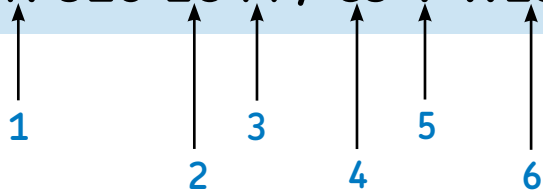


Cylindrical roller bearings

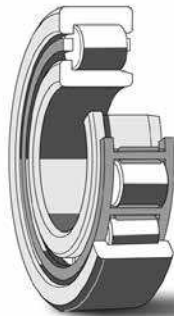
N 310 EC M / C3 V W23B



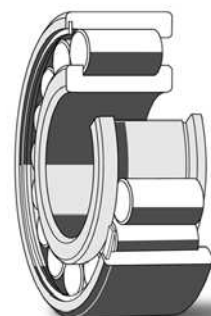
1. Basic design:		2. Internal design:		4. Radial internal clearance:	
N	Two integral flanges on inner ring, flangeless outer ring	EC	Increased capacity plus improved roller end to flange contact	C1	Clearance < C2
NU	Two integral flanges on outer ring, flangeless inner ring	CV	Modified internal design, full complement roller set	C2	Clearance < Normal
NJ	One flange on inner ring, two flanges on outer ring			(C0)*	Normal internal clearance
NUP	Two integral flanges on outer ring, one integral flange on inner ring and one loose flange on inner ring			C3	Clearance > Normal
NCF	Full complement, two flanges on inner ring, one flange on outer ring, with snap ring			C4	Clearance > C3
NJG	Full complement with one flange on inner ring, and two flanges on outer ring			* Not marked on bearing or package	
NNCF	Two-row, full complement, three flanges on inner ring, one flange on outer ring, with snap ring	3. Cage designs:		5. Variations:	
NNF	Two-row, full complement	M	Two piece machined brass cage, rolling element guided	C	Surface treated rollers
NNCL	Double row CRB with no outer ring integral flanges, only one centrally located snap ring	MA	Two piece machined brass cage, outer ring flange guided	CV	V + surface treated rollers
NNC	Double row CRB with one outer ring integral flange and one flange ring	MB	Machined brass cage, inner ring flange guided	V	Full complement bearing without cage
HJ	Angle ring	ML/MP	One piece window-type brass cage, inner or outer ring centered	VH	Full complement rollers (no cage), self-retaining
L	Separate inner or outer ring of a separable bearing	M2	Solid brass drilled cage, roller guided for traction motor bearings	2LS	Two land riding contact seals
R	Inner or outer ring with roller and cage assembly of a separable bearing	HB1	Bainite hardened inner and outer ring	6. Special features:	
		J	Pressed steel cage, rolling element guided	W23B	Special features for traction motor bearings
		P	Molded glass fiber reinforced polyamide 6.6 cage, roller centered	VA301	Special bearing specifications for traction motors
		PHA	Injection molded cage of polyetheretherketone (PEEK), outer ring centered	VL0241	INSOCOAT® coating on outer ring for electrical insulation
				W64	Solid Oil lubricants

Technical features

Boundary dimensions	In accordance with ISO 15
Tolerances	ABMA RBEC 3, ISO P6 running accuracy ABMA RBEC 1, ISO Normal dimensional
Heat stabilization	302° F (150° C)
Misalignment	4 minutes of arc for series N200, 300, 400, 1000 and 1800 3 minutes of arc for series N2200, 2300, 2900 and 3000
Cage material	
Standard	Molded glass fiber reinforced polyamide (P)
Optional	Machined brass (M) and pressed steel (J)
Axial load – max	Contact SKF Applications Engineering
Seals	2LS seals on NNF series only



*Single row
cylindrical roller bearing
(data tables on page 138)*



*Full complement, single row
cylindrical roller bearing
(data tables on page 146)*

Introduction

SKF manufactures many types and sizes of cylindrical roller bearings, the majority being single row bearings with a cage, but also single or double row bearings with a full complement of rollers.

All SKF cylindrical roller bearings represent the latest state of the art. The contact geometry between roller and raceway has been much improved by the introduction of the "logarithmic" profile that provides for optimum stress distribution in the bearing. Optimized surface finishes favor lubricant film formation and the correct rolling motion of the cylindrical rollers. These improvements have considerably increased the performance of SKF cylindrical roller bearings as well as their operational reliability in comparison with conventional bearings, and have made them less sensitive to misalignment.

Full complement cylindrical roller bearings incorporate the maximum number of rollers and, as a rule, have a low sectional height in relation to their width. This produces an extremely high load carrying capacity and permits space-saving designs to be achieved. Full complement cylindrical roller bearings are suitable for very heavy radial loads; however, the different kinematic conditions in the bearing mean that they cannot operate at the same high speeds as cylindrical roller bearings of the conventional caged type.

SKF produces single and double row full complement cylindrical roller bearings as part of the standard product range. The bearings shown in the tables are standard range bearings but represent only part of the actual manufactured range.

Basic design

Single row cylindrical roller bearings

The rollers of single row cylindrical roller bearings with cages are guided between integral flanges on one of the bearing rings. The ring with integral flanges and the roller and cage assembly can be withdrawn from the other ring (i.e., separable). This facilitates mounting and dismounting particularly where both rings need to have interference fits because of the load conditions.

SKF single row cylindrical roller bearings have high radial load carrying capacity and also high speed capability. They are produced in different designs that differ in the configuration of the flanges (**Figure 1**).

The most popular of these bearings is the NU type which has two integral flanges on the outer ring and an inner ring without flanges (**Figure 1a**). The N type has two integral flanges on the inner ring and an outer ring without flanges (**Figure 1b**).

Axial displacement of the shaft with respect to the housing is permitted in both directions within certain limits (**Table 3a**, page 135 for dimension code "s"). For example, changes in length because of thermal expansion can be accommodated, and the bearings are therefore suitable as non-locating bearings.

Cylindrical roller bearings of the NJ type have two integral flanges on the outer ring and one integral flange on the inner ring, so that axial location can be provided for the shaft in one direction (**Figure 1c**).

Type NUP cylindrical roller bearings have two integral flanges on the outer ring and the inner ring has one integral and one loose flange, enabling the bearings to locate a shaft axially in both directions (**Figure 1d**).

SKF Explorer class bearings

SKF Explorer cylindrical roller bearings retain the designation of earlier standard bearings, e.g. NU 216 ECP. However, each bearing and its box are marked with the name "SKF Explorer", to avoid confusion. In the product tables, the SKF Explorer bearing designations are **printed in blue**. Additional details on the SKF Explorer performance class bearings can be found on page 25.

Product highlights

Logarithmically crowned rollers... sets SKF apart

SKF cylindrical roller bearings feature logarithmically "crowned" rollers. This roller profile reduces stresses under high load conditions, while simultaneously providing excellent performance under misaligned conditions.

High speed performance

Extended benefits of the logarithmic profile roller are the cooler running conditions and reliable performance which allow for high speed running conditions.

Precision-honed rolling contact surfaces

SKF cylindrical roller bearings also feature precision-honed inner and outer rings, raceways and rollers. The SKF honing process results in optimum bearing performance and improved lubricant effectiveness... and quieter, cooler, more reliable performance.

Large product assortment

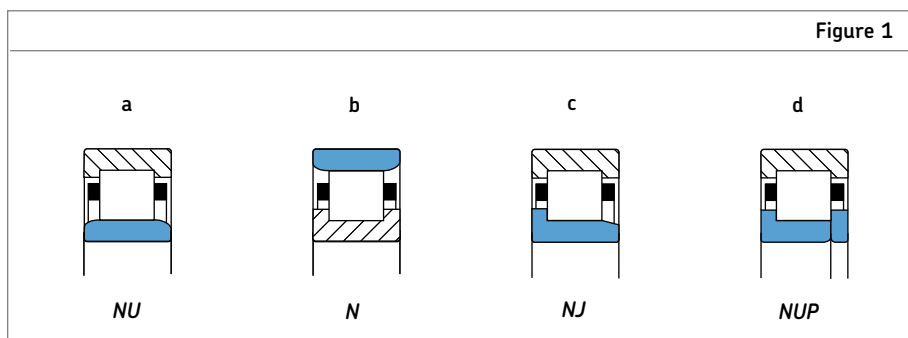
SKF manufactures cylindrical roller bearings in single, double and multiple row designs which differ in the arrangement, design and construction of the flanges. While caged bearings are most common, several series with a full complement of rollers are also available. Size range includes 25 to 1,000 mm inside diameter.

Application flexibility

The large variety of sizes and types of cylindrical roller bearings available from SKF provides a wide degree of application flexibility. Typical applications include compressors, industrial gearboxes, transmissions, and final drives in both on-road and off-road vehicles.

Customized solutions

Special cages are available from SKF for special application conditions such as ammonia compressors and railroad applications.



Introduction

EC-design bearings

The EC design contains improvements in the guiding surfaces of the flanges and of the roller ends which means that the EC bearings have a high axial load carrying capacity. The favorable contact conditions also contribute to better lubrication of the roller end/flange contact zone and to lower operating temperatures. These characteristics make SKF cylindrical roller bearings of the EC design particularly useful. They represent the standard design for the most popular sizes of bearing series 10, 2, 22, 3 and 23.

Single row full complement cylindrical roller bearings

SKF full complement cylindrical roller bearings are produced as standard in the single row NCF and NJG designs. (Figure 2).

Bearings of the NCF design are the most popular and have two integral flanges on the inner ring and one integral flange in the outer ring and can thus locate the shaft in one direction (Figure 2a). A retaining ring at the flangeless side of the outer ring holds the bearing together. The axial internal clearance in the bearing is designed to permit small axial displacements of the shaft in relation to the housing to be accommodated within the bearing (Table 3b, page 136).

Bearings of the NJG design all belong to the heavy dimension series 23 and are intended for very heavily loaded, slow-speed applications (Figure 2b). In contrast to the other full complement bearings, the NJG bearings have a self-retaining roller complement. The outer ring with its two integral flanges, together with the roller complement, can be withdrawn from the inner ring and there is no need to provide any extra retention for the rollers. Mounting and dismounting of these bearings are therefore simple operations. NJG design bearings can support axial loads acting in one direction and can consequently locate the shaft in one direction.

Double row full complement cylindrical roller bearings

There are several designs of SKF double row full complement cylindrical roller bearings, all of which have an annular groove and lubrication holes in the outer ring. This feature facilitates the provision of efficient lubrication.

Double row full complement cylindrical roller bearings of the NNC, NNCL, and NNCF designs differ only in the number of flanges on the outer ring. The inner ring with its three integral flanges between which the two rows of rollers are accurately guided is common to all three designs. Outer ring flanges or retaining rings inserted in the outer ring bore prevent the bearing from falling apart.

Bearings of the NNCL design (Figure 2c) have no integral flanges on the outer ring. Axial displacements of the shaft relative to the housing are thus permitted, within certain limits.

Bearings of the NNCF and NNC designs (Figure 2d and 2e) have one integral flange and a retaining ring in the outer ring. They can accommodate axial loads in one direction and can locate the shaft in one direction. Axial displacements of the shaft relative to the housing are permitted.

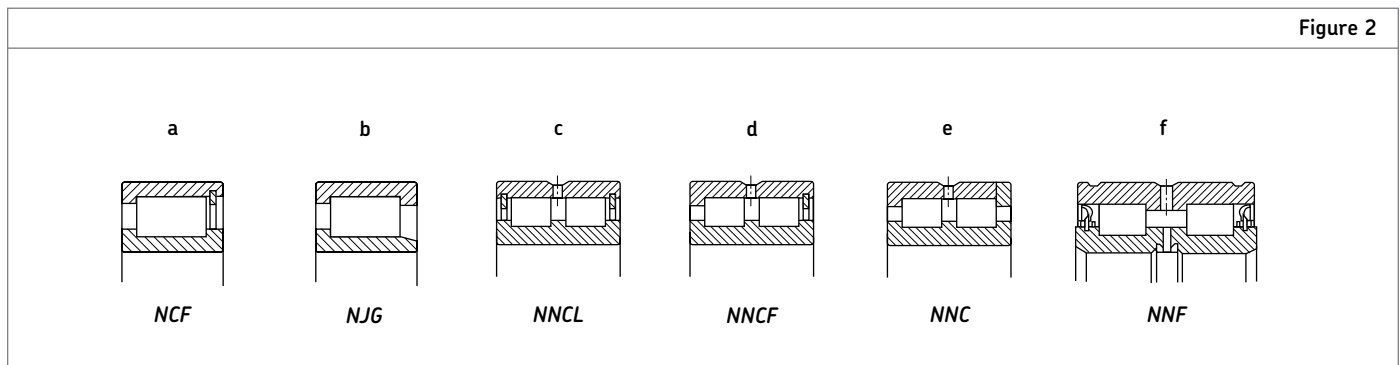
The rollers of bearings of the NNF design (series NNF 50) are guided between the integral flanges of the two-part inner ring, which is held together by a retaining ring. The outer ring has a central integral flange. The bearings can be used as locating bearings as they can accommodate axial loads acting in both directions. Because of the large distance between the roller rows, they are also suitable for the accommodation of tilting moments.

The outer ring of the bearing is 1 mm narrower than the inner ring and has two snap ring grooves in the outside diameter. It is thus possible to disperse with spacer rings between the inner ring and adjacent components without affecting outer ring rotation; for example in pulleys, or the housing (or hub) can be made narrower than the bearing and axial space saved.

Bearings of the NNF design (Figure 2f) are produced as standard with outer ring contacting seals at both sides. NNF design bearings are supplied filled with rust inhibiting lithium grease having a diester oil base, which is suitable for operation at temperatures between -58° and $+230^{\circ}$ F (-50° and $+110^{\circ}$ C). However, the permissible operating temperature for these bearings is limited to -40° to $+176^{\circ}$ F (-40° to $+80^{\circ}$ C) by the material used for the seals.

Under certain conditions, the sealed NNF bearings are maintenance-free. However, where they operate in the presence of moisture or contaminants, or where speeds are moderate or high, they must be relubricated. This can be achieved via both bearing rings. If bearings are required without one or both seals, they may be removed quite simply, for example, using a screwdriver.

For applications where oil lubrication is to be employed, the bearings can be delivered without seals and grease if economic quantities are involved. Otherwise the seals should be removed and the bearings washed before use. If oil lubrication is adopted, the speed ratings can be increased by approximately 30%.



Internal clearance

Radial internal clearance

SKF single row cylindrical bearings are produced with Normal radial internal clearance as standard; the majority of the bearings are also available with C3 radial internal clearance and some with the appreciably greater C4 clearance.

The values for the clearance correspond to DIN 620, Part 4 for the size range covered by this standard and are given in **Table 1**. The values apply to bearings before mounting and under zero measuring load.

SKF full complement cylindrical roller bearings are manufactured with Normal or C3 radial internal clearance as standard. The values for the clearance limits correspond to ISO and are shown in **Table 1**.

Axial internal clearance

Cylindrical roller bearings of the NUP type can serve to locate shafts in both directions, and are manufactured by SKF with axial internal clearance according to **Table 2**.

The values given in **Table 2** for axial internal clearance should be considered as guideline values. Because of roller tilting during measurement of the axial internal clearance, increases in the clearance are possible. These correspond:

- For bearings of series 10, 2, 3 and 4 to approximately the radial internal clearance, and
- For bearings of series 22 and 23 to approximately 2/3 of the radial internal clearance

Special solutions using cylindrical roller bearings

SKF also manufactures:

- Precision single and double row cylindrical roller bearings for machine tool applications
- Double and multi-row cylindrical roller bearings for rolling mill and other heavy engineering applications
- Special traction roller bearings for railroad applications

Details on these special solution products are available in other SKF publications, which can be supplied upon request.

