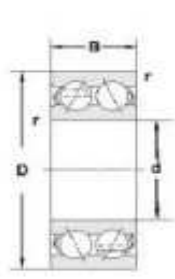


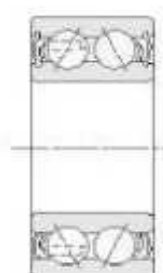
# ROLAMENTO DE ESFERA DE CONTATO ANGULAR, EM DUAS CARREIRAS



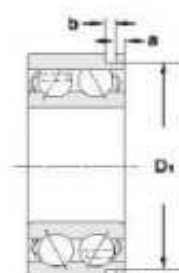
Open type



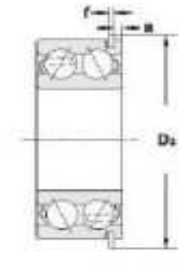
Shielded type(ZZ)



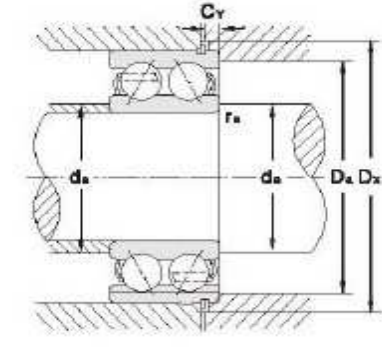
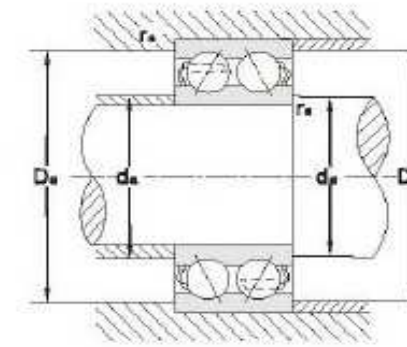
Contact sealed type(2RS)



With wheel groove(N)



With stop ring(NR)



Main Dimensions (mm)				Dimensions of wheel grooves and stop rings(mm)					Model					Basic Dynamic	Basic Static	Permissible Revolutions (rpm)		Assembly Dimensions(mm)					Reference Weigh (Kg)
d	D	B	r	Da1	a	b	D2	f	Open type	Shielded type	Contact sealed type	With wheel groove	With stop ring	Load Ratings C(N)	Load Ratings Co(N)	Grease Lubrication	Oil lubrication	da	Da	Dx	ra	Cy	(Kg)
			(Min)	(Max)	(Max)	(Min)	(Max)	(Max)										(Min)	(Min)	(Max)	(Max)	(Max)	
10	26	12.00	0.30	-	-	-	-	-	3000	3000-2Z	3000-2RS	-	-	5700	3250	17500	24000	-	-	-	-	-	0.022
10	30	14.30	0.60	28.17	2.06	1.35	34.70	-	3200	3200-2Z	3200-2RS	3200N	3200NR	7350	5350	15000	20000	14.50	25.50	-	0.60	-	0.052
10	35	19.05	0.60	-	-	-	-	-	3300	3300-2Z	3300-2RS	3300N	3300NR	10700	5150	10800	21500	-	-	-	-	-	0.098
12	28	12.00	0.30	-	-	-	-	-	3001	3001-2Z	3001-2RS	-	-	6200	3750	15500	22800	-	-	-	-	-	0.025
12	32	15.90	0.60	30.15	2.06	1.35	36.70	1.12	3201	3201-2Z	3201-2RS	3201N	3201NR	9700	7150	14000	18000	16.50	27.50	-	0.60	-	0.063
12	37	19.05	1.00	-	-	-	-	-	3301	3301-2Z	3301-2RS	3301N	3301NR	12000	6000	10100	20000	-	-	-	-	-	0.113
15	32	13.00	0.30	-	-	-	-	-	3002	3002-2Z	3002-2RS	-	-	8600	5400	13200	18800	-	-	-	-	-	0.036
15	35	15.90	0.60	33.17	2.06	1.35	39.70	1.12	3202	3202-2Z	3202-2RS	3202N	3202NR	9700	7450	12000	16000	19.50	30.50	-	0.60	-	0.072
