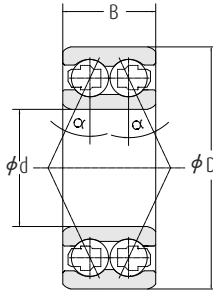
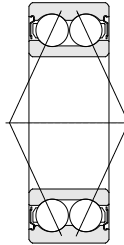


Angular Contact Ball Bearings

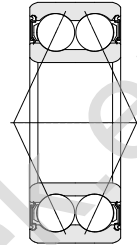
Double Row | Bore 10–90 mm



Open

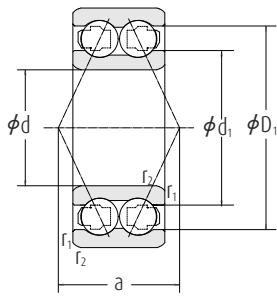


ZZR

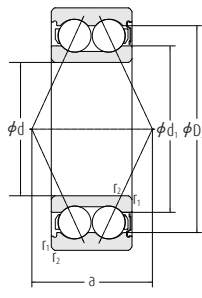


ZRSR

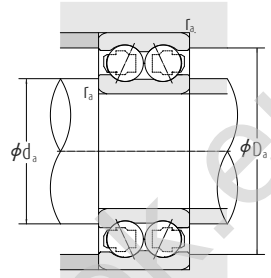
Dimensions				Abbreviation			Load ratings	
d	D	B	r _{1,2} min	Open	with shields ZZR	with seals ZRSR	dyn. C	stat. C ₀
mm							kN	
10	30	14.0	0.6	3200BTNG	..BZZRTNG	..BZRSRTNG	7.80	4.55
12	32	15.9	0.6	3201BTNG	..BZZRTNG	..BZRSRTNG	10.60	5.85
	37	19.0	1.0	3301BTNG	..BZZRTNG	..BZRSRTNG	14.50	8.20
15	35	15.9	0.6	3202BTNG	..BZZRTNG	..BZRSRTNG	11.80	7.10
	42	19.0	1.0	3302BTNG	..BZZRTNG	..BZRSRTNG	16.30	10.00
17	40	17.5	0.6	3203BTNG	..BZZRTNG	..BZRSRTNG	14.60	9.00
	47	22.2	1.0	3303BTNG	..BZZRTNG	..BZRSRTNG	20.80	12.50
20	47	20.6	1.0	3204BTNG	..BZZRTNG	..BZRSRTNG	19.60	12.50
	52	22.2	1.1	3304BTNG	..BZZRTNG	..BZRSRTNG	23.20	15.00
25	52	20.6	1.0	3205BTNG	..BZZRTNG	..BZRSRTNG	21.20	14.60
	62	25.4	1.1	3305BTNG	..BZZRTNG	..BZRSRTNG	30.00	20.00
30	62	23.8	1.0	3206BTNG	..BZZRTNG	..BZRSRTNG	30.00	21.20
	72	30.2	1.1	3306BTNG	..BZZRTNG	..BZRSRTNG	41.50	28.50
35	72	27.0	1.1	3207BTNG	..BZZRTNG	..BZRSRTNG	39.00	28.50
	80	34.9	1.5	3307BTNG	..BZZRTNG	..BZRSRTNG	51.00	34.50
40	80	30.2	1.1	3208BTNG	..BZZRTNG	..BZRSRTNG	48.00	36.50
	90	36.5	1.5	3308BTNG	..BZZRTNG	..BZRSRTNG	62.00	45.00
45	85	30.2	1.1	3209BTNG	..BZZRTNG	..BZRSRTNG	48.00	37.50
	100	39.7	1.5	3309BTNG	..BZZRTNG	..BZRSRTNG	68.00	51.00
50	90	30.2	1.1	3210BTNG	..BZZRTNG	..BZRSRTNG	51.00	42.50
	110	44.4	2.0	3310BTNG	..BZZRTNG	..BZRSRTNG	81.00	62.00
55	100	33.3	1.5	3211BTNG	..BZZRTNG	..BZRSRTNG	58.50	49.00
	120	49.2	2.0	3311BTNG	..BZZRTNG	..BZRSRTNG	102.00	78.00
60	110	36.5	1.5	3212BTNG	..BZZRTNG	..BZRSRTNG	72.00	61.00
	130	54.0	2.1	3312BTNG	..BZZRTNG	..BZRSRTNG	125.00	98.00
65	120	38.1	1.5	3213BTNG	..BZZRTNG	..BZRSRTNG	80.00	73.50
	140	58.7	2.1	3313BTNG	..BZZRTNG	..BZRSRTNG	150.00	118.00
70	125	39.7	1.5	3214BTNG	..BZZRTNG	..BZRSRTNG	83.00	76.50
	150	63.5	2.1	3314BTNG	..BZZRTNG	..BZRSRTNG	171.50	138.20
75	130	41.3	1.5	3215BTNG	..BZZRTNG	..BZRSRTNG	91.50	85.00
	160	68.3	2.1	3315BTNG	..BZZRTNG	..BZRSRTNG	173.40	145.30
80	140	44.4	2.0	3216BTNG	..BZZRTNG	..BZRSRTNG	98.00	93.00
85	150	49.2	2.0	3217BTNG	..BZZRTNG	..BZRSRTNG	116.00	110.00
90	160	52.4	2.0	3218BTNG	..BZZRTNG	..BZRSRTNG	124.60	120.30



