25	1155	1575	–	–	0.35	1.9	2.9	1.8
22344CC/W33	22344CCK/W33	120	2980.95	3622.5	273	1050	1470	–	–	0.31	2.2	3.3	2.2
22344CCJA/W33VA405	22344CCKJA/W33VA405	120	2980.95	3622.5	273	1050	1470	49g	16g	0.31	2.2	3.3	2.2
22344-2CS5/VT143	22344-2CS5K/VT143	115	2986.2	3622.5	273	-	315	–	–	0.3	2.3	3.4	2.2
23948CC/W33	23948CCK/W33	13.5	719.25	1218	102.9	1995	2100	–	–	0.15	4.5	6.7	4.5
23048CC/W33	23048CCK/W33	33.5	1407	2184	184.8	1575	1995	–	–	0.23	2.9	4.4	2.8
23048-2CS5/VT143	23048-2CS5K/VT143	32	1408.05	2184	184.8	-	420	–	–	0.21	3.2	4.8	3.2
24048CC/W33	24048CCK30/W33	43	1746.15	2835	239.4	1155	1680	–	–	0.3	2.3	3.4	2.2
23148CC/W33	23148CCK/W33	66.5	2296.35	3360	267.75	1260	1680	–	–	0.3	2.3	3.4	2.2
23148-2CS5/VT143	23148-2CS5K/VT143	66.5	2299.5	3360	267.75	-	357	–	–	0.28	2.4	3.6	2.5
24148CC/W33	24148CCK30/W33	83	2613.45	4095	336	787.5	1155	–	–	0.4	1.7	2.5	1.6
22248CC/W33	22248CCK/W33	83	2370.9	3150	257.25	1365	1890	–	–	0.27	2.5	3.7	2.5
23248CC/W33	23248CCK/W33	110	3194.1	4515	362.25	997.5	1365	–	–	0.35	1.9	2.9	1.8
22348CC/W33	22348CCK/W33	155	3390.45	4200	304.5	997.5	1365	–	–	0.31	2.2	3.3	2.2
22348CCJA/W33VA405	22348CCKJA/W33VA405	155	3390.45	4200	304.5	997.5	1365	45g	15g	0.31	2.2	3.3	2.2
23952CC/W33	23952CCK/W33	23.5	1107.75	1890	163.8	1785	1995	–	–	0.18	3.8	5.6	3.6
23052CC/W33	23052CCK/W33	48.5	1758.75	2677.5	222.6	1365	1785	–	–	0.23	2.9	4.4	2.8
23052-2CS5/VT143	23052-2CS5K/VT143	46	1760.85	2677.5	222.6	-	378	–	–	0.22	3	4.6	2.8
24052CC/W33	24052CCK30/W33	65.5	2241.75	3622.5	299.25	1050	1470	–	–	0.33	2	3	2
23152CC/W33	23152CCK/W33	90.5	2797.2	4095	304.5	1155	1470	–	–	0.31	2.2	3.3	2.2
23152-2CS5/VT143	23152-2CS5K/VT143	90.5	2801.4	4095	304.5	-	336	–	–	0.3	2.3	3.4	2.2
24152CC/W33	24152CCK30/W33	110	3240.3	5040	399	703.5	997.5	–	–	0.4	1.7	2.5	1.6
24152-2CS5/VT143	–	109	3246.6	5145	399	-	252	–	–	0.4	1.7	2.5	1.6
22252CC/W33	22252CCK/W33	110	2858.1	3727.5	299.25	1260	1680	–	–	0.27	2.5	3.7	2.5
23252CC/W33	23252CCK/W33	140	3564.75	4987.5	378	892.5	1260	–	–	0.35	1.9	2.9	1.8
22352CC/W33	22352CCK/W33	190	3864	4777.5	341.25	892.5	1155	–	–	0.31	2.2	3.3	2.2
23956CC/W33	23956CCK/W33	25	1066.8	1848	150.15	1680	1785	–	–	0.16	4.2	6.3	4
23056CC/W33	23056CCK/W33	52.5	1886.85	2992.5	235.2	1365	1680	–	–	0.23	2.9	4.4	2.8
24056CC/W33	24056CCK30/W33	69.5	2360.4	3990	299.25	997.5	1470	–	–	0.31	2.2	3.3	2.2
23156CC/W33	23156CCK/W33	97	2923.2	4462.5	351.75	1050	1365	–	–	0.3	2.3	3.4	2.2
23156-2CS5/VT143	23156-2CS5K/VT143	97	2927.4	4462.5	351.75	-	315	–	–	0.28	2.4	3.6	2.5
24156CC/W33	24156CCK30/W33	120	3342.15	5355	435.75	661.5	945	–	–	0.4	1.7	2.5	1.6
24156-2CS5/VT143	24156-2CS5K30/VT143	115	3349.5	5355	435.75	-	231	–	–	0.37	1.8	2.7	1.8
22256CC/W33	22256CCK/W33	115	2934.75	3937.5	315	1155	1575	–	–	0.26	2.6	3.9	2.5

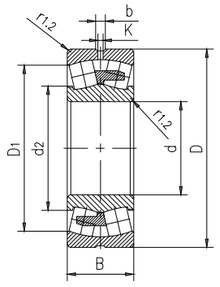
Spherical roller bearings



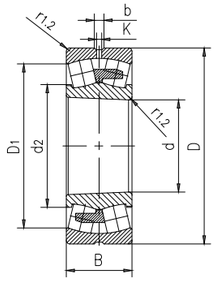
Cylindrical bore (CC)



Tapered bore(CC)

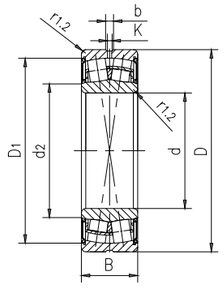


Cylindrical bore (CA)

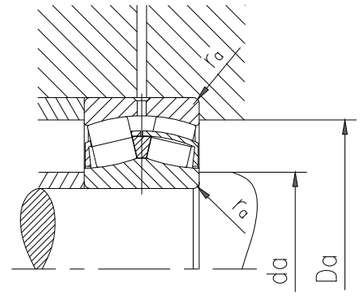


Tapered bore(CA)

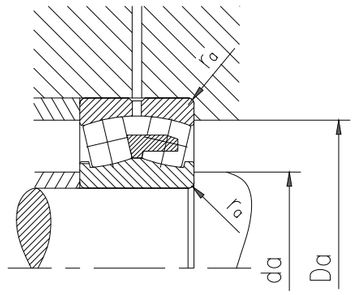
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
22356CC/W33	22356CCK/W33	280	580	175	354	492	22.3	12	6	306	–	554	5
23960CC/W33	23960CCK/W33	300	420	90	333	385	11.1	6	3	313	–	407	2.5
23060CC/W33	23060CCK/W33	300	460	118	340	414	16.7	9	4	315	–	445	3
23060-2CS5/VT143	23060-2CS5K/VT143	300	460	118	334	433	16.7	9	4	315	334	445	3
24060CC/W33	24060CCK30/W33	300	460	160	331	400	13.9	7.5	4	315	–	445	3
24060-2CS5/VT143	–	300	460	160	325	416	13.9	7.5	4	315	325	445	3
23160CC/W33	23160CCK/W33	300	500	160	345	434	16.7	9	5	320	–	480	4
23160-2CS5/VT143	23160-2CS5K/VT143	300	500	160	337	451	16.7	9	5	320	337	480	4
24160CC/W33	24160CCK30/W33	300	500	200	338	422	13.9	7.5	5	320	–	480	4
24160-2CS5/VT143	24160-2CS5K30/VT143	300	500	200	330	447	13.9	7.5	5	320	330	480	4
22260CC/W33	22260CCK/W33	300	540	140	354	477	22.3	12	5	311	–	520	4
23260CC/W33	23260CCK/W33	300	540	192	356	461	22.3	12	5	320	–	520	4
23964CC/W33	23964CCK/W33	320	440	90	354	406	11.1	6	3	333	–	427	2.5
23064-2CS5/VT143	23064-2CS5K/VT143	320	480	121	354	448	16.7	9	4	335	354	465	3
23064CC/W33	23064CCK/W33	320	480	121	360	434	16.7	9	4	335	–	465	3
24064CC/W33	24064CCK30/W33	320	480	160	354	423	13.9	7.5	4	335	–	465	3
23164CC/W33	23164CCK/W33	320	540	176	370	465	22.3	12	5	340	–	520	4
23164-2CS5/VT143	23164-2CS5K/VT143	320	540	176	361	483	22.3	12	5	340	361	520	4
24164CC/W33	24164CCK30/W33	320	540	218	364	455	16.7	9	5	340	–	520	4
22264CC/W33	22264CCK/W33	320	580	150	379	513	22.3	12	5	340	–	560	4
23264CC/W33	23264CCK/W33	320	580	208	382	493	22.3	12	5	340	–	560	4
23968CC/W33	23968CCK/W33	340	460	90	373	426	11.1	6	3	353	–	447	2.5
23068CC/W33	23068CCK/W33	340	520	133	385	468	22.3	12	5	358	–	502	4
24068CC/W33	24068CCK30/W33	340	520	180	377	453	16.7	9	5	358	–	502	4
23168CC/W33	23168	340	580	190	394	498	22.3	12	5	360	–	560	4
23168-2CS5/VT143	23168-2CS5K/VT143	340	580	190	385	515	22.3	12	5	360	385	560	4
24168ECCJ/W33	24168ECCK30J/W33	340	580	243	383	491	16.7	9	5	360	–	560	4
23268CA/W33	23268CAK/W33	340	620	224	427	528	22.3	12	6	366	–	594	5
23972CC/W33	23972CCK/W33	360	480	90	394	447	11.1	6	3	373	–	467	2.5
23072CC/W33	23072CCK/W33	360	540	134	404	483	22.3	12	5	378	–	522	4
24072CC/W33	24072CCK30/W33	360	540	180	397	474	16.7	9	5	378	–	522	4
23172CC/W33	23172CCK/W33	360	600	192	418	524	22.3	12	5	380	–	580	4
23172-2CS5/VT143	23172-2CS5K/VT143	360	600	192	408	541	22.3	12	5	380	408	580	4
24172ECCJ/W33	24172ECCK30J/W33	360	600	243	404	511	16.7	9	5	380	–	580	4
22272CA/W33	22272CAK/W33	360	650	170	454	568	22.3	12	6	386	–	624	5
23272CA/W33	23272CAK/W33	360	650	232	449	552	22.3	12	6	386	–	624	5



Sealed (CC / 2CS5)



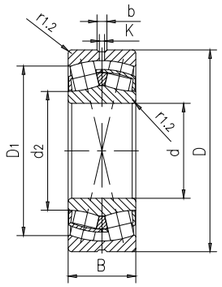
CC



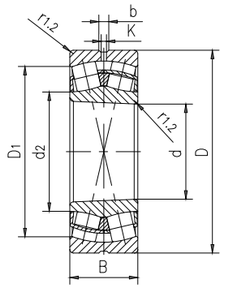
CA

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
22356CC/W33	22356CCK/W33	235	4365.9	5460	383.25	840	1155	–	–	0.3	2.3	3.4	2.2
23960CC/W33	23960CCK/W33	39.5	1483.65	2625	210	1470	1680	–	–	0.19	3.6	5.3	3.6
23060CC/W33	23060CCK/W33	71.5	2329.95	3622.5	278.25	1260	1575	–	–	0.23	2.9	4.4	2.8
23060-2CS5/VT143	23060-2CS5K/VT143	71.5	2333.1	3622.5	278.25	-	336	–	–	0.22	3	4.6	2.8
24060CC/W33	24060CCK30/W33	97	2962.05	4987.5	372.75	892.5	1260	–	–	0.33	2	3	2
24060-2CS5/VT143	–	95	2968.35	4987.5	372.75	-	252	–	–	0.31	2.2	3.3	2.2
23160CC/W33	23160CCK/W33	125	3536.4	5355	399	997.5	1260	–	–	0.3	2.3	3.4	2.2
23160-2CS5/VT143	23160-2CS5K/VT143	125	3541.65	5355	399	-	273	–	–	0.28	2.4	3.6	2.5
24160CC/W33	24160CCK30/W33	160	4069.8	6615	488.25	588	840	–	–	0.4	1.7	2.5	1.6
24160-2CS5/VT143	24160-2CS5K30/VT143	156	4075.05	6615	488.25	-	222.6	–	–	0.37	1.8	2.7	1.8
22260CC/W33	22260CCK/W33	135	3400.95	4462.5	341.25	1050	1470	–	–	0.26	2.6	3.9	2.5
23260CC/W33	23260CCK/W33	190	4254.6	6142.5	446.25	787.5	1050	–	–	0.35	1.9	2.9	1.8
23964CC/W33	23964CCK/W33	42	1554	2835	222.6	1470	1575	–	–	0.17	4	5.9	4
23064-2CS5/VT143	23064-2CS5K/VT143	7.55	2465.4	3990	299.25	-	336	–	–	0.23	2.9	4.4	2.8
23064CC/W33	23064CCK/W33	78	2465.4	3990	299.25	1155	1470	–	–	0.23	2.9	4.4	2.8
24064CC/W33	24064CCK30/W33	100	3117.45	5355	420	840	1260	–	–	0.31	2.2	3.3	2.2
23164CC/W33	23164CCK/W33	165	4119.15	6300	462	892.5	1155	–	–	0.31	2.2	3.3	2.2
23164-2CS5/VT143	23164-2CS5K/VT143	165	4125.45	6405	462	-	273	–	–	0.3	2.3	3.4	2.2
24164CC/W33	24164CCK30/W33	210	4614.75	7455	535.5	525	735	–	–	0.4	1.7	2.5	1.6
22264CC/W33	22264CCK/W33	175	3893.4	5145	393.75	997.5	1365	–	–	0.26	2.6	3.9	2.5
23264CC/W33	23264CCK/W33	240	4837.35	7035	498.75	735	997.5	–	–	0.35	1.9	2.9	1.8
23968CC/W33	23968CCK/W33	45.5	1564.5	2940	226.8	1365	1470	–	–	0.17	4	5.9	4
23068CC/W33	23068CCK/W33	105	2952.6	4777.5	351.75	1050	1365	–	–	0.24	2.8	4.2	2.8
24068CC/W33	24068CCK30/W33	140	3802.05	6510	498.75	787.5	1155	–	–	0.33	2	3	2
23168CC/W33	23168	210	4667.25	7140	504	840	1050	–	–	0.31	2.2	3.3	2.2
23168-2CS5/VT143	23168-2CS5K/VT143	210	4674.6	7140	514.5	-	252	–	–	0.3	2.3	3.4	2.2
24168ECCJ/W33	24168ECCK30J/W33	280	5761.35	9082.5	661.5	451.5	661.5	–	–	0.4	1.7	2.5	1.6
23268CA/W33	23268CAK/W33	295	5630.1	8190	577.5	588	840	–	–	0.35	1.9	2.9	1.8
23972CC/W33	23972CCK/W33	46	1528.8	2887.5	231	1260	1365	–	–	0.15	4.5	6.7	4.5
23072CC/W33	23072CCK/W33	110	2992.5	5040	362.25	997.5	1260	–	–	0.23	2.9	4.4	2.8
24072CC/W33	24072CCK30/W33	145	3890.25	6877.5	514.5	735	1050	–	–	0.31	2.2	3.3	2.2
23172CC/W33	23172CCK/W33	220	4740.75	7297.5	514.5	787.5	1050	–	–	0.3	2.3	3.4	2.2
23172-2CS5/VT143	23172-2CS5K/VT143	214	4747.05	7297.5	514.5	-	231	–	–	0.28	2.4	3.6	2.5
24172ECCJ/W33	24172ECCK30J/W33	280	6023.85	9765	703.5	420	630	–	–	0.4	1.7	2.5	1.6
22272CA/W33	22272CAK/W33	255	4651.5	6510	462	661.5	892.5	–	–	0.26	2.6	3.9	2.5
23272CA/W33	23272CAK/W33	335	5946.15	8715	598.5	556.5	787.5	–	–	0.35	1.9	2.9	1.8

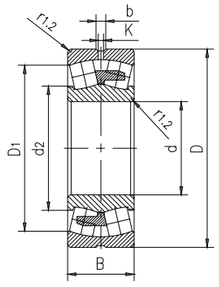
Spherical roller bearings



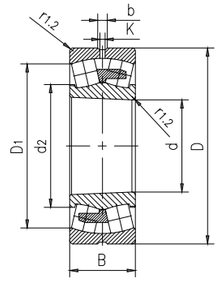
Cylindrical bore (CC)



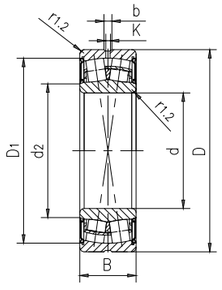
Tapered bore(CC)



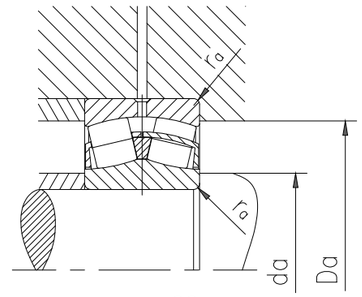
Cylindrical bore (CA)



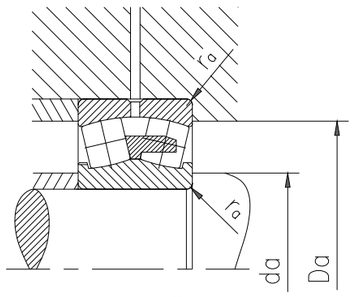
Tapered bore(CA)



Sealed (CC / 2CS5)



CC

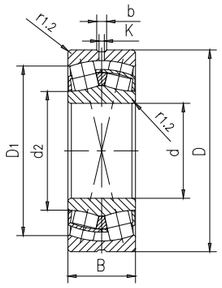


CA

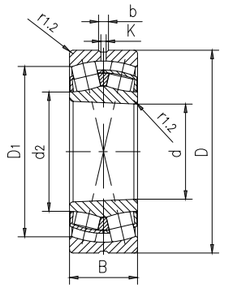
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
23976CC/W33	23976CCK/W33	380	520	106	419	481	13.9	7.5	4	395	–	505	3
23076CC/W33	23076CCK/W33	380	560	135	426	509	22.3	12	5	398	–	542	4
24076CC/W33	24076CCK30/W33	380	560	180	419	497	16.7	9	5	398	–	542	4
23176-2CS5/VT143	23176-2CS5K/VT143	380	620	194	438	573	22.3	12	5	400	438	600	4
23176CA/W33	23176CAK/W33	380	620	194	454	541	22.3	12	5	400	–	600	4
24176ECA/W33	24176ECAK30/W33	380	620	243	444	532	16.7	9	5	400	–	600	4
23276CA/W33	23276CAK/W33	380	680	240	473	581	22.3	12	6	406	–	654	5
23980CC/W33	23980CCK/W33	400	540	106	439	500	13.9	7.5	4	415	–	525	3
23080CC/W33	23080CCK/W33	400	600	148	450	543	22.3	12	5	418	–	582	4
23080-2CS5/VT143	23080-2CS5K/VT143	400	600	148	443	557	22.3	12	5	418	443	582	4
24080ECCJ/W33	24080ECCK30J/W33	400	600	200	442	527	22.3	12	5	418	–	582	4
23180-2CS5/VT143	23180-2CS5K/VT143	400	650	200	458	587	22.3	12	6	426	458	624	5
23180CA/W33	23180CAK/W33	400	650	200	475	566	22.3	12	6	426	–	624	5
24180ECA/W33	24180ECAK30/W33	400	650	250	467	559	22.3	12	6	426	–	624	5
23280CA/W33	23280CAK/W33	400	720	256	500	615	22.3	12	6	426	–	694	5
22380CA/W33	22380CAK/W33	400	820	243	534	697	22.3	12	7.5	432	–	788	6
23984CC/W33	23984CCK/W33	420	560	106	459	520	16.7	9	4	435	–	545	3
23084CA/W33	23084CAK/W33	420	620	150	487	563	22.3	12	5	438	–	602	4
24084ECA/W33	24084ECAK30/W33	420	620	200	477	547	22.3	12	5	438	–	602	4
23184-2CS5K/VT143		420	700	224	490	634	22.3	12	6	446	490	674	5
23184CJ/W33	23184CKJ/W33	420	700	224	483	607	22.3	12	6	446	–	674	5
24184ECA/W33	24184ECAK30/W33	420	700	280	494	597	22.3	12	6	446	–	674	5
23284CA/W33	23284CAK/W33	420	760	272	526	649	22.3	12	7.5	452	–	728	6
23284-2CS5/VT143	23284-2CS5K/VT143	420	760	272	500	676	22.3	12	7.5	452	500	728	6
23988CC/W33	23988CCK/W33	440	600	118	484	553	16.7	9	4	455	–	585	3
23088CA/W33	23088CAK/W33	440	650	157	511	590	22.3	12	6	463	–	627	5
23088-2CS5/VT143	–	440	650	157	505	614	22.3	12	6	463	505	627	5
24088ECA/W33	24088ECAK30/W33	440	650	212	499	572	22.3	12	6	463	–	627	5
23188CA/W33	23188CAK/W33	440	720	226	529	632	22.3	12	6	466	–	694	5
23188-2CS5/VT143	23188-2CS5K/VT143	440	720	226	513	664	22.3	12	6	466	513	694	5
24188ECA/W33	24188ECAK30/W33	440	720	280	516	618	22.3	12	6	466	–	694	5
23288CA/W33	23288CAK/W33	440	790	280	549	676	22.3	12	7.5	472	–	758	6
24892CAMA/W20	24892CAK30MA/W20	460	580	118	505	541	–	7.5	3	473	–	567	2.5
23992CA/W33	23992CAK/W33	460	620	118	516	574	16.7	9	4	475	–	605	3
23092CA/W33	23092CAK/W33	460	680	163	533	617	22.3	12	6	483	–	657	5
24092ECA/W33	24092ECAK30/W33	460	680	218	524	601	22.3	12	6	483	–	657	5

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
23976CC/W33	23976CCK/W33	69	2111.55	3990	299.25	1155	1260	–	–	0.17	4	5.9	4
23076CC/W33	23076CCK/W33	115	3133.2	5250	378	945	1260	–	–	0.22	3	4.6	2.8
24076CC/W33	24076CCK30/W33	150	3975.3	7140	498.75	703.5	997.5	–	–	0.3	2.3	3.4	2.2
23176-2CS5/VT143	23176-2CS5K/VT143	232	4789.05	7455	525	-	168	–	–	0.3	2.3	3.4	2.2
23176CA/W33	23176CAK/W33	230	4789.05	7455	525	588	1050	–	–	0.3	2.3	3.4	2.2
24176ECA/W33	24176ECAK30/W33	300	6232.8	10290	745.5	378	556.5	–	–	0.37	1.8	2.7	1.8
23276CA/W33	23276CAK/W33	375	6432.3	9607.5	651	525	787.5	–	–	0.35	1.9	2.9	1.8
23980CC/W33	23980CCK/W33	71	2139.9	4095	304.5	1155	1260	–	–	0.16	4.2	6.3	4
23080CC/W33	23080CCK/W33	150	3686.55	6142.5	435.75	892.5	1155	–	–	0.23	2.9	4.4	2.8
23080-2CS5/VT143	23080-2CS5K/VT143	144	3690.75	6142.5	435.75	-	252	–	–	0.21	3.2	4.8	3.2
24080ECCJ/W33	24080ECCK30J/W33	205	4732.35	8400	588	661.5	945	–	–	0.3	2.3	3.4	2.2
23180-2CS5/VT143	23180-2CS5K/VT143	255	5107.2	8032.5	556.5	-	157.5	–	–	0.28	2.4	3.6	2.5
23180CA/W33	23180CAK/W33	265	5107.2	8032.5	556.5	556.5	997.5	–	–	0.28	2.4	3.6	2.5
24180ECA/W33	24180ECAK30/W33	340	6647.55	11130	771.75	357	525	–	–	0.37	1.8	2.7	1.8
23280CA/W33	23280CAK/W33	450	7225.05	10920	714	504	703.5	–	–	0.35	1.9	2.9	1.8
22380CA/W33	22380CAK/W33	650	8223.6	10920	703.5	451.5	787.5	–	–	0.3	2.3	3.4	2.2
23984CC/W33	23984CCK/W33	74.45	2187.15	4357.5	315	1050	1155	–	–	0.16	4.2	6.3	4
23084CA/W33	23084CAK/W33	155	3718.05	6300	435.75	630	1155	–	–	0.22	3	4.6	2.8
24084ECA/W33	24084ECAK30/W33	210	4840.5	8715	614.25	556.5	945	–	–	0.3	2.3	3.4	2.2
23184-2CS5K/VT143		350	6214.95	9765	651	-	199.5	–	–	0.3	2.3	3.4	2.2
23184CJ/W33	23184CKJ/W33	350	6214.95	9765	651	504	945	–	–	0.3	2.3	3.4	2.2
24184ECA/W33	24184ECAK30/W33	445	7955.85	13125	892.5	336	504	–	–	0.4	1.7	2.5	1.6
23284CA/W33	23284CAK/W33	535	8060.85	12180	803.25	472.5	661.5	–	–	0.35	1.9	2.9	1.8
23284-2CS5/VT143	23284-2CS5K/VT143	535	8067.15	12180	803.25	-	134.4	–	–	0.35	1.9	2.9	1.8
23988CC/W33	23988CCK/W33	99.5	2631.3	5145	362.25	997.5	1050	–	–	0.16	4.2	6.3	4
23088CA/W33	23088CAK/W33	180	4022.55	6877.5	472.5	588	1050	–	–	0.22	3	4.6	2.8
23088-2CS5/VT143	–	178	4025.7	6877.5	472.5	-	199.5	–	–	0.21	3.2	4.8	3.2
24088ECA/W33	24088ECAK30/W33	245	5236.35	9607.5	661.5	525	892.5	–	–	0.3	2.3	3.4	2.2
23188CA/W33	23188CAK/W33	360	6525.75	10500	703.5	472.5	892.5	–	–	0.3	2.3	3.4	2.2
23188-2CS5/VT143	23188-2CS5K/VT143	360	6531	10500	703.5	-	189	–	–	0.28	2.4	3.6	2.5
24188ECA/W33	24188ECAK30/W33	460	8165.85	13860	945	315	472.5	–	–	0.37	1.8	2.7	1.8
23288CA/W33	23288CAK/W33	590	8557.5	13125	840	451.5	630	–	–	0.35	1.9	2.9	1.8
24892CAMA/W20	24892CAK30MA/W20	75.5	2186.1	5145	362.25	661.5	1155	–	–	0.17	4	5.9	4
23992CA/W33	23992CAK/W33	105	2685.9	5250	372.75	630	1050	–	–	0.16	4.2	6.3	4
23092CA/W33	23092CAK/W33	205	4268.25	7297.5	488.25	588	997.5	–	–	0.22	3	4.6	2.8
24092ECA/W33	24092ECAK30/W33	275	5671.05	10500	703.5	504	840	–	–	0.28	2.4	3.6	2.5

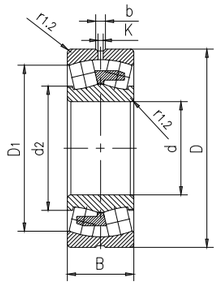
Spherical roller bearings



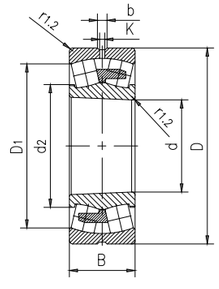
Cylindrical bore (CC)



Tapered bore(CC)

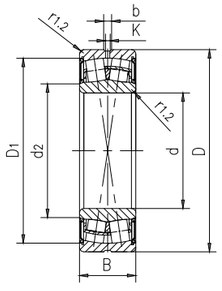


Cylindrical bore (CA)

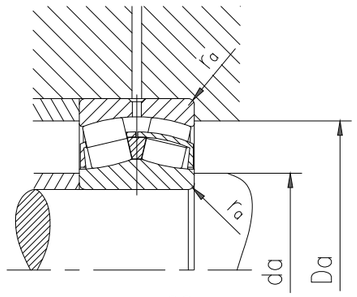


Tapered bore(CA)

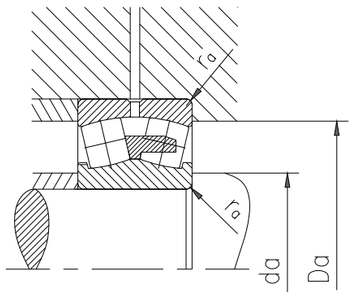
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
23192-2CS5/VT143	23192-2CS5K/VT143	460	760	240	536	704	22.3	12	7.5	492	536	728	6
24192ECA/W33	24192ECAK30/W33	460	760	300	543	649	22.3	12	7.5	492	–	728	6
23292CA/W33	23292CAK/W33	460	830	296	574	706	22.3	12	7.5	492	–	798	6
23996CA/W33	23996CAK/W33	480	650	128	537	602	16.7	9	5	498	–	632	4
23096CA/W33	23096CAK/W33	480	700	165	549	633	22.3	12	6	503	–	677	5
24096ECA/W33	24096ECAK30/W33	480	700	218	542	619	22.3	12	6	503	–	677	5
23196CA/W33	23196CAK/W33	480	790	248	579	692	22.3	12	7.5	512	–	758	6
23196-2CS5/VT143	23196-2CS5K/VT143	480	790	248	560	723	22.3	12	7.5	512	560	758	6
24196ECA/W33	24196ECAK30/W33	480	790	308	564	678	22.3	12	7.5	512	–	758	6
23296CA/W33	23296CAK/W33	480	870	310	602	741	22.3	12	7.5	512	–	838	6
239/500CA/W33	239/500CAK/W33	500	670	128	561	622	22.3	12	5	518	–	652	4
230/500CA/W33	230/500CAK/W33	500	720	167	573	658	22.3	12	6	523	–	697	5
240/500ECA/W33	240/500ECAK30/W33	500	720	218	566	644	22.3	12	6	523	–	697	5
231/500CA/W33	231/500CAK/W33	500	830	264	605	726	22.3	12	7.5	532	–	798	6
241/500ECA/W33	241/500ECAK30/W33	500	830	325	588	713	22.3	12	7.5	532	–	798	6
232/500CA/W33	232/500CAK/W33	500	920	336	633	779	22.3	12	7.5	532	–	888	6
CAMA/W20248/530	CAK30MA/W20	530	650	118	573	612	–	7.5	3	543	–	637	2.5
239/530CA/W33	239/530CAK/W33	530	710	136	594	661	22.3	12	5	548	–	692	4
230/530CA/W33	230/530CAK/W33	530	780	185	613	710	22.3	12	6	553	–	757	5
240/530ECA/W33	240/530ECAK30/W33	530	780	250	601	687	22.3	12	6	553	–	757	5
231/530CA/W33	231/530CAK/W33	530	870	272	638	763	22.3	12	7.5	562	–	838	6
241/530ECA/W33	241/530ECAK30/W33	530	870	335	623	748	22.3	12	7.5	562	–	838	6
232/530CA/W33	232/530CAK/W33	530	980	355	670	836	22.3	12	9.5	570	–	940	8
239/560CA/W33	239/560CAK/W33	560	750	140	627	697	22.3	12	5	578	–	732	4
230/560CA/W33	230/560CAK/W33	560	820	195	646	746	22.3	12	6	583	–	797	5
240/560BC	–	560	820	258	640	739	53.2	15	6	583	–	797	5
240/560ECA/W33	240/560ECAK30/W33	560	820	258	637	728	22.3	12	6	583	–	797	5
231/560CA/W33	231/560CAK/W33	560	920	280	675	809	22.3	12	7.5	592	–	888	6
241/560ECJ/W33	241/560ECK30J/W33	560	920	355	634	796	22.3	12	7.5	592	–	888	6
232/560CA/W33	232/560CAK/W33	560	1030	365	706	878	22.3	12	9.5	600	–	990	8
239/600CA/W33	239/600CAK/W33	600	800	150	671	744	22.3	12	5	618	–	782	4
230/600CA/W33	230/600CAK/W33	600	870	200	685	789	22.3	12	6	623	–	847	5
240/600BC	–	600	870	272	682	784	46.1	15	6	623	–	847	5
240/600ECA/W33	240/600ECAK30/W33	600	870	272	675	774	22.3	12	6	623	–	847	5
231/600CA/W33	231/600CAK/W33	600	980	300	722	863	22.3	12	7.5	632	–	948	6
241/600ECA/W33	241/600ECAK30/W33	600	980	375	702	845	22.3	12	7.5	632	–	948	6
232/600CA/W33	232/600CAK/W33	600	1090	388	754	929	22.3	12	9.5	640	–	1050	8



Sealed (CC / 2CS5)



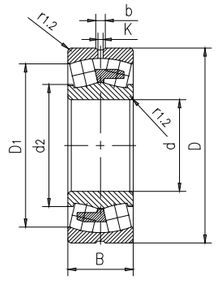
CC



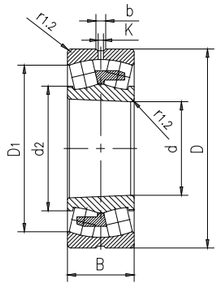
CA

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed	Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	C	C_0	P_u	r/min		m/s^2		-			
23192-2CS5/VT143	23192-2CS5K/VT143	427	7103.25	11340	714	-	134.4	–	–	0.3	2.3	3.4	2.2
24192ECA/W33	24192ECAK30/W33	560	9038.4	15330	1050	294	451.5	–	–	0.37	1.8	2.7	1.8
23292CA/W33	23292CAK/W33	695	9405.9	14385	924	420	588	–	–	0.35	1.9	2.9	1.8
23996CA/W33	23996CAK/W33	125	3139.5	5985	425.25	588	1050	–	–	0.18	3.8	5.6	3.6
23096CA/W33	23096CAK/W33	215	4195.8	7140	472.5	556.5	997.5	–	–	0.21	3.2	4.8	3.2
24096ECA/W33	24096ECAK30/W33	285	5800.2	10920	729.75	472.5	787.5	–	–	0.28	2.4	3.6	2.5
23196CA/W33	23196CAK/W33	485	7730.1	12600	819	420	787.5	–	–	0.3	2.3	3.4	2.2
23196-2CS5/VT143	23196-2CS5K/VT143	485	7735.35	12600	819	-	178.5	–	–	0.3	2.3	3.4	2.2
24196ECA/W33	24196ECAK30/W33	605	9657.9	16380	1092	273	420	–	–	0.37	1.8	2.7	1.8
23296CA/W33	23296CAK/W33	800	10295.25	15750	997.5	399	556.5	–	–	0.35	1.9	2.9	1.8
239/500CA/W33	239/500CAK/W33	130	3115.35	6300	435.75	556.5	997.5	–	–	0.17	4	5.9	4
230/500CA/W33	230/500CAK/W33	225	4575.9	8190	535.5	525	945	–	–	0.21	3.2	4.8	3.2
240/500ECA/W33	240/500ECAK30/W33	295	6065.85	11550	771.75	451.5	735	–	–	0.26	2.6	3.9	2.5
231/500CA/W33	231/500CAK/W33	580	878.85	13545	871.5	399	735	–	–	0.3	2.3	3.4	2.2
241/500ECA/W33	241/500ECAK30/W33	700	10629.15	17850	1176	273	399	–	–	0.37	1.8	2.7	1.8
232/500CA/W33	232/500CAK/W33	985	11742.15	18165	1113	378	525	–	–	0.35	1.9	2.9	1.8
CAMA/W20248/530	CAK30MA/W20	248/530	5565	399	556.5	997.5	90.3	–	–	0.15	4.5	6.7	4.5
239/530CA/W33	239/530CAK/W33	155	3473.4	7035	488.25	525	945	–	–	0.17	4	5.9	4
230/530CA/W33	230/530CAK/W33	310	5530.35	9765	640.5	472.5	840	–	–	0.22	3	4.6	2.8
240/530ECA/W33	240/530ECAK30/W33	410	7321.65	13860	871.5	420	703.5	–	–	0.28	2.4	3.6	2.5
231/530CA/W33	231/530CAK/W33	645	8952.3	14700	924	378	703.5	–	–	0.3	2.3	3.4	2.2
241/530ECA/W33	241/530ECAK30/W33	830	11454.45	19950	1281	252	378	–	–	0.37	1.8	2.7	1.8
232/530CA/W33	232/530CAK/W33	1200	13931.4	21420	1281	336	504	–	–	0.35	1.9	2.9	1.8
239/560CA/W33	239/560CAK/W33	175	3749.55	7560	525	472.5	892.5	–	–	0.16	4.2	6.3	4
230/560CA/W33	230/560CAK/W33	355	6067.95	10710	703.5	451.5	787.5	–	–	0.22	3	4.6	2.8
240/560BC	–	445	7906.5	14700	1029	21	52.5	–	–	0.3	2.3	3.4	2.2
240/560ECA/W33	240/560ECAK30/W33	465	8002.05	15330	1029	399	661.5	–	–	0.28	2.4	3.6	2.5
231/560CA/W33	231/560CAK/W33	740	10075.8	16800	1029	357	661.5	–	–	0.3	2.3	3.4	2.2
241/560ECJ/W33	241/560ECK30J/W33	985	12984.3	22680	1407	231	336	–	–	0.35	1.9	2.9	1.8
232/560CA/W33	232/560CAK/W33	1350	14637	23100	1386	294	451.5	–	–	0.35	1.9	2.9	1.8
239/600CA/W33	239/600CAK/W33	220	4223.1	8715	598.5	451.5	787.5	–	–	0.17	4	5.9	4
230/600CA/W33	230/600CAK/W33	405	6564.6	11970	771.75	420	735	–	–	0.22	3	4.6	2.8
240/600BC	–	519	8927.1	17115	1155	21	47.25	–	–	0.3	2.3	3.4	2.2
240/600ECA/W33	240/600ECAK30/W33	520	9009	17850	1134	357	588	–	–	0.3	2.3	3.4	2.2
231/600CA/W33	231/600CAK/W33	895	11274.9	18900	1155	336	588	–	–	0.3	2.3	3.4	2.2
241/600ECA/W33	241/600ECAK30/W33	1200	14198.1	24780	1533	210	315	–	–	0.37	1.8	2.7	1.8
232/600CA/W33	232/600CAK/W33	1600	16434.6	26775	1533	273	420	–	–	0.35	1.9	2.9	1.8

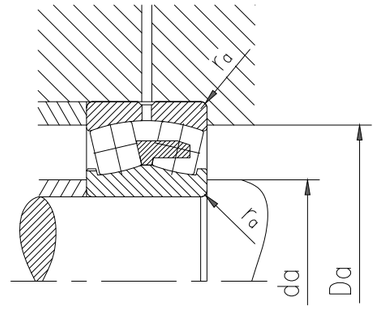
Spherical roller bearings



Cylindrical bore (CA)



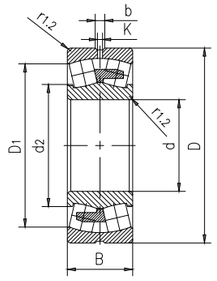
Tapered bore(CA)



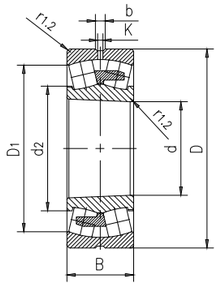
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
239/630CA/W33	239/630CAK/W33	630	850	165	708	787	22.3	12	6	653	–	827	5
230/630CA/W33	230/630CAK/W33	630	920	212	727	839	22.3	12	7.5	658	–	892	6
240/630ECJ/W33	240/630ECK30J/W33	630	920	290	697	823	22.3	12	7.5	658	–	892	6
240/630BC	–	630	920	290	718	828	56.5	15	7.5	658	–	892	6
231/630CA/W33	231/630CAK/W33	630	1030	315	755	918	22.3	12	7.5	662	–	998	6
241/630ECA/W33	241/630ECAK30/W33	630	1030	400	738	885	22.3	12	7.5	662	–	998	6
238/670CAMA/W20	–	670	820	112	724	778	–	9	4	685	–	805	3
248/670CAMA/W20	–	670	820	150	726	772	–	9	4	685	–	805	3
239/670CA/W	33239/670CAK/W33	670	900	170	752	835	22.3	12	6	693	–	877	5
230/670CA/W	33230/670CAK/W33	670	980	230	772	892	22.3	12	7.5	698	–	952	6
240/670ECA/W33	240/670ECAK30/W33	670	980	308	758	866	22.3	12	7.5	698	–	952	6
231/670CA/W33	231/670CAK/W33	670	1090	336	804	959	22.3	12	7.5	702	–	1058	6
241/670ECA/W33	241/670ECAK30/W33	670	1090	412	782	942	22.3	12	7.5	702	–	1058	6
232/670CA/W33	232/670CAK/W33	670	1220	438	832	1	28	22.3	12	12	718	–	1172
238/710CAMA/W20	–	710	870	118	766	826	–	12	4	725	–	855	3
239/710CA/W33	239/710CAK/W33	710	950	180	794	882	22.3	12	6	733	–	927	5
249/710CA/W33	249/710CAK30/W33	710	950	243	792	868	22.3	12	6	733	–	927	5
230/710CA/W33	230/710CAK/W33	710	1030	236	816	941	22.3	12	7.5	738	–	1002	6
240/710ECA/W33	240/710ECAK30/W33	710	1030	315	809	918	22.3	12	7.5	738	–	1002	6
240/710BC	–	710	1030	315	810	931	61.8	15	7.5	738	–	1002	6
231/710CA/W33	231/710CAK/W33	710	1150	345	851	1017	22.3	12	9.5	750	–	1100	8
241/710ECA/W33	241/710ECAK30/W33	710	1150	438	826	989	22.3	12	9.5	750	–	110	8
232/710CA/W33	232/710CAK/W33	710	1280	450	875	1097	22.3	12	12	758	–	1232	10
238/750CAMA/W20	–	750	920	128	812	873	–	12	5	768	–	902	4
239/750CA/W33	239/750CAK/W33	750	1000	185	838	930	22.3	12	6	773	–	977	5
249/750CA/W33	249/750CAK30/W33	750	1000	250	830	916	22.3	12	6	773	–	977	5
230/750CA/W33	230/750CAK/W33	750	1090	250	859	998	22.3	12	7.5	778	–	1062	6
240/750ECA/W33	240/750ECAK30/W33	750	1090	335	855	970	22.3	12	7.5	778	–	1062	6
240/750BC	–	750	1090	335	856	984	72.8	15	7.5	778	–	1062	6
231/750CA/W33	231/750CAK/W33	750	1220	365	900	1080	22.3	12	9.5	790	–	1180	8
241/750ECA/W33	241/750ECAK30/W33	750	1220	475	875	1050	22.3	12	9.5	790	–	1180	8
248/800CAMA/W20	248/800CAK30MA/W20	800	980	180	865	921	–	12	5	818	–	962	4
239/800CA/W33	239/800CAK/W33	800	1060	195	891	986	22.3	12	6	823	–	1037	5
249/800CA/W33	249/800CAK30/W33	800	1060	258	887	973	22.3	12	6	823	–	1037	5
230/800CA/W33	230/800CAK/W33	800	1150	258	917	1053	22.3	12	7.5	828	–	1122	6
240/800ECA/W33	240/800ECAK30/W33	800	1150	345	910	1028	22.3	12	7.5	828	–	1122	6

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed	Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	C	C_0	P_u	r/min		m/s^2		-			
239/630CA/W33	239/630CAK/W33	280	4981.2	10290	661.5	420	735	–	–	0.17	4	5.9	4
230/630CA/W33	230/630CAK/W33	485	7242.9	13125	819	399	703.5	–	–	0.21	3.2	4.8	3.2
240/630ECJ/W33	240/630ECK30J/W33	645	9607.5	18900	1176	336	556.5	–	–	0.28	2.4	3.6	2.5
240/630BC	–	623	9772.35	18480	1239	21	47.25	–	–	0.3	2.3	3.4	2.2
231/630CA/W33	231/630CAK/W33	1050	13230	21840	1281	273	556.5	–	–	0.3	2.3	3.4	2.2
241/630ECA/W33	241/630ECAK30/W33	1400	15751.05	28350	1711.5	199.5	294	–	–	0.37	1.8	2.7	1.8
238/670CAMA/W20	–	130	2775.15	6720	451.5	420	735	–	–	0.11	6.1	9.1	6.3
248/670CAMA/W20	–	172	3777.9	9975	687.75	420	735	–	–	0.16	4.2	6.3	4
239/670CA/W	33239/670CAK/W33	315	5403.3	11340	714	378	703.5	–	–	0.17	4	5.9	4
230/670CA/W	33230/670CAK/W33	600	8314.95	15330	924	357	630	–	–	0.21	3.2	4.8	3.2
240/670ECA/W33	240/670ECAK30/W33	790	10956.75	21420	1354.5	315	525	–	–	0.28	2.4	3.6	2.5
231/670CA/W33	231/670CAK/W33	1250	13756.05	23520	1386	252	525	–	–	0.3	2.3	3.4	2.2
241/670ECA/W33	241/670ECAK30/W33	1600	17200.05	30450	1848	189	273	–	–	0.37	1.8	2.7	1.8
232/670CA/W33	232/670CAK/W33	2270	19582.5	32025	1785	231	378	–	–	0.35	1.9	2.9	1.8
238/710CAMA/W20	–	153	3163.65	7875	525	378	703.5	–	–	0.11	6.1	9.1	6.3
239/710CA/W33	239/710CAK/W33	365	5987.1	12600	787.5	357	630	–	–	0.17	4	5.9	4
249/710CA/W33	249/710CAK30/W33	495	7203	16380	976.5	315	525	–	–	0.22	3	4.6	2.8
230/710CA/W33	230/710CAK/W33	670	9102.45	17115	1013.25	315	588	–	–	0.21	3.2	4.8	3.2
240/710ECA/W33	240/710ECAK30/W33	895	11722.2	23940	1501.5	273	472.5	–	–	0.27	2.5	3.7	2.5
240/710BC	–	843	11724.3	23100	1501.5	21	42	–	–	0.3	2.3	3.4	2.2
231/710CA/W33	231/710CAK/W33	1450	15468.6	27300	1606.5	252	472.5	–	–	0.28	2.4	3.6	2.5
241/710ECA/W33	241/710ECAK30/W33	1900	18831.75	34125	1995	168	252	–	–	0.37	1.8	2.7	1.8
232/710CA/W33	232/710CAK/W33	2610	22268.4	36225	2100	210	336	–	–	0.35	1.9	2.9	1.8
238/750CAMA/W20	–	185	3575.25	8925	577.5	357	630	–	–	0.11	6.1	9.1	6.3
239/750CA/W33	239/750CAK/W33	420	6444.9	13860	840	336	588	–	–	0.16	4.2	6.3	4
249/750CA/W33	249/750CAK30/W33	560	8083.95	18900	1155	294	504	–	–	0.22	3	4.6	2.8
230/750CA/W33	230/750CAK/W33	795	1114.05	19530	1155	294	556.5	–	–	0.21	3.2	4.8	3.2
240/750ECA/W33	240/750ECAK30/W33	1070	12846.75	26250	1533	252	451.5	–	–	0.28	2.4	3.6	2.5
240/750BC	–	1010	12924.45	25725	1606.5	21	42	–	–	0.3	2.3	3.4	2.2
231/750CA/W33	231/750CAK/W33	1700	17343.9	30450	1785	231	451.5	–	–	0.28	2.4	3.6	2.5
241/750ECA/W33	241/750ECAK30/W33	2100	21455.7	39375	2268	157.5	231	–	–	0.37	1.8	2.7	1.8
248/800CAMA/W20	248/800CAK30MA/W20	300	5019	13545	871.5	336	588	–	–	0.15	4.5	6.7	4.5
239/800CA/W33	239/800CAK/W33	470	6924.75	15015	908.25	294	556.5	–	–	0.16	4.2	6.3	4
249/800CA/W33	249/800CAK30/W33	640	8542.8	20265	1113	252	451.5	–	–	0.21	3.2	4.8	3.2
230/800CA/W33	230/800CAK/W33	895	10851.75	21000	1218	273	504	–	–	0.2	3.4	5	3.2
240/800ECA/W33	240/800ECAK30/W33	1200	14102.55	29925	1743	231	420	–	–	0.27	2.5	3.7	2.5

