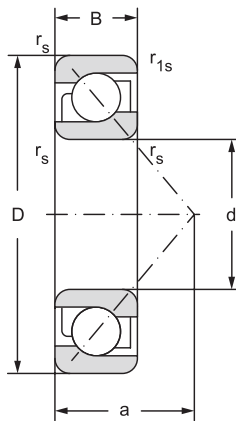


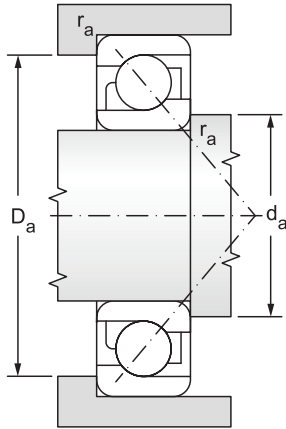
# Single row angular contact ball bearings d = 10 to 240 mm

d = 10 to 45 mm



12.2.1

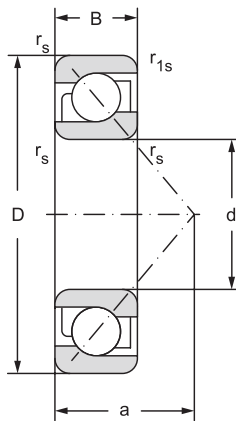
Main dimensions						Basic load rating		Fatigue load limit
d	D	B	r <sub>s</sub>	r <sub>1s</sub>	a	dynamic	static	P <sub>u</sub>
			min	min		C <sub>r</sub>	C <sub>or</sub>	
mm						kN		kN
10	30	9	0,6	0,3	13,0	7,420	3,290	0,150
	30	9	0,6	0,3	13,0	7,020	3,350	0,140
12	32	10	0,6	0,3	14,0	8,030	3,780	0,172
	32	10	0,6	0,3	14,4	7,610	3,800	0,160
	37	12	1,0	0,6	16,3	10,600	5,000	0,208
15	35	11	0,6	0,3	12,0	9,580	4,880	0,222
	35	11	0,6	0,3	16,0	8,590	4,370	0,199
	42	13	1,0	0,6	18,0	13,900	6,580	0,299
	35	11	0,6	0,3	16,0	8,840	4,800	0,204
17	42	13	1,0	0,6	18,6	13,000	6,700	0,280
	47	14	1,0	0,6	15,0	16,600	7,890	0,359
	47	14	1,0	0,6	20,0	15,200	7,200	0,327
	47	14	1,0	0,6	20,0	16,300	8,000	0,364
20	47	14	1,0	0,6	15,0	16,400	8,540	0,388
	47	14	1,0	0,6	21,0	14,700	7,650	0,348
	47	14	1,0	0,6	21,0	16,700	8,650	0,393
	52	15	1,1	0,6	22,8	19,000	10,000	0,425
25	52	15	1,0	0,6	23,7	15,600	10,000	0,430
	62	17	1,1	0,6	27,0	26,800	14,600	0,664
	62	17	1,1	0,6	27,0	26,800	14,600	0,664
30	62	16	1,0	0,6	27,3	24,000	15,600	0,655
	72	19	1,1	0,6	31,0	35,500	21,200	0,900
35	72	17	1,1	0,6	31,0	31,000	20,800	0,880
	80	21	1,5	1,0	35,0	40,400	24,100	1,100
40	80	18	1,1	0,6	34,0	36,500	26,000	1,100
	90	23	1,5	1,0	39,0	50,000	32,500	1,370
45	85	19	1,1	0,6	37,0	38,000	28,500	1,220
	100	25	1,5	1,0	43,0	64,300	40,400	1,840
50	90	20	1,1	0,6	39,0	40,000	31,000	1,320
	110	27	2,0	1,0	47,0	75,000	51,000	2,160



Limiting speed for lubrication with		Bearing designation	Abutment and Fillet Dimensions				Weight
Grease	Oil		d	d <sub>a</sub>	D <sub>a</sub>	r <sub>a</sub>	
		min <sup>-1</sup>		mm			
			min	max	max	~	
21000	28000	7200BETNG	10	14,5	25,5	0,6	0,0
19000	28000	7200B		14,5	25,8	0,6	0,0
19000	26000	7201BETNG	12	16,5	27,5	0,6	0,0
18000	26000	7201B		16,2	27,8	0,6	0,0
17000	24000	7301B		17,6	31,4	1,0	0,1
17000	20000	7202AA	15	19,0	31,0	0,6	0,1
17000	20000	7202B		19,0	31,0	0,6	0,1
14000	17000	7302BETNG		21,0	36,0	1,0	0,1
15000	20000	7302B		20,6	36,4	1,0	0,1
15000	20000	7203B	17	21,2	35,8	0,6	0,1
12600	15000	7303AA		23,0	41,0	1,0	0,1
12600	15000	7303B		23,0	41,0	1,0	0,1
12600	15000	7303BTNG		23,0	41,0	1,0	0,1
12600	15000	7204AA	20	25,0	42,0	1,0	0,1
12600	15000	7204B		25,0	42,0	1,0	0,1
12600	15000	7204BTNG		25,0	42,0	1,0	0,1
11000	16000	7304B		27,0	45,0	1,0	0,1
10000	15000	7205B	25	30,6	46,4	1,0	0,1
9400	11000	7305B		31,0	55,0	1,0	0,2
10000	12500	7305BTNG		31,0	55,0	1,0	0,2
8500	12000	7206B	30	35,6	56,4	1,0	0,2
8000	11000	7306B		37,0	65,0	1,0	0,3
8000	11000	7207B	35	42,0	65,0	1,0	0,3
7100	8400	7307B		42,0	71,0	1,5	0,5
7000	9500	7208B	40	47,0	73,0	1,0	0,4
6700	9000	7308B		49,0	81,0	1,5	0,6
6700	9000	7209B	45	52,0	78,0	1,0	0,4
5600	6700	7309B		52,0	91,0	1,5	0,9
6000	8000	7210B	50	57,0	83,0	1,0	0,5
5300	7000	7310B		61,0	99,0	2,0	1,0

