



# Angular Contact ball Bearings



Single row angular contact bearings are manufactured in various constructive versions with various contact angles depending upon the application. Bearings series 72B and 73B for general applications have a contact angle 40 degree. Single row angular contact bearings can take only one direction axial loads. When being radially loaded in bearing occurs an axially acting load which has to be compensated. For this reasons a bearing or paired bearings are mounted on each shaft ends.

## Product Highlights

High running accuracy and speed capabilities

Universal matching

Large product assortment

Machined brass cage for heavy duty applications

As ANSI pump requirements

# Angular Contact Ball Bearings

## Universal Design

Bearings of universal design are manufactured to more accurate tolerance classes and can be matched if the mounting conditions UA, UO and UL are observed.

## Suffixes

### 1. Design

- B - 40° Contact angle
- BE - 40° Contact angle, high capacity all ISO corners
- A - Conrad assembly(3000 series)
- E - Max type (3000 series)
- D - Split inner ring (3300 series)
- NR - Snap ring (3000 series)
- N2 - Locating slot (QJ series)
- ZZ - Shield on both sides (3000 series)
- 2RS1- Seals of synthetic rubber (NBR) on

both sides (3000 series)

### 2. Clearance

- (CO)\*- Normal clearance (3000 series)
- C2 - Axial clearance tighter than normal (3000 and QJ series)
- C3 - Axial clearance looser than normal (3000 and QJ series)

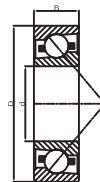
### 3. 7000 Series clearance

- CA - Modified for duplex mounting with axial clearance < normal
- CB - Modified for duplex mounting with normal axial clearance
- CC - Modified for duplex mounting with axial clearance> normal

### 4. Cage designs

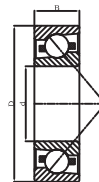
- Y - Press brass cage, ball guided
- M - Machined brass cage, rolling element guided
- MA - Machined window-type brass cage, outer ring centered
- P - Injection molded cage of fiberglass reinforced polyamide 6.6,rolling element guided
- PHAS- Injection molded window-type cage of fiberglass reinforced polyetheretherketone (PEEK),with lubrication grooves in the guiding surfaces, outer ring center
- J - Pressed steel cage, rolling element guided
- F - Machined steel cage, rolling element guided
- GB - Modified for duplex with medium preload
- GC - Modified for duplex mounting with heavy load
- G.. - Special preload, value in daN

# Angular Contact Ball Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
<b>7200 B</b>	10	30	9	7.0	3.4	0.1	19000	28000	0.030
<b>7201 B</b>	12	32	10	7.6	3.8	0.2	18000	26000	0.036
<b>7202 B</b>	15	35	11	8.8	4.8	0.2	17000	24000	0.045
<b>7203 B</b>	17	40	12	11.1	6.1	0.3	15000	20000	0.065
<b>7204 B</b>	20	47	14	14.0	8.3	0.4	12000	17000	0.110
<b>7205 B</b>	25	52	15	15.6	10.2	0.4	10000	15000	0.130
<b>7206 B</b>	30	62	16	23.8	15.6	0.7	8500	12000	0.200
<b>7207 B</b>	35	72	17	30.7	20.8	0.9	8000	11000	0.280
<b>7208 B</b>	40	80	18	34.6	26.0	1.1	7000	9500	0.370
<b>7209 B</b>	45	85	19	37.7	28.0	1.2	6700	9000	0.420
<b>7210 B</b>	50	90	20	39.0	30.5	1.3	6000	8000	0.470
<b>7211 B</b>	55	100	21	48.8	38.0	1.6	5600	7500	0.620
<b>7212 B</b>	60	110	22	57.2	45.5	1.9	5000	6700	0.800
<b>7213 B</b>	65	120	23	66.3	54.0	2.3	4500	6000	1.000
<b>7214 B</b>	70	125	24	71.5	60.0	2.5	4300	5600	1.100
<b>7215 B</b>	75	130	25	72.8	64.0	2.7	4300	5600	1.200
<b>7216 B</b>	80	140	26	83.2	73.5	3.0	3800	5000	1.450
<b>7217 B</b>	85	150	28	95.6	83.0	3.3	3600	4800	1.850
<b>7218 B</b>	90	160	30	108.0	96.5	3.7	3400	4500	2.300
<b>7219 B</b>	95	170	32	124.0	108.0	4.0	3200	4300	2.700
<b>7220 B</b>	100	180	34	135.0	122.0	4.4	3000	4000	3.300
<b>7221 B</b>	105	190	36	148.0	137.0	4.8	2800	3800	3.950
<b>7222 B</b>	110	200	38	163.0	153.0	5.2	2600	3600	4.600