Spherical roller bearings

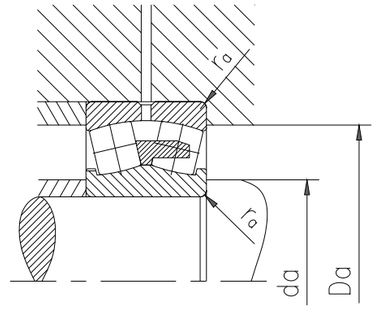


Cylindrical bore (CA)



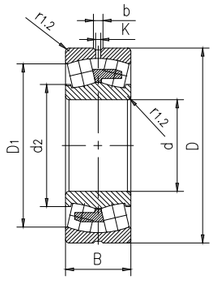
Tapered bore(CA)

Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
231/800CA/W33	231/800CAK/W33	800	1280	375	949	1141	22.3	12	9.5	840	–	1240	8
241/800ECA/W33	241/800ECAK30/W33	800	1280	475	930	1111	22.3	12	9.5	840	–	1240	8
232/800CAF/W33	232/800CAKF/W33	800	1420	488	995	1218	22.3	12	15	858	–	1362	12
238/850CAMA/W20	238/850CAKMA/W20	850	1030	136	912	981	–	12	5	868	–	1012	4
239/850CA/W33	239/850CAK/W33	850	1120	200	946	1046	22.3	12	6	873	–	197	5
249/850CA/W33	249/850CAK30/W33	850	1120	272	940	1029	22.3	12	6	873	–	197	5
230/850CA/W33	230/850CAK/W33	850	1220	272	972	1117	22.3	12	7.5	878	–	1192	6
240/850BC	–	850	1220	365	966	1105	67.9	15	7.5	878	–	1192	6
240/850ECA/W33	240/850ECAK30/W33	850	1220	365	957	1088	22.3	12	7.5	878	–	1192	6
241/850ECAF/W33	241/850ECAK30F/W33	850	1360	500	988	1182	22.3	12	12	898	–	1312	10
232/850CAF/W33	–	850	1500	515	1049	1284	22.3	12	15	908	–	1442	12
248/900CAMA/W20	248/900CAK30MA/W20	900	1060	190	969	1029	–	12	5	918	–	1072	4
239/900CA/W33	239/900CAK/W33	900	1180	206	996	1101	22.3	12	6	923	–	1157	5
230/900CA/W33	230/900CAK/W33	900	1280	280	1025	1176	22.3	12	7.5	928	–	1252	6
240/900ECA/W33	240/900ECAK30/W33	900	1280	375	1015	1149	22.3	12	7.5	928	–	1252	6
240/900BC		900	1280	375	1024	1164	69.1	15	7.5	928	–	1252	6
241/900ECAF/W33	241/900ECAK30F/W33	900	1420	515	1043	1235	22.3	12	12	948	–	1372	10
239/950CA/W33	239/950CAK/W33	950	1250	224	1056	1164	22.3	12	7.5	978	–	1222	6
249/950CA/W33	249/950CAK30/W33	950	1250	300	1051	1150	22.3	12	7.5	978	–	1222	6
230/950CA/W33	230/950CAK/W33	950	1360	300	1086	1246	22.3	12	7.5	978	–	1332	6
240/950CAF/W33	240/950CAK30F/W33	950	1360	412	1077	1214	22.3	12	7.5	978	–	1332	6
240/950BC	–	950	1360	412	1076	1230	85.9	15	7.5	978	–	1332	6
241/950ECAF/W33	241/950ECAK30F/W33	950	1500	545	1102	1305	22.3	12	12	998	–	1452	10
238/1000CAMA/W20	238/1000CAKMA/W20	1000	1220	165	1079	1161	–	12	6	1023	–	1197	5
249/1000CA/W33	249/1000CAK30/W33	1000	1320	315	1109	1212	22.3	12	7.5	1028	–	1292	6
240/1000CAF/W33	240/1000CAK30F/W33	1000	1420	412	1136	1278	22.3	12	7.5	1028	–	1392	6
231/1000CAF/W33	231/1000CAKF/W33	1000	1580	462	1185	1403	22.3	12	12	1048	–	1532	10
241/1000ECAF/W33	241/1000ECAK30F/W33	1000	1580	580	1159	1373	22.3	12	12	1048	–	1532	10
238/1060CAMA/W20	–	1060	1280	280	1137	1219	–	12	6	1083	–	1257	5
239/1060CAF/W33	239/1060CAKF/W33	1060	1400	250	1171	1305	22.3	12	7.5	1088	–	1372	6
249/1060CAF/W33	249/1060CAK30F/W33	1060	1400	335	1168	1286	22.3	12	7.5	1088	–	1372	6
240/1060CAF/W33	240/1060CAK30F/W33	1060	1500	438	1199	1349	22.3	12	9.5	1094	–	1466	8
249/1120CAF/W33	249/1120CAK30F/W33	1120	1460	335	1231	1350	22.3	12	7.5	1148	–	1432	6
240/1120CAF/W33	240/1120CAK30F/W33	1120	1580	462	1268	1423	22.3	12	9.5	1154	–	1546	8
240/1120BC	–	1120	1580	462	1259	1436	104	15	9.5	1154	–	1546	8
238/1180CAFA/W20	238/1180CAKFA/W20	1180	1420	180	1264	1355	–	12	6	1203	–	1397	5

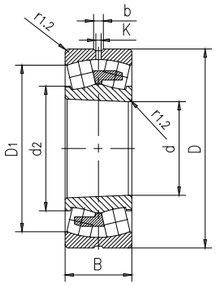


Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed						
			C	C_0	P_u			Spin	Linear	e	Y_1	Y_2	Y_0
-		kg	kN			r/min		m/s^2		-			
231/800CA/W33	231/800CAK/W33	1920	18934.65	33075	1890	210	420	–	–	0.28	2.4	3.6	2.5
241/800ECA/W33	241/800ECAK30/W33	1300	22666.35	42525	2436	147	210	–	–	0.35	1.9	2.9	1.8
232/800CAF/W33	232/800CAKF/W33	1280	26221.65	45150	2478	189	294	–	–	0.33	2	3	2
238/850CAMA/W20	238/850CAKMA/W20	240	4076.1	10500	661.5	273	556.5	–	–	0.11	6.1	9.1	6.3
239/850CA/W33	239/850CAK/W33	560	7425.6	16380	976.5	273	504	–	–	0.16	4.2	6.3	4
249/850CA/W33	249/850CAK30/W33	740	9859.5	23940	1438.5	231	420	–	–	0.22	3	4.6	2.8
230/850CA/W33	230/850CAK/W33	1050	11855.55	22680	1312.5	252	472.5	–	–	0.2	3.4	5	3.2
240/850BC	–	1360	15831.9	32550	1995	21	42	–	–	0.28	2.4	3.6	2.5
240/850ECA/W33	240/850ECAK30/W33	1410	15942.15	33075	1995	210	378	–	–	0.27	2.5	3.7	2.5
241/850ECAF/W33	241/850ECAK30F/W33	2770	25018.35	47250	2625	136.5	199.5	–	–	0.35	1.9	2.9	1.8
232/850CAF/W33	–	3940	29017.8	50400	2730	168	273	–	–	0.33	2	3	2
248/900CAMA/W20	248/900CAK30MA/W20	370	5699.4	16065	997.5	252	504	–	–	0.14	4.8	7.2	4.5
239/900CA/W33	239/900CAK/W33	605	8034.6	17850	1050	252	472.5	–	–	0.15	4.5	6.7	4.5
230/900CA/W33	230/900CAK/W33	1200	12602.1	24360	1386	231	420	–	–	0.2	3.4	5	3.2
240/900ECA/W33	240/900ECAK30/W33	1570	16994.25	36225	252	199.5	357	–	–	0.26	2.6	3.9	2.5
240/900BC		1520	17025.75	35700	2142	21	42	–	–	0.27	2.5	3.7	2.5
241/900ECAF/W33	241/900ECAK30F/W33	3350	26575.5	51450	2835	126	189	–	–	0.35	1.9	2.9	1.8
239/950CA/W33	239/950CAK/W33	755	9036.3	20580	1176	231	451.5	–	–	0.15	4.5	6.7	4.5
249/950CA/W33	249/950CAK30/W33	120	11236.05	27300	1575	189	357	–	–	0.21	3.2	4.8	3.2
230/950CA/W33	230/950CAK/W33	1450	15081.15	29925	1680	210	399	–	–	0.2	3.4	5	3.2
240/950CAF/W33	240/950CAK30F/W33	1990	18739.35	40950	2352	178.5	315	–	–	0.27	2.5	3.7	2.5
240/950BC	–	1880	19139.4	39900	2352	21	36.75	–	–	0.3	2.3	3.4	2.2
241/950ECAF/W33	241/950ECAK30F/W33	3540	29286.6	57750	3150	115.5	168	–	–	0.35	1.9	2.9	1.8
238/1000CAMA/W20	238/1000CAKMA/W20	410	5675.25	15015	892.5	231	420	–	–	0.12	5.6	8.4	5.6
249/1000CA/W33	249/1000CAK30/W33	1200	12535.95	30450	1533	178.5	336	–	–	0.21	3.2	4.8	3.2
240/1000CAF/W33	240/1000CAK30F/W33	2140	19521.6	42525	2352	168	294	–	–	0.26	2.6	3.9	2.5
231/1000CAF/W33	231/1000CAKF/W33	3500	26932.5	50400	2677.5	147	294	–	–	0.28	2.4	3.6	2.5
241/1000ECAF/W33	241/1000ECAK30F/W33	4300	32732.7	65100	3517.5	105	157.5	–	–	0.35	1.9	2.9	1.8
238/1060CAMA/W20	–	435	5832.75	15750	908.25	210	399	–	–	0.11	6.1	9.1	6.3
239/1060CAF/W33	239/1060CAKF/W33	1100	11899.65	27300	1501.5	189	378	–	–	0.16	4.2	6.3	4
249/1060CAF/W33	249/1060CAK30F/W33	1400	14021.7	34125	1890	168	294	–	–	0.21	3.2	4.8	3.2
240/1060CAF/W33	240/1060CAK30F/W33	2520	21760.2	47775	2572.5	157.5	273	–	–	0.26	2.6	3.9	2.5
249/1120CAF/W33	249/1120CAK30F/W33	1500	14403.9	36225	1921.5	147	273	–	–	0.2	3.4	5	3.2
240/1120CAF/W33	240/1120CAK30F/W33	2930	23482.2	52500	2835	136.5	252	–	–	0.26	2.6	3.9	2.5
240/1120BC	–	2770	24082.8	51450	2887.5	21	36.75	–	–	0.28	2.4	3.6	2.5
238/1180CAFA/W20	238/1180CAKFA/W20	575	7011.9	19530	1134	178.5	336	–	–	0.11	6.1	9.1	6.3

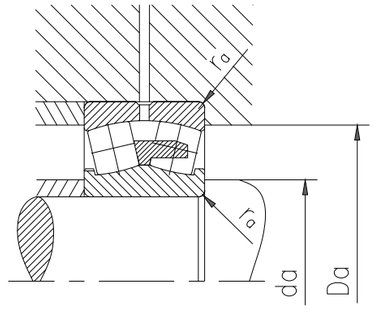
Spherical roller bearings



Cylindrical bore (CA)



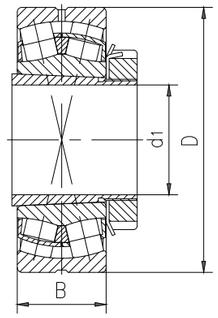
Tapered bore(CA)



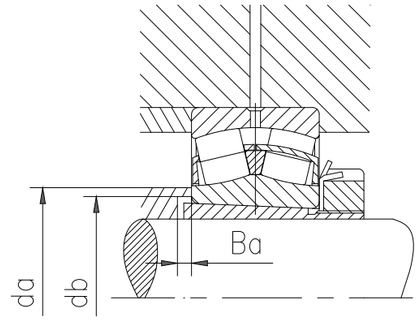
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions			
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	b	K	C	$r_{1,2}$ min.	d_a min.	d_a max.	r_a max.
-		mm			mm					mm			
249/1180CAF/W33	249/1180CAK30F/W33	1180	1540	355	1297	1422	22.3	12	7.5	1208	–	1512	6
240/1180CAF/W33	240/1180CAK30F/W33	1180	1660	475	1325	1507	22.3	12	9.5	1200	–	1626	8
230/1250CAF/W33	230/1250CAKF/W33	1250	1750	375	1415	1611	22.3	12	9.5	1284	–	1716	8
249/1320CAF/W33	249/1320CAK30F/W33	1320	1720	400	1449	1589	22.3	12	7.5	1348	–	1692	6
248/1500CAFA/W20	248/1500CAK30FA/W20	1500	1820	315	1612	1719	–	12	7.5	1528	–	1792	6
248/1800CAFA/W20	248/1800CAK30FA/W20	1800	2180	375	1932	2060	–	12	9.5	1834	–	2146	8

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		The allowable acceleration of oil lubrication		Calculate the coefficient			
Bearing with cylindrical bore	Taper Hole		Dynamic	Static		reference speed	Maximum speed	Spin	Linear	e	Y_1	Y_2	Y_0
			C	C_0	P_u								
-		kg	kN			r/min		m/s^2		-			
249/1180CAF/W33	249/1180CAK30F/W33	1800	16538.55	42525	2268	136.5	252	–	–	0.2	3.4	5	3.2
240/1180CAF/W33	240/1180CAK30F/W33	3320	26744.55	61425	3202.5	136.5	231	–	–	0.26	2.6	3.9	2.5
230/1250CAF/W33	230/1250CAKF/W33	2840	22318.8	47250	2436	136.5	252	–	–	0.19	3.6	5.3	3.6
249/1320CAF/W33	249/1320CAK30F/W33	2500	19649.7	51450	2625	115.5	210	–	–	0.21	3.2	4.8	3.2
248/1500CAFA/W20	248/1500CAK30FA/W20	1710	15418.2	47250	2520	115.5	231	–	–	0.15	4.5	6.7	4.5
248/1800CAFA/W20	248/1800CAK30FA/W20	2900	21287.7	66150	3202.5	78.75	147	–	–	0.15	4.5	6.7	4.5

Spherical roller bearings on an adapter sleeve

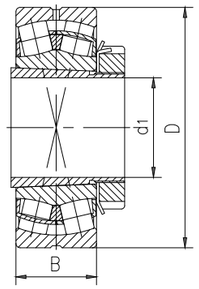


Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
22205EK	H305	20	52	18	31	28	5	0.33
22206EK	H306	25	62	20	37	33	5	0.39
22207EK	H307	30	72	23	44	39	5	0.59
22208EK	H308	35	80	23	49	44	5	0.68
BS2-2208-2RSK/VT143	H2308E	35	80	28	47	44	8	0.8
21308EK	H308	35	90	23	60	44	5	0.92
22308EK	H2308	35	90	33	49	45	6	1.25
22209EK	H309	40	85	23	54	50	7	0.81
BS2-2209-2RSK/VT143	H309E	40	85	28	52	48	0	0.9
21309EK	H309	40	100	25	65	50	5	1.2
22309EK	H2309	40	100	36	57	50	6	1.7
22210EK	H310	45	90	23	60	55	9	0.9
BS2-2210-2RSK/VT143	H310E	45	90	28	58	54	2	1
21310EK	H310	45	110	27	72	55	6	1.6
22310EK	H2310	45	110	40	63	56	5	2.25
22211EK	H311	50	100	25	65	60	10	1.1
BS2-2211-2RSK/VT143	H311E	50	100	31	63	59	2	1.3
21311EK	H311	50	120	29	72	60	6	1.95
22311EK	H2311	50	120	43	70	61	6	2.85
22212EK	H312	55	110	28	72	65	9	1.45
BS2-2212-2RSK/VT143	H312E	55	110	34	69	64	1	1.7
22312EK	H2312	55	130	46	77	66	6	3.5
22213EK	H313	60	120	31	80	70	8	1.95
BS2-2213-2RSK/VT143	H2313E	60	120	38	76	70	14	2.1
22214EK	H314	60	125	31	83	75	9	2.15
BS2-2214-2RSK/VT143	H314E	60	125	38	80	74	1	2.4
21313EK	H313	60	140	33	94	70	6	2.9
21313EK	H313	60	140	48	81	72	5	4.2
21314EK	H314	60	150	35	101	75	6	3.7
22314EK	H2314	60	150	51	90	76	6	5.35
22215EK	H315	65	130	31	87	80	12	2.45
BS2-2215-2RSK/VT143	H315E	65	130	38	84	80	3	2.8
21315EK	H315	65	160	37	101	80	6	4.5
22315EK	H2315	65	160	55	92	82	5	6.5
22216EK	H316	70	140	33	94	85	12	3
BS2-2216-2RSK/VT143	H316E	70	140	40	91	85	2.5	3.3

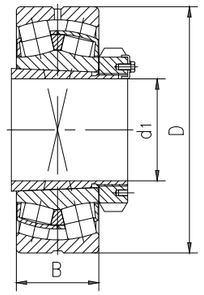


Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
21316EK	H316	70	170	39	106	85	6	5.3
22316EK	H2316	70	170	58	98	88	6	7.65
22217EK	H317	75	150	36	101	91	12	3.7
BS2-2217-2RSK/VT143	H317E	75	150	44	98	90	1.5	4.1
21317EK	H317	75	180	41	106	91	7	6.2
22317EK	H2317	75	180	60	108	94	7	8.85
22218EK	H318	80	160	40	106	96	10	4.55
BS2-2218-2RSK/VT143	H2318E/L73	80	160	48	102	97	7.5	5.1
23218CCK/W33	H2318	80	160	52.4	106	100	18	6
21318EK	H318	80	190	43	112	96	7	7.25
22318EK	H2318	80	190	64	113	100	7	10.5
22219EK	H319	85	170	43	112	102	9	5.45
21319EK	H319	85	200	45	118	102	7	8.25
22319EK	H2319	85	200	67	118	105	7	12
23120CCK/W33	H3120	90	165	52	115	107	6	6.15
22220EK	H320	90	180	46	118	108	8	6.4
BS2-2220-2RS5K/VT143	H2320E	90	180	55	114	108	22.5	7.4
23220CCK/W33	H2320	90	180	60.3	117	110	19	8.75
21320EK	H320	90	215	47	118	108	7	10.5
22320EK	H2320	90	215	73	130	110	7	15
23022CCK/W33	H322	100	170	45	125	118	14	5.75
23122-2CS5K/VT143	H3122E	100	180	56	122	65	9	7.7
23122CCK/W33	H3122	100	180	56	126	117	7	7.7
22222EK	H322	100	200	53	130	118	6	8.9
BS2-2222-2RS5K/VT143	H2322E	100	200	63	126	118	21.5	10
23222-2CS5K/VT143	H2322E	100	200	69.8	126	121	17	12.5
23222CCK/W33	H2322	100	200	69.8	130	121	17	12.5
22322EK	H2322	100	240	80	143	121	7	21
23024CCK/W33	H3024	110	180	46	135	127	7	5.95
23124CCK/W33	H3124	110	200	62	139	128	7	10
22224EK	H3124	110	215	58	141	128	11	11
BS2-2224-2RS5K/VT143	H2324EH	110	215	69	136	129	21.5	12.5
23224-2CS5K/VT143	H2324L	110	215	76	137	131	17	14.5
23224CCK/W33	H2324	110	215	76	141	131	17	14.5
22324-2CS5K/VT143	H2324	110	260	86	147	131	7	25.5
22324CCK/W33	H2324	110	260	86	152	131	7	25.5

Spherical roller bearings on an adapter sleeve

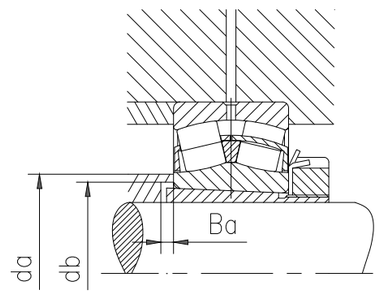


Bearing on an H... sleeve

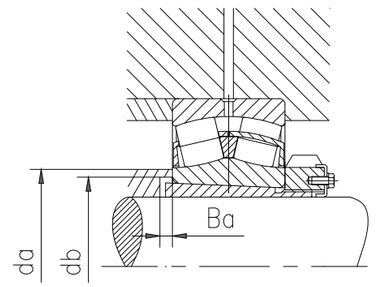


Bearing on an OH... H sleeve

Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
23026-2CS5K/VT143	H3026E	115	200	52	145	137	8	8.7
23026CCK/W33	H3026	115	200	52	148	137	8	8.6
23126CCK/W33	H3126	115	210	64	148	138	8	12
22226EK	H3126	115	230	64	152	138	8	14
BS2-2226-2CS5K/VT143	H2326L	115	230	75	147	139	23.5	14.5
23226-2CS5K/VT143	H2326L	115	230	80	147	142	21	18
23226CCK/W33	H2326	115	230	80	151	142	21	18.5
22326-2CS5K/VT143	H2326	115	280	93	159	142	8	33
22326CCK/W33	H2326	115	280	93	164	142	8	33
23028-2CS5K/VT143	H3028E	125	210	53	155	147	8	9.4
23028CCK/W33	H3028	125	210	53	158	147	8	9.4
23128CCK/W33	H3028	125	225	68	159	149	8	14.5
22228-2CS5K/VT143	H3128L	125	250	68	161	149	8	17.5
22228CCK/W33	H3128	125	250	68	166	149	8	18
23228-2CS5K/VT143	H2328	125	250	88	161	152	22	24
23228CCK/W33	H2328	125	250	88	165	152	22	24
22328-2CS5K/VT143	H2328	125	300	102	169	152	8	41
22328CCK/W33	H2328	125	300	102	175	152	8	41
23030-2CS5K/VT143	H3030E	135	225	56	165	158	8	11.5
23030	H3030E	135	225	56	169	158	8	11
23130-2CS5K/VT143	H3130E	135	250	80	168	160	8	20
23130CCK/W33	H3130E	135	250	80	172	160	8	21
22230-2CS5K/VT143	H3130	135	270	73	174	160	15	23
22230CCK/W33	H3130	135	270	73	178	160	15	23
23230-2CS5K/VT143	H2330L	135	270	96	171	163	20	30
23230CCK/W33	H2330	135	270	96	175	163	20	30
22330-2CS5K/VT143	H2330	135	320	108	181	163	8	49
22330CCK/W33	H2330	135	320	108	188	163	8	47.5
23032-2CS5K/VT143	H3032E	140	240	60	177	168	9	14.5
23032CCK/W33	H3032	140	240	60	180	168	9	14.5
23132-2CS5K/VT143	H3132E	140	270	86	180	170	8	27.5
23132CCK/W33	H3132	140	270	86	184	170	8	27.5
22232-2CS5K/VT143	H3132	140	290	80	185	170	14	29.5
22232CCK/W33	H3132	140	290	80	191	170	14	29.5
22232CCK/W34CCK/W33	H2332	140	290	104	188	174	18	39
22332-2CS5K/VT143	H2332	140	340	114	193	174	8	60



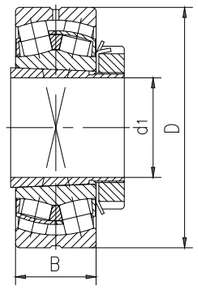
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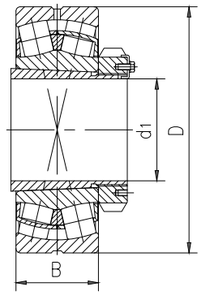
OH

Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
22332CCK/W33	H2332	140	340	114	200	174	8	60
23034-2CS5K/VT143	H3034E	150	260	67	188	179	9	18.5
23034CCK/W33	H3034	150	260	67	191	179	9	18.5
23134-2CS5K/VT143	H3134	150	280	88	190	180	8	29.5
23134CCK/W33	H3134	150	280	88	195	180	8	29.5
22234-2CS5K/VT143	H3134	150	310	86	198	180	10	36
22234CCK/W33	H3134	150	310	86	203	180	10	36
23234CCK/W33	H2334	150	310	110	200	185	18	46.5
22334CCK/W33	H2334	150	360	120	213	185	8	69.5
23936CCK/W33	H3936	160	250	52	199	188	9	13.5
23036-2CS5K/VT143	H3036E	160	280	74	199	189	9	23
23036CCK/W33	H3036	160	280	74	204	189	9	23
23136-2CS5K/VT143	H3136L	160	300	96	202	191	8	35
23136CCK/W33	H3136	160	300	96	207	191	8	37
22236-2CS5K/VT143	H3136	160	320	86	208	191	18	37.5
22236CCK/W33	H3136	160	320	86	213	191	18	38
22236CCK/W33	H2336	160	320	112	211	195	22	49.5
22236CCK/W33	H2336	160	380	126	224	195	8	80
23938CCK/W33	H3938	170	260	52	209	198	10	14.5
23038CCK/W33	H3038	170	290	75	216	199	10	25
23138-2CS5K/VT143	H3138	170	320	104	215	202	9	44.5
23138CCK/W33	H3138	170	320	104	220	202	9	44.5
22238-2CS5K/VT143	H3138	170	340	92	220	202	21	44.5
22238CCK/W33	H3138	170	340	92	225	202	21	46
23238CCK/W33	H2338	170	340	120	222	206	21	59
23238CCK/W33	H2338	170	400	132	236	206	9	93
23940CCK/W33	H3940	180	280	60	222	208	10	19
23040-2CS5K/VT143	H3040	180	310	82	223	210	10	30
23040CCK/W33	H3040	180	310	82	228	210	10	31.5
23140-2CS5K/VT143	H3140	180	340	112	227	212	9	53.5
23140CCK/W33	H3140	180	340	112	231	212	9	55.5
22240CCK/W33	H3140	180	360	98	238	212	24	66
23240-2CS5K/VT143	H2340L	180	360	128	229	216	19	69.5
23240CCK/W33	H2340	180	360	128	235	216	19	70
22340CCK/W33	H2340	180	420	138	249	216	9	107
23944CCK/W33	OH3944H	200	300	60	241	229	12	22.5

Spherical roller bearings on an adapter sleeve

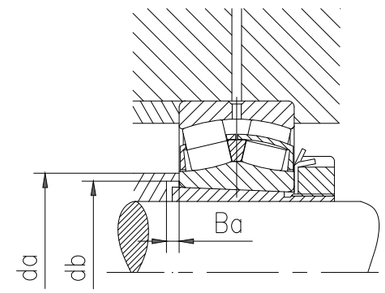


Bearing on an H... sleeve

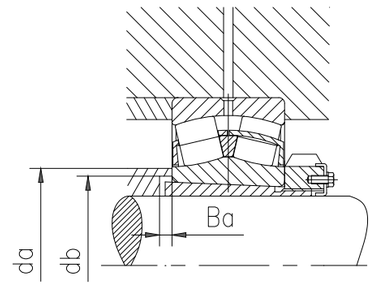


Bearing on an OH... H sleeve

Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
23044-2CS5K/VT143	OH3044H	200	340	90	245	231	10	38
23044CCK/W33	OH3044H	200	340	90	250	231	10	39.5
23144-2CS5K/VT143	OH3144HTL	200	370	120	249	233	10	66.5
23144CCK/W33	OH3144H	200	370	120	255	233	10	67.5
22244-2CS5K/VT143	OH3144H	200	400	108	257	233	21	71.5
22244CCK/W33	OH3144H	200	400	108	263	233	21	74
23244CCK/W33	OH2344H	200	400	144	259	236	11	96.5
22344-2CS5K/VT143	OH2344H	200	460	145	270	236	10	131
22344CCK/W33	OH2344H	200	460	145	279	236	10	135
23948CCK/W33	OH3948H	220	320	60	261	249	12	24.5
23048-2CS5K/VT143	OH3048HE	220	360	92	265	251	11	42.5
23048CCK/W33	OH3048H	220	360	92	271	251	11	44.5
22240-2CS5K/VT143	H3140	220	360	98	232	212	24	53
23148-2CS5K/VT143	OH3148HTL	220	400	128	270	254	11	79.5
23148CCK/W33	OH3148H	220	400	128	277	254	11	80.5
22248CCK/W33	OH3148H	220	440	120	290	254	19	99
23248CCK/W33	OH2348H	220	440	160	286	257	6	125
22348CCK/W33	OH2348H	220	500	155	303	257	11	170
23952CCK/W33	OH3952	240	360	75	287	270	12	35
23052-2CS5K/VT143	OH3052HE	240	400	104	289	272	11	58
23052CCK/W33	OH3052H	240	400	104	295	272	11	60.5
23152-2CS5K/VT143	OH3152HTL	240	440	144	293	276	11	105
23152CAK/W33CCK/W33	OH3152H	240	440	144	301	276	11	109
22252CCK/W33	OH3152H	240	480	130	312	276	25	130
23252CCK/W33	OH2352H	240	480	174	312	278	2	160
22352CAK/W33	OH2352H	240	540	165	328	278	11	215
23956CCK/W33	OH3956H	260	380	75	308	290	12	40
23056CAK/W33	OH3056H	260	420	106	315	292	12	67
23156-2CS5K/VT143	OH3156HTL	260	460	146	314	296	12	114
23156CCK/W33	OH3156H	260	460	146	321	296	12	115
22256CAK/W33	OH3156H	260	500	130	333	296	28	135
23256CCK/W33	OH2356H	260	500	176	332	299	11	165
22356CCK/W33	OH2356H	260	580	175	354	299	12	250
23960CCK/W33	OH3960H	280	420	90	333	312	13	58.5
23060CAK/W33	OH3060H	280	460	118	340	313	12	90
23160-2CS5K/VT143	OH3160HE	280	500	160	337	318	12	153



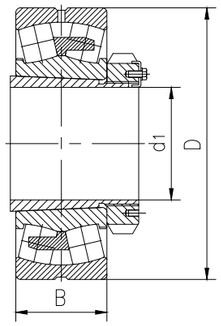
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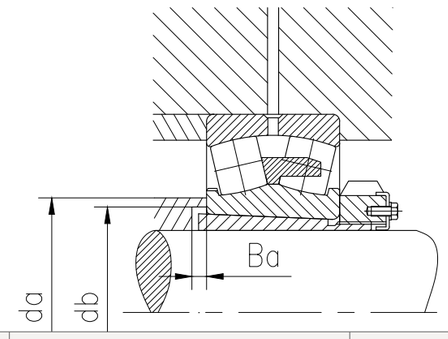
OH

Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
23160CCK/W33	OH3160H	280	500	160	345	318	12	150
22260CAK/W33	OH3160H	280	540	140	354	318	32	170
23260CCK/W33	OH3260H	280	540	192	356	321	12	210
23964CCK/W33	OH3964H	300	440	90	354	332	13	61
23064CAK/W33	OH3064H	300	480	121	360	334	13	97
23164-2CS5K/VT143	OH3164H	300	540	176	361	338	13	192
23164CCK/W33	OH3164H	300	540	176	370	338	13	185
22264CAK/W33	OH3164H	300	580	150	379	338	39	200
23264CCK/W33	OH3264H	300	580	208	382	343	13	260
23968CCK/W33	OH3968H	320	460	90	373	352	14	67.5
23068CAK/W33	OH3068H	320	520	133	385	355	14	130
23168-2CS5K/VT143	OH3168HE	320	580	190	385	360	14	252
23168CCK/W33	OH3168H	320	580	190	394	360	14	250
23268CAK/W33	OH3268H	320	620	224	427	364	14	335
23972CCK/W33	OH3972H	340	480	90	394	372	14	70.5
23072CAK/W33	OH3072H	340	540	134	404	375	14	135
23172-2CS5K/VT143	OH3172HE	340	600	192	408	380	14	265
23172CCK/W33	OH3172H	340	600	192	418	380	14	260
22272CAK/W33	OH3172H	340	650	170	454	380	36	375
23272CAK/W33	OH3272H	340	650	232	449	385	14	375
23976CCK/W33	OH3976H	360	520	106	419	393	15	95
23076CAK/W33	OH3076H	360	560	135	426	396	15	145
23176CAK/W33	OH3176H	360	620	194	454	401	15	275
23276CAK/W33	OH3276H	360	680	240	473	405	15	420
23980CCK/W33	OH3980H	380	540	106	439	413	15	100
23080CAK/W33	OH3080H	380	600	148	450	417	15	180
23180-2CS5K/VT143	OH3180HE	380	650	200	458	421	15	312
23180CAK/W33	OH3180H	380	650	200	475	421	15	325
23280CAK/W33	OH3280H	380	720	256	500	427	15	505
22380CAK/W33	OH3280H	380	820	243	534	427	28	735
23984CCK/W33	OH3984H	400	560	106	459	433	15	105
23084CAK/W33	OH3084H	400	620	150	487	437	16	190
23184CKJ/W33	OH3184H	400	700	224	483	443	16	410
23284CAK/W33	OH3284H	400	760	272	526	446	16	590
23988CCK/W33	OH3988H	410	600	118	484	454	17	150
23088CAK/W33	OH3088H	410	650	157	511	458	17	235

Spherical roller bearings on an adapter sleeve

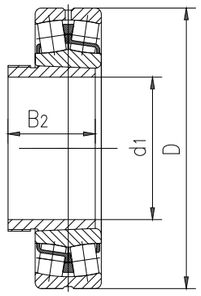


Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
23188CAK/W33	OH3188H	410	720	226	529	463	17	430
23288CAK/W33	OH3288H	410	790	280	549	469	17	670
23992CAK/W33	OH3992H	430	620	118	516	474	17	160
23092CAK/W33	OH3092H	430	680	163	533	478	17	265
23192CAK/W33	OH3192H	430	760	240	555	484	17	530
23292CAK/W33	OH3292H	430	830	296	574	490	17	790
23996CAK/W33	OH3996H	450	650	128	537	496	18	185
23096CAK/W33	OH3096H	450	700	165	549	499	18	275
23196CAK/W33	OH3196H	450	790	248	579	505	18	590
23296CAK/W33	OH3296H	450	870	310	602	512	18	935
239/500CAK/W33	OH39/500H	470	670	128	561	516	18	195
230/500CAK/W33	OH30/500H	470	720	167	573	519	18	290
231/500CAK/W33	OH31/500H	470	830	264	605	527	18	690
232/500CAK/W33	OH32/500H	470	920	336	633	534	18	1100
239/530CAK/W33	OH39/530H	500	710	136	594	547	20	255
230/530CAK/W33	OH30/530H	500	780	185	613	551	20	405
231/530CAK/W33	OH31/530H	500	870	272	638	558	20	785
232/530CAK/W33	OH32/530H	500	980	355	670	566	20	1360
239/560CAK/W33	OH39/560H	530	750	140	627	577	20	260
230/560CAK/W33	OH30/560H	530	820	195	646	582	20	445
231/560CAK/W33	OH31/560H	530	920	280	675	589	20	880
232/560CAK/W33	OH32/560H	530	1030	365	706	595	20	1490
239/600CAK/W33	OH39/600H	560	800	150	671	619	22	330
230/600CAK/W33	OH30/600H	560	870	200	685	623	22	525
231/600CAK/W33	OH31/600H	560	980	300	722	629	22	1070
232/600CAK/W33	OH32/600H	560	1090	388	754	639	22	1780



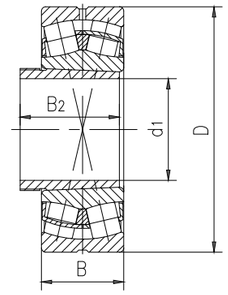
Type		Main dimensions			Shoulder and chamfer dimensions			Weight Bearing+Set sleeve
Bearing	Set sleeve	d	D	B	d_a max.	d_a min.	B_a min.	
-	-	mm			mm			kg
239/630CAK/W33	OH39/630H	600	850	165	708	650	22	385
230/630CAK/W33	OH30/630H	600	920	212	727	654	22	595
231/630CAK/W33	OH31/630H	600	1010	315	755	663	22	1240
230/710CAK/W33	OH30/710H	600	1030	236	816	736	26	860
239/670CAK/W33	OH39/670H	630	900	170	752	691	22	455
230/670CAK/W33	OH30/670H	630	980	230	772	696	22	755
231/670CAK/W33	OH31/670H	630	1090	336	804	705	22	1510
232/670CAK/W33	OH32/670H	630	1220	438	832	711	22	2540
239/710CAK/W33	OH39/710H	670	950	180	794	732	26	525
231/710CAK/W33	OH31/710H	670	1150	345	851	745	26	1750
232/710CAK/W33	OH32/710H	670	1280	450	875	753	26	3000
239/750CAK/W33	OH39/750H	710	1000	185	838	772	26	605
230/750CAK/W33	OH30/750H	710	1090	250	859	778	26	990
231/750CAK/W33	OH31/750H	710	1220	365	900	787	26	2050
239/800CAK/W33	OH39/800H	750	1060	195	891	822	28	730
230/800CAK/W33	OH30/800H	750	1150	258	917	829	28	1200
231/800CAK/W33	OH31/800H	750	1280	375	949	838	28	2430
239/850CAK/W33	OH39/850H	800	1120	200	946	872	28	950
230/850CAK/W33	OH30/850H	800	1220	272	972	880	28	1390
239/900CAK/W33	OH39/900H	850	1180	206	996	924	30	930
230/900CAK/W33	OH30/900H	850	1280	280	1025	931	30	1580
239/950CAK/W33	OH39/950H	900	1250	224	1056	976	30	1120
OH230/950CAK/W33	OH30/950H	900	1360	300	1086	983	30	1870
231/1000CAKF/W33	OH31/1000H	950	1580	462	1185	1047	33	4340
239/1060CAKF/W33	OH39/1060H	1000	1400	250	1179	1087	33	1590

Spherical roller bearings on a withdrawal sleeve



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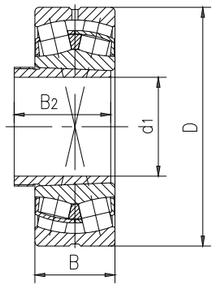
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
22208EK	AH308	35	80	23	32	0.6
21308EK	AH308	35	90	23	32	0.84
22308EK	AH2308	35	90	33	43	1.2
22209EK	AH309	40	85	23	34	0.7
21309EK	AH309	40	100	25	34	1.1
22309EK	AH2309	40	100	36	47	1.55
22210EK	AHX310	45	90	23	38	0.75
21310EK	AHX310	45	110	27	38	1.45
22310EK	AHX2310	45	110	40	53	2.1
22211EK	AHX311	50	100	25	40	0.95
21311EK	AHX311	50	120	29	40	1.8
22311EK	AHX2311	50	120	43	57	2.7
22212EK	AHX312	55	110	28	43	1.3
21312EK	AHX312	55	130	31	43	2.2
22312EK	AHX2312	55	130	46	61	3.3
22213EK	AH313G	60	120	31	45	1.7
21313EK	AH313G	60	140	33	45	2.75
22313EK	AH2313G	60	140	48	64	4.1
22214EK	AH314G	65	125	31	47	1.8
21314EK	AH314G	65	150	35	47	3.35
22314EK	AHX2314G	65	150	51	68	4.9
22215EK	AH315G	70	130	31	49	1.95
21315EK	AH315G	70	160	37	49	4.15
22315EK	AH2315G	70	160	55	72	6
22216EK	AH316	75	140	33	52	2.4
21316EK	AH316	75	170	39	52	4.75
22316EK	AHX2316	75	170	58	75	7
22217EK	AHX317	80	150	36	56	3.05
21317EK	AHX317	80	180	41	56	5.55
22317EK	AH2317	80	180	60	78	8.15
22218EK	AH318	85	160	40	57	3.7
23218CCK/W33	AH3218	85	160	52.4	67	5
21318EK	AH318	85	190	43	57	6.4
22318EK	AH2318	85	190	64	83	9.5
22219EK	AHX319	90	170	43	61	4.6
21319EK	AHX319	90	200	45	61	7.4
22319EK	AHX2319	90	200	67	89	11
23120CCK/W33	AHX3120	95	165	52	68	5
22220EK	AHX320	95	180	46	63	5.4
23220CCK/W33	AHX3220	95	180	60.3	77	7.3



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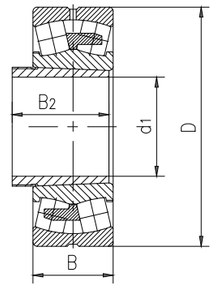
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
21320EK	AHX320	95	215	47	63	9.1
22320EK	AHX2320	95	215	73	94	14
23022CCK/W33	AHX322	105	170	45	67	4.45
23122CCK/W33	AHX3122	105	180	56	72	6.35
24122CCK30/W33	AH24122	105	180	69	91	7.7
22222EK	AHX3122	105	200	53	72	7.5
23222CCK/W33	AHX3222G	105	200	69.8	86	10.5
22322EK	AHX2322G	105	240	80	102	19.5
23024CCK/W33	AHX3024	115	180	46	64	4.8
24024CCK30/W33	AH24024	115	180	60	82	5.95
23124CCK/W33	AHX3124	115	200	62	79	8.7
24124CCK30/W33	AH24124	115	200	80	102	11
22224EK	AHX3124	115	215	58	79	9.55
23224CCK/W33	AHX3224G	115	215	76	94	13
22324CCK/W33	AHX2324G	115	260	86	109	24
23026CCK/W33	AHX3026	125	200	52	71	6.75
24026CCK30/W33	AH24026	125	200	69	93	8.65
23126CCK/W33	AHX3126	125	210	64	82	9.6
24126CCK/W33	AH24126	125	210	80	104	11.5
22226EK	AHX3126	125	230	64	82	11.5
23226CCK/W33	AHX3226G	125	230	80	102	15.5
22326CCK/W33	AHX2326G	125	280	93	119	30.5
23028CCK/W33	AHX3028	135	210	53	73	7.35
24028CCK30/W33	AH24028	135	210	69	93	9.2
23128CCK/W33	AHX3128	135	225	68	88	11.5
24128CCK30/W33	AH24128	135	225	85	109	14.5
22228CCK/W33	AHX3128	135	250	68	88	15
23228CCK/W33	AHX3228G	135	250	88	109	20.5
22328CCK/W33	AHX2328G	135	300	102	130	38
23030CCK/W33	AHX3030	145	225	56	77	8.85
24030CCK/W33	AH24030	145	225	75	101	11.5
23130CCK/W33	AHX3130G	145	250	80	101	17
24130CCK30/W33	AH24130	145	250	100	126	21
22230CCK/W33	AHX3130G	145	270	73	101	19
23230CCK/W33	AHX3230G	145	270	96	119	26
22330CCK/W33	AHX2330G	145	320	108	140	45.5
23032CCK/W33	AH3032	150	240	60	82	11.5
24032CCK30/W33	AH24032	150	240	80	106	15
23132CCK/W33	AH3132G	150	270	86	108	23
24132CCK30/W33	AH24132G	150	270	109	135	28.5

Spherical roller bearings on a withdrawal sleeve



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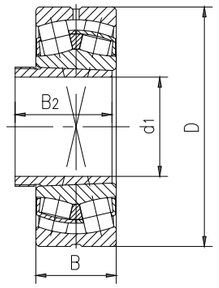
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
22232CCK/W33	AH3132G	150	290	80	108	25
23232CCK/W33	AH3232G	150	290	104	130	34.5
22332CCK/W33	AH2332G	150	340	114	146	56
23034CCK/W33	AH3034	160	260	67	90	15
24034CCK30/W33	AH24034	160	260	90	117	20
23134CCK/W33	AH3134G	160	280	88	109	25
24134CCK30/W33	AH24134	160	280	109	136	30
22234CCK/W33	AH3134G	160	310	86	109	31
23234CCK/W33	AH3234G	160	310	110	140	41
22334CCK/W33	AH2334G	160	360	120	152	65
23036CCK/W33	AH3036	170	280	74	98	19.5
24036CCK30/W33	AH24036	170	280	100	127	25.5
23136CCK/W33	AH3136	170	300	96	122	32
24136CCK30/W33	AH24136	170	300	118	145	37
22236CCK/W33	AH2236G	170	320	86	110	32.5
23236CCK/W33	AH3236G	170	320	112	146	43.5
22336CCK/W33	AH2336G	170	380	126	160	76
23038CCK/W33	AH3038G	180	290	75	102	21
24038CCK/W33	AH24038	180	290	100	131	27.5
23138CCK/W33	AH3138G	180	320	104	131	38.5
24138CCK30/W33	AH24138	180	320	128	159	46.5
22238CCK/W33	AH2238G	180	340	92	117	39.5
23238CCK/W33	AH3238G	180	340	120	152	52.5
22338CCK/W33	AH2338G	180	400	132	167	87.5
23040CCK/W33	AH3040G	190	310	82	108	26.5
24040CCK30/W33	AH24040	190	310	109	140	34.5
23140CCK/W33	AH3140	190	340	112	140	48.5
24140CCK30/W33	AH24140	190	340	140	171	57.5
23240CCK/W33	AH3240	190	360	128	160	63
22340CCK/W33	AH2340	190	420	138	177	100
23044CCK/W33	AOH3044G	200	340	90	117	36.5
24044CCK30/W33	AOH24044	200	340	118	152	47.5
23144CCK/W33	AOH3144	200	370	120	151	61.5
24144CCK30/W33	AOH24144	200	370	150	184	76
22244CCK/W33	AOH2244	200	400	108	136	68
23244CCK/W33	AOH2344	200	400	144	189	93
22344CCK/W33	AOH2344	200	460	145	189	130
23048CCK/W33	AOH3048	220	360	92	123	40.5
24048CCK30/W33	AOH24048	220	360	118	153	50.5
23148CCK/W33	AOH3148	220	400	128	161	76.5