Table 1

Radial internal clearance of cylindrical roller bearings

Bore diameter d		Radial internal clearance															
		C2				Normal				C3				C4			
over	incl.	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
mm		µm		in		µm		in		µm		in		µm		in	
-	24	0	25	0.0000	0.0010	20	45	0.0008	0.0018	35	60	0.0014	0.0024	50	75	0.0020	0.0030
24	30	0	25	0.0000	0.0010	20	45	0.0008	0.0018	35	60	0.0014	0.0024	50	75	0.0020	0.0030
30	40	5	30	0.0002	0.0012	25	50	0.0010	0.0020	45	70	0.0018	0.0028	60	85	0.0024	0.0033
40	50	5	35	0.0002	0.0014	30	60	0.0012	0.0024	50	80	0.0020	0.0031	70	100	0.0028	0.0039
50	65	10	40	0.0004	0.0016	40	70	0.0016	0.0028	60	90	0.0024	0.0035	80	110	0.0031	0.0043
65	80	10	45	0.0004	0.0018	40	75	0.0016	0.0030	65	100	0.0026	0.0039	90	125	0.0035	0.0049
80	100	15	50	0.0006	0.0020	50	85	0.0020	0.0033	75	110	0.0030	0.0043	105	140	0.0041	0.0055
100	120	15	55	0.0006	0.0022	50	90	0.0020	0.0035	85	125	0.0033	0.0049	125	165	0.0049	0.0065
120	140	15	60	0.0006	0.0024	60	105	0.0024	0.0041	100	145	0.0039	0.0057	145	190	0.0057	0.0075
140	160	20	70	0.0008	0.0028	70	120	0.0028	0.0047	115	165	0.0045	0.0065	165	215	0.0065	0.0085
160	180	25	75	0.0010	0.0030	75	125	0.0033	0.0049	120	170	0.0047	0.0067	170	220	0.0067	0.0087
180	200	35	90	0.0014	0.0035	90	145	0.0035	0.0057	140	195	0.0055	0.0077	195	250	0.0077	0.0098
200	225	45	105	0.0018	0.0041	105	165	0.0041	0.0065	160	220	0.0063	0.0087	220	280	0.0087	0.0110
225	250	45	110	0.0018	0.0043	110	175	0.0043	0.0069	170	235	0.0067	0.0093	235	300	0.0093	0.0118
250	280	55	125	0.0022	0.0049	125	195	0.0049	0.0077	190	260	0.0075	0.0102	260	330	0.0102	0.0130
280	315	55	130	0.0022	0.0051	130	205	0.0051	0.0081	200	275	0.0079	0.0108	275	350	0.0108	0.0138
315	355	65	145	0.0026	0.0057	145	225	0.0057	0.0089	225	305	0.0089	0.0120	305	385	0.0120	0.0152
355	400	100	190	0.0039	0.0075	190	280	0.0075	0.0110	280	370	0.0110	0.0146	370	460	0.0146	0.0181
400	450	110	210	0.0043	0.0083	210	310	0.0083	0.0122	310	410	0.0122	0.0161	410	510	0.0161	0.0201
450	500	110	220	0.0043	0.0087	220	330	0.0087	0.0130	330	440	0.0130	0.0173	440	550	0.0173	0.0217
500	560	120	240	0.0047	0.0094	240	360	0.0094	0.0142	360	480	0.0142	0.0189	480	600	0.0189	0.0236
560	630	140	260	0.0055	0.0102	260	380	0.0102	0.0150	380	500	0.0150	0.0197	500	620	0.0197	0.0244
630	710	145	285	0.0057	0.0112	285	425	0.0112	0.0167	425	565	0.0167	0.0222	565	705	0.0222	0.0278
710	800	150	310	0.0059	0.0122	310	470	0.0122	0.0185	470	630	0.0185	0.0248	630	790	0.0248	0.0311

Introduction

$P = F_r$ when $F_a / F_r \leq e$
 $P = 0.92 F_r + YF_a$ when $F_a / F_r > e$

where

e = calculation factor
 = 0.15 for double row bearings
 = 0.2 for bearings of series 18
 = 0.3 for all other single row bearings

Y = axial load factor
 = 0.6 for bearings of series 18
 = 0.53 for double row bearings
 = 0.4 for all other single row bearings

Since axially loaded full complement cylindrical roller bearings will only operate satisfactorily when they are subjected to a simultaneously acting radial load, the ratio F_a / F_r should not exceed 0.5 for single row bearings or 0.25 for double row bearings.

Table 3a

Axial displacement(s) of NU, NJ and N bearing ring relative to opposite ring

Designation	Axial displacement		Designation	Axial displacement		Designation	Axial displacement		Designation	Axial displacement	
	s			s			s			s	
	mm	in		mm	in		mm	in		mm	in
1005	2	0.079	208 EC	1.4	0.055	2222 EC	3.7	0.146	302 EC	1	0.039
1006	2.1	0.083	209 EC	1.2	0.047	2224 EC	3.8	0.150	303 EC	1	0.039
1007 EC	1	0.039	210 EC	1.5	0.059	2226 EC	4.3	0.169	304 EC	0.9	0.035
1008	2.4	0.094	211 EC	1	0.039	2228 EC	4.4	0.173	305 EC	1.3	0.051
1009 EC	0.9	0.035	212 EC	1.4	0.055	2230 EC	4.9	0.193	306 EC	1.4	0.055
1010	2.5	0.098	213 EC	1.4	0.055	2232 EC	4.5	0.177	307 EC	1.2	0.047
1011 EC	0.5	0.020	214 EC	1.2	0.047	2234 EC	4.2	0.165	308 EC	1.4	0.055
1012	2.9	0.114	215 EC	1.2	0.047	2236 EC	4.2	0.165	309 EC	1.7	0.067
1013	2.9	0.114	216 EC	1.4	0.055	2238 EC	5	0.197	310 EC	1.9	0.075
1014	3	0.118	217 EC	1.5	0.059	2240 EC	5.1	0.201	311 EC	2	0.079
1015	3	0.118	218 EC	1.8	0.071	2244 EC	7.9	0.311	312 EC	2.1	0.083
1016	3.3	0.130	219 EC	1.7	0.067	2248	4.3	0.169	313 EC	2.2	0.087
1017	3.3	0.130	220 EC	1.7	0.067	2252	4.3	0.169	314 EC	1.8	0.071
1018	3.5	0.138	221 EC	2	0.079	2256 EC	10.2	0.402	315 EC	1.8	0.071
1019	3.5	0.138	222 EC	2.1	0.083	2260	5.6	0.220	316 EC	2.1	0.083
1020	3.5	0.138	224 EC	1.9	0.075	2264	5.9	0.232	317 EC	2.3	0.091
1021	3.8	0.150	226 EC	2.1	0.083	2268	8	0.315	318 EC	2.5	0.098
1022	3.8	0.150	228 EC	2.4	0.094	2272	16.7	0.657	319 EC	2.9	0.114
1024	3.8	0.150	N 228	2.5	0.098	2276	8.3	0.327	320 EC	2.9	0.114
1026	4.7	0.185	230 EC	2.5	0.098				321 EC	3.4	0.134
1028	4.4	0.173	232 EC	2.7	0.106				322 EC	3	0.118
1030	4.9	0.193	234 EC	2.9	0.114	2304 EC	1.9	0.075	324 EC	3.7	0.146
1032	5.2	0.205	236 EC	2.9	0.114	2305 EC	2.3	0.091	326 EC	3.7	0.146
1034	5.8	0.228	238 EC	3	0.118	2306 EC	2.4	0.094	328 EC	3.7	0.146
1038	6.1	0.240	240 EC	2.6	0.102	2307 EC	2.7	0.106	N 328	4.2	0.165
1040	7	0.276	244	2.3	0.091	2308 EC	2.9	0.114	330 EC	4	0.157
1044	7.5	0.295	248	3.4	0.134	2309 EC	3.2	0.126	332 EC	4	0.157
1048	7.5	0.295	252	4.4	0.134	2310 EC	3.4	0.134	334	4.6	0.181
1052	8.8	0.346	256	3.8	0.150	2311 EC	3.5	0.138	336	4.4	0.173
1056	8.8	0.346	260	4.8	0.189	2312 EC	3.6	0.142	338 EC	4.3	0.169
1060	6	0.382	264	5.3	0.209	2313 EC	4.7	0.185	340	4	0.157
1064	13.5	0.382				2314 EC	4.8	0.189	344	5.2	0.205
1068	6.5	0.425				2315 EC	4.8	0.189	348	5.6	0.220
1072	6.5	0.425	2203 EC	1.5	0.059	2316 EC	5.1	0.201			
1076	6.5	0.425	2204 EC	2	0.079	2317 EC	5.8	0.228			
1080	7	0.551	2205 EC	1.8	0.071	2318 EC	6	0.382	406	1.6	0.063
1084	11	0.551	2206 EC	1.8	0.071	2319 EC	6.9	0.272	407	1.7	0.067
1088	7	0.579	2207 EC	2.8	0.110	2320 EC	5.9	0.232	408	2.5	0.098
1092	7.8	0.626	2208 EC	1.9	0.075	2322 EC	7.5	0.295	409	2.5	0.098
1096	7.8	0.626	2209 EC	1.7	0.067	2324 EC	7.2	0.283	410	2.6	0.102
10/500	11.2	0.441	2210 EC	1.5	0.059	2326 EC	8.7	0.343	411	2.6	0.102
10/530	10.4	0.409	2211 EC	1.5	0.059	2328 EC	9.7	0.382	412	2.5	0.098
10/560	10	0.484	2212 EC	1.4	0.055	2330 EC	10.5	0.413	413	2.6	0.102
10/600	8.5	0.547	2213 EC	1.9	0.075	2332 EC	11	0.433	414	3.5	0.138
10/710 EC	8	0.673	2214 EC	1.7	0.067	2334	5.2	0.205	415	3.8	0.150
			2215 EC	1.7	0.067	2336	5.1	0.201	416	3.7	0.146
			2216 EC	1.4	0.055	2338 EC	9.5	0.374	417	3.8	0.150
			2217 EC	2	0.079	2340 EC	9.4	0.370	418	4.9	0.193
202 EC	1	0.039	2218 EC	2.6	0.102	2344 EC	10.4	0.409	419	5	0.197
203 EC	1	0.039	2219 EC	3	0.118	2348	6.4	0.252	420	4.9	0.193
204 EC	1	0.039	2220 EC	2.5	0.098	2356	6.6	0.260	421	4.9	0.193
205 EC	1.3	0.051							422	4.8	0.189
206 EC	1.3	0.051							424	6.3	0.248
207 EC	1.3	0.051									

Minimum load

In order to provide the satisfactory operation of all ball and roller bearings they must always be subjected to a given minimum load. This is also true of cylindrical roller bearings, particularly if they run at high speeds where the inertia forces of the rollers and cage, and the friction in the lubricant can have a detrimental influence on the rolling conditions in the bearing and may cause damaging sliding movements to occur between the rollers and the raceways.

The requisite minimum radial load to be applied in such cases can be found by accessing www.skf.com under Knowledge Centre/ Engineering tools and CAD, or by contacting SKF Applications Engineering.

However, the weight of the components supported by the bearing, together with the external forces, often exceeds the requisite minimum load. If this is not the case, an additional radial load must be applied to the bearing, for example, by increasing belt tension or similar means.

Table 3b

Axial displacement(s) of full complement NCF and NJG bearing ring relative to opposite ring

Designation	Axial displacement s		Designation	Axial displacement s		Designation	Axial displacement s		Designation	Axial displacement s	
	mm	in		mm	in		mm	in		mm	in
1830 V	1.5	0.059	2305 VH	1.7	0.067	2944 V	2.5	0.098	3020 V	2	0.079
1832 V	1.5	0.059	2306 VH	1.8	0.071	2948 V	2.5	0.098	3022 V	3	0.118
1834 V	1.5	0.059	2307 VH	2	0.079	2952 V	5	0.197	3024 V	3.5	0.138
1836 V	1.5	0.059	2308 VH	2.4	0.094	2956 V	4	0.157	3026 V	3.5	0.138
1838 V	1.8	0.071	2309 VH	2.4	0.094	2960 V	5	0.197	3028 V	3.5	0.138
1840 V	1.8	0.071	2310 VH	2.6	0.102	2964 V	5	0.197	3030 V	3.5	0.138
1844 V	1.8	0.071	2311 VH	2.6	0.102	2968 V	5	0.197	3032 V	4	0.157
1848 V	1.8	0.071	2313 VH	3	0.118	2972 V	5	0.197	3034 V	7	0.276
1852 V	1.8	0.071	2314 VH	3	0.118	2976 V	5	0.197	3036 V	5	0.197
1856 V	2.5	0.098	2315 VH	3	0.118	2980 V	5	0.197	3038 V	6	0.236
1860 V	3	0.118	2316 VH	4	0.157	2984 V	5	0.197	3040 V	6.5	0.256
1864 V	3	0.118	2317 VH	4	0.157	2988 V	6	0.236	3044 V	7	0.276
1868 V	3	0.118	2318 VH	4	0.157	2992 V	6	0.236	3048 V	7	0.276
1872 V	3	0.118	2320 VH	4.5	0.177	2996 V	7	0.276	3052 V	8	0.315
1876 V	3.5	0.138	2322 VH	5	0.197	29/500 V	7	0.276	3056 V	9	0.354
1880 V	3.5	0.138	2324 VH	5.5	0.217	29/530 V	7	0.276	3060 V	10	0.394
1884 V	3.5	0.138	2326 VH	6	0.236	29/560 V	7	0.276	3064 V	12	0.472
1888 V	3.5	0.138	2328 VH	6.5	0.256	29/600 V	7	0.276	3068 V	12	0.472
1892 V	5	0.197	2330 VH	6.5	0.256				3072 V	12	0.472
1896 V	5	0.197				3004 V	0.5	0.020	3076 V	12	0.472
18/500 V	5	0.197				3005 V	0.5	0.020	3080 V	14	0.551
18/530 V	5	0.197	2912 V	0.5	0.020	3006 V	0.8	0.031			
18/560 V	5	0.197	2914 V	0.75	0.030	3007 V	1	0.039			
18/600 V	7	0.276	2916 V	0.75	0.030	3008 V	1	0.039			
18/630 V	8	0.315	2918 V	0.75	0.030	3009 V	1	0.039			
18/670 V	8	0.315	2920 V	0.75	0.030	3010 V	1	0.039			
18/710 V	8	0.315	2922 V	0.75	0.030	3011 V	1.2	0.047			
18/750 V	8	0.315	2924 V	0.75	0.030	3012 V	1.2	0.047			
			2926 V	0.75	0.030	3013 V	1.2	0.047			
			2928 V	0.75	0.030	3014 V	1.5	0.059			
2207 V	1	0.039	2930 V	0.8	0.031	3015 V	1.5	0.059			
2209 V	1	0.039	2932 V	0.8	0.031	3016 V	1.8	0.071			
2210 V	1	0.039	2934 V	0.8	0.031	3017 V	1.8	0.071			
2218 V	2.5	0.098	2936 V	1	0.039	3018 V	2	0.079			
2220 V	2.5	0.098	2938 V	1	0.039						
2224 V	4	0.157	2940 V	3	0.118						

Frequency vibration data

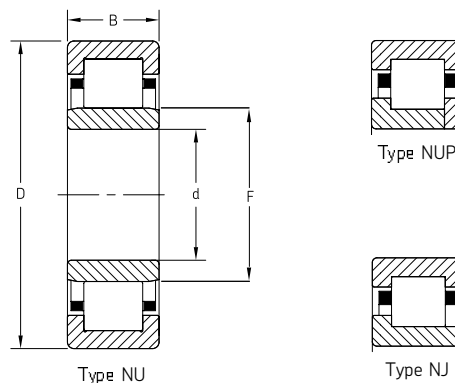
Frequency vibration data is available on the SKF website www.skf.com under Knowledge Centre/ Engineering tools and CAD, or by contacting SKF Applications Engineering.

