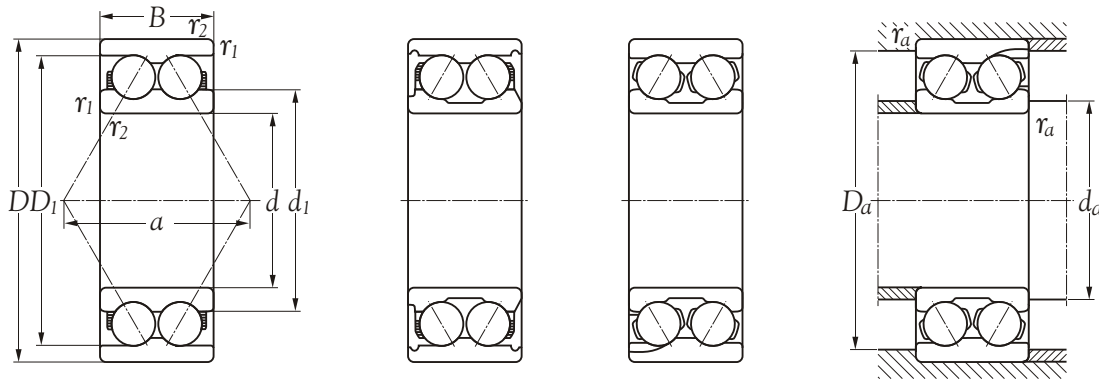


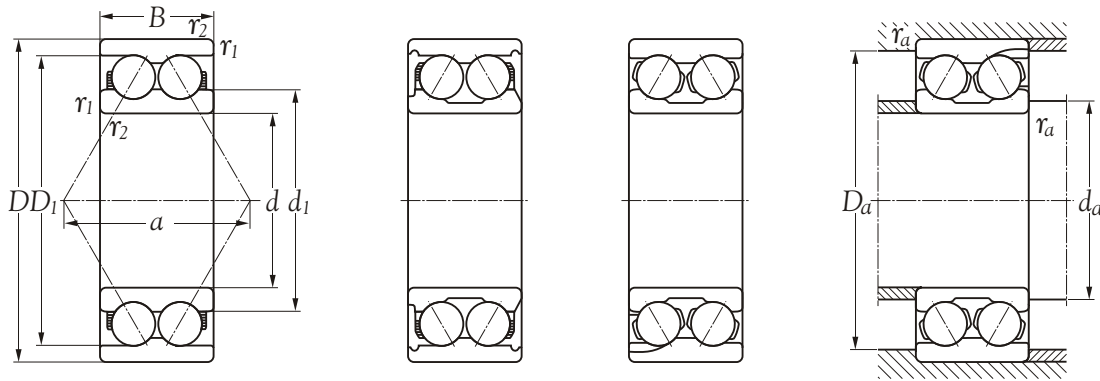


## Technical Information

## DOUBLE ROW ANGULAR CONTACT BALL BEARINGS



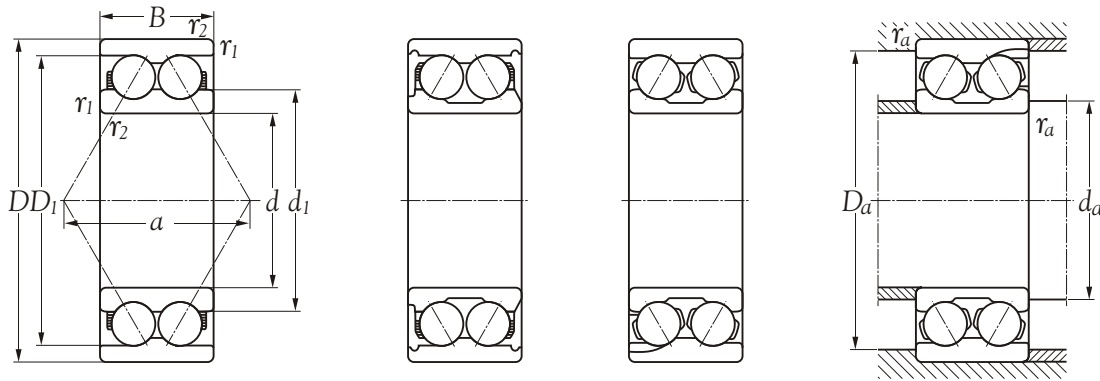
Inner bore <i>d</i> mm	Bearing number	Principal dimensions		Basic load ratings		Max runout speed		Dimensions(mm)				Abutment and fillet dimensions(mm)			Mass kg
		<i>D</i> mm	<i>B</i> mm	<i>C</i> N	<i>C<sub>o</sub></i> N	Grease r/min	oil r/min	<i>d<sub>1</sub></i> ≈	<i>D<sub>1</sub></i> ≈	<i>r<sub>1,2</sub></i> min	<i>a</i>	<i>r<sub>a</sub></i> max	<i>d<sub>a</sub></i> min	<i>D<sub>a</sub></i> max	
15	3302 A	42	19.0	12000	7300	7000	10500	25.6	34.3	1.0	26	1.0	21	36	0.13
17	3303 A	47	22.2	16900	10000	6600	9800	27.6	38.8	1.0	29	1.0	23	41	0.18
20	3304 A	52	22.2	17600	11400	5900	8400	31.8	42.6	1.1	32	1.0	27	45	0.22
25	3305 A	62	25.4	24900	16600	5200	7000	38.4	51.4	1.1	38	1.0	32	55	0.35
30	3306 A	72	30.2	32800	22800	4400	5900	39.8	64.1	1.1	44	1.0	37	65	0.53
30	3306 E	72	30.2	36500	34000	4400	5900	39.8	64.1	1.1	44	1.0	37	65	0.59
35	3307 A	80	34.9	39000	27200	3900	5200	44.6	70.1	1.5	49	1.5	44	71	0.73
35	3307 E	80	34.9	43100	40800	3900	5200	44.6	70.1	1.5	49	1.5	44	71	0.79