CA

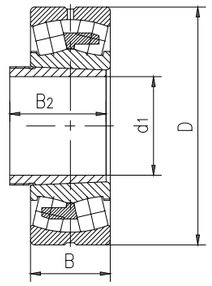
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
24148CCK/W33	AOH24148	220	400	160	195	91.5
23248CCK/W33	AOH2348	220	440	160	197	120
22348CCK/W33	AOH2348	220	500	155	197	165
23052CCK/W33	AOH3052	240	400	104	135	56.5
24052CCK30/W33	AOH24052G	240	400	140	178	75
23152CCK/W33	AOH3152G	240	440	144	179	105
24152CCK30/W33	AOH24152	240	440	180	218	120
22252CCK/W33	AOH2252G	240	480	130	161	120
23252CCK/W33	AOH2352G	240	480	174	213	155
22352CCK/W33	AOH2352G	240	540	165	213	205
23056CCK/W33	AOH3056	260	420	106	139	62
24056CCK30/W33	AOH24056G	260	420	140	179	79
23156CCK/W33	AOH3156G	260	460	146	183	110
24156CCK30/W33	AOH24156	260	460	180	219	130
22256CCK/W33	AOH2256G	260	500	130	163	125
23256CCK/W33	AOH2356G	260	500	176	220	160
22356CCK/W33	AOH2356G	260	580	175	220	245
23060CCK/W33	AOH3060	280	460	118	153	82.5
24060CCK30/W33	AOH24060G	280	460	160	202	110
23160CCK/W33	AOH3160G	280	500	160	200	140
24160CCK30/W33	AOH24160	280	500	200	242	180
22260CCK/W33	AOH2260G	280	540	140	178	155
23260CCK/W33	AOH3260G	280	540	192	236	200
23064CCK/W33	AOH3064G	300	480	121	157	89
24064CCK30/W33	AOH24064G	300	480	160	202	115
23164CCK/W33	AOH3164G	300	540	176	217	175
24164CCK30/W33	AOH24164	300	540	218	260	225
22264CCK/W33	AOH2264G	300	580	150	190	185
23264CCK/W33	AOH3264G	300	580	208	254	250
23068CCK/W33	AOH3068G	320	520	133	171	120
24068CCK30/W33	AOH24068	320	520	180	225	160
23168CCK/W33	AOH3168G	320	580	190	234	225
24168ECCK30J/W33	AOH24168	320	580	243	288	295
23268CAK/W33	AOH3268G	320	620	224	273	315
23072CCK/W33	AOH3072G	340	540	134	176	125
24072CCK30/W33	AOH24072	340	540	180	226	165
23172CCK/W33	AOH3172G	340	600	192	238	235
24172ECCK30J/W33	AOH24172	340	600	243	289	295
22272CAK/W33	AOH3172G	340	650	170	238	275
23272CAK/W33	AOH3272G	340	650	232	283	345

Spherical roller bearings on a withdrawal sleeve



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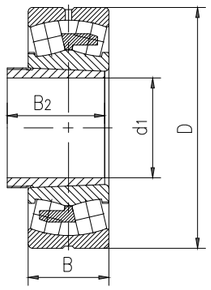
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
23076CCK/W33	AOH3076G	360	560	135	180	135
24076CCK30/W33	AOH24076	360	560	180	228	170
23176CAK/W33	AOH3176G	360	620	194	242	250
24176ECCK30J/W33	AOH24176	360	620	243	291	325
23276CAK/W33	AOH3276G	360	680	240	294	390
23080CCK/W33	AOH3080G	380	600	148	193	165
24080ECCK30J/W33	AOH24080	380	600	200	248	220
23180CAK/W33	AOH3180G	380	650	200	250	290
24180ECCK30J/W33	AOH24180	380	650	250	298	365
23280CAK/W33	AOH3280G	380	720	256	312	470
22380CAK/W33	AOH3280GG	380	820	243	312	675
23084CCK/W33	AOH3084G	400	620	150	196	175
24084ECAK30/W33	AOH24084	400	620	200	252	230
23184CKJ/W33	AOH3184G	400	700	224	276	375
24184ECCK30J/W33	AOH24184	400	700	280	332	470
23284CAK/W33	AOH3284G	400	760	272	331	550
23088CCK/W33	AOHX3088G	420	650	157	205	200
24088ECAK30/W33	AOH24088	420	650	212	264	275
23188CAK/W33	AOHX3188G	420	720	226	281	380
24188ECCK30J/W33	AOH24188	420	720	280	332	490
23288CAK/W33	AOHX3288G	420	790	280	341	620
23092CAK/W33	AOHX3092G	440	680	163	213	225
24092ECAK30/W33	AOH24092	440	680	218	273	300
23192CAK/W33	AOHX3192G	440	760	240	296	465
24192ECAK30/W33	AOH24192	440	760	300	355	590
23292CAK/W33	AOHX3292G	440	830	296	360	725
23096CAK/W33	AOHX3096G	460	700	165	217	235
24096ECAK30/W33	AOH24096	460	700	218	273	310
23196CAK/W33	AOHX3196G	460	790	248	307	515
24196ECAK30/W33	AOH24196	460	790	308	363	635
23296CAK/W33	AOHX3296G	460	870	310	376	860
230/500CAK/W33	AOHX30/500G	480	720	167	221	250
240/500ECAK30/W33	AOH240/500	480	720	218	276	325
231/500CAK/W33	AOHX31/500G	480	830	264	325	610
241/500ECAK30/W33	AOH241/500	480	830	325	383	735
232/500CAK/W33	AOHX32/500G	480	920	336	405	1020
230/530CAK/W33	AOH30/530	500	780	185	242	365
240/530ECAK30/W33	AOH240/530G	500	780	250	309	455
231/530CAK/W33	AOH31/530	500	870	272	337	720
241/530ECAK30/W33	AOH241/530G	500	870	335	394	885



CA

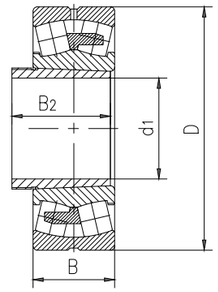
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
232/530CAK/W33	AOH32/530G	500	980	355	424	1290
230/560CAK/W33	AOHX30/560	530	820	195	252	430
240/560ECAK30/W33	AOH240/560G	530	820	258	320	515
231/560CAK/W33	AOH31/560	530	920	280	347	850
241/560ECK30J/W33	AOH241/560G	530	920	355	417	1060
232/560CAK/W33	AOHX32/560	530	1030	365	434	1500
230/600CAK/W33	AOHX30/600	570	870	200	259	480
240/600ECAK30/W33	AOHX240/600	570	870	272	336	600
241/600ECAK30/W33	AOHX241/600	570	980	375	439	1290
231/600CAK/W33	AOHX31/600	570	980	300	369	1010
231/670CAK/W33	AOH31/670	570	1090	336	409	1430
230/630CAK/W33	AOH30/630	600	920	212	272	575
240/630ECK30J/W33	AOH240/630G	600	920	290	356	730
240/710ECAK30/W33	AOH240/710G	600	1030	315	386	1010
241/630ECAK30/W33	AOH241/630G	600	1030	400	466	1500
230/670CAK/W33	AOH30/670	630	980	230	294	720
240/670ECAK30/W33	AOH240/670G	630	980	308	374	900
232/600CAK/W33	AOHX32/600G	630	1090	388	459	1760
241/670ECAK30/W33	AOH241/670	630	1090	412	478	1730
232/670CAK/W33	AOH32/670G	630	1220	438	514	2500
230/710CAK/W33	AOHX30/710	670	1030	236	302	800
231/630CAK/W33	AOH31/630	670	1030	315	389	1190
231/710CAK/W33	AOHX31/710	670	1150	345	421	1650
241/710ECAK30/W33	AOH241/710	670	1150	438	509	2040
232/710CAK/W33	AOH32/710G	670	1280	450	531	2810
230/750CAK/W33	AOH30/750	710	1090	250	316	950
240/750ECAK30/W33	AOH240/750G	710	1090	335	408	1200
231/750CAK/W33	AOH31/750	710	1220	365	441	1930
241/750ECAK30/W33	AOH241/750G	710	1220	475	548	2280
230/800CAK/W33	AOH30/800	750	1150	258	326	1100
240/800ECAK30/W33	AOH240/800G	750	1150	345	423	1380
231/800CAK/W33	AOH31/800	750	1280	375	456	2200
241/800ECAK30/W33	AOH241/800G	750	1280	475	553	2540
230/850CAK/W33	AOH30/850	800	1220	272	343	1250
240/850ECAK30/W33	AOH240/850G	800	1220	365	445	1670
241/850ECAK30F/W33	AOH241/850	800	1360	500	600	3050
230/900CAK/W33	AOH30/900	850	1280	280	355	1450
240/900ECAK30/W33	AOH240/900	850	1280	375	475	1850
241/900ECAK30F/W33	AOH241/900	850	1420	515	620	3700
230/950CAK/W33	AOH30/950	900	1360	300	375	1720

Spherical roller bearings on a withdrawal sleeve



CA

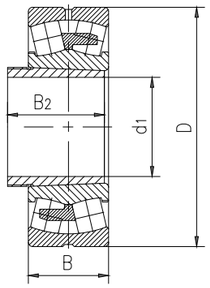
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
240/950CAK30F/W33	AOH240/950	900	1360	412	512	2300
241/950ECAK30F/W33	AOH241/950	900	1500	545	650	3950
240/1000CAK30F/W33	AOH240/1000	950	1420	412	519	2500
231/1000CAKF/W33	AOH31/1000	950	1580	462	547	3950
241/1000ECAK30F/W33	AOH241/1000	950	1580	580	695	4800
240/1060CAK30F/W33	AOH240/1060	1000	1500	438	548	2950
240/630ECK30J/W33	AOH240/630G	600	920	290	356	730
240/710ECAK30/W33	AOH240/710G	600	1030	315	386	1010
241/630ECAK30/W33	AOH241/630G	600	1030	400	466	1500
230/670CAK/W33	AOH30/670	630	980	230	294	720
240/670ECAK30/W33	AOH240/670G	630	980	308	374	900
232/600CAK/W33	AOHX32/600G	630	1090	388	459	1760
241/670ECAK30/W33	AOH241/670	630	1090	412	478	1730
232/670CAK/W33	AOH32/670G	630	1220	438	514	2500
230/710CAK/W33	AOHX30/710	670	1030	236	302	800
231/630CAK/W33	AOH31/630	670	1030	315	389	1190
231/710CAK/W33	AOHX31/710	670	1150	345	421	1650
241/710ECAK30/W33	AOH241/710	670	1150	438	509	2040
232/710CAK/W33	AOH32/710G	670	1280	450	531	2810
230/750CAK/W33	AOH30/750	710	1090	250	316	950
240/750ECAK30/W33	AOH240/750G	710	1090	335	408	1200
231/750CAK/W33	AOH31/750	710	1220	365	441	1930
241/750ECAK30/W33	AOH241/750G	710	1220	475	548	2280
230/800CAK/W33	AOH30/800	750	1150	258	326	1100
240/800ECAK30/W33	AOH240/800G	750	1150	345	423	1380
231/800CAK/W33	AOH31/800	750	1280	375	456	2200
241/800ECAK30/W33	AOH241/800G	750	1280	475	553	2540
230/850CAK/W33	AOH30/850	800	1220	272	343	1250
240/850ECAK30/W33	AOH240/850G	800	1220	365	445	1670
241/850ECAK30F/W33	AOH241/850	800	1360	500	600	3050
230/900CAK/W33	AOH30/900	850	1280	280	355	1450
240/900ECAK30/W33	AOH240/900	850	1280	375	475	1850
241/900ECAK30F/W33	AOH241/900	850	1420	515	620	3700
230/950CAK/W33	AOH30/950	900	1360	300	375	1720
240/950CAK30F/W33	AOH240/950	900	1360	412	512	2300
241/950ECAK30F/W33	AOH241/950	900	1500	545	650	3950
240/1000CAK30F/W33	AOH240/1000	950	1420	412	519	2500
231/1000CAKF/W33	AOH31/1000	950	1580	462	547	3950
241/1000ECAK30F/W33	AOH241/1000	950	1580	580	695	4800
240/1060CAK30F/W33	AOH240/1060	1000	1500	438	548	2950



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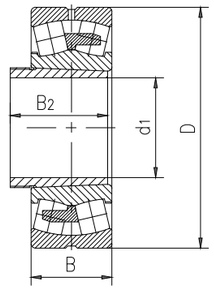
Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
240/630ECK30J/W33	AOH240/630G	600	920	290	356	730
240/710ECAK30/W33	AOH240/710G	600	1030	315	386	1010
241/630ECAK30/W33	AOH241/630G	600	1030	400	466	1500
230/670CAK/W33	AOH30/670	630	980	230	294	720
240/670ECAK30/W33	AOH240/670G	630	980	308	374	900
232/600CAK/W33	AOHX32/600G	630	1090	388	459	1760
241/670ECAK30/W33	AOH241/670	630	1090	412	478	1730
232/670CAK/W33	AOH32/670G	630	1220	438	514	2500
230/710CAK/W33	AOHX30/710	670	1030	236	302	800
231/630CAK/W33	AOH31/630	670	1030	315	389	1190
231/710CAK/W33	AOHX31/710	670	1150	345	421	1650
241/710ECAK30/W33	AOH241/710	670	1150	438	509	2040
232/710CAK/W33	AOH32/710G	670	1280	450	531	2810
230/750CAK/W33	AOH30/750	710	1090	250	316	950
240/750ECAK30/W33	AOH240/750G	710	1090	335	408	1200
231/750CAK/W33	AOH31/750	710	1220	365	441	1930
241/750ECAK30/W33	AOH241/750G	710	1220	475	548	2280
230/800CAK/W33	AOH30/800	750	1150	258	326	1100
240/800ECAK30/W33	AOH240/800G	750	1150	345	423	1380
231/800CAK/W33	AOH31/800	750	1280	375	456	2200
241/800ECAK30/W33	AOH241/800G	750	1280	475	553	2540
230/850CAK/W33	AOH30/850	800	1220	272	343	1250
240/850ECAK30/W33	AOH240/850G	800	1220	365	445	1670
241/850ECAK30F/W33	AOH241/850	800	1360	500	600	3050
230/900CAK/W33	AOH30/900	850	1280	280	355	1450
240/900ECAK30/W33	AOH240/900	850	1280	375	475	1850
241/900ECAK30F/W33	AOH241/900	850	1420	515	620	3700
230/950CAK/W33	AOH30/950	900	1360	300	375	1720
240/950CAK30F/W33	AOH240/950	900	1360	412	512	2300
241/950ECAK30F/W33	AOH241/950	900	1500	545	650	3950
240/1000CAK30F/W33	AOH240/1000	950	1420	412	519	2500
231/1000CAKF/W33	AOH31/1000	950	1580	462	547	3950
241/1000ECAK30F/W33	AOH241/1000	950	1580	580	695	4800
240/1060CAK30F/W33	AOH240/1060	1000	1500	438	548	2950
240/630ECK30J/W33	AOH240/630G	600	920	290	356	730
240/710ECAK30/W33	AOH240/710G	600	1030	315	386	1010
241/630ECAK30/W33	AOH241/630G	600	1030	400	466	1500
230/670CAK/W33	AOH30/670	630	980	230	294	720
240/670ECAK30/W33	AOH240/670G	630	980	308	374	900
232/600CAK/W33	AOHX32/600G	630	1090	388	459	1760

Spherical roller bearings on a withdrawal sleeve



CA

Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
241/670ECAK30/W33	AOH241/670	630	1090	412	478	1730
232/670CAK/W33	AOH32/670G	630	1220	438	514	2500
230/710CAK/W33	AOHX30/710	670	1030	236	302	800
231/630CAK/W33	AOH31/630	670	1030	315	389	1190
231/710CAK/W33	AOHX31/710	670	1150	345	421	1650
241/710ECAK30/W33	AOH241/710	670	1150	438	509	2040
232/710CAK/W33	AOH32/710G	670	1280	450	531	2810
230/750CAK/W33	AOH30/750	710	1090	250	316	950
240/750ECAK30/W33	AOH240/750G	710	1090	335	408	1200
231/750CAK/W33	AOH31/750	710	1220	365	441	1930
241/750ECAK30/W33	AOH241/750G	710	1220	475	548	2280
230/800CAK/W33	AOH30/800	750	1150	258	326	1100
240/800ECAK30/W33	AOH240/800G	750	1150	345	423	1380
231/800CAK/W33	AOH31/800	750	1280	375	456	2200



CA

Type		Main dimensions				Weight
Bearing	Return sleeve	d_1	D	B	B_2 ≈	Bearing+Return sleeve
-	-	mm				kg
241/800ECAK30/W33	AOH241/800G	750	1280	475	553	2540
230/850CAK/W33	AOH30/850	800	1220	272	343	1250
240/850ECAK30/W33	AOH240/850G	800	1220	365	445	1670
241/850ECAK30F/W33	AOH241/850	800	1360	500	600	3050
230/900CAK/W33	AOH30/900	850	1280	280	355	1450
240/900ECAK30/W33	AOH240/900	850	1280	375	475	1850
241/900ECAK30F/W33	AOH241/900	850	1420	515	620	3700
230/950CAK/W33	AOH30/950	900	1360	300	375	1720
240/950CAK30F/W33	AOH240/950	900	1360	412	512	2300
241/950ECAK30F/W33	AOH241/950	900	1500	545	650	3950
240/1000CAK30F/W33	AOH240/1000	950	1420	412	519	2500
231/1000CAKF/W33	AOH31/1000	950	1580	462	547	3950
241/1000ECAK30F/W33	AOH241/1000	950	1580	580	695	4800
240/1060CAK30F/W33	AOH240/1060	1000	1500	438	548	2950

Needle bearings

Features

The rolling elements of needle roller bearings have a very large length-to-diameter ratio. According to different structures, needle roller bearings are subdivided into needle roller cage assemblies, drawn outer ring needle roller bearings, needle roller bearings with machined rings and other styles. The outer ring of the drawn cup needle roller bearing is a deep drawn thin-walled outer ring, which is suitable for bearing housings where the housing hole cannot be a raceway and requires a very compact and economical bearing arrangement. Single or double row ribbed needle roller bearings consist of a ribbed machined outer ring, needle rollers and cage assembly, and a separable inner ring.
Needle roller bearings with ribs have optimized raceway surfaces. Therefore it has a higher load carrying capacity and a longer rated life.

Needle Roller Bearings

According to the requirements of working conditions, needle roller bearings can be combined with other types bearings to achieve the characteristics of bearing joint loads. Such as: needle roller and angular contact ball combined bearings, needle roller and thrust ball combined bearings, needle roller and thrust cylindrical roller combined bearings, etc.

Needle roller bearings without inner ring

Needle roller bearings without an inner ring have particularly compact radial dimensions. However, they require the shaft raceways to be hardened and ground. They are available in single-row or double-row designs.

Needle roller bearings with inner ring

If the shaft cannot be used as a raceway for rolling bearings, use bearings with inner rings. These bearings are available in single-row or double-row designs.

Seals and wide inner ring

In order to prevent external influences, the bearing seal can use the combination of sealing ring series and wide inner ring IR, and the sealing ring and inner ring should match the needle roller bearing. The outer surface of the inner ring can be used as a sliding surface for the sealing lip.

Self-aligning Needle Roller Bearings

Alignment needle roller bearings have an outer ring with a sphered (convex) outside surfaceThere is a stamped outer ring on the outside of the outer diameter, and the two are combined by a polymer material with a concave spherical surface fixed in the stamped outer ring. There are two structures with an inner ring and without an inner ring, and it has the ability to compensate for misalignment of the shaft.

Operating temperature

The operating temperature range of open bearings is from -20°C to +120°C
Limited by grease and sealing materials, the operating temperature range of sealed needle roller bearings is from -20°C to +100°C.

Seal

The RNA49-RS and NA49-RS series are single-sided seals.
The RNA49-2RS and NA49-2RS series are two-sided contact seals.

Lubricating

Sealed machined ring needle roller bearings are lubricated with lithium complex grease. For this purpose, the outer ring has lubrication grooves and lubrication holes.

Needle Roller Bearings--Inner Ring

Features

Inner rings are made of hardened bearing steel with finished or ground raceways.

Applications:
The shaft cannot be used as a bearing raceway. Bearing types include needle rollers and cage assemblies, open or closed drawn cup needle roller bearings, and machined needle roller bearings.

In order to ensure that the shaft can have a large displacement relative to the housing, needle bearings must be paired with a wide inner ring. The use of lip seals requires an optimized running surface.

Finished raceways

The inner ring IR has a finished raceway.

The chamfer of the end face makes it easy to fit the inner ring into the bearing and prevents damage to the sealing lip.

There are two types inner rings with and without lubrication holes.



Ground raceway

The inner ring IR has a ground raceway. The end faces are turned and the sharp corners have been removed.
This inner ring has a larger tolerance than the IR type. Therefore, they are suitable for applications where the width tolerance is large and the requirements for axial runout are small.

Design of bearing arrangement for axial positioning

In order to prevent the bearing rings from creeping sideways, they must be held in place by mechanical locking. Adjacent shoulders (shafts, housings) should be high enough and perpendicular to the bearing axis.
The transition fillet between the bearing mating surface and the adjacent shoulder.

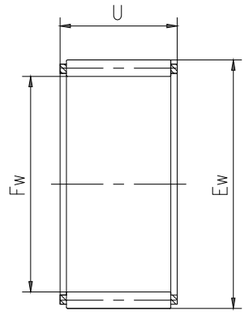
The contact area between the snap ring and the end face of the bearing ring must be sufficiently large.

Suffixes of available designs

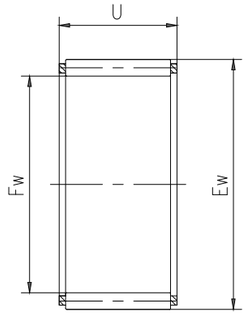
Suffix	Meaning
BF	Needle roller with lat ends
D	Deviating or modiied internal design with the same boundary dimensions Example: K 40x45x17 D (Needle roller and cage assembly with a double split cage)
DS	Single split needle roller and cage assembly
EGS	Inner ring with a non-directionally ground raceway
VGS	Inner ring with a pre-ground raceway and a machining allowance
ZW	Double row needle roller and cage assembly (double row cage)
AS..	Outer ring with lubrication hole(s), the number following indicates the number of holes
ASR..	Outer ring with annular groove and lubrication hole(s), the number following indicates the number of holes
IS	Inner ring with lubrication hole(s), the number following indicates the number of holes
ISR..	Inner ring with annular groove and lubrication hole(s), the number following indicates the number of holes
RS..2RS	Contact seal on one or both sides, respectively • NBR or FKM or PUR for a drawn cup needle roller bearing • NBR for a machined needle roller bearing
Z	lubrication holes over the outside diameter
TN	Glass ibre reinforced PA66 cage
ISORT..	Tolerance grade of needle rollers of a needle roller and cage assembly, the numbers follow□ing identify the actual limits in µm, e g /SORT-2-4
CN	Normal radial internal clearance; only used together with an additional letter that identiies a reduced or displaced clearance range H Reduced clearance range corresponding to the upper half of the actual clearance range L Reduced clearance range corresponding to the lower half of the actual clearance range M Reduced clearance range corresponding to the two middle quarters of the actual clearance range P Displaced clearance range comprising the upper half of the actual clearance range plus the lower half of the next larger clearance range R Normal clearance range in accordance with the withdrawn DIN 620-4 The above letters H, L, M and P are also used together with the clearance classes C2, C3, C4

Suffix	Meaning
C2	Radial internal clearance smaller than Normal
C3	Radial internal clearance greater than Normal
C4	Radial internal clearance greater than C3
G2	Needle roller in accordance with ISO 3096 Grade 2
H..	Bearing without an inner ring and reduced inside diameter (under rollers) tolerance, the numbers following indicate the tolerance limits in µm, e g H+27+20
M../M..	Diameter tolerance of needle rollers, e g M2/M4 indicates diameter tolerance –2 to –4 µm
N/M..	Diameter tolerance of needle rollers, e g N/M2 indicates diameter tolerance 0 to –2 µm
P5	Dimensional and geometrical tolerances to class P5
P6	Dimensional and geometrical tolerances to class P6
P62	P6 + C2
P63	P6 + C3
P6CNR	P6 + CNR
..S	Matched bearings for an equal load distribution. The number preceding indicates the number of bearings, e.g. NK 50/25 TN/2S
S0	Bearing or inner ring heat stabilized for operating temperatures ≤ 150 °C (300 °F)
S1	Bearing or inner ring heat stabilized for operating temperatures ≤ 200 °C (390 °F)
S2	Bearing or inner ring heat stabilized for operating temperatures ≤ 250 °C (480 °F)
S3	Bearing or inner ring heat stabilized for operating temperatures ≤ 300 °C (570 °F)
SM..	Special grease, two numbers following identify the grease
VG052	Single split PES (polyethersulfone) cage

Needle roller and cage assemblies

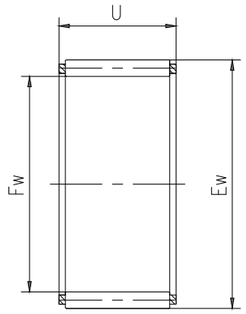


Type	Radial shaft seal		Dimensions		
Bearings with standard cage	Simple lip	Lips	F_w	E_w	U
-	-		mm		
K16x20x10	–	–	16	20	10
K16x20x13	–	–	16	20	13
K16x20x17	–	–	16	20	17
K16x22x12	G16x22x3	SD16x22x3	16	22	12
K16x22x16	G16x22x3	SD16x22x3	16	22	16
K16x22x20	G16x22x3	SD16x22x3	16	22	20
K16x24x20	G16x24x3	SD16x24x3	16	24	20
K16x22x20	G16x22x3	SD16x22x3	16	22	20
K16x24x20	G16x24x3	SD16x24x3	16	24	20
K17x21x10	–	–	17	21	10
K18x24x12	G18x24x3	SD18x24x3	18	24	12
K19x23x13	–	–	19	23	13
K20x24x10	–	–	20	24	10
K20x24x13	–	–	20	24	13
K20x24x17	–	–	20	24	17
K20x26x17	G20x26x4	SD20x26x4	20	26	17
K20x26x20	G20x26x4	SD20x26x4	20	26	20
K20x28x20	G20x28x4	SD20x28x4	20	28	20
K20x28x25	G20x28x4	SD20x28x4	20	28	25
K20x30x30	–	–	20	30	30
K21x25x13	–	–	21	25	13
K22x26x10	–	–	22	26	10
K22x26x13	–	–	22	26	13
K22x26x17	–	–	22	26	17
K22x28x17	G22x28x4	SD22x28x4	22	28	17
K22x29x16	–	–	22	29	16
K22x30x15 TN	G22x30x4	SD22x30x4	22	30	15
K23x35x16 TN	–	–	23	35	16
K24x28x10	–	–	24	28	10
K24x28x13	–	–	24	28	13
K24x30x17	–	–	24	30	17
K25x29x10	–	–	25	29	10
K25x29x13	–	–	25	29	13
K25x30x17	–	–	25	30	17
K25x30x20	–	–	25	30	20
K25x32x16	G25x32x4	–	25	32	16
K25x33x20	G25x33x4	SD25x33x4	25	33	20
K25x35x30	G25x35x4	SD25x35x4	25	35	30
K26x30x13	–	–	26	30	13

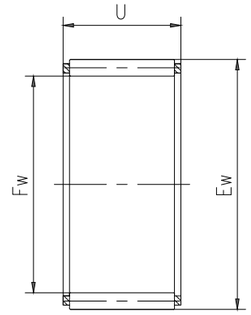


Type	Radial shaft seal		Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
Bearings with standard cage	Simple lip	Lips		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		kg	kN		kN	r/min	
K16x20x10	–	–	5.5	7.854	10.5	1.218	25200	27300
K16x20x13	–	–	7.5	9.009	12.6	1.4385	25200	27300
K16x20x17	–	–	10	11.76	17.85	2.1	25200	27300
K16x22x12	G16x22x3	SD16x22x3	10	11.55	13.125	1.575	23100	27300
K16x22x16	G16x22x3	SD16x22x3	12	14.91	18.48	2.226	23100	27300
K16x22x20	G16x22x3	SD16x22x3	17	18.48	23.94	2.94	23100	27300
K16x24x20	G16x24x3	SD16x24x3	22	21.525	24.78	3.045	23100	25200
K16x22x20	G16x22x3	SD16x22x3	17	18.48	23.94	2.94	23100	27300
K16x24x20	G16x24x3	SD16x24x3	22	21.525	24.78	3.045	23100	25200
K17x21x10	–	–	5.5	8.2005	11.34	1.281	23100	27300
K18x24x12	G18x24x3	SD18x24x3	12	12.705	15.75	1.89	21000	25200
K19x23x13	–	–	8	9.5865	14.385	1.68	21000	25200
K20x24x10	–	–	6.5	9.009	13.545	1.533	21000	23100
K20x24x13	–	–	9	9.996	15.33	1.743	21000	23100
K20x24x17	–	–	12	13.125	21.84	2.52	21000	23100
K20x26x17	G20x26x4	SD20x26x4	16	19.215	27.3	3.36	19950	23100
K20x26x20	G20x26x4	SD20x26x4	19	21.105	30.45	3.78	19950	23100
K20x28x20	G20x28x4	SD20x28x4	27	24.045	29.925	3.6225	18900	21000
K20x28x25	G20x28x4	SD20x28x4	32	30.66	40.95	5.145	18900	21000
K20x30x30	–	–	49	35.805	43.575	5.46	17850	21000
K21x25x13	–	–	9	10.164	16.065	1.848	19950	23100
K22x26x10	–	–	7.5	9.24	14.385	1.638	18900	21000
K22x26x13	–	–	9.5	10.605	17.115	1.953	18900	21000
K22x26x17	–	–	12	13.86	23.94	2.835	18900	21000
K22x28x17	G22x28x4	SD22x28x4	18	19.215	28.35	3.4125	17850	21000
K22x29x16	–	–	16	20.37	26.775	3.2025	17850	19950
K22x30x15 TN	G22x30x4	SD22x30x4	18	19.95	24.78	2.94	17850	19950
K23x35x16 TN	–	–	29	25.41	24.36	3.045	15750	17850
K24x28x10	–	–	8.5	9.8175	15.75	1.8165	17850	19950
K24x28x13	–	–	10	11.13	18.9	2.184	17850	19950
K24x30x17	–	–	19	19.635	28.875	3.57	16800	18900
K25x29x10	–	–	8.5	9.996	16.38	1.89	16800	18900
K25x29x13	–	–	11	11.34	19.53	2.268	16800	18900
K25x30x17	–	–	16	18.795	32.025	3.78	16800	18900
K25x30x20	–	–	18	21.945	38.325	4.62	16800	18900
K25x32x16	G25x32x4	–	21	20.79	28.875	3.5175	15750	17850
K25x33x20	G25x33x4	SD25x33x4	33	28.875	39.9	4.8825	15750	17850
K25x35x30	G25x35x4	SD25x35x4	65	46.83	65.1	8.19	15750	17850
K26x30x13	–	–	11	11.76	20.58	2.394	16800	18900

Needle roller and cage assemblies

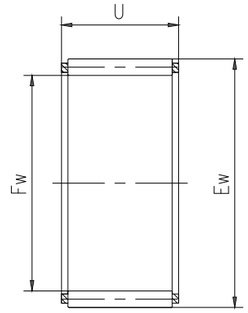


Type	Radial shaft seal		Dimensions		
Bearings with standard cage	Simple lip	Lips	F_w	E_w	U
-	-		mm		
K28x33x13	–	–	28	33	13
K28x33x17	–	–	28	33	17
K30x35x13	–	–	30	35	13
K30x35x17	–	–	30	35	17
K30x35x27	–	–	30	35	27
K30x37x18	G30x37x4	SD30x37x4	30	37	18
K30x40x30	G30x40x4	SD30x40x4	30	40	30
K32x37x13	—	–	32	37	13
K32x37x17	—	–	32	37	17
K32x38x20	—	–	32	38	20
K32x40x25	—	–	32	40	25
K35x40x13	—	–	35	40	13
K35x40x17	—	–	35	40	17
K35x40x27TN	—	–	35	40	27
K35x42x16	G35x42x4	SD35x42x4	35	42	16
K35x42x18	G35x42x4	SD35x42x4	35	42	18
K35x45x20	G35x45x4	SD35x45x4	35	45	20
K37x42x17	—	–	37	42	17
K38x43x17	—	–	38	43	17
K38x46x32	—	–	38	46	32
K40x45x17	—	–	40	45	17
K40x45x27	—	–	40	45	27
K40x48x20	—	–	40	48	20
K42x47x17	—	–	42	47	17
K42x50x20	—	–	42	50	20
K43x48x17	—	–	43	48	17
K45x50x17	—	–	45	50	17
K45x50x27	—	–	45	50	27
K45x53x28	—	–	45	53	28
K47x52x17	—	–	47	52	17
K50x55x20	—	–	50	55	20
K50x55x30	—	–	50	55	30
K50x57x18	—	–	50	57	18
K50x58x25	G50x58x4	SD50x58x4	50	58	25
K55x60x20	—	–	55	60	20
K55x60x30	—	–	55	60	30

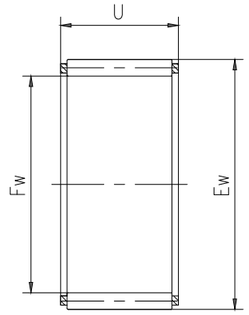


Type	Radial shaft seal		Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
Bearings with standard cage	Simple lip	Lips		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		kg	kN		kN	r/min	
K28x33x13	–	–	13	15.435	25.725	2.9925	14700	16800
K28x33x17	–	–	17	19.95	35.175	4.2525	14700	16800
K30x35x13	–	–	14	15.855	26.775	3.15	13650	15750
K30x35x17	–	–	19	19.635	35.7	4.2525	13650	15750
K30x35x27	–	–	30	30.66	63	7.7175	13650	15750
K30x37x18	G30x37x4	SD30x37x4	30	26.355	40.95	4.8825	13650	15750
K30x40x30	G30x40x4	SD30x40x4	73	49.14	72.975	9.0825	12600	14700
K32x37x13	—	–	18	15.435	26.775	3.15	13650	14700
K32x37x17	—	–	19	19.95	37.275	4.4625	13650	14700
K32x38x20	—	–	30	26.355	47.25	5.88	12600	14700
K32x40x25	—	–	49	37.59	61.425	7.56	12600	14700
K35x40x13	—	–	19	16.17	29.4	3.4125	12600	13650
K35x40x17	—	–	21	20.79	40.95	4.8825	12600	13650
K35x40x27TN	—	–	39	24.99	51.45	6.3	12600	13650
K35x42x16	G35x42x4	SD35x42x4	34	24.465	39.375	4.725	11550	13650
K35x42x18	G35x42x4	SD35x42x4	34	27.72	46.2	5.565	11550	13650
K35x45x20	G35x45x4	SD35x45x4	56	36.96	52.5	6.51	11550	12600
K37x42x17	—	–	22	22.68	45.15	5.46	11550	13650
K38x43x17	—	–	29	20.79	40.95	4.8825	11550	12600
K38x46x32	—	–	76	54.915	105	13.125	10500	12600
K40x45x17	—	–	31	21.525	43.575	5.25	10500	12600
K40x45x27	—	–	46	32.97	77.175	9.45	10500	12600
K40x48x20	—	–	49	36.435	61.425	7.7175	10500	11550
K42x47x17	—	–	32	21.945	45.15	5.46	9975	11550
K42x50x20	—	–	53	35.28	59.85	7.455	9975	11550
K43x48x17	—	–	30	21.945	45.15	5.46	9450	11550
K45x50x17	—	–	34	22.68	48.825	5.88	9450	10500
K45x50x27	—	–	52	34.65	85.575	10.5	9450	10500
K45x53x28	—	–	81	51.975	102.9	12.81	9450	10500
K47x52x17	—	–	35	23.52	51.45	6.3	8925	10500
K50x55x20	—	–	43	26.775	63	7.56	8925	9975
K50x55x30	—	–	65	39.27	102.9	12.6	8400	9975
K50x57x18	—	–	47	33.495	67.2	8.19	8400	9450
K50x58x25	G50x58x4	SD50x58x4	90	43.89	85.575	10.71	7875	9450
K55x60x20	—	–	40	28.35	70.35	8.5575	7875	8925
K55x60x30	—	–	71	41.58	113.4	14.07	7875	8925

Needle roller and cage assemblies

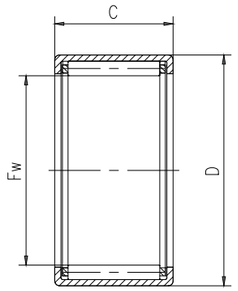


Type	Radial shaft seal		Dimensions		
Bearings with standard cage	Simple lip	Lips	F_w	E_w	U
-	-		mm		
K55x62x18	—	–	55	62	18
K55x63x32	G55x63x5	–	55	63	32
K60x65x20	–	–	60	65	20
K60x68x25	–	–	60	68	25
K65x73x30	–	–	65	73	30
K70x76x20	–	–	70	76	20
K70x78x30	G70x78x5	–	70	78	30
K75x83x23	–	–	75	83	23
K80x88x30	–	–	80	88	30
K85x92x20	–	–	85	92	20
K90x97x20	–	–	90	97	20
K90x98x30	–	–	90	98	30
K95x103x30	–	–	95	103	30
K100x108x27	–	–	100	108	27

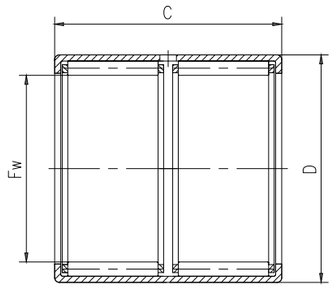


Type	Radial shaft seal		Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
Bearings with standard cage	Simple lip	Lips		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		kg	kN		kN	r/min	
K55x62x18	—	–	52	35.805	74.55	8.925	7875	8925
K55x63x32	G55x63x5	–	102	62.37	135.45	17.115	7350	8925
K60x65x20	–	–	52	29.505	75.6	9.24	7350	8925
K60x68x25	–	–	89	53.76	117.6	14.7	7035	7875
K65x73x30	–	–	141	56.595	131.25	16.38	6615	7350
K70x76x20	–	–	71	35.805	90.825	11.13	6300	7035
K70x78x30	G70x78x5	–	148	60.06	143.85	17.85	6300	7035
K75x83x23	–	–	124	49.665	115.5	14.385	5565	6615
K80x88x30	–	–	138	71.61	184.8	23.1	5250	6300
K85x92x20	–	–	102	45.045	113.4	13.86	5040	5880
K90x97x20	–	–	109	45.045	119.7	14.385	4725	5565
K90x98x30	–	–	172	67.62	181.65	22.68	4725	5565
K95x103x30	–	–	165	69.3	189	23.94	4515	5250
K100x108x27	–	–	185	57.75	150.15	18.48	4200	5040

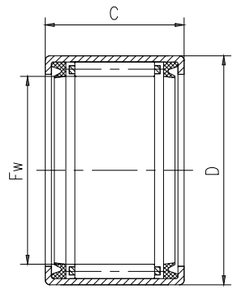
Drawn cup needle roller bearings



HK

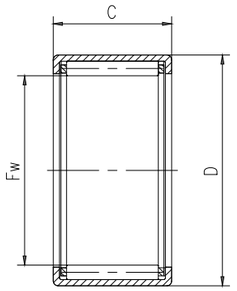


HK

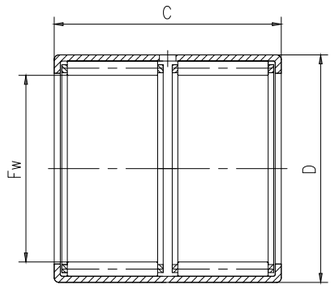


HK 2RS

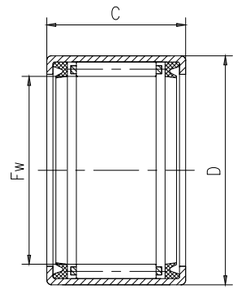
Type	The relevant inner ring		Radial shaft seal		Dimensions			
	IR series	LR series	Simple lip	Lips	F_w	D	C	r min.
-	-		-		mm			mm
HK306TN	–	–	–	–	3	6.5	6	0.3
HK408	–	–	G4x8x2S	–	4	8	8	0.3
HK509	–	–	G5x9x2S	–	5	9	9	0.4
HK608	–	–	G6x10x2S	–	6	10	8	0.4
HK609	–	–	G6x10x2S	–	6	10	9	0.4
HK709	–	–	G7x11x2S	–	7	11	9	0.4
HK808	–	–	G8x12x3	–	8	12	8	0.4
HK810	IR5x8x12	–	G8x12x3	–	8	12	10	0.4
HK0812.2RS	–	–	–	–	8	12	12	0.4
HK908	–	–	G9x13x3	–	9	13	8	0.4
HK910	–	–	G9x13x3	–	9	13	10	0.4
HK912	IR6x9x12	–	G9x13x3	–	9	13	12	0.4
HK1010	IR7x10x10.5	LR7x10x10.5	G10x14x3	–	10	14	10	0.4
HK1012	IR7x10x12	–	G10x14x3	–	10	14	12	0.4
HK1014.2RS	–	–	–	–	10	14	14	0.4
HK1015	IR7x10x16	–	G10x14x3	–	10	14	15	0.4
HK1210	IR8x12x10.5	LR8x12x10.5	G12x16x3	–	12	16	10	0.4
HK1212	IR8x12x12.5	LR8x12x12.5	G12x18x3	SD12x18x3	12	18	12	0.8
HK1216.2RS	–	–	–	–	12	18	16	0.8
HK1312	IR10x13x12.5	LR10x13x12.5	G13x19x3	–	13	19	12	0.8
HK1412	IR10x14x13	–	G14x20x3	SD14x20x3	14	20	12	0.8
HK1512	IR12x15x12.5	LR12x15x12.5	G15x21x3	SD15x21x3	15	21	12	0.8
HK1516	IR12x15x16.5	LR12x15x16.5	G15x21x3	SD15x21x3	15	21	16	0.8
HK1522	IR12x15x22.5	LR12x15x22.5	G15x21x3	SD15x21x3	15	21	22	0.8
HK1612	IR12x16x13	–	G16x22x3	SD16x22x3	16	22	12	0.8
HK1616	IR12x16x16	–	G16x22x3	SD16x22x3	16	22	16	0.8
HK1620.2RS	–	–	–	–	16	22	20	0.8
HK1622	IR12x16x22	–	G16x22x3	SD16x22x3	16	22	22	0.8
HK1712	–	–	G17x23x3	SD17x23x3	17	23	12	0.8
HK1812	–	LR15x18x12.5	G18x24x3SD	SD18x24x3	18	24	12	0.8
HK1816.2RS	IR15x18x16.5	LR15x18x16.5	–	–	18	24	16	0.8
HK1816	IR15x18x16.5	LR15x18x16.5	G18x24x3SD	SD18x24x3	18	24	16	0.8
HK2010	–	–	G20x26x4SD	SD20x26x4	20	26	10	0.8
HK2012	IR15x20x13	–	G20x26x4SD	SD20x26x4	20	26	12	0.8
HK2016.2RS	IR17x20x16.5	LR17x20x16.5	–	–	20	26	16	0.8



HK



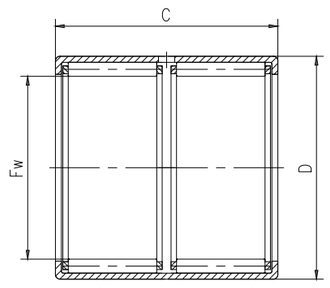
HK



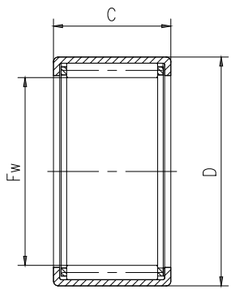
HK 2RS

Type	The relevant inner ring		Radial shaft seal		Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	IR series	LR series	Simple lip	Lips		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-		kg	kN		kN	r/min	
HK306TN	–	–	–	–	1	1.2915	0.924	0.0924	25200	27300
HK408	–	–	G4x8x2S	–	2	1.848	1.4385	0.147	23100	27300
HK509	–	–	G5x9x2S	–	2	2.499	2.184	0.231	23100	25200
HK608	–	–	G6x10x2S	–	2.1	2.1105	1.8165	0.189	21000	23100
HK609	–	–	G6x10x2S	–	2.5	2.9505	2.835	0.29925	21000	23100
HK709	–	–	G7x11x2S	–	2.6	3.1815	3.2025	0.34125	21000	23100
HK808	–	–	G8x12x3	–	2.7	2.835	2.8875	0.29925	19950	23100
HK810	IR5x8x12	–	G8x12x3	–	3	3.8745	4.2525	0.462	19950	23100
HK0812.2RS	–	–	–	–	3.3	2.835	2.8875	0.29925	–	13650
HK908	–	–	G9x13x3	–	3	3.696	4.095	0.43575	18900	21000
HK910	–	–	G9x13x3	–	4	4.3365	5.04	0.5565	18900	21000
HK912	IR6x9x12	–	G9x13x3	–	4.6	5.376	6.72	0.756	18900	21000
HK1010	IR7x10x10.5	LR7x10x10.5	G10x14x3	–	4.1	4.5045	5.565	0.5985	18900	21000
HK1012	IR7x10x12	–	G10x14x3	–	4.8	5.6595	7.2975	0.819	18900	21000
HK1014.2RS	–	–	–	–	4.6	4.5045	5.565	0.5985	–	12600
HK1015	IR7x10x16	–	G10x14x3	–	6	6.93	9.45	1.071	18900	21000
HK1210	IR8x12x10.5	LR8x12x10.5	G12x16x3	–	4.6	5.082	6.72	0.7455	16800	18900
HK1212	IR8x12x12.5	LR8x12x12.5	G12x18x3	SD12x18x3	9.5	6.5835	7.7175	0.8925	16800	18900
HK1216.2RS	–	–	–	–	11	6.5835	7.7175	0.8925	–	10500
HK1312	IR10x13x12.5	LR10x13x12.5	G13x19x3	–	10.5	6.93	8.4	0.96075	16800	17850
HK1412	IR10x14x13	–	G14x20x3	SD14x20x3	10.5	7.161	9.0825	1.029	15750	17850
HK1512	IR12x15x12.5	LR12x15x12.5	G15x21x3	SD15x21x3	11	8.0325	9.975	1.134	15750	16800
HK1516	IR12x15x16.5	LR12x15x16.5	G15x21x3	SD15x21x3	15	10.605	15.33	1.785	15750	16800
HK1522	IR12x15x22.5	LR12x15x22.5	G15x21x3	SD15x21x3	20	13.65	21	2.394	15750	16800
HK1612	IR12x16x13	–	G16x22x3	SD16x22x3	12	7.7385	10.29	1.176	14700	16800
HK1616	IR12x16x16	–	G16x22x3	SD16x22x3	16	11.025	16.38	1.89	14700	16800
HK1620.2RS	–	–	–	–	18	11.025	16.38	1.89	–	9450
HK1622	IR12x16x22	–	G16x22x3	SD16x22x3	24	13.44	20.58	2.352	14700	16800
HK1712	–	–	G17x23x3	SD17x23x3	13	8.0325	11.13	1.26	14700	15750
HK1812	–	LR15x18x12.5	G18x24x3SD	SD18x24x3	13	8.316	11.76	1.3335	13650	15750
HK1816.2RS	IR15x18x16.5	LR15x18x16.5	–	–	15	8.316	11.76	1.3335	–	8925
HK1816	IR15x18x16.5	LR15x18x16.5	G18x24x3SD	SD18x24x3	18	11.76	18.48	2.142	13650	15750
HK2010	–	–	G20x26x4SD	SD20x26x4	12	6.468	8.925	0.9765	12600	14700
HK2012	IR15x20x13	–	G20x26x4SD	SD20x26x4	14	8.841	13.125	1.47	12600	14700
HK2016.2RS	IR17x20x16.5	LR17x20x16.5	–	–	18	8.841	13.125	1.47	–	8400

