



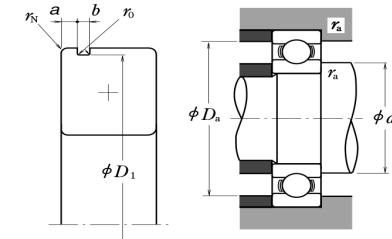
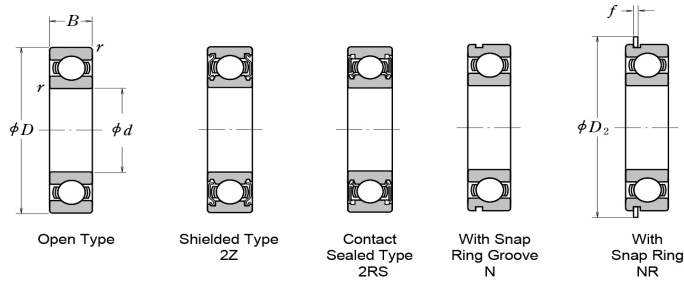
Deep Groove Ball Bearings:

Single-row deep groove ball bearings are the most commonly used type of bearings. These bearings are very widespread used for many different applications. The raceway grooves on both the inner and outer rings have circular race ways of slightly larger radius than that of the balls.

The rolling resistances in deep groove ball bearings is very low compared to other rolling bearings and therefore are suitable for high speed and low starting torque applications. Super finished raceways and high grade balls make them quite in operation and low in vibration. They can rotate in both directions.

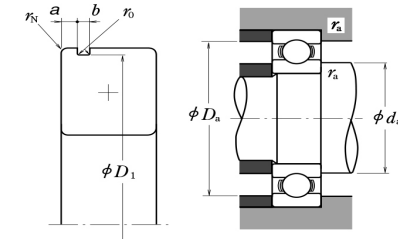
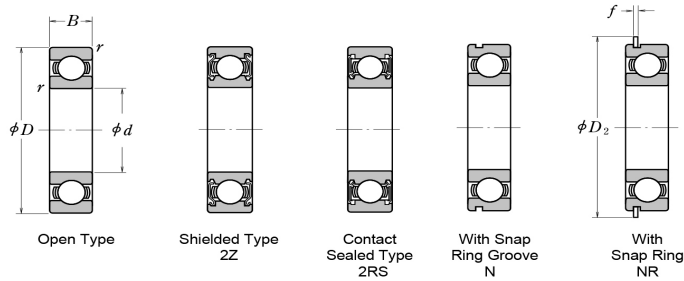
BMD produces a wide range of Single Row and Double Row Ball Bearings. BMD Bearings are available with numerous clearance and tolerance classes available for different operating conditions with various grease options.

Suffix and Corresponding Description For Deep Groove Ball Bearing	
Suffix	Description of Suffix
M	Machined Brass Cage
TVH	Solid Cage made from glass fiber reinforced Polyamide PA66
No Symbol	Steel Cage
Z	Shield on One Side Only
2Z	Shield on Both Sides
2RS	Contact Rubber Seal on Both Side
N	Snap Ring Groove in Outer Ring
NR	Snap Ring Groove with Snap Ring in Outer Ring
W	Stainless Steel
C1	Radial Internal Clearance C1 (Clearance lesser than C2)
C2	Radial Internal Clearance C2 (Clearance lesser than CN)
No Symbol	(CN) Normal Internal Clearance
C3	Radial Internal Clearance C3 (Clearance Larger than Normal)
C4	Radial Internal Clearance C4 (Clearance Larger than C3)
No Symbol	ISO Normal
P6	ISO Class 6
P5	ISO Class 5
P4	ISO Class 4
P2	ISO Class 2



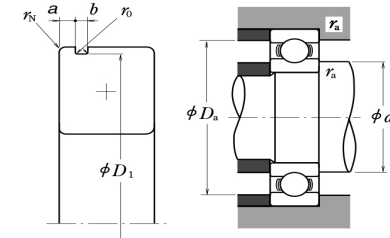
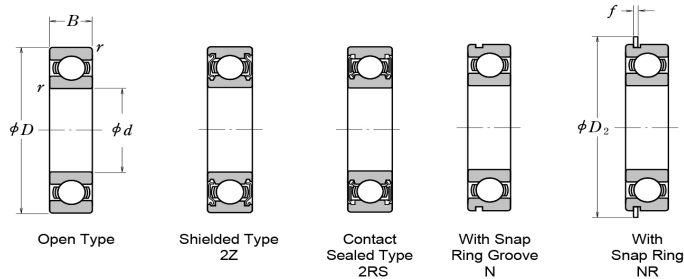
Boundary Dimensions				Basic Load Rating		Limiting Speed			Bearing Designation		
(mm)				(KN)		(rpm)					
d	D	B	r	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal
			(min)			Open (Z, 2Z)	(2RS)	Open (Z)			
10	26	8	0.3	4.85	1.97	31000	19000	36000	6000	6000.2Z	6000.2RS
10	30	9	0.6	5.11	2.39	24000	16000	29000	6200	6200.2Z	6200.2RS
10	35	11	0.6	7.65	3.47	22000	16000	27000	6300	6300.2Z	6300.2RS
10	19	5	0.3	1.7	0.84	37000	22000	43000	61800	61800.2Z	61800.2RS
10	22	6	0.3	2.7	1.25	34000	21000	41000	61900	61900.2Z	61900.2RS
12	28	7	0.3	5.1	2.4	27000	-	32000	16001	-	-
12	28	8	0.3	5.11	2.39	27000	17000	32000	6001	6001.2Z	6001.2RS
12	32	10	0.6	6.82	3.06	22000	15000	27000	6201	6201.2Z	6201.2RS
12	37	12	1	9.72	5.09	20000	15000	25000	6301	6301.2Z	6301.2RS
12	21	5	0.3	1.9	1.05	33000	20000	39000	61801	61801.2Z	61801.2RS
12	24	6	0.3	2.9	1.45	31000	18000	36000	61901	61901.2Z	61901.2RS
15	32	8	0.3	5.6	2.85	23000	-	28000	16002	-	-
15	32	9	0.3	5.59	2.84	23000	14000	27000	6002	6002.2Z	6002.2RS
15	35	11	0.6	7.64	3.72	20000	13000	24000	6202	6202.2Z	6202.2RS
15	42	13	1	11.44	5.43	17000	12000	20000	6302	6302.2Z	6302.2RS
15	24	5	0.3	2.1	1.25	28000	16000	33000	61802	61802.2Z	61802.2RS
15	28	7	0.3	4.3	2.25	26000	15000	30000	61902	61902.2Z	61902.2RS
17	35	8	0.3	6	3.25	21000	-	25000	16003	-	-
17	35	10	0.3	6	3.25	21000	12000	25000	6003	6003.2Z	6003.2RS
17	40	12	0.6	9.57	4.79	17000	12000	21000	6203	6203.2Z	6203.2RS
17	47	14	1	13.58	6.58	15000	10000	18000	6303	6303.2Z	6303.2RS
17	62	17	1.1	22.69	10.79	13000	-	15000	6403	-	-
17	26	5	0.3	2.6	1.55	26000	-	30000	61803	61803.2Z	61803.2RS
17	30	7	0.3	4.6	2.55	23000	13000	28000	61903	61903.2Z	61903.2RS
20	42	8	0.3	7.95	4.5	17000	-	21000	16004	-	-
20	42	12	0.6	9.38	5.03	17000	10000	21000	6004	6004.2Z	6004.2RS
20	47	14	1	12.84	6.65	15000	9700	17000	6204	6204.2Z	6204.2RS
20	52	15	1.1	15.94	7.88	14000	9500	17000	6304	6304.2Z	6304.2RS
20	72	19	1.1	30.95	15.25	11000	-	13000	6404	-	-
20	32	7	0.3	4	2.45	21000	-	25000	61804	61804.2Z	61804.2RS