Table 3c

Axial displacement (s) of full complement NNC, NNCF and NNCL bearing ring relative to opposite ring

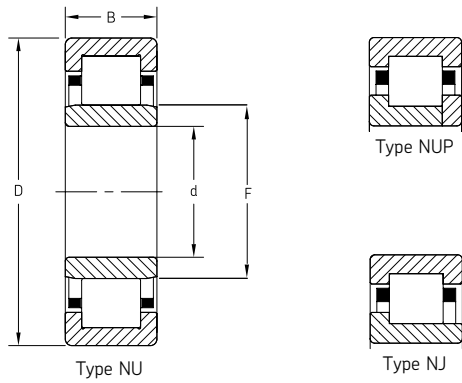
Designation	Axial displacement		Designation	Axial displacement		Designation	Axial displacement		Designation	Axial displacement	
	s			s			s			s	
	mm	in		mm	in		mm	in		mm	in
4830 V	1.1	0.043	4912 V	1	0.039	4940 V	2.1	0.083	5013 V	1.1	0.043
4832 V	1.1	0.043	4914 V	1	0.039	4944 V	2.1	0.083	5015 V	1.1	0.043
4834 V	1.1	0.043	4916 V	1	0.039	4948 V	2.1	0.083	5017 V	1.1	0.043
4836 V	1.1	0.043	4918 V	1.1	0.043	4952 V	2.1	0.083	5024 V	2	0.079
4838 V	1.5	0.059	4920 V	1.1	0.043	4956 V	2.1	0.083	5056 V	4	0.157
4840 V	1.5	0.059	4922 V	1.1	0.043	4960 V	3	0.118			
4844 V	1.5	0.059	4924 V	1.1	0.043	4964 V	3	0.118			
4848 V	2	0.079	4926 V	1.5	0.059	4968 V	3	0.118			
4852 V	2	0.079	4928 V	1.5	0.059	4972 V	3	0.118			
4856 V	2	0.079	4930 V	2	0.079	4976 V	4	0.157			
4860 V	2.1	0.083	4932 V	2	0.079	4980 V	4	0.157			
4864 V	2.1	0.083	4934 V	2	0.079	4984 V	4	0.157			
4872 V	2.1	0.083	4936 V	2	0.079	4988 V	4	0.157			
4876 V	2.1	0.083	4938 V	2	0.079	4992 V	4	0.157			
						4996 V	5	0.197			
						49/500 V	5	0.197			

Single row
 Standard
 Series: 1005 – 1052
 Size: 25 mm – 260 mm
 0.9843 in – 10.2362 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer-	Limit-	kg	lb	Under roller		Over roller	
	d		D		H			C	C ₀	ence	ing	F			E	mm	in	mm
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in	
1005	25	0.9843	47	1.8504	12	0.4724	14 200	3 190	13 200	2 970	18 000	18 000	0.1	0.2	30.5	1.20	41.5	1.63
1006	30	1.1811	55	2.1654	13	0.5118	17 900	4 020	17 300	3 890	15 000	15 000	0.1	0.2	36.5	1.44	48.5	1.91
1007 EC	35	1.3780	62	2.4409	14	0.5512	35 800	8 040	38 000	8 540	13 000	13 000	0.2	0.3	42.0	1.65	57.0	2.24
1008	40	1.5748	68	2.6772	15	0.5906	25 100	5 640	26 000	5 840	12 000	18 000	0.2	0.5	47.0	1.85	61.0	2.40
1009 EC	45	1.7717	75	2.9528	16	0.6299	44 600	10 020	52 000	11 690	11 000	11 000	0.3	0.6	52.5	2.07	68.5	2.70
1010 EC	50	1.9685	80	3.1496	16	0.6299	46 800	10 520	56 000	12 580	9 500	9 500	0.3	0.6	57.5	2.26	73.5	2.89
1011 EC	55	2.1654	90	3.5433	18	0.7087	57 200	12 850	69 500	15 620	8 500	8 500	0.4	0.9	64.5	2.54	82.5	3.25
1012	60	2.3622	95	3.7402	18	0.7087	37 400	8 400	44 000	9 890	8 000	13 000	0.5	1.1	69.5	2.74	85.5	3.37
1013 EC	65	2.5591	100	3.9370	18	0.7087	62 700	14 090	81 500	18 310	7 500	7 500	0.4	1.0	74.0	2.91	92.0	3.62
1013	65	2.5591	100	3.9370	18	0.7087	38 000	8 540	46 500	10 450	7 500	12 000	0.5	1.1	74.5	2.93	90.5	3.56
1014 EC	70	2.7559	110	4.3307	20	0.7874	76 500	17 190	93 000	20 900	7 000	7 000	0.6	1.3	79.5	3.13	101.5	4.00
1014	70	2.7559	110	4.3307	20	0.7874	56 100	12 610	67 000	15 060	7 000	11 000	0.7	1.5	80.0	3.15	100.0	3.94
1015	75	2.9528	115	4.5276	20	0.7874	58 300	13 100	71 000	15 960	6 700	10 000	0.8	1.7	85.0	3.35	105.0	4.13
1016	80	3.1496	125	4.9213	22	0.8661	64 400	14 470	78 000	17 530	6 300	6 300	0.9	1.9	91.5	3.60	113.5	4.47
1016 EC	80	3.1496	125	4.9213	22	0.8661	99 000	22 250	127 000	28 540	6 000	9 500	1.0	2.3	91.5	3.60	115.5	4.55
1017	85	3.3465	130	5.1181	22	0.8661	68 200	15 330	86 500	19 440	6 000	9 000	1.1	2.3	96.5	3.80	118.5	4.67
1018	90	3.5433	140	5.5118	24	0.9449	80 900	18 180	104 000	23 370	5 600	8 500	1.4	3.0	103.0	4.06	127.0	5.00
1019	95	3.7402	145	5.7087	24	0.9449	84 200	18 920	110 000	24 720	5 300	8 000	1.5	3.2	108.0	4.25	132.0	5.20
1020	100	3.9370	150	5.9055	24	0.9449	85 800	19 280	114 000	25 620	5 000	7 500	1.5	3.2	113.0	4.45	137.0	5.39
1021	105	4.1339	160	6.2992	26	1.0236	101 000	22 700	137 000	30 790	4 800	7 500	1.9	4.1	119.5	4.70	145.5	5.73
1022	110	4.3307	170	6.6929	28	1.1024	128 000	28 760	166 000	37 300	4 500	7 000	2.3	5.0	125.0	4.92	155.0	6.10
1024	120	4.7244	180	7.0866	28	1.1024	134 000	30 110	183 000	41 120	4 000	6 300	2.5	5.6	135.0	5.31	165.0	6.50
1026	130	5.1181	200	7.8740	33	1.2992	165 000	37 080	224 000	50 300	3 800	5 600	3.8	8.5	148.0	5.83	182.0	7.17
1028	140	5.5118	210	8.2677	33	1.2992	179 000	40 220	255 000	57 300	3 600	5 300	4.1	9.0	158.0	6.22	192.0	7.56
1030	150	5.9055	225	8.8583	35	1.3780	198 000	44 490	290 000	65 200	3 200	5 000	4.9	10.8	169.5	6.67	205.5	8.09
1032	160	6.2992	240	9.4488	38	1.4961	229 000	51 500	325 000	73 000	3 000	4 800	6.0	13.2	180.0	7.09	220.0	8.66
1034	170	6.6929	260	10.2362	42	1.6535	275 000	61 800	400 000	89 900	2 800	4 300	8.0	17.6	193.0	7.60	237.0	9.33
1036	180	7.0866	280	11.0236	46	1.8110	336 000	75 500	475 000	106 700	2 600	4 000	10.4	23.0	205.0	8.07	255.0	10.04
1038	190	7.4803	290	11.4173	46	1.8110	347 000	78 000	500 000	112 400	2 600	3 800	10.9	23.9	215.0	8.46	265.0	10.43
1040	200	7.8740	310	12.2047	51	2.0079	380 000	85 400	570 000	128 100	2 400	3 600	14.1	31.0	229.0	9.02	281.0	11.06
1044	220	8.6614	340	13.3858	56	2.2047	495 000	111 200	735 000	165 200	2 200	3 200	18.3	40.4	250.0	9.84	310.0	12.20
1048	240	9.4488	360	14.1732	56	2.2047	523 000	117 500	800 000	179 800	2 000	3 000	19.4	42.7	270.0	10.63	330.0	12.99
1052	260	10.2362	400	15.7480	65	2.5591	627 000	140 900	965 000	216 900	1 800	2 800	29.3	64.6	296.0	11.65	364.0	14.33

Consult SKF USA Inc. prior to design change or order placement.

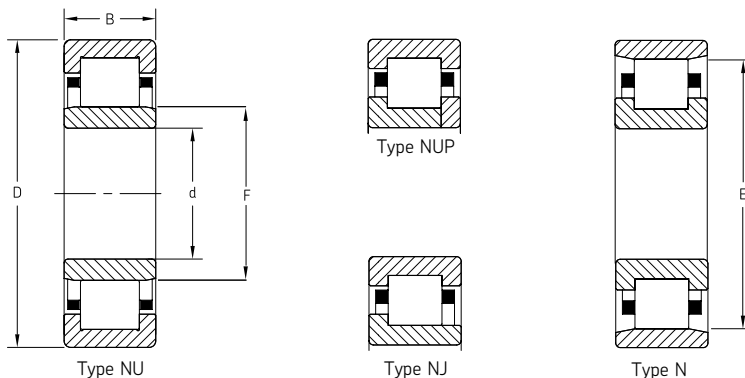


Single row
Standard
Series: 1056 MA – 10/750 EC
Size: 280 mm – 750 mm
11.0236 in – 29.5276 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer-	Limit-	kg	lb	Under roller		Over roller	
	d		D		H		C	C ₀	ence	ing	speed	speed			F	E	F	E
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in	
1056	280	11.0236	420	16.5354	65	2.5591	660 000	148 300	1 060 000	238 200	1 700	2 600	31.0	68.4	316.0	12.44	384.0	15.12
1060	300	11.8110	460	18.1102	74	2.9134	858 000	192 800	1 370 000	307 900	1 500	2 000	46.0	101.4	340.0	13.39	420.0	16.54
1064	320	12.5984	480	18.8976	74	2.9134	880 000	197 800	1 430 000	321 300	1 400	1 400	48.0	105.8	360.0	14.17	440.0	17.32
1068	340	13.3858	520	20.4724	82	3.2283	1 080 000	242 700	1 760 000	395 500	1 300	1 700	63.5	140.0	385.0	15.16	475.0	18.70
1072	360	14.1732	540	21.2598	82	3.2283	1 100 000	247 200	1 830 000	411 200	1 300	1 600	67.5	148.8	405.0	15.94	495.0	19.49
1076	380	14.9606	560	22.0472	82	3.2283	1 140 000	256 200	1 930 000	433 700	1 200	1 600	70.0	154.4	425.0	16.73	515.0	20.28
1080	400	15.7480	600	23.6220	90	3.5433	1 380 000	310 100	2 320 000	521 300	1 100	1 500	90.0	198.5	450.0	17.72	550.0	21.65
1084	420	16.5354	620	24.4094	90	3.5433	1 420 000	319 100	2 450 000	550 600	1 100	1 400	94.0	207.3	470.0	18.50	570.0	22.44
1088	440	17.3228	650	25.5906	94	3.7008	1 510 000	339 300	2 650 000	595 500	1 000	1 300	105.0	231.5	493.0	19.41	597.0	23.50
1092	460	18.1102	680	26.7717	100	3.9370	1 650 000	370 800	2 850 000	640 400	950	1 200	115.0	253.6	516.0	20.31	624.0	24.57
1096	480	18.8976	700	27.5591	100	3.9370	1 680 000	377 500	3 000 000	674 200	900	1 200	130.0	286.7	536.0	21.10	644.0	25.35
10/500	500	19.6850	720	28.3465	100	3.9370	1 720 000	386 500	3 100 000	696 600	900	1 100	135.0	297.7	556.0	21.89	664.0	26.14
10/530	530	20.8661	780	30.7087	112	4.4094	2 290 000	514 600	4 050 000	910 100	800	1 000	190.0	419.0	593.0	23.35	721.0	28.39
10/560	560	22.0472	820	32.2835	115	4.5276	2 330 000	523 600	4 250 000	955 100	750	1 000	210.0	463.1	625.0	24.61	753.0	29.65
10/600	600	23.6220	870	34.2520	118	4.6457	2 750 000	618 000	5 100 000	1 146 100	700	900	240.0	529.2	667.0	26.26	807.0	31.77
10/630 EC	630	24.8031	920	36.2205	128	5.0394	3 410 000	766 300	6 200 000	1 393 300	630	850	285.0	628.4	702.0	27.64	862.0	33.94
10/670 EC	670	26.3780	980	38.5827	136	5.3543	3 740 000	840 400	6 800 000	1 528 100	600	800	350.0	771.8	747.0	29.41	917.0	36.10
10/710 EC	710	27.9528	1 030	40.5512	140	5.5118	4 680 000	1 051 700	8 500 000	1 910 100	560	750	415.0	915.1	778.0	30.63	968.0	38.11
10/750 EC	750	29.5276	1 090	42.9134	150	5.9055	4 730 000	1 062 900	8 800 000	1 977 500	430	670	487.0	1 073.8	830.0	32.68	1 020.0	40.16

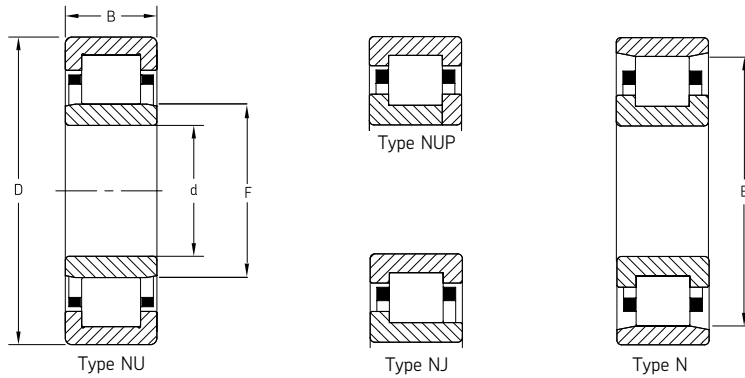
Consult SKF USA Inc. prior to design change or order placement.