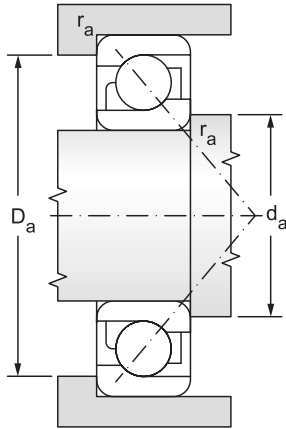
Single row angular contact ball bearings

d = 50 to 110 mm



12.2.1

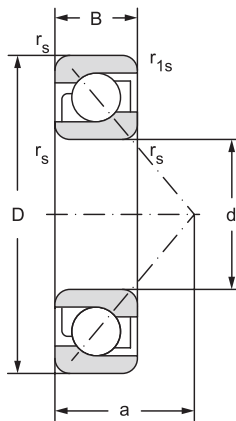
Main dimensions						Basic load rating		Fatigue load limit
d	D	B	r <sub>s</sub>	r <sub>1s</sub>	a	dynamic	static	P <sub>u</sub>
			min	min		C <sub>r</sub>	C <sub>or</sub>	
mm						kN		kN
55	100	21	1,5	1,0	29,5	58,100	40,500	1,840
	100	21	1,5	1,0	43,0	49,000	40,000	1,660
	120	29	2,0	1,0	51,0	87,000	56,400	2,560
60	110	22	1,5	1,0	32,0	70,100	50,600	2,300
	110	22	1,5	1,0	47,0	61,000	50,000	2,120
	130	31	2,1	1,0	55,0	104,000	76,500	3,200
65	120	23	1,5	1,0	50,0	66,300	54,000	2,280
	140	33	2,1	1,0	60,0	116,000	86,500	3,650
70	125	24	1,5	1,0	53,0	75,000	64,000	2,700
	150	35	2,1	1,0	64,0	127,000	98,000	3,900
75	130	25	1,5	1,0	56,0	72,800	64,000	2,650
	160	37	2,1	1,0	68,0	132,000	104,000	4,150
80	140	26	2,0	1,0	59,0	85,000	75,000	3,050
	170	39	2,1	1,0	72,0	143,000	118,000	4,500
85	150	28	2,0	1,0	63,0	102,000	90,000	3,550
	180	41	3,0	1,0	76,0	156,000	132,000	4,900
90	160	30	2,0	1,0	67,0	116,000	104,000	4,000
	190	43	3,0	1,0	80,0	166,000	146,000	5,300
95	170	32	2,1	1,0	72,0	129,000	118,000	4,400
	200	45	3,0	1,0	84,0	180,000	163,000	5,700
100	180	34	2,1	1,0	76,0	143,000	134,000	4,750
	215	47	3,0	1,0	90,0	216,000	208,000	6,950
105	190	36	2,1	1,0	80,0	156,000	150,000	5,200
	225	49	3,0	1,0	94,0	228,000	228,000	7,500
110	200	38	2,1	1,0	84,0	170,000	166,000	4,700
	240	50	3,0	1,0	99,0	240,000	245,000	7,800
120	215	40	2,1	1,0	90,0	165,000	163,000	5,300
	260	55	3,0	1,0	107,0	238,000	250,000	7,650



