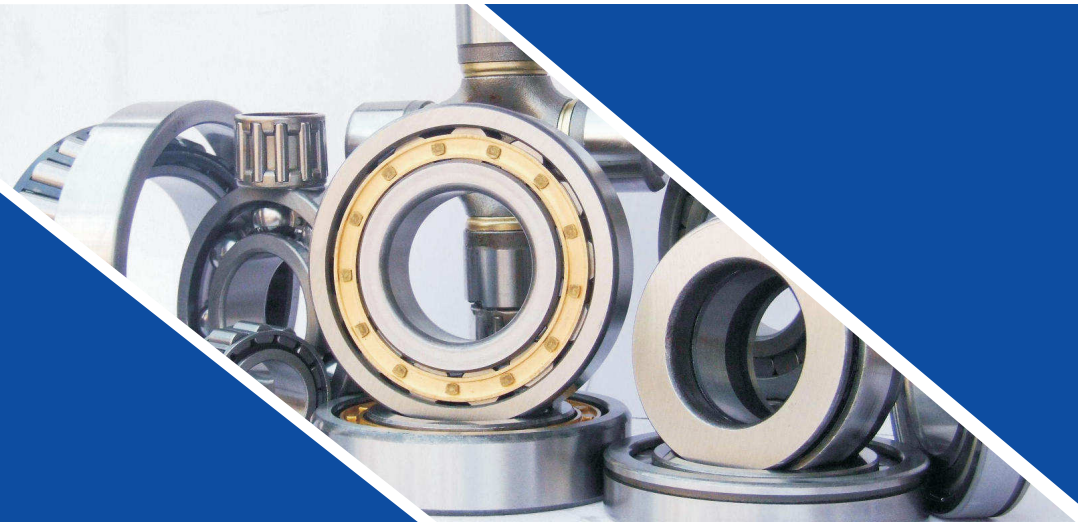




**RLM**<sup>®</sup>

**INDUSTRIAL BEARING**



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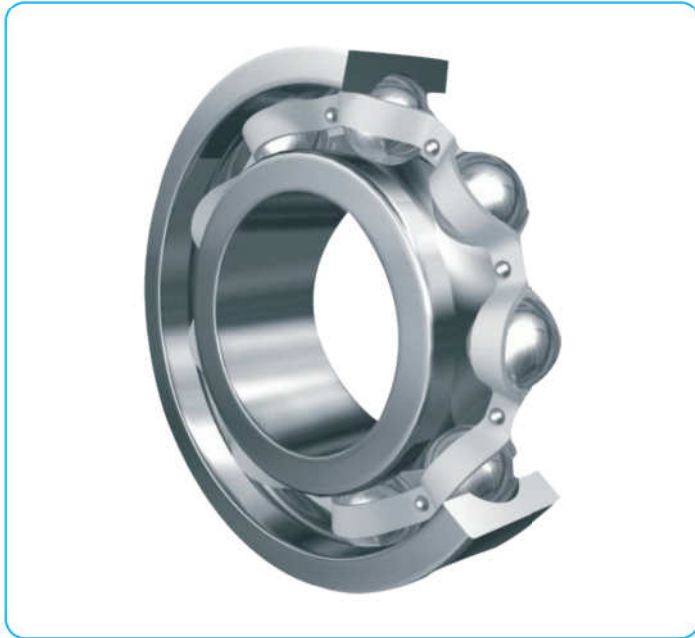


**Focus on  
Premier brands replacement**

# Catalog

<b>01</b>	<b>Deep Groove Ball Bearing</b>	<b>02-18</b>
<b>02</b>	<b>Angular Contact Ball Bearing</b>	<b>19-39</b>
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# Deep Groove Ball Bearing



## BEARING FEATURE

Deep groove ball bearings incorporate grooved raceways on both the inner ring and outer ring, which enable them to sustain moderate axial loads in both directions in addition to radial loads. Balls are separated by steel cages, permitting high-speed operation. Double row angular contact bearings are designed to accommodate combined simultaneous acting axial and radial loads. Balls are normally separated by high-speed Polyamide cages.

Most bearings are prelubricated with Great wall 2# grease or Shell Alvania G2, which provides excellent lubrication up to 120 degree. Sealed and shielded bearings are lubricated for life.

### Bearing Steel

Standard bearings utilize high quality GCr15 from premier level state owned steel factory. Stainless steel units utilize high quality AISI420 or AISI440 stainless steel to combine corrosion resistance and provide hardness and strength.

### Bearing Configurations

RLM Select radial ball bearings are manufactured as either sealed (2RS), shielded (ZZ) or open. Many bearings can also be supplied with snap rings (NR).

Sealed (2RS) bearings feature contact lip seals that provide excellent protection from liquids and contamination. However, seal rubbing can result in friction (drag) and produce heat, which could be a concern in high-speed applications.

Shielded (ZZ) bearings have non-contact steel shields that do not protect against liquids but add no friction or heat build-up during operation.

Open bearings are supplied with a coating of light oil and are used in oil bath and oil mist environments.

Snap ring (NR) bearings are supplied with snap ring grooves and snap rings installed on the OD. (NOTE: Not all bearings are available as NR.)

**PART NUMBER NOMENCLATURE**

Each RLM Select Deep Groove Ball Bearing part number is a unique combination indicating the bearing's type, series, internal clearance, bore size, seal and shields.

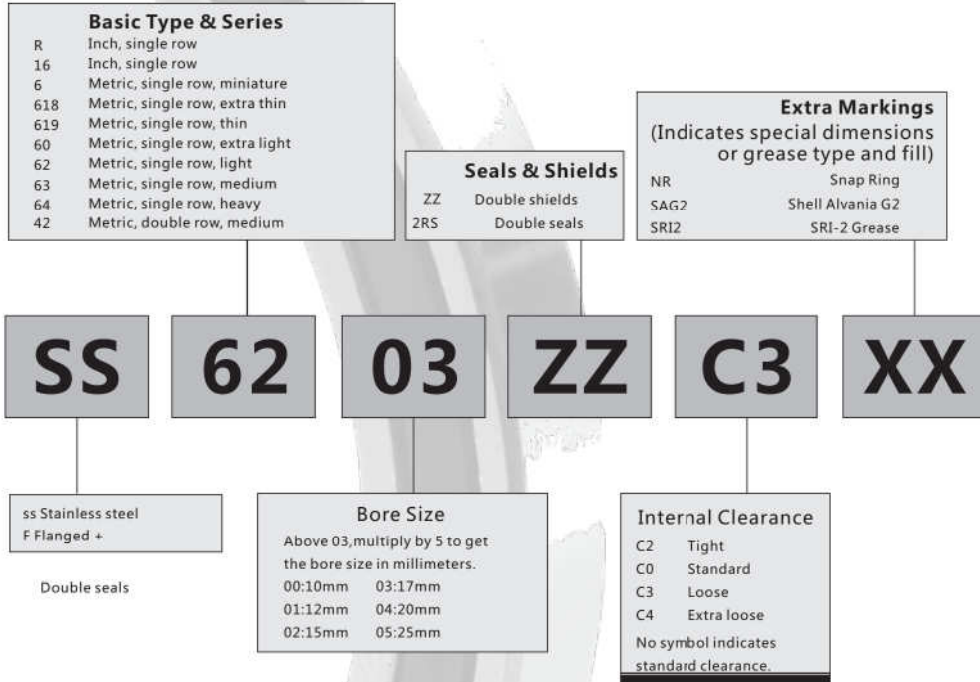


Table 1 Tolerance Classes of Rolling Bearings

Country	Standard	Tolerance Classes				
China	GB/T307.1	0	6	5	4	2
International	ISO	Normal Class	Class 6	Class 5	Class 4	Class 2
Sweden	SKF	P0	P6	P5	P4	P2
Germany	DIN	P0	P6	P5	P4	P2
Japan	JIS	JIS-0	JIS-6	JIS-5	JIS-4	JIS-2
USA	ANSI/AFBMA	ABEC-1	ABEC-3	ABEC-5	ABEC-7	ABEC-9

Table 2 0 Class Tolerance of inner Ring of Deep Groove Ball Bearings (Tolerance in  $\mu\text{m}$ )

d	dmp		Vdsp			Vdmp	Kia	$\Delta\text{Bs}$				
			Diameter Series					All	Normal	Amenda	Vbs	
mm	High	Low	9	0,1	2,3,4	Max	Max	High	Low	Max		
-	0.6	0	-8	10	8	6	6	10	0	-40	-	12
0.6	2.5	0	-8	10	8	6	6	10	0	-40	-	12
2.5	10	0	-8	10	8	6	6	10	0	-120	-250	15
10	18	0	-8	10	8	6	6	10	0	-120	-250	20
18	30	0	-10	13	10	8	8	13	0	-120	-250	20
30	50	0	-12	15	12	9	9	15	0	-120	-250	20
50	80	0	-15	19	19	11	11	20	0	-150	-380	25
80	120	0	-20	25	25	15	15	25	0	-200	-380	25
120	180	0	-25	31	31	19	19	30	0	-250	-500	30
180	250	0	-30	38	38	23	23	40	0	-300	-500	30
250	315	0	-35	44	44	26	26	50	0	-350	-500	35

GB/T 307.1-2005 Standard  
ISO 492:2002,MOD Standard

Table 3 0 Class Tolerance of Outer Ring of Deep Groove Ball Bearings (Tolerance in  $\mu\text{m}$ )

D	-Dmp		Vdspa				Vdmp*	Kea	$\Delta\text{Cs}$		Vcs
			Open Type		Close Type				$\Delta\text{Cs}^*$		VCs*
mm	High	Low	Diameter Series				Max	Max	High	Low	Max
-	2.5	0	-8	10	8	6	10	6	15	Identical to $\Delta\text{Bs}$ and Vbs of Inner Ring of Same Bearing	
2.5	6	0	-8	10	8	6	10	6	15		
6	18	0	-8	10	8	6	10	6	15		
18	30	0	-9	12	9	7	12	7	15		
30	50	0	-11	14	11	8	16	8	20		
50	80	0	-13	16	13	10	20	10	25		
80	120	0	-15	19	19	11	26	11	35		
120	150	0	-18	23	23	14	30	14	40		
150	180	0	-25	31	31	19	38	19	45		
180	250	0	-30	38	38	23	-	23	50		
250	315	0	-35	44	44	26	-	26	60		

GB/T 307.1-2005 Standard  
ISO 492:2002,MOD Standard



**Table 4 6 Class Tolerance of inner Ring of Deep Groove Ball Bearings (Tolerance in  $\mu\text{m}$ )**

d mm		dmp		Vdsp			Vdmp	Kia	$\Delta\text{Bs}$			Vbs
				Diameter Series					All	Normal	Amenda	
Over	To	High	Low	9	0,1	2,3,4	Max	Max	High	Low	Max	
-	0.6	0	-7	9	7	5	5	5	0	-40	-	12
0.6	2.5	0	-7	9	7	5	5	5	0	-40	-	12
2.5	10	0	-7	9	7	5	5	6	0	-120	-250	15
10	18	0	-7	9	7	5	5	7	0	-120	-250	20
18	30	0	-8	10	8	6	6	8	0	-120	-250	20
30	50	0	-10	13	10	8	8	10	0	-120	-250	20
50	80	0	-12	15	15	9	9	10	0	-150	-380	25
80	120	0	-15	19	19	11	11	13	0	-200	-380	25
120	180	0	-18	23	23	14	14	18	0	-250	-500	30
180	250	0	-22	28	28	17	17	20	0	-300	-500	30
Reference												
GB/T 307.1-2005 Standard												
ISO 492:2002,MOD Standard												

**Table 5 6 Class Tolerance of Outer Ring of Deep Groove Ball Bearings (Tolerance in  $\mu\text{m}$ )**

D mm		$\Delta\text{Dmp}$		Vdspa				Vdmp*	Kea	$\Delta\text{Cs}$		Vcs
				Open Type		Close Type				High	Low	
Over	To	High	Low	Diameter Series				Max	Max	$\Delta\text{CIs}^b$		
				9	0,1	2,3,4	0,1,2,3,4			High	Low	Max
-	2.5	0	-7	9	7	5	9	5	8	Identical to $\Delta\text{Bs}$ and $\text{Vbs}$ of Inner Ring of Same Bearing		
2.5	6	0	-7	9	7	5	9	5	8			
6	18	0	-7	9	7	5	9	5	8			
18	30	0	-8	10	8	6	10	6	9			
30	50	0	-9	11	9	7	13	7	10			
50	80	0	-11	14	11	8	16	8	13			
80	120	0	-13	16	16	10	20	10	18			
120	150	0	-15	19	19	11	25	11	20			
150	180	0	-18	23	23	14	30	14	23			
180	250	0	-20	25	25	15	-	15	25			
Reference												
GB/T 307.1-2005 Standard												
ISO 492:2002,MOD Standard												

**Table 6 5 Class Tolerance of inner Ring of Deep Groove Ball Bearings (Tolerance in  $\mu\text{m}$ )**

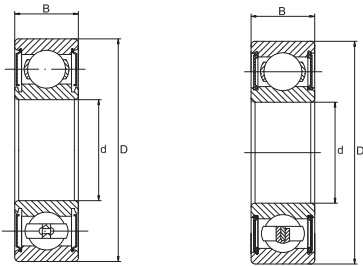
d mm		$\Delta\text{Dmp}$		Vdspa			Vdmp	Kea	Sd	Sia*	$\Delta\text{Bs}$			Vbs
				Diameter Series							All	Normal	Amenda	
Over	To	High	Low	9	0,1,2,3,4	Max	Max	Max	Max	Max	High	Low	Max	
-	0.6	0	-5	5	4	3	4	7	7	7	0	-40	-250	5
0.6	2.5	0	-5	5	4	3	4	7	7	7	0	-40	-250	5
2.5	10	0	-5	5	4	3	4	7	7	7	0	-40	-250	5
10	18	0	-5	5	4	3	4	7	7	7	0	-80	-250	5
18	30	0	-6	6	5	3	4	8	8	8	0	-120	-250	5
30	50	0	-8	8	6	4	5	8	8	8	0	-120	-250	5
50	80	0	-9	9	7	5	5	8	8	8	0	-150	-250	6
80	120	0	-10	10	8	5	6	9	9	9	0	-200	-380	7
120	180	0	-13	13	10	7	8	10	10	10	0	-250	-380	8
180	250	0	-15	15	12	8	10	11	13	13	0	-300	-500	10
Reference														
GB/T 307.1-2005 Standard														
ISO 492:2002,MOD Standard														

**Table 7 5 Class Tolerance of Outer Ring of Deep Groove Ball Bearings (Tolerance in  $\mu\text{m}$ )**

D mm		$\Delta\text{Dmp}$		VDsp		VDmp	Kea	SD <sup>a</sup>	Sea <sup>a,b</sup>	Seal <sup>b</sup>	$\Delta\text{Cs}$		VCs	
				Diameter Series							$\Delta\text{CIs}^b$			
Over	To	High	Low	9	0,1,2,3,4	Max	Max	Max	Max	Max	High	Low	Max	
-	2.5	0	-5	5		5	4	3	8	8	11	Identical to $\Delta\text{Bs}$ of Inner Ring of Same Bearing		5
2.5	6	0	-5	5		5	4	3	8	8	11			5
6	18	0	-5	5		5	4	3	8	8	11			5
18	30	0	-6	6		6	5	3	9	8	11			5
30	50	0	-7	7		7	5	4	10	8	11			5
50	80	0	-9	9		9	7	5	13	8	14			6
80	120	0	-10	10		10	8	5	18	9	16			8
120	150	0	-11	11		11	8	6	20	10	18			8
150	180	0	-13	13		13	10	7	23	10	20			8
180	250	0	-15	15		15	11	8	25	11	21			10
Reference														
GB/T 307.1-2005 Standard														
ISO 492:2002,MOD Standard														

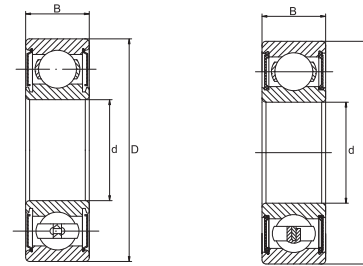
**Table 8 The Values For Radial Internal Clearance Of Deep Groove Ball Bearings (Radial Clearance in  $\mu\text{m}$ )**

Inner Diameter d(mm)		Radial Clearance									
		C2		C0		C3		C4		C5	
Over	To	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
2.5	6	0	7	2	13	8	23	-	-	-	-
6	10	0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120
100	120	2	20	15	41	36	66	61	97	90	140
120	140	2	23	18	48	41	81	71	114	105	160
140	160	2	23	18	53	46	91	81	130	120	180
160	180	2	25	20	61	53	102	91	147	135	200
180	200	2	30	25	71	63	117	107	163	150	230
200	225	2	35	25	85	75	140	125	195	175	265
Reference											
GB/T 4604-2006 Standard											



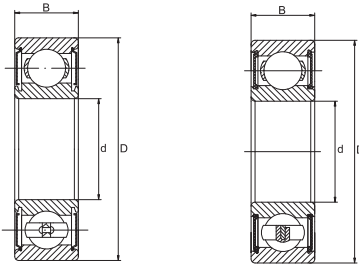
6000 Series

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
6000	10	26	8	4.58	1.98	29000	34000	0.019
6001	12	28	8	5.1	2.38	26000	30000	0.021
6002	15	32	9	5.58	2.85	22000	26000	0.03
6003	17	35	10	6	3.25	22000	26000	0.04
6004	20	42	12	9.38	5.02	18000	21000	0.068
6005	25	47	12	10	5.85	15000	18000	0.079
6006	30	55	13	10.18	6.91	13500	16000	0.113
6007	35	62	14	12.47	8.66	13500	16000	0.149
6008	40	68	15	13.1	9.45	12000	14000	0.19
6009	45	75	16	16.22	11.96	10000	12000	0.237
6010	50	80	16	16.94	12.95	9200	11000	0.261
6011	55	90	18	23.28	17.86	8400	9900	0.388
6012	60	95	18	24.35	19.35	7600	8900	0.414
6013	65	100	18	30.5	25.2	7100	8400	0.421
6014	70	110	20	38.8	31.6	6600	7800	0.604
6015	75	115	20	39.5	33.5	6100	7200	0.649
6016	80	125	22	47.5	40	5600	6700	0.854
6017	85	130	22	49.5	43.1	5300	6300	0.89
6018	90	140	24	58.2	49.7	5000	5900	1.02
6019	95	145	24	60.4	53.9	4700	5600	1.08
6020	100	150	24	60.5	54.2	4400	65200	1.15
6021	105	160	26	72.5	66	4300	5100	1.59
6022	110	170	28	85	73	3420	4050	1.96
6024	120	180	28	88	80	3240	3870	2.07
6026	130	200	33	106	101	2700	3240	3.16
6028	140	210	33	110	109	2520	3060	3.35
6030	150	225	35	126	126	2340	2700	4.08
6032	160	240	38	137	135	2160	2520	5.05
6034	170	260	42	161	161	1980	2340	6.76
6036	180	280	46	185	180	1800	2160	8.8
6038	190	290	46	201	188	1800	2160	9.18
6040	200	310	51	226	207	1710	1980	12
6044	220	340	56	235	271	1530	1800	18.6
6048	240	360	56	244	296	1350	1710	19.9



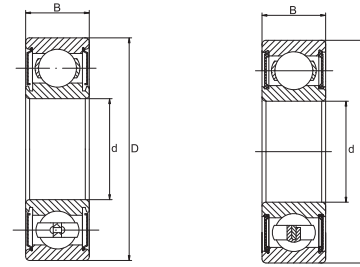
6200 Series

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
6200	10	30	9	5.1	2.39	25000	30000	0.032
6201	12	32	10	6.1	2.75	22000	26000	0.035
6202	15	35	11	7.75	3.6	19000	23000	0.045
6203	17	40	12	9.6	4.6	18000	21000	0.064
6204	20	47	14	12.8	6.65	15000	18000	0.103
6205	25	52	15	14	7.85	13000	15000	0.127
6206	30	62	16	19.5	11.3	11000	13000	0.202
6207	35	72	17	25.7	15.3	9800	11000	0.287
6208	40	80	18	29.1	17.8	8700	10000	0.366
6209	45	85	19	32.5	20.4	7800	9200	0.398
6210	50	90	20	35	23.2	7100	8300	0.454
6211	55	100	21	43.5	29.2	6400	7600	0.601
6212	60	110	22	52.5	36	6000	7000	0.783
6213	65	120	23	57.5	40	5500	6500	0.99
6214	70	125	24	62	44	5100	6000	1.07
6215	75	130	25	66	49.5	4800	5600	1.18
6216	80	140	26	72.5	53	4500	5300	1.4
6217	85	150	28	83.5	64	4200	5000	1.79
6218	90	160	30	96	71.5	4000	4700	2.15
6219	95	170	32	109	82	3700	4400	2.62
6220	100	180	34	122	93	3500	4200	3.14
6221	105	190	36	133	105	3400	4000	3.7
6222	110	200	38	144	117	2800	3400	4.36
6224	120	215	40	155	131	2600	3200	5.15
6226	130	230	40	167	146	2600	3000	5.82
6228	140	250	42	166	150	2000	2800	7.57
6230	150	270	45	176	168	2000	2600	9.41
6232	160	290	48	185	186	1900	2400	11.7
6234	170	310	52	212	213	1800	2200	14.5
6236	180	320	52	227	241	1700	2000	15.1
6238	180	340	55	255	281	1600	2000	18.2
6240	200	360	58	269	310	1500	1800	21.6
6244	220	400	65	297	365	1300	1600	31.2
6248	240	440	72	360	470	1200	1500	51.8



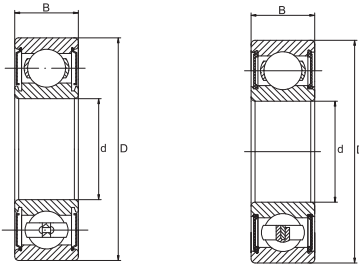
6300 Series

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
6300	10	35	6	5.88	3.47	22000	26000	0.0532
6301	12	37	7	7.48	4.65	20000	24000	0.0574
6302	15	42	7	8.8	5.43	17000	20000	0.0804
6303	17	47	8	10.45	6.56	15000	18000	0.1096
6304	20	52	8	12.26	7.81	14000	17000	0.1417
6305	25	62	9	17.22	11.39	11000	13000	0.2193
6306	30	72	10	20.77	14.17	9500	12000	0.3498
6307	35	80	20	33.5	19.1	8500	10000	0.457
6308	40	90	23	40.5	24	7500	9000	0.63
6309	45	100	25	53	32	6700	8000	0.114
6310	50	110	27	62	38.5	6000	7500	1.07
6311	55	120	29	71.5	45	5600	6700	1.37
6312	60	130	31	80	52	5300	6300	1.73
6313	65	140	33	92.5	60	4800	6000	2.08
6314	70	150	35	104	68	4500	5300	2.52
6315	75	160	37	113	77	4300	5000	3.02
6316	80	170	39	123	86.5	4000	4800	3.59
6317	85	180	41	133	97	3800	4500	4.23
6318	90	190	43	143	107	3600	4300	4.91
6319	95	200	45	153	119	3000	3600	5.67
6320	100	215	47	173	141	2800	3400	7
6321	105	225	49	184	153	2600	3200	8.05
6322	110	240	50	205	179	2400	3000	9.54
6324	120	260	55	207	185	2200	2800	12.4
6326	130	280	58	229	214	2200	2600	15.3
6328	140	300	62	253	246	2000	2400	18.5
6330	150	320	65	274	284	1800	2200	22.7
6332	160	340	68	278	287	1700	2000	26.2
6334	170	360	72	325	355	1600	2000	36.6
6336	180	380	75	355	405	1500	1800	43.1
6338	190	400	78	355	415	1400	1700	49.7
6340	200	420	80	380	445	1300	1600	55.3
6344	220	460	88	410	520	1200	1500	73.9
6348	240	500	95	470	625	1100	1300	94.4



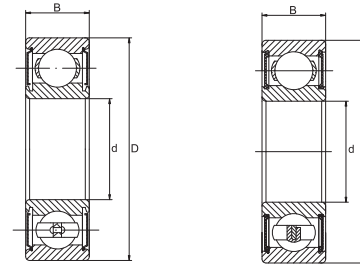
6400 Series

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
6403	17	62	17	22.7	10.8	14000	16000	0.27
6404	20	72	19	28.5	13.9	12000	14000	0.4
6405	25	80	21	34.5	17.5	10000	12000	0.53
6406	30	96	23	43.5	23.9	8800	10000	0.735
6407	35	100	25	55	31	7800	9100	0.952
6408	40	110	27	63.5	36.5	7000	8200	1.23
6409	45	120	29	77	45	6300	7400	1.53
6410	50	130	31	83	49.5	5700	6700	1.88
6411	55	140	33	89	54	5200	6100	2.29
6412	60	150	35	102	64.5	4800	5700	2.77
6413	65	160	37	111	72.5	4400	5200	3.3
6414	70	180	42	128	89.5	4100	4800	4.83
6415	75	190	45	153	114	3600	4300	5.57
6416	80	200	48	164	125	3400	4000	6.74
6417	85	210	52	165	136	3200	3800	7.93
6418	90	225	54	193	158	2800	3600	9.47
6419	95	240	55	199	168	2600	3400	11.4
6420	100	250	58	214	186	2400	3200	12.8



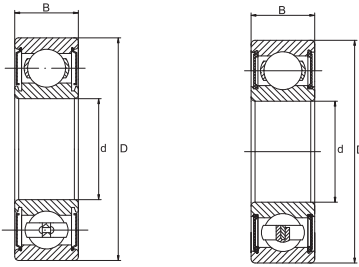
61800 Series

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
61800	10	19	5	1.319	0.694	26000	34000	0.005
61801	12	21	5	1.473	0.833	22000	30000	0.006
61802	15	24	5	1.549	0.922	20000	28000	0.007
61803	17	26	5	1.639	1.041	19000	26000	0.008
61804	20	32	7	2.646	1.715	17000	22000	0.018
61805	25	37	7	2.84	1.96	15000	19000	0.021
61806	30	42	7	3.087	2.352	12000	16000	0.024
61807	35	47	7	4.9	4	11000	15000	0.027
61808	40	52	7	5.1	4.4	10000	13000	0.031
61809	45	58	7	6.2	5.4	10000	13000	0.04
61810	50	65	7	6.4	6.2	9500	11000	0.052
61811	55	72	9	8.8	8.5	8500	10000	0.081
61812	60	78	10	11.5	10.9	8000	9500	0.103
61813	65	85	10	11.9	12.1	7500	8500	0.128
61814	70	90	10	12.1	12.7	6700	8000	0.134
61815	75	85	10	12.5	13.9	6300	7500	0.149
61816	80	100	10	12.7	14.5	6000	7100	0.151
61817	85	110	13	18.7	20	5600	6700	0.263
61818	90	115	13	19	21	5300	6300	0.276
61819	95	120	13	19.3	22	5000	6000	0.498
61820	100	125	13	19.6	23	4800	5600	0.31
61821	105	130	13	19.8	23.9	4800	5600	0.32
61822	110	140	16	28.1	32.5	4300	5300	0.49
61824	120	150	16	28.9	35.5	4000	4800	0.53
61826	130	165	18	37	44	3600	4300	0.75
61828	140	175	18	38.5	48	3400	4000	0.83
61830	150	190	20	47.5	58.5	3200	3800	1.15
61832	160	200	20	48.5	61	2600	3200	1.2
61834	170	215	22	60	75	2600	3000	1.82
61836	180	225	22	60.5	78.5	2400	2800	1.95
61838	190	240	24	79	93.5	2200	2600	2.5
61840	200	250	24	74	98	2200	2600	2.67



61900 Series

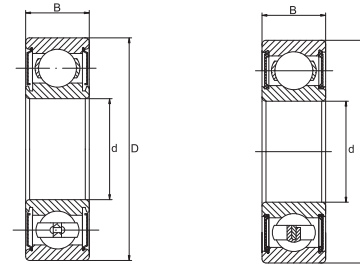
Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
61900	10	22	6	2.54	1.37	25000	32000	0.009
61901	12	24	6	2.221	1.235	22000	28000	0.011
61902	15	28	7	2.639	1.501	20000	26000	0.016
61903	17	30	7	2.79	1.65	18000	24000	0.018
61904	20	37	9	5.03	3.063	17000	20000	0.036
61905	25	42	9	5.63	3.68	14000	18000	0.042
61906	30	47	9	5.82	3.97	13000	16000	0.048
61907	35	55	10	9.5	6.8	12000	15000	0.074
61908	40	62	12	13.7	9.9	11000	13000	0.11
61909	45	68	12	14.1	10.9	9000	11000	0.132
61910	50	72	12	14.5	11.7	9000	11000	0.133
61911	55	80	13	16	13.3	8000	9500	0.189
61912	60	85	13	19.4	16.3	7500	9000	0.192
61913	60	90	13	17.4	16.1	7100	8500	0.218
61914	70	100	16	23.7	21.2	6300	7500	0.349
61915	70	105	16	24.4	22.6	6000	7100	0.364
61916	80	110	16	25	24	5600	6700	0.391
61917	85	120	18	32	29.6	5300	6300	0.55
61918	90	125	18	33	31.5	5000	6000	0.585
61919	95	130	18	33.5	33.5	4800	5600	0.6
61920	100	140	20	43	42	4500	5300	0.82
61921	105	145	20	42.5	42	4300	5300	0.856
61922	110	150	20	43.5	44.5	4300	5000	0.89
61924	120	165	22	53	54	3800	4500	1.21
61926	130	180	24	65	67.5	3400	4000	1.57
61928	140	190	24	66.5	72	3200	3800	1.67
61930	150	210	28	85	90.5	2600	3200	3
61932	160	220	28	87	96	2600	3000	2.7
61934	170	230	28	86	97	2400	2800	3.34
61936	180	250	33	119	128	2200	2600	4.1
61938	190	160	33	113	127	2200	2600	5.1
61940	200	280	38	143	158	2000	2400	7.2



62200/62300 Series

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
62200	10	30	14	5.1	2.38	24000	30000	0.049
62201	12	32	14	6.82	3.05	22000	28000	0.053
62202	15	35	14	7.65	3.72	19000	24000	0.059
62203	17	40	16	9.58	4.78	17000	20000	0.091
62204	20	47	18	12.8	6.65	15000	18000	0.131
62205	25	52	18	14	7.88	12000	15000	0.148
62206	30	62	20	19.5	11.5	10000	13000	0.236
62207	35	72	23	25.5	15.2	9000	11000	0.375
62208	40	80	23	18.2	18.6	8000	10000	0.604
62209	45	85	23	32.5	20.4	7800	9200	0.47
62210	50	90	23	35	32.2	7100	7300	0.51
62211	55	100	25	43.5	29.2	6400	7600	0.82
62212	60	110	28	52.5	36	6000	7000	1.045
62213	65	120	31	57.5	40	5500	6500	1.29
62214	70	125	31	62	44	5100	60000	1.36
62215	75	130	31	66	49.5	4800	5600	1.41

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
62300	10	35	17	8.2	3.5	23000	27000	0.08
62301	12	37	17	9.72	5.08	20000	26000	0.095
62302	15	42	17	11.5	5.42	19000	24000	0.113
62303	17	47	19	13.5	6.58	17000	20000	0.141
62304	20	52	21	15.8	7.88	16000	18000	0.197
62305	25	62	24	22.2	11.5	13000	16000	0.317
62306	30	72	27	27	15.2	11000	14000	0.473
62307	35	80	31	33.2	19.2	9000	11000	0.658
62308	40	90	33	40.5	14	7800	9200	0.91
62309	45	100	36	53	32	7000	8200	1.17
62310	50	110	40	62	38.5	6400	7500	1.51
62311	55	120	43	71.5	45	5800	6800	1.92
62312	60	130	46	82	52	5400	6300	2.44
62313	65	140	48	92.8	60	4900	5800	2.95
62314	70	150	51	104	68	4600	5400	3.67
62315	75	160	55	113	77	4300	5000	4.2

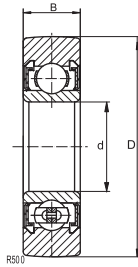


16000/R Series

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
16001	12	28	7	5.08	2.38	27000	32000	0.024
16002	15	32	8	5.6	2.55	23000	28000	0.025
16003	17	35	8	6.82	3.38	21000	25000	0.032
16004	20	42	8	7.9	4.5	17000	21000	0.052
16005	25	47	8	8.8	5.6	15000	18000	0.059
16006	30	55	9	11.2	7.4	13000	15000	0.084
16007	35	62	9	12.2	8.8	11000	13000	0.107
16008	40	68	9	12.6	9.6	9800	12000	0.125
16009	45	75	10	15.6	12.2	8900	10000	0.156
16010	50	80	10	16.1	13.1	8200	9700	0.166
16011	55	90	11	19.4	16.2	7400	8800	0.207
16012	60	95	11	19.9	17.5	6900	8100	0.224
16013	65	100	11	20.5	18.6	6600	7800	0.241
16014	70	110	13	27.9	25	5700	7200	0.386

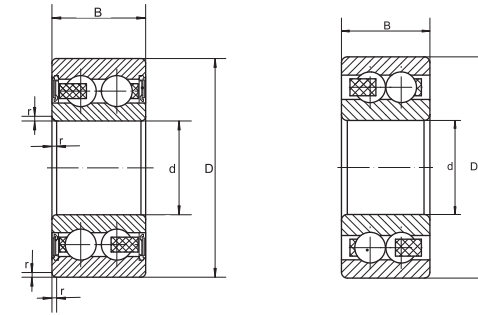
Bearing No.	Bore		Outer Diameter		Width				Load Rating(KN)		Weight kg
	d		D		B				Dynamic	Static	
	mm	inch	mm	inch	Open		Sealeds				
					mm	inch	mm	inch	Cr	Cor	
R3	4.762	0.1875	12.7	0.5	3.969	0.1562	4.98	0.196	1.01	0.48	0.0022
R3A	4.762	0.1a875	12.7	0.5	4.978	0.196	4.98	0.196	1.31	0.485	0.0025
R4	6.35	0.25	15.875	0.625	4.978	0.196	4.98	0.196	1.136	0.558	0.005
R4A	6.35	0.25	19.05	0.75	5.556	0.2188	7.144	0.2821	2.175	1.136	0.008
R6	9.525	0.375	22.225	0.875	5.556	0.2188	7.144	0.2821	2.56	1.35	0.011
R8	12.7	0.5	28.575	1.125	6.35	0.25	7.938	0.3125	3.93	2.23	0.018
R10	15.875	0.625	34.925	1.375	7.144	0.2812	8.731	0.3438	4.62	2.79	0.037
99502H	15.875	0.625	34.925	1.375	-	-	11	0.4331	4.62	2.79	0.042
R12	19.05	0.75	41.275	1.625	7.938	0.3125	11.113	0.4375	7.24	4.463	0.047
R14	22.225	0.875	47.625	1.875	9.525	0.3705	12.7	0.5	7.74	4.96	0.072
R16	25.4	0.1	50.8	2	9.525	0.3705	12.7	0.5	7.74	5.16	0.085
R18	28.575	1.125	53.975	2.125	9.525	0.3705	12.7	0.5	10.18	6.91	0.09
R20	31.75	1.25	57.15	2.25	9.525	0.3705	12.7	0.5	10.8	7.52	0.095
R22	34.925	1.375	63.5	2.5	11.112	0.4375	14.288	0.5625	12.28	8.5	0.105
R24	38.1	1.5	63.5	2.625	11.112	0.4375	14.288	0.5625	14.35	10.24	0.12





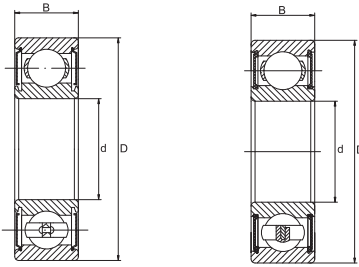
LR . . . KDD Series

Bearing No.			Dimensions					Basic load ratings		Limiting Speed		Weight
Cylindrical outer ring	R500	EuroNo.	d	D	B	C	rs	C <sub>w</sub> (N)	C <sub>0w</sub> (N)	Grease	Oil	g
LR604KDD	LR604KDDU		4	13	4	4	0.2	860	350	24000	35000	10
LR604NPP	LR604NPPU		4	13	4	4	0.2	860	350	24000	35000	10
LR605KDD	LR605KDDU		5	16	5	5	0.2	1190	490	23000	33000	10
LR605NPP	LR605NPPU		5	16	5	5	0.2	1190	490	23000	33000	10
LR606KDD	LR606KDDU		6	19	6	6	0.3	1740	700	22000	31000	10
LR606NPP	LR606NPPU		6	19	6	6	0.3	1740	700	22000	31000	10
LR607KDD	LR607KDDU		7	22	6	6	0.3	2130	870	20000	29000	10
LR607NPP	LR607NPPU		7	22	6	6	0.3	2130	870	20000	29000	10
LR6000KDD	LR6000KDDU		10	28	8	8	0.3	3650	1700	17000	24000	20
LR6000NPP	LR6000NPPU		10	28	8	8	0.3	3650	1700	17000	24000	20
LR608KDD	LR608KDDU		8	24	7	7	0.3	2750	1250	19000	28000	20
LR608NPP	LR608NPPU		8	24	7	7	0.3	2750	1250	19000	28000	20
LR6001KDD	LR6001KDDU		12	30	8	8	0.3	4300	2100	16000	22000	30
LR6001NPP	LR6001NPPU		12	30	8	8	0.3	4300	2100	16000	22000	30
LR200KDD	LR200KDDU		10	32	9	9	0.6	4350	2130	13000	17000	50
LR200NPP	LR200NPPU	361200R	10	32	9	9	0.6	4350	2130	13000	17000	50
LR201KDD	LR201KDDU		12	35	10	10	0.6	5600	2700	12000	15000	50
LR201NPP	LR201NPPU	361201R	12	35	10	10	0.6	5600	2700	12000	15000	50
LR201-15KDD	LR201-15KDDU		12	35	15	10	0.6	5600	2700	12000	15000	70
LR201-15NPP	LR201-15NPPU		12	35	15	10	0.6	5600	2700	12000	15000	70
LR202KDD	LR202KDDU		15	40	11	11	0.6	6500	3300	11000	13000	70
LR202NPP	LR202NPPU	361202R	15	40	11	11	0.6	6500	3300	11000	13000	70
LR202-14KDD	LR202-14KDDU		15	40	14.4	11	0.6	6500	3300	11000	13000	80
LR202-14NPP	LR202-14NPPU		15	40	14.4	11	0.6	6500	3300	11000	13000	80
LR203KDD	LR203KDDU		17	47	12	12	0.6	8400	4400	9000	12000	110
LR203NPP	LR203NPPU	361203R	17	47	12	12	0.6	8400	4400	9000	12000	110
LR204KDD	LR204KDDU		20	52	14	14	1	10500	5600	8000	10000	150
LR204NPP	LR204NPPU	361204R	20	52	14	14	1	10500	5600	8000	10000	150
LR205KDD	LR205KDDU		25	62	15	15	1	12500	7100	7000	8500	230
LR205NPP	LR205NPPU	361205R	25	62	15	15	1	12500	7100	7000	8500	230
LR206KDD	LR206KDDU		30	72	16	16	1	16600	9600	5500	7500	330
LR206NPP	LR206NPPU	361206R	30	72	16	16	1	16600	9600	5500	7500	330
LR207KDD	LR207KDDU		35	80	17	17	1.1	20200	11900	4500	6300	400
LR207NPP	LR207NPPU	361207R	35	80	17	17	1.1	20200	11900	4500	6300	400
LR208KDD	LR208KDDU		40	85	18	18	1.1	22800	13600	4000	5000	450
LR208NPP	LR208NPPU	361208R	40	85	18	18	1.1	22800	13600	4000	5000	450
LR209KDD	LR209KDDU		45	90	19	19	1.1	22500	13700	3600	4500	500
LR209NPP	LR209NPPU	361209R	45	90	19	19	1.1	22500	13700	3600	4500	500



4200/4300 Series

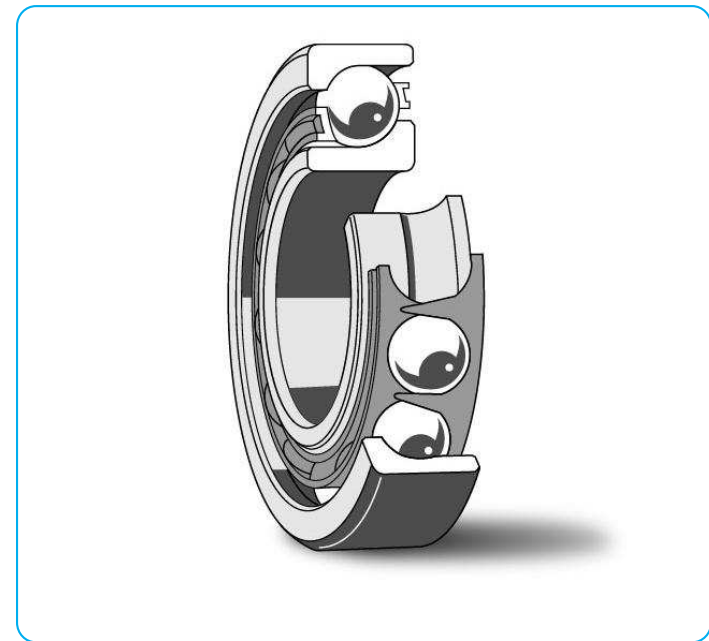
Bearing NO.	Sealed Bearing NO.		Dimensions				Basic load ratings		Limiting Speed		Weight
	ZZ	2RS	d mm	D mm	B mm	r mm	Cr KN	Cor KN	Grease rpm	Oil rpm	Kg
4200	4200-2Z	4200-2RS	10	30	14	0.6	7.7	5.9	18000	22000	0.057
4201	4201-2Z	4201-2RS	12	32	14	0.6	7.75	6.15	17000	20000	0.062
4202	4202-2Z	4202-2RS	15	35	14	0.6	9.75	9	14000	17000	0.071
4203	4203-2Z		17	40	16	0.6	11.7	10.4	12000	15000	0.106
4204	4204-2Z		20	47	18	1	16.4	12.5	10000	13000	0.165
4205	4205-2Z		25	52	18	1	19	14.6	9000	11000	0.189
4206	4206-2Z	4206-2RS	30	62	20	1	26	20.8	8000	9500	0.298
4207	4207-2Z	4207-2RS	35	72	23	1.1	35.1	28.5	6700	8000	0.46
4208	4208-2Z	4208-2RS	40	80	23	1.1	37.1	32.5	6000	7000	0.558
4209	4209-2Z		45	85	23	1.1	39	36	5600	6700	0.605
4210	4210-2Z		50	90	23	1.1	41	40	5000	6000	0.651
4211	4211-2Z		55	100	25	1.5	44.9	44	4800	5600	0.882
4212	4212-2Z	4212-2RS	60	110	28	1.5	57.2	55	4500	5300	1.2
4213	4213-2Z	4213-2RS	65	120	31	1.5	67.6	67	4000	4800	1.45
4214	4214-2Z	4214-2RS	70	125	31	1.5	70.2	73.5	3600	4300	1.5
4215	4215-2Z		75	130	31	1.5	72.8	80	3400	4000	1.6
4216	4216-2Z		80	140	33	2	80.6	90	3200	3800	2
4217	4217-2Z		85	150	36	2	93.6	102	3000	3600	2.55
4218	4218-2Z	4218-2RS	90	160	40	2	112	122	2800	3400	3.2
4220	4220-2Z	4220-2RS	100	180	46	2.1	140	156	2400	3000	4.7
4300	4300-2Z	4300-2RS	10	35	17	0.6	14.3	8.9	18600	17500	0.091
4301	4301-2Z		12	37	17	1	13	7.8	15000	16500	0.092
4302	4302-2Z		15	42	17	1	13.1	11.7	12000	15000	0.123
4303	4303-2Z		17	47	19	1	16.5	15	10000	13000	0.171
4304	4304-2Z	4304-2RS	20	52	21	1.1	19.5	17	9500	12000	0.227
4305	4305-2Z	4305-2RS	25	62	24	1.1	26.3	25.7	8500	10000	0.365
4306	4306-2Z	4306-2RS	30	72	27	1.1	35.5	35.9	7000	8500	0.542
4307	4307-2Z		35	80	31	1.5	40.6	41.8	6300	7500	0.752
4308	4308-2Z		40	90	33	1.5	46	48.8	5600	6700	0.958
4309	4309-2Z		45	100	36	1.5	57.6	62.4	5000	6000	1.35
4310	4310-2Z	4310-2RS	50	110	40	2	81.9	69.5	4500	5300	1.7



Miniature

Bearing No.	Dimension			Basic Load Rating		Max Speed		Weight kg
	d	D	B	Cr	Cor	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	
623	3	10	4	0.536	0.175	50000	60000	0.0015
624	4	13	5	1.106	0.39	40000	48000	0.003
634	4	16	5	1.139	0.418	36000	43000	0.005
605	5	14	5	1.13	0.406	40000	50000	0.004
625	5	16	5	1.47	0.54	36000	43000	0.005
635	5	19	6	2.34	0.89	32000	40000	0.005
606	6	17	6	1.924	0.677	38000	45000	0.006
626	6	19	6	1.986	0.717	32000	40000	0.008
636	6	22	7	2.833	1.138	30000	36000	0.014
697	7	17	5	1.364	0.575	36000	43000	0.005
607	7	19	6	1.986	0.717	36000	43000	0.008
627	7	22	7	2.794	1.103	30000	36000	0.013
608	8	22	7	2.799	1.103	34000	40000	0.012
628	8	24	8	2.833	1.138	28000	34000	0.017
638	8	28	9	3.879	1.586	28000	34000	0.028
679	9	14	3	0.781	0.374	36000	42000	0.001
609	9	24	7	2.853	1.155	32000	38000	0.015
629	9	26	8	3.879	1.586	28000	34000	0.079

# Angular Contact Ball Bearing



Single Row Angular Contact Ball Bearings mainly used for undertaking combined load both from radius and axle and also for pure axle load, rotator speed is high.

