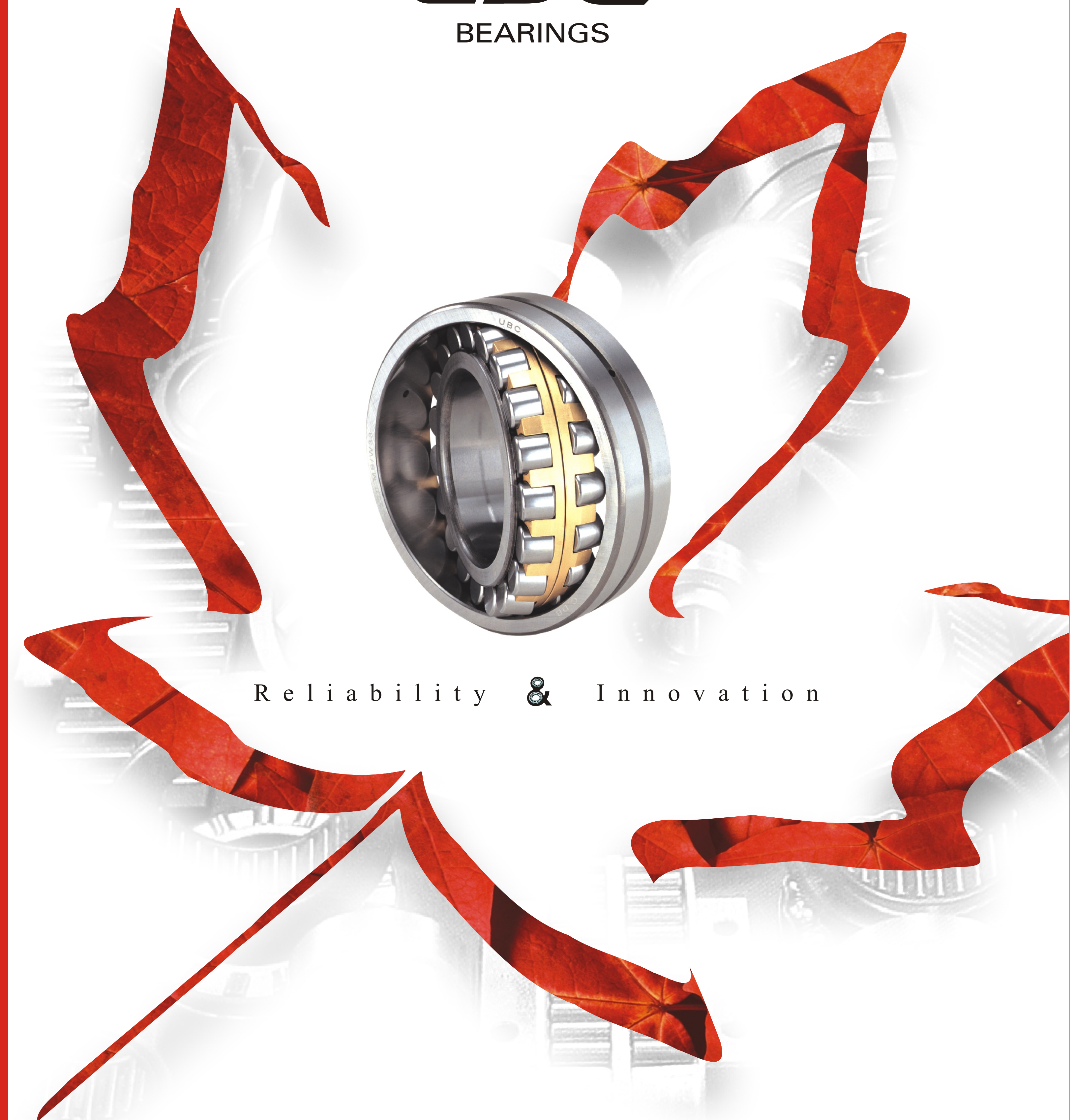
Cat 07-09-eng

BEARINGS



Reliability & Innovation

UBC Precision Bearing Manufacturing Co.,Ltd

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INTRODUCTION

UBC Precision Bearing Manufacturing Co., Ltd. is a manufacturer of high-grade bearing parts (green rings) as well as a wide range of ball and roller bearing products. Through technology-sharing and production linkages with the world's leading bearing manufacturers, as well as progressive cooperation with partners in the domestic arena, UBC has consistently elevated its manufacturing capability and is now recognized as one of the leading producers of high-grade finished bearing components. To date, the company has 5 China-based production facilities and affiliated plants, with a combined yearly output of almost 120million bearing units and auxiliary bearing parts.

Under the UBC Precision Bearing brand, UBC has made headway into the domestic bearing market by supplying OEMs with cost-efficient products, together with value-added services encompassing the widest range of bearings available in any manufacturing company of its class. Its roster of OEM customers are global brand names and market leaders in their respective industries. Complimenting this, UBC has extensively developed its distribution arm which now has branch offices in 22 major cities and industrial sites all over the Mainland, backed up by 50 authorized distributors, as well as over a hundred sub-distributors representing the biggest local sales network in industrial spare parts.

UBC, as a multinational conglomerate has established itself as a strong link in the supply chain for high-grade, competitively priced bearing products worldwide. It has international centers in Asia, Europe, North and South America, as well as a team of traveling technical representatives ensuring that customers are provided with the most exceptional before and after-sales customer and technical support.

With a strong local base of operations, UBC is now looking towards expanding its distribution network and increasing its brand value through a global strategy of progressively developing new bearing series, manufacturing more value-added products, providing personalized services, and opening new international markets and industries.

To date, UBC has forged lasting relationships with key agents and distributors in over 30 countries.

So, what else can we do for you? Discover UBC.

www.ubc-bearing.com

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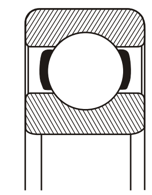

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6 | 3 | 08 | 2RS | / | V2 | P5

SIZE DESIGNATION:

0: Designate extra light series 60xx
2: Designate light series 62xx
3: Designate medium light series 63xx
4: Designate heavy series 64xx
8: Designate super light series 68xx
9: Designate super light series 69xx

DESIGNS, TYPES AND FEATURES

- RS: One seal - contact type
- 2RS: Two seals - contact type
- RZ: One non-contactseal
- 2RZ: Two non-contact seals
- Z: One shield
- ZZ: Two shields
- N: With snap ring groove on the outer ring
- M: Solid brass retainer
- NR: With snap ring on the outer ring
- TN: Glass-fiber reinforced nylon cage

V: NOISE & VIBRATION GRADE

/V1: Adhere to vibration standard V1
/V2: Adhere to vibration standard V2
/V3: Adhere to vibration standard V3
EMQ: Standard electric motor quality
EMQ6: Quiet running ,standard electric motor quality
EMQ5: Super-quiet running ,standard electric motor quality

TOLERANCE CLASS:

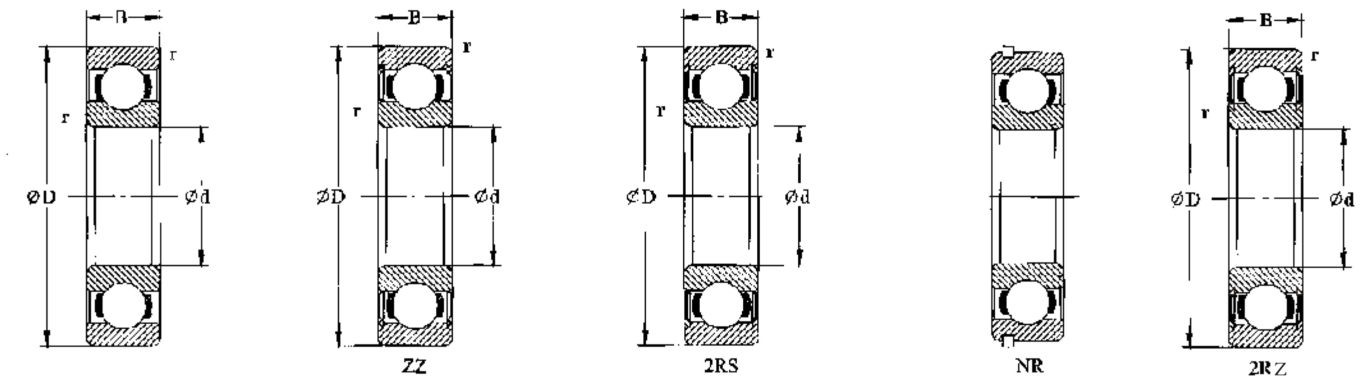
/P0: Equal tolerance class ABEC1
/P6: Equal tolerance class ABEC3
/P5: Equal tolerance class ABEC5
/P4: Equal tolerance class ABEC7
/P2: Equal tolerance class ABEC9

CLEARANCE:

/C2: Less than normal clearance
/C0: Normal clearance, omissible
/C3: Larger clearance than C0
/C4: Larger clearance than C3
/C5: Larger clearance than C4

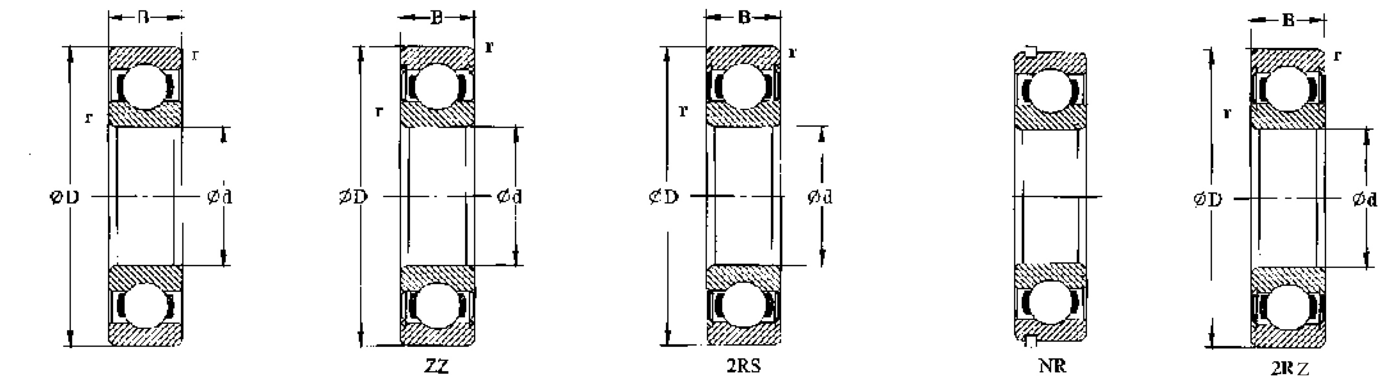
WORKING TEMPERATURE:

/S0: Working temperature is up to 150 °C
/S1: Working temperature is up to 200 °C
/S2: Working temperature is up to 250 °C
/S3: Working temperature is up to 300 °C
/S4: Working temperature is up to 350 °C

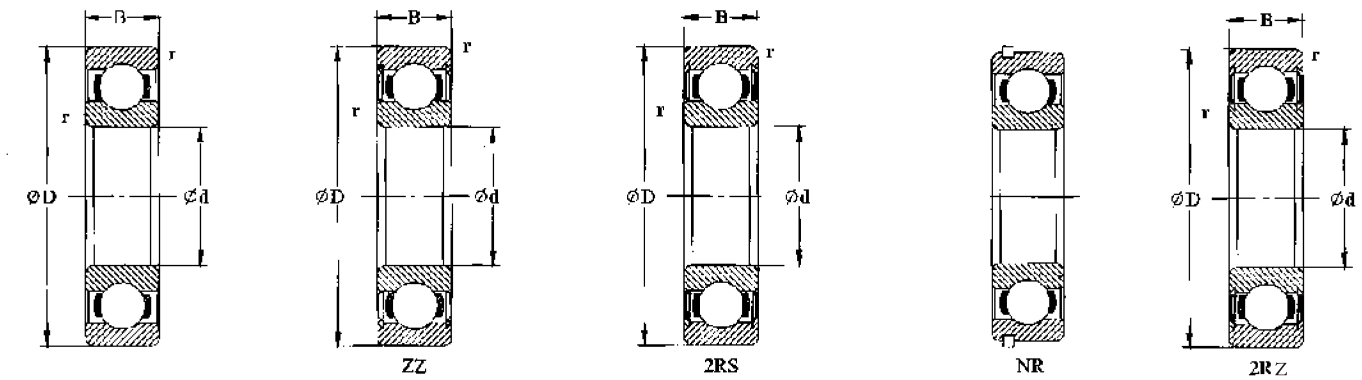


Principal dimensions (mm)				Weight	Bearing Number				Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Open	W/Shields	W/Seals	W/Snap Ring	Dynamic Cr	Static Cor	Grease	Oil
10	15	3	0.1	0.0015	**6700**		2RS		1.01	0.555	36000	42000
	19	5	0.3	0.005	**6800**	ZZ	2RS		1.65	0.890	30000	36000
	22	6	0.3	0.009	**6900**	ZZ	2RS		2.43	1.220	29000	34000
	26	8	0.3	0.018	**6000**	ZZ	2RS	NR	4.10	1.880	28000	32000
	30	9	0.6	0.032	**6200**	ZZ	2RS	NR	4.59	2.390	24000	29000
	35	11	0.6	0.052	**6300**	ZZ	2RS	NR	7.38	3.360	22000	26000
12	18	4	0.2	0.003	**6701**		2RS		1.07	0.655	32000	38000
	21	5	0.3	0.006	**6801**	ZZ	2RS		1.73	1.000	28000	33000
	24	6	0.3	0.010	**6901**	ZZ	2RS		2.60	1.400	26000	30000
	28	7	0.3	0.019	**16001**	ZZ	2RS		4.59	2.290	25000	29000
	28	8	0.3	0.022	**6001**	ZZ	2RS	NR	4.59	2.290	25000	29000
	32	10	0.6	0.037	**6201**	ZZ	2RS	NR	5.49	2.750	21000	25000
	37	12	1.0	0.060	**6301**	ZZ	2RS	NR	8.73	4.030	19000	23000
15	21	4	0.2	0.0035	**6702**		2RS		1.15	0.790	29000	34000
	24	5	0.3	0.007	**6802**	ZZ	2RS		1.87	1.210	25000	29000
	28	7	0.3	0.015	**6902**	ZZ	2RS		3.69	1.980	23000	27000
	32	8	0.3	0.027	**16002**	ZZ	2RS		5.04	2.730	21000	25000
	32	9	0.3	0.031	**6002**	ZZ	2RS	NR	5.04	2.730	21000	25000
	35	11	0.6	0.045	**6202**	ZZ	2RS	NR	6.98	3.600	18000	22000
	42	13	1.0	0.083	**6302**	ZZ	2RS	NR	10.26	5.230	16000	20000
17	23	4	0.2	0.004	**6703**		2RS		1.20	0.865	26000	31000
	26	5	0.3	0.007	**6803**	ZZ	2RS		2.53	1.650	23000	27000
	30	7	0.3	0.017	**6903**	ZZ	2RS		4.46	2.480	21000	25000
	35	8	0.3	0.033	**16003**	ZZ	2RS		6.12	3.220	19000	23000
	35	10	0.3	0.041	**6003**	ZZ	2RS	NR	6.12	3.220	19000	23000
	40	12	0.6	0.067	**6203**	ZZ	2RS	NR	8.64	4.600	17000	20000
	47	14	1.0	0.113	**6303**	ZZ	2RS	NR	12.15	6.290	15000	18000
	62	17	1.1	0.270	**6403**		2RS		22.70	10.800	14000	16000
20	27	4	0.2	0.005	**6704**		2RS		1.79	1.320	23000	28000
	32	7	0.3	0.017	**6804**	ZZ	2RS		3.60	2.37 2.370	20000	24000
	37	9	0.3	0.037	**6904**	ZZ	2RS		5.76	3.550	18000	22000
	42	8	0.3	0.048	**16004**	ZZ	2RS		7.11	4.320	17000	20000
	42	12	0.6	0.068	**6004**	ZZ	2RS	NR	8.46	4.850	17000	20000
	47	14	1.0	0.107	**6204**	ZZ	2RS	NR	11.52	6.650	15000	17000
	52	15	1.1	0.145	**6304**	ZZ	2RS	NR	14.31	7.580	13000	16000
	72	19	1.1	0.400	**6404**				28.50	13.900	12000	14000
22	44	12	0.6	0.074	**60/22**	ZZ	2RS		8.46	4.850	16000	19000
	50	14	1.0	0.119	**62/22**	ZZ	2RS		11.61	5.840	13000	16000
	56	16	1.1	0.179	**63/22**	ZZ	2RS		16.56	8.880	12000	14000
25	32	4	0.2	0.006	**6705**		2RS		1.93	1.550	19000	23000
	37	7	0.3	0.021	**6805**	ZZ	2RS		3.87	2.830	17000	20000

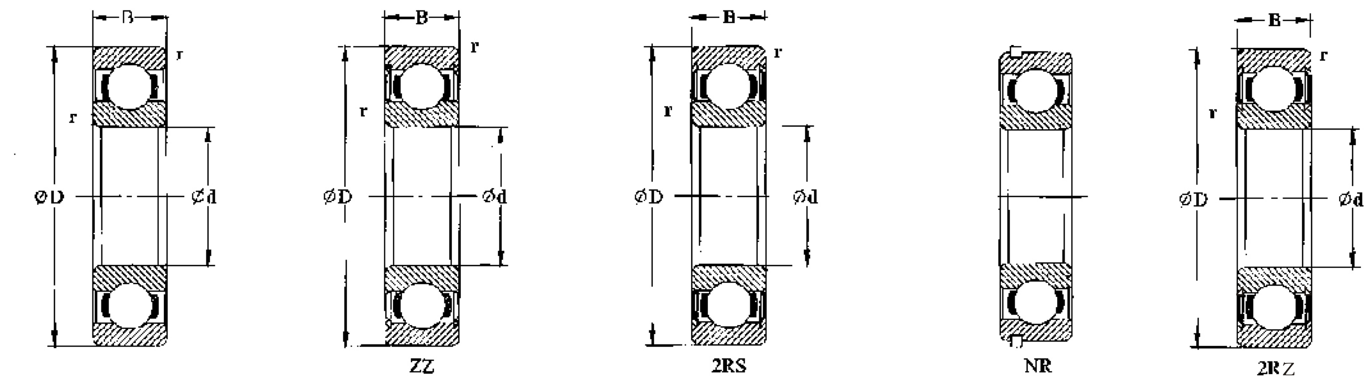
DEEP GROOVE BALL BEARINGS UBC



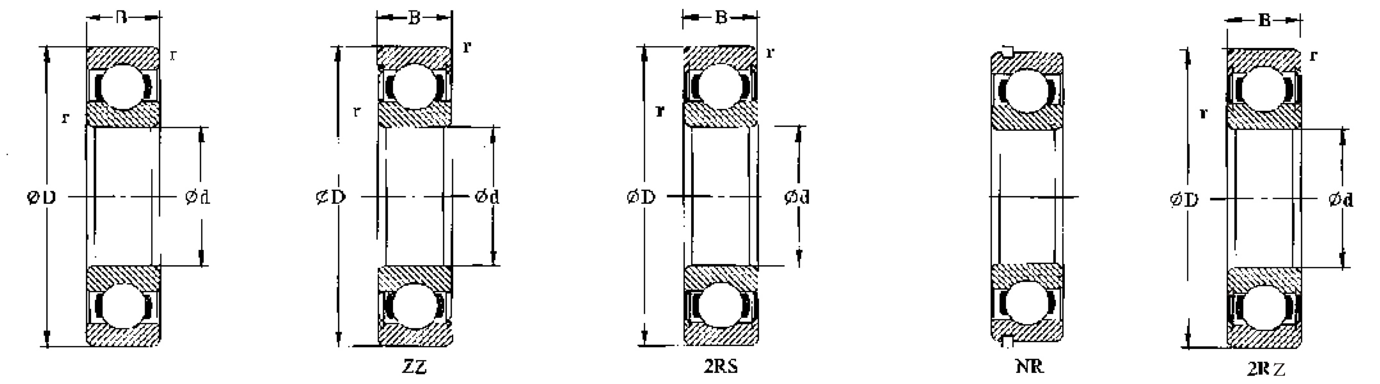
Principal dimensions (mm)				Weight	Bearing Number				Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Open	W/Shields	W/Seals	W/Snap Ring	Dynamic Cr	Static Cor	Grease	Oil
25	42	9	0.3	0.042	**6905**	ZZ	2RS		6.35	4.37	15000	18000
	47	8	0.3	0.059	**16005**	ZZ	2RS		7.52	4.90	14000	17000
	47	12	0.6	0.079	**6005**	ZZ	2RS	NR	9.09	5.62	14000	17000
	52	15	1.0	0.129	**6205**	ZZ	2RS	NR	12.60	7.54	12000	14000
	62	17	1.1	0.235	**6305**	ZZ	2RS	NR	19.08	10.46	11000	13000
	80	21	1.5	0.530	**6405**				34.50	17.50	10000	12000
28	52	12	0.6	0.096	**60/28**	ZZ	2RS	NR	11.25	7.10	13000	15000
	58	16	1.0	0.175	**62/28**	ZZ	2RS	NR	16.11	9.36	11000	13000
	68	18	1.1	0.287	**63/28**	ZZ	2RS	NR	24.03	13.44	10000	12000
30	37	4	0.2	0.008	**6706**		2RS		2.05	1.78	17000	20000
	42	7	0.3	0.024	**6806**	ZZ	2RS		4.23	3.50	14000	17000
	47	9	0.3	0.052	**6906**	ZZ	2RS		6.53	4.80	13000	16000
	55	9	0.3	0.087	**16006**	ZZ	2RS		10.08	7.06	12000	14000
	55	13	1.0	0.116	**6006**	ZZ	2RS	NR	11.88	7.97	12000	14000
	62	16	1.0	0.199	**6206**	ZZ	2RS	NR	17.55	10.85	10000	12000
	72	19	1.1	0.345	**6306**	ZZ	2RS	NR	24.03	14.40	9500	11000
	90	23	1.5	0.735	**6406**				43.50	23.90	8000	10000
32	58	13	1.0	0.122	**60/32**	ZZ	2RS		13.59	8.78	11000	14000
	65	17	1.0	0.225	**62/32**	ZZ	2RS		18.63	11.14	10000	11000
	75	20	1.1	0.389	**63/32**	ZZ	2RS	NR	26.82	16.22	9000	10000
35	47	7	0.3	0.027	**6807**	ZZ	2RS		4.41	3.89	12000	15000
	55	10	0.6	0.075	**6907**	ZZ	2RS		10.08	7.15	11000	14000
	62	9	0.3	0.107	**16007**	ZZ	2RS		10.53	7.87	11000	13000
	62	14	1.0	0.151	**6007**	ZZ	2RS	NR	14.40	9.89	11000	13000
	72	17	1.1	0.284	**6207**	ZZ	2RS	NR	23.13	14.69	9300	10000
	80	21	1.5	0.464	**6307**	ZZ	2RS	NR	30.15	18.34	8400	9500
	100	25	1.5	0.952	**6407**				55.00	31.00	7800	9100
40	52	7	0.3	0.031	**6808**	ZZ	2RS		4.59	4.22	11000	13000
	62	12	0.6	0.112	**6908**	ZZ	2RS		13.14	9.79	10000	12000
	68	9	0.3	0.130	**16008**	ZZ	2RS		11.34	9.26	9500	11000
	68	15	1.0	0.190	**6008**	ZZ	2RS	NR	15.12	11.04	9500	11000
	80	18	1.1	0.366	**6208**	ZZ	2RS	NR	26.19	17.09	8300	9500
	90	23	1.5	0.636	**6308**	ZZ	2RS	NR	36.45	23.04	7400	8700
	110	27	2.0	1.230	**6408**				63.50	36.50	7000	8200
45	58	7	0.3	0.038	**6809**	ZZ	2RS		5.76	5.42	10000	11000
	68	12	0.6	0.126	**6909**	ZZ	2RS		13.59	10.75	9300	11000
	75	10	0.6	0.167	**16009**	ZZ	2RS		11.61	10.08	8700	10000
	75	16	1.0	0.241	**6009**	ZZ	2RS	NR	18.90	14.50	8700	10000
	85	19	1.1	0.420	**6209**	ZZ	2RS	NR	29.25	19.58	7400	8700
	100	25	1 5	0.829	**6309**	ZZ	2RS	NR	47.70	30.72	6700	7800



Principal dimensions (mm)				Weight	Bearing Number				Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Open	W/Shields	W/Seals	W/Snap Ring	Dynamic Cr	Static Cor	Grease	Oil
45	120	29	2.0	1.530	6409				77.00	45.00	6300	7400
50	65	7	0.3	0.050	6810	ZZ	2RS		5.94	5.86	9100	10000
	72	12	0.6	0.135	6910	ZZ	2RS		14.04	11.71	8500	10000
	80	10	0.6	0.175	16010	ZZ	2RS		11.88	10.85	8000	9300
	80	16	1.0	0.261	6010	ZZ	2RS	NR	19.62	15.94	8000	9300
	90	20	1.1	0.459	6210	ZZ	2RS	NR	31.50	22.37	6700	7900
	110	27	2.0	1.060	6310	ZZ	2RS	NR	55.80	36.96	6100	7100
	130	31	2.1	1.880	6410				83.00	49.50	5700	6700
55	72	9	0.3	0.081	6811	ZZ	2RS		7.92	7.78	8300	9500
	80	13	1.0	0.189	6911	ZZ	2RS		14.40	12.77	7800	9100
	90	11	0.6	0.257	16011	ZZ	2RS		16.74	14.69	7300	8600
	90	18	1.1	0.381	6011	ZZ	2RS	NR	25.47	20.35	7300	8600
	100	21	1.5	0.619	6211	ZZ	2RS	NR	39.15	28.03	6100	7200
	120	29	2.0	1.370	6311	ZZ	2RS	NR	64.35	43.20	5500	6500
	140	33	2.1	2.290	6411				89.00	54.00	5200	6100
60	78	10	0.3	0.103	6812	ZZ	2RS		10.35	10.18	7600	8900
	85	13	1.0	0.192	6912	ZZ	2RS		14.76	13.73	7200	8500
	95	11	0.6	0.281	16012	ZZ	2RS		18.00	16.80	6700	7900
	95	18	1.1	0.412	6012	ZZ	2RS	NR	26.55	22.27	6700	7900
	110	22	1.5	0.783	6212	ZZ	2RS	NR	47.25	34.56	5700	6700
	130	31	2.1	1.720	6312	ZZ	2RS	NR	73.80	49.92	5100	6000
	150	35	2.1	2.770	6412				102.00	64.50	4800	5700
65	85	10	0.6	0.128	6813	ZZ	2RS		10.44	10.56	7000	8300
	90	13	1.0	0.218	6913	ZZ	2RS		15.66	15.46	6700	7800
	100	11	0.6	0.300	16013	ZZ	2RS		18.45	17.95	6200	7300
	100	18	1.1	0.439	6013	ZZ	2RS	NR	27.45	24.19	6200	7300
	120	23	1.5	1.000	6213	ZZ	2RS	NR	51.75	38.40	5200	6200
	140	33	2.1	2.110	6313	ZZ	2RS	NR	83.25	57.60	4700	5500
	160	37	2.1	3.300	6413				111.00	72.50	4400	5300
70	90	10	0.6	0.134	6814	ZZ	2RS		10.89	11.42	6600	7700
	100	16	1.0	0.349	6914	ZZ	2RS		21.33	20.35	6200	7300
	110	13	0.6	0.441	16014	ZZ	2RS		21.96	21.70	5800	6700
	110	20	1.1	0.608	6014	ZZ	2RS	NR	34.20	29.76	5800	6700
	125	24	1.5	1.090	6214	ZZ	2RS	NR	55.80	42.24	4800	5700
	150	35	2.1	2.570	6314	ZZ	2RS	NR	93.60	65.28	4400	5100
	180	42	3.0	4.830	6414				128.00	89.50	4100	4800
75	95	10	0.6	0.149	6815	ZZ	2RS		11.25	12.38	6100	7200
	105	16	1.0	0.364	6915	ZZ	2RS		21.96	21.70	5800	6800
	115	13	0.6	0.463	16015	ZZ	2RS		22.50	23.04	5400	6400
	115	20	1.1	0.649	6015	ZZ	2RS	NR	35.55	32.16	5400	6400

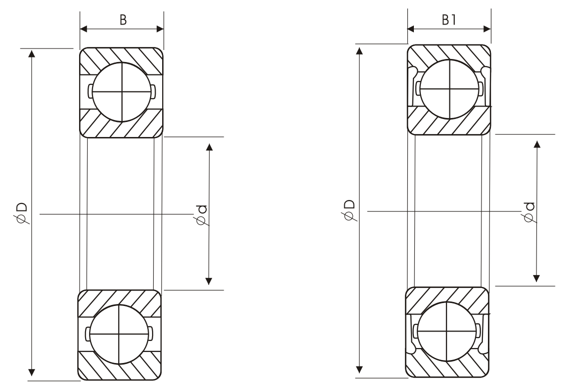


Principal dimensions (mm)				Weight	Bearing Number				Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Open	W/Shields	W/Seals	W/Snap Ring	Dynamic Cr	Static Cor	Grease	Oil
75	130	25	1.5	1.190	6215	ZZ	2RS	NR	59.40	47.52	4600	5300
	160	37	2.1	3.080	6315	ZZ	2RS	NR	101.70	73.92	4100	4800
	190	45	3.0	5.720	6415				138.00	99.00	3800	4500
80	100	10	0.6	0.151	6816	ZZ	2RS		11.43	12.77	5700	6700
	110	16	1.0	0.391	6916	ZZ	2RS		22.41	23.04	5400	6400
	125	14	0.6	0.621	16016	ZZ	2RS		22.86	24.10	5000	5900
	125	22	1.1	0.872	6016	ZZ	2RS	NR	42.75	38.40	5000	5900
	140	26	2.0	1.420	6216	ZZ	2RS	NR	65.25	60.48	4300	5000
	170	39	2.1	3.670	6316	ZZ	2RS	NR	110.70	83.04	3800	4500
	200	48	3.0	6.760	6416				164.00	125.00	3600	4200
85	110	13	1.0	0.263	6817	ZZ	2RS		16.83	18.24	5400	6400
	120	18	1.1	0.550	6917	ZZ	2RS		28.80	28.42	5100	6000
	130	14	0.6	0.652	16017	ZZ	2RS		23.31	25.15	4800	5600
	130	22	1.1	0.918	6017	ZZ	2RS	NR	44.55	41.28	4800	5600
	150	28	2.0	1.760	6217	ZZ	2RS	NR	75.15	61.44	4000	4800
	180	41	3.0	4.280	6317	ZZ	2RS	NR	119.70	93.12	3600	4300
	210	52	4.0	7.950	6417				165.00	128.00	3400	4000
90	115	13	1.0	0.276	6818	ZZ	2RS		17.10	18.91	5100	6000
	125	18	1.1	0.585	6918	ZZ	2RS		29.70	30.24	4800	5700
	140	16	1.0	0.873	16018	ZZ	2RS		30.15	32.16	4500	5300
	140	24	1.5	1.190	6018	ZZ	2RS	NR	52.20	47.52	4500	5300
	160	30	2.0	2.180	6218	ZZ	2RS	NR	86.40	68.64	3800	4500
	190	43	3.0	4.980	6318	ZZ	2RS	NR	128.70	102.72	3400	4000
	225	54	4.0	11.40	6418				184.00	148.00	3200	3800
95	120	13	1.0	0.297	6819	ZZ	2RS		17.37	19.68	4800	5600
	130	18	1.1	0.601	6919	ZZ	2RS		30.15	32.16	4600	5400
	145	16	1.0	0.904	16019	ZZ	2RS		31.05	33.60	4300	5000
	145	24	1.5	1.230	6019	ZZ	2RS	NR	54.45	51.84	4300	5000
	170	32	2.1	2.640	6219	ZZ	2RS	NR	98.10	78.72	3500	4200
	200	45	3.0	5.760	6319	ZZ	2RS	NR	137.70	114.24	3100	3700
	240	55	4.0	13.400	6419				186.00	153.00	3000	3500
100	125	13	1.0	0.310	6820	ZZ	2RS	NR	17.64	20.35	4600	5300
	140	20	1.1	0.828	6920	ZZ	2RS	NR	36.90	37.92	4300	5000
	150	24	1.5	1.290	6020	ZZ	2RS	NR	54.00	51.84	4000	4800
	180	34	2.1	3.170	6220	ZZ	2RS	NR	109.80	89.28	3300	4000
	215	47	3.0	7.040	6320	ZZ		NR	155.70	135.36	3000	3500
	250	58	4.0	15.000	6420				206.00	175.00	2900	3400
105	160	26	2.0	1.590	6021	ZZ	2RS	NR	72.50	65.50	4000	4700
	190	36	2.1	3.700	6221	ZZ	2RS	NR	133.00	105.00	3400	4000
	225	49	3.0	8.050	6321	ZZ	2RS		184.00	153.00	3000	3600



Principal dimensions (mm)				Weight	Bearing Number				Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Open	W/Shields	W/Seals	W/Snap Ring	Dynamic Cr	Static Cor	Grease	Oil
105	250	58	4.0	15.000	**6420**				206.00	175.00	2900	3400
110	170	28	2.0	1.960	**6022**	ZZ	2RS	NR	82.00	73.00	3800	4500
	200	38	2.1	4.360	**6222**	ZZ	2RS	NR	144.00	117.00	3200	3800
	240	50	3.0	9.540	**6322**	ZZ	2RS		205.00	179.00	2900	3400
	280	65	4.0	21.300	**6422**				247.00	227.00	2600	3000
120	180	28	2.0	2.070	**6024**	ZZ	2RS	NR	85.00	79.50	3500	4100
	215	40	2.1	5.150	**6224**	ZZ	2RS		155.00	131.00	2900	3400
	260	55	3.0	12.400	**6324**				207.00	185.00	2600	3100
	310	72	5.0	29.000	**6424**				291.00	287.00	2300	2800
130	200	33	2.0	3.160	**6026**		2RS	NR	106.00	101.00	3200	3800
	230	40	3.0	5.820	**6226**				167.00	146.00	2700	3100
	280	58	4.0	15.30	**6326**				229.00	214.00	2400	2800
	340	78	5.0	38.000	**6426**				300.00	298.00	2200	2500
140	175	18	1.1	0.850	**6828**	ZZ	RS	NR	39.20	46.00	3400	4000
	190	24	1.5	1.589	**6928**	ZZ	RS	NR	66.60	71.20	2800	3600
	210	22	1.1	2.004	**16028**	ZZ	RS	NR	82.10	85.00	3000	3600
	210	33	2.0	3.350	**6028**	ZZ	RS	NR	111.00	108.00	3000	3500
	250	42	3.0	7.450	**6228**	ZZ	RS	NR	165.00	125.00	2500	2900
	300	62	3.0	18.500	**6328**	ZZ	RS	NR	251.10	245.00	2200	2600
150	190	20	1.1	0.980	**6830**	ZZ	RS	NR	49.10	57.10	3100	3700
	210	28	2.0	2.454	**6930**	ZZ	RS	NR	84.70	90.20	3000	3500
	225	24	1.1	2.638	**16030**	ZZ	RS	NR	91.90	98.50	2600	3200
	225	35	2.1	4.800	**6030**	ZZ	RS	NR	125.00	125.00	2800	3200
	270	45	3.0	9.400	**6230**	ZZ	RS	NR	174.00	137.00	2300	2700
	320	65	4.0	22.000	**6330**	ZZ	RS	NR	274.00	284.00	2100	2400
160	200	20	1.1	1.187	**6832**	ZZ	RS	NR	45.20	55.10	2900	3400
	220	28	2.0	2.589	**6932**	ZZ	RS	NR	86.90	95.50	2800	3300
	240	25	1.5	4.610	**16032**	ZZ	RS	NR	72.00	104.00	2400	3000
	240	38	2.1	5.050	**6032**	ZZ	RS	NR	143.00	144.00	2600	3000
	290	48	3.0	11.700	**6232**	ZZ	RS	NR	185.00	186.00	2100	2500
	340	68	4.0	26.000	**6332**	ZZ	RS	NR	278.00	286.00	1900	2300

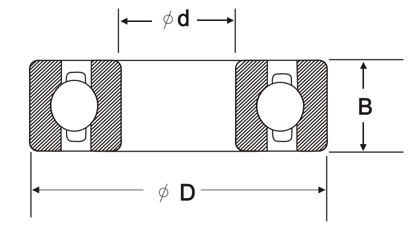
MINIATURE BALL BEARINGS

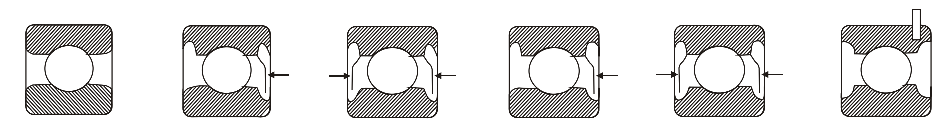


ZZ

Principal dimensions (mm)					Weight	Bearing Number		Basic Load Rating kN		Limiting Speed (rpm)	
d	D	B	B1	r_{smin}	(g)	Open	W/Shields	Dynamic Cr	Static Cor	Grease	Oil
3	6	2.0	2.5	0.08	0.20	**673**	ZZ	242	94	60000	71000
	7	2.0	3.0	0.10	0.33	**683**	ZZ	390	130	58000	68000
	8	3.0	4.0	0.15	0.61	**693**	ZZ	560	180	54000	63000
	9	3.0	5.0	0.15	0.92	**603**	ZZ	635	219	50000	59000
	10	4.0	4.0	0.15	1.60	**623**	ZZ	640	224	50000	58000
4	7	2.0	2.5	0.08	0.28	**674**	ZZ	269	117	54000	63000
	9	2.5	4.0	0.10	0.67	**684**	ZZ	640	224	49000	57000
	11	4.0	4.0	0.15	1.80	**694**	ZZ	715	276	45000	52000
	12	4.0	4.0	0.20	2.10	**604**	ZZ	970	360	43000	51000
	13	5.0	5.0	0.20	3.20	**624**	ZZ	1310	490	42000	49000
	16	5.0	5.0	0.30	5.10	**634**	ZZ	1760	680	37000	44000
5	8	2.0	2.5	0.08	0.32	**675**	ZZ	292	142	49000	57000
	11	3.0	5.0	0.15	1.10	**685**	ZZ	715	282	43000	51000
	13	4.0	4.0	0.20	2.40	**695**	ZZ	1080	430	40000	47000
	14	5.0	5.0	0.20	3.50	**605**	ZZ	1330	505	39000	46000
	16	5.0	5.0	0.30	4.80	**625**	ZZ	1760	680	37000	44000
	19	6.0	6.0	0.30	8.00	**635**	ZZ	2340	885	34000	40000
6	10	2.5	3.0	0.10	0.65	**676**	ZZ	530	240	43000	51000
	13	3.5	5.0	0.15	1.90	**686**	ZZ	1080	440	39000	46000
	15	5.0	5.0	0.20	3.80	**696**	ZZ	1350	530	37000	44000
	17	6.0	6.0	0.30	6.00	**606**	ZZ	2190	865	35000	42000
	19	6.0	6.0	0.30	8.10	**626**	ZZ	2340	885	34000	40000
7	11	2.5	3.0	0.10	0.67	**677**	ZZ	555	269	40000	47000
	14	3.5	5.0	0.15	2.10	**687**	ZZ	1170	510	37000	44000
	17	5.0	5.0	0.30	5.20	**697**	ZZ	1610	715	35000	41000
	19	6.0	6.0	0.30	8.00	**607**	ZZ	2240	910	34000	40000
	22	7.0	7.0	0.30	13.00	**627**	ZZ	3350	1400	32000	37000
8	12	2.5	3.5	0.10	0.75	**678**	ZZ	575	298	38000	45000
	16	4.0	5.0	0.20	3.10	**688**	ZZ	1260	585	35000	41000
	19	6.0	6.0	0.30	7.30	**698**	ZZ	1990	865	33000	39000
	22	7.0	7.0	0.30	12.00	**608**	ZZ	3350	1400	32000	37000
	24	8.0	8.0	0.30	17.00	**628**	ZZ	4000	1590	31000	36000
9	14	3.0	4.5	0.10	1.40	**679**	ZZ	920	465	36000	42000
	17	4.0	5.0	0.20	3.20	**689**	ZZ	1720	820	33000	39000
	20	6.0	6.0	0.30	8.20	**699**	ZZ	2480	1090	32000	38000
	24	7.0	7.0	0.30	14.00	**609**	ZZ	3400	1450	31000	36000
	26	8.0	8.0	0.30	20.00	**629**	ZZ	4550	1960	30000	35000

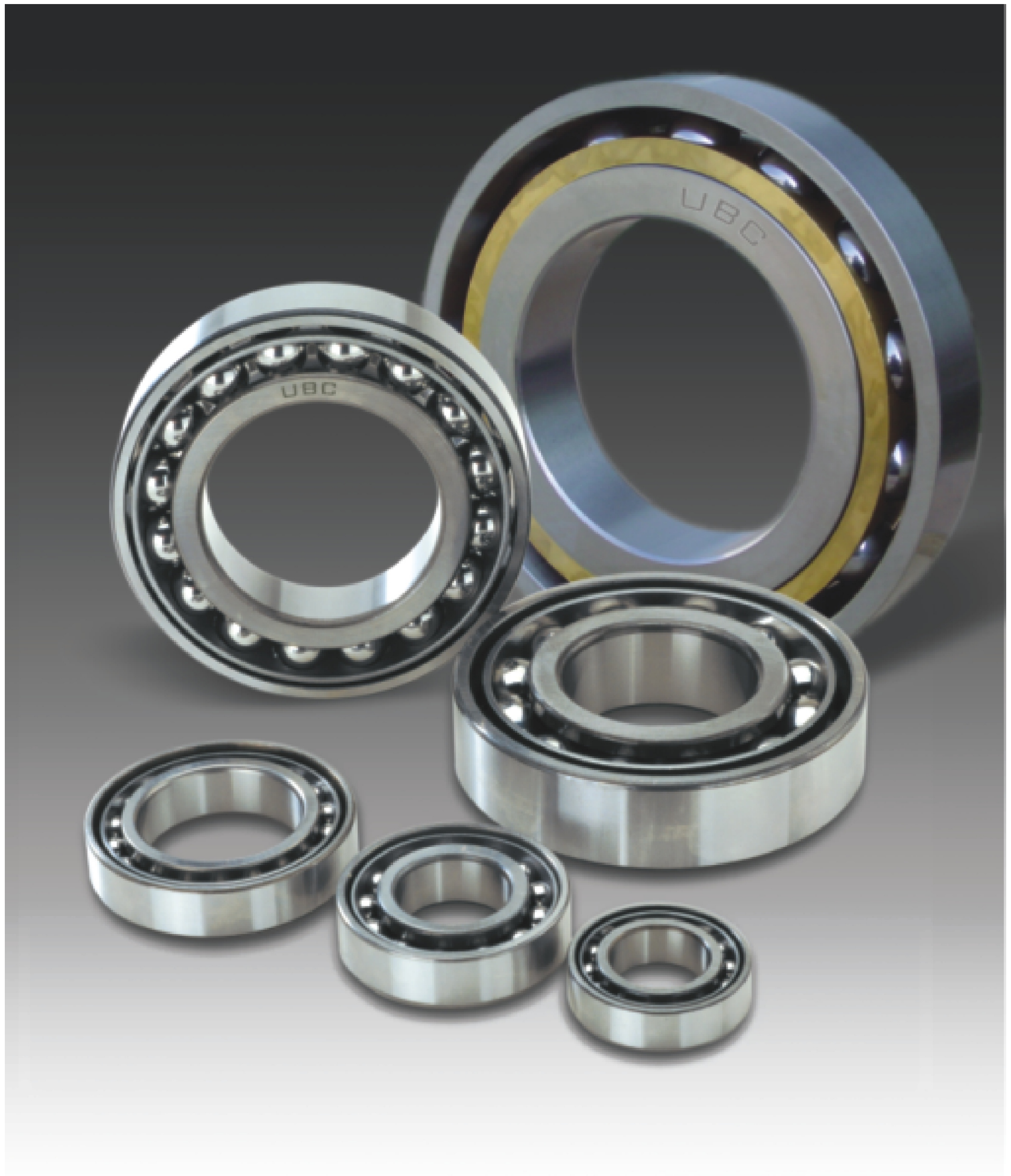
MINIATURE BALL BEARINGS (Inch Series)





R4 R4 Z R4 ZZ R4 RS R4 2RS R4 NR

PART NUMBER	BORE			OUTER DIAMETER			WIDTH TOL. $^{+.0000}_{-.0050}$		r_{max}	BALLS		STATIC LOAD (N)	DYNAMIC LOAD (N)
	FRAC.	INCH	TOL.	FRAC.	INCH	TOL.	OPEN	SEAL/SHIELD		NO.	FRAC.		
R2	1 /8	3.1750	-.0003	3/8	9.5250	-.0004	.1562	.1562	.012	7	1/16	49	113
R3	3 /16	4.7625	-.0003	1/2	12.7000	-.0004	.1562	.1960	.012	7	3/32	70	145
R4	1/4	6.3500	-.0003	5/8	15.8750	-.0004	.1960	.1960	.012	7	1/8	195	385
R4A	1/4	6.3525	-.0003	3/4	19.0500	-.0004	.2188	.2812	.016	6	9/54	150	320
R6	3/8	9.5250	-.0003	7/8	22.2250	-.0004	.2188	.2812	.016	7	5/32	305	570
R8	1/2	12.7000	-.0003	1-1/8	28.5750	-.0004	.2500	.3125	.016	8	3/16	500	885
R10	5/8	15.8750	-.0003	1-3/8	34.9250	-.0005	.2812	.3438	.031	9	3/16	565	970
R12	3/4	19.0500	-.0004	1-5/8	41.2750	-.0005	.3125	.4375	.031	10	7/32	850	1265
R14	7/8	22.2250	-.0004	1-7/8	47.6250	-.0005	.3750	.5000	.031	10	1/4	1110	1735
R16	1	25.4000	-.0004	2	50.8000	-.0005	.3750	.5000	.031	10	1/4	1110	1735
R18	11/8	28.5750	-.0004	2-1/8	53.9750	-.0005	.3750	.5000	.031	11	1/4	1225	1840
R20	1 /4	31.7500	-.0005	2	57.1500	-.0005	.3750	.5000	.031	12	1/4	1335	1920



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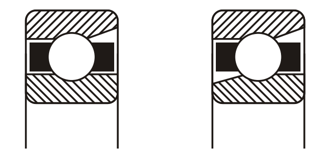


BORE DIAMETER DESIGNATION

5 X -- = mm

5 X 08 = 40 mm

5 X 12 = 60 mm

7	0	12	C	DB	P5
7	2	08	BM	DF	

SIZE DESIGNATIONS

0=70xx

2=72xx

3=73xx

4=74xx

DESIGNS, TYPES AND FEATURES

/C: Normal contact angle a =15⁰

/AC: Normal contact angle a =25⁰

/A: Normal contact angle a =30⁰

/B: Normal contact angle a =40⁰

/M: Brass solid retainer

/TN: Glass-fiber reinforced nylon cage

MOUNTING

/DB: Mount in sets, back to back

/DF: Mount in sets, face to face

/DT: Mount in sets, tandem

TOLERANCE CLASS

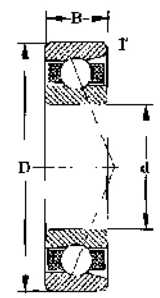
/P0: Equal grade ABEC 1, omissible

/P6: Equal grade ABEC 3

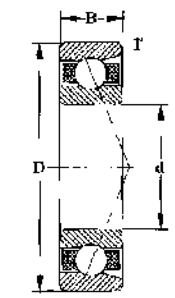
/P5: Equal grade ABEC 5

/P4: Equal grade ABEC 7

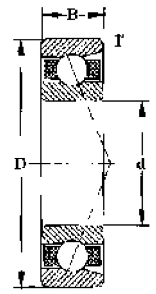
/P2: Equal tolerance classABEC9



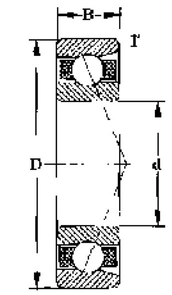
Principal dimensions (mm)				Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Weight		Dynamic Cr	Static Cor	Grease	Oil
17	35	10	0.15	0.040	7003C	6.93	3.94	29000	39000
	35	10	0.15	0.031	7003A	6.44	3.70	20000	27000
	40	12	0.30	0.067	7203C	10.08	5.52	28000	36000
	40	12	0.30	0.060	7203A	10.80	6.34	18000	25000
	40	12	0.30	0.062	7203B	9.90	5.86	16000	21000
	47	14	1.00	0.109	7303C	15.70	8.25	26000	35000
	47	14	0.60	0.111	7303A	14.31	8.30	17000	23000
	47	14	0.60	0.113	7303B	13.32	7.68	14000	19000
20	42	12	0.30	0.071	7004C	9.45	5.81	26000	34000
	42	12	0.30	0.063	7004A	8.73	5.38	18000	24000
	47	14	0.60	0.113	7204C	13.14	7.82	24000	32000
	47	14	0.60	0.100	7204A	13.05	8.06	16000	22000
	47	14	0.60	0.104	7204B	11.97	7.39	14000	19000
	52	15	1.10	0.140	7304C	18.50	9.95	23000	31000
	52	15	0.60	0.140	7304A	16.83	9.98	15000	20000
	52	15	0.60	0.144	7304B	15.57	9.26	12000	17000
25	47	12	0.30	0.083	7005C	10.53	7.15	22000	29000
	47	12	0.30	0.074	7005A	9.63	6.58	15000	20000
	52	15	0.60	0.139	7205C	14.94	9.79	20000	27000
	52	15	0.60	0.126	7205A	14.58	9.89	13000	18000
	52	15	0.60	0.129	7205B	13.32	9.02	11000	15000
	62	17	1.10	0.222	7305C	26.40	15.30	19000	26000
	62	17	0.60	0.230	7305A	23.76	15.17	12000	16000
	62	17	0.60	0.236	7305B	21.96	14.02	10000	14000
30	55	13	0.60	0.130	7006C	13.59	9.89	19000	25000
	55	13	0.60	0.111	7006A	12.51	9.07	12000	17000
	62	16	0.60	0.218	7206C	20.70	14.11	17000	23000
	62	16	0.60	0.191	7206A	20.25	14.21	11000	15000
	62	16	0.60	0.197	7206B	18.45	12.96	10000	13000
	72	19	1.10	0.330	7306C	32.50	20.30	16000	22000
	72	19	0.60	0.341	7306A	30.15	21.41	10000	14000
	72	19	0.60	0.349	7306B	27.90	19.68	9100	12000
35	62	14	0.60	0.169	7007C	17.19	13.15	16000	22000
	62	14	0.60	0.148	7007A	15.75	12.10	11000	15000
	72	17	0.60	0.316	7207C	27.45	19.10	15000	20000
	72	17	0.60	0.284	7207A	26.73	19.30	10000	13000
	72	17	0.60	0.289	7207B	24.39	17.66	8800	11000
	80	21	1.00	0.440	7307C	40.50	25.80	14000	19000
	80	21	1.00	0.459	7307A	36.00	25.25	9300	12000
	80	21	1.00	0.469	7307B	32.85	23.23	8000	10000



Principal dimensions (mm)				Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Weight		Dynamic Cr	Static Cor	Grease	Oil
40	68	15	0.60	0.209	7008C	18.54	15.26	14000	20000
	68	15	0.60	0.186	7008A	16.92	14.02	10000	13000
	80	18	0.60	0.413	7208C	32.85	24.19	13000	18000
	80	18	0.60	0.370	7208A	31.95	24.10	9100	12000
	80	18	0.60	0.378	7208B	28.80	22.08	7900	10000
	90	23	1.50	0.606	7308C	49.50	32.50	13000	17000
	90	23	1.00	0.628	7308A	44.10	31.68	8200	11000
	90	23	1.00	0.643	7308B	40.50	29.28	7000	9400
45	75	16	0.60	0.268	7009C	21.96	18.53	13000	18000
	85	19	0.60	0.405	7209A	35.55	27.55	8300	11000
	85	19	0.60	0.415	7209B	32.40	25.15	7000	9400
	100	25	1.50	0.830	7309C	64.00	43.00	11000	15000
	100	25	1.00	0.840	7309A	57.15	41.76	7400	9500
	100	25	1.00	0.861	7309B	52.65	38.40	6300	8500
50	80	16	0.60	0.285	7010C	23.40	20.74	12000	16000
	80	16	0.60	0.255	7010A	21.33	19.30	8200	10000
	90	20	0.60	0.519	7210C	38.70	30.24	11000	14000
	90	20	0.60	0.457	7210A	37.35	30.24	7500	9500
	90	20	0.60	0.468	7210B	33.75	27.46	6400	8600
	110	27	2.00	1.050	7310C	75.00	51.50	10000	14000
	110	27	1.00	1.091	7310A	66.60	49.92	6700	8900
	110	27	1.00	1.110	7310B	61.20	46.08	5700	7700
55	90	18	0.60	0.421	7011C	30.60	27.46	11000	14000
	90	18	0.60	0.388	7011A	27.90	25.25	7500	10000
	100	21	1.00	0.679	7211C	47.70	38.40	10000	13000
	100	21	1.00	0.604	7211A	45.90	37.92	6700	9000
	100	21	1.00	0.617	7211B	41.85	34.56	5800	7800
	120	29	2.00	1.340	7311C	87.00	60.50	9400	13000
	120	29	1.00	1.400	7311A	77.40	59.04	6100	8200
	120	29	1.00	1.441	7311B	71.10	54.24	5200	6900
60	95	18	0.60	0.449	7012C	31.50	29.28	10000	13000
	95	18	0.60	0.406	7012A	28.80	26.98	6800	9100
	110	22	1.00	0.878	7212C	57.60	47.52	9200	12000
	110	22	1.00	0.787	7212A	55.35	47.04	6300	8400
	110	22	1.00	0.804	7212B	50.40	42.72	5400	7200
	130	31	2.10	1.680	7312C	99.00	70.50	8700	12000
	130	31	1.10	1.729	7312A	88.20	68.64	5600	7500
	130	31	1.10	1.769	7312B	81.00	63.36	4800	6500
65	100	18	0.60	0.483	7013C	33.30	33.12	9400	12000

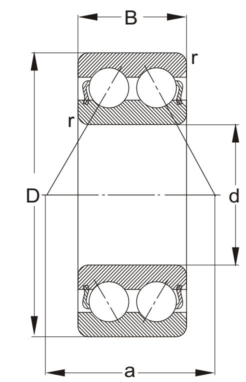


Principal dimensions (mm)				Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Weight		Dynamic Cr	Static Cor	Grease	Oil
65	100	18	0.6	0.445	**7013A**	30.15	30.24	6400	8600
	120	23	1.0	1.130	**7213C**	63.00	52.80	8600	11000
	120	23	1.0	1.020	**7213A**	63.45	55.68	5800	7700
	120	23	1.0	1.040	**7213B**	57.15	50.40	4900	6700
	140	33	2.1	2.060	**7313C**	112.00	80.50	8100	11000
	140	33	1.1	2.110	**7313A**	99.90	78.72	5200	6900
	140	33	1.1	2.160	**7313B**	91.80	72.48	4500	6000
70	110	20	0.6	0.688	**7014C**	42.30	41.28	8700	11000
	110	20	0.6	0.615	**7014A**	38.25	37.92	5900	7900
	125	24	1.0	1.230	**7214C**	68.40	57.60	7900	10000
	125	24	1.0	1.100	**7214A**	68.85	60.96	5400	7200
	125	24	1.0	1.130	**7214B**	62.10	55.68	4700	6200
	150	35	2.1	2.500	**7314C**	126.00	92.00	7500	10000
	150	35	1.1	2.590	**7314A**	112.50	89.76	4800	6500
	150	35	1.1	2.640	**7314B**	102.60	82.56	4200	5500
75	115	20	0.6	0.739	**7015C**	43.20	43.68	8200	10000
	115	20	0.6	0.652	**7015A**	39.15	39.84	5500	7400
	130	25	1.0	1.351	**7215C**	71.55	62.88	7400	9500
	130	25	1.0	1.181	**7215A**	71.10	65.76	5000	6700
	130	25	1.0	1.211	**7215B**	64.35	59.52	4300	5700
	160	37	2.1	3.090	**7315C**	137.00	104.00	7000	9300
	160	37	1.1	3.121	**7315A**	122.40	101.76	4600	6000
	160	37	1.1	3.181	**7315B**	112.50	93.60	3900	5100
80	125	22	0.6	0.958	**7016C**	52.92	53.28	7600	10000
	125	22	0.6	0.872	**7016A**	48.15	48.48	5200	6900
	140	26	1.0	1.622	**7216C**	83.70	74.40	6900	9200
	140	26	1.0	1.452	**7216A**	80.10	72.96	4800	6300
	140	26	1.0	1.482	**7216B**	72.45	66.72	4100	5400
	170	39	2.1	3.550	**7316C**	149.00	117.00	6500	8700
	170	39	1.1	3.702	**7316A**	132.30	114.24	4300	5600
	170	39	1.1	3.782	**7316B**	121.50	104.64	3600	4800
85	130	22	0.6	1.005	**7017C**	54.00	56.16	7200	9500
	130	22	0.6	0.909	**7017A**	49.05	51.36	4800	6600
	150	28	1.0	2.036	**7217C**	93.60	86.88	6600	8600
	150	28	1.0	1.825	**7217A**	89.55	84.96	4500	5900
	150	28	1.0	1.865	**7217B**	81.00	77.28	3800	5000
	180	41	3.0	4.180	**7317C**	161.00	130.00	6200	8200
	180	41	1.1	4.326	**7317A**	143.10	127.68	4000	5300
	180	41	1.1	4.415	**7317B**	131.40	117.12	3400	4600
90	140	24	1.0	1.332	**7018C**	64.35	66.24	6700	9000



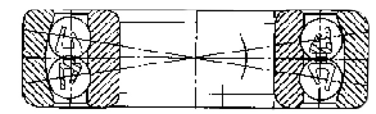
Principal dimensions (mm)				Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Weight		Dynamic Cr	Static Cor	Grease	Oil
90	140	24	1.0	1.183	**7018A**	58.50	60.96	4700	6200
	160	30	1.0	2.501	**7218C**	110.70	100.80	6200	8200
	160	30	1.0	2.243	**7218A**	106.20	98.88	4200	5600
	160	30	1.0	2.285	**7218B**	96.30	90.24	3600	4800
	190	43	3.0	4.880	**7318C**	183.00	158.00	5800	7800
	190	43	1.1	5.054	**7318A**	153.90	141.12	3800	5000
	190	43	1.1	5.164	**7318B**	140.40	129.60	3200	4300
95	145	24	1.0	1.411	**7019C**	66.15	70.08	6500	8600
	145	24	1.0	1.422	**7019A**	60.30	64.32	4400	5800
	170	32	1.1	3.041	**7219C**	125.10	115.20	5800	7700
	170	32	1.1	2.673	**7219A**	119.70	113.28	3900	5200
	170	32	1.1	2.733	**7219B**	108.90	102.72	3300	4500
	200	45	3.0	5.650	**7319C**	196.00	174.00	5500	7300
	200	45	1.1	5.822	**7319A**	164.70	155.52	3500	4800
	200	45	1.1	5.974	**7319B**	150.30	143.04	3000	4000
100	150	24	1.0	1.455	**7020C**	67.95	73.92	6100	8200
	150	24	1.0	1.473	**7020A**	61.65	67.68	4200	5500
	180	34	1.1	3.643	**7220C**	130.50	121.92	5500	7300
	180	34	1.1	3.211	**7220A**	129. 60	120.96	3700	4900
	180	34	1.1	3.272	**7220B**	117.00	109.44	3200	4300
	215	47	3.0	6.900	**7320C**	222.00	207.00	5200	6900
	215	47	1.1	7.284	**7320A**	186.30	185.28	3300	4500
	215	47	1.1	7.423	**7320B**	171.00	170.88	2900	3800

DOUBLE ROW ANGULAR CONTACT BALL BEARINGS UBC



Principal dimensions (mm)					Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	a	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
10	30	14.3	18.5	0.6	0.049	5200	6.95	3.80	14000	19000
12	32	15.9	20.5	0.6	0.057	5201	9.15	5.05	13000	17000
15	35	15.9	22.5	0.6	0.064	5202	10.00	6.05	11000	15000
	42	19.0	26.0	1.0	0.132	5302	17.20	10.10	9900	13000
17	40	17.5	25.5	0.6	0.096	5203	12.80	7.90	9900	13000
	47	22.2	28.5	1.0	0.181	5303	20.40	12.10	9000	12000
20	47	20.6	29.5	1.0	0.153	5204	19.00	12.10	8800	12000
	52	22.2	32.0	1.1	0.217	5304	20.60	12.70	8000	11000
25	52	20.6	32.5	1.0	0.175	5205	20.60	14.30	7300	9800
	62	25.4	38.0	1.1	0.362	5305	30.50	20.50	6700	8900
30	62	23.8	38.5	1.0	0.286	5206	28.60	20.40	6300	8400
	72	30.2	44.5	1.1	0.553	5306	39.50	27.50	5700	7600
35	72	27.0	44.5	1.1	0.436	5207	38.00	27.80	5500	7400
	80	34.9	50.0	1.5	0.766	5307	49.50	35.00	5000	6600
40	80	30.2	49.0	1.1	0.590	5208	42.50	32.50	4900	6600
	90	36.5	55.0	1.5	1.010	5308	60.50	44.00	4400	5900
45	85	30.2	52.5	1.1	0.640	5209	48.00	37.00	4400	5900
	100	39.7	61	1.5	1.340	5309	72.50	54.00	4000	5300
50	90	30.2	55.5	1.1	0.689	5210	51.00	42.00	4000	5300
	110	44.4	67.0	2.0	1.810	5310	85.50	64.50	3600	4800
55	100	33.3	61.5	1.5	0.986	5211	63.00	53.00	3600	4900
	120	49.2	75.0	2.0	2.320	5311	106.00	82.00	3300	4400
60	110	36.5	67.5	1.5	1.270	5212	71.50	58.50	3400	4500
	130	54.0	82.0	2.1	3.050	5312	122.00	95.50	3000	4000
65	120	38.1	72.5	1.5	1.570	5213	83.50	72.50	3100	4200
	140	58.7	88.5	2.1	3.960	5313	138.00	109.00	2800	3700
70	125	39.7	76.5	1.5	1.800	5214	90.50	79.50	2900	3900
	150	63.5	97.0	2.1	4.740	5314	155.00	125.00	2600	3500
75	130	41.3	79.5	1.5	1.900	5215	90.00	80.50	2700	3600
	160	68.3	104.0	2.1	5.650	5315	168.00	141.00	2400	3200
80	140	44.4	88.0	2.0	2.390	5216	106.00	95.50	2500	3400
85	150	49.2	95.0	2.0	3.060	5217	112.00	106.00	2400	3200
90	160	52.4	101.0	2.0	3.730	5218	140.00	129.00	2200	3000
95	170	55.6	106.0	2.1	4.860	5219	159.00	148.00	2100	2800
100	180	60.3	111.0	2.1	5.940	5220	178.00	167.00	2000	2700

TYPE CODE: (1)



TYPE CODE +SIZE CODE

12XX
13XX
22XX
23XX

1	2	07		C5
2	3	10	K	C3

I.D.