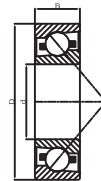
# Angular Contact Ball Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
<b>7224 B</b>	120	215	40	165.0	163.0	5.3	2200	3200	6.100
<b>7226 B</b>	130	230	40	186.0	193.0	6.1	1900	2800	6.950
<b>7228 B</b>	140	250	42	182.0	196.0	5.9	1800	2600	8.850
<b>7230 B</b>	150	270	45	195.0	224.0	6.6	1700	2400	11.500
<b>7232 B</b>	160	290	48	199.0	236.0	6.7	1600	2200	14.000
<b>7234 B</b>	170	310	52	221.0	270.0	7.4	1600	2200	17.500
<b>7236 B</b>	180	320	52	251.0	320.0	8.5	1500	2000	18.000
<b>7238 B</b>	190	340	55	276.0	355.0	9.2	1400	1900	22.000
<b>7244 B</b>	220	400	65	319.0	465.0	11.2	1100	1600	37.000
<b>7248 B</b>	240	440	72	364.0	540.0	12.5	1000	1500	49.000

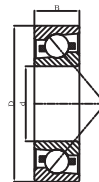
<b>7301 B</b>	12	37	12	10.6	5.0	0.2	17000	24000	0.060
<b>7302 B</b>	15	42	13	13.0	6.7	0.3	15000	20000	0.080
<b>7303 B</b>	17	47	14	15.9	8.3	0.4	13000	18000	0.110
<b>7304 B</b>	20	52	15	19.0	10.4	0.4	11000	16000	0.140
<b>7305 B</b>	25	62	17	26.0	15.6	0.7	9000	13000	0.230
<b>7306 B</b>	30	72	19	34.5	21.2	0.9	8000	11000	0.340
<b>7307 B</b>	35	80	21	39.0	24.5	1.0	7500	10000	0.450
<b>7308 B</b>	40	90	23	49.4	33.5	1.4	6700	9000	0.630
<b>7309 B</b>	45	100	25	60.5	41.5	1.7	6000	8000	0.850
<b>7310 B</b>	50	110	27	74.1	51.0	2.2	5300	7000	1.100
<b>7311 B</b>	55	120	29	85.2	60.0	2.6	4800	6300	1.400
<b>7312 B</b>	60	130	31	95.6	69.5	3.0	4500	6000	1.750

# Angular Contact Ball Bearings



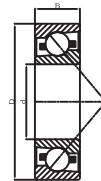
Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
<b>7313 B</b>	65	140	33	108.0	80.0	3.4	4300	5600	2.150
<b>7314 B</b>	70	150	35	119.0	90.0	3.7	3800	5000	2.650
<b>7315 B</b>	75	160	37	133.0	106.0	4.2	3600	4800	3.200
<b>7316 B</b>	80	170	39	143.0	118.0	4.5	3400	4500	3.800
<b>7317 B</b>	85	180	41	153.0	132.0	4.9	3200	4300	4.450
<b>7318 B</b>	90	190	43	165.0	146.0	5.2	3000	4000	5.200
<b>7319 B</b>	95	200	45	178.0	163.0	5.6	2800	3800	6.050
<b>7320 B</b>	100	215	47	203.0	190.0	6.4	2600	3600	7.500
<b>7321 B</b>	105	225	49	212.0	208.0	7.0	2400	3400	8.550
<b>7322 B</b>	110	240	50	225.0	224.0	7.2	2200	3200	10.000
<b>7324 B</b>	120	260	55	238.0	250.0	7.7	1900	2800	14.500
<b>7326 B</b>	130	280	58	251.0	270.0	8.0	1800	2600	17.500
<b>7328 B</b>	140	300	62	276.0	310.0	8.8	1700	2400	21.500
<b>7330 B</b>	150	320	65	302.0	365.0	10.2	1600	2200	26.000
<b>7334 B</b>	170	360	72	358.0	455.0	12.0	1400	1900	36.000
<b>7336 B</b>	180	380	75	371.0	490.0	12.5	1300	1800	42.000
<b>7338 B</b>	190	400	78	410.0	560.0	13.7	1200	1700	48.500