		Snap Ring Groove Dimensions				Snap Ring Dimensions		Shoulder Dimensions			Mass
		(mm)				(mm)		(mm)			(kg)
With Snap Ring Groove	With Snap Ring	D ₁	a	b	r ₀	D ₂	f	d _a	D _a	r _a	Approx
		(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)	(max)	
-	-	-	-	-	-	-	-	12	24	0.3	0.019
6200N	6200NR	28.17	2.06	1.5	0.4	34.7	1.07	14	26	0.6	0.032
6300N	6300NR	33.17	2.06	1.5	0.4	39.7	1.07	14	31	0.6	0.053
-	-	-	-	-	-	-	-	12	17	0.3	0.005
-	-	-	-	-	-	-	-	12	20	0.3	0.01
-	-	-	-	-	-	-	-	14	26	0.3	0.024
-	-	-	-	-	-	-	-	14	26	0.3	0.022
6201N	6201NR	30.15	2.06	1.5	0.4	36.7	1.07	16	28	0.6	0.037
6301N	6301NR	34.77	2.06	1.5	0.4	41.3	1.07	17	32	1	0.06
-	-	-	-	-	-	-	-	14	19	0.3	0.006
-	-	-	-	-	-	-	-	14	22	0.3	0.011
-	-	-	-	-	-	-	-	17	30	0.3	0.025
-	-	-	-	-	-	-	-	17	30	0.3	0.03
6202N	6202NR	33.17	2.06	1.5	0.4	39.7	1.07	19	31	0.6	0.045
6302N	6302NR	39.75	2.06	1.5	0.4	46.3	1.07	20	37	1	0.082
-	-	-	-	-	-	-	-	17	22	0.3	0.007
-	-	-	-	-	-	-	-	17	26	0.3	0.017
-	-	-	-	-	-	-	-	19	33	0.3	0.032
-	-	-	-	-	-	-	-	19	33	0.3	0.039
6203N	6203NR	38.1	2.06	1.5	0.4	44.6	1.07	21	36	0.6	0.065
6303N	6303NR	44.6	2.46	1.5	0.4	52.7	1.07	22	42	1	0.115
-	-	-	-	-	-	-	-	23.5	55.5	1	0.27
-	-	-	-	-	-	-	-	19	24	0.3	0.008
-	-	-	-	-	-	-	-	19	28	0.3	0.018
-	-	-	-	-	-	-	-	22	40	0.3	0.05
6004N	6004NR	39.75	2.06	1.5	0.4	46.3	1.07	24	38	0.6	0.069
6204N	6204NR	44.6	2.46	1.5	0.4	52.7	1.07	25	42	1	0.106
6304N	6304NR	49.73	2.46	1.5	0.4	57.9	1.07	26.5	45.5	1	0.144
-	-	-	-	-	-	-	-	26.5	65.5	1	0.4
-	-	-	-	-	-	-	-	22	30	0.3	0.018



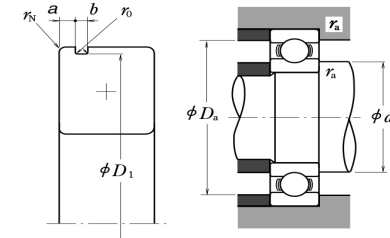
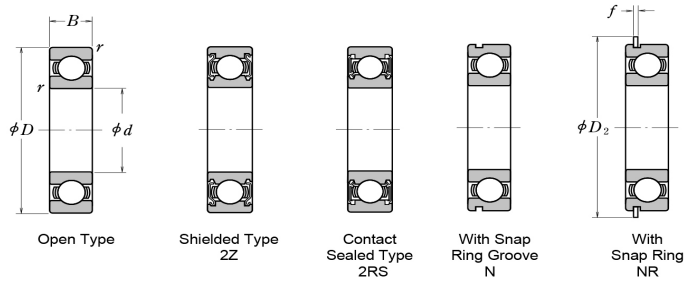
Boundary Dimensions				Basic Load Rating		Limiting Speed			Bearing Designation		
(mm)				(KN)		(rpm)					
d	D	B	r	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal
			(min)			Open (Z, 2Z)	(2RS)	Open (Z)			
20	37	9	0.3	6.35	3.7	19000	11000	23000	61904	61904.2Z	61904.2RS
22	44	12	0.6	9.4	5.15	17000	9900	20000	60/22	60/22.2Z	60/22.2RS
22	50	14	1	12.8	6.65	15000	9700	17000	62/22	62/22.2Z	62/22.2RS
22	56	16	1.1	18.5	9.4	13000	8600	15000	63/22	63/22.2Z	63/22.2RS
25	47	8	0.3	8.85	5.6	15000	-	18000	16005	-	-
25	47	12	0.6	10.06	5.85	15000	9000	18000	6005	6005.2Z	6005.2RS
25	52	15	1	14.02	7.88	13000	8400	15000	6205	6205.2Z	6205.2RS
25	62	17	1.1	22.38	11.49	11000	7500	13000	6305	6305.2Z	6305.2RS
25	80	21	1.5	38.25	19.22	9100	-	11000	6405	-	-
25	37	7	0.3	4.3	2.95	18000	10000	21000	61805	61805.2Z	61805.2RS
25	42	9	0.3	7	4.55	16000	9300	19000	61905	61905.2Z	61905.2RS
28	52	12	0.6	12.4	7.4	14000	8100	16000	60/28	60/28.2Z	60/28.2RS
28	58	16	1	17.9	9.75	12000	7600	14000	62/28	62/28.2Z	62/28.2RS
28	68	18	1.1	23.5	13.1	10000	6900	12000	63/28	63/28.2Z	63/28.2RS
30	55	9	0.3	11.2	7.35	13000	-	15000	16006	-	-
30	55	13	1	13.23	8.3	13000	7500	15000	6006	6006.2Z	6006.2RS
30	62	16	1	19.46	11.31	11000	7000	13000	6206	6206.2Z	6206.2RS
30	90	23	1.5	47.33	24.5	8100	-	9700	6406	-	-
30	42	7	0.3	4.55	3.4	15000	-	18000	61806	61806.2Z	61806.2RS
30	47	9	0.3	7.25	5	14000	8200	17000	61906	61906.2Z	61906.2RS
32	58	13	1	15	9.15	12000	7200	14000	60/32	60/32.2Z	60/32.2RS
32	65	17	1	23.5	13.1	10000	6900	12000	62/32	62/32.2Z	62/32.2RS
32	75	20	1.1	30.1	16.2	9300	6400	11000	63/32	63/32.2Z	63/32.2RS
35	62	9	0.3	12.2	8.85	11000	-	13000	16007	-	-
35	62	14	1	16.21	10.42	11000	6500	13000	6007	6007.2Z	6007.2RS
35	72	17	1.1	25.67	15.3	9200	6000	11000	6207	6207.2Z	6207.2RS
35	80	21	1.5	33.36	19.21	8500	5700	10000	6307	6307.2Z	6307.2RS
35	100	25	1.5	43.76	32.55	7200	-	8600	6407	-	-
35	47	7	0.3	4.75	3.85	13000	-	16000	61807	61807.2Z	61807.2RS
35	55	10	0.6	10.9	7.75	12000	6800	14000	61907	61907.2Z	61907.2RS