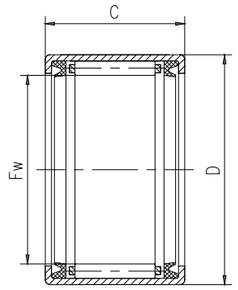
Drawn cup needle roller bearings



HK

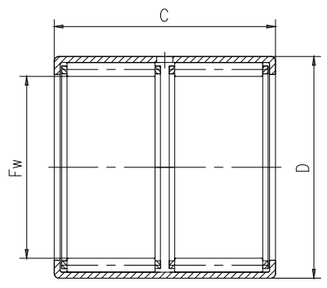


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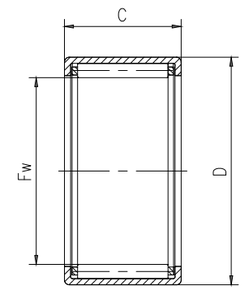


HK 2RS

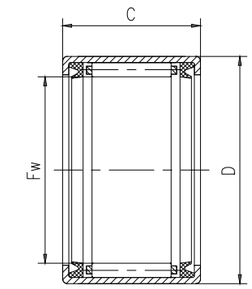
Type	The relevant inner ring		Radial shaft seal		Dimensions			
	IR series	LR series	Simple lip	Lips	F_w	D	C	r min.
-	-		-		mm			mm
HK2016	IR17x20x16.5	LR17x20x16.5	G20x26x4SD	SD20x26x4	20	26	16	0.8
HK2020.2RS	IR17x20x20.5	LR17x20x20.5	–	–	20	26	20	0.8
HK2020	IR17x20x20.5	LR17x20x20.5	G20x26x4SD	SD20x26x4	20	26	20	0.8
HK2030	IR17x20x30.5	LR17x20x30.5	G20x26x4SD	SD20x26x4	20	26	30	0.8
HK2210	–	–	G22x28x4SD	SD22x28x4	22	28	10	0.8
HK2212	IR17x22x13	–	G22x28x4SD	SD22x28x4	22	28	12	0.8
HK2216.2RS	IR17x22x23	–	–	–	22	28	16	0.8
HK2216	IR17x22x23	–	G22x28x4SD	SD22x28x4	22	28	16	0.8
HK2220.2RS	IR17x22x23	–	–	–	22	28	20	0.8
HK2220	IR17x22x23	–	G22x28x4SD	SD22x28x4	22	28	20	0.8
HK2512	–	LR20x25x12.5	G25x32x4–	–	25	32	12	0.8
HK2516.2RS	IR20x25x17	LR20x25x16.5	–	–	25	32	16	0.8
HK2516	IR20x25x17	LR20x25x16.5	G25x32x4–	–	25	32	16	0.8
HK2520.2RS	IR20x25x20.5	LR20x25x20.5	–	–	25	32	20	0.8
HK2520	IR20x25x20.5	LR20x25x20.5	G25x32x4–	–	25	32	20	0.8
HK2526	IR20x25x26.5	LR20x25x26.5	G25x32x4–	–	25	32	26	0.8
HK2530.2RS	IR20x25x30	–	–	–	25	32	30	0.8
HK2538	IR20x25x38.5	LR20x25x38.5	G25x32x4–	–	25	32	38	0.8
HK2816	IR22x28x17	–	G28x35x4SD	SD28x35x4	28	35	16	0.8
HK2820.2RS	IR22x28x20.5	LR22x28x20.5	–	–	28	35	20	0.8
HK2820	IR22x28x20.5	LR22x28x20.5	G28x35x4SD	SD28x35x4	28	35	20	0.8
HK3012	–	LR25x30x12.5	G30x37x4SD	SD30x37x4	30	37	12	0.8
HK3016.2RS	IR25x30x17	LR25x30x16.5	–	–	30	37	16	0.8
HK3016	IR25x30x17	LR25x30x16.5	G30x37x4SD	SD30x37x4	30	37	16	0.8
HK3020	IR25x30x20.5	LR25x30x20.5	G30x37x4SD	SD30x37x4	30	37	20	0.8
HK3026	IR25x30x26.5	LR25x30x26.5	G30x37x4SD	SD30x37x4	30	37	26	0.8
HK3038	IR25x30x38.5	LR25x30x38.5	G30x37x4SD	SD30x37x4	30	37	38	0.8
HK3512	–	LR30x35x12.5	G35x42x4	SD35x42x4	35	42	12	0.8
HK3516	IR30x35x17	LR30x35x16.5	G35x42x4	SD35x42x4	35	42	16	0.8
HK3520.2RS	IR30x35x20.5	LR30x35x20.5	–	–	35	42	20	0.8
HK3520	IR30x35x20.5	LR30x35x20.5	G35x42x4	SD35x42x4	35	42	20	0.8
HK4012	–	LR35x40x12.5	G40x47x4	SD40x47x4	40	47	12	0.8
HK4016.2RS	IR35x40x20	LR35x40x16.5	–	–	40	47	16	0.8
HK4016	IR35x40x20	LR35x40x16.5	G40x47x4	SD40x47x4	40	47	16	0.8



HK



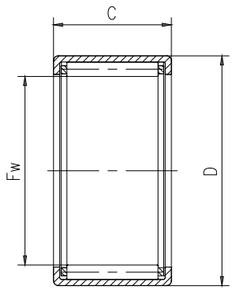
HK



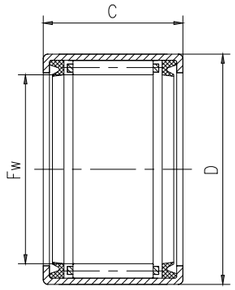
HK 2RS

Type	The relevant inner ring		Radial shaft seal		Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	IR series	LR series	Simple lip	Lips		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-		kg	kN		kN	r/min	
HK2016	IR17x20x16.5	LR17x20x16.5	G20x26x4SD	SD20x26x4	19	12.915	21.42	2.478	12600	14700
HK2020.2RS	IR17x20x20.5	LR17x20x20.5	–	–	23	12.915	21.42	2.478	–	8400
HK2020	IR17x20x20.5	LR17x20x20.5	G20x26x4SD	SD20x26x4	24	15.855	27.825	3.3075	12600	14700
HK2030	IR17x20x30.5	LR17x20x30.5	G20x26x4SD	SD20x26x4	35	21.945	42.525	4.9875	12600	14700
HK2210	–	–	G22x28x4SD	SD22x28x4	13	7.5705	11.13	1.26	11550	12600
HK2212	IR17x22x13	–	G22x28x4SD	SD22x28x4	15	9.24	14.385	1.638	11550	12600
HK2216.2RS	IR17x22x23	–	–	–	18	9.24	14.385	1.638	–	7875
HK2216	IR17x22x23	–	G22x28x4SD	SD22x28x4	21	13.65	23.52	2.73	11550	12600
HK2220.2RS	IR17x22x23	–	–	–	23	13.65	23.52	2.73	–	7875
HK2220	IR17x22x23	–	G22x28x4SD	SD22x28x4	26	16.485	30.45	3.6225	11550	12600
HK2512	–	LR20x25x12.5	G25x32x4–	–	20	11.025	16.065	1.848	9975	11550
HK2516.2RS	IR20x25x17	LR20x25x16.5	–	–	27	11.025	16.065	1.848	–	7035
HK2516	IR20x25x17	LR20x25x16.5	G25x32x4–	–	25	15.855	25.2	2.9925	9975	11550
HK2520.2RS	IR20x25x20.5	LR20x25x20.5	–	–	31	15.855	25.2	2.9925	–	7035
HK2520	IR20x25x20.5	LR20x25x20.5	G25x32x4–	–	33	19.95	34.125	4.2	9975	11550
HK2526	IR20x25x26.5	LR20x25x26.5	G25x32x4–	–	44	25.41	47.25	5.775	9975	11550
HK2530.2RS	IR20x25x30	–	–	–	47	25.41	47.25	5.775	–	7035
HK2538	IR20x25x38.5	LR20x25x38.5	G25x32x4–	–	64	34.65	68.775	8.4	9975	11550
HK2816	IR22x28x17	–	G28x35x4SD	SD28x35x4	26.5	16.485	27.825	3.3075	9450	9975
HK2820.2RS	IR22x28x20.5	LR22x28x20.5	–	–	34	16.485	27.825	3.3075	–	6615
HK2820	IR22x28x20.5	LR22x28x20.5	G28x35x4SD	SD28x35x4	36	21.105	38.325	4.62	9450	9975
HK3012	–	LR25x30x12.5	G30x37x4SD	SD30x37x4	23	12.285	19.215	2.226	8400	9450
HK3016.2RS	IR25x30x17	LR25x30x16.5	–	–	31	12.285	19.215	2.226	–	5880
HK3016	IR25x30x17	LR25x30x16.5	G30x37x4SD	SD30x37x4	31	17.325	30.45	3.57	8400	9450
HK3020	IR25x30x20.5	LR25x30x20.5	G30x37x4SD	SD30x37x4	38	21.945	42	4.9875	8400	9450
HK3026	IR25x30x26.5	LR25x30x26.5	G30x37x4SD	SD30x37x4	51	28.35	56.7	6.8775	8400	9450
HK3038	IR25x30x38.5	LR25x30x38.5	G30x37x4SD	SD30x37x4	76	37.59	84	9.975	8400	9450
HK3512	–	LR30x35x12.5	G35x42x4	SD35x42x4	27	13.125	22.68	2.5725	7350	8400
HK3516	IR30x35x17	LR30x35x16.5	G35x42x4	SD35x42x4	36	18.795	35.7	4.2	7350	8400
HK3520.2RS	IR30x35x20.5	LR30x35x20.5	–	–	41	18.795	35.7	4.2	–	5250
HK3520	IR30x35x20.5	LR30x35x20.5	G35x42x4	SD35x42x4	44	24.045	48.825	5.88	7350	8400
HK4012	–	LR35x40x12.5	G40x47x4	SD40x47x4	30	14.07	25.725	2.94	6615	7350
HK4016.2RS	IR35x40x20	LR35x40x16.5	–	–	37	15.225	28.875	3.3075	–	4725
HK4016	IR35x40x20	LR35x40x16.5	G40x47x4	SD40x47x4	39	19.95	40.95	4.7775	6615	7350

Drawn cup needle roller bearings

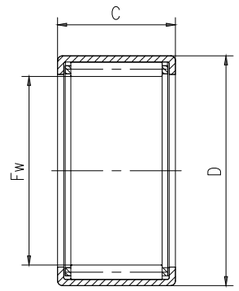


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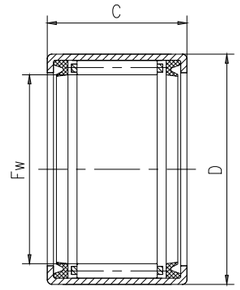


HK 2RS

Type	The relevant inner ring		Radial shaft seal		Dimensions			
	IR series	LR series	Simple lip	Lips	F_w	D	C	r min.
-	-		-		mm			mm
HK4020.2RS	IR35x40x20.5	LR35x40x20.5	–	–	40	47	20	0.8
HK4020	IR35x40x20.5	LR35x40x20.5	G40x47x4	SD40x47x4	40	47	20	0.8
HK4512	–	–	G45x52x4	SD45x52x4	45	52	12	0.8
HK4516	IR40x45x17	LR40x45x16.5	G45x52x4	SD45x52x4	45	52	16	0.8
HK4520.2RS	IR40x45x20.5	LR40x45x20.5	–	–	45	52	20	0.8
HK4520	IR40x45x20.5	–	G45x52x4	SD45x52x4	45	52	20	0.8
HK5020	–	LR45x50x20.5	G50x58x4	SD50x58x4	50	58	20	0.8
HK5024.2RS	IR45x50x25.5	LR45x50x25.5	–	–	50	58	24	0.8
HK5025	IR45x50x25.5	LR45x50x25.5	G50x58x4	SD50x58x4	50	58	25	0.8
HK5520	–	LR50x55x20.5	G55x63x5	–	55	63	20	0.8
HK5528	–	–	G55x63x5	–	55	63	28	0.8
HK6012	–	–	–	–	60	68	12	0.8
HK6020	–	–	–	–	60	68	20	0.8
HK6032	–	–	–	–	60	68	32	0.8



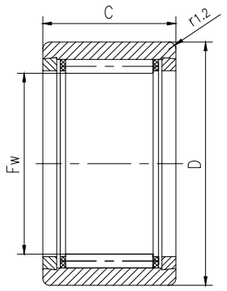
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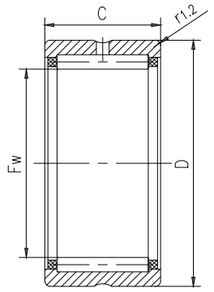
HK 2RS

Type	The relevant inner ring		Radial shaft seal		Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	IR series	LR series	Simple lip	Lips		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-		kg	kN		kN	r/min	
HK4020.2RS	IR35x40x20.5	LR35x40x20.5	–	–	48	19.95	40.95	4.7775	–	4725
HK4020	IR35x40x20.5	LR35x40x20.5	G40x47x4	SD40x47x4	54	25.41	55.65	6.72	6615	7350
HK4512	–	–	G45x52x4	SD45x52x4	33	14.91	28.875	3.36	5880	6615
HK4516	IR40x45x17	LR40x45x16.5	G45x52x4	SD45x52x4	47	21.525	45.15	5.355	5880	6615
HK4520.2RS	IR40x45x20.5	LR40x45x20.5	–	–	54	21.525	45.15	5.355	–	4200
HK4520	IR40x45x20.5	–	G45x52x4	SD45x52x4	56	27.3	63	7.56	5880	6615
HK5020	–	LR45x50x20.5	G50x58x4	SD50x58x4	70	30.66	66.15	8.19	5250	5880
HK5024.2RS	IR45x50x25.5	LR45x50x25.5	–	–	81	30.66	66.15	8.19	–	3780
HK5025	IR45x50x25.5	LR45x50x25.5	G50x58x4	SD50x58x4	85	38.745	89.25	11.13	5250	5880
HK5520	–	LR50x55x20.5	G55x63x5	–	74	31.815	70.35	8.715	4725	5250
HK5528	–	–	G55x63x5	–	105	43.89	109.2	13.545	4725	5250
HK6012	–	–	–	–	49	18.48	33.6	3.99	4515	5040
HK6020	–	–	–	–	81	33.495	78.75	9.765	4515	5040
HK6032	–	–	–	–	136	53.76	143.85	17.85	4515	5040

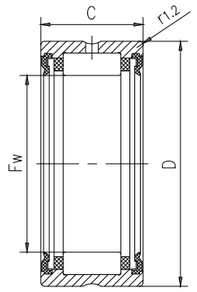
Needle roller bearings with machined rings with langes, without an inner ring



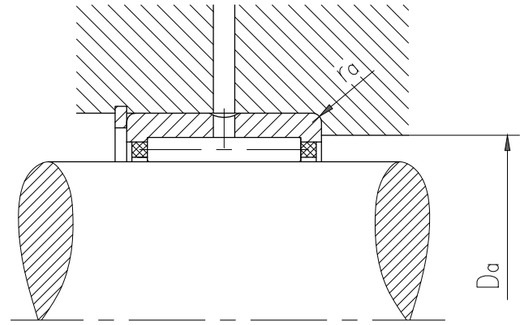
NK(Fw ≤10 mm)



NK(Fw ≥12 mm) / RNA49 / RNA69



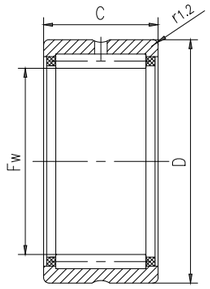
RNA 2RS



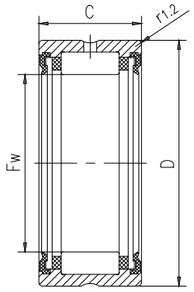
Type	Radial shaft seal			Dimensions				Shoulder and chamfer dimensions	
	Simple lip	Lips	Spring loaded seal lip	F_w	D	C	$r_{1,2}$ min.	D_a max.	r_a max.
-	-		-	mm			mm		
NK5/10TN	G5x10x2S	–	–	5	10	10	0.15	8.8	0.1
NK5/12TN	G5x10x2S	–	–	5	10	12	0.15	8.8	0.1
NK6/10TN	G6x12x2S	–	–	6	12	10	0.15	10.8	0.1
NK6/12TN	G6x12x2S	–	–	6	12	12	0.15	10.8	0.1
NK7/10TN	G7x14x2	–	–	7	14	10	0.3	12	0.3
NK7/12TN	G7x14x2	–	–	7	14	12	0.3	12	0.3
NK8/12TN	G8x15x3	SD8x15x3	–	8	15	12	0.3	13	0.3
NK8/16TN	G8x15x3	SD8x15x3	–	8	15	16	0.3	13	0.3
NK9/12TN	G9x16x3	–	–	9	16	12	0.3	14	0.3
NK9/16TN	G9x16x3	–	–	9	16	16	0.3	14	0.3
NK10/12TN	G10x17x3	SD10x17x3	–	10	17	12	0.3	15	0.3
NK10/16TN	G10x17x3	SD10x17x3	–	10	17	16	0.3	15	0.3
NK12/12	G12x19x3	SD12x19x3	–	12	19	12	0.3	17	0.3
NK12/16	G12x19x3	SD12x19x3	–	12	19	16	0.3	17	0.3
RNA4900.2RS	–	–	–	14	22	13	0.3	20	0.3
RNA4900	G14x22x3	SD14x22x3	–	14	22	13	0.3	20	0.3
NK14/16	G14x22x3	SD14x22x3	–	14	22	16	0.3	20	0.3
NK14/20	G14x22x3	SD14x22x3	–	14	22	20	0.3	20	0.3
NK15/16	G15x23x3	SD15x23x3	–	15	23	16	0.3	21	0.3
NK15/20	G15x23x3	SD15x23x3	–	15	23	20	0.3	21	0.3
RNA4901.2RS	–	–	–	16	24	13	0.3	22	0.3
RNA4901	G16x24x3	SD16x24x3	–	16	24	13	0.3	22	0.3
NK16/16	G16x24x3	SD16x24x3	–	16	24	16	0.3	22	0.3
NK16/20	G16x24x3	SD16x24x3	–	16	24	20	0.3	22	0.3
RNA6901	G16x24x3	SD16x24x3	–	16	24	22	0.3	22	0.3
NK17/16	G17x25x3	SD17x25x3	–	17	25	16	0.3	23	0.3
NK17/20	G17x25x3	SD17x25x3	–	17	25	20	0.3	23	0.3
NK18/16	G18x26x4	SD18x26x4	–	18	26	16	0.3	24	0.3
NK18/20	G18x26x4	SD18x26x4	–	18	26	20	0.3	24	0.3
NK19/16	G19x27x4	SD19x27x4	–	19	27	16	0.3	25	0.3
NK19/20	G19x27x4	SD19x27x4	–	19	27	20	0.3	25	0.3
RNA4902.2RS	–	–	–	20	28	13	0.3	26	0.3
RNA4902	G20x28x4	SD20x28x4	–	20	28	13	0.3	26	0.3
NK20/16	G20x28x4	SD20x28x4	–	20	28	16	0.3	26	0.3
NK20/20	G20x28x4	SD20x28x4	–	20	28	20	0.3	26	0.3
RNA6902	G20x28x4	SD20x28x4	–	20	28	23	0.3	26	0.3
NKS20	–	–	20x32x7HMS5RG	20	32	20	0.6	28	0.6

Type	Radial shaft seal			Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	Simple lip	Lips	Spring loaded seal lip		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-	kg	kN		kN	r/min	
NK5/10TN	G5x10x2S	–	–	0.0031	2.4045	2.1	0.2226	37800	42000
NK5/12TN	G5x10x2S	–	–	0.0037	3.066	2.835	0.3045	37800	42000
NK6/10TN	G6x12x2S	–	–	0.0047	2.6775	2.478	0.2625	35700	39900
NK6/12TN	G6x12x2S	–	–	0.0057	3.465	3.36	0.36225	35700	39900
NK7/10TN	G7x14x2	–	–	0.0069	2.9505	2.8875	0.3045	33600	37800
NK7/12TN	G7x14x2	–	–	0.0082	3.759	3.9375	0.43575	33600	37800
NK8/12TN	G8x15x3	SD8x15x3	–	0.0087	3.99	4.4625	0.48825	33600	37800
NK8/16TN	G8x15x3	SD8x15x3	–	0.012	5.2605	6.1425	0.7035	33600	37800
NK9/12TN	G9x16x3	–	–	0.01	4.62	5.46	0.5985	31500	35700
NK9/16TN	G9x16x3	–	–	0.013	6.006	7.56	0.85575	31500	35700
NK10/12TN	G10x17x3	SD10x17x3	–	0.01	4.7985	5.985	0.6615	29400	33600
NK10/16TN	G10x17x3	SD10x17x3	–	0.013	6.237	8.4	0.945	29400	33600
NK12/12	G12x19x3	SD12x19x3	–	0.012	7.0455	8.5575	1.01325	27300	31500
NK12/16	G12x19x3	SD12x19x3	–	0.016	9.5865	12.6	1.5015	27300	31500
RNA4900.2RS	–	–	–	0.016	7.7385	8.5575	1.01325	–	12600
RNA4900	G14x22x3	SD14x22x3	–	0.017	9.24	10.92	1.281	25200	29400
NK14/16	G14x22x3	SD14x22x3	–	0.021	10.71	13.125	1.575	25200	29400
NK14/20	G14x22x3	SD14x22x3	–	0.026	13.44	17.43	2.1	25200	29400
NK15/16	G15x23x3	SD15x23x3	–	0.022	11.55	14.7	1.743	25200	27300
NK15/20	G15x23x3	SD15x23x3	–	0.027	14.49	19.215	2.31	25200	27300
RNA4901.2RS	–	–	–	0.018	8.4945	10.1325	1.197	–	11550
RNA4901	G16x24x3	SD16x24x3	–	0.017	10.395	12.81	1.533	23100	27300
NK16/16	G16x24x3	SD16x24x3	–	0.022	12.285	16.065	1.89	23100	27300
NK16/20	G16x24x3	SD16x24x3	–	0.028	15.225	21	2.52	23100	27300
RNA6901	G16x24x3	SD16x24x3	–	0.031	16.905	24.36	2.8875	23100	27300
NK17/16	G17x25x3	SD17x25x3	–	0.024	12.705	17.43	2.058	23100	27300
NK17/20	G17x25x3	SD17x25x3	–	0.03	15.855	23.1	2.7825	23100	27300
NK18/16	G18x26x4	SD18x26x4	–	0.025	13.44	18.48	2.226	23100	25200
NK18/20	G18x26x4	SD18x26x4	–	0.031	16.905	24.78	2.9925	23100	25200
NK19/16	G19x27x4	SD19x27x4	–	0.026	14.07	19.95	2.394	21000	25200
NK19/20	G19x27x4	SD19x27x4	–	0.032	17.325	26.775	3.2025	21000	25200
RNA4902.2RS	–	–	–	0.022	9.5865	12.6	1.5015	–	9975
RNA4902	G20x28x4	SD20x28x4	–	0.022	11.76	16.065	1.9215	19950	23100
NK20/16	G20x28x4	SD20x28x4	–	0.027	13.86	20.265	2.394	19950	23100
NK20/20	G20x28x4	SD20x28x4	–	0.034	17.325	26.775	3.2025	19950	23100
RNA6902	G20x28x4	SD20x28x4	–	0.04	18.06	28.35	3.5175	19950	23100
NKS20	–	–	20x32x7HMS5RG	0.049	24.465	28.35	3.4125	18900	21000

Needle roller bearings with machined rings with langes, without an inner ring

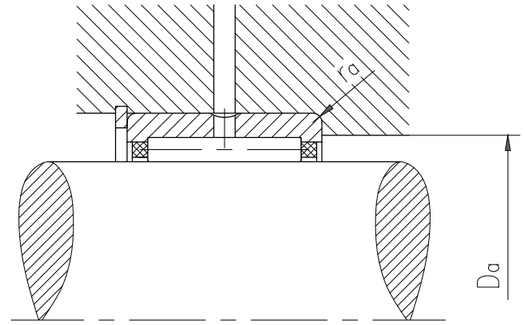


NK(Fw ≥12 mm) / RNA49 / RNA69



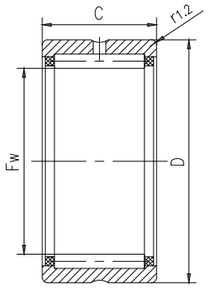
RNA 2RS

Type	Radial shaft seal			Dimensions				Shoulder and chamfer dimensions	
	Simple lip	Lips	Spring loaded seal lip	F_w	D	C	$r_{1,2}$ min.	D_a max.	r_a max.
-	-		-	mm			mm		
NK21/16	G21x29x4	–	–	21	29	16	0.3	27	0.3
NK21/20	G21x29x4	–	–	21	29	20	0.3	27	0.3
RNA4903.2RS	–	–	–	22	30	13	0.3	28	0.3
RNA4903	G22x30x4	SD22x30x4	–	22	30	13	0.3	28	0.3
NK22/16	G22x30x4	SD22x30x4	–	22	30	16	0.3	28	0.3
NK22/20	G22x30x4	SD22x30x4	–	22	30	20	0.3	28	0.3
RNA6903	G22x30x4	SD22x30x4	–	22	30	23	0.3	28	0.3
NK24/16	G24x32x4	SD24x32x4	–	24	32	16	0.3	30	0.3
NK24/20	G24x32x4	SD24x32x4	–	24	32	20	0.3	30	0.3
NKS24	–	–	24x37x7HMS5RG	24	37	20	0.6	33	0.6
NK25/16	G25x33x4	SD25x33x4	–	25	33	16	0.3	31	0.3
NK25/20	G25x33x4	SD25x33x4	–	25	33	20	0.3	31	0.3
RNA4904.2RS	–	–	–	25	37	17	0.3	35	0.3
RNA4904	–	–	25x37x5HMS5RG	25	37	17	0.3	35	0.3
RNA6904	–	–	25x37x5HMS5RG	25	37	30	0.3	35	0.3
NKS25	–	–	25x38x7HMS5RG	25	38	20	0.6	34	0.6
NK26/16	G26x34x4	SD26x34x4	–	26	34	16	0.3	32	0.3
NK26/20	G26x34x4	SD26x34x4	–	26	34	20	0.3	32	0.3
NK28/20	G28x37x4	–	–	28	37	20	0.3	35	0.3
NK28/30	G28x37x4	–	–	28	37	30	0.3	35	0.3
RNA49/22	–	–	–	28	39	17	0.3	37	0.3
RNA69/22	–	–	–	28	39	30	0.3	37	0.3
NKS28	–	–	28x42x7HMS5RG	28	42	20	0.6	38	0.6
NK29/20TN	G29x38x4	–	–	29	38	20	0.3	36	0.3
NK29/30	G29x38x4	–	–	30	38	30	0.3	36	0.3
NK30/20TN	G30x40x4	SD30x40x4	–	30	40	20	0.3	38	0.3
NK30/30TN	G30x40x4	SD30x40x4	–	30	40	30	0.3	38	0.3
RNA4905.2RS	–	–	–	30	42	17	0.3	40	0.3
RNA4905	–	–	30x42x6HMS5RG	30	42	17	0.3	40	0.3
RNA6905	–	–	30x42x6HMS5RG	30	42	30	0.3	40	0.3
NKS30	–	–	30x45x7HMS5RG	30	45	22	0.6	41	0.6
NK32/20TN	G32x42x4	SD32x42x4	–	32	42	20	0.3	40	0.3
NK32/30	G32x42x4	SD32x42x4	–	32	42	30	0.3	40	0.3
RNA49/28	G32x45x4	–	–	32	45	17	0.3	43	0.3
RNA69/28	G32x45x4	–	–	32	45	30	0.3	43	0.3
NKS32	–	–	32x47x6HMS5RG	32	47	22	0.6	43	0.6
NK35/20TN	G35x45x4	SD35x45x4	–	35	45	20	0.3	43	0.3

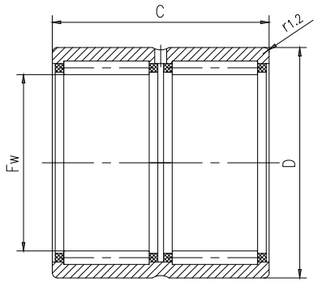


Type	Radial shaft seal			Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	Simple lip	Lips	Spring loaded seal lip		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-	kg	kN		kN	r/min	
NK21/16	G21x29x4	–	–	0.028	14.49	21.42	2.5725	19950	23100
NK21/20	G21x29x4	–	–	0.035	18.06	28.35	3.5175	19950	23100
RNA4903.2RS	–	–	–	0.023	9.996	13.545	1.6065	–	9450
RNA4903	G22x30x4	SD22x30x4	–	0.022	11.97	17.115	2.058	18900	21000
NK22/16	G22x30x4	SD22x30x4	–	0.03	14.91	22.68	2.73	18900	21000
NK22/20	G22x30x4	SD22x30x4	–	0.037	18.795	30.45	3.7275	18900	21000
RNA6903	G22x30x4	SD22x30x4	–	0.042	19.635	32.025	3.9375	18900	21000
NK24/16	G24x32x4	SD24x32x4	–	0.032	16.17	25.725	3.045	16800	19950
NK24/20	G24x32x4	SD24x32x4	–	0.04	19.95	34.125	4.2	16800	19950
NKS24	–	–	24x37x7HMS5RG	0.066	27.3	35.175	4.2	15750	17850
NK25/16	G25x33x4	SD25x33x4	–	0.033	15.855	25.725	3.045	16800	18900
NK25/20	G25x33x4	SD25x33x4	–	0.042	19.95	34.125	4.2	16800	18900
RNA4904.2RS	–	–	–	0.056	20.37	23.52	2.7825	–	7875
RNA4904	–	–	25x37x5HMS5RG	0.052	22.68	29.4	3.5175	15750	17850
RNA6904	–	–	25x37x5HMS5RG	0.1	36.96	55.65	6.8775	15750	17850
NKS25	–	–	25x38x7HMS5RG	0.068	28.875	37.8	4.62	15750	17850
NK26/16	G26x34x4	SD26x34x4	–	0.034	16.485	27.3	3.255	15750	17850
NK26/20	G26x34x4	SD26x34x4	–	0.042	20.37	36.225	4.4625	15750	17850
NK28/20	G28x37x4	–	–	0.052	23.1	38.325	4.7775	14700	16800
NK28/30	G28x37x4	–	–	0.082	33.495	63	7.875	14700	16800
RNA49/22	–	–	–	0.05	24.465	33.6	4.095	14700	15750
RNA69/22	–	–	–	0.098	38.745	59.85	7.56	14700	15750
NKS28	–	–	28x42x7HMS5RG	0.084	30.03	40.95	4.9875	13650	15750
NK29/20TN	G29x38x4	–	–	0.05	25.83	44.625	5.46	14700	15750
NK29/30	G29x38x4	–	–	0.084	33.495	63	7.875	14700	15750
NK30/20TN	G30x40x4	SD30x40x4	–	0.061	26.355	46.2	5.775	13650	15750
NK30/30TN	G30x40x4	SD30x40x4	–	0.092	38.745	75.6	9.45	13650	15750
RNA4905.2RS	–	–	–	0.06	22.68	28.875	3.4125	–	6615
RNA4905	–	–	30x42x6HMS5RG	0.061	25.41	36.225	4.3575	13650	15750
RNA6905	–	–	30x42x6HMS5RG	0.11	39.9	65.1	8.0325	13650	15750
NKS30	–	–	30x45x7HMS5RG	0.1	33.495	45.15	5.565	12600	14700
NK32/20TN	G32x42x4	SD32x42x4	–	0.064	27.72	50.4	6.3	12600	14700
NK32/30	G32x42x4	SD32x42x4	–	0.1	35.805	68.775	8.715	12600	14700
RNA49/28	G32x45x4	–	–	0.073	26.355	38.325	4.62	12600	14700
RNA69/28	G32x45x4	–	–	0.14	41.58	68.775	8.715	12600	14700
NKS32	–	–	32x47x6HMS5RG	0.11	35.805	48.825	5.985	12600	13650
NK35/20TN	G35x45x4	SD35x45x4	–	0.069	28.875	54.6	6.8775	11550	13650

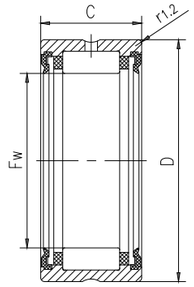
Needle roller bearings with machined rings with langes, without an inner ring



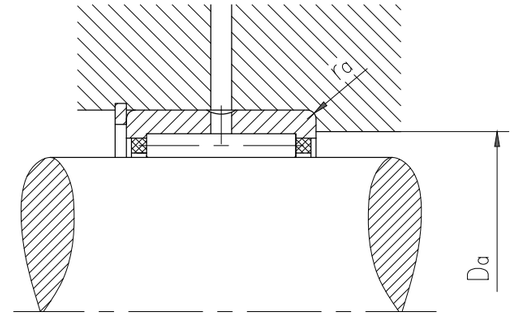
NK / RNA49



RNA 69



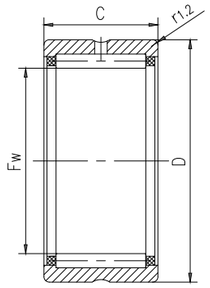
RNA 2RS



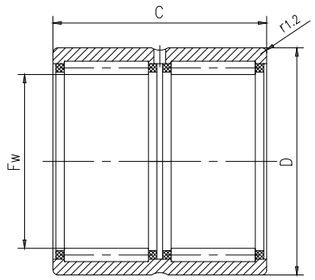
Type	Radial shaft seal			Dimensions				Shoulder and chamfer dimensions	
	Simple lip	Lips	Spring loaded seal lip	F_w	D	C	$r_{1,2}$ min.	D_a max.	r_a max.
-	-		-	mm			mm		
NK35/30TN	G35x45x4	SD35x45x4	–	35	45	30	0.3	43	0.3
RNA4906.2RS	–	–	–	35	47	17	0.3	45	0.3
RNA4906	–	–	35x47x6HMS5RG	35	47	17	0.3	45	0.3
RNA6906	–	–	35x47x6HMS5RG	35	47	30	0.3	45	0.3
NKS35	–	–	35x50x7HMS5RG	35	50	22	0.6	46	0.6
NK37/20	G37x47x4	SD37x47x4	–	37	47	20	0.3	45	0.3
NK37/30	G37x47x4	SD37x47x4	–	37	47	30	0.3	45	0.3
NKS37	–	–	37x52x8HMS4R	37	52	22	0.6	48	0.6
NK38/20	G38x48x4	SD38x48x4	–	38	48	20	0.3	46	0.3
NK38/30	G38x48x4	SD38x48x4	–	38	48	30	0.3	46	0.3
NK40/20TN	G40x50x4	SD40x50x4	–	40	50	20	0.3	48	0.3
NK40/30	G40x50x4	SD40x50x4	–	40	50	30	0.3	48	0.3
RNA49/32	G40x52x5	SD40x52x5	–	40	52	20	0.6	48	0.6
RNA69/32	G40x52x5	SD40x52x5	–	40	52	36	0.6	48	0.6
NKS40	–	–	40x55x7HMS5RG	40	55	22	0.6	51	0.6
NK42/20	G42x52x4	SD42x52x4	–	42	52	20	0.3	50	0.3
NK42/30	G42x52x4	SD42x52x4	–	42	52	30	0.3	50	0.3
RNA4907.2RS	–	–	–	42	55	20	0.6	51	0.6
RNA4907	–	–	42x55x7HMS5RG	42	55	20	0.6	51	0.6
RNA6907	–	–	42x55x7HMS5RG	42	55	36	0.6	51	0.6
NK43/20	G43x53x4	–	–	43	53	20	0.3	51	0.3
NK43/30	G43x53x4	–	–	43	53	30	0.3	51	0.3
NKS43	–	–	–	43	58	22	0.6	53	0.6
NK45/20TN	G45x55x4	SD45x55x4	–	45	55	20	0.3	53	0.3
NK45/30TN	G45x55x4	SD45x55x4	–	45	55	30	0.3	53	0.3
NKS45	–	–	45x60x7HMS5RG	45	60	22	0.6	56	0.6
NK47/20	–	–	–	47	57	20	0.3	55	0.3
NK47/30	–	–	–	47	57	30	0.3	55	0.3
RNA4908.2RS	–	–	–	48	62	22	0.6	58	0.6
RNA4908	–	–	48x62x8HMS5RG	48	62	22	0.6	58	0.6
RNA6908	–	–	48x62x8HMS5RG	48	62	40	0.6	58	0.6
NK50/25TN	G50x62x5	SD50x62x5	–	50	62	25	0.6	58	0.6
NK50/35TN	G50x62x5	SD50x62x5	–	50	62	35	0.6	58	0.6
NKS50	–	–	50x65x8HMS5RG	50	65	22	1	60	1
RNA4909.2RS	–	–	–	52	68	22	0.6	64	0.6
RNA4909	–	–	52x68x8HMS5RG	52	68	22	0.6	64	0.6
RNA6909	–	–	52x68x8HMS5RG	52	68	40	0.6	64	0.6

Type	Radial shaft seal			Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	Simple lip	Lips	Spring loaded seal lip		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-	kg	kN		kN	r/min	
NK35/30TN	G35x45x4	SD35x45x4	–	0.11	42.21	89.25	11.13	11550	13650
RNA4906.2RS	–	–	–	0.069	24.465	33.6	3.99	–	5880
RNA4906	–	–	35x47x6HMS5RG	0.069	26.775	40.95	4.8825	11550	13650
RNA6906	–	–	35x47x6HMS5RG	0.13	45.045	78.75	9.765	11550	13650
NKS35	–	–	35x50x7HMS5RG	0.12	36.96	52.5	6.51	11550	12600
NK37/20	G37x47x4	SD37x47x4	–	0.077	26.355	48.825	6.1425	11550	12600
NK37/30	G37x47x4	SD37x47x4	–	0.11	38.745	80.325	9.975	11550	12600
NKS37	–	–	37x52x8HMS4R	0.12	38.745	56.7	6.8775	10500	12600
NK38/20	G38x48x4	SD38x48x4	–	0.079	26.775	51.45	6.405	11550	12600
NK38/30	G38x48x4	SD38x48x4	–	0.12	39.27	84	10.5	11550	12600
NK40/20TN	G40x50x4	SD40x50x4	–	0.078	31.185	63	7.875	10500	11550
NK40/30	G40x50x4	SD40x50x4	–	0.13	39.9	87.15	10.92	10500	11550
RNA49/32	G40x52x5	SD40x52x5	–	0.089	32.34	53.55	6.615	10500	11550
RNA69/32	G40x52x5	SD40x52x5	–	0.16	49.665	94.5	11.34	10500	11550
NKS40	–	–	40x55x7HMS5RG	0.13	39.9	59.85	7.455	9975	11550
NK42/20	G42x52x4	SD42x52x4	–	0.086	28.35	55.65	6.8775	9975	11550
NK42/30	G42x52x4	SD42x52x4	–	0.13	41.055	90.825	11.34	9975	11550
RNA4907.2RS	–	–	–	0.11	28.35	45.15	5.565	–	5040
RNA4907	–	–	42x55x7HMS5RG	0.11	33.495	56.7	7.035	9975	11550
RNA6907	–	–	42x55x7HMS5RG	0.19	50.82	97.65	11.97	9975	11550
NK43/20	G43x53x4	–	–	0.086	28.875	57.75	7.14	9975	11550
NK43/30	G43x53x4	–	–	0.13	42.21	94.5	11.76	9975	11550
NKS43	–	–	–	0.14	41.055	64.05	7.875	9450	10500
NK45/20TN	G45x55x4	SD45x55x4	–	0.085	32.97	68.775	8.715	9450	10500
NK45/30TN	G45x55x4	SD45x55x4	–	0.13	47.985	113.4	14.385	9450	10500
NKS45	–	–	45x60x7HMS5RG	0.15	42.21	67.2	8.4	8925	10500
NK47/20	–	–	–	0.095	30.66	64.05	8.0325	8925	10500
NK47/30	–	–	–	0.14	43.89	102.9	13.125	8925	10500
RNA4908.2RS	–	–	–	0.15	38.745	61.425	7.455	–	4200
RNA4908	–	–	48x62x8HMS5RG	0.14	45.045	74.55	9.24	8400	9975
RNA6908	–	–	48x62x8HMS5RG	0.26	70.455	131.25	16.065	8400	9975
NK50/25TN	G50x62x5	SD50x62x5	–	0.15	45.045	96.075	11.76	8400	9450
NK50/35TN	G50x62x5	SD50x62x5	–	0.21	61.215	143.85	17.85	8400	9450
NKS50	–	–	50x65x8HMS5RG	0.16	45.045	75.6	9.24	8400	9450
RNA4909.2RS	–	–	–	0.16	41.055	67.2	8.19	–	3990
RNA4909	–	–	52x68x8HMS5RG	0.18	47.985	81.9	10.1325	7875	8925
RNA6909	–	–	52x68x8HMS5RG	0.34	73.92	143.85	17.85	7875	8925

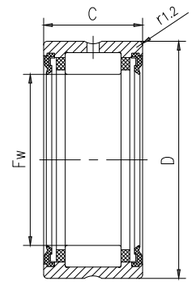
Needle roller bearings with machined rings with langes, without an inner ring



NK

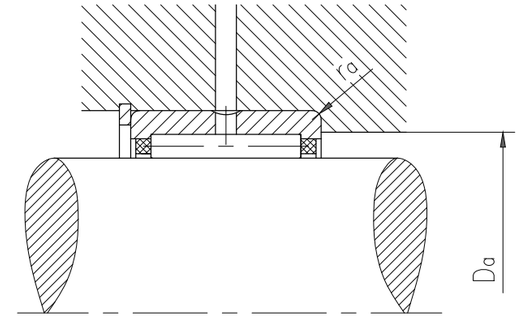


RNA 69



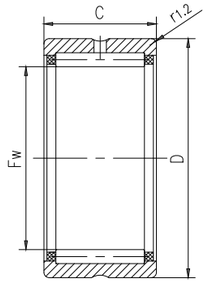
RNA 2RS

Type	Radial shaft seal			Dimensions				Shoulder and chamfer dimensions	
	Simple lip	Lips	Spring loaded seal lip	F_w	D	C	$r_{1,2}$ min.	D_a max.	r_a max.
-	-		-	mm			mm		
NK55/25	–	–	55x68x8HMS5RG	55	68	25	0.6	64	0.6
NK55/35	–	–	55x68x8HMS5RG	55	68	35	0.6	64	0.6
NKS55	–	–	55x72x8HMS5RG	55	72	22	1	67	1
RNA4910.2RS	–	–	–	58	72	22	0.6	68	0.6
RNA4910	–	–	58x72x8HMS5RG	58	72	22	0.6	68	0.6
RNA6910	–	–	58x72x8HMS5RG	58	72	40	0.6	68	0.6
NK60/25TN	–	–	60x72x8HMS5RG	60	72	25	0.6	68	0.6
NK60/35	–	–	60x72x8HMS5RG	60	72	35	0.6	68	0.6
NKS60	–	–	60x80x8HMS5RG	60	80	28	1.1	73.5	1
RNA4911	–	–	63x80x8CRW1R	63	80	25	1	75	1
RNA6911	–	–	63x80x8CRW1R	63	80	45	1	75	1
NK65/25	–	–	–	65	78	25	0.6	74	0.6
NK65/35	–	–	–	65	78	35	0.6	74	0.6
NKS65	–	–	65x85x8HMS5RG	65	85	28	1.1	78.5	1
NK68/25	–	–	–	68	82	25	0.6	78	0.6
NK68/35	–	–	–	68	82	35	0.6	78	0.6
RNA4912	–	–	–	68	85	25	1	80	1
RNA6912	–	–	68x85x8CRW1R	68	85	45	1	80	1
NK70/25	–	–	70x85x8HMS5RG	70	85	25	0.6	81	0.6
NK70/35	–	–	70x85x8HMS5RG	70	85	35	0.6	81	0.6
NKS70	–	–	70x90x10HMS5RG	70	90	28	1.1	83.5	1
RNA 4913	–	–	72x90x10HMS5RG	72	90	25	1	85	1
RNA 6913	–	–	72x90x10HMS5RG	72	90	45	1	85	1
NK73/25	–	–	–	73	90	25	1	85	1
NK73/35	–	–	–	73	90	35	1	85	1
NK75/25	–	–	73x92x11.1CRWH1R	75	92	25	1	87	1
NK75/35	–	–	73x92x11.1CRWH1R	75	92	35	1	87	1
NKS75	–	–	75x95x10HMS5RG	75	95	28	1.1	88.5	1
NK80/25	–	–	80x95x10HMS5RG	80	95	25	1	90	1
NK80/35	–	–	80x95x10HMS5RG	80	95	35	1	90	1
RNA4914	–	–	80x100x10HMS5RG	80	100	30	1	95	1
RNA6914	–	–	80x100x10HMS5RG	80	100	54	1	95	1
NK85/25	–	–	85x105x12HMS5RG	85	105	25	1	100	1
RNA4915	–	–	85x105x12HMS5RG	85	105	30	1	100	1
NK85/35	–	–	85x105x12HMS5RG	85	105	35	1	100	1
RNA6915	–	–	85x105x12HMS5RG	85	105	54	1	100	1
NK90/25	–	–	90x110x10HMS5RG	90	110	25	1	105	1

