



ANGULAR CONTACT BEARINGS

Dimensions in accordance with ISO 15-2008

Single row angular contact ball bearings are designed especially to carry combination radial and single direction thrust loads. To carry thrust loads from opposing directions, these bearings are frequently mounted in duplex pairs with the contact angles opposed. Angular contact bearings can be mounted in a variety of ways, for example “face to face” and “tandem”, as illustrated below.

Bearings are also available with universally flush ground side surfaces of the inner and outer rings for duplex mountings. Flush ground bearings are available in different preloads to give axial rigidity. Angular contact bearings are offered in extra light, light, and medium series. Each series is available in 15, 25, and 40 contact angles to fulfill a wide variety of applications. A higher contact angle increases thrust capacity and axial rigidity, but reduces radial capacity and radial rigidity. Pressed steel, machined bronze, and phenolic cages are available to meet a variety of speed and duty requirements.

SINGLE ROW ANGULAR CONTACT BALL BEARINGS

Series 72 B, 73 B
Contact angle

$\alpha = 40^\circ$



Series 70 A, 72 A
Contact angle

$\alpha = 25^\circ$

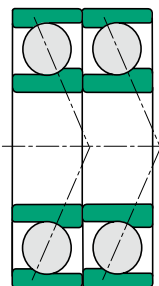


Series 70 C, 72 C
Contact angle

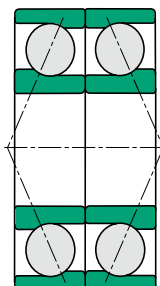
$\alpha = 15^\circ$



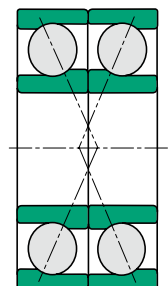
DT arrangement
(tandem)



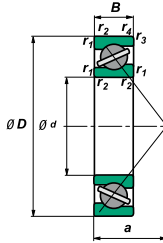
DB arrangement
(back to back)



DF arrangement
(face to face)



Single Row Angular Contact Ball Bearings

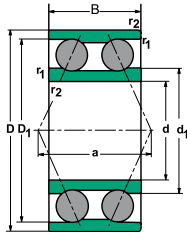


Bearing		Type			Load ratings		Speed limits		Weight	Dimensions		
Type	Version	d mm	D	B	C kN	Co kN	Grease r/min	Oil r/min	kg	r1,2 min	r3,4 min	a
7200	B	10	30	9	4,95	2,5	19000	28000	0,031	0,6	0,3	13
7201	B	12	32	10	7,4	3,75	17000	24000	0,045	0,6	0,3	14
7202	B	15	35	11	7,45	3,9	16000	22000	0,048	0,6	0,3	16
7302	B	15	42	13	12,90	6,5	14000	19000	0,090	1,0	0,6	19
7203	B	17	40	12	9,9	5,5	14000	19000	0,065	0,6	0,3	18
7203	B TN	17	40	12	9,9	5,5	14000	19000	0,065	0,6	0,3	18
7303	B	17	47	14	14,8	8,1	12000	17000	0,120	1,0	0,6	21
7204	B	20	47	14	14,1	8,4	11000	16000	0,110	1,0	0,6	21
7304	B	20	52	15	17,3	9,7	10000	15000	0,150	1,1	0,6	23
7205	B	25	52	15	15,5	10,1	9500	14000	0,130	1,0	0,6	24
7305	B	25	62	17	24,4	14,6	8500	12000	0,250	1,1	0,6	27
7206	B	30	62	16	20,5	13,6	8500	12000	0,210	1,0	0,6	27
7306	B	30	72	19	29,3	19,0	7500	10000	0,370	1,1	0,6	31
7207	B	35	72	17	28,5	19,8	7500	10000	0,300	1,1	0,6	31
7307	B	35	80	21	36,7	24,3	7000	9500	0,510	1,5	1,0	35
7208	B	40	80	18	32,1	23,0	6700	9000	0,390	1,1	0,6	34
7308	B	40	90	23	44,8	30,3	6300	8500	0,670	1,5	1,0	39
7209	B	45	85	19	36,1	26,2	6300	8500	0,440	1,1	0,6	37
7309	B	45	100	25	58,3	40,1	5600	7500	0,900	1,5	1,0	43
7210	B	50	90	20	37,4	28,6	5600	7500	0,490	1,1	0,6	39
7310	B	50	110	27	68,2	47,9	5000	6700	1,150	2,0	1,0	47
7211	B	55	100	21	46,2	36,2	5300	7000	0,650	1,5	1,0	43
7311	B	55	120	29	78,8	56,4	4500	6000	1,450	2,0	1,0	52
7212	B	60	110	22	56,3	44,7	4800	6300	0,840	1,5	1,0	47
7312	B	60	130	31	90,0	65,5	4300	5600	1,850	2,1	1,1	56