5 X -- = mm
5 X 07 = 35mm
5 X 10 = 50mm

DESIGNS, TYPES AND FEATURES

K: Bore is tapered 1 : 12

CLEARANCE:

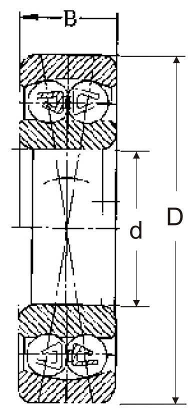
C2: Less than normal clearance

C0: Normal clearance, omissible

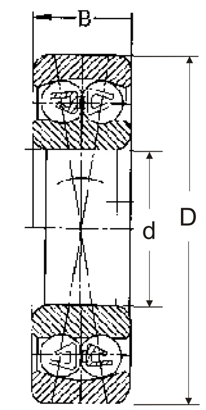
C3: Larger clearance than C0

C4: Larger clearance than C3

C5: Larger clearance than C4



Principal dimensions (mm)				Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
10	30	9	0.6	0.033	1200	4.95	1.14	20000	23000
	30	14	0.6	0.042	2200	6.57	1.53	18000	22000
	35	11	0.6	0.057	1300	6.53	1.56	17000	20000
	35	17	0.6	0.077	2300	9.09	2.06	16000	19000
12	32	10	0.6	0.039	1201	5.04	1.22	17000	21000
	32	14	0.6	0.048	2201	6.84	1.66	16000	19000
	37	12	1.0	0.066	1301	8.51	2.07	15000	17000
	37	17	1.0	0.082	2301	10.62	2.60	14000	16000
15	35	11	0.6	0.048	1202	6.71	1.68	15000	18000
	35	14	0.6	0.055	2202	6.93	1.78	14000	17000
	42	13	1.0	0.093	1302	8.60	2.20	12000	15000
	42	17	1.0	0.108	2302	10.80	2.78	12000	14000
17	40	12	0.6	0.072	1203	7.11	1.93	13000	16000
	40	16	0.6	0.085	2203	8.82	2.31	12000	15000
	47	14	1.0	0.130	1303	11.25	3.07	11000	13000
	47	19	1.0	0.150	2303	12.96	3.41	10000	13000
20	47	14	1.0	0.120	1204	8.91	2.51	12000	14000
	47	18	1.0	0.133	2204	11.34	3.17	11000	13000
	52	15	1.1	0.165	1304	11.16	3.22	10000	12000
	52	21	1.1	0.193	2304	16.29	4.51	10000	11000
25	52	15	1.0	0.140	1205	10.89	3.17	10000	12000
	52	18	1.0	0.150	2205	11.07	3.31	10000	11000
	62	17	1.1	0.255	1205	16.20	4.80	8600	10000
	62	24	1.1	0.319	2305	21.96	6.34	8100	10000
30	62	16	1.0	0.220	1206	14.04	4.46	8700	10000
	62	20	1.0	0.249	2206	13.68	4.32	8200	10000
	72	19	1.1	0.385	1306	19.17	6.05	7300	8600
	72	27	1.1	0.480	2306	28.35	8.40	6800	8100
35	72	17	1.1	0.320	1207	14.22	4.90	7600	8900
	72	23	1.1	0.378	2207	19.35	6.34	7100	8400
	80	21	1.5	0.510	1307	22.59	7.54	6500	7600
	80	31	1.5	0.642	2307	35.55	10.85	6000	7000
40	80	18	1.1	0.415	1208	17.37	6.29	6700	8000
	80	23	1.1	0.477	2208	20.07	7.06	6400	7500
	90	23	1.5	0.715	1308	26.64	9.31	5700	6700
	90	33	1.5	0.889	2308	40.50	12.96	5300	6300
45	85	19	1.1	0.465	1209	19.71	7.06	6100	7100
	85	23	1.1	0.522	2209	20.88	7.82	5700	6700
	100	25	1.5	0.955	1309	34.20	12.19	5100	6000
	100	36	1.5	1.200	2309	48.60	16.03	4800	5600



Principal dimensions (mm)				Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
50	90	20	1.1	0.525	1210	20.43	7.780	5500	6500
	90	23	1.1	0.564	2210	20.88	8.110	5200	6100
	110	27	2.0	1.250	1310	39.15	13.540	4700	5500
	110	40	2.0	1.580	2310	58.05	19.390	4400	5100
55	100	21	1.5	0.705	1211	24.12	9.600	5000	5900
	100	25	1.5	0.746	2211	23.85	9.500	4800	5500
	120	29	2.0	1.600	1311	46.35	17.180	4300	4900
	120	43	2.0	2.030	2311	67.95	23.040	4000	4700
60	110	22	1.5	0.900	1212	27.00	11.040	4700	5500
	110	28	1.5	1.030	2212	30.60	12.100	4400	5100
	130	31	2.1	2.030	1312	51.30	19.970	3900	4600
	130	46	2.1	2.570	2312	78.30	27.072	3600	4300
65	120	23	1.5	1.150	1213	27.90	12.000	4300	5000
	120	31	1.5	1.400	2213	39.15	15.740	4000	4800
	140	33	2.1	2.540	1313	55.80	21.990	3600	4300
	140	48	2.1	3.200	2313	86.40	31.200	3400	4000
70	125	24	1.5	1.300	1214	31.05	13.250	4000	4700
	125	31	1.5	1.520	2214	39.60	16.420	3700	4400
	150	35	2.1	3.190	1314	67.05	26.590	3300	4000
	150	51	2.1	3.900	2314	98.10	36.000	3100	3700
75	130	25	1.5	1.410	1215	35.10	15.070	3700	4400
	130	31	1.5	1.600	2215	40.05	17.090	3500	4100
	160	37	2.1	3.650	1315	71.55	28.800	3100	3700
	160	55	2.1	4.770	2315	110.70	41.280	2900	3400
80	140	26	2.0	1.730	1216	36.00	16.320	3500	4100
	140	33	2.0	1.970	2216	43.65	19.100	3200	3800
	170	39	2.1	4.310	1316	79.65	31.680	2900	3400
	170	58	2.1	5.540	2316	115.20	43.200	2800	3200
85	150	28	2.0	2.090	1217	44.10	19.970	3300	3900
	150	36	2.0	2.480	2217	52.20	22.660	3000	3600
	180	41	3.0	5.130	1317	87.75	36.480	2800	3200
	180	60	3.0	6.560	2317	126.00	49.440	2600	3000
90	160	30	2.0	2.550	1218	51.30	22.560	3100	3600
	160	40	2.0	3.130	2218	63.00	27.552	2900	3400
	190	43	3.0	5.940	1318	104.40	42.720	2600	3000
	190	64	3.0	7.760	2318	136.80	55.200	2500	2900
100	180	34	2.1	3.820	1220	69.50	29.700	2900	3400
	180	46	2.1	4.530	2220	94.50	38.500	2700	3200
	215	47	3.0	8.460	1320	140.00	57.500	2400	2900
	215	73	3.0	11.600	2320	187.00	79.000	2300	2700

TYPE CODE:

N NJ NU NF NUP

I.D.

5 X -- = mm
5 X 12 = 60mm
5 X 20 = 100mm
5 X 36 = 180mm

N	23	12	M	
NU	2	36	L1	/ C4
NJ	3	20	E	

SIZE DESIGNATION:

0: N 1000
2: N 200
2: N 2200
3: N 300
3: N 2300
4: N 400

DESIGNS, TYPES AND FEATURES

E: Reinforced structure
M: Brass solid retainer
L1: Aluminum alloy retainer
Q1: Al-Fe bronze retainer
N: With snap ring groove on outer ring
V: Full capacity rollers, without cage
P: Glass-fiber reinforced nylon cage, roller guidance
X: Dimensions according to ISO standard

TOLERANCE CLASS

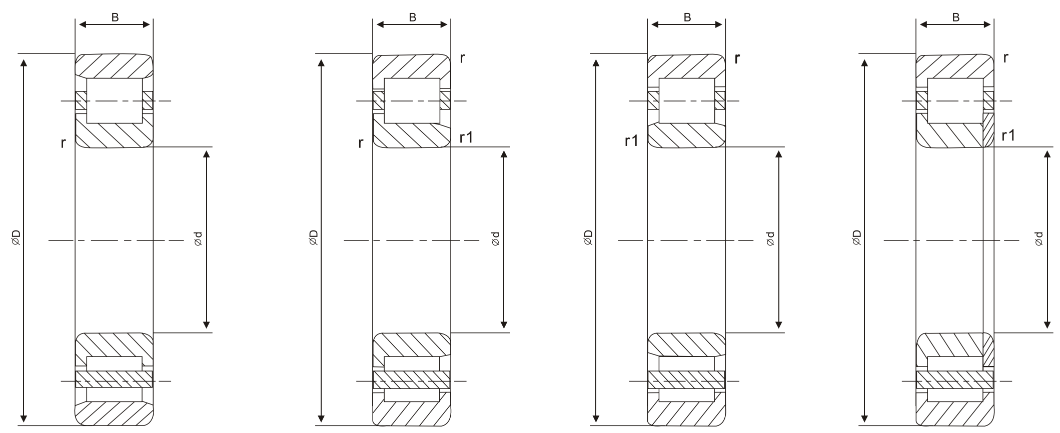
/P0: Equal tolerance class ABEC1
/P6: Equal tolerance class ABEC3
/P5: Equal tolerance class ABEC5
/P4: Equal tolerance class ABEC7
/P2: Equal tolerance class ABEC9

WORKING TEMPERATURE:

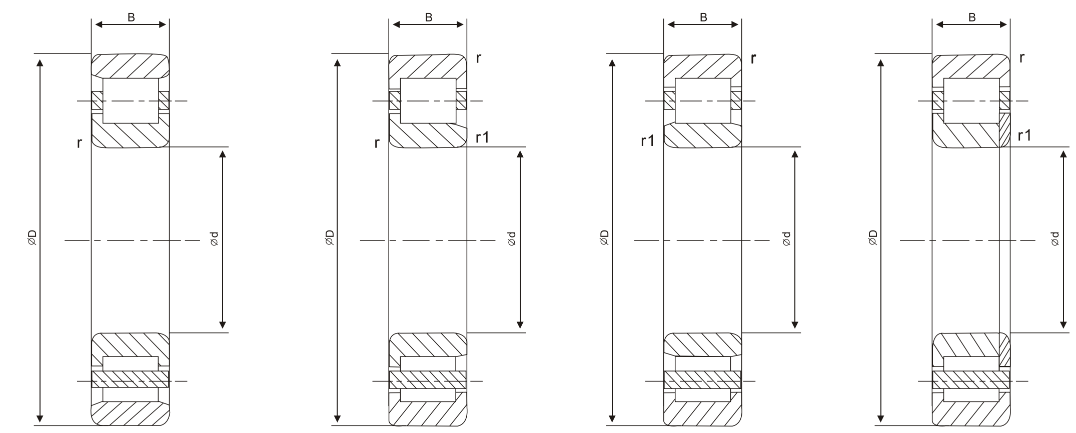
/S0: Working temperature is up to 150° C
/S1: Working temperature is up to 200° C
/S2: Working temperature is up to 250° C
/S3: Working temperature is up to 300° C
/S4: Working temperature is up to 350° C

CLEARANCE:

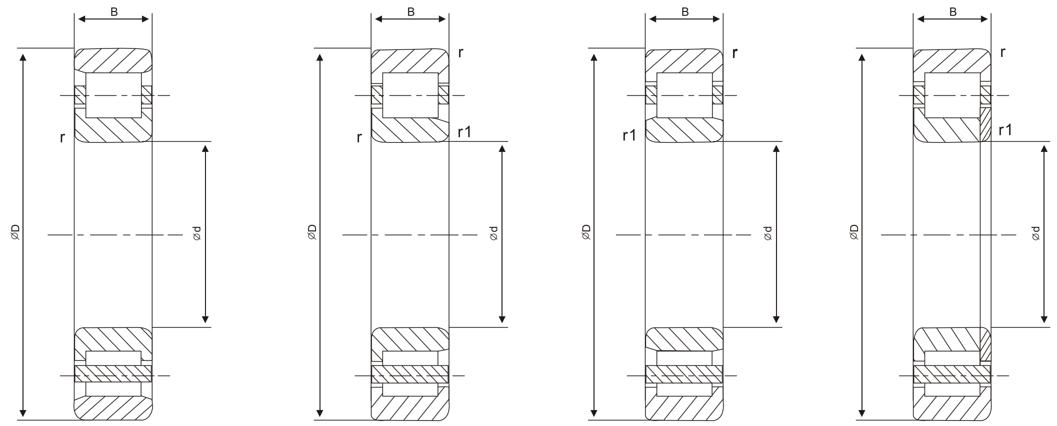
/C2: Less than normal clearance
/C0: Normal clearance, omissible
/C3: Larger clearance than C0
/C4: Larger clearance than C3
/C5: Larger clearance than C4



Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
15	35	11	0.6	0.3	0.050	**N202**	12.7	10.4	20000	22000
	35	11	0.6	0.3	0.050	**NJ202**	12.7	10.4	20000	22000
	35	11	0.6	0.3	0.050	**NU202**	12.7	10.4	20000	22000
17	40	12	0.6	0.3	0.060	**N203**	17.6	14.6	10000	18000
	40	12	0.6	0.3	0.060	**NJ203**	14.5	12.8	18000	18000
20	47	14	1.0	0.6	0.109	**N204**	16.6	13.9	17000	20000
	47	14	1.0	0.6	0.111	**NJ204**	16.6	13.9	17000	20000
	47	14	1.0	0.6	0.111	**NU204**	16.6	13.9	17000	20000
	52	15	1.1	0.6	0.149	**N304**	23.1	19.2	14000	17000
	52	15	1.1	0.6	0.153	**NJ304**	23.1	19.2	14000	17000
	52	15	1.1	0.6	0.153	**NU304**	23.1	19.2	14000	17000
25	52	15	1.0	0.6	0.134	**N205**	18.8	17.0	14000	16000
	52	15	1.0	0.6	0.137	**NJ205**	18.8	17.0	14000	17000
	52	18	1.1	0.6	0.170	**NJ2205V**	35.3	29.4	12000	25000
	52	15	1.0	0.6	0.137	**NU205**	18.8	17.0	14000	16000
	62	17	1.1	1.1	0.235	**N305**	31.5	27.7	12000	14000
	62	17	1.1	1.1	0.241	**NJ305**	31.5	27.7	12000	14000
	62	17	1.1	1.1	0.241	**NU305**	31.5	27.7	12000	14000
	62	24	1.1	1.1	0.370	**NJ2305V**	67.0	72.7	7200	10000
30	62	16	1.0	0.6	0.203	**N206**	24.9	23.3	12000	14000
	62	16	1.0	0.6	0.207	**NJ206**	24.9	23.3	12000	14000
	62	16	1.0	0.6	0.207	**NU206**	24.9	23.3	12000	14000
	72	19	1.1	1.1	0.350	**N306**	38.5	35.0	10000	12000
	72	19	1.1	1.1	0.358	**NJ306**	38.5	35.0	10000	12000
	72	19	1.1	1.1	0.358	**NU306**	38.5	35.0	10000	12000
35	72	17	1.1	0.6	0.289	**N207**	35.5	34.0	11000	12000
	72	17	1.1	0.6	0.295	**NJ207**	35.5	34.0	11000	12000
	72	17	1.1	0.6	0.295	**NU207**	35.5	34.0	11000	12000
	80	21	1.5	1.1	0.451	**N307**	49.5	47.0	9000	11000
	80	21	1.5	1.1	0.461	**NJ307**	49.5	47.0	9000	11000
	80	21	1.5	1.1	0.461	**NU307**	49.5	47.0	9000	11000
	80	21	1.5	1.5	0.536	**NUP307V**	77.2	78.6	10000	23000
40	80	18	1.1	1.1	0.370	**N208**	43.5	43.0	9400	11000
	80	18	1.1	1.1	0.378	**NJ208**	43.5	43.0	9400	11000
	80	18	1.1	1.1	0.378	**NU208**	43.5	43.0	9400	11000

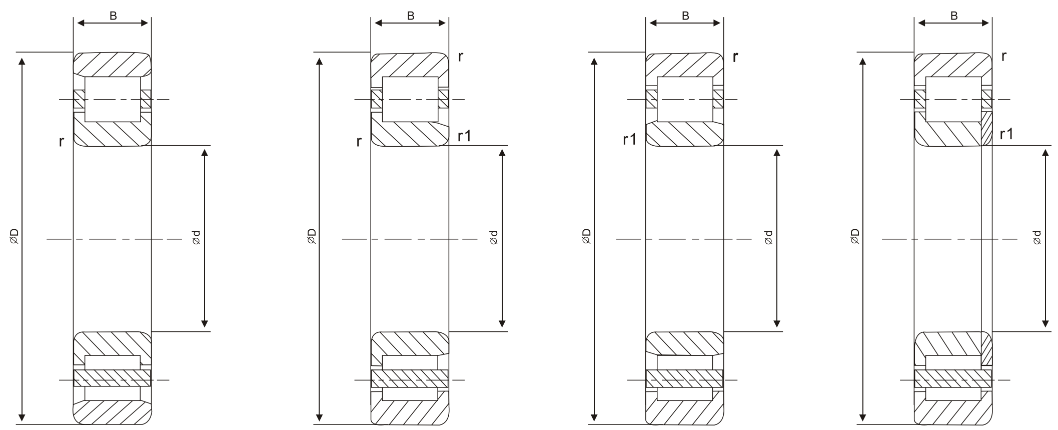


Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
40	90	23	1.5	1.5	0.643	**N308**	58.5	57.0	8000	9400
	90	23	1.5	1.5	0.658	**NJ308**	58.5	57.0	8000	9400
	90	23	1.5	1.5	0.658	**NU308**	58.5	57.0	8000	9400
45	85	19	1.1	1.1	0.423	**N209**	46.0	47.0	8400	9900
	85	19	1.1	1.1	0.432	**NJ209**	46.0	47.0	8400	9900
	85	19	1.1	1.1	0.432	**NU209**	46.0	47.0	8400	9900
	100	25	1.5	1.5	0.859	**N309**	79.0	77.5	7200	8400
	100	25	1.5	1.5	0.877	**NJ309**	79.0	77.5	7200	8400
	100	25	1.5	1.5	0.877	**NU309**	79.0	77.5	7200	8400
	100	25	2.5	2.5	1.019	**NUP309NV**	96.0	69.7	9000	14000
	100	25	1.5	1.5	1.000	**NJ309V**	117.0	125.0	4600	6000
50	90	20	1.1	1.1	0.460	**N210**	50.5	54.5	7600	9000
	90	20	1.1	1.1	0.470	**NJ210**	50.5	54.5	7600	9000
	90	20	1.1	1.1	0.470	**NU210**	50.5	54.5	7600	9000
	110	27	2.0	2.0	1.110	**N310**	87.0	86.0	6500	7700
	110	27	2.0	2.0	1.140	**NJ310**	87.0	86.0	6500	7700
	110	27	2.0	2.0	1.140	**NU310**	87.0	86.0	6500	7700
	110	27	2.0	2.0	1.280	**NUP310NV**	114.3	84.8	8500	14000
55	100	21	1.5	1.1	0.626	**N211**	61.0	66.5	6900	8200
	100	21	1.5	1.1	0.626	**NJ211**	61.0	66.5	6900	8200
	100	21	1.5	1.1	0.626	**NU211**	61.0	66.5	6900	8200
	120	29	2.0	2.0	1.420	**N311**	111.0	111.0	5900	7000
	120	29	2.0	2.0	1.450	**NU311**	111.0	111.0	5900	7000
	120	29	3.0	3.0	1.670	**NUP311NV**	122.5	92.7	7500	11000
60	110	22	1.5	1.5	0.802	**N212**	72.0	80.0	6400	7600
	110	22	1.5	1.5	0.802	**NJ212**	72.0	80.0	6400	7600
	110	22	1.5	1.5	0.802	**NU212**	72.0	80.0	6400	7600
	130	31	2.1	2.1	1.760	**N312**	124.0	126.0	5500	6500
	130	31	2.1	2.1	1.800	**NU312**	124.0	126.0	5500	6500
65	120	23	1.5	1.5	1.000	**N213**	84.0	94.5	5900	7000
	120	23	1.5	1.5	1.000	**NJ213**	84.0	94.5	5900	7000
	120	23	1.5	1.5	1.000	**NU213**	84.0	94.5	5900	7000
	140	33	2.1	2.1	2.180	**N313**	135.0	139.0	5100	6000
	140	33	2.1	2.1	2.230	**NU313**	135.0	139.0	5100	6000
	120	23	1.5	1.5	1.174	**NUP213NV**	115.3	110.2	6300	8900



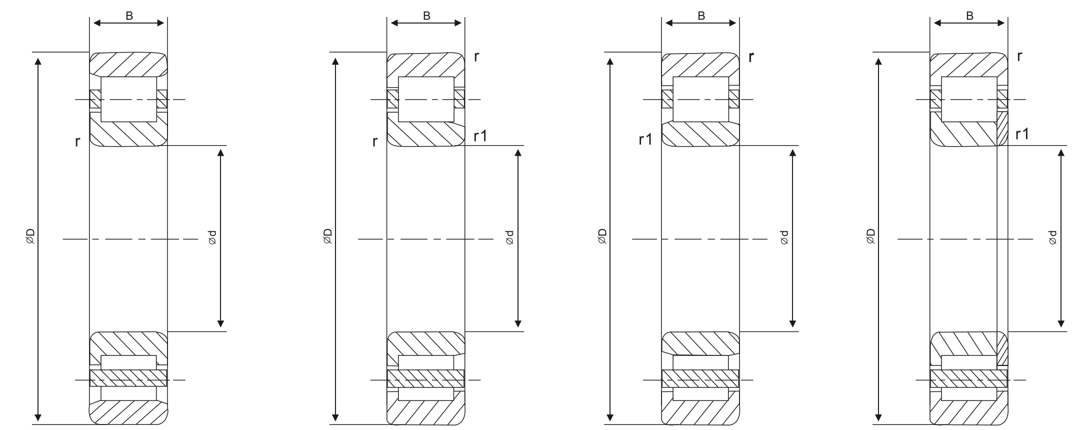
N NJ NU NUP

Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
70	125	24	1.5	1.5	1.10	**N214**	87.5	101.0	5500	6500
	125	24	1.5	1.5	1.10	**NJ214**	87.5	101.0	5500	6500
	125	24	1.5	1.5	1.10	**NU214**	87.5	101.0	5500	6500
	150	35	2.1	2.1	2.65	**N314**	158.0	168.0	4700	5500
	150	35	2.1	2.1	2.71	**NU314**	158.0	168.0	4700	5500
75	130	25	1.5	1.5	1.21	**N215**	101.0	118.0	5100	6000
	130	25	1.5	1.5	1.21	**NJ215**	101.0	118.0	5100	6000
	130	25	1.5	1.5	1.21	**NU215**	101.0	118.0	5100	6000
80	140	26	2.0	2.0	1.47	**N216**	111.0	130.0	4800	5700
	140	26	2.0	2.0	1.47	**NJ216**	111.0	130.0	4800	5700
	140	26	2.0	2.0	1.47	**NU216**	111.0	130.0	4800	5700
	170	39	2.1	2.1	3.77	**N316**	201.0	223.0	4100	4800
	170	39	2.1	2.1	3.86	**NU316**	201.0	223.0	4100	4800
85	150	28	2.0	2.0	1.83	**N217**	126.0	149.0	4500	5300
	150	28	2.0	2.0	1.83	**NJ217**	126.0	149.0	4500	5300
	150	28	2.0	2.0	1.83	**NU217**	126.0	149.0	4500	5300
	180	41	3.0	3.0	4.44	**N317**	225.0	247.0	3900	4600
	180	41	3.0	3.0	4.44	**NU317**	225.0	247.0	3900	4600
90	160	30	2.0	2.0	2.25	**N218**	152.0	178.0	4300	5000
	160	30	2.0	2.0	2.25	**NJ218**	152.0	178.0	4300	5000
	160	30	2.0	2.0	2.25	**NU218**	152.0	178.0	4300	5000
	190	43	3.0	3.0	5.18	**N318**	240.0	265.0	3700	4300
	190	43	3.0	3.0	5.18	**NU318**	240.0	265.0	3700	4300
95	170	32	2.1	2.1	2.72	**N219**	166.0	195.0	4000	4700
	170	32	2.1	2.1	2.72	**NJ219**	166.0	195.0	4000	4700
	170	32	2.1	2.1	2.72	**NU219**	166.0	195.0	4000	4700
	200	45	3.0	3.0	5.99	**N319**	274.0	310.0	3400	4000
	200	45	3.0	3.0	5.99	**NU319**	274.0	310.0	3400	4000



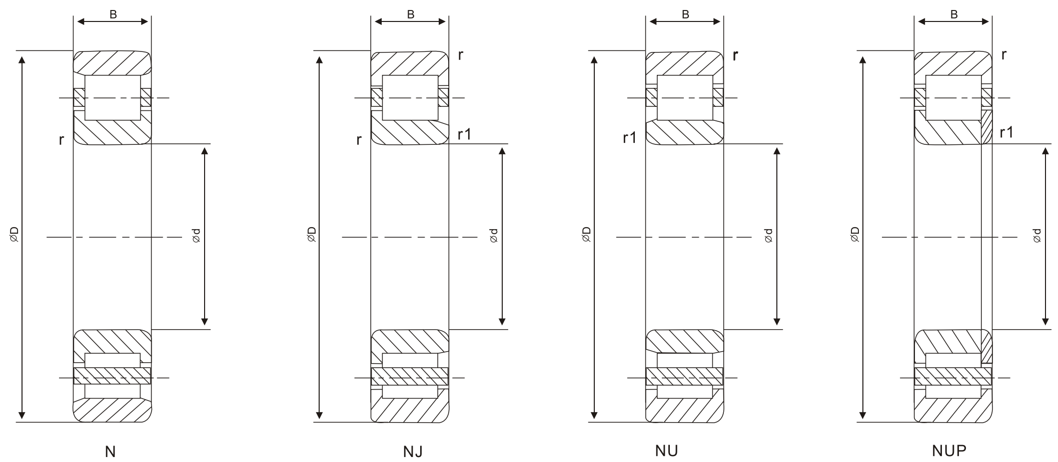
N NJ NU NUP

Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
20	52	15	1.1	0.6	0.150	**NUP304**	20.7	17.3	12000	14000
	47	18	1.0	0.6	0.144	**NU2204**	20.6	18.7	14000	17000
	47	18	1.0	0.6	0.140	**NUP2204**	20.6	18.7	14000	17000
	47	18	1.0	0.6	0.140	**NJ2204**	30.5	28.3	13000	16000
25	62	17	1.1	1.1	0.250	**NUP305**	29.2	35.2	9500	12000
	80	21	1.5	1.5	0.620	**N405**	46.5	40.0	7500	9000
	80	21	1.5	1.5	0.570	**NU405**	46.5	40.0	7500	9000
	80	21	1.5	1.5	0.620	**NUP405**	46.5	40.0	7500	9000
	80	21	1.5	1.5	0.620	**NJ405**	46.5	40.0	7500	9000
	52	18	1.0	0.6	0.167	**NU2205**	24.3	23.5	11000	13000
	52	18	1.0	0.6	0.170	**NUP2205**	24.3	23.5	11000	13000
	52	18	1.0	0.6	0.180	**NJ2205**	24.3	23.5	11000	13000
	62	24	1.1	1.1	0.346	**NU2305**	42.5	41.0	9300	11000
	62	24	1.1	1.1	0.390	**NJ2305**	42.5	41.0	9300	11000
30	72	19	1.1	1.1	0.380	**NUP306**	38.5	35.0	8500	10000
	90	23	1.5	1.5	0.880	**N406**	62.5	55.0	7500	9000
	90	23	1.5	1.5	0.758	**NU406**	62.5	55.0	7500	9000
	90	23	1.5	1.5	0.880	**NUP406**	62.5	55.0	7500	9000
	90	23	1.5	1.5	0.880	**NJ406**	62.5	55.0	7500	9000
	62	20	1.0	0.6	0.266	**NU2206**	33.0	33.0	9200	11000
	62	20	1.0	0.6	0.270	**NUP2206**	33.0	33.0	9200	11000
	62	20	1.0	0.6	0.270	**NJ2206**	33.0	33.0	9200	11000
	72	27	1.1	1.1	0.514	**NU2306**	51.5	51.0	8200	9800
	72	27	1.1	1.1	0.550	**NUP2306**	51.5	51.0	8200	9800
	72	27	1.1	1.1	0.540	**NJ2306**	51.5	51.0	8200	9800
	55	19	1.0	1.0	0.191	**NN3006**	30.5	37.0	12000	15000
35	80	21	1.5	1.1	0.510	**NUP307**	49.5	47.0	8000	9500
	100	25	1.5	1.5	0.980	**N407**	75.0	69.0	6700	8000
	100	25	1.5	1.5	1.010	**NU407**	75.0	69.0	6700	8000
	100	25	1.5	1.5	0.980	**NJ407**	75.0	69.0	6700	8000
	100	25	1.5	1.5	0.980	**NUP407**	75.0	69.0	6700	8000
	72	23	1.1	0.6	0.414	**NU2207**	49.0	51.0	8500	10000
	72	23	1.1	0.6	0.420	**NUP2207**	49.0	51.0	8500	10000
	72	23	1.1	0.6	0.410	**NJ2207**	49.0	51.0	8500	10000

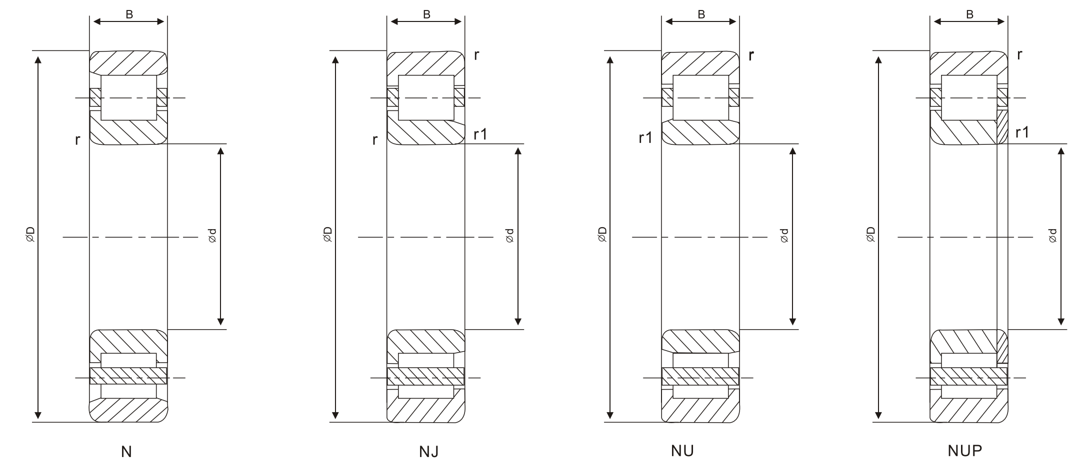


N NJ NU NUP

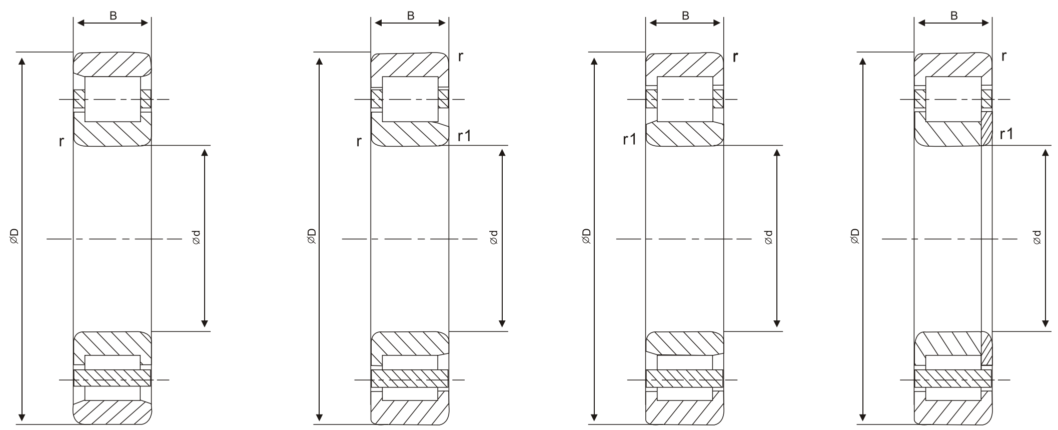
Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
35	80	31	1.5	1.1	0.702	**NU2307**	60.5	60.0	7200	8600
	80	31	1.5	1.1	0.750	**NUP2307**	60.5	60.0	7200	8600
	80	31	1.5	1.1	0.730	**NJ2307**	60.5	60.0	7200	8600
	62	20	1.0	1.0	0.249	**NN3007**	39.0	50.0	11000	13000
40	90	23	1.5	1.5	0.680	**NUP308**	58.5	57.0	6700	8000
	110	27	2.0	2.0	1.150	**N408**	95.5	89.0	6000	7000
	110	27	2.0	2.0	1.150	**NJ408**	95.5	89.0	6000	7000
	110	27	2.0	2.0	1.280	**NU408**	95.5	89.0	6000	7000
	110	27	2.0	2.0	1.150	**NUP408**	95.5	89.0	6000	7000
	80	23	1.1	1.1	0.496	**NU2208**	58.0	62.0	7500	9000
	80	23	1.1	1.1	0.560	**NUP2208**	58.0	62.0	7500	9000
	80	23	1.1	1.1	0.550	**NJ2208**	58.0	62.0	7500	9000
	90	33	1.5	1.5	0.962	**NU2308**	82.0	88.0	6500	7800
	90	33	1.5	1.5	0.980	**NUP2308**	82.0	88.0	6500	7800
	90	33	1.5	1.5	0.960	**NJ2308**	82.0	88.0	6500	7800
	68	21	1.0	1.0	0.303	**NN3008**	43.0	55.5	9800	11000
45	100	25	1.5	1.5	0.950	**NUP309**	78.5	77.5	6300	7500
	120	29	2.0	2.0	1.770	**N409**	107.0	102.0	5600	6700
	120	29	2.0	2.0	1.770	**NJ409**	107.0	102.0	5600	6700
	120	29	2.0	2.0	1.620	**NU409**	107.0	102.0	5600	6700
	120	29	2.0	2.0	1.770	**NUP409**	107.0	102.0	5600	6700
	85	23	1.1	1.1	0.541	**NU2209**	61.5	67.5	7400	8900
	85	23	1.1	1.1	0.550	**NUP2209**	61.5	67.5	7400	8900
	85	23	1.1	1.1	0.540	**NJ2209**	61.5	67.5	7400	8900
	100	36	1.5	1.5	1.260	**NU2309**	99.0	104.0	6100	7300
	100	36	1.5	1.5	1.350	**NUP2309**	99.0	104.0	6100	7300
	100	36	1.5	1.5	1.350	**NJ2309**	99.0	104.0	6100	7300
	75	23	1.0	1.0	0.393	**NN3009**	49.5	65.5	8800	10000
	85	30.16	1.1	1.1	0.843	**NU5209XPC3**	86.0	119.0	6300	7500
50	110	27	2.0	2.0	1.200	**NUP310**	86.5	86.0	5600	6700
	130	31	2.1	2.1	2.260	**N410**	138.0	136.0	5000	6000
	130	31	2.1	2.1	1.990	**NU410**	138.0	136.0	5000	6000
	130	31	2.1	2.1	2.260	**NJ410**	138.0	136.0	5000	6000
	130	31	2.1	2.1	2.260	**NUP410**	138.0	136.0	5000	6000



Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
50	90	23.00	1.1	1.1	0.580	**NU2210**	64.0	73.5	6500	7800
	90	23.00	1.1	1.1	0.590	**NUP2210**	64.0	73.5	6500	7800
	90	23.00	1.1	1.1	0.590	**NJ2210**	64.0	73.5	6500	7800
	110	40.00	2.0	2.0	1.700	**NU2310**	120.0	131.0	5400	6500
	110	40.00	2.0	2.0	1.750	**NJ2310**	120.0	131.0	5400	6500
	80	23.00	1.0	1.0	0.426	**NN3010**	52.5	72.5	8200	9600
	90	30.16	1.1	1.1	0.902	**NU5210XPC3**	90.0	128.0	6300	7500
55	120	29.00	2.0	2.0	1.550	**NUP311**	110.0	111.0	5000	6000
	120	29.00	2.0	2.0	1.500	**NJ311**	110.0	111.0	5000	6000
	140	33.00	2.1	2.1	2.950	**N411**	139.0	138.0	4800	5600
	140	33.00	2.1	2.1	2.500	**NU411**	139.0	138.0	4800	5600
	140	33.00	2.1	2.1	2.950	**NJ411**	139.0	138.0	4800	5600
	140	33.00	2.1	2.1	3.200	**NUP412**	139.0	138.0	4800	5600
	100	25.00	1.5	1.1	0.787	**NU2211**	75.0	87.0	6200	7400
	100	25.00	1.5	1.1	0.820	**NUP2211**	75.0	87.0	6200	7400
	100	25.00	1.5	1.1	0.810	**NJ2211**	75.0	87.0	6200	7400
	120	43.00	2.0	2.0	2.160	**NU2311**	148.0	162.0	4800	5600
	120	43.00	2.0	2.0	2.300	**NJ2311**	148.0	162.0	4800	5600
	90	26.00	1.1	1.1	0.630	**NN3011**	69.0	96.5	7300	8600
	90	26.00	1.1	1.1	0.631	**NN3011K/W33**	69.0	96.5	7300	8600
	100	33.34	1.1	1.1	1.210	**NU5211XPC3**	107.0	155.0	4800	5600
60	130	31.00	2.1	2.1	1.950	**NUP312**	123.0	126.0	4800	5600
	130	31.00	2.1	2.1	1.900	**NJ312**	123.0	126.0	4800	5600
	150	35.00	2.1	2.1	3.000	**N412**	167.0	168.0	4300	5000
	150	35.00	2.1	2.1	3.040	**NU412**	167.0	168.0	4300	5000
	150	35.00	2.1	2.1	3.200	**NJ412**	167.0	168.0	4300	5000
	110	28.00	1.5	1.5	1.090	**NU2212**	96.0	116.0	5300	6300
	110	28.00	1.5	1.5	1.150	**NUP2212**	96.0	116.0	5300	6300
	110	28.00	1.5	1.5	1.150	**NJ2212**	96.0	116.0	5300	6300
	130	46.00	2.1	2.1	2.690	**NU2312**	168.0	188.0	4300	5000
	130	46.00	2.1	2.1	1.450	**NJ2312**	168.0	188.0	4300	5000
	95	26.00	1.1	1.1	0.674	**NN3012**	73.0	106.0	6800	8000
	95	26.00	1.1	1.1	0.683	**NN3012K/W33**	73.0	106.0	6800	8000
	110	36.51	1.5	1.5	1.750	**NU5212XPC3**	136.0	194.0	4800	5600

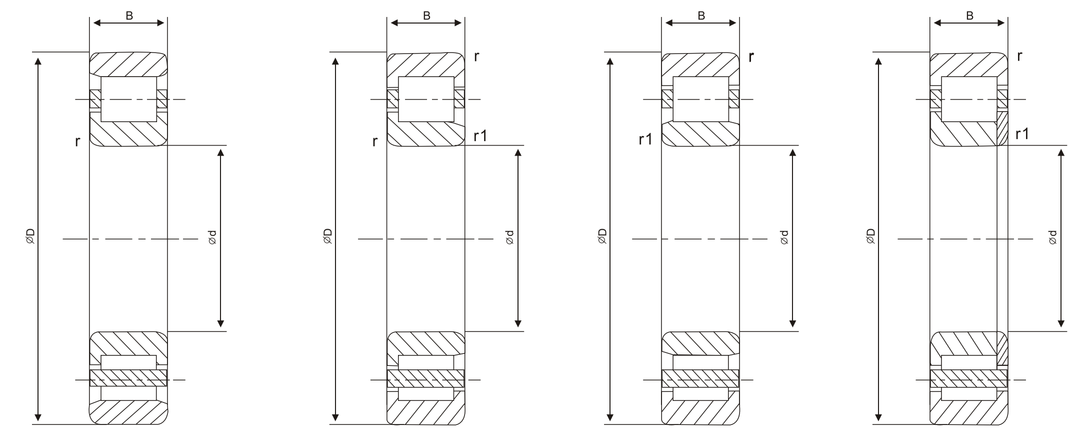


Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
65	140	33.00	2.1	2.1	2.350	**NUP313**	135.0	139	4500	5300
	140	33.00	2.1	2.1	2.300	**NJ313**	135.0	139	4500	5300
	160	37.00	2.1	2.1	3.630	**NU413**	195.0	203	4000	4800
	160	37.00	2.1	2.1	3.650	**NJ413**	195.0	203	4000	4800
	120	31.00	1.5	1.5	1.470	**NU2213**	120.0	149	4800	5600
	120	31.00	1.5	1.5	1.500	**NUP2213**	120.0	149	4800	5600
	120	31.00	1.5	1.5	1.450	**NJ2213**	120.0	149	4800	5600
	140	48.00	2.1	2.1	3.250	**NU2313**	187.0	212	4000	4800
	140	48.00	2.1	2.1	3.350	**NJ2313**	187.0	212	4000	4800
	100	26.00	1.1	1.1	0.715	**NN3013**	76.5	116	6400	7600
	120	38.10	1.5	1.5	1.960	**NU5213XPC3**	151.0	218	4000	4800
70	150	35.00	2.1	2.1	2.850	**NUP314**	158.0	220	4000	4800
	150	35.00	2.1	2.1	2.800	**NJ314**	158.0	220	4000	4800
	180	42.00	3.0	3.0	5.280	**NU414**	228.0	235	3600	4300
	180	42.00	3.0	3.0	5.350	**NJ414**	228.0	235	3600	4300
	125	31.00	1.5	1.5	1.530	**NU2214**	119.0	151	4800	5600
	125	31.00	1.5	1.5	1.550	**NUP2214**	119.0	151	4800	5600
	125	31.00	1.5	1.5	1.550	**NJ2214**	119.0	151	4800	5600
	150	51.00	2.1	2.1	4.040	**NU2314**	223.0	262	3800	4500
	150	51.00	2.1	2.1	4.150	**NUP2314**	223.0	262	3800	4500
	150	51.00	2.1	2.1	4.050	**NJ2314**	223.0	262	3800	4500
	110	30.00	1.1	1.1	1.040	**NN3014**	97.0	148	5700	6800
	125	39.69	1.5	1.5	2.170	**NU5214XPC3**	151.0	232	4500	5300
75	160	37.00	2.1	2.1	3.450	**NUP315**	190.0	205	3800	4500
	160	37.00	2.1	2.1	3.350	**NJ315**	190.0	205	3800	4500
	190	45.00	3.0	3.0	6.270	**NU415**	262.0	274	3400	4000
	190	45.00	3.0	3.0	6.900	**NJ415**	262.0	274	3400	4000
	130	31.00	1.5	1.5	1.580	**NU2215**	129.0	162	4500	5300
	130	31.00	1.5	1.5	1.650	**NUP2215**	129.0	162	4500	5300
	130	31.00	1.5	1.5	1.600	**NJ2215**	129.0	162	4500	5300
	160	55.00	2.1	2.1	4.910	**NU2315**	258.0	300	3400	4000
	160	55.00	2.1	2.1	5.000	**NJ2315**	258.0	300	3400	4000
	115	30.00	1.1	1.1	1.090	**NN3015**	96.0	149	5500	6400
	130	41.28	1.5	1.5	2.270	**NU5215XPC3**	185.0	268	4000	4000



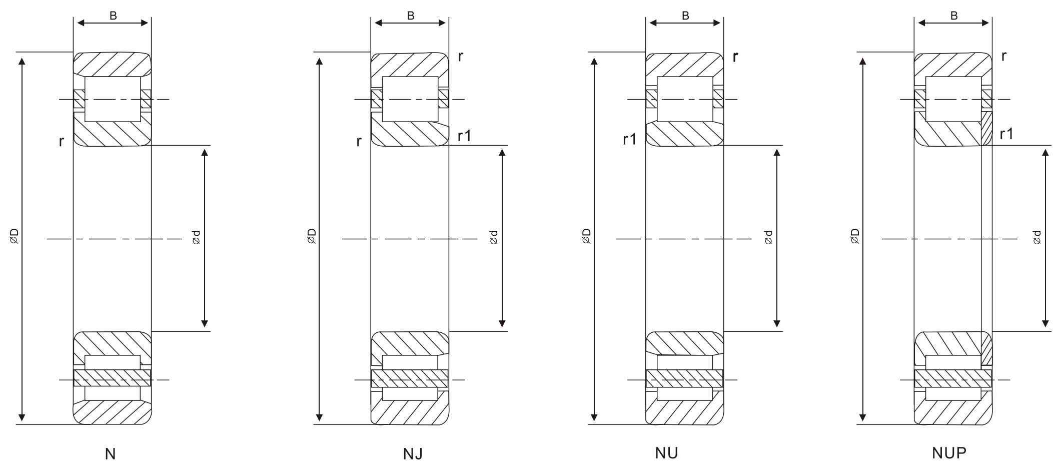
N NJ NU NUP

Principal dimensions (mm)					Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
80	170	39.00	2.1	2.1	4.10	**NUP316**	190	207	3600	4300
	170	39.00	2.1	2.1	4.00	**NJ316**	190	207	3600	4300
	200	48.00	3.0	3.0	7.36	**NU416**	299	315	3200	3800
	200	48.00	3.0	3.0	8.05	**NJ416**	299	315	3200	3800
	140	33.00	2.0	2.0	1.95	**NU2216**	147	186	4000	4800
	140	33.00	2.0	2.0	2.10	**NUP2216**	147	186	4000	4800
	140	33.00	2.0	2.0	2.05	**NJ2216**	147	186	4000	4800
	170	58.00	2.1	2.1	5.90	**NU2316**	274	330	3200	3800
	170	58.00	2.1	2.1	6.00	**NJ2316**	274	330	3200	3800
	125	34.00	1.1	1.1	1.51	**NN3016**	118	186	5000	6000
	140	44.50	2.0	2.0	3.03	**NU5216**	197	305	4000	4800
85	180	41.00	3.0	3.0	4.90	**NUP317**	224	247	3400	4000
	180	41.00	3.0	3.0	4.80	**NJ317**	224	247	3400	4000
	210	52.00	4.0	4.0	9.56	**NU417**	330	350	3000	3600
	210	52.00	4.0	4.0	8.90	**NJ417**	330	350	3000	3600
	150	36.00	2.0	2.0	2.58	**NU2217**	169	218	3800	4500
	150	36.00	2.0	2.0	2.65	**NUP2217**	169	218	3800	4500
	150	36.00	2.0	2.0	2.56	**NJ2217**	169	218	3800	4500
	180	60.00	3.0	3.0	6.81	**NU2317**	315	380	3000	3600
	180	60.00	3.0	3.0	7.00	**NJ2317**	315	380	3000	3600
	130	34.00	1.1	1.1	1.58	**NN3017**	125	201	4800	5600
	150	49.21	2.0	2.0	3.88	**NU5217XPC3**	229	350	3800	4500
90	190	43.00	3.0	3.0	5.65	**NUP318**	240	265	3200	3800
	190	43.00	3.0	3.0	5.55	**NJ318**	240	265	3200	3800
	225	54.00	4.0	4.0	11.50	**NU418**	375	400	2800	3400
	225	54.00	4.0	4.0	11.00	**NJ418**	375	400	2800	3400
	160	40.00	2.0	2.0	3.18	**NU2218**	207	265	3600	4300
	160	40.00	2.0	2.0	3.20	**NJ2218**	207	265	3600	4300
	190	64.00	3.0	3.0	8.04	**NU2318**	325	395	2800	3400
	190	64.00	3.0	3.0	8.15	**NJ2318**	325	395	2800	3400
	140	37.00	1.5	1.5	2.05	**NN3018**	142	228	4500	5200
	160	52.40	2.0	2.0	4.50	**NU5218XPC3**	255	390	3200	3800
95	200	45.00	3.0	3.0	6.25	**NUP319**	258	289	3000	3600
	200	45.00	3.0	3.0	6.45	**NJ319**	258	289	3000	3600



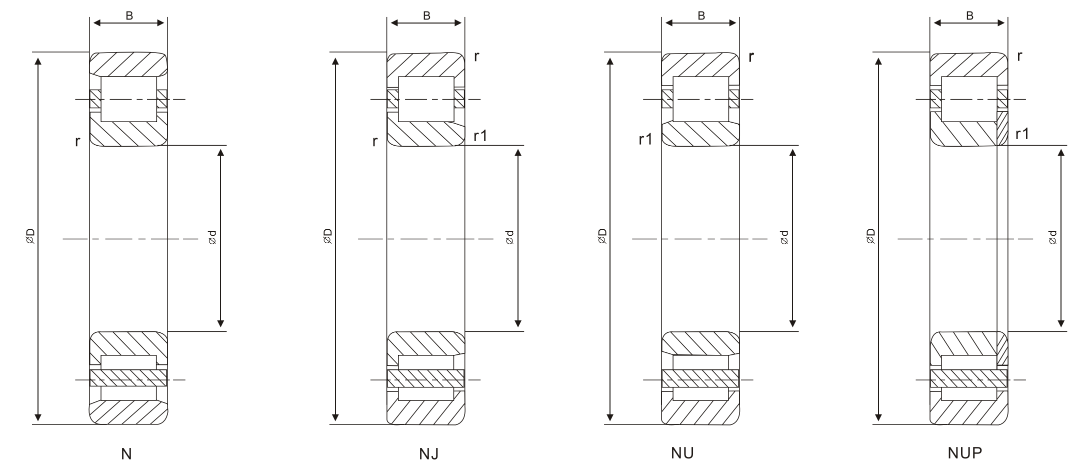
N NJ NU NUP

Principal dimensions (mm)					Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
95	240	55.00	4.0	4.0	13.60	**NU419**	400	445	2600	3200
	240	55.00	4.0	4.0	13.60	**NJ419**	400	445	2600	3200
	170	43.00	2.1	2.1	3.89	**NU2219**	230	298	3400	4000
	170	43.00	2.1	2.1	3.95	**NJ2219**	230	298	3400	4000
	200	67.00	3.0	3.0	9.38	**NU2319**	370	460	2600	3200
	200	67.00	3.0	3.0	9.85	**NJ2319**	370	460	2600	3200
	145	37.00	1.5	1.5	2.14	**NN3019**	150	246	4300	5000
	170	55.56	2.0	3.2	5.48	**NU5219XPC3**	277	445	3400	4000
100	180	34.00	2.1	2.1	3.36	**N220**	183	217	3400	4000
	180	34.00	2.1	2.1	3.45	**NU220**	183	217	3400	4000
	180	34.00	2.1	2.1	3.50	**NJ220**	183	217	3400	4000
	215	47.00	3.0	3.0	7.59	**N320**	300	335	2800	3400
	215	47.00	3.0	3.0	7.96	**NU320**	300	335	2800	3400
	215	47.00	3.0	3.0	7.65	**NJ320**	300	335	2800	3400
	250	58.00	4.0	4.0	15.50	**NU420**	445	500	2400	3000
	250	58.00	4.0	4.0	15.50	**NJ420**	445	500	2400	3000
	180	46.00	2.1	2.1	4.68	**NU2220**	257	335	3200	3800
	180	46.00	2.1	2.1	4.80	**NJ2220**	257	335	3200	3800
	215	73.00	3.0	3.0	11.90	**NU2320**	435	545	2400	3000
	215	73.00	3.0	3.0	12.20	**NJ2320**	435	545	2400	3000
	150	37.00	1.5	1.5	2.25	**NN3020**	156	265	4000	4700
	180	60.32	2.1	4.0	7.69	**NU5220XPC3**	325	515	3200	3800
105	190	36.00	2.1	2.1	4.00	**N221**	202	241	3200	3800
	190	36.00	2.1	2.1	4.00	**NU221**	202	241	3200	3800
	190	36.00	2.1	2.1	4.10	**NJ221**	202	241	3200	3800
	225	49.00	3.0	3.0	8.69	**N321**	340	385	2600	3200
	225	49.00	3.0	3.0	8.68	**NU321**	340	385	2600	3200
	225	49.00	3.0	3.0	9.00	**NJ321**	340	385	2600	3200
	160	41.00	2.0	2.0	2.94	**NN3021**	197	320	3800	4400
110	200	38.00	2.1	2.1	4.64	**N222**	240	290	3000	3600
	200	38.00	2.1	2.1	4.80	**NU222**	240	290	3000	3600
	200	38.00	2.1	2.1	4.90	**NJ222**	240	290	3000	3600
	240	50.00	3.0	3.0	10.30	**N322**	380	435	2400	3000
	240	50.00	3.0	3.0	10.30	**NU322**	380	435	2400	3000

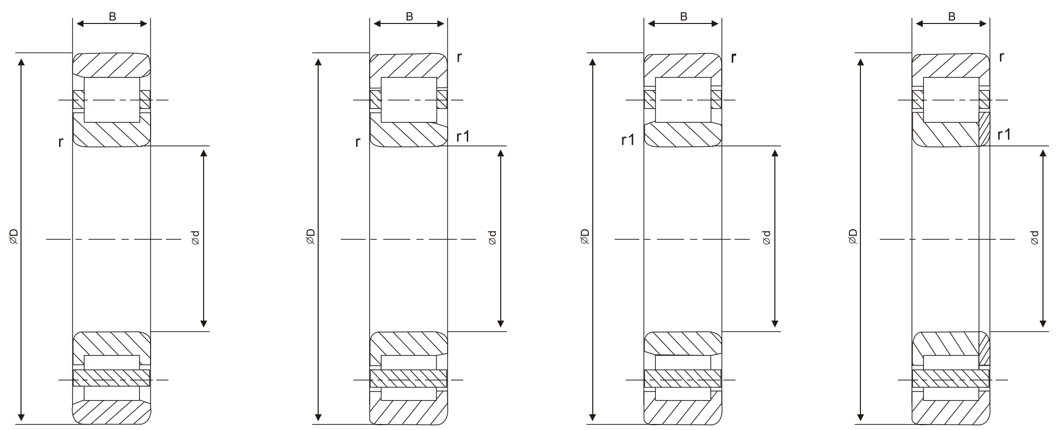


Principal dimensions (mm)					Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
110	240	50.0	3.0	3.0	11.10	**NJ322**	380	435	2400	3000
	200	53.0	2.1	2.1	6.85	**NJ2222**	320	440	2800	3400
	240	80.0	3.0	3.0	18.60	**NU2322**	570	730	2000	2600
	240	80.0	3.0	3.0	18.90	**NJ2322**	570	730	2000	2600
	170	45.0	2.0	2.0	3.74	**NN3022**	227	375	3600	4200
120	215	40.0	2.1	2.1	5.63	**N224**	260	320	2800	3400
	215	40.0	2.1	2.1	5.75	**NU224**	260	320	2800	3400
	215	40.0	2.1	2.1	5.85	**NJ224**	260	320	2800	3400
	260	55.0	3.0	3.0	12.90	**N324**	445	510	2200	2800
	260	55.0	3.0	3.0	13.20	**NU324**	445	510	2200	2800
	260	55.0	3.0	3.0	13.50	**NJ324**	445	510	2200	2800
	215	58.0	2.1	2.1	8.38	**NU2224**	365	490	2600	3200
	215	58.0	2.1	2.1	8.50	**NJ2224**	365	490	2600	3200
	260	86.0	3.0	3.0	23.40	**NU2324**	710	915	1900	2400
	260	86.0	3.0	3.0	24.30	**NJ2324**	710	915	1900	2400
	180	46.0	2.0	2.0	3.85	**NN3024**	238	405	3300	3900
	215	76.2	2.0	5.1	12.60	**NU5224XPC3**	500	845	2200	2800
130	230	40.0	3.0	3.0	6.48	**N226**	270	340	2600	3200
	230	40.0	3.0	3.0	6.45	**NU226**	270	340	2600	3200
	230	40.0	3.0	3.0	6.60	**NJ226**	270	340	2600	3200
	280	58.0	4.0	4.0	17.70	**N326**	555	665	2000	2600
	280	58.0	4.0	4.0	16.00	**NU326**	555	665	2000	2600
	280	58.0	4.0	4.0	18.40	**NJ326**	555	665	2000	2600
	230	64.0	3.0	3.0	10.50	**NU2226**	380	530	2200	2800
	230	64.0	3.0	3.0	12.20	**NJ2226**	380	530	2200	2800
	280	93.0	4.0	4.0	29.40	**NU2326**	790	1040	1800	2200
	280	93.0	4.0	4.0	30.50	**NJ2326**	790	1040	1800	2200
	200	52.0	2.0	2.0	5.54	**NN3026**	283	475	3000	3500
140	300	62.0	4.0	4.0	21.70	**N328**	595	745	1900	2400
	300	62.0	4.0	4.0	19.60	**NU328**	595	745	1900	2400
	250	42.0	3.0	3.0	8.08	**N228**	310	420	2400	3000
	250	42.0	3.0	3.0	8.19	**NU228**	310	420	2400	3000
	250	42.0	3.0	3.0	8.75	**NJ228**	310	420	2400	3000
	300	62.0	4.0	4.0	23.00	**NJ328**	595	745	1900	2400

CYLINDRICAL ROLLER BEARINGS



Principal dimensions (mm)					Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
140	250	68.0	3.0	3.0	13.30	**NU2228**	465	670	2000	2600
	250	68.0	3.0	3.0	15.30	**NJ2228**	465	670	2000	2600
	300	102.0	4.0	4.0	36.90	**NU2328**	920	1250	1800	2200
	300	102.0	4.0	4.0	37.50	**NJ2328**	920	1250	1800	2200
	210	53.0	2.0	2.0	6.05	**NN3028**	297	515	2800	3300
	250	82.5	3.0	5.1	18.30	**NU5228XPC3**	630	1060	2000	2600
150	270	45.0	3.0	3.0	10.40	**N230**	375	490	2000	2600
	270	45.0	3.0	3.0	10.40	**NU230**	375	490	2000	2600
	270	45.0	3.0	3.0	12.00	**NJ230**	375	490	2000	2600
	320	65.0	4.0	4.0	25.80	**N330**	660	805	1700	2000
	320	65.0	4.0	4.0	23.40	**NU330**	660	805	1700	2000
	320	65.0	4.0	4.0	28.00	**NJ330**	660	805	1700	2000
	270	73.0	3.0	3.0	20.30	**NJ2230**	545	800	1900	2400
	320	108.0	4.0	4.0	44.60	**NU2330**	1020	1400	1700	2000
	320	108.0	4.0	4.0	46.00	**NJ2330**	1020	1400	1700	2000
	225	56.0	2.1	2.1	7.75	**NN3030**	335	585	2600	3100
	270	88.9	2.6	6.4	23.60	**NU5230XPC3**	925	1610	1800	2200
160	290	48.0	3.0	3.0	14.10	**N232**	425	570	1800	2200
	290	48.0	3.0	3.0	14.40	**NU232**	425	570	1800	2200
	290	48.0	3.0	3.0	15.00	**NJ232**	425	570	1800	2200
	340	68.0	4.0	4.0	14.10	**N332**	695	875	1600	1900
	340	68.0	4.0	4.0	31.60	**NU332**	695	875	1600	1900
	340	68.0	4.0	4.0	33.50	**NJ332**	695	875	1600	1900
	290	80.0	3.0	3.0	24.10	**NU2232**	630	940	1800	2200
	290	48.0	3.0	3.0	24.50	**NJ2232**	630	940	1800	2200
	240	60.0	2.1	2.1	8.38	**NN3032**	370	660	2500	2900
170	310	52.0	4.0	4.0	17.40	**N234**	475	635	1800	2200
	310	52.0	4.0	4.0	17.70	**NU234**	475	635	1800	2200
	310	52.0	4.0	4.0	19.50	**NJ234**	475	635	1800	2200
	360	72.0	4.0	4.0	36.60	**N334**	795	1010	1600	1800
	360	72.0	4.0	4.0	37.50	**NU334**	795	1010	1600	1800
	360	72.0	4.0	4.0	38.40	**NJ334**	795	1010	1600	1800
	310	86.0	4.0	4.0	29.40	**NU2234**	725	1100	1800	2200
	260	67.0	2.1	2.1	13.30	**NN3034**	450	805	2300	2700

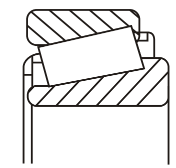


N NJ NU NUP

Principal dimensions (mm)					Weight Kg	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{1min}	r_{smin}			Dynamic Cr	Static Cor	Grease	Oil
180	320	52	4.0	4.0	18.1	**N236**	490	675	1700	2000
	320	52	4.0	4.0	18.4	**NU236**	490	675	1700	2000
	320	52	4.0	4.0	20.2	**NJ236**	490	675	1700	2000
	380	75	4.0	4.0	42.6	**N336**	900	1150	1500	1800
	280	74	2.1	2.1	16.9	**NN3036**	560	995	2100	2500
190	340	55	4.0	4.0	22.0	**N238**	550	770	1600	1900
	340	55	4.0	4.0	22.3	**NU238**	555	770	1600	1900
	340	55	4.0	4.0	24.5	**NJ238**	555	770	1600	1900
	290	75	2.1	2.1	18.0	**NN3038**	590	1080	2000	2400
200	360	58	4.0	4.0	26.2	**N240**	615	865	1500	1800
	360	58	4.0	4.0	26.6	**NU240**	615	865	1500	1800
	360	58	4.0	4.0	29.0	**NJ240**	615	865	1500	1800
	310	82	2.1	2.1	22.1	**NN3040**	650	1170	1900	2200
220	400	65	4.0	4.0	37.0	**N244**	760	1080	1500	1700
	400	65	4.0	4.0	39.0	**NJ244**	760	1080	1500	1700
	400	65	4.0	4.0	37.3	**NU244**	760	1080	1500	1700
	340	90	3.0	3.0	31.0	**NN3044**	810	1480	1700	2000
240	360	92	3.0	3.0	31.6	**NN3048**	850	1600	1600	1900
	440	146	4.0	4.0	104.0	**NU5248/P5**	2040	3820	1100	1400
260	400	104	4.0	4.0	46.2	**NN3052**	1080	2070	1400	1700
280	420	106	4.0	4.0	52.3	**NN3056**	1080	2080	1300	1600
300	460	118	4.0	4.0	77.9	**NN3060**	143	274	1200	1400
320	480	121	4.0	4.0	74.2	**NN3064**	143	275	1200	1400
340	520	133	5.0	5.0	99.3	**NN3068**	167	330	1000	1200
360	540	134	5.0	5.0	104.0	**NN3072**	170	345	950	1200
380	560	135	5.0	5.0	110.0	**NN3076**	169	345	940	1100

TAPERED ROLLER BEARINGS(METRIC SERIES)

TYPE CODE: 3



TYPE CODE + SIZE CODE

120
100
95
90

320 330 | 331 | 302 322 332 | 303 323

55mm

3	03	05	C	P6	/ DB
3	20	20	X	/ DF	

I.D.