		Snap Ring Groove Dimensions				Snap Ring Dimensions		Shoulder Dimensions			Mass
		(mm)				(mm)		(mm)			(kg)
With Snap Ring Groove	With Snap Ring	D ₁	a	b	r ₀	D ₂	f	d _a	D _a	r _a	Approx
		(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)	(max)	
-	-	-	-	-	-	-	-	22	35	0.3	0.036
60/22N	60/22NR	41.75	2.06	1.5	0.4	48.3	1.07	26	40	0.6	0.073
62/22N	62/22NR	47.6	2.46	1.5	0.4	55.7	1.07	27	45	1	0.118
63/22N	63/22NR	53.6	2.46	1.5	0.4	61.7	1.07	28.5	49.5	1	0.201
-	-	-	-	-	-	-	-	27	45	0.3	0.06
6005N	6005NR	44.6	2.06	1.5	0.4	52.7	1.07	29	43	0.6	0.08
6205N	6205NR	49.73	2.46	1.5	0.4	57.9	1.07	30	47	1	0.128
6305N	6305NR	59.61	3.28	2.05	0.6	67.7	1.65	31.5	55.5	1	0.232
-	-	-	-	-	-	-	-	33	72	1.5	0.53
-	-	-	-	-	-	-	-	27	35	0.3	0.022
-	-	-	-	-	-	-	-	27	40	0.3	0.041
60/28N	60/28NR	49.73	2.06	1.5	0.4	57.9	1.07	32	48	0.6	0.097
62/28N	62/28NR	55.6	2.46	1.5	0.4	63.7	1.07	33	53	1	0.173
63/28N	63/28NR	64.82	3.28	2.05	0.6	74.6	1.65	34.5	61.5	1	0.328
-	-	-	-	-	-	-	-	32	53	0.3	0.085
6006N	6006NR	52.6	2.08	1.5	0.4	60.7	1.07	35	50	1	0.116
6206N	6206NR	59.61	2.08	1.5	0.4	67.7	1.07	35	57	1	0.199
-	-	-	-	-	-	-	-	38	82	1.5	0.735
-	-	-	-	-	-	-	-	32	40	0.3	0.026
-	-	-	-	-	-	-	-	32	45	0.3	0.045
60/32N	60/32NR	55.6	2.08	1.5	0.4	63.7	1.07	37	53	1	0.127
62/32N	62/32NR	62.6	3.28	2.05	0.6	70.7	1.65	37	60	1	0.228
63/32N	63/32NR	71.83	3.28	2.05	0.6	81.6	1.65	38.5	68.5	1	0.437
-	-	-	-	-	-	-	-	37	60	0.3	0.11
6007N	6007NR	59.61	2.08	2.05	0.6	67.7	1.65	40	58	1	0.155
6207N	6207NR	68.81	3.28	2.05	0.6	78.6	1.65	41.5	65.5	1	0.288
6307N	6307NR	76.81	3.28	2.05	0.6	86.6	1.65	43	72	1.5	0.457
-	-	-	-	-	-	-	-	43	92	1.5	0.952
-	-	-	-	-	-	-	-	37	45	0.3	0.03
-	-	-	-	-	-	-	-	39	51	0.6	0.073



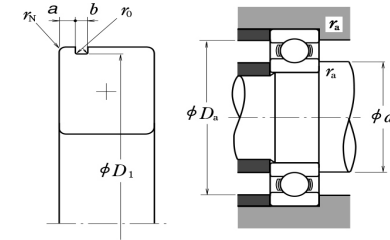
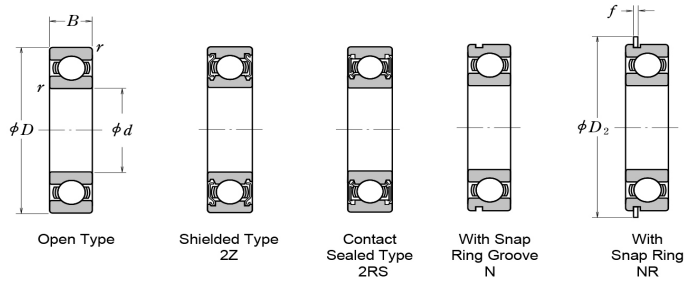
Boundary Dimensions				Basic Load Rating		Limiting Speed			Bearing Designation		
(mm)				(KN)		(rpm)					
d	D	B	r	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal
			(min)			Open (Z, 2Z)	(2RS)	Open (Z)			
40	68	9	0.3	12.6	9.65	9800	-	12000	6008	-	-
40	68	15	1	17.03	11.7	10000	5800	12000	6008	6008.2Z	6008.2RS
40	80	18	1.1	29.52	18.14	8300	5400	10000	6208	6208.2Z	6208.2RS
40	90	23	1.5	40.75	24.01	7700	5100	9200	6308	6308.2Z	6308.2RS
40	110	27	2	65.51	37.66	6600	-	7900	6408	-	-
40	52	7	0.3	4.95	4.2	12000	6700	14000	61808	61808.2Z	61808.2RS
40	62	12	0.6	13.7	9.95	11000	6100	13000	61908	61908.2Z	61908.2RS
45	75	10	0.6	15.5	12.3	8900	-	10000	66009	-	-
45	75	16	1	21.09	14.77	9200	5300	11000	6009	6009.2Z	6009.2RS
45	85	19	1.1	31.67	20.68	7700	5100	9200	6209	6209.2Z	6209.2RS
45	100	25	1.5	52.86	31.83	6800	4500	8100	6309	6309.2Z	6309.2RS
45	120	29	2	77.38	45.38	6000	-	7200	6409	-	-
45	58	7	0.3	6.2	5.4	11000	-	13000	61809	61809.2Z	61809.2RS
45	68	12	0.6	14.1	10.9	9700	5500	11000	61909	61909.2Z	61909.2RS
50	80	10	0.6	16	13.3	8200	-	9700	66010	-	-
50	80	16	1	22.02	16.25	8400	4800	9900	6010	6010.2Z	6010.2RS
50	90	20	1.1	35.07	23.18	7100	4600	8500	6210	6210.2Z	6210.2RS
50	110	27	2	61.86	37.94	6100	4100	7300	6310	6310.2Z	6310.2RS
50	130	31	2.1	92.29	55.13	5500	-	6600	6410	-	-
50	65	7	0.3	6.6	6.1	9600	-	11000	61810	61810.2Z	61810.2RS
50	72	12	0.6	14.5	11.7	9000	-	11000	61910	61910.2Z	61910.2RS
55	90	11	0.6	19.3	16.3	7400	-	8800	66011	-	-
55	90	18	1.1	30.26	21.93	7600	4300	8900	6011	6011.2Z	6011.2RS
55	100	21	1.5	43.38	29.22	6300	4100	7600	6211	6211.2Z	6211.2RS
55	120	29	2	71.57	44.76	5600	3700	6700	6311	6311.2Z	6311.2RS
55	140	33	2.1	100.7	62.45	5000	-	6000	6411	-	-
55	72	9	0.3	8.8	8.1	8700	-	10000	61811	61811.2Z	61811.2RS
55	80	13	1	16.6	14.1	8100	4500	9600	61911	61911.2Z	61911.2RS
60	95	11	0.6	19.8	17.6	6900	-	8100	66012	-	-
60	95	18	1.1	31.66	24.22	7100	4000	8400	6012	6012.2Z	6012.2RS