Bearing		Type			Load ratings		Speed limits		Weight	Dimensions		
Type	Version	d mm	D	B	C kN	Co kN	Grease r/min	Oil r/min	kg	r1,2 min	r3,4 min	a
7213	B	65	120	23	63,6	52,5	4300	5600	1,050	1,5	1,0	50
7313	B	65	140	33	101,0	75,3	4000	5300	2,250	2,1	1,1	60
7214	B	70	125	24	69,1	57,8	4300	5600	1,150	1,5	1,0	53
7314	B	70	150	35	114,0	86,0	3800	5000	2,750	2,1	1,1	64
7215	B	75	130	25	74,8	63,2	4000	5300	1,300	1,5	1,0	56
7315	B	75	160	37	125,0	97,5	3400	4500	3,300	2,1	1,1	68
7216	B	80	140	26	80,5	69,3	3800	5000	1,550	2,0	1,0	59
7316	B	80	170	39	135,0	109,0	3200	4300	3,900	2,1	1,1	72
7217	B	85	150	28	93,1	81,1	3400	4500	1,950	2,0	1,0	64
7317	B	85	180	41	145,0	122,0	3000	4000	4,600	3,0	1,1	76
7218	B	90	160	30	107,0	93,8	3200	4300	2,400	2,0	1,0	67
7318	B	90	190	43	156,0	135,0	2800	3800	5,400	3,0	1,1	80
7219	B	95	170	32	116,0	101,0	3000	4000	2,900	2,1	1,1	71
7319	B	95	200	45	168,0	150,0	2600	3600	6,250	3,0	1,1	84
7220	B	100	180	34	129,0	116,0	2800	3800	3,450	2,1	1,1	76
7320	B	100	215	47	190,0	178,0	2400	3400	7,750	3,0	1,1	90
7222	B	110	200	38	153,0	145,0	2400	3400	4,800	2,1	1,1	84
7322	B	110	240	50	248,0	229,0	2000	3000	10,500	3,0	1,1	99
7328	B	140	300	62	290,0	334,0	1700	2400	21,600	4,0	1,5	123

Double Rows Angular Contact Ball Bearings



Bearing		ISO dimensions			Load ratings		Speed limits		Weight	Dimensions	
Type	Version	d mm	D	B	C kN	Co kN	Grease r/min	Oil r/min	kg	r1,2 mm	a
3200		10	30	14,3	7,8	3,9	16000	22000	0,05	0,6	19
3201		12	32	15,9	10,6	5,1	15000	20000	0,06	0,6	22
3202		15	35	15,9	11,8	6,1	13000	18000	0,07	0,6	23
3302		15	42	19	16,3	8,7	10000	15000	0,13	1	27
3203		17	40	17,5	14,6	7,8	10000	15000	0,1	0,6	27
3303		17	47	22,2	20,8	10,6	9500	14000	0,19	1	31
3204		20	47	20,6	19,6	10,8	9000	13000	0,170	1,0	31
3304		20	52	22,2	23,2	12,9	8500	12000	0,230	1,1	34
3205		25	52	20,6	21,2	12,7	8000	11000	0,190	1,0	35
3305		25	62	25,4	29,2	17,3	7500	10000	0,370	1,1	40
3206		30	62	23,8	28,1	18,3	7000	9500	0,310	1,0	41
3306		30	72	30,2	38,0	24,5	6300	8500	0,580	1,1	47
3207		35	72	27,0	39,0	25,0	6000	8000	0,480	1,1	47
3307		35	80	34,9	51,0	30,0	5600	7500	0,780	1,5	54
3208		40	80	30,2	48,0	31,5	5600	7500	0,650	1,1	52
3308		40	90	36,5	62,0	39,0	5000	6700	1,050	1,5	58
3209		45	85	30,2	49,0	32,5	5000	6700	0,700	1,1	56
3309		45	100	39,7	71,0	57,0	4500	6000	1,410	1,5	64
3210		50	90	30,2	51,0	36,0	4800	6300	0,740	1,1	59
3310		50	110	44,4	85,0	75,0	4000	5300	1,900	2,0	73
3211		55	100	33,3	54,0	55,0	4300	5600	1,050	1,5	64
3311		55	120	49,2	98,0	88,0	3600	4800	2,480	2,0	80
3212		60	110	36,5	69,5	72,0	3800	5000	1,360	1,5	71



Bearing		ISO dimensions			Load ratings		Speed limits		Weight	Dimensions	
Type	Version	d mm	D	B	C kN	Co kN	Grease r/min	Oil r/min	kg	r1,2 min	a
3312		60	130	54,0	114,0	112,0	3400	4500	3,170	2,1	86
3213		65	120	38,1	73,5	83,0	3600	4800	1,760	1,5	76
3313		65	140	58,7	129,0	130,0	3200	4300	4,010	2,1	94
3214		70	125	39,7	81,5	91,5	3200	4300	1,930	1,5	81
3314		70	150	63,5	143,0	146,0	2800	3800	5,040	2,1	101
3215		75	130	41,3	85,0	98,0	3200	4300	2,080	1,5	84
3315		75	160	68,3	163,0	166,0	2600	3600	6,160	2,1	107
3216		80	140	44,4	95,0	110,0	2800	3800	2,640	2,0	91
3316		80	170	68,3	176,0	186,0	2400	3400	6,930	2,1	112
3217		85	150	49,2	112,0	132,0	2600	3600	3,390	2,0	97
3317		85	180	73,0	190,0	200,0	2200	3200	8,300	3,0	119
3218		90	160	52,4	125,0	146,0	2400	3400	4,140	2,0	104
3318		90	190	73,0	216,0	240,0	2000	3000	9,230	3,0	125
3219		95	170	55,6	140,0	163,0	2200	3200	5,000	2,1	111
3319		95	200	77,8	220,0	245,0	1900	2800	11,400	3,0	133
3220		100	180	60,3	160,0	196,0	2000	3000	6,100	2,1	118
3320		100	215	82,6	240,0	280,0	1800	2600	14,200	3,0	139
3222		110	200	69,8	190,0	228,0	1900	2800	8,790	2,1	132
3322		110	240	92,1	280,0	400,0	1800	2600	19,000	3,0	153