5 X -- = mm

5 X 5 = 25mm

5 X 20 = 100mm

DESIGNS, TYPES AND FEATURES

X: Demensions of series 320 & 329 accord with W/ISO/R355

A: Internal structure change

JR: Riveted cage

R: With flange on outer ring

CONTACT ANGLE

C: Medium contact angle 17° ~ 24°

D: Steep contact angle 25° ~ 45° now replaced by 313xx series

TOLERANCE CLASS OF TAPERED ROLLER BEARINGS

/P0: Equivalent to ABEC1

/P6: Equivalent to ABEC3

/P5: Equivalent to ABEC5

/P4: Equivalent to ABEC7

/P2: Equivalent to ABEC9

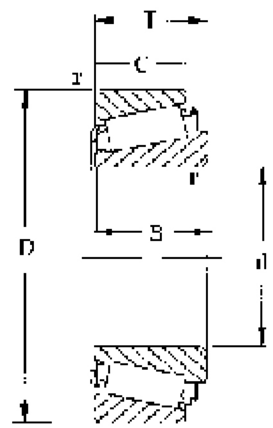
MOUNTING COMBINATIONS:

DB: Mounting in set, back to back

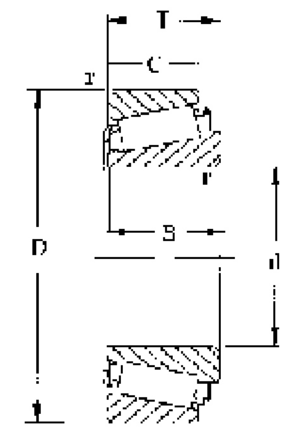
DF: Mounting in set, face to face

KLR: DB combination cone spacer

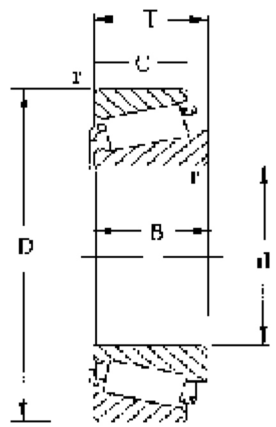
KR: DF combination cup spacer



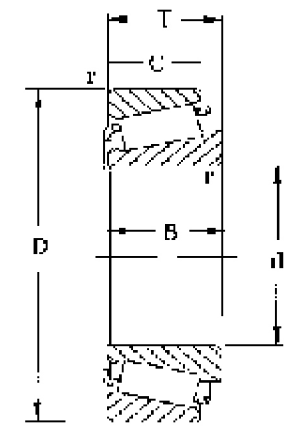
Principal dimensions (mm)							Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
15	42	14.25	13	11.0	1.0	1.0	0.098	**30302**	20.88	19.97	9400	12000
17	40	13.25	12	11.0	1.0	1.0	0.079	**30203**	18.45	19.49	9400	12000
	47	15.25	14	12.0	1.0	1.0	0.134	**30303**	26.01	25.25	8600	11000
20	42	15.00	15	12.0	0.6	0.6	0.097	**32004X**	22.41	26.78	9000	12000
	47	15.25	14	12.0	1.0	1.0	0.127	**30204**	25.38	27.55	8400	11000
	47	19.25	18	15.0	1.0	1.0	0.160	**32204**	32.85	37.92	8400	11000
	52	16.25	15	13.0	1.5	1.5	0.172	**30304**	31.95	32.64	7600	10000
	52	22.25	21	18.0	1.5	1.5	0.241	**32304**	41.85	46.56	7600	10000
25	47	15.00	15	11.5	0.6	0.6	0.116	**32005X**	25.02	32.16	7500	10000
	52	16.25	15	13.0	1.0	1.0	0.157	**30205**	28.35	32.64	6900	9300
	52	19.25	18	15.0	1.0	1.0	0.187	**32205**	37.80	45.12	6900	9300
	52	22.00	22	18.0	1.0	1.0	0.221	**33205**	42.75	55.20	6900	9300
	62	18.25	17	15.0	1.5	1.5	0.270	**30305**	43.65	45.60	6400	8400
	62	25.25	24	20.0	1.5	1.5	0.376	**32305**	55.35	61.92	6400	8400
30	55	17.00	17	13.0	1.0	1.0	0.172	**32006X**	33.75	44.16	6600	8700
	62	17.25	16	14.0	1.0	1.0	0.238	**30206**	39.15	46.08	6000	7900
	62	21.25	20	17.0	1.0	1.0	0.297	**32206**	49.05	61.44	6000	7900
	62	25.00	25	19.5	1.0	1.0	0.355	**33206**	58.50	73.92	6000	7900
	72	20.75	19	16.0	1.5	1.5	0.403	**30306**	54.00	58.56	5400	7200
	72	28.75	27	23.0	1.5	1.5	0.570	**32306**	72.90	86.40	5400	7200
35	62	18.00	18	14.0	1.0	1.0	0.230	**32007X**	37.35	50.40	5800	7700
	72	18.25	17	15.0	1.5	1.5	0.340	**30207**	49.95	59.04	5200	7000
	72	24.25	23	19.0	1.5	1.5	0.456	**32207**	65.25	83.52	5200	7000
	72	28.00	28	22.0	1.5	1.5	0.540	**33207**	78.75	104.64	5200	7000
	80	22.75	21	18.0	2.0	1.5	0.538	**30307**	67.50	73.92	4800	6300
	80	32.75	31	25.0	2.0	1.5	0.765	**32307**	90.90	110.40	4800	6300



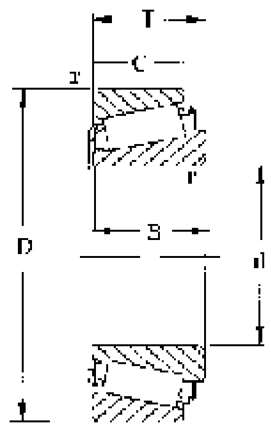
Principal dimensions (mm)							Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
40	68	19.00	19	14.50	1.0	1.0	0.280	**32008X**	45.00	62.88	5000	6700
	68	22.00	22	18.00	1.0	1.0	0.322	**33008**	53.55	79.20	5000	6700
	80	19.75	18	16.00	1.5	1.5	0.438	**30208**	54.90	64.32	4700	6300
	80	24.75	23	19.00	1.5	1.5	0.549	**32208**	71.55	89.76	4700	6300
	80	32.00	32	25.00	1.5	1.5	0.744	**33208**	92.70	126.72	4700	6300
	90	25.25	23	20.00	2.0	1.5	0.758	**30308**	82.35	97.92	4200	5600
	90	35.25	33	27.00	2.0	1.5	1.050	**32308**	109.80	144.00	4200	5600
45	75	20.00	20	15.50	1.0	1.0	0.354	**32009X**	51.75	73.44	4600	6000
	75	24.00	24	19.00	1.0	1.0	0.414	**33009**	59.40	89.76	4600	6000
	80	26.00	26	20.50	1.5	1.5	0.552	**33109**	76.05	110.40	4500	5900
	85	20.75	19	16.00	1.5	1.5	0.488	**30209**	60.75	75.36	4200	5600
	85	24.75	23	19.00	1.5	1.5	0.602	**32209**	73.80	96.00	4200	5600
	85	32.00	32	25.00	1.5	1.5	0.817	**33209**	96.30	135.36	4200	5600
	100	27.25	25	22.00	2.0	1.5	1.010	**30309**	99.90	120.96	3800	5000
	100	38.25	36	30.00	2.0	1.5	1.420	**32309**	138.60	183.36	3800	5000
50	80	20.00	20	15.50	1.0	1.0	0.380	**32010X**	56.25	84.48	4200	5500
	80	24.00	24	19.00	1.0	1.0	0.452	**33010**	62.55	98.88	4200	5500
	85	26.00	26	20.00	1.5	1.5	0.597	**33110**	77.85	116.16	4000	5300
	90	21.75	20	17.00	1.5	1.5	0.558	**30210**	69.30	89.28	3800	5000
	90	24.75	23	19.00	1.5	1.5	0.644	**32210**	78.75	104.64	3800	5000
	90	32.00	32	24.50	1.5	1.5	0.867	**33210**	103.50	151.68	3800	5000
	110	29.25	27	23.00	2.5	2.0	1.280	**30310**	119.70	145.92	3400	4600
	110	42.25	40	33.00	2.5	2.0	1.880	**32310**	165.60	222.72	3400	4600
55	90	23.00	23	17.50	1.5	1.5	0.568	**32011X**	72.45	113.28	3800	5100
	90	27.00	27	21.00	1.5	1.5	0.657	**33011**	82.35	132.48	3800	5100
	95	30.00	30	23.00	1.5	1.5	0.877	**33111**	99.90	148.80	3700	4900
	100	22.75	21	18.00	2.0	1.5	0.736	**30211**	83.70	106.56	3400	4600
	100	26.75	25	21.00	2.0	1.5	0.860	**32211**	97.20	128.64	3400	4600
	100	35.00	35	27.00	2.0	1.5	1.180	**33211**	124.20	180.48	3400	4600
	120	31.50	29	25.00	2.5	2.0	1.630	**30311**	139.50	171.84	3100	4200
	120	45.50	43	35.00	2.5	2.0	2.390	**32311**	193.50	264.00	3100	4200



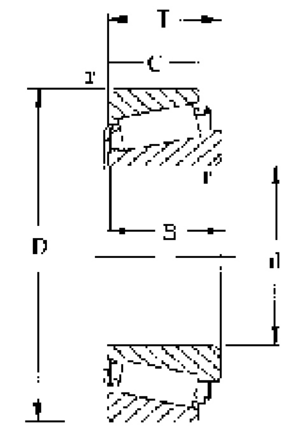
Principal dimensions (mm)							Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
60	95	23.00	23	17.50	1.5	1.5	0.608	32012X	73.80	118.08	3500	4600
	95	27.00	27	21.00	1.5	1.5	0.713	33012	84.15	139.20	3500	4600
	100	30.00	30	23.00	1.5	1.5	0.910	33112	101.70	157.44	3400	4500
	110	23.75	22	19.00	2.0	1.5	0.930	30212	94.50	120.00	3200	4300
	110	29.75	28	24.00	2.0	1.5	1.180	32212	117.00	157.44	3200	4300
	110	38.00	38	29.00	2.0	1.5	1.560	33212	150.30	224.64	3200	4300
	130	33.50	31	26.00	3.0	2.5	2.030	30312	162.00	201.60	2900	3800
	130	48.50	46	37.00	3.0	2.5	2.960	32312	219.60	302.40	2900	3800
65	100	23.00	23	17.50	1.5	1.5	0.646	32013X	74.70	122.88	3200	4400
	100	27.00	27	21.00	1.5	1.5	0.760	33013	87.75	149.76	3200	4400
	110	34.00	34	26.50	1.5	1.5	1.320	33113	129.60	202.56	3100	4200
	120	24.50	23	20.00	2.0	1.5	1.180	30213	110.70	142.08	2900	4000
	120	32.75	31	27.00	2.0	1.5	1.550	32213	143.10	197.76	2900	4000
	120	41.00	41	32.00	2.0	1.5	2.040	33213	175.50	254.40	2900	4000
	140	36.00	33	28.00	3.0	2.5	2.510	30313	182.70	228.48	2700	3500
	140	51.00	48	39.00	3.0	2.5	3.600	32313	245.70	240.00	2700	3500
70	110	25.00	25	19.00	1.5	1.5	0.869	32014X	94.50	153.60	3000	4000
	110	31.00	31	25.50	1.5	1.5	1.110	33014	114.30	195.84	3000	4000
	125	26.25	24	21.00	2.0	1.5	1.300	30214	117.90	155.52	2800	3700
	125	33.25	31	27.00	2.0	1.5	1.660	32214	149.40	211.20	2800	3700
	125	41.00	41	32.00	2.0	1.5	2.150	33214	180.90	270.72	2800	3700
	150	38.00	35	30.00	3.0	2.5	3.030	30314	207.00	261.12	2500	3300
	150	54.00	51	42.00	3.0	2.5	4.350	32314	279.00	388.80	2500	3300
75	115	25.00	25	19.00	1.5	1.5	0.925	32015X	95.40	160.32	2900	3800
	115	31.00	31	25.50	1.5	1.5	1.180	33015	116.10	203.52	2900	3800
	130	27.25	25	22.00	2.0	1.5	1.430	30215	125.10	168.00	2700	3400
	130	33.25	31	27.00	2.0	1.5	1.720	32215	151.20	215.04	2700	3400
	130	41.00	41	31.00	2.0	1.5	2.250	33215	187.20	286.08	2700	3400
	160	40.00	37	31.00	3.0	2.5	3.630	30315	229.50	292.80	2300	3000
	160	58.00	55	45.00	3.0	2.5	5.310	32315	319.50	451.20	2300	3000



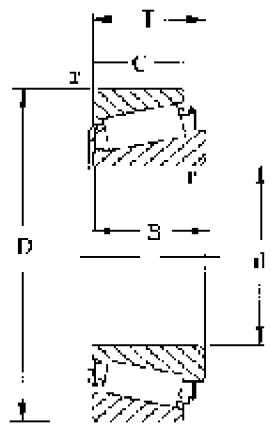
Principal dimensions (mm)							Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
80	125	29.00	29	22.00	1.5	1.5	1.32	32016X	125.10	207.36	2700	3500
	125	36.00	36	39.50	1.5	1.5	1.66	33016	155.70	272.64	2700	3500
	140	28.25	26	22.00	2.5	2.0	1.69	30216	144.00	192.00	2400	3200
	140	35.35	33	28.00	2.5	2.0	2.13	32216	179.10	254.40	2400	3200
	140	46.00	46	35.00	2.5	2.0	2.93	33216	225.00	350.40	2400	3200
	170	42.50	39	33.00	3.0	2.5	4.27	30316	261.90	336.00	2200	2800
	170	61.50	58	48.00	3.0	2.5	6.35	32316	355.50	504.00	2200	2800
85	130	29.00	29	22.00	1.5	1.5	1.38	32017X	127.80	215.04	2500	3300
	130	36.00	36	29.50	1.5	1.5	1.75	33017	158.40	188.16	2500	3300
	150	30.50	28	24.00	2.5	2.0	2.12	30217	164.70	222.72	2300	3000
	150	38.50	36	30.00	2.5	2.0	2.64	32217	201.60	288.00	2300	3000
	150	49.00	49	37.00	2.5	2.0	3.57	33217	255.60	403.20	2300	3000
	180	44.50	41	34.00	4.0	3.0	5.08	30317	274.50	350.40	2000	2700
	180	63.50	60	49.00	4.0	3.0	7.31	32317	364.50	504.00	2000	2700
90	140	32.00	32	24.00	2.0	1.5	1.78	32018X	151.20	259.20	2400	3100
	140	39.00	39	32.50	2.0	1.5	2.21	33018	193.50	345.60	2400	3100
	160	32.50	30	26.00	2.5	2.0	2.60	30218	187.20	256.32	2100	2800
	160	42.50	40	34.00	2.5	2.0	3.41	32218	235.80	345.60	2100	2800
	190	46.50	43	36.00	4.0	3.0	5.67	30318	301.50	388.80	2000	2500
	190	67.50	64	53.00	4.0	3.0	8.30	32318	405.00	571.20	2000	2500
95	145	32.00	32	24.00	2.0	1.5	1.88	32019X	153.90	268.80	2200	2900
	145	39.00	39	32.50	2.0	1.5	2.30	33019	197.10	360.00	2200	2900
	170	34.50	32	27.00	3.0	2.5	3.13	30219	203.40	278.40	2000	2700
	170	45.50	43	37.00	3.0	2.5	4.22	32219	269.10	398.40	2000	2700
	200	49.50	45	38.00	4.0	3.0	6.55	30319	328.50	427.20	2000	2400
100	150	32.00	32	24.00	2.0	1.5	1.95	32020X	153.00	269.76	2100	2900
	150	39.00	39	32.50	2.0	1.5	2.38	33020	201.60	374.40	2100	2900
	180	37.00	34	29.00	3.0	2.5	3.78	30220	232.20	321.60	1900	2600
	180	49.00	46	39.00	3.0	2.5	5.05	32220	297.00	446.40	1900	2600
	215	51.50	47	39.00	4.0	3.0	7.94	30320	369.00	480.00	1700	2300
	215	77.50	73	60.00	4.0	3.0	12.70	32320	513.00	739.20	1700	2300



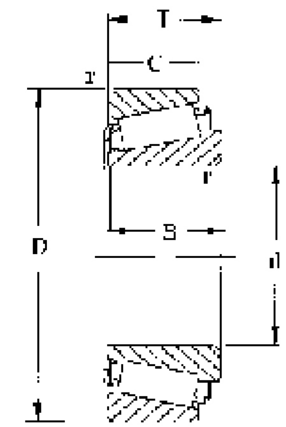
Principal dimensions (mm)							Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
105	160	35.00	35	26.00	2.0	2.5	2.42	**32021X**	201.00	335.00	2100	2800
	160	43.00	43	34.00	2.0	2.5	3.00	**33021**	245.00	420.00	2100	2800
	190	39.00	36	30.00	2.5	3.0	4.39	**30221**	287.00	380.00	1900	2500
	190	53.00	50	43.00	2.5	3.0	6.25	**32221**	380.00	540.00	1900	2500
	225	53.50	49	41.00	3.0	3.0	8.93	**30321**	365.00	420.00	1700	2300
	225	81.50	77	63.00	3.0	4.0	14.50	**32321**	610.00	825.00	1700	2300
110	170	38.00	38	29.00	2.0	2.5	3.07	**32022X**	236.00	390.00	2000	2700
	170	47.00	47	37.00	2.0	2.5	3.80	**33022**	288.00	500.00	2000	2700
	200	41.00	38	32.00	2.5	3.0	5.18	**30222**	288.00	500.00	2000	2700
	200	56.00	53	46.00	2.5	3.0	7.43	**32222**	420.00	605.00	1800	2400
	240	54.50	50	42.00	3.0	3.0	10.50	**30322**	400.00	465.00	1600	2200
	240	84.50	80	65.00	3.0	3.0	16.90	**32322**	620.00	830.00	1600	2200
120	180	38.00	38	29.00	2.0	2.5	3.25	**32024X**	245.00	420.00	1800	2500
	215	43.50	40	34.00	2.5	3.0	6.23	**30224**	345.00	470.00	1700	2200
	215	61.50	58	50.00	2.5	3.0	9.08	**32224**	460.00	680.00	1700	2200
	260	59.50	55	46.00	3.0	3.0	13.20	**30324**	465.00	550.00	1500	2000
	260	90.05	86	69.00	3.0	4.0	22.40	**32324**	815.00	1130.00	1500	2000
130	200	45.00	45	34.00	2.0	2.5	4.96	**32026X**	320.00	545.00	1700	2200
	230	43.75	40	34.00	3.0	4.0	7.25	**30226**	375.00	505.00	1500	2000
	230	67.75	64	54.00	3.0	4.0	11.20	**32226**	530.00	815.00	1500	2000
	280	63.75	58	49.00	4.0	4.0	16.70	**30326**	525.00	625.00	1400	1800
140	210	45.00	45	34.00	2.0	2.5	5.28	**32028X**	330.00	580.00	1600	2100
	250	45.75	42	36.00	3.0	3.0	8.22	**30228**	375.00	485.00	1400	1900
	250	71.75	68	58.00	3.0	4.0	14.10	**32228**	610.00	920.00	1400	1900
	300	67.75	62	53.00	4.0	4.0	20.40	**30328**	640.00	780.00	1300	1700
150	225	48.00	48	36.00	2.5	3.0	6.37	**32030X**	370.00	655.00	1400	1900
	270	49.00	45	38.00	3.0	4.0	11.20	**30230**	450.00	605.00	1300	1700
	270	77.00	73	60.00	3.0	4.0	18.20	**32230**	700.00	1070.00	1300	1700
	320	72.00	65	55.00	4.0	4.0	24.70	**30330**	680.00	1070.00	1200	1600



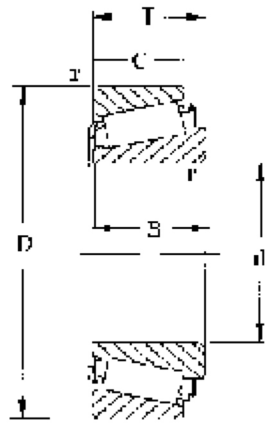
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
15.875	34.988	10.998	10.998	8.712	1.3	1.3	0.031	0.018	**L 21549**	**L 21511**	10.8	10.4	10500	14500
	39.992	12.014	11.153	9.525	1.3	1.3	0.044	0.031	**A 6062**	**A 6157**	11.9	12.7	9000	12500
	41.275	14.288	14.681	11.112	1.3	2.0	0.061	0.035	**03062**	**03162**	18.3	16.9	9500	12500
	42.862	14.288	14.288	9.525	1.5	1.5	0.061	0.040	**11590**	**11520**	14.3	14.2	8000	11500
	42.862	16.670	16.670	13.495	1.5	1.5	0.075	0.048	**17580**	**17520**	23.9	23.3	9000	12500
	44.450	15.494	14.381	11.430	1.5	1.5	0.081	0.039	**05062**	**05175**	20.8	20.9	8000	10500
	49.225	19.845	21.539	14.288	0.8	1.3	0.139	0.065	**09062**	**09195**	34.5	34.0	8000	10500
17.462	39.878	13.843	14.605	10.668	1.3	1.3	0.055	0.028	**LM 11749**	**LM 11710**	19.5	19.5	9500	12500
	47.000	14.381	14.381	11.112	0.8	1.3	0.082	0.047	**05068**	**05185**	20.8	20.9	8000	10500
19.050	39.992	12.014	11.153	9.525	1.0	1.3	0.037	0.031	**A 6075**	**A 6157**	11.9	12.7	9000	12500
	45.237	15.494	16.637	12.065	1.3	1.3	0.081	0.044	**LM 11949**	**LM 11910**	25.5	25.9	8500	11500
	47.000	14.381	14.381	11.112	1.3	1.3	0.077	0.047	**05075**	**05185**	20.8	20.9	8000	10500
	49.225	18.034	19.050	14.288	1.3	1.3	0.115	0.065	**09067**	**09195**	34.5	34.0	8000	10500
	49.225	19.845	21.539	14.288	1.2	1.3	0.124	0.065	**09078**	**09195**	34.5	34.0	8000	10500
	49.225	21.209	19.050	17.462	1.3	1.5	0.115	0.085	**09067**	**09196**	34.5	34.0	8000	10500
	49.225	23.020	21.539	17.462	1.5	3.5	0.124	0.082	**09074**	**09194**	34.5	34.0	8000	10500
	53.975	22.225	21.839	15.875	1.5	2.3	0.156	0.097	**21075**	**21212**	37.5	36.5	7000	9500
21.430	50.005	17.526	18.288	13.970	1.3	1.3	0.115	0.059	**M 12649**	**M 12610**	35.5	37.0	7500	10500
22.000	45.237	15.494	16.637	12.065	1.3	1.3	0.078	0.038	**LM 12749**	**LM 12710**	26.2	30.5	7500	10500
	45.975	15.494	16.637	12.065	1.3	1.3	0.078	0.043	**LM 12749**	**LM 12711**	26.2	30.5	8000	10500
22.225	50.005	13.495	14.260	9.525	1.3	1.0	0.097	0.035	**07087**	**07196**	23.0	24.9	8000	9500
	50.005	17.526	18.288	13.970	1.3	1.3	0.111	0.059	**M 12648**	**M 12610**	35.5	37.0	7000	10500
	52.388	19.368	20.168	14.288	1.5	1.5	0.137	0.067	**1380**	**1328**	37.5	40.0	7500	9500
	53.975	19.368	20.168	14.288	1.5	1.5	0.137	0.082	**1380**	**1329**	37.5	40.0	7000	9500
	56.896	19.368	19.837	15.875	1.3	1.3	0.152	0.102	**1755**	**1729**	35.0	37.5	7000	9000
	57.150	22.225	22.225	17.462	0.8	1.5	0.183	0.106	**1280**	**1220**	45.0	47.0	6600	9000
22.606	47.000	15.500	15.500	12.000	1.5	1.0	0.086	0.046	**LM 72849**	**LM 72810**	23.3	27.0	7500	10500
23.812	50.292	14.224	14.732	10.668	1.5	1.3	0.097	0.039	**L 44640**	**L 44610**	24.6	29.0	6600	9500
	56.896	19.368	19.837	15.875	0.8	1.3	0143	0102	**1779**	**1729**	35.0	37.5	6600	9000
24.981	51.994	15.011	14.260	12.700	1.5	1.3	0.085	0.061	**07098**	**07204**	23.0	24.9	7000	9500
	52.001	15.011	14.260	12.700	1.5	2.0	0.085	0.061	**07098**	**07205**	23.0	24.9	7000	9500
	62.000	16.002	16.566	14.288	1.5	1.5	0.165	0.091	**17098**	**17244**	34.0	36.5	5800	8000
25.000	50.005	13.495	14.260	9.525	1.5	1.0	0.085	0.035	**07097**	**07196**	23.0	24.9	7000	9500



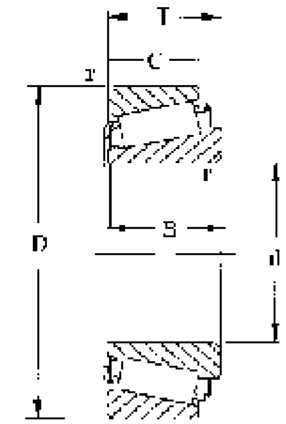
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
25.000	51.994	15.011	14.260	12.700	1.5	1.3	0.085	0.061	**07097**	**07204**	23.0	24.9	7000	9500
25.400	50.005	13.495	14.260	9.525	3.3	1.0	0.082	0.035	**07100SA**	**07196**	23.0	24.9	7000	9500
	50.005	13.495	14.260	9.525	1.0	1.0	0.084	0.035	**07100**	**07196**	23.0	24.9	7000	9500
	50.292	14.224	14.732	10.668	1.3	1.3	0.090	0.039	**L 44643**	**L 44610**	24.6	29.0	6600	9500
	57.150	17.462	17.462	13.495	1.3	1.5	0.151	0.070	**15578**	**15520**	36.5	42.5	6200	8500
	57.150	19.431	19.431	14.732	1.5	1.5	0.156	0.089	**M 84548**	**M 84510**	39.5	46.0	6200	8500
	59.530	23.368	23.114	18.288	0.8	1.5	0.194	0.13	**M 84249**	**M 84210**	47.0	55.0	5800	8500
	62.000	19.050	20.638	14.288	0.8	1.3	0.222	0.081	**15101**	**15245**	43.0	50.0	5500	7500
	63.500	20.638	20.638	15.875	3.5	1.5	0.22	0.113	**15100**	**15250 X**	43.0	50.0	5500	7500
	64.292	21.433	21.433	16.670	1.5	1.5	0.246	0.128	**M 86643**	**M 86610**	48.0	61.0	5100	7500
	65.088	22.225	21.463	15.875	1.5	1.5	0.214	0.142	**23100**	**23256**	42.0	44.5	5100	7500
	68.262	22.225	22.225	17.462	0.8	1.5	0.28	0.152	**02473**	**02420**	52.0	61.0	5100	7000
	72.233	25.400	25.400	19.842	0.8	2.3	0.398	0.188	**HM 88630**	**HM 88610**	60.5	80.5	4500	6600
	72.626	24.608	24.257	17.462	2.3	1.5	0.32	0.177	**41100**	**41286**	57.0	55.0	5100	7000
26.988	50.292	14.224	14.732	10.668	3.5	1.3	0.081	0.039	**L 44649**	**L 44610**	24.6	29.0	6600	9500
	57.150	19.845	19.355	15.875	3.3	1.5	0.152	0.077	**1997 X**	**1922**	37.0	41.5	6200	8500
	60.325	19.842	17.462	15.875	3.5	1.5	0.141	0.123	**15580**	**15523**	36.5	42.5	6200	8500
	62.000	19.050	20.638	14.288	0.8	1.3	0.211	0.081	**15106**	**15245**	43.0	50.0	5500	7500
28.575	57.150	19.845	19.355	15.875	3.5	1.5	0.141	0.077	**1988**	**1922**	37.0	41.5	6200	8500
	59.131	15.875	16.764	11.811	spec.	1.3	0.147	0.062	**LM 67043**	**LM 67010**	31.5	38.5	5800	8000
	62.000	19.050	20.638	14.288	3.5	1.3	0.199	0.081	**15112**	**15245**	43.0	50.0	5500	7500
	62.000	19.050	20.638	14.288	0.8	1.3	0.20	0.081	**15113**	**15245**	43.0	50.0	5500	7500
	64.292	21.433	21.433	16.670	1.5	1.5	0.223	0.128	**M 86647**	**M 86610**	48.0	61.5	5100	7500
	68.262	22.225	22.225	17.462	0.8	1.5	0.257	0.152	**02474**	**02420**	52.0	61.0	5100	7000
	72.626	24.608	24.257	17.462	4.8	1.5	0.292	0.177	**41125**	**41286**	57.0	55.0	5100	7000
	72.626	24.608	24.257	17.462	1.5	1.5	0.295	0.177	**41126**	**41286**	57.0	55.0	5100	7000
	73.025	22.225	22.225	17.462	0.8	3.3	0.321	0.16	**02872**	**02820**	51.5	61.5	4800	6600
29.000	50.292	14.224	14.732	10.668	3.5	1.3	0.079	0.036	**L 45449**	**L 45410**	23.8	31.0	6600	9000
30.000	62.000	16.002	16.566	14.288	1.5	1.5	0.136	0.091	**17118**	**17244**	34.0	36.5	5800	8000
	62.000	19.050	20.638	14.288	1.3	1.3	0.189	0.081	**15117**	**15245**	43.0	50.0	5500	7500
	63.500	20.638	20.638	15.875	1.3	1.3	0.189	0.113	**15117**	**15250**	43.0	50.0	5500	7500
	72.000	19.000	18.923	15.875	1.5	1.5	0.225	0.163	**26118**	**26283**	49.0	53.0	5100	7000
30.162	58.738	14.684	15.080	10.716	3.5	1.0	0.12	0.057	**08118**	**08231**	25.8	30.5	5500	7500



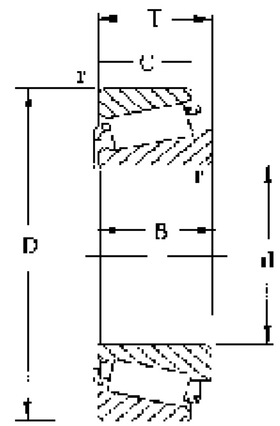
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
30.162	64.292	21.433	21.433	16.670	1.5	1.5	0.211	0.128	**M 86649**	**M 86610**	48.0	61.5	5100	7500
	68.262	22.225	22.225	17.462	2.3	1.5	0.263	0.146	**M 88043**	**M 88010**	52.5	67.5	4800	7000
	69.850	23.812	25.357	19.050	2.3	1.3	0.297	0.169	**2558**	**2523**	68.0	81.0	5100	7000
	69.850	23.812	25.357	19.050	0.8	1.3	0.298	0.169	**2559**	**2523**	68.0	81.0	5100	7000
	76.200	24.608	24.074	16.670	1.5	3.3	0.383	0.146	**43118**	**43300**	64.5	66.5	4500	6200
30.213	62.000	19.050	20.638	14.288	3.5	1.3	0.186	0.081	**15118**	**15245**	43.0	50.0	5500	7500
	62.000	19.050	20.638	14.288	0.8	1.3	0.188	0.081	**15120**	**15245**	43.0	50.0	5500	7500
	62.000	19.050	20.638	14.288	1.5	1.3	0.188	0.081	**15119**	**15245**	43.0	50.0	5500	7500
30.955	64.292	21.433	21.433	16.670	1.5	1.5	0.205	0.128	**M 86648 A**	**M 86610**	48.0	61.5	5100	7500
31.750	58.738	14.684	15.080	10.716	1.0	1.0	0.113	0.057	**08125**	**08231**	25.8	30.5	5500	7500
	59.131	15.875	16.764	11.811	spec.	1.3	0.127	0.062	**LM 67048**	**LM 67010**	31.5	38.5	5800	8000
	62.000	18.161	19.050	14.288	Spec.	1.3	0.165	0.081	**15123**	**15245**	43.0	50.0	5500	7500
	62.000	19.050	20.638	14.288	0.8	1.3	0.176	0.081	**15126**	**15245**	43.0	50.0	5500	7500
	62.000	19.050	20.638	14.288	3.5	1.3	0.174	0.081	**15125**	**15245**	43.0	50.0	5500	7500
	63.500	20.638	20.638	15.875	0.8	1.3	0.176	0.113	**15126**	**15250**	43.0	50.0	5500	7500
	68.262	22.225	22.225	17.462	3.5	1.5	0.229	0.152	**02475**	**02420**	52.0	61.0	5100	7000
	68.262	22.225	22.225	17.462	1.5	1.5	0.25	0.146	**M 88046**	**M 88010**	52.5	67.5	4800	7000
	69.012	19.845	19.583	15.875	3.5	1.3	0.219	0.135	**14125A**	**14276**	44.0	53.0	5100	7000
	69.012	26.982	26.721	15.875	4.3	3.3	0.289	0.132	**14123 A**	**14274**	44.0	53.0	5100	7000
	69.850	23.812	25.357	19.050	0.8	1.3	0.282	0.169	**2580**	**2523**	68.0	81.0	5100	7000
	69.850	23.812	25.357	19.050	3.5	1.3	0.28	0.169	**2582**	**2523**	68.0	81.0	5100	7000
	72.626	30.162	29.997	23.812	0.8	3.3	0.368	0.225	**3188**	**3120**	76.5	87.0	4800	7000
	73.025	29.370	27.783	23.020	1.3	3.3	0.379	0.242	**HM 88542**	**HM 88510**	71.0	97.0	4500	6600
	80.000	21.000	22.403	17.826	0.8	1.3	0.419	0.146	**346**	**332**	65.5	70.5	4000	5800
33.338	66.675	20.638	20.638	15.875	3.5	1.5	0.196	0.121	**1680**	**1620**	43.0	50.5	5100	7000
	68.262	22.225	22.225	17.462	0.8	1.5	0.236	0.146	**M 88048**	**M 88010**	52.5	67.5	4800	7000
	69.012	19.845	19.583	15.875	3.5	3.3	0.207	0.132	**14130**	**14274**	44.0	53.0	5100	7000
	69.012	19.845	19.583	15.875	0.8	1.3	0.209	0.135	**14131**	**14276**	44.0	53.0	5100	7000
	69.850	23.812	25.357	19.050	3.5	1.3	0.263	0.169	**2585**	**2523**	68.0	81.0	5100	7000
	72.000	19.000	18.923	15.875	3.5	1.5	0.20	0.163	**26131**	**26283**	49.0	53.0	5100	7000
	72.626	30.162	29.997	23.812	0.8	3.3	0.348	0.225	**3197**	**3120**	76.5	87.0	4800	7000
	73.025	29.370	27.783	23.020	0.8	3.3	0.362	0.242	**HM 88547**	**HM 88510**	71.0	97.0	4500	6600
	76.200	29.370	28.575	23.020	3.8	0.8	0.419	0.261	**HM 89444**	**HM 89411**	75.5	103.0	4300	6200



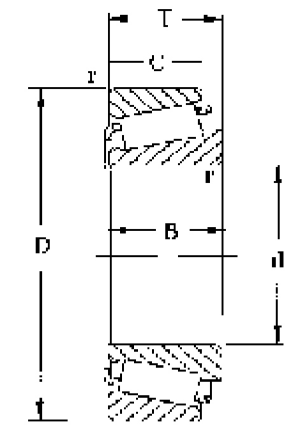
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
33.338	76.200	29.370	28.575	23.020	0.8	3.3	0.421	0.257	**HM 89443**	**HM 89410**	75.5	103.0	4300	6200
	79.375	25.400	24.074	17.462	3.5	1.5	0.348	0.22	**43131**	**43312**	64.5	66.5	4500	6200
34.925	65.088	18.034	18.288	13.970	spec.	1.3	0.172	0.087	**LM 48548**	**LM 48510**	44.5	54.5	5100	7000
	65.088	20.320	18.288	16.256	Spec.	1.3	0.172	0.108	**LM 48548**	**LM 48511**	44.5	54.5	5100	7000
	66.675	20.638	20.638	16.670	3.5	2.3	0.194	0.112	**M 38549**	**M 38510**	50.0	59.5	5100	7000
	69.012	19.845	19.583	15.875	3.5	1.3	0.194	0.135	**14138 A**	**14276**	44.0	53.0	5100	7000
	69.012	19.845	19.583	15.875	1.5	1.3	0.196	0.135	**14137 A**	**14276**	44.0	53.0	5100	7000
	72.233	25.400	25.400	19.842	2.3	2.3	0.307	0.188	**HM 88649**	**HM 88610**	60.5	80.5	4500	6600
	73.025	22.225	22.225	17.462	0.8	3.3	0.266	0.16	**02878**	**02820**	51.5	61.5	4800	6600
	73.025	22.225	23.812	17.462	3.5	3.3	0.291	0.15	**2877**	**2820**	60.5	74.0	4800	6600
	73.025	23.812	24.608	19.050	1.5	0.8	0.306	0.167	**25877**	**25821**	68.0	83.0	4800	6600
	73.025	23.812	24.608	19.050	3.5	2.3	0.304	0.165	**25878**	**25820**	68.0	83.0	4800	6600
	76.200	29.370	28.575	23.020	0.8	0.8	0.403	0.261	**HM 89446 A**	**HM 89411**	75.5	103.0	4300	6200
	76.200	29.370	28.575	23.020	3.5	0.8	0.40	0.261	**HM 89446**	**HM 89411**	75.5	103.0	4300	6200
	76.200	29.370	28.575	23.020	3.5	3.3	0.40	0.257	**HM 89446**	**HM 89410**	75.5	103.0	4300	6200
	76.200	29.370	28.575	23.812	1.5	3.3	0.404	0.235	**31594**	**31520**	77.5	93.0	4500	6200
	79.375	29.370	29.771	23.812	3.5	3.3	0.448	0.259	**3478**	**3420**	85.0	103.0	4300	6200
35.000	59.131	15.875	16.764	11.938	spec.	1.3	0.117	0.056	**L 68149**	**L 68110**	32.0	44.0	5500	7500
	59.975	15.875	16.764	11.938	Spec.	1.3	0.117	0.064	**L 68149**	**L 68111**	32.0	44.0	5500	7500
	62.000	16.700	17.000	13.600	Spec.	1.0	0.137	0.074	**LM 78349**	**LM 78310**	35.0	47.0	5100	7500
	62.000	16.700	17.000	13.600	Spec.	1.5	0.138	0.073	**LM 78349**	**LM 78310A**	35.0	47.0	5100	7500
	65.987	20.638	20.638	16.670	3.5	2.3	0.93	0.103	**M 38547**	**M 38511**	50.0	59.5	5100	7000
	73.025	26.988	26.975	22.225	3.5	0.8	0.309	0.212	**23691**	**23621**	72.5	85.5	4800	7000
35.717	72.233	25.400	25.400	19.842	3.5	2.3	0.298	0.188	**HM 88648**	**HM 88610**	60.5	80.5	4500	6600
36.487	73.025	23.812	24.608	19.050	1.5	0.8	0.91	0.167	**25880**	**25821**	68.0	83.0	4800	6600
36.512	76.200	29.370	28.575	23.020	3.5	3.3	0.38	0.257	**HM 89449**	**HM 89410**	75.5	103.0	4300	6200
	79.375	29.370	29.771	23.812	0.8	3.3	0.429	0.259	**3479**	**3420**	85.0	103.0	4300	6200
	88.501	25.400	23.698	17.462	2.3	1.5	0.502	0.245	**44143**	**44348**	70.0	78.0	3500	5100
	93.662	31.750	31.750	26.195	1.5	3.3	0.765	0.405	**46143**	**46368**	107.0	139.0	3500	5100
38.000	63.000	17.000	17.000	13.500	spec.	1.3	0.132	0.071	**JL 69349**	**JL 69310**	35.5	49.0	5100	7000
38.100	63.500	12.700	11.908	9.525	1.5	0.8	0.109	0.046	**13889**	**13830**	21.1	27.5	4800	6600
	65.088	18.034	18.288	13.970	2.3	1.3	0.16	0.079	**LM 29749**	**LM 29710**	39.5	52.0	4800	7000
	65.088	18.034	18.288	13.970	spec.	1.3	0.158	0.079	**LM 29748**	**LM 29710**	39.5	52.0	4800	7000



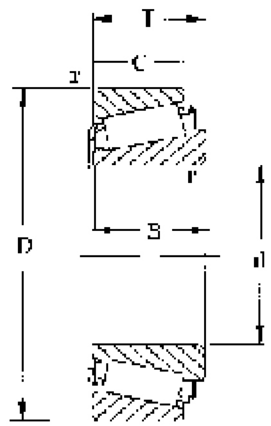
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
38.100	65.088	19.812	18.288	15.748	2.3	1.3	0.16	0.094	**LM 29747**	**LM 29711**	39.5	52.0	4800	7000
	68.262	15.875	16.520	11.908	1.5	1.5	0.173	0.073	**19150**	**19268**	42.0	50.5	4800	6600
	69.012	19.050	19.050	15.083	2.0	2.3	0.193	0.104	**13687**	**13621**	46.0	58.0	4800	6600
	69.012	19.050	19.050	15.083	3.5	0.8	0.191	0.105	**13685**	**13620**	46.0	58.0	4800	6600
	72.238	20.638	20.638	15.875	3.5	1.3	0.212	0.146	**16150**	**16284**	45.5	56.5	4800	6600
	73.025	23.812	25.654	19.050	3.5	0.8	0.312	0.135	**2788**	**2735 X**	70.5	88.0	4500	6200
	76.200	23.812	25.654	19.050	3.5	3.3	0.312	0.187	**2788**	**2720**	70.5	88.0	4500	6200
	76.200	23.812	25.654	19.050	3.5	0.8	0.312	0.191	**2788**	**2729**	70.5	88.0	4500	6200
	79.375	29.370	29.771	23.812	3.5	3.3	0.404	0.259	**3490**	**3420**	85.0	103.0	4300	6200
	80.035	24.608	23.698	18.512	0.8	1.5	0.362	0.209	**27880**	**27820**	66.0	81.5	4000	5800
	82.550	29.370	28.575	23.020	0.8	3.3	0.483	0.282	**HM 801346**	**HM 801310**	84.0	114.0	4000	5500
	88.501	25.400	23.698	17.462	2.3	1.5	0.484	0.245	**44150**	**44348**	70.0	78.0	3500	5100
	88.501	26.988	29.083	22.225	3.5	1.5	0.50	0.329	**418**	**414**	93.5	106.0	4000	5500
	95.250	30.958	28.301	20.638	1.5	0.8	0.665	0.365	**53150**	**53375**	84.5	94.0	3100	4800
39.688	73.025	25.654	22.098	21.336	0.8	2.3	0.266	0.169	**M 201047**	**M 201011**	59.5	77.0	4500	6200
	76.200	23.812	25.654	19.050	3.5	3.3	0.292	0.187	**2789**	**2720**	70.5	88.0	4500	6200
	80.167	29.370	30.391	23.812	0.8	3.3	0.442	0.217	**3386**	**3320**	89.5	105.0	4300	5800
41.000	68.000	17.500	18.000	13.500	spec.	1.5	0.16	0.082	**LM 300849**	**LM 300811**	40.5	55.0	4800	6600
41.275	73.025	16.667	17.462	12.700	3.5	1.5	0.199	0.086	**18590**	**18520**	41.5	51.0	4300	6200
	73.431	19.558	19.812	14.732	3.5	0.8	0.226	0.108	**LM 501349**	**LM 501310**	51.5	64.0	4300	6200
	73.431	21.430	19.812	16.604	3.5	0.8	0.226	0.120	**LM 501349**	**LM 501314**	51.5	64.0	4300	6200
	76.200	18.009	17.384	14.288	1.5	1.5	0.212	0.129	**11162**	**11300**	39.5	48.0	4000	5800
	76.200	22.225	23.020	17.462	3.5	0.8	0.279	0.15	**24780**	**24720**	63.0	79.0	4300	6200
	76.200	25.400	23.020	20.638	3.5	2.3	0.279	0.189	**24780**	**24721**	63.0	79.0	4300	6200
	79.375	23.812	25.400	19.050	3.5	0.8	0.349	0.186	**26882**	**26822**	74.0	95.5	4300	5800
	80.000	21.000	22.403	17.826	0.8	1.3	0.325	0.146	**336**	**332**	65.5	72.5	4000	5800
	80.000	21.000	22.403	17.826	3.5	1.3	0.323	0.146	**342**	**332**	65.5	72.5	4000	5800
	80.167	25.400	25.400	20.638	3.5	3.3	0.329	0.219	**26882**	**26820**	74.0	95.5	4300	5800
	82.550	26.543	25.654	20.193	3.5	3.3	0.406	0.23	**M 802048**	**M 802011**	75.0	99.0	3800	5500
	85.725	30.162	30.162	23.812	3.5	3.3	0.506	0.285	**3877**	**3820**	88.0	112.0	3800	5500
	87.312	30.162	30.886	23.812	0.8	3.3	0.532	0.304	**3576**	**3525**	93.0	117.0	3800	5500
	88.501	25.400	23.698	17.462	2.3	1.5	0.447	0.245	**44162**	**44348**	70.0	78.0	3500	5100
	88.900	30.162	29.370	23.020	3.5	3.3	0.579	0.322	**HM 803146**	**HM 803110**	93.5	126.0	3500	5100



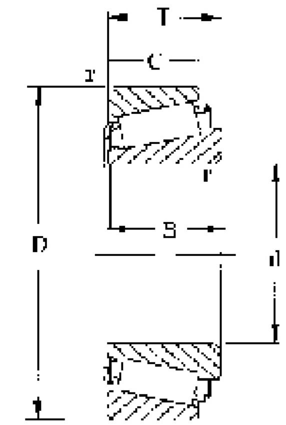
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
41.275	88.900	30.162	29.370	23.020	0.8	3.3	0.582	0.322	**HM 803145**	**HM 803110**	93.5	126.0	3500	5100
	90.488	39.688	40.386	33.338	3.5	3.3	0.789	0.459	**4388**	**4335**	136.0	177.0	3800	5100
	93.662	31.750	31.750	26.195	0.8	3.3	0.695	0.405	**46162**	**46368**	107.0	139.0	3500	5100
	95.250	30.162	29.370	23020	3.5	3.3	0.726	0.354	**HM 804840**	**HM 804810**	103.0	140.0	3300	4800
	98.425	30.958	28.301	20.638	1.5	0.8	0.618	0.442	**53162**	**53387**	84.5	94.0	3100	4800
42.862	76.992	17.462	17.145	11.908	1.5	1.5	0.228	0.098	**12168**	**12303**	41.0	51.0	4000	5500
	82.550	19.842	19.837	15.080	2.3	1.5	0.283	0.176	**22168**	**22325**	55.5	66.0	4000	5800
	82.931	23.812	25.400	19.050	2.3	0.8	0.383	0.203	**25578**	**25520**	73.5	96.0	4000	5500
	82.931	26.988	25.400	22.225	2.3	2.3	0.383	0.248	**25578**	**25523**	73.5	96.0	4000	5500
42.875	76.200	25.400	25.400	20.638	3.5	1.5	0.337	0.136	**26884**	**26823**	74.0	95.5	4300	5800
	80.000	21.000	22.403	17.826	3.5	1.3	0.305	0.146	**342 S**	**332**	65.5	72.5	4000	5800
	82.931	26.988	25.400	22.225	3.5	2.3	0.381	0.248	**25577**	**25523**	73.5	96.0	4000	5500
	83.058	23.812	25.400	19.050	3.5	3.3	0.381	0.201	**25577**	**25521**	73.5	96.0	4000	5500
44.450	80.962	19.050	17.462	14.288	0.3	1.5	0.252	0.144	**13175**	**13318**	42.0	54.0	3800	5500
	82.931	23.812	25.400	19.050	3.5	0.8	0.359	0.203	**25580**	**25520**	73.5	96.0	4000	5500
	83.058	23.812	25.400	19.050	3.5	3.3	0.359	0.201	**25580**	**25521**	73.5	96.0	4000	5500
	87.321	30.162	30.886	23.812	3.5	3.3	0.477	0.304	**3578**	**3525**	93.0	117.0	3800	5500
	88.900	30.162	29.370	23.020	3.5	3.3	0.528	0.322	**HM 803149**	**HM 803110**	93.5	126.0	3500	5100
	93.264	30.162	30.302	23.812	3.5	3.2	0.678	0.292	**3782**	**3720**	100.0	133.0	3300	4800
	93.662	31.750	31.750	25.400	0.8	3.3	0.648	0.371	**49176**	**49368**	117.0	144.0	3500	5100
	93.662	31.750	31.750	25.400	3.5	3.3	0.645	0.371	**49175**	**49368**	117.0	144.0	3500	5100
	93.662	31.750	31.750	26.195	3.5	3.3	0.625	0.405	**46176**	**46368**	107.0	139.0	3500	5100
	95.250	27.783	29.901	22.225	3.5	2.3	0.555	0.384	**438**	**432**	103.0	123.0	3800	5100
	95.250	30.162	29.370	23.020	3.5	3.3	0.677	0.354	**HM 804843**	**HM 804810**	103.0	140.0	3300	4700
	95.250	30.958	28.301	20.638	3.5	0.8	0.572	0.365	**53177**	**53375**	84.5	94.0	3100	4700
	95.250	30.958	28.301	20.638	1.3	0.8	0.574	0.365	**53176**	**53375**	84.5	94.0	3100	4700
	95.250	30.958	28.301	20.638	2.0	0.8	0.574	0.365	**53178**	**53375**	84.5	94.0	3100	4700
	95.250	30.958	28.301	22.225	1.3	0.8	0.651	0.389	**HM 903247**	**HM 903210**	97.0	119.0	3100	4500
	95.250	30.958	28.575	22.225	3.5	0.8	0.635	0.389	**HM 903249**	**HM 903210**	97.0	119.0	3100	4500
	98.425	30.958	28.301	20.638	3.5	0.8	0.568	0.442	**53177**	**53387**	84.5	94.0	3100	4700
	103.188	43.658	44.475	36.512	1.3	3.3	1.230	0.637	**5356**	**5335**	175.0	235.0	3300	4500
	104.775	36.512	36.512	28.575	3.5	3.3	1.140	0.502	**HM 807040**	**HM 807010**	136.0	189.0	2900	4300
	107.950	27.783	29.317	22.225	3.5	0.8	0.930	0.420	**460**	**453 A**	113.0	146.0	2900	4300



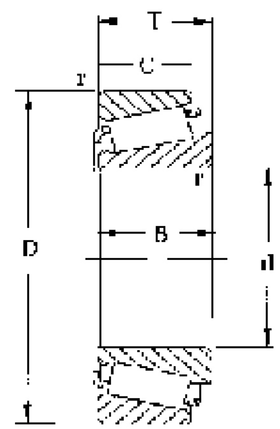
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
44.450	111.125	30.162	26.909	20.638	3.5	3.3	0.867	0.514	**55175**	**55437**	89.5	107.0	2700	3800
	114.300	44.450	44.450	34.925	3.5	3.3	1.390	0.894	**65385**	**65320**	169.0	202.0	3100	4300
45.230	79.985	19.842	20.638	15.080	2.0	1.3	0.274	0.136	**17887**	**17831**	59.0	75.5	4000	5500
45.618	82.931	23.812	25.400	19.050	3.5	0.8	0.343	0.203	**25590**	**25520**	73.5	96.0	4000	5500
	82.931	26.988	25.400	22.225	3.5	2.3	0.343	0.248	**25590**	**25523**	73.5	96.0	4000	5500
46.000	75.000	18.000	18.000	14.000	2.3	1.5	0.209	0.096	**LM 503349**	**LM 503310**	48.0	68.5	4000	5800
46.038	79.375	17.462	17.462	13.495	2.8	1.5	0.211	0.126	**18690**	**18620**	43.0	54.0	4000	5500
	80.962	19.050	17.462	14.288	0.8	1.5	0.236	0.144	**13181**	**13318**	42.0	54.0	3800	5500
	85.000	20.638	21.692	17.462	2.3	1.3	0.343	0.162	**359 S**	**354 A**	68.5	78.5	3800	5500
	85.000	25.400	25.608	20.638	3.5	1.3	0.397	0.223	**2984**	**2924**	76.5	102.0	3800	5500
	95.250	27.783	29.901	22.225	3.5	0.8	0.536	0.381	**436**	**432 A**	103.0	123.0	3800	5100
47.625	88.900	20.638	22.225	16.513	3.5	1.3	0.381	0.166	**369 A**	**362 A**	70.0	82.0	3500	5100
	88.900	25.400	25.400	19.050	3.5	3.3	0.455	0.218	**M 804049**	**M 804010**	83.0	104.0	3500	5100
	95.250	30.162	29.370	23.020	3.5	3.3	0.626	0.354	**HM 804846**	**HM 804810**	103.0	140.0	3300	4800
	101.600	34.925	36.068	26.988	3.5	3.3	0.894	0.416	**528**	**522**	134.0	166.0	3300	4500
	111.125	30.162	26.909	20.638	3.5	3.3	0.817	0.514	**55187**	**55437**	89.5	107.0	2700	3800
	112.712	30.162	26.909	20.638	3.5	3.3	0.817	0.554	**55187**	**55443**	89.5	107.0	2700	3800
	117.475	33.338	31.750	23.812	3.5	3.3	1.190	0.552	**66187**	**66462**	134.0	153.0	2700	3800
	123.825	36.512	32.791	25.400	3.5	3.3	1.290	0.790	**72187**	**72487**	140.0	157.0	2500	3500
50.000	82.000	21.500	21.500	17.000	3.0	0.5	0.306	0.129	**JLM 104948**	**JLM 104910**	68.0	93.0	3800	5100
	82.550	21.590	22.225	16.510	0.5	1.3	0.316	0.133	**LM 104947 A**	**LM 104911**	68.0	93.0	3800	5100
	88.900	20.638	22.225	16.513	2.3	1.3	0.351	0.166	**366**	**362 A**	70.0	82.0	3500	5100
	90.000	28.000	28.000	23.000	3.0	2.5	0.507	0.246	**JM 205149**	**JM 205110**	101.0	133.0	3500	5100
	105.000	37.000	36.000	29.000	3.0	2.5	1.010	0.523	**JHM 807045**	**JHM 807012**	136.0	189.0	2900	4300
50.800	80.962	18.258	18.258	14.288	1.5	1.5	0.239	0.119	**L 305649**	**L 305610**	50.0	78.0	3800	5100
	82.550	23.622	22.225	18.542	3.5	0.8	0.303	0.156	**LM 104949**	**LM 104911 A**	68.0	93.0	3800	5100
	82.931	21.590	22.225	16.510	3.5	1.3	0.301	0.140	**LM 104949**	**LM 104912**	68.0	93.0	3800	5100
	85.000	17.462	17.462	13.495	3.5	1.5	0.239	0.136	**18790**	**18720**	45.5	60.0	3800	5100
	85.725	19.050	18.263	12.700	1.5	1.5	0.268	0.136	**18200**	**18337**	39.5	51.0	3500	4800
	88.900	20.638	22.225	16.513	3.5	1.3	0.338	0.166	**368 A**	**362 A**	70.0	82.0	3500	5100
	88.900	20.638	22.225	16.513	1.5	1.3	0.341	0.166	**368**	**362 A**	70.0	82.0	3500	5100
	92.075	24.608	25.400	19.845	3.5	0.8	0.460	0.247	**28580**	**28521**	81.0	114.0	3500	4800
	93.264	30.162	30.302	23.812	0.8	0.8	0.568	0.297	**3775**	**3730**	100.0	133.0	3300	5100



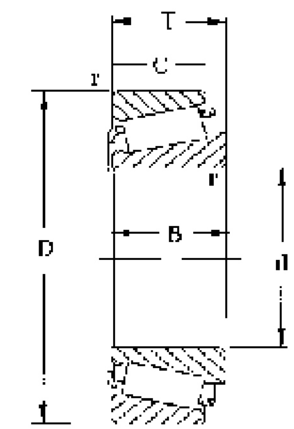
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
50.800	93.264	30.126	30.302	23.812	3.5	0.8	0.564	0.297	**3780**	**3730**	100.0	133	3300	4800
	95.250	27.783	28.575	22.225	3.5	2.3	0.601	0.267	**33889**	**33821**	107.0	141	3300	4500
	101.600	31.750	31.750	25.400	3.5	3.3	0.744	0.389	**49585**	**49520**	115.0	147	3100	4500
	101.600	34.925	36.068	26.988	0.8	3.3	0.822	0.416	**529**	**522**	134.0	166	3300	4500
	101.600	34.925	36.068	26.988	3.5	3.3	0.819	0.416	**529 X**	**522**	134.0	166	3300	4500
	104.775	36.512	36.512	28.575	3.5	0.8	0.992	0.508	**HM 807046**	**HM 807011**	136.0	189	2900	4300
	104.775	36.512	36.512	28.575	3.5	3.3	0.993	0.502	**HM 807046**	**HM 807010**	136.0	189	2900	4300
	108.966	34.925	36.512	26.988	3.5	3.3	0.943	0.594	**59200**	**59429**	142.0	178	3100	4300
	111.125	30.162	26.909	20.638	3.5	3.3	0.845	0.514	**55200 C**	**55437**	110.0	149	2500	3800
	111.125	30.162	26.909	20.638	3.5	3.3	0.767	0.514	**55200**	**55437**	89.5	107	2700	3800
	123.825	36.512	32.791	25.400	3.5	3.3	1.330	0.790	**72200 C**	**72487**	159.0	196	2300	3500
	123.825	36.512	32.791	25.400	3.5	3.3	1.220	0.790	**72200**	**72487**	140.0	157	2500	3500
	127.000	44.450	44.450	34.925	3.5	3.3	1.860	1.030	**65200**	**65500**	196.0	255	2500	3500
	127.000	50.800	52.388	41.275	3.5	3.3	2.080	1.220	**6279**	**6220**	233.0	297	2700	3800
52.388	92.075	24.608	25.400	19.845	3.5	0.8	0.435	0.247	**28584**	**28521**	81.5	114	3500	4800
	100.000	25.000	22.225	21.824	2.3	2.0	0.392	0.435	**377**	**372**	74.0	90	3300	4800
	111.125	30.162	26.909	20.638	3.5	3.3	0.737	0.514	**55206**	**55437**	89.5	107	2700	3800
53.975	104.775	39.688	40.157	33.338	3.5	3.3	0.972	0.583	**4595**	**4535**	147.0	207	3100	4300
	107.950	36.512	36.957	28.575	3.5	3.3	0.880	0.570	**539**	**532 X**	141.0	179	3100	4300
	122.238	33.338	31.750	23.812	3.5	3.3	1.200	0.558	**66584**	**66520**	132.0	153	2500	3500
	123.825	36.512	32.791	25.400	3.5	3.3	1.160	0.790	**72212**	**72487**	140.0	157	2500	3500
	123.825	36.512	32.791	25.400	3.5	3.3	1.270	0.790	**72212 C**	**72487**	159.0	196	2300	3500
	123.825	38.100	36.678	30.162	3.5	3.3	1.490	0.764	**557 S**	**552 A**	158.0	218	2500	3500
	127.000	44.450	44.450	34.925	3.5	3.3	1.760	1.030	**65212**	**65500**	196.0	255	2500	3500
	127.000	50.800	52.388	41.275	3.5	3.3	1.970	1.220	**6280**	**6220**	233.0	297	2700	3800
	130.175	36.512	33.338	23.812	3.5	3.3	1.450	0.725	**HM 911242**	**HM 911210**	130.0	151	2100	3100
55.000	90.000	23.000	23.000	18.500	1.5	0.5	0.378	0.186	**JLM 506849**	**JLM 506810**	76.0	108	3300	4800
	95.000	29.000	29.000	23.500	1.5	2.5	0.590	0.260	**JM 207049**	**JM 207010**	108.0	149	3300	4500
	96.838	21.000	21.946	15.875	2.3	0.8	0.455	0.179	**385**	**382 A**	77.5	97	3100	4500
	110.000	39.000	39.000	32.000	3.0	2.5	1.130	0.567	**JH 307749**	**JH 307710**	174.0	222	2900	4000
	115.000	41.021	41.275	31.496	3.0	3.0	1.300	0.597	**622 X**	**614 X**	169.0	211	2700	4000
55.562	97.630	24.608	24.608	19.446	3.5	0.8	0.499	0.270	**28680**	**28622**	86.0	126	3100	4500
	122.238	43.658	43.764	36.512	1.3	3.3	1.760	0.815	**5566**	**5535**	195.0	289	2500	3500