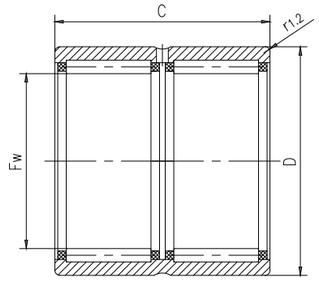


Type	Radial shaft seal		Spring loaded seal lip	Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	Simple lip	Lips			Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-	kg	kN		kN	r/min	
NK55/25	–	–	55x68x8HMS5RG	0.18	42.21	92.4	11.34	7875	8925
NK55/35	–	–	55x68x8HMS5RG	0.25	54.915	128.1	16.065	7875	8925
NKS55	–	–	55x72x8HMS5RG	0.22	46.83	81.9	10.29	7350	8400
RNA4910.2RS	–	–	–	0.16	42.21	72.975	8.925	–	3570
RNA4910	–	–	58x72x8HMS5RG	0.16	49.665	89.25	11.13	7350	8400
RNA6910	–	–	58x72x8HMS5RG	0.31	77.385	157.5	19.53	7350	8400
NK60/25TN	–	–	60x72x8HMS5RG	0.17	49.14	115.5	14.07	7035	7875
NK60/35	–	–	60x72x8HMS5RG	0.26	57.75	140.7	17.85	7035	7875
NKS60	–	–	60x80x8HMS5RG	0.34	65.835	109.2	13.86	6615	7875
RNA4911	–	–	63x80x8CRW1R	0.26	60.06	111.3	13.86	6615	7350
RNA6911	–	–	63x80x8CRW1R	0.47	94.185	199.5	24.36	6615	7350
NK65/25	–	–	–	0.22	46.2	109.2	13.335	6615	7350
NK65/35	–	–	–	0.31	61.215	153.3	19.215	6615	7350
NKS65	–	–	65x85x8HMS5RG	0.36	69.3	119.7	15.33	6300	7035
NK68/25	–	–	–	0.24	46.2	99.75	12.39	6300	7035
NK68/35	–	–	–	0.34	63.525	153.3	19.215	6300	7035
RNA4912	–	–	–	0.28	63.525	119.7	15.015	6300	7035
RNA6912	–	–	68x85x8CRW1R	0.49	98.175	214.2	26.25	6300	7035
NK70/25	–	–	70x85x8HMS5RG	0.26	46.83	102.9	12.81	6300	7035
NK70/35	–	–	70x85x8HMS5RG	0.37	64.68	157.5	19.95	6300	7035
NKS70	–	–	70x90x10HMS5RG	0.38	71.61	126	16.065	5880	6615
RNA 4913	–	–	72x90x10HMS5RG	0.31	64.68	126	15.33	5880	6615
RNA 6913	–	–	72x90x10HMS5RG	0.58	99.96	222.6	27.3	5880	6615
NK73/25	–	–	–	0.3	55.44	111.3	13.86	5880	6615
NK73/35	–	–	–	0.43	77.385	171.15	21.42	5880	6615
NK75/25	–	–	73x92x11.1CRWH1R	0.32	56.595	115.5	14.385	5565	6300
NK75/35	–	–	73x92x11.1CRWH1R	0.45	78.54	178.5	22.26	5565	6300
NKS75	–	–	75x95x10HMS5RG	0.4	73.92	138.6	17.43	5565	6300
NK80/25	–	–	80x95x10HMS5RG	0.3	58.905	133.35	16.38	5250	5880
NK80/35	–	–	80x95x10HMS5RG	0.43	80.325	199.5	25.2	5250	5880
RNA4916	–	–	80x100x10HMS5RG	0.46	88.41	171.15	21.84	5250	5880
RNA6916	–	–	80x100x10HMS5RG	0.86	134.4	299.25	37.8	5250	5880
NK85/25	–	–	85x105x12HMS5RG	0.43	72.765	138.6	17.43	5040	5565
RNA4915	–	–	85x105x12HMS5RG	0.49	88.41	178.5	22.68	5040	5565
NK85/35	–	–	85x105x12HMS5RG	0.6	101.64	210	27.3	5040	5565
RNA6915	–	–	85x105x12HMS5RG	0.94	136.5	304.5	39.375	5040	5565
NK90/25	–	–	90x110x10HMS5RG	0.45	75.705	147	18.9	4725	5250

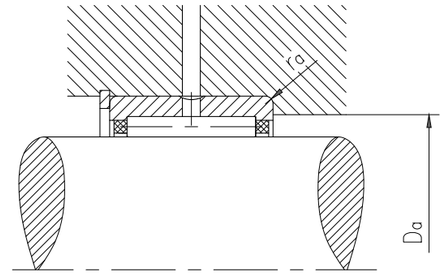
Needle roller bearings with machined rings with langes, without an inner ring



NK / RNA49



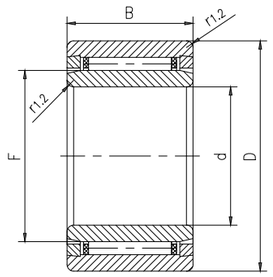
RNA 69



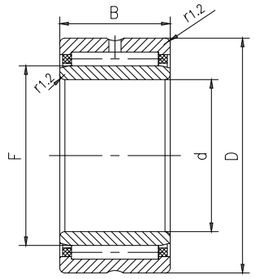
Type	Radial shaft seal			Dimensions				Shoulder and chamfer dimensions	
	Simple lip	Lips	Spring loaded seal lip	F_w	D	C	$r_{1,2}$ min.	D_a max.	r_a max.
-	-		-	mm			mm		
RNA4916	–	–	90x110x10HMS5RG	90	110	30	1	105	1
NK90/35	–	–	90x110x10HMS5RG	90	110	35	1	105	1
RNA6916	–	–	90x110x10HMS5RG	90	110	54	1	105	1
NK95/26	–	–	95x115x12HMS5RG	95	115	26	1	110	1
NK95/36	–	–	95x115x12HMS5RG	95	115	36	1	110	1
NK100/26	–	–	100x120x10HMS5RG	100	120	26	1	115	1
RNA4917	–	–	100x120x10HMS5RG	100	120	35	1.1	113.5	1
NK100/36	–	–	100x120x10HMS5RG	100	120	36	1	115	1
RNA6917	–	–	100x120x10HMS5RG	100	120	63	1.1	113.5	1
NK105/26	–	–	105x125x13HMS4R	105	125	26	1	120	1
RNA4918	–	–	105x125x13HMS4R	105	125	35	1.1	118.5	1
NK105/36	–	–	105x125x13HMS4R	105	125	36	1	120	1
RNA6918	–	–	105x125x13HMS4R	105	125	63	1.1	118.5	1
NK110/30	–	–	110x130x12HMS5RG	110	130	30	1.1	123.5	1
RNA4919	–	–	110x130x12HMS5RG	110	130	35	1.1	123.5	1
NK110/40	–	–	110x130x12HMS5RG	110	130	40	1.1	123.5	1
RNA6919	–	–	110x130x12HMS5RG	110	130	63	1.1	123.5	1
RNA4920	–	–	115x140x12HMS5RG	115	140	40	1.1	133.5	1
RNA4822	–	–	120x140x12HMS5RG	120	140	30	1	135	1
RNA4922	–	–	125x150x12HMS5RG	125	150	40	1.1	143.5	1
RNA4824	–	–	130x150x10CRSA1R	130	150	30	1	145	1
RNA4924	–	–	135x165x14HMSA7R	135	165	45	1.1	158.5	1
RNA4826	–	–	–	145	165	35	1.1	158.5	1
RNA4926	–	–	150x180x12HMS5RG	150	180	50	1.5	172	1.5
RNA4828	–	–	–	155	175	35	1.1	168.5	1
RNA4928	–	–	160x190x15HMS5RG	160	190	50	1.5	182	1.5
RNA4830	–	–	165x190x15HMS5RG	165	190	40	1.1	183.5	1
RNA4832	–	–	175x200x15HMS5RG	175	200	40	1.1	193.5	1
RNA4834	–	–	185x215x15HMS42R	185	215	45	1.1	208.5	1
RNA4836	–	–	–	195	225	45	1.1	218.5	1
RNA4838	–	–	210x240x15HMS5RG	210	240	50	1.5	232	1.5
RNA4840	–	–	220x250x15HMS5RG	220	250	50	1.5	242	1.5
RNA4844	–	–	240x270x15HMS5RG	240	270	50	1.5	262	1.5
RNA4848	–	–	Availableonrequest	265	300	60	2	291	2
RNA4852	–	–	285x320x16HDS2R	285	320	60	2	311	2
RNA4856	–	–	Availableonrequest	305	350	69	2	341	2
RNA4860	–	–	Availableonrequest	330	380	80	2.1	369	2

Type	Radial shaft seal			Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
	Simple lip	Lips	Spring loaded seal lip		Dynamic C	Static C_0		reference speed	Maximum speed
-	-		-	kg	kN		kN	r/min	
RNA4916	–	–	90x110x10HMS5RG	0.52	92.4	192.15	24.36	4725	5250
NK90/35	–	–	90x110x10HMS5RG	0.63	106.05	226.8	29.4	4725	5250
RNA6916	–	–	90x110x10HMS5RG	0.99	140.7	330.75	42	4725	5250
NK95/26	–	–	95x115x12HMS5RG	0.49	77.385	153.3	19.53	4515	5040
NK95/36	–	–	95x115x12HMS5RG	0.68	110.25	243.6	31.5	4515	5040
NK100/26	–	–	100x120x10HMS5RG	0.52	80.325	163.8	20.58	4200	4725
RNA4917	–	–	100x120x10HMS5RG	0.66	113.4	262.5	32.55	4200	4725
NK100/36	–	–	100x120x10HMS5RG	0.72	113.4	262.5	32.55	4200	4725
RNA6917	–	–	100x120x10HMS5RG	1.2	173.25	446.25	55.65	4200	4725
NK105/26	–	–	105x125x13HMS4R	0.54	82.005	174.3	21.42	3990	4515
RNA4918	–	–	105x125x13HMS4R	0.75	117.6	278.25	34.125	3990	4515
NK105/36	–	–	105x125x13HMS4R	0.71	117.6	278.25	34.125	3990	4515
RNA6918	–	–	105x125x13HMS4R	1.35	180.6	472.5	57.75	3990	4515
NK110/30	–	–	110x130x12HMS5RG	0.65	101.64	231	28.35	3780	4200
RNA4919	–	–	110x130x12HMS5RG	0.72	119.7	283.5	35.175	3780	4200
NK110/40	–	–	110x130x12HMS5RG	0.83	129.15	320.25	39.375	3780	4200
RNA6919	–	–	110x130x12HMS5RG	1.45	180.6	488.25	58.8	3780	4200
RNA4920	–	–	115x140x12HMS5RG	1.15	131.25	294	35.7	3570	4200
RNA4822	–	–	120x140x12HMS5RG	0.66	98.175	243.6	28.35	3570	3990
RNA4922	–	–	125x150x12HMS5RG	1.25	136.5	315	37.275	3360	3780
RNA4824	–	–	130x150x10CRSA1R	0.73	103.95	267.75	30.45	3360	3780
RNA4924	–	–	135x165x14HMSA7R	1.85	184.8	425.25	51.45	3150	3570
RNA4826	–	–	–	0.99	124.95	341.25	38.325	2940	3360
RNA4926	–	–	150x180x12HMS5RG	2.2	207.9	504	59.85	2730	3150
RNA4828	–	–	–	0.97	127.05	362.25	39.375	2730	3150
RNA4928	–	–	160x190x15HMS5RG	2.35	215.25	535.5	63	2520	2940
RNA4830	–	–	165x190x15HMS5RG	1.6	154.35	435.75	48.825	2520	2940
RNA4832	–	–	175x200x15HMS5RG	1.7	164.85	472.5	51.45	2310	2730
RNA4834	–	–	185x215x15HMS42R	2.55	187.95	546	58.8	2310	2520
RNA4836	–	–	–	2.7	199.5	598.5	63	2100	2520
RNA4838	–	–	210x240x15HMS5RG	3.2	231	745.5	77.175	1995	2310
RNA4840	–	–	220x250x15HMS5RG	3.35	235.2	771.75	78.75	1890	2100
RNA4844	–	–	240x270x15HMS5RG	3.6	249.9	855.75	85.575	1785	1995
RNA4848	–	–	Availableonrequest	5.4	364.35	1176	117.6	1575	1785
RNA4852	–	–	285x320x16HDS2R	5.8	375.9	1260	123.9	1470	1575
RNA4856	–	–	Availableonrequest	9.3	450.45	1386	135.45	1365	1470
RNA4860	–	–	Availableonrequest	12.5	623.7	1890	181.65	1155	1365

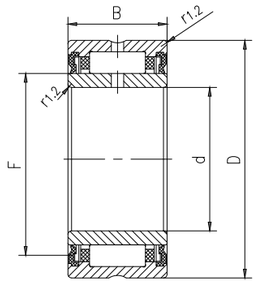
Needle roller bearings with machined rings with langes, with an inner ring



NKI (d ≤ 7 mm)

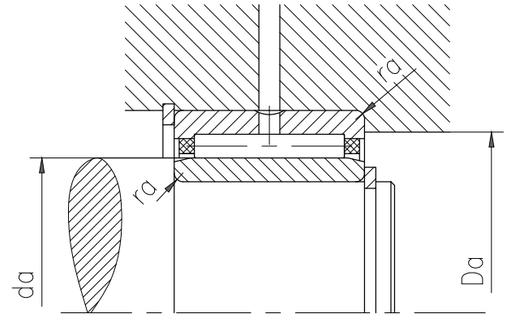


NKI(S) (d ≥ 9 mm) NA 49 / NA 69



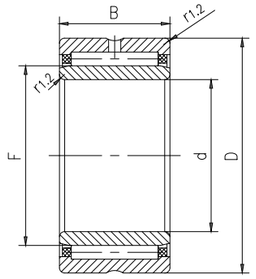
NA 49 2RS

Type	Main dimensions				Dimensions			Shoulder and chamfer dimensions		
	d	D	B	C	F	$r_{1,2}$ min.	s max.	d_a min.	D_a max.	r_a max.
-	mm				mm			mm		
NKI5/12TN	5	15	12	–	8	0.3	1.5	7	13	0.3
NKI5/16TN	5	15	16	–	8	0.3	2	7	13	0.3
NKI6/12TN	6	16	12	–	9	0.3	1.5	8	14	0.3
NKI6/16TN	6	16	16	–	9	0.3	2	8	14	0.3
NKI7/12TN	7	17	12	–	10	0.3	1.5	9	15	0.3
NKI7/16TN	7	17	16	–	10	0.3	2	9	15	0.3
NKI9/12	9	19	12	–	12	0.3	1.5	11	17	0.3
NKI9/16	9	19	16	–	12	0.3	2	11	17	0.3
NA4900	10	22	13	–	14	0.3	0.5	12	20	0.3
NA4900.2RS	10	22	14	13	14	0.3	0.5	12	20	0.3
NKI10/16	10	22	16	–	14	0.3	0.5	12	20	0.3
NKI10/20	10	22	20	–	14	0.3	0.5	12	20	0.3
NA4901	12	24	13	–	16	0.3	0.5	14	22	0.3
NA4901.2RS	12	24	14	13	16	0.3	0.5	14	22	0.3
NKI12/16	12	24	16	–	16	0.3	0.5	14	22	0.3
NKI12/20	12	24	20	–	16	0.3	0.5	14	22	0.3
NA6901	12	24	22	–	16	0.3	1	14	22	0.3
NKI15/16	15	27	16	–	19	0.3	0.5	17	25	0.3
NKI15/20	15	27	20	–	19	0.3	0.5	17	25	0.3
NA4902	15	28	13	–	20	0.3	0.5	17	26	0.3
NA4902.2RS	15	28	14	13	20	0.3	0.5	17	26	0.3
NA6902	15	28	23	–	20	0.3	1	17	26	0.3
NKIS15	15	35	20	–	22	0.6	0.5	19	31	0.6
NKI17/16	17	29	16	–	21	0.3	0.5	19	27	0.3
NKI17/20	17	29	20	–	21	0.3	0.5	19	27	0.3
NA4903	17	30	13	–	22	0.3	0.5	19	28	0.3
NA4903.2RS	17	30	14	13	22	0.3	0.5	19	28	0.3
NA6903	17	30	23	–	22	0.3	1	19	28	0.3
NKIS17	17	37	20	–	24	0.6	0.5	21	33	0.6
NKI20/16	20	32	16	–	24	0.3	0.5	22	30	0.3
NKI20/20	20	32	20	–	24	0.3	0.5	22	30	0.3
NA4904	20	37	17	–	25	0.3	0.8	22	35	0.3
NA4904.2RS	20	37	18	17	25	0.3	0.5	22	35	0.3
NA6904	20	37	30	–	25	0.3	1	22	35	0.3
NKIS20	20	42	20	–	28	0.6	0.5	24	38	0.6
NKI22/16	22	34	16	–	26	0.3	0.5	24	32	0.3
NKI22/20	22	34	20	–	26	0.3	0.5	24	32	0.3
NA49/22	22	39	17	–	28	0.3	0.8	24	37	0.3

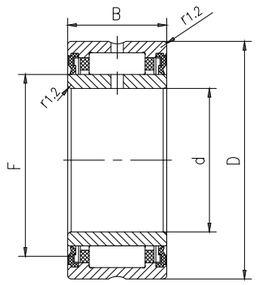


Type	Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
		Dynamic C	Static C_0		reference speed	Maximum speed
-	kg	kN		kN	r/min	
NKI5/12TN	0.012	3.99	4.4625	0.48825	33600	37800
NKI5/16TN	0.015	5.2605	6.1425	0.7035	33600	37800
NKI6/12TN	0.014	4.62	5.46	0.5985	31500	35700
NKI6/16TN	0.017	6.006	7.56	0.85575	31500	35700
NKI7/12TN	0.014	4.7985	5.985	0.6615	29400	33600
NKI7/16TN	0.018	6.237	8.4	0.945	29400	33600
NKI9/12	0.017	7.0455	8.5575	1.01325	27300	31500
NKI9/16	0.022	9.5865	12.6	1.5015	27300	31500
NA4900	0.024	9.24	10.92	1.281	25200	29400
NA4900.2RS	0.025	7.7385	8.5575	1.01325	–	12600
NKI10/16	0.029	10.71	13.125	1.575	25200	29400
NKI10/20	0.037	13.44	17.43	2.1	25200	29400
NA4901	0.026	10.395	12.81	1.533	23100	27300
NA4901.2RS	0.028	8.4945	10.1325	1.197	–	11550
NKI12/16	0.033	12.285	16.065	1.89	23100	27300
NKI12/20	0.042	15.225	21	2.52	23100	27300
NA6901	0.046	16.905	24.36	2.8875	23100	27300
NKI15/16	0.039	14.07	19.95	2.394	21000	25200
NKI15/20	0.049	17.325	26.775	3.2025	21000	25200
NA4902	0.034	11.76	16.065	1.9215	19950	23100
NA4902.2RS	0.037	9.5865	12.6	1.5015	–	9975
NA6902	0.064	18.06	28.35	3.5175	19950	23100
NKIS15	0.092	25.83	31.5	3.8325	16800	19950
NKI17/16	0.042	14.49	21.42	2.5725	19950	23100
NKI17/20	0.053	18.06	28.35	3.5175	19950	23100
NA4903	0.038	11.97	17.115	2.058	18900	21000
NA4903.2RS	0.04	9.996	13.545	1.6065	–	9450
NA6903	0.072	19.635	32.025	3.9375	18900	21000
NKIS17	0.098	27.3	35.175	4.2	15750	17850
NKI20/16	0.048	16.17	25.725	3.045	16800	19950
NKI20/20	0.06	19.95	34.125	4.2	16800	19950
NA4904	0.075	22.68	29.4	3.5175	15750	17850
NA4904.2RS	0.08	20.37	23.52	2.7825	–	7875
NA6904	0.14	36.96	55.65	6.8775	15750	17850
NKIS20	0.13	30.03	40.95	4.9875	13650	15750
NKI22/16	0.052	16.485	27.3	3.255	15750	17850
NKI22/20	0.065	20.37	36.225	4.4625	15750	17850
NA49/22	0.08	24.465	33.6	4.095	14700	15750

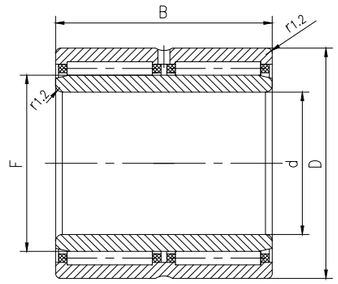
Needle roller bearings with machined rings with langes, with an inner ring



NKI(S) (d ≥ 9 mm) NA 49 / NA 69

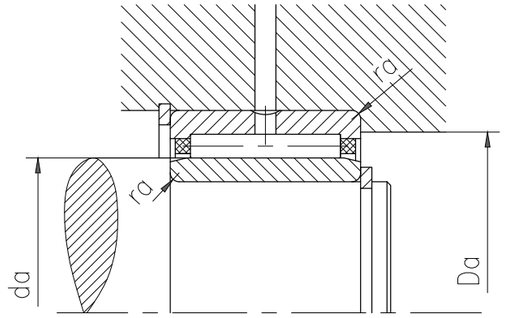


NA 49 2RS



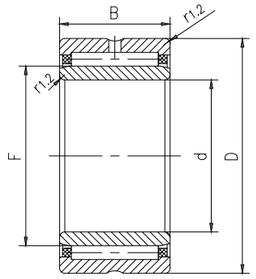
NA 69(d > 32 mm)

Type	Main dimensions				Dimensions			Shoulder and chamfer dimensions		
	d	D	B	C	F	$r_{1,2}$ min.	s max.	d_a min.	D_a max.	r_a max.
-	mm				mm			mm		
NA69/22	22	39	30	–	28	0.3	0.5	24	37	0.3
NKI25/20TN	25	38	20	–	29	0.3	1	27	36	0.3
NKI25/30	25	38	30	–	29	0.3	1.5	27	36	0.3
NA4905	25	42	17	–	30	0.3	0.8	27	40	0.3
NA4905.2RS	25	42	18	17	30	0.3	0.5	27	40	0.3
NA6905	25	42	30	–	30	0.3	1	27	40	0.3
NKIS25	25	47	22	–	32	0.6	1	29	43	0.6
NKI28/20TN	28	42	20	–	32	0.3	1	30	40	0.3
NKI28/30	28	42	30	–	32	0.3	1.5	30	40	0.3
NA49/28	28	45	17	–	32	0.3	0.8	30	43	0.3
NA69/28	28	45	30	–	32	0.3	1	30	43	0.3
NKI30/20TN	30	45	20	–	35	0.3	0.5	32	43	0.3
NKI30/30TN	30	45	30	–	35	0.3	1	32	43	0.3
NA4906	30	47	17	–	35	0.3	0.8	32	45	0.3
NA4906.2RS	30	47	18	17	35	0.3	0.5	32	45	0.3
NA6906	30	47	30	–	35	0.3	1	32	45	0.3
NKIS30	30	52	22	–	37	0.6	1	34	48	0.6
NKI32/20	32	47	20	–	37	0.3	0.5	34	45	0.3
NKI32/30	32	47	30	–	37	0.3	1	34	45	0.3
NA49/32	32	52	20	–	40	0.6	0.8	36	48	0.6
NA69/32	32	52	36	–	40	0.6	0.5	36	48	0.6
NKI35/20TN	35	50	20	–	40	0.3	0.5	37	48	0.3
NKI35/30	35	50	30	–	40	0.3	1	37	48	0.3
NA4907	35	55	20	–	42	0.6	0.8	39	51	0.6
NA4907.2RS	35	55	21	20	42	0.6	0.5	39	51	0.6
NA6907	35	55	36	–	42	0.6	0.5	39	51	0.6
NKIS35	35	58	22	–	43	0.6	0.5	39	53	0.6
NKI38/20	38	53	20	–	43	0.3	0.5	40	51	0.3
NKI38/30	38	53	30	–	43	0.3	1	40	51	0.3
NKI40/20TN	40	55	20	–	45	0.3	0.5	42	53	0.3
NKI40/30TN	40	55	30	–	45	0.3	1	42	53	0.3
NA4908	40	62	22	–	48	0.6	1	44	58	0.6
NA4908.2RS	40	62	23	22	48	0.6	0.5	44	58	0.6
NA6908	40	62	40	–	48	0.6	0.5	44	58	0.6
NKIS40	40	65	22	–	50	1	0.5	45	60	1
NKI42/20	42	57	20	–	47	0.3	0.5	44	55	0.3
NKI42/30	42	57	30	–	47	0.3	1	44	55	0.3
NKI45/25TN	45	62	25	–	50	0.6	1.5	49	58	0.6

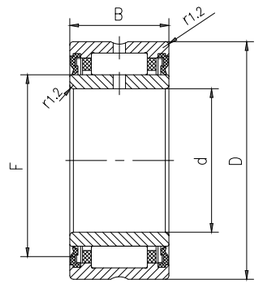


Type	Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
		Dynamic C	Static C_0		reference speed	Maximum speed
-	kg	kN		kN	r/min	
NA69/22	0.15	38.745	59.85	7.56	14700	15750
NKI25/20TN	0.08	25.83	44.625	5.46	14700	15750
NKI25/30	0.12	33.495	63	7.875	14700	15750
NA4905	0.088	25.41	36.225	4.3575	13650	15750
NA4905.2RS	0.09	22.68	28.875	3.4125	–	6615
NA6905	0.16	39.9	65.1	8.0325	13650	15750
NKIS25	0.16	35.805	48.825	5.985	12600	13650
NKI28/20TN	0.092	27.72	50.4	6.3	12600	14700
NKI28/30	0.14	35.805	68.775	8.715	12600	14700
NA49/28	0.098	26.355	38.325	4.62	12600	14700
NA69/28	0.18	41.58	68.775	8.715	12600	14700
NKI30/20TN	0.11	28.875	54.6	6.8775	11550	13650
NKI30/30TN	0.17	42.21	89.25	11.13	11550	13650
NA4906	0.1	26.775	40.95	4.8825	11550	13650
NA4906.2RS	0.1	24.465	33.6	3.99	–	5880
NA6906	0.19	45.045	78.75	9.765	11550	13650
NKIS30	0.18	38.745	56.7	6.8775	10500	12600
NKI32/20	0.11	26.355	48.825	6.1425	11550	12600
NKI32/30	0.17	38.745	80.325	9.975	11550	12600
NA49/32	0.16	32.34	53.55	6.615	10500	11550
NA69/32	0.29	49.665	94.5	11.34	10500	11550
NKI35/20TN	0.12	31.185	63	7.875	10500	11550
NKI35/30	0.19	39.9	87.15	10.92	10500	11550
NA4907	0.17	33.495	56.7	7.035	9975	11550
NA4907.2RS	0.18	28.35	45.15	5.565	–	5040
NA6907	0.31	50.82	97.65	11.97	9975	11550
NKIS35	0.22	41.055	64.05	7.875	9450	10500
NKI38/20	0.13	28.875	57.75	7.14	9975	11550
NKI38/30	0.21	42.21	94.5	11.76	9975	11550
NKI40/20TN	0.14	32.97	68.775	8.715	9450	10500
NKI40/30TN	0.22	47.985	113.4	14.385	9450	10500
NA4908	0.23	45.045	74.55	9.24	8400	9975
NA4908.2RS	0.25	38.745	61.425	7.455	–	4200
NA6908	0.43	70.455	131.25	16.065	8400	9975
NKIS40	0.28	45.045	75.6	9.24	8400	9450
NKI42/20	0.14	30.66	64.05	8.0325	8925	10500
NKI42/30	0.22	43.89	102.9	13.125	8925	10500
NKI45/25TN	0.22	45.045	96.075	11.76	8400	9450

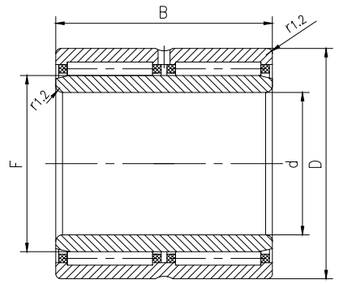
Needle roller bearings with machined rings with langes, with an inner ring



NKI(S) (d ≥ 9 mm) NA 49 / NA 69

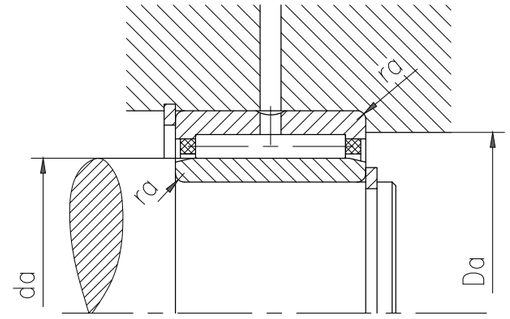


NA 49 2RS



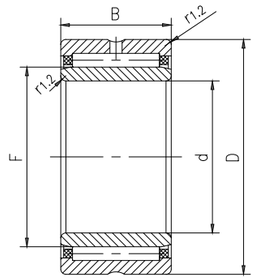
NA 69(d > 32 mm)

Type	Main dimensions				Dimensions			Shoulder and chamfer dimensions		
	d	D	B	C	F	$r_{1,2}$ min.	s max.	d_a min.	D_a max.	r_a max.
-	mm				mm			mm		
NKI45/35TN	45	62	35	–	50	0.6	2	49	58	0.6
NA4909	45	68	22	–	52	0.6	1	49	64	0.6
NA4909.2RS	45	68	23	22	52	0.6	0.5	49	64	0.6
NA6909	45	68	40	–	52	0.6	0.5	49	64	0.6
NKIS45	45	72	22	–	55	1	0.5	50	67	1
NKI50/25	50	68	25	–	55	0.6	1.5	54	64	0.6
NKI50/35	50	68	35	–	55	0.6	2	54	64	0.6
NA4910	50	72	22	–	58	0.6	1	54	68	0.6
NA4910.2RS	50	72	23	22	58	0.6	0.5	54	68	0.6
NA6910	50	72	40	–	58	0.6	0.5	54	68	0.6
NKIS50	50	80	28	–	60	1.1	2	56.5	73.5	1
NKI55/25TN	55	72	25	–	60	0.6	1.5	59	68	0.6
NKI55/35	55	72	35	–	60	0.6	2	59	68	0.6
NA4911	55	80	25	–	63	1	1.5	60	75	1
NA6911	55	80	45	–	63	1	1.5	60	75	1
NKIS55	55	85	28	–	65	1.1	2	61.5	78.5	1
NKI60/25	60	82	25	–	68	0.6	1	64	78	0.6
NKI60/35	60	82	35	–	68	0.6	1	64	78	0.6
NA4912	60	85	25	–	68	1	1.5	65	80	1
NA6912	60	85	45	–	68	1	1.5	65	80	1
NKIS60	60	90	28	–	70	1.1	2	66.5	83.5	1
NKI65/25	65	90	25	–	73	1	1	70	85	1
NA4913	65	90	25	–	72	1	1.5	70	85	1
NKI65/35	65	90	35	–	73	1	1	70	85	1
NA6913	65	90	45	–	72	1	1.5	70	85	1
NKIS65	65	95	28	–	75	1.1	2	71.5	88.5	1
NKI70/25	70	95	25	–	80	1	0.8	75	90	1
NKI70/35	70	95	35	–	80	1	0.8	75	90	1
NA4914	70	100	30	–	80	1	1.5	75	95	1
NA6914	70	100	54	–	80	1	1	75	95	1
NKI75/25	75	105	25	–	85	1	1	80	100	1
NA4915	75	105	30	–	85	1	1.5	80	100	1
NKI75/35	75	105	35	–	85	1	1	80	100	1
NA6915	75	105	54	–	85	1	1	80	100	1
NKI80/25	80	110	25	–	90	1	1	85	105	1
NA4916	80	110	30	–	90	1	1.5	85	105	1
NKI80/35	80	110	35	–	90	1	1	85	105	1
NA6916	80	110	54	–	90	1	1	85	105	1

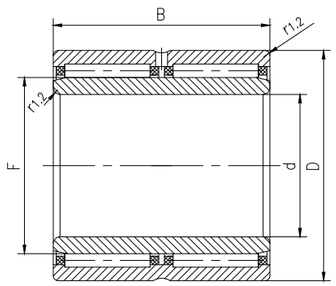


Type	Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
		Dynamic C	Static C_0		reference speed	Maximum speed
-	kg	kN		kN	r/min	
NKI45/35TN	0.31	61.215	143.85	17.85	8400	9450
NA4909	0.27	47.985	81.9	10.1325	7875	8925
NA4909.2RS	0.29	41.055	67.2	8.19	–	3990
NA6909	0.5	73.92	143.85	17.85	7875	8925
NKIS45	0.34	46.83	81.9	10.29	7350	8400
NKI50/25	0.26	42.21	92.4	11.34	7875	8925
NKI50/35	0.36	54.915	128.1	16.065	7875	8925
NA4910	0.27	49.665	89.25	11.13	7350	8400
NA4910.2RS	0.3	42.21	72.975	8.925	–	3570
NA6910	0.52	77.385	157.5	19.53	7350	8400
NKIS50	0.52	65.835	109.2	13.86	6615	7875
NKI55/25TN	0.26	49.14	115.5	14.07	7035	7875
NKI55/35	0.36	57.75	140.7	17.85	7035	7875
NA4911	0.39	60.06	111.3	13.86	6615	7350
NA6911	0.78	94.185	199.5	24.36	6615	7350
NKIS55	0.56	69.3	119.7	15.33	6300	7035
NKI60/25	0.39	46.2	99.75	12.39	6300	7035
NKI60/35	0.55	63.525	153.3	19.215	6300	7035
NA4912	0.43	63.525	119.7	15.015	6300	7035
NA6912	0.81	98.175	214.2	26.25	6300	7035
NKIS60	0.56	71.61	126	16.065	5880	6615
NKI65/25	0.46	55.44	111.3	13.86	5880	6615
NA4913	0.46	64.68	126	15.33	5880	6615
NKI65/35	0.66	77.385	171.15	21.42	5880	6615
NA6913	0.83	99.96	222.6	27.3	5880	6615
NKIS65	0.64	73.92	138.6	17.43	5565	6300
NKI70/25	0.51	58.905	133.35	16.38	5250	5880
NKI70/35	0.72	80.325	199.5	25.2	5250	5880
NA4914	0.73	88.41	171.15	21.84	5250	5880
NA6914	1.35	134.4	299.25	37.8	5250	5880
NKI75/25	0.64	72.765	138.6	17.43	5040	5565
NA4915	0.78	88.41	178.5	22.68	5040	5565
NKI75/35	0.91	101.64	210	27.3	5040	5565
NA6915	1.45	136.5	304.5	39.375	5040	5565
NKI80/25	0.68	75.705	147	18.9	4725	5250
NA4916	0.88	92.4	192.15	24.36	4725	5250
NKI80/35	0.96	106.05	226.8	29.4	4725	5250
NA6916	1.5	140.7	330.75	42	4725	5250

Needle roller bearings with machined rings with langes, with an inner ring

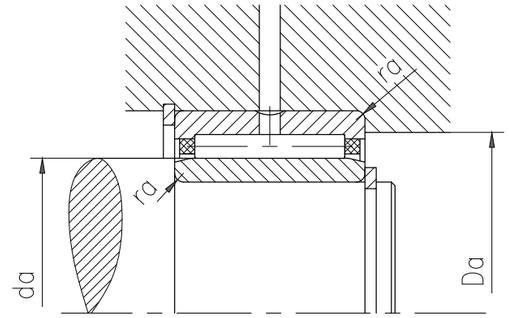


NKI(S) (d ≥ 9 mm) NA 49 / NA 69



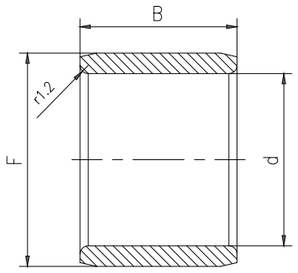
NA 69(d > 32 mm)

Type	Main dimensions				Dimensions			Shoulder and chamfer dimensions		
	d	D	B	C	F	$r_{1,2}$ min.	s max.	d_a min.	D_a max.	r_a max.
-	mm				mm			mm		
NKI85/26	85	115	26	–	95	1	1.5	90	110	1
NKI85/36	85	115	36	–	95	1	1.5	90	110	1
NA4917	85	120	35	–	100	1.1	1	91.5	113.5	1
NA6917	85	120	63	–	100	1.1	1	91.5	113.5	1
NKI90/26	90	120	26	–	100	1	1.5	95	115	1
NKI90/36	90	120	36	–	100	1	1.5	95	115	1
NA4918	90	125	35	–	105	1.1	1	96.5	118.5	1
NA6918	90	125	63	–	105	1.1	1	96.5	118.5	1
NKI95/26	95	125	26	–	105	1	1.5	100	120	1
NKI95/36	95	125	36	–	105	1	1.5	100	120	1
NA4919	95	130	35	–	110	1.1	1	101.5	123.5	1
NA6919	95	130	63	–	110	1.1	1	101.5	123.5	1
NKI100/30	100	130	30	–	110	1.1	1.5	106.5	123.5	1
NKI100/40	100	130	40	–	110	1.1	2	106.5	123.5	1
NA4920	100	140	40	–	115	1.1	2	106.5	133.5	1
NA4822	110	140	30	–	120	1	0.8	115	135	1
NA4922	110	150	40	–	125	1.1	2	116.5	143.5	1
NA4824	120	150	30	–	130	1	0.8	125	145	1
NA4924	120	165	45	–	135	1.1	2	126.5	158.5	1
NA4826	130	165	35	–	145	1.1	1	136.5	158.5	1
NA4926	130	180	50	–	150	1.5	1.5	138	172	1.5
NA4828	140	175	35	–	155	1.1	1	146.5	168.5	1
NA4928	140	190	50	–	160	1.5	1.5	148	182	1.5
NA4830	150	190	40	–	165	1.1	1.5	156.5	183.5	1
NA4832	160	200	40	–	175	1.1	1.5	166.5	193.5	1
NA4834	170	215	45	–	185	1.1	1.5	176.5	208.5	1
NA4836	180	225	45	–	195	1.1	1.5	186.5	218.5	1
NA4838	190	240	50	–	210	1.5	1.5	198	232	1.5
NA4840	200	250	50	–	220	1.5	1.5	208	242	1.5
NA4844	220	270	50	–	240	1.5	1.5	228	262	1.5
NA4848	240	300	60	–	265	2	2	249	291	2
NA4852	260	320	60	–	285	2	2	269	311	2
NA4856	280	350	69	–	305	2	2.5	289	341	2
NA4860	300	380	80	–	330	2.1	2	311	369	2
NA4864	320	400	80	–	350	2.1	2	331	389	2
NA4868	340	420	80	–	370	2.1	2	351	409	2
NA4872	360	440	80	–	390	2.1	2	371	429	2
NA4876	380	480	100	–	415	2.1	2	391	469	2

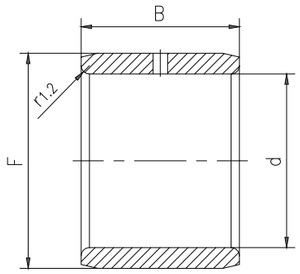


Type	Weight	Basic load rating		Fatigue load limit P_u	Rated speed	
		Dynamic C	Static C_0		reference speed	Maximum speed
-	kg	kN		kN	r/min	
NKI85/26	0.74	77.385	153.3	19.53	4515	5040
NKI85/36	1.05	110.25	243.6	31.5	4515	5040
NA4917	1.25	113.4	262.5	32.55	4200	4725
NA6917	2.2	173.25	446.25	55.65	4200	4725
NKI90/26	0.78	80.325	163.8	20.58	4200	4725
NKI90/36	1.1	113.4	262.5	32.55	4200	4725
NA4918	1.3	117.6	278.25	34.125	3990	4515
NA6918	2.3	180.6	472.5	57.75	3990	4515
NKI95/26	0.82	82.005	174.3	21.42	3990	4515
NKI95/36	1.15	117.6	278.25	34.125	3990	4515
NA4919	1.35	119.7	283.5	35.175	3780	4200
NA6919	2.5	180.6	488.25	58.8	3780	4200
NKI100/30	0.99	101.64	231	28.35	3780	4200
NKI100/40	1.35	129.15	320.25	39.375	3780	4200
NA4920	1.9	131.25	294	35.7	3570	4200
NA4822	1.1	98.175	243.6	28.35	3570	3990
NA4922	2.05	136.5	315	37.275	3360	3780
NA4824	1.15	103.95	267.75	30.45	3360	3780
NA4924	2.85	184.8	425.25	51.45	3150	3570
NA4826	1.8	124.95	341.25	38.325	2940	3360
NA4926	3.9	207.9	504	59.85	2730	3150
NA4828	1.9	127.05	362.25	39.375	2730	3150
NA4928	4.15	215.25	535.5	63	2520	2940
NA4830	2.7	154.35	435.75	48.825	2520	2940
NA4832	2.85	164.85	472.5	51.45	2310	2730
NA4834	3.95	187.95	546	58.8	2310	2520
NA4836	4.2	199.5	598.5	63	2100	2520
NA4838	5.55	231	745.5	77.175	1995	2310
NA4840	5.8	235.2	771.75	78.75	1890	2100
NA4844	6.35	249.9	855.75	85.575	1785	1995
NA4848	9.9	364.35	1176	117.6	1575	1785
NA4852	10.5	375.9	1260	123.9	1470	1575
NA4856	15.5	450.45	1386	135.45	1365	1470
NA4860	22	623.7	1890	181.65	1155	1365
NA4864	23	635.25	1995	184.8	1155	1260
NA4868	24	646.8	2058	192.15	1050	1260
NA4872	25.5	658.35	2142	195.3	997.5	1155
NA4876	42.5	1016.4	3150	283.5	945	1050

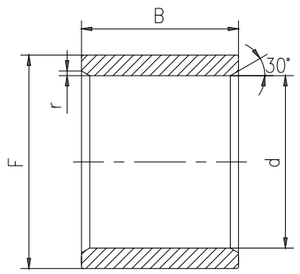
Needle roller bearing inner rings



IR

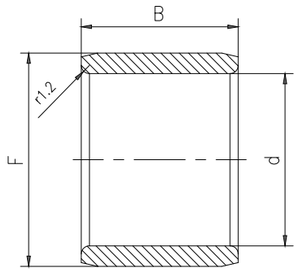


IR IS1

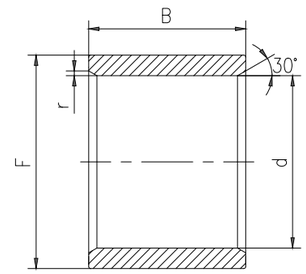


LR

Type	Main dimensions		Dimensions		Weight
	d	B	F	$r_{1,2}$ min.	
-	mm		mm		kg
IR 5x8X12	5	12	8	0.3	0.0028
IR 5x8x16	5	16	8	0.3	0.0037
IR 6x9x12	6	12	9	0.3	0.003
IR 6x9x16	6	16	9	0.3	0.0043
IR 7x10x10.5	7	10.5	10	0.3	0.0031
LR 7x10x10.5	7	10.5	10	0.3	0.0031
IR 7x10x12	7	12	10	0.3	0.0036
IR 7x10x16	7	16	10	0.3	0.0049
IR 8X12X10 IS1	8	10	12	0.3	0.0048
IR 8x12x10.5	8	10.5	12	0.3	0.005
IR 8x12x10.5	8	10.5	12	0.3	0.005
LR 8x12x12.5	8	12.5	12	0.3	0.0059
IR 9x12x12	9	12	12	0.3	0.0044
IR 9x12x16	9	16	12	0.3	0.006
IR 10x13x12.5	10	12.5	13	0.3	0.0052
LR 10x13x12.5	10	12.5	13	0.3	0.0052
IR 10x14X13	10	13	14	0.3	0.0074
IR 10x14x16	10	16	14	0.3	0.0092
IR 10x14x20	10	20	14	0.3	0.012
IR 12x15x12	12	12	15	0.3	0.0057
IR 12X15x12.5	12	12.5	15	0.3	0.0061
LR 12X15x12.5	12	12.5	15	0.3	0.0061
IR 12X15X16	12	16	15	0.3	0.0076
IR 12X15X16.5	12	16.5	15	0.3	0.0081
IR 12X15X22.5	12	22.5	15	0.3	0.011
LR 12x15x22.5	12	22.5	15	0.3	0.011
IR 12X16x13	12	13	16	0.3	0.0085
IR 12x16x16	12	16	16	0.3	0.011
IR 12x16x20	12	20	16	0.3	0.014
IR 12x16x22	12	22	16	0.3	0.015
IR 14x17X17	14	17	17	0.3	0.0095
LR 15x18x12.5	15	12.5	18	0.3	0.0072
IR 15x18x16	15	16	18	0.3	0.0094
IR 15x18x16.5	15	16.5	18	0.3	0.0098



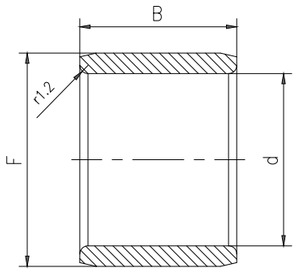
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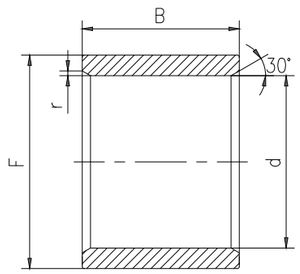
LR

Type	Main dimensions		Dimensions		Weight
	d	B	F	$r_{1,2}$ min.	
-	mm		mm		kg
IR 15x19x16	15	16	19	0.3	0.013
IR 15x19x20	15	20	19	0.3	0.016
IR 15x20x13	15	13	20	0.3	0.014
IR 15x20x23	15	23	20	0.3	0.024
IR 17x20x16	17	16	20	0.3	0.011
IR 17x20x16.5	17	16.5	20	0.3	0.011
LR 17x20x16.5	17	16.5	20	0.3	0.011
IR 17x20x20	17	20	20	0.3	0.014
IR 17x20x20.5	17	20.5	20	0.3	0.014
LR 17x20x20.5	17	20.5	20	0.3	0.014
IR 17x20x30.5	17	30.5	20	0.3	0.021
LR 17x20x30.5	17	30.5	20	0.3	0.021
IR 17x22x13	17	13	22	0.3	0.015
IR 17x22x16	17	16	22	0.3	0.018
IR 17x22x23	17	23	22	0.3	0.027
IR 17x24x20	17	20	24	0.3	0.034
IR 20x24x16	20	16	24	0.3	0.015
IR 20x24x20	20	20	24	0.3	0.021
LR 20x25x12.5	20	12.5	25	0.3	0.016
LR 20x25x16.5	20	16.5	25	0.3	0.022
IR 20x25x17	20	17	25	0.3	0.025
IR 20x25x20	20	20	25	0.3	0.028
IR 20x25x20.5	20	20.5	25	0.3	0.027
LR 20x25x20.5	20	20.5	25	0.3	0.027
IR 20x25x26.5	20	26.5	25	0.3	0.038
LR 20x25x26.5	20	26.5	25	0.3	0.038
IR 20x25x30	20	30	25	0.3	0.04
IR 20x25x38.5	20	38.5	25	0.3	0.053
IR 20x28x20	20	20	28	0.3	0.045
IR 22x26x16	22	16	26	0.3	0.018
IR 22x26x20	22	20	26	0.3	0.023
IR 22x28x17	22	17	28	0.3	0.03
IR 22x28x20	22	20	28	0.3	0.035
IR 22x28x20.5	22	20.5	28	0.3	0.036