		Snap Ring Groove Dimensions				Snap Ring Dimensions		Shoulder Dimensions			Mass
		(mm)				(mm)		(mm)			(kg)
With Snap Ring Groove	With Snap Ring	D ₁	a	b	r ₀	D ₂	f	d _a	D _a	r _a	Approx
		(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)	(max)	
-	-	-	-	-	-	-	-	42	66	0.3	0.125
6008N	6008NR	64.82	2.49	2.05	0.6	74.6	1.65	45	63	1	0.192
6208N	6208NR	76.81	3.28	2.05	0.6	86.6	1.65	46.5	73.5	1	0.366
6308N	6308NR	86.79	3.28	2.85	0.6	96.5	2.41	48	82	1.5	0.633
-	-	-	-	-	-	-	-	49	101	2	1.23
-	-	-	-	-	-	-	-	42	50	0.3	0.033
-	-	-	-	-	-	-	-	44	58	0.6	0.112
-	-	-	-	-	-	-	-	49	71	0.6	0.17
6009N	6009NR	71.83	2.49	2.05	0.6	81.6	1.65	50	70	1	0.245
6209N	6209NR	81.81	3.28	2.05	0.6	91.6	1.65	51.5	78.5	1	0.407
6309N	6309NR	96.8	3.28	2.05	0.6	106.5	1.65	53	92	1.5	0.833
-	-	-	-	-	-	-	-	54	111	2	1.53
-	-	-	-	-	-	-	-	47	56	0.3	0.04
-	-	-	-	-	-	-	-	49	64	0.6	0.132
-	-	-	-	-	-	-	-	54	76	0.6	0.18
6010N	6010NR	76.81	2.49	2.05	0.6	86.6	1.65	55	75	1	0.261
6210N	6210NR	86.79	3.28	2.85	0.6	96.5	2.41	56.5	83.5	1	0.463
6310N	6310NR	106.81	3.28	2.85	0.6	116.6	2.41	59	101	2	1.07
-	-	-	-	-	-	-	-	61	119	2	1.88
-	-	-	-	-	-	-	-	52	63	0.3	0.052
-	-	-	-	-	-	-	-	54	68	0.6	0.133
-	-	-	-	-	-	-	-	59	86	0.6	0.26
6011N	6011NR	86.79	2.87	2.85	0.6	96.5	2.41	61.5	83.5	1	0.385
6211N	6211NR	96.8	3.28	2.85	0.6	106.5	2.41	63	92	1.5	0.607
6311N	6311NR	115.21	4.06	3.25	0.6	129.7	2.77	64	111	2	1.37
-	-	-	-	-	-	-	-	66	129	2	2.29
-	-	-	-	-	-	-	-	57	70	0.3	0.083
-	-	-	-	-	-	-	-	60	75	1	0.185
-	-	-	-	-	-	-	-	64	91	0.6	0.28
6012N	6012NR	91.82	2.87	2.85	0.6	101.6	2.41	66.5	88.5	1	0.415



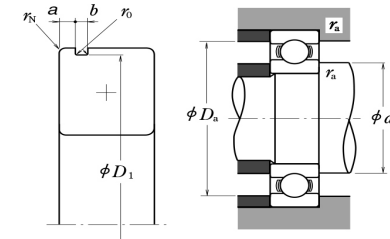
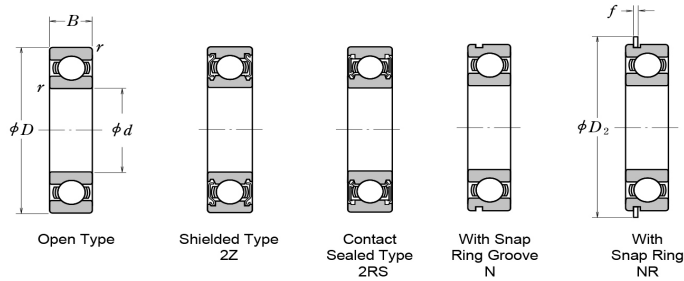
Boundary Dimensions				Basic Load Rating		Limiting Speed			Bearing Designation		
(mm)				(KN)		(rpm)					
d	D	B	r	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal
			(min)			Open (Z, 2Z)	(2RS)	Open (Z)			
60	110	22	1.5	47.76	32.93	5700	3700	6900	6212	6212.2Z	6212.2RS
60	130	31	2.1	81.75	51.85	5200	3500	6200	6312	6312.2Z	6312.2RS
60	150	35	2.1	109.1	70.06	4600	-	5500	6412	-	-
60	78	10	0.3	11.5	10.6	8000	-	9400	61812	61812.2Z	61812.2RS
60	85	13	1	20.2	17.3	7500	-	8900	61912	61912.2Z	61912.2RS
65	100	11	0.6	17.1	16	6600	-	7800	16013	-	-
65	100	18	1.1	32.06	24.89	6600	3700	7800	6013	6013.2Z	6013.2RS
65	120	23	1.5	57.21	40	5400	3500	6400	6213	6213.2Z	6213.2RS
65	140	33	2.1	93.87	60.44	4800	3200	5800	6313	6313.2Z	6313.2RS
65	160	37	2.1	118.1	78.57	4300	-	5200	6413	-	-
65	85	10	0.6	11.9	11.5	7300	-	8600	61813	61813.2Z	61813.2RS
65	90	13	1	17.4	16.1	7100	3900	8400	61913	61913.2Z	61913.2RS
70	110	13	0.6	30.1	25.6	6100	-	7200	16014	-	-
70	110	20	1.1	38.59	30.43	6100	3500	7200	6014	6014.2Z	6014.2RS
70	125	24	1.5	60.83	45.03	5100	3300	6100	6214	6214.2Z	6214.2RS
70	150	35	2.1	104.1	68.04	4500	3000	5400	6314	6314.2Z	6314.2RS
70	180	42	3	139.5	99.56	3900	-	4600	6414	-	-
70	90	10	0.6	12.1	11.9	6800	-	8100	61814	61814.2Z	61814.2RS
70	100	16	1	23.7	21.2	6400	3600	7600	61914	61914.2Z	61914.2RS
75	115	13	0.6	27.5	25.3	5700	-	6700	16015	-	-
75	115	20	1.1	40.18	33.18	5700	3300	6800	6015	6015.2Z	6015.2RS
75	130	25	1.5	66.11	49.5	4800	3100	5800	6215	6215.2Z	6215.2RS
75	160	37	2.1	113.4	76.97	4200	2800	5000	6315	6315.2Z	6315.2RS
75	190	45	3	153.8	114.3	3600	-	4400	6415	-	-
75	95	10	0.6	12.5	12.9	6400	-	7600	61815	61815.2Z	61815.2RS
75	105	16	1	24.4	22.6	6100	-	7200	61915	61915.2Z	61915.2RS
80	125	14	0.6	31.7	29.7	5200	-	6100	16016	-	-
80	125	22	1.1	47.54	39.79	5300	3100	6300	6016	6016.2Z	6016.2RS
80	140	26	2	71.55	54.3	4500	2900	5400	6216	6216.2Z	6216.2RS
80	170	39	2.1	122.9	86.5	3900	2700	4700	6316	6316.2Z	6316.2RS