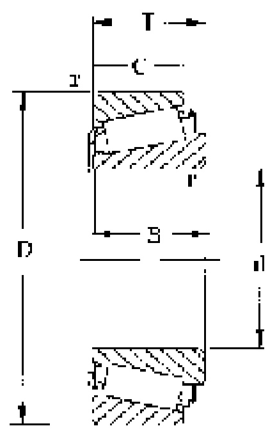
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
55.562	123.825	36.512	32.791	25.400	3.5	3.3	1.120	0.790	**72218**	**72487**	140.0	157	2500	3500
	123.825	36.512	32.791	25.400	3.5	3.3	1.230	0.790	**72218 C**	**72487**	159.0	196	2300	3500
57.150	96.838	21.000	21.946	15.875	3.5	0.8	0.420	0.179	**387 A**	**382 A**	77.5	97	3100	4500
	96.838	21.000	21.946	15.875	2.3	0.8	0.423	0.179	**387**	**382 A**	77.5	97	3100	4500
	96.838	25.400	21.946	20.275	3.5	2.3	0.420	0.249	**387 A**	**382 S**	77.5	97	3100	4500
	98.425	21.000	21.946	17.826	3.5	0.8	0.420	0.226	**387 A**	**382**	77.5	97	3100	4500
	104.775	30.162	29.317	24.605	3.5	3.3	0.692	0.376	**469**	**453 X**	113.0	146	2900	4300
	104.775	30.162	29.317	24.605	2.3	3.3	0.694	0.376	**462**	**453 X**	113.0	146	2900	4300
	104.775	30.162	30.958	23.812	0.8	3.3	0.752	0.347	**45289**	**45220**	127.0	167	2900	4300
	104.775	30.162	30.958	23.812	0.8	0.8	0.760	0.350	**45289**	**45221**	127.0	167	2900	4300
	122.238	33.338	31.750	23.812	3.5	3.3	1.140	0.558	**66587**	**66520**	132.0	153	2500	3500
	123.825	36.512	32.791	25.400	3.5	3.3	1.190	0.790	**72225 C**	**72487**	159.0	196	2300	3500
	123.825	38.100	36.678	30.162	3.5	3.3	1.410	0.764	**555 S**	**552 A**	158.0	218	2500	3100
	140.030	36.512	33.236	23.520	3.5	2.3	1.670	0.926	**78225**	**78551**	149.0	180	2100	3100
	144.983	36.000	33.236	23.007	3.5	3.5	1.680	1.080	**78225**	**78571**	149.0	180	2100	3100
	149.225	53.975	54.229	44.450	3.5	3.3	3.490	1.630	**6455**	**6420**	284.0	407	2100	2900
60.325	100.000	25.400	25.400	19.845	3.5	3.3	0.538	0.232	**28985**	**28921**	88.0	132	2900	4300
	101.600	25.400	25.400	19.845	3.5	3.3	0.538	0.272	**28985**	**28920**	88.0	132	2900	4300
	122.238	38.100	36.678	30.162	2.3	3.3	1.330	0.692	**558**	**553 X**	158.0	218	2500	3500
	122.238	38.100	38.354	29.718	8.0	1.5	1.430	0.604	**HM 212044**	**HM 212010**	185.0	242	2500	3500
	122.238	43.658	43.764	36.512	0.8	3.3	1.610	0.815	**5582**	**5535**	195.0	289	2500	3500
	127.000	44.450	44.450	34.925	3.5	3.3	1.560	1.030	**65237**	**65500**	196.0	255	2500	3500
	130.175	41.275	41.275	31.750	3.5	3.3	1.870	0.712	**637**	**633**	192.0	260	2300	3300
	135.755	53.975	56.007	44.450	3.5	3.3	2.450	1.390	**6376**	**6320**	261.0	352	2300	3300
61.912	136.525	46.038	46.038	36.512	3.5	3.3	2.510	0.961	**H 715334**	**H 715311**	230.0	367	2100	2900
	146.050	41.275	39.688	25.400	3.5	3.3	2.200	0.898	**H 913842**	**H 913810**	190.0	222	1900	2900
	152.400	47.625	46.038	31.750	3.5	3.3	2.770	1.210	**9180**	**9121**	234.0	264	1900	2900
63.500	94.458	19.050	19.050	15.083	1.5	1.5	0.306	0.154	**L 610549**	**L 610510**	56.0	97	3100	4300
	104.775	21.433	22.000	15.875	2.0	2.0	0.501	0.186	**39250**	**39412**	80.5	104	2900	4000
	107.950	25.400	25.400	19.050	1.5	3.3	0.661	0.281	**29586**	**29520**	87.0	135	2700	3800
	110.000	22.000	21.996	18.824	3.5	1.3	0.580	0.263	**395**	**394 A**	82.5	110	2700	3800
	110.000	22.000	21.966	18.824	1.5	1.3	0.583	0.263	**390 A**	**394 A**	82.5	110	2700	3800
	112.712	30.162	30.048	23.812	3.5	3.2	0.789	0.454	**3982**	**3920**	117.0	170	2700	3800



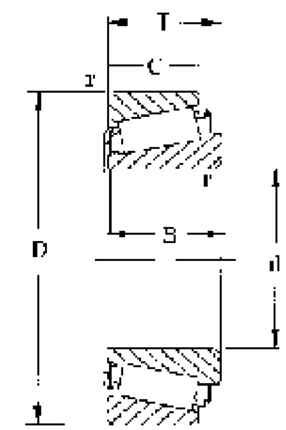
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
63.500	112.712	30.162	30.162	23.812	3.5	3.3	0.899	0.359	**39585**	**39520**	139	199	2700	3800
	112.712	33.338	30.048	26.988	3.5	3.3	0.789	0.541	**3982**	**3926**	117	170	2700	3800
	122.238	38.100	38.354	29.718	7.0	3.3	1.340	0.598	**HM 212047**	**HM 212011**	185	242	2500	3800
	122.238	38.100	38.354	29.718	7.0	1.5	1.340	0.604	**HM 212047**	**HM 212010**	185	242	2500	3500
	122.238	38.100	38.354	29.718	3.5	1.5	1.350	0.604	**HM 212046**	**HM 212010**	185	242	2500	3500
	122.238	43.658	43.764	36.512	3.5	3.3	1.500	0.815	**5584**	**5535**	195	289	2500	3500
	123.825	38.100	36.678	30.162	3.5	3.3	1.230	0.764	**559**	**552 A**	158	218	2500	3500
	127.00	36.512	36.170	28.575	3.5	3.3	1.460	0.655	**565**	**563**	163	231	2300	3300
	130.175	41.275	41.275	31.750	3.5	3.3	1.770	0.712	**639**	**633**	192	260	2300	3300
	136.525	36.512	33.236	23.520	2.3	3.3	1.510	0.782	**78250**	**78537**	149	180	2100	3100
	136.525	41.275	41.275	31.750	3.5	3.3	1.770	1.040	**639**	**632**	192	260	2300	3300
	140.030	36.512	33.236	23.520	2.3	2.3	1.510	0.926	**78250**	**78551**	149	180	2100	3100
65.088	135.755	53.975	56.007	44.450	3.5	3.3	2.250	1.390	**6379**	**6320**	261	352	2300	3300
	136.525	46.038	46.038	36.512	3.5	3.3	2.400	0.961	**H 715340**	**H 715311**	230	367	2100	2900
66.675	110.000	22.000	21.996	18.824	0.8	1.3	0.528	0.263	**395 A**	**394 A**	82.5	110	2700	3800
	110.000	22.000	21.996	18.824	3.5	1.3	0.524	0.263	**395 S**	**394 A**	82.5	110	2700	3800
	112.712	30.162	30.048	23.812	3.5	3.2	0.712	0.454	**3984**	**3920**	117	170	2700	3800
	112.712	30.162	30.048	23.812	5.5	3.2	0.706	0.454	**3994**	**3920**	117	170	2700	3800
	112.712	30.162	30.162	23.812	3.5	0.8	0.822	0.365	**39590**	**39521**	139	199	2700	3800
	112.712	30.162	30.162	23.812	3.5	3.3	0.822	0.359	**39590**	**39520**	139	199	2700	3800
	117.475	30.162	30.162	23.812	3.5	3.3	0.911	0.442	**33262**	**33462**	116	176	2500	3500
	122.238	38.100	36.678	30.162	3.5	3.3	1.140	0.692	**560**	**553 X**	158	218	2500	3500
	122.238	38.100	38.354	29.718	3.5	1.5	1.250	0.604	**HM 212049**	**HM 212010**	185	242	2500	3500
	122.238	38.100	38.354	29.718	3.5	3.3	1.250	0.598	**HM 212049**	**HM 212011**	185	242	2500	3500
	123.825	38.100	36.678	30.162	3.5	3.3	1.140	0.764	**560**	**552 A**	158	218	2500	3500
	136.525	46.038	46.038	36.512	3.5	3.3	2.340	0.961	**H 715341**	**H 715311**	230	367	2100	2900
69.850	112.712	22.225	21.996	15.875	1.5	0.8	0.562	0.238	**LM 613449**	**LM 613410**	82	110	2500	3500
	112.712	25.400	25.400	19.050	1.5	3.3	0.695	0.273	**29675**	**29620**	93	149	2300	3500
	117.475	30.162	30.162	23.812	3.5	3.3	0.830	0.442	**33275**	**33462**	116	176	2500	3500
	120.000	32.545	32.545	26.195	3.5	3.3	1.020	0.477	**47487**	**47420**	149	222	2500	3500
	120.650	25.400	25.400	19.050	1.5	3.3	0.695	0.489	**29675**	**29630**	93	149	2300	3500
	127.000	36.512	36.170	28.575	3.5	0.8	1.270	0.658	**566**	**563 X**	163	231	2300	3300
	130.175	41.275	41.275	31.750	3.5	3.3	1.560	0.712	**643**	**633**	192	260	2300	3300



Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
69.850	146.050	41.275	39.688	25.400	3.5	3.3	1.950	0.898	**H 913849**	**H 913810**	190	222	1900	2900
	146.050	41.275	41.275	31.750	3.5	3.3	2.350	0.891	**655**	**653**	204	293	1900	2700
	149.225	53.975	54.229	44.450	5.0	3.3	2.950	1.630	**6454**	**6420**	284	407	2100	2900
	150.089	44.450	46.672	36.512	3.5	3.3	2.820	1.070	**745 A**	**742**	262	367	1900	2700
70.000	110.000	26.000	25.000	20.500	1.0	2.5	0.604	0.304	**JLM 813049**	**JLM 813010**	95	149	2500	3500
	115.000	29.000	29.000	23.000	3.0	2.5	0.800	0.362	**JM 612949**	**JM 612910**	123	174	2500	3500
	120.000	29.795	29.007	24.237	2.0	2.0	0.822	0.493	**484**	**472**	120	166	2500	3500
71.438	117.475	30.162	30.162	23.812	3.5	3.3	0.789	0.442	**33281**	**33462**	116	176	2500	3500
	120.000	32.545	32.545	26.195	3.5	3.3	0.983	0.477	**47490**	**47420**	149	222	2500	3500
	127.000	36.512	36.170	28.575	6.4	3.3	1.210	0.655	**567 S**	**563**	163	231	2300	3300
	127.000	36.512	36.170	28.575	3.5	3.3	1.230	0.655	**567 A**	**563**	163	231	2300	3300
	130.175	41.275	41.275	31.750	6.4	3.3	1.490	0.712	**645**	**633**	192	260	2300	3300
	136.525	41.275	41.275	31.750	3.5	3.3	1.500	1.040	**644**	**632**	192	260	2300	3300
	136.525	41.275	41.275	31.750	3.5	3.3	1.830	0.796	**H 414249**	**H 414210**	226	294	2100	3100
	136.525	46.038	46.038	36.512	3.5	3.3	2.150	0.961	**H 715345**	**H 715311**	230	367	2100	2900
73.025	112.712	25.400	25.400	19.050	3.5	3.3	0.620	0.273	**29685**	**29620**	93	149	2300	3500
	117.475	30.162	30.162	23.812	3.5	3.3	0.746	0.442	**33287**	**33462**	116	176	2500	3500
	127.000	36.512	36.170	28.575	3.5	3.3	1.170	0.655	**567**	**563**	163	231	2300	3300
	146.050	41.275	41.275	31.750	3.5	3.3	2.240	0.891	**657**	**653**	204	293	1900	2700
	149.225	53.975	54.229	44.450	3.5	3.3	2.800	1.630	**6460**	**6420**	284	407	2100	2900
75.000	115.000	25.000	25.000	19.000	3.0	2.5	0.638	0.272	**JLM 714149**	**JLM 714110**	98	147	2500	3500
	120.000	31.000	29.500	25.000	3.0	2.5	0.863	0.436	**JM 714249**	**JM 714210**	126	195	2300	3300
	145.000	51.000	51.000	42.000	3.0	2.5	2.640	1.190	**JH 415647**	**JH 415610**	284	407	2100	2900
76.200	121.442	24.608	23.012	17.462	2.0	2.0	0.650	0.316	**34300**	**34478**	86	121	2300	3300
	127.000	30.162	31.000	22.225	3.5	3.3	1.030	0.438	**42687**	**42620**	131	192	2300	3300
	127.000	30.162	31.001	22.225	6.4	3.3	1.010	0.438	**42688**	**42620**	131	192	2300	3300
	133.350	33.338	33.338	26.195	0.8	3.3	1.390	0.577	**47680**	**47620**	151	234	2100	3100
	135.732	44.450	46.101	34.925	3.5	3.3	1.860	0.887	**5760**	**5735**	213	337	2100	3100
	136.525	30.162	29.769	22.225	3.5	3.3	1.270	0.550	**495 A**	**493**	127	189	2100	2900
	136.525	30.162	29.769	22.225	6.4	3.3	1.260	0.550	**495 AX**	**493**	127	189	2100	2900
	139.992	36.512	36.098	28.575	3.5	3.3	1.610	0.788	**575**	**572**	172	257	2100	2900
	149.225	53.975	54.229	44.450	3.5	3.3	2.640	1.630	**6461**	**6420**	284	407	2100	2900
	152.400	39.688	36.322	30.162	3.5	3..2	2.200	1.060	**590 A**	**592 A**	180	282	1700	2700

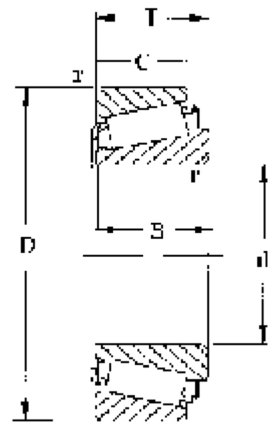


Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
76.200	152.400	41.275	41.275	31.750	3.5	3.3	2.110	1.260	**659**	**652**	204	293	1900	2700
	161.925	49.212	46.038	31.750	3.5	3.3	2.820	1.400	**9285**	**9220**	245	287	1700	25000
	161.925	53.975	55.100	42.862	3.5	3.3	3.740	1.670	**6576**	**6535**	322	477	1700	2500
	161.925	53.975	55.100	42.862	6.4	3.3	3.730	1.670	**6575**	**6535**	322	477	1700	2500
	161.925	53.975	55.100	42.862	6.4	0.8	3.730	1.680	**6575**	**6536**	322	477	1700	2500
	168.275	53.975	56.363	41.275	6.4	3.3	4.110	1.740	**843**	**832**	342	467	1700	2500
	168.275	53.975	56.363	41.275	0.8	3.3	4.130	1.740	**837**	**832**	342	467	1700	2500
	171.450	49.212	46.038	31.750	3.5	3.3	3.470	1.510	**9380**	**9321**	254	307	1500	2300
	177.800	55.562	50.800	34.925	3.5	3.3	3.710	2.240	**9378**	**9320**	254	307	1500	2300
77.788	121.442	24.608	23.012	17.462	3.5	2.0	0.612	0.316	**34306**	**34478**	86	121	2300	3300
	127.000	30.162	31.000	22.225	3.5	3.3	0.976	0.438	**42690**	**42620**	131	192	2300	3300
	135.733	44.450	46.101	34.925	3.5	3.3	1.790	0.887	**5795**	**5735**	213	337	2100	3100
80.962	136.525	30.162	29.769	22.225	3.5	3.3	1.130	0.550	**496**	**493**	127	189	2100	2900
	139.700	36.512	36.098	28.575	3.5	3.3	1.440	0.774	**581**	**572 X**	172	257	2100	2900
	139.992	36.512	36.098	28.575	3.5	3.3	1.440	0.788	**581**	**572**	172	257	2100	2900
82.550	125.412	25.400	25.400	19.845	3.5	1.5	0.747	0.348	**27687**	**27620**	99	161	2100	3100
	133.350	30.162	29.769	22.225	3.5	3.3	1.080	0.434	**495**	**492 A**	127	189	2100	2900
	133.350	33.338	33.338	26.195	3.5	3.3	1.180	0.577	**47686**	**47620**	151	234	2100	3100
	133.350	33.338	33.338	26.195	0.8	3.3	1.180	0.577	**47685**	**47620**	151	234	2100	3100
	133.350	33.338	33.338	26.195	6.8	3.3	1.160	0.577	**47687**	**47620**	151	234	2100	3100
	133.350	39.688	39.688	32.545	6.8	3.3	1.350	0.767	**HM 516448**	**HM 516410**	176	307	2100	3100
	136.525	30.162	29.769	22.225	3.5	3.3	1.080	0.550	**495**	**493**	127	189	2100	2900
	139.700	36.512	36.098	28.575	3.5	3.3	1.390	0.774	**580**	**572 X**	172	257	2100	2900
	139.992	36.512	36.098	28.575	3.5	3.3	1.390	0.788	**580**	**572**	172	257	2100	2900
	139.992	36.512	36.098	28.575	6.8	3.3	1.370	0.788	**582**	**572**	172	257	2100	2900
	146.050	41.275	41.275	31.750	3.5	3.3	1.850	0.891	**663**	**653**	204	293	1900	2700
	150.000	44.455	46.672	35.000	3.5	3.3	2.260	1.040	**749 A**	**743**	262	367	1900	2700
	150.089	44.450	46.672	36.512	3.5	3.3	2.260	1.070	**749 A**	**742**	262	367	1900	2700
	152.400	41.275	41.275	31.750	3.5	3.3	1.850	1.260	**663**	**652**	204	293	1900	2700
	161.925	47.625	48.260	38.100	3.5	3.3	2.790	1.610	**757**	**752**	271	387	1700	2500
	161.925	53.975	55.100	42.862	3.5	3.3	3.400	1.670	**6559**	**6535**	322	477	1700	2500
	168.275	47.625	48.260	38.100	3.5	3.3	2.790	2.100	**757**	**753**	271	387	1700	2500
	168.275	53.975	56.363	41.275	3.5	3.3	3.760	1.740	**842**	**832**	342	467	1700	2500



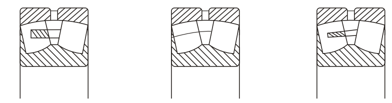
Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
85.026	150.089	44.450	46.672	36.512	3.5	3.3	2.14	1.070	**749**	**742**	262	367	1900	2700
	150.089	44.450	46.672	36.512	5.0	3.3	2.14	1.070	**749 S**	**742**	262	367	1900	2700
85.725	133.350	30.162	29.769	22.225	3.5	3.3	0.98	0.434	**497**	**492 A**	127	189	2100	2900
	136.525	30.162	29.769	22.225	3.5	3.3	0.98	0.550	**497**	**493**	127	189	2100	2900
	142.138	42.862	42.862	34.133	4.8	3.3	1.77	0.911	**HM 617049**	**HM 617010**	218	357	1900	2900
	146.050	41.275	41.275	31.750	6.4	3.3	1.71	0.891	**665 A**	**653**	204	293	1900	2700
	146.050	41.275	41.275	31.750	3.5	3.3	1.72	0.891	**665**	**653**	204	293	1900	2700
	152.400	39.688	36.322	30.162	3.5	3.2	1.85	1.060	**596**	**592 A**	180	282	1700	2700
	161.925	47.625	48.260	38.100	3.5	3.3	2.63	1.610	**758**	**752**	271	387	1700	2500
	168.275	41.275	41.275	30.162	3.5	3.3	2.91	1.240	**677**	**672**	220	342	1500	2300
88.900	149.225	31.750	28.971	24.608	3.0	3.3	1.39	0.711	**42350**	**42587**	137	215	1700	2500
	152.400	39.688	36.322	30.162	3.5	3.2	1.73	1.060	**593**	**592 A**	180	282	1700	2700
	152.400	39.688	39.688	30.162	6.4	3.3	2.11	0.776	**HM 518445**	**HM 518410**	250	362	1700	2700
	161.925	47.625	48.260	38.100	3.5	3.3	2.47	1.610	**759**	**752**	271	387	1700	2500
	161.925	47.625	48.260	38.100	7.0	3.3	2.45	1.610	**766**	**752**	271	387	1700	2500
	161.925	53.975	55.100	42.862	3.5	3.3	3.03	1.670	**6580**	**6535**	322	477	1700	2500
	168.275	47.625	48.260	38.100	3.5	3.3	2.47	2.100	**759**	**753**	271	387	1700	2500
	168.275	53.975	56.363	41.275	3.5	3.3	3.39	1.740	**850**	**832**	342	467	1700	2500
	190.500	57.150	57.531	44.450	8.0	3.3	4.99	2.550	**855**	**854**	352	497	1400	2100
	190.500	57.150	57.531	46.038	8.0	3.3	5.41	2.240	**HH 221434**	**HH 221410**	387	517	1400	2100
90.000	145.000	35.000	34.000	27.000	3.0	2.5	1.49	0.660	**JM 718149**	**JM 718110**	187	282	1900	2700
	147.000	40.000	40.000	32.500	7.0	3.5	1.77	0.796	**HM 218248**	**JM 218210**	226	342	1900	2700
	155.000	44.000	44.000	35.500	3.0	2.5	2.32	1.010	**JHM 318448**	**JHM 318410**	271	392	1700	2500
92.075	146.050	33.338	34.925	26.195	3.5	3.3	1.46	0.664	**47890**	**47820**	166	277	1900	2700
	148.430	28.575	28.971	21.433	3.5	3.0	1.29	0.553	**42362**	**42584**	137	215	1700	2500
	152.400	39.688	36.322	30.162	3.5	3.2	1.60	1.060	**598**	**592 A**	180	282	1700	2700
	152.400	39.688	36.322	30.162	6.4	3.2	1.59	1.060	**598 A**	**592 A**	180	282	1700	2700
	168.275	41.275	41.275	30.162	3.5	3.3	2.62	1.240	**681**	**672**	220	342	1500	2300
	190.500	57.150	57.531	44.450	8.0	3.3	4.78	2.550	**857**	**854**	352	497	1400	2100
93.662	148.430	28.575	28.971	21.433	3.0	3.0	1.24	0.553	**42368**	**42584**	137	215	1700	2500
	149.225	31.750	28.971	24.608	3.0	3.3	1.24	0.711	**42368**	**42587**	137	215	1700	2500
	152.400	39.688	36.322	30.162	3.5	3.2	1.54	1.060	**597**	**592 A**	180	282	1700	2700
95.250	146.050	33.338	34.925	26.195	3.5	3.3	1.33	0.664	**47896**	**47820**	166	277	1900	2700

TAPERED ROLLER BEARINGS(METRIC SERIES)



Principal dimensions (mm)							Weight(Kg)		Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	B	C	r_{1min}	r_{smin}	Inner ring	Outer ring	Inner ring	Outer ring	Dynamic Cr	Static Cor	Grease	Oil
95.250	148.430	28.575	28.971	21.433	3.0	3.0	1.18	0.553	**42375**	**42584**	137	215	1700	2500
	149.225	31.750	28.971	24.608	3.5	3.3	1.18	0.711	**42376**	**42587**	137	215	1700	2500
	152.400	39.688	36.322	30.162	3.5	3.2	1.47	1.060	**594**	**592 A**	180	282	1700	2700
	152.400	39.688	36.322	33.338	3.5	3.3	1.47	1.120	**594**	**592**	180	282	1700	2700
	168.275	41.275	41.275	30.162	3.5	3.3	2.47	1.240	**683**	**672**	220	342	1500	2300
	171.450	47.625	48.260	38.100	3.5	3.3	2.91	1.670	**77375**	**77675**	279	412	1500	2300
	180.975	47.625	48.006	38.100	3.5	3.3	3.25	1.990	**776**	**772**	253	372	1500	2100
	190.500	57.150	57.531	44.450	8.0	3.3	4.57	2.550	**864**	**854**	352	497	1400	2100
	190.500	57.150	57.531	46.038	8.0	3.3	5.00	2.240	**HH 221440**	**HH 221410**	387	517	1400	2100
96.838	148.430	28.575	28.971	21.433	3.5	3.0	1.13	0.553	**42381**	**42584**	137	215	1700	2500
	149.225	31.750	28.971	24.606	3.5	3.3	1.13	0.711	**42381**	**42587**	137	215	1700	2500

TYPE CODE: 2



TYPE CODE + SIZE CODE:

230 240

231 241

222 232

213 223

2	22	08	C	W20	C3
2	23	20	CA	W33	

L.D.:

5 X -- = mm

5 X 08 = 40 mm

5 X 20 = 100mm

INTERNAL STRUCTURE AND RETAINER MATERIAL CHANGE

C: Symmetrical roller, stamped steel retainer

CA: Symmetrical reinforced roller, one-piece brass retainer

MB: Symmetrical reinforced roller, two-piece brass retainer

W20: With three lubricating holes on the outer race

W33: A lubricating groove and three lubricating holes on the outer race

K: Tapered bore bearing, taper is 1:12

K30: Tapered bore bearing, taper is 1:30

CLEARANCE:

/C2: Less than normal clearance

/C0: Normal clearance, omissible

/C3: Larger clearance than C0

/C4: Larger clearance than C3

/C5: Larger clearance than C4

WORKING TEMPERATURE:

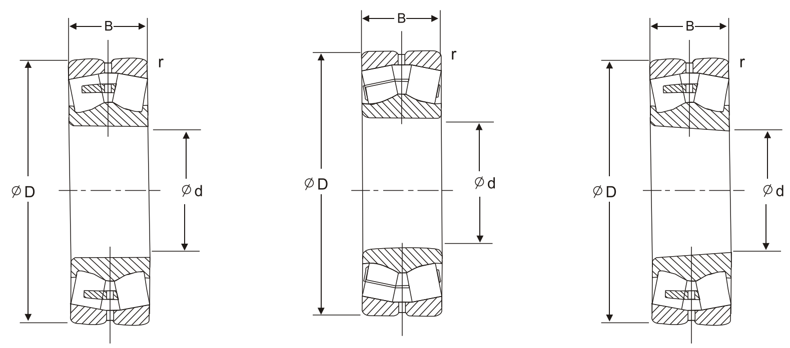
/S0: Working temperature is up to 150℃

/S1: Working temperature is up to 200℃

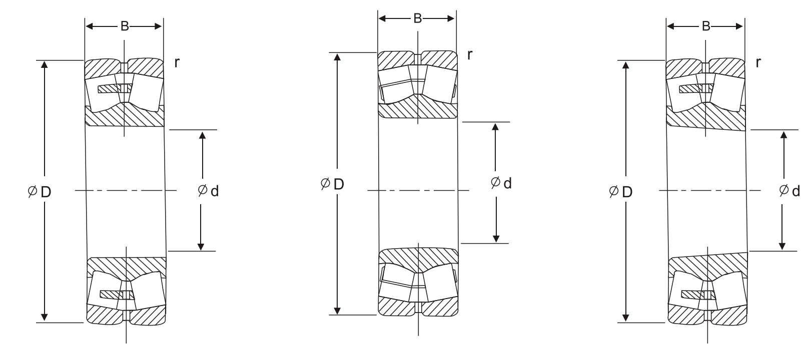
/S2: Working temperature is up to 250℃

/S3: Working temperature is up to 300℃

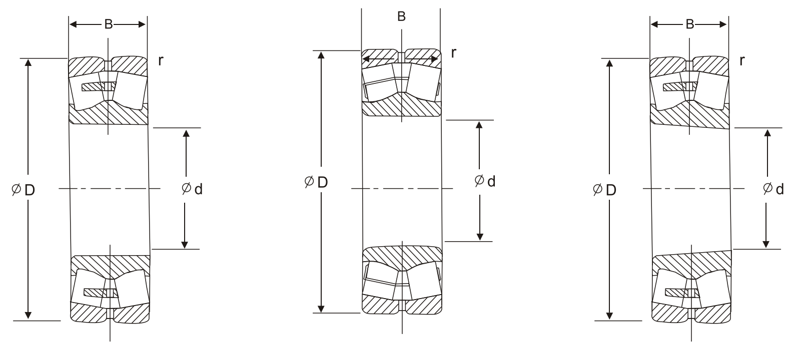
/S4: Working temperature is up to 350℃



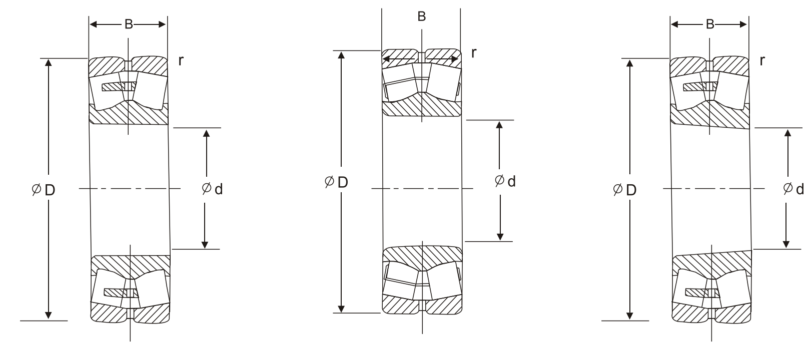
Principal dimensions (mm)				Weight	Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Cylindrical Bore	Tapered Bore	Dynamic Cr	Static Cor	Grease	Oil
25	52	18	1.0	0.17	22205 W33	22205 K/W33	39	36	8000	10000
	62	17	1.1	0.28	21305 W33	-	41	41	8500	12000
30	62	20	1.0	0.29	22206 W33	22206 K/W33	64	60	10000	14000
	72	19	1.1	0.41	21306 W33	21306 K/W33	55	61	7500	10000
35	72	23	1.1	0.46	22207 W33	22207 K/W33	88	85	9000	12000
	80	21	1.5	0.55	21307 W33	21307 K/W33	65	72	6700	9500
40	80	23	1.1	0.53	22208 W33	22208 K/W33	96	90	8000	11000
	90	23	1.5	0.75	21308 W33	21308 K/W33	104	108	7000	9500
	90	33	1.5	1.05	22308 W33	22308 K/W33	150	140	6000	8000
45	85	23	1.1	0.59	22209 W33	22209 K/W33	102	98	7500	10000
	100	25	1.5	0.99	21309 W33	21309 K/W33	125	127	6300	8500
	100	36	1.5	1.40	22309 W33	22309 K/W33	183	183	5300	7000
50	90	23	1.1	0.63	22210 W33	22210 K/W33	104	108	7000	9500
	110	27	2.0	1.35	21310 W33	21310 K/W33	156	166	5600	7500
	110	40	2.0	1.90	22310 W33	22310 K/W33	220	224	4800	6300
55	100	25	1.5	0.84	22211 W33	22211 K/W33	125	127	6300	8500
	120	29	2.0	1.70	21311 W33	21311 K/W33	158	166	5600	7500
	120	43	2.0	2.45	22311 W33	22311 K/W33	270	280	4300	5600
60	110	28	1.5	1.15	22212 W33	22212 K/W33	156	166	5600	7500
	130	31	2.1	2.10	21312 W33	21312 K/W33	212	240	4800	6300
	130	46	2.1	3.10	22312 W33	22312 K/W33	310	335	4000	5300
65	100	35	1.1	0.95	24013 W33	24013 K30/W33	132	173	4300	6300
	120	31	1.5	1.55	22213 W33	22213 K/W33	193	218	5000	7000
	140	33	2.1	2.55	21313 W33	21313 K/W33	238	270	4300	6000
	140	48	2.1	3.75	22313 W33	22313 K/W33	340	360	3800	6000
70	125	31	1.5	1.55	22214 W33	22214 K/W33	208	228	5000	6700
	150	35	2.1	3.10	21314 W33	21314 K/W33	285	325	4000	5600
	150	51	2.1	4.55	22314 W33	22314 K/W33	400	430	3400	4500
75	115	40	1.1	1.55	24015 W33	24015 K30/W33	173	232	3800	5300
	130	31	1.5	1.70	22215 W33	22215 K/W33	212	240	4800	6300
	160	37	2.1	3.75	21315 W33	21315 K/W33	285	325	4000	5600
	160	55	2.1	5.55	22315 W33	22315 K/W33	440	475	3200	4300
80	140	33	2.0	2.10	22216 W33	22216 K/W33	238	270	4300	6000
	170	39	2.1	4.45	21316 W33	21316 K/W33	325	375	3800	5300
	170	58	2.1	6.60	22316 W33	22316 K/W33	490	540	3000	4000



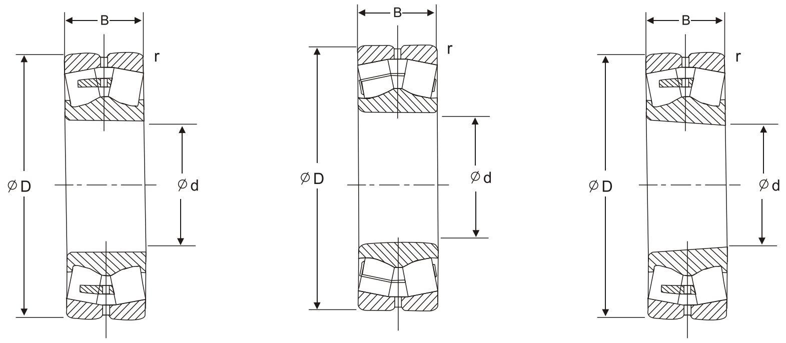
Principal dimensions (mm)				Weight	Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Cylindrical Bore	Tapered Bore	Dynamic Cr	Static Cor	Grease	Oil
85	150	36.0	2.0	2.66	22217 W33	22217 K/W33	285	325	4000	5600
	180	41.0	2.3	5.20	21317 W33	21317 K/W33	326	375	3800	5300
	180	60.0	3.0	7.65	22317 W33	22317 K/W33	550	620	2800	3800
90	160	40.0	2.0	3.40	22218 W33	22218 K/W33	325	375	3800	5300
	160	52.4	2.0	4.65	23218 W33	23218 K/W33	355	440	2800	3800
	190	43.0	3.0	6.10	21318 W33	21318 K/W33	380	450	3800	4800
	190	64.0	3.0	9.05	22318 W33	22318 K/W33	610	695	2600	3600
95	170	43.0	2.1	4.15	22219 W33	22219 K/W33	380	450	3600	4800
	200	45.0	3.0	7.05	21319 W33	21319 K/W33	425	490	3400	4500
	200	67.0	3.0	10.50	22319 W33	22319 K/W33	670	765	2600	3400
100	160	50.0	1.5	3.15	24020 W33	24020 K30/W33	285	415	2800	4000
	165	52.0	2.0	4.55	23120 W33	23120 K/W33	365	490	3000	4000
	165	65.0	2.0	5.65	24120 W33	24120 K30/W33	455	640	2400	3200
	180	46.0	2.1	4.90	22220 W33	22220 K/W33	428	490	3400	4500
	180	60.3	2.1	6.85	23220 W33	23220 K/W33	475	600	2400	3400
	215	47.0	3.0	8.80	21320 W33	21320 K/W33	425	490	3400	4500
	215	73.0	3.0	13.50	22320 W33	22320 K/W33	815	950	2400	3000
110	170	45.0	2.0	3.80	23022 W33	23022 K/W33	310	440	3400	4300
	170	60.0	2.0	5.00	24022 W33	24022 K30/W33	415	620	2400	3600
	180	56.0	2.0	5.75	23122 W33	23122 K/W33	430	585	2800	3600
	180	69.0	2.0	7.10	24122 W33	24122 K30/W33	520	750	2200	3000
	200	53.0	2.1	7.00	22222 W33	22222 K/W33	560	640	3000	4000
	200	69.8	2.1	9.86	23222 W33	23222 K/W33	600	785	2200	3200
	240	80.0	3.0	18.40	22322 W33	22322 K/W33	950	1120	2000	2800
120	180	46.0	2.0	4.20	23024 W33	23024 K/W33	355	510	3200	4000
	180	60.0	2.0	5.45	24024 W33	24024 K/W33	430	670	2400	3400
	200	62.0	2.0	8.00	23124 W33	23124 K/W33	510	695	2600	3400
	200	80.0	2.0	10.30	24124 W33	24124 K30/W33	655	950	1900	2600
	215	58.0	2.1	8.70	22224 W33	22224 K/W33	630	765	2800	3800
	215	76.0	2.1	12.00	23224 W33	23224 K/W33	695	930	2000	2900
	260	86.0	3.0	23.00	22324 W33	22324 K/W33	965	1120	2000	2600
130	200	52.0	2.0	6.00	23026 W33	23026 K/W33	430	610	2800	3600
	200	69.0	2.0	8.05	24026 W33	24026 K30/W33	540	815	2000	3000
	210	64.0	2.0	8.80	23126 W33	23126 K/W33	560	780	2400	3200
	210	80.0	2.0	11.00	24126 W33	24126 K30/W33	580	1000	1800	2400
	230	64.0	3.0	11.00	22226 W33	22226 K/W33	735	930	2600	3600



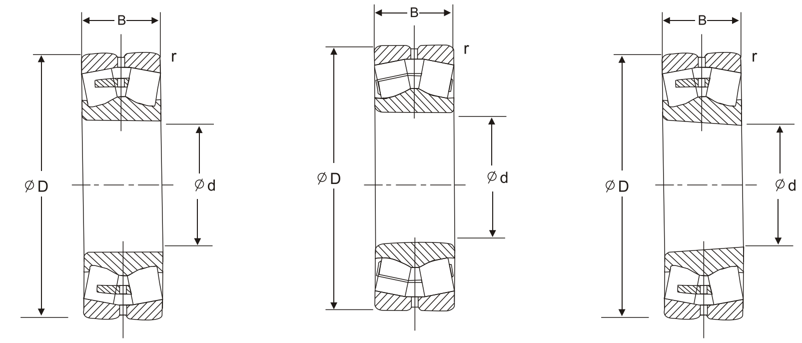
Principal dimensions (mm)				Weight	Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Cylindrical Bore	Tapered Bore	Dynamic Cr	Static Cor	Grease	
130	230	80	3.0	14.50	23226 W33	23226 K/W33	780	1060	1900	2600
	280	93	4.0	29.00	22326 W33	22326 K/W33	1120	1320	1800	2400
140	210	53	2.0	6.55	23028 W33	23028 K/W33	465	680	2600	3400
	210	69	2.0	8.55	24028 W33	24028 K30/W33	570	900	2000	2800
	225	68	2.1	10.50	23128 W33	23128 K/W33	630	900	2200	2800
	225	85	2.1	13.50	24128 W33	24128 K30/W33	765	1160	1700	2400
	250	68	3.0	14.00	22228 W33	22228 K/W33	710	900	2400	3200
	250	88	3.0	19.00	23228 W33	23228 K/W33	915	1250	1700	2400
	300	102	4.0	36.50	22328 W33	22328 K/W33	1290	1560	1700	2200
150	225	56	2.1	7.85	23030 W33	23030 K/W33	510	750	2400	3200
	225	75	2.1	10.50	24030 W33	24030 K30/W33	655	1040	2000	2600
	250	80	2.1	16.00	23130 W33	23130 K/W33	830	1200	1500	2600
	250	100	2.1	20.00	24130 W33	24130 K30/W33	1020	1530	1500	2200
	270	73	3.0	18.00	22230 W33	22230 K/W33	850	1080	2200	3000
	270	96	3.0	24.50	23230 W33	23230 K/W33	1080	1450	1800	3200
	320	108	4.0	43.50	22330 W33	22330 K/W33	1460	1760	1800	2000
160	240	60	2.1	9.70	23032 W33	23032 K/W33	585	880	2400	3000
	240	80	2.1	13.00	24032 W33	24032 K30/W33	750	1200	1700	2400
	270	86	2.1	20.50	23132 W33	23132 K/W33	980	1370	1900	2400
	270	109	2.1	25.00	24132 W33	24132 K30/W33	1180	1760	1400	1900
	290	80	3.0	22.50	22232 W33	22232 K/W33	1000	1290	2000	2800
	290	104	3.0	31.00	23232 W33	23232 K/W33	1220	1660	1500	2200
	340	114	4.0	52.00	22332 W33	22332 K/W33	1600	1960	1500	1900
170	260	67	2.1	13.00	23034 W33	23034 K/W33	710	1060	2200	2800
	260	90	2.1	17.50	24034 W33	24034 K30/W33	900	1460	1600	2400
	280	88	2.1	22.00	23134 W33	23134 K/W33	1040	1500	1800	2400
	280	109	2.1	27.50	24134 W33	24134 K30/W33	1220	1860	1300	1900
	310	86	4.0	28.50	22234 W33	22234 K/W33	1120	1460	1900	2600
	310	110	4.0	37.50	23234 W33	23234 K/W33	1400	1930	1400	2000
	360	120	4.0	61.00	22334 W33	22334 K/W33	1760	2160	1400	1800
180	250	52	2.0	7.90	23936 W33	23936 K/W33	431	830	2200	2800
	280	74	2.1	17.00	23036 W33	23036 K/W33	830	1250	2000	2600
	280	100	2.1	23.00	24036 W33	24036 K30/W33	1060	1730	1500	2200
	300	98	3.0	28.00	23136 W33	23136 K/W33	1200	1760	1700	2000
	300	118	3.0	34.50	24136 W33	24136 K30/W33	1400	2160	1300	1700
	320	86	4.0	29.50	22236 W33	22236 K/W33	1180	1560	1600	2600



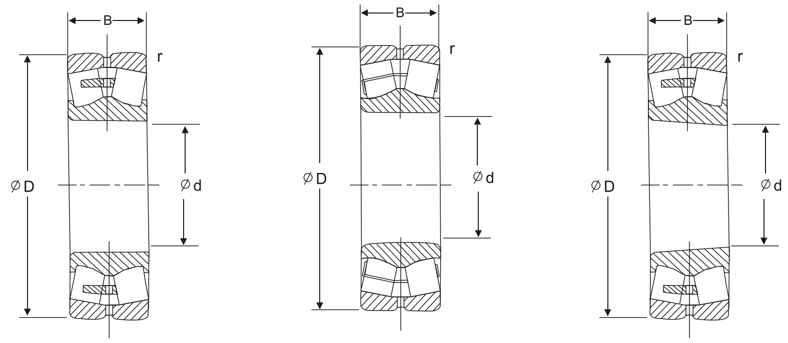
Principal dimensions (mm)				Weight	Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}	Kg	Cylindrical Bore	Tapered Bore	Dynamic Cr	Static Cor	Grease	Oil
180	320	112	4.0	39.5	23236 W33	23236 K/W33	1500	2120	1300	1900
	380	126	4.0	71.5	22336 W33	22336 K/W33	2000	2450	1300	1700
190	260	52	2.0	8.30	23938 W33	23938 K/W33	414	800	2200	2600
	290	75	2.1	18.0	23038 W33	23038 K/W33	865	1340	1900	2400
	290	100	2.1	24.5	24038 W33	24038 K30/W33	1120	1800	1400	2000
	320	104	3.0	35.0	23138 W33	23138 K/W33	1370	2080	1500	2000
	320	128	3.0	43.0	24138 W33	24138 K30/W33	1500	2500	1200	1600
	340	92	4.0	38.6	22238 W33	22238 K/W33	1270	1700	1700	2400
	340	120	4.0	48.0	23228 W33	23228 K/W33	1660	2400	1300	1800
	400	132	5.0	82.5	22338 W33	22338 K/W33	2120	2650	1200	1800
200	280	60	2.1	11.5	23940 W33	23940 K/W33	646	1040	2000	2400
	310	82	2.1	23.3	23040 W33	23040 K/W33	1000	1530	1800	2200
	310	109	2.1	31.0	24040 W33	24040 K30/W33	1200	2120	1300	1900
	340	112	3.0	43.0	23140 W33	23140 K/W33	1600	2360	1500	1900
	340	140	3.0	53.6	24140 W33	24140 K30/W33	1800	2800	1100	1500
	360	98	4.0	43.5	22240 W33	22240 K/W33	1460	1930	1600	2200
	360	128	4.0	58.0	23240 W33	23240 K/W33	1860	2700	1200	1700
	420	138	5.0	95.0	22340 W33	22340 K/W33	2320	2900	1200	1500
220	300	60	2.1	12.5	23944 W33	23944 K/W33	546	1060	1900	2200
	340	90	3.0	30.5	23044 W33	23044 K/W33	1220	1860	1600	2000
	340	118	3.0	40.0	24044 W33	24044 K30/W33	1550	2600	1200	1700
	370	120	4.0	53.5	23144 W33	23144 K/W33	1800	2750	1300	1700
	370	150	4.0	57.0	24144 W33	24144 K30/W33	2120	3350	1000	1400
	400	108	4.0	60.5	22244 W33	22244 K/W33	1760	2360	1500	2000
	400	144	4.0	81.5	23244 W33	23244 K/W33	2360	3450	1100	1500
	460	145	5.0	120.0	22344 W33	22344 K/W33	2700	3450	1000	1400
240	320	60	2.1	13.5	23948 W33	23948 K/W33	564	1160	1700	2000
	360	92	3.0	33.5	23048 W33	23048 K/W33	1290	2060	1500	1800
	360	118	3.0	43.0	24048 W33	24048 K30/W33	1600	2700	1100	1600
	400	128	4.0	66.5	23148 W33	23148 K/W33	2080	3200	1200	1000
	400	160	4.0	83.0	24148 W33	24148 K30/W33	2400	3800	900	1300
	440	120	4.0	83.0	22248 W33	22248 K/W33	2200	3000	1300	1800
	440	160	4.0	110.0	23248 W33	23248 K/W33	2900	4300	950	1300
	500	155	5.0	155.0	22348 W33	22348 K/W33	3100	4000	950	1300
260	360	75	2.1	23.5	23952 W33	23952 K/W33	880	1800	1500	1900
	400	104	4.0	48.5	23052 W33	23052 K/W33	1600	2550	1300	1700



Principal dimensions (mm)				Weight Kg	Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}		Cylindrical Bore	Tapered Bore	Dynamic Cr	Static Cor	Grease	Oil
260	400	140	4.0	65.5	24052 W33	24052 K30/W33	2040	3450	1000	1400
	440	144	4.0	90.5	23152 W33	23152 K/W33	2550	3600	1100	1400
	440	180	4.0	110.0	24152 W33	24152 K30/W33	3000	4800	850	1200
	480	130	5.0	110.0	22252 W33	22252 K/W33	2650	3550	1200	1600
	480	174	5.0	140.0	23252 W33	23252 K/W33	3250	4750	850	1200
	540	165	6.0	190.0	22352 W33	22352 K/W33	3550	4550	850	1100
280	380	75	2.1	25.0	23956 W33	23956 K/W33	845	1760	1400	1700
	420	106	4.0	52.5	23056 W33	23056 K/W33	1730	2850	1300	1600
	420	140	4.0	69.5	24056 W33	24056 K30/W33	2160	3800	950	1400
	460	146	5.0	97.0	23156 W33	23156 K/W33	2650	4250	1000	1300
	460	180	5.0	120.0	24156 W33	24156 K30/W33	3100	5100	800	1100
	500	130	5.0	115.0	22256 W33	22256 K/W33	2700	3750	1100	1500
	500	176	5.0	150.0	23256 W33	23256 K/W33	3250	4900	800	1100
	580	175	6.0	235.0	22356 W33	22356 K/W33	4000	5200	800	1100
300	380	60	2.1	16.5	23860 W33	23860 K/W33	656	1600	1400	1700
	420	90	3.0	39.5	23960 W33	23960 K/W33	1200	2500	1300	1600
	460	118	4.0	71.6	23060 W33	23060 K/W33	2120	3460	1200	1500
	460	160	4.0	87.0	24060 W33	24060 K30/W33	2700	4750	850	1200
	500	160	5.0	125.0	23160 W33	23160 K/W33	3200	5100	950	1200
	500	200	5.0	160.0	24160 W33	24160 K30/W33	3750	6300	700	1000
	540	140	5.0	145.0	22260 W33	22260 K/W33	3150	4250	1000	1400
	540	192	5.0	190.0	23260 W33	23260 K/W33	3900	5850	750	1000
320	440	90	3.0	42.0	23964 W33	23964 K/W33	1430	2700	1400	1500
	480	121	4.0	78.0	23064 W33	23064 K/W33	2240	3800	1100	1400
	480	160	4.0	100.0	24064 W33	24064 K30/W33	2850	5100	800	1200
	540	176	5.0	165.0	23164 W33	23164 K/W33	3750	6000	850	1100
	540	218	5.0	210.0	24164 W33	24164 K30/W33	4250	7100	670	900
	580	150	5.0	175.0	22264 W33	22264 K/W33	3600	4900	950	1300
	580	208	5.0	240.0	23264 W33	23264 K/W33	4400	6700	700	950
340	460	90	3.0	45.5	23968 W33	23968 K/W33	1460	2800	1300	1400
	520	133	5.0	105.0	23068 W33	23068 K/W33	2700	4550	1000	1300
	520	180	5.0	140.0	24068 W33	24068 K30/W33	3450	6200	750	1100
	580	190	5.0	210.0	23168 W33	23168 K/W33	4250	6800	800	1000
	580	243	5.0	280.0	24168 W33	24168 K30/W33	5300	8650	600	850
	620	224	6.0	295.0	23268 W33	23268 K/W33	5100	7800	560	800
360	480	90	3.0	46.0	23972 W33	23972 K/W33	1400	2750	1200	1300



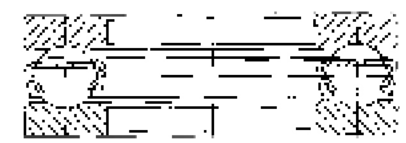
Principal dimensions (mm)				Weight Kg	Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}		Cylindrical Bore	Tapered Bore	Dynamic Cr	Static Cor	Grease	Oil
360	540	134	5.0	110	23072 W33	23072 K/W33	2750	4800	950	1200
	540	180	5.0	145	24072 W33	24072 K30/W33	3550	6550	700	1000
	600	192	5.0	220	23172 W33	23172 K/W33	4300	6950	750	1000
	600	243	5.0	280	24172 W33	24172 K30/W33	5600	9300	560	800
	650	170	6.0	255	22272 W33	22272 K/W33	4300	6200	630	850
	650	232	6.0	335	23272 W33	23272 K/W33	5400	8300	530	750
380	520	106	4.0	69	23976 W33	23976 K/W33	1960	3800	1100	1200
	560	135	5.0	115	23076 W33	23076 K/W33	2900	5000	900	1200
	560	180	5.0	150	24076 W33	24076 K30/W33	3600	6800	670	850
	620	194	5.0	230	23176 W33	23176 K/W33	4400	7100	560	1000
	620	243	5.0	300	24176 W33	24176 K30/W33	5700	9800	460	850
	680	240	6.0	375	23276 W33	23276 K/W33	5850	9150	500	750
400	540	106	4.0	71	23980 W33	23980 K/W33	2000	3900	1100	1200
	600	148	5.0	150	23080 W33	23080 K/W33	3250	5700	850	1100
	600	200	5.0	205	24080 W33	24080 K30/W33	4300	8000	630	900
	650	200	6.0	265	23180 W33	23180 K/W33	4650	7850	530	950
	650	250	6.0	340	24180 W33	24180 K30/W33	6200	10600	430	800
	720	256	6.0	450	23280 W33	23280 K/W33	6550	10400	430	670
	820	243	7.5	650	22380 W33	22380 K/W33	7500	10400	430	750
420	560	106	4.0	74	23984 W33	23984 K/W33	2040	4150	1000	1100
	620	150	5.0	155	23084 W33	23084 K/W33	3400	6000	600	1100
	620	200	5.0	210	24084 W33	24084 K30/W33	4400	9300	530	900
	700	224	6.0	350	23184 W33	23184 K/W33	5600	9300	480	900
	700	280	6.0	445	24184 W33	24184 K30/W33	7350	12600	400	700
	760	272	7.5	535	23284 W33	23284 K/W33	7350	11600	450	630
440	600	118	4.0	99	23988 W33	23988 K/W33	2450	4900	950	1000
	650	157	6.0	130	23088 W33	23088 K/W33	3850	6550	580	1000
	650	212	6.0	245	24088 W33	24088 K30/W33	4800	9150	500	850
	720	226	5.0	360	23188 W33	23188 K/W33	6000	10000	450	850
	720	280	6.0	460	24188 W33	24188 K30/W33	7500	13200	400	700
	790	280	7.5	590	23288 W33	23288 K/W33	7800	12500	430	600
460	580	118	3.0	75	24892 W33	24892 K30/W33	1790	4900	560	1100
	620	118	4.0	105	23992 W33	23992 K/W33	2500	5000	600	1000
	680	163	6.0	205	23092 W33	23092 K/W33	3900	6950	560	950
	680	218	6.0	275	24092 W33	24092 K30/W33	5200	10000	480	800
	760	240	7.5	440	23192 W33	23192 K/W33	6400	10000	430	800



Principal dimensions (mm)				Weight Kg	Bearing Number		Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	B	r_{smin}		Cylindrical Bore	Tapered Bore	Dynamic Cr	Static Cor	Grease	Oil
460	760	300	7.5	560.0	**24192 W33**	**24192 K30/W33**	8300	14600	360	670
	830	296	7.5	895.0	**23292 W33**	**23292 K/W33**	8500	13700	400	560
480	600	90	3.0	61.0	**23896 W33**	**23896 K/W33**	1440	3750	530	1100
	650	128	5.0	125.0	**23996 W33**	**23896 K/W33**	2900	5700	560	1000
	700	165	6.0	215.0	**23096 W33**	**23096 K/W33**	3900	6800	530	950
	700	218	6.0	265.0	**24096 W33**	**24096 K30/W33**	5300	10400	450	750
	790	248	7.5	485.0	**23196 W33**	**23196 K/W33**	6950	12000	400	750
	790	308	7.5	605.0	**24196 W33**	**24196 K30/W33**	8000	15800	340	630
	870	310	7.5	800.0	**23296 W33**	**23296 K/W33**	8300	15000	380	530
500	620	90	3.0	62.0	**238/500 W33**	**238/500 K/W33**	14800	4000	550	1000
	670	128	5.0	130.0	**239/500 W33**	**239/500 K/W33**	2900	6000	530	950
	720	167	6.0	225.0	**230/500 W33**	**230/500 K/W33**	4150	7800	500	900
	720	218	6.0	295.0	**240/500 W33**	**240/500 K30/W33**	5500	11000	430	700
	830	264	7.5	580.0	**231/500 W33**	**231/500 K/W33**	7850	12900	380	700
	830	325	7.5	700.0	**241/500 W33**	**241/500 K30/W33**	9800	17000	320	600
	920	336	7.5	985.0	**232/500 W33**	**232/500 K/W33**	10500	17300	360	500

PLANE THRUST BALL BEARINGS UBC

TYPE CODE: 5



TYPE CODE +SIZE CODE
511XX
512XX
513XX
514XX

Type code	Series	Size code
5	11	05
5	12	10
5	13	15
5	14	

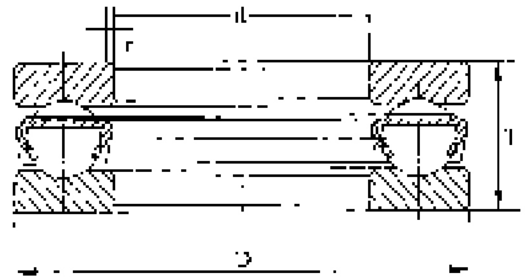
I.D.