Needle roller bearing inner rings

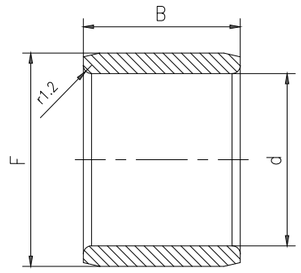


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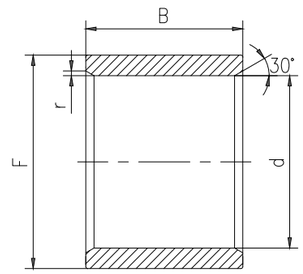


LR

Type	Main dimensions		Dimensions		Weight
	d	B	F	$r_{1,2}$ min.	
-	mm		mm		kg
IR 22x28x30	22	30	28	0.3	0.054
IR 25x29x20	25	20	29	0.3	0.026
IR 25x29x30	25	30	29	0.3	0.039
LR 25x30x12.5	25	12.5	30	0.3	0.02
LR 25x30x16.5	25	16.5	30	0.3	0.027
IR 25x30x17	25	17	30	0.3	0.027
IR 25x30x20	25	20	30	0.3	0.033
IR 25x30x20.5	25	20.5	30	0.3	0.033
LR 25x30x20.5	25	20.5	30	0.3	0.033
IR 25x30x26.5	25	26.5	30	0.3	0.046
LR 25x30x26.5	25	26.5	30	0.3	0.046
IR 25x30x30	25	30	30	0.3	0.053
IR 25x30x32	25	32	30	0.3	0.056
IR 25x30x38.5	25	38.5	30	0.3	0.065
LR 25x30x38.5	25	38.5	30	0.3	0.065
IR 25x32x22	25	22	32	0.3	0.053
IR 28x32x17	28	17	32	0.3	0.025
IR 28x32x20	28	20	32	0.3	0.029
IR 28x32x30	28	30	32	0.3	0.044
LR 30x35x12.5	30	12.5	35	0.3	0.023
IR 30x35x13	30	13	35	0.3	0.025
IR 30x35x16	30	16	35	0.3	0.034
IR 28x32x30	28	30	32	0.3	0.044
LR 30x35x12.5	30	12.5	35	0.3	0.023
IR 30x35x13	30	13	35	0.3	0.025
IR 30x35x16	30	16	35	0.3	0.034
IR 30x35x17	30	17	35	0.3	0.036
IR 30x35x20	30	20	35	0.3	0.039
IR 30x35x17	30	17	35	0.3	0.036
IR 30x35x20	30	20	35	0.3	0.039
IR 30x35x20.5	30	20.5	35	0.3	0.04
IR 30x35x17	30	17	35	0.3	0.036
IR 30x35x20	30	20	35	0.3	0.039
IR 30x35x20.5	30	20.5	35	0.3	0.04



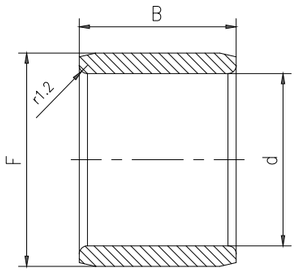
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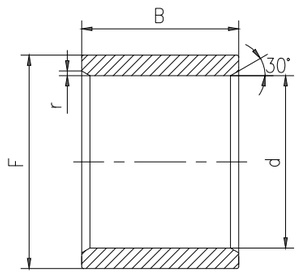
LR

Type	Main dimensions		Dimensions		Weight
	d	B	F	$r_{1,2}$ min.	
-	mm		mm		kg
LR 30x35x20.5	30	20.5	35	0.3	0.04
IR 30x35x26	30	26	35	0.3	0.05
IR 30x35x30	30	30	35	0.3	0.059
IR 30x37x22	30	22	37	0.6	0.062
IR 32x37x20	32	20	37	0.3	0.042
IR 32x37x30	32	30	37	0.3	0.062
IR 32x40x20	32	20	40	0.6	0.068
IR 32x40x36	32	36	40	0.6	0.12
LR 35x40x12.5	35	12.5	40	0.3	0.027
LR 35x40x16.5	35	16.5	40	0.3	0.037
IR 35x40x17	35	17	40	0.3	0.038
IR 35x40x20	35	20	40	0.3	0.044
IR 35x40x20.5	35	20.5	40	0.3	0.046
LR 35x40x20.5	35	20.5	40	0.3	0.046
IR 35x40x30	35	30	40	0.3	0.067
IR 35x42x36	35	36	42	0.6	0.12
IR 35x43x22	35	22	43	0.6	0.082
IR 38x43x20	38	20	43	0.3	0.048
IR 38x43x30	38	30	43	0.3	0.074
LR 40x45x16.5	40	16.5	45	0.3	0.041
IR 40x45x17	40	17	45	0.3	0.043
IR 40x45x20	40	20	45	0.3	0.049
IR 40x45x20.5	40	20.5	45	0.3	0.052
LR 40x45x20.5	40	20.5	45	0.3	0.052
IR 40x45x30	40	30	45	0.3	0.084
IR 40x48x22	40	22	48	0.6	0.092
IR 40x48x40	40	40	48	0.6	0.17
IR 40x50x22	40	22	50	1	0.12
IR 42x47x20	42	20	47	0.3	0.053
IR 42x47x30	42	30	47	0.3	0.081
LR 45x50x20.5	45	20.5	50	0.3	0.059
IR 45x50x25	45	25	50	0.6	0.071
IR 45x50x25.5	45	25.5	50	0.3	0.075
LR 45x50x25.5	45	25.5	50	0.3	0.075

Needle roller bearing inner rings

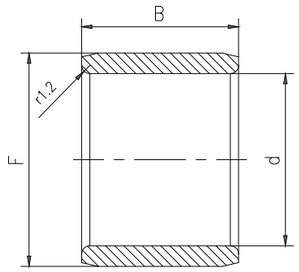


IR

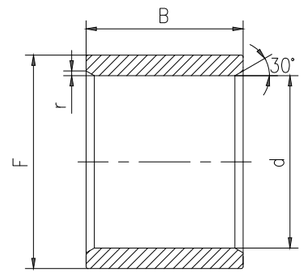


LR

Type	Main dimensions		Dimensions		Weight
	d	B	F	$r_{1,2}$ min.	
-	mm		mm		kg
IR 45x50x35	45	35	50	0.6	0.1
IR 45x52x22	45	22	52	0.6	0.089
IR 45x52x40	45	40	52	0.6	0.16
IR 45x55x22	45	22	55	1	0.13
LR 50x55x20.5	50	20.5	55	0.6	0.064
IR 50x55x25	50	25	55	0.6	0.078
IR 50x55x35	50	35	55	0.6	0.11
IR 50x58x22	50	22	58	0.6	0.12
IR 50x58x40	50	40	58	0.6	0.21
IR 50x60x25	50	25	60	1	0.16
IR 50x60x28	50	28	60	1.1	0.18
IR 55x60x25	55	25	60	0.6	0.086
IR 55x60x35	55	35	60	0.6	0.12
IR 55x63x25	55	25	63	1	0.14
IR 55x63x45	55	45	63	1	0.26
IR 55x65x28	55	28	65	1.1	0.2
IR 60x68x25	60	25	68	1	0.15
IR 60x68x35	60	35	68	0.6	0.21
IR 60x68x45	60	45	68	1	0.28
IR 60x70x25	60	25	70	1	0.2
IR 60x70x28	60	28	70	1.1	0.22
IR 65x72x25	65	25	72	1	0.14
IR 65x72x45	65	45	72	1	0.26
IR 60x70x25	60	25	70	1	0.2
IR 60x70x28	60	28	70	1.1	0.22
IR 65x72x25	65	25	72	1	0.14
IR 65x72x45	65	45	72	1	0.26
IR 65x73x35	65	35	73	1	0.23
IR 65x75x28	65	28	75	1.1	0.23
IR 70x80x25	70	25	80	1	0.22
IR 70x80x30	70	30	80	1	0.27
IR 70x80x35	70	35	80	1	0.31
IR 70x80x30	70	30	80	1	0.27
IR 70x80x35	70	35	80	1	0.31
IR 70x80x54	70	54	80	1	0.49



IR



LR

Type	Main dimensions		Dimensions		Weight
	d	B	F	$r_{1,2}$ min.	
-	mm		mm		kg
IR 75x85x25	75	25	85	1	0.24
IR 75x85x35	75	35	85	1	0.34
IR 75x85x54	75	54	85	1	0.53
IR 80x90x25	80	25	90	1	0.25
IR 80x90x30	80	30	90	1	0.3
IR 80x90x35	80	35	90	1	0.36
IR 80x90x54	80	54	90	1	0.56
IR 85x95x26	85	26	95	1	0.28
IR 85x95x36	85	36	95	1	0.39
IR 85x100x35	85	35	100	1.1	0.58
IR 85x100x63	85	63	100	1.1	1.05
IR 90x100x26	90	26	100	1	0.29
IR 90x100x30	90	30	100	1	0.34
IR 90x100x36	90	36	100	1	0.41
IR 90x105x35	90	35	105	1.1	0.61
IR 95x105x26	95	26	105	1	0.31
IR 95x105x26	95	26	105	1	0.31
IR 100x110x40	100	40	110	1.1	0.51
IR 100x115x40	100	40	115	1.1	0.8
IR 110x120x30	110	30	120	1	0.41
IR 110x125x40	110	40	125	1.1	0.84
IR 120x130x30	120	30	130	1	0.44
IR 120x135x45	120	45	135	1.1	1.05
IR 130x145x35	130	35	145	1.1	0.86
IR 130x150x50	130	50	150	1.5	1.7
IR 140x155x35	140	35	155	1.1	0.92
IR 140x160x50	140	50	160	1.5	1.8
IR 150x165x40	150	40	165	1.1	1.1
IR 160x175x40	160	40	175	1.1	1.2
IR 170x185x45	170	45	185	1.1	1.45
IR 180x195x45	180	45	195	1.1	1.5
IR 190x210x50	190	50	210	1.5	2.4
IR 200x220x50	200	50	220	1.5	2.5
IR 220x240x50	220	50	240	1.5	2.75
IR 240x265x60	240	60	265	2	4.6

CARB toroidal roller bearings

Features

CARB toroidal roller bearings are single row bearings with long, slightly curved symmetrical rollers and toroidal raceway profiles. It combines the self-aligning ability of spherical roller bearings with the axial displacement characteristics of cylindrical roller bearings. CARB toroidal roller bearings are non-locating bearings that can only bear radial loads. According to whether there is a cage or not, it is subdivided into toroidal roller bearings with cages and full complement toroidal roller bearings.

Tapered bore bearing

CARB toroidal roller bearings have a tapered bore in the inner ring.

The bearing suffix K means the taper of the inner hole is 1:12, and the suffix K30 means the taper of the inner hole is 1:30.

Cages

Partial complement CARB toroidal roller bearings are available in various cage designs such as glass fiber reinforced nylon cage, stamped steel cage, window brass cage, machined brass cage, etc.

Seals

CARB toroidal roller bearings are available in sealed designs.

Operating temperature

The operating temperature range of CARB toroidal roller bearings is -20°C to +150°C, limited by the sealing material, the maximum operating temperature of sealed toroidal roller bearings is 120°C. When higher working temperature is required, please contact us.

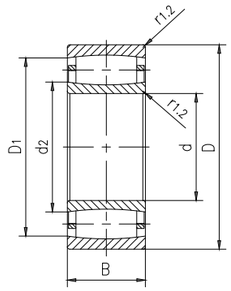




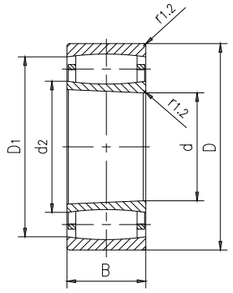
suffix for an existing design

Suffix	Meaning
-CS5 -2CS5	Contact seal, HNBR, on one or both sides
-NS -2NS	Contact seal, NBR, on one or both sides
K	Tapered bore, taper 1:12
K30	Tapered bore, taper 1:30
-	Stamped steel cage, roller centred
M	Machined brass cage, roller centred
MB	Machined brass cage, inner ring centred
TN9	Glass ibre reinforced PA46 cage, roller centred
V	Full complement of rollers (no cage)
HA3	Case-hardened inner ring
C08	Geometrical tolerances to class P5
C2	Radial internal clearance smaller than Normal
C3	Radial internal clearance greater than Normal
C4	Radial internal clearance greater than C3
C5	Radial internal clearance greater than C4
S3	Bearing rings heat stabilized for operating temperatures ≤ 300 °C (570 °F)
GEM9	Filled to 70 – 100% with KMR LGHB 2 grease

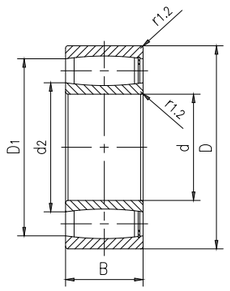
CARB toroidal roller bearings



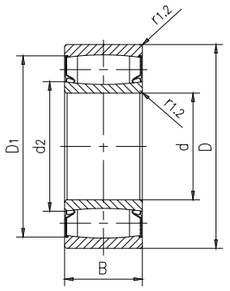
Cylindrical bore



Tapered bore

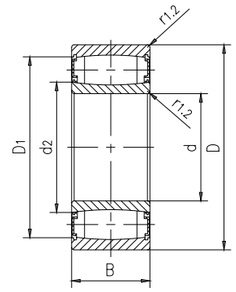


Full complement

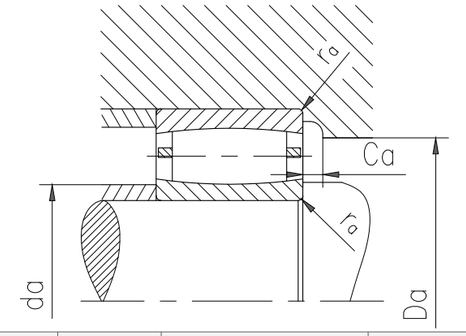


Sealed (2CS5)

Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions					
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	$r_{1,2}$ min.	s_1 max.	s_2 max.	d_a min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.
–		mm			mm					mm					
C6006V	–	30	55	45	38.5	47.3	1	7.9	4.9	34.6	43	–	50.4	–	1
C2206TN9	C2206KTN9	30	62	20	37.4	53.1	1	4.5	–	35.6	37.4	50.6	56.4	0.3	1
C2206V	–	30	62	20	37.4	53.1	1	4.5	1.5	35.6	49	–	56.4	–	1
C2207TN9	C2207KTN9	35	72	23	44.8	60.7	1.1	5.7	–	42	44.8	58.5	65	0.1	1
C2207V	–	35	72	23	44.8	60.7	1.1	5.7	2.7	42	57	–	65	–	1
C4908V	–	40	62	22	46.1	55.3	0.6	4.7	1.7	43.2	52	–	58.8	–	0.6
C2208TN9	C2208KTN9	40	80	23	52.4	69.9	1.1	7.1	–	47	52.4	67.1	73	0.3	1
C2208V	–	40	80	23	52.4	69.9	1.1	7.1	4.1	47	66	–	73	–	1
C6909V	–	45	68	40	52	59.5	0.6	9.4	6.4	48.2	55	–	64.8	–	0.6
C2209TN9	C2209KTN9	45	85	23	55.6	73.1	1.1	7.1	–	52	55.6	70.4	78	0.3	1
C2209V	–	45	85	23	55.6	73.1	1.1	7.1	4.1	52	69	–	78	–	1
C4910V	–	50	72	22	56.9	66.1	0.6	4.7	1.7	53.2	62	–	68.8	–	0.6
C6910V	–	50	72	40	57.5	65	0.6	9.4	6.4	53.2	61	–	68.8	–	0.6
C4010TN9	–	50	80	30	57.6	70.8	1	6	–	54.6	57.6	69.7	75.4	0.1	1
C4010V	–	50	80	30	57.6	70.8	1	6	3	54.6	67	–	75.4	–	1
C2210TN9	C2210KTN9	50	90	23	61.9	79.4	1.1	7.1	–	57	61.9	76.7	83	-0.8	1
C2210V	–	50	90	23	61.9	79.4	1.1	7.1	3.9	57	73	–	83	–	1
C6911V	–	55	80	45	62.7	71.5	1	7.9	4.9	59.6	67	–	75.4	–	1
C2211TN9	C2211KTN9	55	100	25	65.8	86.7	1.5	8.6	–	64	65.8	83.1	91	0.3	1.5
C2211V	C2211KV	55	100	25	65.8	86.7	1.5	8.6	5.4	64	80	–	91	–	1.5
C6912-2NSV	–	60	85	45	68.7	77.5	1	–	0.5	64.6	68.7	–	80.4	–	1
C6912V	–	60	85	45	68.7	77.5	1	7.9	4.7	64.6	72	–	80.4	–	1
C2212TN9	C2212KTN9	60	110	28	77.1	97.9	1.5	8.5	–	69	77.1	94.7	101	0.3	1.5
C2212V	C2212KV	60	110	28	77.1	97.9	1.5	8.5	5.3	69	91	–	101	–	1.5
C4013-	–	65	100	35	78.6	87.5	1.1	–	5.9	71	78.6	–	94	–	1
C2213TN9	C2213KTN9	65	120	31	79	106	1.5	9.6	–	74	79	102	111	0.2	1.5
C2213V	C2213KV	65	120	31	79	106	1.5	9.6	5.3	74	97	–	111	–	1.5
C2214TN9	C2214KTN9	70	125	31	83.7	111	1.5	9.6	–	79	83.7	107	116	0.4	1.5
C2214V	–	70	125	31	83.7	111	1.5	9.6	5.3	79	102	–	116	–	1.5
C2314	C2314K	70	150	51	91.4	130	2.1	9.1	–	82	106	119	138	2.2	2
C5915-2CS5V/GEM9	–	75	105	40	82.9	96.1	1	–	5	79.6	84.1	–	100	–	1
C5915V	–	75	105	40	83.6	95.5	1	9.4	6.2	79.6	89	–	100	–	1
C6915-2CS5V/GEM9	–	75	105	54	83.6	95.5	1	–	7.1	79.6	83	–	100	–	1
C6915V/VE240	–	75	105	54	83.6	95.5	1	9.2	9.2	79.6	88	–	100	–	1
C4015V	–	75	115	40	88.7	101	1.1	9.4	5.1	81	94	–	109	–	1
C2215	C2215K	75	130	31	88.5	116	1.5	9.6	–	84	98.3	106	121	1.2	1.5

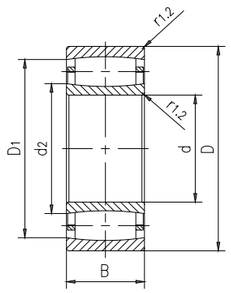


Sealed (2NS)

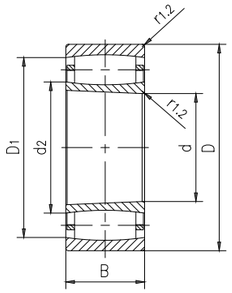


Type		Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient	
			Dynamic	Static		reference speed	Maximum speed		
Bearing with cylindrical bore	Taper Hole		C	C_0	P_u			k_1	k_2
–		kg	kN			r/min		–	
C6006V	–	0.49	140.70	189.00	22.26	-	3360	0.102	0.096
C2206TN9	C2206KTN9	0.28	72.975	65.10	7.56	11550	15750	0.101	0.111
C2206V	–	0.29	80.325	74.55	8.72	-	6300	0.101	0.111
C2207TN9	C2207KTN9	0.44	87.15	84.00	9.765	9975	13650	0.094	0.121
C2207V	–	0.46	99.75	100.80	11.76	-	5565	0.094	0.121
C4908V	–	0.25	80.33	105.00	12.39	-	4515	0.099	0.114
C2208TN9	C2208KTN9	0.51	94.5	90.83	10.71	8400	11550	0.093	0.128
C2208V	–	0.53	107.1	109.20	12.81	-	4725	0.093	0.128
C6909V	–	0.53	138.60	210.00	24.78	-	2730	0.091	0.113
C2209TN9	C2209KTN9	0.56	97.65	97.65	11.34	7875	11550	0.095	0.128
C2209V	–	0.58	111.3	115.50	13.55	-	4515	0.095	0.128
C4910V	–	0.29	90.83	131.25	15.33	-	3780	0.103	0.114
C6910V	–	0.54	147	235.20	27.30	-	2520	0.093	0.113
C4010TN9	–	0.55	121.8	147.00	17.12	5880	7875	0.103	0.107
C4010V	–	0.58	143.85	184.80	21.84	-	3150	0.103	0.107
C2210TN9	C2210KTN9	0.6	102.9	105.00	12.39	7350	9975	0.097	0.128
C2210V	–	0.63	119.7	128.10	15.02	-	3990	0.097	0.128
C6911V	–	0.78	189.00	315.00	37.275	-	2310	0.107	0.096
C2211TN9	C2211KTN9	0.8	121.8	119.70	14.07	6615	9450	0.094	0.133
C2211V	C2211KV	0.82	138.6	140.70	16.38	-	3570	0.094	0.133
C6912-2NSV	–	0.83	199.50	351.75	40.95	-	#VALUE!	0.108	0.096
C6912V	–	0.83	199.5	351.75	40.95	-	1995	0.108	0.096
C2212TN9	C2212KTN9	1.1	150.15	163.80	19.22	5880	7875	0.1	0.123
C2212V	C2212KV	1.15	174.3	199.50	23.52	-	2940	0.1	0.123
C4013-2CS5V/GEM9	–	1.05	107.10	181.65	21.42	-	157.5	0.071	0.181
C2213TN9	C2213KTN9	7500	189	189.00	22.26	5.25	315	0.097	0.127
C2213V	C2213KV	1.5	214.2	226.80	26.78	-	2520	0.097	0.127
C2214TN9	C2214KTN9	1.5	195.30	205.80	23.94	5250	7350	0.098	0.127
C2214V	–	1.55	222.6	239.40	27.83	-	2520	0.098	0.127
C2314	C2314K	4.3	425.25	451.50	51.45	3990	5250	0.11	0.099
C5915-2CS5V/GEM9	–	3.9	174.3	243.6	31.5	-	136.5	0.083	0.142
C5915V	–	1.1	214.2	341.25	39.9	-	1995	0.098	0.114
C6915-2CS5V/GEM9	–	1.4	214.2	341.25	39.375	-	147	0.073	0.154
C6915V/VE240	–	1.4	214.2	341.25	39.375	-	1995	0.073	0.154
C4015V	–	1.6	218.4	362.25	42.525	-	2100	0.099	0.114
C2215	C2215K	1.6	205.8	218.4	25.2	5040	7035	0.099	0.127

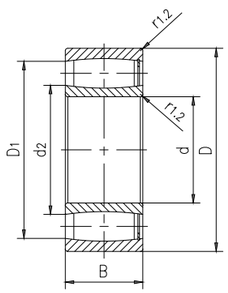
CARB toroidal roller bearings



Cylindrical bore

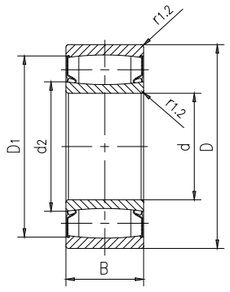


Tapered bore

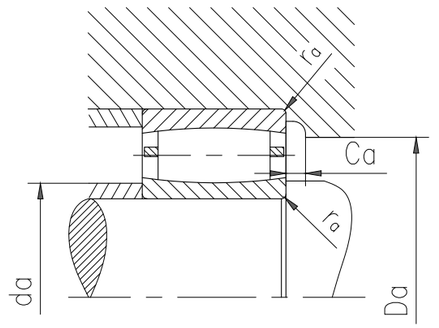


Full complement

Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions					
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	$r_{1,2}$ min.	s_1 max.	s_2 max.	d_a min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.
–		mm			mm					mm					
C2215V	C2215KV	75	130	31	88.5	116	1.5	9.6	5.3	84	107	–	121	–	1.5
C2315	C2315K	160	55	425	98.5	137	2.1	13.1	–	87	113	126	148	2.2	2
C2216	C2216K	80	140	33	98.1	125	2	9.1	–	91	107	116	129	1.2	2
C2216V	C2216KV	80	140	33	98.1	125	2	9.1	4.8	91	116	–	129	–	2
C2316	C2316K	80	170	58	102	146	2.1	10.1	–	92	119	133	158	2.4	2
C2217	C2217K	85	150	36	103	133	2	7.1	–	96	114	123	139	1.3	2
C2317	C2317K	85	180	60	110	153	3	12.1	–	99	126	141	166	2.4	2.5
C5918MB	–	90	125	46	100	113	1.1	2.9	–	96	99	113	119	-0.9	1
C5918-2CS5V/GEM	–	90	125	46	102	113	1.1	–	4.5	96	101	–	119	–	1
C5918V	–	90	125	46	102	113	1.1	15.4	11.1	96	106	–	119	–	1
C2218	C2218K	90	160	40	111	144	2	9.5	–	101	124	133	149	1.4	2
C2318	C2318K	90	190	64	119	166	3	9.6	–	104	138	154	176	2	2.5
C2319	C2319K	95	200	67	119	166	3	12.6	–	109	138	154	186	2.1	2.5
C4020	–	100	150	50	113	135	1.5	14	9.7	107	126	–	143	–	1.5
C5020	–	100	150	67	114	136	1.5	9.3	5	107	127	–	143	–	1.5
C3120V	–	100	165	52	119	150	2	10.1	4.7	111	136	–	154	–	2
C4120-2CS5V/GEM9	–	100	165	65	120	148	2	–	7.3	111	119	–	154	–	2
C4120V/VE240	–	100	165	65	120	148	2	17.7	17.7	111	135	–	154	–	2
C2220		100	180	46	118	157	2.1	10.1	–	112	134	146	168	0.9	2
C2320	C2320K	100	215	73	126	185	3	11	–	114	150	168	201	3.2	2.5
C4022-2CS5V/GEM9	–	110	170	60	128	155	2	–	7.9	119	127	–	161	–	2
C4022MB	–	110	170	60	126	150	2	4.8	–	120	125	146	160	1.3	2
C4022V	–	110	170	60	126	150	2	12	6.6	120	136	–	160	–	2
C4122-2CS5V/GEM9	–	110	180	69	130	161	2	–	8.2	121	130	–	169	–	2
C4122V	–	110	180	69	132	163	2	11.4	4.6	121	149	–	169	–	2
C2222	C2222K	110	200	53	132	176	2.1	11.1	–	122	150	161	188	1.9	2
C3024V	–	120	180	46	138	166	2	10.6	3.8	130	154	–	170	–	2
C4024-2CS5V/GEM9	–	120	180	60	140	164	2	–	7.5	129	139	–	171	–	2
C4024V/VE240	C4024K30V/VE240	120	180	60	139	164	2	17.8	17.8	130	152	–	170	–	2
C4024V	C4024K30V	120	180	60	140	164	2	12	5.2	130	152	–	170	–	2
C4124V	–	120	200	80	140	176	2	18	11.2	131	160	–	189	–	2
C3224	C3224K	120	215	76	149	190	2.1	17.1	–	132	162	179	203	2.4	2
C4026-2CS5V/GEM9	–	130	200	69	152	182	2	–	8.2	139	151	–	191	–	2
C4026	C4026K30	130	200	69	149	181	2	11.4	–	140	157	174	190	1.9	2
C4026V	C4026K30V	130	200	69	149	181	2	11.4	4.6	140	167	–	190	–	2
C4126-2CS5V/GEM9	–	130	210	80	153	190	2	–	7.5	141	152	–	199	–	2

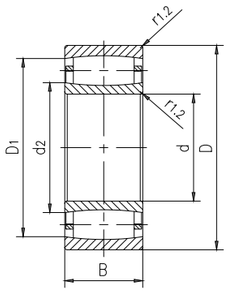


Sealed (2CS5)

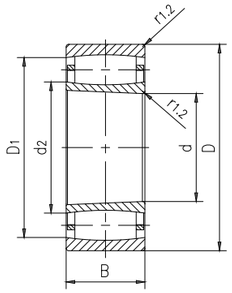


Type		Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient	
			Dynamic	Static		reference speed	Maximum speed		
Bearing with cylindrical bore	Taper Hole		C	C_0	P_u			k_1	k_2
–		kg	kN			r/min		–	
C2215V	C2215KV	1.65	231	252	29.4	-	2310	0.099	0.127
C2315	C2315K	800	488.25	54.6	3780	5040	5.565	0.103	0.107
C2216	C2216K	2.05	231	262.5	29.925	4515	6300	0.104	0.121
C2216V	C2216KV	2.15	267.75	320.25	36.225	-	2100	0.104	0.121
C2316	C2316K	6.3	535.5	577.5	63	3570	4725	0.107	0.101
C2217	C2217K	2.65	288.75	336	37.275	4200	5880	0.114	0.105
C2317	C2317K	7.4	567	630	67.2	3360	4515	0.105	0.105
C5918MB	–	1.75	202.65	341.25	39.375	2730	4200	0	0.131
C5918-2CS5V/GEM9	–	1.75	235.2	420	46.2	-	115.5	0.089	0.131
C5918V	–	1.75	235.2	420	47.775	-	1680	0.089	0.131
C2218	C2218K	3.3	341.25	399	43.575	3990	5565	0.104	0.117
C2318	C2318K	8.65	640.5	729.75	77.175	2940	4200	0.108	0.101
C2319	C2319K	10	640.5	729.75	77.175	2940	4200	0.103	0.106
C4020	–	3.05	372.75	556.5	61.425	-	1470	0.098	0.118
C5020	–	4.3	535.5	908.25	99.75	-	1155	0.112	0.094
C3120V	–	4.45	498.75	687.75	74.55	-	1365	0.112	0.1
C4120-2CS5V/GEM9	–	5.2	498.75	687.75	72.975	-	94.5	0.09	0.125
C4120V/VE240	–	5.3	498.75	687.75	74.55	-	1365	0.09	0.125
C2220		4.95	435.75	488.25	51.45	3780	5040	0.108	0.11
C2320	C2320K	12.5	840	924	94.5	2730	3780	0.113	0.096
C4022-2CS5V/GEM9	–	4.6	435.75	614.25	66.15	-	89.25	0.142	0.083
C4022MB	–	5.3	451.5	687.75	72.975	2730	3570	0	0.103
C4022V	–	5.2	525	840	89.25	-	1260	0.107	0.103
C4122-2CS5V/GEM9	–	6.6	525	745.5	78.75	-	84	0.086	0.133
C4122V	–	7.1	703.5	1050	109.2	-	945	0.111	0.097
C2222	C2222K	7	556.5	651	67.2	3360	4515	0.113	0.103
C3024V	–	4.1	451.5	672	68.775	-	1470	0.111	0.109
C4024-2CS5V/GEM9	–	5.1	451.5	672	70.35	-	84	0.085	0.142
C4024V/VE240	C4024K30V/VE240	5.05	451.5	672	68.775	-	1470	0.085	0.142
C4024V	C4024K30V	5.55	556.5	924	96.075	-	1155	0.109	0.103
C4124V	–	10	819	1176	119.7	-	787.5	0.104	0.103
C3224	C3224K	12	787.5	1029	102.9	2520	3360	0.103	0.108
C4026-2CS5V/GEM9	–	7.5	577.5	871.5	89.25	-	73.5	0.089	0.133
C4026	C4026K30	7.85	651	976.5	97.65	2310	2940	0.113	0.097
C4026V	C4026K30V	8.15	756	1176	117.6	-	892.5	0.113	0.097
C4126-2CS5V/GEM9	–	10.5	787.5	1155	113.4	-	73.5	0.09	0.126

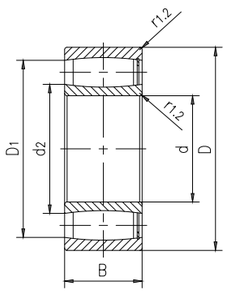
CARB toroidal roller bearings



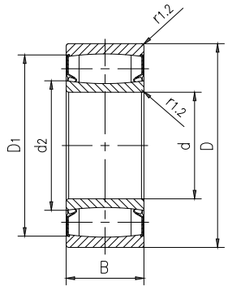
Cylindrical bore



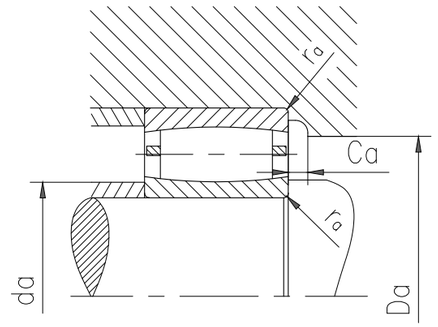
Tapered bore



Full complement



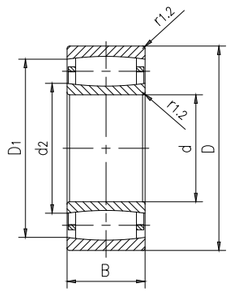
Sealed (2CS5)



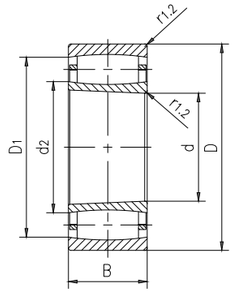
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions					
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	$r_{1,2}$ min.	s_1 max.	s_2 max.	d_a min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.
–		mm			mm					mm					
C2226	C2226K	130	230	64	152	199	3	9.6	–	144	171	185	216	1.1	2.5
C2326K/VE240	–	130	280	93	179	234	4	31.2	–	–	–	216	263	-7.5	3
C4028V	C4028K30V	140	210	69	161	193	2	11.4	5.9	150	177	–	200	–	2
C4128-2CS5V/GEM9	–	140	225	85	167	204	2.1	–	8.9	152	166	–	213	–	2
C4128V/VE240	–	140	225	85	166	204	2.1	9.7	9.7	152	189	–	213	–	2
C2228	C2228K	140	250	68	173	223	3	13.7	–	154	191	207	236	2.3	2.5
C3030MB	–	150	225	56	173	204	2.1	8.7	–	161	172	198	214	1.3	2
C3030V	C3030KV	150	225	56	174	204	2.1	14.1	7.3	161	190	–	214	–	2
C4030-2CS5V/GEM9	–	150	225	75	175	204	2.1	–	10.8	161	174	–	214	–	2
C4030V	C4030K30V	150	225	75	173	204	2.1	17.4	10.6	161	189	–	214	–	2
C3130	C3130K	150	250	80	182	226	2.1	13.9	–	162	196	214	238	2.3	2
C4130V	–	150	250	100	179	222	2.1	20	10.1	162	204	–	238	–	2
C2230	C2230K	150	270	73	177	236	3	11.2	–	164	202	215	256	2.5	2.5
C4032	C4032K30	160	240	80	181	217	2.1	18.1	–	171	190	209	229	2.2	2
C4032-2CS5V/GEM9	–	160	240	80	180	218	2.1	–	7.7	171	180	–	229	–	2
C4032V	C4032K30V	160	240	80	181	217	2.1	18.1	8.2	171	199	–	229	–	2
C3132	C3132K	160	270	86	191	240	2.1	10.3	–	172	208	229	258	2.4	2
C3232	C3232K	160	290	104	194	256	3	19.3	–	174	218	242	276	2.6	2.5
C3034M	–	170	260	67	195	236	2.1	19	–	181	210	226	249	1.2	2
C4034V	C4034K30V	170	260	90	195	236	2.1	17.1	7.2	181	218	–	249	–	2
C2234	C2234K	170	310	86	209	274	4	16.4	–	187	233	254	293	3	3
C3036	C3036K	180	280	74	209	251	2.1	15.1	–	191	223	239	269	2	2
C4036V	–	180	280	100	203	247	2.1	20.1	10.2	191	229	–	269	–	2
C3136	C3136K	180	300	96	210	266	3	23.2	–	194	231	252	286	2.2	2.5
C4136V	–	180	300	118	211	265	3	20	10.1	194	223	–	286	–	2.5
C3236	C3236K	180	320	112	228	289	4	27.3	–	197	249	271	303	3.2	3
C3038	C3038K	190	290	75	225	266	2.1	16.1	–	201	238	254	279	1.9	2
C3138V	C3138KV	190	320	104	228	289	3	19	9.1	204	267	–	306	–	2.5
C2238	C2238K	190	340	92	224	296	4	22.5	–	207	254	275	323	1.6	3
C3040	C3040K	200	310	82	235	285	2.1	15.2	–	211	250	272	299	2.9	2
C4040V		200	310	109	228	280	2.1	21	11.1	211	263	–	299	–	2
C3140	C3140K	200	340	112	244	305	3	27.3	–	214	264	288	326	-0.6	2.5
C3044	C3044K	220	340	90	257	310	3	17.2	–	233	274	295	327	3.1	2.5
C4044V	C4044K30V	220	340	118	251	306	3	20	10.1	233	284	–	327	–	2.5
C3144	C3144K	220	370	120	268	333	4	22.3	–	237	290	315	353	3.5	3
C2244	C2244K	220	400	108	259	350	4	20.5	–	237	298	321	383	1.7	3

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient	
			Dynamic	Static		reference speed	Maximum speed		
Bearing with cylindrical bore	Taper Hole		C	C_0	P_u			k_1	k_2
–		kg	kN			r/min		–	
C2226	C2226K	11.5	771.75	976.5	96.075	2940	3990	0.113	0.101
C2326K/VE240	–	27	1029	1281	119.7	2520	3360	0.093	0.122
C4028V	C4028K30V	8.6	787.5	1281	126	-	840	0.115	0.097
C4128-2CS5V/GEM9	–	12.5	819	1260	121.8	-	66.15	0.086	0.134
C4128V/VE240	–	12.5	819	1260	121.8	-	840	0.086	0.134
C2228	C2228K	14	871.5	1113	107.1	2520	3360	0.109	0.108
C3030MB	–	8.45	567	892.5	85.575	2520	3360	0	0.108
C3030V	C3030KV	8	614.25	1008	97.65	-	1050	0.113	0.108
C4030-2CS5V/GEM9	–	10	614.25	1013.25	97.65	-	66.15	0.084	0.144
C4030V	C4030K30V	10.5	819	1386	133.35	-	787.5	0.107	0.106
C3130	C3130K	15.5	924	1354.5	128.1	2100	2940	0.12	0.092
C4130V	–	20	1281	1953	184.8	-	472.5	0.105	0.103
C2230	C2230K	18	1029	1281	119.7	2520	3360	0.119	0.096
C4032	C4032K30	12.5	803.25	1218	115.5	1785	2520	0.109	0.103
C4032-2CS5V/GEM9	–	12.5	871.5	1354.5	128.1	-	63	0.093	0.126
C4032V	C4032K30V	13	960.75	1533	147	-	630	0.109	0.103
C3132	C3132K	21.5	1050	1470	135.45	1995	2730	0.112	0.099
C3232	C3232K	29.5	1438.5	1921.5	178.5	1890	2520	0.112	0.096
C3034M	–	12.5	787.5	1134	105	2310	2940	0.105	0.117
C4034V	C4034K30V	17.5	1197	1953	181.65	-	525	0.108	0.103
C2234	C2234K	28	1333.5	1711.5	153.3	1995	2730	0.114	0.1
C3036	C3036K	17	924	1407	128.1	2100	2730	0.112	0.105
C4036V	–	23.5	1386	2226	205.8	-	451.5	0.107	0.103
C3136	C3136K	26.5	1312.5	1816.5	163.8	1785	2520	0.102	0.111
C4136V	–	34.5	1848	2835	252	-	231	0.1	0.108
C3236	C3236K	1	1606.5	2310	202.65	210	202.65	0.107	0.104
C3038	C3038K	800	976.5	1.05	1575	2100	39.9	0.113	0.107
C3138V	C3138KV	34	1785	2677.5	235.2	-	199.5	0.115	0.096
C2238	C2238K	34.5	1438.5	2866.5	160.65	1890	2520	0.108	0.108
C3040	C3040K	22.5	1176	1816.5	1606.5	1785	2520	0.123	0.095
C4040V		30.5	1711.5	2782.5	247.8	-	273	0.11	0.101
C3140	C3140K	41	1680	2436	210	1575	2100	0.108	0.104
C3044	C3044K	29.5	1386	2142	184.8	1680	2310	0.114	0.104
C4044V	C4044K30V	40	2026.5	3412.5	294	-	210	0.115	0.095
C3144	C3144K	52	1995	3045	257.25	1470	1890	0.114	0.097
C2244	C2244K	57.5	2100	2625	218.4	1575	2100	0.113	0.101

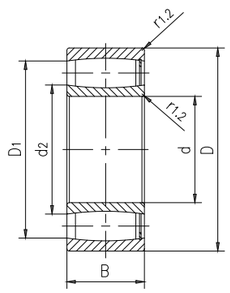
CARB toroidal roller bearings



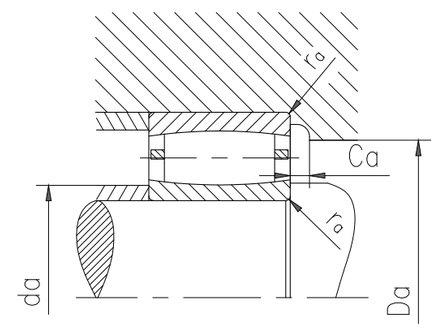
Cylindrical bore



Tapered bore



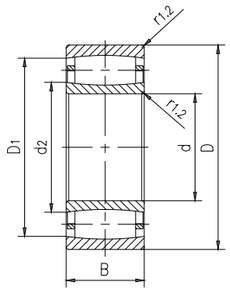
Full complement



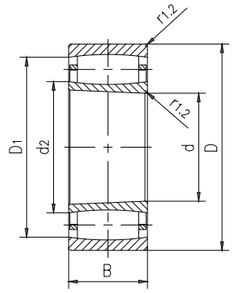
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions					
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	$r_{1,2}$ min.	s_1 max.	s_2 max.	d_a min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.
–		mm			mm					mm					
C3048	C3048K	240	360	92	276	329	3	19.2	–	253	293	312	347	1.3	2.5
C3148	C3148K	240	400	128	281	357	4	20.4	–	257	309	334	383	3.7	3
C3052	C3052K	260	400	104	305	367	4	19.3	–	275	326	349	385	3.4	3
C3152	C3152K	260	440	144	314	394	4	26.4	–	277	341	371	423	4.1	3
C3056	C3056K	280	420	106	328	389	4	21.3	–	295	352	373	405	1.8	3
C3156	C3156K	280	460	146	336	416	5	28.4	–	300	363	392	440	4.1	4
C3060M	C3060KM	300	460	118	351	417	4	20	–	315	376	402	445	1.7	3
C4060M	C4060K30M	300	460	160	338	410	4	30.4	–	315	362	396	445	2.8	3
C3160	C3160K	300	500	160	362	448	5	30.5	–	320	392	422	480	4.9	4
C3064M	C3064KM	320	480	121	375	441	4	23.3	–	335	398	426	465	1.8	3
C3164M	C3164KM	320	540	176	371	477	5	26.7	–	340	411	452	520	4.2	4
C3068M	C3068KM	340	520	133	394	475	5	25	–	358	430	454	502	2.1	4
C3168M	C3168KM	340	580	190	402	517	5	25.9	–	360	446	489	560	4.2	4
C4168K30MB		340	580	243	403	514	5	20.2	–	–	–	487	560	10.7	4
C3972M	C3972KM	360	480	90	394	450	3	17.2	–	373	409	435	467	1.6	2.5
C3072M	C3072KM	360	540	134	416	497	5	26.4	–	378	448	476	522	2	4
C3172M	C3172KM	360	600	192	423	537	5	27.9	–	380	464	507	580	3.9	4
C3076M	C3076KM	380	560	135	431	512	5	27	–	398	462	491	542	2	4
C3176MB	C3176KMB	380	620	194	446	551	5	25.4	–	400	445	526	600	7.3	4
C3980KM	–	400	540	106	439	501	4	21	–	–	–	487	525	1.8	3
C3080M	C3080KM	400	600	148	457	554	5	30.6	–	418	486	523	582	2.1	4
C3180M	C3180KM	400	650	200	488	589	6	50.7	–	426	525	566	624	4	5
C3984M	C3984KM	420	560	106	461	523	4	21.3	–	435	484	510	545	1.8	3
C3084M	C3084KM	420	620	150	475	571	5	32.6	–	438	513	544	602	2.2	4
3C184M	C3184KM	420	700	224	507	618	6	34.8	–	446	544	592	674	3.8	5
C3088MB	C3088KMB	440	650	157	490	587	6	24.6	–	463	489	563	627	1.7	5
C3188MB	C3188KMB	440	720	226	522	647	6	16	–	466	521	613	694	7.5	5
C4188MB	C4188K30MB	440	720	280	510	637	6	27.8	–	466	509	606	694	7.3	5
C3092M	C3092KM	460	680	163	539	624	6	33.5	–	483	570	604	657	2.3	5
C3192M	C319KM2	460	760	240	559	679	7.5	51	–	492	603	651	728	4.2	6
C4192MB	C4192K30MB	460	760	300	537	671	7.5	23.3	–	477	536	638	728	12.6	6
C3292MB	C3292KMB	460	830	296	555	720	7.5	32.4	–	492	554	676	798	11	6
C3996M	–	480	650	128	528	604	5	20.4	–	498	552	585	632	2	4
C3096M	C3096KM	480	700	165	555	640	6	35.5	–	503	586	620	677	2.3	5
C3196MB	C3196KMB	480	790	248	578	701	7.5	35.1	–	512	577	673	758	8.7	6
C39/500M	C39/500KM	500	670	128	555	632	5	20.4	–	518	580	614	652	2	4