Material of bearings is choosed on refining bearing steel GCr15 (100Cr6, SUJ2, S2100)and other type of bearing stell, balls are adopting GCr15 (100Cr6, SUJ2, S2100) or ceramic.

The bearings are classified as 7000C (15°), 7000AC (25°), 7000B(40°) in accordance with their contact angle, other bearings with different contact angular are available on request.

Single row angular contact ball bearings identification code:

S7 0 12 C T /P5 DB B

Type code  
7-The counter bored outer ring  
S7-The outer ring is separable  
SN7-The inner ring is separable  
B7-The stepped inner ring

Dimension series  
( 1 ) 0-Equals to ISO10  
( 0 ) 2-Equals to ISO02  
( 0 ) 3-Equals to ISO03  
( 0 ) 4-Equals to ISO04

Bearing bore diameter  
00-bore diameter 10mm  
01-bore diameter 12mm  
02-bore diameter 15mm  
03-bore diameter 17mm  
04(x5)-bore diameter 20mm  
.....  
15(x5)-bore diameter 75mm  
.....

contact angle  
C-contact angle 15°  
AC-contact angle 25°  
B-contact angle 40°

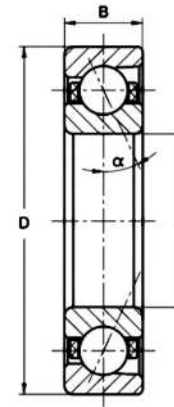
Preload  
A-Light preload  
B-Medium preload  
C-Heavy preload  
G-Special preload

Mounting  
DT-Tandem  
DF-Face to Face  
DB-Back to back  
TBT-Two tandem and back to back  
.....  
G-Universal

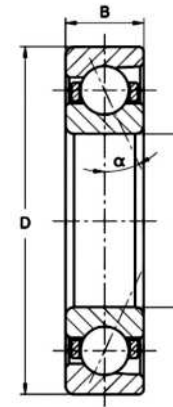
Precision grade  
P0-class 0  
P6-class 6  
P5-class 5  
P4-class 4

Material of cage  
T-Machined laminated phenolic  
TN-Engineer plastic  
J-Pressed steel sheet  
Y-Pressed brass sheet  
M-Machined brass solid

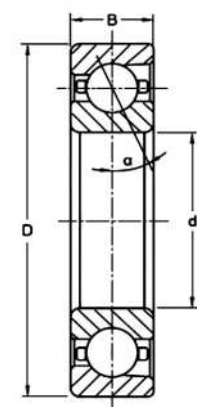
Single Row Angular Contact Ball Bearings have following types in accordance with different structures



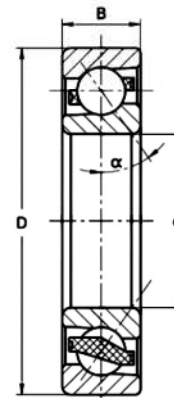
Machined cage of textile laminated or Nylon retainer  
Suitable for bearing 7000C, 7000AC



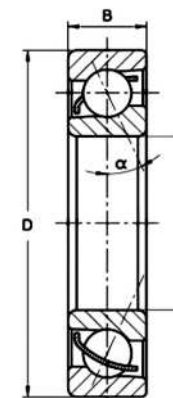
Machined brass solid cage  
Suitable for bearing 7000, 7000AC



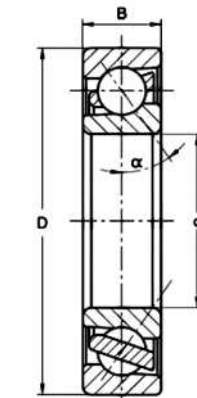
Nylon retainer  
Suitable for bearing 7000C, 7000A



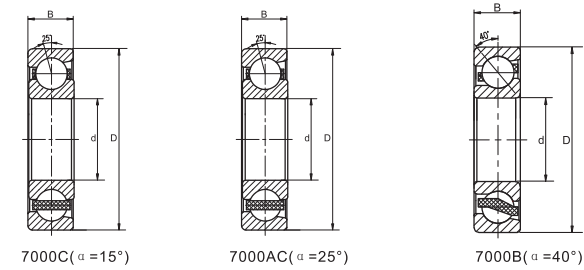
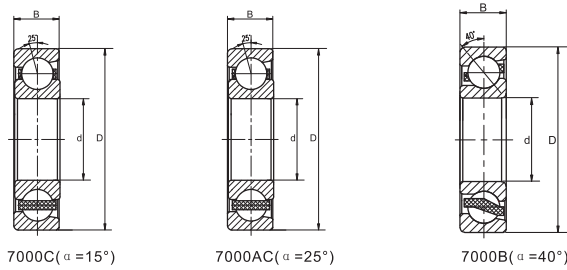
Nylon retainer  
Nylon Cage (7000B)



Stamped steel cage  
(Suitable for 7000C, 7000AC, 7000B)

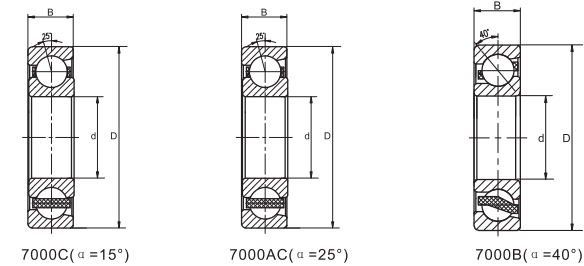
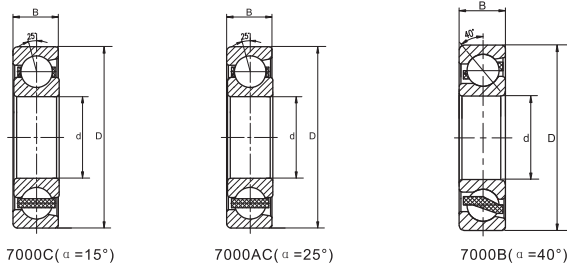


Machined brass solid cage  
Suitable for bearing 7000B



Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
10	26	8	<b>7000C</b>	4.9	2.1	24000	32000	0.019
	26	8	<b>7000AC</b>	4.7	2.1	24000	32000	0.019
	30	9	<b>7200C</b>	5.8	2.9	22000	28000	0.032
	30	9	<b>7200AC</b>	5.5	2.8	22000	28000	0.032
	30	9	<b>7200B</b>	5.3	2.7	19000	27000	0.03
	35	11	<b>7300C</b>	9.8	4.6	19000	26000	0.053
12	35	11	<b>7300AC</b>	9.5	4.4	18000	26000	0.053
	28	8	<b>7001C</b>	4.5	2.6	28000	28000	0.021
	28	8	<b>7001AC</b>	4.1	2.4	22000	28000	0.021
	32	10	<b>7201C</b>	7.9	3.8	22000	25000	0.037
	32	10	<b>7201AC</b>	7.6	3.6	20000	25000	0.037
	32	10	<b>7201B</b>	6.9	3.2	20000	24000	0.036
15	37	12	<b>7301C</b>	11.8	5.6	18000	24000	0.06
	37	12	<b>7301AC</b>	11.5	5.4	17000	24000	0.06
	37	12	<b>7301B</b>	10.5	4.9	17000	22000	0.06
	32	9	<b>7002C</b>	6.2	3.3	24000	25000	0.03
17	32	9	<b>7002AC</b>	5.9	3.2	19000	25000	0.03
	35	11	<b>7202C</b>	9.2	4.9	19000	22000	0.045
	35	11	<b>7202AC</b>	8.9	4.8	17000	22000	0.045
	35	11	<b>7202B</b>	7.9	4.2	17000	22000	0.045
	42	13	<b>7302C</b>	13.2	6.7	16000	21000	0.084
	42	13	<b>7302AC</b>	12.5	6.2	15000	21000	0.084
17	42	13	<b>7302B</b>	12.4	6.5	15000	19000	0.08
	35	10	<b>7003C</b>	6.6	3.6	22000	22000	0.04
	35	10	<b>7003AC</b>	6.3	3.6	16000	22000	0.04
	40	12	<b>7203C</b>	10.8	5.8	15000	20000	0.062
	40	12	<b>7203AC</b>	10.4	5.6	15000	20000	0.062
40	12	<b>7203B</b>	9.9	5.5	14000	19000	0.065	

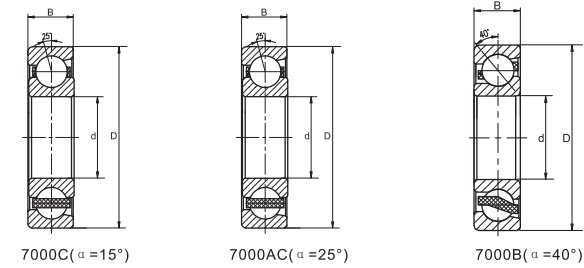
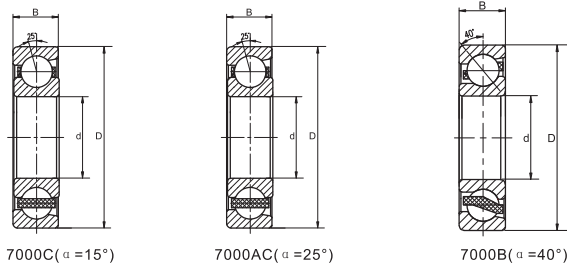
Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
17	47	14	<b>7303C</b>	15.7	8.2	13000	19000	0.11
	47	14	<b>7303AC</b>	15	7.7	13000	19000	0.11
	47	14	<b>7303B</b>	14.1	8.1	13000	17000	0.11
20	42	12	<b>7004C</b>	10.4	6	14000	19000	0.064
	42	12	<b>7004AC</b>	10	5.7	14000	19000	0.064
	47	14	<b>7204C</b>	14.5	8.1	13000	18000	0.1
	47	14	<b>7204AC</b>	14	7.8	13000	18000	0.1
	47	14	<b>7204B</b>	13.4	7.6	12000	16000	0.11
	52	15	<b>7304C</b>	18.4	9.8	12000	17000	0.15
25	52	15	<b>7304AC</b>	17.9	9.6	12000	17000	0.15
	52	15	<b>7304B</b>	17.3	9.6	11000	15000	0.14
	47	12	<b>7005C</b>	11.6	7.4	12000	17000	0.074
	47	12	<b>7005AC</b>	11.1	7	12000	17000	0.074
	52	15	<b>7205C</b>	16.5	10	11000	16000	0.12
	52	15	<b>7205AC</b>	15.8	9.7	11000	16000	0.12
30	52	15	<b>7205B</b>	14.8	9.3	10000	14000	0.13
	62	17	<b>7305C</b>	27.8	15.9	9500	14000	0.23
	62	17	<b>7305AC</b>	27	15.6	9500	14000	0.23
	62	17	<b>7305B</b>	24.3	14.1	9000	13000	0.23
	55	13	<b>7006C</b>	15.1	10.2	9500	14000	0.11
	55	13	<b>7006AC</b>	14.4	9.8	9500	14000	0.11
	62	16	<b>7206C</b>	23	14.7	9000	14000	0.19
	62	16	<b>7206AC</b>	22.1	13.5	9000	13000	0.19
	62	16	<b>7206B</b>	20.5	13.5	8500	13000	0.2
	72	19	<b>7306C</b>	33.2	21.2	8500	12000	0.35
72	19	<b>7306AC</b>	32.8	20.4	8500	12000	0.35	
72	19	<b>7306B</b>	29.3	18.1	8000	11000	0.34	
90	23	<b>7406C</b>	57.5	33.8	6500	8500	0.96	



Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
30	90	23	<b>7406AC</b>	55.6	32.7	6500	85000	0.96
	90	23	<b>7406B</b>	51.4	30.1	6000	8000	0.9
35	62	14	<b>7007C</b>	18.2	12.7	8500	12000	0.15
	62	14	<b>7007AC</b>	17.3	12.1	8500	12000	0.15
	72	17	<b>7207C</b>	30.3	20	8000	11000	0.28
	72	17	<b>7207AC</b>	29.2	18	8000	11000	0.28
	72	17	<b>7207B</b>	28.3	14.8	7500	10000	0.28
	80	21	<b>7307C</b>	40.3	25.8	7500	10000	0.47
40	80	21	<b>7307AC</b>	38.2	24.9	7500	10000	0.47
	80	21	<b>7307B</b>	38.3	24.4	7000	9500	0.45
	100	25	<b>7407C</b>	66.8	41.2	5500	8000	1.14
	100	25	<b>7407AC</b>	66.4	41.9	5500	8000	1.14
	100	25	<b>7407B</b>	60.2	37.9	5000	7500	1.1
	62	12	<b>7908C</b>	14.5	10.6	12000	20000	0.11
40	62	12	<b>7908AC</b>	14.1	10.1	12000	20000	0.11
	68	15	<b>7008C</b>	19.7	14.9	8000	11000	0.18
	68	15	<b>7008AC</b>	18.7	14.1	8000	11000	0.18
	80	18	<b>7208C</b>	38.4	26.3	7500	10000	0.37
	80	18	<b>7208AC</b>	36.8	25.4	7500	10000	0.37
	80	18	<b>7208B</b>	34.5	23.8	6700	9000	0.42
	90	23	<b>7308C</b>	49.3	32.3	6700	9000	0.66
	90	23	<b>7308AC</b>	47	31.1	6700	9000	0.66
	90	23	<b>7308B</b>	46.5	29.5	6300	8500	0.63
	110	27	<b>7408C</b>	80.2	53.3	5200	7000	1.4
	110	27	<b>7408AC</b>	73.7	42.1	5200	7000	1.4
	110	27	<b>7408B</b>	70.1	49.1	5000	6500	1.35

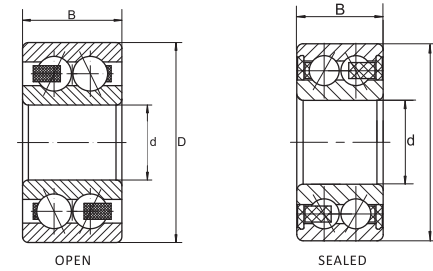
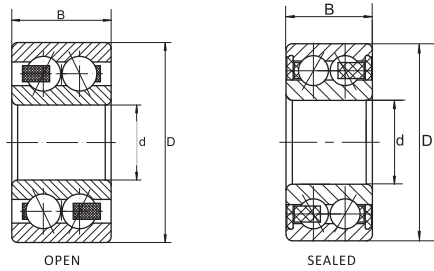
Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
45	75	16	<b>7009C</b>	25.9	20.2	7500	10000	0.23
	75	16	<b>7009AC</b>	24.7	19.1	7500	18000	0.23
	85	19	<b>7209C</b>	40.4	29.3	6700	9000	0.41
	85	19	<b>7209AC</b>	38.6	28.1	6700	9000	0.41
	85	19	<b>7209B</b>	34	24.6	6300	8500	0.42
	100	25	<b>7309C</b>	63.1	42.9	6000	8000	0.86
	100	25	<b>7309AC</b>	61.6	41.2	6000	8000	0.86
	100	25	<b>7309B</b>	59.6	39.6	5600	7500	0.85
	120	29	<b>7409C</b>	93.1	60.8	5000	6500	1.8
	120	29	<b>7409AC</b>	84.5	55.1	5000	6500	1.8
	120	29	<b>7409B</b>	80.7	44.1	4500	6000	1.75
	50	80	16	<b>7010C</b>	26.6	21.8	6700	9000
80		16	<b>7010AC</b>	25.3	20.5	6700	9000	0.25
90		20	<b>7210C</b>	42.8	31.3	6300	8500	0.46
90		20	<b>7210AC</b>	40.8	30.1	6300	8500	0.46
90		20	<b>7210B</b>	40.4	25.6	5600	8000	0.47
110		27	<b>7310C</b>	74.9	50.9	5600	7500	1.08
110		27	<b>7310AC</b>	71.9	48.5	5600	7500	1.08
110		27	<b>7310B</b>	68.1	48	5000	6700	1.1
130		31	<b>7410C</b>	119.3	81	4500	6000	2.25
130		31	<b>7410AC</b>	115.8	78.3	4500	6000	2.25
55	130	31	<b>7410B</b>	105.3	71.2	4000	5500	2.1
	90	18	<b>7011C</b>	38.9	29.5	6000	8000	0.38
	90	18	<b>7011AC</b>	35.5	26.5	6000	8000	0.38
	100	21	<b>7211C</b>	53.2	39.9	5600	7000	0.61
	100	21	<b>7211AC</b>	50.8	38.2	5600	7000	0.61
	100	21	<b>7211B</b>	46.3	36	5300	7000	0.62
120	29	<b>7311C</b>	86.4	59.5	5000	6700	1.42	





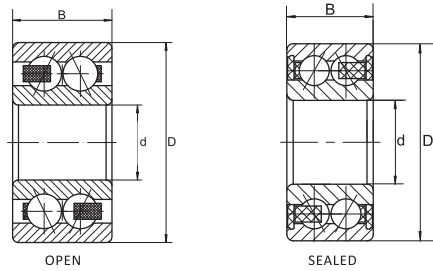
Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
50	120	29	<b>7311AC</b>	83.4	58	5000	3700	1.42
	120	29	<b>7311B</b>	82.2	56.2	4500	6300	1.4
	140	33	<b>7411C</b>	125.3	87	4200	5600	2.75
	140	33	<b>7411AC</b>	121.4	84.5	4200	5600	2.75
	140	33	<b>7411B</b>	110	76.3	3800	5200	2.55
55	95	18	<b>7012C</b>	40.9	33.1	5600	7500	0.4
	95	18	<b>7012AC</b>	37	31.3	5600	7500	0.4
	110	22	<b>7212C</b>	61	48.2	5300	7000	0.8
	110	22	<b>7212AC</b>	58.1	46	5300	7000	0.8
	110	22	<b>7212B</b>	56.1	44.3	4800	6300	0.8
	130	31	<b>7312C</b>	98.6	68.5	4800	6300	1.71
	130	31	<b>7312AC</b>	95.2	67.2	4800	6300	1.71
	130	31	<b>7312B</b>	91.5	65.4	4300	5600	1.75
	150	35	<b>7412C</b>	136.3	98.2	3800	5200	3.4
	150	35	<b>7412AC</b>	131.8	95.3	3800	5200	3.4
60	100	18	<b>7013C</b>	40.1	35.3	5300	7000	0.43
	100	18	<b>7013AC</b>	38	33.6	5300	7000	0.43
	120	23	<b>7213C</b>	69.8	54.4	4800	6300	1
	120	23	<b>7213AC</b>	66.6	52.1	4800	6300	1
	120	23	<b>7213B</b>	65.7	50.2	4300	6000	1
	140	33	<b>7313C</b>	113.1	79.6	4300	5600	2.23
	140	33	<b>7313AC</b>	109.3	78.3	4300	5600	2.23
	140	33	<b>7313B</b>	102.3	75.3	3800	5300	2.15
	160	37	<b>7413C</b>	147.4	110.2	3400	4800	4.2
	160	37	<b>7413AC</b>	142.5	106.7	3400	4800	4.2
	160	37	<b>7413B</b>	128.7	96.4	3200	4500	4

Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
70	110	20	<b>7014C</b>	48.3	43.1	5000	6700	0.6
	110	20	<b>7014AC</b>	45.8	40.9	5000	6700	0.6
	125	24	<b>7214C</b>	72.8	59.7	4500	5800	1.1
	125	24	<b>7214AC</b>	69.4	57	4500	5800	1.1
	125	24	<b>7214B</b>	70.4	56.3	4000	5600	1.1
	150	35	<b>7314C</b>	126	91.6	4000	5300	2.67
	150	35	<b>7314AC</b>	118.8	88.2	4000	5300	2.67
	150	35	<b>7314B</b>	114.6	85.9	3600	5000	2.65
75	115	20	<b>7015C</b>	49.6	45.9	4800	6300	0.63
	115	20	<b>7015AC</b>	47.5	43.3	4800	6300	0.63
	130	25	<b>7215C</b>	79.2	65.6	4300	5600	1.2
	130	25	<b>7215AC</b>	75.3	62.8	4300	5600	1.2
	130	25	<b>7215B</b>	68.6	58.2	3800	5300	1.2
80	125	22	<b>7016C</b>	58.9	54.7	4500	6000	0.85
	125	22	<b>7016AC</b>	57.5	51	4500	6000	0.85
	140	26	<b>7216C</b>	92.5	66.2	4000	5300	1.45
	140	26	<b>7216AC</b>	91.3	65.1	4000	5300	1.45
85	140	26	<b>7216B</b>	78.7	65.7	4000	5300	1.45
	130	22	<b>7017C</b>	58.1	55.9	4300	5600	0.89
	130	22	<b>7017AC</b>	55	52.8	4300	5600	0.89
90	140	24	<b>7018C</b>	71.7	68.7	4000	5300	1.15
	140	24	<b>7018AC</b>	65	62.8	4000	5300	1.15

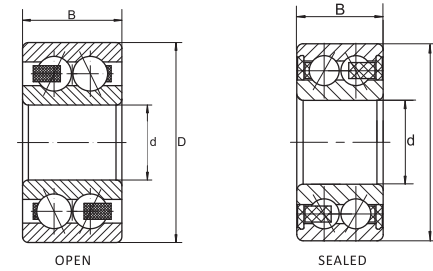


Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr Dynamic	Cor Static	Grease	Oil	
6	17	9	30/6-B-TVH	3.1	1.4	18000	23000	0.01
7	19	10	30/7-B-TVH	3.65	1.7	18000	23000	0.012
8	22	11	30/8-B-TVH	5.2	2.61	18000	23000	0.02
10	26	12	3000A	5.5	3.2	18000	23000	0.022
	26	12	3000A-2RS	5.5	3.2	18000	-	0.022
	26	12	3000A-2Z	5.5	3.2	18000	-	0.022
	30	14.3	3200A	7.5	4.3	16000	21000	0.05
	30	14.3	3200A-2RS	7.5	4.3	16000	-	0.05
12	30	14.3	3200A-2Z	7.5	4.3	16000	-	0.05
	28	12	3001A	6.1	3.7	17000	22000	0.025
	28	12	3001A-2RS	6.1	3.7	17000	-	0.025
	28	12	3001A-2Z	6.1	3.7	17000	-	0.025
	32	15.9	3201A	9	4.9	14000	19000	0.058
15	32	15.9	3201A-2RS	9	4.9	14000	-	0.058
	32	15.9	3201A-2Z	9	4.9	14000	-	0.058
	32	13	3002A	8.5	5.4	14500	18000	0.036
	32	13	3002A-2RS	8.5	5.4	14500	-	0.036
	32	13	3002A-2Z	8.5	5.4	14500	-	0.036
	35	15.9	3202A	10	6	11000	16000	0.066
	35	15.9	3202A-2RS	10	6	11000	-	0.066
	35	15.9	3202A-2Z	10	6	11000	-	0.066
	42	19	3302A	14	8	10000	15000	0.13
17	42	19	3302A-2RS	14	8	10000	-	0.13
	42	19	3302A-2Z	14	8	10000	-	0.13
	35	14	3003A	9	6	12500	16000	0.042
	35	14	3003A-2RS	9	6	12500	-	0.042
	35	14	3003A-2Z	9	6	12500	-	0.042

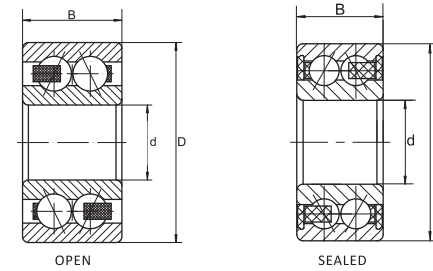
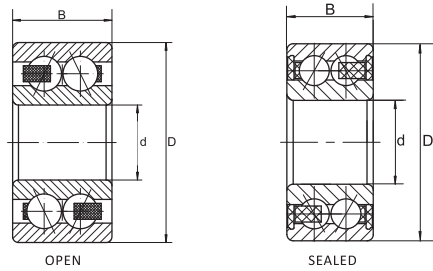
Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr Dynamic	Cor Static	Grease	Oil	
40	17.5	3203A-2RS	12.7	7.8	9000	-	0.096	
40	17.5	3203A-2Z	12.7	7.8	9000	-	0.096	
47	22.2	3303A	17.3	10.4	8000	12000	0.18	
47	22.2	3303A-2RS	17.3	10.4	8000	-	0.18	
20	47	22.2	3303A-2Z	17.3	10.4	8000	-	0.18
	32	10	3804A	4.9	3.9	13000	14300	0.02
	32	10	3804A-2RS	4.9	3.9	13000	-	0.02
	32	10	3804A-2Z	4.9	3.9	13000	-	0.02
	37	13	3904A	9.3	6.6	12000	13200	0.046
	37	13	3904A-2RS	9.3	6.6	12000	-	0.046
	37	13	3904A-2Z	9.3	6.6	12000	-	0.046
	42	16	3004A	14.2	9.6	11000	13000	0.08
	42	16	3004A-2RS	14.2	9.6	11000	-	0.08
	42	16	3004A-2Z	14.2	9.6	11000	-	0.08
	47	20.6	3204A	19	12.1	8000	12000	0.16
	47	20.6	3204A-2RS	19	12.1	8000	-	0.16
	47	20.6	3204A-2Z	19	12.1	8000	-	0.16
	52	22.2	3304A	19	12.3	8500	12000	0.22
	52	22.2	3304A-2RS	19	12.3	8500	-	0.22
52	22.2	3304A-2Z	19	12.3	8500	-	0.22	
25	37	10	3805A	5.5	4.9	11500	12700	0.025
	37	10	3805A-2RS	5.5	4.9	11500	-	0.025
	37	10	3805A-2Z	5.5	4.9	11500	-	0.025
	42	13	3905A	9.6	7.5	11000	12300	0.062
	42	13	3905A-2RS	9.6	7.5	11000	-	0.062
	42	13	3905A-2Z	9.6	7.5	11000	-	0.062
	47	16	3005A	15.2	11	9500	12000	0.1



Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
25	47	16	3005A-2RS	15.2	11	9500	-	0.1
	47	16	3005A-2Z	15.2	11	9500	-	0.1
	52	20.6	3205A	20.6	13.9	7500	10000	0.19
	52	20.6	3205A-2RS	20.6	13.9	7500	-	0.19
	52	20.6	3205A-2Z	20.6	13.9	7500	-	0.19
	62	25.4	3305A	27.6	17.8	7500	10000	0.367
	62	25.4	3305A-2RS	27.6	17.8	7500	-	0.367
	62	25.4	3305A-2Z	27.6	17.8	7500	-	0.367
30	42	10	3806A	5.7	5.6	10000	11500	0.03
	42	10	3806A-2RS	5.7	5.6	10000	-	0.03
	42	10	3806A-2Z	5.7	5.6	10000	-	0.03
	47	13	3906A	9.9	8.3	9500	10500	0.095
	47	13	3906A-2RS	9.9	8.3	9500	-	0.095
	47	13	3906A-2Z	9.9	8.3	9500	-	0.095
	55	19	3006A	20.3	15.5	8000	10000	0.16
	55	19	3006A-2RS	20.3	15.5	8000	-	0.16
	55	19	3006A-2Z	20.3	15.5	8000	-	0.16
	62	23.8	3206A	25.7	18.5	6300	8500	0.31
	62	23.8	3206A-2RS	25.7	18.5	6300	-	0.31
	62	23.8	3206A-2Z	25.7	18.5	6300	-	0.31
	72	30.2	3306A	37.2	25.9	6000	8000	0.59
	72	30.2	3306A-2RS	37.2	25.9	6000	-	0.59
72	30.2	3306A-2Z	37.2	25.9	6000	-	0.59	
35	47	10	3807A	6.1	6.2	8500	10000	0.035
	47	10	3807A-2RS	6.1	6.2	8500	-	0.035
	47	10	3807A-2Z	6.1	6.2	8500	-	0.035
	55	15	3907A	12.9	11.3	8000	9500	0.138
	55	15	3907A-2RS	12.9	11.3	8000	-	0.138

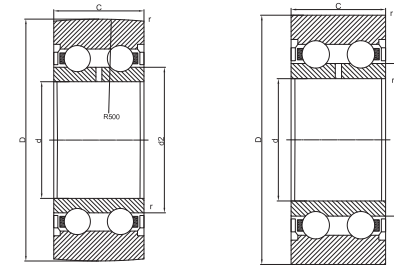
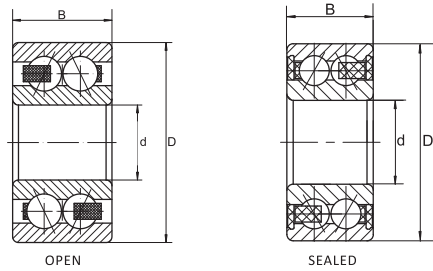


Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr	Cor	Grease	Oil	
				Dynamic	Static			
35	55	15	3907A-2Z	12.9	11.3	8000	-	0.138
	62	20	3007A	24.2	20.4	6500	8500	0.24
	62	20	3007A-2RS	24.2	20.4	6500	-	0.24
	62	20	3007A-2Z	24.2	20.4	6500	-	0.24
	72	27	3207A	30.4	23.5	5600	7500	0.51
	72	27	3207A-2RS	30.4	23.5	5600	-	0.51
	72	27	3207A-2Z	30.4	23.5	5600	-	0.51
	80	34.9	3307A	46.1	35.3	5300	7000	0.82
	80	34.9	3307A-2RS	46.1	35.3	5300	-	0.82
	80	34.9	3307A-2Z	46.1	35.3	5300	-	0.82
40	52	10	3808A	6.4	6.9	7000	8500	0.04
	52	10	3808A-2RS	6.4	6.9	7000	-	0.04
	52	10	3808A-2Z	6.4	6.9	7000	-	0.04
	62	16	3908A	17.4	15.8	6500	8000	0.158
	62	16	3908A-2RS	17.4	15.8	6500	-	0.158
	62	16	3908A-2Z	17.4	15.8	6500	-	0.158
	68	21	3008A	24.5	20.8	6000	7800	0.279
	68	21	3008A-2RS	24.5	20.8	6000	-	0.279
	68	21	3008A-2Z	24.5	20.8	6000	-	0.279
	80	30.2	3208A	40.8	30.2	5300	7000	0.64
	80	30.2	3208A-2RS	40.8	30.2	5300	-	0.64
	80	30.2	3208A-2Z	40.8	30.2	5300	-	0.64
	90	36.5	3308A	54.9	40.1	4800	6300	1.06
	90	36.5	3308A-2RS	54.9	40.1	4800	-	1.06
90	36.5	3308A-2Z	54.9	40.1	4800	-	1.06	
45	58	10	3809A	6.7	7.7	6300	7000	0.055
	58	10	3809A-2RS	6.7	7.7	6300	-	0.055
	58	10	3809A-2Z	6.7	7.7	6300	-	0.055



Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr Dynamic	Cor Static	Grease	Oil	
	75	23	<b>3009A-2RS</b>	39.3	36.4	5600	-	0.364
	75	23	<b>3009A-2Z</b>	39.3	36.4	5600	-	0.364
	85	30.2	<b>3209A</b>	42.8	34.5	4800	6300	0.72
	85	30.2	<b>3209A-2RS</b>	42.8	34.5	4800	-	0.72
	85	30.2	<b>3209A-2Z</b>	42.8	34.5	4800	-	0.72
	100	39.7	<b>3309A</b>	72.1	52	4300	5600	1.24
	100	39.7	<b>3309A-2RS</b>	72.1	52	4300	-	1.24
	100	39.7	<b>3309A-2Z</b>	72.1	52	4300	-	1.24
50	65	12	<b>3810A</b>	7	8.4	6000	7500	0.075
	65	12	<b>3810A-2RS</b>	7	8.4	6000	-	0.075
	65	12	<b>3810A-2Z</b>	7	8.4	6000	-	0.075
	80	23	<b>3010A</b>	42.3	41.9	5300	6600	0.395
	80	23	<b>3010A-2RS</b>	42.3	41.9	5300	-	0.395
	80	23	<b>3010A-2Z</b>	42.3	41.9	5300	-	0.395
	90	30.2	<b>3210A</b>	43.2	35.3	4500	6000	0.78
	90	30.2	<b>3210A-2RS</b>	43.2	35.3	4500	-	0.78
	90	30.2	<b>3210A-2Z</b>	43.2	35.3	4500	-	0.78
	110	44.4	<b>3310A</b>	84.9	62.6	4000	5300	1.96
	110	44.4	<b>3310A-2RS</b>	84.9	62.6	4000	-	1.96
	110	44.4	<b>3310A-2Z</b>	84.9	62.6	4000	-	1.96
55	90	26	<b>3011A</b>	43.7	44.7	4800	5800	0.581
	90	26	<b>3011A-2RS</b>	43.7	44.7	4800	-	0.581
	90	26	<b>3011A-2Z</b>	43.7	44.7	4800	-	0.581
	100	33.3	<b>3211A</b>	53.9	47.2	4000	5300	1.03
	100	33.3	<b>3211A-2RS</b>	53.9	47.2	4000	-	1.03
	100	33.3	<b>3211A-2Z</b>	53.9	47.2	4000	-	1.03
	120	49.2	<b>3311A</b>	106.3	82	3600	4800	2.4

Dimensions (mm)			Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
d	D	B		Cr Dynamic	Cor Static	Grease	Oil	
	120	49.2	<b>3311A-2Z</b>	106.3	82	3600	-	2.4
60	95	26	<b>3012A</b>	47.2	53.4	4400	5000	0.621
	95	26	<b>3012A-2RS</b>	47.2	53.4	4400	-	0.621
	95	26	<b>3012A-2Z</b>	47.2	53.4	4400	-	0.621
	110	36.5	<b>3212A</b>	61.3	52.6	3800	5000	1.4
	110	36.5	<b>3212A-2RS</b>	61.3	52.6	3800	-	1.4
	110	36.5	<b>3212A-2Z</b>	61.3	52.6	3800	-	1.4
	130	54	<b>3312A</b>	121.4	95.1	3400	4500	3.24
	130	54	<b>3312A-2RS</b>	121.4	95.1	3400	-	3.24
	130	54	<b>3312A-2Z</b>	121.4	95.1	3400	-	3.24
	65	100	26	<b>3013A</b>	49.5	59.2	4000	4800
100		26	<b>3013A-2RS</b>	49.5	59.2	4000	-	0.661
100		26	<b>3013A-2Z</b>	49.5	59.2	4000	-	0.661
120		38.1	<b>3213A</b>	73.4	66.6	3400	4500	1.84
120		38.1	<b>3213A-2RS</b>	73.4	66.6	3400	-	1.84
120		38.1	<b>3213A-2Z</b>	73.4	66.6	3400	-	1.84
140		58.7	<b>3313A</b>	137.5	109.6	2800	3700	3.9
140		58.7	<b>3313A-2RS</b>	137.5	109.6	2800	-	3.9
140		58.7	<b>3313A-2Z</b>	137.5	109.6	2800	-	3.9
70		110	30	<b>3014A</b>	54.2	58.9	3600	4400
	110	30	<b>3014A-2RS</b>	54.2	58.9	3600	-	0.95
	110	30	<b>3014A-2Z</b>	54.2	58.9	3600	-	0.95
	125	39.7	<b>3214A</b>	80.5	73.8	3200	4300	1.98
	125	39.7	<b>3214A-2RS</b>	80.5	73.8	3200	-	1.98
	125	39.7	<b>3214A-2Z</b>	80.5	73.8	3200	-	1.98
	150	63.5	<b>3314A</b>	154.5	125.1	2800	3800	4.7
	150	63.5	<b>3314A-2RS</b>	154.5	125.1	2800	-	4.7
	150	63.5	<b>3314A-2Z</b>	154.5	125.1	2800	-	4.7

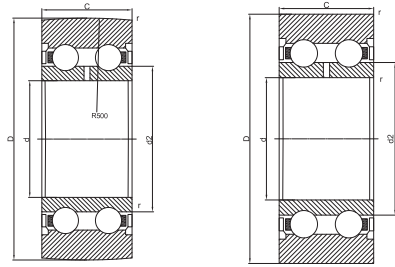


d	Dimensions (mm)		Bearing No.	Basic Load Ratings (KN)		Limited Speed (rpm)		Weight (kg)
	D	B		Cr Dynamic	Cor Static	Grease	Oil	
75	115	30	3015A	57.7	66.5	3400	4000	1.003
	115	30	3015A-2RS	57.7	66.5	3400	-	1.003
	115	30	3015A-2Z	57.7	66.5	3400	-	1.003
	130	41.3	3215A	87.9	81.4	3000	3600	2.01
	130	41.3	3215A-2RS	87.9	81.4	3000	-	2.01
	130	41.3	3215A-2Z	87.9	81.4	3000	-	2.01
	160	68.3	3315A	171.4	134.8	2600	3200	6.3
	160	68.3	3315A-2RS	171.4	134.8	2600	-	6.3
	160	68.3	3315A-2Z	171.4	134.8	2600	-	6.3
80	140	44.4	3216A	103.7	97.5	2800	3600	2.48
	140	44.4	3216A-2RS	103.7	97.5	2800	-	2.48
	140	44.4	3216A-2Z	103.7	97.5	2800	-	2.48
	170	68.3	3316A	190.1	151.7	2400	3400	7.21
	170	68.3	3316A-2RS	190.1	151.7	2400	-	7.21
85	150	49.2	3217A	111.8	106.4	2400	3500	3.2
	150	49.2	3217A-2RS	111.8	106.4	2400	-	3.2
	150	49.2	3217A-2Z	111.8	106.4	2400	-	3.2
	180	73	3317A	189.4	234.5	2200	3200	8.3
	180	73	3317A-2RS	189.4	234.5	2200	-	8.3
	180	73	3317A-2Z	189.4	234.5	2200	-	8.3
90	160	52.4	3218A	111.8	106.4	2400	3200	4.5
	160	52.4	3218A-2RS	111.8	106.4	2400	-	4.5
	160	52.4	3218A-2Z	111.8	106.4	2400	-	4.5
95	200	77.8	3319	218	270	2000	2600	10.9
	170	55.6	3219	144	184	2100	2800	5.1
100	215	82.6	3320	249	324	1800	2500	13.5
	180	60.3	3220	189	234	2000	2700	5.88
105	190	65.1	3221	223	237	2000	2600	7.37
110	200	69.8	3222	266	363	1900	2500	8.8

LR5000 Series

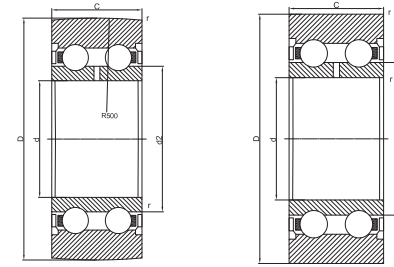
Bearing No.	Other Bearing No.		Dimensions					Load ratings		Fatigue load limit	Limiting speed	Outer Diameter shape	Weight (kg)
	INA No.	EUR No.	d (mm)	D (mm)	B (mm)	C (mm)	Rs (mm)	Cr (KN)	Cor (KN)	P <sub>u</sub> w (N)	r/min		
LR50/5NPP			5	17	7	7	0.2	1.65	0.95	39	12000	Cylindrical	0.01
LR50/5NPPU	LR50/5-2RSR		5	17	7	7	0.2	1.65	0.95	39	12000	R500	0.01
LR50/5KDD			5	17	7	7	0.2	1.65	0.95	39	16000	Cylindrical	0.01
LR50/5KDDU			5	17	7	7	0.2	1.65	0.95	39	16000	R500	0.01
LR50/6NPP			6	19	9	9	0.3	2.65	1.31	54	11000	Cylindrical	0.02
LR50/6NPPU	LR50/6-2RSR		6	19	9	9	0.3	2.65	1.31	54	11000	R500	0.02
LR50/6KDD			6	19	9	9	0.3	2.65	1.31	54	15000	Cylindrical	0.02
LR50/6KDDU			6	19	9	9	0.3	2.65	1.31	54	15000	R500	0.02
LR50/7NPP			7	22	10	10	0.3	3.3	1.69	69	10000	Cylindrical	0.02
LR50/7NPPU	LR50/7-2RSR		7	22	10	10	0.3	3.3	1.69	69	10000	R500	0.02
LR50/7KDD			7	22	10	10	0.3	3.3	1.69	69	14000	Cylindrical	0.02
LR50/7KDDU			7	22	10	10	0.3	3.3	1.69	69	14000	R500	0.02
LR50/8NPP			8	24	11	11	0.3	4.2	2.36	120	10000	Cylindrical	0.03
LR50/8NPPU	LR50/8-2RSR		8	24	11	11	0.3	4.2	2.36	120	10000	R500	0.03
LR50/8KDD			8	24	11	11	0.3	4.2	2.36	120	14000	Cylindrical	0.03
LR50/8KDDU			8	24	11	11	0.3	4.2	2.36	120	14000	R500	0.03
LR5000NPP			10	28	12	12	0.3	4.75	2.85	118	9000	Cylindrical	0.03
LR5000NPPU	LR5000-2RS		10	28	12	12	0.3	4.75	2.85	118	9000	R500	0.03
LR5000KDD			10	28	12	12	0.3	4.75	2.85	118	13000	Cylindrical	0.03
LR5000KDDU			10	28	12	12	0.3	4.75	2.85	118	13000	R500	0.03
LR5001NPP			12	30	12	12	0.3	4.95	3.1	128	8500	Cylindrical	0.03
LR5001NPPU	LR5001-2RS		12	30	12	12	0.3	4.95	3.1	128	8500	R500	0.03
LR5001KDD			12	30	12	12	0.3	4.95	3.1	128	11000	Cylindrical	0.03
LR5001KDDU			12	30	12	12	0.3	4.95	3.1	128	11000	R500	0.03
LR5002NPP			15	35	13	13	0.3	6.5	4.1	170	7000	Cylindrical	0.05
LR5002NPPU	LR5002-2RS		15	35	13	13	0.3	6.5	4.1	170	7000	R500	0.05
LR5002KDD			15	35	13	13	0.3	6.5	4.1	170	10000	Cylindrical	0.05