Single row
 Standard and **SKF Explorer**
 Series: 202 EC – 244 EC
 Size: 15 mm – 220 mm
 0.5906 in – 8.6614 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limiting speed	kg	lb	Under roller		Over roller	
	d		D		H			C	C ₀	F					E	mm	in	mm
202 EC	15	0.5906	35	1.3780	11	0.4331	12 500	2 810	10 200	2 290	22 000	26 000	0.0	0.1	19.3	0.76	30.3	1.19
203 EC	17	0.6693	40	1.5748	12	0.4724	20 000	4 490	14 300	3 210	20 000	22 000	0.1	0.1	22.1	0.87	35.1	1.38
204 EC	20	0.7874	47	1.8504	14	0.5512	28 500	6 400	22 000	4 940	17 000	19 000	0.1	0.2	26.5	1.04	41.5	1.63
205 EC	25	0.9843	52	2.0472	15	0.5906	32 500	7 300	27 000	6 070	15 000	16 000	0.1	0.3	31.5	1.24	46.5	1.83
206 EC	30	1.1811	62	2.4409	16	0.6299	44 000	9 890	36 500	8 200	13 000	14 000	0.2	0.4	37.5	1.48	55.5	2.19
207 EC	35	1.3780	72	2.8346	17	0.6693	56 000	12 580	48 000	10 790	11 000	12 000	0.3	0.6	44.0	1.73	64.0	2.52
208 EC	40	1.5748	80	3.1496	18	0.7087	62 000	13 930	53 000	11 910	9 500	11 000	0.4	0.8	49.5	1.95	71.5	2.81
209 EC	45	1.7717	85	3.3465	19	0.7480	69 500	15 620	64 000	14 380	9 000	9 500	0.4	0.9	54.5	2.15	76.5	3.01
210 EC	50	1.9685	90	3.5433	20	0.7874	73 500	16 520	69 500	15 620	8 500	9 000	0.5	1.0	59.5	2.34	81.5	3.21
211 EC	55	2.1654	100	3.9370	21	0.8268	96 500	21 690	95 000	21 350	7 500	8 000	0.7	1.4	66.0	2.60	90.0	3.54
212 EC	60	2.3622	110	4.3307	22	0.8661	108 000	24 270	102 000	22 920	6 700	7 500	0.8	1.7	72.0	2.83	100.0	3.94
213 EC	65	2.5591	120	4.7244	23	0.9055	122 000	27 420	118 000	26 520	6 300	6 700	1.0	2.2	78.5	3.09	108.5	4.27
214 EC	70	2.7559	125	4.9213	24	0.9449	137 000	30 790	137 000	30 790	6 000	6 300	1.1	2.5	83.5	3.29	113.5	4.47
215 EC	75	2.9528	130	5.1181	25	0.9843	150 000	33 710	156 000	35 060	5 600	6 000	1.2	2.7	88.5	3.48	118.5	4.67
216 EC	80	3.1496	140	5.5118	26	1.0236	160 000	35 960	166 000	37 300	5 300	5 600	1.5	3.4	95.3	3.75	127.3	5.01
217 EC	85	3.3465	150	5.9055	28	1.1024	190 000	42 700	200 000	44 940	4 800	5 300	1.9	4.1	100.5	3.96	136.5	5.37
218 EC	90	3.5433	160	6.2992	30	1.1811	208 000	46 740	220 000	49 440	4 500	5 000	2.3	5.0	107.0	4.21	145.0	5.71
219 EC	95	3.7402	170	6.6929	32	1.2598	255 000	57 300	265 000	59 600	4 300	4 800	2.8	6.2	112.5	4.43	154.5	6.08
220 EC	100	3.9370	180	7.0866	34	1.3386	285 000	64 000	305 000	68 500	4 000	4 500	3.4	7.4	119.0	4.69	163.0	6.42
221 EC	105	4.1339	190	7.4803	36	1.4173	300 000	67 400	315 000	70 800	3 800	4 300	3.9	8.5	125.0	4.92	173.0	6.81
222 EC	110	4.3307	200	7.8740	38	1.4961	335 000	75 300	365 000	82 000	3 600	4 000	4.7	10.4	132.5	5.22	180.5	7.11
224 EC	120	4.7244	215	8.4646	40	1.5748	390 000	87 600	430 000	96 600	3 400	3 600	5.7	12.6	143.5	5.65	195.5	7.70
226 EC	130	5.1181	230	9.0551	40	1.5748	415 000	93 300	455 000	102 200	3 200	3 400	6.4	14.2	153.5	6.04	209.5	8.25
228 EC	140	5.5118	250	9.8425	42	1.6535	450 000	101 100	510 000	114 600	2 800	3 200	8.5	18.6	169.0	6.65	225.0	8.86
230 EC	150	5.9055	270	10.6299	45	1.7717	510 000	114 600	600 000	134 800	2 600	2 800	10.7	23.6	182.0	7.17	242.0	9.53
232 EC	160	6.2992	290	11.4173	48	1.8898	585 000	131 500	680 000	152 800	2 400	2 600	14.2	31.3	195.0	7.68	259.0	10.20
234 EC	170	6.6929	310	12.2047	52	2.0472	695 000	156 200	815 000	183 100	2 200	3 800	17.3	38.2	207.0	8.15	279.0	10.98
236 EC	180	7.0866	320	12.5984	52	2.0472	720 000	161 800	850 000	191 000	2 200	3 600	18.5	40.7	217.0	8.54	289.0	11.38
238 EC	190	7.4803	340	13.3858	55	2.1654	800 000	179 800	965 000	216 900	2 000	3 400	22.2	48.9	230.0	9.06	306.0	12.05
240 EC	200	7.8740	360	14.1732	58	2.2835	880 000	197 800	1 060 000	238 200	1 900	3 200	26.5	58.5	243.0	9.57	323.0	12.72
244 EC	220	8.6614	400	15.7480	65	2.5591	1 059 999	238 200	1 290 000	289 900	1 700	3 000	36.8	81.0	268.0	10.55	358.0	14.09

Consult SKF USA Inc. prior to design change or order placement.



Single row
 Standard and **SKF Explorer**
 Series: 248 – 264
 Size: 240 mm – 320 mm
 9.4488 in – 12.5984 in

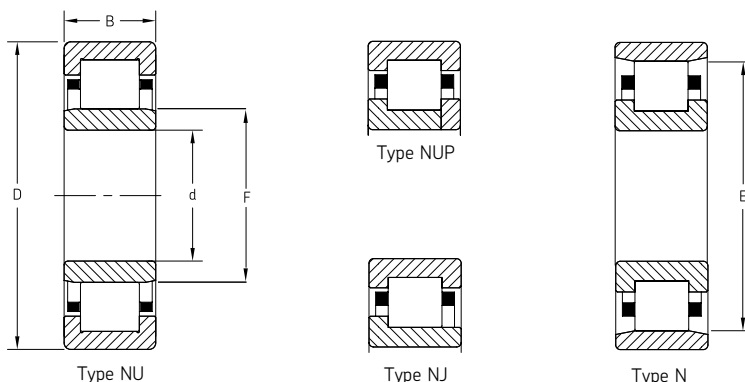
Standard and **SKF Explorer**
 Series: 2203 EC – 2226 EC
 Size: 17 mm – 130 mm
 0.6693 in – 5.1181 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limiting speed			Under roller		Over roller	
	d		D		H		C		C ₀						F		E	
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb	mm	in	mm	in	
248	240	9.4488	440	17.3228	72	2.8346	952 000	213 900	1 370 000	307 900	1 600	2 200	51.5	113.6	295.0	11.61	385.0	15.16
252	260	10.2362	480	18.8976	80	3.1496	1 170 000	262 900	1 700 000	382 000	1 400	2 000	68.5	151.0	320.0	12.60	420.0	16.54
256	280	11.0236	500	19.6850	80	3.1496	1 140 000	256 200	1 800 000	404 500	1 400	1 900	73.0	161.0	340.0	13.39	440.0	17.32
260	300	11.8110	540	21.2598	85	3.3465	1 420 000	319 100	2 120 000	476 400	1 300	1 400	89.5	197.3	364.0	14.33	476.0	18.74
264 EC	320	12.5984	580	22.8346	92	3.6220	1 830 000	411 200	2 750 000	618 000	1 000	1 200	115.0	253.6	392.0	15.43	520.0	20.47
264	320	12.5984	580	22.8346	92	3.6220	1 610 000	361 800	2 450 000	550 600	1 200	1 600	115.0	253.6	390.0	15.35	510.0	20.08
2203 EC	17	0.6693	40	1.5748	16	0.6299	27 500	6 180	21 600	4 850	20 000	22 000	0.1	0.2	22.1	0.87	35.1	1.38
2204 EC	20	0.7874	47	1.8504	18	0.7087	34 500	7 750	27 500	6 180	17 000	19 000	0.1	0.3	26.5	1.04	41.5	1.63
2205 EC	25	0.9843	52	2.0472	18	0.7087	39 000	8 760	34 000	7 640	15 000	16 000	0.2	0.4	31.5	1.24	46.5	1.83
2206 EC	30	1.1811	62	2.4409	20	0.7874	55 000	12 360	49 000	11 010	13 000	14 000	0.3	0.6	37.5	1.48	55.5	2.19
2207 EC	35	1.3780	72	2.8346	23	0.9055	69 500	15 620	63 000	14 160	11 000	12 000	0.4	0.9	44.0	1.73	64.0	2.52
2208 EC	40	1.5748	80	3.1496	23	0.9055	81 500	18 310	75 000	16 850	9 500	11 000	0.5	1.1	49.5	1.95	71.5	2.81
2209 EC	45	1.7717	85	3.3465	23	0.9055	85 000	19 100	81 500	18 310	9 000	9 500	0.5	1.2	54.5	2.15	76.5	3.01
2210 EC	50	1.9685	90	3.5433	23	0.9055	90 000	20 220	88 000	19 780	8 500	9 000	0.6	1.2	59.5	2.34	81.5	3.21
2211 EC	55	2.1654	100	3.9370	25	0.9843	114 000	25 620	118 000	26 520	7 500	8 000	0.8	1.7	66.0	2.60	90.0	3.54
2212 EC	60	2.3622	110	4.3307	28	1.1024	146 000	32 810	153 000	34 380	6 700	7 500	1.0	2.3	72.0	2.83	100.0	3.94
2213 EC	65	2.5591	120	4.7244	31	1.2205	170 000	38 200	180 000	40 450	6 300	6 700	1.4	3.1	78.5	3.09	108.5	4.27
2214 EC	70	2.7559	125	4.9213	31	1.2205	180 000	40 450	193 000	43 370	6 000	6 300	1.5	3.3	83.5	3.29	113.5	4.47
2215 EC	75	2.9528	130	5.1181	31	1.2205	186 000	41 800	208 000	46 740	5 600	6 000	1.6	3.5	88.5	3.48	118.5	4.67
2216 EC	80	3.1496	140	5.5118	33	1.2992	212 000	47 640	245 000	55 100	5 300	5 600	2.0	4.3	95.3	3.75	127.3	5.01
2217 EC	85	3.3465	150	5.9055	36	1.4173	250 000	56 200	280 000	62 900	4 800	5 300	2.5	5.5	100.5	3.96	136.5	5.37
2218 EC	90	3.5433	160	6.2992	40	1.5748	280 000	62 900	315 000	70 800	4 500	5 000	3.1	6.9	107.0	4.21	145.0	5.71
2219 EC	95	3.7402	170	6.6929	43	1.6929	325 000	73 000	375 000	84 300	4 300	4 800	3.8	8.3	112.5	4.43	154.5	6.08
2220 EC	100	3.9370	180	7.0866	46	1.8110	380 000	85 400	450 000	101 100	4 000	4 500	4.7	10.5	119.0	4.69	163.0	6.42
2222 EC	110	4.3307	200	7.8740	53	2.0866	440 000	98 900	520 000	116 900	3 600	4 000	6.7	14.7	132.5	5.22	180.5	7.11
2224 EC	120	4.7244	215	8.4646	58	2.2835	520 000	116 900	630 000	141 600	3 400	3 600	8.2	18.1	143.5	5.65	195.5	7.70
2226 EC	130	5.1181	230	9.0551	64	2.5197	610 000	137 100	735 000	165 200	3 200	3 400	10.1	22.2	153.5	6.04	209.5	8.25

Consult SKF USA Inc. prior to design change or order placement.

Single row
 Standard and **SKF Explorer**
 Series: 2228 EC – 22/560 EC
 Size: 140 mm – 560 mm
 5.5118 in – 22.0472 in

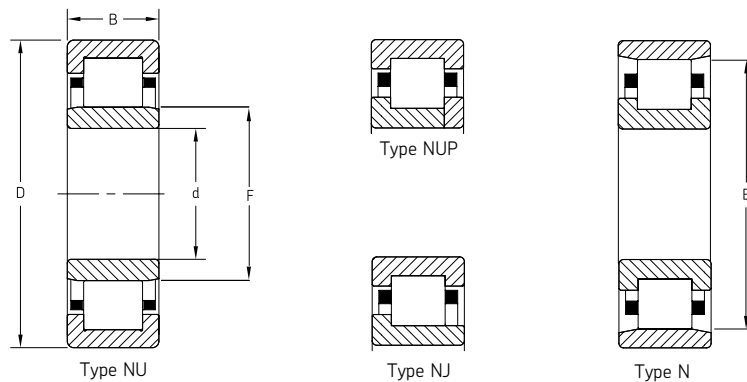
SKF Explorer
 Series: 2304 EC – 2312 EC
 Size: 20 mm – 60 mm
 0.7874 in – 2.3622 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limit- ing speed	kg	lb	Under roller		Over roller	
	d		D		H			C		C ₀							F	
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in	
2228 EC	140	5.5118	250	9.8425	68	2.6772	655 000	147 200	830 000	186 500	2 800	4 800	15.0	33.0	169.0	6.65	225.0	8.86
2230 EC	150	5.9055	270	10.6299	73	2.8740	735 000	165 200	930 000	209 000	2 600	2 800	18.5	40.8	182.0	7.17	242.0	9.53
2232 EC	160	6.2992	290	11.4173	80	3.1496	930 000	209 000	1 200 000	269 700	2 400	4 000	23.1	50.9	193.0	7.60	261.0	10.28
2234 EC	170	6.6929	310	12.2047	86	3.3858	1 059 999	238 200	1 340 000	301 100	2 200	3 800	28.1	62.0	205.0	8.07	281.0	11.06
2236 EC	180	7.0866	320	12.5984	86	3.3858	1 099 999	247 200	1 430 000	321 300	2 200	3 600	29.9	65.9	215.0	8.46	291.0	11.46
2238 EC	190	7.4803	340	13.3858	92	3.6220	1 219 999	274 200	1 600 000	359 600	2 000	3 400	35.7	78.7	228.0	8.98	308.0	12.13
2240 EC	200	7.8740	360	14.1732	98	3.8583	1 369 999	307 900	1 800 000	404 500	1 900	3 200	43.8	96.6	241.0	9.49	325.0	12.80
2244 EC	220	8.6614	400	15.7480	108	4.2520	1 570 000	352 800	2 280 000	512 400	1 600	3 000	58.2	128.4	259.0	10.20	367.0	14.45
2248	240	9.4488	440	17.3228	120	4.7244	1 450 000	325 800	2 360 000	530 300	1 500	2 200	84.0	185.2	295.0	11.61	385.0	15.16
2252	260	10.2362	480	18.8976	130	5.1181	1 790 000	402 200	3 000 000	674 200	1 300	2 000	112.0	247.0	320.0	12.60	420.0	16.54
2256 EC	280	11.0236	500	19.6850	130	5.1181	2 200 000	494 400	3 450 000	775 300	1 200	1 900	115.0	253.6	333.0	13.11	453.0	17.83
2260	300	11.8110	540	21.2598	140	5.5118	2 090 000	469 700	3 450 000	775 300	1 200	1 800	145.0	319.7	364.0	14.33	476.0	18.74
2264 EC	320	12.5984	580	22.8346	150	5.9055	3 190 000	716 900	5 000 000	1 123 600	1 000	1 600	180.0	396.9	380.0	14.96	530.0	20.87
2268	340	13.3858	620	24.4094	165	6.4961	2 640 000	593 300	4 500 000	1 011 200	1 000	1 200	226.0	498.3	416.0	16.38	544.0	21.42
2272	360	14.1732	650	25.5906	170	6.6929	2 920 000	656 200	4 900 000	1 101 100	950	1 400	257.0	566.7	437.0	17.20	573.0	22.56
2276 EC	380	14.9606	680	26.7717	175	6.8898	3 960 000	889 900	6 400 000	1 438 200	850	1 300	288.0	635.0	451.0	17.76	621.0	24.45
2292	460	18.1102	830	32.6772	212	8.3465	5 120 000	1 150 600	8 650 000	1 943 800	700	1 100	527.0	1162.0	554.0	21.81	744.0	29.29
22/560 EC	560	22.0472	1 030	40.5512	272	10.7087	9 900 000	2 224 700	16 600 000	3 730 300	530	800	1 086.0	2 394.6	664.0	26.14	944.0	37.17
2304 EC	20	0.7874	52	2.0472	21	0.8268	47 500	10 670	38 000	8 540	15 000	18 000	0.2	0.5	27.5	1.08	45.5	1.79
2305 EC	25	0.9843	62	2.4409	24	0.9449	64 000	14 380	55 000	12 360	12 000	15 000	0.3	0.7	34.0	1.34	54.0	2.13
2306 EC	30	1.1811	72	2.8346	27	1.0630	83 000	18 650	75 000	16 850	11 000	12 000	0.5	1.2	40.5	1.59	62.5	2.46
2307 EC	35	1.3780	80	3.1496	31	1.2205	106 000	23 820	98 000	22 020	9 500	11 000	0.7	1.6	46.2	1.82	70.2	2.76
2308 EC	40	1.5748	90	3.5433	33	1.2992	129 000	28 990	120 000	26 970	8 000	9 500	0.9	2.1	52.0	2.05	80.0	3.15
2309 EC	45	1.7717	100	3.9370	36	1.4173	160 000	35 960	153 000	34 380	7 500	8 500	1.3	2.8	58.5	2.30	88.5	3.48
2310 EC	50	1.9685	110	4.3307	40	1.5748	186 000	41 800	186 000	41 800	6 700	8 000	1.7	3.8	65.0	2.56	97.0	3.82
2311 EC	55	2.1654	120	4.7244	43	1.6929	232 000	52 100	232 000	52 100	6 000	7 000	2.2	4.9	70.5	2.78	106.5	4.19
2312 EC	60	2.3622	130	5.1181	46	1.8110	260 000	58 400	265 000	59 600	5 600	6 700	2.7	6.1	77.0	3.03	115.0	4.53

Consult SKF USA Inc. prior to design change or order placement.