		Snap Ring Groove Dimensions				Snap Ring Dimensions		Shoulder Dimensions			Mass
		(mm)				(mm)		(mm)			(kg)
With Snap Ring Groove	With Snap Ring	D ₁	a	b	r ₀	D ₂	f	d _a	D _a	r _a	Approx
		(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)	(max)	
6212N	6212NR	106.81	3.28	2.85	0.6	116.6	2.41	68	102	1.5	0.783
6312N	6312NR	125.22	4.06	3.25	0.6	139.7	2.77	71	119	2	1.7
-	-	-	-	-	-	-	-	71	139	2	2.77
-	-	-	-	-	-	-	-	62	76	0.3	0.104
-	-	-	-	-	-	-	-	65	80	1	0.192
-	-	-	-	-	-	-	-	69	96	0.6	0.3
6013N	6013NR	96.8	2.87	2.85	0.6	106.5	2.41	71.5	93.5	1	0.435
6213N	6213NR	115.21	4.06	3.25	0.6	129.7	2.77	73	112	1.5	0.99
6313N	6313NR	135.23	4.9	3.25	0.6	149.7	2.77	76	129	2	2.08
-	-	-	-	-	-	-	-	76	149	2	3.3
-	-	-	-	-	-	-	-	69	81	0.6	0.126
-	-	-	-	-	-	-	-	70	85	1	0.211
-	-	-	-	-	-	-	-	74	106	0.6	0.433
6014N	6014NR	106.81	2.87	2.85	0.6	116.6	2.41	76.5	103.5	1	0.602
6214N	6214NR	120.22	4.06	3.25	0.6	134.7	2.77	78	117	1.5	1.07
6314N	6314NR	145.24	4.9	3.25	0.6	159.7	2.77	81	139	2	2.52
-	-	-	-	-	-	-	-	83	167	2.5	4.83
-	-	-	-	-	-	-	-	74	86	0.6	0.134
-	-	-	-	-	-	-	-	75	95	1	0.342
-	-	-	-	-	-	-	-	79	111	0.6	0.457
6015N	6015NR	111.81	2.87	2.85	0.6	121.6	2.41	81.5	108.5	1	0.638
6215N	6215NR	125.22	4.06	3.25	0.6	139.7	2.77	83	122	1.5	1.18
6315N	6315NR	155.22	4.9	3.25	0.6	169.7	2.77	86	149	2	3.02
-	-	-	-	-	-	-	-	88	177	2.5	5.87
-	-	-	-	-	-	-	-	79	91	0.6	0.142
-	-	-	-	-	-	-	-	80	100	1	0.363
-	-	-	-	-	-	-	-	84	121	0.6	0.597
6016N	6016NR	120.22	2.87	3.25	0.6	134.7	2.77	86.5	118.5	1	0.85
6216N	6216NR	135.23	4.9	3.25	0.6	149.7	2.77	89	131	2	1.4
6316N	6316NR	163.65	5.69	3.65	0.6	182.9	3.05	91	159	2	3.59