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Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
mm				C (kN)	CO (kN)	Pu (kN)	rpm		kg
<b>3200</b>	10	30	14.0	7.6	4.3	0.2	22000	24000	0.051
<b>3201</b>	12	32	15.9	10.1	5.6	0.2	20000	22000	0.058
<b>3202</b>	15	35	15.9	11.2	6.8	0.3	17000	18000	0.066
<b>3203</b>	17	40	17.5	14.3	8.8	0.4	15000	16000	0.096
<b>3204</b>	20	47	20.6	20.0	12.0	0.5	14000	14000	0.160
<b>3205</b>	25	52	20.6	21.6	14.3	0.6	12000	12000	0.180
<b>3206</b>	30	62	23.8	30.0	20.4	0.9	10000	10000	0.290
<b>3207</b>	35	72	27.0	40.0	28.0	1.2	9000	9000	0.440
<b>3208</b>	40	80	30.2	47.5	34.0	1.4	8000	8000	0.580
<b>3209</b>	45	85	30.2	51.0	39.0	1.6	7500	7500	0.630
<b>3210</b>	50	90	30.2	51.0	39.0	1.7	7000	7000	0.660
<b>3211</b>	55	100	33.4	60.0	47.5	2.0	6300	6000	1.050
<b>3212</b>	60	110	36.5	73.5	58.5	2.5	5600	5600	1.400
<b>3213</b>	65	120	38.1	80.6	73.5	3.1	4500	4800	1.750
<b>3214</b>	70	125	39.7	88.4	80.0	3.4	4300	4500	1.900
<b>3215</b>	75	130	41.3	95.6	88.0	3.8	4300	4500	2.100
<b>3216</b>	80	140	44.4	106.0	95.0	3.9	4000	4300	2.650
<b>3217</b>	85	150	49.2	124.0	110.0	4.4	3600	3800	3.400
<b>3218</b>	90	160	52.4	130.0	120.0	4.6	3400	3600	4.150
<b>3219</b>	95	170	55.6	159.0	146.0	5.4	3200	3400	5.000
<b>3220</b>	100	180	60.3	178.0	166.0	6.0	3000	3200	6.100
<b>3222</b>	110	200	69.8	212.0	212.0	7.3	2800	2800	8.800

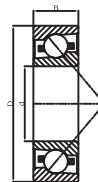
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Bearing Designation	Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static		Grease	Oil	
	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
<b>3302</b>	15	42	19.0	15.1	9.3	0.4	15000	16000	0.130
<b>3303</b>	17	47	22.0	21.6	12.7	0.5	14000	14000	0.180
<b>3304</b>	20	52	22.2	23.6	14.6	0.6	13000	13000	0.220
<b>3305</b>	25	62	25.4	32.0	20.4	0.9	11000	11000	0.350
<b>3306</b>	30	72	30.2	41.5	27.5	1.2	9000	9000	0.530
<b>3307</b>	35	80	34.9	52.0	35.5	1.5	8500	8500	0.710
<b>3308</b>	40	90	36.5	64.0	44.0	1.9	7500	7500	1.050
<b>3309</b>	45	100	39.7	75.0	53.0	2.2	6700	6700	1.400
<b>3310</b>	50	110	44.4	90.0	64.0	2.8	6000	6000	1.950
<b>3311</b>	55	120	49.2	112.0	81.5	3.5	5300	5300	2.550
<b>3312</b>	60	130	54.0	127.0	95.0	4.1	5000	5000	3.250
<b>3313</b>	65	140	58.7	146.0	110.0	4.6	4500	4500	4.100
<b>3314</b>	70	150	63.5	153.0	125.0	5.0	4000	4000	5.050
<b>3315</b>	75	160	68.3	176.0	140.0	5.5	4000	4000	5.550
<b>3316</b>	80	170	68.3	182.0	156.0	6.0	3400	3600	6.800
<b>3317</b>	85	180	73.0	195.0	176.0	6.6	3200	3400	8.300
<b>3318</b>	90	190	73.0	195.0	180.0	6.4	3000	3200	9.250
<b>3319</b>	95	200	77.8	225.0	216.0	7.5	2800	3000	11.000
<b>3320</b>	100	215	82.6	255.0	216.0	7.5	2800	3000	11.000
<b>3322</b>	110	240	92.1	291.0	305.0	9.8	2400	2600	19.000