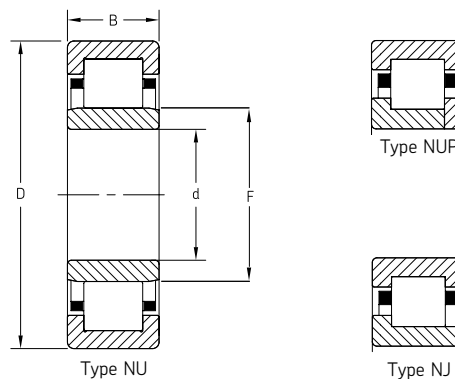
Single row
 Standard and **SKF Explorer**
 Series: 2313 EC – 2372 EC
 Size: 65 mm – 360 mm
 2.5591 in – 14.1732 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer-	Limit-	kg	lb	Under roller		Over roller	
	d		D		H			C		C ₀	ence	ing			F		E	
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in	
2313 EC	65	2.5591	140	5.5118	48	1.8898	285 000	64 000	290 000	65 200	5 300	6 000	3.2	7.1	82.5	3.25	124.5	4.90
2314 EC	70	2.7559	150	5.9055	51	2.0079	315 000	70 800	325 000	73 000	4 800	5 600	3.9	8.7	89.0	3.50	133.0	5.24
2315 EC	75	2.9528	160	6.2992	55	2.1654	380 000	85 400	400 000	89 900	4 500	5 300	4.8	10.6	95.0	3.74	143.0	5.63
2316 EC	80	3.1496	170	6.6929	58	2.2835	415 000	93 300	440 000	98 900	4 300	5 000	5.7	12.7	101.0	3.98	151.0	5.94
2317 EC	85	3.3465	180	7.0866	60	2.3622	455 000	102 200	490 000	110 100	4 000	4 800	6.8	15.1	108.0	4.25	160.0	6.30
2318 EC	90	3.5433	190	7.4803	64	2.5197	500 000	112 400	540 000	121 300	3 800	4 500	8.0	17.6	113.5	4.47	169.5	6.67
2319 EC	95	3.7402	200	7.8740	67	2.6378	530 000	119 100	585 000	131 500	3 600	4 300	9.3	20.6	121.5	4.78	177.5	6.99
2320 EC	100	3.9370	215	8.4646	73	2.8740	670 000	150 600	735 000	165 200	3 200	3 800	11.8	26.0	127.5	5.02	191.5	7.54
2322 EC	110	4.3307	240	9.4488	80	3.1496	780 000	175 300	900 000	202 200	3 000	3 400	16.9	37.2	143.0	5.63	211.0	8.31
2324 EC	120	4.7244	260	10.2362	86	3.3858	915 000	205 600	1 040 000	233 700	2 800	5 000	22.4	49.4	154.0	6.06	230.0	9.06
2326 EC	130	5.1181	280	11.0236	93	3.6614	1 059 999	238 200	1 250 000	280 900	2 400	4 500	28.4	62.6	167.0	6.57	247.0	9.72
2328 EC	140	5.5118	300	11.8110	102	4.0157	1 199 999	269 700	1 430 000	321 300	2 400	4 300	35.9	79.1	180.0	7.09	264.0	10.39
2330 EC	150	5.9055	320	12.5984	108	4.2520	1 369 999	307 900	1 630 000	366 300	2 200	4 000	42.4	93.6	193.0	7.60	283.0	11.14
2332 EC	160	6.2992	340	13.3858	114	4.4882	1 250 000	280 900	1 730 000	388 800	1 800	3 600	49.9	110.1	204.0	8.03	300.0	11.81
2334 EC	170	6.6929	360	14.1732	120	4.7244	1 450 000	325 800	2 040 000	458 400	1 700	3 400	60.5	133.4	216.0	8.50	316.0	12.44
2336 EC	180	7.0866	380	14.9606	126	4.9606	1 610 000	361 800	2 240 000	503 400	1 600	3 200	69.4	153.0	227.0	8.94	339.0	13.35
2338 EC	190	7.4803	400	15.7480	132	5.1969	1 830 000	411 200	2 550 000	573 000	1 500	3 000	80.3	177.0	240.0	9.45	360.0	14.17
2340 EC	200	7.8740	420	16.5354	138	5.4331	1 980 000	444 900	2 800 000	629 200	1 400	2 800	92.4	203.7	253.0	9.96	377.0	14.84
2344 EC	220	8.6614	460	18.1102	145	5.7087	2 380 000	534 800	3 450 000	775 300	1 300	2 200	124.0	273.4	277.0	10.91	413.0	16.26
2348 EC	240	9.4488	500	19.6850	155	6.1024	2 600 000	584 300	3 650 000	820 200	1 200	2 000	155.0	341.8	299.0	11.77	449.0	17.68
2352 EC	260	10.2362	540	21.2598	165	6.4961	3 140 000	705 600	4 550 000	1 022 500	1 100	1 900	196.0	432.2	324.0	12.76	484.0	19.06
2356	280	11.0236	580	22.8346	175	6.8898	2 700 000	606 700	4 300 000	966 300	1 000	1 700	230.0	507.2	362.0	14.25	498.0	19.61
2360 EC	300	11.8110	620	24.4094	185	7.2835	4 020 000	903 400	5 850 000	1 314 600	950	1 600	270.0	595.4	371.0	14.61	561.0	22.09
2364 EC	320	12.5984	670	26.3780	200	7.8740	4 730 000	1 062 900	7 500 000	1 685 400	850	1 500	369.2	814.1	405.0	15.94	595.0	23.43
2368 EC	340	13.3858	710	27.9528	212	8.3465	5 610 000	1 260 700	8 650 000	1 943 800	800	1 400	439.0	968.0	425.0	16.73	635.0	25.00
2372 EC	360	14.1732	750	29.5276	224	8.8189	5 010 000	1 125 800	8 150 000	1 831 500	850	1 300	510.0	1124.6	465.0	18.31	655.0	25.79

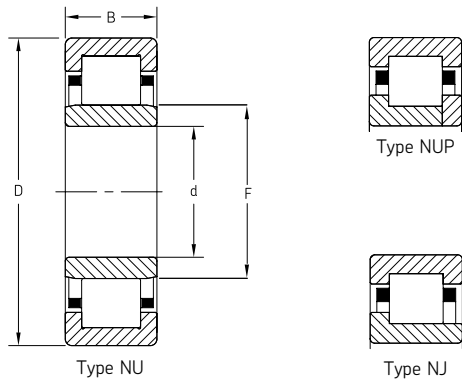
Consult SKF USA Inc. prior to design change or order placement.

Single row
 Standard and **SKF Explorer**
 Series: 303 EC – 360 EC
 Size: 17 mm – 300 mm
 0.6693 in – 11.8110 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limit- ing speed	kg	lb	Under roller		Over roller	
	d		D		H			C		C ₀							F	
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in	
303 EC	17	0.6693	47	1.8504	14	0.5512	28 500	6 400	20 400	4 580	17 000	20 000	0.1	0.3	24.2	0.95	40.2	1.58
304 EC	20	0.7874	52	2.0472	15	0.5906	35 500	7 980	26 000	5 840	15 000	18 000	0.1	0.3	27.5	1.08	45.5	1.79
305 EC	25	0.9843	62	2.4409	17	0.6693	46 500	10 450	36 500	8 200	12 000	15 000	0.2	0.5	34.0	1.34	54.0	2.13
306 EC	30	1.1811	72	2.8346	19	0.7480	58 500	13 150	48 000	10 790	11 000	12 000	0.4	0.8	40.5	1.59	62.5	2.46
307 EC	35	1.3780	80	3.1496	21	0.8268	75 000	16 850	63 000	14 160	9 500	11 000	0.5	1.0	46.2	1.82	70.2	2.76
308 EC	40	1.5748	90	3.5433	23	0.9055	93 000	20 900	78 000	17 530	8 000	9 500	0.6	1.4	52.0	2.05	80.0	3.15
309 EC	45	1.7717	100	3.9370	25	0.9843	112 000	25 170	100 000	22 470	7 500	8 500	0.9	1.9	58.5	2.30	88.5	3.48
310 EC	50	1.9685	110	4.3307	27	1.0630	127 000	28 540	112 000	25 170	6 700	8 000	1.1	2.4	65.0	2.56	97.0	3.82
311 EC	55	2.1654	120	4.7244	29	1.1417	156 000	35 060	143 000	32 130	6 000	7 000	1.4	3.2	70.5	2.78	106.5	4.19
312 EC	60	2.3622	130	5.1181	31	1.2205	173 000	38 880	160 000	35 960	5 600	6 700	1.8	3.9	77.0	3.03	115.0	4.53
313 EC	65	2.5591	140	5.5118	33	1.2992	212 000	47 640	196 000	44 040	5 300	6 000	2.2	4.8	82.5	3.25	124.5	4.90
314 EC	70	2.7559	150	5.9055	35	1.3780	236 000	53 000	228 000	51 200	4 800	5 600	2.7	5.9	89.0	3.50	133.0	5.24
315 EC	75	2.9528	160	6.2992	37	1.4567	280 000	62 900	265 000	59 600	4 500	5 300	3.3	7.3	95.0	3.74	143.0	5.63
316 EC	80	3.1496	170	6.6929	39	1.5354	300 000	67 400	290 000	65 200	4 300	5 000	3.9	8.5	101.0	3.98	151.0	5.94
317 EC	85	3.3465	180	7.0866	41	1.6142	340 000	76 400	335 000	75 300	4 000	4 800	4.5	10.0	108.0	4.25	160.0	6.30
318 EC	90	3.5433	190	7.4803	43	1.6929	365 000	82 000	360 000	80 900	3 800	4 500	5.3	11.6	113.5	4.47	169.5	6.67
319 EC	95	3.7402	200	7.8740	45	1.7717	390 000	87 600	390 000	87 600	3 600	4 300	6.2	13.6	121.5	4.78	177.5	6.99
320 EC	100	3.9370	215	8.4646	47	1.8504	450 000	101 100	440 000	98 900	3 200	3 800	7.4	16.3	127.5	5.02	191.5	7.54
321 EC	105	4.1339	225	8.8583	49	1.9291	500 000	112 400	500 000	112 400	3 200	3 800	8.5	18.7	133.0	5.24	201.0	7.91
322 EC	110	4.3307	240	9.4488	50	1.9685	530 000	119 100	540 000	121 300	3 000	3 400	10.2	22.5	143.0	5.63	211.0	8.31
324 EC	120	4.7244	260	10.2362	55	2.1654	610 000	137 100	620 000	139 300	2 800	3 200	12.8	28.2	154.0	6.06	230.0	9.06
326 EC	130	5.1181	280	11.0236	58	2.2835	720 000	161 800	750 000	168 500	2 400	3 000	16.1	35.4	167.0	6.57	247.0	9.72
328 EC	140	5.5118	300	11.8110	62	2.4409	780 000	175 300	830 000	186 500	2 400	2 800	20.0	44.1	180.0	7.09	264.0	10.39
330 EC	150	5.9055	320	12.5984	65	2.5591	900 000	202 200	965 000	216 900	2 200	2 600	26.3	58.0	193.0	7.60	283.0	11.14
332 EC	160	6.2992	340	13.3858	68	2.6772	1 000 000	224 700	1 080 000	242 700	2 000	3 600	30.9	68.1	204.0	8.03	300.0	11.81
334 EC	170	6.6929	360	14.1732	72	2.8346	952 000	213 900	1 180 000	265 200	1 700	2 200	33.2	73.1	218.0	8.58	318.0	12.52
336 EC	180	7.0866	380	14.9606	75	2.9528	1 020 000	229 200	1 290 000	289 900	1 600	2 200	42.7	94.1	231.0	9.09	335.0	13.19
338 EC	190	7.4803	400	15.7480	78	3.0709	1 140 000	256 200	1 500 000	337 100	1 500	2 000	50.0	110.3	245.0	9.65	353.0	13.90
340 EC	200	7.8740	420	16.5354	80	3.1496	1 230 000	276 400	1 630 000	366 300	1 400	2 800	56.3	124.1	258.0	10.16	370.0	14.57
344	220	8.6614	460	18.1102	88	3.4646	1 210 000	271 900	1 630 000	366 300	1 500	1 700	73.5	162.1	284.0	11.18	396.0	15.59
348	240	9.4488	500	19.6850	95	3.7402	1 450 000	325 800	2 000 000	449 400	1 300	1 600	94.5	208.4	310.0	12.20	430.0	16.93
352 EC	260	10.2362	540	21.2598	102	4.0157	1 940 000	436 000	2 700 000	606 700	1 100	1 800	120.5	265.7	337.0	13.27	477.0	18.78
360 EC	300	11.8110	620	24.4094	109	4.2913	2 330 000	523 600	3 350 000	752 800	950	1 200	174.0	383.7	385.0	15.16	535.0	21.06

Consult SKF USA Inc. prior to design change or order placement.