5 X -- = mm

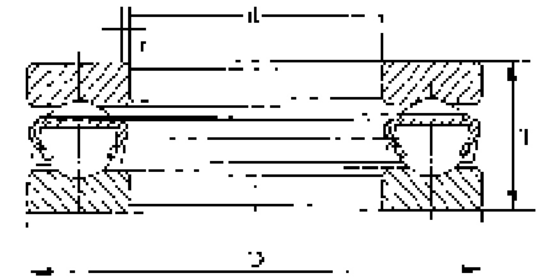
5 X 05 = 25mm

5 X 10 = 50mm

5 X 15 = 75mm

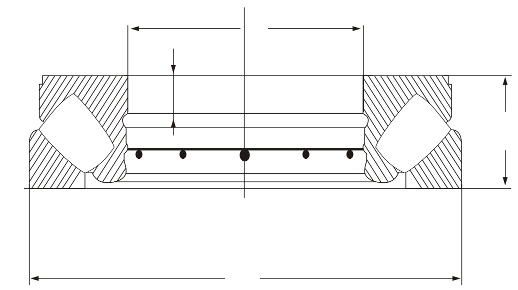


Principal dimensions (mm)				Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
10	24	9	0.3	0.019	51100	9.00	13.44	6400	9000
	26	11	0.6	0.028	51200	11.43	16.42	5500	7900
12	26	9	0.3	0.021	51101	9.27	14.78	6100	8700
	28	11	0.6	0.031	51201	11.88	18.24	5300	7600
15	28	9	0.3	0.023	51102	9.45	16.13	5900	8400
	32	12	0.6	0.043	51202	14.94	23.81	4800	6700
17	30	9	0.3	0.025	51103	9.72	17.47	5700	8100
	35	12	0.6	0.050	51203	15.48	26.21	4600	6500
20	35	10	0.3	0.037	51104	12.78	23.71	4900	7100
	40	14	0.6	0.077	51204	20.07	36.00	3900	5600
25	42	11	0.6	0.056	51105	17.64	35.52	4400	6200
	47	15	0.6	0.111	51205	25.02	48.48	3500	5000
	52	18	1.0	0.169	51305	31.95	59.04	3000	4400
	60	24	1.0	0.330	51405	55.50	89.5	2600	3700
30	47	11	0.6	0.064	51106	18.36	40.32	4100	5900
	52	16	0.6	0.137	51206	26.37	55.68	3200	4700
	60	21	1.0	0.267	51306	38.70	75.36	2700	3700
	70	28	1.0	0.516	51406	72.50	126.00	2200	3200
35	52	12	0.6	0.081	51107	18.36	42.72	3700	5300
	62	18	1.0	0.210	51207	35.10	74.88	2800	4000
	68	24	1.0	0.386	51307	49.95	100.80	2300	3300
	80	32	1.1	0.759	51407	87.00	155.00	1900	2800
40	60	13	0.6	0.120	51108	24.21	60.48	3300	4800
	68	19	1.0	0.270	51208	42.30	94.56	2600	3700
	78	26	1.0	0.536	51308	62.10	129.60	2100	2900
	90	36	1.1	1.080	51408	112.00	205.00	1700	2500
45	65	14	0.6	0.143	51109	25.11	66.24	3000	4400
	73	20	1.0	0.310	51209	43.20	100.80	2500	3500
	85	28	1.0	0.672	51309	72.00	156.48	1900	2800
	100	39	1.1	1.430	51409	130.00	242.00	1600	2200
50	70	14	0.6	0.153	51110	25.92	72.48	2900	4300
	78	22	1.0	0.378	51210	43.65	106.56	2300	3200
	95	31	1.1	0.931	51310	86.85	193.92	1700	2500
	110	43	1.5	1.900	51410	158.00	310.00	1400	2000
55	78	16	0.6	0.227	51111	31.50	89.28	2700	3800

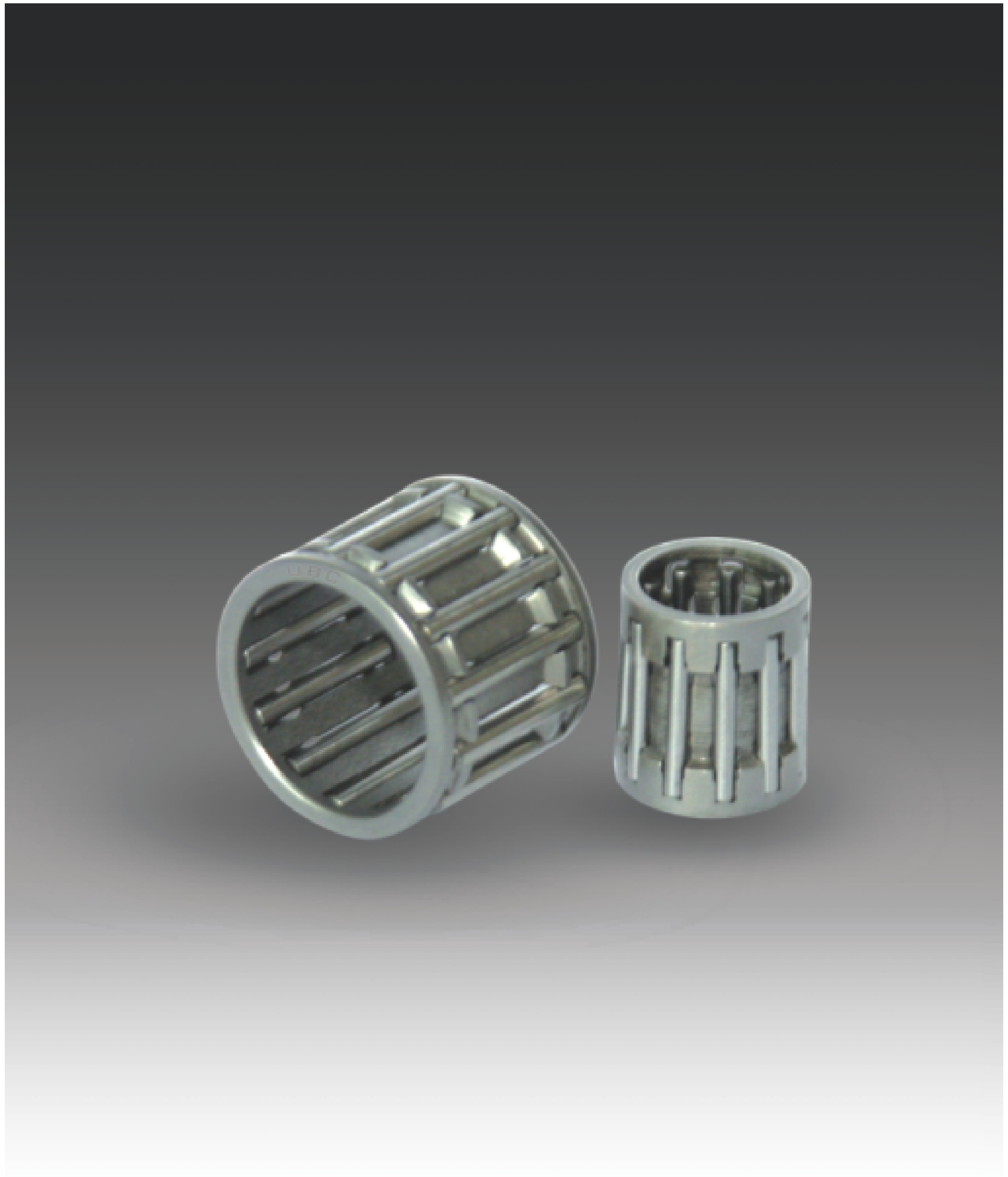


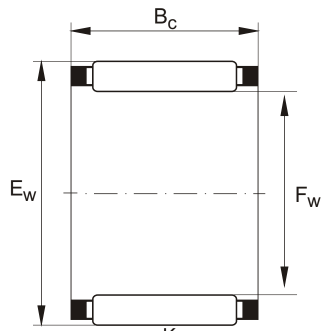
Principal dimensions (mm)				Weight	Bearing Number	Basic Load Rating (kN)		Limiting Speed (rpm)	
d	D	T	r_{smin}	Kg		Dynamic Cr	Static Cor	Grease	Oil
55	90	25	1.0	0.599	51211	62.55	152.64	2000	2900
	105	35	1.1	1.310	51311	107.10	236.16	1500	2200
	120	48	1.5	2.520	51411	178.00	360.00	1300	1800
60	85	17	1.0	0.281	51112	37.35	108.48	2500	3500
	95	26	1.0	0.673	51212	66.15	171.84	1900	2700
	110	35	1.1	1.400	51312	110.70	256.32	1500	2200
	130	51	1.5	3.120	51412	214.00	435.00	1200	1700
65	90	18	1.0	0.324	51113	37.35	112.32	2300	3300
	100	27	1.0	0.756	51213	67.50	181.44	1800	2600
	115	36	1.1	1.540	51313	115.20	275.52	1400	2100
	140	56	2.0	3.960	51413	232.00	495.00	1100	1600
70	95	18	1.0	0.346	51114	38.70	121.92	2300	3200
	105	27	1.0	0.793	51214	68.40	191.04	1700	2500
	125	40	1.1	2.000	51314	133.20	326.40	1300	1900
	150	60	2.0	4.860	51414	250.00	555.00	1000	1500
75	100	19	1.0	0.389	51115	40.05	130.56	2100	3000
	110	27	1.0	0.845	51215	69.75	200.64	1700	2500
	135	44	1.5	2.600	51315	153.90	379.20	1200	1700
	160	65	2.0	5.970	51415	269.00	615.00	940	1400
80	105	19	1.0	0.417	51116	40.05	135.36	2100	2900
	115	28	1.0	0.931	51216	70.65	209.28	1600	2300
	140	44	1.5	2.740	51316	158.40	408.00	1100	1700
	170	68	2.1	7.770	51416	270.00	620.00	890	1300
85	110	19	1.0	0.440	51117	41.40	144.00	2000	2900
	125	31	1.0	1.220	51217	85.95	253.44	1500	2100
	150	49	1.5	3.570	51317	180.90	470.40	1000	1500
	180	72	2.1	9.170	51417	288.00	685.00	840	1200
90	120	22	1.0	0.646	51118	53.55	182.40	1800	2600
	135	35	1.1	1.690	51218	105.30	312.00	1300	1900
	155	50	1.5	3.830	51318	178.20	470.40	1000	1500
	190	77	2.1	11.000	51418	305.00	750.00	790	1100
100	135	25	1.0	0.960	51120	76.50	257.28	1600	2300
	150	38	1.1	2.250	51220	132.30	393.60	1200	1700
	170	55	1.5	4.980	51320	213.30	571.2	900	1300
	210	85	3	14.700	51420	370.00	970.00	710	1000

SPHERICAL ROLLER THRUST BEARINGS



Principal dimensions (mm)				Basic Load Rating (kN)		Limiting Speed (rpm)	Bearing Number	Weight
d	D	T	r_{smin}	Dynamic Cr	Static Cor	Oil		Kg
60	130	42	1.5	283	805	2600	29412	2.78
65	140	45	2.0	330	945	2400	29413	3.44
70	150	48	2.0	365	1040	2200	29414	4.19
75	160	51	2.0	415	1190	2100	29415	5.07
80	170	54	2.1	460	1380	1900	29416	6.09
85	150	39	1.5	265	820	2300	29317	2.94
	180	58	2.1	490	1480	1800	29417	7.20
90	155	39	1.5	285	915	2300	29318	3.08
	190	60	2.1	545	1680	1700	29418	8.38
100	170	42	1.5	345	1160	2100	29320	3.94
	210	67	3.0	685	2130	1500	29420	11.50
110	190	48	2.0	445	1500	1800	29322	5.78
	230	73	3.0	845	2620	1400	29422	15.00
120	210	54	2.1	535	1770	1600	29324	7.92
	250	78	4.0	975	3050	1300	29424	18.60
130	225	58	2.1	615	2100	1500	29326	9.76
	270	85	4.0	1080	3550	1200	29426	23.70
140	240	60	2.1	685	2360	1400	29328	11.40
	280	85	4.0	1110	3750	1200	29428	25.20
150	215	39	1.5	340	1340	1800	29230	4.56
	250	60	2.1	675	2390	1400	29330	12.00
	300	90	4.0	1280	4350	1100	29430	30.50
160	225	39	1.5	360	1460	1700	29232	4.88
	270	67	3.0	820	2860	1300	29332	15.90
	320	95	5.0	1500	5150	1000	29432	37.00
170	240	42	1.5	425	1770	1600	29234	6.02
	280	67	3.0	855	3050	1200	29334	16.60
	340	103	5.0	1660	5750	940	29434	15.00
180	250	42	1.5	450	1920	1600	29236	6.27
	300	73	3.0	995	3600	1100	29336	21.20
	360	109	5.0	1840	6200	890	29436	52.90
190	270	48	2.0	530	2230	1400	29238	8.80
	320	78	4.0	1150	4250	1100	29338	26.00
	380	115	5.0	2010	6800	840	29438	62.00
200	280	48	2.0	535	2300	1400	29240	9.14
	340	85	4.0	1280	4600	980	29340	31.90
	400	122	5.0	2230	7650	790	29440	73.30





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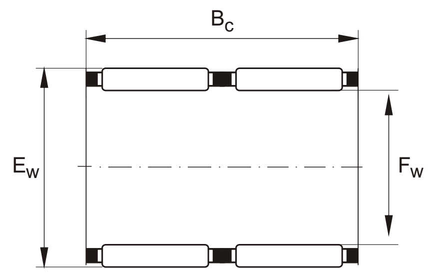
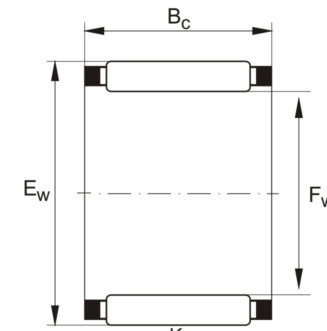


K..ZW

Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			Fw	Ew	Bc	Dynamic C	Static Co		
3	K 3×5×7 TN	0.3	3	5	7	1.54	1.29	50000	90000
	K 3×5×9 TN	0.4	3	5	9	1.71	1.48	50000	95000
	K 3×6×7 TN	0.4	3	6	7	1.40	0.97	47000	85000
4	K 4×7×7 TN	0.5	4	7	7	1.74	1.27	43000	70000
	K 4×7×10 TN	0.7	4	7	10	2.33	1.84	43000	70000
5	K 5×8×8 TN	0.7	5	8	8	2.35	1.92	39000	55000
	K 5×8×10 TN	0.9	5	8	10	3.00	2.65	39000	55000
6	K 6×9×8 TN	0.8	6	9	8	2.60	2.28	37000	48000
	K 6×9×10 TN	1.1	6	9	10	3.35	3.15	37000	47000
	K 6×10×13 TN	1.9	6	10	13	3.80	3.10	35000	46000
7	K 7×9×7 TN	0.6	7	9	7	1.73	1.77	35000	46000
	K 7×10×8 TN	0.9	7	10	8	2.85	2.65	34000	42000
	K 7×10×10 TN	1.0	7	10	10	3.65	3.60	34000	41000
8	K 8×11×8 TN	1.0	8	11	8	3.10	3.00	32000	37000
	K 8×11×10 TN	1.2	8	11	10	3.95	4.10	32000	36000
	K 8×11×13 TN	1.7	8	11	13	5.10	5.80	32000	36000
	K 8×12×10 TN	2.0	8	12	10	5.00	4.70	32000	32000
9	K 9×12×10 TN	1.5	9	12	10	4.50	5.00	31000	32000
	K 9×12×13 TN	2.1	9	12	13	5.90	7.10	31000	31000
10	K 10×13×10 TN	1.6	10	13	10	4.75	5.50	29000	29000
	K 10×13×13 TN	2.3	10	13	13	6.20	7.80	29000	29000
	K 10×13×16 TN	2.9	10	13	16	7.10	9.30	29000	29000
	K 10×14×10 TN	2.5	10	14	10	5.80	6.00	29000	27000
	K 10×14×13 TN	4.6	10	14	13	7.50	8.40	29000	27000
	K 10×16×12 TN	5.5	10	16	12	8.10	7.20	28000	25000
12	K 12×15×10 TN	2.9	12	15	10	4.90	6.10	27000	25000
	K 12×15×13 TN	2.3	12	15	13	6.40	8.50	27000	25000
	K 12×16×13 TN	5.5	12	16	13	8.00	9.40	27000	23000
	K 12×17×13 TN	4.9	12	17	13	9.60	10.40	26000	22000
	K 12×18×12 TN	6.0	12	18	12	10.00	9.90	26000	21000



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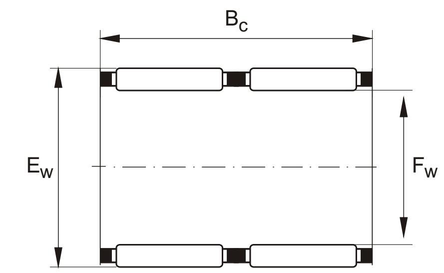
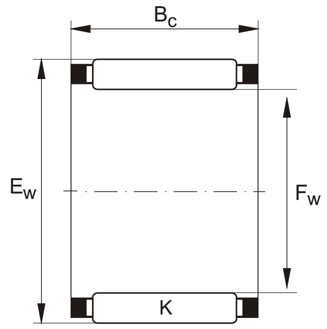
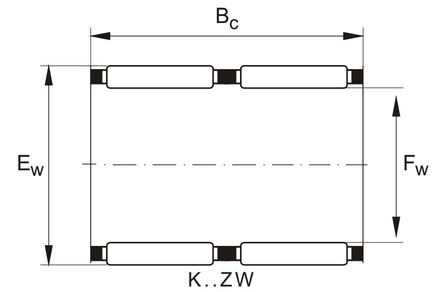


K..ZW

Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			Fw	Ew	Bc	Dynamic C	Static Co		
14	K 14×18×10	4.0	14	18	10	7.1	8.5	25000	20000
	K 14×18×13	6.5	14	18	13	8.2	10.1	25000	21000
	K 14×18×15 TN	5.0	14	18	15	9.5	12.3	25000	20000
	K 14×18×17	8.0	14	18	17	10.8	14.4	25000	20000
	K 14×20×12	8.5	14	20	12	10.3	10.6	25000	19000
15	K 15×18×17 TN	4.6	15	18	17	8.0	12.1	24000	21000
	K 15×19×10	5.0	15	19	10	7.5	9.2	25000	19000
	K 15×19×13	7.0	15	19	13	8.5	10.9	24000	19000
	K 15×19×17	9.5	15	19	17	11.3	15.6	24000	19000
	K 15×20×13	7.0	15	20	13	9.9	11.5	24000	19000
	K 15×21×15	11.0	15	21	15	14.3	16.4	24000	17000
	K 15×21×21	17.0	15	21	21	19.4	24.3	24000	17000
16	K 16×20×10	5.5	16	20	10	7.8	9.9	24000	18000
	K 16×20×13	7.5	16	20	13	8.9	11.8	24000	18000
	K 16×20×17	10.0	16	20	17	11.7	16.8	24000	18000
	K 16×22×12	10.0	16	22	12	11.5	12.5	23000	17000
	K 16×22×16	12.0	16	22	16	14.8	17.5	23000	17000
	K 16×22×20	17.0	16	22	20	18.3	22.8	23000	16000
	K 16×24×20	22.0	16	24	20	21.4	23.5	22000	15000
17	K 17×21×10	5.5	17	21	10	8.1	10.6	23000	17000
	K 17×21×13	6.5	17	21	13	10.4	14.6	23000	17000
	K 17×21×17	9.5	17	21	17	12.2	17.9	23000	17000
18	K 18×22×10	6.0	18	22	10	8.4	11.3	22000	16000
	K 18×22×13	8.0	18	22	13	9.2	12.7	22000	17000
	K 18×22×17	11.0	18	22	17	12.1	18.0	22000	16000
	K 18×24×12	12.0	18	24	12	12.8	14.9	22000	15000
	K 18×24×13	13.0	18	24	13	13.1	15.3	22000	15000
	K 18×24×20	18.0	18	24	20	20.2	27.0	22000	14000
	K 18×25×22	23.0	18	25	22	23.1	29.0	22000	14000
19	K 19×23×13	8.0	19	23	13	9.5	13.5	22000	16000
	K 19×23×17	11.0	19	23	17	12.5	19.2	22000	15000

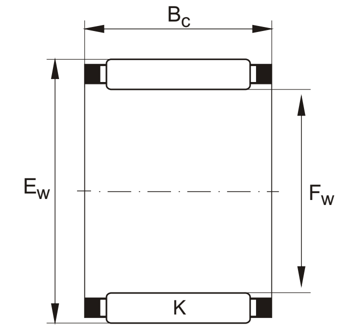
TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)

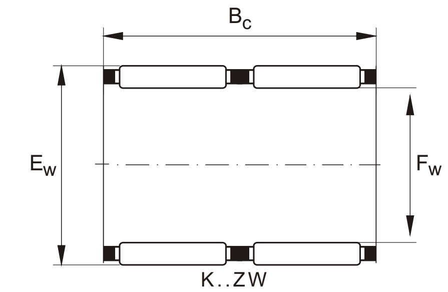




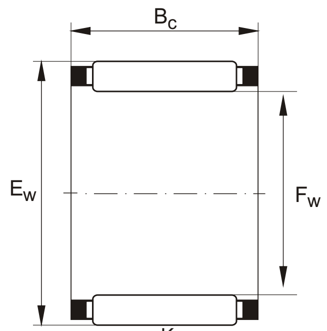
Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			Fw	Ew	Bc	Dynamic C	Static Co		
20	K 20×24×10	6.5	20	24	10	8.9	12.6	21000	15000
	K 20×24×13	9.0	20	24	13	9.8	14.3	21000	15000
	K 20×24×17	12.0	20	24	17	12.9	20.4	21000	15000
	K 20×26×12	11.0	20	26	12	31.4	16.2	21000	13000
	K 20×26×13	12.0	20	26	13	14.4	17.9	21000	14000
	K 20×26×17	16.0	20	26	17	19.2	26.0	21000	13000
	K 20×26×20	19.0	20	26	20	21.1	29.0	21000	13000
	K 20×28×16	20.0	20	28	16	19.8	22.4	20000	13000
	K 20×28×20	27.0	20	28	20	23.9	28.5	20000	13000
	K 20×28×25	32.0	20	28	25	30.5	39.0	20000	13000
	K 20×30×30	49.0	20	30	30	35.5	41.5	20000	13000
21	K 21×25×13	9.0	21	25	13	10.1	15.1	21000	14000
22	K 22×26×10	7.5	22	26	10	9.1	13.4	20000	13000
	K 22×26×13	9.5	22	26	13	10.4	15.9	20000	14000
	K 22×26×17	12.0	22	26	17	13.7	22.7	20000	13000
	K 22×28×17	18.0	22	28	17	19.4	27.0	20000	12000
	K 22×29×16	16.0	22	29	16	20.0	25.5	19000	12000
	K 22×30×15 TN	18.0	22	30	15	20.1	23.4	19000	12000
	K 22×32×24	43.0	22	32	24	34.0	40.0	18000	11000
23	K 23×35×16 TN	29.0	23	35	16	24.5	23.9	17000	11000
24	K 24×28×10	8.5	24	28	10	9.6	14.8	19000	12000
	K 24×28×13	10.0	24	28	13	11.0	17.6	19000	13000
	K 24×28×17	13.0	24	28	17	14.5	25.0	19000	12000
	K 24×30×17	19.0	24	30	17	19.5	27.5	18000	12000
	K 24×30×31 ZW	32.0	24	30	31	27.5	43.5	18000	12000

TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)





Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			Fw	Ew	Bc	Dynamic C	Static Co		
25	K 25×29×10	8.5	25	29	10	9.9	15.4	18000	12000
	K 25×29×13	11.0	25	29	13	11.3	18.4	18000	12000
	K 25×29×17	14.0	25	29	17	14.9	26.0	18000	12000
	K 25×30×17	16.0	25	30	17	18.7	30.0	18000	11000
	K 25×30×20	18.0	25	30	20	21.7	36.5	18000	11000
	K 25×30×26 ZW	19.0	25	30	26	21.4	35.5	18000	12000
	K 25×31×17	19.0	25	31	17	19.6	28.5	18000	11000
	K 25×31×21	20.0	25	31	21	24.7	38.0	18000	11000
	K 25×32×16	21.0	25	32	16	20.8	27.5	17000	11000
	K 25×33×20	33.0	25	33	20	28.5	38.0	17000	11000
	K 25×33×24	39.0	25	33	24	34.0	47.0	17000	10000
	K 25×35×30	65.0	25	35	30	47.0	62.0	16000	10000
26	K 26×30×13	11.0	26	30	13	11.6	19.2	18000	12000
	K 26×30×17	15.0	26	30	17	15.2	27.5	18000	12000
	K 26×30×22 ZW	12.0	26	30	22	15.7	28.5	18000	12000
28	K 28×33×13	13.0	28	33	13	15.3	24.2	16000	10000
	K 28×33×17	17.0	28	33	17	19.7	33.5	16000	10000
	K 28×34×17	24.0	28	34	17	21.8	33.5	16000	10000
	K 28×35×16	24.0	28	35	16	21.5	29.5	16000	10000
	K 28×35×18	27.0	28	35	18	24.0	34.0	16000	10000
	K 28×40×25	70.0	28	40	25	45.5	55.0	14000	9000
30	K 30×34×13	14.0	30	34	13	12.3	21.7	15000	10000
	K 30×35×13	14.0	30	35	13	15.6	25.5	15000	10000
	K 30×35×17	19.0	30	35	17	19.6	34.0	15000	10000
	K 30×35×27	30.0	30	35	27	30.5	59.0	15000	9500
	K 30×37×16	27.0	30	37	16	23.1	33.5	15000	9500
	K 30×37×18	30.0	30	37	18	26.0	38.5	15000	9500
	K 30×40×18	48.0	30	40	18	32.0	40.0	14000	9000
	K 30×40×30	73.0	30	40	30	49.0	69.0	15000	9000



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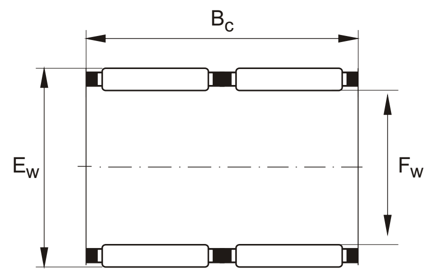
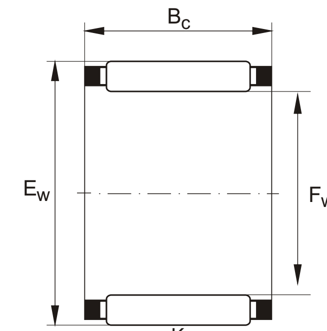


K..ZW

Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			F_w	E_w	B_c	Dynamic C	Static Co		
32	K 32×37×13	18	32	37	13	15.5	25.5	14000	9500
	K 32×37×17	19	32	37	17	19.9	35.5	14000	9500
	K 32×37×27	30	32	37	27	30.0	60.0	14000	9000
	K 32×38×20	30	32	38	20	26.5	45.0	14000	9000
	K 32×39×16	37	32	39	16	23.8	35.5	14000	9000
	K 32×39×18	31	32	39	18	26.5	41.0	14000	9000
	K 32×40×25	49	32	40	25	37.5	58.0	14000	8500
	K 32×40×42 ZW TN	77	32	40	42	50.0	84.0	14000	9000
	K 32×46×32	119	32	46	32	66.0	84.0	13000	8000
35	K 35×40×13	19	35	40	13	16.2	28.0	13000	9000
	K 35×40×17	21	35	40	17	20.8	38.5	13000	8500
	K 35×40×25	31	35	40	25	29.5	60.0	13000	8500
	K 35×40×27 TN	39	35	40	27	25.0	48.5	13000	9000
	K 35×42×16	34	35	42	16	24.4	37.5	13000	8500
	K 35×42×18	34	35	42	18	27.5	43.0	13000	8500
	K 35×42×20	37	35	42	20	30.0	49.0	13000	8000
	K 35×42×30	67	35	42	30	39.0	68.0	13000	8500
	K 35×45×20	56	35	45	20	37.0	50.0	12000	8000
	K 35×45×30	80	35	45	30	53.0	79.0	12000	8000
37	K 37×42×17	22	37	42	17	22.4	43.0	12000	8000
38	K 38×43×17	29	38	43	17	20.5	38.5	12000	8000
	K 38×43×27	43	38	43	27	31.5	68.0	12000	8000
	K 38×46×20	47	38	46	20	35.5	57.0	12000	7500
	K 38×46×32	76	38	46	32	55.0	99.0	12000	7500
39	K 39×44×26 ZW	45	39	44	26	27.5	56.0	12000	8000

TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)



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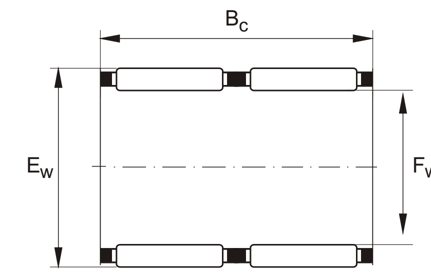
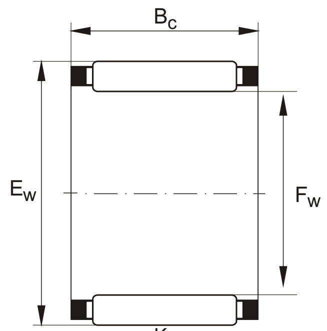


K..ZW

Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			F_w	E_w	B_c	Dynamic C	Static Co		
40	K 40×45×13	22	40	45	13	17.6	32.5	12000	8000
	K 40×45×17	31	40	45	17	21.4	41.5	12000	8000
	K 40×45×27	46	40	45	27	33.0	73.0	12000	7500
	K 40×47×18	39	40	47	18	29.5	50.0	11000	7500
	K 40×47×20	42	40	47	20	32.5	57.0	11000	7500
	K 40×48×20	49	40	48	20	36.0	59.0	11000	7000
42	K 42×47×13	18	42	47	13	17.8	33.5	11000	7500
	K 42×47×17	32	42	47	17	21.7	43.0	11000	7500
	K 42×47×30 ZW	54	42	47	30	33.5	76.0	11000	7500
	K 42×50×20	53	42	50	20	35.0	57.0	11000	7000
43	K 43×48×17	30	43	48	17	21.6	43.0	11000	7500
	K 43×47×27	50	43	48	27	33.5	75.0	11000	7000
45	K 45×50×17	34	45	50	17	22.5	46.0	10000	7000
	K 45×50×27	51	45	50	27	34.5	80.0	10000	7000
	K 45×52×18	42	45	52	18	31.5	57.0	10000	6500
	K 45×53×20	55	45	53	20	39.0	67.0	10000	6500
	K 45×53×21	60	45	53	21	38.5	67.0	10000	6500
	K 45×53×28	81	45	53	28	52.0	98.0	10000	6500
	K 45×59×18 TN	72	45	59	18	44.0	54.0	9500	6500
	K 45×59×32	148	45	59	32	73.0	103.0	9500	6500
47	K 47×52×17	35	47	52	17	23.3	49.0	10000	7000
	K 47×52×27	51	47	52	27	35.0	83.0	10000	6500

TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)



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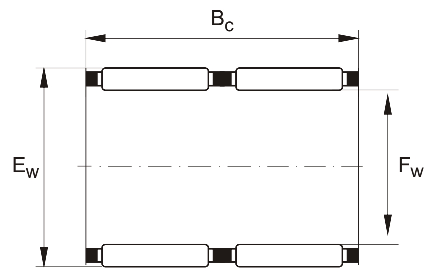
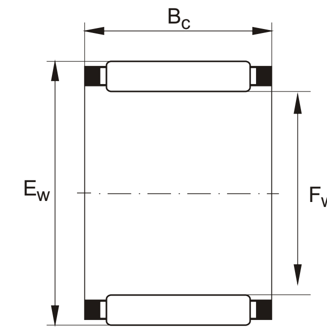


K..ZW

Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			Fw	Ew	Bc	Dynamic C	Static Co		
50	K 50×55×13.5	30	50	55	13.5	18.2	36.5	9500	6500
	K 50×55×17	35	50	55	17.0	22.1	47.0	9500	6500
	K 50×55×20	43	50	55	20.0	26.5	60.0	9500	6500
	K 50×55×30	65	50	55	30.0	39.0	97.0	9500	6500
	K 50×57×18	47	50	57	18.0	33.5	63.0	9000	6000
	K 50×58×20	75	50	58	20.0	35.5	62.0	9000	6500
	K 50×58×25	90	50	58	25.0	44.0	81.0	9000	6000
52	K 52×57×12	24	52	57	12.0	18.0	36.5	9000	6500
55	K 55×60×20	40	55	60	20.0	28.5	66.0	8500	6000
	K 55×60×27	60	55	60	27.0	38.0	97.0	8500	6000
	K 55×60×30	71	55	60	30.0	41.0	108.0	8500	6000
	K 55×62×18	52	55	62	18.0	35.5	70.0	8500	5500
	K 55×63×20	67	55	63	20.0	40.0	74.0	8500	5500
	K 55×63×25	80	55	63	25.0	51.0	101.0	8500	5500
	K 55×63×32	102	55	63	32.0	62.0	130.0	8500	5500
58	K 58×65×18	52	58	65	18.0	35.0	70.0	8000	5500
	K 58×65×36 ZW	127	58	65	36.0	49.0	107.0	8000	6000
60	K 60×65×20	52	60	65	20.0	29.5	72.0	8000	5500
	K 60×65×30	77	60	65	30.0	42.5	116.0	8000	5500
	K 60×66×33 ZW	104	60	66	33.0	46.0	112.0	8000	5500
	K 60×66×40 ZW	116	60	66	40.0	58.0	151.0	8000	5500
	K 60×68×20	71	60	68	20.0	43.5	85.0	7500	5000
	K 60×68×23	94	60	68	23.0	49.5	101.0	7500	5000
	K 60×68×25	89	60	68	25.0	53.0	111.0	7500	5000
	K 60×68×30 ZW	129	60	68	30.0	44.5	88.0	7500	6000
	K 60×75×42	240	60	75	42.0	118.0	199.0	7500	4800
62	K 62×70×40 ZW	174	62	70	40.0	66.0	146.0	7500	5500
64	K 64×70×16	53	64	70	16.0	28.0	60.0	7500	5500



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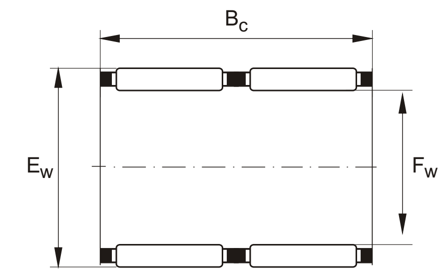
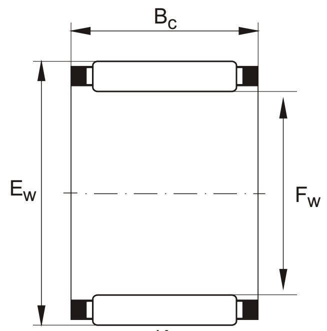


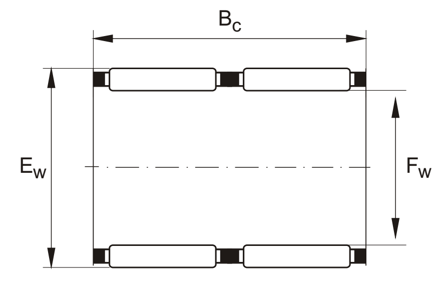
K..ZW

Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			Fw	Ew	Bc	Dynamic C	Static Co		
65	K 65×70×20	56	65	70	20	30.5	77	7500	5000
	K 65×70×30	83	65	70	30	44.0	1274	7500	5000
	K 65×73×23	108	65	73	23	46.0	94	7000	5000
	K 65×73×30	141	65	73	30	57.0	123	7000	5000
68	K 68×74×20	71	68	74	20	35.5	84	7000	5000
	K 68×74×30	100	68	74	30	46.5	118	7000	5000
	K 68×74×35 ZW	120	68	74	35	48.5	125	7000	5000
70	K 70×76×20	71	70	76	20	36.0	86	6500	4900
	K 70×76×30	110	70	76	30	52.0	139	6500	4700
	K 70×78×30	148	70	78	30	60.0	135	6500	4700
72	K 72×80×20	98	72	80	20	41.5	85	6500	4700
73	K 73×79×20	75	73	79	20	37.0	90	6500	4700
75	K 75×81×20	79	75	81	20	37.5	94	6500	4600
	K 75×81×30	114	75	81	30	52.0	143	6500	4500
	K 75×83×23	124	75	83	23	50.0	109	6000	4500
	K 75×83×30	147	75	83	30	62.0	143	6000	4500
	K 75×83×35 ZW	182	75	83	35	63.0	147	6000	4700
	K 75×83×40 ZW	211	75	83	40	73.0	177	6000	4600
80	K 80×86×20	60	80	86	20	38.5	98	6000	4400
	K 80×88×30	138	80	88	30	71.0	176	6000	4000
	K 80×88×40 ZW	227	80	88	40	76.0	192	6000	4300
	K 80×88×46 ZW	260	80	88	46	88.0	231	6000	4300
85	K 85×92×20	102	85	92	20	44.5	108	5500	4100
90	K 90×97×20	109	90	97	20	45.0	113	5000	3900
	K 90×98×27	150	90	98	27	61.0	150	5000	3900
	K 90×98×30	172	90	98	30	68.0	172	5000	3900
95	K 95×103×30	165	95	103	30	69.0	180	4900	3700
	K 95×103×40 ZW	266	95	103	40	83.0	228	4900	3800

NEEDLE ROLLER BEARINGS AND CAGE ASSEMBLY



K

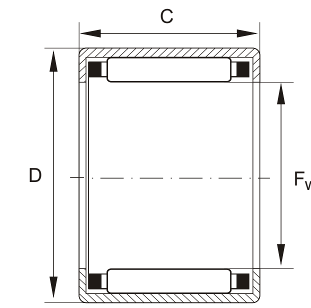


K..ZW

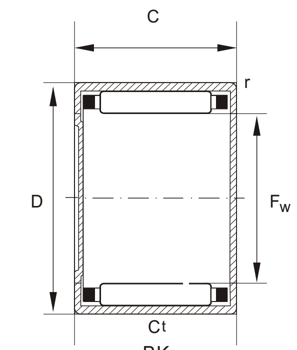
Shaft Diameter (mm)	Bearing Number	Weight ≈ g	Principal dimensions (mm)			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
			F_w	E_w	B_c	Dynamic C	Static Co		
100	**K 100×107×21**	120	100	107	21	48	127	4700	3600
	K 100×108×27	185	100	108	27	57	143	4700	3800
	K 100×108×30	180	100	108	30	71	188	4700	3600
105	**K 105×112×21**	129	105	112	21	47.5	127	4500	3500
110	**K 110×117×24**	172	110	117	24	56	158	4300	3400
	K 110×118×30	217	110	118	30	78	219	4300	3200
115	**K 115×123×27**	200	115	123	27	63	170	4100	3300
120	**K 120×127×24**	165	120	127	24	59	174	4000	3100
125	**K 125×133×35**	275	125	133	35	86	260	3800	2900
130	**K 130×137×24**	170	130	137	24	61	186	3700	3000
135	**K 135×143×35**	300	135	143	35	91	290	3500	2700
145	**K 145×153×26**	262	145	153	26	74	225	3300	2700
150	**K 150×160×46**	570	150	160	46	147	470	3200	2100
155	**K 155×163×26**	265	155	163	26	75	236	3100	2600
160	**K 160×170×46**	550	160	170	46	152	510	3000	2000
165	**K 165×173×26**	320	165	173	26	81	265	2900	2300
175	**K 175×183×32**	400	175	183	32	99	350	2700	2100
185	**K 185×195×37**	607	185	195	37	128	245	2600	1900
195	**K 195×205×37**	620	195	205	37	133	450	2500	1800
210	**K 210×220×42**	740	210	220	42	154	560	2300	1600
220	**K 220×230×42**	790	220	230	42	158	590	2200	1500
240	**K 240×250×42**	850	240	250	42	164	630	2000	1400
265	**K 265×280×50**	1810	265	280	50	255	860	1800	1100

SHELL TYPE NEEDLE ROLLER BEARINGS, OPEN END DESIGN

UBC



HK

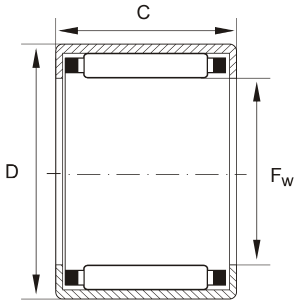


BK

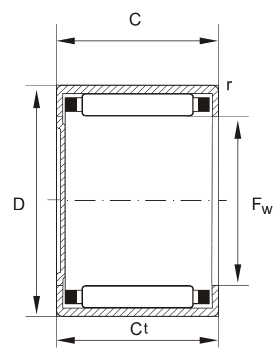
Shaft Diameter (mm)	Principal dimensions (mm)					Open end design		Closed end design	
	F_w	D	C	C_t min	r min	Bearing Number	Weight ≈ g	Bearing Number	Weight ≈ g
3	3	6.5	6	5.2	0.3	**+HK 0306 TN**	1.0	**+BK 0306 TN**	1.0
4	4	8	8	6.4	0.3	**+HK 0408**	2.0	**+BK 0408**	2.1
5	5	9	9	7.4	0.4	**+HK 0509**	2.0	**+BK 0509**	2.1
6	6	10	8	-	0.4	**+HK 0608**	2.1	-	-
	6	10	9	7.4	0.4	**HK 0609**	2.5	**BK 0609**	2.6
7	7	11	9	7.4	0.4	**HK 0709**	2.6	**BK 0709**	2.9
8	8	12	8	6.4	0.4	**HK 0808**	2.7	**BK 0808**	3.0
	8	12	10	8.4	0.4	**HK 0810**	3.0	**BK 0810**	3.4
9	9	13	8	-	0.4	**HK 0908**	3.0	-	-
	9	13	10	8.4	0.4	**HK 0910**	4.0	**BK 0910**	4.3
	9	13	12	10.4	0.4	**HK 0912**	4.6	**BK 0912**	4.9
10	10	14	10	8.4	0.4	**HK 1010**	4.1	**BK 1010**	4.3
	10	14	12	10.4	0.4	**HK 1012**	4.8	**BK 1012**	5.0
	10	14	15	13.4	0.4	**HK 1015**	6.0	**BK 1015**	6.2
12	12	16	10	8.4	0.4	**HK 1210**	4.6	**BK 1210**	5.2
	12	18	12	9.3	0.8	**HK 1212**	9.0	**BK 1212**	10.0
13	13	19	12	9.3	0.8	**HK 1312**	10.0	**BK 1312**	11.0
14	14	20	12	9.3	0.8	**HK 1412**	10.5	**BK 1412**	12.0
15	15	21	12	9.3	0.8	**HK 1512**	11.0	**BK 1512**	13.0
	15	21	16	13.3	0.8	**HK 1516**	15.0	**BK 1516**	17.0
	15	22	22	-	0.8	**◦HK 1522**	20.0	-	-
16	16	22	12	9.3	0.8	**HK 1612**	12.0	**BK 1612**	14.0
	16	22	16	13.3	0.8	**HK 1616**	16.0	**BK 1616**	18.0
	16	23	22	19.3	0.8	**◦HK 1622**	22.0	**◦BK 1622**	24.0
17	17	24	12	-	0.8	**HK 1712**	12.0	-	-
18	18	24	12	9.3	0.8	**HK 1812**	13.0	**BK 1812**	15.0
	18	26	16	13.3	0.8	**HK 1816**	18.0	**BK 1816**	20.0
20	20	26	10	-	0.8	**HK 2010**	12.0	-	-
	20	26	12	-	0.8	**HK 2012**	14.0	-	-
	20	26	16	13.3	0.8	**HK 2016**	19.0	**BK 2016**	22.0
	20	26	20	17.3	0.8	**HK 2020**	24.0	**BK 2020**	27.0
	20	26	30	-	0.8	**◦HK 2030**	35.0	-	-
22	22	28	10	-	0.8	**HK 2210**	13.0	-	-
	22	28	12	9.3	0.8	**HK 2212**	15.0	**BK 2212**	18.0
	22	28	16	13.3	0.8	**HK 2216**	21.0	**BK 2216**	24.0
	22	28	20	-	0.8	**HK 2220**	26.0	-	-

TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)
+Without oil hole
◦ With double-row oil holes are of standard type

SHELL TYPE NEEDLE ROLLER BEARINGS, CLOSED END DESIGN



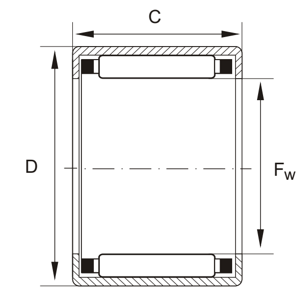
HK



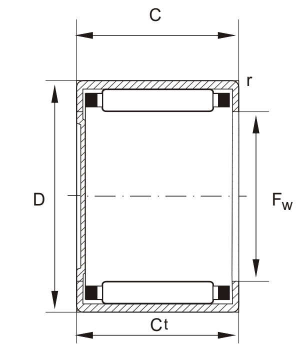
BK(3mm<Fw<25mm)

Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min	Shaft Diameter (mm)
1.23	0.84	46000	65000	3
1.78	1.31	41000	50000	4
2.40	1.99	38000	42000	5
2.03	1.65	35000	36000	6
2.85	2.60	35000	35000	
3.10	2.95	31000	31000	7
2.75	2.60	28000	27000	8
3.80	3.95	28000	27000	
3.55	3.75	25000	23000	9
4.25	4.65	25000	24000	
5.30	6.30	25000	23000	
4.40	5.10	23000	22000	10
5.50	6.80	23000	21000	
6.80	8.80	23000	21000	
4.95	6.20	20000	18000	12
6.50	7.30	19000	18000	
6.80	7.90	18000	17000	13
7.10	8.50	16000	16000	14
7.90	9.40	16000	14000	15
10.50	14.40	16000	14000	
13.40	19.50	16000	14000	
7.60	9.70	15000	14000	16
10.90	15.30	15000	13000	
13.10	19.40	15000	14000	
7.90	10.30	14000	13000	17
8.10	10.90	13000	12000	18
11.60	17.30	13000	12000	
6.40	8.20	12000	12000	20
8.60	12.10	12000	11000	
12.70	20.10	12000	11000	
15.70	26.00	12000	11000	
21.80	40.00	12000	11000	
7.50	10.50	11000	10000	22
9.10	13.40	11000	10000	
13.40	22.10	11000	10000	
16.50	29.00	11000	10000	

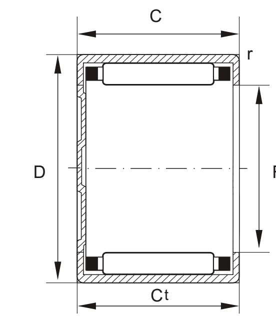
SHELL TYPE NEEDLE ROLLER BEARINGS, OPEN END DESIGN



HK



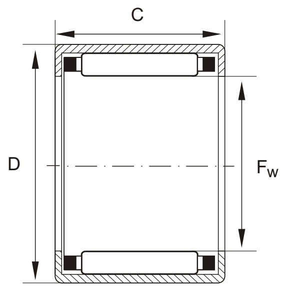
BK(3mm<Fw<25mm)



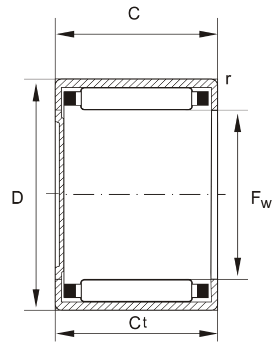
BK(Fw ≧ 25mm)

Shaft Diameter (mm)	Principal dimensions (mm) Fw	D	C	Ct min	r min	Open end design Bearing Number	Weight ≈ g	Closed end design Bearing Number	Weight ≈ g
25	25	32	12	-	0.8	**HK 2512**	20	**-**	-
	25	32	16	-	0.8	**HK 2516**	27	**-**	-
	25	32	20	17.3	0.8	**HK 2520**	33	**BK 2520**	38
	25	32	26	23.3	0.8	**HK 2526**	44	**BK 2526**	48
	25	32	38	35.3	0.8	° **HK 2538**	64	° **BK 2538**	68
28	28	35	16	-	0.8	**HK 2816**	29	**-**	-
	28	35	20	-	0.8	**HK 2820**	36	**-**	-
30	30	37	12	9.3	0.8	**HK 3012**	23	**BK 3012**	28
	30	37	16	13.3	0.8	**HK 3016**	31	**BK 3016**	38
	30	37	20	17.3	0.8	**HK 3020**	39	**BK 3020**	47
	30	37	26	23.3	0.8	**HK 3026**	51	**BK 3026**	58
	30	37	38	35.3	0.8	° **HK 3038**	76	° **BK 3038**	84
35	35	42	12	-	0.8	**HK 3512**	27	**-**	-
	35	42	16	-	0.8	**HK 3516**	36	**-**	-
	35	42	20	17.3	0.8	**HK 3520**	44	**BK 3520**	53
40	40	47	12	-	0.8	**HK 4012**	30	**-**	-
	40	47	16	-	0.8	**HK 4016**	39	**-**	-
	40	47	20	17.3	0.8	**HK 4020**	54	**BK 4020**	62
45	45	52	12	-	0.8	**HK 4512**	33	**-**	-
	45	52	16	-	0.8	**HK 4516**	46	**-**	-
	45	52	20	17.3	0.8	**HK 4520**	56	**BK 4520**	72
50	50	58	20	-	0.8	**HK 5020**	70	**-**	-
	50	58	25	-	0.8	**HK 5025**	90	**-**	-
55	55	63	20	-	0.8	**HK 5520**	74	**-**	-
	55	63	28	-	0.8	**HK 5528**	105	**-**	-
60	60	68	12	-	0.8	**HK 6012**	49	**-**	-
	60	68	20	-	0.8	**HK 6020**	81	**-**	-
	60	68	32	-	0.8	**HK 6032**	136	**-**	-

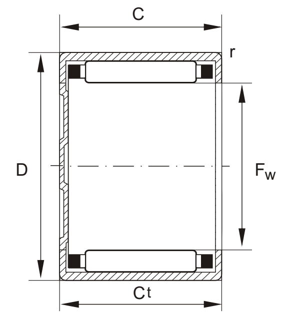
TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)
+Without oil hole
◦ With double-row oil holes are of standard type



HK

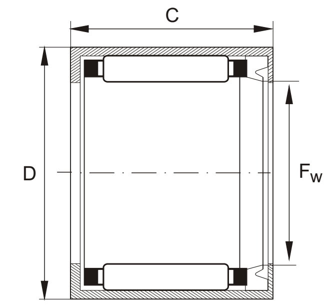


BK(3mm<Fw<25mm)

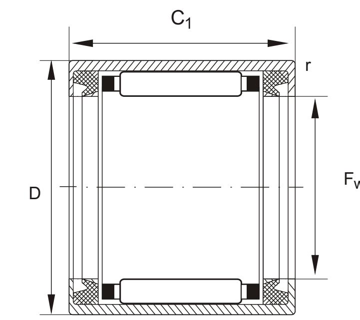


BK(Fw ≧ 25mm)

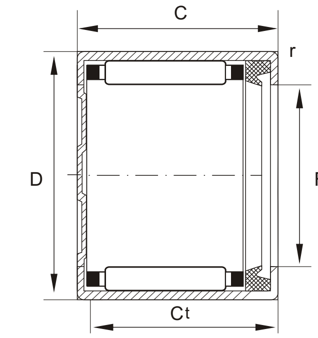
Basic Load Rating (kN)		Limiting Speed	Rotating Speed	Shaft Diameter
Dynamic C	Static Co	r/min	r/min	(mm)
11.0	15.2	10000	9000	25
15.6	24.0	10000	9000	
19.9	33.0	10000	8500	
25.5	45.0	10000	8500	
34.0	66.0	10000	8500	
16.4	26.5	9000	8000	28
20.9	36.0	9000	8000	
12.1	18.2	8500	7500	30
17.2	29.0	8500	7500	
22.0	39.5	8500	7500	
28.0	54.0	8500	7500	
37.5	79.0	8500	7500	
13.1	21.3	7500	6600	35
18.7	33.5	7500	6500	
23.8	46.0	7500	6500	
14.0	24.3	6500	6000	40
20.0	38.5	6500	6000	
25.5	52.0	6500	5500	
14.9	27.5	6000	5500	45
21.3	43.0	6000	5500	
27.0	59.0	6000	5000	
31.0	63.0	5000	4700	50
38.5	84.0	5000	4700	
31.5	67.0	4700	4400	55
44.0	103.0	4700	4300	
17.4	32.0	4400	4300	60
33.5	75.0	4400	4100	
53.0	135.0	4400	4000	



HK..RS



HK..2RS

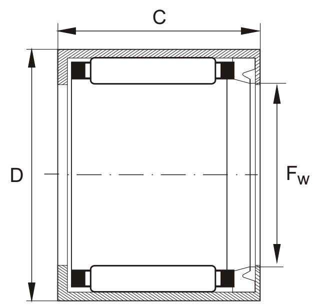


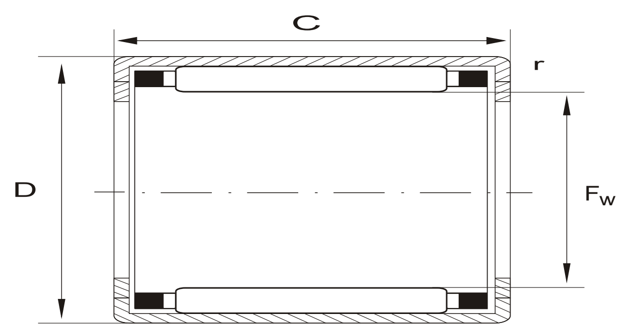
BK..RS

Shaft Diameter (mm)	Principal dimensions (mm)						Open end design				Closed end design	
	F_w	D	C	C_1	C_t min	r min	One side seal number	Weight ≈ g	Two sides seals number	Weight ≈ g	One side seal number	Weight ≈ g
8	8	12	10	12	-	0.4	**HK 0810 RS**	3	**HK 0812.2 RS**	3.3	-	-
10	10	14	12	14	-	0.4	**HK 1012 RS**	4.2	**HK 1014.2 RS**	4.6	-	-
12	12	18	14	16	-	0.8	**HK 1214 RS**	10	**HK 1216.2 RS**	11	-	-
14	14	20	14	16	11.3	0.8	**HK 1414 RS**	12	**HK 1416.2 RS**	13	**BK 1414 RS**	13
15	15	21	14	16	-	0.8	**HK 1514 RS**	12	**HK 1516.2 RS**	15	-	-
	15	21	18	20	-	0.8	**HK 1518 RS**	16	**HK 1520.2 RS**	18	-	-
16	16	22	14	16	11.3	0.8	**HK 1614 RS**	13	**HK 1616.2 RS**	14	**BK 1614 RS**	15
	16	22	-	20	-	0.8	-	-	**HK 1620.2 RS**	18	-	-
18	18	24	14	16	-	0.8	**HK 1814 RS**	14	**HK 1816.2 RS**	15	-	-
20	20	26	-	16	-	0.8	-	-	**HK 2016.2 RS**	18	-	-
	20	26	18	20	15.3	0.8	**HK 2018 RS**	21	**HK 2020.2 RS**	23	**BK 2018 RS**	24
22	22	28	14	16	-	0.8	**HK 2214 RS**	16	**HK 2216.2 RS**	18	-	-
	22	28	18	20	-	0.8	**HK 2218 RS**	24	**HK 2220.2 RS**	26	-	-
25	25	32	-	16	-	0.8	-	-	**HK 2516.2 RS**	27	-	-
	25	32	18	20	15.3	0.8	**HK 2518 RS**	29	**HK 2520.2 RS**	31	**BK 2518 RS**	34
	25	32	-	24	-	0.8	-	-	**HK 2524.2 RS**	40	-	-
	25	32	-	30	-	0.8	-	-	**HK 2530.2 RS**	47	-	-
28	28	35	18	20	-	0.8	**HK 2818 RS**	31	**HK 2820.2 RS**	34	-	-
30	30	37	-	16	-	0.8	-	-	**HK 3016.2 RS**	31	-	-
	30	37	18	20	-	0.8	**HK 3018 RS**	37	**HK 3020.2 RS**	36	-	-
	30	37	-	24	-	0.8	-	-	**HK 3024.2 RS**	44	-	-
35	35	42	-	16	-	0.8	-	-	**HK 3516.2 RS**	32	-	-
	35	42	18	20	-	0.8	**HK 3518 RS**	39	**HK 3520.2 RS**	41	-	-
40	40	47	-	16	-	0.8	-	-	**HK 4016.2 RS**	37	-	-
	40	47	18	20	-	0.8	**HK 4018 RS**	45	**HK 4020.2 RS**	48	-	-
45	45	52	18	20	-	0.8	**HK 4518 RS**	50	**HK 4520.2 RS**	54	-	-
50	50	58	22	24	-	0.8	**HK 5022 RS**	76	**HK 5024.2 RS**	81	-	-

[1])Limiting speed with grease lubrication

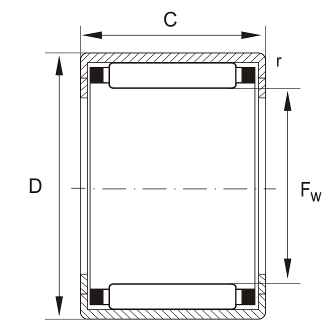
SHELL TYPE NEEDLE ROLLER BEARINGS, CLOSED END DESIGN





Basic Load Rating (kN) Dynamic C	Basic Load Rating (kN) Static Co	Limiting Speed r/min	Shaft Diameter (mm)
2.75	2.6	20000	8
4.40	5.1	17000	10
6.50	7.3	14000	12
7.10	8.5	12000	14
7.80	9.8	11000	15
10.50	14.4	11000	
7.60	9.7	11000	16
10.90	15.3	11000	
8.10	10.9	9500	18
8.60	12.1	8500	20
12.70	20.1	8500	
9.10	13.4	8000	22
13.40	22.1	8000	
11.00	15.2	7000	25
15.60	24.0	7000	
19.90	33.0	7000	
25.50	45.0	7000	
16.40	26.5	6000	28
12.10	18.2	6000	30
17.20	29.0	6000	
22.00	39.5	6000	
13.10	21.3	5000	35
18.70	33.5	5000	
14.00	24.3	4500	40
20.00	38.5	4500	
21.30	43.0	4000	45
31.00	63.0	3600	50

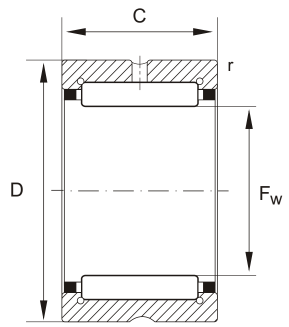
NEEDLE ROLLER BEARINGS WITHOUT INNER RING



NK($F_w \leqq 10$mm)

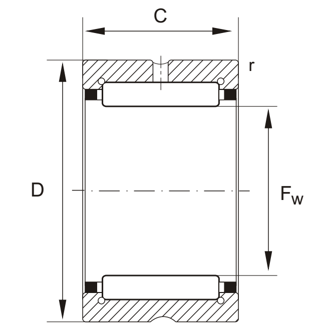
Shaft Diameter (mm)	Principal dimensions (mm) F_w	D	C	r min	Bearing Number NK	RNA 49	RNA 69	Weight ≈ g	Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min
5	5	10	10	0.15	+NK 5/10 TN	-	-	3.1	2.3	1.92	37000	65000
	5	10	12	0.15	+NK 5/12 TN	-	-	3.7	3.0	2.65	37000	65000
6	6	12	10	0.15	+NK 6/10 TN	-	-	4.7	2.6	2.28	33000	55000
	6	12	12	0.15	+NK 6/12 TN	-	-	5.7	3.3	3.15	33000	55000
7	7	14	10	0.30	+NK 7/10 TN	-	-	6.9	2.8	2.65	31000	50000
	7	14	12	0.30	+NK 7/12 TN	-	-	8.2	3.6	3.60	31000	49000
8	8	15	12	0.30	+NK 8/12 TN	-	-	8.7	3.9	4.10	29000	43000
	8	15	16	0.30	+NK 8/16 TN	-	-	12.0	5.1	5.80	29000	42000
9	9	16	12	0.30	+NK 9/12 TN	-	-	10.3	4.5	5.00	28000	37000
	9	16	16	0.30	+NK 9/16 TN	-	-	12.8	5.9	7.10	28000	37000
10	10	17	12	0.30	+NK 10/12 TN	-	-	10.1	4.7	5.50	27000	34000
	10	17	16	0.30	+NK 10/16 TN	-	-	13.3	6.2	7.80	27000	33000
12	12	19	12	0.30	NK 12/12	-	-	12.1	6.4	7.10	25000	26000
	12	19	16	0.30	NK 12/16	-	-	15.9	9.0	11.00	25000	25000
14	14	22	16	0.30	NK 14/16	-	-	20.7	10.1	11.50	24000	22000
	14	22	20	0.30	NK 14/20	-	-	25.5	12.8	15.80	24000	21000
	14	22	13	0.30	-	RNA 4900	-	16.5	8.5	9.20	25000	21000
15	15	23	16	0.30	NK 15/16	-	-	21.8	10.7	12.70	23000	20000
	15	23	20	0.30	NK 15/20	-	-	26.6	13.5	17.40	23000	20000
16	16	24	16	0.30	NK 16/16	-	-	22.4	11.3	13.90	22000	19000
	16	24	20	0.30	NK 16/20	-	-	28.4	14.4	18.80	22000	19000
	16	24	13	0.30	-	RNA 4901	-	17.4	9.4	10.90	24000	18000
	16	24	22	0.30	-	-	RNA 6901	31.0	16.0	21.60	22000	17000
17	17	25	16	0.30	NK 17/16	-	-	23.7	11.9	15.00	22000	18000
	17	25	20	0.30	NK 17/20	-	-	29.8	15.1	20.40	22000	17000
18	18	26	16	0.30	NK 18/16	-	-	24.9	12.5	16.20	21000	17000
	18	26	20	0.30	NK 18/20	-	-	31.4	15.8	22.00	21000	17000
19	19	27	16	0.30	NK 19/16	-	-	26.1	13.0	17.40	21000	16000
	19	27	20	0.30	NK 19/20	-	-	32.2	16.5	23.60	21000	16000

TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)
+With rib, without oil hole and oil groove



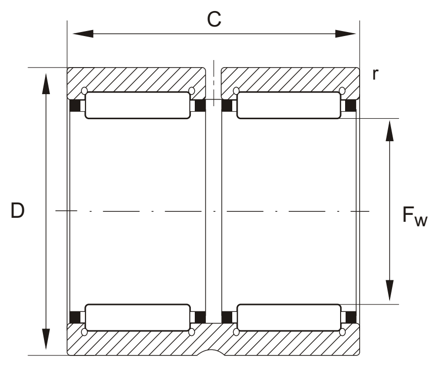
NK($F_w \geq 12mm$)
NKS
RNA 49,RNA 69($F_w \leq 35mm$)

Shaft Diameter (mm)	Principal dimensions (mm) F_w	D	C	r min	Bearing Number NK	RNA 49	RNA 69	NKS	Weight ≈ g	Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min
20	20	28	16	0.3	NK 20/16	-	-	-	27.0	13.0	17.5	20000	15000
	20	28	20	0.3	NK 20/20	-	-	-	33.9	16.4	23.8	20000	15000
	20	28	13	0.3	-	RNA 4902	-	-	21.7	10.6	13.6	22000	14000
	20	28	23	0.3	-	-	RNA 6902	-	39.7	17.3	25.5	20000	14000
	20	32	20	0.6	-	-	-	NKS 20	48.7	23.0	25.0	19000	14000
21	21	29	16	0.3	NK 21/16	-	-	-	28.1	13.5	18.7	20000	15000
	21	29	20	0.3	NK 21/20	-	-	-	35.2	17.1	25.5	20000	14000
22	22	30	16	0.3	NK 22/16	-	-	-	30.0	14.0	19.9	19000	14000
	22	30	20	0.3	NK 22/20	-	-	-	37.0	17.7	27.0	19000	14000
	22	30	13	0.3	-	RNA 4903	-	-	22.2	11.0	14.6	21000	13000
	22	30	23	0.3	-	-	RNA 6903	-	42.4	18.6	29.0	19000	12000
	22	35	20	0.6	-	-	-	NKS 22	61.5	24.5	28.0	17000	13000
24	24	32	16	0.3	NK 24/16	-	-	-	31.9	15.0	22.3	18000	13000
	24	32	20	0.3	NK 24/20	-	-	-	40.0	19.0	30.5	18000	13000
	24	37	20	0.6	-	-	-	NKS 24	65.5	26.0	31.0	16000	12000
25	25	33	16	0.3	NK 25/16	-	-	-	32.6	14.9	22.4	17000	12000
	25	33	20	0.3	NK 25/20	-	-	-	42.0	18.8	30.5	17000	12000
	25	37	17	0.3	-	RNA 4904	-	-	52.3	21.0	25.5	17000	12000
	25	37	30	0.3	-	-	RNA 6904	-	100.0	36.0	51.0	16000	11000
	25	38	20	0.6	-	-	-	NKS 25	68.1	27.5	33.5	16000	11000
26	26	34	16	0.3	NK 26/16	-	-	-	34.0	15.3	23.6	16000	12000
	26	34	20	0.3	NK 26/20	-	-	-	42.0	19.4	32.0	16000	12000
28	28	37	20	0.3	NK 28/20	-	-	-	52.2	22.0	34.0	15000	11000
	28	37	30	0.3	NK 28/30	-	-	-	82.0	33.0	57.0	15000	11000
	28	39	17	0.3	-	RNA 49/22	-	-	50.2	22.8	29.5	16000	10000
	28	39	30	0.3	-	-	RNA 69/22	-	98.0	37.5	55.0	15000	10000
	28	42	20	0.6	-	-	-	NKS 28	83.6	28.5	36.5	14000	10000
29	29	38	20	0.3	NK 29/20	-	-	-	53.7	21.9	34.0	15000	11000
	29	38	30	0.3	NK 29/30	-	-	-	84.3	32.5	57.0	15000	10000
30	30	40	20	0.3	NK 30/20	-	-	-	65.0	22.6	36.0	14000	10000
	30	40	30	0.3	NK 30/30	-	-	-	97.9	33.5	60.0	14000	10000
	30	42	17	0.3	-	RNA 4905	-	-	61.0	23.6	31.5	15000	9500
	30	42	30	0.3	-	-	RNA 6905	-	112.0	39.0	59.0	14000	9000
	30	45	22	0.6	-	-	-	NKS 30	104.0	32.0	40.0	13000	10000
32	32	42	20	0.3	NK 32/20	-	-	-	68.0	23.1	37.5	13000	10000
	32	42	30	0.3	NK 32/30	-	-	-	102.0	34.5	63.0	13000	9500
	32	45	17	0.3	-	RNA 49/28	-	-	73.2	24.4	33.5	13000	9000
	32	45	30	0.3	-	-	RNA 69/28	-	735	40.5	63.0	13000	8500
	32	47	22	0.6	-	-	-	NKS 32	110.0	33.5	43.5	12000	9500



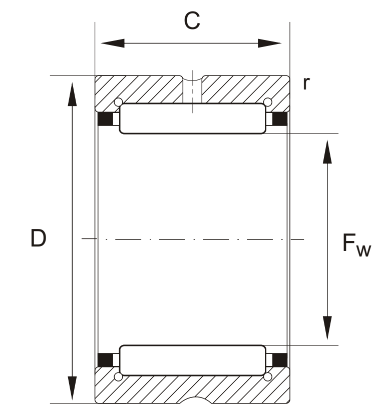
NK.NKS
RNA 49
RNA 69($F_w \leq 35mm$)