40	3308 A	90	36.5	47300	34400	3500	4600	50.8	80.1	1.5	56	1.5	49	81	0.95
40	3308 E	90	36.5	52800	51200	3500	4600	50.8	80.1	1.5	56	1.5	49	81	1.05
45	3309	100	39.7	57600	58800	3100	4200	63.8	86.3	1.5	64	1.5	54	91	1.40
50	3310	110	44.4	70400	77200	2800	3700	73.3	97.0	2.0	73	2.0	60	100	1.95
55	3311	120	49.2	76100	86400	2600	3500	81.0	110.0	2.0	80	2.0	65	110	2.55
60	3312	130	54.0	89600	101600	2300	3100	87.2	115.0	2.1	86	2.0	72	118	3.25
65	3313	140	58.7	102400	120000	2200	3000	92.5	122.0	2.1	94	2.0	77	128	4.10
70	3314	150	63.5	117600	138400	1900	2600	99.2	131.0	2.1	101	2.0	82	138	5.05
75	3315	160	68.3	125600	148800	1800	2500	106.0	139.0	2.1	107	2.0	87	148	6.15
80	3316	170	68.3	140800	169600	1600	2300	113.0	148.0	2.1	112	2.0	92	158	6.95
85	3317	180	73.0	155200	192000	1500	2200	120.0	157.0	3.0	119	2.5	99	166	8.30
90	3318	190	73.0	176000	228000	1400	2100	128.0	169.0	3.0	125	2.5	104	176	9.25
95	3319	200	77.8	190400	252000	1300	1900	135.0	178.0	3.0	133	2.5	109	186	11.00
100	3320	215	82.6	204000	284000	1200	1800	142.0	187.0	3.0	139	2.5	114	201	13.50
110	3322	240	92.1	233600	340000	1100	1600	155.0	205.0	3.0	153	2.5	124	226	19.00