Single row
Standard
Series: 406 – 424
Size: 30 mm – 120 mm
1.1811 in – 4.7244 in

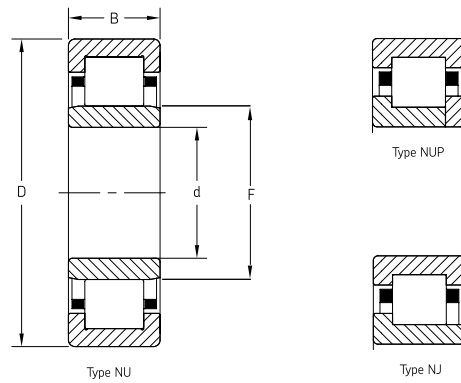
Series: 1292 – 12/630 EC
Size: 460 mm – 630 mm
18.1102 in – 24.8031 in

Series: 1876 EC – 18/1000
Size: 380 mm – 1000 mm
14.9606 in – 39.3701 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limit- ing speed	kg	lb	Under roller		Over roller	
	d	D	H	C	C ₀	F	E											
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	mm	in	mm	in			
406	30	1.1811	90	3.5433	23	0.9055	60 500	13 600	53 000	11 910	9 000	11 000	0.8	1.7	45.0	1.77	73.0	2.87
407	35	1.3780	100	3.9370	25	0.9843	76 500	17 190	69 500	15 620	8 000	9 500	1.0	2.2	53.0	2.09	83.0	3.27
408	40	1.5748	110	4.3307	27	1.0630	96 800	21 750	90 000	20 220	7 000	8 500	1.3	2.8	58.0	2.28	92.0	3.62
409	45	1.7717	120	4.7244	29	1.1417	106 000	23 820	102 000	22 920	6 700	7 500	1.6	3.6	64.5	2.54	100.5	3.96
410	50	1.9685	130	5.1181	31	1.2205	130 000	29 210	127 000	28 540	6 000	7 000	2.0	4.5	70.8	2.79	110.8	4.36
411	55	2.1654	140	5.5118	33	1.2992	142 000	31 910	140 000	31 460	5 600	6 300	2.5	5.5	77.2	3.04	117.2	4.61
412	60	2.3622	150	5.9055	35	1.3780	168 000	37 750	173 000	38 880	5 000	6 000	3.0	6.7	83.0	3.27	127.0	5.00
413	65	2.5591	160	6.2992	37	1.4567	183 000	41 120	190 000	42 700	4 800	5 600	3.6	7.9	89.3	3.52	135.3	5.33
414	70	2.7559	180	7.0866	42	1.6535	229 000	51 500	240 000	53 900	4 300	5 000	5.2	11.6	100.0	3.94	152.0	5.98
415	75	2.9528	190	7.4803	45	1.7717	264 000	59 300	280 000	62 900	4 000	4 800	6.2	13.7	104.5	4.11	160.5	6.32
416	80	3.1496	200	7.8740	48	1.8898	303 000	68 100	320 000	71 900	3 800	4 500	7.2	16.0	110.0	4.33	170.0	6.69
417	85	3.3465	210	8.2677	52	2.0472	319 000	71 700	335 000	75 300	3 600	4 300	8.9	19.6	113.0	4.45	177.0	6.97
418	90	3.5433	225	8.8583	54	2.1260	380 000	85 400	415 000	93 300	3 400	4 000	10.2	22.5	123.5	4.86	191.5	7.54
419	95	3.7402	240	9.4488	55	2.1654	413 000	92 800	455 000	102 200	3 200	3 600	13.4	29.6	133.5	5.26	201.5	7.93
420	100	3.9370	250	9.8425	58	2.2835	457 000	102 700	520 000	116 900	3 000	3 600	15.7	34.6	139.0	5.47	211.0	8.31
421	105	4.1339	260	10.2362	60	2.3622	501 000	112 600	570 000	128 100	2 800	3 400	17.3	38.1	144.5	5.69	220.5	8.68
422	110	4.3307	280	11.0236	65	2.5591	550 000	123 600	630 000	141 600	2 600	3 200	22.7	50.0	155.0	6.10	235.0	9.25
424	120	4.7244	310	12.2047	72	2.8346	644 000	144 700	735 000	165 200	2 400	2 800	27.3	60.2	170.0	6.69	260.0	10.24
1292	460	18.1102	830	32.6772	165	6.4961	4 180 000	939 300	6 800 000	1 528 100	750	1 100	415.0	915.1	554.0	21.81	744.0	29.29
12/500	500	19.6850	920	36.2205	185	7.2835	5 280 000	1 186 500	8 500 000	1 910 100	670	950	575.0	1267.9	603.1	23.74	823.1	32.41
12/560	560	22.0472	1 030	40.5512	206	8.1102	7 210 000	1 620 200	11 200 000	2 516 900	560	800	805.0	1775.0	668.0	26.30	948.0	37.32
12/630 EC	630	24.8031	1 150	45.2756	230	9.0551	8 580 000	1 928 100	13 700 000	3 078 700	450	700	1109.0	2445.3	751.0	29.57	1051.0	41.38
1876 EC	380	14.9606	480	18.8976	46	1.8110	561 000	126 100	1 120 000	251 700	1 300	2 000	20.0	44.1	406.0	15.98	458.0	18.03
1880	400	15.7480	500	19.6850	46	1.8110	572 000	128 500	1 180 000	265 200	1 300	1 900	21.5	47.4	423.0	16.65	475.0	18.70
1884	420	16.5354	520	20.4724	46	1.8110	572 000	128 500	1 200 000	269 700	1 200	1 800	22.0	48.5	447.0	17.60	499.0	19.65
18/600 EC	600	23.6220	730	28.7402	60	2.3622	897 000	201 600	2 080 000	467 400	800	1 000	54.0	119.1	632.0	24.88	696.0	27.40
18/630 EC	630	24.8031	780	30.7087	69	2.7165	1 100 000	247 200	2 500 000	561 800	750	950	75.0	165.4	667.0	26.26	739.0	29.09
18/800 EC	800	31.4961	980	38.5827	82	3.2283	1 720 000	386 500	4 150 000	932 600	530	700	137.0	302.1	846.0	33.31	936.0	36.85
18/900 EC	900	35.4331	1 090	42.9134	85	3.3465	1 980 000	444 900	4 900 000	1 101 100	450	600	169.0	372.6	948.0	37.32	1044.0	41.10
18/1000	1 000	39.3701	1 220	48.0315	100	3.9370	2 640 000	593 300	6 550 000	1 471 900	400	530	265.0	584.3	1053.0	41.46	1165.0	45.87

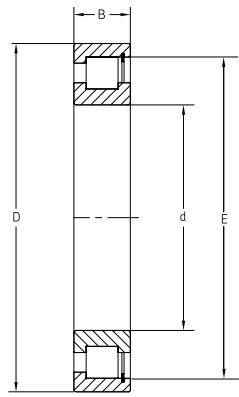
Consult SKF USA Inc. prior to design change or order placement.

Full complement
 Single row
 Standard
 Series: 1964 EC – 3992 EC
 Size: 320 mm – 460 mm
 12.5984 in – 18.1102 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limit- ing speed	kg	lb	Under roller		Over roller	
	d		D		H			C		C ₀					F		E	
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in	
1964 EC	320	12.5984	440	17.3228	56	2.2047	693 000	155 700	1 200 000	269 700	1 500	2 000	26.0	57.3	348.0	13.70	412.0	16.22
1968 EC	340	13.3858	460	18.1102	56	2.2047	682 000	153 300	1 200 000	269 700	1 400	1 900	27.5	60.6	370.0	14.57	434.0	17.09
1972 EC	360	14.1732	480	18.8976	56	2.2047	781 000	175 500	1 460 000	328 100	1 400	2 000	29.0	63.9	387.5	15.26	451.5	17.78
1988	440	17.3228	600	23.6220	74	2.9134	1 060 000	238 200	2 000 000	449 400	1 100	1 400	53.0	116.9	482.0	18.98	562.0	22.13
1996	480	18.8976	650	25.5906	78	3.0709	1 170 000	262 900	2 240 000	503 400	950	1 300	76.0	167.6	525.0	20.67	609.0	23.98
2060 EC	300	11.8110	460	18.1102	95	3.7402	1 510 000	339 300	2 600 000	584 300	1 300	2 000	62.0	136.7	341.0	13.43	425.0	16.73
2088 EC	440	17.3228	650	25.5906	122	4.8031	2 550 000	573 000	4 900 000	1 101 100	8 500	1 300	145.0	319.7	487.0	19.17	599.0	23.58
2096 EC	480	18.8976	700	27.5591	128	5.0394	2 860 000	642 700	5 600 000	1 258 400	750	1 200	179.0	394.7	533.0	20.98	653.0	25.71
20/500 EC	500	19.6850	720	28.3465	128	5.0394	2 920 000	656 200	5 850 000	1 314 600	750	1 100	180.0	396.9	553.0	21.77	673.0	26.50
20/530 EC	530	20.8661	780	30.7087	145	5.7087	3 740 000	840 400	7 350 000	1 651 700	670	1 000	253.0	557.9	591.0	23.27	727.0	28.62
20/560 EC	560	22.0472	820	32.2835	150	5.9055	3 800 000	853 900	7 650 000	1 719 100	630	1 000	290.0	639.5	626.0	24.65	762.0	30.00
20/600 EC	600	23.6220	870	34.2520	155	6.1024	4 180 000	939 300	8 000 000	1 797 800	600	900	325.0	716.6	661.0	26.02	821.0	32.32
20/630 EC	630	24.8031	920	36.2205	170	6.6929	4 730 000	1 062 900	9 500 000	2 134 800	560	850	400.0	882.0	699.0	27.52	859.0	33.82
20/670 EC	670	26.3780	980	38.5827	180	7.0866	5 390 000	1 211 200	11 000 000	2 471 900	500	800	480.0	1058.4	746.0	29.37	916.0	36.06
20/710 EC	710	27.9528	1 030	40.5512	185	7.2835	5 940 000	1 334 800	12 000 000	2 696 600	480	700	540.0	1190.7	787.0	30.98	967.0	38.07
20/750 EC	750	29.5276	1 090	42.9134	195	7.6772	7 040 000	1 582 000	14 600 000	3 280 900	430	670	635.0	1400.2	832.0	32.76	1022.0	40.24
20/800 EC	800	31.4961	1 150	45.2756	200	7.8740	7 040 000	1 582 000	14 600 000	3 280 900	400	630	715.0	1576.6	882.0	34.72	1082.0	42.60
20/850 EC	850	33.4646	1 220	48.0315	212	8.3465	8 420 000	1 892 100	18 600 000	4 179 800	360	560	880.0	1940.4	942.0	37.09	1142.0	44.96
3068	340	13.3858	520	20.4724	133	5.2362	2 200 000	494 400	4 150 000	932 600	1 100	1 700	109.0	240.3	385.0	15.16	481.0	18.94
3076 EC	380	14.9606	560	22.0472	135	5.3150	2 380 000	534 800	4 750 000	1 067 400	1 000	1 800	108.5	239.2	425.0	16.73	521.0	20.51
30/500 EC	500	19.6850	720	28.3465	167	6.5748	3 800 000	853 900	7 350 000	1 651 700	750	1 100	233.0	513.8	540.8	21.29	676.8	26.65
3168 EC	340	13.3858	580	22.8346	190	7.4803	3 470 000	779 800	5 850 000	1 314 600	950	1 600	217.0	478.5	390.5	15.37	526.5	20.73
3172 EC	360	14.1732	600	23.6220	192	7.5591	3 410 000	766 300	6 100 000	1 370 800	900	1 500	226.0	498.3	420.0	16.54	548.0	21.57
3184 EC	420	16.5354	700	27.5591	224	8.8189	4 950 000	1 112 400	9 000 000	2 022 500	750	1 300	365.0	804.8	485.0	19.09	645.0	25.39
3188 EC	440	17.3228	720	28.3465	226	8.8976	5 120 000	1 150 600	10 000 000	2 247 200	700	1 200	388.0	855.5	509.0	20.04	669.0	26.34
3192 EC	460	18.1102	760	29.9213	240	9.4488	5 280 000	1 186 500	9 650 000	2 168 500	670	1 100	450.0	992.3	529.3	20.84	695.3	27.37
3196 EC	480	18.8976	790	31.1024	248	9.7638	5 940 000	1 334 800	10 800 000	2 427 000	630	1 100	507.0	1117.9	547.0	21.54	727.0	28.62
3984 EC	420	16.5354	560	22.0472	106	4.1732	1 680 000	377 500	3 650 000	820 200	950	1 500	79.7	175.7	455.0	17.91	531.0	20.91
3992 EC	460	18.1102	620	24.4094	118	4.6457	2 050 000	460 700	4 550 000	1 022 500	850	1 300	111.5	245.9	501.0	19.72	585.0	23.03

Consult SKF USA Inc. prior to design change or order placement.



Type NCF

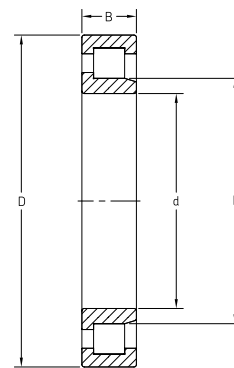
Full complement
Single row
Series: NCF 1840 V – NCF 18/1120 V
Size: 200 mm – 1120 mm
7.8740 in – 44.0945 in

Series: NCF 2224 V – NCF 2244 V
Size: 120 mm – 220 mm
4.7244 in – 8.6614 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limit- ing speed	kg	lb	Under roller		Over roller	
	d	D	D	H	C	C ₀	F	E										
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in	
NCF 1840 V	200	7.8740	250	9.8425	24	0.9449	176 000	39 550	335 000	75 300	1100	1400	2.6	5.7	237.5	9.35	211.5	8.33
NCF 1844 V	220	8.6614	270	10.6299	24	0.9449	183 000	41 120	365 000	82 000	1000	1200	2.9	6.3	258.0	10.16	232.0	9.13
NCF 1848 V	240	9.4488	300	11.8110	28	1.1024	260 000	58 400	510 000	114 600	900	1100	4.4	9.7	287.0	11.30	255.0	10.04
NCF 1852 V	260	10.2362	320	12.5984	28	1.1024	270 000	60 700	550 000	123 600	800	1000	4.6	10.0	307.2	12.09	275.2	10.83
NCF 1856 V	280	11.0236	350	13.7795	33	1.2992	341 000	76 600	695 000	156 200	750	950	7.1	15.7	334.0	13.15	298.0	11.73
NCF 1860 V	300	11.8110	380	14.9606	38	1.4961	418 000	93 900	850 000	191 000	670	850	10.0	22.1	363.0	14.29	321.0	12.64
NCF 1864 V	320	12.5984	400	15.7480	38	1.4961	440 000	98 900	900 000	202 200	630	800	10.5	23.2	383.0	15.08	341.0	13.43
NCF 1868 V	340	13.3858	420	16.5354	38	1.4961	446 000	100 200	950 000	213 500	600	750	11.0	24.3	403.0	15.87	361.0	14.21
NCF 1872 V	360	14.1732	440	17.3228	38	1.4961	402 000	90 300	900 000	202 200	560	700	11.5	25.4	418.9	16.49	380.9	15.00
NCF 1876 V	380	14.9606	480	18.8976	46	1.8110	627 000	140 900	1 290 000	289 900	530	670	19.5	43.0	458.0	18.03	406.0	15.98
NCF 1880 V	400	15.7480	500	19.6850	46	1.8110	627 000	140 900	1 340 000	301 100	500	630	20.5	45.2	475.0	18.70	423.0	16.65
NCF 1884 V	420	16.5354	520	20.4724	46	1.8110	660 000	148 300	1 430 000	321 300	480	600	20.7	45.6	499.0	19.65	447.0	17.60
NCF 1888 V	440	17.3228	540	21.2598	46	1.8110	671 000	150 800	1 460 000	328 100	450	560	22.0	48.5	516.0	20.31	464.0	18.27
NCF 1896 V	480	18.8976	600	23.6220	56	2.2047	935 000	210 100	2 040 000	458 400	400	500	35.5	78.3	573.5	22.58	509.5	20.06
NCF 18/500 V	500	19.6850	620	24.4094	56	2.2047	952 000	213 900	2 120 000	476 400	380	480	35.4	78.1	594.0	23.39	530.0	20.87
NCF 18/530 V	530	20.8661	650	25.5906	56	2.2047	990 000	222 500	2 240 000	503 400	360	450	38.5	84.9	624.5	24.59	560.5	22.07
NCF 18/600 V	600	23.6220	730	28.7402	60	2.3622	1 050 000	236 000	2 550 000	573 000	320	400	51.5	113.6	696.0	27.40	632.0	24.88
NCF 18/630 V	630	24.8031	780	30.7087	69	2.7165	1 250 000	280 900	2 900 000	651 700	300	360	72.5	159.9	739.0	29.09	667.0	26.26
NCF 18/670 V	670	26.3780	820	32.2835	69	2.7165	1 300 000	292 100	3 150 000	707 900	280	340	74.0	163.2	783.0	30.83	711.0	27.99
NCF 18/710 V	710	27.9528	870	34.2520	74	2.9134	1 540 000	346 100	3 750 000	842 700	260	320	92.5	204.0	831.0	32.72	751.0	29.57
NCF 18/750 V	750	29.5276	920	36.2205	78	3.0709	1 760 000	395 500	4 300 000	966 300	240	300	105.0	231.5	880.0	34.65	794.0	31.26
NCF 18/800 V	800	31.4961	980	38.5827	82	3.2283	1 940 000	436 000	4 800 000	1 078 700	220	280	126.0	277.8	936.0	36.85	846.0	33.31
NCF 18/850 V	850	33.4646	1 030	40.5512	82	3.2283	2 050 000	460 700	5 200 000	1 168 500	200	260	131.0	288.9	986.0	38.82	894.0	35.20
NCF 18/950 V	950	37.4016	1 150	45.2756	90	3.5433	2 420 000	543 800	6 300 000	1 415 700	170	220	185.0	407.9	1103.0	43.43	1003.0	39.49
NCF 18/1000 V	1 000	39.3701	1 220	48.0315	100	3.9370	2 920 000	656 200	7 500 000	1 685 400	160	200	230.0	507.2	1165.0	45.87	1053.0	41.46
NCF 18/1120 V	1 120	44.0945	1 360	53.5433	106	4.1732	3 740 000	840 400	9 650 000	2 168 500	130	170	298.0	657.1	1310.0	51.57	1182.0	46.54
NCF 2224 V	120	4.7244	215	8.4646	58	2.2835	512 000	115 100	735 000	165 200	1400	1700	9.1	20.0	192.3	7.57	140.3	5.52
NCF 2228 V	140	5.5118	250	9.8425	68	2.6772	693 000	155 700	1 020 000	229 200	1200	1500	14.4	31.8	221.9	8.74	161.9	6.37
NCF 2230 V	150	5.9055	270	10.6299	73	2.8740	781 000	175 500	1 220 000	274 200	950	1200	18.4	40.6	236.7	9.32	172.7	6.80
NCF 2232 V	160	6.2992	290	11.4173	80	3.1496	990 000	222 500	1 500 000	337 100	950	1200	23.0	50.7	266.4	10.49	194.4	7.65
NCF 2234 V	170	6.6929	310	12.2047	86	3.3858	1 100 000	247 200	1 700 000	382 000	900	1100	28.7	63.3	281.1	11.07	205.1	8.07
NCF 2238 V	190	7.4803	340	13.3858	92	3.6220	1 250 000	280 900	1 900 000	427 000	800	1000	35.7	78.7	310.7	12.23	226.7	8.92
NCF 2244 V	220	8.6614	400	15.7480	108	4.2520	1 830 000	411 200	2 750 000	618 000	700	850	58.0	127.9	366.0	14.41	258.0	10.16