15	42	19.05	1.00	-	-	-	-	-	3302	3302-2Z	3302-2RS	3302N	3302NR	15200	11900	10000	14000	20.50	36.50	-	1.00	-	0.132
17	35	14.00	0.30	-	-	-	-	-	3003	3003-2Z	3003-2RS	-	-	9200	6200	12200	16200	-	-	-	-	-	0.042
17	40	17.50	0.60	38.10	2.06	1.35	44.60	1.12	3203	3203-2Z	3203-2RS	3203N	3203NR	13800	10800	11000	14000	21.50	35.50	-	0.60	-	0.100
17	47	22.20	1.00	44.60	2.46	1.35	52.70	1.12	3303	3303-2Z	3303-2RS	3303N	3303NR	21700	17100	9400	13000	22.50	41.50	-	1.00	-	0.192
20	42	16.00	0.60	-	-	-	-	-	3004	3004-2Z	3004-2RS	-	-	14500	9600	10600	14300	-	-	-	-	-	0.080
20	47	20.60	1.00	44.60	2.46	1.35	52.70	1.12	3204	3204-2Z	3204-2RS	3204N	3204NR	17200	15000	9000	12000	25.50	41.50	-	1.00	-	0.170
20	52	22.20	1.10	49.73	2.46	1.35	57.90	1.12	3304	3304-2Z	3304-2RS	3304N	3304NR	20800	18400	8200	11000	27.00	45.00	-	1.00	-	0.230
25	47	16.00	1.00	-	-	-	-	-	3005	3005-2Z	3005-2RS	-	-	15600	10800	9000	11000	-	-	-	-	-	0.140
25	52	20.60	1.00	49.73	2.46	1.35	57.90	1.12	3205	3205-2Z	3205-2RS	3205N	3205NR	18900	18200	7800	10000	30.50	46.50	-	1.00	-	0.190
25	62	25.40	1.10	59.61	3.28	1.90	67.70	1.70	3305	3305-2Z	3305-2RS	3305N	3305NR	28900	26500	6800	9100	32.00	55.00	-	1.00	-	0.369
30	55	19.00	1.00	-	-	-	-	-	3006	3006-2Z	3006-2RS	-	-	15600	10800	7000	8500	-	-	-	-	-	0.180
30	62	23.80	1.00	59.61	3.28	1.90	67.70	1.70	3206	3206-2Z	3206-2RS	3206N	3206NR	27300	27000	6500	8700	35.50	56.50	-	1.00	-	0.320
30	72	30.20	1.10	68.81	3.28	1.90	78.60	1.70	3306	3306-2Z	3306-2RS	3306N	3306NR	38100	36100	5800	7800	37.00	65.00	-	1.00	-	0.585
35	62	20.00	1.00	-	-	-	-	-	3007	3007-2Z	3007-2RS	-	-	24500	21400	6600	8600	-	-	-	-	-	0.200
35	72	27.00	1.10	68.81	3.28	1.90	78.60	1.70	3207	3207-2Z	3207-2RS	3207N	3207NR	36800	37500	5600	7500	42.00	65.00	-	1.00	-	0.480