Inner bore <i>d</i> mm	Bearing number	Principal dimensions		Basic load ratings		Max runout speed		Dimensions(mm)				Abutment and fillet dimensions(mm)			Mass kg
		<i>D</i> mm	<i>B</i> mm	dynamic <i>C</i> N	static <i>Co</i> N	Grease r/min	oil r/min	$\underline{\underline{d}}_1$	$\underline{\underline{D}}_1$	$r_{1,2}$ min	<i>a</i>	$r_a$ max	$d_a$ min	$D_a$ max	
15	3302 A-ZZ	42	19.0	12000	7300	7000		25.6	35.7	1.0	26	1.0	21	36	0.13
17	3303 A-ZZ	47	22.2	16900	10000	6600		27.6	40.2	1.0	29	1.0	23	41	0.18
20	3304 A-ZZ	52	22.2	17600	11400	5900		31.8	44.0	1.1	32	1.0	27	45	0.22
25	3305 A-ZZ	62	25.4	24900	16600	5200		38.4	53.4	1.1	38	1.0	32	55	0.35
30	3306 A-ZZ	72	30.2	32800	22800	4400		39.8	64.1	1.1	44	1.5	37	65	0.53
30	3306 E-ZZ	72	30.2	36500	34000	4400		39.8	64.1	1.1	44	1.5	37	65	0.59
35	3307 A-ZZ	80	34.9	39000	27200	3900		44.6	70.1	1.5	49	1.5	44	71	0.73
35	3307 E-ZZ	80	34.9	43100	40800	3900		44.6	70.1	1.5	49	1.5	44	71	0.79
40	3308 A-ZZ	90	36.5	47300	34400	3500		50.8	80.1	1.5	56	1.5	49	81	0.95
40	3308 E-ZZ	90	36.5	52800	51200	3500		50.8	80.1	1.5	56	1.5	49	81	1.05



DOUBLE ROW ANGULAR CONTACT BALL BEARINGS



Inner bore <i>d</i> mm	Bearing number	Principal dimensions		Basic load ratings		Max runout speed		Dimensions(mm)				Abutment and fillet dimensions(mm)			Mass kg
		<i>D</i> mm	<i>B</i> mm	dynamic <i>C</i>	static <i>Co</i> N	Grease r/min	oil r/min	$\underline{\underline{d_1}}$	$\underline{\underline{D_1}}$	$r_{1,2}$ min	<i>a</i>	$r_a$ max	$d_a$ min	$D_a$ max	
15	3302 A-2RS	42	19.0	12000	7300	7000		23.7	35.7	1.0	26	1.0	23.5	36	0.13
17	3303 A-2RS	47	22.2	16900	10000	6600		25.7	40.2	1.0	29	1.0	25.5	41	0.18
20	3304 A-2RS	52	22.2	17600	11400	5900		29.9	44.0	1.1	32	1.0	29.5	45	0.22
25	3305 A-2RS	62	25.4	24900	16600	5200		35.7	53.4	1.1	38	1.0	35.5	55	0.35
30	3306 A-2RS	72	30.2	32800	22800	4400		39.8	64.1	1.1	37	1.0	39.5	65	0.53
30	3306 E-2RS	72	30.2	36500	34000	4400		39.8	64.1	1.1	37	1.0	39.5	65	0.59
35	3307 A-2RS	80	34.9	39000	27200	3900		44.6	70.1	1.5	44	1.5	44.5	71	0.73
35	3307 E-2RS	80	34.9	43100	40800	3900		44.6	70.1	1.5	44	1.5	44.5	71	0.79
40	3308 A-2RS	90	36.5	47300	34400	3500		50.8	80.1	1.5	49	1.5	50.5	81	0.95
40	3308 E-2RS	90	36.5	52800	51200	3500		50.8	80.1	1.5	49	1.5	50.5	81	1.05