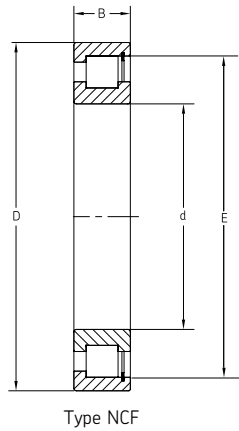
Consult SKF USA Inc. prior to design change or order placement.

Full complement
 Single row
 Series: NJG 2305 VH – NJG 2352 VH
 Size: 25 mm – 260 mm
 0.9843 in – 10.2362 in



Type NJG

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limit- ing speed	kg	lb	Under roller		Over roller	
	d	D	D	H	C	C ₀	F	E										
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in
NJG 2305 VH	25	0.9843	62	2.4409	24	0.9449	68 200	15 330	68 000	15 280	4 500	5 600	0.4	0.8	53.7	2.12	31.7	1.25
NJG 2306 VH	30	1.1811	72	2.8346	27	1.0630	84 200	18 920	86 500	19 440	4 000	4 800	0.6	1.2	62.4	2.46	38.4	1.51
NJG 2307 VH	35	1.3780	80	3.1496	31	1.2205	108 000	24 270	114 000	25 620	3 400	4 300	0.8	1.7	72.8	2.86	44.8	1.76
NJG 2308 VH	40	1.5748	90	3.5433	33	1.2992	145 000	32 580	156 000	35 060	3 000	3 600	1.0	2.2	83.2	3.27	51.2	2.01
NJG 2309 VH	45	1.7717	100	3.9370	36	1.4173	172 000	38 650	196 000	44 040	2 800	3 400	1.4	3.1	88.1	3.47	56.1	2.21
NJG 2311 VH	55	2.1654	120	4.7244	43	1.6929	233 000	52 400	260 000	58 400	2 200	2 800	2.3	5.1	109.1	4.30	67.1	2.64
NJG 2313 VH	65	2.5591	140	5.5118	48	1.8898	303 000	68 100	360 000	80 900	1 900	2 400	3.6	7.8	126.7	4.99	80.7	3.18
NJG 2314 VH	70	2.7559	150	5.9055	51	2.0079	336 000	75 500	400 000	89 900	1 800	2 200	4.4	9.7	132.2	5.20	84.2	3.31
NJG 2315 VH	75	2.9528	160	6.2992	55	2.1654	396 000	89 000	480 000	107 900	1 600	2 000	5.4	11.8	143.2	5.64	91.2	3.59
NJG 2316 VH	80	3.1496	170	6.6929	58	2.2835	457 000	102 700	570 000	128 100	1 500	1 900	6.4	14.1	154.3	6.07	98.3	3.87
NJG 2317 VH	85	3.3465	180	7.0866	60	2.3622	484 000	108 800	620 000	139 300	1 400	1 800	7.4	16.3	163.0	6.42	107.0	4.21
NJG 2318 VH	90	3.5433	190	7.4803	64	2.5197	550 000	123 600	680 000	152 800	1 400	1 700	8.8	19.3	170.8	6.72	108.8	4.28
NJG 2320 VH	100	3.9370	215	8.4646	73	2.8740	704 000	158 200	900 000	202 200	1 200	1 500	13.0	28.7	192.8	7.59	122.8	4.83
NJG 2322 VH	110	4.3307	240	9.4488	80	3.1496	858 000	192 800	1 060 000	238 200	1 100	1 300	17.5	38.6	218.3	8.59	134.3	5.29
NJG 2324 VH	120	4.7244	260	10.2362	86	3.3858	952 000	213 900	1 250 000	280 900	1 000	1 200	22.7	50.1	231.4	9.11	147.4	5.80
NJG 2326 VH	130	5.1181	280	11.0236	93	3.6614	1 080 000	242 700	1 430 000	321 300	950	1 200	28.0	61.7	247.9	9.76	157.9	6.22
NJG 2328 VH	140	5.5118	300	11.8110	102	4.0157	1 230 000	276 400	1 660 000	373 000	850	1 100	35.5	78.3	264.5	10.41	168.5	6.63
NJG 2330 VH	150	5.9055	320	12.5984	108	4.2520	1 450 000	325 800	1 930 000	433 700	800	1 000	42.5	93.7	286.5	11.28	182.5	7.19
NJG 2334 VH	170	6.6929	360	14.1732	120	4.7244	1 760 000	395 500	2 450 000	550 600	700	900	59.5	131.2	319.6	12.58	203.6	8.01
NJG 2336 VH	180	7.0866	380	14.9606	126	4.9606	1 870 000	420 200	2 650 000	595 500	670	800	69.5	153.2	337.7	13.30	221.7	8.73
NJG 2338 VH	190	7.4803	400	15.7480	132	5.1969	2 160 000	485 400	3 000 000	674 200	630	800	80.0	176.4	352.5	13.88	224.5	8.84
NJG 2340 VH	200	7.8740	420	16.5354	138	5.4331	2 290 000	514 600	3 200 000	719 100	600	750	92.0	202.9	374.7	14.75	238.7	9.40
NJG 2344 VH	220	8.6614	460	18.1102	145	5.7087	2 700 000	606 700	3 750 000	842 700	530	670	111.0	244.8	418.7	16.48	266.7	10.50
NJG 2348 VH	240	9.4488	500	19.6850	155	6.1024	3 140 000	705 600	4 400 000	988 800	480	600	147.0	324.1	451.8	17.79	287.8	11.33
NJG 2352 VH	260	10.2362	540	21.2598	165	6.4961	3 580 000	804 500	5 000 000	1 123 600	430	530	177.0	390.3	495.9	19.52	315.9	12.44



Type NCF

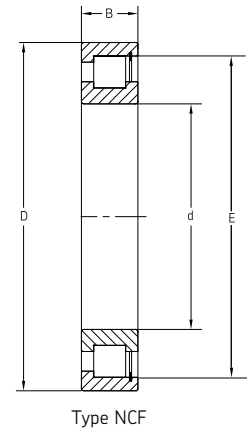
Full complement
Single row
Series: NCF 2888 V – NCF 28/1000 V
Size: 440 mm – 1000 mm
17.3228 in – 39.3701 in

Series: NCF 2912 CV – NCF 2934 CV
Size: 60 mm – 170 mm
2.3622 in – 6.6929 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer- ence speed	Limit- ing speed	Under roller		Over roller			
	d	D	H	C	C ₀	F	E											
mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb	mm	in	mm	in	
NCF 2888 V	440	17.3228	540	21.2598	60	2.3622	1 060 000	238 200	2 700 000	606 700	450	560	30.0	66.2	516.0	20.31	464.0	18.27
NCF 2892 V	460	18.1102	580	22.8346	72	2.8346	1 300 000	292 100	3 050 000	685 400	430	530	44.0	97.0	553.0	21.77	489.0	19.25
NCF 2896 V	480	18.8976	600	23.6220	72	2.8346	1 320 000	296 600	3 150 000	707 900	400	500	46.0	101.4	573.5	22.58	509.5	20.06
NCF 28/500 V	500	19.6850	620	24.4094	72	2.8346	1 340 000	301 100	3 350 000	752 800	380	480	47.0	103.6	594.0	23.39	530.0	20.87
NCF 28/530 V	530	20.8661	650	25.5906	72	2.8346	1 400 000	314 600	3 450 000	775 300	360	450	49.3	108.7	624.5	24.59	560.5	22.07
NCF 28/560 V	560	22.0472	680	26.7717	72	2.8346	1 420 000	319 100	3 650 000	820 200	340	430	54.0	119.1	655.0	25.79	591.0	23.27
NCF 28/600 V	600	23.6220	730	28.7402	78	3.0709	1 570 000	352 800	4 300 000	966 300	320	400	67.5	148.8	696.0	27.40	632.0	24.88
NCF 28/630 V	630	24.8031	780	30.7087	88	3.4646	1 940 000	436 000	5 000 000	1 123 600	300	360	92.2	203.3	741.4	29.19	665.4	26.20
NCF 28/670 V	670	26.3780	820	32.2835	88	3.4646	1 940 000	436 000	5 300 000	1 191 000	280	340	98.0	216.1	783.0	30.83	711.0	27.99
NCF 28/710 V	710	27.9528	870	34.2520	95	3.7402	2 330 000	523 600	6 300 000	1 415 700	260	320	115.0	253.6	831.0	32.72	751.0	29.57
NCF 28/750 V	750	29.5276	920	36.2205	100	3.9370	2 640 000	593 300	6 950 000	1 561 800	240	300	139.0	306.5	878.0	34.57	788.0	31.02
NCF 28/800 V	800	31.4961	980	38.5827	106	4.1732	2 750 000	618 000	7 500 000	1 685 400	220	280	169.0	372.6	936.0	36.85	846.0	33.31
NCF 28/850 V	850	33.4646	1 030	40.5512	106	4.1732	2 860 000	642 700	8 000 000	1 797 800	200	260	175.0	385.9	986.0	38.82	894.0	35.20
NCF 28/900 V	900	35.4331	1 090	42.9134	112	4.4094	3 190 000	716 900	9 150 000	2 056 200	190	240	210.0	463.1	1 044.0	41.10	948.0	37.32
NCF 28/950 V	950	37.4016	1 150	45.2756	118	4.6457	3 410 000	766 300	9 800 000	2 202 200	170	220	240.0	529.2	1 103.0	43.43	1 003.0	39.49
NCF 28/1000 V	1 000	39.3701	1 220	48.0315	128	5.0394	4 130 000	928 100	11 600 000	2 606 700	160	200	309.0	681.3	1 165.0	45.87	1 053.0	41.46
NCF 2912 CV	60	2.3622	85	3.3465	16	0.6299	55 000	12 360	80 000	17 980	3 600	4 500	0.3	0.6	78.7	3.10	64.7	2.55
NCF 2913 CV	65	2.5591	90	3.5433	16	0.6299	58 300	13 100	88 000	19 780	3 200	4 000	0.3	0.7	85.2	3.36	71.2	2.80
NCF 2914 CV	70	2.7559	100	3.9370	19	0.7480	76 500	17 190	116 000	26 070	3 000	3 800	0.5	1.1	92.5	3.64	76.5	3.01
NCF 2915 CV	75	2.9528	105	4.1339	19	0.7480	79 200	17 800	125 000	28 090	2 800	3 600	0.5	1.1	97.5	3.84	81.5	3.21
NCF 2916 CV	80	3.1496	110	4.3307	19	0.7480	80 900	18 180	132 000	29 660	2 600	3 400	0.6	1.2	102.7	4.04	86.7	3.41
NCF 2917 CV	85	3.3465	120	4.7244	22	0.8661	102 000	22 920	166 000	37 300	6 300	6 300	0.8	1.8	109.5	4.31	91.5	3.60
NCF 2918 CV	90	3.5433	125	4.9213	22	0.8661	105 000	23 600	176 000	39 550	2 400	3 000	0.8	1.9	115.6	4.55	97.6	3.84
NCF 2920 CV	100	3.9370	140	5.5118	24	0.9449	128 000	28 760	200 000	44 940	2 000	2 600	1.1	2.4	130.6	5.14	108.6	4.28
NCF 2922 CV	110	4.3307	150	5.9055	24	0.9449	134 000	30 110	220 000	49 440	1 900	2 400	1.2	2.6	141.1	5.56	119.1	4.69
NCF 2924 CV	120	4.7244	165	6.4961	27	1.0630	172 000	38 650	290 000	65 200	4 300	4 300	1.7	3.8	154.3	6.07	130.3	5.13
NCF 2926 CV	130	5.1181	180	7.0866	30	1.1811	205 000	46 070	360 000	80 900	1 600	2 000	2.3	5.1	167.1	6.58	141.1	5.56
NCF 2928 CV	140	5.5118	190	7.4803	30	1.1811	220 000	49 440	390 000	87 600	1 500	1 900	2.4	5.3	180.0	7.09	152.0	5.98
NCF 2930 CV	150	5.9055	210	8.2677	36	1.4173	292 000	65 600	490 000	110 100	1 400	1 700	3.8	8.3	196.4	7.73	162.4	6.39
NCF 2932 CV	160	6.2992	220	8.6614	36	1.4173	303 000	68 100	530 000	119 100	1 300	1 600	4.0	8.8	207.2	8.16	173.2	6.82
NCF 2934 CV	170	6.6929	230	9.0551	36	1.4173	314 000	70 600	560 000	125 800	1 200	1 500	4.3	9.5	218.0	8.58	184.0	7.24

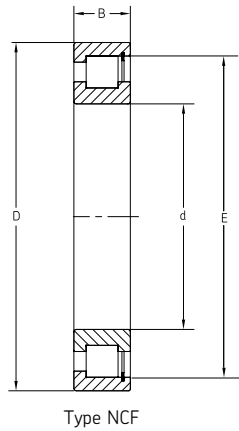
Consult SKF USA Inc. prior to design change or order placement.