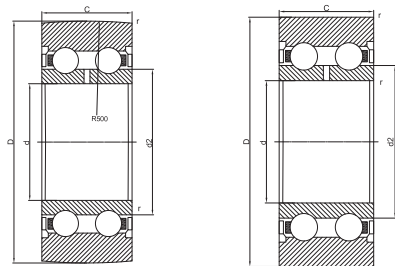
LR5000/5200 Series

Bearing No.	Other Bearing No.		Dimensions					Load ratings		Fatigue load limit P <sub>u</sub> N	Limiting speed r/min	Outer Diameter shape	Weight kg
	INA No.	EUR No.	d mm	D mm	B mm	C mm	R <sub>s</sub> mm	C <sub>r</sub> KN	Cor KN				
LR5002KDDU			15	35	13	13	0.3	6.5	4.1	170	10000	R500	0.05
LR5003NPP			17	40	14	14	0.3	7.7	5.2	214	6000	Cylindrical	0.07
LR5003NPPU	LR5003-2RS		17	40	14	14	0.3	7.7	5.2	214	6000	R500	0.07
LR5003KDD			17	40	14	14	0.3	7.7	5.2	214	9000	Cylindrical	0.07
LR5003KDDU			17	40	14	14	0.3	7.7	5.2	214	9000	R500	0.07
LR5004NPP			20	47	16	16	0.6	11.5	7.7	317	5500	Cylindrical	0.12
LR5004NPPU	LR5004-2RS		20	47	16	16	0.6	11.5	7.7	317	5500	R500	0.12
LR5004KDD			20	47	16	16	0.6	11.5	7.7	317	8000	Cylindrical	0.12
LR5004KDDU			20	47	16	16	0.6	11.5	7.7	317	8000	R500	0.12
LR5005NPP			25	52	16	16	0.6	11.6	8.1	332	4700	Cylindrical	0.15
LR5005NPPU	LR5005-2RS		25	52	16	16	0.6	11.6	8.1	332	4700	R500	0.15
LR5005KDD			25	52	16	16	0.6	11.6	8.1	332	7000	Cylindrical	0.15
LR5005KDDU			25	52	16	16	0.6	11.6	8.1	332	7000	R500	0.15
LR5006NPP			30	62	19	19	1	17.2	11.1	462	4000	Cylindrical	0.25
LR5006NPPU	LR5006-2RS		30	62	19	19	1	17.2	11.1	462	4000	R500	0.25
LR5006KDD			30	62	19	19	1	17.2	11.1	462	6000	Cylindrical	0.25
LR5006KDDU			30	62	19	19	1	17.2	11.1	462	6000	R500	0.25
LR5007NPP			35	68	20	20	1	17.6	13.1	490	4000	Cylindrical	0.30
LR5007NPPU	LR5007-2RS		35	68	20	20	1	17.6	13.1	490	4000	R500	0.30
LR5007KDD			35	68	20	20	1	17.6	13.1	490	5300	Cylindrical	0.30
LR5007KDDU			35	68	20	20	1	17.6	13.1	490	5300	R500	0.30
LR5200NPP			10	32	14	14	0.6	6.8	4.05	168	8000	Cylindrical	0.07
LR5200NPPU	LR5200-2RS		10	32	14	14	0.6	6.8	4.05	168	8000	R500	0.07
LR5200KDD		305700 C-2Z	10	32	14	14	0.6	6.8	4.05	168	11000	Cylindrical	0.07
LR5200KDDU	LR5200-2Z	305800 C-2Z	10	32	14	14	0.6	6.8	4.05	168	11000	R500	0.07
LR5201NPP			12	35	15.9	15.9	0.6	8.6	5.1	211	7500	Cylindrical	0.08
LR5201NPPU	LR5201-2RS		12	35	15.9	15.9	0.6	8.6	5.1	211	7500	R500	0.08



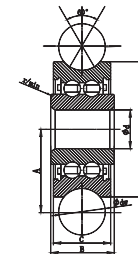
LR5000/5200 Series

Bearing No.	Other Bearing No.		Dimensions					Load ratings		Fatigue load limit P <sub>u</sub> N	Limiting speed r/min	Outer Diameter shape	Weight kg
	INA No.	EUR No.	d mm	D mm	B mm	C mm	R <sub>s</sub> mm	C <sub>r</sub> KN	Cor KN				
LR5201KDD	LR5201-X-2Z	305702 C-2Z	12	35	15.9	15.9	0.6	8.6	5.1	211	10000	Cylindrical	0.08
LR5201KDDU	LR5201-2Z	305801 C-2Z	12	35	15.9	15.9	0.6	8.6	5.1	211	10000	R500	0.08
LR5202NPP			15	40	15.9	15.9	0.6	9.8	6.2	258	7000	Cylindrical	0.11
LR5202NPPU	LR5202-2RS		15	40	15.9	15.9	0.6	9.8	6.2	258	7000	R500	0.11
LR5202KDD	LR5202-X-2Z	305702 C-2Z	15	40	15.9	15.9	0.6	9.8	6.2	258	10000	Cylindrical	0.11
LR5202KDDU	LR5202-2Z	305802 C-2Z	15	40	15.9	15.9	0.6	9.8	6.2	258	10000	R500	0.11
LR5203NPP			17	47	17.5	17.5	0.6	12.6	8.2	342	5500	Cylindrical	0.17
LR5203NPPU	LR5203-2RS		17	47	17.5	17.5	0.6	12.6	8.2	342	5500	R500	0.17
LR5203KDD	LR5203-X-2Z	305703 C-2Z	17	47	17.5	17.5	0.6	12.6	8.2	342	7500	Cylindrical	0.17
LR5203KDDU	LR5203-2Z	305803 C-2Z	17	47	17.5	17.5	0.6	12.6	8.2	342	7500	R500	0.17
LR5204NPP			20	52	20.6	20.6	1	15.8	10.5	433	5000	Cylindrical	0.23
LR5204NPPU	LR5204-2RS		20	52	20.6	20.6	1	15.8	10.5	433	5000	R500	0.23
LR5204KDD	LR5204-X-2Z	305704 C-2Z	20	52	20.6	20.6	1	15.8	10.5	433	7000	Cylindrical	0.23
LR5204KDDU	LR5204-2Z	305804 C-2Z	20	52	20.6	20.6	1	15.8	10.5	433	7000	R500	0.23
LR5205NPP			25	62	20.6	20.6	1	18.5	13	532	4500	Cylindrical	0.34
LR5205NPPU	LR5205-2RS		25	62	20.6	20.6	1	18.5	13	532	4500	R500	0.34
LR5205KDD	LR5205-X-2Z	305705 C-2Z	25	62	20.6	20.6	1	18.5	13	532	6500	Cylindrical	0.34
LR5205KDDU	LR5205-2Z	305805 C-2Z	25	62	20.6	20.6	1	18.5	13	532	6500	R500	0.34
LR5206NPP			30	72	23.8	23.8	1	24.6	21.4	880	3500	Cylindrical	0.51
LR5206NPPU	LR5206-2RS		30	72	23.8	23.8	1	24.6	21.4	880	3500	R500	0.51
LR5206KDD	LR5206-X-2Z	305706 C-2Z	30	72	23.8	23.8	1	24.6	21.4	880	5000	Cylindrical	0.51
LR5206KDDU	LR5206-2Z	305806 C-2Z	30	72	23.8	23.8	1	24.6	21.4	880	5000	R500	0.51
LR5207NPP			35	80	27	27	1.1	30.5	22.4	927	2800	Cylindrical	0.66
LR5207NPPU	LR5207-2RS		35	80	27	27	1.1	30.5	22.4	927	2800	R500	0.66
LR5207KDD	LR5207-X-2Z	305707 C-2Z	35	80	27	27	1.1	30.5	22.4	927	3900	Cylindrical	0.66
LR5207KDDU	LR5207-2Z	305807 C-2Z	35	80	27	27	1.1	30.5	22.4	927	3900	R500	0.66
LR5208NPP			40	85	30.2	30.2	1.1	34.5	25.5	1060	2500	Cylindrical	0.75
LR5208NPPU	LR5208-2RS		40	85	30.2	30.2	1.1	34.5	25.5	1060	2500	R500	0.75
LR5208KDD	LR5208-X-2Z	305708 C-2Z	40	85	30.2	30.2	1.1	34.5	25.5	1060	3500	Cylindrical	0.75



LR5300 Series

Bearing No.	Other Bearing No.		Dimensions					Load ratings		Fatigue load limit P <sub>u</sub> N	Limiting speed r/min	Outer Diameter shape	Weight kg
	INA No.	EUR No.	d mm	D mm	B mm	C mm	R <sub>s</sub> mm	Cr KN	Cor KN				
LR5208KDDU	LR5208-2Z	305808 C-2Z	40	85	30.2	30.2	1.1	34.5	25.5	1060	3500	R500	0.75
LR5302NPP			15	47	19	19	1	14.6	9.2	380	6500	Cylindrical	0.15
LR5302NPPU	LR5302-2RS		15	47	19	19	1	14.6	9.2	380	6500	R500	0.15
LR5302KDD		306702 C-2Z	15	47	19	19	1	14.6	9.2	380	10000	Cylindrical	0.15
LR5302KDDU	LR5302-2Z	306802 C-2Z	15	47	19	19	1	14.6	9.2	380	10000	R500	0.15
LR5303NPP			17	52	22.2	22.2	1	17	11	462	4700	Cylindrical	0.21
LR5303NPPU	LR5303-2RS		17	52	22.2	22.2	1	17	11	462	4700	R500	0.21
LR5303KDD		306703 C-2Z	17	52	22.2	22.2	1	17	11	462	6500	Cylindrical	0.21
LR5303KDDU	LR5303-2Z	306803 C-2Z	17	52	22.2	22.2	1	17	11	462	6500	R500	0.21
LR5304NPP			20	62	22.2	22.2	1.1	21.1	14.5	606	4500	Cylindrical	0.34
LR5304NPPU	LR5304-2RS		20	62	22.2	22.2	1.1	21.1	14.5	606	4500	R500	0.34
LR5304KDD		306704 C-2Z	20	62	22.2	22.2	1.1	21.1	14.5	606	6500	Cylindrical	0.34
LR5304KDDU	LR5304-2Z	306804 C-2Z	20	62	22.2	22.2	1.1	21.1	14.5	606	6500	R500	0.34
LR5305NPP			25	72	25.4	25.4	1.1	27.5	19.5	813	3900	Cylindrical	0.50
LR5305NPPU	LR5305-2RS		25	72	25.4	25.4	1.1	27.5	19.5	813	3900	R500	0.50
LR5305KDD		306705 C-2Z	25	72	25.4	25.4	1.1	27.5	19.5	813	5500	Cylindrical	0.50
LR5305KDDU	LR5305-2Z	306805 C-2Z	25	72	25.4	25.4	1.1	27.5	19.5	813	5500	R500	0.50
LR5306NPP			30	80	30.2	30.2	1.1	35.5	25.5	1100	3100	Cylindrical	0.67
LR5306NPPU	LR5306-2RS		30	80	30.2	30.2	1.1	35.5	25.5	1100	3100	R500	0.67
LR5306KDD		306706 C-2Z	30	80	30.2	30.2	1.1	35.5	25.5	1100	4300	Cylindrical	0.67
LR5306KDDU	LR5306-2Z	306806 C-2Z	30	80	30.2	30.2	1.1	35.5	25.5	1100	4300	R500	0.67
LR5307NPP			35	90	34.9	34.9	1.5	44.5	33	1370	2500	Cylindrical	0.97
LR5307NPPU	LR5307-2RS		35	90	34.9	34.9	1.5	44.5	33	1370	2500	R500	0.97
LR5307KDD		306707 C-2Z	35	90	34.9	34.9	1.5	44.5	33	1370	3600	Cylindrical	0.97
LR5307KDDU	LR5307-2Z	306807 C-2Z	35	90	34.9	34.9	1.5	44.5	33	1370	3600	R500	0.97
LR5308NPP			40	100	36.5	36.5	1.5	54	40.5	1750	2300	Cylindrical	1.20
LR5308NPPU	LR5308-2RS		40	100	36.5	36.5	1.5	54	40.5	1750	2300	R500	1.20
LR5308KDD		306708 C-2Z	40	100	36.5	36.5	1.5	54	40.5	2100	3300	Cylindrical	1.20
LR5308KDDU	LR5308-2Z	306808 C-2Z	40	100	36.5	36.5	1.5	54	40.5	2100	3300	R500	1.20



LFR Series

Bearing No.	Sealing type		Dimension							Load ratings		Weight kg
	KDD	KDD	dw	d	D	B	A	C	r <sub>min</sub>	Cr	Cor	
			mm	mm	mm	mm	mm	mm	mm	mm	N	N
LFR30/8	LFR30/8 KDD	LFR30/8 NPP	10	8	26.8	13	16.7	11	0.3	3670	2300	0.0300
LFR50/4		LFR50/4 NPP	5	4	13	7	8.04	6	0.2	1050	850	0.0035
LFR50/5-4	LFR50/5-4 KDD	LFR50/5-4 NPP	4	5	16	8	9	7	0.2	1560	860	0.0075
LFR50/5	LFR50/5 KDD	LFR50/5 NPP	6	5	17	8	10.5	7	0.2	1630	900	0.0100
LFR50/8	LFR50/8 KDD	LFR50/8 NPP	6	8	24	11	14	11	0.3	3700	2280	0.0200
LFR50/8-8	LFR50/8-8 KDD	LFR50/8-8 NPP	8	8	24	11	14.75	11	0.3	3700	2280	0.0200
LFR5201	LFR5201 KDD	LFR5201 NPP	10	12	35	15.9	20.65	15.9	0.6	8400	5000	0.0800
LFR5201-10.4	LFR5201-10.4 KDD	LFR5201-10.4 NPP	10	12	39.9	20	22	18	0.3	8900	5000	0.1200
LFR5201-12	LFR5201-12 KDD	LFR5201-12 NPP	12	12	35	15.9	21.75	15.9	0.6	8300	5000	0.0800
LFR5201-14	LFR5201-14 KDD	LFR5201-14 NPP	14	12	39.9	20	24	18	0.3	8900	5000	0.1100
LFR5301-10	LFR5301 KDD	LFR5301 NPP	10	12	42	19	24	19	0.6	13200	7700	0.1000
LFR5301-20	LFR5301-20 KDD	LFR5301-20 NPP	20	12	42	19	28	19	0.6	13000	7700	0.1300
LFR5200-8Z	LFR5200 KDD	LFR5200 NPP	8	10	32	14	18	14	0.6	56000	36000	0.0500
LFR5302-10	LFR5302 KDD	LFR5302 NPP	10	15	47	19	26.65	19	1	14500	9100	0.1700
LFR5204-16	LFR5204-16 KDD	LFR5204-16 NPP	16	20	52	22.6	31.5	20.6	1	15300	10100	0.2300
LFR5206-20	LFR5206-20 KDD	LFR5206-20 NPP	20	25	72	25.8	41	23.8	1	23100	16400	0.4300
LFR5206-25	LFR5206-25 KDD	LFR5206-25 NPP	25	25	72	25.8	43.5	23.8	1	22700	16100	0.4300
LFR5207-30	LFR5207-30 KDD	LFR5207-30 NPP	30	30	80	29	51	27	1	28500	20800	0.6600
LFR5208-40	LFR5208-40 KDD	LFR5208-40 NPP	40	40	98	38	62.5	36	1.1	38500	29000	1.3600
LFR5308-50	LFR5308-50 KDD	LFR5308-50 NPP	50	40	110	46	72.5	44	1.1	54000	40500	1.4000

# Self-Aligning Ball Bearing



## 1.Design features and characteristics

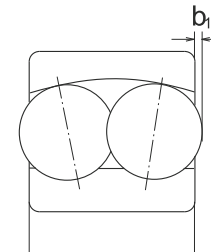
The outer ring raceway of self-aligning ball bearings forms a spherical surface whose center is common to the bearing center. The inner ring of the bearing has two raceways. The balls, cage, and inner ring of these bearings are capable of a shifting in order to compensate for a certain degree of misalignment with the outer rings. As a result, the bearing is able to align itself and compensate for shaft / housing finishing unevenness, bearing fitting error, and other sources of misalignment as shown in Pic.01.

However, since axial load capacity is limited, self-aligning ball bearings are not suitable for applications with heavy axial loads.

Furthermore, if an adapter is used on the tapered bore of the inner diameter, installation and disassembly are much simpler and for this reason adapters are often used on equipment with drive shafts.

## 2.PROTRUSION AMOUNT OF BALLS

Among self-aligning ball bearings, there are some in which the balls protrude from the side face as shown below. This protrusion amount listed in the following table.



Bearing No.	b <sub>1</sub> (mm)
2222(K), 2316(K)	0.5
2319(K), 2320(K) 2321, 2322(K)	0.5
1318(K)	1.5
1319(K)	2
1320(K), 1321 1322(K)	3

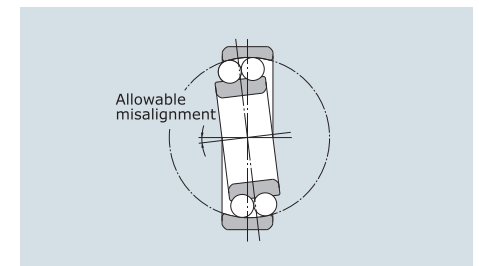
## 3.PERMISSIBLE MISALIGNMENT

The permissible misalignment of self-aligning ball bearings is approximately 0.07 to 0.12 radian (4° to 7°) under normal loads. However, the permissible misalignment of self-aligning ball bearings is depending on the surrounding structure, such an angle may not be possible. Use care in the structural design.

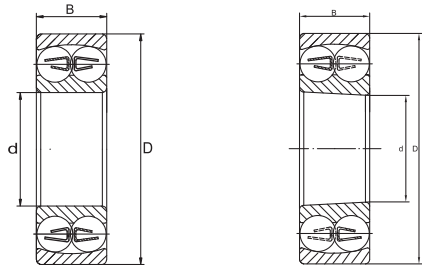
## 4.Standard cage types

Open structure default cage is stamped steel cage.

Sealed (2RS) bearings usually use Nylon cage. Of course, cage style can be customized.

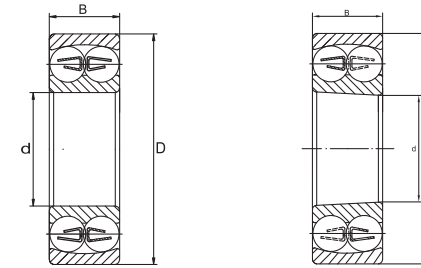


SA-01



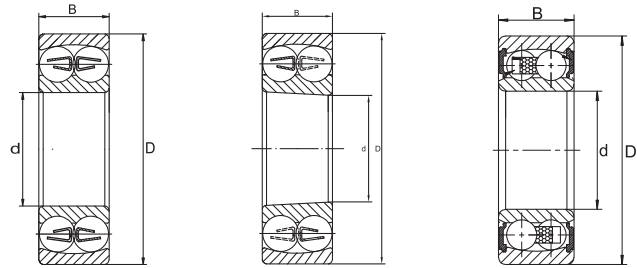
1200 Series

Open		Dimension			Basic load Rating		Limiting Speed		Weight
		d	D	B	Dynamic (Cr)	Static(Cor)	Grease	Oil	
Open	Taper Bore	mm	mm	mm	KN	KN	r/min	r/min	kg
108		8	22	7	2.7	0.65	30000	36000	0.014
126		6	19	6	2.5	0.55	32000	38000	0.0091
129		9	26	8	3.9	0.95	26000	32000	0.022
1200		10	30	9	5.7	1.57	20000	21000	0.035
1201		12	32	10	6.8	1.98	19000	21000	0.042
1202		15	35	11	6.8	2.02	18000	20000	0.051
1203		17	40	12	7.9	2.02	16000	20000	0.076
1204	1204K	20	47	14	9.95	2.85	14000	17000	0.119
1205	1205K	25	52	15	12	3.3	12000	14000	0.144
1206	1206K	30	62	16	15.8	4.7	10000	12000	0.228
1207	1207K	35	72	17	15.8	5.08	8500	10000	0.318
1208	1208K	40	80	18	19.2	6.4	7500	9000	0.411
1209	1209K	45	85	19	21.8	7.32	7100	8500	0.49
1210	1210K	50	90	20	22.8	8.08	6300	8000	0.545
1211	1211K	55	100	21	26.8	10	6000	7100	0.722
1212	1212K	60	110	22	30.2	11.5	5300	6300	0.895
1213	1213K	65	120	23	31	12.5	4800	6000	0.92
1214	1214K	70	125	24	34.5	13.5	4600	5600	1.29
1215	1215K	75	130	25	38.8	15.2	4300	5300	1.35
1216	1216K	80	140	26	39.5	16.8	4000	5000	1.6
1217	1217K	85	150	28	48.8	20.5	3800	4500	2.1
1218	1218K	90	160	30	56.5	23.2	3600	4300	2.44
1219	1219K	95	170	32	63.5	27	3400	4000	3.06
1220	1220K	100	180	34	68.5	29.2	3200	3800	3.7
1222	1222K	110	200	38	68.5	29.2	3000	3600	5.2



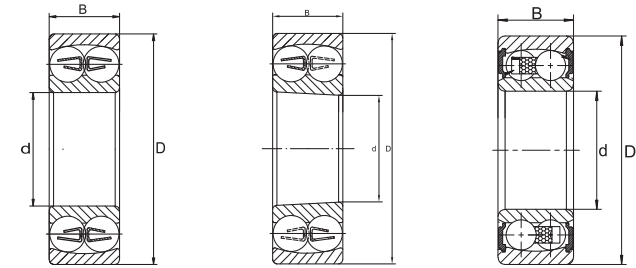
1300 Series

Open		Dimension			Basic load Rating		Limiting Speed		Weight
		d	D	B	Dynamic (Cr)	Static(Cor)	Grease	Oil	
Open	Taper Bore	mm	mm	mm	KN	KN	r/min	r/min	kg
1300		10	35	11	7.22	1.62	20000	24000	0.06
1301		12	37	12	9.42	2.12	18000	22000	0.07
1302		15	42	13	9.5	2.25	16000	2000	0.1
1303		17	47	14	12.5	3.18	14000	17000	0.14
1304	1304K	20	52	15	12.5	3.38	12000	15000	0.174
1305	1305K	25	62	17	17.8	5.05	10000	13000	0.26
1306	1306K	30	72	19	21.5	6.28	8500	11000	0.389
1307	1307K	35	80	21	25	7.95	7500	9500	0.537
1308	1308K	40	90	23	29.5	9.5	6700	8500	0.706
1309	1309K	45	100	25	38	12.8	6000	7500	0.962
1310	1310K	50	110	27	43.2	14.2	5600	6700	1.21
1311	1311K	55	120	29	51.6	18.2	5000	6300	1.58
1312	1312K	60	130	31	57.2	20.8	4500	5600	1.96
1313	1313K	65	140	33	61.8	22.8	4300	5300	2.37
1314	1314K	70	150	35	74.5	27.5	4000	5000	2.98
1315	1315K	75	160	37	79	29.8	3800	4500	3.55
1316	1316K	80	170	39	88.5	32.8	3600	4300	4.19
1317	1317K	85	180	41	97.8	37.8	3400	4000	4.95
1318	1318K	90	190	43	115	44.5	3200	3800	5.99
1319	1319K	95	200	45	125	46	3000	3600	6.98
1320	1320K	100	215	52	135	48	2800	3200	8.64



2200 Series

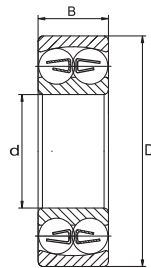
Bearing No.			Dimension			Basic load Rating		Limiting Speed		Weight
			d	D	B	Dynamic (Cr)	Static(Cor)	Grease	Oil	
Open	Sealed	Taper Bore	mm	mm	mm	KN	KN	r/min	r/min	kg
2200	2200-2RS		10	30	14	7.18	1.58	24000	28000	0.05
2201	2201-2RS		12	32	14	8.8	1.8	22000	26000	0.059
2202	2202-2RS		15	35	14	8.5	1.8	16000	18000	0.061
2203	2203-2RS		17	40	16	10.5	2.4	14000	16000	0.065
2204	2204-2RS		20	47	18	11.5	2.8	13000	14000	0.152
2205	2205-2RS	2205K	25	52	18	12.5	3.4	12000	14000	0.187
2206	2206-2RS	2206K	30	62	20	15.2	4.6	10000	12000	0.26
2207	2207-2RS	2207K	35	72	23	21.8	6.65	8500	10000	0.441
2208	2208-2RS	2208K	40	80	23	22.5	7.38	7500	9000	0.53
2209	2209-2RS	2209K	45	85	23	23.2	8	7100	8500	0.553
2210	2210-2RS	2210K	50	90	23	23.2	8.45	6300	8000	0.618
2211	2211-2RS	2211K	55	100	25	26.8	9.95	6000	7100	0.824
2212	2212-2RS	2212K	60	110	28	34	12.5	5300	6300	1.16
2213	2213-2RS	2213K	65	120	31	43.5	16.2	4800	6000	1.5
2214	2214-2RS	2214K	70	125	31	44	17	4500	5600	1.63
2215		2215K	75	130	31	44.2	18	4300	5300	1.71
2216		2216K	80	140	33	48.8	20.2	4000	5000	2.19
2217		2217K	85	150	36	58.2	23.5	3800	4500	2.53
2218		2218K	90	160	40	70	28.5	3600	4300	3.22
2219		2219K	95	170	43	82.8	33.8	3400	4000	4.2
2220		2220K	100	180	46	97.2	40.5	3200	3800	4.61
2222		2222K	110	200	53	125	52.2	2800	3400	7.16



2300 Series

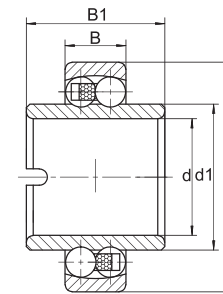
Bearing No.			Dimension			Basic load Rating		Limiting Speed		Weight
			d	D	B	Dynamic (Cr)	Static(Cor)	Grease	Oil	
Open	Sealed	Taper Bore	mm	mm	mm	KN	KN	r/min	r/min	kg
2301	2301-2RS		12	37	17	12.5	2.72	17000	22000	0.104
2302	2302-2RS		15	42	17	12	2.88	14000	18000	0.11
2303	2303-2RS		17	47	19	14.5	3.58	13000	16000	0.17
2304	2304-2RS	2304K	20	52	21	20.5	5.45	12000	12000	0.219
2305	2305-2RS	2305K	25	62	24	26.5	6.62	10000	11000	0.355
2306	2306-2RS	2306K	30	72	27	31.5	8.68	8000	10000	0.52
2307	2307-2RS	2307K	35	80	31	39.2	11	7100	9000	0.68
2308	2308-2RS	2308K	40	90	33	44.8	13.2	6300	8000	0.96
2309	2309-2RS	2309K	45	100	36	55	16.2	5600	7100	1.3
2310	2310-2RS	2310K	50	110	40	64.05	19.8	5000	6300	1.7
2311	2311-2RS	2311K	55	120	43	75.2	23.5	4800	6000	2.09
2312		2312K	60	130	46	86.8	27.5	4300	5300	2.61
2313		2313K	65	140	48	96	32.5	3800	4800	3.22
2314		2314K	70	150	51	110	37.05	3600	4500	3.92
2315		2315K	75	160	55	122	42.8	3400	3400	4.71
2316		2316K	80	170	58	128	45.5	3200	4000	5.7
2317			85	180	60	134	48.8	3000	3800	6.73
2318		2318K	90	190	64	142	57.2	2800	3600	8.27
2319			90	200	67	154	68.8	2600	3400	9.56
2320		2320K	100	215	73	192	78.5	2400	3200	12.4





1300M, 2200M, 2300M Brass cage

Bearing No.	Dimension			Basic load Rating		Limiting Speed		Weight
	d	D	B	Dynamic (Cr)	Static(Cor)	Grease	Oil	
	mm	mm	mm	KN	KN	r/min	r/min	kg
1305M	25	62	17	17.8	5.05	10000	13000	0.3
1306M	30	72	19	21.5	6.28	8500	1100	0.45
1307M	35	80	21	25	7.95	7500	9500	0.62
1308M	40	90	23	29.5	9.5	6700	8500	0.8
1309M	45	100	25	38	12.8	6000	7500	1.05
1310M	50	110	27	43.2	14.2	5600	6700	1.35
2200M	10	30	14	7.18	1.58	24000	28000	0.07
2201M	12	32	14	8.8	1.8	22000	26000	0.09
2202M	15	35	14	9	2	16000	18000	0.105
2203M	17	40	16	10.5	2.4	14000	16000	0.125
2204M	20	47	18	11.5	2.8	13000	14000	0.15
2301M	12	37	17	8.78	2.8	13000	17000	1.25
2304M	20	52	21	17	4.25	16000	18000	0.23
2305M	25	62	24	18.8	7.45	8000	10000	0.4
2306M	30	72.1	27	24.2	10	7500	9000	0.6
2307M	35	80	31	39.21	1	7100	8500	0.75
2308M	40	90	33	44.8	13.2	6300	8000	1.1
2309M	45	100	36	55	16.2	5600	7100	1.5
2310M	50	110	40	64.5	19.8	5000	6300	1.9



11200, 11300 Series

Bearing No.	Dimension					Basic load Rating		Limiting Speed	Weight
	d	D	B	d1	B1	Dynamic (Cr)	Static(Cor)	Oil	
	mm	mm	mm	mm	mm	KN	KN	r/min	kg
11204	20	47	14	28.9	40	12.7	3.4	9000	0.18
11205	25	52	15	33.3	44	14.3	4	8000	0.22
11206	30	62	16	40.1	48	15.6	4.65	6700	0.35
11207	35	72	17	47	52	19	6	5600	0.54
11208	40	80	18	54	56	19.9	6.95	5000	0.72
11209	45	85	19	57.7	58	22	7.35	6000	0.78
11210	50	90	20	62.7	58	22.8	8.15	5600	0.866
11211	55	100	21	69.5	60	27	10	5000	1.13
11212	60	110	22	78	62	30	11.6	4500	1.51
11305	25	62	17	38	48	19	5.4	6700	0.41
11306	30	72	19	45	52	22.5	6.8	5600	0.61
11307	35	80	21	51.7	56	26.5	8.5	5000	0.81

# Spherical Roller Bearing



## Spherical Roller Bearing

### 1. Type, Structure and Characteristics

The barrel shaped spherical rolling elements of a self-aligning bearing track along two rows of raceway grooves in the inner ring. The center of the outer ring's raceway aligns with the center of the bearing. The self-aligning feature accommodates errors in housing assembly and misalignments between the inner and outer rings caused by bent shafts.

Spherical roller bearings have a large capacity for radial loads, axial loads in either directions, and complex loads. They are also suited for applications where vibration and shock loads are encountered. When operating under axial loads, however, it is desirable to maintain conditions so that  $F_a/F_r \leq 2e$  in order to prevent sliding movement along the of rollers not receiving the axial load.

In addition to a cylindrical shaft bore, the bearings are available with a tapered shaft bore. The standard taper ratio is 1:12 with a k suffix, but for bearings in series 240 and 241 the suffix k30 indicates the taper ratio for a bearing is 1:30. Most tapered bore bearings incorporate the use of adapters and withdrawal sleeves for shaft mounting. **Table 1** shows the types of the self-aligning roller bearings

Table 1 Model of Self-Aligning Roller Bearings

Model	Standard (Model B)	Model C	Model 213
Structure			
Bearing Series	Bearings except Model C	24024~24038	213's bore should be more than 55mm.
Roller	A symmetrical roller	Symmetrical roller	A symmetrical roller
Roller guide type	Guided by the inner rib which is united with the inner ring.	By the guide ring located between two rows of rollers.	By the guide ring located between the rollers on the outer ring raceway.
Cage type	Pressed cage Machined cage	Pressed cage	Machined cage

### 1.2 Lubrication holes and grooves

Holes and grooves to supply lubricant are provided on self-aligning roller bearings with outside diameters greater than 320mm. If required, lubrication holes and grooves can be manufactured for bearings with ODs smaller than 320mm. Consult RLM Engineering for further details and add the supplemental code D1 to the part number. **Table 2** shows the dimensions for lubrication holes and grooves. The number of lubrication holes are shown in **Table 3**.

When a knock pin for lubricant retention is necessary, please contact RLM Engineering.

Table 2 Lubrication hole and groove dimensions

Nominal bearing width		Oil groove width W <sub>g</sub>	Oil hole dia d <sub>o</sub>	Oil groove depth h		Unit mm
over	incl			Width series 1, 2, 3	Width series 4	
80	100	14	8	2.5	2.0	
100	120	16	10	3.0	2.5	
120	160	20	12	3.5	3.0	
160	200	27	16	5.0	3.5	
200	315	33	20	6.0	5.0	
315	—	42	25	7.0	6.5	

Table 3 Lubrication hole number

Nominal bearing outside dia. mm		Hole number Z <sub>o</sub>
over	incl	
—	320	4
320	1,010	8
1,010	—	12

Spherical Roller Bearing

2. Bearing Internal Clearance

Table 5 Radial internal clearance of spherical roller bearings

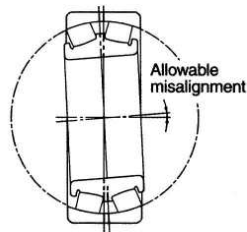
Nominal bore diameter		Bearing with cylindrical bore									
<i>d</i> mm		C2		Normal		C3		C4		C5	
over	incl.	min	max	min	max	min	max	min	max	min	max
80	100	35	60	60	100	100	135	135	180	180	225
100	120	40	75	75	120	120	160	160	210	210	260
120	140	50	95	95	145	145	190	190	240	240	300
140	160	60	110	110	170	170	220	220	280	280	350
160	180	65	120	120	180	180	240	240	310	310	390
180	200	70	130	130	200	200	260	260	340	340	430
200	225	80	140	140	220	220	290	290	380	380	470
225	250	90	150	150	240	240	320	320	420	420	520
250	280	100	170	170	260	260	350	350	460	460	570
280	315	110	190	190	280	280	370	370	500	500	630
315	355	120	200	200	310	310	410	410	550	550	690
355	400	130	220	220	340	340	450	450	600	600	750
400	450	140	240	240	370	370	500	500	660	660	820
450	500	140	260	260	410	410	550	550	720	720	900
500	560	150	280	280	440	440	600	600	780	780	1,000
560	630	170	310	310	480	480	650	650	850	850	1,100
630	710	190	350	350	530	530	700	700	920	920	1,190
710	800	210	390	390	580	580	770	770	1,010	1,010	1,300
800	900	230	430	430	650	650	860	860	1,120	1,120	1,440
900	1,000	260	480	480	710	710	930	930	1,220	1,220	1,570
1,000	1,120	290	530	530	780	780	1,020	1,020	1,330	1,330	1,720
1,120	1,250	320	580	580	860	860	1,120	1,120	1,460	1,460	1,870
1,250	1,400	350	640	640	950	950	1,240	1,240	1,620	1,620	2,080
1,400	1,600	400	720	720	1,060	1,060	1,380	1,380	-	-	-
1,600	1,800	450	810	810	1,180	1,180	1,550	1,550	-	-	-

Note: This table shows RLM standard clearances where "d > 1,000mm".

3. Allowable aligning angle

These bearings have a self-aligning function, and their allowable aligning angle varies depending on the dimension series and load conditions, but are mostly described as follows.

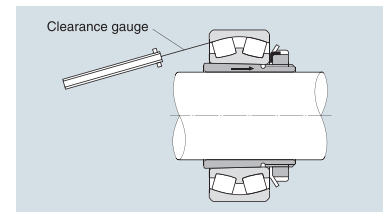
Normal load (Equivalent load to 0.09  $C_r$ ) ... 0.009rad (0.5°)  
 Light load ..... 0.035rad (2°)



Spherical Roller Bearing

4. Assembly of Tapered Hole Roller Bearings

Tapered hole spherical roller bearings use the measurement method as shown in Pic.1. A suitable tightening rate can be achieved by pushing the bearing toward the axial direction until it reaches the reduction rate of the radial internal clearance or pushing rate of axial direction. When heavy and high speed loads are applied, or when it is necessary to keep a higher tightening rate as the temperature difference between the inner and outer rings rises, be sure to have the maximum reduction rate of radial internal clearance or the pushing rate of the axial direction, as shown in Table 6, by using a bearing with a radial internal clearance of more than C3. The clearance after mounting in this case should be larger than the minimum clearance after mounting as shown in Table 6.

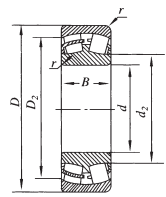


Pic.1 Measurement method of spherical roller bearing internal clearance

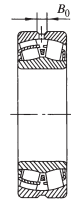
Table 6 Assembly of tapered bore spherical roller bearings

Nominal bearing bore		Reduction rate of radial internal clearance		Pushing rate of axial direction				Minimum residual internal clearance		
<i>d</i>				taper 1/12		taper 1/30				
over	incl.	min	max	min	max	min	max	CN	C3	C4
80	100	0.045	0.055	0.7	0.8	1.75	2.25	0.035	0.05	0.08
100	120	0.05	0.06	0.75	0.9	1.9	2.25	0.05	0.065	0.1
120	140	0.065	0.075	1.1	1.2	2.75	3	0.055	0.08	0.11
140	160	0.075	0.09	1.2	1.4	3	3.75	0.055	0.09	0.13
160	180	0.08	0.1	1.3	1.6	3.25	4	0.06	0.1	0.15
180	200	0.09	0.11	1.4	1.7	3.5	4.25	0.07	0.1	0.16
200	225	0.1	0.12	1.6	1.9	4	4.75	0.08	0.12	0.18
225	250	0.11	0.13	1.7	2	4.25	5	0.09	0.13	0.2
250	280	0.12	0.15	1.9	2.4	4.75	6	0.1	0.14	0.22
280	315	0.13	0.16	2	2.5	5	6.25	0.11	0.15	0.24
315	355	0.15	0.18	2.4	2.8	6	7	0.12	0.17	0.26
355	400	0.17	0.21	2.6	3.3	6.5	8.25	0.13	0.19	0.29
400	450	0.2	0.24	3.1	3.7	7.75	9.25	0.13	0.2	0.31
450	500	0.21	0.26	3.3	4	8.25	10	0.16	0.23	0.35
500	560	0.24	0.3	3.7	4.6	9.25	11.5	0.17	0.25	0.36
560	630	0.26	0.33	4	5.1	10	12.5	0.2	0.29	0.41
630	710	0.3	0.37	4.6	5.7	11.5	14.5	0.21	0.31	0.45
710	800	0.34	0.43	5.3	6.7	13.3	16.5	0.23	0.35	0.51
800	900	0.37	0.47	5.7	7.3	14.3	18.5	0.27	0.39	0.57
900	1,000	0.41	0.53	6.3	8.2	15.8	20.5	0.3	0.43	0.64
1,000	1,120	0.45	0.58	6.8	8.7	17	22.5	0.32	0.48	0.7
1,120	1,250	0.49	0.63	7.4	9.4	18.5	24.5	0.34	0.54	0.77

Unit:mm



Cylindrical bore  
2000 Model



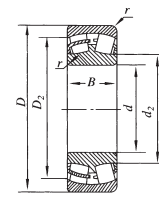
Tapered bore  
20000C/W33  
(CC/W33) Model



Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
21304CA	20	52	15	33.7	32.1	9000	11000	27	45	1	0.175
21304TN1	20	52	15	35.8	35.2	9000	11000	27	45	1	0.161
21305CA	25	62	17	42.7	45.5	7000	8000	32	55	1	0.277
21305TN1	25	62	17	45.5	45.8	7000	8000	32	55	1	0.258
21306CA	30	72	19	57.5	63.9	5500	7000	37	65	1	0.412
21306TN1	30	72	19	63.8	65.4	5500	7000	37	65	1	0.391
21307CA	35	80	21	65.4	75.4	5000	6300	44	71	1.5	0.542
21307TN1	35	80	21	74.4	77.7	5000	6300	44	71	1.5	0.507
21308CA	40	90	23	88.8	99	4600	5500	49	81	1.5	0.75
21308CC	40	90	23	88.8	99	4600	5500	49	81	1.5	0.743
21308TN1	40	90	23	93.9	102	4600	5500	49	81	1.5	0.717
21309CA	45	100	25	106	118	3200	4000	54	91	1.5	1.02
21309CC	45	100	25	106	118	3200	4000	54	91	1.5	1
21309TN1	45	100	25	111	124	3200	4000	54	91	1.5	0.949
21310CA	50	110	27	124	144	2800	3800	60	100	2	1.3
21310CC	50	110	27	129	144	2800	3800	60	100	2	1.3
21310TN1	50	110	27	129	144	2800	3800	60	100	2	1.22
21311CA	55	120	29	146	175	2600	3400	65	110	2	1.65
21311CC	55	120	29	146	175	2600	3400	65	110	2	1.65
21311TN1	55	120	29	149	170	2600	3400	65	110	2	1.57
21312CA	60	130	31	167	201	2400	3200	72	118	2.1	2.08
21312CC	60	130	31	167	201	2400	3200	72	118	2.1	2.08
21313CA	65	140	33	188	235	2200	3000	77	128	2.1	2.57
21313CC	65	140	33	188	235	2200	3000	77	128	2.1	2.57
21314CA	70	150	35	218	276	2000	2800	82	138	2.1	3.11
21314CC	70	150	35	218	276	2000	2800	82	138	2.1	3.11
21315CA	75	160	37	245	311	1900	2600	87	148	2.1	3.76

Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



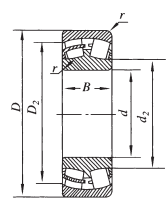
Tapered bore  
20000C/W33  
(CC/W33) Model



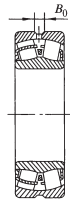
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
21315CC	75	160	37	245	311	1900	2600	87	148	2.1	3.76
21316CA	80	170	39	268	359	1800	2400	92	158	2.1	4.47
21316CC	80	170	39	268	359	1800	2400	92	158	2.1	4.47
21317CA	85	180	41	307	397	1700	2200	99	166	2.5	5.23
21317CC	85	180	41	307	397	1700	2200	99	166	2.5	5.23
21318CA	90	190	43	330	433	1600	2200	104	176	2.5	6.17
21318CC	90	190	43	330	433	1600	2200	104	176	2.5	6.17
21319CA	95	200	45	366	500	1700	2200	109	186	2.5	7.15
21319CC	95	200	45	366	500	1700	2200	109	186	2.5	7.15
21320CA	100	215	47	397	546	1600	2000	114	201	2.5	8.81
21320CC	100	215	47	397	546	1600	2000	114	201	2.5	8.81
21321CA	105	225	49	420	575	1500	1900	119	211	2.5	10
21321CC	105	225	49	420	575	1500	1900	119	211	2.5	10
21322CA	110	240	50	460	635	1400	1800	124	226	2.5	11.8
21322CC	110	240	50	474	654	1400	1800	124	226	2.5	11.8

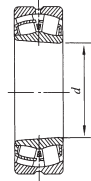
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



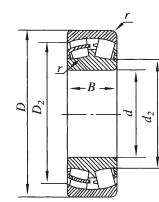
Tapered bore  
20000C/W33  
(CC/W33) Model



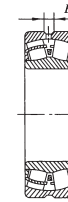
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
22205CA/CC	25	52	18	40	42	8000	10000	30	46	1	0.177
22205TN1	25	52	18	42.2	45	8000	10000	30	46	1	0.178
22206CC	30	62	20	56	61	6700	8500	36	56	1	0.283
22206TN1	30	62	20	58.5	61.3	6700	8500	36	56	1	0.271
22207CC	35	72	23	75	82	6600	8000	42	65	1	0.437
22207TN1	35	72	23	78.5	87	6600	8000	42	65	1	0.428
22208CC	40	80	23	86.9	93.5	6000	7300	47	73	1	0.524
22208TN1	40	80	23	95.3	103	6000	6300	47	73	1	0.524
22209CC	45	85	23	93	102	5500	7000	52	78	1	0.571
22209TN1	45	85	23	97	105	5500	7000	52	78	1	0.555
22210CC	50	90	23	95	112	4600	5400	57	83	1	0.614
22210TN1	50	90	23	99	113	4600	5400	57	83	1	0.596
22211CA	55	100	25	115	139	4000	5000	64	91	1.5	0.84
22211CC	55	100	25	115	139	4000	5200	64	91	1.5	0.847
22211TN1	55	100	25	122	144	4000	5000	64	91	1.5	0.823
22212CA	60	110	28	140	166	3600	4500	69	101	1.5	1.2
22212CC	60	110	28	140	166	3600	4500	69	101	1.5	1.15
22213CA	65	120	31	165	207	3600	4800	74	111	1.5	1.6
22213CC	65	120	31	165	207	3600	4800	74	111	1.5	1.54
22214CA	70	125	31	170	221	3600	4600	79	116	1.5	1.7
22214CC	70	125	31	170	221	3600	4600	79	116	1.5	1.6
22215CA	75	130	31	172	222	3400	4200	84	121	1.5	1.8
22215CC	75	130	31	172	222	3400	4200	84	121	1.5	1.69
22216CA	80	140	33	210	265	3200	3800	90	130	2	2.2
22216CC	80	140	33	210	265	3200	3800	90	130	2	2.13
22217CA	85	150	36	256	330	3000	3800	95	140	2	2.7
22217CC	85	150	36	256	330	3000	3800	95	140	2	2.67
22218CA	90	160	40	278	358	2800	3600	100	150	2	3.28

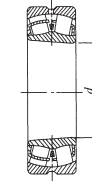
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



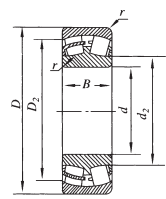
Tapered bore  
20000C/W33  
(CC/W33) Model



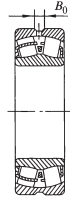
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
22218CC	90	160	40	278	358	2800	3600	3600	150	2	3.38
22219CA	95	170	43	310	402	2600	3000	3000	158	2.1	4.1
22219CC	95	170	43	310	402	2600	3000	3000	158	2.1	4.2
22220CA	100	180	46	352	438	2500	3200	3200	168	2.1	5
22220CC	100	180	46	352	448	2600	3200	3200	168	2.1	5.01
22222CA	110	200	53	447	592	2200	3000	3000	188	2.1	7.2
22222CC	110	200	53	452	606	2400	3000	3000	188	2.1	7.32
22224CA	120	215	58	520	730	2500	2800	2800	203	2.1	9
22224CC	120	215	58	520	730	2500	2800	2800	203	2.1	9.1
22226CA	130	230	64	625	864	2000	2600	2600	216	2.5	11.2
22226CC	130	230	64	625	867	2200	2600	2600	216	2.5	11.2
22228CA	140	250	68	720	990	1700	2200	2200	236	2.5	14.5
22228CC	140	250	68	720	990	1800	2200	2200	236	2.5	14.2
22230CA	150	270	73	970	1330	1800	2000	2000	256	2.5	18.6
22230CC	150	270	73	970	1130	1800	2000	2000	256	2.5	18
22232CA	160	290	80	895	1280	1700	1900	1900	276	2.5	23.1
22232CC	160	290	80	901	1320	1200	1900	1900	276	2.5	22.9
22234CA	170	310	86	975	1500	1300	1600	1600	292	3	29
22234CC	170	310	86	1002	1540	1100	1400	1400	292	3	28.1
22236CA	180	320	86	1010	1590	1300	1500	1500	302	3	30
22236CC	180	320	86	1040	1630	1100	1300	1300	302	3	29.4
22238CA	190	340	92	1100	1655	1200	1500	1500	322	3	35.3
22240CA	200	360	98	1100	1890	1100	1400	1400	342	3	47.7
22244CA	220	400	108	1500	2380	900	1200	1200	382	3	61.5
22252CA	260	480	130	2300	3550	800	1000	1000	458	4	102.7
22260CA	300	540	140	2520	2950	700	850	850	518	4	134
22272CA	360	650	170	3630	6200	400	500	500	622	5	251
22280CA	400	720	185	4290	7070	380	480	480	692	5	330

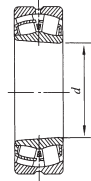
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



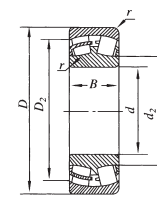
Cylindrical bore  
2000 Model



Tapered bore  
20000C/W33  
(CC/W33) Model



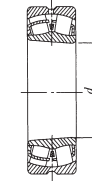
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model



Cylindrical bore  
2000 Model



Tapered bore  
20000C/W33  
(CC/W33) Model



Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

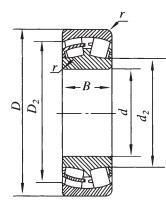
Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
22308CC	40	90	33	123.6	142.1	5000	7000	49	81	1.5	1.02
22308TN1	40	90	33	133.9	152.4	5000	7000	48	81	1.5	1.02
22309CC	45	100	36	156	175	4800	5800	54	91	1.5	1.37
22309TN1	45	100	36	165	191	4000	5300	54	91	1.5	1.39
22310CA	50	110	40	185	216	4600	5600	60	100	2	1.85
22310CC	50	110	40	185	216	4600	5600	60	100	2	1.79
22310TN1	50	110	40	198	235	4600	5600	60	100	2	1.84
22311CA	55	120	43	224	258	4000	4800	65	110	2	2.35
22311CC	55	120	43	226	260	4000	4800	65	110	2	2.31
22312CA	60	130	46	255	294	3800	4400	72	118	2.1	2.95
22312CC	60	130	46	255	301	3800	4400	72	118	2.1	2.88
22313CA	65	140	48	282	342	3600	4200	77	128	2.1	3.55
22313CC	65	140	48	282	242	3600	4200	77	128	2.1	3.47
22314CA	70	150	51	321	373	3600	4000	82	138	2.1	4.4
22314CC	70	150	51	321	407	3600	4000	82	138	2.1	4.34
22315CA	75	160	55	352	451	3000	3600	87	148	2.1	5.25
22315CC	75	160	55	358	461	3000	3600	87	148	2.1	5.28
22316CA	80	170	58	410	513	2800	3400	92	158	2.1	6.39
22316CC	80	170	58	410	523	2800	3400	92	158	2.1	6.32
22317CA	85	180	60	433	556	2500	3200	99	166	2.5	7.25
22317CC	85	180	60	443	572	2500	3200	99	166	2.5	7.27
22318CA	90	190	64	489	641	2600	3000	104	176	2.5	8.6
22318CC	90	190	64	497	659	2600	3000	104	176	2.5	8.63
22319CA	95	200	67	536	709	2200	2800	109	186	2.5	10.1
22319CC	95	200	67	546	726	2200	2800	109	186	2.5	9.97
22320CA	100	215	73	626	840	2200	2600	114	201	2.5	13.4
22320CC	100	215	73	637	857	2200	2600	114	201	2.5	12.8

Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.