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient	
			Dynamic	Static		reference speed	Maximum speed		
Bearing with cylindrical bore	Taper Hole		C	C_0	P_u			k_1	k_2
–		kg	kN			r/min		–	
C3048	C3048K	32	1407	2268	192.15	1575	2100	0.113	0.106
C3148	C3148K	64	2436	3622.5	299.25	1365	1785	0.116	0.095
C3052	C3052K	47	1848	2992.5	243.6	1365	1890	0.122	0.096
C3152	C3152K	88	2782.5	4252.5	341.25	1155	1575	0.115	0.096
C3056	C3056K	50.5	1953	3255	262.5	1260	1680	0.121	0.098
C3156	C3156K	94.5	2992.5	4725	372.75	1155	1470	0.115	0.097
C3060M	C3060KM	1500	2268	3937.5	304.5	787.5	1155	0.123	0.095
C4060M	C4060K30M	95.5	3045	5145	409.5	945	1260	0.105	0.106
C3160	C3160K	125	3412.5	5460	420	997.5	1365	0.106	0.106
C3064M	C3064KM	78	2394	4200	320.25	1050	1470	0.121	0.098
C3164M	C3164KM	164	4357.5	6615	504	945	1365	0.114	0.096
C3068M	C3068KM	100	4095	5250	393.75	997.5	1365	0.12	0.099
C3168M	C3168KM	205	5145	7875	588	892.5	1155	0.118	0.093
C4168K30MB		271	5880	9607.5	714	703.5	945	0	0.096
C3972M	C3972KM	45	1848	3412.5	257.25	1050	1470	0.127	0.104
C3072M	C3072KM	106	3045	5250	393.75	945	1365	0.12	0.099
C3172M	C3172KM	220	5250	8400	614.25	840	1155	0.117	0.094
C3076M	C3076KM	110	3150	5460	399	945	1260	0.12	0.1
C3176MB	C3176KMB	243	4620	7560	546	787.5	1050	0	0.106
C3980KM	–	66.5	2226	4200	304.5	945	1365	0.13	0.098
C3080M	C3080KM	145	3832.5	6510	472.5	840	1155	0.121	0.099
C3180M	C3180KM	258	5040	8715	614.25	735	997.5	0.106	0.109
C3984M	C3984KM	72	2268	4462.5	325.5	892.5	1260	0.132	0.098
C3084M	C3084KM	150	3990	6720	477.75	840	1155	0.12	0.1
3C184M	C3184KM	355	6300	10920	756	703.5	945	0.113	0.098
C3088MB	C3088KMB	190	3937.5	6720	472.5	787.5	1050	0	0.105
C3188MB	C3188KMB	685	7035	11970	819	661.5	892.5	0	0.099
C4188MB	C4188K30MB	471	7875	13545	945	525	703.5	0	0.1
C3092M	C3092KM	205	4200	7875	546	735	997.5	0.114	0.108
C3192M	C319KM2	435	7140	12600	855.75	630	840	0.108	0.105
C4192MB	C4192K30MB	571	9082.5	15750	1071	504	661.5	0	0.097
C3292MB	C3292KMB	735	9765	15750	1050	556.5	787.5	0	0.106
C3996M	–	120	3255	6405	446.25	787.5	1050	0.133	0.095
C3096M	C3096KM	215	4252.5	8190	556.5	703.5	945	0.113	0.11
C3196MB	C3196KMB	523	7297.5	13125	903	588	787.5	0	0.109
C39/500M	C39/500KM	125	3307.5	6615	451.5	735	997.5	0.135	0.095

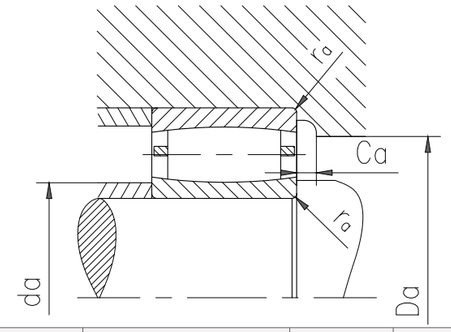
CARB toroidal roller bearings



Cylindrical bore



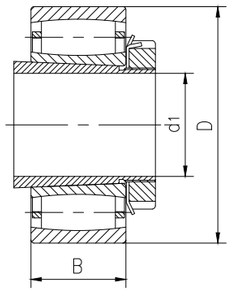
Tapered bore



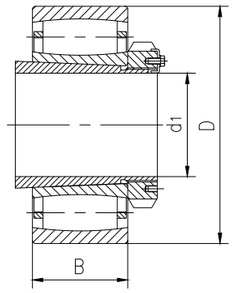
Type		Main dimensions			Dimensions					Shoulder and chamfer dimensions					
Bearing with cylindrical bore	Taper Hole	d	D	B	d_2 ≈	D_1 ≈	$r_{1,2}$ min.	s_1 max.	s_2 max.	d_a min.	d_a max.	D_a min.	D_a max.	C_a min.	r_a max.
–		mm			mm					mm					
C30/500M	–	500	720	167	571	656	6	37.5	–	523	600	637	697	2.3	5
C31/500M	C31/500KM	500	830	264	605	738	7.5	75.3	–	532	654	706	798	-11.7	6
C41/500M	C41/500K30M	500	830	325	600	740	7.5	46.3	–	532	637	721	798	5.9	6
C30/530M	C30/530KM	530	780	185	601	705	6	35.7	–	553	638	681	757	2.5	5
C31/530M	C31/530KM	530	870	272	635	781	7.5	44.4	–	562	685	745	838	5.4	6
C39/560M	C39/560KM	560	750	140	621	701	5	32.4	–	578	648	682	732	2.3	4
C30/560M	C30/560KM	560	820	195	659	761	6	45.7	–	583	696	736	797	2.7	5
C41/560K30MB	–	560	920	355	664	802	7.5	23	–	–	–	770	888	13.8	6
3C0/600M	C30/600KM	600	870	200	692	805	6	35.9	–	623	728	776	847	2.7	5
C31/600MB	C31/600KMB	600	980	300	705	871	7.5	26.1	–	632	704	827	948	5.1	6
C41/600MB	C41/600K30MB	600	980	375	697	869	7.5	24.6	–	632	696	823	948	5.5	6
C39/630M	C39/630KM	630	850	165	699	785	6	35.5	–	653	723	766	827	2.4	5
C30/630M	C30/630KM	630	920	212	716	840	7.5	48.1	–	658	759	807	892	2.9	6
C31/630MB	C31/630KMB	630	1030	315	741	916	7.5	23.8	–	662	740	868	998	5.7	6
C30/670M	C30/670KM	670	980	230	775	905	7.5	41.1	–	698	820	874	952	2.9	6
C31/670MB	C31/670KMB	670	1090	336	792	964	7.5	41	–	702	791	922	1058	11.4	6
C41/670MB	C41/670K30M	670	1090	412	779	967	7.5	37.2	–	702	778	920	1058	16.7	6
C39/710M	C39/710KM	710	950	180	772	877	6	30.7	–	733	797	847	927	2.7	5
C30/710M	C30/710KM	710	1030	236	806	946	7.5	47.3	–	738	853	908	1002	3.2	6
C40/710M	C40/710K30M	710	1030	315	803	935	7.5	51.2	–	738	843	911	1002	4.4	6
C31/710MB	C31/710KMB	710	1150	345	842	1013	9.5	47.8	–	750	841	973	1110	11.1	8
C39/750M	C39/750KM	750	1000	185	830	934	6	35.7	–	773	856	908	977	2.7	5
C30/750MB	C30/750KMB	750	1090	250	854	993	7.5	28.6	–	778	852	961	1062	7.4	6
C31/750MB	C31/750KMB	750	1220	365	884	1077	9.5	33	–	790	883	1025	1180	9.3	8
C39/800M	–	800	1060	195	888	990	6	45.7	–	823	917	967	1037	2.9	5
C30/800MB	C30/800KMB	800	1150	258	908	1048	7.5	45.9	–	828	905	1020	1122	7.2	6
C39/850M	C39/850KM	850	1120	200	940	1053	6	35.9	–	873	963	1025	1097	2.9	5
C30/850MB	C30/850KMB	850	1220	272	964	1113	7.5	24	–	878	963	1077	1192	7.7	6
C30/900MB	C30/900KMB	900	1280	280	1005	1173	7.5	24.8	–	928	1003	1126	1252	9	6
C30/950MB	–	950	1360	300	1075	1241	7.5	37.8	–	978	1073	1204	1332	8.7	6
C30/1000MB	–	1000	1420	308	1000	1130	7.5	44.9	–	1028	1128	1260	1392	8.5	6
C31/1000MB	C31/1000KMB	1000	1580	462	1191	1372	12	70.1	–	1148	1189	1338	1532	15	10
C39/1060MB	C39/1060KMB	1060	1400	250	1168	1308	7.5	38.4	–	1088	1164	1282	372	6	6
C49/1120MB1	–	1120	1460	335	1225	1362	7.5	76.1	–	1148	1220	1344	432	47.6	6
C39/1180MB	–	1180	1540	272	1291	1439	7.5	19.6	–	1208	1289	1405	512	6.2	6
C39/1500MB	–	1500	1950	335	1636	1831	9.5	35	–	1534	1633	1788	916	9.3	8
C39/1700MB	–	1700	2180	355	1841	2053	9.5	40.6	–	1734	1837	2008	146	8.4	8

Type		Weight	Basic load rating		Fatigue load limit	Rated speed		Calculate the coefficient	
			Dynamic	Static		reference speed	Maximum speed		
Bearing with cylindrical bore	Taper Hole		C	C_0	P_u			k_1	k_2
–		kg	kN			r/min		–	
C30/500M	–	225	4462.5	8715	588	661.5	945	0.113	0.111
C31/500M	C31/500KM	560	7875	13335	892.5	556.5	787.5	0.099	0.116
C41/500M	C41/500K30M	160	10290	18480	1218	451.5	588	0.115	0.093
C30/530M	C30/530KM	300	5355	9975	661.5	630	840	0.12	0.101
C31/530M	C31/530KM	636	9240	16380	1071	525	703.5	0.115	0.097
C39/560M	C39/560KM	175	3780	7717.5	514.5	630	892.5	0.128	0.104
C30/560M	C30/560KM	350	5880	11550	756	556.5	787.5	0.116	0.106
C41/560K30MB	–	989	10920	20580	1333.5	399	525	0	0.101
3C0/600M	C30/600KM	395	6615	12810	819	525	735	0.125	0.098
C31/600MB	C31/600KMB	929	10710	18900	1197	451.5	630	0	0.107
C41/600MB	C41/600K30MB	1150	13545	24360	1533	357	472.5	0	0.097
C39/630M	C39/630KM	275	4882.5	10500	672	556.5	735	0.121	0.11
C30/630M	C30/630KM	470	7140	13545	855.75	504	703.5	0.118	0.104
C31/630MB	C31/630KMB	190	12390	21840	1354.5	420	588	0	0.102
C30/670M	C30/670KM	590	8557.5	17115	1050	451.5	630	0.121	0.101
C31/670MB	C31/670KMB	1300	12390	22260	1354.5	399	525	0	0.109
C41/670MB	C41/670K30M	1570	16800	30450	1848	315	420	0	0.097
C39/710M	C39/710KM	360	6300	13125	819	472.5	661.5	0.131	0.098
C30/710M	C30/710KM	655	9240	18165	1113	420	588	0.119	0.104
C40/710M	C40/710K30M	865	11130	22680	1386	336	451.5	0.113	0.101
C31/710MB	C31/710KMB	1470	14070	26775	1606.5	357	504	0	0.111
C39/750M	C39/750KM	410	6405	14070	855.75	451.5	588	0.131	0.101
C30/750MB	C30/750KMB	838	9975	20265	1218	399	556.5	0	0.11
C31/750MB	C31/750KMB	1800	16800	32025	1890	336	472.5	0	0.094
C39/800M	–	480	6720	15330	924	399	556.5	0.126	0.106
C30/800MB	C30/800KMB	941	9765	20265	1197	378	504	0	0.114
C39/850M	C39/850KM	540	7717.5	17115	1008	378	504	0.135	0.098
C30/850MB	C30/850KMB	1110	12180	25725	1501.5	336	472.5	0	0.097
C30/900MB	C30/900KMB	1200	13335	27825	1606.5	315	420	0	0.1
C30/950MB	–	1480	13860	29925	1680	294	399	0	0.107
C30/1000MB	–	1680	14385	32025	1785	273	378	0	0.11
C31/1000MB	C31/1000KMB	33800	21420	47775	2625	231	315	0	0.108
C39/1060MB	C39/1060KMB	1120	11550	27300	1501.5	273	378	0	0.11
C49/1120MB1	–	1630	13860	33075	1785	210	273	0	0.12
C39/1180MB	–	1400	14070	35175	1890	231	315	0	0.097
C39/1500MB	–	2710	20580	50400	2520	147	210	0	0.096
C39/1700MB	–	3510	25200	65100	3150	115.5	157.5	0	0.103

CARB toroidal roller bearings on an adapter sleeve

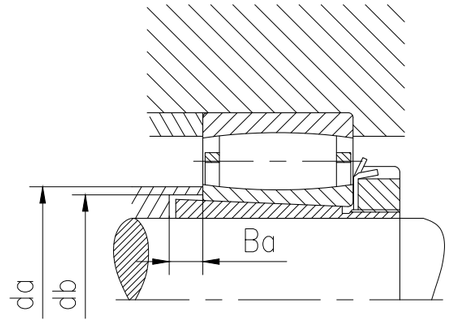


Bearing on an H .. sleeve



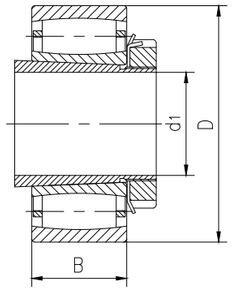
Bearing on an OH .. H sleeve

Type		Main dimensions			Shoulder and chamfer dimensions			Weight
Bearing	Installation sleeve	d	D	B	d_b min.	d_a max.	B_a min.	Bearing + Set sleeve
–		mm			mm			kg
C2206KTN9	H306E	25	62	20	37.4	33	5	0.37
C2207KTN9	H307E	30	72	23	44.8	39	5	0.59
C2208KTN9	H308E	35	80	23	52.4	44	5	0.69
C2209KTN9	H309E	40	85	23	55.6	50	7	0.76
C2210KTN9	H310E	45	90	23	61.9	55	9	0.85
C2211KTN9	H311E	50	100	25	65.8	60	10	1.1
C2211KV	H311E	50	100	25	80	60	10	1.15
C2212KTN9	H312E	55	110	28	77.1	65	9	1.45
C2212KV	H312	55	110	28	91	65	9	1.5
C2213KTN9	H313E	60	120	31	79	70	8	1.8
C2213KV	H313	60	120	31	97	70	8	1.9
C2214KTN9	H314E	60	125	31	83.7	75	9	2.1
C2314K	H2314	60	150	51	106	76	6	5.1
C2215K	H315E	65	130	31	98.3	80	12	2.3
C2215KV	H315	65	130	31	107	80	12	2.4
C2315K	H2315	65	160	55	113	82	6	6.2
C2216K	H316E	70	140	33	107	85	12	2.9
C2216KV	H316	70	140	33	116	85	12	3
C2316K	H2316	70	170	58	119	88	6	7.4
C2217K	H317E	75	150	36	114	91	12	3.7
C2317K	H2317	75	180	60	126	94	7	8.5
C2218K	H318E	80	160	40	124	96	10	4.5
C2318K	H2318	80	190	64	138	100	7	10
C2319K	H2319	85	200	67	138	105	7	11.5
C2220K	H320E	90	180	46	134	108	8	6.3
C2320K	H2320	90	215	73	150	110	7	14.5
C2222K	H322E	100	200	53	150	118	6	8.8
C3224K	H2324L	110	215	76	162	131	17	14
C2226K	H3126L	115	230	64	171.00	138.00	8	14
C2326K/VE240	H2326	115	280	93	201	142.00	8.00	31.5
C2228K	H3128L	125	250	68	191.00	149.00	8	17.5
C3030KV	H3030	135	225	56	190.00	158.00	8	11.5
C3130K	HL3130	135	250	80	196	160.00	8.00	20

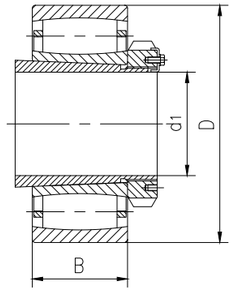


Type		Main dimensions			Shoulder and chamfer dimensions			Weight
Bearing	Installation sleeve	d	D	B	d_b min.	d_a max.	B_a min.	Bearing + Set sleeve
–		mm			mm			kg
C2230K	H3130L	135	270	73	202	160.00	15.00	23
C3132K	H3132L	140	270	86	208.00	170.00	8	27
C3232K	H2332L	140	290	104	218	174.00	18.00	36.5
C2234K	H3134L	150	310	86	233.00	180.00	10	35
C3036K	H3036	160	280	74	223.00	189.00	9	23
C3136K	H3136L	160	300	96	231	191.00	8.00	34
C3236K	H2336	160	320	112	249	195.00	22.00	47
C3038	H3038	170	290	75	238.00	199.00	10	24
C3138KV	H3138	170	320	104	267	202.00	9.00	45
C2238K	H3138	170	340	92	254	202.00	21.00	43
C3040K	H3040	180	310	82	250.00	210.00	10	30
C3140K	H3140	180	340	112	264	212.00	9.00	50.5
C3044K	OH3044H	200	340	90	274.00	231.00	10	37
C3144K	OH3144HTL	200	370	120	290	233.00	10.00	64
C2244K	OH3144H	200	400	108	298	233.00	22.00	69
C3048K	OH3048H	220	360	92	293.00	251.00	11	42.5
C3148K	OH3148HTL	220	400	128	309	254.00	11.00	77
C3052K	OH3052H	240	400	104	326.00	272.00	11	59
C3152K	OH3152HTL	240	440	144	341	276.00	11.00	105
C3056K	OH3056H	260	420	106	352.00	292.00	12	65
C3156K	OH3156HTL	260	460	146	363	296.00	12.00	115
C3060KM	OH3060H	280	460	118	376.00	313.00	12	91
C3160K	OH3160H	280	500	160	392	318.00	12.00	150
C3064KM	OH3064H	300	480	121	398.00	334.00	13	95
C3164KM	OH3164H	300	540	176	411	338.00	13.00	190
C3068KM	OH3068H	320	520	133	425.00	355.00	14	125
C3168KM	OH3168H	320	580	190	446	360.00	14.00	235
C3972KM	OH3972HE	340	480	90	409.00	372.00	14	73
C3072KM	OH3072H	340	540	134	448	375.00	14.00	135
C3172KM	OH3172H	340	600	192	464	380.00	14.00	250
C3076KM	OH3076H	360	560	135	462.00	396.00	15	145
C3176KMB	OH3176HE	360	620	194	445	401.00	15.00	290
C3980KM	OH3980HE	380	540	106	461.00	413.00	15	105

CARB toroidal roller bearings on an adapter sleeve

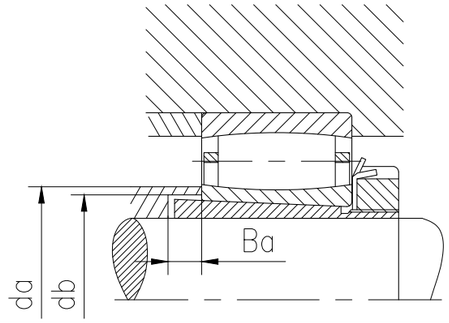


Bearing on an H .. sleeve



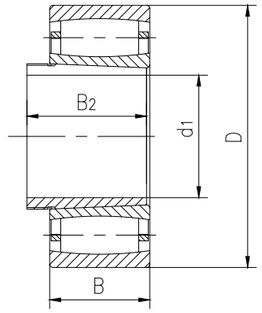
Bearing on an OH .. H sleeve

Type		Main dimensions			Shoulder and chamfer dimensions			Weight
Bearing	Installation sleeve	d	D	B	d_b min.	d_a max.	B_a min.	Bearing + Set sleeve
–		mm			mm			kg
C3080KM	OH3080H	380	600	148	486	417.00	15.00	175
C3180KM	OH3180H	380	650	200	525	421.00	15.00	345
C3984KM	OH3984HE	400	560	106	484.00	433.00	15	106
C3084KM	OH3084H	400	620	150	513	437.00	16.00	180
C3184KM	OH3184H	400	700	224	544	443.00	16.00	395
C3088KMB	OH3088HE	410	650	157	489.00	458.00	17	250
C3188KMB	OH3188HE	410	720	226	521	463.00	17.00	475
C3092KM	OH3092H	430	680	163	570	478	17	270
C3192KM	OH3192H	430	760	240	603	484	17	540
C3096	OH3096H	450	700	165	586	499	18	275
C3196	OH3196HE	450	790	248	577	505	18	620
C39/500KM	OH39/500HE	470	670	128	580	516	18	195
C31/500KM	OH31/500H	470	830	264	654	527	18	690
C30/530KM	OH30/530H	500	780	185	638	551	20	390
C31/530KM	OH31/530H	500	870	272	685	558	20	770
C39/560KM	3OH9/560HE	530	750	140	648	577	20	260
C30/560KM	OH30/560H	530	820	195	696	582	20	440
C31/600KMB	OH31/600HE	530	980	300	704	629	22	1100
C30/600KM	OH30/600H	560	870	200	728	623	22	520
C39/630KM	OH39/630HE	600	850	165	723	650	22	420
C30/630KM	OH30/630H	600	920	212	759	654	22	635
C31/630KMB	OH31/630HE	600	1030	315	740	663	22	1280
C30/670KMKM	OH30/670H	630	980	230	820	696	22	750
C31/670KMB	OH31/670HE	630	1090	336	791	705	22	1550

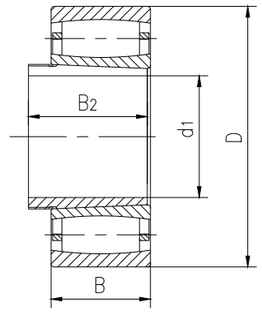


Type		Main dimensions			Shoulder and chamfer dimensions			Weight
Bearing	Installation sleeve	d	D	B	d_b min.	d_a max.	B_a min.	Bearing + Set sleeve
–		mm			mm			kg
C39/710KM	OH39/710HE	670	950	180	797	732	26	520
C30/710KM	OH30/710H	670	1030	236	853	736	26	865
C31/710KMB	OH31/710HE	670	1150	345	841	745	26	1800
C39/750KM	OH39/750HE	710	1000	185	856	772	26	590
C30/750KMB	OH30/750HE	710	1090	250	852	778	26	1000
C31/750KMB	OH31/750HE	710	1220	365	883	787	23	2150
C30/800KMB	OH30/800HE	750	1150	258	905	829	28	1150
C39/850KM	OH39/850HE	800	1120	200	963	872	28	785
C30/850KMB	OH30/850HE	800	1220	272	963	880	28	1050
C30/900KMB	OH30/900HE	850	1280	280	1003	931	30	1520
C31/1000KMB	OH31/1000HE	950	1580	462	1189	1047	33	4300
C39/1060KMB	OH39/1060HE	1000	1400	250	1164	1087	33	1610
C39/710KM	OH39/710HE	670	950	180	797	732	26	520
C30/710KM	OH30/710H	670	1030	236	853	736	26	865
C31/710KMB	OH31/710HE	670	1150	345	841	745	26	1800
C39/750KM	OH39/750HE	710	1000	185	856	772	26	590
C30/750KMB	OH30/750HE	710	1090	250	852	778	26	1000
C31/750KMB	OH31/750HE	710	1220	365	883	787	23	2150
C30/800KMB	OH30/800HE	750	1150	258	905	829	28	1150
C39/850KM	OH39/850HE	800	1120	200	963	872	28	785
C30/850KMB	OH30/850HE	800	1220	272	963	880	28	1050
C30/900KMB	OH30/900HE	850	1280	280	1003	931	30	1520
C31/1000KMB	OH31/1000HE	950	1580	462	1189	1047	33	4300
C39/1060KMB	OH39/1060HE	1000	1400	250	1164	1087	33	1610

CARB toroidal roller bearings on a withdrawal sleeve

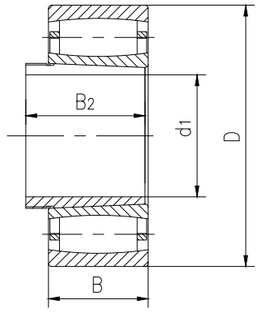


Type		Main dimensions				Weight
Bearing	Installation sleeve	d_1	D	B	B_2	Bearing + sleeve
–		mm				kg
C2208KTN9	AH308	35	80	23	32.00	0.59
C2209KTN9	AH309	40	85	23	34.00	0.67
C2210KTN9	AH310	45	90	23	38.00	0.72
C2211KTN9	AHX311	50	100	25	40.00	0.95
C2211KV	AHX311	50	100	25	40	0.97
C2212KTN9KTN9	AHX312	55	110	28	43.00	1.30
C2212KV	AHX312	55	110	28	43	1.35
C2213KTN9KTN9	AH313G	60	120	31	45.00	1.60
C2213KV	AH313G	60	120	31	45	1.70
C2214KTN9	AH314G	65	125	31	47.00	1.70
C2314K	AHX2314	65	150	51	68	4.65
C2215K	AH315G	70	130	31	49.00	1.90
C2215KV	AH315G	70	130	31	49	1.95
C2315K	AHX2315G	70	160	55	72	5.65
C2216K	AH316	75	140	33	52.00	2.35
C2216KV	AH316	75	140	33	52	2.45
C2316K	AHX2316	75	170	58	75	6.75
C2217K	AHX317	80	150	36	56.00	3.00
C2317K	AHX317	80	180	60	78	7.90
C2218K	AHX318	85	160	40	57.00	3.75
C2318K	AHX2318	85	190	64	83	9.00
C2319K	AHX1219	90	200	67	89.00	11.00
C2220K	AHX320	95	180	46	63.00	5.30
C2320K	AHX2320	95	215	73	94	13.50
C2222K	AHX3122	105	200	53	72.00	7.65
C4024K30V/VE240	AH24024	115	180	60	82.00	5.65
C4024K30V/VE240	AH24024	115	180	60	82	6.20
C3224K	AH3224G	115	215	76	94	13.00
C4026K30	AH24026	125	200	69	93.00	9
C4026K30V	AH24026	125	200	69	93	9
C2226K	AHX3126	125	230	64	82	12
C2326K/VE240	AHX2326G	125	280	93	119	29
C4028K30V	AH24028	135	210	69	93.00	10
C2228K	AHX3128	135	250	68	88	16

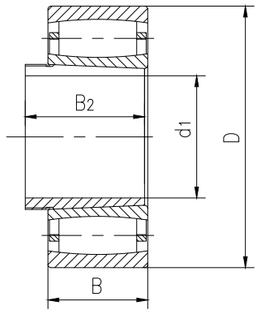


Type		Main dimensions				Weight
Bearing	Installation sleeve	d_1	D	B	B_2	Bearing + sleeve
–		mm				kg
C3030KV	AHX3030	145	225	56	77.00	9
C4030K30V	AH24030	145	225	75	101	12
C3130K	AHX3130G	145	250	80	101	17
C2230K	AHX3130G	145	270	73	101	19
C4032K30	AH24032	150	240	80	106.00	15
C4032K30V	AH24032	150	240	80	106	15
C3132K	AH3132G	150	270	86	108	23
C3232K	AH3232G	150	290	104	130	31
C4034K30V	AH24034	160	260	90	117.00	20
C2234K	AH3134G	160	310	86	109	31
C3056K	AH3036	170	280	74	98.00	19
C3136K	AH3136G	170	300	96	122	30
C3236K	AH3236G	170	320	112	146	42
C3038K	AH3038G	180	290	75	102.00	21
C3138K	AH3138G	180	320	104	131	39
C2238K	AH2238G	180	340	92	117	38
C3040K	AH3040G	190	310	82	108.00	26
C3140K	AH3140	190	340	112	140	46
C3044K	AOH3044G	200	340	90	117.00	36
C4044K30V	AOH24044	200	340	118	152	48
C3144K	AOH3144	200	370	120	151	60
C2244K	AOH2244	200	400	108	136	66
C3048K	AOH3048	220	360	92	123.00	40
C3148K	AOH3148	220	400	128	161	75
C3052K	AOH3052	240	400	104	135.00	56
C3152K	AOH3152G	240	440	144	179	102
C3056K	AOH3056	260	420	106	139.00	61
C3156K	AOH3156G	260	460	146	183	110
C3060KM	AOH3060	280	460	118	153.00	84
C4060K30M	AOH24060G	280	460	160	202	110
C3160K	AOH3160G	280	500	160	200	140
C3064KM	AOH3064G	300	480	121	157.00	93
C3164KM	AOH3164G	300	540	176	217	185
C3068KM	AOH3068G	320	520	133	171.00	120

CARB toroidal roller bearings on a withdrawal sleeve



Type		Main dimensions				Weight
Bearing	Installation sleeve	d_1	D	B	B_2 ≈	Bearing + sleeve
–		mm				kg
C3168KM	AOH3168G	320	580	190	234	230
C3072KM	AOH3072G	340	540	134	176.00	125
C3172KM	AOH3172G	340	600	192	238	245
C3076KM	AOH3076G	360	560	135	180.00	130
C3176KMB	AOH3176G	360	620	194	242	260
C3080KM	AOH3080G	380	600	148	193.00	165
C3180KM	AOH3180G	380	650	200	250	310
C3084KM	AOH3084G	400	620	150	196.00	175
C3184KM	AOH3184G	400	700	224	276	380
C3088KMB	AOH3088G	420	650	157	205.00	215
C3188KMB	AOHX3188G	420	720	226	281	405
C4188K30MB	AOH24188	420	720	280	332	510
C3092KM	AOHX3092G	440	680	163	213.00	230
C3192KM	AOHX3192G	440	760	240	296	480
C4192K30MB	AOH24192	440	760	300	355	621
C3096KM	AOHX3096G	460	700	165	217.00	245
C3196KMB	AOHX3196G	460	790	248	307	545
C31/500KM	AOHX31/500G	480	830	264	325.00	615
C30/530KM	AOH30/530	500	780	185	242.00	355



Type		Main dimensions				Weight
Bearing	Installation sleeve	d_1	D	B	B_2 ≈	Bearing + sleeve
–		mm				kg
C31/530KM	AOH31/530	500	870	272	337	720
C30/560KM	AOHX30/560	530	820	195	252.00	415
C41/560K30MB	AOH241/560G	530	920	355	417	989
C30/600KM	AOHX30/600	570	870	200	259.00	460
C31/600KMB	AOHX31/600	570	980	300	369	990
C41/600K30MB	AOHX241/600	570	980	375	439	1270
C30/630KM	AOH30/630	600	920	212	272.00	555
C31/630KMB	AOH31/630	600	1030	315	389.00	1180
C30/670KM	AOH30/670	630	980	230	294.00	705
C31/670KMB	AOHX31/670	630	1090	336	409.00	1410
C30/710KM	AOHX30/710	670	1030	236	302.00	780
C40/710K30MB	AOH240/710G	670	1030	315	386.00	1010
C31/710KMB	AOHX31/710	670	1150	345	421.00	1600
C30/750KMB	AOH30/750	710	1090	250	316.00	920
C31/750KMB	AOH31/75	710	1220	365	441.00	1930
C30/800KMB	AOH30/800	750	1150	258.00	326	1060
C30/850KMB	AOH30/850	800	1220	272.00	343	1280
C30/900KMB	AOH30/900	850	1280	280.00	355	1400
C31/1000KMB	AOH31/1000	950	1580	462.00	547	1950

Thrust cylindrical roller bearings

Features

Thrust cylindrical roller bearings consist of thrust cylindrical roller and cage assembly K, raceway GS and shaft washer WS.

The bearing has a small axial section height, high load carrying capacity, high rigidity and can bear axial force.

Bearings in 811 and 812 series are one direction thrust cylindrical roller bearings, and bearings in 893 and 894 series are Double direction thrust cylindrical roller bearings.

Operating temperature

Thrust cylindrical roller bearings with glass fiber reinforced nylon cages have an operating temperature range of –20 °C to +120 °C. Thrust cylindrical roller bearings with machined brass cages have an operating temperature range of –20 °C to +150 °C ℃.

Cages

Thrust cylindrical roller bearing cages are available in glass fiber reinforced nylon and machined brass, with suffixes TN and M respectively.

Seals

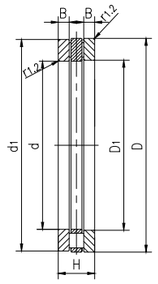
There is no seal structure design for thrust cylindrical roller bearings.



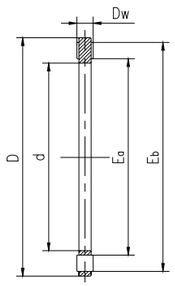
suffix for an existing design

Suffix	Meaning
M	Machined brass cage
TN	Glass ibre reinforced PA66 cage
HA1	Case-hardened shaft and housing washers
HB1	Bainite-hardened shaft and housing washers
P5	Dimensional and geometrical tolerances to class P5

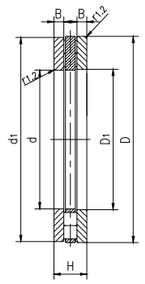
Cylindrical roller thrust bearings



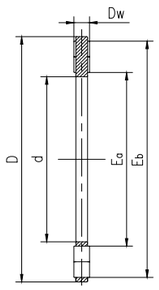
811



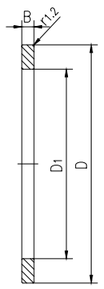
811 assembly



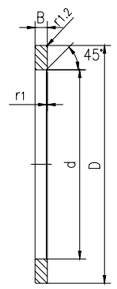
893



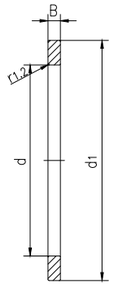
893 assembly



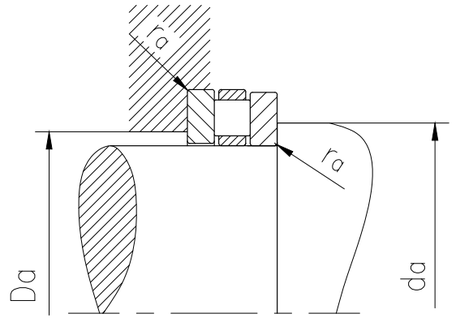
GS



LS



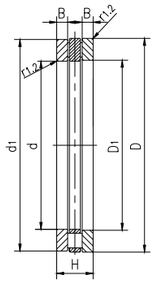
WS



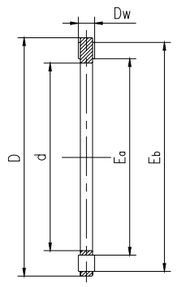
Type	Component Type Cylindrical roller-cage, thrust assembly	Shaft rings	Seat ring	Universal Gasket	Main dimensions			Dimensions							Shoulder and chamfer dimensions		
					d	D	B	E_a	E_b	d_1 ≈	D_1 ≈	B	D_W	$r_{1,2}$ min.	d_a min.	D_a max.	r_a max.
-	-				mm			mm							mm		
81102TN	K81102TN	WS81102	GS81102	LS1528	15	28	9	16	27	28	16	2.75	3.5	0.3	27	16	0.3
81103TN	K81103TN	WS81103	GS81103	LS1730	17	30	9	18	29	30	18	2.75	3.5	0.3	29	18	0.3
81104TN	K81104TN	WS81104	GS81104	LS2035	20	35	10	21	34	35	21	2.75	4.5	0.3	34	21	0.3
81105TN	K81105TN	WS81105	GS81105	LS2542	25	42	11	26	41	42	26	3	5	0.6	41	26	0.6
81106TN	K81106TN	WS81106	GS81106	LS3047	30	47	11	31	46	47	32	3	5	0.6	46	31	0.6
81206TN	K81206TN	WS81206	GS81206	–	30	52	16	31	50	52	32	4.25	7.5	0.6	50	31	0.6
81107TN	K81107TN	WS81107	GS81107	LS3552	35	52	12	36	51	52	37	3.5	5	0.6	51	36	0.6
81207TN	K81207TN	WS81207	GS81207	–	35	62	18	39	58	62	37	5.25	7.5	1	58	39	1
81108TN	K81108TN	WS81108	GS81108	LS4060	40	60	13	42	58	60	42	3.5	6	0.6	58	42	0.6
81208TN	K81208TN	WS81208	GS81208	–	40	68	19	43	66	68	42	5	9	1	66	43	1
89308TN	K89308TN	WS89308	GS89308	–	40	78	22	44	77	78	42	7.5	7	1	77	44	1
81109TN	K81109TN	WS81109	GS81109	LS4565	45	65	14	47	63	65	47	4	6	0.6	63	47	0.6
81209TN	K81209TN	WS81209	GS81209	–	45	73	20	48	70	73	47	5.5	9	1	70	48	1
81110TN	K81110TN	WS81110	GS81110	LS5070	50	70	14	52	68	70	52	4	6	0.6	68	52	0.6
81210TN	K81210TN	WS81210	GS81210	–	50	78	22	53	75	78	52	6.5	9	1	75	53	1
81111TN	K81111TN	WS81111	GS81111	LS5578	55	78	16	57	77	78	57	5	6	0.6	77	56	0.6
81211TN	K81211TN	WS81211	GS81211	–	55	90	25	59	85	90	57	7	11	1	85	59	1
81112TN	K81112TN	WS81112	GS81112	LS6085	60	85	17	62	82	85	62	4.75	7.5	1	82	62	1
81212TN	K81212TN	WS81212	GS81212	–	60	95	26	64	91	95	62	7.5	11	1	91	64	1
89312TN	K89312TN	WS89312	GS89312	–	60	110	30	66	108	110	62	10.5	9	1.1	108	67	1.1
81113TN	K81113TN	WS81113	GS81113	LS6590	65	90	18	67	87	90	67	5.25	7.5	1	87	67	1
81213TN	K81213TN	WS81213	GS81213	–	65	100	27	69	96	100	67	8	11	1	96	69	1
89313TN	K89313TN	WS89313	GS89313	–	65	115	30	71	113	115	67	10.5	9	1.1	113	72	1.1
81114TN	K81114TN	WS81114	GS81114	LS7095	70	95	18	72	92	95	72	5.25	7.5	1	92	72	1
81214TN	K81214TN	WS81214	GS81214	–	70	105	27	74	102	105	72	8	11	1	102	74	1
89314TN	K89314TN	WS89314	GS89314	–	70	125	34	76	123	125	72	12	10	1.1	123	78	1.1
81115TN	K81115TN	WS81115	GS81115	LS75100	75	100	19	78	97	100	77	5.75	7.5	1	97	78	1
81215TN	K81215TN	WS81215	GS81215	–	75	110	27	79	106	110	77	8	11	1	106	79	1
81116TN	K81116TN	WS81116	GS81116	LS80105	80	105	19	83	102	105	82	5.75	7.5	1	102	83	1
81216TN	K81216TN	WS81216	GS81216	–	80	115	28	84	112	115	82	8.5	11	1	112	84	1
89316TN	K89316TN	WS89316	GS89316	–	80	140	36	86	137	140	82	12.5	11	1.5	137	88	1.5
89416M	K89416M	WS89416	GS89416	–	80	170	54	88	165	170	83	18	18	2.1	166	89	2.1
81117TN	K81117TN	WS81117	GS81117	LS85110	85	110	19	87	108	110	87	5.75	7.5	1	108	87	1
81217TN	K81217TN	WS81217	GS81217	–	85	125	31	90	119	125	88	9.5	12	1	119	90	1
81118TN	K81118TN	WS81118	GS81118	LS90120	90	120	22	93	117	120	92	6.5	9	1	117	93	1
81218TN	K81218TN	WS81218	GS81218	–	90	135	35	95	129	135	93	10.5	14	1.1	129	95	1.1
81120TN	K81120TN	WS81120	GS81120	LS100135	100	135	25	104	131	135	102	7	11	1	131	104	1
81220TN	K81220TN	WS81220	GS81220	–	100	150	38	107	142	150	103	11.5	15	1.1	142	107	1.1
89320M	K89320M	WS89320	GS89320	–	100	170	42	109	166	170	103	14.5	13	1.5	167	109	1.5

Type	Component Type Cylindrical roller-cage, thrust assembly	Shaft rings	Seat ring	Universal Gasket	Main dimensions			Dimensions							Shoulder and chamfer dimensions		
					d	D	B	E_a	E_b	d_1 ≈	D_1 ≈	B	D_W	$r_{1,2}$ min.	d_a min.	D_a max.	r_a max.
-	-				mm			mm							mm		
81122TN	K81122TN	WS81122	GS81122	LS110145	110	145	25	114	141	145	112	7	11	1	141	114	1
81222TN	K81222TN	WS81222	GS81222	–	110	160	38	117	152	160	113	11.5	15	1.1	152	117	1.1
89322M	K89322M	WS89322	GS89322	–	110	190	48	120	185	190	113	16.5	15	2	186	120	2
81124TN	K81124TN	WS81124	GS81124	LS120155	120	155	25	124	151	155	122	7	11	1	151	124	1
81224TN	K81224TN	WS81224	GS81224	–	120	170	39	127	162	170	123	12	15	1.1	162	127	1.1
89324M	K89324M	WS89324	GS89324	–	120	210	54	132	205	210	123	18.5	17	2.1	206	130	2.1
81126TN	K81126TN	WS81126	GS81126	LS130170	130	170	30	135	165	170	132	9	12	1	165	135	1
81226TN	K81226TN	WS81226	GS81226	–	130	190	45	137	181	187	133	13	19	1.5	181	137	1.5
81128TN	K81128TN	WS81128	GS81128	LS140180	140	180	31	145	175	178	142	9.5	12	1	175	145	1
81228M	K81228M	WS81228	GS81228	–	140	200	46	150	191	197	143	13.5	19	1.5	191	147	1.5
81130TN	K81130TN	WS81130	GS81130	LS150190	150	190	31	155	185	188	152	9.5	12	1	185	155	1
81230TN	K81230M	WS81230	GS81230	–	150	215	50	162	210	212	153	14.5	21	1.5	211	158	1.5
81132TN	K81132	WS81132	GS81132	LS160200	160	200	31	165	195	198	162	9.5	12	1	195	165	1
81232	K81232M	WS81232	GS81232	–	160	225	51	171	219	222	163	15	21	1.5	220	168	1.5
89432M	K89432M	WS89432	GS89432	–	160	320	95	179	313	320	164	31.5	32	5	315	179	5
81134TN	K81134TN	WS81134	GS81134	–	170	215	34	176	209	213	172	10	14	1.1	209	176	1.1
81234	K81234M	WS81234	GS81234	–	170	240	55	184	233	237	173	16.5	22	1.5	235	180	1.5
89434M	K89434M	WS89434	GS89434	–	170	340	103	191	333	340	174	34.5	34	5	335	191	5
81136M	K81136M	WS81136	GS81136	–	180	225	34	185	219	222	183	10	14	1.1	219	185	1.1
81236M	K81236M	WS81236	GS81236	–	180	250	56	194	243	247	183	17	22	1.5	245	190	1.5
89436M	K89436M	WS89436	GS89436	–	180	360	109	200	351	360	184	36.5	36	5	353	203	5
81138M	K81138M	WS81138	GS81138	–	190	240	37	197	233	237	193	11	15	1.1	233	197	1.1
81238M	K81238M	WS81238	GS81238	–	190	270	62	205	263	267	194	18	26	2	265	200	2
89438M	K89438M	WS89438	GS89438	–	190	380	115	212	371	380	195	38.5	38	5	373	214	5
81140M	K81140M	WS81140	GS81140	–	200	250	37	206	243	247	203	11	15	1.1	243	206	1.1
81240M	K81240M	WS81240	GS81240	–	200	280	62	215	273	277	204	18	26	2	275	210	2
89440M	K89440M	WS89440	GS89440	–	200	400	122	224	391	400	205	41	40	5	393	226	5
81144M	K81144M	WS81144	GS81144	–	220	270	37	226	263	267	223	11	15	1.1	263	226	1.1
81244M	K81244M	WS81244	GS81244	–	220	300	63	236	294	297	224	18.5	26	2	296	230	2
89444M	K89444M	WS89444	GS89444	–	220	420	122	244	411	420	225	41	40	6	413	246	6
81148M	K81148M	WS81148	GS81148	–	240	300	45	248	296	297	243	13.5	18	1.5	296	248	1.5
81248M	K81248M	WS81248	GS81248	–	240	340	78	263	333	335	244	23	32	2.1	335	261	2.1
81152M	K81152M	WS81152	GS81152	–	260	320	45	268	316	317	263	13.5	18	1.5	316	268	1.5
81252M	K81252M	WS81252	GS81252	–	260	360	79	281	351	355	264	23.5	32	2.1	353	280	2.1
81156M	K81156M	WS81156	GS81156	–	280	350	53	288	346	347	283	15.5	22	1.5	346	288	1.5
81160M	K81160M	WS81160	GS81160	–	300	380	62	315	373	376	304	18.5	25	2	373	315	2
81260M	K81260M	WS81260	GS81260	–	300	420	95	329	412	415	304	28.5	38	3	413	328	3
81164M	K81164M	WS81164	GS81164	–	320	400	63	334	394	396	324	19	25	2	394	334	2

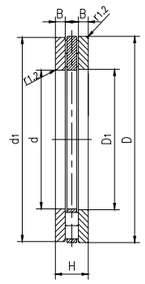
Cylindrical roller thrust bearings



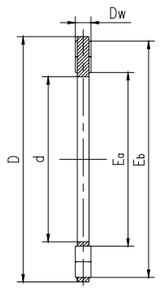
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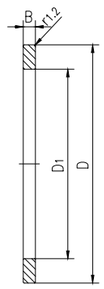
811 assembly



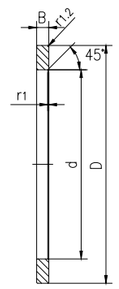
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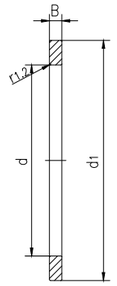
893 assembly