Limiting speed for lubrication with		Bearing designation	Abutment and Fillet Dimensions				Weight
Grease	Oil		d	d <sub>a</sub>	D <sub>a</sub>	r <sub>a</sub>	
		min <sup>-1</sup>		min	max	max	~
			mm				kg
5300	6300	7211AA	55	62,0	91,0	1,5	0,6
5600	7500	7211B		64,0	91,0	1,5	0,6
4700	5600	7311B		65,0	110,0	2,0	1,5
5000	6000	7212AA	60	67,0	101,0	1,5	0,8
5000	6700	7212B		69,0	101,0	1,5	0,8
4500	6000	7312B		72,0	118,0	2,0	1,7
4500	6000	7213B	65	74,0	111,0	1,5	1,0
4300	5600	7313B		77,0	128,0	2,0	2,1
4300	5600	7214B	70	79,0	116,0	1,5	1,1
3800	5000	7314B		82,0	138,0	2,0	2,6
4300	5600	7215B	75	84,0	121,0	1,5	1,2
3600	4800	7315B		87,0	148,0	2,0	3,1
3800	5000	7216B	80	91,0	129,0	2,0	1,4
3400	4500	7316B		92,0	158,0	2,0	3,6
3600	4800	7217B	85	96,0	139,0	2,0	1,8
3200	4300	7317B		99,0	166,0	2,5	4,3
3400	4500	7218B	90	101,0	149,0	2,0	2,1
3000	4000	7318B		104,0	176,0	2,5	5,0
3200	4300	7219B	95	107,0	158,0	2,0	2,7
2800	3800	7319B		109,0	186,0	2,5	5,8
3000	4000	7220B	100	112,0	168,0	2,0	3,3
2600	3600	7320B		114,0	201,0	2,5	7,2
2800	3800	7221B	105	117,0	178,0	2,0	3,8
2400	3400	7321B		119,0	211,0	2,5	8,5
2600	3600	7222B	110	122,0	188,0	2,0	4,6
2200	3200	7322B		124,0	226,0	2,5	9,7
2200	3200	7224B	120	132,0	203,0	2,0	5,9
1900	2800	7324BM		134,0	246,0	2,5	13,8

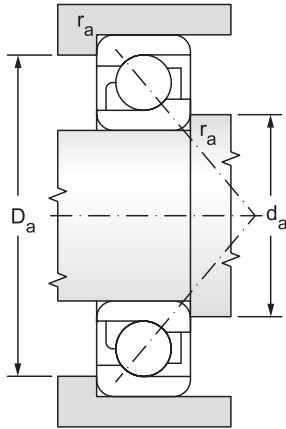
Single row angular contact ball bearings

d = 120 to 240 mm



12.2.1

Main dimensions						Basic load rating		Fatigue load limit
d	D	B	r <sub>s</sub>	r <sub>1s</sub>	a	dynamic	static	P <sub>u</sub>
			min	min		C <sub>r</sub>	C <sub>or</sub>	
mm						kN		kN
130	230	40	3,0	1,0	96,0	186,000	193,000	6,100
	280	58	4,0	1,5	115,0	276,000	305,000	9,000
140	250	42	3,0	1,0	103,0	199,000	212,000	6,400
	300	62	4,0	1,5	123,0	302,000	345,000	9,800
150	270	45	3,0	1,0	111,0	216,000	240,000	6,950
	320	65	4,0	1,5	131,0	332,000	390,000	10,800
160	290	48	3,0	1,0	118,0	255,000	300,000	8,500
	360	72	4,0	1,5	147,0	390,000	490,000	12,700
170	310	52	4,0	1,5	127,0	281,000	345,000	9,500
	360	72	4,0	1,5	147,0	390,000	490,000	12,700
180	320	52	4,0	1,5	131,0	291,000	375,000	10,000
	380	75	4,0	2,0	156,0	410,000	540,000	13,700
190	340	55	4,0	1,5	139,0	307,000	405,000	10,400
	400	78	5,0	2,0	164,0	442,000	600,000	14,600
200	360	58	4,0	1,5	146,0	325,000	430,000	11,000
	420	80	5,0	2,0	170,0	462,000	655,000	15,600
220	400	65	4,0	1,5	164,0	390,000	560,000	13,400
	440	72	4,0	1,5	180,0	364,000	540,000	12,500



Limiting speed for lubrication with		Bearing designation	Abutment and Fillet Dimensions				Weight
Grease	Oil		d	d <sub>a</sub>	D <sub>a</sub>	r <sub>a</sub>	
min <sup>-1</sup>			mm				kg
1900	2800	7226BM	130	144,0	216,0	2,5	6,8
1800	2600	7326BM		147,0	263,0	3,0	17,1
1800	2600	7228BM	140	154,0	236,0	2,5	8,6
1700	2400	7328BM		157,0	283,0	3,0	21,3
1700	2400	7230BM	150	164,0	256,0	2,5	10,8
1600	2200	7330BM		167,0	303,0	3,0	25,0
1600	2200	7232BM	160	174,0	276,0	2,5	13,6
1600	2200	7234BM	170	187,0	293,0	3,0	16,7
1400	1900	7334BM		187,0	343,0	3,0	34,6
1500	2000	7236BM	180	197,0	303,0	3,0	17,6
1300	1800	7336BM		197,0	363,0	3,0	40,0
1400	1900	7238BM	190	207,0	323,0	3,0	21,9
1200	1700	7338BM		210,0	380,0	4,0	48,3
1200	1700	7240BM	200	217,0	343,0	3,0	25,0
1100	1600	7340BM		220,0	400,0	4,0	52,8
1100	1600	7244BM	220	237,0	383,0	3,0	35,2
1000	1500	7248BM	240	257,0	423,0	3,0	49,0