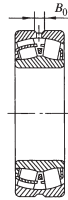
Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
22322CA	110	240	80	786	993	1800	2200	124	226	2.5	18
22322CC	110	240	80	786	997	1900	2300	124	226	2.5	17.5
22324CA	120	260	86	867	1154	1700	2000	134	246	2.5	22
22324CC	120	260	86	870	1195	1900	2200	134	246	2.5	22.2
22326CA	130	280	93	970	1340	1600	1900	148	262	3	28.5
22326CC	130	280	93	994	1380	1600	1900	148	262	3	27.5
22328CA	140	300	102	1140	1620	1400	1500	158	282	3	34.5
22328CC	140	300	102	1164	1660	1400	1700	158	282	3	34.6
22330CA	150	320	108	1270	1850	1200	1500	168	302	3	42.5
22330CC	150	320	108	1308	1905	1200	1500	168	302	3	42
22332MB	160	340	114	1370	1820	1100	1300	178	322	3	51
22334CA	170	360	120	1380	2120	1100	1200	188	342	3	60
22336CA	180	380	126	1490	2330	1000	1100	198	362	3	70
22338CA	190	400	132	1730	2600	900	1000	212	378	4	81
22340CA	200	420	138	1730	2800	730	900	222	398	4	94
22344CA	220	460	145	2140	3290	660	800	242	438	4	120
22348CA	240	500	155	2580	3640	600	750	262	478	4	153
22352CA	260	540	165	2860	4310	480	700	288	512	5	191
22356CA	280	580	175	3490	5200	450	600	308	552	5	238

Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.





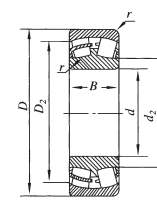
Cylindrical bore  
2000 Model



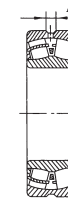
Tapered bore  
20000C/W33  
(CC/W33) Model



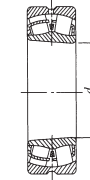
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model



Cylindrical bore  
2000 Model



Tapered bore  
20000C/W33  
(CC/W33) Model



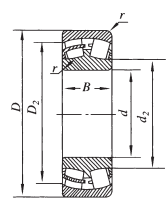
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	Kg
23022CA	110	170	45	278	461	1500	1900	120	160	2	3.9
23022CC	110	170	45	280	466	1500	1900	120	160	2	3.68
23024CA	120	180	46	354	560	1400	1800	130	170	2	4.3
23024CC	120	180	46	359	565	1800	2200	130	170	2	3.98
23026CA	130	200	52	383	644	1200	1600	140	190	2	6.2
23026CC	130	200	52	386	649	1700	2000	140	190	2	5.85
23028CA	140	210	53	444	719	1100	1500	150	200	2	6.7
23028CC	140	210	53	450	760	1600	1900	150	200	2	6.31
23030CA	150	225	56	451	790	1100	1400	162	213	2.1	8.14
23030CC	150	225	56	445	772	1400	1800	162	213	2.1	7.74
23032CA	160	240	60	515	900	1000	1300	172	228	2.1	10
23032CC	160	240	60	523	915	1300	1700	172	228	2.1	9.43
23034CA	170	260	67	726	1112	900	1200	182	248	2.1	13
23034CC	170	260	67	733	1133	1200	1600	182	248	2.1	12.8
23036CA	180	280	74	830	1350	900	1100	192	268	2.1	17.6
23036CC	180	280	74	840	1350	1200	1400	192	268	2.1	16.9
23038CA	190	290	75	867	1490	1000	1200	202	278	2.1	20
23038CC	190	290	75	877	1520	1100	1400	202	278	2.1	17.7
23040CA	200	310	82	890	1650	900	1100	212	298	2.1	24
23040CC	200	310	82	916	1690	1000	1300	212	298	2.1	22.7
23044CC	220	340	90	1090	2040	950	1200	234	326	2.5	29.7
23048CC	240	360	92	1160	2220	850	1100	254	346	2.5	32.4
23052CA	260	400	104	1030	2520	500	630	278	382	3	51.5
23052CC	260	400	104	1460	2850	900	1100	278	382	3	47.7
23056CA	280	420	106	1110	2760	450	560	298	402	3	62
23056CC	280	420	106	1580	3030	700	900	298	402	3	50.9
23060CC	300	460	118	1910	3800	670	850	318	442	3	71.4

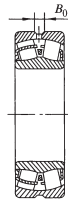
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	Kg
23064CA	320	480	121	1930	2200	700	900	338	462	3	85.65
23068CA	340	520	133	2280	4390	700	900	362	498	4	105
23072CA	360	540	134	2280	4800	670	850	382	518	4	109
23076CA	380	560	135	2450	4970	630	800	402	538	4	124.5
23080CA	400	600	148	2800	5900	600	750	422	578	4	130
23084CA	420	620	150	2970	6400	450	650	442	598	4	147
23088CA	440	650	157	3060	6500	430	530	468	622	5	180
23092CA	460	680	163	3450	6950	400	500	488	652	5	208
23096CA	480	700	165	3300	6900	380	480	504	678	5	217
230/500CA	500	720	167	3600	8800	360	480	528	692	5	230
230/530CA	530	780	185	4700	10500	340	430	558	752	5	320
230/560CA	560	820	195	4300	10500	320	410	588	7892	5	350
230/600CA	600	870	200	5175	11600	300	380	628	842	5	430
230/630CA	630	920	212	5670	12800	260	340	666	884	6	529
230/750CA	750	1090	250	7000	17900	200	280	786	1054	6	940
230/850CA	850	1220	272	9958	22500	180	240	886	1184	6	979
230/1060CA	1060	1400	250	9510	25800	145	170	1088	1392	6	1065

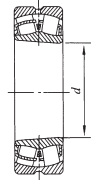
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



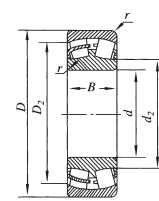
Tapered bore  
20000C/W33  
(CC/W33) Model



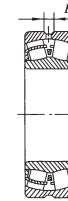
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
23120CA	100	170	52	360	540	1600	2000	110	155	2	5
23120CC	100	170	52	362	545	1700	2200	110	155	2	4.31
23121MB	105	180	56	249	494	1400	1800	119	161	2.5	6.64
23122CA	110	180	56	386	613	1300	1700	120	170	2	6.25
23122CC	110	200	56	389	620	1600	2000	120	170	2	5.51
23124CA	120	200	62	531	780	1300	1700	130	190	2	7.63
23124CC	120	210	62	530	780	1400	1800	130	190	2	7.67
23126CA	130	210	64	492	812	1300	1700	140	200	2	8.49
23126CC	130	225	64	496	826	1300	1700	140	200	2	8.49
23128CA	140	225	68	561	953	1100	1500	152	213	2.1	10.9
23128CC	140	240	68	554	932	1200	1600	152	213	2.1	10.2
23130CA	150	240	80	747	1267	1000	1300	162	238	2.1	16.1
23130CC	150	260	80	760	1288	1100	1400	162	238	2.1	15.7
23132CA	160	260	86	870	1460	900	1200	172	258	2.1	19.7
23132CC	160	280	86	870	1480	1000	1300	172	258	2.1	19.8
23134CA	170	280	88	911	1565	850	1100	182	268	2.1	21.1
23134CC	170	290	88	927	1590	1000	1300	182	268	2.1	21.1
23136CA	180	290	96	1060	1850	800	1000	194	286	2.5	27.1
23136CC	180	310	96	1080	1880	900	1200	194	286	2.5	26.9
23138CA	190	310	104	1200	2120	750	1000	204	306	2.5	35.3
23138CC	190	340	104	1230	2180	850	1100	204	306	2.5	17.7
23140CC	200	360	112	1420	2530	800	1000	214	326	2.5	47.6
23144CC	220	400	120	1610	2900	700	950	238	352	3	51.5
23148CC	240	400	128	1840	3310	670	850	258	382	3	63.7
23152CC	260	420	144	2270	4190	600	800	278	422	3	88.2
23156CA	280	420	146	1635	3730	430	530	302	438	4	103
23156CC	280	460	146	2380	4410	560	750	302	438	4	94.1

Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



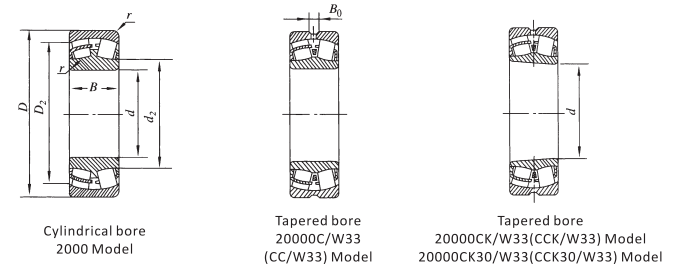
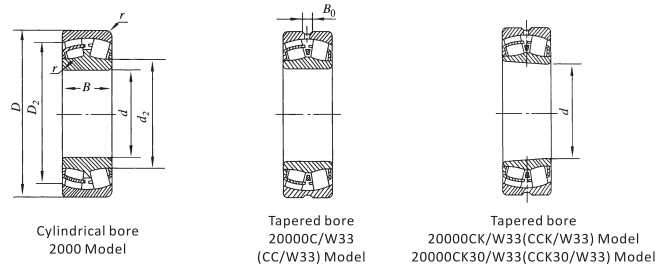
Tapered bore  
20000C/W33  
(CC/W33) Model



Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
23160CA	300	500	160	2620	4690	670	850	322	478	4	157
23164CA	320	540	176	3150	5730	630	800	342	518	4	159
23168CA	340	580	190	3600	6700	600	750	362	558	4	197
23172CA	360	600	192	3650	6850	560	700	382	578	4	218
23176CA	380	620	243	4400	9200	300	380	402	598	4	286
23180CA	400	650	200	4000	7600	380	480	428	622	5	267
23188CA	440	720	226	4951	10366	360	450	468	692	5	372
23196CA	480	790	248	6100	12000	300	380	516	754	6	516
231/500CA	500	830	264	6500	13800	320	400	536	794	6	602
231/530CA	530	870	272	6990	15121	260	340	560	837	6	644
231/560CA	560	920	280	7000	16330	240	320	596	884	6	764
231/600CA	600	980	300	8900	18800	180	250	628	850	6	911
231/670CA	670	1090	336	11000	22500	175	240	700	1056	6	1265

Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.

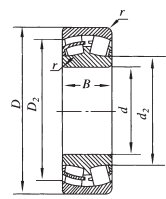


Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	Kg
23218CA	90	160	52	365	492	1700	2200	100	150	2	4.6
23218CC	90	160	52	365	497	1800	2400	100	150	2	4.4
23220CA	100	180	60	428	637	1600	2000	112	168	2.1	6.7
23220CC	100	180	60	433	649	1600	2200	112	168	2.1	6.52
23222CA	110	200	70	530	809	1400	1800	122	188	2.1	9.7
23222CC	110	200	70	536	824	1500	1900	122	188	2.1	9.46
23224CA	120	215	76	660	968	1300	1700	132	203	2.1	12
23224CC	120	215	76	668	984	1300	1700	132	203	2.1	11.7
23226CA	130	230	80	748	1092	1200	1600	144	216	2.5	14
23226CC	130	230	80	748	1112	1200	1600	144	216	2.5	13.8
23228CA	140	250	88	826	1320	1000	1400	154	236	2.5	18.5
23228CC	140	250	88	836	1340	1100	1500	154	236	2.5	18.1
23230CA	150	270	96	963	1560	950	1300	164	256	2.5	24
23230CC	150	270	96	976	1586	1100	1400	164	256	2.5	23.2
23232CA	160	290	104	1112	1810	900	1200	174	276	2.5	30
23232CC	160	290	104	1120	1830	1100	1400	174	276	2.5	29.4
23234CA	170	310	110	1200	2030	800	1100	188	292	3	35.7
23234CC	170	310	110	1230	2090	900	1200	188	292	3	35.7
23236CA	180	320	112	1280	2170	1000	1200	198	302	3	37.9
23236CC	180	320	112	1310	2230	1100	1300	198	302	3	37.9
23238CA	190	340	120	1450	2490	700	1000	208	322	3	46.1
23238CC	190	340	120	1490	2550	800	1100	208	322	3	46.1
23240CC	200	360	128	1650	2870	750	1000	218	342	3	55.4
23244CC	220	400	144	2130	3720	670	900	238	382	3	78.5
23248CC	240	440	160	2560	4620	630	800	258	422	3	107.3
23252CA	260	480	174	2780	4700	630	800	282	458	4	137
23256CA	280	500	176	2840	5100	600	750	302	478	4	152.5
23260CA	300	540	192	3000	6000	373	455	322	518	4	247
23268CA	340	620	224	4400	7750	430	530	368	592	5	295
23276CA	380	680	240	5100	9600	380	480	408	652	5	384

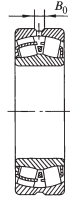
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	Kg
24020CA	100	150	50	251	448	1200	1500	110	140	1.5	3.035
24020CC	100	150	50	260	461	1200	1500	110	140	1.5	3.035
24024CA	120	180	60	390	700	1500	2000	130	170	2	5.05
24024CC	120	180	60	391	700	1500	2000	130	170	2	5.05
24026CA	130	200	69	472	852	1400	1800	140	190	2	7.55
24026CC	130	200	69	486	878	1400	1800	140	190	2	7.55
24028CA	140	210	69	488	895	1200	1600	150	200	2	8.01
24028CC	140	210	69	503	922	1300	1700	150	200	2	8.01
24030CA	150	225	75	570	1070	1100	1400	162	213	2.1	10.6
24030CC	150	225	75	587	1100	1200	1500	162	213	2.1	10.1
24032CA	160	240	80	652	1230	1000	1300	172	228	2.1	12.2
24032CC	160	240	80	670	1260	1100	1400	172	228	2.1	12.2
24034CA	170	260	90	792	1520	900	1200	182	248	2.1	16.7
24034CC	170	260	90	816	1565	1000	1300	182	248	2.1	16.7
24036CA	180	280	100	928	1820	900	1100	192	268	2.1	22.1
24036CC	180	280	100	955	1870	1100	1300	192	268	2.1	22.1
24038CA	190	290	100	975	1910	800	1100	202	278	2.1	23
24038CC	190	290	100	1004	1960	900	1200	202	278	2.1	23
24040CA	200	310	109	1120	2220	670	850	212	298	2.1	29.3
24040CC	200	310	109	1150	2280	850	1100	212	298	2.1	29.3
24044CC	220	340	118	1370	2760	750	1000	234	326	2.5	38.1
24048CC	240	360	118	1440	2930	700	950	254	346	2.5	40.8
24052CC	260	400	140	1840	3850	630	850	278	382	3	62.4
24056CC	280	420	140	1960	4100	600	800	298	402	3	65.8
24060CC	300	460	160	2430	5160	530	700	318	442	3	94.1
24064CA	320	480	160	2300	5100	560	700	338	462	3	106
24068CA	340	520	180	2930	6350	530	670	362	498	4	134

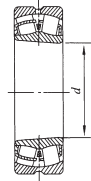
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



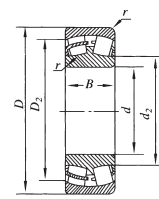
Tapered bore  
20000C/W33  
(CC/W33) Model



Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
24072CA	360	540	180	2940	6100	480	620	382	518	4	145
24076CA	380	560	180	3080	6560	460	580	402	538	4	153
24080CA	400	600	200	3950	7850	440	550	422	578	4	202
24084CA	420	620	200	3690	8450	380	480	442	598	4	231
24096CA	480	700	218	4650	10400	340	430	504	678	5	290
240500CA	500	720	218	4850	11090	320	400	523	698	5	298
240530CA	530	780	250	6000	13700	280	360	553	758	5	414
240560CA	560	820	258	5700	13200	220	300	585	798	5	464
240600CA	600	870	272	6600	15400	210	290	628	850	5	546
240670CA	670	980	308	9500	20000	190	270	700	952	6	804
240850CA	850	1220	365	10100	29300	160	200	886	1184	6	1380

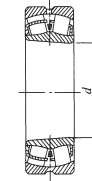
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



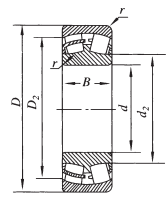
Tapered bore  
20000C/W33  
(CC/W33) Model



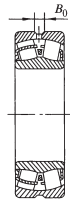
Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
24122CA	110	180	69	472	798	1600	2000	120	170	2	6.63
24122CC	110	180	69	472	798	1600	2000	120	170	2	6.63
24124CA	120	200	80	645	1028	1400	1800	130	190	2	9.65
24124CC	120	200	80	645	1028	1400	1800	130	190	2	9.65
24126CA	130	210	80	585	1030	1200	1600	140	200	2	10.3
24126CC	130	210	80	603	1061	1300	1700	140	200	2	10.3
24128CA	140	225	85	670	1200	1100	1500	152	213	2.1	12.5
24128CC	140	225	85	690	1236	1200	1600	152	213	2.1	12.5
24130CA	150	250	100	890	1600	1000	1300	162	238	2.1	19
24130CC	150	250	100	910	1650	1100	1400	162	238	2.1	19
24132CA	160	270	109	1040	1880	900	1200	172	258	2.1	24.6
24132CC	160	270	109	1070	1930	1000	1300	172	258	2.1	24.4
24134CA	170	280	109	1070	1930	900	1200	182	268	2.1	25.5
24134CC	170	280	109	1100	1980	1000	1300	182	268	2.1	25.5
24136CA	180	300	118	1210	2220	800	1000	194	286	2.5	32
24136CC	180	300	118	1240	2280	900	1200	194	286	2.5	32
24138CA	190	320	128	1410	2590	700	1000	204	306	2.5	40.2
24138CC	190	320	128	1450	2660	850	1100	204	306	2.5	40.2
24140CC	200	340	140	1620	3030	800	1000	214	326	2.5	49.9
24144CC	220	370	150	1900	3580	700	950	238	352	3	62.3
24148CC	240	400	160	2160	4090	670	850	258	382	3	76.9
24152CC	260	440	180	2730	5330	600	800	278	422	3	107.6
24156CC	280	460	180	2810	5480	560	750	302	438	4	113.2
24160CA	300	500	200	3010	6200	600	750	322	478	4	153
24164CC	320	540	218	4220	7000	340	430	340	520	4	190
24164CA	320	540	218	3550	6600	340	430	342	518	4	238
24168CA	340	580	243	4400	7600	450	560	362	558	4	253

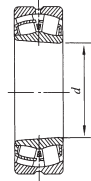
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Cylindrical bore  
2000 Model



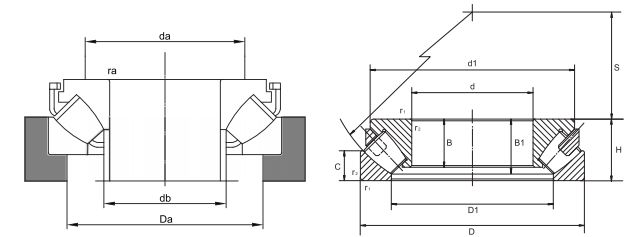
Tapered bore  
20000C/W33  
(CC/W33) Model



Tapered bore  
20000CK/W33(CCK/W33) Model  
20000CK30/W33(CCK30/W33) Model

Bearing No.	Dimensions(mm)			Load ratings(KN)		Limiting		Mounting dimensions(mm)			Weight Kg
	d	D	B	Cr	Cor	Grease	Oil	da(min)	Da(max)	ra(max)	
24172CA	360	600	243	4300	8350	300	380	382	578	4	269
24176CA	380	620	243	4400	9200	300	380	402	598	4	280
24180CA	400	650	250	4310	10100	290	380	428	622	5	316
24184CA	420	700	280	6000	11800	290	380	448	674	5	440
24188CA	440	720	280	6250	12400	290	380	468	692	5	457
24192CA	460	760	300	6890	14400	160	200	496	724	6	560
241/500CA	500	830	325	7550	15300	140	180	531	798	6	721
241/600CA	600	980	375	10200	22300	110	150	636	944	6	1140
241/710CA	710	1150	438	11400	29200	90	120	754	1106	8	1790

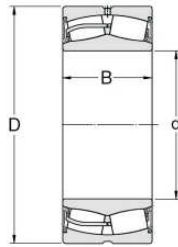
Note: CC/MB/CA cage is optional choice upon request, please contact RLM sales for details.



Note : New optimal design with prolonged roller and bigger angle (included angle between center line and bottom) is able to take bigger load ratings. Please contact RLM sales for availability.

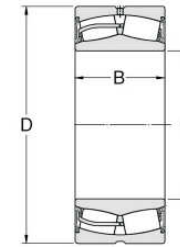
29000 Series

Bearing No.	Dimensions(mm)			Basic Load Rating		Limiting speed		Weight kg	Dimensions(mm)							Assembly dimensions (mm)				
	d	D	H	Cr kN	Cor kN	Grease r/min	Oil r/min		d1	D1	B	B1	C	r.1.2 min	S	da min	db1 max	db2 max	Da max	ra max
29320E	100	170	42	465	1290	2200	3600	3.65	152.3	127.5	26.2	36.3	20.5	1.5	58	130	107	107	147	1.5
29420E	100	210	67	980	2500	1700	3000	10.5	182.2	141.5	43	57.3	32	3	62	150	110	110	175	2.5
29322E	110	190	48	610	1730	1900	3200	5.3	171.1	140	30.3	41.7	24.8	2	63.8	145	117	117	164	2
29422E	110	230	73	1180	3000	1600	2800	13.5	199.4	155.5	47	64.7	34.7	3	69	165	120.5	129	193	2.5
29324E	120	210	54	765	2120	1700	2800	7.35	188.1	154	34	48.2	27	2.1	70	160	128	128	181	2
29424E	120	250	78	1370	3450	1500	2600	17.5	216.8	171	50.5	70.3	36.5	4	74	180	132	142	209	3
29326E	130	225	58	865	2500	1600	2600	9	203.4	165.5	36.7	50.6	30.1	2.1	75.6	175	138	143	194	2
29426E	130	270	85	1560	4050	1300	2400	22	234.4	184.5	54	76	40.9	4	81	195	142.5	153	227	3
29328E	140	240	60	980	2850	1500	2600	10.5	216.1	177	38.5	54	30	2.1	82	185	148	154	208	2
29428E	140	280	85	1630	4300	1300	2400	23	245.4	194.5	54	75.6	41	4	86	205	153	162	236	3
29230E	150	215	39	408	1600	1800	2800	4.3	200.4	176	24	34.3	20.5	1.5	82	180	154	154	193	1.5
29330E	150	250	60	1000	2850	1500	2400	11	223.9	190	38	54.9	28	2.1	87	195	158	163	219	2
29430E	150	300	90	1860	5100	1200	2200	28	262.9	207.5	58	80.8	43.4	4	92	220	163	175	253	3
29232E	160	225	39	357	1460	-	1700	4.8	220	188	11	34.3	20	1.5	87	190	-	-	204	1.5
29332E	160	270	67	1180	3450	1300	2200	14.5	243.5	203	42	60	33	3	92	210	169	176	235	2.5
29432E	160	320	95	2080	5600	1100	2000	33.5	279.3	223.5	60.5	84.3	45.5	5	99	235	175	189	270	4
29234E	170	240	42	408	1660	-	1600	5.95	235	201	13	40	22	1.5	93	205	-	-	218	1.5
29334E	170	280	67	1200	3550	1300	2200	15	251.2	215	42.2	61	30.5	3	96	220	178	188	245	2.5
29434E	170	340	103	2360	6550	1100	1900	44.5	297.7	236	65.5	91.2	50	5	104	250	185	199	286	4
29236E	180	250	42	495	2040	1600	2600	5.8	234.4	208	26	36.9	22	1.5	97	210	187	187	226	1.5
29336E	180	300	73	1430	4300	1200	2000	19.5	270	227	46	66.2	35.5	3	103	235	189	195	262	2.5
29436E	180	360	109	2600	7350	1000	1800	52.5	315.9	250	69.5	96.4	53	5	110	265	196	210	304	4
29238EM	190	270	48	518	2200	-	1400	8.7	255	226	14	45	25.5	2	103	225	-	-	243	2
29338E	190	320	78	1630	4750	1100	1900	23.5	285.6	243.5	49	71.3	36	4	110	250	200	211	280	3
29438E	190	380	115	2850	8000	950	1700	60.5	332.9	264.5	73	101	55.5	5	117	280	207	223	321	4
29240E	200	280	48	656	2650	1400	2200	9.3	260.5	232.5	30	43.5	24	2	108	235	206	207	253	2
29340E	200	340	85	1860	5500	1000	1700	29.5	304.3	257	53.5	76.7	40	4	116	265	211	224	297	3
29440E	200	400	122	3200	9000	850	1600	72	350.7	277.5	77	107.1	59.4	5	122	295	217.5	234	337	4
29244	220	300	48	690	3000	1300	2200	10	280.5	251.5	30	43.4	24.2	2	117	255	224.5	227	271	2
29344E	220	360	85	2000	6300	1000	1700	33.5	326.3	273.5	55	77.7	41	4	125	285	229	240	316	3
29444E	220	420	122	3350	9650	850	1500	75	371.6	300	77	107.4	58.5	6	132	315	238	254	358	5



SEALED SPHERICAL ROLLER BEARING

Bearing No.	Dimension			Basic Load Rating		Weight kg
	d	D	B	Cr	Cor	
	mm	mm	mm	KN	KN	
BS2-2205-2CS	25	52	23	49	44	0.26
BS2-2206-2CS	30	62	25	64	60	0.34
BS2-2207-2CS	35	72	28	85.5	85	0.52
BS2-2208-2CS	40	80	28	96.5	90	0.57
BS2-2209-2CS	45	85	28	102	98	0.66
BS2-2210-2CS	50	90	28	104	106	0.70
BS2-2211-2CS	55	100	31	125	127	1.00
BS2-2212-2CS	60	110	34	156	166	1.13
BS2-2213-2CS	65	120	38	193	216	1.60
BS2-2214-2CS	70	125	38	208	228	1.80
BS2-2215-2CS	75	130	38	212	240	2.10
BS2-2216-2CS	80	140	40	236	270	2.40
BS2-2217-2CS	85	150	44	285	325	3.00
BS2-2218-2CS	90	180	48	325	375	3.70
BS2-2220-2CS	100	180	50	425	490	5.50
BS2-2222-2CS	110	200	63	560	640	7.80
BS2-2224-2CS	120	215	69	630	765	9.75
BS2-2308-2CS	40	90	38	150	140	1.20
BS2-2309-2CS	45	100	42	183	183	1.60
BS2-2310-2CS	50	110	45	220	224	2.10
BS2-2311-2CS	55	120	49	270	280	2.80
BS2-2312-2CS	60	130	53	310	335	3.40
BS2-2313-2CS	65	140	53	340	360	4.15
BS2-2314-3CS	70	150	60	400	430	5.10
BS2-2315-4CS	75	160	64	440	475	6.50
BS2-2316-2CS	70	170	67	490	540	7.20
22324-2CS	120	280	86	980	1120	2.30



SEALED SPHERICAL ROLLER BEARING

Bearing No.	Dimension			Basic Load Rating		Weight kg
	d	D	B	Cr	Cor	
	mm	mm	mm	KN	KN	
23022-2CS	110	170	45	310	440	3.80
23024-2CS	120	180	46	355	510	4.20
23120-2CS	100	166	52	385	490	4.40
23122-2CS	110	180	56	430	585	5.75
23218-2CS	90	160	52.4	356	440	4.65
23220-2CS	100	180	60.3	475	600	6.85
23222-2CS	110	200	69.8	600	765	9.85
23224-2CS	120	215	76	695	930	12.00
24015-2CS	75	115	40	173	232	1.55
24020-2CS	100	150	50	285	415	3.20
24022-2CS	110	170	45	415	620	5.00
24024-2CS	120	180	60	430	670	5.45
24120-2CS	100	165	65	455	640	5.65
24122-2CS	110	180	69	520	750	7.10
24124-2CS	120	200	80	655	950	10.50



# Cylindrical Roller Bearing



## 1. Structure and Characteristics







Since the rollers of the cylindrical roller bearings make line contact with the raceways, these bearings can support heavy radial loads and are suitable for high speed operation.

Assembly and disassembly are comparatively easy even if the inner or outer ring requires a shrink fit, as the bearing is a separation type.

Cylindrical roller bearings are classified as single row, double row and four row type, according to how many rollers are used, and there are models as shown in **Table 1 to 3**.

Although designed as a thin wall type, the SL Model double row cylindrical roller bearing can support enormous radial and impact loads. **Table 4** lists the configurations available.

Table 1 Model and characteristics of the single row cylindrical roller bearings

Model code	Drawing	Characteristics
Model NU Model N	 Model NU  Model N	<ul style="list-style-type: none"> <li>Model NU has ribs on the outer ring and the inner ring can be separated from "the arranged set of outer ring, rollers and cage". Model N has ribs on the inner ring and the outer ring can be separated from "the arranged set of inner ring, rollers and cage".</li> <li>This bearing cannot support axial loads.</li> <li>The most suitable model widely used as the free end bearing.</li> </ul>
Model NJ Model NF	 Model NJ  Model NF	<ul style="list-style-type: none"> <li>Model NJ has ribs on the outer ring and a rib on the inner ring. Model NF has a rib on the outer ring and ribs on the inner ring.</li> <li>These bearings support axial loads in one direction only.</li> <li>There may be a case to use two bearings adjacent when they are used regardless of the fixed end or free end.</li> </ul>
Model NUP Model NH (NJ+HJ)	 Model NUP  Model NH	<ul style="list-style-type: none"> <li>Model NUP has a rib ring added on the side of the inner ring where it did not have a rib. Model NJ with the added ring rib of Model L is Model NH. The inner ring should be fixed along the axial direction since each ring rib will be separated.</li> <li>These bearings support axial loads in either direction.</li> <li>There may be a case to use as the fixed end bearing.</li> </ul>

Note: Model E provides higher load capacity designed with increased diameter, length and numbers of rollers but the boundary dimensions are same as the standard type bearings.

Table 2 Model and characteristics of the double row cylindrical roller bearings

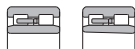

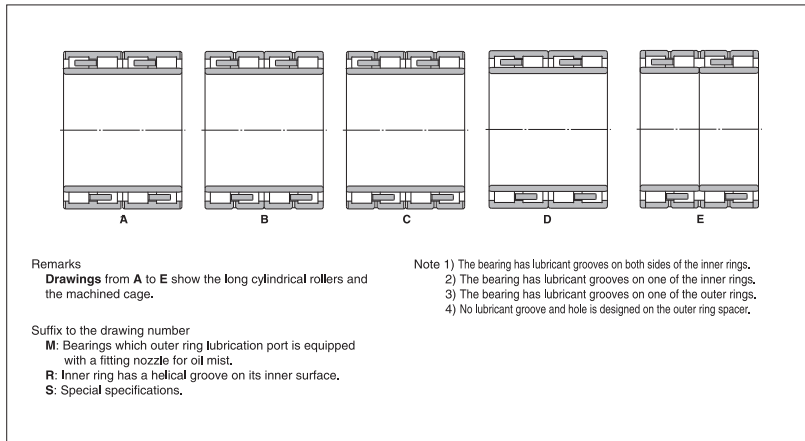
Model code	Drawing	Characteristics
Model NNU Model NN	 Model NNU Cylindrical hole Tapered hole  Model NN Cylindrical hole Tapered hole	<ul style="list-style-type: none"> <li>These bearings are used in the main shaft of machine tools, rolling mill rolls and printing machine plate cylinders where thin walled bearings are needed.</li> <li>To use the bearing in the main shaft of machine tools, adjust the radial internal clearance by inserting a tapered inner ring to the tapered shaft.</li> </ul>

Table 3 Models and characters of four row cylindrical roller bearings

Drawing	Characteristics
Refer to the drawings.  Drawing numbers are listed in the dimensions table.	<ul style="list-style-type: none"> <li>The bearing is mainly used for the roll neck of a rolling mill, and is designed so as to handle the maximum rating load for the allowable space in the roll neck part. Carbonized steel may be used to provide better resistance to cracking or impact to the inner ring.</li> <li>Consult RLM Engineering about the fitting and bearing internal clearance when the bearing is used for the preparing roll of a rolling mill.</li> <li>RLM provides bearings with special configurations: with tapered shaft holes; for high speed use; designed to prevent creeping; and, with dust and waterproof seals.</li> </ul>



Drawings

Table 4 Model and Characteristics of the Model SL cylindrical roller bearings

	Model	Characteristics
Open type	 Model SL01	<ul style="list-style-type: none"> <li>Fixed end is Model SL01, free end is Model SL02.</li> <li>Since the outer ring is split in the circumference direction using a special method and fixed as a unit after mounting rollers, the bearing side face should be securely fixed using the shaft or housing shoulder in the axial direction.</li> <li>Outer ring has an oil groove and port.</li> <li>Model SL01 can support axial loads from both directions via rollers.</li> <li>Shoulder dimensions of shaft and bearings generally applies <math>D_s</math> and <math>d_s</math> dimensions in the dimensions table, but <math>J</math> and <math>K</math> dimensions are used when the moment or large axial loads are applied.</li> </ul>
	 Model SL02	
Enclosed type	 Model SL04	<ul style="list-style-type: none"> <li>Model SL04 only with the fixed side.</li> <li>Since the inner ring is split in the circumference direction using a special method and fixed as a unit after mounting rollers, the bearing side face should be securely fixed by using the shaft or housing shoulder in the axial direction.</li> <li>Inner ring has an oil groove and port.</li> <li>Model SL04 can support radial and axial loads in either directions.</li> <li>A sealed bearing prelubricated with grease, the outer ring is fitted with a locating snap ring, making it easy to handle and appropriate for sheaves and other applications.</li> <li>Surface coating is added for rust prevention.</li> </ul>

Note: We also provide 3-row, 4-row and 5-row bearings for the Model SL cylindrical roller bearing. Consult RLM Engineering for further details.

2. Permissible slant angle

It varies according to the bearing type and internal specifications, the values in the table below are widely used to avoid edge loads under general load conditions.

When the width series is 0 or 1 .....0.001 rad (3.5')  
 When the width series is 2 .....0.0005 rad (1.5')  
 Double row cylindrical roller bearing .....0.0005 rad (1.5')

ⓘ This is not applied to high accuracy bearings which are used as the main shaft of machine tools.

Table 5 Tolerance of inscribed circle diameter  $F_w$  of rollers and circumscribed circle diameter  $E_w$  of rollers for compatible bearings.

d mm	Unit $\mu\text{m}$				
	over	Incl	high	low	high
50	120	+ 20	0	0	- 20
120	200	+ 25	0	0	- 25
200	250	+ 30	0	0	- 30
250	315	+ 35	0	0	- 35
315	400	+ 40	0	0	- 40
400	500	+ 45	0	0	- 45
500	630	+ 70	0	0	- 70
630	800	+ 80	0	0	- 80
800	1,000	+ 90	0	0	- 90
1,000	1,250	+105	0	0	-105
1,250	1,400	+125	0	0	-125

$\Delta F_w$ : Dimensional difference of inscribed circle diameter of rollers.  
 $\Delta E_w$ : Dimensional difference of circumscribed circle diameter of rollers.  
 ⓘ Regulation range of JIS is  $d \leq 500\text{mm}$  for  $\Delta F_w$ , and  $d \leq 400\text{mm}$  for  $\Delta E_w$ .

Table 6 Radial internal clearance of Model SL cylindrical roller bearing.

Nominal bore diameter d mm	over	Incl	Unit $\mu\text{m}$					
			CN (Normal)		C 3		C 4	
			min	max	min	max	min	max
30	50		20	75	40	95	55	110
50	80		30	90	55	115	75	135
80	120		35	105	80	150	105	175
120	180		60	150	110	200	150	240
180	250		90	190	155	255	205	305
250	315		110	225	195	310	255	370
315	400		140	265	245	370	320	445
400	500		180	320	300	440	395	535

3. Radial internal clearance of the Model SL cylindrical roller bearings.

Table 6 lists the radial internal clearance values of the Model SL cylindrical roller bearings.

4. Recommended fit of the Model SL cylindrical roller bearings, and selection of the radial internal clearance.

Table 7 lists the recommended fit for outer ring rotation such as sheaves and wheels, Table 8 lists the relation between the fitting and the radial internal clearance. For assembling and disassembling the bearing, it is necessary to evenly load around the circumference of the raceway end on the fitting side.

5. General Operating Cautions

Slippage between the rollers and raceways may occur when bearings are operated under small loads (about  $F_r \leq 0.04C_{or}$ ) and may cause smearing. This is most apparent when using large size cylindrical roller bearings due to the large cage mass. Please consult RLM Engineering for further details.

Table 7 Recommended fit

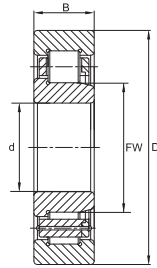
	Conditions	Tolerance range	
		class of shaft	class of housing
Outer ring rotating load	Heavy load with a thin walled housing.	g6 or h6	P7
	Normal load, heavy load		N7 ⓘ
	Light load, changing load		M7

ⓘ Be sure to use N7 for sheaves.

Table 8 Relation between fit and radial internal clearance.

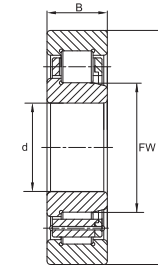
Shaft fit	Housing fit												
	G7	H6	J6	J7	K6	K7	g6	M6	M7	N6	N7	P6	P7
g6													
h6													
j5													
j6													
k5													
k6													
m5													
m6													
n5													
n6													
p6													

Note: When the shaft fit is g6, housing fit is N7(N6) and used at low speed (for sheaves), apply CN(normal) clearance.