Open



ZR, RSR



Speed limits		Dimensions (mm)			Abutment dimensions (mm)			Weight
Grease	Oil	d_1	D_1, D_2	a min	d_a	D_a max	r_a max	kg
min^{-1}	min^{-1}				max			
16,000	22,000	17.9	23.9	15.1	15	25.0	0.6	0.043
15,000	20,000	18.3	25.7	16.6	17	27.0	0.6	0.051
10,500	11,500	21.1	30.4	19.4	19	32.0	1.0	0.090
14,000	19,000	21.0	29.3	18.0	20	30.0	0.6	0.058
11,000	16,000	25.6	34.2	21.2	21	36.0	1.0	0.112
12,000	17,000	24.0	33.1	20.5	22	35.0	0.6	0.085
10,000	15,000	26.2	37.7	24.0	23	41.0	1.0	0.161
10,000	15,000	28.9	38.7	24.2	26	41.0	1.0	0.139
9,000	13,000	31.2	42.6	26.4	27	45.0	1.0	0.197
8,500	12,000	33.9	43.7	26.5	31	46.0	1.0	0.159
7,500	10,000	37.1	50.0	30.7	32	55.0	1.0	0.316
7,000	9,500	40.0	52.7	31.4	36	56.0	1.0	0.265
6,300	8500	44.0	59.0	36.2	37	65.0	1.0	0.496
6,300	8,500	47.2	60.4	36.6	42	65.0	1.0	0.412
5,600	7,500	49.2	65.4	41.5	44	71.0	1.5	0.664
5,600	7,500	52.9	67.9	40.9	47	73.0	1.0	0.550
5,000	6700	55.4	74.3	46.1	49	81.0	1.5	0.905
5,000	6,700	57.1	72.6	43.2	52	78.0	1.0	0.583
4,500	6,000	62.2	81.6	50.0	54	91.0	1.5	1.210
4,800	6,300	61.9	78.1	45.5	57	83.0	1.0	0.632
4,000	5,300	68.2	89.6	54.9	60	100.0	2.0	1.600
4,300	5,600	68.6	85.3	49.9	64	91.0	1.5	0.876
3,800	5,000	75.2	98.4	61.2	65	110.0	2.0	2.110
3,800	5,000	75.7	94.3	55.1	69	101.0	1.5	1.180
3,400	4,500	81.2	108.7	67.3	72	118.0	2.0	2.700
3,400	4,500	84.5	103.5	59.8	74	111.0	1.5	1.520
3,200	4,300	88.2	118.0	73.3	77	128.0	2.0	3.390
3,400	4,500	86.7	106.2	61.6	79	116.0	1.5	1.640
3,000	4,000	94.7	125.0	80.8	84	135.0	2.1	4.900
3,200	4,300	92.4	112.6	65.0	89	116.6	1.5	1.910
2,800	3,800	101.4	133.0	83.8	90	143.0	2.1	5.700
3,000	4,000	98.5	120.3	69.0	91	129.0	2.0	2.450
2,800	3,800	106.4	128.5	74.6	100	135.0	2.0	3.300
2,600	3,600	113.2	136.6	78.9	109	141.0	2.1	4.170