Shaft Diameter (mm)	Principal dimensions (mm) F_w	D	C	r min	Bearing Number NK	RNA 49	RNA 69	NKS	Weight ≈ g	Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min
35	35	45	20	0.3	NK 35/20	-	-	-	73.8	24	41	12000	9000
	35	45	30	0.3	NK 35/30	-	-	-	112.0	36	69	12000	9000
	35	47	17	0.3	-	RNA 4906	-	-	69.4	25	35	13000	8000
	35	47	30	0.3	-	-	RNA 6906	-	126.0	43	71	12000	7500
	35	50	22	0.6	-	-	-	NKS 35	118.0	35	47	12000	8500
37	37	47	20	0.3	NK 37/20	-	-	-	77.0	24	43	12000	8500
	37	47	30	0.3	NK 37/30	-	-	-	113.0	37	73	12000	8500
	37	52	22	0.6	-	-	-	NKS 37	123.0	36	50	11000	8500
38	38	48	20	0.3	NK 38/20	-	-	-	79.4	25	45	11000	8500
	38	48	30	0.3	NK 38/30	-	-	-	116.0	38	76	11000	8000
40	40	50	20	0.3	NK 40/20	-	-	-	82.7	26	47	11000	8000
	40	50	30	0.3	NK 40/30	-	-	-	125.0	39	79	11000	8000
	40	52	20	0.6	-	RNA 49/32	-	-	89.1	30	47	12000	7500
	40	52	36	0.6	-	-	RNA 69/32	-	162.0	47	82	11000	7500
	40	55	22	0.6	-	-	-	NKS 40	129.0	38	54	10000	7500
42	42	52	20	0.3	NK 42/20	-	-	-	85.8	36	49	10000	8000
	42	52	30	0.3	NK 42/30	-	-	-	130.0	39	82	10000	7500
	42	55	20	0.6	-	RNA 4907	-	-	107.0	31	50	11000	7000
	42	55	36	0.6	-	-	RNA 6907	-	193.0	48	86	10000	7000
43	43	53	20	0.3	NK 43/20	-	-	-	86.0	27	51	10000	7500
	43	53	30	0.3	NK 43/30	-	-	-	133.0	40	85	10000	7500
	43	58	22	0.6	-	-	-	NKS 43	139.0	39	57	9500	7500
45	45	55	20	0.3	NK 45/20	-	-	-	91.5	27	53	10000	7500
	45	55	30	0.3	NK 45/30	-	-	-	139.0	41	88	10000	7000
	45	60	22	0.6	-	-	-	NKS 45	145.0	40	60	9500	7000
47	47	57	20	0.3	NK 47/20	-	-	-	94.5	28	56	9500	7000
	47	57	30	0.3	NK 47/30	-	-	-	142.0	43	94	9500	7000
48	48	62	22	0.6	-	RNA 4908	-	-	140.0	43	67	9500	6000
	48	62	40	0.6	-	-	RNA 6908	-	256.0	66	116	9000	6500
50	50	62	25	0.6	NK 50/25	-	-	-	158.0	38	74	9000	6500
	50	62	35	0.6	NK 50/35	-	-	-	221.0	50	106	9000	6500
	50	65	22	1.0	-	-	-	NKS 50	157.0	42	67	8500	6500
52	52	68	22	0.6	-	RNA 4909	-	-	182.0	45	73	8500	6000
	52	68	40	0.6	-	-	RNA 6909	-	338.0	69	127	8000	6000
55	55	68	25	0.6	NK 55/25	-	-	-	180.0	40	82	8000	6000
	55	68	35	0.6	NK 55/35	-	-	-	250.0	53	118	8000	6000
	55	72	22	1.0	-	-	-	NKS 55	221.0	45	74	7500	6000
58	58	72	22	0.6	-	RNA 4910	-	-	163.0	47	80	8000	5000
	58	72	40	0.6	-	-	RNA 6910	-	310.0	73	139	7500	5000



RNA 69($F_w \geq 40mm$)

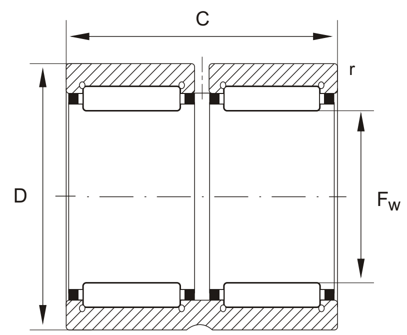
Shaft Diameter (mm)	Principal dimensions (mm) F_w	D	C	r min	Bearing Number NK	RNA 49	RNA 69	NKS	Weight ≈ g	Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min
60	60	72	25	0.6	**NK 60/25**	-	-	-	185	42	90	7500	5500
	60	72	35	0.6	**NK 60/35**	-	-	-	258	56	130	7500	5500
	60	80	28	1.1	-	-	-	**NKS 60**	335	63	98	7000	5500
63	63	80	25	1.0	-	**RNA 4911**	-	-	255	58	100	7500	4900
	63	80	45	1.0	-	-	**RNA 6911**	-	470	90	176	7000	4900
65	65	78	25	0.6	**NK 65/25**	-	-	-	221	44	98	7000	5500
	65	78	35	0.6	**NK 65/35**	-	-	-	310	59	142	7000	5500
	65	85	28	1.1	-	-	-	**NKS 65**	356	67	108	6500	5000
68	68	82	25	0.6	**NK 68/25**	-	-	-	241	43	89	6500	5500
	68	82	35	0.6	**NK 68/35**	-	-	-	338	62	139	6500	5000
	68	85	25	1.0	-	**RNA 4912**	-	-	275	60	108	7000	4500
	68	85	45	1.0	-	-	**RNA 6912**	-	488	94	191	6500	4500
70	70	85	25	0.6	**NK 70/25**	-	-	-	260	44	92	6500	5000
	70	85	35	0.6	**NK 70/35**	-	-	-	370	63	144	6500	5000
	70	90	28	1.1	-	-	-	**NKS 70**	380	68	113	6000	4900
72	72	90	25	1.0	-	**RNA 4913**	-	-	312	61	112	6500	4300
	72	90	45	1.0	-	-	**RNA 6913**	-	580	95	198	6000	4300
73	73	90	25	1.0	**NK 73/25**	-	-	-	302	53	100	6000	4900
	73	90	35	1.0	**NK 73/35**	-	-	-	428	75	156	6000	4700
75	75	92	25	1.0	**NK 75/25**	-	-	-	315	54	104	6000	4800
	75	92	35	1.0	**NK 75/35**	-	-	-	445	77	162	6000	4600
	75	95	28	1.1	-	-	-	**NKS 75**	402	71	123	6000	4600
80	80	95	25	1.0	**NK 80/25**	-	-	-	301	56	119	5500	4400
	80	95	35	1.0	**NK 80/35**	-	-	-	425	78	184	5500	4300
	80	100	30	1.0	-	**RNA 4914**	-	-	460	84	156	6000	4000
	80	100	54	1.0	-	-	**RNA 6914**	-	857	128	265	5500	3900
85	85	105	25	1.0	**NK 85/25**	-	-	-	425	69	123	5000	4200
	85	105	35	1.0	**NK 85/35**	-	-	-	600	98	193	5000	4000
	85	105	30	1.0	-	**RNA 4915**	-	-	489	86	162	5500	3800
	85	105	54	1.0	-	-	**RNA 6915**	-	935	130	275	5000	3600
90	90	110	25	1.0	**NK 90/25**	-	-	-	450	72	132	4900	4000
	90	110	35	1.0	**NK 90/35**	-	-	-	630	103	208	4900	3800
	90	110	30	1.0	-	**RNA 4916**	-	-	516	89	174	5000	3500
	90	110	54	1.0	-	-	**RNA 6916**	-	987	135	300	4900	3300
95	95	115	26	1.0	**NK 95/26**	-	-	-	490	73	137	4700	3900
	95	115	36	1.0	**NK 95/36**	-	-	-	680	107	223	4700	3700



NK
RNA 49,RNA48

Shaft Diameter (mm)	Principal dimensions (mm) F_w	D	C	r min	Bearing Number NK	RNA 49	RNA 69	Weight ≈ g	Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min
100	100	120	26	1.0	**NK 100/26**	-	-	515	76	146	4500	3700
	100	120	36	1.0	**NK 100/36**	-	-	715	111	237	4500	3500
	100	120	35	1.1	-	**RNA 4917**	-	657	111	237	4800	3300
	100	120	63	1.1	-	-	**RNA 6917**	1200	166	400	4500	2900
105	105	125	26	1.0	**NK 105/26**	-	-	540	78	155	4300	3600
	105	125	36	1.0	**NK 105/36**	-	-	713	114	250	4300	3400
	105	125	35	1.1	-	**RNA 4918**	-	745	114	250	4600	3100
	105	125	63	1.1	-	-	**RNA 6918**	1330	172	425	4300	2700
110	110	130	30	1.1	**NK 110/30**	-	-	650	98	210	4100	3300
	110	130	40	1.1	**NK 110/40**	-	-	830	127	290	4100	3100
	110	130	35	1.1	-	**RNA 4919**	-	719	116	260	4400	2900
	110	130	63	1.1	-	-	**RNA 6919**	1460	174	440	4100	2600

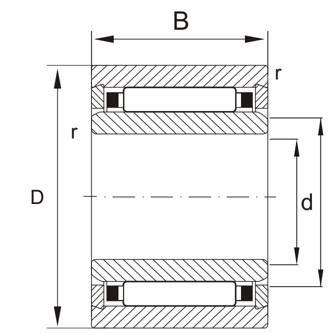
NEEDLE ROLLER BEARINGS WITHOUT INNER RING



RNA 69

Shaft Diameter (mm)	Principal dimensions (mm)				Bearing Number		Weight ≈ g	Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
	F_w	D	C	r min	RNA 49	RNA 48		Dynamic C	Static Co		
115	115	140	40	1.1	**RNA 4920**	-	1150	128	270	4100	2900
120	120	140	30	1.0	-	**RNA 4822**	670	94	216	3800	2700
125	125	150	40	1.1	**RNA 4922**	-	1240	132	290	3800	2600
130	130	150	30	1.0	-	**RNA 4824**	730	99	239	3500	2500
135	135	165	45	1.1	**RNA 4924**	-	1860	181	390	3400	2300
145	145	165	35	1.1	-	**RNA 4826**	990	118	310	3200	2200
150	150	180	50	1.5	**RNA 4926**	-	2210	203	470	3200	2100
155	155	175	35	1.1	-	**RNA 4828**	1050	120	325	3000	2000
160	160	190	50	1.5	**RNA 4928**	-	2350	209	500	3000	1900
165	165	190	40	1.1	-	**RNA 4830**	1600	152	400	2800	1900
175	175	200	40	1.1	-	**RNA 4832**	1700	160	435	2600	1700
185	185	215	45	1.1	-	**RNA 4834**	2540	185	510	2500	1600
195	195	225	45	1.1	-	**RNA 4836**	2680	194	550	2300	1500
210	210	240	50	1.5	-	**RNA 4838**	3210	227	690	2200	1300
220	220	250	50	1.5	-	**RNA 4840**	3350	230	720	2100	1300
240	240	270	50	1.5	-	**RNA 4844**	3620	243	790	1900	1100
265	265	300	60	2.0	-	**RNA 4848**	5400	355	1080	1700	950
285	285	320	60	2.0	-	**RNA 4852**	5800	370	1160	1600	900
305	305	350	69	2.0	-	**RNA 4856**	9300	450	1300	1500	850
330	330	380	80	2.1	-	**RNA 4860**	12700	620	1770	1400	750
350	350	400	80	2.1	-	**RNA 4864**	13400	630	1850	1300	700
370	370	420	80	2.1	-	**RNA 4868**	14000	640	1940	1200	650
390	390	440	80	2.1	-	**RNA 4872**	14800	660	2020	1200	600
415	415	480	100	2.1	-	**RNA 4876**	26000	1000	2900	1100	500

NEEDLE ROLLER BEARING WITH INNER RING

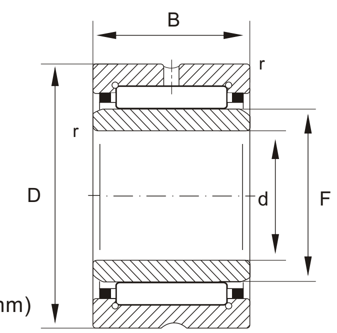


NKI(d≤7mm)

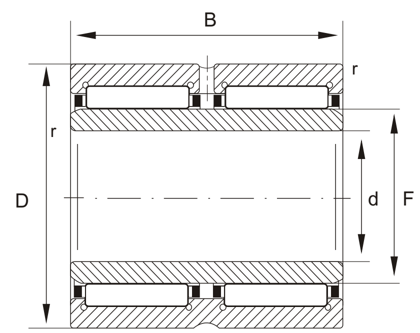
Shaft Diameter (mm)	Principal dimensions (mm)						Bearing Number				Weight ≈ g	Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
	d	F	D	B	r min	s[1])	NKI	NA 49	NA 69	NKIS		Dynamic C	Static Co		
5	5	8	15	12	0.3	1.5	**+NKI 5/12 TN**	-	-	-	11.5	3.95	4.1	32000	38000
	5	8	15	16	0.3	2.0	**+NKI 5/16 TN**	-	-	-	15.3	5.10	5.8	32000	37000
6	6	9	16	12	0.3	1.5	**+NKI 6/12 TN**	-	-	-	13.5	4.50	5.0	30000	33000
	6	9	16	16	0.3	2.0	**+NKI 6/16 TN**	-	-	-	17.4	5.90	7.1	30000	33000
7	7	10	17	12	0.3	1.5	**+NKI 7/12 TN**	-	-	-	13.7	4.75	5.5	29000	30000
	7	10	17	16	0.3	2.0	**+NKI 7/16 TN**	-	-	-	18.2	6.20	7.8	29000	30000
9	9	12	19	12	0.3	1.5	**NKI 9/12**	-	-	-	16.6	6.40	7.1	27000	24000
	9	12	19	16	0.3	2.0	**NKI 9/16**	-	-	-	21.9	9.00	11.0	27000	23000
10	10	14	22	16	0.3	0.5	**NKI 10/16**	-	-	-	29.4	10.10	11.5	25000	19000
	10	14	22	20	0.3	0.5	**NKI 10/20**	-	-	-	37.1	12.80	15.6	25000	19000
	10	14	22	13	0.3	0.5	-	**NA 4900**	-	-	23.0	8.50	9.2	25000	20000
12	12	16	24	16	0.3	0.5	**NK 12/16**	-	-	-	33.3	11.30	13.9	24000	17000
	12	16	24	20	0.3	0.5	**NK 12/20**	-	-	-	41.9	14.40	18.8	24000	17000
	12	16	24	13	0.3	0.5	-	**NA 4901**	-	-	26.0	9.40	10.9	24000	17000
	12	16	24	22	0.3	1.0	-	-	**NA 6901**	-	46.0	16.00	21.6	24000	16000
15	15	19	27	16	0.3	0.5	**NK 15/16**	-	-	-	38.8	13.00	17.4	22000	14000
	15	19	27	20	0.3	0.5	**NK 15/20**	-	-	-	48.7	16.50	23.6	22000	14000
	15	20	28	13	0.3	0.5	-	**NA 4902**	-	-	34.0	10.60	13.6	22000	14000
	15	20	28	23	0.3	1.0	-	-	**NA 6902**	-	63.6	17.30	25.5	22000	13000
	15	22	35	20	0.6	0.5	-	-	-	**NKIS 15**	92.0	24.50	28.0	20000	11000
17	17	21	29	16	0.3	0.5	**NK 17/16**	-	-	-	42.4	13.50	18.7	21000	13000
	17	21	29	20	0.3	0.5	**NK 17/20**	-	-	-	53.4	17.10	25.5	21000	13000
	17	22	30	13	0.3	0.5	-	**NA 4903**	-	-	37.0	11.00	14.6	21000	12000
	17	22	30	23	0.3	1.0	-	-	**NA 6903**	-	72.0	18.60	29.0	21000	11000
	17	24	37	20	0.6	0.5	-	-	-	**NKIS 17**	98.0	26.00	31.0	18000	10000

TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)
+With rib, without oil hole and oil groove
[1])Allowed axial displacement of inner ring relative to outer ring

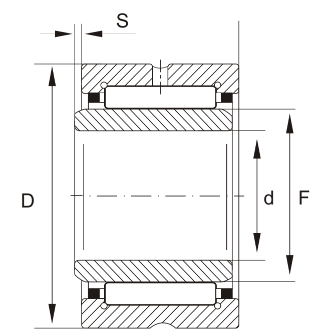
NEEDLE ROLLER BEARING WITH INNER RING



NKI(d≧9mm)
NKIS
NA 49.NA69(d≦30mm)



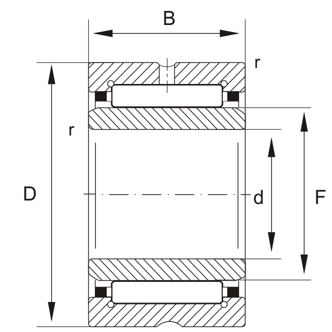
NA 69(d≧32mm)



Shaft Diameter (mm)	Principal dimensions (mm)						Bearing Number					Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
	d	F	D	B	r min	s1)	NKI	NA 49	NA 69	NKIS	Weight ≈ g	Dynamic C	Static Co		
20	20	24	32	16	0.3	0.5	**NKI 20/16**	-	-	-	49	15.0	22.3	19000	12000
	20	24	32	20	0.3	0.5	**NKI 20/20**	-	-	-	61	19.0	30.5	19000	12000
	20	25	37	17	0.3	0.8	-	**NA 4904**	-	-	75	21.0	25.5	17000	11000
	20	25	37	30	0.3	1.0	-	-	**NA 6904**	-	141	36.0	51.0	17000	10000
	20	28	42	20	0.6	0.5	-	-	-	**NKIS 20**	129	28.5	36.5	16000	9000
22	22	26	34	16	0.3	0.5	**NKI 22/16**	-	-	-	52	15.3	23.6	18000	11000
	22	26	34	20	0.3	0.5	**NKI 22/20**	-	-	-	65	19.4	32.0	18000	11000
	22	28	39	17	0.3	0.8	-	**NA 49/22**	-	-	80	22.8	29.5	16000	9500
	22	28	39	30	0.3	0.5	-	-	**NA 69/22**	-	150	37.5	55.0	16000	9000
25	25	29	38	20	0.3	1.0	**NKI 25/20**	-	-	-	79	21.9	34.0	16000	10000
	25	29	38	30	0.3	1.5	**NKI 25/30**	-	-	-	124	32.5	57.0	16000	9500
	25	30	42	17	0.3	0.8	-	**NA 4905**	-	-	88	23.6	31.5	15000	9500
	25	30	42	30	0.3	1.0	-	-	**NA 6905**	-	161	39.0	59.0	15000	9000
	25	32	47	22	0.6	1.0	-	-	-	**NKIS 25**	162	33.5	43.5	14000	8500
28	28	32	42	20	0.3	1.0	**NKI 28/20**	-	-	-	96	23.1	37.5	14000	9000
	28	32	42	30	0.3	1.5	**NKI 28/30**	-	-	-	146	34.5	63.0	14000	9000
	28	32	45	17	0.3	0.8	-	**NA 49/28**	-	-	97	24.4	33.5	13000	8500
	28	32	45	30	0.3	1.0	-	-	**NA 69/28**	-	182	40.5	63.0	13000	8500
30	30	35	45	20	0.3	0.5	**NKI 30/20**	-	-	-	112	24.3	41.5	13000	8500
	30	35	45	30	0.3	1.0	**NKI 30/30**	-	-	-	170	36.5	69.0	13000	8000
	30	35	47	17	0.3	0.8	-	**NA 4906**	-	-	101	25.0	35.5	13000	8000
	30	35	47	30	0.3	1.0	-	-	**NA 6906**	-	192	43.5	71.0	13000	7500
	30	37	52	22	0.6	1.0	-	-	-	**NKIS 30**	184	36.5	50.0	12000	7500
32	32	37	47	20	0.3	0.5	**NKI 32/20**	-	-	-	118	24.9	43.5	12000	8000
	32	37	47	30	0.3	1.0	**NKI 32/30**	-	-	-	180	37.0	73.0	12000	8000
	32	40	52	20	0.6	0.8	-	**NA 49/32**	-	-	158	30.5	47.5	12000	7000
	32	40	52	36	0.6	0.5	-	-	**NA 69/32**	-	288	47.0	82.0	12000	7000
35	35	40	50	20	0.3	0.5	**NKI 35/20**	-	-	-	127	26.0	47.0	12000	7500
	35	40	50	30	0.3	1.0	**NKI 35/30**	-	-	-	193	39.0	79.0	12000	7500
	35	42	55	20	0.6	0.8	-	**NA 4907**	-	-	170	31.5	50.0	11000	7000
	35	42	55	36	0.6	0.5	-	-	**NA 6907**	-	310	48.0	86.0	11000	7000
	35	43	58	22	0.6	0.5	-	-	-	**NKIS 35**	220	39.0	57.0	11000	6500

1)Allowed axial displacement of inner ring relative to outer ring

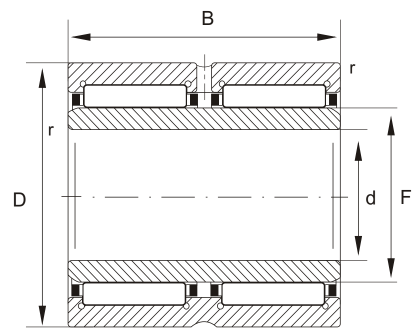
NEEDLE ROLLER BEARING WITH INNER RING



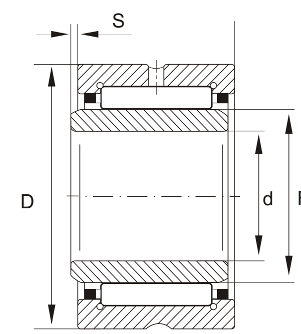
NKI,NKIS
NA49

Shaft Diameter (mm)	Principal dimensions (mm)						Bearing Number					Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min
	d	F	D	B	r min	s1)	NKI	NA 49	NA 69	NKIS	Weight ≈ g	Dynamic C	Static Co		
38	38	43	53	20	0.3	0.5	**NKI 38/20**	-	-	-	136	27	51	11000	7000
	38	43	53	30	0.3	1.0	**NKI 38/30**	-	-	-	207	10	85	11000	7000
40	40	45	55	20	0.3	0.5	**NKI 40/20**	-	-	-	142	27	53	10000	7000
	40	45	55	30	0.3	1.0	**NKI 40/30**	-	-	-	216	41	88	10000	6500
	40	48	62	22	0.6	1.0	-	**NA 4908**	-	-	230	43	67	9500	6000
	40	48	62	40	0.6	0.5	-	-	**NA 6908**	-	430	66	116	9500	6000
	40	50	65	22	1.0	0.5	-	-	-	**NKIS 40**	281	42	67	9500	5500
42	42	47	57	20	0.3	0.5	**NKI 42/20**	-	-	-	148	28	56	10000	6500
	42	47	57	30	0.3	1.0	**NKI 42/30**	-	-	-	222	43	94	10000	6500
45	45	50	62	25	0.6	1.5	**NKI 45/25**	-	-	-	229	38	74	9000	6500
	45	50	62	35	0.6	2.0	**NKI 45/35**	-	-	-	322	50	106	9000	6000
	45	52	68	22	0.6	1.0	-	**NA 4909**	-	-	271	45	73	8500	5500
	45	52	68	40	0.6	0.5	-	-	**NA 6909**	-	495	69	127	8500	5500
	45	55	72	22	1.0	0.5	-	-	-	**NKIS 45**	336	45	74	8500	5500
50	50	55	68	25	0.6	1.5	**NKI 50/25**	-	-	-	270	40	82	8500	6000
	50	55	68	35	0.6	2.0	**NKI 50/35**	-	-	-	379	53	118	8500	6000
	50	58	72	22	0.6	1.0	-	**NA 4910**	-	-	274	47	80	8000	5000
	50	58	72	40	0.6	0.5	-	-	**NA 6910**	-	515	73	139	8000	4900
	50	60	80	28	1.1	2.0	-	-	-	**NKIS 50**	518	63	98	7500	5000
55	55	60	72	25	0.6	1.5	**NKI 55/25**	-	-	-	272	42	90	7500	5500
	55	60	72	35	0.6	2.0	**NKI 55/35**	-	-	-	379	56	130	7500	5500
	55	63	80	25	1.0	1.5	-	**NA 4911**	-	-	393	58	100	7500	4700
	55	63	80	45	1.0	1.5	-	-	**NA 6911**	-	780	90	176	7500	4700
	55	65	85	28	1.1	2.0	-	-	-	**NKIS 55**	558	67	108	7000	4700
60	60	68	82	25	0.6	1.0	**NKI 60/25**	-	-	-	394	43	89	7000	4900
	60	68	82	35	0.6	1.0	**NKI 60/35**	-	-	-	553	62	139	7000	4800
	60	68	85	25	1.0	1.5	-	**NA 4912**	-	-	426	60	108	7000	4300
	60	68	85	45	1.0	1.5	-	-	**NA 6912**	-	808	94	191	7000	4300
	60	70	90	28	1.1	2.0	-	-	-	**NKIS 60**	560	68	113	6500	4500
65	65	73	90	25	1.0	1.0	**NKI 65/25**	-	-	-	467	53	100	6500	4600
	65	73	90	35	1.0	1.0	**NKI 65/35**	-	-	-	659	75	156	6500	4400
	65	72	90	25	1.0	1.5	-	**NA 4913**	-	-	456	61	112	6500	4100
	65	72	90	45	1.0	1.5	-	-	**NA 6913**	-	833	95	198	6500	4100
	65	75	95	28	1.1	2.0	-	-	-	**NKIS 65**	641	71	123	6500	4200

1)Allowed axial displacement of inner ring relative to outer ring



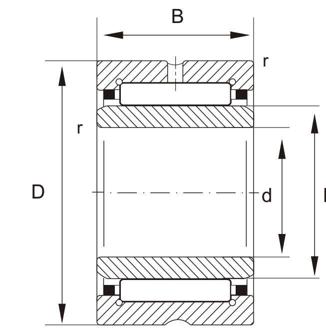
NA 69



s

Shaft Diameter (mm)	Principal dimensions (mm) d	F	D	B	r min	s¹)	Bearing Number NKI	NA 49	NA 69	Weight ≈ g	Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min
70	70	80	95	25	1.0	0.8	**NKI 70/25**	-	-	521	56	119	6000	4100
	70	80	95	35	1.0	0.8	**NKI 70/35**	-	-	737	78	184	6000	4000
	70	80	100	30	1.0	1.5	-	**NA 4914**	-	728	84	156	6000	3800
	70	80	100	54	1.0	1.0	-	-	**NA 6914**	1340	128	265	6000	3800
75	75	85	105	25	1.0	1.0	**NKI 75/25**	-	-	641	69	123	5500	3900
	75	85	105	35	1.0	1.0	**NKI 75/35**	-	-	908	98	193	5500	3800
	75	85	105	30	1.0	1.5	-	**NA 4915**	-	775	86	162	5500	3600
	75	85	105	54	1.0	1.0	-	-	**NA 6915**	1450	130	275	5500	3500
80	80	90	110	25	1.0	1.0	**NKI 80/25**	-	-	677	72	132	5000	3700
	80	90	110	35	1.0	1.0	**NKI 80/35**	-	-	959	103	208	5000	3600
	80	90	110	30	1.0	1.5	-	**NA 4916**	-	878	89	174	5000	3400
	80	90	110	54	1.0	1.0	-	-	**NA 6916**	1522	135	300	5000	3200
85	85	95	115	26	1.0	1.5	**NKI 85/26**	-	-	743	73	137	4900	3600
	85	95	115	36	1.0	1.5	**NKI 85/36**	-	-	1040	107	223	4900	3400
	85	100	120	35	1.1	1.0	-	**NA 4917**	-	1250	111	237	4800	3100
	85	100	120	63	1.1	1.0	-	-	**NA 6917**	2200	166	400	4800	2800
90	90	100	120	26	1.0	1.5	**NKI 90/26**	-	-	778	76	146	4700	3500
	90	100	120	36	1.0	1.5	**NKI 90/36**	-	-	1090	111	237	4700	3300
	90	105	125	35	1.1	1.0	-	**NA 4918**	-	1312	114	250	4600	3000
	90	105	125	63	1.1	1.0	-	-	**NA 6918**	2310	172	425	4600	2600
95	95	105	125	26	1.0	1.5	**NKI 95/26**	-	-	816	78	155	4500	3300
	95	105	125	36	1.0	1.5	**NKI 95/36**	-	-	1145	114	250	4500	3200
	95	110	130	35	1.1	1.0	-	**NA 4919**	-	1371	116	260	4400	2800
	95	110	130	63	1.1	1.0	-	-	**NA 6919**	2500	174	440	4400	2500

¹)Allowed axial displacement of inner ring relative to outer ring

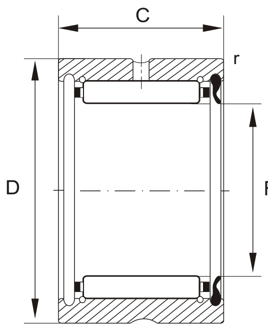


NKI
NA 49,NA48

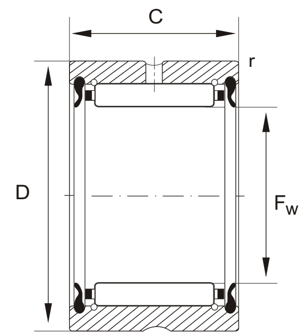
Shaft Diameter (mm)	Principal dimensions (mm) d	F	D	B	r min	s¹)	Bearing Number NKI	NA 49	NA 48	Weight ≈ g	Basic Load Rating (kN) Dynamic C	Static Co	Limiting Speed r/min	Rotating Speed r/min
100	100	110	130	30	1.1	1.5	**NKI 100/30**	-	-	990	98	210	4300	3100
	100	110	130	40	1.1	2.0	**NKI 100/40**	-	-	1330	127	290	4300	3000
	100	115	140	40	1.1	2.0	-	**NA 4920**	-	1900	128	270	4100	2900
110	110	125	150	40	1.1	2.0	-	**NA 4922**	-	2070	132	290	3800	2600
	110	120	140	30	1.0	0.8	-	-	**NA 4822**	1080	94	216	3900	2700
120	120	135	165	45	1.1	2.0	-	**NA 4924**	-	2860	181	390	3400	2300
	120	130	150	30	1.0	0.8	-	-	**NA 4824**	1170	99	239	3600	2400
130	130	150	180	50	1.5	1.5	-	**NA 4926**	-	3900	203	470	3200	2000
	130	145	165	35	1.1	1.0	-	-	**NA 4826**	1810	118	310	3300	2100
140	140	160	190	50	1.5	1.5	-	**NA 4928**	-	4150	209	500	3000	1800
	140	155	175	35	1.1	1.0	-	-	**NA 4828**	1920	120	325	3100	2000
150	150	165	190	40	1.1	1.5	-	-	**NA 4830**	2720	152	400	2900	1800
160	160	175	200	40	1.1	1.5	-	-	**NA 4832**	2890	160	435	2700	1700
170	170	185	215	45	1.1	1.5	-	-	**NA 4834**	3960	185	510	2500	1600
180	180	195	225	45	1.1	1.5	-	-	**NA 4836**	4200	194	550	2400	1500
190	190	210	240	50	1.5	1.5	-	-	**NA 4838**	5610	227	690	2300	1300

¹)Allowed axial displacement of inner ring relative to outer ring

NEEDLE ROLLER BEARING WITHOUT INNER RING, WITH SEALS



RNA 49..RS

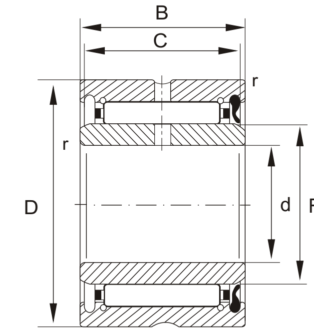


RNA 49..2RS

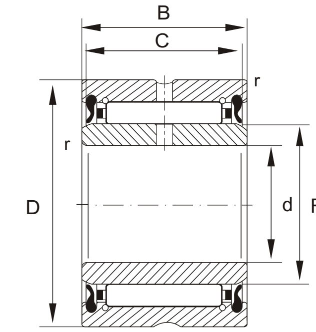
Shaft Diameter (mm)	Principal dimensions (mm)				Bearing Number		Weight ≈	Basic Load Rating (kN)		Limiting[1] Speed
	F_w	D	C	r min	RNA 49..RS One side seal	RNA 49..2RS Two sides seals	g	Dynamic C	Static Co	r/min
14	14	22	13	0.3	**RNA 4900 RS**	**RNA 4900 2RS**	16	6.8	6.9	13000
16	16	24	13	0.3	**RNA 4901 RS**	**RNA 4901 2RS**	18	7.6	8.3	12000
20	20	28	13	0.3	**RNA 4902 RS**	**RNA 4902 2RS**	21	8.6	10.3	10000
22	22	30	13	0.3	**RNA 4903 RS**	**RNA 4903 2RS**	23	8.8	11.0	9000
25	25	37	17	0.3	**RNA 4904 RS**	**RNA 4904 2RS**	56	17.3	19.9	7500
30	30	42	17	0.3	**RNA 4905 RS**	**RNA 4905 2RS**	60	19.3	24.2	6500
35	35	47	17	0.3	**RNA 4906 RS**	**RNA 4906 2RS**	69	21.1	28.5	5500
42	42	55	20	0.6	**RNA 4907 RS**	**RNA 4907 2RS**	107	26.5	39.5	4800
48	48	62	22	0.6	**RNA 4908 RS**	**RNA 4908 2RS**	154	36.0	53.0	4200
52	52	68	22	0.6	**RNA 4909 RS**	**RNA 4909 2RS**	157	38.0	59.0	3900
58	58	72	22	0.6	**RNA 4910 RS**	**RNA 4910 2RS**	160	40.0	64.0	3500

[1])Limiting speed with grease lubrication

NEEDLE ROLLER BEARING WITH INNER RING, WITH SEALS



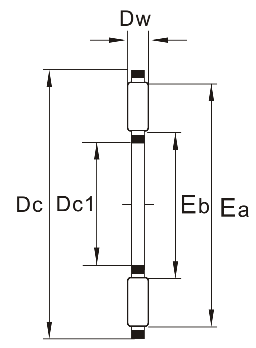
NA 49..RS



NA 49..2RS

Shaft Diameter (mm)	Principal dimensions (mm)						Bearing Number		Weight ≈	Basic Load Rating (kN)		Limiting Speed[1]
	d	F	D	C	B	r min	NA 49..RS One side seal	NA 49..2RS Two sides seals	g	Dynamic C	Static Co	r/min
10	10	14	22	13	14	0.3	**NA 4900 RS**	**NA 4900 2RS**	24.5	6.8	6.9	13000
12	12	16	24	13	14	0.3	**NA 4901 RS**	**NA 4901 2RS**	27.5	7.6	8.3	12000
15	15	20	28	13	14	0.3	**NA 4902 RS**	**NA 4902 2RS**	37.0	8.6	10.3	10000
17	17	22	30	13	14	0.3	**NA 4903 RS**	**NA 4903 2RS**	40.0	8.8	11.0	9000
20	20	25	37	17	18	0.3	**NA 4904 RS**	**NA 4904 2RS**	80.0	17.3	19.9	7500
25	25	30	42	17	18	0.3	**NA 4905 RS**	**NA 4905 2RS**	89.5	19.3	24.2	6500
30	30	35	47	17	18	0.3	**NA 4906 RS**	**NA 4906 2RS**	104.0	21.1	28.5	5500
35	35	42	55	20	21	0.6	**NA 4907 RS**	**NA 4907 2RS**	175.0	26.5	39.5	4800
40	40	48	62	22	23	0.6	**NA 4908 RS**	**NA 4908 2RS**	252.0	36.0	53.0	4200
45	45	52	68	22	23	0.6	**NA 4909 RS**	**NA 4909 2RS**	290.0	38.0	59.0	3900
50	50	58	72	22	23	0.6	**NA 4910 RS**	**NA 4910 2RS**	295.0	40.0	64.0	3500

[1])Limiting speed with grease lubrication



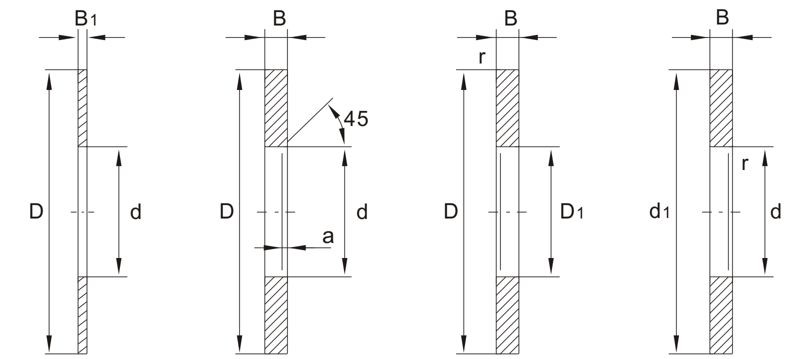
AXK

Form size • size unit:(mm)

Shaft Diameter (mm)	Thrust needle roller bearings and cage assembly: Bearing Number	Thrust needle roller bearings and cage assembly: Weight ≈ g	Thrust bearing washer: Bearing washer number	Thrust bearing washer: Weight ≈ g	Thrust bearing washer: Shaft washer number	Thrust bearing washer: Housing washer number	Thrust bearing washer: Thrust bearing washer number	Thrust bearing washer: Weight ≈ g
4	AXK 0414 TN	0.7	AS 0414	1	-	-	-	-
5	AXK 0515 TN	0.8	AS 0515	1	-	-	-	-
6	AXK 0619 TN	1.0	AS 0619	2	LS 0619	-	-	4
8	AXK 0821 TN	2.0	AS 0821	2	LS 0821	-	-	4
10	AXK 1024	3.0	AS 1024	3	LS 1024	-	-	7
12	AXK 1226	3.0	AS 1226	3	LS 1226	-	-	8
15	AXK 1528	4.0	AS 1528	3	LS 1528	GS 81102	WS 81102	9
17	AXK 1730	4.0	AS 1730	4	LS 1730	GS 81103	WS 81103	9
20	AXK 2035	5.0	AS 2035	5	LS 2035	GS 81104	WS 81104	13
25	AXK 2542	7.0	AS 2542	7	LS 2542	GS 81105	WS 81105	19
30	AXK 3047	8.0	AS 3047	8	LS 3047	GS 81106	WS 81106	22
35	AXK 3552	10.0	AS 3552	9	LS 3552	GS 81107	WS 81107	29
40	AXK 4060	16.0	AS 4060	12	LS 4060	GS 81108	WS 81108	40
45	AXK 4565	18.0	AS 4565	13	LS 4565	GS 81109	WS 81109	50
50	AXK 5070	20.0	AS 5070	14	LS 5070	GS 81110	WS 81110	55
55	AXK 5578	28.0	AS 5578	18	LS 5578	GS 81111	WS 81111	88
60	AXK 6085	33.0	AS 6085	22	LS 6085	GS 81112	WS 81112	97
65	AXK 6590	35.0	AS 6590	24	LS 6590	GS 81113	WS 81113	115
70	AXK 7095	60.0	AS 7095	25	LS 7095	GS 81114	WS 81114	123
75	AXK 75100	61.0	AS 75100	27	LS 75100	GS 81115	WS 81115	142
80	AXK 80105	63.0	AS 80105	28	LS 80105	GS 81116	WS 81116	151
85	AXK 85110	67.0	AS 85110	29	LS 85110	GS 81117	WS 81117	159
90	AXK 90120	86.0	AS 90120	39	LS 90120	GS 81118	WS 81118	234
100	AXK 100135	104.0	AS 100135	50	LS 100135	GS 81120	WS 81120	350
110	AXK 110145	122.0	AS 110145	55	LS 110145	GS 81122	WS 81122	385
120	AXK 120155	131.0	AS 120155	59	LS 120155	GS 81124	WS 81124	415
130	AXK 130170	205.0	AS 130170	65	LS 130170	GS 81126	WS 81126	663
140	AXK 140180	219.0	AS 140180	79	LS 140180	GS 81128	WS 81128	749
150	AXK 150190	323.0	AS 150190	84	LS 150190	GS 81130	WS 81130	796
160	AXK 160200	246.0	AS 160200	89	LS 160200	GS 81132	WS 81132	842

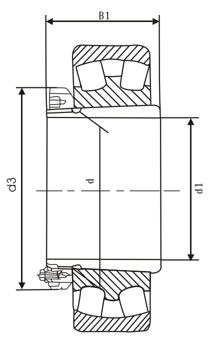
TN = Plastic cage, Limiting working temperature: +120℃ (Continuous working)
[1])With double-row oil holes are of standard type
Allowed limiting speed by grease lubrication is 25% of the limiting speed given in above table.

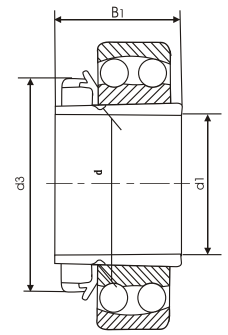
THRUST NEEDLE ROLLER BEARINGS AND CAGE ASSEMBLING /THRUST BEARING WASHER



AS LS GS 811 WS 811

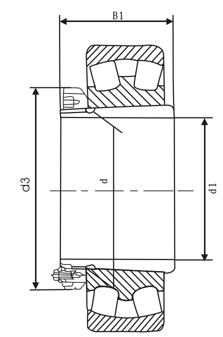
Principal dimensions (mm): Dc1 / d	D1	Dc / D	d1	Dw	B1	B	a / r min	Raceway sizes: Eb	Ea	Basic Load Rating (kN): Dynamic C	Static Co	Limiting Speed[1] r/min	Rotating Speed r/min
4	-	14	-	2	1	-	-	5	13	4.4	8	21000	11000
5	-	15	-	2	1	-	-	6	14	4.7	9	21000	9500
6	-	19	-	2	1	2.75	0.3	7	18	6.8	15	19000	8000
8	-	21	-	2	1	2.75	0.3	9	20	7.8	19	18000	6500
10	-	24	-	2	1	2.75	0.3	12	23	9.2	25	17000	5500
12	-	26	-	2	1	2.75	0.3	14	25	9.9	29	15000	4700
15	16	28	28	2	1	2.75	0.3	17	27	11.3	36	13000	3600
17	18	30	30	2	1	2.75	0.3	19	29	11.9	39	12000	3200
20	21	35	35	2	1	2.75	0.3	22	34	13.1	46	10000	3100
25	26	42	42	2	1	3.00	0.6	29	41	14.7	58	8500	2800
30	32	47	47	2	1	3.00	0.6	34	46	16.3	70	7500	2300
35	37	52	52	2	1	3.50	0.6	39	51	17.8	81	6500	2000
40	42	60	60	3	1	3.50	0.6	45	58	28.0	114	6000	1700
45	47	65	65	3	1	4.00	0.6	50	63	30.0	128	5000	1500
50	52	70	70	3	1	4.00	0.6	55	68	32.0	143	4800	1400
55	57	78	78	3	1	5.00	0.6	60	76	38.0	186	4300	1200
60	62	85	85	3	1	4.75	1.0	65	83	44.5	234	4000	1100
65	67	90	90	3	1	5.25	1.0	70	88	46.5	255	3700	1000
70	72	95	95	4	1	5.25	1.0	74	93	54.0	255	3500	1000
75	77	100	100	4	1	5.75	1.0	79	98	55.0	265	3300	950
80	82	105	105	4	1	5.75	1.0	84	103	56.0	280	3100	900
85	87	110	110	4	1	5.75	1.0	89	108	58.0	290	3000	850
90	92	120	120	4	1	6.50	1.0	94	118	73.0	405	2700	750
100	102	135	135	4	1	7.00	1.0	105	133	91.0	560	2500	650
110	112	145	145	4	1	7.00	1.0	115	143	97.0	620	2300	600
120	122	155	155	4	1	7.00	1.0	125	153	102.0	680	2100	550
130	132	170	170	5	1	9.00	1.0	136	167	133.0	840	1900	500
140	142	180	178	5	1	9.50	1.0	146	177	138.0	900	1800	480
150	152	190	188	5	1	9.50	1.0	156	187	143.0	960	1700	440
160	162	200	198	5	1	9.50	1.0	166	197	148.0	1020	1600	420

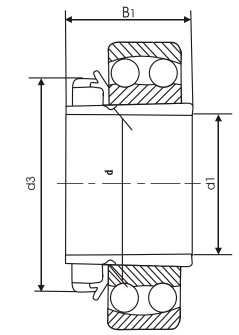




H2 Series

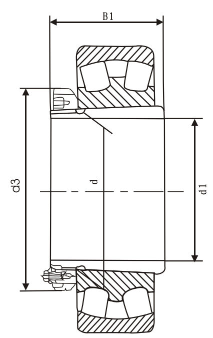
Part Number			Dimensions (mm)				Matched Bearing	Weight
Adapters	Locking nut	Locking washer	d	d_1	B_1	d_3	Ball Bearing	kg
H204	**KM4**	**MB4**	**20**	17	24	32	1204K	0.04
H205	**KM5**	**MB5**	**25**	20	26	38	1205K	0.07
H206	**KM6**	**MB6**	**30**	25	27	45	1206K	0.10
H207	**KM7**	**MB7**	**35**	30	29	52	1207K	0.13
H208	**KM8**	**MB8**	**40**	35	31	58	1208K	0.17
H209	**KM9**	**MB9**	**45**	40	32	65	1209K	0.23
H210	**KM10**	**MB10**	**50**	45	35	70	1210K	0.27
H211	**KM11**	**MB11**	**55**	50	37	75	1211K	0.31
H212	**KM12**	**MB12**	**60**	55	38	80	1212K	0.35
H213	**KM13**	**MB13**	**65**	60	40	85	1213K	0.40
H214	**KM14**	**MB14**	**70**	60	41	92	1214K	0.55
H215	**KM15**	**MB15**	**75**	65	43	98	1215K	0.71
H216	**KM16**	**MB16**	**80**	70	46	105	1216K	0.88
H217	**KM17**	**MB17**	**85**	75	50	110	1217K	1.02
H218	**KM18**	**MB18**	**90**	80	52	120	1218K	1.19
H219	**KM19**	**MB19**	**95**	85	55	125	1219K	1.37
H220	**KM20**	**MB20**	**100**	90	58	130	1220K	1.49
H222	**KM22**	**MB22**	**110**	100	63	145	1222K	1.93

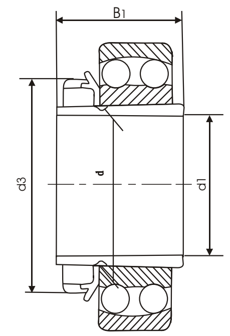




H3 Series

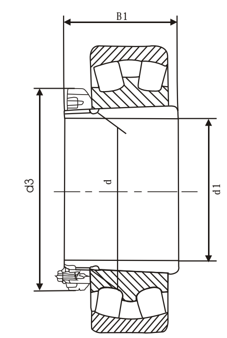
Part Number			Dimensions (mm)				Matched Bearing		Weight
Adapters	Locking nut	Locking washer	d	d_1	B_1	d_3	Ball Bearing	Roller Bearing	kg
H304	**KM4**	**MB4**	**20**	17	28	32	1304K 2204K	21304CK	0.05
H305	**KM5**	**MB5**	**25**	20	29	38	1305K 2205K	21305CK	0.08
H306	**KM6**	**MB6**	**30**	25	31	45	1306K 2206K	21306CK	0.11
H307	**KM7**	**MB7**	**35**	30	35	52	1307K 2207K	21307CK	0.14
H308	**KM8**	**MB8**	**40**	35	36	58	1308K 2208K	21308CK 22208CK	0.19
H309	**KM9**	**MB9**	**45**	40	39	65	1309K 2209K	21309CK 22209CK	0.25
H310	**KM10**	**MB10**	**50**	45	42	70	1310K 2210K	21310CK 22210CK	0.30
H311	**KM11**	**MB11**	**55**	50	45	75	1311K 2211K	21311CK 22211CK	0.35
H312	**KM12**	**MB12**	**60**	55	47	80	1312K 2212K	21312CK 22212CK	0.39
H313	**KM13**	**MB13**	**65**	60	50	85	1313K 2213K	21313CK 22213CK	0.46
H314	**KM14**	**MB14**	**70**	60	52	92	1314K 2214K	21314CK 22214CK	0.72
H315	**KM15**	**MB15**	**75**	65	55	98	1315K 2215K	21315CK 22215CK	0.83
H316	**KM16**	**MB16**	**80**	70	59	105	1316K 2216K	21316CK 22216CK	1.03
H317	**KM17**	**MB17**	**85**	75	63	110	1317K 2217K	21317CK 22217CK	1.18
H318	**KM18**	**MB18**	**90**	80	65	120	1318K 2218K	21318CK 22218CK	1.37
H319	**KM19**	**MB19**	**95**	85	68	125	1319K 2219K	21319CK 22219CK	1.56
H320	**KM20**	**MB20**	**100**	90	71	130	1320K 2220K	21320CK 22220CK	1.69
H322	**KM22**	**MB22**	**110**	100	77	145	1322K 2222K	21322CK 22222CK	2.18

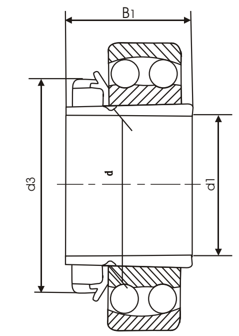




H30 Series

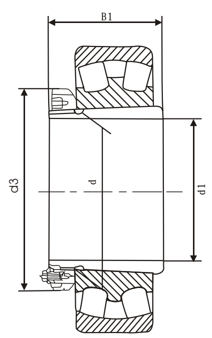
Part Number			Dimensions (mm)				Matched Bearing	Weight
Adapters	Locking nut	Locking washer	d	d_1	B_1	d_3	Roller Bearing	kg
H3024	KML 24	MBL 24	120	110	72	145	23024CK	1.93
H3026	KML 26	MBL 24	130	115	80	155	23026CK	2.85
H3028	KML 28	MBL 28	140	125	82	165	23028CK	3.16
H3030	KML 30	MBL 30	150	135	87	180	23030CK	3.89
H3032	KML 32	MBL 32	160	140	93	190	23032CK	5.21
H3034	KML 34	MBL 34	170	150	101	200	23034CK	5.99
H3036	KML 36	MBL 36	180	160	109	210	23036CK	6.83
H3038	KML 38	MBL 38	190	170	112	220	23038CK	7.45
H3040	KML 40	MBL 40	200	180	120	240	23040CK	9.19
OH3044H	HM 3044	MS 3044	220	200	126	260	23044CK	10.30
OH3048H	HM 3048	MS 3052-48	240	220	133	290	23048CK	13.20
OH3052H	HM 3052	MS 3052-48	260	240	145	310	23052CK	15.30
OH3056H	HM 3056	MS 3056	280	260	152	330	23056CK	17.70
OH3060H	HM 3060	MS 3060	300	280	168	360	23060CK	22.80
OH3064H	HM 3064	MS 3068-64	320	300	171	380	23064CK	24.60
OH3068H	HM 3068	MS 3068-64	340	320	187	400	23068CK	28.70
OH3072H	HM 3072	MS 3072	360	340	188	420	23072CK	30.50
OH3076H	HM 3076	MS 3080-76	380	360	193	450	23076CK	35.80
OH3080H	HM 3080	MS 3080-76	400	380	210	470	23080CK	41.50
OH3084H	HM 3084	MS 3084	420	400	212	490	23084CK	43.60
OH3088H	HM 3088	MS 3092-88	440	410	228	520	23088CK	65.50
OH3092H	HM 3092	MS 3092-88	460	430	234	540	23092CK	69.40
OH3096H	HM 3096	MS 30/500-96	480	450	237	560	23096CK	73.50
OH30/500H	HM 30/500	MS 30/500-96	500	470	247	580	230/500CK	82.00

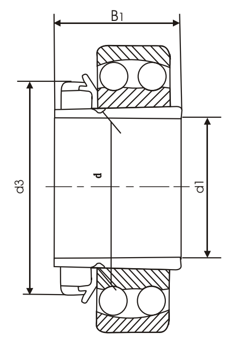




H31 Series

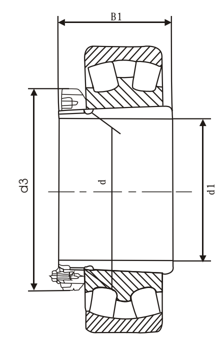
Part Number			Dimensions (mm)				Matched Bearing	Weight
Adapters	Locking nut	Locking washer	d	d_1	B_1	d_3	Roller Bearing	kg
H3120	KM20	MB 20	100	90	76	130	23120CK	1.70
H3122	KM 22	MB 22	110	100	81	145	23122CK 22222CK	2.25
H3124	KM 24	MB 24	120	110	88	155	23124CK 22224CK	2.64
H3126	KM 26	MB 26	130	115	92	165	23126CK 22226CK	3.66
H3128	KM 28	MB 28	140	125	97	180	23128CK 22228CK	4.34
H3130	KM 30	MB 30	150	135	111	195	23130CK 22230CK	5.52
H3132	KM 32	MB 32	160	140	119	210	23132CK 22232CK	7.67
H3134	KM 34	MB 34	170	150	122	220	23134CK 22234CK	8.38
H3136	KM 36	MB 36	180	160	131	230	23136CK 22236CK	9.50
H3138	KM 38	MB 38	190	170	141	240	23138CK 22238CK	10.80
H3140	KM 40	MB 40	200	180	150	250	23140CK 22240CK	12.10
OH3144H	HM 44T	MB 44	220	200	161	280	23144CK 22244CK	14.70
OH3148H	HM 48T	MB 48	240	220	172	300	23148CK 22248CK	17.30
OH3152H	HM 52T	MB 52	260	240	190	330	23152CK 22252CK	22.00
OH3156H	HM 56T	MB 56	280	260	195	350	23156CK 22256CK	24.50
OH3160H	HM 3160	MS 3160	300	280	208	380	23160CK 22260CK	30.20
OH3164H	HM 3164	MS 3164	320	300	226	400	23164CK 22264CK	34.90
OH3168H	HM 3168	MS 3172-68	340	320	254	440	23168CK 22268CK	49.50
OH3172H	HM 3172	MS 3172-68	360	340	259	460	23172CK 22272CK	54.50
OH3176H	HM 3176	MS 3176	380	360	264	490	23176CK 22276CK	61.60
OH3180H	HM 3180	MS 3184-80	400	380	272	520	23180CK 22280CK	70.80
OH3184H	HM 3184	MS 3184-80	420	400	304	540	23184CK 22284CK	84.50
OH3192H	HM 3192	MS 3192-88	460	430	326	580	23192CK 22292CK	116.00
OH3196H	HM 3196	MS 3196	480	450	335	620	23196CK 22296CK	133.00
OH31/500H	HM 31/500	MS 31/500	500	470	356	630	231/500CK 222/500CK	146.00

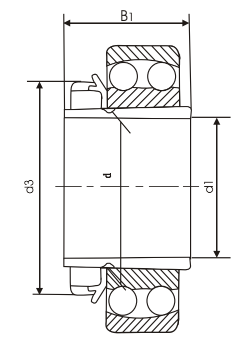




H23 Series

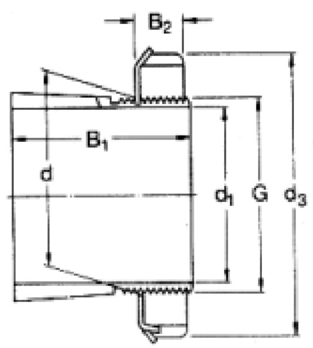
Part Number			Dimensions (mm)				Matched Bearing		Weight
Adapters	Locking nut	locking washer	d	d_1	B_1	d_3	Ball Bearing	Roller Bearing	kg
H2306	KM6	MB6	30	25	38	45	2306K		0.13
H2307	KM7	MB7	35	30	43	52	2307K		0.17
H2308	KM8	MB8	40	35	46	58	2308K	22308CK	0.22
H2309	KM9	MB9	45	40	50	65	2309K	22309CK	0.28
H2310	KM10	MB10	50	45	55	70	2310K	22310CK	0.36
H2311	KM11	MB11	55	50	59	75	2311K	22311CK	0.42
H2312	KM12	MB12	60	55	62	80	2312K	22312CK	0.48
H2313	KM13	MB13	65	60	65	85	2313K	22313CK	0.56
H2314	KM14	MB14	70	60	68	92	2314K	22314CK	0.90
H2315	KM15	MB15	75	65	73	98	2315K	22315CK	1.05
H2316	KM16	MB16	80	70	78	105	2316K	22316CK	1.28
H2317	KM17	MB17	85	75	82	110	2317K	22317CK	1.45
H2318	KM18	MB18	90	80	86	120	2318K	22318CK	1.69
H2319	KM19	MB19	95	85	90	125	2319K	22319CK	1.92
H2320	KM20	MB20	100	90	97	130	2320K	22320CK	2.15
H2322	KM22	MB22	110	100	105	145	2322K	22322CK	2.74
H2324	KM24	MB24	120	110	112	155	2324K	22324CK	3.19
H2326	KM26	MB26	130	115	121	165	2326K	22326CK	4.60
H2328	KM28	MB28	140	125	131	180	2328K	22328CK	5.55
H2330	KM30	MB30	150	135	139	195	2330K	22330CK	6.63
H2332	KM32	MB32	160	140	147	210	2332K	22332CK	9.14
H2334	KM34	MB34	170	150	154	220	2334K	22334CK	10.20
H2336	KM36	MB36	180	160	161	230	2336K	22336CK	11.30
H2338	KM38	MB38	190	170	169	240	2338K	22338CK	12.60
H2340	KM40	MB40	200	180	176	250	2340K	22340CK	13.90
OH2344H	HM44T	MB44	220	200	186	280	2344K	22344CK	16.70
OH2348H	HM48T	MB48	240	220	199	300	2348K	22348CK	19.70
OH2352H	HM52T	MB52	260	240	211	330	2352K	22352CK	24.20
OH2356H	HM56T	MB56	280	260	224	350	2356K	22356CK	27.80



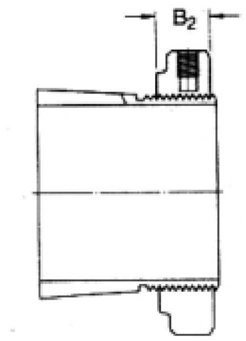


OH32 Series

Part Number			Dimensions (mm)				Matched Bearing	Weight
Adapters	Locking nut	Locking washer	d	d_1	B_1	d_3	Roller Bearing	kg
OH3260H	HM 3160	MS 3160	300	280	240	380	23260CK	34.00
OH3264H	HM 3164	MS 3164	320	300	258	400	23264CK	39.40
OH3268H	HM 3168	MS 3172-68	340	320	288	440	23268CK	54.00
OH3272H	HM 3172	MS 3172-68	360	340	299	460	23272CK	60.20
OH3276H	HM 3176	MS 3176	380	360	310	490	23276CK	69.60
OH3280H	HM 3180	MS 3184-80	400	380	328	520	23280CK	81.00
OH3284H	HM 3184	MS 3184-80	420	400	352	540	23284CK	94.00
OH3288H	HM 3188	MS 3192-88	440	410	361	560	23288CK	118.00
OH3292H	HM 3192	MS 3192-88	460	430	382	580	23292CK	132.00
OH3296H	HM 3196	MS 3196	480	450	397	620	23294CK	150.00
OH32/500H	HM 31/500	MS 31/500	500	470	428	630	232/500CK	166.00



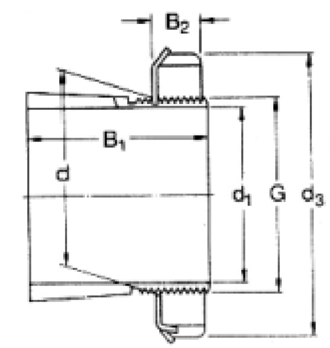
HA,HE,HS



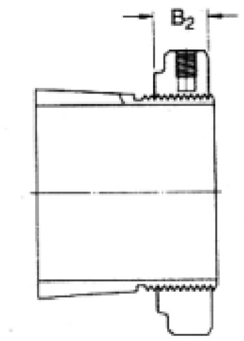
HA..E,HE..E,HS..E

d_1 3/4-2 3/16 in

Dimensions (mm)							Weight	Part Number		
d_1 in	d_1 mm	d	d_3	B_1	B_2	G	kg	Adapters with locking nut and locking washer	Locking washer	Locking nut
3/4	19.050	25	38	26	8.0	M 25× 1.5	0.07	HE 205	KM 5	MB 5
		25	38	29	8.0	M 25× 1.5	0.08	HE 305	KM 5	MB 5
		25	38	29	10.5	M 25× 1.5	0.08	HE 305 E	KMFE 5	-
		25	38	35	8.0	M 25× 1.5	0.09	HE 2305	KM 5	MB 5
7/8	22.225	30	45	27	8.0	M 30× 1.5	0.11	HS 206	KM 6	MB 6
		30	45	31	8.0	M 30× 1.5	0.12	HS 306	KM 6	MB 6
15/16	23.813	30	45	27	8.0	M 30× 1.5	0.10	HA 206	KM 6	MB 6
		30	45	31	8.0	M 30× 1.5	0.12	HA 306	KM 6	MB 6
		30	45	31	10.5	M 30× 1.5	0.13	HA 306 E	KMFE 6	-
		30	45	38	8.0	M 30× 1.5	0.13	HA 2306	KM 6	MB 6
1	25.400	30	45	27	8.0	M 30× 1.5	0.08	HE 206	KM 6	MB 6
		30	45	31	8.0	M 30× 1.5	0.10	HE 306	KM 6	MB 6
		30	45	31	10.5	M 30× 1.5	0.11	HE 306 E	KMFE 6	-
		30	45	38	8.0	M 30× 1.5	0.11	HE 2306	KM 6	MB 6
1 1/8	28.575	35	52	29	9.0	M 35× 1.5	0.14	HS 207	KM 7	MB 7
		35	52	35	9.0	M 35× 1.5	0.16	HS 307	KM 7	MB 7
		35	52	35	11.5	M 35× 1.5	0.17	HS 307E	KMFE 7	-
1 3/16	30.163	35	52	29	9.0	M 35× 1.5	0.12	HA 207	KM 7	MB 7
		35	52	35	9.0	M 35× 1.5	0.14	HA 307	KM 7	MB 7
		35	52	35	11.5	M 35× 1.5	0.15	HA 307 E	KMFE 7	-
		35	52	43	9.0	M 35× 1.5	0.16	HA 2307	KM 7	MB 7
1 1/4	31.750	40	58	31	10.0	M 40× 1.5	0.19	HE 208	KM 8	MB 8
		40	58	36	10.0	M 40× 1.5	0.22	HE 308	KM 8	MB 8
		40	58	36	13.0	M 40× 1.5	0.19	HE 308E	KMFE 8	-
		40	58	46	10.0	M 40× 1.5	0.28	HE 2308	KM 8	MB 8
1 3/8	34.925	40	58	31	10.0	M 40× 1.5	0.16	HS 208	KM 8	MB 8
		40	58	36	10.0	M 40× 1.5	0.17	HS 308	KM 8	MB 8
1 7/16	36.512	45	65	33	11.0	M 45× 1.5	0.26	HA 209	KM 9	MB 9
		45	65	39	11.0	M 45× 1.5	0.29	HA 309	KM 9	MB 9
		45	65	39	13.0	M 45× 1.5	0.31	HA 309 E	KMFE 9	-
		45	65	50	11.0	M 45× 1.5	0.35	HA 2309	KM 9	MB 9