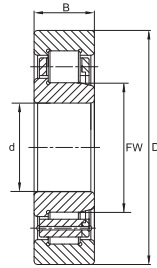
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
N202	15	35	11	19.3	12.7	10.4	22000	0.047
NJ202	15	35	11	19.3	12.7	10.4	22000	0.049
NU202	15	35	11	19.3	12.7	10.4	22000	0.048
N203	17	40	12	22.1	17.6	14.6	18000	0.068
NJ203	17	40	12	22.1	17.6	14.6	18000	0.07
NJ2203	17	40	16	22.1	24	22	18000	0.053
NJ303	17	47	14	24.2	25.5	21.2	16000	0.124
NU203	17	40	12	22.1	17.6	14.6	18000	0.069
NUP203	17	40	12	22.1	17.6	14.6	18000	0.073
NUP2203	17	40	16	22.1	24	22	18000	0.055
NUP303	17	47	14	24.2	25.5	21.2	16000	0.127
N204	20	47	14	26.5	27.5	24.5	16000	0.112
NJ204	20	47	14	26.5	27.5	24.5	16000	0.117
NJ2204	20	47	18	26.5	32.5	31	16000	0.15
NJ2304	20	52	21	27.5	41.5	39	14000	0.219
NJ304	20	52	15	27.5	31.5	27	14000	0.156
NU204	20	47	14	26.5	27.5	24.5	16000	0.114
NU2304	20	52	21	27.5	41.5	39	14000	0.215
NUP204	20	47	14	26.5	27.5	24.5	16000	0.119
NUP2204	20	47	18	26.5	32.5	31	16000	0.154
NUP2304	20	52	21	27.5	41.5	39	14000	0.224
NUP304	20	52	15	27.5	31.5	27	14000	0.16
N205	25	52	15	31.5	29	27.5	15000	0.135
N305	25	62	17	34	41.5	37.5	12000	0.242
NJ205	25	52	15	31.5	29	27.5	15000	0.14
NJ2205	25	52	18	31.5	34.5	34.5	15000	0.169
NJ2305	25	62	24	34	57	56	12000	0.356



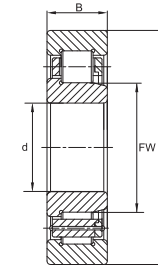
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
NJ305	25	62	17	34	41.5	37.5	12000	0.25
NU205	25	52	15	31.5	29	27.5	15000	0.137
NU2205	25	52	18	31.5	34.5	34.5	15000	0.164
NU2305	25	62	24	34	57	56	12000	0.349
NU305	25	62	17	34	41.5	37.5	12000	0.245
NUP205	25	52	15	31.5	29	27.5	15000	0.145
NUP2205	25	52	18	31.5	34.5	34.5	15000	0.174
NUP2305	25	62	24	34	57	56	12000	0.363
NUP305	25	62	17	34	41.5	37.5	12000	0.256
N206	30	62	16	37.5	39	37.5	12000	0.205
N306	30	72	19	40.5	51	48	10000	0.366
NJ206	30	62	16	37.5	39	37.5	12000	0.213
NJ2206	30	62	20	37.5	49	50	12000	0.261
NJ2306	30	72	27	40.5	73.5	75	10000	0.54
NJ306	30	72	19	40.5	51	48	10000	0.376
NU206	30	62	16	37.5	39	37.5	12000	0.208
NU2206	30	62	20	37.5	49	50	12000	0.255
NU2306	30	72	27	40.5	73.5	75	10000	0.529
NU306	30	72	19	40.5	51	48	10000	0.368
NUP206	30	62	16	37.5	39	37.5	12000	0.219
NUP2206	30	62	20	37.5	49	50	12000	0.268
NUP2306	30	72	27	40.5	73.5	75	10000	0.551
NUP306	30	72	19	40.5	51	48	10000	0.385
N207	35	72	17	44	50	50	10000	0.301
NJ207	35	72	17	44	50	50	10000	0.309
NJ2207	35	72	23	44	42	65.5	10000	0.416
NU207	35	72	17	44	50	50	10000	0.303



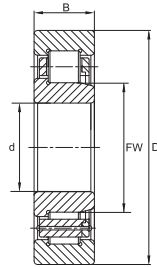
N, NJ, NU, NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d mm	D mm	B mm	Fw mm	C KN	Co KN		
NUP207	35	72	17	44	50	50	10000	0.317
N309	45	100	25	58.5	98	100	6700	0.891
NJ2309	45	100	36	58.5	137	153	6700	1.33
NJ309	45	100	25	58.5	98	100	6700	0.913
NU2309	45	100	36	58.5	137	153	6700	1.3
NU309	45	100	25	58.5	98	100	6700	0.893
NUP2209	45	85	23	54.5	73.5	81.5	8500	0.559
NUP2309	45	100	36	58.5	137	153	6700	1.36
NUP309	45	100	25	58.5	98	100	6700	0.934
N210	50	90	20	59.5	64	68	8000	0.488
N310	50	110	27	65	110	114	6300	1.16
NJ210	50	90	20	59.5	64	68	8000	0.503
NJ2210	50	90	23	59.5	78	88	8000	0.586
NJ2310	50	110	40	65	163	186	6300	1.77
NJ310	50	110	27	65	110	114	6300	1.19
NU210	50	90	20	59.5	64	68	8000	0.49
NU2210	50	90	23	59.5	78	88	8000	0.573
NU2310	50	110	40	65	163	186	6300	1.75
NU310	50	110	27	65	110	114	6300	1.16
NUP210	50	90	20	59.5	64	68	8000	0.517
NUP2210	50	90	23	59.5	78	88	8000	0.6
NUP2310	50	110	40	65	163	186	6300	1.82
NUP310	50	110	27	65	110	114	6300	1.21
N211	55	100	21	66	83	95	7000	0.668
N311	55	120	29	70.5	134	140	5600	1.48
NJ211	55	100	21	66	83	95	7000	0.679
NJ2211	55	100	25	66	98	118	7000	0.812



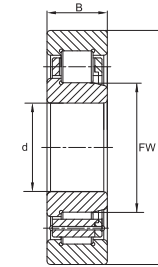
N, NJ, NU, NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d mm	D mm	B mm	Fw mm	C KN	Co KN		
NJ2311	55	120	43	70.5	200	228	5600	2.27
NJ311	55	120	29	70.5	134	140	5600	1.51
NU211	55	100	21	66	83	95	7000	0.665
NU2211	55	100	25	66	98	118	7000	0.796
NU2311	55	120	43	70.5	200	228	5600	2.23
NU311	55	120	29	70.5	134	140	5600	1.48
NUP211	55	100	21	66	83	95	7000	0.693
NUP2211	55	100	25	66	98	118	7000	0.828
NUP2311	55	120	43	70.5	200	228	5600	2.31
NUP311	55	120	29	70.5	134	140	5600	1.54
N212	60	110	22	72	95	140	6300	0.827
N312	60	130	31	77	150	156	5000	1.84
NJ212	60	110	22	72	95	140	6300	0.845
NJ2212	60	110	28	72	129	153	6300	1.1
NJ2312	60	130	46	77	224	260	5000	2.83
NJ312	60	130	31	77	150	156	5000	1.89
NU212	60	110	22	72	95	140	6300	0.824
NU2212	60	110	28	72	129	153	6300	1.08
NU2312	60	130	46	77	224	260	5000	2.78
NU312	60	130	31	77	150	156	5000	1.85
NUP212	60	110	22	72	95	140	6300	0.909
NUP2212	60	110	28	72	129	153	6300	1.12
NUP2312	60	130	46	77	224	260	5000	2.88
NUP312	60	130	31	77	150	156	5000	1.93
N213	65	120	23	78.5	108	120	6000	1.05
N313	65	140	33	82.5	180	190	4800	2.28
NJ213	65	120	23	78.5	108	120	6000	1.06



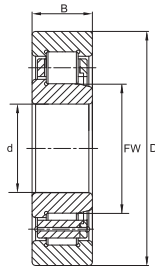
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN		
NJ2213	65	120	31	78.5	150	183	5600	1.46
NJ2313	65	140	48	82.5	245	285	4800	3.38
NJ313	65	140	33	82.5	180	190	4800	2.32
NU213	65	120	23	78.5	108	120	6000	1.04
NU2213	65	120	31	78.5	150	183	5600	1.43
NU2313	65	140	48	82.5	245	285	4800	3.32
NU313	65	140	33	82.5	180	190	4800	2.28
NUP213	65	120	23	78.5	108	120	6000	1.09
NUP2213	65	120	31	78.5	150	183	5600	1.54
NUP2313	65	140	48	82.5	245	285	4800	3.45
NUP313	65	140	33	82.5	180	190	4800	2.37
N214	70	125	24	83.5	120	137	5300	1.16
N314	70	150	35	89	204	220	4500	2.79
NJ214	70	125	24	83.5	120	137	5300	1.18
NJ2214	70	125	31	83.5	156	196	5300	1.55
NJ2314	70	150	51	89	275	325	4500	4.09
NJ314	70	150	35	89	204	220	4500	2.84
NU214	70	125	24	83.5	120	137	5300	1.15
NU2214	70	125	31	83.5	156	196	5300	1.52
NU2314	70	150	51	89	275	325	4500	4.02
NU314	70	150	35	89	204	220	4500	2.79
NUP214	70	125	24	83.5	120	137	5300	1.2
NUP2214	70	125	31	83.5	156	196	5300	1.58
NUP2314	70	150	51	89	275	325	4500	4.18
NUP314	70	150	35	89	204	220	4500	2.89
N215	75	130	25	88.5	132	156	5300	1.29
N315	75	160	37	95	240	265	4000	3.34



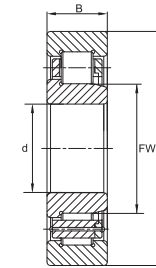
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN		
NJ215	75	130	25	88.5	132	156	5300	1.3
NJ2215	75	130	31	88.5	163	208	5300	1.64
NJ2315	75	160	55	95	325	390	4000	5.04
NJ315	75	160	37	95	240	265	4000	3.39
NU215	75	130	25	88.5	132	156	5300	1.27
NU2215	75	130	31	88.5	163	208	5300	1.61
NU2315	75	160	55	95	325	390	4000	4.95
NU315	75	160	37	95	240	265	4000	3.33
NUP215	75	130	25	88.5	132	156	5300	1.33
NUP2215	75	130	31	88.5	163	208	5300	1.67
NUP2315	75	160	55	95	325	390	4000	5.14
NUP315	75	160	37	95	240	265	4000	
N216	80	140	26	95.3	140	170	4800	1.55
N316	80	170	39	101	255	275	3800	4.12
NJ216	80	140	26	95.3	140	170	4800	1.58
NJ2216	80	140	33	95.3	186	245	4800	2.05
NJ2316	80	170	58	101	355	425	3800	6
NJ316	80	170	39	101	255	275	3800	4.03
NU216	80	140	26	95.3	140	170	4800	1.54
NU2216	80	140	33	95.3	186	245	4800	2.02
NU2316	80	170	58	101	355	425	3800	5.89
NU316	80	170	39	101	255	275	3800	3.96
NUP216	80	140	26	95.3	140	170	4800	1.62
NUP2216	80	140	33	95.3	186	245	4800	2.08
NUP2316	80	170	58	101	355	425	3800	6.11
NUP316	80	170	39	101	255	275	3800	4.11
N217	85	150	28	100.5	163	193	4500	1.92



N,NJ,NU,NUP Series

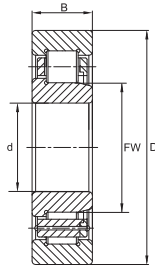
Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
N317	85	180	41	108	290	325	5600	5.3
NJ217	85	150	28	100.5	163	193	4500	1.95
NJ2217	85	150	36	100.5	215	275	4500	2.55
NJ2317	85	180	60	108	365	450	3600	6.84
NJ317	85	180	41	108	290	325	5600	
NU217	85	150	28	100.5	163	193	4500	1.91
NU2217	85	150	36	100.5	215	275	4500	2.5
NU2317	85	180	60	108	365	450	3600	6.71
NU317	85	180	41	108	290	325	5600	
NUP217	85	150	28	100.5	163	193	4500	2.08
NUP2217	85	150	36	100.5	215	275	4500	2.6
NUP2317	85	180	60	108	365	450	3600	6.99
NUP317	85	180	41	108	270	300	3600	4.8
N218	90	160	30	107	183	216	4300	2.37
N318	90	190	43	113.5	315	345	5300	6.19
NJ218	90	160	30	107	183	216	4300	2.41
NJ2218	90	160	40	107	240	315	4300	3.23
NJ2318	90	190	64	113.5	430	530	3400	8.19
NJ318	90	190	43	113.5	315	345	3400	5.49
NU218	90	160	30	107	183	216	4300	2.36
NU2218	90	160	40	107	240	315	4300	3.17
NU2318	90	190	64	113.5	430	530	3400	8.04
NU318	90	190	43	113.5	315	345	3400	5.39
NUP218	90	160	30	107	183	216	4300	2.46
NUP2218	90	160	40	107	240	315	4300	3.29
NUP2318	90	190	64	113.5	430	530	3400	8.35
NUP318	90	190	43	113.5	315	345	3400	5.59



N,NJ,NU,NUP Series

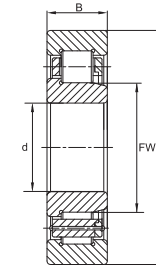
Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
N219	75	130	25	88.5	132	156	5300	1.3
N319	75	130	31	88.5	163	208	5300	1.64
NJ219	75	160	55	95	325	390	4000	5.04
NJ2219	75	160	37	95	240	265	4000	3.39
NJ2319	75	130	25	88.5	132	156	5300	1.27
NJ319	75	130	31	88.5	163	208	5300	1.61
NU219	75	160	55	95	325	390	4000	4.95
NU2219	75	160	37	95	240	265	4000	3.33
NU2319	75	130	25	88.5	132	156	5300	1.33
NU319	75	130	31	88.5	163	208	5300	1.67
NUP219	75	160	55	95	325	390	4000	5.14
NUP2219	75	160	37	95	240	265	4000	
NUP2319	80	140	26	95.3	140	170	4800	1.55
NUP319	80	170	39	101	255	275	3800	4.12
N220	80	140	26	95.3	140	170	4800	1.58
N320	80	140	33	95.3	186	245	4800	2.05
NJ220	80	170	58	101	355	425	3800	6
NJ2220	80	170	39	101	255	275	3800	4.03
NJ2320	80	140	26	95.3	140	170	4800	1.54
NJ320	80	140	33	95.3	186	245	4800	2.02
NJ420	80	170	58	101	355	425	3800	5.89
NU1020	80	170	39	101	255	275	3800	3.96
NU220	80	140	26	95.3	140	170	4800	1.62
NU2220	80	140	33	95.3	186	245	4800	2.08
NU2320	80	170	58	101	355	425	3800	6.11
NU320	80	170	39	101	255	275	3800	4.11
NU420	85	150	28	100.5	163	193	4500	1.92





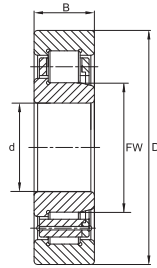
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d mm	D mm	B mm	Fw mm	C KN	Co KN		
NUP220	100	180	34	119	250	350	3800	3.61
NUP2220	100	180	46	119	335	440	3800	4.92
NUP320	100	215	47	127.5	380	425	5000	7.96
N221	105	190	36	125.5	260	320	5600	4.63
NJ221	105	190	36	126.8	210	285	3600	4.5
NJ321	105	225	49	133	415	525	2800	10.7
NU1021	105	160	26	119.5	110	170	4800	1.9
NU221	105	190	36	125	240	300	3600	4
NU321	105	225	49	133	415	525	2800	10.6
NU421	105	260	60	144.5	510	655	2800	18
NUP221	105	190	36	125.5	260	320	5600	4.26
N222	110	200	38	132.5	290	365	3400	6.87
N322	110	240	50	143	440	510	4800	11.7
NJ222	110	200	38	132.5	245	335	3400	5.1
NJ2222	110	200	53	132.5	380	520	3400	6.85
NJ2322	110	240	80	143	605	800	2600	18.7
NJ322	110	240	50	143	390	515	2600	11.8
NJ422	110	280	65	155	560	725	2600	22.3
NU1022	110	170	28	125	130	195	4500	2.32
NU222	110	200	38	132.5	245	335	3400	5.05
NU2222	110	200	53	132.5	330	500	3400	7.63
NU2322	110	240	80	143	605	800	2600	18.3
NU322	110	240	50	143	390	515	2600	11.6
NU422	110	280	65	155	560	725	2600	22
NUP222	110	200	38	132.5	290	365	3400	5.02
NUP2222	110	200	53	132.5	380	520	3400	7.02
NUP2322	110	240	80	143	630	800	2800	17.2



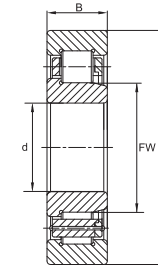
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d mm	D mm	B mm	Fw mm	C KN	Co KN		
NUP322	110	240	50	143	440	510	4800	10.7
N224	120	215	40	143.5	335	415	3200	5.67
N324	120	260	55	154	520	600	4500	15.1
NJ1024	120	180	28	135	133	205	4000	3.1
NJ2224	120	215	58	143.5	360	550	3000	9.46
NJ224	120	215	40	143.5	275	390	3000	6.39
NU2324	120	260	86	154	670	970	2400	23.6
NJ324	120	260	55	154	460	600	2400	14.7
NJ424	120	310	72	170	700	915	2400	29.7
NU1024	120	180	28	135	133	205	4000	2.96
NU2224	120	215	58	143.5	360	550	3000	9.31
NU224	120	215	40	143.5	275	390	3000	6.27
NU2324	120	260	86	154	670	970	2400	23.1
NU324	120	260	55	154	460	600	2400	14.5
NU424	120	310	72	170	700	915	2400	29.1
NUP2224	120	215	58	143.5	450	610	5000	8.7
NUP224	120	215	40	143.5	335	415	3200	6.02
NUP2324	120	260	86	154	780	1020	4300	23.8
NUP324	120	260	55	154	520	600	2800	13.8
N226	130	230	40	153.5	360	450	3000	6.51
N326	130	280	58	167	610	720	4300	18.4
NJ2226	130	230	64	156	390	625	2800	11.8
NJ226	130	230	40	156	285	415	2800	7.32
NJ2326	130	280	93	167	790	1180	2200	29
NJ326	130	280	58	167	570	670	2600	16.5
NU1026	130	200	33	148	170	270	3800	4.7
NU2226	130	230	64	156	390	625	2800	11.8



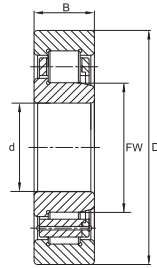
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN		
NU226	130	230	40	156	285	415	2800	7.22
NU2326	130	280	93	167	790	1180	2200	28.7
NU326	130	280	58	167	570	670	2600	16.2
NU426	130	340	78	185	855	1180	2200	39.5
NUP2226	130	230	64	153.5	530	735	3000	10.8
NUP226	130	230	40	153.5	360	450	3000	6.74
NUP2326	130	280	93	167	915	1220	3800	29.7
NUP326	130	280	58	167	610	720	2600	17
N228	140	250	42	169	390	510	4800	9.29
N328	140	300	62	180	670	800	3800	22.5
NJ2228	140	250	68	169	460	755	2600	14.8
NJ228	140	250	42	169	330	490	2600	9.38
NJ2328	140	300	102	180	870	1300	2200	34.8
NJ328	140	300	62	180	590	800	2200	22.6
NJ428	140	360	82	196	920	1200	2000	46.3
NU1028	140	210	33	158	170	240	3000	4
NU2228	140	250	68	169	460	755	2600	14.4
NU228	140	250	42	169	330	490	2600	9.16
NU2328	140	300	102	180	870	1300	2200	33.6
NU3028M	140	210	53	158	325	480	3000	7.64
NU328	140	300	62	180	590	800	2200	22.2
NU428	140	360	82	196	920	1200	2000	45.5
NUP2228	140	250	68	169	570	830	4500	16.8
NUP228	140	250	42	169	390	510	4800	9.61
NUP2328	140	300	102	180	1020	1400	3600	37.1
NUP328	140	300	62	180	670	800	2400	20.8
N230	150	270	45	182	440	585	4500	15.9



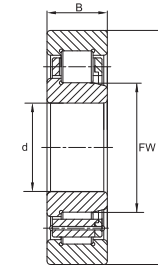
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed r/min	Weight kg
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN		
N330	150	320	65	193	765	930	3600	26.8
NJ2230	150	270	73	182	655	980	4300	18.7
NJ230	150	270	45	182	380	565	2400	12
NJ2330	150	320	108	193	970	1480	2000	42.4
NJ330	150	320	65	193	650	890	2000	26.9
NJ3330	150	320	128	193	1200	1880	2000	50
NU1030	150	255	35	169.5	190	300	3200	5.05
NU2230	150	270	73	182	655	980	4300	18.4
NU230	150	270	45	182	380	565	2400	11.8
NU2330	150	320	108	193	970	1480	2000	41.5
NU330	150	320	65	193	650	890	2000	26.6
NUP2230	150	270	73	182	655	980	4300	19.3
NUP230	150	270	45	182	440	585	4500	12.4
NUP2330	150	320	108	193	1160	1600	3200	44.6
NUP330	150	320	65	193	765	930	3600	27.6
N232	160	290	48	195	500	670	4300	14.6
N332	160	340	68	204	865	1060	3000	32.6
NJ1032	160	240	38	180	235	3801	3000	6.15
NJ2232	160	290	80	193	800	1180	3800	23.5
NJ232	160	290	48	195	500	670	4300	14.8
NJ2332	160	340	114	204	1320	1830	3000	52.3
NJ2932	160	220	36	173	230	435	3000	4.2
NJ332	160	340	68	208	685	970	1800	31.5
NU1032	160	240	38	180	235	380	3000	5.96
NU2232	160	290	80	195	625	1000	2200	23.3
NU232	160	290	48	195	500	670	4300	14.6
NU2332	160	340	114	208	1020	1610	1800	54.4



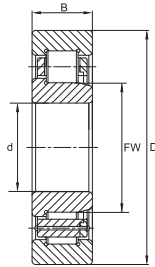
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
NU332	160	340	68	208	685	970	1800	30.9
NUP2232	160	290	80	193	800	1180	3800	24.3
NUP232	160	290	48	195	500	670	4300	15.1
N234	170	310	52	207	585	780	3600	18.1
N334	170	360	72	218	965	1220	3000	37.9
NJ1034	170	260	42	193	270	440	2800	8.5
NJ2234	170	310	86	205	950	1400	3200	35.7
NJ2334	170	360	120	220	1160	1850	1700	62.5
NJ234	170	310	52	208	500	780	2200	19.2
NJ334	170	360	72	220	780	1110	1900	38.4
NU1034	170	260	42	193	270	440	2800	8.23
NU2234	170	310	86	205	950	1400	3200	35.7
NU2334	170	360	120	220	1160	1850	1700	61.1
NU234	170	310	52	208	500	780	2200	18.7
NU334	170	360	72	220	780	1110	1900	37.7
NUP2234	170	310	86	205	950	1400	3200	37.2
NUP234	170	310	52	207	585	780	3600	18.6
NJ2236	180	320	86	218	950	1580	2000	31.9
NJ2336	180	380	126	232	1240	1850	1600	72
NJ236	180	320	52	218	505	785	2000	20
NJ336	180	380	75	231	1040	1320	2800	44.6
NU1036	180	280	46	205	310	450	2600	10.5
NU2236	180	320	86	218	950	1580	2000	31.4
NU2336	180	380	126	232	1240	1850	1600	69.5
NU236	180	320	52	218	505	785	2000	19.8
NU336	180	380	75	232	900	1260	1800	42.8
NUP2236	180	320	86	215	1000	1500	3200	31.4



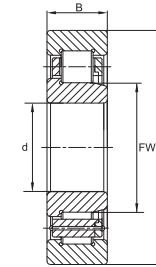
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
NUP236	180	320	52	217	610	830	3600	17.7
N238	190	340	55	230	680	930	3200	22.8
NJ2238	190	340	92	228	1100	1660	3000	37.5
NJ2338	190	400	132	240	1900	2650	2600	83.9
NJ238	190	340	55	231	650	900	1900	22
NJ338	190	400	78	245	905	1370	1500	49.4
NU1038	190	290	46	215	370	640	2600	10.9
NU2238	190	340	92	231	905	1350	1900	38.6
NU2338	190	400	132	240	1900	2650	2600	82.9
NU238	190	340	55	231	650	900	1900	21.6
NU2938	190	260	42	207	310	380	2600	6.5
NU338	190	400	78	245	905	1370	1500	48.5
NUP238	190	340	55	230	680	930	3200	23.5
N240	200	360	58	243	750	1040	3000	30.6
NJ1040	200	310	51	229	905	705	2400	14.7
NJ2240	200	360	98	244	905	1600	1800	45.5
NJ2340	200	420	138	253	2040	2900	2400	97.2
NJ240	200	360	58	244	905	995	1800	27.1
NJ340	200	420	80	258	1180	1530	2600	58.1
NU1040	200	310	51	229	905	705	2400	14.3
NU2240	200	360	98	241	1100	1750	1800	46
NU2340	200	420	138	247	1850	2600	1500	96
NU240	200	360	58	244	905	995	1800	26.5
NU3340	200	420	165	260	1950	3900	1500	118
NU340	200	420	80	260	900	1200	1600	56
NUP240	200	360	58	243	750	1040	3000	31.4
NJ1044	220	340	56	250	470	775	2200	19.6



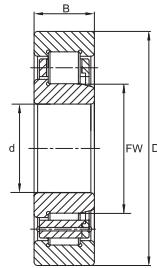
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
NJ244	220	400	65	270	760	1220	1800	35.4
NU1044	220	340	56	250	470	775	2200	19.4
NU2244	220	400	108	270	1100	1950	1600	62.24
NU2344	220	460	145	284	1970	3200	1300	114
NU244	220	400	65	270	760	1220	1800	35
NU2944	220	300	48	240	370	750	2400	10.5
NU344	220	460	88	284	1160	1730	1500	73.4
NUP2244	220	400	108	259	1630	2360	2600	63.4
NUP2344	220	460	145	277	2360	3350	2200	121
NUP244	220	400	65	268	950	1320	2800	39.3
N248	240	440	72	293	1140	1600	2600	51.5
NJ248	240	440	72	295	950	1540	1600	49.6
NJ348	240	500	95	306	1730	2280	2200	97
NU1048	240	360	56	270	495	855	2000	21.2
NU2248	240	440	120	295	1350	2150	1500	84
NU2348	240	500	155	310	1950	3000	1200	155
NU248	240	440	72	295	950	1540	1600	46.9
NU348	240	500	95	310	1390	2120	1300	96.5
NJ252	260	480	80	320	1100	1800	1400	71
NU1052	260	400	65	296	625	1090	1800	37.2
NU2052	260	400	82	294	985	1880	1500	40
NU2252	260	480	130	320	1650	2700	1300	110
NU2352	260	540	165	324	3100	4500	1800	189
NU252	260	480	80	320	1100	1800	1400	68.5
NU352	260	540	102	337	1900	2600	2000	121
NJ256	280	500	80	340	1050	1550	1400	73
NJ356	280	580	108	362	2160	3050	1900	149



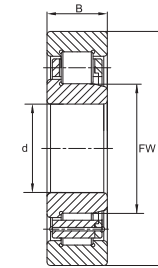
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
NU1056	280	420	65	316	640	1100	1700	40
NU2256	280	500	130	327	2000	3000	1200	115
NU2356	280	580	175	362	2450	3900	1000	230
NU256	280	500	80	340	1050	1550	1400	72
NU356	280	580	108	362	2160	3050	1900	149
NU1060	300	460	74	340	850	1510	1500	45.1
NU1060	300	460	74	340	850	1510	1500	44.1
NU2260	300	540	140	364	1890	3100	1200	145
NU260	300	540	85	364	1370	2270	1300	86.9
NU3060	300	460	118	340	1650	1800	1300	73
NU360	300	620	109	385	2100	3300	1100	166
NU1064	320	480	74	360	870	1580	1400	49
NU1064	320	480	74	360	870	1580	1400	48.2
NU2264	320	580	150	390	2150	3600	1100	180
NU264	320	580	92	390	1450	2250	1200	115
NU1068	340	520	82	385	1350	1900	1300	65
NU2268	340	620	165	416	2400	4000	1000	225
NU1072	360	540	82	405	1000	1650	1300	68
NU2272	360	650	170	437	2750	2900	950	263
NU2272M1	360	650	170	437	3150	5400	1500	256
NU2372	360	750	224	455	4700	5400	750	490
NU3172	360	600	192	420	3200	6500	950	129
NU1076	380	560	82	425	1050	1750	1200	71
NU2276	380	680	175	462	2850	4950	900	285
NJ1080	400	600	90	450	1310	2460	1100	91
NU1080	400	600	90	450	1310	2460	1100	90
NU1980	400	540	65	434	780	980	1200	44



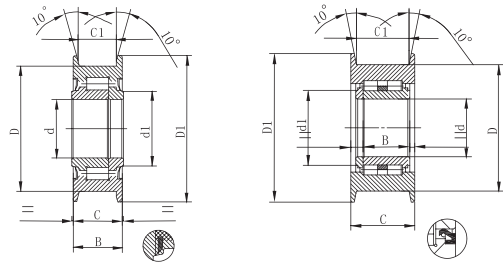
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
NU3080	400	600	148	448	2150	3300	950	150
NU1084	420	620	90	470	1300	2200	1100	96
NU1088	440	650	94	493	13604	2400	1000	110
NU3188	440	720	226	508	4850	9800	700	374
NU688	440	546	46	468	410	476	1100	27
NU1092	460	680	100	516	1500	2600	950	125
NU3192	460	760	240	531	4950	10000	670	465
NU1096	480	700	100	536	1600	2700	900	130
NJ39/500	500	670	128	543	2100	4700	900	130
NU10/500	500	720	100	556	1800	4350	900	135
NU12/500	500	920	185	604	4700	7650	670	585
NU18/500	500	620	56	530	800	1700	650	39
NU19/500	500	670	78	544	1100	2100	900	79
NU20/500	500	720	128	553	2700	5300	750	180
NU29/500	500	670	100	543	17604	4300	900	101
NU30/500	500	720	167	540.8	3650	7200	750	230
NU31/500	500	830	264	576	5800	10800	600	595
NJ28/530	530	650	72	560.5	1050	2890	900	52
NU10/530	530	780	112	593	2100	3700	800	190
NU19/530	530	710	106	580	1800	4550	850	123
NU20/530	530	780	145	591	3400	6600	670	255
NJ10/560	560	820	115	625	2100	3850	750	220
NU10/560	560	820	115	625	2100	3850	750	215
NU12/560	560	1030	206	668	6500	10100	560	805
NU19/560	560	750	85	608	1500	2900	800	110
NU20/560	560	820	150	626	3500	6900	630	290
NU10/600	600	870	118	667	2500	4600	700	250



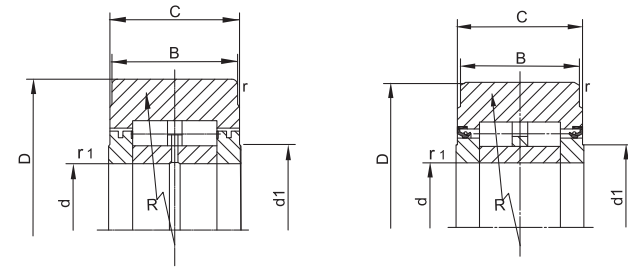
N,NJ,NU,NUP Series

Bearing No.	Dimensions				Load ratings		Limiting speed	Weight
	d	D	B	Fw	C	Co		
	mm	mm	mm	mm	KN	KN	r/min	kg
NU18/600	600	730	60	632	810	1850	800	51
NU19/600	600	800	90	649	1750	3500	750	130
NU20/600	600	870	155	661	3800	7200	600	325
NU30/600	600	870	200	661	4850	9900	600	415
NU10/630	630	920	128	702	3100	5600	530	285
NU19/630	630	850	100	688	1850	2530	700	160
NU20/630	630	920	170	699	4300	8600	530	400
NU28/630	630	780	88	668	1450	3550	750	98
NU29/630	630	850	128	685	3000	4200	700	210
NU10/670	670	980	136	747	3400	6150	500	350
NU19/670	670	900	103	728	2100	4300	630	195
NU20/670	670	980	180	746	4900	9900	500	480
NU30/670	670	980	230	744	6000	12600	500	600
NU6/700	700	930	160	760	3200	4500	500	300
NU10/710	710	1030	140	778	4200	7650	500	480
NU129/710	710	950	140	766	3400	7500	600	295
NU18/710	710	870	74	750	1350	3050	630	98
NU19/710	710	950	106	770	2300	3250	600	210
NU20/710	710	1030	185	787	5350	10800	480	540
NU10/750	750	1090	150	832	4300	7950	430	490
NU18/750	750	920	78	794	1350	3150	600	100
NU20/750	750	1090	195	832	6350	13200	430	635
NJ18/800	800	980	82	848	1550	3750	530	145
NU10/800	800	1150	155	883	4950	9550	400	560
NU20/800	800	1150	200	882	6350	13150	400	715



MR.000 Series

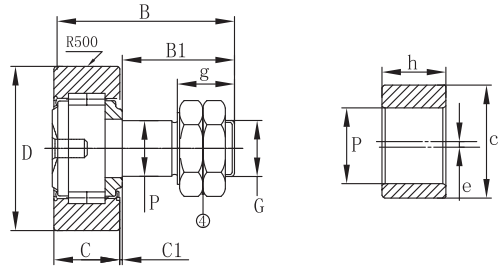
Bearing No.	Dimensions							Load rating		Weight	Other Bearing No.
	d mm	D mm	B mm	C mm	C1 mm	D1 mm	d1 mm	C mm	C0 mm	KG	2RS
MR.051	40	70	26.5	25	19	78	50	44	46	0.5	WW407026-2RS
MR.052	40	80	28	26	19	90	50	50	54	0.75	WW408028-2RS
MR.053	40	85	38	36	28	98	50	64	70	1.2	WW408538-2RS
MR.054	40	80	43	41	33	98	50	81	87	1.2	WW408043-2RS
MR.055	50	100	42	40	33	115	60	89	95	1.7	WW5010042-2RS
MR.056	55	110	58	56	45	135	65	135	146	1.7	WW5511058-2RS
MR.057	55	130	67	65	55	158	65	200	218	3.5	WW5513067-2RS
MR.060	80	157	68	88	72	187	100	235	276	4.5	WW8015768-2RS
MR.061	100	184	85	106	88	218	130	318	396	16.3	WW10018485-2RS
MR.062	110	212	95	120	98	256	150	440	600	23.6	WW11021295-2RS
MR.063	110	212	125	150	128	256	150	618	900	29	WW110212150-2RS



NNTR Series

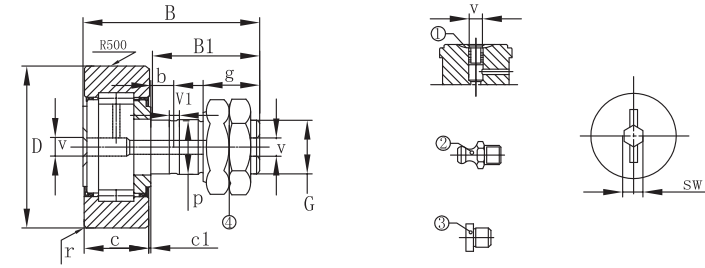
Bearing No.	Dimensions								Load ratings				Speed	Weight
	d mm	D mm	B mm	C mm	R mm	r1 mm	d1 mm	R mm	C KN	C <sub>0</sub> KN	C <sub>w</sub> KN	C <sub>0w</sub> KN	Grease rev./min	KG
NNTR50130	50	130	63	65	3	2	63	10000	211	264	162	220	1100	5
NNTR55140	55	140	68	70	3	2	73	10000	257	335	197	279	850	6
NNTR60150	60	150	73	75	3	2	78	10000	298	390	229	325	800	7.2
NNTR65160	65	160	73	75	3	2	82	10000	313	411	240	342	700	8
NNTR70180	70	180	83	85	3	2	92	10000	401	544	308	453	600	12
NNTR80200	80	200	88	90	4	2	102	10000	473	646	363	538	500	15.6
NNRT90220	90	220	98	100	4	2.5	119	10000	607	853	466	710	400	21
NNTR100240	100	240	103	105	4	2.5	132	10000	689	985	530	820	340	26.4
NNRT110260	110	260	113	115	4	2.5	143	10000	813	1206	625	1005	300	33.8
NNTR120290	120	290	133	135	4	3	155	15000	1060	1588	815	1323	260	50.8
NNTR130310	130	310	144	146	5	3	165	15000	1214	1854	933	1545	240	63
NNTR140340	140	340	160	162	5	3.5	168	15000	1494	2295	1149	1912	200	84.8
NNTR150360	150	360	171	173	5	3.5	196	15000	1668	2604	1280	2170	180	101.4





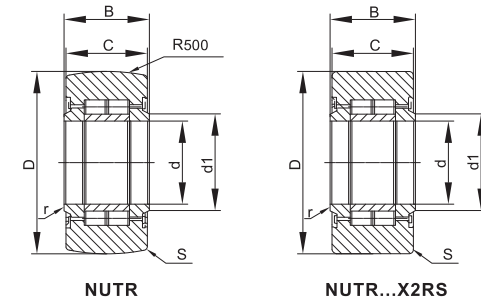
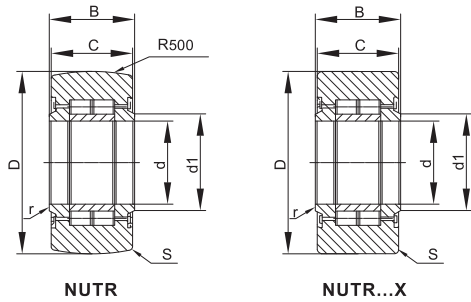
NUKR Series

Bearing No.	With eccentric Collar	d mm	D mm	C mm	B mm	B <sub>1</sub> mm	b mm	G mm	g mm	v mm	v <sub>1</sub> mm	C <sub>1</sub> mm	r mm	SW mm
NUKR 40	NUKRE 40	18	40	20	58	36.5	8	M18×1.5	19	6	3	0.8	1	6
NUKR 47	NUKRE 47	20	47	24	66	40.5	9	M20×1.5	21	8	4	0.8	1	8
NUKR 52	NUKRE 52	20	52	24	66	40.5	9	M20×1.5	21	8	4	0.8	1	8
NUKR 62	NUKRE 62	24	62	29	80	49.5	11	M24×1.5	25	8	4	0.8	1	8
NUKR 72	NUKRE 72	24	72	29	80	49.5	11	M24×1.5	25	8	4	0.8	1.2	8
NUKR 80	NUKRE 80	30	80	35	100	63	15	M30×1.5	32	8	4	1	1.2	8
NUKR 90	NUKRE 90	30	90	35	100	63	15	M30×1.5	32	8	4	1	1.2	8
NUKR 100	NUKRE 100	36	100	35	115	78	19	M36×3	40	8	5	1	1.2	8
NUKR 110	NUKRE 110	36	110	35	115	78	19	M36×3	40	8	5	1	1.2	8
NUKR 120	NUKRE 120	42	120	40	130	88	25	M42×3	40	8	5	1	1.2	8
NUKR 130	NUKRE 130	42	130	48	130	88	25	M42×3	40	8	5	1	1.2	8
NUKR 140	NUKRE 140	45	140	48	130	81	18	M45×3	45	10	6	1	1.2	10



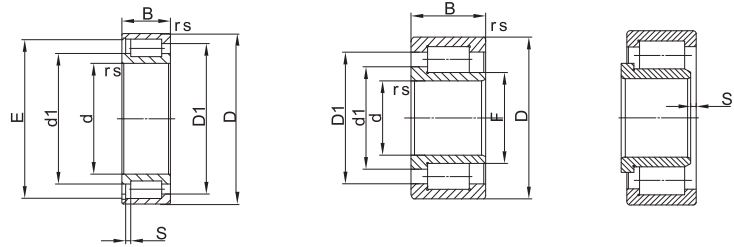
NUKR Series

Eccentric Collar				Bearing		Track Roller		Grease	Weight	Nut	NUT Tightening	Bearing No.
d mm	C mm	h mm	e mm	C CN	C <sub>1</sub> CN	C <sub>w</sub> CN	C <sub>ow</sub> CN	Speed min <sup>-1</sup>	KG	UNI 5589	Torque NM	
16	20	14	1	23	27	10.9	15.5	6000	0.16	M16×1.5	58	NUKR 35
18	22	16	1	24.8	31	18.5	22.8	5500	0.24	M18×1.5	87	NUKR 40
20	24	18	1	28	59	20.6	42	4200	0.38	M20×1.5	110	NUKR 47
20	24	18	1	28	36	44	59	3500	0.45	M20×1.5	110	NUKR 52
24	28	22	1	39	50	59	78	2500	0.80	M24×1.5	200	NUKR 62
24	28	22	1	44	61	65	92	2000	1.05	M24×1.5	200	NUKR 72
30	35	29	1.5	65	91	92	125	1800	1.60	M30×1.5	400	NUKR 80
30	35	29	1.5	74	105	92	125	1800	1.95	M30×1.5	400	NUKR 90
-	-	-	-	85	115	105	135	1700	2.21	M36×3	502	NUKR 100
-	-	-	-	95	125	120	145	1700	2.57	M36×3	500	NUKR 110
-	-	-	-	105	125	151	158	1500	3.58	M42×3	650	NUKR 120
-	-	-	-	178	152	161	186	1500	4.73	M42×3	650	NUKR 130
-	-	-	-	158	180	174	216	1400	5.40	M45×3	750	NUKR 140

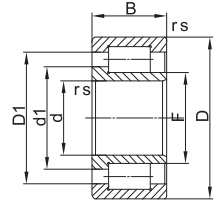


Bearing No.	Dimensions							Bearing		Bearing				Grease	Weight
	d mm	D mm	B mm	C mm	d <sub>1</sub> mm	r mm	s mm	C KN	C <sub>0</sub> KN	C <sub>w</sub> KN	Cow KN	Cr.am KN	Cor.am KN	Speed min <sup>-1</sup>	kg
NUTR 2052	20	52	25	24	27	1	0.3	39	49	31	41	37	41	4300	0.32
NUTR 2052X	20	52	25	24	27	1	0.3	39	49	31	41	37	41	4300	0.32
NUTR 2552	25	52	25	24	31	1	0.3	43	58	28	36	21	35	3500	0.29
NUTR 2552X	25	52	25	24	31	1	0.3	43	58	28	36	21	35	3500	0.29
NUTR 2562	25	62	25	24	31	1	0.3	43	58	39	50	43	54	3500	0.46
NUTR 2562X	25	62	25	24	31	1	0.3	43	58	39	50	43	54	3500	0.46
NUTR 3062	30	62	29	28	38	1	0.3	59	78	39	50	26	46	2650	0.48
NUTR 3062X	30	62	29	28	38	1	0.3	59	78	39	50	26	46	2650	0.48
NUTR 3072	30	72	29	28	38	1	0.3	59	78	46	61	52	65	2650	0.70
NUTR 3072X	30	72	29	28	38	1	0.3	59	78	46	61	52	65	2650	0.70
NUTR 3572	35	72	29	28	44	1.1	0.6	64	92	44	61	34	61	2200	0.65
NUTR 3572X	35	72	29	28	44	1.1	0.6	64	92	44	61	34	61	2200	0.65
NUTR 3580	35	80	29	28	44	1.1	0.6	64	92	50	70	60	70	2200	0.85
NUTR 3580X	35	80	29	28	44	1.1	0.6	64	92	50	70	60	70	2200	0.85
NUTR 4080	40	80	32	30	51	1.1	0.6	87	125	56	75	46	72	1700	0.83
NUTR 4080X	40	80	32	30	51	1.1	0.6	87	125	56	75	46	72	1700	0.83
NUTR 4585	45	85	32	30	55	1.1	0.6	93	135	58	79	43	79	1500	0.90
NUTR 4585x	45	85	32	30	55	1.1	0.6	93	135	58	79	43	79	1500	0.90
NUTR 4090	40	90	32	30	51	1.1	0.6	87	127	65	95	75	95	1650	1.14
NUTR 4090x	40	90	32	30	51	1.1	0.6	87	127	65	95	75	95	1650	1.14
NUTR 5090	50	90	32	30	60	1.1	0.6	98	155	58	91	51	81	1350	0.97
NUTR 5090X	50	90	32	30	60	1.1	0.6	98	155	58	91	51	81	1350	0.97
NUTR 45100	45	100	32	30	55	1.1	0.6	93	135	71	105	91	105	1450	1.41
NUTR 45100X	45	100	32	30	55	1.1	0.6	93	135	71	105	91	105	1450	1.41
NUTR 50110	50	110	32	30	60	1.1	0.6	98	155	75	119	108	119	1350	1.71
NUTR 50110X	50	110	32	30	60	1.1	0.6	98	155	75	119	108	119	1350	1.71

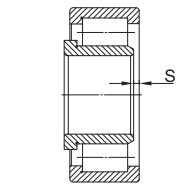
Bearing No.	Dimensions							Bearing		Bearing				Grease	Weight
	d mm	D mm	B mm	C mm	d <sub>1</sub> mm	r mm	s mm	C KN	C <sub>0</sub> KN	C <sub>w</sub> KN	Cow KN	Cr.am KN	Cor.am KN	Speed min <sup>-1</sup>	kg
NUTR2052 2RS	20	52	25	24	27	1	0.3	39	49	31	41	37	41	4300	0.32
NUTR2052 X2RS	20	52	25	24	27	1	0.3	39	49	31	41	37	41	4300	0.32
NUTR2552 2RS	25	52	25	24	31	1	0.3	43	58	28	36	21	35	3500	0.29
NUTR2552 X2RS	25	52	25	24	31	1	0.3	43	58	28	36	21	35	3500	0.29
NUTR2562 2RS	25	62	25	24	31	1	0.3	43	58	39	50	43	54	3500	0.46
NUTR2562 X2RS	25	62	25	24	31	1	0.3	43	58	39	50	43	54	3500	0.46
NUTR3062 2RS	30	62	29	28	38	1	0.3	59	78	39	50	26	46	2650	0.48
NUTR3062 X2RS	30	62	29	28	38	1	0.3	59	78	39	50	26	46	2650	0.48
NUTR3072 2RS	30	72	29	28	38	1	0.3	59	78	46	61	52	65	2650	0.7
NUTR3072 X2RS	30	72	29	28	38	1	0.3	59	78	46	61	52	65	2650	0.7
NUTR3572 2RS	35	72	29	28	44	1.1	0.6	64	92	44	61	34	61	2200	0.65
NUTR3572 X2RS	35	72	29	28	44	1.1	0.6	64	92	44	61	34	61	2200	0.65
NUTR3580 2RS	35	80	29	28	44	1.1	0.6	64	92	50	70	60	70	2200	0.85
NUTR3580 X2RS	35	80	29	28	44	1.1	0.6	64	92	50	70	60	70	2200	0.85
NUTR4080 2RS	40	80	32	30	51	1.1	0.6	87	125	56	75	46	72	1700	0.83
NUTR4080 X2RS	40	80	32	30	51	1.1	0.6	87	125	56	75	46	72	1700	0.83
NUTR4585 2RS	45	85	32	30	55	1.1	0.6	93	135	58	79	43	79	1500	0.9
NUTR4585 X2RS	45	85	32	30	55	1.1	0.6	93	135	58	79	43	79	1500	0.9
NUTR4090 2RS	40	90	32	30	51	1.1	0.6	87	127	65	95	75	95	1650	1.14
NUTR4090 X2RS	40	90	32	30	51	1.1	0.6	87	127	65	95	75	95	1650	1.14
NUTR5090 2RS	50	90	32	30	60	1.1	0.6	98	155	58	91	51	81	1350	0.97
NUTR5090 X2RS	50	90	32	30	60	1.1	0.6	98	155	58	91	51	81	1350	0.97
NUTR45100 2RS	45	100	32	30	55	1.1	0.6	93	135	71	105	91	105	1450	1.41
NUTR45100 X2RS	45	100	32	30	55	1.1	0.6	93	135	71	105	91	105	1450	1.41
NUTR50110 2RS	50	110	32	30	60	1.1	0.6	98	155	75	119	108	119	1350	1.71
NUTR50110 X2RS	50	110	32	30	60	1.1	0.6	98	155	75	119	108	119	1350	1.71