Full complement
 Single row
 Series: NCF 2936 CV – NCF 29/1000 V
 Size: 180 mm – 1000 mm
 7.0866 in – 39.3701 in



Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer-	Limit-			Under roller		Over roller	
	d		D		H		C	C ₀	C	C ₀	ence	ing			F		E	
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb	mm	in	mm	in
NCF 2936 CV	180	7.0866	250	9.8425	42	1.6535	391 000	87 900	695 000	156 200	1 100	1 400	6.2	13.7	232.0	9.13	194.0	7.64
NCF 2938 CV	190	7.4803	260	10.2362	42	1.6535	440 000	98 900	780 000	175 300	1 100	1 400	6.5	14.3	244.0	9.61	204.0	8.03
NCF 2940 CV	200	7.8740	280	11.0236	48	1.8898	528 000	118 700	965 000	216 900	1 000	1 300	9.1	20.1	262.0	10.31	218.0	8.58
NCF 2944 CV	220	8.6614	300	11.8110	48	1.8898	550 000	123 600	1 060 000	238 200	900	1 200	9.9	21.8	283.0	11.14	239.0	9.41
NCF 2948 CV	240	9.4488	320	12.5984	48	1.8898	583 000	131 000	1 140 000	256 200	850	1 100	10.6	23.4	303.0	11.93	259.0	10.20
NCF 2952 CV	260	10.2362	360	14.1732	60	2.3622	737 000	165 600	1 430 000	321 300	750	950	18.2	40.2	333.7	13.14	281.7	11.09
NCF 2956 CV	280	11.0236	380	14.9606	60	2.3622	880 000	197 800	1 730 000	388 800	700	900	19.3	42.6	359.1	14.14	303.1	11.93
NCF 2960 CV	300	11.8110	420	16.5354	72	2.8346	1 120 000	251 700	2 200 000	494 400	630	800	31.2	68.8	390.5	15.37	326.5	12.85
NCF 2964 V	320	12.5984	440	17.3228	72	2.8346	1 140 000	256 200	2 360 000	530 300	600	750	33.0	72.8	411.0	16.18	347.0	13.66
NCF 2968 V	340	13.3858	460	18.1102	72	2.8346	1 190 000	267 400	2 500 000	561 800	560	700	35.0	77.2	431.0	16.97	367.0	14.45
NCF 2972 CV	360	14.1732	480	18.8976	72	2.8346	1 230 000	276 400	2 600 000	584 300	530	670	36.5	80.5	451.5	17.78	387.5	15.26
NCF 2976 V	380	14.9606	520	20.4724	82	3.2283	1 570 000	352 800	3 250 000	730 300	500	630	52.0	114.7	488.0	19.21	412.0	16.22
NCF 2980 CV	400	15.7480	540	21.2598	82	3.2283	1 650 000	370 800	3 450 000	775 300	480	600	54.5	120.2	511.0	20.12	435.0	17.13
NCF 2984 V	420	16.5354	560	22.0472	82	3.2283	1 650 000	370 800	3 600 000	809 000	450	560	57.0	125.7	524.0	20.63	448.0	17.64
NCF 2988 V	440	17.3228	600	23.6220	95	3.7402	2 010 000	451 700	4 400 000	988 800	430	530	80.0	176.4	565.5	22.26	481.5	18.96
NCF 2992 V	460	18.1102	620	24.4094	95	3.7402	2 050 000	460 700	4 500 000	1 011 200	400	500	83.0	183.0	579.0	22.80	495.0	19.49
NCF 2996 V	480	18.8976	650	25.5906	100	3.9370	2 290 000	514 600	4 900 000	1 101 100	380	480	93.0	205.1	615.0	24.21	519.0	20.43
NCF 29/500 V	500	19.6850	670	26.3780	100	3.9370	2 380 000	534 800	5 300 000	1 191 000	360	450	100.0	220.5	634.5	24.98	544.5	21.44
NCF 29/530 V	530	20.8661	710	27.9528	106	4.1732	2 700 000	606 700	6 000 000	1 348 300	340	430	120.0	264.6	673.0	26.50	573.0	22.56
NCF 29/560 V	560	22.0472	750	29.5276	112	4.4094	3 030 000	680 900	6 700 000	1 505 600	320	400	140.0	308.7	709.0	27.91	601.0	23.66
NCF 29/600 V	600	23.6220	800	31.4961	118	4.6457	3 360 000	755 100	7 500 000	1 685 400	300	380	170.0	374.9	754.0	29.69	642.0	25.28
NCF 29/630 V	630	24.8031	850	33.4646	128	5.0394	3 740 000	840 400	8 650 000	1 943 800	280	340	205.0	452.0	807.0	31.77	687.0	27.05
NCF 29/670 V	670	26.3780	900	35.4331	136	5.3543	3 910 000	878 700	9 000 000	2 022 500	260	320	245.0	540.2	846.0	33.31	726.0	28.58
NCF 29/710 V	710	27.9528	950	37.4016	140	5.5118	4 290 000	964 000	10 000 000	2 247 200	240	300	275.0	606.4	896.0	35.28	766.0	30.16
NCF 29/750 V	750	29.5276	1 000	39.3701	145	5.7087	4 460 000	1 002 200	10 600 000	2 382 000	220	280	313.0	690.2	938.0	36.93	808.0	31.81
NCF 29/800 V	800	31.4961	1 060	41.7323	150	5.9055	4 950 000	1 112 400	12 000 000	2 696 600	200	260	359.0	791.6	1 002.0	39.45	866.0	34.09
NCF 29/850 V	850	33.4646	1 120	44.0945	155	6.1024	5 230 000	1 175 300	12 700 000	2 853 900	190	240	406.0	895.2	1 061.0	41.77	917.0	36.10
NCF 29/900 V	900	35.4331	1 180	46.4567	165	6.4961	5 940 000	1 334 800	14 600 000	3 280 900	170	220	472.0	1 040.8	1 120.0	44.09	968.0	38.11
NCF 29/950 V	950	37.4016	1 250	49.2126	175	6.8898	6 600 000	1 483 100	16 300 000	3 662 900	160	200	565.0	1 245.8	1 179.0	46.42	1 019.0	40.12
NCF 29/1000 V	1 000	39.3701	1 320	51.9685	185	7.2835	7 480 000	1 680 900	18 600 000	4 179 800	150	180	680.0	1 499.4	1 252.0	49.29	1 082.0	42.60

Consult SKF USA Inc. prior to design change or order placement.

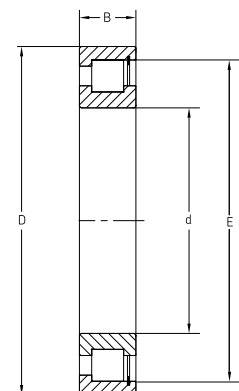


Full complement
Single row
Series: NCF 3004 CV – NCF 3034 CV
Size: 20 mm – 170 mm
0.7874 in – 6.6929 in

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore		Outside diameter		Height		Dynamic		Static		Refer-	Limit-			Under roller		Over roller	
	d		D		H		C	C ₀			ence	ing			F		E	
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min	kg	lb	mm	in	mm	in
NCF 3004 CV	20	0.7874	42	1.6535	16	0.6299	28 100	6 310	28 500	6 400	8 500	10 000	0.1	0.2	36.8	1.45	24.8	0.98
NCF 3005 CV	25	0.9843	47	1.8504	16	0.6299	31 900	7 170	35 500	7 980	7 000	9 000	0.1	0.3	42.5	1.67	30.5	1.20
NCF 3006 CV	30	1.1811	55	2.1654	19	0.7480	39 600	8 900	44 000	9 890	13 000	15 000	0.2	0.4	49.6	1.95	35.6	1.40
NCF 3007 CV	35	1.3780	62	2.4409	20	0.7874	48 400	10 880	56 000	12 580	5 300	6 700	0.3	0.6	55.5	2.19	40.5	1.60
NCF 3008 CV	40	1.5748	68	2.6772	21	0.8268	57 200	12 850	69 500	15 620	4 800	6 000	0.3	0.7	61.7	2.43	45.7	1.80
NCF 3009 CV	45	1.7717	75	2.9528	23	0.9055	60 500	13 600	78 000	17 530	4 300	5 300	0.4	0.9	66.9	2.63	50.9	2.00
NCF 3010 CV	50	1.9685	80	3.1496	23	0.9055	76 500	17 190	98 000	22 020	4 000	5 000	0.4	0.9	72.3	2.85	54.3	2.14
NCF 3011 CV	55	2.1654	90	3.5433	26	1.0236	105 000	23 600	140 000	31 460	3 400	4 300	0.6	1.4	83.5	3.29	63.5	2.50
NCF 3012 CV	60	2.3622	95	3.7402	26	1.0236	106 000	23 820	146 000	32 810	3 400	4 000	0.7	1.5	86.7	3.41	66.7	2.63
NCF 3013 CV	65	2.5591	100	3.9370	26	1.0236	112 000	25 170	163 000	36 630	3 000	3 800	0.7	1.6	93.1	3.66	73.1	2.88
NCF 3014 CV	70	2.7559	110	4.3307	30	1.1811	128 000	28 760	173 000	38 880	6 000	7 000	1.0	2.2	100.3	3.95	76.3	3.00
NCF 3015 CV	75	2.9528	115	4.5276	30	1.1811	134 000	30 110	190 000	42 700	2 600	3 200	1.1	2.3	107.9	4.25	83.9	3.30
NCF 3016 CV	80	3.1496	125	4.9213	34	1.3386	165 000	37 080	228 000	51 200	2 400	3 000	1.4	3.2	117.0	4.61	89.0	3.50
NCF 3017 CV	85	3.3465	130	5.1181	34	1.3386	172 000	38 650	236 000	53 000	2 400	3 000	1.5	3.3	121.4	4.78	93.4	3.68
NCF 3018 CV	90	3.5433	140	5.5118	37	1.4567	198 000	44 490	280 000	62 900	2 200	2 800	2.0	4.3	130.1	5.12	100.1	3.94
NCF 3020 CV	100	3.9370	150	5.9055	37	1.4567	209 000	46 970	310 000	69 700	2 000	2 600	2.2	4.7	139.7	5.50	109.7	4.32
NCF 3022 CV	110	4.3307	170	6.6929	45	1.7717	275 000	61 800	400 000	89 900	3 800	4 500	3.5	7.7	156.1	6.15	120.1	4.73
NCF 3024 CV	120	4.7244	180	7.0866	46	1.8110	292 000	65 600	440 000	98 900	1 700	2 000	3.8	8.4	167.6	6.60	131.6	5.18
NCF 3026 CV	130	5.1181	200	7.8740	52	2.0472	413 000	92 800	620 000	139 300	1 500	1 900	5.8	12.8	183.8	7.24	139.8	5.50
NCF 3028 CV	140	5.5118	210	8.2677	53	2.0866	440 000	98 900	680 000	152 800	1 400	1 800	6.1	13.5	197.8	7.79	153.8	6.06
NCF 3030 CV	150	5.9055	225	8.8583	56	2.2047	457 000	102 700	710 000	159 600	1 300	1 700	7.5	16.5	206.8	8.14	160.8	6.33
NCF 3032 CV	160	6.2992	240	9.4488	60	2.3622	512 000	115 100	800 000	179 800	1 200	1 500	9.1	20.1	224.9	8.85	174.9	6.88
NCF 3034 CV	170	6.6929	260	10.2362	67	2.6378	671 000	150 800	1 060 000	238 200	1 100	1 400	12.5	27.6	242.9	9.56	186.9	7.36

Consult SKF USA Inc. prior to design change or order placement.

Full complement
 Single row
 Series: NCF 3036 CV – NCF 30/530 V
 Size: 180 mm – 560 mm
 7.0866 in – 22.0472 in



Type NCF

Designation	Principal dimensions						Basic load ratings				Speed rating		Mass		Diameter			
	Bore d		Outside diameter D		Height H		Dynamic C		Static C ₀		Refer-ence speed	Limit-ing speed	kg	lb	Under roller F		Over roller E	
	mm	in	mm	in	mm	in	N	lbf	N	lbf	r/min	r/min			mm	in	mm	in
NCF 3036 CV	180	7.0866	280	11.0236	74	2.9134	781 000	175 500	1 250 000	280 900	1 100	1 300	16.5	36.4	260.2	10.24	200.2	7.88
NCF 3038 CV	190	7.4803	290	11.4173	75	2.9528	792 000	178 000	1 290 000	289 900	1 000	1 300	17.0	37.5	269.8	10.62	209.8	8.26
NCF 3040 CV	200	7.8740	310	12.2047	82	3.2283	913 000	205 200	1 530 000	343 800	950	1 200	22.5	49.6	287.8	11.33	223.8	8.81
NCF 3044 CV	220	8.6614	340	13.3858	90	3.5433	1 080 000	242 700	1 800 000	404 500	850	1 100	29.5	65.0	312.2	12.29	240.2	9.46
NCF 3048 CV	240	9.4488	360	14.1732	92	3.6220	1 140 000	256 200	1 960 000	440 400	800	1 000	32.0	70.6	335.1	13.19	263.1	10.36
NCF 3052 CV	260	10.2362	400	15.7480	104	4.0945	1 540 000	346 100	2 550 000	573 000	700	900	46.5	102.5	376.0	14.80	286.0	11.26
NCF 3060 CV	300	11.8110	460	18.1102	118	4.6457	1 900 000	427 000	3 250 000	730 300	600	750	65.5	144.4	433.0	17.05	333.0	13.11
NCF 3064 CV	320	12.5984	480	18.8976	121	4.7638	1 980 000	444 900	3 450 000	775 300	560	700	71.0	156.6	449.5	17.70	349.5	13.76
NCF 3068 CV	340	13.3858	520	20.4724	133	5.2362	2 380 000	534 800	4 150 000	932 600	530	670	95.0	209.5	485.7	19.12	373.7	14.71
NCF 3072 CV	360	14.1732	540	21.2598	134	5.2756	2 420 000	543 800	4 300 000	966 300	500	630	105.0	231.5	503.5	19.82	391.5	15.41
NCF 3076 V	380	14.9606	560	22.0472	135	5.3150	2 700 000	606 700	5 100 000	1 146 100	480	600	110.0	242.6	520.5	20.49	412.5	16.24
NCF 3080 CV	400	15.7480	600	23.6220	148	5.8268	2 970 000	667 400	5 500 000	1 236 000	450	560	145.0	319.7	558.0	21.97	438.0	17.24
NCF 3084 CV	420	16.5354	620	24.4094	150	5.9055	3 030 000	680 900	5 700 000	1 280 900	430	530	150.0	330.8	577.6	22.74	457.6	18.02
NCF 3092 CV	460	18.1102	680	26.7717	163	6.4173	3 690 000	829 200	6 950 000	1 561 800	380	480	195.0	430.0	633.0	24.92	497.0	19.57
NCF 3096 CV	500	19.6850	720	28.3465	167	6.5748	3 800 000	853 900	7 500 000	1 685 400	360	450	215.0	474.1	676.0	26.61	540.0	21.26
NCF 30/500 CV	530	20.8661	780	30.7087	185	7.2835	5 230 000	1 175 300	10 600 000	2 382 000	320	400	300.0	661.5	732.0	28.82	580.0	22.83
NCF 30/530 V	560	22.0472	820	32.2835	195	7.6772	5 830 000	1 310 100	11 800 000	2 651 700	300	380	345.0	760.7	770.0	30.31	610.0	24.02