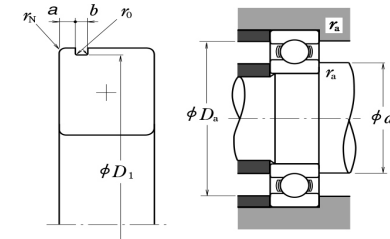
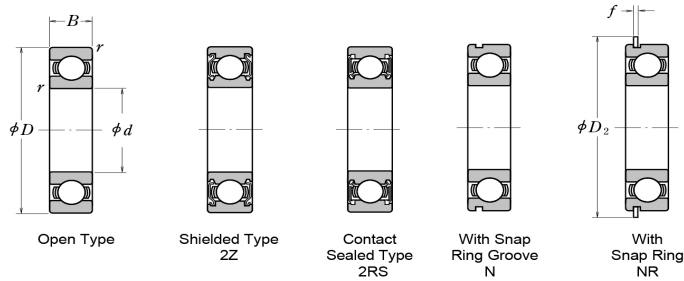
Boundary Dimensions				Basic Load Rating		Limiting Speed			Bearing Designation			
(mm)				(KN)		(rpm)						
d	D	B	r	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal	
			(min)			Open (Z, 2Z)	(2RS)	Open (Z)				
80	200	48	3	163.2	124.5	3400	-	4100	6416	-	-	
80	100	10	0.6	12.7	13.3	6100	-	7200	61816	61816.2Z	61816.2RS	
80	110	16	1	25	24	5700	3200	6800	61916	61916.2Z	61916.2RS	
85	130	14	0.6	32.6	31.7	4900	-	5800	16017	-	-	
85	130	22	1.1	50.75	42.89	5000	2900	5900	6017	6017.2Z	6017.2RS	
85	150	28	2	83.21	63.96	4200	2700	5000	6217	6217.2Z	6217.2RS	
85	180	41	3	132.7	96.58	3700	2500	4400	6317	6317.2Z	6317.2RS	
85	210	52	4	174.9	137.5	3300	-	3900	6417	-	-	
85	110	13	1	18.7	19	5600	-	6600	61817	61817.2Z	61817.2RS	
85	120	18	1.1	31.9	29.6	5300	3000	6300	61917	61917.2Z	61917.2RS	
90	140	16	1	39.9	37	4700	-	5600	16018	-	-	
90	140	24	1.5	58.02	49.78	4700	2700	5600	6018	6018.2Z	6018.2RS	
90	160	30	2	95.98	71.45	3900	2600	4700	6218	6218.2Z	6218.2RS	
90	190	43	3	144.1	108.5	3500	2400	4200	6318	6318.2Z	6318.2RS	
90	225	54	4	192.5	157.6	3100	-	3700	6418	-	-	
90	115	13	1	19	19.7	5300	-	6300	61818	61818.2Z	61818.2RS	
90	125	18	1.1	32.8	31.6	5100	2800	6000	61918	61918.2Z	61918.2RS	
95	145	16	1	41.2	39.6	4500	-	5300	16019	-	-	
95	145	24	1.5	57.79	50.09	4400	2500	5200	6019	6019.2Z	6019.2RS	
95	170	32	2.1	110.3	82.81	3700	2400	4400	6219	6219.2Z	6219.2RS	
95	200	45	3	156.7	122	3300	2200	4000	6319	6319.2Z	6319.2RS	
95	130	18	1.1	33.7	33.5	4800	2700	5700	61919	61919.2Z	61919.2RS	
100	150	16	1	42.4	42.1	4300	-	5100	16020	-	-	
100	150	24	1.5	64.46	56.13	4300	2500	5100	6020	6020.2Z	6020.2RS	
100	180	34	2.1	122.1	92.72	3500	2300	4200	6220	6220.2Z	6220.2RS	
100	215	47	3	173	140.4	3000	2100	3600	6320	6320.2Z	6320.2RS	
100	125	13	1	19.6	21.2	4800	-	5700	61820	61820.2Z	61820.2RS	
100	140	20	1.1	45	41.9	4500	-	5300	61920	61920.2Z	61920.2RS	
105	160	18	1	41.9	42.2	4100	-	4800	16021	-	-	
105	160	26	2	71.92	63.32	4000	2300	4700	6021	6021.2Z	6021.2RS	

		Snap Ring Groove Dimensions				Snap Ring Dimensions		Shoulder Dimensions			Mass
		(mm)				(mm)		(mm)			(kg)
With Snap Ring Groove	With Snap Ring	D ₁	a	b	r ₀	D ₂	f	d _a	D _a	r _a	Approx
		(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)	(max)	
-	-	-	-	-	-	-	-	93	187	2.5	6.84
-	-	-	-	-	-	-	-	84	96	0.6	0.15
-	-	-	-	-	-	-	-	85	105	1	0.382
-	-	-	-	-	-	-	-	89	126	0.6	0.626
6017N	6017NR	125.22	2.87	3.25	0.6	139.7	2.77	91.5	123.5	1	0.89
6217N	6217NR	145.24	4.9	3.25	0.6	159.7	2.77	94	141	2	1.79
6317N	6317NR	173.66	5.69	3.65	0.6	192.9	3.05	98	167	2.5	4.23
-	-	-	-	-	-	-	-	101	194	3	8.07
-	-	-	-	-	-	-	-	90	105	1	0.266
-	-	-	-	-	-	-	-	91.5	113.5	1	0.535
-	-	-	-	-	-	-	-	95	135	1	0.848
6018N	6018NR	135.23	3.71	3.25	0.6	149.7	2.77	98	132	1.5	1.16
6218N	6218NR	155.22	4.9	3.25	0.6	169.7	2.77	99	151	2	2.15
6318N	6318NR	183.64	5.69	3.65	0.6	202.9	3.05	103	177	2.5	4.91
-	-	-	-	-	-	-	-	106	209	3	9.78
-	-	-	-	-	-	-	-	95	110	1	0.279
-	-	-	-	-	-	-	-	96.5	118.5	1	0.565
-	-	-	-	-	-	-	-	100	140	1	0.885
6019N	6019NR	140.23	3.71	3.25	0.6	154.7	2.77	103	137	1.5	1.21
6219N	6219NR	163.65	5.69	3.65	0.6	182.9	3.05	106	159	2	2.62
6319N	6319NR	193.65	5.69	3.65	0.6	212.9	3.05	108	187	2.5	5.67
-	-	-	-	-	-	-	-	101.5	123.5	1	0.705
-	-	-	-	-	-	-	-	105	145	1	0.91
6020N	6020NR	145.24	3.71	3.25	0.6	159.7	2.77	108	142	1.5	1.25
6220N	6220NR	173.66	5.69	3.65	0.6	192.9	3.05	111	169	2	3.14
-	-	-	-	-	-	-	-	113	202	2.5	7
-	-	-	-	-	-	-	-	105	120	1	0.309
-	-	-	-	-	-	-	-	106.5	133.5	1	0.96
-	-	-	-	-	-	-	-	110	155	1	1.2
6021N	6021NR	155.22	3.71	3.25	0.6	169.7	2.77	114	151	2	1.59