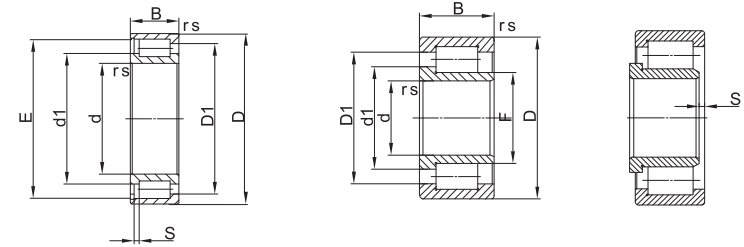
**SL18 29, SL18 30, SL19 22**  
Semi-Locating bearing



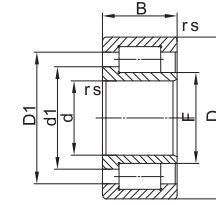
**SL19 23**  
Semi-Locating bearing



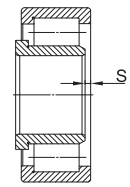
**SL19 23**  
Semi-Locating bearing



**SL18 29, SL18 30, SL19 22**  
Semi-Locating bearing



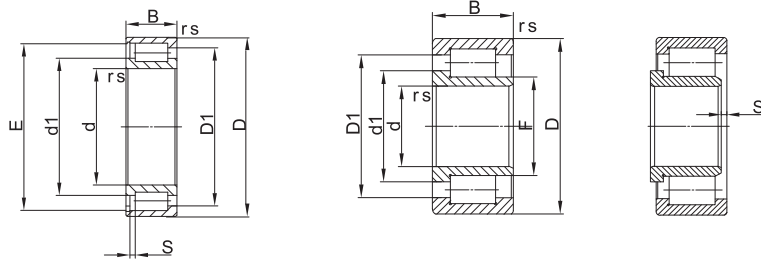
**SL19 23**  
Semi-Locating bearing



**SL19 23**  
Semi-Locating bearing

Shaft diameter	Bearing No.	Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg
		d	D	B	r	s	F	d1	D1	E	C	C <sub>0</sub>		
					min						KN	KN		
20	SL18 3004	20	42	16	0.6	1.5	-	29	33	36.5	27,5	26.5	10000	0.11
	SL19 2204	20	47	18	1	1	-	30	37	41.5	41	37.5	9500	0.16
25	SL18 3005	25	47	16	0.6	1.5	-	34.5	38.5	42.5	31,5	32.5	9000	0.12
	SL19 2205	25	52	18	1	1	-	35	42	46.5	46	45	8500	0.18
	SL19 2305	25	62	24	1.1	2	31.72	36.5	47.5	-	65	60	7500	0.37
30	SL18 3006	30	55	19	1	2	-	40	45	49.5	40.5	43	7500	0.2
	SL19 2206	30	62	20	1	1	-	42	50.5	55	63	65	7000	0.3
	SL19 2306	30	72	27	1.1	2	38,3	43,5	56	-	89	88	6500	0.56
35	SL18 3007	35	62	20	1	2	-	45	51	55.5	49,5	55	6500	0.26
	SL19 2207	35	72	23	1.1	1	-	47	59	64	79	79	6000	0.44
	SL19 2307	35	80	31	1.5	2	44,68	51	65.5	-	113	112	5500	0.74
40	SL18 3008	40	68	21	1	2	-	50.5	57.5	61.5	59	68	6000	0.31
	SL19 2208	40	80	23	1.1	1	-	54	66	71	87	83	5500	0.55
	SL19 2308	40	90	33	1.5	2	51.12	57.5	75	-	152	156	5000	1.01
45	SL18 3009	45	75	23	1	2	-	55.5	62	66.5	63	76	5500	0.4
	SL19 2209	45	85	23	1.1	1	-	57.5	69.5	74.5	90	99	5000	0.59
	SL19 2309	45	100	36	1.5	3	56.1	62.5	80	-	162	172	4500	1.37
50	SL18 3010	50	80	23	1	2	-	59	67.5	72	9	96	5000	0.43
	SL19 2210	50	90	23	1.1	1	-	64.5	76.5	81.5	97	113	4600	0.64
	SL19 2310	50	110	40	2	3	60.72	68.5	89.5	-	208	219	4100	1.81
55	SL18 3011	55	90	26	1.1	2	-	68.5	78.5	83.5	107	138	4500	0.64
	SL19 2211	55	100	25	1.5	1.5	-	70	83.5	89	125	150	4200	0.87
	SL19 2311	55	120	43	2	3	67.11	75.5	99	-	242	255	3700	2.28

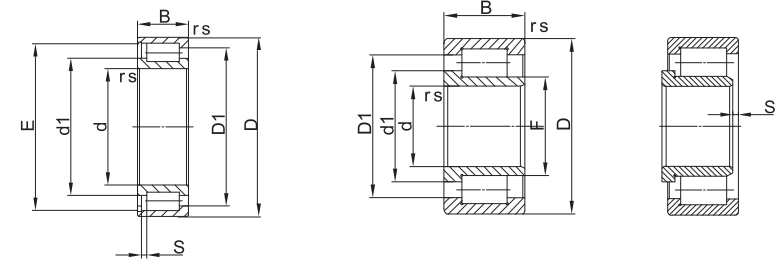
Shaft diameter	Bearing No.	Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg
		d	D	B	r	s	F	d1	D1	E	C	C <sub>0</sub>		
					min						KN	KN		
60	SL18 2912	60	85	16	1	1	-	69	74.5	78.5	7	78	4500	0.29
	SL18 3012	60	95	26	2	2	-	71.5	81.5	86.5	57	145	4200	0.69
	SL19 2212	60	110	28	1.5	1.5	-	77	93	99	110	180	3800	1.18
	SL19 2312	60	130	46	3	3	73.62	82	105.5	-	152	280	3400	2.88
65	SL18 2913	65	90	16	1	1	-	75.5	81	85	260	86	4200	0.31
	SL18 3013	65	100	26	1.1	2	-	78	88	93	60	159	3900	0.73
	SL19 2213	65	120	31	1.5	1.5	-	82.5	100	106	116	214	3500	1.57
70	SL19 2313	65	140	48	2.1	3.5	80,69	90	116.5	-	178	355	3200	3.52
	SL18 2914	70	100	19	1	1	-	81	87.5	92.5	315	114	3800	0.49
	SL18 3014	70	110	30	1.1	3	-	81.5	95	100	79	176	3600	1.02
	SL19 2214	70	125	31	1.5	1.5	-	87	105	111	137	227	3300	1.66
75	SL19 2314	70	150	51	2.1	3.5	84.14	93.5	121.5	-	184	390	2900	4.33
	SL18 2915	75	105	19	1	1	-	86	93	97.5	345	121	3600	0.52
	SL18 3015	75	115	30	1.1	3	-	89	102.5	107.5	81	194	3400	1.06
	SL19 2215	75	130	31	1.5	1.5	-	91.5	110	116	145	241	3200	1.75
	SL19 2315	75	160	55	2.1	3.5	91.22	101.5	131.5	-	190	475	2800	5.3
80	SL18 2916	80	110	19	1	1	-	91	98	102	410	129	3400	0.55
	SL18 3016	80	125	34	1.1	3	-	95	111	117	84	225	3200	1.43
	SL19 2216	80	140	33	2	1.5	-	98.5	119	126	173	285	2900	2.15
	SL19 2316	80	170	58	2.1	3.5	98.24	109.5	142	-	226	560	2600	6.32
85	SL18 2917	85	120	22	1.1	1	-	96	105	109	480	162	3200	0.81
	SL18 3017	85	130	34	1.1	4	-	99.5	115.5	121	105	237	3000	1.51
	SL19 2217	85	150	36	2	1.5	-	104.5	126	133	178	325	2800	2.74
	SL19 2317	85	180	60	3	4	107.01	118	150.5	-	255	620	2400	7.34



SL18 29,SL18 30,SL19 22

SL19 23

SL19 23



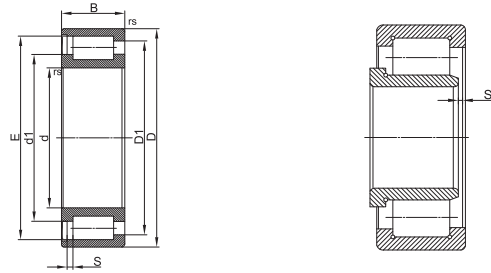
SL18 29,SL18 30,SL19 22

SL19 23

SL19 23

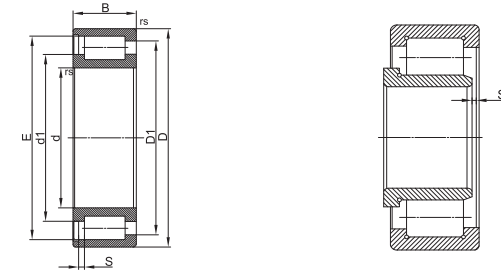
Shaft diameter	Bearing No.	Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg
		d	D	B	r	s	F	d1	D1	E	C	C <sub>0</sub>		
					min						KN	KN		
90	SL18 2918	90	125	22	1.1	1	-	102	110.5	115	109	172	3000	0.84
	SL18 3018	90	140	37	1.5	4	-	106	124	130	208	280	2800	1.97
	SL19 2218	90	160	40	2	2.5	-	110	133	140.5	290	370	2600	3.48
	SL19 2318	90	190	64	3	4	105.26	117	152	-	560	660	2300	8.83
95	SL18 2919	95	130	22	1.1	1	-	106.5	117	122	118	179	2900	0.86
	SL19 2219	95	170	43	2.1	2.5	-	122	147	155.5	340	435	2400	4.17
	SL19 2319	95	200	67	3	4	114.66	126.5	161.5	-	580	720	2200	10.2
100	SL18 2920	100	140	24	1.1	1.5	-	113.5	125.5	130	136	206	2700	1.14
	SL18 3020	100	150	37	1.5	4	-	115.5	133.5	139	219	310	2600	2.15
	SL19 2220	100	180	46	2.1	2.5	-	127.5	154	163	395	520	2300	5.13
	SL19 2320	100	215	73	3	4	119.3	132.5	172.5	-	710	860	2100	13
110	SL18 2922	110	150	24	1.1	1.5	-	124	136	141	140	220	2500	1.23
	SL18 3022	110	170	45	2	5.5	-	127.5	149	156	285	395	2300	3.5
	SL19 2222	110	200	53	2.1	4	-	137	167	177	455	590	2100	7.24
	SL19 2322	110	240	80	3	5	134.3	151	199.5	-	850	980	1900	17
120	SL18 2924	120	165	27	1.1	1.5	-	135	148.5	154	180	295	2300	1.73
	SL18 3024	120	180	46	2	5.5	-	139	160.5	167	300	435	2200	3.8
	SL19 2224	120	215	58	2.1	4	-	150.5	182	192.5	540	730	1900	9.08
	SL19 2324	120	260	86	3	5	147.4	164	213	-	1,000	1,240	1700	22.3
130	SL18 2926	130	180	30	1.5	2	-	146	161	166	214	355	2100	2.33
	SL18 3026	130	200	52	2	5.5	-	148.5	175	183	435	620	2000	5.65
	SL19 2326	130	230	64	3	5	-	162.5	196	207	630	860	1800	11.25

Shaft diameter	Bearing No.	Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg
		d	D	B	r	s	F	d1	D1	E	C	C <sub>0</sub>		
					min						KN	KN		
140	SL18 2928	140	190	30	1.5	2	-	157	173.5	179	232	385	2000	2.42
	SL18 3028	140	210	53	2	5.5	-	162.5	189	197	455	680	1900	6.04
	SL19 2228	140	250	68	3	5	-	174	210	222	720	1,020	1700	14.47
150	SL18 3030	150	210	36	2	2.5	-	169	189	196	305	490	1800	3.77
	SL19 2230	150	225	56	2.1	7	-	170	197.5	206	480	710	1700	7.33
	SL18 2930	150	270	73	3	6	-	185.5	224	237	830	1,180	1500	18.43
160	SL18 2932	160	220	36	2	2.5	-	180	200	207	320	520	1700	4
	SL18 3032	160	240	60	2.1	7	-	185	215	224	550	820	1600	8.8
	SL19 2232	160	290	80	3	6	-	208.5	252	266.5	1,030	1,490	1400	23



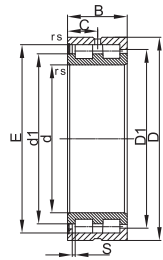
SL18 18, SL18 29, SL18 30, SL19 22

Shaft diameter	Bearing No.	Dimensions(mm)					Fitting dimensions(mm)			Load rating		Limiting speed r/min	Weight Kg
		d	D	B	r <sub>s</sub>	s	d1	D1	E	C	C <sub>0</sub>		
					min					KN	KN		
170	SL18 2934	170	230	36	2	2.5	191	210.5	218	330	560	1600	4.3
	SL18 3034	170	260	67	2.1	7	198	231.5	242	710	1070	1500	12.2
	SL19 2234	170	310	86	3	7	220.5	266	281	1150	1680	1400	28.65
180	SL18 2936	180	250	42	2	2.5	201	223.5	231	410	690	1500	6.2
	SL18 3036	180	280	74	2.1	7	212	248	260	820	1260	1400	16.1
	SL19 2236	180	320	86	4	7	232.5	278	293	1190	1780	1300	29.8
190	SL18 2938	190	260	42	2	2.5	211.5	235	243	455	790	1400	6.5
	SL18 3038	190	290	75	2.1	9	222	258	269	840	1320	1400	17
	SL19 2238	190	340	92	4	9	243.5	294	310.5	1310	1920	1200	35.65
200	SL18 1840	200	250	24	1.5	2	217	231	237	183	330	1400	2.57
	SL18 2940	200	280	48	2.1	3	225.5	252	261	550	960	1400	9.1
	SL18 3040	200	310	82	2.1	9	236.5	275	287	960	1530	1300	21.8
	SL19 2240	200	360	98	4	9	246.5	300.5	318.5	1420	2040	1200	43.12
220	SL18 1844	220	270	24	1.5	2	237.5	251.5	258	192	365	1300	2.8
	SL19 2944	220	300	48	2.1	3	246.5	273	282	580	1050	1200	9.9
	SL18 3044	220	340	90	3	9	254.5	298	312	1160	1840	1200	28.4
240	SL18 1848	240	300	28	2	3	260	276	282	224	435	1200	4.4
	SL18 2948	240	320	48	2.1	3	267.5	294	303	610	1140	1200	10.6
	SL18 3048	240	360	92	3	11	277.5	320.5	335	1220	2010	1100	30.9
260	SL18 1852	260	320	28	2	3	282.5	298.5	304	234	475	1100	4.71
	SL18 2952	260	360	60	2.1	3.5	291.5	322.5	333	790	1470	1000	18.5
	SL18 3052	260	400	104	4	11	304	358	376	1620	2550	1000	44.5

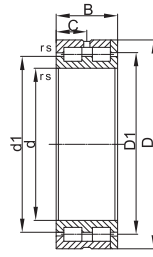


SL18 18, SL18 29 SL18 30, SL19 22

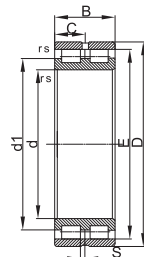
Shaft diameter	Bearing No.	Dimensions(mm)					Fitting dimensions(mm)			Load rating		Limiting speed r/min	Weight Kg
		d	D	B	r <sub>s</sub>	s	d1	D1	E	C	C <sub>0</sub>		
					min					KN	KN		
280	SL18 1856	280	350	33	2	3	304.5	324.5	332	315	620	1000	7
	SL18 2956	280	380	60	2.1	3.5	314	347.5	358	920	1740	1000	19.7
	SL18 3056	280	420	106	4	11	319.5	372.5	391	1670	2700	950	48
300	SL18 1860	300	380	38	2.1	3.5	328	351	358	380	750	950	10
	SL18 2960	300	420	72	3	5	338	376.5	389	1180	2230	900	31.2
	SL18 3060	300	460	118	4	14	353.5	413.5	433	2040	3350	850	66.6
320	SL18 1864	320	400	38	2.1	4.5	346	369	377	390	800	900	10.6
	SL18 2964	320	440	72	3	5	358.5	397	410	1220	2370	850	32.9
	SL18 3064	320	480	121	4	14	369.5	429.5	449	2100	3500	800	71.7
340	SL18 1868	340	420	38	2.1	4.5	364.5	387	395	405	840	850	11.2
	SL18 2968	340	460	72	3	5	379	417.5	430	1260	2500	800	34.7
	SL18 3068	340	520	133	5	16	396	463.5	485	2500	4150	750	95.8
360	SL18 1872	360	440	38	2.1	4.5	388.5	411.5	419	426	890	800	11.7
	SL18 2972	360	480	72	3	5	399.5	438	450	1290	2650	750	36.4
	SL18 3072	360	540	134	5	16	414	481	503	2550	4350	700	101
380	SL18 1876	380	480	46	2.1	6	414.5	443	453	590	1190	750	19.2
	SL18 2976	380	520	82	4	5	426	471.5	486	1670	3350	700	52.1
	SL18 3076	380	560	135	5	16	431.5	499	521	2600	4500	700	106
400	SL18 1880	400	500	46	2.1	6	437	466	476	600	1260	700	20
	SL18 2980	400	540	82	4	5	450	495.5	511	1730	3560	700	54.3
	SL18 3080	400	600	148	5	18	462.5	534.5	558	3100	5400	650	140



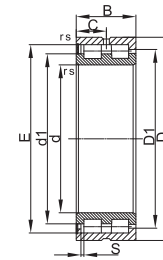
**SL18 49,SL18 50  
Sem-Locating Bearing**



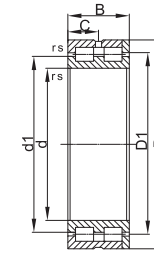
**SL01 48,SL01 49  
Locating Bearing**



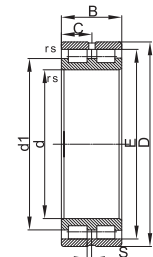
**SL02 48,SL02 49  
Non-Locating Bearing**



**SL18 49,SL18 50  
Sem-Locating Bearing**



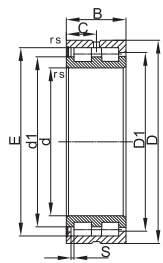
**SL01 48,SL01 49  
Locating Bearing**



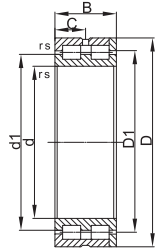
**SL02 48,SL02 49  
Non-Locating Bearing**

Shaft dia. mm	Bearing No.				Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg	
	RLM	Fixed bearing	Moving bearing	DIN5412	d	D	B	r <sub>s</sub>	s	C	d <sub>i</sub>	D <sub>i</sub>	E	C	C <sub>0</sub>			
					min	KN	KN											
20	SL18 5004	-	-	-	20	42	30	0.6	1	15	29	33	36.5	47.5	53	10000	0.2	
25	SL18 5005	-	-	-	25	47	30	0.6	1	15	34.5	38.5	42.5	54	65	9000	0.23	
30	SL18 5006	-	-	-	30	55	34	1	1.5	17	40	45.5	49.5	70	86	7500	0.35	
35	SL18 5007	-	-	-	35	62	36	1	1.5	18	45	51.5	55.5	85	109	6500	0.46	
40	SL18 5008	-	-	-	40	68	38	1	1.5	19	50.5	57.5	61.5	101	136	6000	0.56	
45	SL18 5009	-	-	-	45	75	40	1	1.5	20	55.5	62.5	66.5	108	151	5500	0.71	
50	SL18 5010	-	-	-	50	80	40	1	1.5	20	59	67.5	72	131	184	5000	0.76	
55	SL18 5011	-	-	-	55	90	46	1.1	1.5	23	68.5	78.5	83.5	179	270	4500	1.16	
60	SL18 4912	-	-	NNCF 4912V	60	85	25	1	0.7	12.5	70.5	73.5	77	67	115	4500	0.48	
	-	SL01 4912	-	NNC 4912V	60	85	25	1	-	12.5	70.5	73.5	-	67	115	4500	0.49	
	-	-	SL02 4912	NNCL 4912V	60	85	25	1	1	12.5	70.5	-	-	77	67	115	4500	0.47
	SL18 5012	-	-	-	60	95	46	1.1	1.5	23	71.5	82	86.5	184	280	4200	1.24	
65	SL18 5013	-	-	-	65	100	46	1.1	1.5	23	78	88	93	194	310	3900	1.32	
70	SL18 4914	-	-	NNCF 4914V	70	100	30	1	0.7	15	83	87	91	103	178	3800	0.78	
	-	SL01 4914	-	NNC 4914V	70	100	30	1	-	15	83	87	-	103	178	3800	0.78	
	-	-	SL02 4914	NNCL 4914V	70	100	30	1	1	15	83	-	91	103	178	3800	0.75	
	SL18 5014	-	-	-	70	110	54	1.1	3	27	81.5	95	100	229	340	3600	1.85	
75	SL18 5015	-	-	-	75	115	54	1.1	3	27	89	103	107.5	242	375	3400	1.93	
80	SL18 4916	-	-	NNCF 4916V	80	110	30	1	0.7	15	92	96	100	109	199	3400	0.88	
	-	SL01 4916	-	NNC 4916V	80	110	30	1	-	15	92	96	-	109	199	3400	0.88	
	-	-	SL02 4916	NNCL 4916V	80	110	30	1	1	15	92	-	100	109	199	3400	0.85	
	SL18 5016	-	-	-	80	125	60	1.1	3.5	30	95	111	117	295	450	3200	2.59	

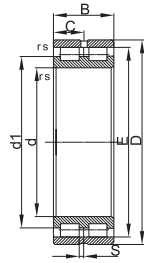
Shaft dia. mm	Bearing No.				Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg
	RLM	Fixed bearing	Moving bearing	DIN5412	d	D	B	r <sub>s</sub>	s	C	d <sub>i</sub>	D <sub>i</sub>	E	C	C <sub>0</sub>		
					min	KN	KN										
85	SL18 5017	-	-	-	85	130	60	1.1	3.5	30	95.5	115.5	121	305	470	3000	2.72
90	SL18 4918	-	-	NNCF 4918V	90	125	35	1.1	0.7	17.5	103	110	115	149	280	3000	1.35
	-	SL01 4918	-	NNC 4918V	90	125	35	1.1	-	17.5	103	110	-	149	280	3000	1.35
	-	-	SL02 4918	NNCL 4918V	90	125	35	1.1	1.5	17.5	103	-	115	149	280	3000	1.3
	SL18 5018	-	-	-	90	140	67	1.5	4	33.5	106.5	124	130	355	560	2800	3.62
100	SL18 4920	-	-	NNCF 4920V	100	140	40	1.1	0.7	20	116.5	124.5	129	191	370	2700	1.95
	-	SL01 4920	-	NNC 4920V	100	140	40	1.1	-	20	116.5	124.5	-	191	370	2700	1.95
	-	-	SL02 4920	NNCL 4920V	100	140	40	1.1	2	20	116.5	-	129	191	370	2700	1.9
SL18 5020	-	-	-	100	150	67	1.5	4	33.5	116	133.5	139	375	610	2600	3.94	
110	SL18 4922	-	-	NNCF 4922V	110	150	40	1.1	0.7	20	125	133.5	138	198	400	2500	2.15
	-	SL01 4922	-	NNC 4922V	110	150	40	1.1	-	20	125	133.5	-	198	400	2500	2.15
	-	-	SL02 4922	NNCL 4922V	110	150	40	1.1	2	20	125	-	138	198	400	2500	2.1
SL18 5022	-	-	-	110	170	80	2	5	40	127.5	148.5	156	490	790	2300	6.32	
120	SL18 4924	-	-	NNCF 4924V	120	165	45	1.1	2	22.5	139	148	153	222	440	2300	2.95
	-	SL01 4924	-	NNC 4924V	120	165	45	1.1	-	22.5	139	148	-	222	440	2300	2.95
	-	-	SL02 4924	NNCL 4924V	120	165	45	1.1	3	22.5	139	-	153	222	440	2300	2.85
	SL18 5024	-	-	-	120	180	80	2	5	25	139	160	167	520	870	2200	6.77
130	SL18 4926	-	-	NNCF 4926V	130	180	50	1.5	2	25	149.5	159.5	165	260	510	2100	3.95
	-	SL01 4926	-	NNC 4926V	130	180	50	1.5	-	25	149.5	159.5	-	260	510	2100	3.95
	-	-	SL02 4926	NNCL 4926V	130	180	50	1.5	4	47.5	149.5	-	165	260	510	2100	3.8
	SL18 5026	-	-	-	130	200	95	2	5	25	149	174.5	183	740	1.220	2000	10.2



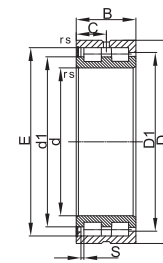
**SL18 49,SL18 50**  
Sem-Locating Bearing



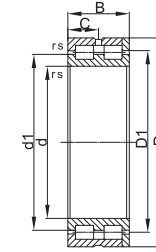
**SL01 48,SL01 49**  
Locating Bearing



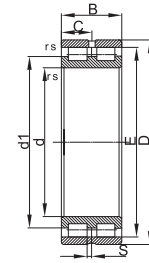
**SL02 48,SL02 49**  
Non-Locating Bearing



**SL18 49,SL18 50**  
Sem-Locating Bearing



**SL01 48,SL01 49**  
Locating Bearing

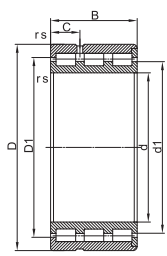


**SL02 48,SL02 49**  
Non-Locating Bearing

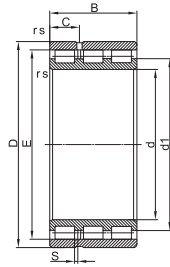
Shaft dia. mm	Bearing No.				Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg
	RLM	Fixed bearing	Moving bearing	DIN5412	d	D	B	r <sub>s</sub>	s	C	d <sub>1</sub>	D <sub>1</sub>	E	C	C <sub>0</sub>		
					min	KN	KN										
140	SL18 4928	-	-	NNCF 4928V	140	190	50	1.5	2	25	160	170	176	3270	550	2000	4.2
	-	SL01 4928	-	NNC 4928V	140	190	50	1.5	-	25	160	170	-	270	550	2000	4.2
	-	-	SL02 4928	NNCL 4928V	140	190	50	1.5	4	47.5	160	-	176	270	550	2000	4.1
	SL18 5028	-	-	-	140	210	95	2	5	20	163	188.5	197	780	1.340	1900	11.1
150	-	SL01 4830	-	NNC 4830V	150	190	40	1.1	-	20	166	173	-	231	530	1900	2.9
	-	-	SL02 4830	NNCL 4830V	150	190	40	2	2	30	166	-	178	231	530	1900	2.8
	SL18 4930	-	-	NNCF 4930V	150	210	60	2	2	30	171.5	186.5	192	410	820	1800	6.65
	-	SL01 4930	-	-	150	210	60	2	-	30	171.5	186.5	-	410	820	1800	6.65
	-	-	SL02 4930	-	150	210	60	2	4	50	171.5	-	192	410	820	1800	6.45
-	-	-	MRFC 5030	150	-	100	2.1	6	-	170.5	197.5	206	810	1.400	1700	13.3	
160	-	SL01 4832	-	NNC 4832V	160	200	40	1.1	-	20	174	182	-	237	560	1800	3.1
	-	-	SL02 4832	NNCL 4832V	160	200	40	1.1	2	20	174	-	186	237	560	1800	3
	SL18 4932	-	-	NNCF 4932V	160	220	60	2	2	30	185	199.5	206	425	880	1700	7
	-	SL01 4932	-	NNC 4932V	160	220	60	2	-	30	185	199.5	-	425	880	1700	7
	-	-	SL02 4932	NNCL 4932V	160	220	60	2	4	30	185	-	206	425	880	1700	6.8
170	-	SL01 4834	-	NNC 4834V	170	215	45	1.1	-	22.5	187	196	-	260	600	1700	4.1
	-	-	SL02 4834	NNCL 4834V	170	215	45	1.1	3	22.5	187	-	201	260	600	1700	3.95
	SL18 4934	-	-	NNCF 4934V	170	230	60	2	2	30	194	208.5	215	435	930	1600	7.35
	-	SL01 4934	-	NNC 4934V	170	230	60	2	-	30	194	208.5	-	435	930	1600	7.35
	-	-	SL02 4934	NNCL 4934V	170	230	60	2	4	30	194	-	215	435	930	1600	7.1

Shaft dia. mm	Bearing No.				Dimensions(mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Weight Kg
	RLM	Fixed bearing	Moving bearing	DIN5412	d	D	B	r <sub>s</sub>	s	C	d <sub>1</sub>	D <sub>1</sub>	E	C	C <sub>0</sub>		
					min	KN	KN										
180	-	SL01 4936	-	NNC 4836V	180	225	45	1.1	-	22.5	200	208.5	-	270	640	1600	4.3
	-	-	SL02 4836	NNCL 4836V	180	225	45	1.1	3	22.5	200	-	214	270	640	1600	4.15
	SL18 4936	-	-	NNCF 4936V	180	250	69	2	3	34.5	206	223.5	230	570	1200	1500	10.8
	-	-	-	NNC 4936V	180	250	69	2	-	34.5	206	223.5	-	570	1200	1500	10.8
	-	SL01 4936	SL02 4936	NNCL 4936V	180	250	69	2	4	34.5	206	-	230	570	1200	1500	10.5
190	-	SL01 4838	-	NNC 4838V	190	240	50	1.5	-	25	209	219	-	310	730	1500	5.65
	-	-	SL02 4838	NNCL 4838V	190	240	50	1.5	4	25	209	-	225	310	730	1500	5.45
	SL18 4938	-	-	NNCF 4938V	190	260	69	2	3	34.5	216	233	240	580	1270	1400	11.2
	-	SL01 4938	-	NNC 4938V	190	260	69	2	-	34.5	216	233	-	580	1270	1400	11.2
-	-	SL02 4938	NNCL 4938V	190	260	69	2	4	34.5	216	-	240	580	1270	1400	10.9	
200	-	SL01 4840	-	NNC 4840V	200	250	50	1.5	-	25	220	229.5	-	320	770	1400	5.9
	-	-	SL02 4840	NNCL 4840V	200	250	50	1.5	4	25	220	-	235	320	770	1400	5.7
	SL18 4940	-	-	NNCF 4940V	200	280	80	2.1	4	40	231	251.5	259	690	1480	1400	15.8
	-	SL01 4940	-	NNC 4940V	200	280	80	2.1	-	40	231	251.5	-	690	1480	1400	15.8
	-	-	SL02 4940	NNCL 4940V	200	280	80	2.1	5	40	231	-	259	690	1480	1400	15.3
	-	-	-	-	200	280	80	2.1	-	40	231	251.5	259	690	1480	1400	15.3

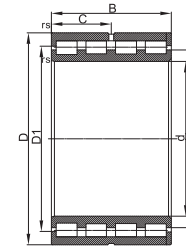




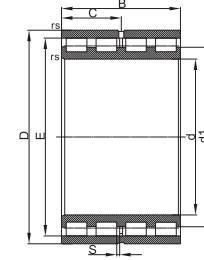
**SL119**  
Lacting bearing



**SL149**  
Lacting bearing



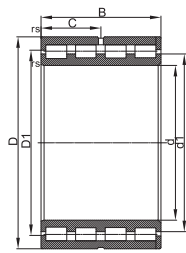
**SL129**  
Lacting bearing



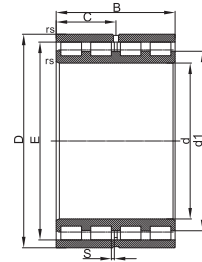
**SL159**  
Non-Lacting bearing

Shaft diameter	Bearing No.		Dimensions (mm)					Fitting dimensions(mm)				Load rating		Limiting speed	Reference speed	Weight
	Fixed bearing	Moving bearing	d	D	B	r <sub>s</sub>	s	C	d <sub>i</sub>	D <sub>i</sub>	E	C	C <sub>0</sub>			
			min									KN	KN			
70	SL 11914	-	70	100	44	1	-	15	83	87	-	142	265	3800	2800	1.15
	-	SL 14914	70	100	44	1	1	15	83	-	91	142	265	3800	2800	1.1
	SL 12914	-	70	100	57	1	-	28.5	83	87	-	177	355	3800	2800	1.49
	-	SL 15914	70	100	57	1	1	28.5	83	-	91	177	355	3800	2800	1.45
80	SL 11916	-	80	110	44	1	-	15	92	96	-	150	300	3400	2500	1.29
	-	SL 14916	80	110	44	1	1	15	92	-	100	150	300	3400	2500	1.25
	SL 12916	-	80	110	57	1	-	28.5	92	96	-	188	395	3400	2400	1.65
	-	SL 15916	80	110	57	1	1	28.5	92	-	100	188	395	3400	2400	1.6
90	SL 11918	-	90	125	52	1.1	-	17.5	103	110	-	205	425	3000	2100	2
	-	SL 14918	90	125	52	1.1	1.5	17.5	103	-	115	205	425	3000	2100	1.95
	SL 12918	-	90	125	68	1.1	-	34	103	110	-	255	560	3000	2000	2.65
	-	SL 15918	90	125	68	1.1	1.5	34	103	-	115	255	560	3000	2000	2.6
100	SL 11920	-	100	140	59	1.1	-	20	116.5	124.5	-	260	550	2700	1800	2.9
	-	SL 14920	100	140	59	1.1	2	20	116.5	-	129	260	550	2700	1800	2.85
	SL 12920	-	100	140	78	1.1	-	39	116.5	124.5	-	325	740	2700	1800	3.85
	-	SL 15920	100	140	78	1.1	2	39	116.5	-	129	325	740	2700	1800	3.8
110	SL 11922	-	110	150	59	1.1	-	20	125	133.5	-	270	600	2500	1600	3.15
	-	SL 14922	110	150	59	1.1	2	20	125	-	138	270	600	2500	1600	3.1
	SL 12922	-	110	150	78	1.1	-	39	125	133.5	-	340	800	2500	1600	4.2
	-	SL 15922	110	150	78	1.1	2	39	125	-	138	340	800	2500	1600	4.15

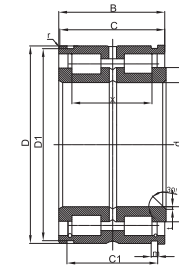
Shaft diameter	Bearing No.		Dimensions (mm)					Fitting dimensions(mm)				Load rating		Limiting speed	Reference speed	Weight
	Fixed bearing	Moving bearing	d	D	B	r <sub>s</sub>	s	C	d <sub>i</sub>	D <sub>i</sub>	E	C	C <sub>0</sub>			
			min										KN			
120	SL 11924	-	120	165	66	1.1	-	22.5	139	148	-	305	660	2300	1500	4.3
	-	SL 14924	120	165	66	1.1	3	22.5	139	-	153	305	660	2300	1500	4.2
	SL 12924	-	120	165	87	1.1	-	43.5	139	148	-	380	880	2300	1500	6.65
	-	SL 15924	120	165	87	1.1	3	43.5	139	-	153	380	880	2300	1500	5.55
130	SL 11926	-	130	180	73	1.5	-	25	149.5	159.5	-	355	770	2100	1400	5.75
	-	SL 14926	130	180	73	1.5	4	25	149.5	-	165	355	770	2100	1400	5.6
	SL 12926	-	130	180	96	1.5	-	48	149.4	159.5	-	445	1030	2100	1300	7.55
	-	SL 15926	130	180	96	1.5	4	48	149.5	-	165	445	1030	2100	1300	7.4
140	SL 11928	-	140	190	73	1.5	-	25	160	170	-	370	830	2000	1300	6.1
	-	SL 14928	140	190	73	1.5	4	25	160	-	176	370	830	2000	1300	6
	SL 12928	-	140	190	96	1.5	-	48	160	170	-	460	1100	2000	1200	8.05
	-	SL 15928	140	190	96	1.5	4	48	160	-	176	460	1100	2000	1200	7.9
150	SL 11930	-	150	210	88	2	-	30	171.5	186.5	-	560	1230	1800	1100	9.7
	-	SL 14930	150	210	88	2	4	30	171.5	-	192	560	1230	1800	1100	9.5
	SL 12930	-	150	210	116	2	-	58	171.5	186.5	-	700	1640	1800	1100	12.8
	-	SL 15930	150	210	116	2	4	58	171.5	-	192	700	1640	1800	1100	12.6
160	SL 11932	-	160	220	88	2	-	30	185	199.5	-	580	1330	1700	1000	10.2
	-	SL 14932	160	220	88	2	4	30	185	-	206	580	1330	1700	1000	10
	SL 12932	-	160	220	116	2	-	58	185	199.5	-	730	1770	1700	950	13.5
	-	SL 15932	160	220	116	2	4	58	185	-	206	730	1770	1700	950	13.5



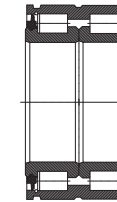
**SL12 9**  
Lacting bearing



**SL15 9**  
Non-Lacting bearing



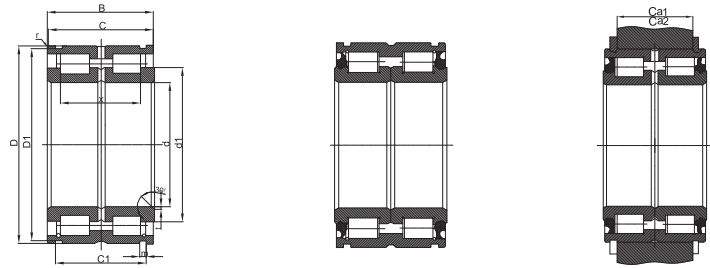
**SL04 50...X, SL04...X**



**SL04 50...PX S**  
**SL04...PX**

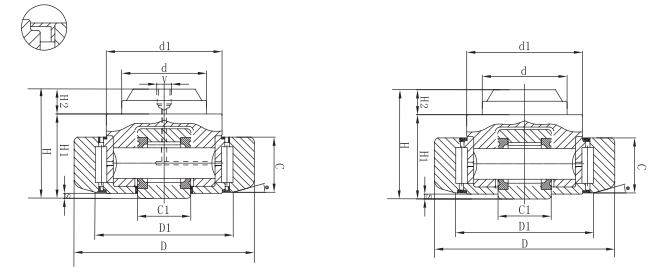
Shaft diameter	Bearing No.		Dimensions (mm)					Fitting dimensions(mm)				Load rating		Limiting speed r/min	Reference speed r/min	Weight Kg
	Fixed bearing	Moving bearing	d	D	B	r <sub>s</sub>	s	C	d <sub>1</sub>	D <sub>1</sub>	E	C	C <sub>0</sub>			
			min	min	min	min	min	min	min	KN	KN					
170	SL 11934	-	170	230	88	2	-	30	194	208.5	-	600	1390	1600	950	10.8
	-	SL 14934	170	230	88	2	4	30	194	-	215	600	1390	1600	950	10.5
	SL 12934	-	170	230	116	2	-	58	194	208.5	-	750	1860	1600	900	14.2
	-	SL 15934	170	230	116	2	4	58	194	-	215	750	1860	1600	900	13.9
180	SL 11936	-	180	250	101	2	-	34.5	206	223.5	-	780	1810	1500	850	15.7
	-	SL 14936	180	250	101	2	4	34.5	206	-	230	780	1810	1500	850	15.5
	SL 12936	-	180	250	133	2	-	66.5	206	223.5	-	970	2410	1500	800	20.7
	-	SL 15936	180	250	133	2	4	66.5	206	-	230	970	2410	1500	800	20.4
190	SL 11938	-	190	260	101	2	-	34.5	216	233	-	800	1900	1400	800	16.4
	-	SL 14938	190	260	101	2	4	34.5	216	-	240	800	1900	1400	800	16.2
	SL 12938	-	190	260	133	2	-	66.5	216	233	-	1000	2550	1400	750	21.6
	-	SL 15938	190	260	133	2	4	66.5	216	-	240	1000	2550	1400	750	21.4
200	SL 11940	-	200	280	116	2.1	-	40	231	251.5	-	940	2220	1400	750	22.8
	-	SL 14940	200	280	116	2.1	5	40	231	-	259	940	2220	1400	750	22.4
	SL 12940	-	200	280	152	2.1	-	76	231	251.5	-	1180	2950	1400	700	29.9
	-	SL 15940	200	280	152	2.1	5	76	231	-	259	1180	2950	1400	700	29.4

Shaft diameter	Bearing No.	Dimensions (mm)													Fitting dimensions(mm)		Load rating		Reference speed rev./min	Weight Kg
		d	D	B	C	C <sub>1</sub>	D <sub>1</sub>	m	r	t	x	d <sub>1</sub>	Ca <sub>1</sub>	Ca <sub>2</sub>	Snap Ring	Safelt ring DIN 471	C	C <sub>0</sub>		
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	WRE	A	KN		
20	SL04 5004X	20	42	30	29	24.7	39.8	1.8	0.8	0.5	22.5	31	21.5	21	WRE 42	42×1.75	41.5	50	4000	0.2
25	SL04 5005X	25	47	30	29	24.7	44.8	1.8	0.3	0.5	22.5	35.5	21.5	21	WRE 47	47×1.75	45.5	59	3200	0.24
30	SL04 5006X	30	55	34	33	28.2	52.8	2.1	0.3	0.5	25.5	41	25	24	WRE 55	55×2	52	69	2660	0.37
35	SL04 5007X	35	62	36	35	30.2	59.8	2.1	0.3	0.5	27.5	46.5	27	26	WRE 62	62×2	64.8	108.5	2285	0.48
40	SL04 5008X	40	68	38	37	32.2	65.8	2.7	0.6	0.8	28.5	51.5	28	27	WRE 68	68×2.5	80	120	1800	0.56
45	SL04 5009X	45	75	40	39	34.2	72.8	2.7	0.6	0.8	30.5	57.5	30	29	WRE 75	75×2.5	98	141	1550	0.7
50	SL04 5010X	50	80	40	39	34.2	77.8	2.7	0.6	0.8	30.5	62	30	29	WRE 80	80×2.5	103	154	1400	0.76
55	SL04 5011X	55	90	46	45	40.2	87.4	3.2	0.6	1	36	69	35	34	WRE 90	90×3	119.5	195	1260	1.18
60	SL04 5012X	60	95	46	45	40.2	92.4	3.2	0.6	1	36	74	35	34	WRE 95	95×3	149.5	251	1150	1.26
65	SL04 5013X	65	100	46	45	40.2	97.4	3.2	0.6	1	36	79	35	34	WRE 100	100×3	164	262	1100	1.33
70	SL04 5014X	70	110	54	53	48.2	107.4	4.2	0.6	1	42	85	43	40	WRE 110	110×4	180	275	1080	1.87
75	SL04 5015X	75	115	54	53	48.2	112.1	4.2	0.6	1	42	90	43	40	WRE 115	115×4	198	305	1060	1.96
80	SL04 5016X	80	125	60	59	54.2	122.1	4.2	0.6	1.5	48	97.5	49	46	WRE 125	125×4	205	350.5	1000	2.71
85	SL04 5017X	85	130	60	59	54.2	127.1	4.2	0.6	1.5	48	104.5	49	46	WRE 130	130×4	215	360	941	2.83
90	SL04 5018X	90	140	67	66	59.2	137	4.2	0.6	1.5	54	109.5	54	51	WRE 140	140×4	312.5	544	890	3.71
95	SL04 5019X	95	145	67	66	59.2	142	4.2	0.6	1.5	54	113.5	54	51	WRE 145	145×4	315	560	840	3.88
100	SL04 5020X	100	150	67	66	59.2	147	4.2	0.6	1.5	54	118	54	51	WRE 150	150×4	330	580	760	3.95
110	SL04 5022X	110	170	80	79	70.2	167	4.2	0.6	1.8	64	132	65	62	WRE 170	170×4	400	690	730	6.57
120	SL04 5024X	120	180	80	79	71.2	176	4.2	0.6	1.8	64	141.5	65	63	WRE 180	180×4	457.7	870	670	7.04
130	SL04 5026X	130	200	95	94	83.2	196	4.2	0.6	1.8	77	157	77	75	WRE 200	200×4	550	980	620	10.5
	SL04 130X	130	190	80	79	71.2	186	4.2	0.6	1.8	64	151	65	63	WRE 190	190×4	425	790	630	7.5
140	SL04 5028X	140	210	95	94	83.2	206	5.2	0.6	1.8	77	165.5	77	73	WRE 210	210×5	630	1120	570	11.1
	SL04 140X	140	200	80	79	71.2	196	4.2	0.6	1.8	64	160.5	65	63	WRE 200	200×4	445	850	580	8