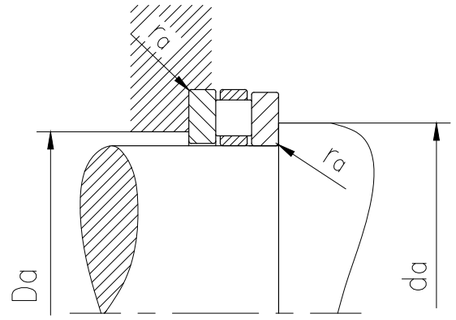
GS



LS



WS



Type	Component Type Cylindrical roller-cage, thrust assembly	Shaft rings	Seat ring	Universal Gasket	Weight	Basic load rating		Fatigue load limit	Rated speed		Minimum Load factor
						Dynamic	Static		reference speed	Maximum speed	
						C	C_0	P_u			A
-	-				kg	kN			r/min		-
81102TN	K81102TN	WS81102	GS81102	LS1528	0.024	11.76	28.35	2.5725	4515	8925	0.000058
81103TN	K81103TN	WS81103	GS81103	LS1730	0.027	12.81	33.075	2.9925	4515	8925	0.000079
81104TN	K81104TN	WS81104	GS81104	LS2035	0.037	19.53	50.4	4.8825	3990	7875	0.00018
81105TN	K81105TN	WS81105	GS81105	LS2542	0.053	26.25	72.975	7.14	3360	6615	0.00039
81106TN	K81106TN	WS81106	GS81106	LS3047	0.057	28.35	81.9	8.0325	3150	6300	0.00049
81206TN	K81206TN	WS81206	GS81206	–	0.12	52.5	140.7	14.07	2520	5040	0.0014
81107TN	K81107TN	WS81107	GS81107	LS3552	0.073	30.45	97.65	9.6075	2940	5880	0.00069
81207TN	K81207TN	WS81207	GS81207	–	0.21	65.1	199.5	20.265	2100	4200	0.0029
81108TN	K81108TN	WS81108	GS81108	LS4060	0.11	45.15	143.85	14.385	2520	5250	0.0015
81208TN	K81208TN	WS81208	GS81208	–	0.25	87.15	267.75	27.825	1995	3990	0.0052
89308TN	K89308TN	WS89308	GS89308	–	0.48	99.75	383.25	38.325	2100	4200	0.011
81109TN	K81109TN	WS81109	GS81109	LS4565	0.13	47.25	160.65	16.065	2310	4725	0.0019
81209TN	K81209TN	WS81209	GS81209	–	0.29	87.15	267.75	27.825	1890	3780	0.0052
81110TN	K81110TN	WS81110	GS81110	LS5070	0.14	49.875	174.3	17.43	2310	4515	0.0022
81210TN	K81210TN	WS81210	GS81210	–	0.36	96.075	315	32.55	1785	3570	0.0072
81111TN	K81111TN	WS81111	GS81111	LS5578	0.23	72.975	299.25	30.45	1995	3990	0.0065
81211TN	K81211TN	WS81211	GS81211	–	0.57	128.1	409.5	42	1470	2940	0.012
81112TN	K81112TN	WS81112	GS81112	LS6085	0.27	84	315	32.025	1890	3780	0.0072
81212TN	K81212TN	WS81212	GS81212	–	0.65	143.85	488.25	49.875	1470	2940	0.017
89312TN	K89312TN	WS89312	GS89312	–	1.25	160.65	672	68.775	1470	2940	0.033
81113TN	K81113TN	WS81113	GS81113	LS6590	0.31	87.15	336	34.125	1785	3570	0.0082
81213TN	K81213TN	WS81213	GS81213	–	0.72	147	514.5	52.5	1365	2730	0.019
89313TN	K89313TN	WS89313	GS89313	–	1.35	160.65	672	68.775	1470	2940	0.033
81114TN	K81114TN	WS81114	GS81114	LS7095	0.33	90.825	362.25	36.225	1785	3570	0.0095
81214TN	K81214TN	WS81214	GS81214	–	0.77	153.3	556.5	57.75	1365	2730	0.022
89314TN	K89314TN	WS89314	GS89314	–	1.8	195.3	840	85.575	1365	2730	0.05
81115TN	K81115TN	WS81115	GS81115	LS75100	0.39	87.15	351.75	35.7	1680	3360	0.009
81215TN	K81215TN	WS81215	GS81215	–	0.8	143.85	514.5	52.5	1260	2520	0.019
81116TN	K81116TN	WS81116	GS81116	LS80105	0.4	85.575	351.75	35.7	1575	3150	0.009
81216TN	K81216TN	WS81216	GS81216	–	0.9	168	640.5	66.15	1260	2520	0.03
89316TN	K89316TN	WS89316	GS89316	–	2.35	252	1113	113.4	1260	2520	0.09
89416M	K89416M	WS89416	GS89416	–	7.05	462	1816.5	181.65	945	1890	0.24
81117TN	K81117TN	WS81117	GS81117	LS85110	0.42	92.4	383.25	39.375	1575	3150	0.011
81217TN	K81217TN	WS81217	GS81217	–	1.2	178.5	672	70.35	1155	2310	0.033
81118TN	K81118TN	WS81118	GS81118	LS90120	0.62	115.5	472.5	47.775	1365	2730	0.016
81218TN	K81218TN	WS81218	GS81218	–	1.75	243.6	908.25	94.5	1050	2100	0.06
81120TN	K81120TN	WS81120	GS81120	LS100135	0.95	163.8	661.5	65.1	1260	2520	0.032
81220TN	K81220TN	WS81220	GS81220	–	2.2	283.5	1113	109.2	945	1890	0.09
89320M	K89320M	WS89320	GS89320	–	4.55	315	1438.5	138.6	997.5	1995	0.15

Type	Component Type Cylindrical roller-cage, thrust assembly	Shaft rings	Seat ring	Universal Gasket	Weight	Basic load rating		Fatigue load limit	Rated speed		Minimum Load factor
						Dynamic	Static		reference speed	Maximum speed	
						C	C_0	P_u			A
-	-				kg	kN			r/min		-
81122TN	K81122TN	WS81122	GS81122	LS110145	1.05	171.15	714	68.775	1155	2310	0.037
81222TN	K81222TN	WS81222	GS81222	–	2.3	273	1050	102.9	892.5	1785	0.08
89322M	K89322M	WS89322	GS89322	–	6.7	420	1921.5	181.65	892.5	1785	0.27
81124TN	K81124TN	WS81124	GS81124	LS120155	1.1	178.5	771.75	71.4	1155	2310	0.043
81224TN	K81224TN	WS81224	GS81224	–	2.55	267.75	1050	101.325	840	1680	0.08
89324M	K89324M	WS89324	GS89324	–	9.45	535.5	2478	226.8	787.5	1575	0.45
81126TN	K81126TN	WS81126	GS81126	LS130170	1.65	210	924	85.575	997.5	1995	0.062
81226TN	K81226TN	WS81226	GS81226	–	4	399	1533	143.85	735	1470	0.17
81128TN	K81128TN	WS81128	GS81128	LS140180	1.9	218.4	976.5	89.25	945	1890	0.069
81228M	K81228M	WS81228	GS81228	–	5.05	378	1470	135.45	735	1470	0.16
81130TN	K81130TN	WS81130	GS81130	LS150190	2.2	222.6	1050	92.4	892.5	1785	0.08
81230TN	K81230M	WS81230	GS81230	–	7.2	488.25	1995	178.5	661.5	1365	0.29
81132TN	K81132	WS81132	GS81132	LS160200	2.1	226.8	1071	94.5	892.5	1785	0.083
81232	K81232M	WS81232	GS81232	–	7.6	504	2100	184.8	630	1260	0.32
89432M	K89432M	WS89432	GS89432	–	42	1501.5	6720	567	504	997.5	3.3
81134TN	K81134TN	WS81134	GS81134	–	2.4	299.25	1407	123.9	840	1680	0.14
81234	K81234M	WS81234	GS81234	–	9.3	567	2394	210	588	1155	0.42
89434M	K89434M	WS89434	GS89434	–	52	1680	7560	630	451.5	892.5	4.15
81136M	K81136M	WS81136	GS81136	–	3.7	283.5	1333.5	115.5	787.5	1575	0.13
81236M	K81236M	WS81236	GS81236	–	9.95	577.5	2520	214.2	588	1155	0.46
89436M	K89436M	WS89436	GS89436	–	60	1848	8400	687.75	420	840	5.1
81138M	K81138M	WS81138	GS81138	–	4.75	325.5	1533	131.25	735	1470	0.17
81238M	K81238M	WS81238	GS81238	–	12	729.75	3045	262.5	525	1050	0.67
89438M	K89438M	WS89438	GS89438	–	65.5	2058	9450	756	399	787.5	6.5
81140M	K81140M	WS81140	GS81140	–	4.95	325.5	1575	131.25	735	1470	0.18
81240M	K81240M	WS81240	GS81240	–	13.5	756	3255	267.75	525	1050	0.77
89440M	K89440M	WS89440	GS89440	–	75	2268	1050	840	378	735	8
81144M	K81144M	WS81144	GS81144	–	5.2	351.75	1785	143.85	703.5	1365	0.23
81244M	K81244M	WS81244	GS81244	–	15	787.5	3517.5	288.75	504	997.5	0.9
89444M	K89444M	WS89444	GS89444	–	700	2436	11760	924	357	735	10
81148M	K81148M	WS81148	GS81148	–	8.45	498.75	2572.5	205.8	588	1155	0.48
81248M	K81248M	WS81248	GS81248	–	22	1155	5145	409.5	420	840	1.92
81152M	K81152M	WS81152	GS81152	–	9.1	514.5	2730	210	556.5	1155	0.54
81252M	K81252M	WS81252	GS81252	–	27	1197	5565	435.75	399	787.5	2.25
81156M	K81156M	WS81156	GS81156	–	12.5	714	3727.5	288.75	504	997.5	1
81160M	K81160M	WS81160	GS81160	–	19.5	892.5	4620	351.75	451.5	892.5	1.55
81260M	K81260M	WS81260	GS81260	–	43	1606.5	7560	567	336	661.5	4.1
81164M	K81164M	WS81164	GS81164	–	20.5	924	4882.5	362.25	420	840	1.73

Needle roller thrust bearings

Features

Axial needle roller bearings AXW consist of thrust needle roller and cage assemblies AXK and thrust bearing washers with centering sleeves. They can be used with drawn cup needle roller bearings or machined cup needle roller bearings.

The running raceways of the needle rollers and cage assembly must be hardened and ground.

Thrust bearing washers

Thrust bearing washers are hardened and polished stampings used as shaft washers or races for use with thrust needle roller and cage assemblies AXK.

Operating temperature

The operating temperature of thrust needle roller bearings is from –20 °C to +120 °C.

Cage

There’re three types of materials for thrust needle roller bearing cages, machined steel, stamped steel and glass fiber reinforced nylon.

Thrust Needle Roller Bearings

Axial needle roller bearings AXW consist of thrust needle roller and cage assemblies AXK and thrust bearing washers with centering sleeves. They can be used with drawn cup needle roller bearings or machined cup needle roller bearings.

Needle roller and cage thrust assemblies

Axial needle roller bearings AXW consist of thrust needle roller and cage assemblies AXK and thrust bearing washers with centering sleeves. They can be used with drawn cup needle roller bearings or machined cup needle roller bearings.

AXK series needle roller and cage thrust assemblies:

- are available for $4 \leq d \leq 160$ mm
- can accommodate axial loads in one direction only
- can be combined with washers in the LS, AS, GS 811 or WS 811 series in applications where adjacent components cannot serve as raceways.

Double direction bearings

Double direction bearings:

- can accommodate axial loads in both directions
- can be created by combining two needle roller and cage thrust assemblies and two bearing washers with an intermediate washer
- Depending on the design, an inter mediate washer can be shaft or housing centred.

Intermediate washers must have the same hardness and surface inish as bearing washers SKF does not supply intermediate washers, but provides material speciications and dimensional data on request.

LS series universal washers

Axial needle roller bearings AXW consist of thrust needle roller and cage assemblies AXK and thrust bearing washers with centering sleeves. They can be used with drawn cup needle roller bearings or machined cup needle roller bearings.

- are made of hardened carbon chromium bearing steel
- can be used as shaft or housing washers for needle roller thrust bearings in the AXK series
- can be used as shaft washers for bearings in the AXW series
- are available for $6 \leq d \leq 160$ mm
- raceway surface is ground, while all other surfaces are turned
- are used for applications where accurate centring of the washers is not necessary or where low speeds are involved
- washer face opposite the side with the chamfers is the raceway surface and should face the rollers

AS series thin universal washers

- are 1 mm thick
- are made of spring steel and hardened
- can be used as shaft or housing washers for needle roller thrust bearings in the AXK series
- can be used as shaft washers for bearings in the AXW series
- are available for $4 \leq d \leq 160$ mm
- can be used to provide a cost-effective bearing solution, if adjacent machine components are not hardened, but have adequate stiffness and the requirements to geometrical tolerances are moderate.

Both faces of the washers are polished and can be used as raceways.

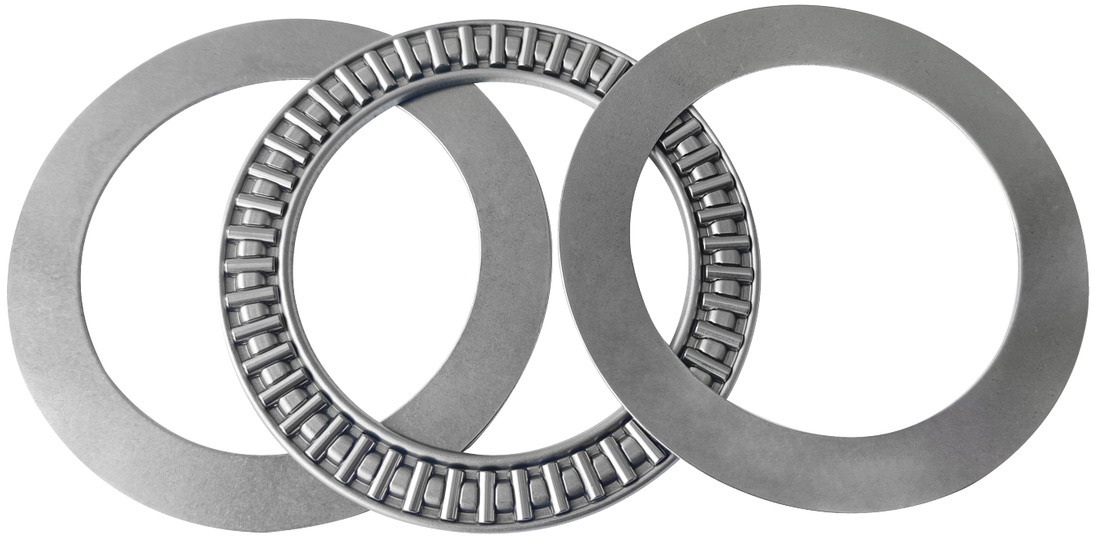
811 series shaft (preix WS) and housing washers (preix GS)

- are used primarily with cylindrical roller and cage thrust assemblies
- can also be combined with needle roller and cage thrust assemblies
- can be used in high-speed applications where accurate centring of the bearing washers is required

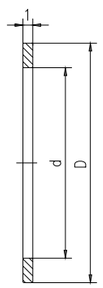
For additional information about 811 series washers, refer to Cylindrical roller thrust bearings.

suffix for an existing design

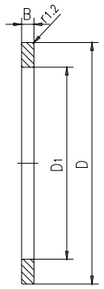
Suffix	Meaning
TN	Glass ibre reinforced PA66 cage



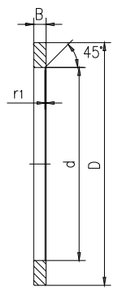
Needle roller and cage thrust assemblies



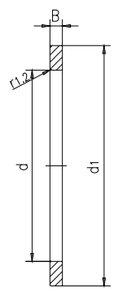
AS



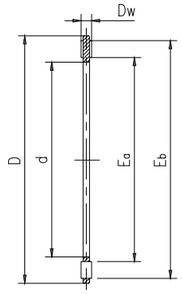
GS



LS



WS

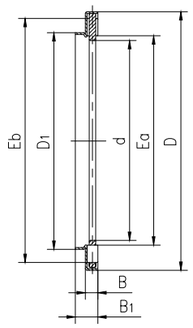


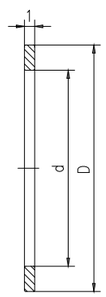
assembly

Type					Main dimensions					Dimensions				
Bearing type	Universal Gasket	Universal thin washers	Shaft rings	Seat ring	d	D	D_w	E_a min.	E_b max.	d_1	D	D_1	B	$r_{1,2}$ min.
-					mm					mm				
AXK414TN	–	AS414	–	–	4	14	2	5	13	–	14	–	–	–
AXK515TN	–	AS515	–	–	5	15	2	6	14	–	15	–	–	–
AXK619TN	LS0619	AS619	–	–	6	19	2	7	18	–	19	–	2.75	0.3
AXK821TN	LS0821	AS821	–	–	8	21	2	9	20	–	21	–	2.75	0.3
AXK1024	LS1024	AS1024	–	–	10	24	2	12	23	–	24	–	2.75	0.3
AXK1226	LS1226	AS1226	–	–	12	26	2	14	25	–	26	–	2.75	0.3
AXK1528	LS1528	AS1528	WS81102	GS81102	15	28	2	17	27	28	28	16	2.75	0.3
AXK1730	LS1730	AS1730	WS81103	GS81103	17	30	2	19	29	30	30	18	2.75	0.3
AXK2035	LS2035	AS2035	WS81104	GS81104	20	35	2	22	34	35	35	21	2.75	0.3
AXK2542	LS2542	AS2542	WS81105	GS81105	25	42	2	29	41	42	42	26	3	0.6
AXK3047	LS3047	AS3047	WS81106	GS81106	30	47	2	34	46	47	47	32	3	0.6
AXK3552	LS3552	AS3552	WS81107	GS81107	35	52	2	39	51	52	52	37	3.5	0.6
AXK4060	LS4060	AS4060	WS81108	GS81108	40	60	3	45	58	60	60	42	3.5	0.6
AXK4565	LS4565	AS4565	WS81109	GS81109	45	65	3	50	63	65	65	47	4	0.6
AXK5070	LS5070	AS5070	WS81110	GS81110	50	70	3	55	68	70	70	52	4	0.6
5578	LS5578	AS5578	WS81111	GS81111	55	78	3	60	76	78	78	57	5	0.6
AXK6085	LS6085	AS6085	WS81112	GS81112	60	85	3	65	83	85	85	62	4.75	1
AXK6590	LS6590	AS6590	WS81113	GS81113	65	90	3	70	88	90	90	67	5.25	1
AXK7095	LS7095	AS7095	WS81114	GS81114	70	95	4	74	93	95	95	72	5.25	1
AXK75100	LS75100	AS75100	WS81115	GS81115	75	100	4	79	98	100	100	77	5.75	1
AXK80105	LS80105	AS80105	WS81116	GS81116	80	105	4	84	103	105	105	82	5.75	1
AXK85110	LS85110	AS85110	WS81117	GS81117	85	110	4	89	108	110	110	87	5.75	1
AXK90120	LS90120	AS90120	WS81118	GS81118	90	120	4	94	118	120	120	92	6.5	1
AXK100135	LS100135	AS100135	WS81120	GS81120	100	135	4	105	133	135	135	102	7	1
AXK110145	LS110145	AS110145	WS81122	GS81122	110	145	4	115	143	145	145	112	7	1
AXK120155	LS120155	AS120155	WS81124	GS81124	120	155	4	125	153	155	155	122	7	1
AXK130170	LS130170	AS130170	WS81126	GS81126	130	170	5	136	167	170	170	132	9	1
AXK140180	LS140180	AS140180	WS81128	GS81128	140	180	5	146	177	178	180	142	9.5	1
AXK150190	LS150190	AS150190	WS81130	GS81130	150	190	5	156	187	188	190	152	9.5	1
AXK160200	LS160200	AS160200	WS81132	GS81132	160	200	5	166	197	198	200	162	9.5	1

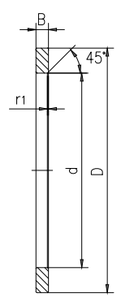
Type					Weight			Basic load rating		Fatigue load limit	Rated speed	
Bearing type	Universal Gasket	Universal thin washers	Shaft rings	Seat ring	Bearing Weight	Washers LS、WS、GS	AS	Dynamic	Static		reference speed	Maximum speed
								C	C_0	P_u		
-					g			kN			r/min	
AXK414TN	–	AS414	–	–	0.7	–	1	4.3575	8.715	0.9975	7875	15750
AXK515TN	–	AS515	–	–	0.8	–	1	4.725	9.975	1.134	7035	14700
AXK619TN	LS0619	AS619	–	–	1	6	2	6.615	16.8	1.953	6300	12600
AXK821TN	LS0821	AS821	–	–	2	6	2	7.56	21	2.436	5880	11550
AXK1024	LS1024	AS1024	–	–	3	8	3	8.925	27.3	3.15	5565	10500
AXK1226	LS1226	AS1226	–	–	3	9	3	9.6075	31.5	3.6225	5250	10500
AXK1528	LS1528	AS1528	WS81102	GS81102	4	9	3	10.92	39.375	4.515	5040	9975
AXK1730	LS1730	AS1730	WS81103	GS81103	3.65	9	4	11.55	42.525	4.9875	4725	9975
AXK2035	LS2035	AS2035	WS81104	GS81104	5	13	5	12.6	49.875	5.88	4515	8925
AXK2542	LS2542	AS2542	WS81105	GS81105	7	19	7	14.07	63	7.2975	3990	7875
AXK3047	LS3047	AS3047	WS81106	GS81106	8	22	8	15.75	75.6	8.715	3780	7350
AXK3552	LS3552	AS3552	WS81107	GS81107	10	29	9	17.43	87.15	10.29	3360	6615
AXK4060	LS4060	AS4060	WS81108	GS81108	16	40	12	26.25	119.7	14.385	2940	5880
AXK4565	LS4565	AS4565	WS81109	GS81109	18	50	13	28.35	133.35	16.065	2730	5565
AXK5070	LS5070	AS5070	WS81110	GS81110	20	55	14	29.925	150.15	17.85	2520	5250
5578	LS5578	AS5578	WS81111	GS81111	28	88	18	36.225	195.3	23.52	2310	4515
AXK6085	LS6085	AS6085	WS81112	GS81112	33	97	22	39.375	243.6	29.925	2310	4515
AXK6590	LS6590	AS6590	WS81113	GS81113	35	115	24	40.95	267.75	32.55	2100	4200
AXK7095	LS7095	AS7095	WS81114	GS81114	60	123	25	51.45	267.75	32.55	1890	3780
AXK75100	LS75100	AS75100	WS81115	GS81115	61	142	27	52.5	278.25	34.125	1785	3570
AXK80105	LS80105	AS80105	WS81116	GS81116	63	151	28	53.55	294	35.7	1785	3570
AXK85110	LS85110	AS85110	WS81117	GS81117	67	159	29	54.6	304.5	37.275	1785	3570
AXK90120	LS90120	AS90120	WS81118	GS81118	86	234	39	68.775	425.25	51.45	1575	3150
AXK100135	LS100135	AS100135	WS81120	GS81120	104	350	50	80.325	588	68.775	1470	2940
AXK110145	LS110145	AS110145	WS81122	GS81122	122	385	55	85.575	651	75.6	1365	2730
AXK120155	LS120155	AS120155	WS81124	GS81124	131	415	59	90.825	714	80.325	1365	2730
AXK130170	LS130170	AS130170	WS81126	GS81126	205	663	65	117.6	871.5	97.65	1155	2310
AXK140180	LS140180	AS140180	WS81128	GS81128	219	749	79	121.8	945	101.325	1050	2100
AXK150190	LS150190	AS150190	WS81130	GS81130	232	796	84	126	997.5	107.1	1050	2100
AXK160200	LS160200	AS160200	WS81132	GS81132	246	842	89	131.25	1050	111.3	997.5	1995

Needle roller thrust bearings with a centring lange

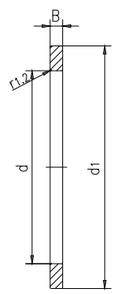




AS



LS



WS

Type				Main dimensions							Dimensions			
Bearing type	Universal Gasket	Universal thin washers	Shaft rings	d	D	D_1	B	B_1	E_a min.	E_b max.	d	d_1,D	B	$r_{1,2}$ min.
-				mm							mm			
AXW10	LS1024	AS1024	–	10	27	14	3.2	3	12	23	10	24	2.75	0.3
AXW12	LS1226	AS1226	–	12	29	16	3.2	3	14	25	12	26	2.75	0.3
AXW15	LS1528	AS1528	WS81102	15	31	21	3.2	3.5	17	27	15	28	2.75	0.3
AXW20	LS2035	AS2035	WS81104	20	38	26	3.2	3.5	22	34	20	35	2.75	0.3
AXW25	LS2542	AS2542	WS81105	25	45	32	3.2	4	29	41	25	42	3	0.6
AXW30	LS3047	AS3047	WS81106	30	50	37	3.2	4	34	46	30	47	3	0.6
AXW35	LS3552	AS3552	WS81107	35	55	42	3.2	4	39	51	35	52	3.5	0.60
AXW40	LS4060	AS4060	WS81108	40	63	47	4.2	4	45	58	40	60	3.5	0.60
AXW45	LS4565	AS4565	WS81109	45	68	52	4.2	4	50	63	45	65	4	0.60

Type				Weight			Basic load rating		Fatigue load limit	Rated speed	
							Dynamic	Static		reference speed	Maximum speed
Bearing type	Universal Gasket	Universal thin washers	Shaft rings	Bearing Weight	Washers LS,WS	AS	C	C_0	P_u		
-				g			kN			r/min	
AXW10	LS1024	AS1024	–	8.3	8	3	8.925	27.3	3.15	5565	10500
AXW12	LS1226	AS1226	–	9.1	9	3	9.6075	31.5	3.6225	5250	10500
AXW15	LS1528	AS1528	WS81102	10	9	3	10.92	39.375	4.515	5040	9975
AXW20	LS2035	AS2035	WS81104	14	13	5	12.6	49.875	5.88	4515	8925
AXW25	LS2542	AS2542	WS81105	20	19	7	14.07	63	7.2975	3990	7875
AXW30	LS3047	AS3047	WS81106	22	22	8	15.75	75.6	8.715	3780	7350
AXW35	LS3552	AS3552	WS81107	27	29.00	9	17.43	87.15	10.29	3360	6615
AXW40	LS4060	AS4060	WS81108	39	40.00	12	26.25	119.7	14.385	2940	5880
AXW45	LS4565	AS4565	WS81109	43	50.00	13	28.35	133.35	16.065	2730	5565

Thrust spherical roller bearings

Features

Thrust spherical roller bearings have specially designed raceways and asymmetric rollers, which can withstand axial loads acting in one direction and radial loads acting simultaneously. The load is transmitted between the raceways of the rings through the rollers at an angle to the axis of the bearing.

High load carrying capacity

The large number of rollers, which have an optimum conformity with the washer raceways, enables the bearings to accommodate heavy axial and simultaneously acting radial loads.

Accommodate misalignment

spherical roller thrust bearings are self-aligning and can accommodate misalignment

Separable design

spherical roller thrust bearings are separable, making it possible to mount and dismount the housing washer separately from the shaft washer and roller and cage assembly. In addition this facilitates maintenance inspections.

High speed capability

The cage designs and the optimum conformity of the rollers with the washer raceways make the bearings suitable for relatively high speeds.

Long service life

The special roller proile reduces edge stresses at the roller/ raceway contact

Low friction

The optimized roller end / lange contact keeps frictional heat at low level, even at high speeds.

Angle misalignment compensation

hrust self-aligning roller bearings have self-aligning function and can compensate for angular misalignment of the shaft.

Seals

There is no seal structure design for thrust spherical roller bearings.

Cages

There're two types of material for thrust spherical roller bearing cage, stamped steel cage and machined brass cage.

Operating temperature

Thrust spherical roller bearings operate in temperatures from –20°C to +150°C.

E design bearings (designation sufix E)

have larger rollers and an optimized internal design for increased load carrying capacity

are itted with one of the following cages, depending on bearing size:

– size ≤ 68 → stamped steel window-type cage
– size ≥ 72 → machined metal prong-type cage

Lubrication

Generally, spherical roller thrust bearings can be lubricated with oil or grease containing EP additives Where lubricating with grease, the roller end / lange contacts must be supplied with an adequate amount of grease. Make sure to use a grease with high oil bleeding.

Pumping effect in oil lubricated applications

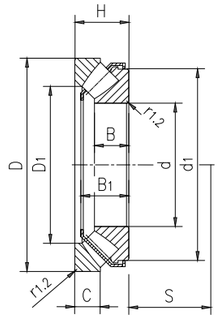
The internal design of spherical roller thrust bearings creates a pumping action, which produces a low from the small to the large roller end face, that can be taken advantage of in oil lubricated applications. This pumping action occurs in applications where the shaft is vertical or horizontal and should be considered when selecting the type of lubricant and sealing arrangement.

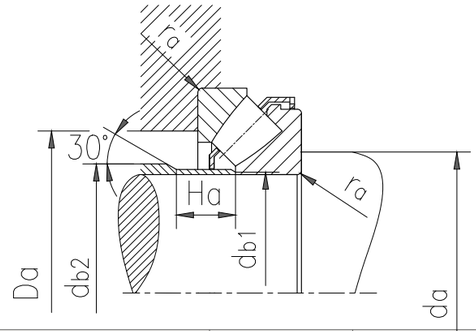
suffix for an existing design

Suffix	Meaning
E	Optimized internal design
N1	One locating slot in the housing washer
N2	Two locating slots in the housing washer, 180° apart
-	Stamped steel cage, roller centred, for E design bearings size ≤ 68 Machined brass cage, shaft washer centred, for bearings without any designation sufix
F	Machined steel cage, shaft washer centred
F3	Machined spheroidal cast iron cage, shaft washer centred
M	Machined brass cage, shaft washer centred



Spherical roller thrust bearings

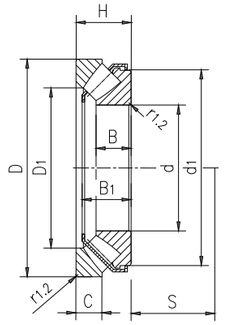


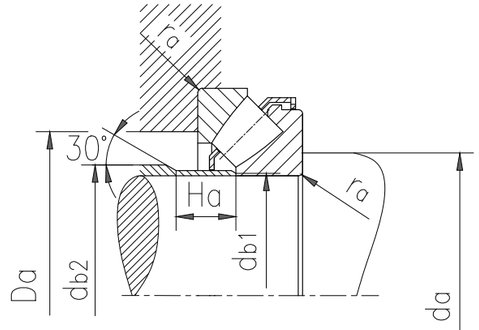


Type	Main dimensions			Dimensions							Shoulder and chamfer dimensions					
	d	D	H	d_1 ≈	D_1 ≈	B	B_1	C	$r_{1,2}$ min.	s	d_a min.	d_{b1} max.	d_{b2} max.	H_a min.	D_a max.	r_a max.
-	mm										mm					
29412E	60	130	42	112	85.5	27	36.7	21	1.5	38	90	67	67	–	107	1.5
29413E	65	140	45	120	91.5	29.5	39.8	22	2	42	100	72	72	–	117	2
29414E	70	150	48	129	99	31	41	23.8	2	44.8	105	77	77	–	125	2
29415E	75	160	51	138	106	33.5	45.7	24.5	2	47	115	82	82	–	133	2
29416E	80	170	54	147	113	35	48.1	26.5	2.1	50	120	88	88	–	141	2
29317E	85	150	39	134	110	24.5	33.8	20	1.5	50	115	90	90	–	129	1.5
29417E	85	180	58	155	121	37	51.1	28	2.1	54	130	94	94	–	151	2
29318E	90	155	39	138	115	24.5	34.5	19.5	1.5	53	120	95	95	–	134	1.5
29418E	90	190	60	164	128	39	54	28.5	2.1	56	135	99	99	–	158	2
29320E	100	170	42	152	128	26.2	36.3	20.5	1.5	58	130	107	107	–	147	1.5
29420E	100	210	67	182	142	43	57.3	32	3	62	150	110	110	–	175	2.5
29322E	110	190	48	171	140	30.3	41.7	24.8	2	63.8	145	117	117	–	164	2
29422E	110	230	73	199	156	47	64.7	34.7	3	69	165	120	129	–	193	2.5
29324E	120	210	54	188	155	34	48.2	27	2.1	70	160	128	128	–	181	2
29424E	120	250	78	216	171	50.5	70.3	36.5	4	74	180	132	142	–	209	3
29326E	130	225	58	203	166	36.7	50.6	30.1	2.1	75.6	175	138	143	–	194	2
29426E	130	270	85	234	185	54	76	40.9	4	81	195	142	153	–	227	3
29328E	140	240	60	216	177	38.5	54	30	2.1	82	185	148	154	–	208	2
29428E	140	280	85	245	195	54	75.6	41	4	86	205	153	162	–	236	3
29230E	150	215	39	200	176	24	34.3	20.5	1.5	82	180	154	154	14	193	1.5
29330E	150	250	60	223	190	38	54.9	28	2.1	87	195	158	163	–	219	2
29430E	150	300	90	262	208	58	80.8	43.4	4	92	220	163	175	–	253	3
29332E	160	270	67	243	203	42	60	33	3	92	210	169	176	–	235	2.5
29432E	160	320	95	279	224	60.5	84.3	45.5	5	99	235	175	189	–	270	4
29334E	170	280	67	251	215	42.2	61.1	30.5	3	96	220	178	188	–	245	2.5
29434E	170	340	103	297	236	65.5	91.2	50	5	104	250	185	199	–	286	4
29236E	180	250	42	234	208	26	36.9	22	1.5	97	210	187	187	14	226	1.5
29336E	180	300	73	270	227	46	66.2	35.5	3	103	235	189	195	–	262	2.5
29436E	180	360	109	315	250	69.5	96.4	53	5	110	265	196	210	–	304	4
29338E	190	320	78	285	244	49	71.3	36	4	110	250	200	211	–	280	3
29438E	190	380	115	332	265	73	101	55.5	5	117	280	207	223	–	321	4
29240E	200	280	48	260	233	30	43.4	24	2	108	235	206	207	17	253	2
29340E	200	340	85	304	257	53.5	76.7	40	4	116	265	211	224	–	297	3
29440E	200	400	122	350	278	77	107.1	59.4	5	122	295	217	234	–	337	4
29244E	220	300	48	280	252	30	43.4	24.5	2	117	255	224.5	227	17	271	2
29344E	220	360	85	326	274	55	77.7	41	4	125	285	229	240	–	316	3
29444E	220	420	122	371	300	77	107.4	58.5	6	132	315	238	254	–	358	5
29248	240	340	60	330	283	19	57	30	2.1	130	290	–	–	–	308	2
29348E	240	380	85	345	296	54	77.8	40.5	4	135	305	249	259	–	336	3
29448E	240	440	122	391	322	76	107.1	59	6	142	335	258	276	–	378	5
29256	260	360	60	350	302	19	57	30	2.1	139	310	–	–	–	326	2

Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Minimum Load factor
		Dynamic	Static		reference speed	Maximum speed	
		C	C_0	P_u			A
-	kg	kN			r/min		-
29412E	2.6	390	915	114	2800	5000	0.08
29413E	3.2	455	1080	137	2600	4800	0.11
29414E	3.9	520	1250	153	2400	4300	0.15
29415E	4.7	600	1430	173	2400	4000	0.19
29416E	5.6	670	1630	193	2200	3800	0.25
29317E	2.75	380	1060	129	2400	4000	0.11
29417E	6.75	735	1800	212	2000	3600	0.31
29318E	2.85	400	1080	132	2200	4000	0.11
29418E	7.75	815	2000	232	1900	3400	0.38
29320E	3.65	465	1290	156	2200	3600	0.16
29420E	10.5	980	2500	275	1700	3000	0.59
29322E	5.3	610	1730	204	1900	3200	0.28
29422E	13.5	1180	3000	325	1600	2800	0.86
29324E	7.35	765	2120	245	1700	2800	0.43
29424E	17.5	1370	3450	375	1500	2600	1.1
29326E	9	865	2500	280	1600	2600	0.59
29426E	22	1560	4050	430	1300	2400	1.6
29328E	10.5	980	2850	315	1500	2600	0.77
29428E	23	1630	4300	455	1300	2400	1.8
29230E	4.3	408	1600	180	1800	2800	0.24
29330E	11	1000	2850	315	1500	2400	0.77
29430E	28	1860	5100	520	1200	2200	2.5
29332E	14.5	1180	3450	375	1300	2200	1.1
29432E	32	2080	5600	570	1100	2000	3
29334E	15	1200	3550	365	1300	2200	1.2
29434E	44.5	2360	6550	640	1100	1900	4.1
29236E	5.8	495	2040	212	1600	2600	0.4
29336E	19.5	1430	4300	440	1200	2000	1.8
29436E	52.5	2600	7350	710	1000	1800	5.1
29338E	23.5	1630	4750	490	1100	1900	2.1
29438E	60.5	2850	8000	765	950	1700	6.1
29240E	9.3	656	2650	285	1400	2200	0.67
29340E	28.5	1860	5500	550	1000	1700	2.9
29440E	72	3200	9000	850	850	1600	7.7
29244E	10	690	3000	310	1300	2200	0.86
29344E	31	2000	6300	610	1000	1700	3.8
29444E	75	3350	9650	900	850	1500	8.8
29248	16.5	799	3450	335	1100	1800	1.1
29348E	35.5	2040	6550	630	1000	1600	4.1
29448E	80	3400	10200	9300	850	1500	9.9
29256	18.5	817	3650	345	1100	1700	1.3

Spherical roller thrust bearings

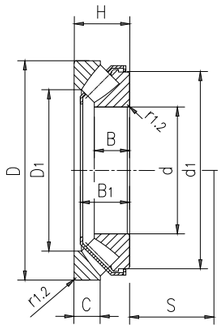


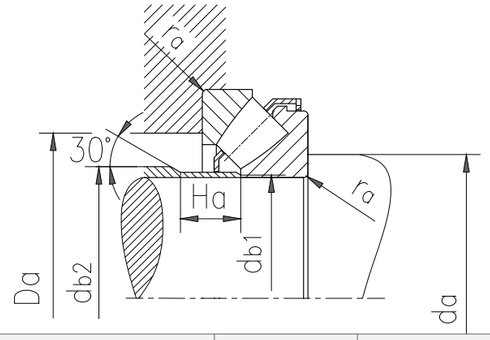


Type	Main dimensions			Dimensions							Shoulder and chamfer dimensions					
	d	D	H	d_1 ≈	D_1 ≈	B	B_1	C	$r_{1,2}$ min.	s	d_a min.	d_{b1} max.	d_{b2} max.	H_a min.	D_a max.	r_a max.
-	mm										mm					
29360E	260	420	95	382	324	61	86.6	46	5	148	335	273	286	–	370	4
29460E	260	480	132	427	346	86	119	63	6	154	365	278	296	–	412	5
29256	280	380	60	370	323	19	57	30.5	2.1	150	325	–	–	–	347	2
29356E	280	440	95	401	343	62	86.7	45.5	5	158	355	293	305	–	390	4
29456E	280	520	145	464	372	95	129.9	70	6	166	395	300	320	–	446	5
29260	300	420	73	405	353	21	69	38	3	162	360	–	–	–	380	2.5
29360E	300	480	109	434	372	70	98.9	51	5	168	385	313	329	–	423	4
29460E	300	540	145	485	392	95	130.3	70.5	6	175	415	319	340	–	465	5
29264	320	440	73	430	372	21	69	38	3	172	380	–	–	–	400	2.5
29364E	320	500	109	454	391	68	97.8	53	5	180	405	332	347	–	442	4
29464E	320	580	155	520	422	102	139.4	74.5	7.5	191	450	344	367	–	500	6
29268	340	460	73	445	395	21	69	37.5	3	183	400	–	–	–	422	2.5
29368	340	540	122	520	428	40.6	117	59.5	5	192	440	–	–	–	479	4
29468E	340	620	170	557	445	112	151.4	84	7.5	201	475	363	386	–	530	6
29272	360	500	85	485	423	25	81	44	4	195	430	–	–	–	453	3
29372	360	560	122	540	448	40.5	117	59.5	5	202	460	–	–	–	500	4
29472EM	360	640	170	580	474	63	164	83.5	7.5	210	495	–	–	–	550	6
29276	380	520	85	505	441	27	81	42	4	202	450	–	–	–	473	3
29376	380	600	132	580	477	45	127	63.5	6	216	495	–	–	–	535	5
29476EM	380	670	175	610	494	67	168	87.5	7.5	222	525	–	–	–	580	6
29280	400	540	85	526	460	27	81	42.2	4	212	470	–	–	–	493	3
29380	400	620	132	596	494	43	127	64	6	225	510	–	–	–	550	5
29480EM	400	710	185	645	525	69	178	89.5	7.5	234	550	–	–	–	615	6
29284	420	580	95	564	489	30	91	46	5	225	500	–	–	–	525	4
29384	420	650	145	626	520	49	135	67.5	6	235	535	–	–	–	580	5
29484EM	420	730	206	665	545	70	178	90.5	7.5	244	575	–	–	–	635	6
29288	440	600	95	585	508	30	91	46.5	5	235	520	–	–	–	545	4
29388EM	440	680	145	626	540	49	140	70.5	6	249	560	–	–	–	605	5
29488EM	440	780	206	710	577	77	199	101	9.5	257	605	–	–	–	675	8
29292	460	620	95	605	530	30	91	46	5	245	540	–	–	–	565	4
29392	460	710	150	685	567	50	144	72.5	6	257	585	–	–	–	630	5
29492EM	460	800	206	730	596	77	199	101.5	9.5	268	630	–	–	–	695	8
29296	480	650	103	635	556	33	99	53.5	5	259	570	–	–	–	595	4
29496EM	480	850	224	770	625	88	216	108	9.5	280	660	–	–	–	735	8
292/500	500	670	103	654	574	33	99	53.5	5	268	585	–	–	–	615	4
293/500	500	750	150	725	611	50	144	74	6	280	630	–	–	–	675	5
294/500EM	500	870	224	795	648	86	216	110	9.5	290	685	–	–	–	755	8
292/530EM	530	710	109	675	608	32	105	56	5	285	620	–	–	–	655	4
293/530EM	530	800	160	741	641	55	154	81	7.5	295	665	–	–	–	715	6
294/530EM	530	920	236	840	686	89	228	116	9.5	308	725	–	–	–	800	8
292/560	560	750	115	732	644	37	111	61	5	302	655	–	–	–	685	4
294/600EM	560	980	250	890	727	99	241	122	12	328	770	–	–	–	850	10

Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Minimum Load factor
		Dynamic	Static		reference speed	Maximum speed	
		C	C_0	P_u			A
-	kg	kN			r/min		-
29360E	49	2550	8300	780	850	1400	6.5
29460E	105	4050	12900	1080	750	1300	16
29256	19.5	863	4000	375	1000	1700	1.5
29356E	53	2550	8650	800	850	1400	7.1
29456E	135	4900	15300	1320	670	1200	22
29260	30.5	1070	4800	465	900	1400	2.2
29360E	75	3100	10600	930	750	1200	11
29460E	140	5000	16600	1340	670	1200	24
29264	33	1110	5100	465	850	1400	2.5
29364E	78	3350	11200	1000	750	1200	12
29464E	175	5700	19000	1530	600	1100	32
29268	33.5	1130	5400	480	750	1300	2.8
29368	105	2710	11000	950	600	1100	11
29468E	220	6700	22400	1760	560	1000	46
29272	52	1460	6800	585	750	1200	4.4
29372	110	2760	11600	980	600	1100	13
29472EM	230	6200	21200	1630	560	950	41
29276	53	1580	7650	655	700	1100	5.6
29376	140	3340	14000	1160	530	1000	19
29476EM	260	6800	24000	1860	530	900	53
29280	55.5	1610	8000	695	700	1100	6.1
29380	150	3450	14600	1200	530	950	20
29480EM	310	7650	26500	1960	480	850	62
29284	75.5	1990	9800	815	630	1000	9.1
29384	170	3740	16000	1290	500	900	24
29484EM	325	7800	27500	2080	480	850	69
29288	78	2070	10400	850	630	1000	10
29388EM	180	5200	19300	1560	530	850	34
29488EM	410	9000	32000	2320	430	750	91
29292	81	2070	10600	865	600	950	11
29392	215	4310	19000	1500	450	800	34
29492EM	425	9300	33500	2450	430	750	100
29296	98	2350	11800	950	560	900	13
29496EM	550	9550	39000	2800	340	670	140
292/500	100	2390	12500	1000	560	900	15
293/500	235	4490	20400	1560	430	800	40
294/500EM	560	9370	40000	2850	340	670	150
292/530EM	115	3110	15300	1220	530	850	22
293/530EM	265	5870	26500	2080	400	750	67
294/530EM	650	10500	44000	3100	320	630	180
292/560	140	2990	16000	1220	480	800	24
294/600EM	810	12000	51000	3550	300	560	250

Spherical roller thrust bearings





Type	Main dimensions			Dimensions							Shoulder and chamfer dimensions					
	d	D	H	d_1 ≈	D_1 ≈	B	B_1	C	$r_{1.2}$ min.	s	d_a min.	d_{b1} max.	d_{b2} max.	H_a min.	D_a max.	r_a max.
-	mm										mm					
292/600EM	600	800	122	760	688	39	117	60	5	321	700	–	–	–	735	4
294/600EM	600	1030	258	940	769	99	249	128	12	349	815	–	–	–	900	10
292/630EM	630	850	132	810	723	50	127	62	6	338	740	–	–	–	780	5
293/630EM	630	950	190	880	761	68	183	92	9.5	359	795	–	–	–	860	8
294/630EM	630	1090	280	995	815	107	270	137	12	365	860	–	–	–	950	10
294/670EM	670	1150	290	1045	864	110	280	141	15	387	905	–	–	–	1000	12
293/710EM	710	1060	212	985	855	74	205	103	9.5	404	890	–	–	–	960	8
294/710EF	710	1220	308	1110	917	117	298	149	15	415	965	–	–	–	1070	12
294/750EF	750	1280	315	1170	964	121	305	153	15	436	1015	–	–	–	1120	12
292/800EM	800	1060	155	1010	911	52	149	77	7.5	434	935	–	–	–	980	6
293/800EM	800	1180	230	1099	985	78	222	117	9.5	440	985	–	–	–	1060	8
294/800EF	800	1360	335	1250	1034	123	324	165	15	462	1080	–	–	–	1185	12
294/850EF	850	1440	354	1315	1077	142	342	172	15	507	1160	–	–	–	1270	12
294/900EF	900	1520	372	1394	1137	147	360	186	15	518	1215	–	–	–	1320	12
294/950EF	950	1600	390	1470	1209	153	377	191	15	546	1275	–	–	–	1400	12
294/1000EF	1000	1670	402	1531	1270	154.9	389	190	15	599	1350	–	–	–	1490	12
294/1060EF	1060	1770	426	1615	1349	192	412	207	15	610	1410	–	–	–	1555	12

Type	Weight	Basic load rating		Fatigue load limit	Rated speed		Minimum Load factor
		Dynamic	Static		reference speed	Maximum speed	
		C	C_0	P_u			A
-	kg	kN			r/min		-
292/600EM	170	3740	18600	1460	450	700	33
294/600EM	845	13100	56000	4000	280	530	300
292/630EM	210	4770	23600	1800	400	670	53
293/630EM	485	8450	38000	2900	320	600	140
294/630EM	1040	14400	62000	4150	260	500	370
294/670EM	1210	15400	68000	4500	240	450	440
293/710EM	610	9950	45500	3400	280	500	200
294/710EF	1500	17600	76500	5000	220	430	560
294/750EF	1650	18700	85000	5500	200	400	690
292/800EM	380	6560	34500	2550	320	530	110
293/800EM	810	11300	55000	3900	240	450	290
294/800EF	2030	20200	93000	5850	190	360	820
294/850EF	2390	23900	108000	7100	170	340	1100
294/900EF	2650	26700	122000	7200	160	300	1400
294/950EF	3070	28200	132000	7800	140	280	1700
294/1000EF	3390	31100	140000	8650	130	260	1900
294/1060EF	4280	33400	156000	8500	120	240	2300