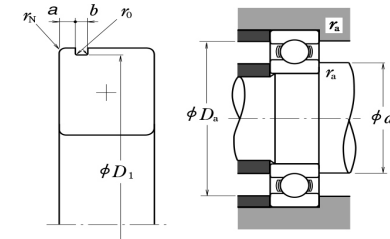
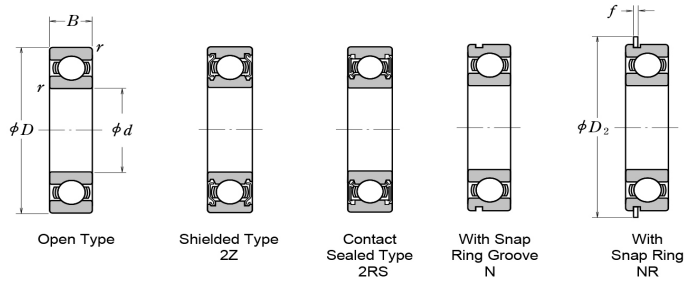
Boundary Dimensions				Basic Load Rating		Limiting Speed			Bearing Designation		
(mm)				(KN)		(rpm)					
d	D	B	r	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal
			(min)			Open (Z, 2Z)	(2RS)	Open (Z)			
105	190	36	2.1	133	104.5	3300	2200	3900	6221	6221.2Z	6221.2RS
105	225	49	3	183.7	153.1	2900	2000	3500	6321	6321.2Z	6321.2RS
105	145	20	1.1	46.5	44.8	4300	2400	5100	61921	61921.2Z	61921.2RS
110	170	19	1	57.5	56.7	3800	-	4500	16022	-	-
110	170	28	2	81.89	72.86	3800	2200	4500	6022	6022.2Z	6022.2RS
110	200	38	2.1	144.1	117.1	3100	2000	3700	6222	6222.2Z	6222.2RS
110	240	50	3	205	178.3	2700	1900	3200	6322	6322.2Z	6322.2RS
110	140	16	1	28.1	30.7	4300	-	5100	61822	61822.2Z	61822.2RS
110	150	20	1.1	47.9	47.8	4100	-	4900	61922	61922.2Z	61922.2RS
120	180	19	1	63.2	63.3	3600	-	4200	16024	-	-
120	180	28	2	87.69	79.35	3600	2100	4200	6024	6024.2Z	6024.2RS
120	215	40	2.1	155.3	131	2900	1900	3400	6224	6224.2Z	6224.2RS
120	260	55	3	227.6	207.4	2500	-	3000	6324	6324.2Z	6324.2RS
120	150	16	1	29	33	4000	-	4700	61824	61824.2Z	61824.2RS
120	165	22	1.1	57.2	56.9	3800	-	4400	61924	61924.2Z	61924.2RS
130	200	22	1.1	71.3	74.8	3000	-	3600	16026	-	-
130	200	33	2	105.1	96.82	3200	1900	3800	6026	6026.2Z	6026.2RS
130	230	40	3	165	147.8	2700	1800	3200	6226	6226.2Z	6226.2RS
130	280	58	4	253.4	241.8	2300	-	2700	6326	6326.2Z	6326.2RS
130	165	18	1.1	36.9	41.2	3600	-	4300	61826	61826.2Z	61826.2RS
130	180	24	1.5	69.6	70	3400	-	4100	61926	61926.2Z	61926.2RS
140	210	22	1.1	65.8	71.1	2900	-	3400	16028	-	-
140	210	33	2	116.3	108.5	3000	1800	3600	6028	6028.2Z	6028.2RS
140	250	42	3	179.1	166.9	2400	1600	2900	6228	6228.2Z	6228.2RS
140	300	62	4	274.8	272.1	2100	-	2500	6328	6328.2Z	6328.2RS
140	175	18	1.1	38.2	44.4	3400	-	4000	61828	61828.2Z	61828.2RS
140	190	24	1.5	71.3	74.8	3200	-	3800	61928	61928.2Z	61928.2RS
150	190	20	1.1	51	60	3200	1800	3800	61830	61830.2Z	61830.2RS
150	210	28	2	85	90.5	2600	1700	3200	61930	61930.2Z	61930.2RS
150	225	24	1.1	91.5	98	2800	-	3400	16030	-	-

		Snap Ring Groove Dimensions				Snap Ring Dimensions		Shoulder Dimensions			Mass
		(mm)				(mm)		(mm)			(kg)
With Snap Ring Groove	With Snap Ring	D ₁	a	b	r ₀	D ₂	f	d _a	D _a	r _a	Approx
		(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)	(max)	
6221N	6221NR	183.64	5.69	3.65	0.6	202.9	3.05	116	179	2	3.7
-	-	-	-	-	-	-	-	118	212	2.5	8.05
-	-	-	-	-	-	-	-	111.5	138.5	1	1
-	-	-	-	-	-	-	-	115	165	1	1.46
6022N	6022NR	163.65	3.71	3.65	0.6	182.9	3.05	119	161	2	1.96
6222N	6222NR	193.65	5.69	3.65	0.6	212.9	3.05	121	189	2	4.36
-	-	-	-	-	-	-	-	123	227	2.5	9.54
-	-	-	-	-	-	-	-	115	135	1	0.606
-	-	-	-	-	-	-	-	116.5	143.5	1	1.04
-	-	-	-	-	-	-	-	125	175	1	1.8
6024N	6024NR	173.66	3.71	3.65	0.6	192.9	3.05	129	171	2	2.07
-	-	-	-	-	-	-	-	131	204	2	5.15
-	-	-	-	-	-	-	-	133	247	2.5	12.5
-	-	-	-	-	-	-	-	125	145	1	0.655
-	-	-	-	-	-	-	-	126.5	158.5	1	1.41
-	-	-	-	-	-	-	-	136.5	193.5	1	2.69
6026N	6026NR	193.65	5.69	3.65	0.6	212.9	3.05	139	191	2	3.16
-	-	-	-	-	-	-	-	143	217	2.5	5.82
-	-	-	-	-	-	-	-	146	264	3	15.1
-	-	-	-	-	-	-	-	136.5	158.5	1	0.939
-	-	-	-	-	-	-	-	138	172	1.5	1.86
-	-	-	-	-	-	-	-	146.5	203.5	1	2.86
-	-	-	-	-	-	-	-	149	201	2	3.55
-	-	-	-	-	-	-	-	153	237	2.5	7.45
-	-	-	-	-	-	-	-	156	284	3	19.4
-	-	-	-	-	-	-	-	146.5	168.5	1	1
-	-	-	-	-	-	-	-	148	182	1.5	1.98
61830 N	61830 NR	186.8	3.3	1.9	0.6	196.5	1.7	156.5	183.5	1	1.12
-	-	-	-	-	-	-	-	159	201	2	3.01
-	-	-	-	-	-	-	-	156.5	218.5	1	3.12



Boundary Dimensions				Basic Load Rating		Limiting Speed			Bearing Designation		
(mm)				(KN)		(rpm)					
d	D	B	r	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal
			(min)			Open (Z, 2Z)	(2RS)	Open (Z)			
150	225	35	2.1	122	125	2600	1700	3200	6030	6030.2Z	6030.2RS
150	270	45	3	176	170	2200	-	2800	6230	6230.2Z	-
150	320	65	4	285	300	1900	-	2400	6330M	6330M.2Z	-
160	200	20	1.1	52	62	3000	1700	3600	61832	61832.2Z	61832.2RS
160	220	28	2	87	96	2600	1600	3000	61932	61932.2Z	61932.2RS
160	240	25	1.5	102	114	2600	-	3200	16032	-	-
160	240	38	2.1	140	140	2400	1600	3000	6032M	6032M.2Z	6032M.2RS
160	290	48	3	200	204	2200	-	2800	6232M	6232M.2Z	-
160	340	68	4	300	325	1800	-	2200	6332M	6332M.2Z	-
170	215	22	1.1	62	73.5	2800	1600	3400	61834	61834.2Z	61834.2RS
170	230	28	2	86	97	2400	-	2800	61934	61934.2Z	-
170	260	28	1.5	122	137	2400	-	3000	16034	-	-
170	260	42	2.1	170	173	2200	-	2800	6034	6034.2Z	-
170	310	52	4	212	224	2000	-	2600	6234M	6234M.2Z	-
170	360	72	4	325	365	1700	-	2000	6334M	-	-
180	225	22	1.1	62	76.5	2600	-	3200	61836	-	-
180	250	33	2	119	128	2200	-	2600	61936	61936.2Z	-
180	280	31	2	140	146	2200	-	2800	16036	-	-
180	280	46	2.1	186	196	2200	-	2800	6036M	6036M.2Z	-
180	320	52	4	224	245	1900	-	2400	6236M	6236M.2Z	-
180	380	75	4	355	405	1600	-	1900	6336M	-	-
190	240	24	1.5	67	81.5	2400	-	3000	61838	-	-
190	260	33	2	113	127	2200	-	2600	61938	-	-
190	290	31	2	150	166	2000	-	2600	16038	-	-
190	290	46	2.1	196	212	2000	-	2600	6038M	6038M.2Z	-
190	340	55	4	255	280	1800	-	2200	6238M	6238M.2Z	-
190	400	78	5	375	440	1500	-	1800	6338M	-	-
200	250	24	1.5	68	85	2400	-	3000	61840M	-	-
200	280	38	2.1	143	158	2000	-	2400	61940	61940.2Z	-
200	310	34	2	170	190	2000	-	2600	16040	-	-