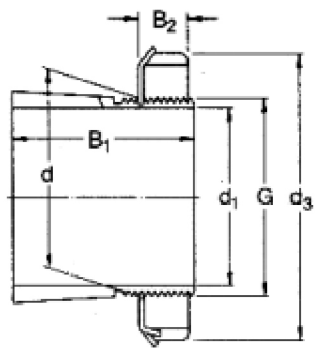
HA,HE,HS



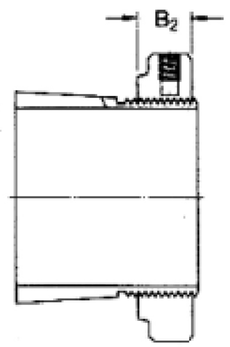
HA..E,HE..E,HS..E

d_1 3/4-2 3/16 in

Dimensions (mm)							Weight	Part Number		
d_1 in	d_1 mm	d	d_3	B_1	B_2	G	kg	Adapters with locking nut and locking washer	Locking washer	Locking nut
1 1/2	38.100	45	65	33	11.0	M 45× 1.5	0.20	HE 209	KM 9	MB 9
		45	65	39	11.0	M 45× 1.5	0.24	HE 309	KM 9	MB 9
		45	65	39	13.0	M 45× 1.5	0.26	HE 309 E	KMFE 9	-
		45	65	50	11.0	M 45× 1.5	0.31	HE 2309	KM 9	MB 9
1 5/8	41.275	50	70	35	12.0	M 50× 1.5	0.31	HS 210	KM 10	MB 10
		50	70	42	12.0	M 50× 1.5	0.36	HS 310	KM 10	MB 10
		50	70	55	12.0	M 50× 1.5	0.40	HS 2310	KM 10	MB 10
1 11/16	42.863	50	70	35	12.0	M 50× 1.5	0.28	HA 210	KM 10	MB 10
		50	70	42	12.0	M 50× 1.5	0.32	HA 310	KM 10	MB 10
		50	70	42	14.0	M 50× 1.5	0.32	HA 310 E	KMFE 10	-
		50	70	55	12.0	M 50× 1.5	0.40	HA 2310	KM 10	MB 10
1 3/4	44.450	50	70	35	12.0	M 50× 1.5	0.26	HE 210	KM 10	MB 10
		50	70	42	12.0	M 50× 1.5	0.29	HE 310	KM 10	MB 10
		50	70	42	14.0	M 50× 1.5	0.29	HE 310 E	KMFE 10	-
		50	70	55	12.0	M 50× 1.5	0.36	HE 2310	KM 10	MB 10
1 7/8	47.625	55	75	37	12.5	M 55× 2	0.33	HS 211	KM 11	MB 11
		55	75	45	12.5	M 55× 2	0.38	HS 311	KM 11	MB 11
1 15/16	49.213	55	75	37	12.5	M 55× 2	0.30	HA 211	KM 11	MB 11
		55	75	45	12.5	M 55× 2	0.34	HA 311	KMFE 11	-
		55	75	45	14.0	M 55× 2	0.35	HA 311 E	KM 11	MB 11
		55	75	59	12.5	M 55× 2	0.42	HA 2311	KM 11	MB 11
2	50.800	55	75	37	12.5	M 55× 1/19	0.26	HE 211 B	HM 11	MB 11
		55	75	45	12.5	M 55× 1/19	0.29	HE 311 B	HM 11	MB 11
		55	75	45	14.0	M 55× 1/19	0.30	HE 311BE	KMFE 11 B	-
		55	75	59	12.5	M 55× 1/19	0.36	HE 2311 B	HM 11	MB 11
2 1/8	53.975	60	80	38	13.0	M 60× 2	0.35	HS 212	KM 12	MB 12
		60	80	47	13.0	M 60× 2	0.40	HS 312	KM 12	MB 12
		60	80	47	14.0	M 60× 2	0.41	HS 312 E	KMFE 12	-
		60	80	62	13.0	M 60× 2	0.49	HS 2312	KM 12	MB 12
2 3/16	55.563	65	85	40	14.0	M 65× 2	0.49	HA 213	KM 13	MB 13
		65	85	50	14.0	M 65× 2	0.58	HA 313	KM 13	MB 13
		65	85	50	15.0	M 65× 2	0.59	HA 313 E	KMFE 13	-
		65	85	65	14.0	M 65× 2	0.75	HA 2313	KM 13	MB 13



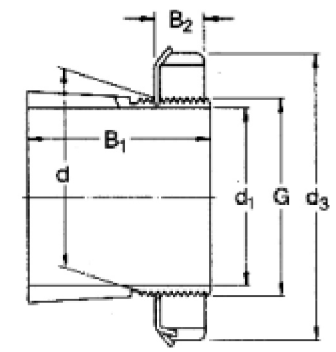
HA,HE,HS



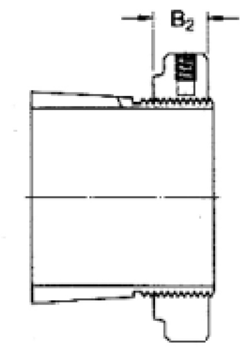
HA..E,HE..E,

d_1 2 1/4-4 3/16 in

Dimensions (mm)							Weight	Part Number		
d_1 in	d_1 mm	d	d_3	B_1	B_2	G	kg	Adapters with locking nut and locking washer	Locking washer	Locking nut
2 1/4	57.150	65	85	40	14	M65×2	0.44	HE 213	KM 13	MB 13
		65	85	50	14	M65×2	0.52	HE 313	KM 13	MB 13
		65	85	50	15	M65×2	0.53	HE 313 E	KMFE 13	-
		65	85	65	14	M65×2	0.65	HE 2313	KM 13	MB 13
2 3/8	60.325	65	85	40	14	M65×2	0.44	HS 213	KM 13	MB 13
		65	85	50	14	M65×2	0.71	HS 313	KM 13	MB 13
		65	85	65	14	M65×2	0.80	HS 2313	KM 13	MB 13
2 7/16	61.913	75	98	43	15	M75×2	0.75	HA 215	KM 15	MB 15
		75	98	55	15	M75×2	0.91	HA 315	KM 15	MB 15
		75	98	55	16	M75×2	0.93	HA 315 E	KMFE 15	-
		75	98	73	15	M75×2	1.15	HA 2315	KM 15	MB 15
2 1/2	63.500	75	98	43	15	M75×2	0.70	HE 215	KM 15	MB 15
		75	98	55	15	M75×2	0.85	HE 315	KM 15	MB 15
		75	98	55	16	M75×2	0.87	HE 315 E	KMFE 15	-
		75	98	73	15	M75×2	1.09	HE 2315	KM 15	MB 15
2 5/8	66.675	75	98	43	15	M75×2	0.70	HS 215	KM 15	MB 15
		75	98	55	15	M75×2	0.71	HS 315	KM 15	MB 15
		75	98	73	15	M75×2	0.90	HS 2315	KM 15	MB 15
2 11/16	68.263	80	105	46	17	M80×2	0.87	HA 216	KM 16	MB 16
		80	105	59	17	M80×2	1.05	HA 316	KM 16	MB 16
		80	105	59	18	M80×2	1.06	HA 316 E	KMFE 16	-
		80	105	78	17	M80×2	1.30	HA 2316	KM 16	MB 16
2 3/4	69.850	80	105	46	17	M80×2	0.81	HE 216	KM 16	MB 16
		80	105	59	17	M80×2	0.97	HE 316	KM 16	MB 16
		80	105	59	18	M80×2	0.98	HE 316E	KMFE 16	-
		80	105	78	17	M80×2	1.20	HE 2316	KM 16	MB 16
2 15/16	74.613	85	110	50	18	M85×2	0.94	HA 217	KM 17	MB 17
		85	110	63	18	M85×2	1.10	HA 317	KM 17	MB 17
		85	110	63	19	M85×2	1.19	HA 317 E	KMFE 17	-
		85	110	82	18	M85×2	1.40	HA 2317	KM 17	MB 17
3	76.200	85	110	50	18	M85×2	0.87	HE 217	KM 17	MB 17
		85	110	63	18	M85×2	1.00	HE 317	KM 17	MB 17
		85	110	63	19	M85×2	0.99	HE 317E	KMFE 17	-
		85	110	82	18	M85×2	1.30	HE 2317	KM 17	MB 17



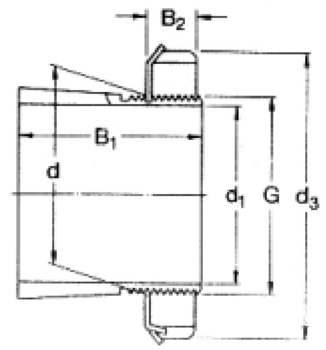
HA,HE,HS



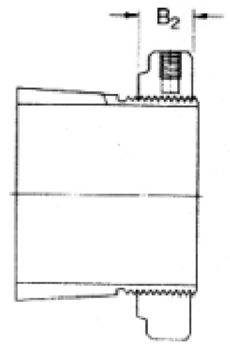
HA..E,HE..E,

d_1 2 1/4-4 3/16 in

Dimensions (mm)							Weight kg	Part Number		
d_1 in	d_1 mm	d	d_3	B_1	B_2	G		Adapters with locking nut and locking washer	Locking washer	Locking nut
3 3/16	80.963	90	120	52	18.0	M90× 2	1.05	HA 218	KM 18	MB 18
		90	120	65	18.0	M90× 2	1.25	HA 318	KM 18	MB 18
		90	120	65	19.0	M90× 2	1.26	HA 318 E	KMFE 18	-
		90	120	86	18.0	M90× 2	1.50	HA 2318	KM 18	MB 18
3 1/4	82.550	90	120	52	18.0	M90× 2	0.97	HE 218	KM 18	MB 18
		90	120	65	18.0	M90× 2	1.10	HE 318	KM 18	MB 18
		90	120	65	19.0	M90× 2	1.11	HE 318 E	KMFE 18	-
		90	120	86	18.0	M90× 2	1.40	HE 2318	KM 18	MB 18
		95	125	55	19.0	M95× 2	1.35	HE 219	KM 19	MB 19
		95	125	68	19.0	M95× 2	1.60	HE 319	KM 19	MB 19
		95	125	68	20.0	M95× 2	1.61	HE 319 E	KMFE 19	-
		95	125	90	19.0	M95× 2	2.00	HE 2319	KM 19	MB 19
3 7/16	87.313	100	130	58	20.0	M100× 2	1.55	HA 220	KM 20	MB 20
		100	130	71	20.0	M100× 2	1.80	HA 320	KM 20	MB 20
		100	130	71	21.0	M100× 2	1.75	HA 320 E	KMFE 20	-
		100	130	97	20.0	M100× 2	2.35	HA 2320	KM 20	MB 20
3 1/2	88.900	100	130	58	20.0	M100× 2	1.45	HE 220	KM 20	MB 20
		100	130	71	20.0	M100× 2	1.75	HE 320	KM 20	MB 20
		100	130	71	21.0	M100× 2	1.70	HE 320 E	KMFE 20	-
		100	130	76	20.0	M100× 2	1.80	HE 3120	KM 20	MB 20
		100	130	97	20.0	M100× 2	2.20	HE 2320	KM 20	MB 20
4	101.600	110	145	63	21.0	M110× 2	1.65	HE 222	KM 22	MB 22
		110	145	77	21.0	M110× 2	1.90	HE 322	KM 22	MB 22
		110	145	77	21.5	M110× 2	1.85	HE 322 E	KMFE 22	-
		110	145	81	21.0	M110× 2	2.25	HE 3122	KM 22	MB 22
		110	145	105	21.0	M110× 2	2.40	HE 2322	KM 22	MB 22
4 3/16	106.363	120	145	72	22.0	M120× 2	2.25	HA 3024	KM 24	MBL 24
		120	155	72	26.0	M120× 2	2.32	HA 3024 E	KMFE 24	-
		120	155	88	22.0	M120× 2	2.90	HA 3124	KM 24	MB 24
		120	145	88	22.0	M120× 2	2.60	HA 3124 L	KML 24	MBL 24
		120	155	112	22.0	M120× 2	3.60	HA 2324	KM 24	MB 24
		120	145	112	22.0	M120× 2	3.30	HA 2324 L	KML 24	MBL 24



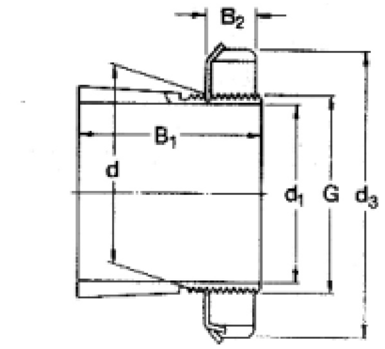
HA,HA..L,HE..L



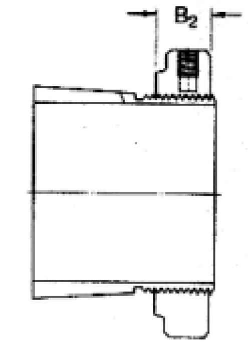
HA..E,HE..E,

d1 4 1/4-7 3/16 in

Dimensions (mm)							Weight	Part Number		
d_1 in	d_1 mm	d	d_3	B_1	B_2	G	kg	Adapters with locking nut and locking washer	Locking washer	Locking nut
4 1/4	107.950	120	145	72	22.0	M 120×2	2.00	HE 3024	KM 24	MBL 24
		120	155	72	26.0	M 120×2	2.70	HE 3024 E	KMFE 24	-
		120	155	88	22.0	M 120×2	2.80	HE 3124	KM 24	MB 24
		120	155	112	22.0	M 120×2	3.35	HE 2324	KM 24	MB 24
		120	145	112	22.0	M 120×2	3.05	HE 2324 L	KML 24	MBL 24
4 7/16	112.713	130	155	80	23.0	M 130×2	3.05	HA 3026	KM 26	MBL 26
		130	165	92	23.0	M 130×2	3.75	HA 3126	KM 26	MB 26
		130	155	92	23.0	M 130×2	3.55	HA 3126 L	KML 26	MBL 26
		130	165	92	28.0	M 130×2	3.77	HA 3126 E	KMFE 26	-
		130	165	121	23.0	M 130×2	4.74	HA 2326	KM 26	MB 26
4 1/2	114.300	130	155	80	23.0	M 130×2	2.90	HE 3026	KML 26	MBL 26
		130	165	92	23.0	M 130×2	3.60	HE 3126	KM 26	MB 26
		130	155	90	23.0	M 130×2	3.40	HE 3126 L	KML 26	MBL 26
		130	165	121	23.0	M 130×2	4.55	HE 2326	KM 26	MB 26
4 15/16	125.413	140	165	82	24.0	M 140×2	3.00	HA 3028	KML 28	MBL 28
		140	180	97	24.0	M 140×2	4.10	HA 3128	KM 28	MB 28
		140	165	97	24.0	M 140×2	4.60	HA 3128 L	KML 28	MBL 28
		140	180	131	24.0	M 140×2	5.30	HA 2328	KM 28	MB 28
5	127.000	140	165	82	24.0	M 140×2	2.80	HE 3028	KML 28	MBL 28
		140	180	97	24.0	M 140×2	3.80	HE 3128	KM 28	MB 28
		140	165	97	24.0	M 140×2	3.30	HE 3128 L	KML 28	MBL 28
		140	180	131	24.0	M 140×2	5.00	HE 2328	KM 28	MB 28
5 3/16	131.763	150	180	87	26.0	M 150×2	4.20	HA 3030	KML 30	MBL 30
		150	195	111	26.0	M 150×2	5.80	HA 3130	KM 30	MB 30
		150	180	111	26.0	M 150×2	5.30	HA 3130 L	KML30	MBL 30
		150	195	139	26.0	M 150×2	7.10	HA 2330	KM 30	MB 30
5 1/4	133.350	150	180	87	26.0	M 150×2	4.00	HE 3030	KML 30	MBL 30
		150	195	111	26.0	M 150×2	5.50	HE 3130	KM 30	MB 30
		150	180	111	26.0	M 150×2	5.00	HE 3130 L	KML30	MBL 30
		150	195	139	26.0	M 150×2	6.80	HE 2330	KM 30	MB 30
5 7/16	138.113	160	190	93	27.5	M 160×3	5.40	HA 3032	KML 32	MBL 32
		160	210	119	27.5	M 160×3	7.55	HA 3132	KM 32	MB 32
		160	210	147	27.5	M 160×3	9.40	HA 2332	KM 32	MB 32
		160	190	147	27.5	M 160×3	8.55	HA 2332 L	KML 32	MBL 32



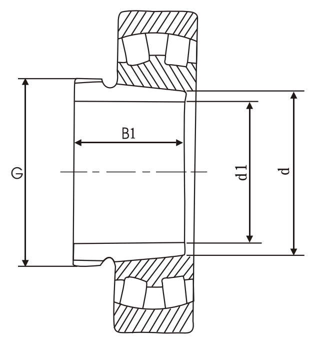
HA,HA..L,HE..L



HA..E,HE..E,

d1 4 1/4-7 3/16 in

Dimensions (mm)							Weight kg	Part Number		
d_1 in	d_1 mm	d	d_3	B_1	B_2	G		Adapters with locking nut and locking washer	Locking washer	Locking nut
5 1/2	139.700	160	190	93	27.5	M 160×3	5.10	HE 3032	KML 32	MBL 32
		160	210	119	27.5	M 160×3	7.30	HE 3132	KM 32	MB 32
		160	190	119	27.5	M 160×3	6.45	HE 3132 L	KML 32	MBL 32
		160	210	147	27.5	M 160×3	8.80	HE 2332	KM 32	MB 32
		160	190	147	27.5	M 160×3	7.95	HE 2332 L	KML 32	MBL 32
515/16	150.813	170	200	101	28.5	M170×3	5.70	HA 3034	KML 34	MBL 34
		170	220	122	28.5	M170×3	7.80	HA 3134	KM 34	MB 34
		170	200	122	28.5	M170×3	6.80	HA 3134 L	KML 34	MBL 34
		170	220	154	28.5	M170×3	9.60	HA 2334	KM 34	MB 34
6	152.400	170	200	101	28.5	M170×3	5.40	HE 3034	KML 34	MBL 34
		170	220	122	28.5	M170×3	7.55	HE 3134	KM 34	MB 34
		170	200	122	28.5	M170×3	6.60	HE 3134 L	KML 34	MBL 34
		170	220	154	28.5	M170×3	9.20	HE 2334	KM 34	MB 34
6 7/16	163.513	180	210	109	29.5	M 180×3	6.00	HA 3036	KML 36	MBL 36
		180	230	131	29.5	M 180×3	8.15	HA 3136	KM 36	MB 36
		180	210	131	29.5	M 180×3	7.20	HA 3136 L	KML 36	MBL 36
		180	230	161	29.5	M 180×3	9.90	HA 2336	KM 36	MB 36
6 1/2	165.100	180	210	109	29.5	M 180×3	5.55	HE 3036	KML 36	MBL 36
		180	230	131	29.5	M 180×3	7.80	HE 3136	KM 36	MB 36
		180	210	131	29.5	M 180×3	6.85	HE 3136 L	KML 36	MBL 36
		180	230	161	29.5	M 180×3	9.35	HE 2336	KM 36	MB 36
6 3/4	171.450	190	220	112	30.5	M 190×3	7.20	HE 3038	KML 38	MBL 38
		190	240	141	30.5	M 190×3	10.2	HE 3138	KM 38	MB 38
		190	240	169	30.5	M 190×3	11.7	HE 2338	KM 38	MB 38
615/16	176.213	190	220	112	30.5	M 190×3	5.80	HA 3038	KML 38	MBL 38
		190	240	141	30.5	M 190×3	8.50	HA 3138	KM 38	MB 38
		190	240	169	30.5	M 190×3	10.0	HA 2338	KM 38	MB 38
7	177.800	200	240	120	31.5	M 200×3	9.35	HE 3040	KML 40	MBL 40
		200	250	150	31.5	M 200×3	12.3	HE 3140	KM 40	MB 40
		200	250	176	31.5	M 200×3	14.2	HE 2340	KM 40	MB 40
7 3/16	182.563	200	240	120	31.5	M 200×3	8.25	HA 3040	KML 40	MBL 40
		200	250	150	31.5	M 200×3	11.2	HA 3140	KM 40	MB 40
		200	250	176	31.5	M 200×3	12.6	HA 2340	KM 40	MB 40

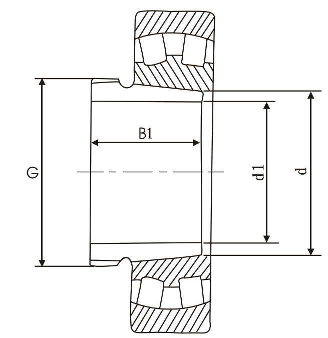


AH3 Series

Part Number		Dimensions (mm)				Matched Bearing				Weight kg
Withdrawal sleeves	Lock nut for disassembly	d	d_1	B_1	G	Ball Bearing		Roller Bearing		
AH308	KM9	40	35	29	M45X1.5	2208K	1308K	22208K	21308CK	0.09
AH309	KM10	45	40	31	M50X1.5	2209K	1309K	22209K	21309CK	0.11
AHX310	KM11	50	45	35	M55X2	2210K	1310K	22210K	21310CK	0.14
AHX311	KM12	55	50	37	M60X2	2211K	1311K	22211K	21311CK	0.16
AHX312	KM13	60	55	40	M65X2	2212K	1312K	22212K	21312CK	0.19
AH313G	KM14	65	60	42	M70X2	2213K	1313K	22213K	21313CK	0.25
AH314G	KM15	70	65	43	M75X2	2214K	1314K	22214K	21314CK	0.28
AH315G	KM16	75	70	45	M80X2	2215K	1315K	22215K	21315CK	0.31
AH316	KM18	80	75	48	M90X2	2216K	1316K	22216K	21316CK	0.37
AHX317	KM19	85	80	52	M95X2	2217K	1317K	22217K	21317CK	0.43
AHX318	KM20	90	85	53	M100X2	2218K	1318K	22218K	21318CK	0.46
AHX319	KM21	95	90	57	M105X2	2219K	1319K	22219K	21319CK	0.53
AHX320	KM22	100	95	59	M110X2	2220K	1320K	22220K	21320CK	0.58
AHX322	KM24	110	105	63	M120X2	2222K	1322K	22222K	21322CK	0.66

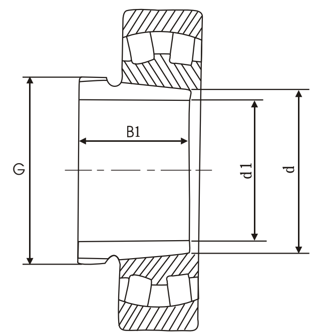
AH22、AOH22 Series

Part Number		Dimensions (mm)				Matched Bearing	Weight kg
Withdrawal sleeves	Lock nut for disassembly	d	d_1	B_1	G	Roller Bearing	
AH2236G	Km38	180	170	105	M190X3	22236K	3.73
AH2238G	KM40	190	180	112	M200X3	22238K	4.25
AOH2252G	HM3056	260	240	155	Tr280X4	22252K	14.00
AOH2256G	HM3160	280	260	155	Tr300X5	22256K	15.20
AOH2260G	HM3164	300	280	170	Tr320X5	22260K	18.10
AOH2264G	HM3168	320	300	180	Tr340X5	22260K	20.20



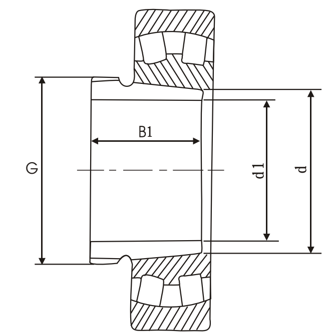
AH31、AOH31 Series

Part Number		Dimensions (mm)				Matched Bearing		Weight kg
Withdrawal sleeves	Lock nut for disassembly	d	d_1	B_1	G	Roller Bearing		
AHX3120	KM22	100	95	64	M110X2	23120K	22220K	0.65
AHX3122	KM24	110	105	68	M120X2	23122K	22222K	0.76
AHX3124	KM26	120	115	75	M130X2	23124K	22224K	0.95
AHX3126	KM28	130	125	78	M140X2	23126K	22226K	1.08
AHX3128	KM30	140	135	83	M150X2	23128K	22228K	1.28
AHX3130G	KM32	150	145	96	M160X3	23130K	22230K	1.79
AH3132G	KM34	160	150	103	M170X3	23132K	22232K	3.20
AH3134G	KM36	170	160	104	M180X3	23134K	22234K	3.50
AH3136G	KM38	180	170	116	M190X3	23136K	22236K	4.20
AH3138G	KM40	190	180	125	M200X3	23138K	22238K	4.90
AH3140	Hm3044	200	190	134	Tr220X4	23140K	22240K	5.60
AOH3144	HM3048	220	200	145	Tr240X4	23144K	22244K	10.40
AOH3148	HM3052	240	220	154	Tr260X4	23148K	22248K	12.10
AOH3152G	HM3056	260	240	172	Tr280X4	23152K	22252K	16.20
AOH3156G	HM3160	280	260	175	Tr300X4	23156K	22256K	17.60
AOH3160G	HM3164	300	280	192	Tr320X5	23160K	22260K	21.00
AOH3164G	HM3168	320	300	209	Tr340X5	23164K	22264K	24.70
AOH3168G	HM3172	340	320	225	Tr360X5	23168K	22268K	29.00
AOH3172G	HM3176	360	340	229	Tr380X5	23172K	22272K	33.10
AOH3176G	HM3180	380	360	232	Tr400X5	23176K	22276K	35.80
AOH3180G	HM3184	400	380	240	Tr420X5	23180K	22280K	39.60
AOH3184G	HM3188	420	400	260	Tr440X5	23184K	22284K	46.80



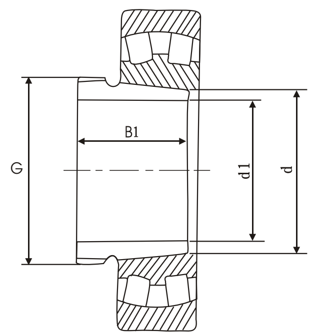
AH32、AOH32 Series

Dimensions (mm)		Part Number				Matched Bearing	Weight
Withdrawal sleeves	Lock nut for disassembly	d	d_1	B_1	G	Roller Bearing	kg
AHX3218	KM20	90	85	63	M100X2	23218K	0.57
AHX3220	KM22	100	95	73	M110X2	23220K	0.77
AHX3222G	KM24	110	105	82	M120X2	23222K	1.04
AHX3224G	KM26	120	115	90	M130X2	23224K	1.30
AHX3226G	KM28	130	125	98	M140X2	23226K	1.60
AHX3228G	KM30	140	135	104	M150X2	23228K	1.90
AHX3230G	KM32	150	145	114	M160X3	23230K	2.30
AH3232G	KM34	160	150	124	M170X3	23232K	4.09
AH3234G	KM36	170	160	134	M180X3	23234K	4.81
AH3236G	KM38	180	170	140	M190X3	23236K	5.31
AH3238G	KM40	190	180	145	M200X3	23238K	5.90
AH3240	HM3044	200	190	153	Tr220X4	23240K	6.67
AOH3260G	HM3164	300	280	228	Tr320X5	23260K	26.00
AOH3264G	HM3168	320	300	246	Tr340X5	23264K	30.60
AOH3268G	HM3172	340	320	264	Tr360X5	23268K	35.80
AOH3272G	HM3176	360	340	274	Tr380X5	23272K	41.60
AOH3276G	HM3180	380	360	284	Tr400X5	23276K	46.30
AOH3280G	HM3184	400	380	302	Tr420X5	23280K	52.50
AOH3284G	HM3188	420	400	321	Tr440X5	23284K	59.70



AH23、AOH23 Series

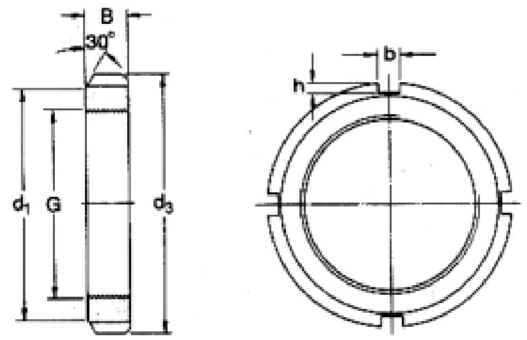
Part Number		Dimensions (mm)				Matched Bearing		Weight
Withdrawal sleeves	Lock nut for disassembly	d	d_1	B_1	G	Ball Bearing	Roller Bearing	kg
Ah2308	KM9	40	35	40	M45X1.5	2308K	22308K	0.13
AH2309	KM10	45	40	44	M50X1.5	2309K	22309K	0.16
AHX2310	KM11	50	45	50	M55X2	2310K	22310K	0.21
AHX2311	KM12	55	50	54	M60X2	2311K	22311K	0.25
AHX2312	KM13	60	55	58	M65X2	2312K	22312K	0.30
AH2313G	KM14	65	60	61	M70X2	2313K	22313K	0.36
AHX2314G	KM15	70	65	64	M75X2	2314K	22314K	0.47
AHX2315G	KM16	75	70	68	M80X2	2315K	22315K	0.53
AHX2316	KM18	80	75	71	M90X2	2316K	22316K	0.60
AHX2317	KM19	85	80	74	M95X2	2317K	22317K	0.67
AHX2318	KM20	90	85	79	M100X2	2318K	22318K	0.78
AHX2319	KM21	95	90	85	M105X2	2319K	22319K	0.89
AHX2320	KM22	100	95	90	M110X2	2320K	22320K	0.95
AHX2322G	KM24	110	105	98	M120X2	2322K	22322K	1.35
AHX2324G	KM26	120	115	105	M130X2	2324K	22324K	1.60
AHX2326G	KM28	130	125	115	M140X2	2326K	22326K	2.00
AHX2328G	KM30	140	135	125	M150X2	2328K	22328K	2.33
AHX2330G	KM32	150	145	135	M160X3	2330K	22330K	2.80
AH2332G	KM34	160	150	140	M170X3	2332K	22332K	4.72
AH2334G	KM36	170	160	146	M180X3	2334K	22334K	5.30
AH2336G	KM38	180	170	154	M190X3	2336K	22336K	5.90
AH2338G	KM40	190	180	160	M200X3	2338K	22338K	6.50
AH2340	HM3044	200	190	170	Tr220X4	2340K	22340K	7.50
AOH2344	HM3048	220	200	181	Tr240X4	2344K	22344K	13.40
AOH2348	HM3052	240	220	189	Tr260X4	2348K	22348K	15.50
AOH2352G	HM3056	260	240	205	Tr280X4	2352K	22352K	20.00
AOH2356G	HM3160	280	260	212	Tr300X4	2356K	22356K	21.50



AH30、AOH30 Series

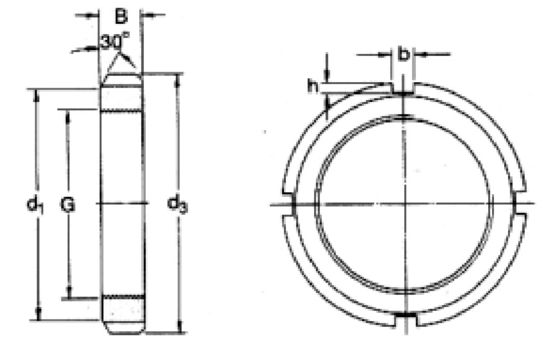
Dimensions (mm)		Part Number				Matched Bearing	Weight kg
Withdrawal sleeves	Lock nut for disassembly	d	d_1	B_1	G	Roller Bearing	
AHX3024	KM26	120	115	60	M130X2	23024K	0.75
AHX3036	KM28	130	125	67	M140X2	23026K	0.93
AHX3028	KM30	140	135	68	M150X2	23028K	1.01
AHX3030	KM32	150	145	72	M160X3	23030K	1.15
AH3032	KM34	160	150	77	M170X3	23032K	2.10
AH3034	KM36	170	160	85	M180X3	23034K	2.50
AH3036	KM38	180	170	92	M190X3	23036K	2.90
AH3038G	KM40	190	180	96	M200X3	23038K	3.40
AH3040G	HM42T	200	190	102	Tr210X4	23040K	3.80
AOH3044G	HM46T	220	200	111	Tr230X4	23044K	7.40
AOH3048	HM3052	240	220	116	Tr260X4	23048K	8.80
AOH3052	HM3056	260	240	128	Tr280X4	23052K	10.70
AOH3056	HM3060	280	260	131	Tr300X4	23056K	12.00
AOH3060	HM3064	300	280	145	Tr320X5	23060K	14.40
AOH3064G	HM3068	320	300	149	Tr340X5	23064K	16.00
AOH3068G	HM3072	340	320	162	Tr360X5	23068K	19.50
AOH3072G	HM3076	360	340	167	Tr380X5	23072K	21.00
AOH3076G	HM3080	380	360	170	Tr400X5	23076K	23.50
AOH3080G	HM3080	400	380	183	Tr420X5	23080K	27.30
AOH3084G	HM3088	420	400	186	Tr440X5	23084K	29.00

KM(L) TYPE LOCKING NUT WITH LOCKING WASHER



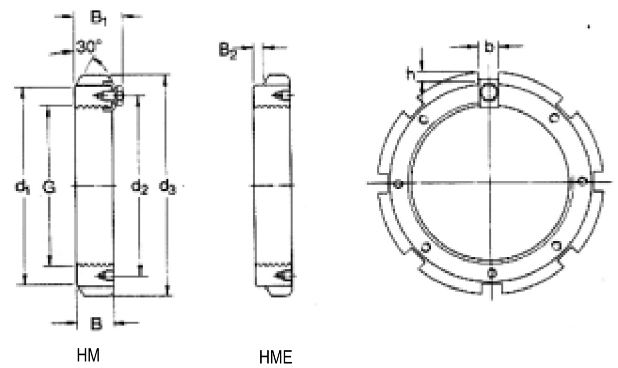
M 10×0.75 - M 200×3

Dimensions (mm)						Weight	Part Number	
G	d1	d3	B	b	h	kg	Locking nut	Appropriate locking washer
M 10×0.75	13.5	18	4	3	2.0	0.004	KM 0	MB 0
M 12×1	17.0	22	4	3	2.0	0.006	KM 1	MB 1
M 15×1	21.0	25	5	4	2.0	0.009	KM 2	MB 2
M 17×1	24.0	28	5	4	2.0	0.012	KM 3	MB 3
M 20×1	26.0	32	6	4	2.0	0.025	KM 4	MB 4
M 25×1.5	32.0	38	7	5	2.0	0.028	KM 5	MB 5
M 30×1.5	38.0	45	7	5	2.0	0.039	KM 6	MB 6
M 35×1.5	44.0	52	8	5	2.0	0.059	KM 7	MB 7
M 40×1.5	50.0	58	9	6	2.5	0.078	KM 8	MB 8
M 45×1.5	56.0	65	10	6	2.5	0.110	KM 9	MB 9
M 50×1.5	61.0	70	11	6	2.5	0.140	KM 10	MB 10
M 55×2	67.0	75	11	7	3.0	0.150	KM 11	MB 11
M 60×2	73.0	80	11	7	3.0	0.160	KM 12	MB 12
M 65×2	79.0	85	12	7	3.0	0.190	KM 13	MB 13
M 70×2	85.0	92	12	8	3.5	0.230	KM 14	MB 14
M 75×2	90.0	98	13	8	3.5	0.270	KM 15	MB 15
M 80×2	95.0	105	15	8	3.5	0.360	KM 16	MB 16
M 85×2	102.0	110	16	8	3.5	0.410	KM 17	MB 17
M 90×2	108.0	120	16	10	4.0	0.510	KM 18	MB 18
M 95×2	113.0	125	17	10	4.0	0.550	KM 19	MB 19
M 100×2	120.0	130	18	10	4.0	0.640	KM 20	MB 20



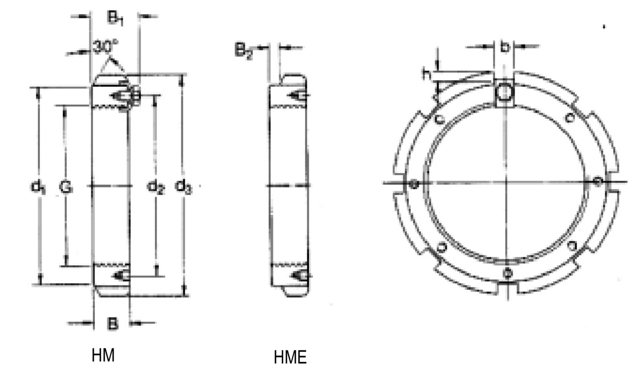
M 10×0.75 - M 200×3

Dimensions (mm)						Weight kg	Part Number	
G	d1	d3	B	b	h		Locking nut	Locking washer
M 105× 2	126	140	18	12	5	0.79	KM 21	MB 21
M 110× 2	133	145	19	12	5	0.87	KM 22	MB 22
M 115× 2	137	150	19	12	5	0.91	KM 23	MB 23
M 120× 2	135	145	20	12	5	0.69	KML 24	MBL 24
	138	155	20	12	5	0.97	KM 24	MB 24
M 125× 2	148	160	21	12	5	1.09	KM 25	MB 25
M 130× 2	145	155	21	12	5	0.80	KML 26	MBL 26
	149	165	21	12	5	1.09	KM 26	MB 26
M 135× 2	160	175	22	14	6	1.39	KM 27	MB 27
M 140× 2	155	165	22	12	5	0.92	KML 28	MBL 28
	160	180	22	14	6	1.40	KM 28	MB 28
M 145× 2	171	190	24	14	6	1.80	KM 29	MB 29
M 150× 2	170	180	24	14	5	1.25	KML 30	MBL 30
	171	195	24	14	6	1.88	KM 30	MB 30
M 155× 3	182	200	25	16	7	2.09	KM 31	MB 31
M 160× 3	180	190	25	14	5	1.39	KML 32	MBL 32
	182	210	25	16	7	2.29	KM 32	MB 32
M 165× 3	193	210	26	16	7	2.31	KM 33	MB 33
M 170× 3	190	200	26	16	5	1.56	KML 34	MBL 34
	193	220	26	16	7	2.34	KM 34	MB 34
M 180× 3	200	210	27	16	5	1.78	KML 36	MBL 36
	203	230	27	18	8	2.78	KM 36	MB 36
M 190× 3	210	220	28	16	5	1.84	KML 38	MBL 38
	214	240	28	18	8	3.05	KM 38	MB 38
M 200× 3	222	240	29	18	8	2.61	KML 40	MBL 40
	226	250	29	18	8	3.37	KM 40	MB 40



Tr 220×4 - Tr 950×8

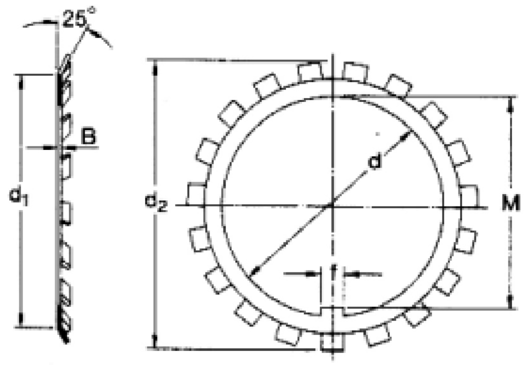
Dimensions (mm)									Weight	Part Number	
G	d_1	d_2	d_3	B	B_1	B_2	b	h	kg	Locking nut without locking button	Appropriate locking washer
Tr 220×4	242	229	260	30	41	-	20	9	2.75	**HM 3044**	**MS 3044**
Tr 240×4	270	253	290	34	46	-	20	10	4.50	**HM 3048**	**MS 3052-48**
	270	253	290	34	46	5	20	10	4.50	**HME 3048**	**MS 3052-48**
Tr 260×4	290	273	310	34	46	-	20	10	4.80	**HM 3052**	**MS 3052-48**
Tr 280×4	310	293	330	38	50	-	24	10	5.75	**HM 3056**	**MS 3056**
Tr 300×4	336	316	360	42	54	-	24	12	8.35	**HM 3060**	**MS 3060**
	340	326	380	40	53	-	24	12	11.5	**HM 3160**	**MS 3160**
Tr 320×5	356	336	380	42	55	-	24	12	9.00	**HM 3064**	**MS 3068-64**
	360	346	400	42	56	-	24	12	13.0	**HM 3164**	**MS 3164**
Tr 340×5	376	356	400	45	58	-	24	12	11.0	**HM 3068**	**MS 3068-64**
	400	373	440	55	72	-	28	15	24.0	**HM 3168**	**MS 3172-68**
Tr 360×5	394	375	420	45	58	-	28	13	11.5	**HM 3072**	**MS 3072**
	420	393	460	58	75	-	28	15	26.5	**HM 3172**	**MS 3172-68**
Tr 380×5	422	399	450	48	62	-	28	14	15.0	**HM 3076**	**MS 3080-76**
	440	415	490	60	77	-	32	18	32.0	**HM 3176**	**MS 3176**
Tr 400×5	442	419	470	52	66	-	28	14	17.0	**HM 3080**	**MS 3080-76**
	460	440	520	62	82	-	32	18	38.0	**HM 3180**	**MS 3184-80**
Tr 420×5	462	439	490	52	66	-	32	14	18.5	**HM 3084**	**MS 3084**
	462	439	490	52	66	5	32	14	18.5	**HME 3084**	**MS 3084**
	490	460	540	70	90	-	32	18	45.0	**HM 3184**	**MS 3184-80**
Tr 440×5	490	463	520	60	77	-	32	15	26.0	**HM 3088**	**MS 3092-88**
	510	478	560	70	90	-	36	20	46.5	**HM 3188**	**MS 3192-88**
Tr 460×5	510	483	540	60	77	-	32	15	27.0	**HM 3092**	**MS 3092-88**
	540	498	580	75	95	-	36	20	50.5	**HM 3192**	**MS 3192-88**
Tr 480×5	530	503	560	60	77	-	36	15	28.0	**HM 3096**	**MS 30/500-96**
	560	528	620	75	95	-	36	20	62.0	**HM 3196**	**MS 3196**



Tr 220×4 - Tr 950×8

Dimensions (mm)									Weight kg	Part Number	
G	d_1	d_2	d_3	B	B_1	B_2	b	h		Locking nut without locking button	Locking washer
Tr 500× 5	550	523	580	68	85	-	36	15	33.5	**HM 30/500**	**MS 30/500-96**
	550	523	580	68	85	8	36	15	33.5	**HME 30/500**	**MS 30/500-96**
	580	540	630	80	100	-	40	23	63.5	**HM 31/500**	**MS 31/500**
Tr 530× 6	590	558	630	68	90	-	40	20	42.5	**HM 30/530**	**MS 30/600-530**
	610	575	670	80	105	-	40	23	71.5	**HM 31/530**	**MS 31/530**
Tr 560× 6	610	583	650	75	97	-	40	20	44.5	**HM 30/560**	**MS 30/560**
	610	583	650	75	97	12	40	20	44.5	**HME 30/560**	**MS 30/560**
	650	608	710	85	110	-	45	25	86.5	**HM 31/560**	**MS 31/600-560**
Tr 600× 6	660	628	700	75	97	-	40	20	52.5	**HM 30/600**	**MS 30/600-530**
	660	628	700	75	97	12	40	20	52.5	**HME 30/600**	**MS 30/600-530**
	690	648	750	85	110	-	45	25	91.5	**HM 31/600**	**MS 31/600-560**
Tr 630× 6	690	658	730	75	97	-	45	20	55.0	**HM 30/630**	**MS 30/630**
	730	685	800	95	120	-	50	28	125.0	**HM 31/630**	**MS 31/630**
Tr 670× 6	740	703	780	80	102	-	45	20	68.5	**HM 30/670**	**MS 30/670**
	775	730	850	106	131	-	50	28	155.0	**HM 31/670**	**MS 31/670**
Tr 710× 7	780	742	830	90	112	-	50	25	91.5	**HM 30/710**	**MS 30/710**
	780	742	830	90	112	12	50	25	91.5	**HME 30/710**	**MS 30/710**
	825	772	900	106	133	-	55	30	162.0	**HM 31/710**	**MS 31/710**
Tr 750× 7	820	782	870	90	112	-	55	25	94.0	**HM 30/750**	**MS 30/800-750**
	820	782	870	90	112	12	55	25	94.0	**HME 30/750**	**MS 30/800-750**
	875	813	950	112	139	-	60	34	190.0	**HM 31/750**	**MS 31/800-750**
Tr 800× 7	870	832	920	90	112	-	55	25	99.0	**HM 30/800**	**MS 30/800-750**
	925	863	1000	112	139	-	60	34	202.0	**HM 31/800**	**MS 31/800-750**
Tr 850× 7	925	887	980	90	115	-	60	25	115.0	**HM 30/850**	**MS 30/900-850**
	925	887	980	90	115	12	60	25	110.0	**HME 30/850**	**MS 30/900-850**
	975	914	1060	118	145	-	70	38	234.0	**HM 31/850**	**MS 31/850**
Tr 900× 7	975	937	1030	100	125	-	60	25	131.0	**HM 30/900**	**MS 30/900-850**
	1030	969	1120	125	154	-	70	38	280.0	**HM 31/900**	**MS 31/900**
Tr 950× 8	1025	985	1080	100	125	-	60	25	139.0	**HM 30/950**	**MS 30/950**

MB LOCKING WASHER



d 10-280 mm

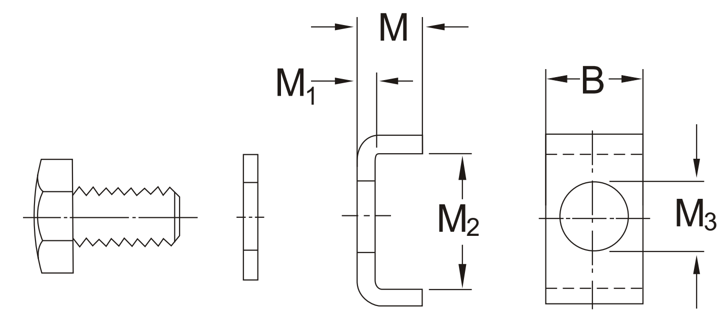
Dimensions (mm)						Part Number	Weight
d	d_1	d_2	B	f	M		kg
10	13.5	21	1.00	3	8.5	MB 0	0.001
12	17	25	1.00	3	10.5	MB 1	0.002
	17	25	1.20	3	10.5	MB 1 A	0.002
15	21	28	1.00	4	13.5	MB 2	0.003
	21	28	1.20	4	13.5	MB 2 A	0.003
17	24	32	1.00	4	15.5	MB 3	0.003
	24	32	1.20	4	15.5	MB 3A	0.003
20	26	36	1.00	4	18.5	MB 4	0.004
	26	36	1.20	4	18.5	MB 4 A	0.005
25	32	42	1.25	5	23.0	MB 5	0.006
	32	42	1.80	5	23.0	MB 5 A	0.009
30	38	49	1.25	5	27.5	MB 6	0.008
	38	49	1.80	5	27.5	MB 6 A	0.011
35	44	57	1.25	6	32.5	MB 7	0.011
	44	57	1.80	6	32.5	MB 7 A	0.016
40	50	62	1.25	6	37.5	MB 8	0.013
	50	62	1.80	6	37.5	MB 8 A	0.018
45	56	69	1.25	6	42.5	MB 9	0.015
	56	69	1.80	6	42.5	MB 9 A	0.021
50	61	74	1.25	6	47.5	MB 10	0.016
	61	74	2.30	6	47.5	MB 10 A	0.023
55	67	81	1.50	8	52.5	MB 11	0.022
	67	81	2.50	8	52.5	MB 11 A	0.037
60	73	86	1.50	8	57.5	MB 12	0.024
	73	86	2.50	8	57.5	MB 12 A	0.040
65	79	92	1.50	8	62.5	MB 13	0.030
	79	92	2.50	8	62.5	MB 13 A	0.050

Dimensions (mm)						Part Number	Weight
d	d_1	d_2	B	f	M		kg
70	85	98	1.50	8	66.5	MB 14	0.032
	85	98	2.50	8	66.5	MB 14 A	0.053
75	90	104	1.50	8	71.5	MB 15	0.035
	90	104	2.50	8	71.5	MB 15 A	0.058
80	95	112	1.75	10	76.5	MB 16	0.046
	95	112	2.50	10	76.5	MB 16 A	0.066
85	102	119	1.75	10	81.5	MB 17	0.053
	102	119	2.50	10	81.5	MB 17 A	0.076
90	108	126	1.75	10	86.5	MB 18	0.061
	108	126	2.50	10	86.5	MB 18 A	0.087
95	113	133	1.75	10	91.5	MB 19	0.066
	113	133	2.50	10	91.5	MB 19 A	0.094
100	120	142	1.75	12	96.5	MB 20	0.077
	120	142	2.50	12	96.5	MB 20 A	0.110
105	126	145	1.75	12	100.5	MB 21	0.083
110	133	154	1.75	12	105.5	MB 22	0.091
115	137	159	2.00	12	110.5	MB 23	0.110
120	135	152	2.00	14	115.0	MBL 24	0.070
	138	164	2.00	14	115.0	MB 24	0.110
125	148	170	2.00	14	120.0	MB 25	0.120
130	145	161	2.00	14	125.0	MBL 26	0.080
	149	175	2.00	14	125.0	MB 26	0.120
135	160	185	2.00	14	130.0	MB 27	0.140
140	155	172	2.00	16	135.0	MBL28	0.090
	160	192	2.00	16	135.0	MB 28	0.140
145	172	202	2.00	16	140.0	MB 29	0.170
150	170	189	2.00	16	145.0	MBL 30	0.100

Dimensions (mm)						Part Number	Weight
d	d_1	d_2	B	f	M		kg
150	171	205	2.0	16	145	MB 30	0.18
155	182	212	2.5	16	147.5	MB 31	0.20
160	180	199	2.5	18	154	MBL 32	0.14
	182	217	2.5	18	154	MB 32	0.22
165	193	222	2.5	18	157.5	MB 33	0.24
170	190	211	2.5	18	164	MBL 34	0.15
	193	232	2.5	18	164	MB 34	0.24
180	200	222	2.5	20	174	MBL 36	0.16
	203	242	2.5	20	174	MB 36	0.26
190	210	232	2.5	20	184	MBL 38	0.17
	214	252	2.5	20	184	MB 38	0.26
200	222	245	2.5	20	194	MBL 40	0.22
	226	262	2.5	20	194	MB 40	0.28
220	250	292	3.0	24	213	MB 44	0.35
240	270	313	3.0	24	233	MB 48	0.46
260	300	342	3.0	24	253	MB 52	0.64
280	320	362	3.0	24	273	MB 56	0.74

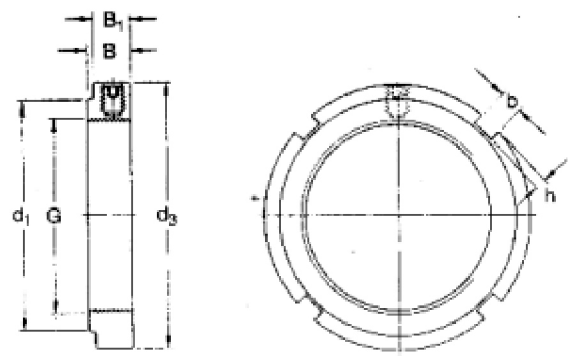
MS LOCKING BUTTON

UBC



B 20-70 mm

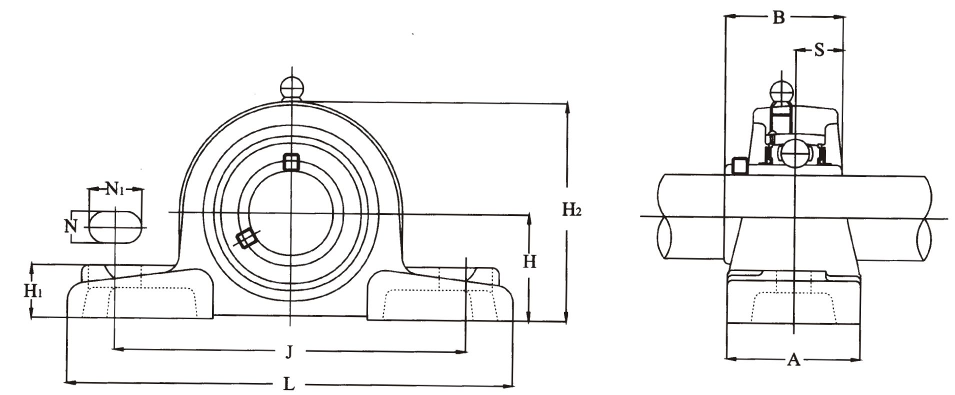
Dimensions (mm)					Weight kg	Part Number		
B	M	M_1	M_2	M_3		Locking button	Bolt	Spring washer accordant DIN 128
20	12	4	13.5	7	0.022	MS 3044	M 6×12	A 6
	12	4	17.5	9	0.024	MS 3052-48	M 8×16	A 8
24	12	4	17.5	9	0.030	MS 3056	M 8×16	A 8
	12	4	20.5	9	0.033	MS 3060	M 8×16	A 8
	15	5	21.0	9	0.046	MS 3068-64	M 8×16	A 8
28	15	5	20.0	9	0.051	MS 3072	M 8×16	A 8
	15	5	24.0	12	0.055	MS 3080-76	M 10×20	A10
32	15	5	24.0	12	0.063	MS 3084	M 10×20	A10
	15	5	28.0	14	0.067	MS 3092-88	M 12×25	A12
36	15	7	28.0	14	0.076	MS 30/500-96	M 12×25	A 12
40	21	7	29.0	18	0.150	MS 30/560	M 16×30	A 16
	21	7	34.0	18	0.140	MS 30/600-530	M 16×30	A 16
45	21	7	34.0	18	0.170	MS 30/630	M 16×30	A 16
	21	7	39.0	18	0.190	MS 30/670	M 16×30	A 16
50	21	7	39.0	18	0.210	MS 30/710	M 16×30	A 16
55	21	7	39.0	18	0.230	MS 30/800-750	M 16×30	A 16
60	21	7	44.0	22	0.260	MS 30/900-850	M 20×40	A 20
	21	7	46.0	22	0.260	MS 30/950	M 20×40	A 20
	21	7	51.0	22	0.280	MS 30/1000	M 20×40	A 20
24	12	4	30.5	12	0.040	MS 3160	M 10×20	A 10
	15	5	31.0	12	0.055	MS 3164	M 10×20	A 10
28	15	5	38.0	14	0.069	MS 3172-68	M 12×25	A 12
32	15	5	40.0	14	0.083	MS 3176	M 12×25	A 12
	15	5	45.0	18	0.089	MS 3184-80	M 16×30	A 16
36	15	5	43.0	18	0.097	MS 3192-88	M 16×30	A 16
	15	5	53.0	18	0.110	MS 3196	M 16×30	A 16
40	15	5	45.0	18	0.110	MS 31/500	M 16×30	A 16
	21	7	51.0	22	0.190	MS 31/530	M 20×40	A 20
45	21	7	54.0	22	0.220	MS 31/600-560	M 20×40	A 20
50	21	7	61.0	22	0.270	MS 31/630	M 20×40	A 20
	21	7	66.0	22	0.280	MS 31/670	M 20×40	A 20
55	21	7	69.0	26	0.320	MS 31/710	M 24×50	A 24
60	21	7	70.0	26	0.350	MS 31/800-750	M 24×50	A 24
70	21	7	71.0	26	0.410	MS 31/850	M 24×50	A 24
	21	7	76.0	26	0.410	MS 31/900	M 24×50	A 24
	21	7	78.0	26	0.420	MS 31/950	M 24×50	A 24
	21	7	88.0	26	0.500	MS 31/1000	M 24×50	A 24



M 20×1-M 130×2

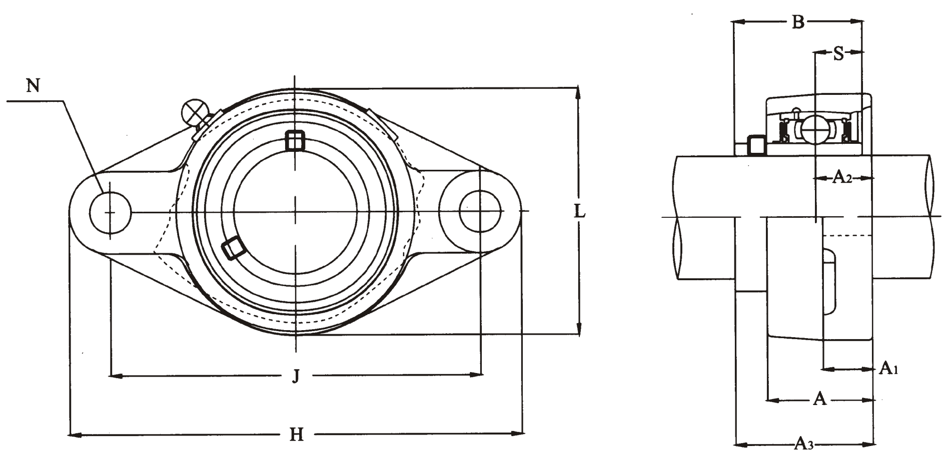
Dimensions (mm)							Weight kg	Locking nut number	Bolt
G	d_1	d_3	B	B_1	b	h			Dimensions
M 20×1	26.0	32	9.5	8.5	4	2.0	0.031	KMFE 4	M 5
M 25×1.5	31.0	38	10.5	8.5	5	2.0	0.042	KMFE 5	M 5
M 30×1.5	36.0	45	10.5	8.5	5	2.0	0.058	KMFE 6	M 5
M 35×1.5	42.5	52	11.5	8.5	5	2.0	0.080	KMFE 7	M 5
M 40×1.5	47.0	58	13.0	10.0	6	2.5	0.11	KMFE 8	M 6
M 45×1.5	53.0	65	13.0	10.0	6	2.5	0.14	KMFE 9	M 6
M 50×1.5	57.5	70	14.0	11.0	6	2.5	0.16	KMFE 10	M 6
M 55×2	64.0	75	14.0	11.0	7	3.0	0.18	KMFE 11	M 6
M 60×2	69.0	80	14.0	11.0	7	3.0	0.19	KMFE 12	M 6
M 65×2	76.0	85	15.0	12.0	7	3.0	0.23	KMFE 13	M 6
M 70×2	79.0	92	15.0	12.0	8	3.5	0.26	KMFE 14	M 6
M 75×2	85.0	98	16.0	13.0	8	3.5	0.32	KMFE 15	M 6
M 80×2	91.5	105	18.0	15.0	8	3.5	0.42	KMFE 16	M 8
M 85×2	98.0	110	19.0	15.0	8	3.5	0.46	KMFE 17	M 8
M 90×2	102.0	120	19.0	15.0	10	4.0	0.58	KMFE 18	M 8
M 95×2	110.0	125	20.0	16.0	10	4.0	0.66	KMFE 19	M 8
M 100×2	112.0	130	21.0	17.0	10	4.0	0.71	KMFE 20	M 8
M 105×2	112.0	140	21.0	17.0	12	5.0	0.85	KMFE 21	M 8
M 110×2	122.0	145	21.5	17.5	12	5.0	0.93	KMFE 22	M 8
M 115×2	126.0	150	25.0	20.0	12	5.0	1.11	KMFE 23	M 8
M 120×2	130.0	155	26.0	20.0	12	5.0	1.16	KMFE 24	M 10
M 125×2	136.0	160	27.0	21.0	12	5.0	1.26	KMFE 25	M 10
M 130×2	141.0	165	28.0	21.0	12	5.0	1.33	KMFE 26	M 10