SL04 50...X,SL04...X

Shaft diameter	Bearing No.	Dimensions (mm)											Fitting dimensions(mm)			Reference speed	Weight			
		d	D	B	C	C <sub>1</sub>	D <sub>1</sub>	m	r	t	x	d <sub>1</sub>	Ca <sub>1</sub>	Ca <sub>2</sub>	Snap Ring			Safett ring DIN 471	C	C <sub>1</sub>
mm						+0.2		min				-0.2	-0.2	WRE	A	KN	KN	rev/min	Kg	
150	SL04 5030X	150	225	100	99	87.2	221	5.2	0.6	2	80	176	81	77	WRE 225	225×5	700	1270	540	13.3
	SL04 150X	150	210	80	79	71.2	206	5.2	0.6	1.8	64	170	65	61	WRE 210	210×5	472	920	550	8.4
160	SL04 5032X	160	240	109	108	95.2	236	5.2	0.6	2	89	189.5	89	85	WRE 240	240×5	750	1370	500	16.6
	SL04 160X	160	220	80	79	71.2	216	5.2	0.6	1.8	64	184.5	65	61	WRE 220	220×5	480	970	520	8.8
170	SL04 5034X	170	260	122	121	107.2	254	5.2	0.6	2	100	201	99	97	WRE 260	260×5	1168	2244	470	22.6
	SL04 170X	170	230	80	79	71.2	226	5.2	0.6	1.8	64	194	65	61	WRE 230	230×5	500	1000	480	9.3
180	SL04 5036X	180	280	136	135	118.2	274	5.2	0.6	8	112	218	110	108	WRE 280	280×5	1140	2140	440	30.1
	SL04 180X	180	240	80	79	71.2	236	5.2	0.6	1.8	61	203.5	65	61	WRE 240	240×5	500	1080	440	9.8
190	SL04 5038X	190	290	136	135	118.2	284	5.2	0.6	2	112	226.5	110	108	WRE 290	290×5	1258	2524	420	31.5
	SL04 190X	190	260	80	79	73.2	254	5.2	0.6	1.8	64	218	65	63	WRE 260	260×5	520	1130	430	12.7
200	SL04 5040X	200	310	150	149	128.2	304	6.3	0.6	2	126	243.5	120	116	WRE 310	310×5	1422	2852	400	40.8
	SL04 200X	200	270	80	79	73.2	264	5.2	0.6	1.8	64	227.5	65	63	WRE 270	270×5	540	1210	400	13.2
220	SL04 5044X	220	340	160	159	138.2	334	6.3	1	2	321	260.5	130	126	WRE 340	340×6	1580	3100	365	52.5
	SL04 220X	220	300	95	94	83.2	294	5.2	1	2	72	249	75	73	WRE 300	300×5	720	1590	380	19.5
240	SL04 5048X	240	360	160	159	138.2	354	6.3	1	2	132	279.5	130	126	WRE 360	360×6	1705	3510	335	56
	SL04 240X	240	320	95	94	83.2	314	6.3	1	2	72	272	75	71	WRE320	320×6	740	1710	350	21
260	SL04 5052X	260	400	190	189	162.2	394	6.3	1.1	3	150	305.5	154	150	WRE 400	400×6	2380	4700	310	84.5
	SL04 260X	260	340	95	94	83.2	334	6.3	1	3	75	293	75	71	WRE 340	340×6	850	2010	330	22.5
280	SL04 5056X	280	420	190	189	163.2	413	7.3	1.1	3	150	321.5	154	150	WRE 420	420×7	2600	5200	290	90
	SL04 280X	280	360	95	94	83.2	354	6.3	1	3	75	310.5	75	71	WRE 360	360×6	870	2130	300	24
300	SL04 5060X	300	460	218	216	185.2	453	7.3	1.1	3	170	347.5	176	171	WRE 460	460×7	3000	5900	268	126
	SL04 300X	300	380	95	94	83.2	374	6.3	1	3	75	328.5	75	171	WRE 380	380×6	900	2260	268	25.5



ZZ (Relubricable)

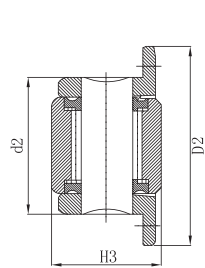
2RS (sealed)

Combined Bearing

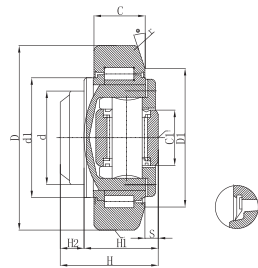
Bearing No.		Dimensions														Speed				Speed	Weight	
zz	2RS	d	D	C	H	H <sub>1</sub>	H <sub>2</sub>	D <sub>1</sub>	C <sub>1</sub>	d <sub>1</sub>	s	@	r	R	R <sub>1</sub>	V	C	C <sub>0</sub>	C <sub>A</sub>	C <sub>0A</sub>	G	KG
WW053-52.ZZ	WW053-52.2RS	30	52.5	19	33	27	6	43	16	40	2.5	10	3	500	500	-	24.5	32.5	6	6	800	0.39
WW054-62.ZZ	WW054-62.2RS	30	62.5	20	37.5	30.5	7	50	20	42	2	20	3	500	500	-	1	35.5	11	11.5	900	0.52
WW055-70.ZZ	WW055-70.2RS	35	70.1	23	44	36	8	57	22	48	2	20	3	500	500	M6*1	45.5	51	14	13	900	0.78
WW056-77.ZZ	WW056-77.2RS	40	77.7	23	48	36.5	11.5	61	26	54	3	20	3	700	700	M6*1	48	56.8	18	18	800	1.02
WW057-77.ZZ	WW057-77.2RS	40	77.7	23	40	29	11	61	26	53	3	20	3	700	700	M6*1	48	56.8	18	18	800	0.9
WW058-88.ZZ	WW058-88.2RS	45	88.4	30	57	44	13	68	26	59	3	20	4	700	700	M6*1	68	72	23	23	700	1.61
WW059-101.ZZ	WW059-101.2RS	50	101.2	28	46	33	13	77	30	67	3	20	4	700	700	M6*1	73	82	25	27	700	1.74
WW060-107.ZZ	WW060-107.2RS	55	107.7	31	54	40	14	82	34	71	3.5	20	4	1000	700	M6*1	81	95	31	36	650	2.27
WW061-107.ZZ	WW061-107.2RS	60	107.7	31	69	55	14	82	34	71	3.5	20	4	1000	700	M6*1	81	95	31	36	650	2.69
WW062-123.ZZ	WW062-123.2RS	60	123	37	72.3	56	16.3	92	40	80	4.5	20	4	1000	1000	1/8/G	110	132	43	50	500	3.88
WW063-149.ZZ	WW063-149.2RS	60	149	43	78.5	58.5	20	116	50	103	5.5	15	4	1000	1000	AS	151	192	68	71	400	6.65
WW011--149.ZZ	WW011-149.2RS	60	149	45	86	67	19	120	50	107	5.5	15	4	1000	1000	-	151	192	68	71	400	7.15
WW037-174.ZZ	WW037-174.2RS	80	174	55	95	71	24	120	63	120	7	15	7	-	-	-	278	518	132	210	300	11.75
ww039-185.zz	ww039-185.2RS	80	185	55	95	71	24	120	63	120	7	15	7	-	-	-	278	518	132	210	300	13.15

ZZ	Germany	Italy(A)	Italy(B)	
			ZZ	2RS
WW053-52.ZZ	4.053	4.0053-52	MR.706	-
WW054-62.ZZ	4.054	4.0054-62	MR.001	MR.021
WW055-70.ZZ	4.055	4.0055-70	MR.002	MR.022
WW056-77.ZZ	4.056	4.0056-78	MR.003	MR.023
WW057-77.ZZ	4.057	4.0057-78	-	-
WW058-88.ZZ	4.058	4.0058-88	MR.005	MR.025
WW059-101.ZZ	4.059	4.0059-101	-	-

ZZ	Germany	Italy(A)	Italy(B)	
			ZZ	2RS
WW060-107.ZZ	4.060	4.0060-108	MR.007	MR.027
WW061-107.ZZ	4.061	4.0061-108	-	-
WW062-123.ZZ	4.062	4.0062-123	MR.009	MR.029
WW063-149.ZZ	4.063	4.0063-149	MR.010	MR.030
WW011-149.ZZ	-	4.0011-149	MR.191	-
WW037-174.ZZ	-	4.0037-174	-	-
WW039-185.ZZ	-	4.0039-185	-	-



Axial support series MR...G2 (sealed)



2RS (sealed)

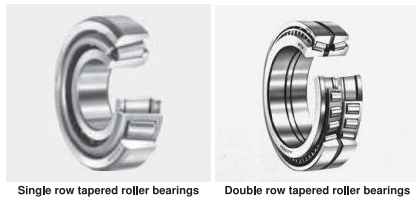
Combined Bearing

Bearing No.		Dimensions													Load ratings				Speed	Weight				
2RS	Axial Support	d	D	C	H	H <sub>1</sub>	H <sub>2</sub>	D <sub>1</sub>	c <sub>1</sub>	d <sub>1</sub>	s <sup>(2)</sup>	α	r	R	R <sub>1</sub>	D <sub>2</sub>	d <sub>2</sub>	H <sub>3</sub>	C	C <sub>0</sub>	C <sub>1</sub>	C <sub>0A</sub>	Grease rev./min	kg
WW072	WW072G2	30	62	20	43	33	10	42	16	48	5.5	20°	3	500	500	40	25	22	31	35.5	8	8	900	0.60
WW073	WW073G2	35	70.1	23	48	40	8	48	16	54	6.5	20°	4	500	500	40	25	22	45.5	51	8	8	900	0.90
WW074	WW074G2	40	77.7	23	50.5	39.5	11	54	21	59	7	20°	4	700	700	52	33	28	48	56.8	14	14	800	1.05
WW075	WW075G2	40	78.3	23	45	34	11	54	21	67	7	20°	4	850	700	52	33	28	48	56.8	14	14	800	0.95
WW076	WW076G2	45	88.9	30	61	48	13	59	21	71	7	20°	3	850	700	52	33	28	68	72	14	14	700	1.70
WW077	WW077G2	50	101.9	28	50.5	37.5	13	67	21	67	7	20°	3	850	700	52	33	28	73	82	18	19	700	1.85
WW078	WW078G2	55	107.7	31	58.5	44.5	14	71	33	78	8	20°	4	1000	700	74	48	38	81	95	31	36	650	2.80
WW0784	WW0784G2	60	107.7	31	69	55	14	71	33	71	8	20°	4	1000	700	74	48	38	81	95	31	36	650	2.40
WW079	WW079	60	123	37	75.8	59.5	16.3	92	33	78	8	20°	4	1000	1000	74	48	38	110	132	31	36	500	4.10
WW080	WW080G2	60	149	43	89	69	20	103	50	113	15	15°	4	1000	1000	105	72	55	151	192	68	71	400	6.80

2RS	Germany	Italy(A)	Italy(B)	Note
WW072	4.072	4.0072-62	MR.146	(1)Taper outer profile(D) (2)Dimension "A"adjustable by means of adapter washers inserted between the main stud and the housing of the axial guide bearing, Adapter washers available with thickness 0.3-0.5-1mm
WW073	4.073	4.0073-70	MR.147	
WW074	4.074	4.0074-78	MR.148	
WW075	-	-	-	
WW076	4.076	4.0076-88	MR.150	
WW077	-	-	-	
WW078	4.078	4.0078-108	MR.142	
WW0784	-	-	-	
WW079	4.079	4.0079-123	MR.153	
WW080	4.080	4.0080-149	MR.154	

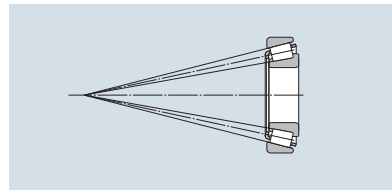
# Taper Roller Bearing





1. Types, design features, and characteristics

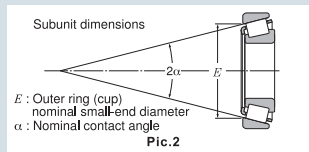
Tapered roller bearings are designed so the tapered vertex of the raceway surfaces of the inner and outer rings and rollers converge at one point on the centerline of the bearing. Due to this design feature, rollers move along the center of the raceway surfaces. The tapered rollers are guided by the compound force of the inner and outer raceway surfaces which keep them pressed up against the large rib on the inner ring. A large variety of these bearings, including single, double, and four row arrangements, are in use both in metric and inch series.



Pic.1

Table 1 Tapered roller bearing types and characteristics

Type	Characteristics									
Single row tapered roller bearings	(1) There are both metric and inch series, and they have been standardized as shown in the following table. <b>Dimension series</b> <table border="1"> <thead> <tr> <th></th> <th>Metric series</th> <th>Inch series</th> </tr> </thead> <tbody> <tr> <td>Regulations</td> <td>GB307-94</td> <td>JB/CQT10-89</td> </tr> <tr> <td>Basic number</td> <td>Example, 30210</td> <td>Inner ring no. / outer ring no. ("J" appears at the beginning of the basic number in the case of J-series.)</td> </tr> </tbody> </table>		Metric series	Inch series	Regulations	GB307-94	JB/CQT10-89	Basic number	Example, 30210	Inner ring no. / outer ring no. ("J" appears at the beginning of the basic number in the case of J-series.)
		Metric series	Inch series							
Regulations	GB307-94	JB/CQT10-89								
Basic number	Example, 30210	Inner ring no. / outer ring no. ("J" appears at the beginning of the basic number in the case of J-series.)								
(2) In addition to level type, there are also medium contact angle and large contact angle types, and the contact angle code C and D, respectively, is appended to the basic numbers of the latter two types. (3) Subunits Tapered roller bearings can be disassembled into parts — the inner ring, rollers, and cage (collectively known as the "cone") — and the outer ring (known as the "cup"). These are the bearing's "subunits". Subunit dimensions are standardized under ISO or GB standards, and unified subunits are interchangeable within each dimensional standard. However, high precision grade bearings are generally not interchangeable, and these subunits must be used by assembling only subunits with identical manufacturing numbers. Aside from any cautionary notes that may appear, the single row tapered roller bearings listed in the dimension tables have subunits standardized for both metric and inch systems (including J series). (Refer to Pic.2)										

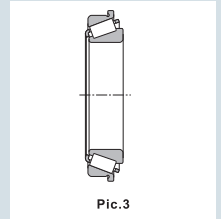


Pic.2

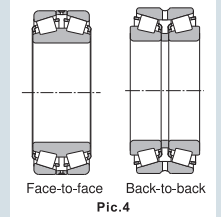
Continued on next page

Table 1 (continued)

Type	Characteristics
Single row tapered roller bearings	(4) These bearings are constructed to have a high capacity for radial loads, axial loads, and combined loads. The larger the contact angle, the greater the axial load capacity becomes. When a pure radial load is placed on the bearings, an induced load in the axial direction is also generated, and so these bearings are generally used in pairs arranged face to face. (5) When used in pairs, proper internal clearances and preload can be set by adjusting the distance between the two bearings' inner and outer rings. (6) Single row tapered roller bearings are separable, so both the inner and outer rings can be used with tight fits. (7) Tapered roller bearings are also manufactured with flanges attached to the outer rings. For more details, contact RLM Engineering. (Refer to Pic.3)
Double row tapered roller bearings	(1) Back-to-back arrangement (using double row outer rings) and face-to-face arrangement (using double row inner rings) are both available, and they have been adjusted so that each type's internal clearance values are fixed. Therefore, only parts with identical manufacturing numbers can be used and they must be assembled according to their code numbers. (Refer to Pic.4) (2) Pairs of duplex single row tapered roller bearings are also manufactured. For more details, contact RLM Engineering.



Pic.3



Pic.4

2. Standard cage type

In general, pressed cages are used in tapered roller bearings. However, for large sized bearings, machined or pin type cages are also used; and for small sized bearings, molded resin cages are also used.

3. Allowable misalignment

Single row and back-to-back arrangement:	.....0.0005rad (1.5')
Face-to-face arrangement:	.....0.001rad (3.5')

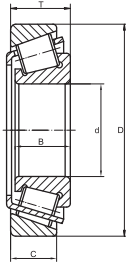
In situations where large displacement is necessary,

4. Precautions when using

If bearing load is light during operation, or if the ratio of axial to radial load for duplex and double row bearings exceeds the value of  $e$ , slipping develops between the rollers and raceway, sometimes resulting in smearing. The mass of rollers and cages particularly tends to be large for large tapered roller bearings. For details, please contact RLM Engineering.

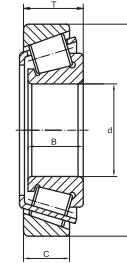
please consult RLM Engineering.





Inch Series

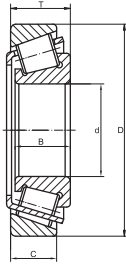
Bearing No.	Dimension					Basic Load Rating		Weight kg
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	
LM11749/LM11710	17.462	39.878	39.878	13.843	10.668	23	23.2	0.0815
LM11949/LM11910	19.05	45.237	45.237	15.494	12.065	29.4	30.1	0.125
LM12748/LM12710	21.43	45.237	45.237	15.494	12.065	30	40.5	0.1185
LM12749/LM12710	21.987	45.237	45.237	15.494	12.065	30	34.5	0.116
LM12749/LM12711	21.986	45.975	45.975	15.494	12.065	30	34.5	0.121
LM67048/LM67010	31.75	59.131	59.131	15.875	11.811	36.3	43.8	0.18
LM67049/LM67010	31.75	59.131	59.131	15.875	11.811	36.3	43.8	0.19
LM48548/LM48510	34.925	65.088	65.088	18.034	13.97	48	58.8	0.246
LM29748/LM29710	38.1	65.088	65.088	18.034	13.97	43.7	57.5	0.247
LM29749/LM29710	38.1	65.088	65.088	18.304	13.97	43.7	57.5	0.247
LM29749/LM29711	38.1	65.088	65.088	19.812	15.748	43.7	57.5	0.247
LM300849/LM300811	40.987	67.975	67.975	17.5	13.5	45.7	62.2	0.248
LM501349/LM501310	41.275	73.431	73.431	19.558	14.732	58.2	73.1	0.335
LM501349/LM501314	41.275	73.431	73.431	21.43	16.604	58.2	73.1	0.3
LM102949/LM102910	45.242	73.431	73.431	19.558	15.748	55	76.3	0.3069
LM104949/LM104911	50.8	82.55	82.55	21.59	16.51	61.6	84.3	0.45
L44643/L44610	25.4	50.292	50.292	14.224	10.668	28.2	32.9	0.117
L44649/L44610	26.988	50.292	50.292	14.224	10.668	28.2	32.9	0.12
L45449/L45410	29	50.292	50.292	14.224	10.668	28.2	35.9	0.105
L68145/L68111	34.988	59.975	59.975	15.875	11.938	35.7	48.3	0.185
L68149/L68110	34.988	59.131	59.131	15.875	11.938	35.7	48.3	0.167
JL69345/JL69310	38	63	63	17	13.5	38.6	52.3	0.202
JL69349/JL69310	38	63	63	17	13.5	38.6	52.3	0.198
M12649/M12610	21.43	50.005	50.005	17.526	13.97	41.5	41	0.17
M12648/M12610	22.225	50.005	50.005	17.525	13.97	41.5	41	0.16
LM104948/JLM104910	50	82	82	21.5	17	71.9	97.7	0.4132
LM104949/LM104910	50.8	82	82	21.976	17	61.6	84.3	0.42
LM104949/LM104912	50.8	82.931	82.931	21.59	16.51	61.6	84.3	0.45
LM78349/LM78310A	35	62	62	16.7	13.6	39.8	52.8	0.209
LM603049/LM603011	45.242	77.788	77.788	19.842	15.08	57.3	73.6	0.364



Inch Series

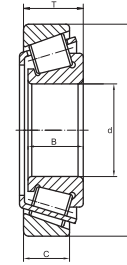
Bearing No.	Dimension					Basic Load Rating		Weight kg
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	
LM603049/LM603012	45.242	77.788	21.43	19.842	16.667	57.3	73.6	0.384
329013	29	50.292	14.224	17.52	10.668	28.2	35.9	0.119
14138A/14276	34.925	69.012	19.845	19.583	15.875	46.7	55.6	0.316
M84548/M84510	25.4	57.15	19.431	19.431	14.732	42.8	49.5	0.245
M86649/M86610	30.163	64.292	21.433	21.433	16.67	52.5	66.3	0.339
M88043/M88010	30.163	68.262	22.225	22.225	17.462	55.8	70.5	0.399
M88048/M88010	33.338	68.262	22.225	22.225	17.462	55.8	70.5	0.382
M802048/M802011	41.275	82.55	26.543	25.654	20.193	83.9	105	0.617
HM88542/HM88510	31.75	73.025	29.37	27.783	23.02	71.5	95.7	0.607
HM89449/HM89410	36.512	76.2	29.37	28.575	23.02	79.4	106.5	0.62
02474/02420	28.575	68.263	22.225	22.225	17.462	50.9	61.1	0.399
02872/02820	28.575	73.025	22.225	22.225	17.462	54.8	65.4	0.465
11162/11300	41.275	76.2	18.009	17.384	14.288	43.3	53.8	0.338
11590/11520	15.875	42.863	14.288	14.288	9.525	17.8	17.9	0.101
15101/15245X	25.4	63.5	19.05	20.638	14.228	44.2	51	0.298
18590/18520	41.275	73.025	16.667	17.462	12.7	46	55.8	0.285
25580/25520	44.45	82.931	23.812	25.4	19.05	75.5	97.1	0.552
25590/25520	45.618	82.931	23.812	25.4	19.05	75.5	97.1	0.552
25590/25523	45.618	82.931	26.988	25.4	22.225	75.5	97.1	0.58
365/362	50	90	20	22.225	15.875	77.5	92.3	0.52
U399L/U360L	39.689	73.04	18.778	22.076	15.3	55	65	0.362
U399L/U360L-1	39.688	73.025	19.395	22.098	15.3	55	65	0.362
U399A/U365L	39.688	80	19.395	22.098	15.3	55	65	0.467
U298/U261L	35	65	18	20.6	14	47.18	52.13	0.251
U497/U460L	45	80	23.75	26	18	71.6	85.9	0.462





30200 Series

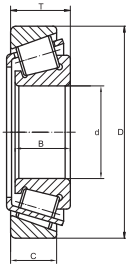
Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
30202	15	35	11.75	11	10	14.7	14.1	0.056
30203	17	40	13.25	12	11	20.7	21.9	0.079
30204	20	47	15.25	14	12	28.2	30.6	0.126
30205	25	52	16.25	15	13	32.2	37	0.154
30206	30	62	17.25	16	14	43.3	50.5	0.231
30207	35	72	18.25	17	15	54.2	63.5	0.334
30208	40	80	19.75	18	16	63	74	0.422
30209	45	85	20.75	19	16	67.9	83.6	0.474
30210	50	90	21.75	20	17	73.3	92.1	0.529
30211	55	100	22.75	21	18	90.8	113.7	0.713
30212	60	110	23.75	22	19	103.3	130	0.904
30213	65	120	24.85	23	20	120.6	152.6	1.13
30214	70	125	26.25	24	21	132.3	173.6	1.26
30215	75	130	27.25	25	22	138.4	185.4	1.36
30216	80	140	28.25	26	22	160.4	212.8	1.67
30217	85	150	30.5	28	24	177.6	236.8	2.06
30218	90	160	32.5	30	26	200.1	269.6	2.54
30219	95	170	34.5	32	27	226.6	309	3.04
30220	100	180	37	34	29	253.9	350.3	3.72
30221	105	190	39	36	30	285.3	398.6	4.38
30222	110	200	41	38	32	314.9	443.6	5.21
30224	120	215	43.5	40	34	337.4	483.3	6.2
30226	130	230	43.75	40	34	366	521.4	6.94
30228	140	250	45.75	42	36	409.2	584.7	8.73
30230	150	270	49	45	38	465	630	11



30300 Series

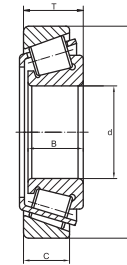
Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
30302	15	42	14.25	13	11	20.5	23	0.096
30303	17	47	15.25	14	12	24.8	27.5	0.129
30304	20	52	16.25	15	13	33.1	33.2	0.165
30305	25	62	18.25	17	15	46.9	48.1	0.263
30306	30	72	20.75	19	16	59	63.1	0.387
30307	35	80	22.75	21	18	75.3	82.6	0.515
30308	40	90	25.25	23	20	90.9	107.6	0.747
30309	45	100	27.25	25	22	108.9	129.8	0.984
30310	50	110	29.25	27	23	130.1	157.1	1.28
30311	55	120	31.5	29	25	153.3	187.6	1.63
30312	60	130	33.5	31	26	171.4	210	1.99
30313	65	140	36	33	28	195.9	241.7	2.44
30314	70	150	38	35	30	219	271.7	2.98
30315	75	160	40	37	31	252.8	318.8	3.57
30316	80	170	42.5	39	33	278.8	352.5	4.27
30317	85	180	44.5	41	34	304.9	388.2	4.95
30318	90	190	46.5	43	36	342.1	440.9	5.8
30319	95	200	49.5	45	38	369	477.7	6.8
30320	100	215	51.5	47	39	406.4	526.4	8.22
30321	105	225	53.5	49	41	433.1	461.9	9.38
30322	110	240	54.5	50	42	480	590	11
30324	120	260	59.5	55	46	560	700	14.3
30326	130	280	63.75	58	49	600	740	17.1
30330	150	320	72	65	55	800	1030	25.1
30352	260	540	113	102	85	1940	2600	107





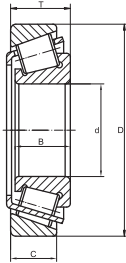
32000 Series

Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
32004	20	42	15	15	12	24	28.5	0.108
32005	25	47	15	15	11.5	26.5	33.5	0.12
32006	30	55	17	17	13	38.90	48.90	0.174
32007	35	62	18	18	14	42.00	56.00	0.220
32008	40	68	19	19	14.5	47.00	67.30	0.270
32009	45	75	20	20	15.5	59.60	80.10	0.340
32010	50	80	20	20	15.5	63.00	88.00	0.368
32011	55	90	23	23	17.5	79.70	115.60	0.552
32013	65	100	23	23	17.5	82.80	127.30	0.620
32014	70	110	25	25	19	101.70	158.00	0.841
32015	75	115	25	25	19	103.10	160.20	0.872
32016	80	125	29	29	22	141.00	220.00	1.252
32017	85	130	29	29	22	139.80	220.30	1.318
32018	90	140	32	32	24	171.30	271.00	1.720
32019	95	145	32	32	24	174.60	281.30	1.790
32020	100	150	32	32	24	173.10	281.70	1.850
32021	105	160	35	35	26	205.4	335.8	2.4
32022	110	170	38	38	29	245.7	403.4	3.02
32024	120	180	38	38	29	242.1	404.4	3.18
32026	130	200	45	45	34	333.7	567.1	4.94
32028	140	210	45	45	34	329.8	567.8	5.15
32030	150	225	48	48	36	367.6	635.8	6.25
32032	160	240	51	54	38	419.6	734.5	7.66
32034	170	260	57	57		860	1770	23.5



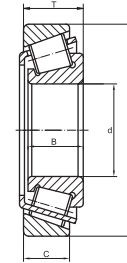
32200 Series

Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
32204	20	47	19.25	18	15	27.5	28.0	0.157
32205	25	52	19.25	18	16	40.0	44.5	0.186
32206	30	62	21.25	20	17	51.8	63.7	0.287
32207	35	72	24.25	23	19	70.6	89.5	0.445
32208	40	80	24.75	23	19	77.9	97.2	0.532
32209	45	85	24.75	23	19	80.7	104.0	0.573
32210	50	90	24.75	23	19	82.8	107.6	0.626
32211	55	100	26.75	25	21	108.0	142.3	0.853
32212	60	110	29.75	29	24	132.8	179.6	1.17
32213	65	120	32.75	31	27	160.9	221.7	1.55
32214	70	125	33.25	31	27	168.5	237.1	1.64
32215	75	130	33.25	31	27	170.3	242.1	1.74
32216	80	140	35.25	33	28	198.1	279.0	2.13
32217	85	150	38.5	36	30	226.7	324.0	2.68
32218	90	160	42.5	40	34	269.8	395.5	3.44
32219	95	170	45.5	43	37	302.5	448.4	4.24
32220	100	180	49	46	39	341.0	512.0	5.1
32221	105	190	53	50	43	381.0	579.2	6.26
32222	110	200	56	53	46	431.7	666.3	7.43
32224	120	215	61.5	58	50	477.7	758.1	9.26
32226	130	230	67.75	64	54	551.7	888.7	11.4
32228	140	250	71.75	68	58	643.7	1049.3	14.4
32230	150	270	77	63	60	740.0	1150.0	18.2
32232	160	290	84	80	67	870.0	1380.0	23.4
32234	170	310	91	86	71	980.0	1560.0	28.8
32236	180	320	91	86	71	1010.0	1640.0	30.1
32238	190	340	97	92	75	1140.0	1820.0	39.1
32240	200	360	104	98	82	1320.0	2080.0	43.2
32244	220	400	114	108	90	1540.0	2550.0	59.5



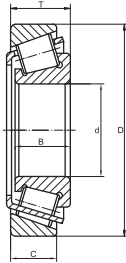
32300 Series

Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
32303	17	47	20.25	19	16	36	36.5	0.18
32304	20	52	22.250	21	18	44.60	46.30	0.230
32305	25	62	25.250	24	20	64.60	68.80	0.369
32306	30	72	28.750	27	23	85.50	96.40	0.565
32307	35	80	32.750	31	25	103.60	118.30	0.764
32308	40	90	35.250	33	27	120.80	147.10	1.044
32309	45	100	38.250	36	30	152.20	189.30	1.403
32310	50	110	42.250	40	33	177.50	236.10	1.890
32311	55	120	45.500	43	35	212.70	271.30	2.363
32312	60	130	48.500	46	37	226.70	303.00	2.900
32313	65	140	51.000	48	39	269.30	349.80	3.514
32314	70	150	54	51	42	298.9	408.5	4.340
32315	75	160	58	55	45	347.4	483.1	5.37
32316	80	170	61.5	58	48	387.9	543.1	6.38
32317	85	180	63.5	60	49	435	580	7.5
32318	90	190	67.5	64	53	485	660	8.51
32319	95	200	71.5	67	55	530	710	10.3
32320	100	215	77.5	73	60	610	840	12.9
32321	105	225	81.5	77	63	670	930	15.9
32322	110	240	84.5	80	65	740	1020	19
32324	120	260	90.5	86	69	670	970	21.1
32326	130	280	98.75	93	78	830	1120	26.7
32330	150	320	114	108	90	1330	1950	46.1



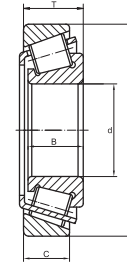
33000 Series

Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
33005	25	47	17	17	14.00	32.50	42.50	0.131
33006	30	55	20	20	16.00	43.70	58.80	0.201
33007	35	62	21	21	17.00	46.90	63.30	0.254
33008	40	68	22	22	18.00	60.20	79.60	0.306
33009	45	75	24	24	19.00	72.60	100.40	0.398
33010	50	80	24	24	19.00	76.80	110.90	0.433
33011	55	90	27	27	21.00	94.90	114.70	0.651
33012	60	95	27	26	21.00	79.70	116.40	0.666
33013	65	100	27	27	21.00	100.90	163.60	0.740
33014	70	110	31	31	25.50	134.40	220.40	1.070
33015	75	115	31	31	25.50	133.10	221.20	1.120
33016	80	125	36	36	29.50	175.80	293.10	1.615
33017	85	130	36	36	29.50	180.40	305.50	1.690
33018	90	140	39	39	32.50	232.60	388.60	2.200
33019	95	145	39	39	32.5	231	389.9	2.26
33020	100	150	39	39	32.5	229.5	391.2	2.33
33021	105	160	43	43	34	257.4	437.4	2.97
33022	110	170	47	47	37	288.7	502.7	3.74



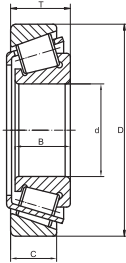
33100 Series

Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
33108	40	75	26	26	20.50	78.00	98.40	0.484
33109	45	80	26	26	20.50	87.10	117.20	0.536
33110	50	85	26	26	20.00	89.50	124.70	0.595
33111	55	95	30	30	23.00	114.50	164.80	0.843
33112	60	100	30	30	23.00	117.10	173.20	0.895
33113	65	110	34	34	26.50	142.80	220.40	1.300
33114	70	120	37	37	29.00	172.10	267.00	1.694
33115	75	125	37	37	29.00	176.10	279.60	1.780
33116	80	130	37	37	29.00	180.00	292.00	1.864
33117	85	140	41	41	32.00	215.70	354.20	2.430
33118	90	150	45	45	35.00	252.10	414.70	3.130
33119	95	160	49	49	38.00	298.90	498.20	3.940
33120	100	165	52	52	40.00	309.40	529.20	4.310
33121	105	175	56	56	44.00	351.80	607.80	5.290
33122	110	180	56	56	43.00	373.20	639.10	5.500
33124	120	200	62	62	48.00	448.20	779.10	7.680



33200 Series

Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
33205	25	52	22	22	18.00	47.10	55.80	0.215
33206	30	62	25	25	19.50	63.80	75.40	0.343
33207	35	72	28	28	22.00	82.60	101.70	0.510
33208	40	80	32	32	25.00	105.80	135.50	0.715
33209	45	85	32	32	25.00	109.50	145.10	0.771
33210	50	90	32	32	24.50	112.90	154.60	0.825
33211	55	100	35	35	27.00	143.10	196.70	1.150
33212	60	110	38	38	29.00	165.80	231.40	1.510
33213	65	120	41	41	32.00	202.20	281.60	1.990
33214	70	125	41	41	32.00	208.60	298.30	2.100
33215	75	130	41	41	31.00	207.10	299.70	2.170
33216	80	140	46	46	35.00	245.70	361.80	2.830
33217	85	150	49	49	37.00	281.70	415.70	3.520
33218	90	160	55	55	42.00	330.60	499.70	4.550
33219	95	170	58	58	44.00	377.40	568.40	5.480
33220	100	180	63	63	48.00	436.50	666.20	6.710
33221	105	190	68	68	52.00	497.80	770.50	8.120



31300 Series

Bearing No.	Dimension					Basic Load Rating		Weight
	d	D	T	B	C	Cr	Cor	
	mm	mm	mm	mm	mm	KN	KN	kg
31305	25	62	18.25	17	13	37	38.5	0.297
31306	30	72	20.75	19	14	52.50	60.30	0.392
31307	35	80	22.75	21	15	67.90	76.30	0.517
31308	40	90	25.25	23	17	81.40	96.40	0.727
31309	45	100	27.25	25	18	95.60	113.80	0.944
31310	50	110	29.25	27	19	108.00	128.50	1.210
31311	55	120	31.50	29	21	129.90	158.00	1.560
31312	60	130	33.50	31	22	145.40	176.80	1.900
31313	65	140	35.00	33	23	165.70	202.60	2.370
31314	70	150	38.00	35	25	186.90	231.00	2.860
31315	75	160	40	37	26	208.5	258.9	3.38
31316	80	170	42.5	39	27	227	270	4.16
31317	85	180	44.5	41	28	255	300	4.88

# Spherical Plain Bearing



Spherical plain bearings are used in equipment that undergo articulated movement, involving oscillating or aligning motions.

RLM spherical plain bearings are classified broadly into the self-lubricating type with a solid PTFE based liner and the lubrication type in which contact between the inner and outer rings is metal-to-metal.

## 1. Types of Spherical Plain Bearings

### 1.1 Self-lubricating type spherical plain bearings

Self-lubricating spherical plain bearings are primarily intended for situations where a long life, free from maintenance and lubrication requirements, is desired. They are also used in parts of machines where lubrication would be difficult.

In the RLM self-lubricating spherical plain bearing a self-lubricating PTFE based liner is securely bonded to the outer ring. Therefore, lubrication, maintenance and inspection are necessary. As there is no oil staining, the bearing is always clean.

It is particularly suitable where the load works in one direction only or where there is a low frequency of oscillating movement.

The inner ring is made of high carbon chromium bearing steel and its sliding surface is hard chromium plated.

Where higher pressures are involved, a special type of spherical plain bearing with a steel mesh reinforced liner is available. Please contact RLM for details of this item.

The following types of RLM spherical plain bearings are available:

- SAR 1 Series : Equivalent to ISO "E" series
- SAR 1 · ·SS Series : Equivalent to ISO "E" series, with seal
- SAR 2 Series : Inch series
- SAR 4 Series : Special dimension series

All of these types are suitable for a temperature range of  $-50^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ ) to  $+100^{\circ}\text{C}$  ( $+212^{\circ}\text{F}$ ).

### 1.2 Lubrication type spherical plain bearings

Lubrication type spherical plain bearings feature sliding surfaces where both the inner and outer rings are steel. The outer ring has a single fracture for assembly. The absence of a fitting groove greatly increases the strength of the bearing.

These bearings are particularly suited for subjection to impact loads or alternating loads.

Both the inner and outer rings are manufactured from high carbon chromium bearing steel. After heat treatment and grinding, their surfaces are treated with a phosphate film, which renders them highly resistant to rust. Furthermore, their sliding surfaces are coated with molybdenum disulfide, which provides very effective lubrication of the bearing in its initial stage of operation. Both the inner and outer rings are provided with an oil hole, so that oil can be inserted either from the shaft or from the housing.

The lubrication type spherical plain bearing comes in the following types:

- SA 1 Series : Equivalent to ISO "E" series
- SA 1 · ·SS Series : Equivalent to ISO "E" series, with seal
- SA 2 Series : Inch series
- SA 4 Series : Special dimensions series
- SAT Series : Thrust type series

The temperature range for the SA1 · ·SS series is  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) to  $+70^{\circ}\text{C}$  ( $+158^{\circ}\text{F}$ ), but for the other series, the temperature range is  $-50^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ ) to  $+150^{\circ}\text{C}$  ( $+302^{\circ}\text{F}$ ).

## 2. Tolerances of Spherical Plain Bearings

### Definitions.

The symbols used in the tolerance table are defined as follows:

### Symbols

- $d$  = bearing bore diameter, nominal
- $\Delta d_{mp}$  = single plane mean bore diameter deviation
- $V_{dp}$  = bore diameter variation in a single radial plane
- $V_{dmp}$  = mean bore diameter variation
- $\Delta B_s$  = deviation of a single width of the inner ring
- $D$  = bearing outside diameter, nominal
- $\Delta D_{mp}$  = single plane mean outside diameter deviation
- $V_{Dp}$  = outside diameter variation in a single radial plane
- $V_{Dmp}$  = mean outside diameter variation
- $\Delta C_s$  = deviation of a single width of the outer ring
- $\Delta T_s$  = deviation of mean height of thrust spherical plain bearings

Table 1 gives the dimensions of oil holes and grooves in the inner rings and the outer rings.

Two equally spaced oil holes are provided. Four equally spaced oil holes are provided if the nominal bearing outside diameter exceeds 200mm. (7.8740 inch).

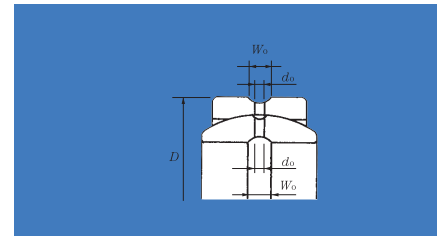


Table 1 Dimensions of lubrication grooves and holes

D				W <sub>g</sub>		d <sub>g</sub>	
mm		inch		mm	inch	mm	inch
over	incl.	over	incl.				
—	30	—	1.1811	2	0.08	1.5	0.06
30	50	1.1811	1.9685	3	0.12	2	0.08
50	65	1.9685	2.5591	4	0.16	2.5	0.10
65	80	2.5591	3.1496	5	0.20	3	0.12
80	120	3.1496	4.7244	7	0.28	4	0.16
120	180	4.7244	7.0866	9	0.35	5	0.20
180	250	7.0866	9.8425	11	0.43	6	0.24
250	400	9.8425	15.7480	13	0.51	8	0.31
400	500	15.7480	19.6850	16	0.63	10	0.39

**Table 2 Tolerance of spherical plain bearings**  
Inner ring

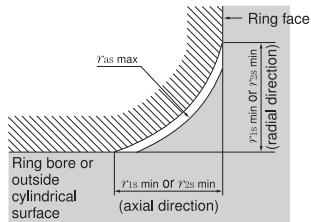
d		Δd <sub>imp</sub>				V <sub>dip</sub>		V <sub>dmp</sub>		ΔB <sub>s</sub>				ΔT <sub>s</sub>					
mm	inch	μm		0.0001 inch		μm	0.0001 inch	μm	0.0001 inch	μm		0.0001 inch		μm		0.0001 inch			
over	incl.	high	low	high	low	max		max		high	low	high	low	high	low	high	low		
2.5	10	0.0984	0.3937	0	-8	0	-3	8	3	6	2.5	0	-120	0	-47	—	—	—	—
10	18	0.3937	0.7087	0	-8	0	-3	8	3	6	2.5	0	-120	0	-47	—	—	—	—
18	30	0.7087	1.1811	0	-10	0	-4	10	4	8	3	0	-120	0	-47	+200	-200	+79	-79
30	50	1.1811	1.9685	0	-12	0	-4.5	12	4.5	9	3.5	0	-120	0	-47	+200	-200	+79	-79
50	80	1.9685	3.1496	0	-15	0	-6	15	6	11	4.5	0	-150	0	-59	+250	-250	+98	-98
80	120	3.1496	4.7244	0	-20	0	-8	20	8	15	6	0	-200	0	-79	—	—	—	—
120	180	4.7244	7.0866	0	-25	0	-10	25	10	19	7.5	0	-250	0	-98	—	—	—	—
180	250	7.0866	9.8425	0	-30	0	-12	30	12	23	9	0	-300	0	-118	—	—	—	—
250	315	9.8425	12.4016	0	-35	0	-14	35	14	26	10	0	-350	0	-138	—	—	—	—

Outer ring

D		ΔD <sub>imp</sub>				V <sub>Dip</sub>		V <sub>Dmp</sub>		ΔC <sub>s</sub>					
mm	inch	μm		0.0001 inch		μm	0.0001 inch	μm	0.0001 inch	μm		0.0001 inch			
over	incl.	high	low	high	low	max		max		high	low	high	low		
10	18	0.3937	0.7087	0	-8	0	-3	10	4	6	2.5	0	-240	0	-94
18	30	0.7087	1.1811	0	-9	0	-3.5	12	4.5	7	3	0	-240	0	-94
30	50	1.1811	1.9685	0	-11	0	-4.5	15	6	8	3	0	-240	0	-94
50	80	1.9685	3.1496	0	-13	0	-5	17	6.5	10	4	0	-300	0	-118
80	120	3.1496	4.7244	0	-15	0	-6	20	8	11	4.5	0	-400	0	-157
120	150	4.7244	5.9055	0	-18	0	-7	24	9.5	14	5.5	0	-500	0	-197
150	180	5.9055	7.0866	0	-25	0	-10	33	13	19	7.5	0	-500	0	-197
180	250	7.0866	9.8425	0	-30	0	-12	40	16	23	9	0	-600	0	-236
250	315	9.8425	12.4016	0	-35	0	-14	47	19	26	10	0	-700	0	-276
315	400	12.4016	15.7480	0	-40	0	-16	53	21	30	12	0	-800	0	-315
400	500	15.7480	19.6850	0	-45	0	-18	60	24	34	13	0	-900	0	-354

**Table 3 Tolerances for chamfer dimensions**

r <sub>1s</sub> min or r <sub>2s</sub> min	d		r <sub>1s</sub> max or r <sub>2s</sub> max				(Reference) Shaft or housing fillet radius r <sub>fs</sub> max				
			radial direction		axial direction						
	mm	inch	mm	inch	mm	inch					
0.3	0.012	—	40	—	1.5748	0.6	0.024	1	0.039	0.3	0.012
		40	—	1.5748	—	0.8	0.031	1	0.039		
0.6	0.024	—	40	—	1.5748	1	0.039	2	0.079	0.6	0.024
		40	—	1.5748	—	1.3	0.051	2	0.079		
1	0.039	—	50	—	1.9685	1.5	0.059	3	0.118	1	0.039
		50	—	1.9685	—	1.9	0.075	3	0.118		
1.1	0.043	—	120	—	4.7244	2	0.079	3.5	0.138	1	0.039
		120	—	4.7244	—	2.5	0.098	4	0.157		



### 3. Loads Acting on Spherical Plain Bearings

#### 3.1 Equivalent radial load

Loads applying to spherical plain bearings include a radial load, that is, a load acting vertically to the axis of the bearing, and a thrust load which acts parallel to it. Arbitrary directions of the load must be divided into radial and thrust loads, and an equivalent radial load is obtained by the following formula (1):

$$P_r = F_r + YF_a \dots\dots\dots (1)$$

where in

- P<sub>r</sub> = equivalent radial load, N, lbf
- F<sub>r</sub> = radial load, N, lbf
- F<sub>a</sub> = thrust load, N, lbf
- Y = axial load factor

Axial load factors Y to be used are shown in Table 4 below.