		Snap Ring Groove Dimensions				Snap Ring Dimensions		Shoulder Dimensions			Mass
		(mm)				(mm)		(mm)			(kg)
With Snap Ring Groove	With Snap Ring	D ₁	a	b	r ₀	D ₂	f	d _a	D _a	r _a	Approx
		(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)	(max)	
-	-	-	-	-	-	-	-	161	214	2	4.32
-	-	-	-	-	-	-	-	163	257	2.5	10.3
-	-	-	-	-	-	-	-	166	304	3	26.6
61832 N	61832 NR	196.8	3.3	1.9	0.6	206.5	1.7	166.5	193.5	1	1.19
-	-	-	-	-	-	-	-	169	211	2	2.71
-	-	-	-	-	-	-	-	168	232	1.5	3.77
-	-	-	-	-	-	-	-	174	229	2	6.26
-	-	-	-	-	-	-	-	173	277	2.5	14.3
-	-	-	-	-	-	-	-	176	324	3	31.5
-	-	-	-	-	-	-	-	176.5	208.5	1	1.56
-	-	-	-	-	-	-	-	179	221	2	3.34
-	-	-	-	-	-	-	-	178	252	1.5	5.13
-	-	-	-	-	-	-	-	181	249	2	7.09
-	-	-	-	-	-	-	-	186	294	3	17.7
-	-	-	-	-	-	-	-	186	344	3	37
-	-	-	-	-	-	-	-	186.5	218.5	1	1.65
-	-	-	-	-	-	-	-	189	241	2	4.16
-	-	-	-	-	-	-	-	189	271	2	6.66
-	-	-	-	-	-	-	-	191	269	2	11
-	-	-	-	-	-	-	-	196	304	3	18.3
-	-	-	-	-	-	-	-	196	364	3	43.3
-	-	-	-	-	-	-	-	198	232	1.5	2.12
-	-	-	-	-	-	-	-	199	251	2	5.18
-	-	-	-	-	-	-	-	199	281	2	7.09
-	-	-	-	-	-	-	-	201	279	2	10.6
-	-	-	-	-	-	-	-	206	324	3	22.2
-	-	-	-	-	-	-	-	210	380	4	50
-	-	-	-	-	-	-	-	208	242	1.5	2.79
-	-	-	-	-	-	-	-	211	269	2	7.28
-	-	-	-	-	-	-	-	209	301	2	9.11



Boundary Dimensions			Basic Load Rating		Limiting Speed			Bearing Designation			Snap Ring Groove Dimensions				Snap Ring Dimensions			Shoulder Dimensions			Mass
(mm)			(KN)		(rpm)						(mm)				(mm)			(mm)			(kg)
d	D	B	r (min)	Cr	Cor	Grease		Oil	Open	Metal Shield	Rubber Seal	D ₁ (max)	a (max)	b (min)	r ₀ (max)	D ₂ (max)	f (max)	d _a (min)	D _a (max)	r _a (max)	Approx
						Open (Z, 2Z)	(2RS)	Open (Z)													
200	310	51	2.1	212	240	1900	-	2400	6040M	6040M.2Z	-	-	-	-	-	-	-	211	299	2	13.7
200	360	58	4	270	310	1700	-	2000	6240M	6240M.2Z	-	-	-	-	-	-	-	216	344	3	26.5
200	420	80	5	380	465	1400	-	1700	6340M	-	-	-	-	-	-	-	-	220	400	4	56.6
220	270	24	1.5	73.5	96.5	2200	-	2800	61844M	61844M.2Z	-	-	-	-	-	-	-	228	262	1.5	2.88
220	300	38	2.1	146	169	1800	-	2200	61944	61944.2Z	-	-	-	-	-	-	-	231	289	2	7.88
220	340	37	2.1	200	240	1800	-	2200	6044M	-	-	-	-	-	-	-	-	231	329	2	12
220	340	56	3	245	290	1700	-	2000	6244M	6044M.2Z	-	-	-	-	-	-	-	233	327	2.5	18
220	400	65	4	300	355	1500	-	1800	6344M	-	-	-	-	-	-	-	-	236	384	3	36.9
220	460	88	5	430	550	1300	-	1600	61848M	-	-	-	-	-	-	-	-	240	440	4	74.5
240	300	28	2	91.5	120	1900	-	2400	61948	61948.2Z	-	-	-	-	-	-	-	249	291	2	4.8
240	320	38	2.1	154	190	1700	-	2000	6048M	-	-	-	-	-	-	-	-	251	309	2	8.49
240	360	37	2.1	204	255	1600	-	1900	6248M	-	-	-	-	-	-	-	-	251	349	2	14.2
240	360	56	3	255	315	1600	-	1900	61852M	-	-	-	-	-	-	-	-	253	347	2.5	19.9
240	440	72	4	360	475	1400	-	1700	61952M	-	-	-	-	-	-	-	-	256	424	3	50.2
240	500	95	5	465	620	1200	-	1500	6052M	-	-	-	-	-	-	-	-	260	480	4	96
260	320	28	2	95	127	1800	-	2200	61956	-	-	-	-	-	-	-	-	269	311	2	4.77
260	360	46	2.1	204	255	1500	-	1800	6056M	-	-	-	-	-	-	-	-	271	349	2	14
260	400	44	3	236	310	1500	-	1800	6252M	-	-	-	-	-	-	-	-	273	387	2.5	21.2
260	400	65	4	300	390	1400	-	1700	6352M	-	-	-	-	-	-	-	-	276	384	3	31.1
260	480	80	5	405	560	1200	-	1500	61856M	-	-	-	-	-	-	-	-	280	460	4	66.6
260	540	102	6	505	710	1000	-	1200	61958	-	-	-	-	-	-	-	-	286	514	5	118.0
280	350	33	2	125	170	1600	-	1900	6056M	-	-	-	-	-	-	-	-	289	341	2	7.63
280	380	46	2.1	209	272	1400	-	1700	61956	-	-	-	-	-	-	-	-	291	369	2	15.1
280	420	44	3	240	325	1400	-	1700	16056M	-	-	-	-	-	-	-	-	293	407	2.5	23.1
280	420	65	4	310	425	1400	-	1700	6056M	-	-	-	-	-	-	-	-	296	404	3	33
280	500	80	5	425	600	1200	-	1500	6256M	-	-	-	-	-	-	-	-	300	480	4	70