Main Dimensions (mm)				Dimensions of wheel grooves and stop rings(mm)					Model					Basic Dynamic	Basic Static	Permissible Revolutions (rpm)		Assembly Dimensions(mm)					Reference Weigh (Kg)
d	D	B	r (Min)	D <sub>a1</sub> (Max)	a (Max)	b (Min)	D <sub>2</sub> (Max)	f (Max)	Open type	Shielded type	Contact sealed type	With wheel groove	With stop ring			Load Ratings C(N)	Load Ratings Co(N)	Grease Lubrication	Oil lubrication	d <sub>a</sub> (Min)	D <sub>a</sub> (Min)	D <sub>x</sub> (Max)	
35	80	34.90	1.50	76.81	3.28	1.90	86.60	1.70	3307	3307-2Z	3307-2RS	3307N	3307NR	48600	46800	5200	7000	43.50	71.50	-	1.50	-	0.816
40	68	21.00	1.00	-	-	-	-	-	3008	3008-2Z	3008-2RS	-	-	25500	21700	6300	8200	-	-	-	-	-	0.250
40	80	30.20	1.10	76.81	3.28	1.90	86.60	1.70	3208	3208-2Z	3208-2RS	3208N	3208NR	42000	43900	5000	6700	47.00	73.00	-	1.00	-	0.650
40	90	36.50	1.50	86.79	3.28	2.70	96.50	2.46	3308	3308-2Z	3308-2RS	3308N	3308NR	54100	53800	4600	6100	48.50	81.50	-	1.50	-	1.070
45	85	30.20	1.10	81.81	3.28	1.90	91.60	1.70	3209	3209-2Z	3209-2RS	3209N	3209NR	45400	51400	4600	6100	52.00	78.00	-	1.00	-	0.710
45	100	39.70	1.50	96.80	3.28	2.70	106.50	2.46	3309	3309-2Z	3309-2RS	3309N	3309NR	66100	67300	4100	5500	53.50	91.50	-	1.50	-	1.410
50	90	30.20	1.10	86.79	3.28	2.70	96.50	2.46	3210	3210-2Z	3210-2RS	3210N	3210NR	45100	52100	4300	5700	57.00	83.00	-	1.00	-	0.760
50	110	44.40	2.00	106.81	3.28	2.70	116.60	2.46	3310	3310-2Z	3310-2RS	3310N	3310NR	86100	88600	3800	5000	60.00	100.00	-	2.00	-	1.930
55	100	33.30	1.50	96.80	3.28	2.70	106.50	2.46	3211	3211-2Z	3211-2RS	3211N	3211NR	50900	60200	3900	5100	63.50	91.50	-	1.50	-	1.050
55	120	49.20	2.00	115.21	4.06	3.10	129.70	2.82	3311	3311-2Z	3311-2RS	3311N	3311NR	101000	106000	3400	4500	65.00	110.00	-	2.00	-	2.530
60	110	36.50	1.50	106.81	3.28	2.70	116.60	2.46	3212	3212-2Z	3212-2RS	3212N	3212NR	64000	76800	3500	4700	68.50	101.50	-	1.50	-	1.400
60	130	54.00	2.10	125.22	4.06	3.10	139.70	2.82	3312	3312-2Z	3312-2RS	3312N	3312NR	125000	132000	3100	4200	72.00	118.00	-	2.00	-	3.240
65	120	38.10	1.50	115.21	4.06	3.10	129.70	2.82	3213	3213-2Z	3213-2RS	3213N	3213NR	76400	97400	3200	4300	73.50	111.50	-	1.50	-	1.750
65	140	58.70	2.10	135.23	4.90	3.10	149.70	2.82	3313	3313-2Z	3313-2RS	3313N	3313NR	142000	153000	2900	3900	77.00	128.00	-	2.00	-	4.080
70	125	39.70	1.50	120.22	4.06	3.10	134.70	2.82	3214	3214-2Z	3214-2RS	3214N	3214NR	77900	96400	3100	4100	78.50	116.50	-	1.50	-	1.920
70	150	63.50	2.10	145.24	4.90	3.10	159.70	2.82	3314	3314-2Z	3314-2RS	3314N	3314NR	151000	160000	2700	3600	82.00	138.00	-	2.00	-	5.040
75	130	41.30	1.50	125.22	4.06	3.10	139.70	2.82	3215	3215-2Z	3215-2RS	3215N	3215NR	92400	120000	2900	3900	83.50	121.50	-	1.50	-	2.100
75	160	68.30	2.10	155.22	4.90	3.10	169.70	2.82	3315	3315-2Z	3315-2RS	3315N	3315NR	169000	189000	2500	3300	87.00	148.00	-	2.00	-	6.160
80	140	44.40	2.00	135.23	4.90	3.10	149.70	2.82	3216	-	-	3216N	3216NR	97500	121000	2700	3600	90.00	130.00	-	2.00	-	2.640
80	170	68.30	2.10	163.65	5.69	3.50	182.90	3.10	3316	-	-	3316N	3316NR	184000	213000	2400	3100	92.00	158.00	-	2.00	-	6.930
85	150	49.20	2.00	145.24	4.90	3.10	159.70	2.82	3217	-	-	3217N	3217NR	114000	143000	2500	3400	95.00	140.00	-	2.00	-	3.390
85	180	73.00	3.00	-	-	-	-	-	3317	-	-	-	-	188000	219000	2200	3000	99.00	166.00	-	2.50	-	8.300
90	160	52.40	2.00	155.22	4.90	3.10	169.70	2.82	3218	-	-	3218N	3218NR	132000	167000	2400	3100	100.00	150.00	-	2.00	-	4.140
90	190	73.00	3.00	-	-	-	-	-	3318	-	-	-	-	205000	242000	2100	2800	104.00	176.00	-	2.50	-	9.230
95	170	55.60	2.10	163.65	5.69	3.50	182.90	3.10	3219	-	-	3219N	3219NR	152000	193000	2200	3000	107.00	158.00	-	2.00	-	5.000
95	200	77.80	3.00	-	-	-	-	-	3319	-	-	-	-	218000	270000	2000	2600	109.00	186.00	-	2.50	-	10.900
100	180	60.30	2.10	173.66	5.69	3.50	192.90	3.10	3220	-	-	3220N	3220NR	172000	221000	2100	2800	112.00	168.00	-	2.00	-	6.100
100	215	82.60	3.00	-	-	-	-	-	3320	-	-	-	-	249000	324000	1800	2500	114.00	201.00	-	2.50	-	13.500
105	190	65.10	2.10	-	-	-	-	-	3221	-	-	-	-	182000	237000	2000	2600	117.00	178.00	-	2.00	-	7.370
105	225	87.30	3.00	-	-	-	-	-	3321	-	-	-	-	265000	354000	1800	2300	119.00	211.00	-	2.50	-	15.600
110	200	69.80	2.10	-	-	-	-	-	3222	-	-	-	-	201000	263000	1900	2500	122.00	188.00	-	2.00	-	8.800
110	240	92.10	3.00	-	-	-	-	-	3322	-	-	-	-	281000	388000	1600	2200	124.00	226.00	-	2.50	-	18.900