In the case of the self-lubricating type, however, the thrust load should not exceed the permissible axial loads P<sub>t</sub> mentioned in the dimension table.

**Table 4 Axial load factor Y**

Bearing types \ F <sub>a</sub> / F <sub>r</sub>	0.1	0.2	0.3	0.4	0.5	0.5 <
Self-lubrication type	1	2	3	Unfit		
Lubrication type	1	2	3	4	5	Unfit

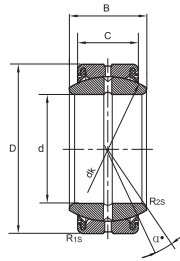
#### 3.2 Fluctuating load

When the magnitude of load applied to the bearing is not constant but is subject to simple periodical fluctuations, an average load can be obtained by the following formula (2):

$$F_m = \frac{F_{min} + 2F_{max}}{3} \dots\dots\dots (2)$$

where

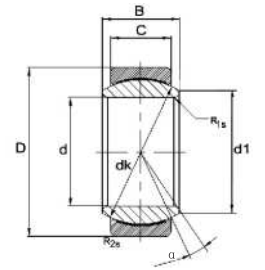
- F<sub>m</sub> = average load, N, lbf
- F<sub>min</sub> = minimum fluctuating load, N, lbf
- F<sub>max</sub> = maximum fluctuating load, N, lbf



- Outer ring has a single split in axial direction.
- ES means lubricating groove and hole on outer ring and inner ring.
- Phosphating treatment is done for both outer ring and inner ring.

GE..ES(2RS) Series

Bearing No.		Dimension								Load ratings		Weight	Other Bearing NO.	
		d	D	B	C	dk	R1s	R2s	α≈	C	C0		ELGES (Germany)	NTN (Japan)
Open	Sealed	mm	mm	mm	mm	mm	min	min		kn	kn	kg		
GE4E		4	12	5	3	8	0.3	0.3	16	2	10	0.003	GE4DO	SA1-4B
GE5E		5	14	6	4	10	0.3	0.3	13	3.4	17	0.005	GE5DO	SA1-5B
GE6E		6	14	6	4	10	0.3	0.3	13	3.4	17	0.004	GE6DO	SA1-6B
GE8E		8	16	8	5	13	0.3	0.3	15	5.5	27.5	0.007	GE8DO	SA1-8B
GE10E		10	19	9	6	16	0.3	0.3	12	8.15	40.5	0.011	GE10DO	SA1-10B
GE12E		12	22	10	7	18	0.3	0.3	11	10.8	54	0.016	GE12DO	SA1-12B
GE15ES	GE15ES2RS	15	26	12	9	22	0.3	0.3	8	17	85	0.025	GE15DO(2RS)	SA1-15B(SS)
GE16ES	GE16ES2RS	16	30	14	10	25	0.3	0.3	10	21.2	106	0.041	GE16DO(2RS)	SA1-16B(SS)
GE17ES	GE17ES2RS	17	30	14	10	25	0.3	0.3	10	21.2	106	0.041	GE17DO(2RS)	SA1-17B(SS)
GE20ES	GE20ES2RS	20	35	16	12	29	0.6	0.3	9	30	146	0.061	GE20DO(2RS)	SA1-20B(SS)
GE25ES	GE25ES2RS	25	42	20	16	35.5	0.6	0.6	7	48	240	0.11	GE25DO(2RS)	SA1-25B(SS)
GE30ES	GE30ES2RS	30	47	22	18	40.7	0.6	0.6	6	62	310	0.14	GE30DO(2RS)	SA1-30B(SS)
GE35ES	GE35ES2RS	35	55	25	20	47	0.6	1	6	80	400	0.22	GE35DO(2RS)	SA1-35B(SS)
GE40ES	GE40ES2RS	40	62	28	22	53	0.6	1	7	100	500	0.3	GE40DO(2RS)	SA1-40B(SS)
GE45ES	GE45ES2RS	45	68	32	25	60	0.6	1	7	127	640	0.41	GE45DO(2RS)	SA1-45B(SS)
GE50ES	GE50ES2RS	50	75	35	28	66	0.6	1	6	156	780	0.53	GE50DO(2RS)	SA1-50B(SS)
GE55ES	GE55ES2RS	55	85	40	32	74	0.6	1	7	200	1000	0.94	GE55DO(2RS)	SA1-55B(SS)
GE60ES	GE60ES2RS	60	90	44	36	80	1	1	6	245	1220	1	GE60DO(2RS)	SA1-60B(SS)
GE70ES	GE70ES2RS	70	105	49	40	92	1	1	6	315	1560	1.5	GE70DO(2RS)	SA1-70B(SS)
GE80ES	GE80ES2RS	80	120	55	45	105	1	1	6	400	2000	2.2	GE80DO(2RS)	SA1-80B(SS)
GE90ES	GE90ES2RS	90	130	60	50	115	1	1	5	490	2450	2.7	GE90DO(2RS)	SA1-90B(SS)
GE100ES	GE100ES2RS	100	150	70	55	130	1	1	7	610	3050	4.3	GE100DO(2RS)	SA1-100B(SS)
GE110ES	GE110ES2RS	110	160	70	55	140	1	1	6	655	3250	4.7	GE110DO(2RS)	SA1-110B(SS)
GE120ES	GE120ES2RS	120	180	85	70	160	1	1	6	950	4750	8	GE120DO(2RS)	SA1-120B(SS)
GE140ES	GE140ES2RS	140	210	90	70	180	1	1	7	1080	5400	11	GE140DO(2RS)	SA1-140B(SS)
GE160ES	GE160ES2RS	160	230	105	80	200	1	1	8	1360	6800	14	GE160DO(2RS)	SA1-160B(SS)
GE180ES	GE180ES2RS	180	260	105	80	225	1	1	6	1530	7650	18.5	GE180DO(2RS)	SA1-180B(SS)
GE200ES	GE200ES2RS	200	290	130	100	250	1.1	1.1	7	2120	10600	28	GE200DO(2RS)	SA1-200B(SS)
GE220ES	GE220ES2RS	220	320	135	100	275	1.1	1.1	8	2320	11600	35.51	GE220DO(2RS)	SA1-220B(SS)
GE240ES	GE240ES2RS	240	340	140	100	300	1.1	1.1	8	2550	12700	39.91	GE240DO(2RS)	SA1-240B(SS)
GE260ES	GE260ES2RS	260	370	150	110	325	1.1	1.1	7	3030	15190	51.54	GE260DO(2RS)	SA1-260B(SS)
GE280ES	GE280ES2RS	280	400	155	120	350	1.1	1.1	6	3570	17850	65.06	GE280DO(2RS)	SA1-280B(SS)
GE300ES	GE300ES2RS	300	430	165	120	375	1.1	1.1	7	3800	19100	78.07	GE300DO(2RS)	SA1-300B(SS)

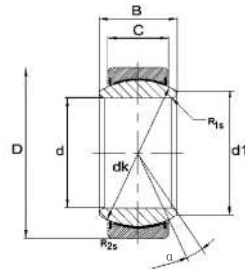


- Outer ring pressed formation(stamped).
- PTFE composite material used on outer race.
- Spherical surface of the inner ring is hard chrome plated.

GE..FW Series

Bearing No.		Dimension								Load ratings		Weight	Other Bearing NO.		
		d	D	B	C	d1	dk	R1s	R2s	α≈	C		C0	SKF/FAG (Sweden)	LS (China)
		mm	mm	mm	mm	mm	mm	min	min		kn	kn	kg		
GE4FW		4	14	7	4	7	10	0.3	0.3	20	3.6	9.1	0.005	GEH4C	GEG4C
GE5FW		5	16	9	5	8	10	0.3	0.3	21	5.8	14	0.008	GEH5C	GEG5C
GE6FW		6	16	9	5	9	13	0.3	0.3	21	5.8	14	0.007	GEH6C	GEG6C
GE8FW		8	19	11	6	11	16	0.3	0.3	21	8.6	21	0.014	GEH8C	GEG8C
GE10FW		10	22	12	7	13	18	0.3	0.3	18	11	28	0.021	GEH10C	GEG10C
GE12FW		12	26	15	9	16	22	0.3	0.3	18	18	45	0.033	GEH12C	GEG12C
GE15FW		15	30	16	10	19	25	0.3	0.3	16	22	56	0.049	GEH15C	GEG15C
GE17FW		17	35	20	12	21	29	0.3	0.3	19	31	78	0.083	GEH17C	GEG17C
GE20FW		20	42	25	16	24	35.5	0.3	0.3	17	51	127	0.153	GEH20C	GEG20C
GE25FW		25	47	28	18	29	40.7	0.6	0.6	17	65	166	0.203	GEH25C	GEG25C
GE30FW		30	55	32	20	34	47	0.6	0.6	17	83	212	0.304	GEH30C	GEG30C

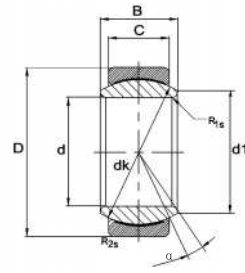




- Outer ring has a single split in axial direction.
- Outer race bonded with PTFE fabric.
- Spherical surface of the inner ring is hard chrome plated.
- Phosphating treatment is done on outer ring.

GE..FW(2RS) Series

Bearing No.	Dimension									Load ratings		Weight	Other Bearing NO.	
	d	D	B	C	dk	R1s	R2s	α≈	C	C0	SKF		LS	
	mm	mm	mm	mm	mm	min	min		kn	kn	(Sweden)		(China)	
GE15FW2RS	15	30	16	10	25	0.3	0.3	16	22.4	56	0.046	GEH15TE-2RS	GEG15ET-2RS	
GE17FW2RS	17	35	20	12	29	0.3	0.3	19	31.5	78	0.078	GEH17TE-2RS	GEG17ET-2RS	
GE20FW2RS	20	42	25	16	35.5	0.6	0.6	17	51	127	0.15	GEH20TE-2RS	GEG20ET-2RS	
GE25FW2RS	25	47	28	18	40.7	0.6	0.6	17	65.5	166	0.19	GEH25TE-2RS	GEG25ET-2RS	
GE30FW2RS	30	55	32	20	47	0.6	1	17	210	350	0.29	GEH30TE-2RS	GEG30ET-2RS	
GE35FW2RS	35	62	35	22	53	0.6	1	16	277	462	0.39	GEH35TE-2RS	GEG35ET-2RS	
GE40FW2RS	40	68	40	25	60	0.6	1	17	360	600	0.52	GEH40TE-2RS	GEG40ET-2RS	
GE45FW2RS	45	75	43	28	66	0.6	1	15	442	737	0.68	GEH45TE-2RS	GEG45ET-2RS	
GE50FW2RS	50	90	56	36	80	0.6	1	17	690	1150	1.4	GEH50TE-2RS	GEG50ET-2RS	
GE60FW2RS	60	105	63	40	92	1	1	17	885	1475	2	GEH60TE-2RS	GEG60ET-2RS	
GE70FW2RS	70	120	70	45	105	1	1	16	1125	1875	2.9	GEH70TE-2RS	GEG70ET-2RS	
GE80FW2RS	80	130	75	50	115	1	1	14	1380	2300	3.5	GEH80TE-2RS	GEG80ET-2RS	
GE90FW2RS	90	150	85	55	130	1	1	15	1717	2862	5.4	GEH90TE-2RS	GEG90ET-2RS	
GE100FW2RS	100	160	85	55	140	1	1	14	1845	3075	6	GEH100TE-2RS	GEG100ET-2RS	
GE110FW2RS	110	180	100	70	160	1	1	12	2685	4475	9.7	GEH110TE-2RS	GEG110ET-2RS	
GE120FW2RS	120	210	115	70	180	1	1	16	3015	5025	14	GEH120TE-2RS	GEG120ET-2RS	
GE140FW2RS	140	230	130	80	200	1	1	16	3840	6400	19	GEH140TE-2RS	GEG140ET-2RS	
GE160FT2RS	160	260	135	80	225	1.1	1.1	16	4320	7200	24.7	GEH160TE-2RS	GEG160ET-2RS	
GE180FT2RS	180	290	155	100	250	1.1	1.1	14	6000	10000	35.9	GEH180TE-2RS	GEG180ET-2RS	
GE200FT2RS	200	320	165	100	275	1.1	1.1	15	6600	11000	45.3	GEH200TE-2RS	GEG200ET-2RS	
GE220FT2RS	220	340	175	100	300	1.1	1.1	16	7200	12000	51.1	GEH220TE-2RS	GEG220ET-2RS	
GE240FT2RS	240	370	190	110	325	1.1	1.1	15	8550	14250	65.1	GEH240TE-2RS	GEG240ET-2RS	
GE260FT2RS	260	400	205	120	350	1.1	1.1	15	10050	16750	82.4	GEH260TE-2RS	GEG260ET-2RS	
GE280FT2RS	280	430	210	120	375	1.1	1.1	15	10800	18000	97.2	GEH280TE-2RS	GEG280ET-2RS	

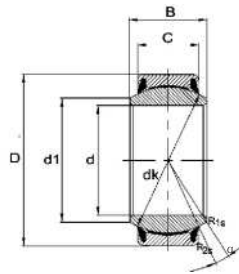


GE-UK(GE - C) is maintenance free, suitable for applications on low speed and heavy load mechanism.

- Outer ring is carbon steel, pressed formation(stamped shaping).
- PTFE composite material used on sliding surface.
- Spherical surface of the inner ring is chromium plating treated.

GE..UK Series

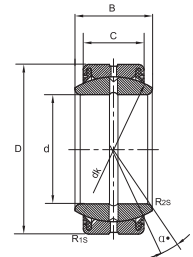
Bearing No.	Dimension									Load ratings		Weight	Other Bearing NO.		
	d	D	B	C	d1	dk	R1s	R2s	α≈	C	C0		SKF/FAG	IKO	NTN
	mm	mm	mm	mm	mm	mm	min	min		kn	kn		(Sweden)	(Japan)	(Japan)
GE4UK	4	12	5	3	6	8	0.3	0.3	16	2.1	5.4	0.003	GE4C	GE4EC	SAR1-4
GE5UK	5	14	6	4	8	10	0.3	0.3	13	3.6	9.1	0.005	GE5C	GE5EC	SAR1-5
GE6UK	6	14	6	4	8	10	0.3	0.3	13	3.6	9.1	0.004	GE6C	GE6EC	SAR1-6
GE8UK	8	16	8	5	10	13	0.3	0.3	15	5.8	14	0.008	GE8C	GE8EC	SAR1-8
GE10UK	10	19	9	6	13	16	0.3	0.3	12	8.6	21	0.011	GE10C	GE10EC	SAR1-10
GE12UK	12	22	10	7	15	18	0.3	0.3	10	11	28	0.015	GE12C	GE12EC	SAR1-12
GE15UK	15	26	12	9	18	22	0.3	0.3	8	18	45	0.027	GE15C	GE15EC	SAR1-15
GE17UK	17	30	14	10	20	25	0.3	0.3	10	22	56	0.041	GE17C	GE17EC	SAR1-17
GE20UK	20	35	16	12	24	29	0.3	0.3	9	31	78	0.066	GE20C	GE20EC	SAR1-20
GE25UK	25	42	20	16	29	35.5	0.6	0.6	7	51	127	0.119	GE25C	GE25EC	SAR1-25
GE30UK	30	47	22	18	34	40.7	0.6	0.6	6	65	166	0.163	GE30C	GE30EC	SAR1-30



- Outer ring has a single split in axial direction.
- Bearing is sealed by RS seals in both sides.
- Outer race bonded with PTFE fabric.
- Spherical surface of the inner ring is hard chrome plated.
- Phosphating treatment on outer ring.

GE..UK(2RS) Series

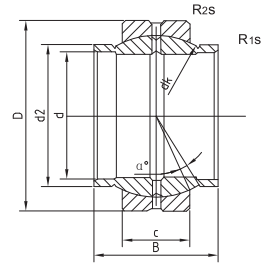
Bearing No.	Dimension										Load ratings		Weight	Other Bearing NO.		
	d	D	B	C	d1	dk	R1s	R2s	α≈	C	C0	FAG		ELGES/ASK	LS	
	mm	mm	mm	mm	mm	mm	min	min		kn	kn	(Sweden)		(Germany)	(Germany)	
GE15UK2RS	15	26	12	9	18	22	0.3	0.3	9	26	52	0.035	GE15TE 2RS	GE15UA 2RS	GE15D 2RS	
GE17UK2RS	17	30	14	10	20	25	0.3	0.3	10	48.7	81.2	0.041	GE17TE 2RS	GE17UA 2RS	GE17D 2RS	
GE20UK2RS	20	35	16	12	24	29	0.3	0.3	9	67.5	112	0.066	GE20TE 2RS	GE20UA 2RS	GE20D 2RS	
GE25UK2RS	25	42	20	16	29	35.5	0.6	0.6	7	127	212	0.119	GE25TE 2RS	GE25UA 2RS	GE25D 2RS	
GE30UK2RS	30	47	22	18	34	40.7	0.6	0.6	6	165	275	0.153	GE30TE 2RS	GE30UA 2RS	GE30D 2RS	
GE35UK2RS	35	55	25	20	39	47	0.6	1	6	210	350	0.233	GE35TE 2RS	GE35UA 2RS	GE35D 2RS	
GE40UK2RS	40	62	28	22	45	53	0.6	1	7	277	462	0.306	GE40TE 2RS	GE40UA 2RS	GE40D 2RS	
GE45UK2RS	45	68	32	25	50	60	0.6	1	7	360	600	0.427	GE45TE 2RS	GE45UA 2RS	GE45D 2RS	
GE50UK2RS	50	75	35	28	55	66	0.6	1	6	442	737	0.546	GE50TE 2RS	GE50UA 2RS	GE50D 2RS	
GE60UK2RS	60	90	44	36	66	80	1	1	6	690	1150	1.04	GE60TE 2RS	GE60UA 2RS	GE60D 2RS	
GE70UK2RS	70	105	49	40	77	92	1	1	6	885	1475	1.55	GE70TE 2RS	GE70UA 2RS	GE70D 2RS	
GE80UK2RS	80	120	55	45	88	105	1	1	6	1125	1875	2.31	GE80TE 2RS	GE80UA 2RS	GE80D 2RS	
GE90UK2RS	90	130	60	50	98	115	1	1	5	1283	2300	2.75	GE90TE 2RS	GE90UA 2RS	GE90D 2RS	
GE100UK2RS	100	150	70	55	109	130	1	1	7	1717	2862	4.45	GE100TE 2RS	GE100UA 2RS	GE100D 2RS	
GE110UK2RS	110	160	70	55	121	140	1	1	6	1845	3075	4.82	GE110TE 2RS	GE110UA 2RS	GE110D 2RS	
GE120UK2RS	120	180	85	70	135	160	1	1	6	2685	4475	8.05	GE120TE 2RS	GE120UA 2RS	GE120D 2RS	
GE140UK2RS	140	210	90	70	155	180	1	1	7	3015	5025	11.02	GE140TE 2RS	GE140UA 2RS	GE140D 2RS	
GE160UK2RS	160	230	105	80	170	200	1	1	8	3840	6400	14.01	GE160TE 2RS	GE160UA 2RS	GE160D 2RS	
GE180UK2RS	180	260	105	80	199	225	1.1	1.1	6	4320	7200	18.65	GE180TE 2RS	GE180UA 2RS	GE180D 2RS	
GE200UK2RS	200	290	130	100	213	250	1.1	1.1	7	6000	10000	28.03	GE200TE 2RS	GE200UA 2RS	GE200D 2RS	
GE220UK2RS	220	320	135	100	239	275	1.1	1.1	8	6600	11000	35.51	GE220TE 2RS	GE220UA 2RS	GE220D 2RS	
GE240UK2RS	240	340	140	100	265	300	1.1	1.1	8	7200	12000	39.91	GE240TE 2RS	GE240UA 2RS	GE240D 2RS	
GE260UK2RS	260	370	150	110	288	325	1.1	1.1	7	8550	14250	51.54	GE260TE 2RS	GE260UA 2RS	GE260D 2RS	
GE280UK2RS	280	400	155	120	313	350	1.1	1.1	6	10050	16750	65.06	GE280TE 2RS	GE280UA 2RS	GE280D 2RS	
GE300UK2RS	300	430	165	120	336	375	1.1	1.1	7	10800	18000	78.07	GE300TE 2RS	GE300UA 2RS	GE300D 2RS	



- Outer ring has a single split in axial direction.
- Phosphating treatment on both inner ring and outer ring.
- ES means lubrication groove and hole in the outer ring and inner ring.
- Phosphating treatment is done on both outer ring and inner ring.

GE..ES(2RS) Series

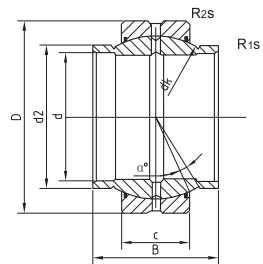
Bearing No.	Dimension										Load ratings		Weight	Other Bearing NO.	
	d	D	B	C	dk	R1s	R2s	α≈	C	C0	SKF/FAG	ELGES/INA			
	mm	mm	mm	mm	mm	min	min		kn	kn	(Sweden)	(Germany)			
GEG4E	4	14	7	4	10	0.3	0.3	20	3.4	17	0.005	GEH4E	GE4FO		
GEG5E	5	16	9	5	13	0.3	0.3	21	5.5	27	0.008	GEH5E	GE5FO		
GEG6E	6	16	9	5	13	0.3	0.3	21	5.5	27.5	0.008	GEH6E	GE6FO		
GEG8E	8	19	11	6	16	0.3	0.3	21	8.15	40.5	0.014	GEH8E	GE8FO		
GEG10E	10	22	12	7	18	0.3	0.3	18	10.8	54	0.02	GEH10E	GE10FO		
GEG12E	12	26	15	9	22	0.3	0.3	18	17	85	0.034	GEH12E	GE12FO		
GEG15ES	GEG15ES2RS	15	30	16	10	25	0.3	0.3	16	21.2	106	0.046	GEH15ES(2RS)	GE15FO(2RS)	
GEG17ES	GEG17ES2RS	17	35	20	12	29	0.3	0.3	19	30	146	0.077	GEH17ES(2RS)	GE17FO(2RS)	
GEG20ES	GEG20ES2RS	20	42	25	16	35.5	0.6	0.6	17	48	240	0.15	GEH20ES(2RS)	GE20FO(2RS)	
GEG25ES	GEG25ES2RS	25	47	28	18	40.7	0.6	0.6	17	62	310	0.19	GEH25ES(2RS)	GE25FO(2RS)	
GEG30ES	GEG30ES2RS	30	55	32	20	47	0.6	1	17	80	400	0.29	GEH30ES(2RS)	GE30FO(2RS)	
GEG35ES	GEG35ES2RS	35	62	35	22	53	0.6	1	16	100	500	0.38	GEH35ES(2RS)	GE35FO(2RS)	
GEG40ES	GEG40ES2RS	40	68	40	25	60	0.6	1	17	127	640	0.54	GEH40ES(2RS)	GE40FO(2RS)	
GEG45ES	GEG45ES2RS	45	75	43	28	66	0.6	1	15	156	780	0.68	GEH45ES(2RS)	GE45FO(2RS)	
GEG50ES	GEG50ES2RS	50	90	56	36	80	0.6	1	17	245	1220	1.4	GEH50ES(2RS)	GE50FO(2RS)	
GEG60ES	GEG60ES2RS	60	105	63	40	92	1	1	17	315	1560	2	GEH60ES(2RS)	GE60FO(2RS)	
GEG70ES	GEG70ES2RS	70	120	70	45	105	1	1	16	400	2000	2.9	GEH70ES(2RS)	GE70FO(2RS)	
GEG80ES	GEG80ES2RS	80	130	75	50	115	1	1	14	490	2450	3.5	GEH80ES(2RS)	GE80FO(2RS)	
GEG90ES	GEG90ES2RS	90	150	85	55	130	1	1	15	610	3050	5.4	GEH90ES(2RS)	GE90FO(2RS)	
GEG100ES	GEG100ES2RS	100	160	85	55	140	1	1	14	655	3250	5.9	GEH100ES(2RS)	GE100FO(2RS)	
GEG110ES	GEG110ES2RS	110	180	100	70	160	1	1	12	950	4750	9.6	GEH110ES(2RS)	GE110FO(2RS)	
GEG120ES	GEG120ES2RS	120	210	115	70	180	1	1	16	1080	5400	15.1	GEH120ES(2RS)	GE120FO(2RS)	
GEG140ES	GEG140ES2RS	140	230	130	80	200	1	1	16	1360	6800	19.01	GEH140ES(2RS)	GE140FO(2RS)	
GEG160ES	GEG160ES2RS	160	260	135	80	225	1	1.1	16	1530	7650	24.7	GEH160ES(2RS)	GE160FO(2RS)	
GEG180ES	GEG180ES2RS	180	290	155	100	250	1.1	1.1	14	2120	10600	35.4	GEH180ES(2RS)	GE180FO(2RS)	
GEG200ES	GEG200ES2RS	200	320	165	100	270	1.1	1.1	15	2320	11600	45.28	GEH200ES(2RS)	GE200FO(2RS)	
GEG220ES	GEG220ES2RS	220	340	175	100	300	1.1	1.1	16	2550	12700	51.12	GEH220ES(2RS)	GE220FO(2RS)	
GEG240ES	GEG240ES2RS	240	370	190	110	325	1.1	1.1	15	3030	15190	65.12	GEH240ES(2RS)	GE240FO(2RS)	
GEG260ES	GEG260ES2RS	260	400	205	120	350	1.1	1.1	15	3570	17850	82.44	GEH260ES(2RS)	GE260FO(2RS)	
GEG280ES	GEG280ES2RS	280	430	210	120	375	1.1	1.1	15	3800	19100	97.21	GEH280ES(2RS)	GE280FO(2RS)	



- Inner ring extended design on both sides.
- Bearing has RS seals on both sides
- Phosphating treatment is done on both inner ring and outer ring.
- Bearing has lubricating groove and holes on outer and inner ring.

GE..LO Series

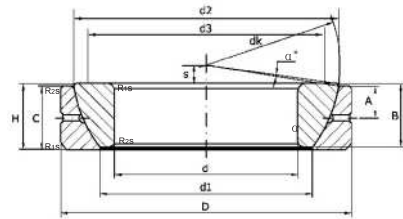
Bearing No.	Dimension										Load ratings		Weight	Other Bearing NO.	
	d	d2	D	B	C	dk	R1s	R2s	α≈	Cr	C0r	LS		SKF	
	mm	mm	mm	mm	mm	mm	min	min		kn	kn	(China)		(Sweden)	
GE12LO	12	15.5	22	12	7	18	0.3	0.3	4	10	54	0.022	GEEW12ES	GEG12ES	
GE15LO	15	19	26	15	9	22	0.3	0.3	5	16	84	0.031	GEEW15ES	GEG15ES	
GE16LO	16	20	28	16	9	23	0.3	0.3	4	17.6	88	0.035	GEEW16ES	GEG16ES	
GE17LO	17	21	30	17	10	25	0.3	0.3	7	21	106	0.044	GEEW17ES	GEG17ES	
GE20LO	20	25	35	20	12	29	0.3	0.3	4	30	146	0.071	GEEW20ES	GEG20ES	
GE25LO	25	30.5	42	25	16	35.5	0.6	0.6	4	48	240	0.131	GEEW25ES	GEG25ES	
GE30LO	30	34	47	30	18	40.7	0.6	0.6	4	62	310	0.168	GEEW30ES	GEG30ES	
GE32LO	32	37	52	32	18	44	0.6	1	4	67	335	0.182	GEEW32ES	GEG32ES	
GE35LO	35	40	55	35	20	47	0.6	1	4	79	399	0.253	GEEW35ES	GEG35ES	
GE40LO	40	46	62	40	22	53	0.6	1	4	100	500	0.338	GEEW40ES	GEG40ES	
GE45LO	45	52	68	45	25	60	0.6	1	4	127	637	0.481	GEEW45ES	GEG45ES	
GE50LO	50	57	75	50	28	66	0.6	1	4	156	780	0.558	GEEW50ES	GEG50ES	
GE60LO	60	68	90	60	36	80	1	1	4	245	1220	1.15	GEEW60ES	GEG60ES	
GE63LO	63	71.5	95	63	36	83	1	1	4	255	1270	1.25	GEEW63ES	GEG63ES	
GE70LO	70	78	105	70	40	92	1	1	4	315	1560	1.71	GEEW70ES	GEG70ES	
GE80LO	80	91	120	80	45	105	1	1	4	400	2000	2.39	GEEW80ES	GEG80ES	
GE90LO	90	99	130	90	50	115	1	1	4	488	2440	3.21	GEEW90ES	GEG90ES	
GE100LO	100	113	150	100	55	130	1	1	4	607	3030	4.8	GEEW100ES	GEG100ES	
GE110LO	110	124	160	110	55	140	1	1	4	654	3270	5.78	GEEW110ES	GEG110ES	
GE125LO	125	138	180	125	70	160	1	1	4	950	4750	8.49	GEEW125ES	GEG125ES	
GE160LO	160	177	230	160	80	200	1	1	4	1360	6800	16.5		GEG160ES	
GE200LO	200	221	290	200	100	250	1.1	1.1	4	2120	10600	32.1		GEG200ES	
GE250LO	250	317	400	250	120	350	1.1	1.1	4	3750	17800	99.1		GEG250ES	
GE320LO	320	405	520	320	160	450	1.1	1.1	4	6200	30500	225		GEG320ES	



- Inner ring extended design on both sides.
- Outer ring with split gap in axial direction.
- Bearing has lubrication groove and holes on outer and inner ring.
- Bearing has RS seals on both sides.
- Surface Phosphating treatment is done on both inner ring and outer ring.

GE..HO Series

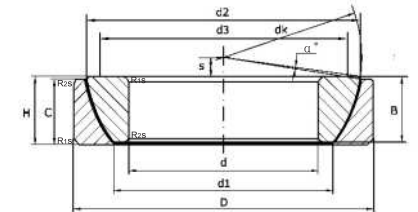
Bearing No.	Dimension										Load ratings		Weight	Other Bearing NO.	
	d	d2	D	B	C	dk	R1s	R2s	α≈	Cr	C0r	SKF/FAG No.		LS/BGK/WSW No.	
	mm	mm	mm	mm	mm	mm	min	min		kn	kn				
GE17HO2RS	17	21	30	21	10	25	0.2	0.3	3	21.2	106	0.04	GEM17ES2RS	GEEM17ES2RS	
GE20HO2RS	20	24	35	24	12	29	0.2	0.3	3	30	146	0.069	GEM20ES2RS	GEEM20ES2RS	
GE25HO2RS	25	29	42	29	16	35.5	0.2	0.6	3	48	240	0.12	GEM25ES2RS	GEEM25ES2RS	
GE30HO2RS	30	34	47	30	18	40.7	0.2	0.6	3	62	310	0.15	GEM30ES2RS	GEEM30ES2RS	
GE35HO2RS	35	40	55	35	20	47	0.3	1	3	80	400	0.26	GEM35ES2RS	GEEM35ES2RS	
GE40HO2RS	40	45	62	38	22	53	0.3	1	3	100	500	0.32	GEM40ES2RS	GEEM40ES2RS	
GE45HO2RS	45	52	68	40	25	60	0.3	1	3	127	640	0.43	GEM45ES2RS	GEEM45ES2RS	
GE50HO2RS	50	57	75	43	28	66	0.3	1	3	156	780	0.55	GEM50ES2RS	GEEM50ES2RS	
GE60HO2RS	60	68	90	54	36	80	0.3	1	3	245	1220	1.1	GEM60ES2RS	GEEM60ES2RS	
GE70HO2RS	70	78	105	65	40	92	0.3	1	3	315	1560	1.6	GEM70ES2RS	GEEM70ES2RS	
GE80HO2RS	80	90	120	74	45	105	0.3	1	3	400	2000	2.5	GEM80ES2RS	GEEM80ES2RS	



- Bearing has lubrication groove and hole in outer ring.
- Phosphating treatment is done on both outer ring and inner ring.

GX..S Series

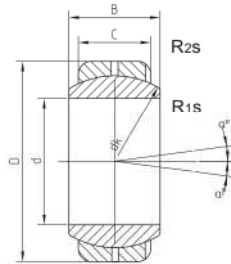
Bearing No.	Dimension													Load ratings		Weight kg	Other Bearing NO.	
	d	D	dk	H	B	d1	d2	d3	S	C	A	α	R1s	R2s	Cr			C0r
GX10S	10	30	32	9.5	7.5	15.5	27.5	21	7	7	3	0.6	0.2	5	27	136	0.036	GE10AX
GX12S	12	35	38	13	9.5	18	32	24	8	9.3	4	0.6	0.2	5	37	188	0.072	GE12AX
GX15S	15	42	46	15	11	22.5	39	29	10	10.8	5	0.6	0.2	6	53	267	0.108	GE15AX
GX17S	17	47	52	16	11.8	27	43.5	34	11	11.2	5	0.6	0.15	4	61	311	0.137	GE17AX
GX20S	20	55	60	20	14.5	31	50	40	12.5	13.8	6	1	0.3	5	84	425	0.246	GE20AX
GX25S	25	62	68	22.5	16.5	34.5	58.5	45	14	16.7	6	1	0.3	5	134	672	0.415	GE25AX
GX30S	30	75	82	26	19	42	70	56	17.5	19	8	1	0.3	5	182	909	0.614	GE30AX
GX35S	35	90	98	28	22	50.5	84	66	22	20.7	8	1	0.3	5	266	1330	0.973	GE35AX
GX40S	40	105	114	32	27	59	97	78	24.5	21.5	9	1	0.3	6	357	1810	1.59	GE40AX
GX45S	45	120	128	36.5	31	67	110	89	27.5	25.5	11	1	0.3	6	486	2470	2.24	GE45AX
GX50S	50	130	139	42.5	33	70	120	98	30	30.5	10	1	0.3	6	554	2810	3.14	GE50AX
GX60S	60	150	160	45	37	84	140	108	35	34	12.5	1	0.3	6	748	3820	4.63	GE60AX
GX70S	70	160	176	50	42	94.5	153	121	35	36.5	13.5	1	0.3	3	902	4610	5.37	GE70AX
GX80S	80	180	197	50	43.5	107.5	172	130	42.5	38	14.5	1	0.3	4	1110	5700	6.91	GE80AX
GX100S	100	210	222	59	51	127	198	155	45	46	15	1.1	0.3	4	1300	6470	10.9	GE100AX
GX120S	120	230	250	64	53.5	145	220	170	52.5	50	16.5	1.1	0.3	3	1530	7580	13.9	GE120AX
GX140S	140	260	272	72	61	176	244	198	52.5	50	23	1.5	0.6	6	1630	8150	18	GE140AX
GX160S	160	290	310	77	65		272	213	65	52	23	1.5	0.6	7	1900	9500	23	GE160AX
GX180S	180	320	335	86	70	224	300	240	67.5	60	26	1.5	0.6	8	2120	10600	31	GE180AX
GX200S	200	340	358	87	74		321	265	70	60	27	1.5	0.6	8	2360	11800	34	GE200AX



- Outer race bonded with PTFE fabric.
- Spherical surface of inner ring hard chrome plated.
- Phosphating treatment is done on outer ring.

GX..T Series

Bearing No.	Dimension													Load ratings		Weight kg	Other Bearing NO.
	d	D	H	dk	d1	d2	d3	B	C	S	R1s	R2s	a	Cr	C0r		
GX10T	10	30	9.5	32	16.5	27.5	21	7.9	6	7	0.6	0.2	10	36	72	0.04	GE10AW
GX12T	12	35	13	37	19.5	32	24	9.3	9	8	0.6	0.2	9	49	98	0.07	GE12AW
GX15T	15	42	15	45	24	38.9	29	10.7	11	10	0.6	0.2	7	78	156	0.12	GE15AW
GX17T	17	47	16	50	28	43.4	34	11.5	11.5	11	0.6	0.2	6	88	176	0.16	GE17AW
GX20T	20	55	20	60	33.5	50	40	14.3	13	12.5	1	0.3	6	112	224	0.25	GE20AW
GX25T	25	62	22.5	66	34.5	57.5	45	16	17	14	1	0.3	7	193	390	0.38	GE25AW
GX30T	30	75	26	80	44	69	56	18	19.5	17.5	1	0.3	6	255	510	0.65	GE30AW
GX35T	35	90	28	98	52	84	66	22	20	22	1	0.3	6	390	780	1	GE35AW
GX40T	40	105	32	114	59	98	78	27	22	24.5	1	0.3	6	560	1120	1.6	GE40AW
GX45T	45	120	36.5	130	68	112	89	31	25	27.5	1	0.3	6	735	1460	2.4	GE45AW
GX50T	50	130	42.5	140	69	122.5	98	33.5	32	30	1	0.3	5	980	1960	3.3	GE50AW
GX60T	60	150	45	160	86	140	108	37	33	35	1	0.3	7	1100	2200	4.5	GE60AW
GX70T	70	160	50	170	95	149.5	121	40	36	35	1	0.3	6	1200	2400	5.5	GE70AW
GX80T	80	180	50	194	108	168	130	42	36	42.5	1	0.3	6	1560	3100	7	GE80AW
GX100T	100	210	59	220	133	195.5	155	50	42	45	1	0.3	7	1800	3600	10.5	GE100AW
GX120T	120	230	64	245	154	214	170	52	45	52.5	1	0.3	8	1860	3750	13	GE120AW
GX140T	140	260	72	272	176	244	198	61	50	52.5	1.5	0.6	6	2450	4900	18	GE140AW
GX160T	160	290	77	310	199	272	213	65	52	65	1.5	0.6	7	2850	5700	23	GE160AW
GX180T	180	320	86	335	224	300	240	70	60	67.5	1.5	0.6	8	3200	6400	31	GE180AW
GX200T	200	340	87	358	246	321	265	74	60	70	1.5	0.6	8	3550	7100	34	GE200AW
GX220T	220	370	97	388	265	350	289	82	67	75	1.5	0.6	7	4400	8800	44.5	GE220AW
GX240T	240	400	103	420	294	382	314	87	73	77.5	1.5	0.6	6	5200	10400	55	GE240AW
GX260T	260	430	115	449	317	409	336	95	80	82.5	1.5	0.6	7	5400	10800	69	GE260AW
GX280T	280	460	110	480	337	445	366	100	85	80	3	1	4	8500	17000	82	GE280AW
GX300T	300	480	110	490	356	460	388	100	90	80	3	1	3.5	8650	17300	87	GE300AW
GX320T	320	520	116	540	380	500	405	105	91	95	4	1.1	4	10600	21200	109	GE320AW
GX340T	340	540	116	550	380	510	432	105	91	95	4	1.1	4	11800	23600	114	GE340AW
GX360T	360	560	125	575	400	535	452	115	95	95	4	1.1	4	12700	25500	129	GE360AW



ШСН6 Series

- No phosphating treatment on both inner ring and outer ring.
- Russian design

Bearing No.	Dimension								Structure	Weight
	d mm	D mm	B mm	C mm	dk mm	R1s min	R2s min	$\alpha \approx$		
ШСН6	6	14	6	4	10	0.4	2	13	A	0.004
ШСН8	8	17	8	5	13	0.4	2	15	A	0.008
ШСН10	10	20	9	6	16	0.4	2	12	B	0.013
ШСН12	12	22	10	7	18	0.4	2	10	B	0.016
ШСН15	15	28	12	8	23	0.5	2	11	B	0.028
ШСН17	17	32	14	10	26	0.5	2	10	B	0.044
ШСН20	20	35	16	12	29	0.5	2	9	B	0.061
ШСН25	25	42	20	16	35	0.5	2	7	B	0.11
ШСН30	30	47	22	18	40	0.5	2	6.5	B	0.14
ШСН35	35	55	26	21	47	0.5	2	7	B	0.22
ШСН40	40	62	28	22	53	0.5	2	7	B	0.3
ШСН45	45	70	32	25	60	0.5	2	7	C	0.44
ШСН50	50	75	35	28	66	0.5	2	7	C	0.54
ШСН55	55	85	40	32	75	0.5	2	7	B	0.75
ШСН60	60	90	44	34	80	0.8	2.5	8	B	0.97
ШСН70	70	105	49	40	92	0.8	2.5	6.5	D	1.5
ШСН80	80	125	76	70	114	0.8	2.5	4	B	3.8
ШСН90	90	130	60	50	115	0.8	2.5	5.5	E	2.7
ШСН100	100	150	70	55	130	1	3	7.5	D	4.3
ШСН110	110	160	70	55	140	1	3	6.5	B	4.7
ШСН120	120	180	85	70	160	1	3	6	D	8
ШСН130	130	200	95	52	175	1	3	15	B	10.5
ШСЛ60	60	90	44	34	80	1	1	6	D	1
ШСЛ70	70	105	49	40	92	1	1	6	D	1.55
ШСЛ90K1	90	130	60	50	115	1	1	5	D	2.75
2ШС17	17	40	21	14	31	0.6	0.6	12	F	0.12
2ШС20	20	47	26	15	35	0.6	0.6	12	F	0.184
6ШСЛ60	60	130	85	70	115	1	1	10	B	5.9
2ШСЛ70	80	125	76	70	114	1	1	10	B	3.96

Cross reference table

SKF	FAG	ELGES	LS	ASK	IKO	NTN	NMB	RLM
Sweden	Germany	Germany	China	Germany	Japan	Japan	Japan	China
			GEFZ - S					COM
			GEFZ - C					COM-T
		GE - PB		G				G - PB
		GE - PW		G - D				G - PW
GE - E	GE - E	GE - DO	GE - E	GE - E	GE - E	Sa1 - B	SBH - NS	GE - DO
GE - ES	GE - ES	GE - DO	GE - ES	GE -	GE - ES	SA1 - B	SBH - S	GE - DO
GE - ES 2RS	GE - ES 2RS	GE - DO 2RS	GE - ES 2FRS	GE - 2RS	GE - ES 2RS	SA1 - BSS		GE - DO 2RS
GEH - C	GEH - C	GE - FW	GEG - C					GE - FW
GEH - TE 2RS		GE - FW 2RS	GEG - ET 2RS					GE - FW 2RS
GEM - ES 2RS		GE - HO 2RS	GEEM - ES 2RS					GE - HO 2RS
GEG - ES		GE - LO	GEEW - ES					GEEW - ES
GE - C	GE - C	GE - UK	GE - C	GE - D	GE - EC	SAR1 -		GE - UK
GE - TE 2RS	GE - UA 2RS	GE - D 2RS	GE - ET 2RS	GE - D 2RS				GE - UK 2RS
		GE - PB	GEBJ - S					GEBJ - S
			GEBK - S		PB -			GEBK - S
								GEF-ES
GEH - E	GEH - E	GE - FO	GEG - E		GE - G			GEH - E
GEH - ES	GEH - ES	GE - FO	GEG - ES		GE - GS			GEH - ES
GEH - ES 2RS	GEH - ES 2RS	GE - FO 2RS	GEG - ES 2RS					GEH - ES 2RS
								GEG-XF-Q
								GEGZ
								GEGZ-HS
								GEK-XS2RS
								GEWK
								GEWZ
								GE-XF
								GE-XS
GEZ		GE - ZO	GEZ					GEZ
GEZ-ET-2RS		GE - ZO2RS	GEZ-ET-2RS					GEZ-ET-2RS
				S -				S - PB
				S - D				S - PW
GEH - TGR								SGE - FW
GE - TGR								SGE - UK