PILLOW BLOCKS UBC



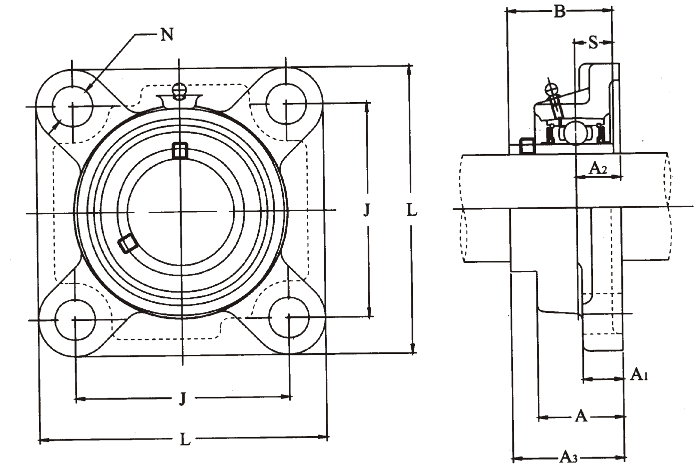
Shaft Diameter (mm)	UNIT Number	Dimensions (mm)										Weight kg
		L	A	J	H1	H	N	N1	H2	B	S	
12	UCP201	127	38	95	15	30.20	13	19	62	31.00	12.70	0.70
15	UCP202	127	38	95	15	30.20	13	19	62	31.00	12.70	0.69
17	UCP203	127	38	95	15	30.20	13	19	62	31.00	12.70	0.68
20	UCP204	127	38	95	15	33.30	13	19	65	31.00	12.70	0.68
25	UCP205	140	38	105	16	36.50	13	19	70	34.10	14.30	0.82
	UCP305	175	45	132	16	45.00	17	20	83	38.00	15.00	1.32
30	UCP206	165	48	121	18	42.90	17	21	83	38.10	15.90	1.36
	UCP306	180	50	140	19	50.00	17	20	94	43.00	17.00	1.82
35	UCP207	167	48	127	19	47.60	17	21	94	42.90	17.50	1.73
	UCP307	210	56	160	21	56.00	17	25	105	48.00	19.00	2.50
40	UCP208	184	54	137	19	49.20	17	23	100	49.20	19.00	2.10
	UCP308	220	60	170	23	60.00	17	27	116	52.00	19.00	3.20
45	UCP209	190	54	146	20	54.00	17	23	108	49.20	19.00	2.20
	UCP309	245	67	190	25	67.00	20	30	128	57.00	22.20	4.30
50	UCP210	206	60	159	22	57.20	20	25	114	51.60	19.00	2.70
	UCP310	275	75	212	28	75.00	20	35	143	61.00	22.00	5.80
55	UCP211	219	60	171	22	63.50	20	25	126	55.60	22.20	3.40
	UCP311	310	80	236	31	80.00	20	38	154	66.00	25.00	7.40
60	UCP212	241	70	184	25	69.80	20	25	138	65.10	25.40	4.80
	UCP312	330	85	250	33	85.00	25	38	165	71.00	26.00	9.00
65	UCP213	265	70	203	27	76.20	25	29	150	65.10	25.40	5.70
	UCP313	340	90	260	36	90.00	25	38	174	75.00	30.00	10.20
70	UCP214	266	72	210	27	79.40	25	31	156	74.60	30.20	6.40
	UCP314	360	90	280	40	95.00	27	40	186	78.00	33.00	12.40
75	UCP215	275	74	217	28	82.60	25	31	163	77.80	33.30	7.20
	UCP315	380	100	290	40	100.00	27	40	197	82.00	32.00	14.60
80	UCP216	292	78	232	30	88.90	25	31	175	82.60	33.30	8.70
	UCP316	400	110	300	45	106.00	27	40	209	86.00	34.00	18.10
85	UCP217	310	83	247	32	95.20	25	31	187	85.70	34.10	11.00
	UCP317	420	110	320	45	112.00	33	45	221	96.00	40.00	21.00
90	UCP218	327	88	262	34	101.60	27	33	200	96.00	39.70	13.30
	UCP318	430	110	330	50	118.00	33	45	233	96.00	40.00	23.00

DIAMOND FLANGED UNITS



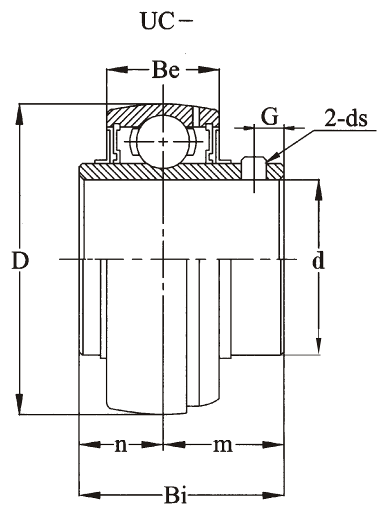
Shaft Diameter (mm)	UNIT Number	Dimensions (mm)										Weight kg
		H	L	A	J	A1	A2	N	A3	B	S	
12	UCFL201	113	60	25.5	90	12	15	12	33.3	31.0	12.7	0.51
15	UCFL202	113	60	25.5	90	12	15	12	33.3	31.0	12.7	0.49
17	UCFL203	113	60	25.5	90	12	15	12	33.3	31.0	12.7	0.48
20	UCFL204	113	60	25.5	90	12	15	12	33.3	31.0	12.7	0.46
25	UCFL205	130	68	27.0	99	14	16	16	35.7	34.0	14.3	0.63
30	UCFL206	148	80	31.0	117	14	18	16	40.2	38.1	15.9	0.95
35	UCFL207	161	90	34.0	130	16	19	16	44.4	42.9	17.5	1.31
40	UCFL208	175	100	36.0	144	16	21	16	51.2	49.2	19.0	1.69
45	UCFL209	188	108	38.0	148	18	22	19	52.2	49.2	19.0	2.10
50	UCFL210	197	115	40.0	157	18	22	19	54.6	51.6	19.0	2.40
55	UCFL211	224	130	43.0	184	20	25	19	58.4	55.6	22.2	3.40
60	UCFL212	250	140	48.0	202	20	29	23	68.7	65.1	25.4	4.30
65	UCFL213	258	155	50.0	210	24	30	23	69.7	65.1	25.4	5.40
70	UCFL214	265	160	54.0	216	24	31	23	75.4	74.6	30.2	6.30
75	UCFL215	275	165	56.0	225	24	34	23	78.5	77.8	33.3	6.90
80	UCFL216	290	180	58.0	233	24	34	25	83.3	82.6	33.3	8.40
85	UCFL217	305	190	63.0	248	26	36	25	87.6	85.7	34.1	9.90
90	UCFL218	320	205	68.0	265	26	40	25	96.3	96.0	39.7	12.40

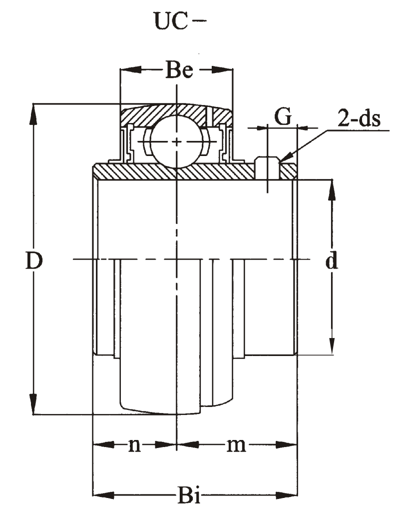
SQUARE FLANGED UNITS



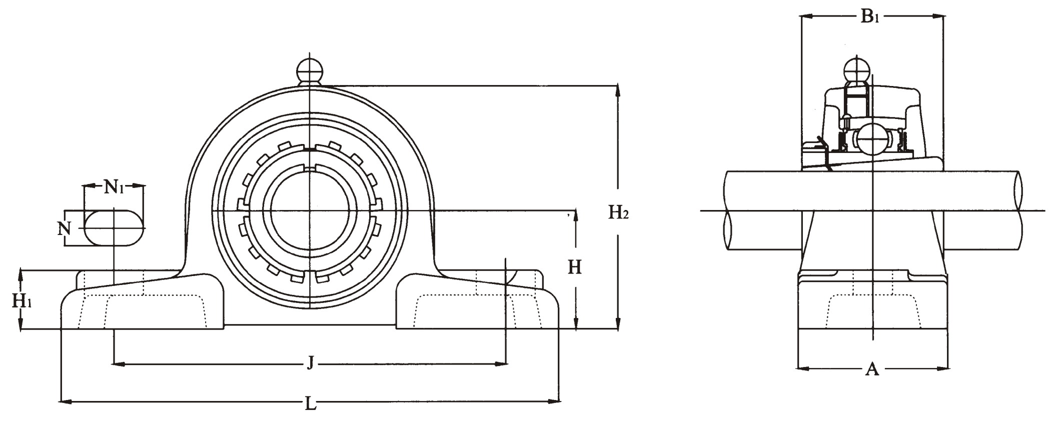
Shaft Diameter (mm)	UNIT Number	Dimensions (mm)									Weight kg
		L	A	J	A1	A2	N	A3	B	S	
12	UCF201	86	25.5	64	12	15	12	33.3	31.0	12.7	0.67
15	UCF202	86	25.5	64	12	15	12	33.3	31.0	12.7	0.66
17	UCF203	86	25.5	64	12	15	12	33.3	31.0	12.7	0.64
20	UCF204	86	25.5	64	12	15	12	33.3	31.0	12.7	0.62
25	UCF205	95	27.0	70	14	16	12	35.7	34.1	14.3	0.83
30	UCF206	108	31.0	83	14	18	12	40.2	38.1	15.9	1.14
35	UCF207	117	34.0	92	16	19	14	44.4	42.9	17.5	1.47
40	UCF208	130	36.0	102	16	21	16	51.2	49.2	19.0	2.00
45	UCF209	137	38.0	105	18	22	16	52.2	49.2	19.0	2.40
50	UCF210	143	40.0	111	18	22	16	54.6	51.6	19.0	2.60
55	UCF211	162	43.0	130	20	25	19	58.4	55.6	22.2	3.60
60	UCF212	175	48.0	143	20	29	19	68.7	65.1	25.4	4.80
65	UCF213	187	50.0	149	20	30	19	69.7	65.1	25.4	5.80
70	UCF214	193	54.0	152	24	31	19	75.4	74.6	30.2	6.60
75	UCF215	200	56.0	159	24	34	19	78.5	77.8	33.3	7.70
80	UCF216	208	58.0	165	24	34	23	83.3	82.6	33.3	8.20
85	UCF217	220	63.0	175	26	36	23	87.6	85.7	34.1	9.60
90	UCF218	235	68.0	187	26	40	23	96.3	96.0	39.7	12.10

UNIT BEARINGS

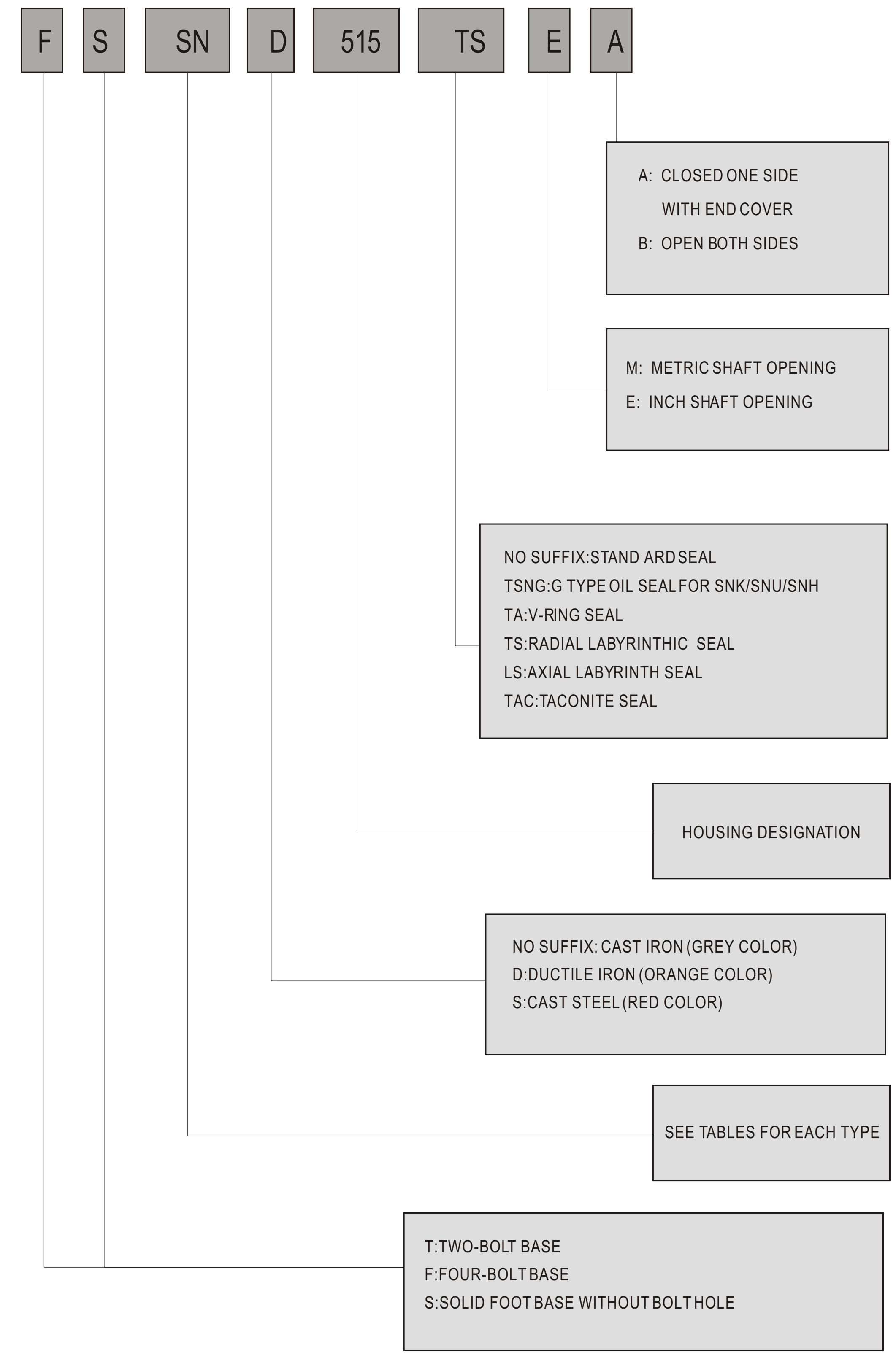




Bore Dia.of Bearings		UNIT Number	Dimensions														Weight
d			D		Bi		Be		n		m		G		ds		
mm	in		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg
20		UC204	47.00		31.00		17.00		12.70		18.30		5.00		M6X1.0		0.16
	3/4	UC204-12		1.8504		1.2205		0.6693		0.5000		0.7205		0.1969	1/4-28UNF	**1/4-28UNF**	0.16
25		UC205	52.00		34.10		17.00		14.30		19.80		5.50		M6X1.0		0.20
	7/8	UC205-14															0.23
	15/16	UC205-15		2.0472		1.3425		0.6693		0.5630		0.7795		0.2165	1/4-28UNF	**1/4-28UNF**	0.21
	1	UC205-16															0.20
30		UC206	62.00		38.10		19.00		159.90		22.20		6.00		M6X1.0		0.32
	1~1/8	UC206-18															0.34
	1~3/16	UC206-19		2.4409		1.5000		0.7480		0.6260		0.8740		0.2362	1/4-28UNF	**1/4-28UNF**	0.32
	1~1/4	UC206-20															0.32
35		UC207	72.00		42.90		20.00		17.50		25.40		6.50		M8X1.0		0.48
	1~1/4	UC207-20															0.54
	1~5/16	UC207-21															0.51
	1~3/8	UC207-22		2.8346		1.6890		0.7874		0.6890		1.0000		0.2559	5/16-24UNF	**5/16-24UNF**	0.48
	1~7/16	UC207-23															0.45
40		UC208	80.00		49.20		21.00		19.00		30.20		8.00		M8X1.0		0.64
	1~1/2	UC208-24		3.1496		1.9370		0.8268		0.7480		1.1890		0.3150	5/16-24UNF	**5/16-24UNF**	0.68
	1~9/16	UC208-25															0.65
45		UC209	85.00		49.20		22.00		19.00		30.20		8.00		M8X1.0		0.68
	1~5/8	UC209-26															0.78
	1~11/16	UC209-27		3.3465		2.0315		0.8661		0.7480		1.1890		0.3150	5/16-24UNF	**5/16-24UNF**	0.74
	1~3/4	UC209-28															0.70
50		UC210	90.00		51.60		24.00		19.00		32.60		9.00		M10X1.25		0.80
	1~7/8	UC210-30															0.87
	1~15/16	UC210-31		3.5433		2.1890		0.9449		0.7480		1.2835		0.3543	3/8-24UNF	**3/8-24UNF**	0.82
	2	UC210-32															0.75
55		UC211	100.00		55.60		25.00		12.50		43.10		9.00		M10X1.25		1.11
	2	UC211-32															1.26
	2-1/8	UC211-34		3.9370		3.9370		0.9843		0.4291		1.6969		0.3543		**3/8-24UNF**	1.15
	2-3/16	UC211-35															1.09
60		UC212	110.00		65.10		27.00		25.40		39.70		10.50		M10X1.25		1.53
65		UC213	120.00		65.10		28.00		25.40		39.70		12.00		M10X1.25		1.86



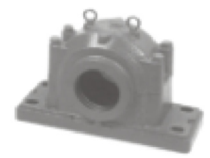
Shaft Diameter (mm)	UNIT Number	Dimensions (mm)									Weight kg
		L	A	J	H1	H	N	N1	H2	B1	
20	**UKP205+H2305X**	140	38	105	16	36.5	13	19	70	35	0.87
25	**UKP206+H2306X**	165	48	121	18	42.9	17	21	83	38	1.44
30	**UKP207+H2307X**	167	48	127	19	47.6	17	21	94	43	1.78
35	**UKP208+H2308X**	184	54	137	19	49.2	17	23	100	46	2.20
40	**UKP209+H2309X**	190	54	146	20	54.0	17	23	108	50	2.40
45	**UKP210+H2310X**	206	60	159	22	57.2	20	25	114	55	2.90
50	**UKP211+H2311X**	219	60	171	22	63.5	20	25	126	59	3.50
55	**UKP212+H2312X**	241	70	184	25	69.8	20	25	138	62	4.80
60	**UKP213+H2313X**	265	70	203	27	76.2	25	29	150	65	5.70
65	**UKP215+H2315X**	275	74	217	28	82.6	25	31	163	73	7.50
70	**UKP216+H2316X**	292	78	232	28	88.9	25	31	175	78	9.44
75	**UKP217+H2317X**	310	83	247	28	95.2	25	31	187	82	11.55
80	**UKP218+H2318X**	327	88	262	30	101.6	27	33	200	86	13.37



Some sizes of housings listed below may not be available.

SN500-600 Series
SN200-300 Series
Light duty

SD500-600 Series
Sd3000Series



SN500-600 Series
SN200-300 Series
Medium duty

SAF500-600 Series

Sn3000 Series
Sn3100 Series

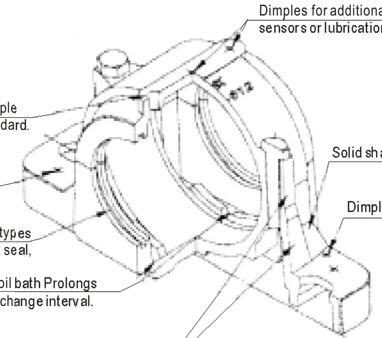
SAF200-300 Series

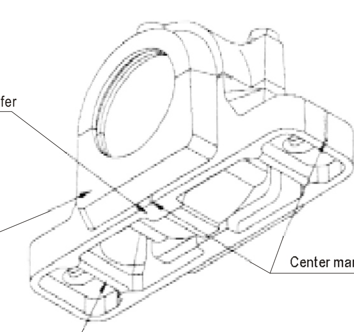
SNK500-600 Series

SDAF500-600 Series
SDAF200-300 Series
SDAF-2300-K Series

Sd3100 Series

SAF-230K Series





Split pillow blocks mentioned in this catalogue are casted and produced in accordance with the ISO/R113-1994 standard. (B.S. 1642; 1969 standard, JIS B 1551- 1968 standard). The following tables show the standardization of materials and relative machining tolerance covering the housings and its accessories.

A: Housing

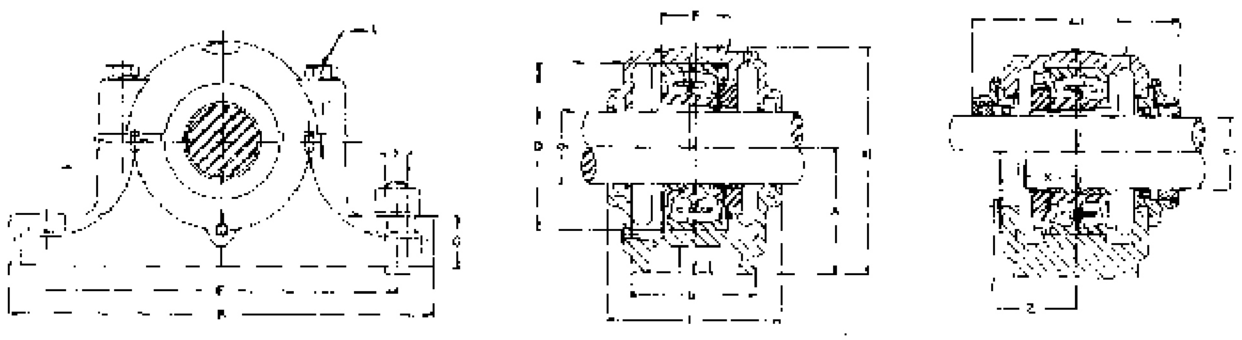
MATERIAL	ISO CODE	U.S. CODE	TENSILE STRENGTH kgf/mm^2	YIELD STRENGTH kgf/mm^2	ELONGATION
CAST IRON	GRADE 200 (FC 200)	ASTM A48 GRADE 35	20	—	—
DUCTILE IRON (S.G.)	GRADE 450-10 (FCD 450)	ASTM A536 GRAGE 65-45-12	45	30	10%
CAST STEEL	GRADE 230-450 (SC 460)	ASTM A27 GRADE 65-35	46	23	19%

B. Accessories:

NAME	PART NO.	MATERIALS
FELT STRIP	FS	60%-80% WOOL, 20% RAYON, DENSITY 0.25g/cm2
LOCATING RING	SR	MILD STEEL STRIP AISI 1010/ALUMINUM
HEXAGON BOLT	M	MILD STEEL AISI 1010
ZF SEAL	ZF	NBR (Nitrile -Butadiene Rubber)
SC SEAL	OSM	NBR (Nitrile -Butadiene Rubber)
U-TYPE SEAL	U-500/U-600	NBR (Nitrile -Butadiene Rubber)
LABYRINTH SEAL	TS/LER	CAST IRON/ALUMINUM/STEEL
TACONITE CARRIER	TAC/TER/TACK	CAST IRON
END COVER	500NA/600NA	NBR (Nitrile -Butadiene Rubber)& THIN STEEL PLATE
END PLATE	P	THIN STEEL PLATE
END COVER	TSA	CAST IRON
END PLUG	EPR	NBR (Nitrile -Butadiene Rubber)& THIN STEEL PLATE
V-RING SEAL	TSNA-A	NBR (Nitrile -Butadiene Rubber)& THIN STEEL PLATE

Declaration: Weights listed in this catalog are subject to change without notice.

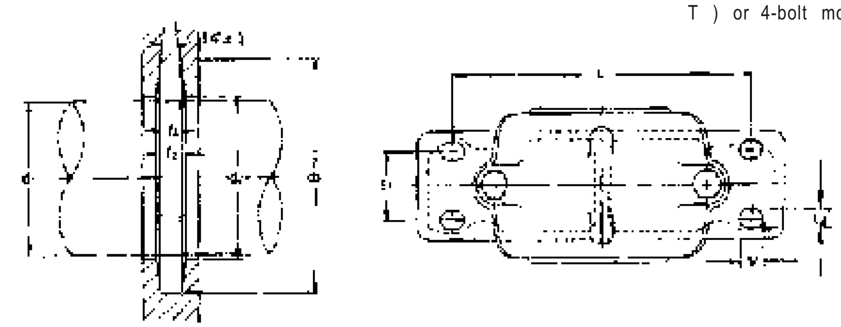
SN - SSN 500 Series



HOUSING NO.	NORMAL DIMENSIONS (mm) SHAFT DIA. D1 mm	SHAFT DIA. D1 in	D H8	B	b	G	F H13	A h13	L	H	E	E1	L1	X	Z	D2H12 mm
SN 505	20	3/4	52	165	46	22	25	40	67	75	130	25	-	22	-	21.5
SN 506	25	1	62	185	52	22	30	50	77	90	150	25		22		26.5
SN 507	30	11/8	72	185	52	22	33	50	82	95	150	25	-	24	-	31.5
SN 508	35	11/4	80	205	60	25	33	60	85	110	170	30		26		36.5
SN SSN 509	40	11/2	85	205	60	25	31	60	85	112	170	30		28		41.5
SN SSN 510	45	13/4	90	205	60	25	33	60	90	115	170	30		28		46.5
SN SSN 511	50	2	100	255	70	28	33	70	95	130	210	35	160	30	54	51.5
SN SSN 512	55	21/8	110	255	70	30	38	70	105	135	210	35	172	32	62	56.5
SN SSN 513	60	21/4	120	275	80	30	43	80	110	150	230	40	172	36	62	62
SN SSN 515	65	21/2	130	280	80	30	41	80	115	155	230	40	182	38	68	67
SN SSN 516	70	23/4	140	315	90	32	43	95	120	175	260	50	184	40	68	72
SN SSN 517	75	3	150	320	90	32	46	95	125	185	260	50	184	42	70	77
SN SSN 518	80	31/4	160	345	100	35	62.4	100	145	195	290	50	204	50	81	82
SN SSN 519	85	-	170	345	100	35	53	112	140	210	290	50	-	-	-	87
SN SSN 520	90	31/2	180	380	110	40	70.3	112	160	218	320	60	224	54	90	92
SN SSN 522	100	4	200	410	120	45	80	125	175	240	350	70	232	60	92	102
SN SSN 524	110	41/4	215	410	120	45	86	140	185	270	350	70	248	64	95	113
SN SSN 526	115	41/2	230	445	130	50	90	150	190	290	380	70	268	64	100	118
SN SSN 528	125	5	250	500	150	50	98	150	205	305	420	80	286	70	108	128
SN SSN 530	135	51/4	270	530	160	60	106	160	220	325	450	90	304	76	113	138
SN SSN 532	140	51/2	290	550	160	60	114	170	235	345	470	90	320	80	122	143

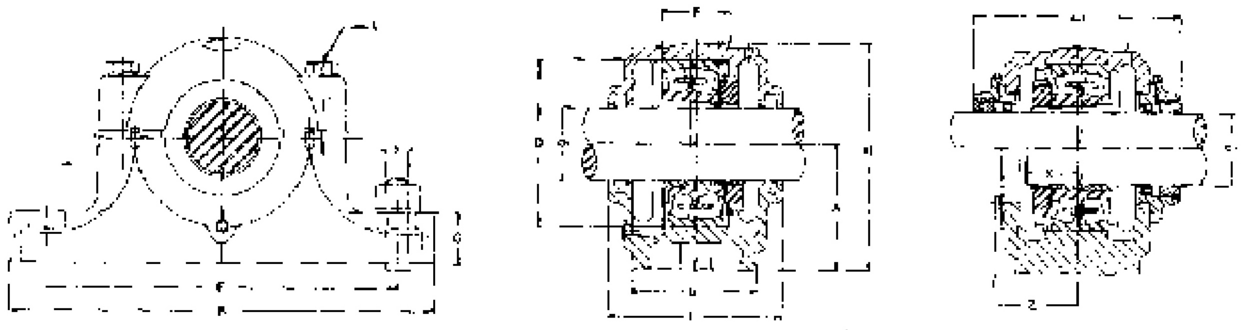
SN - SSN 500 Series

NOTES:
Foot of standard housing SSN type is solid without mounting holes or can be precast as 2-bolt(with prefix T) or 4-bolt mounting holes (with prefix F).



d3 H12	t	f1 H13	f2	u	v	S 2 bolts	S 4 bolts	WEIGHT kg SN5	WEIGHT kg SSN5	BEARING NO. SELF-ALIGN BALL	BEARING NO. SPHERICAL ROLLER	ADAPTER SLEEVES METRIC	ADAPTER SLEEVES INCH	LOCATING RING NUMBER	LOCATING RING QTY
31	M8	3	4.2	15	20	M12	M8	1.5	2.3	1205K 2205K	- 22205K	H205 H305	HE205 HE305	52x5 52x7	2 1
38	M8	4	5.4	15	20	M12	M10	1.74	2.8	1206K 2206K	- 22206K	H206 H306	HE206 HE306	62x7 62x10	2 1
43	M10	4	5.4	15	20	M12	M10	1.9	3.2	1207K 2207K	- 22207K	H207 H307	HS207 HS307	72x8 72x10	2 1
48	M10	4	5.4	15	20	M12	M10	2.63	3.2	1208K 2208K	- 22208K	H208 H308	HE208 HE308	80x7.5 80x10	2 1
53	M10	4	5.4	15	20	M12	M10	2.64	3.7	1209K 2209K	- 22209K	H209 H309	HE209 HE309	85x6 85x8	2 1
58	M10	4	5.4	15	20	M12	M10	2.8	3.8	1210K 2210K	- 22210K	H210 H310	HE210 HE310	90x6.5 90x10	2 1
67	M12	5	6.9	18	23	M16	M12	4.32	6.2	1211K 2211K	- 22211K	H211 H311	HE211 HE311	100x6 100x8	2 1
72	M12	5	6.9	18	23	M16	M12	4.99	6.5	1212K 2212K	- 22212K	H212 H312	HS212 HS312	110x8 110x10	2 1
77	M12	5	6.8	18	23	M16	M12	5.64	8.3	1213K 2213K	- 22213K	H213 H313	HE213 HE313	120x10 120x12	2 1
82	M12	5	6.8	18	23	M16	M12	6.19	9.0	1215K 2215K	- 22215K	H215 H315	HE215 HE315	130x8 130x10	2 1
89	M16	6	8.1	22	27	M20	M12	8.17	12.1	1216K 2216K	- 22216K	H216 H316	HE216 HE316	140x8.5 140x10	2 1
94	M16	6	8.1	22	27	M20	M12	9.37	12.2	1217K 2217K	- 22217K	H217 H317	HE217 HE317	150x9 150x10	2 1
99	M16	6	8.1	22	27	M20	M16	11.5	15.2	1218K 2218K -	- 22218K 23218K	H218 H318 H2318	HE218 HE318 HE2318	160x16.2 160x11.2 160x10	2 2 1
104	M16	6	8.1	22	28	M20	M16	13.5	17.7	1219K	- 22219K	H219 H319	HE219 HE319	170x10.5 170x10	2 1
111	M20	7	9.3	26	32	M24	M16	16.3	20.5	2220K -	22220K 23220K	H320 H2320	HE320 HE2320	180x12.1 180x10	2 1
125	M20	8	10.8	26	32	M24	M16	25.1	29.2	2222K -	22222K 23222K	H322 H2322	HE322 HE2322	200x13.5 200x10	2 1
135	M20	8	10.7	26	34	M24	M16	27.2	33	- -	22224K 23224K	H3124 H2324	HE3124 HE2324	215x14 215x10	2 1
140	M24	8	10.7	28	35	M24	M20	35.2	40.9	- -	22226K 23226K	H3126 H2326	HE3126 HE2326	230x13 230x10	2 1
154	M24	9	12.2	34	44	M30	M24	43.7	48.6	- -	22228K 23228K	H3128 H2328	HE3128 HE2328	250x15 250x10	2 1
164	M24	9	12.2	34	42	M30	M24	45.3	56.2	- -	22230K 23230K	H3130 H2330	HE3130 HE2330	270x16.5 270x10	2 1
173	M24	10	13.7	32	44	M30	M24	50.75	68.5	- -	22232K 23232K	H3132 H2332	HE3132 HE2332	290x17 290x10	2 1

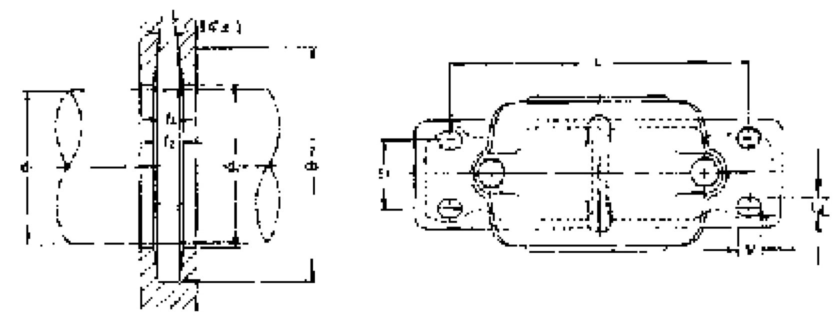
SN - SSN 600 Series



HOUSING NO.	SHAFT DIA. D1 mm	SHAFT DIA. D1 in	D H8	B	b	G	F H13	A h13	L	H	E	E1	L1	X	d2H12 METRIC	d3 H12
SN 605	20	3/4	62	185	52	22	34	50	80	90	150	25	-	27	21.5	31
SN 606	25	1	72	185	52	22	37	50	82	95	150	25	-	27	26.5	38
SN 607	30	11/8	80	205	60	25	41	60	90	110	170	30	-	32	31.5	43
SN 608	35	11/4	90	205	60	25	43	60	95	115	170	30	-	34	36.5	48
SN SSN 609	40	11/2	100	255	70	28	46	70	105	130	210	35	-	36	41.5	53
SN SSN 610	45	13/4	110	255	70	30	50	70	115	135	210	35	-	39	46.5	58
SN SSN 611	50	2	120	275	80	30	53	80	120	150	230	40	185	40	51.5	67
SN SSN 612	55	21/8	130	280	80	30	56	80	125	155	230	40	185	44	56.5	72
SN SSN 613	60	21/4	140	315	90	32	58	95	130	175	260	50	200	46	62	77
SN SSN 615	65	21/2	160	345	100	35	65	100	140	195	290	50	210	51	67	82
SN SSN 616	70	23/4	170	345	100	35	68	112	145	212	290	50	210	52	72	89
SN SSN 617	75	3	180	380	110	40	70	112	155	218	320	60	220	56	77	94
SN SSN 618	80	31/4	190	400	110	33	74	112	160	230	335	60	225	58	82	99
SN SSN 619	85		200	420	120	36	77	125	170	245	350	70	235	60	87	104
SN SSN 620	90	31/2	215	420	120	38	83	140	175	280	350	70	240	64	92	111
SN SSN 622	100	4	240	460	130	40	90	150	190	300	390	70	258	69	102	125
SN SSN 624	110	41/4	260	540	160	50	96	160	205	325	450	90	280	73	113	135
SN SSN 626	115	41/2	280	560	160	50	103	170	215	350	470	90	300	77	118	140
SN SSN 628	125	5	300	630	170	55	112	180	235	375	520	90	320	83	128	154
SN SSN 630	135	51/4	320	680	180	55	118	190	245	395	560	90	340	88	138	164
SN SSN 632	140	51/2	340	710	190	60	124	200	255	415	580	100	350	93	143	173

NORMAL DIMENSIONS (mm)

SN - SSN 600 Series

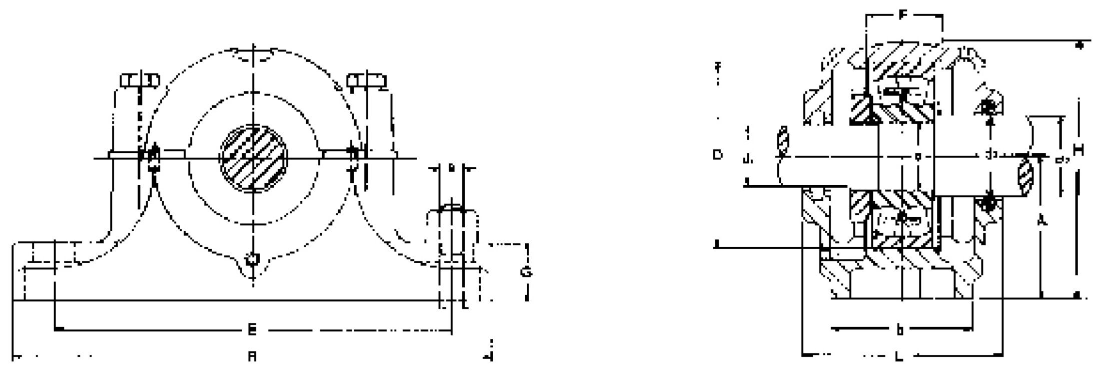


NOTES:

Foot of standard housing SSN type is solid without mounting holes or can be precast as 2-bolt(with prefix T) or 4-bolt mounting holes (with prefix F).

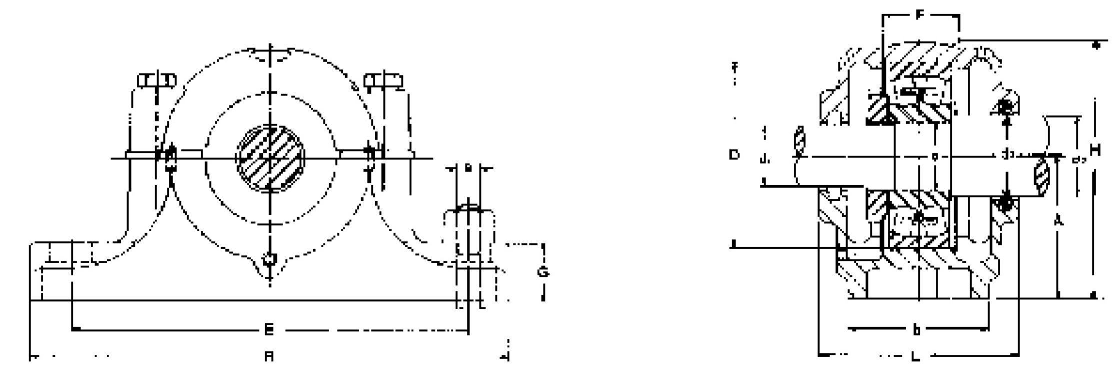
T	f1 H13	f2	u	v	S 2 bolts	S 4 bolts	WEIGHT kg SN6	WEIGHT kg SSN6	BEARING NO. SELF-ALIGN BALL	BEARING NO. SPHERICAL ROLLER	ADAPTER SLEEVE METRIC	ADAPTER SLEEVE INCH	LOCATING RING NUMBER	LOCATING RING QTY
M8	3	4.2	16	20	M12	M10	2.11	-	**1305K 2305K**	-	H305 H2305	HE305 HE2305	62x8.5 62x10	2 1
M10	4	5.4	16	20	M12	M10	2.09	-	**1306K 2306K**	-	H306 H2306	HE306 HE2306	72x9 72x10	2 1
M10	4	5.4	16	20	M12	M10	3.4	4.1	**1307K 2307K**	-	H307 H2307	HE307 HE2307	80x10 80x10	2 1
M10	4	5.4	15	24	M12	M10	3.6	4.7	**1308K 2308K**	**21308K 22308K**	H308 H2308	HE308 HE2308	90x10 90x10	2 1
M12	4	5.4	19	25	M16	M12	5.3	6.8	**1309K 2309K**	**21309K 22309K**	H309 H2309	HE309 HE2309	100x10.5 100x10	2 1
M12	4	5.4	18	23	M16	M12	5.5	6.8	**1310K 2310K**	**21310K 22310K**	H310 H2310	HE310 HE2310	110x11.5 110x10	2 1
M12	5	6.9	20	28	M16	M12	6.9	9.0	**1311K 2311K**	**21311K 22311K**	H311 H2311	HE311 HE2311	120x12 120x10	2 1
M12	5	6.9	20	28	M16	M12	8.8	10.5	**1312K 2312K**	**21312K 22312K**	H312 H2312	HE312 HE2312	130x12.5 130x10	2 1
M16	5	6.8	22	30	M20	M12	9.8	12.4	**1313K 2313K**	**21313K 22313K**	H313 H2313	HE313 HE2313	140x12.5 140x10	2 1
M16	5	6.8	23	28	M20	M16	13.0	16.4	**1315K 2315K**	**21315K 22315K**	H315 H2315	HE315 HE2315	160x14 160x10	2 1
M16	6	8.1	23	30	M20	M16	15.5	19.7	**1316K 2316K**	**21316K 22316K**	H316 H2316	HE316 HE2316	170x14.5 170x10	2 1
M20	6	8.1	26	35	M24	M16	16.3	20.7	**1317K 2317K**	**21317K 22317K**	H317 H2317	HE317 HE2317	180x14.5 180x10	2 1
M20	6	8.1	27	38	M24	M16	20.0	24	**1318K 2318K**	- **22318K**	H318 H2318	HE318 HE2318	190x15.5 190x10	2 1
M20	6	8.1	28	36	M24	M16	28.0	29.7	**1319K 2319K**	- **22319K**	H319 H2319	HE319 HE2319	200x16 200x10	2 1
M20	7	9.3	27	33	M24	M16	30.5	37.1	**1320K 2320K**	- **22320K**	H320 H2320	HE320 HE2320	215x18 215x10	2 1
M20	8	10.0	28	32	M24	M16	42	49.2	**1322K 2322K**	- **22322K**	H322 H2322	HE322 HE2322	240x20 240x10	2 1
M24	8	10.7	34	42	M30	M20	59	72	-	**22324K**	H2324	HE2324	260x10	1
M24	8	10.7	34	42	M30	M20	61.5	80.9	-	**22326K**	H2326	HE2326	280x10	1
M30	9	12.2	34	46	M30	M20	88	105	-	**22328K**	H2328	HE2328	300x10	1
M30	9	12.2	38	44	M30	M20	89	115	-	**22330K**	H2330	HE2330	320x10	1
M30	10	13.7	40	52	M36	M24	127	145	-	**22332K**	H2332	HE2332	340x10	1

SN - SSNZ 200 Series



HOUSING NO.	SHAFT DIA. d	d1	d2	NORMAL DIMENSIONS (mm) D H8	B	b	G	F H13	A h13	L	H	E	BOLT S	SELF-ALIGN BALL	SPHERICAL ROLLER	LOCK NUT	LOCK WASHER	ZF SEAL d1	ZF SEAL d2	LOCATING RING NUMBER	QTY
SNZ 205	**25**	20	30	52	165	46	22	25	40	67	75	130	M12	1205 2205	- 22205	AN05	AW05	ZF5	ZF7	52x5 52x7	2 1
SNZ 206	**30**	25	35	62	185	52	22	30	50	77	90	150	M12	1206 2206	- 22206	AN06	AW06	ZF6	ZF8	62x7 62x10	2 1
SNZ 207	**35**	30	45	72	185	52	22	33	50	82	95	150	M12	1207 2207	- 22207	AN07	AW07	ZF7	ZF10	72x8 72x10	2 1
SNZ 208	**40**	35	50	80	205	60	25	33	60	85	110	170	M12	1208 2208	- 22208	AN08	AW08	ZF8	ZF11	80x7.5 80x10	2 1
SNZ SSNZ 209	**45**	40	55	85	205	60	25	31	60	85	112	170	M12	1209 2209	- 22209	AN09	AW09	ZF9	ZF12	85x6 85x8	2 1
SNZ SSNZ 210	**50**	45	60	90	205	60	25	33	60	90	115	170	M12	1210 2210	- 22210	AN10	AW10	ZF10	ZF13	90x6.5 90x10	2 1
SNZ SSNZ 211	**55**	50	65	100	255	70	28	33	70	95	130	210	M16	1211 2211	- 22211	AN11	AW11	ZF11	ZF15	100x6 100x8	2 1
SNZ SSNZ 212	**60**	55	70	110	255	70	30	38	70	105	135	210	M16	1212 2212	- 22212	AN12	AW12	ZF12	ZF16	110x8 110x10	2 1
SNZ SSNZ 213	**65**	60	75	120	275	80	30	43	80	110	150	230	M16	1213 2213	- 22213	AN13	AW13	ZF13	ZF17	120x10 120x12	2 1
SNZ SSNZ 214	**70**	60	80	125	275	80	30	44	80	115	155	230	M16	1214 2214	- 22214	AN14	AW14	ZF13	ZF18	125x10 125x13	2 1
SNZ SSNZ 215	**75**	65	85	130	280	80	30	41	80	115	155	230	M16	1215 2215	- 22215	AN15	AW15	ZF15	ZF19	130x8 130x10	2 1
SNZ SSNZ 216	**80**	70	90	140	315	90	32	43	95	120	175	260	M20	1216 2216	- 22216	AN16	AW16	ZF16	ZF20	140x8.5 140x10	2 1
SNZ SSNZ 217	**85**	75	95	150	320	90	32	46	95	125	185	260	M20	1217 2217	- 22217	AN17	AW17	ZF17	ZF21	150x9 150x10	2 1
SNZ SSNZ 218	**90**	80	100	160	345	100	35	62.4	100	145	195	290	M20	1218 2218	- 22218 23218	AN18	AW18	ZF18	ZF22	160x16.2 160x11.2 160x10	2 2 1
SNZ SSNZ 219	**95**	85	110	170	345	100	35	53	112	140	210	290	M20	1219 2219	- 22219	AN19	AW19	ZF19	ZF24	170x10.5 170x10	2 1
SNZ SSNZ 220	**100**	90	115	180	380	110	40	70.3	112	160	218	320	M24	2220 -	22220 23220	AN20	AW20	ZF20	ZF26	180x12.1 180x10	2 1
SNZ SSNZ 222	**110**	100	125	200	410	120	45	80	125	175	240	350	M24	2222 -	22222 23222	AN22	AW22	ZF22	ZF28	200x13.5 200x10	2 1
SNZ SSNZ 224	**120**	110	135	215	410	120	45	86	140	185	270	350	M24		22224 23224	AN24	AW24	ZF24	ZF30	215x14 215x10	2 1
SNZ SSNZ 226	**130**	115	145	230	445	130	50	90	150	190	290	380	M24		22226 23226	AN26	AW26	ZF26	ZF33	230x13 230x10	2 1
SNZ SSNZ 228	**140**	125	155	250	500	150	50	98	150	205	305	420	M30		22228 23228	AN28	AW28	ZF28	ZF35	250x15 250x10	2 1
SNZ SSNZ 230	**150**	135	165	270	530	160	60	106	160	220	325	450	M30		22230 23230	AN30	AW30	ZF30	ZF37	270x16.5 270x10	2 1
SNZ SSNZ 232	**160**	140	175	290	550	160	60	114	170	235	345	470	M30		22232 23232	AN32	AW32	ZF32	ZF39	290x17 290x10	2 1

SN - SSNZ 300 Series



HOUSING NO.	NORMAL DIMENSIONS (mm) d	d1	d2	D H8	B	b	G	F H13	A h13	L	H	E	BOLT S	SELF-ALIGN BALL	SPHERICAL ROLLER	LOCK NUT	LOCK WASHER	ZF SEAL d1	ZF SEAL d2	LOCATING RING NUMBER	QTY
SNZ 305	**25**	20	30	60	185	52	22	34	50	80	90	150	M12	1305 2305	- -	AN05	AW05	ZF5	ZF7	62x8.5 62x10	2 1
SNZ 306	**30**	25	35	72	185	52	22	37	50	82	95	150	M12	1306 2306	- -	AN06	AW06	ZF6	ZF8	72x9 72x10	2 1
SNZ 307	**35**	30	45	80	205	60	25	41	60	90	110	170	M12	1307 2307	- -	AN07	AW07	ZF7	ZF10	80x10 80x10	2 1
SNZ 308	**40**	35	50	90	205	60	25	43	60	95	115	170	M12	1308 2308	21308 22308	AN08	AW08	ZF8	ZF11	90x10 90x10	2 1
SNZ SSNZ 309	**45**	40	55	100	255	70	28	46	70	105	130	210	M16	1309 2309	21309 22309	AN09	AW09	ZF9	ZF12	100x10.5 100x10	2 1
SNZ SSNZ 310	**50**	45	60	110	255	70	30	50	70	115	135	210	M16	1310 2310	21310 22310	AN10	AW10	ZF10	ZF13	110x11.5 110x10	2 1
SNZ SSNZ 311	**55**	50	65	120	275	80	30	53	80	120	150	230	M16	1311 2311	21311 22311	AN11	AW11	ZF11	ZF15	120x12 120x10	2 1
SNZ SSNZ 312	**60**	55	70	130	280	80	30	56	80	125	155	230	M16	1312 2312	21312 22312	AN12	AW12	ZF12	ZF16	130x12.5 130x10	2 1
SNZ SSNZ 313	**65**	60	75	140	315	90	32	58	95	130	175	260	M20	1313 2313	21313 22313	AN13	AW13	ZF13	ZF17	140x12.5 140x10	2 1
SNZ SSNZ 314	**70**	60	80	150	320	90	32	61	95	130	185	262	M20	1314	21314 22314	AN13	AW13	ZF13	ZF18	150x13 150x10	2 1
SNZ SSNZ 315	**75**	65	85	160	345	100	35	65	100	140	195	290	M20	1315 2315	21315 22315	AN15	AW15	ZF15	ZF19	160x14 160x10	2 1
SNZ SSNZ 316	**80**	70	90	170	345	100	35	68	112	145	212	290	M20	1316 2316	21316 22316	AN16	AW16	ZF16	ZF20	170x14.5 170x10	2 1
SNZ SSNZ 317	**85**	75	95	180	380	110	40	70	112	155	218	320	M24	1317 2317	21317 22317	AN17	AW17	ZF17	ZF21	180x14.5 180x10	2 1
SNZ SSNZ 318	**90**	80	100	190	400	110	33	74	112	160	230	320	M24	1318 2318	21318 22318	AN18	AW18	ZF18	ZF22	190x15.5 190x10	2 1
SNZ SSNZ 319	**95**	85	110	200	420	120	36	77	125	170	245	350	M24	1319 2319	21319 22319	AN19	AW19	ZF19	ZF24	200x16 200x10	2 1
SNZ SSNZ 320	**100**	90	115	215	420	120	38	83	140	175	280	350	M24	1320 2320	21320 22320	AN20	AW20	ZF20	ZF26	215x18 215x10	2 1
SNZ SSNZ 322	**110**	100	125	240	460	130	40	90	150	190	300	390	M24	-	22322	AN22	AW22	ZF22	ZF28	240x20 240x10	2 1
SNZ SSNZ 324	**120**	110	135	260	540	160	50	96	160	205	325	450	M30	-	22324	AN24	AW24	ZF24	ZF30	260x10	1
SNZ SSNZ 326	**130**	115	150	280	560	160	50	103	170	215	350	470	M30	-	22326	AN26	AW26	ZF26	ZF34	280x10	1
SNZ SSNZ 328	**140**	125	160	300	630	170	55	112	180	235	375	520	M30	-	22328	AN28	AW28	ZF28	ZF36	300x10	1
SNZ SSNZ 330	**150**	135	170	320	680	180	55	118	190	245	395	560	M30	-	22330	AN30	AW30	ZF30	ZF38	320x10	1
SNZ SSNZ 332	**160**	140	180	340	710	190	60	124	200	255	415	580	M36	-	22332	AN32	AW32	ZF32	ZF40	340x10	1

WORKING TEMPERATURE DESIGNATION

LHT: GREASE FOR LOW AND HIGH TEMPERATURES
(-40°C TO +140°C)

HT: GREASE FOR HIGH TEMPERATURE (-20°C ~+130°C)

MT: GREASE FOR MEDIUM TEMPERATURE RANGE OF
-30°C TO +110°C, OMISSIBLE

LT: GREASE FOR LOW TEMPERATURES(-50°C~+80°C)

WT: GREASE FOR WIDER RANGE OF TEMPERATURES

GREASE FILLING RATE DESIGNATION

STANDARD GREASE FILLING RATE IS ABOUT 25% TO 35% OF THE FREE SPACE IN THE BEARING.

A: GREASE FILLING RATE LESS THAN STANDARD

B: GREASE FILLING RATE MORE THAN STANDARD

C: GREASE FILLING RATE MORE THAN B.

THE FILLING RATE DEPENDS ON THE LIMITING SPEED:

1/2 TO 2/3 OF THE FREE SPACE, SPEED SHOULD BE LESS THAN 50% OF LIMITING SPEED

1/3 TO 1/2 OF THE FREE SPACE, SPEED SHOULD BE MORE THAN 50% OF LIMITING SPEED

GREASE BRAND DESIGNATIONS

RBS: ROCOL BLUE SAPPHIRE GREASE

RHS: ROCOL HIGH SPEED GREASE

RHT: ROCOL HIGH TEMPERATURE GREASE

AV: SHELL ALVANIA

Table 1 Inner Ring of Class O Tolerance

μm

d mm		$\triangle d_{mp}$		V_{dp} 2) Diameter series			V_{dmp}	K_{ia}	$\triangle Bs$			V_{BS}
				9	0,1	2,3,4			All	Normal	Modify 3)	
Over	To	Upper deviation	Lower deviation	max			max	max	Upper deviation	Lower deviation		max
0.6 1)	2.5	0	-8	10	8	6	6	10	0	-40	--	12
2.5	10		-8	10	8	6	6	10		-120	-250	15
10	18		-8	10	8	6	6	10		-120	-250	20
18	30		-10	13	10	8	8	13		-120	-250	20
30	50		-12	15	12	9	9	15		-120	-250	20
50	80		-15	19	19	11	11	20		-150	-380	25
80	120		-20	25	25	15	15	25		-200	-380	25
120	180		-25	31	31	19	19	30		-250	-500	30
180	250		-30	38	38	23	23	40		-300	-500	30

Note: 1) Including 0.6.
2) No stipulation for diameter series 7 and 8
3) Single inner ring with set mounted or group mounted

Table 2 Outer Ring of Class O Tolerance

μm

D mm		$\triangle D_{mp}$		V_{Dp} 2)4) Open			Close	V_{Dmp} 4)	K_{ea}	$\triangle Cs$ 5) $\triangle C_{1}s$ 5)		V_{Cs} 5) V_{C1s} 5)
				Diameter series								
				9	0,1	2,3,4	2,3,4					
Over	To	Upper deviation	Lower deviation	max			max	max	max	Upper deviation	Lower deviation	max
2.5 1)	6	0	-8	10	8	6	10	6	15	Be same with △Bs and VBS of the inner ring		
6	18		-8	10	8	6	10	6	15			
18	30		-9	12	9	7	12	7	15			
30	50		-11	14	11	8	16	8	20			
50	80		-13	16	13	10	20	10	25			
80	120		-15	19	19	11	26	11	35			
120	150		-18	23	23	14	30	14	40			
150	180		-25	31	31	19	38	19	45			
180	250		-30	38	38	23	—	23	50			
250	315		-35	44	44	26	—	26	60			

Note: 1) Including 2.5.
2) No stipulation for diameter series 7 and 8
3) No stipulation for diameter series 9.0 and 1
4) Suitable for bearings before mounting or disassembly
5) Only suitable for deep groove ball bearings.

Table 3 Inner Ring of Class 6 Tolerance

μm

d mm		$\triangle d_{mp}$		V_{dp} 2) Diameter series 9	V_{dp} 2) Diameter series 0,1	V_{dp} 2) Diameter series 2,3,4	V_{dmp}	K_{ia}	$\triangle B_s$ All	$\triangle B_s$ Normal	$\triangle B_s$ Modify 3)	V_{BS}
Over	To	Upper deviation	Lower deviation	max			max	max	Upper deviation	Lower deviation		max
0.6 1)	2.5	0	-7	9	7	5	5	5	0	-40		12
2.5	10		-7	9	7	5	5	6		-120	-250	15
10	18		-7	9	7	5	5	7		-120	-250	20
18	30		-8	10	8	6	6	8		-120	-250	20
30	50		-10	13	10	8	8	10		-120	-250	20
50	80		-12	15	15	9	9	10		-150	-380	25
80	120		-15	19	19	11	11	13		-200	-380	25
120	180		-18	23	23	14	14	18		-250	-500	30
180	250		-22	28	28	17	17	20		-300	-500	30

Note: 1) Including 0.6.
2) No stipulation for diameter series 7 and 8
3) Single inner ring with set mounted or group mounted

Table 4 Outer Ring of Class 6 Tolerance

μm

D mm		$\triangle D_{mp}$		V_{Dp} 2)4) Open, Diameter series 9	V_{Dp} 2)4) Open, Diameter series 0,1	V_{Dp} 2)4) Open, Diameter series 2,3,4	V_{Dp} 2)4) close, Diameter series 2,3,4	V_{Dmp} 4)	K_{ea}	$\triangle C_s$ 5) $\triangle C_{1s}$ 5)		V_{Cs} 5) V_{C1s} 5)
Over	To	Upper deviation	Lower deviation	max			max	max	max	Upper deviation	Lower deviation	max
2.5 1)	6	0	-7	9	7	5	9	5	8	Be same with △Bs and VBS of the inner ring		
6	18		-7	9	7	5	9	5	8			
18	30		-8	10	8	6	10	6	9			
30	50		-9	11	9	7	13	7	10			
50	80		-11	14	11	8	16	8	13			
80	120		-13	16	16	10	20	10	18			
120	150		-15	19	19	11	25	11	20			
150	180		-18	23	23	14	30	14	23			
180	250		-20	25	25	15		15	25			
250	315		-25	31	31	19		19	30			

Note: 1) Including 2.5.
2) No stipulation for diameter series 7 and 8
3) No stipulation for diameter series 9.0 and 1
4) Suitable for bearings before mounting or disassembly
5) Only suitable for deep groove ball bearings.

DEEP GROOVE BALL BEARINGS TOLERANCE

Table 5 Inner Ring of Class 5 Tolerance

μm

d mm		$\triangle d_{mp}$		V_{dp} 2) Diameter series 9	V_{dp} 2) Diameter series 0,1 2,3,4	V_{dmp}	K_{ia}	S_d	S_{ia} 3)	$\triangle B_s$ All	$\triangle B_s$ Normal	$\triangle B_s$ Modify 4)	V_{bs}
Over	To	Upper deviation	Lower deviation	max		max	max	max	max	Upper deviation	Lower deviation		max
0.6 1)	2.5	0	-5	5	4	3	4	7	7	0	-40	-250	5
2.5	10		-5	5	4	3	4	7	7		-40	-250	5
10	18		-5	5	4	3	4	7	7		-80	-250	5
18	30		-6	6	5	3	4	8	8		-120	-250	5
30	50		-8	8	6	4	5	8	8		-120	-250	5
50	80		-9	9	7	5	5	8	8		-150	-250	6
80	120		-10	10	8	5	6	9	9		-200	-380	7
120	180		-13	13	10	7	8	10	10		-250	-380	8
180	250		-15	15	12	8	10	11	13		-300	-500	10

Note: 1) Including 0.6.
2) No stipulation for diameter series 7 and 8
3) Only suitable for deep groove ball bearings.
4) Single inner ring with set mounted or group mounted

Table 6 Outer Ring of Class 5 Tolerance

μm

D mm		$\triangle D_{mp}$		V_{Dp} 2)3) Diameter series 9	V_{Dp} 2)3) Diameter series 0,1 2,3,4	V_{Dmp}	K_{ea}	S_D 4) S_{D1} 5)	S_{ea} 4)5)	S_{ea1} 5)	$\triangle C_s$ 5) $\triangle C_{1s}$ 5)		V_{Cs} 5) V_{C1s} 5)
Over	To	Upper deviation	Lower deviation	max		max	max	max	max	max	Upper deviation	Lower deviation	max
2.5 1)	6	0	-5	5	4	3	5	8	8	11	Be same with △Bs and VBS of the inner ring		5
6	18		-5	5	4	3	5	8	8	11			5
18	30		-6	6	5	3	6	8	8	11			5
30	50		-7	7	5	4	7	8	8	11			5
50	80		-9	9	7	5	8	8	10	14			6
80	120		-10	10	8	5	10	9	11	16			8
120	150		-11	11	8	6	11	10	13	18			8
150	180		-13	13	10	7	13	10	14	20			8
180	250		-15	15	11	8	15	11	15	21			10
250	315		-18	18	14	9	18	13	18	25			11

Note: 1) Including 2.5.
2) No stipulation for diameter series 7 and 8
3) No stipulation for diameter series 9.0 and 1
4) Suitable for bearings before mounting or disassembly
5) Only suitable for deep groove ball bearings.

Table7 Inner Ring of Class 4 Tolerance

μm

d mm		$\triangle d_{mp}$		$\triangle d_s$ 2)		V_{dp} 2) Diameter series		V_{Dmp}	K_{ia}	S_d	S_{ia} 4)	△ Bs			V_{BS}
						9	0,1,2,3,4					All	Normal	Modfiy 5)	
Over	To	Upper deviation	Lower deviation	Upper deviation	Lower deviation	max		max	max	max	max	Upper deviation	Lower deviation		max
0.6 1)	2.5	0	-4	0	-4	4	3	2	2.5	3	3	0	-40	-250	2.5
2.5	10		-4		-4	4	3	2	2.5	3	3		-40	-250	2.5
10	18		-4		-4	4	3	2	2.5	3	3		-80	-250	2.5
18	30		-5		-5	5	4	2.5	3	4	4		-120	-250	2.5
30	50		-6		-6	6	5	3	4	4	4		-120	-250	3
50	80		-7		-7	7	5	3.5	4	5	5		-150	-250	4
80	120		-8		-8	8	6	4	5	5	5		-200	-380	4
120	180		-10		-10	10	8	5	6	6	7		-250	-380	5
180	250		-12		-12	12	9	6	8	7	8		-300	-500	6

Note: 1) Including 0.6.
2) Only suitable for series 0,1,2,3,4
3) No stipulation for diameter series 7 and 8
4) Only suitable for deep groove ball bearings.
5) Single inner ring with set mounted or group mounted

Table 8 Outer Ring of Class 4 Tolerance

μm

D mm		$\triangle D_{mp}$		$\triangle D_s$ 2)3)4)		V_{Dp} 3)4) Diameter series		V_{Dmp}	K_{ea}	S_D 5) S_{D1} 6)	S_{ea} 5)6)	S_{ea1} 6)	△Cs △C1s		V_{cs} V_{C1s}
						9	0,1,2,3,4								
Over	To	Upper deviation	Lower deviation	Upper deviation	Lower deviation	max		max	max	max	max	max	Upper deviation	Lower deviation	max
2.5 1)	6	0	-4	0	-4	4	3	2	3	4	5	7	Be same with △Bs and VBS of the inner ring		2.5
6	18		-4		-4	4	3	2	3	4	5	7			2.5
18	30		-5		-5	5	4	2.5	4	4	5	7			2.5
30	50		-6		-6	6	5	3	5	4	5	7			2.5
50	80		-7		-7	7	5	3.5	5	4	5	7			3
80	120		-8		-8	8	6	4	6	5	6	8			4
120	150		-9		-9	9	7	5	7	5	7	10			5
150	180		-10		-10	10	8	5	8	5	8	11			5
180	250		-11		-11	11	8	6	10	7	10	14			7
250	315		-13		-13	13	10	7	11	8	11	14			7

Note: 1) Including 2.5.
2) No stipulation for diameter series 7 and 8
3) No stipulation for diameter series 9.0 and 1
4) Suitable for bearings before mounting or disassembly
5) Only suitable for deep groove ball bearings.

Deep Grove Ball Bearing Radial Clearance

μm

Bore Diameter d (mm)		C2		Standard (Omitted)		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
225	250	2	40	30	95	85	160	145	225	205	300

Electric Motor Bearing Radial Clearance

μm

Bore Diameter d (mm)		Radial Clearance			
		Deep Groove Ball Bearing		Cylindrical Roller Bearing	
Over	To	min	max	min	max
10(include)	18	4	11	-	-
18	24	5	12	-	-
24	30	5	12	15	30
30	40	9	17	15	30
40	50	9	17	20	35
50	65	12	22	25	40
65	80	12	22	30	45
80	100	18	30	35	55
100	120	18	30	35	60
120	140	24	38	40	65
140	160	24	38	50	80
160	180	-	-	60	90
180	200	-	-	65	100