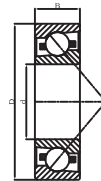


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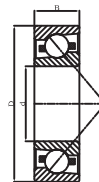
Bearing Designation		Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
		d	D	B	Dynamic	Static		Grease	Oil	
1 Shield	2 Shield	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
<b>5200 Z</b>	<b>5200 ZZ</b>	10	30	14.4	7.2	3.9	0.2	16000	22000	0.045
<b>5201 Z</b>	<b>5201 ZZ</b>	12	32	15.9	10.6	5.9	0.2	15000	20000	0.050
<b>5202 Z</b>	<b>5202 ZZ</b>	15	35	15.9	11.7	7.0	0.3	12000	17000	0.068
<b>5203 Z</b>	<b>5203 ZZ</b>	17	40	17.5	14.8	9.0	0.4	10000	15000	0.090
<b>5205 Z</b>	<b>5205 ZZ</b>	25	52	20.6	21.2	14.6	0.6	8000	11000	0.160
<b>5206 Z</b>	<b>5206 ZZ</b>	30	62	23.8	30.3	28.0	1.2	7000	9500	0.350
<b>5207 Z</b>	<b>5207 ZZ</b>	35	72	27.0	37.7	27.5	1.2	6000	8000	0.400
<b>5208 Z</b>	<b>5208 ZZ</b>	40	80	30.2	49.5	49.0	2.1	5600	7500	0.730
<b>5209 Z</b>	<b>5209 ZZ</b>	45	85	30.2	48.8	39.0	1.7	5000	6700	0.570
<b>5210 Z</b>	<b>5210 ZZ</b>	50	90	30.2	48.8	39.0	1.7	4800	6300	0.590
<b>5211 Z</b>	<b>5211 ZZ</b>	55	100	33.3	57.2	47.5	2.0	4300	5600	0.830
<b>5212 Z</b>	<b>5212 ZZ</b>	60	110	36.5	70.2	58.5	2.5	3800	5000	1.100
<b>5213 Z</b>	<b>5213 ZZ</b>	65	120	38.1	80.6	73.5	3.1	3600	4800	1.580
<b>5214 Z</b>	<b>5214 ZZ</b>	70	125	39.7	88.4	80.0	3.4	3200	4300	1.500
<b>5215 Z</b>	<b>5215 ZZ</b>	75	130	41.3	95.6	88.0	3.8	3200	4300	1.700
<b>5216 Z</b>	<b>5216 ZZ</b>	80	140	44.4	106.0	95.0	3.9	2800	3800	2.100
<b>5217 Z</b>	<b>5217 ZZ</b>	85	150	49.2	124.0	110.0	4.4	2600	3600	2.700
<b>5218 Z</b>	<b>5218 ZZ</b>	90	160	52.4	130.0	120.0	4.6	2400	3400	3.400
<b>5304 Z</b>	<b>5304 ZZ</b>	20	52	22.2	22.5	14.6	0.6	8500	12000	0.200
<b>5305 Z</b>	<b>5305 ZZ</b>	25	62	25.4	30.7	20.4	0.9	7500	10000	0.320
<b>5306 Z</b>	<b>5306 ZZ</b>	30	72	30.2	41.6	29.0	1.2	6300	8500	0.480
<b>5307 Z</b>	<b>5307 ZZ</b>	35	80	34.9	49.4	34.5	1.5	5600	7500	0.660

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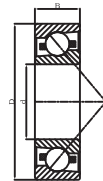
Bearing Designation		Principal Dimensions			Basic Load Ratings		Fatigue Load Limit	Speed ratings Lubrication		Mass
		d	D	B	Dynamic	Static		Grease	Oil	
1 Shield	2 Shield	mm			C (kN)	CO (kN)	Pu (kN)	rpm		kg
<b>5308 Z</b>	<b>5308 ZZ</b>	40	90	36.5	67.1	65.5	2.8	5000	6700	1.150
<b>5309 Z</b>	<b>5309 ZZ</b>	45	100	39.7	72.8	53.0	2.2	4500	6000	1.150
<b>5310Z</b>	<b>5310 ZZ</b>	50	110	44.4	85.2	64.0	2.7	4000	5300	1.550
<b>5311 Z</b>	<b>5311 ZZ</b>	55	120	49.2	106.0	81.5	3.5	3800	5000	2.000
<b>5312 Z</b>	<b>5312 ZZ</b>	60	130	54.0	121.0	95.0	4.0	3400	4500	2.600
<b>5313 Z</b>	<b>5313 ZZ</b>	65	140	58.7	138.0	108.0	4.6	3200	4300	3.300
<b>5314 Z</b>	<b>5314 ZZ</b>	70	150	63.5	153.0	125.0	5.0	2800	3800	4.050
<b>5315 Z</b>	<b>5315 ZZ</b>	75	160	68.3	168.0	14.0	5.5	2600	3600	4.900

# Angular Contact Ball Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static	Grease	Oil	
	mm			C (kN)	CO (kN)	rpm		kg
<b>QJ 202 N2MA</b>	15	35	11.0	12.7	8.3	22000	36000	0.060
<b>QJ 203 N2MA</b>	17	40	12.0	15.9	10.6	19000	30000	0.080
<b>QJ 205 MA</b>	25	50	15.0	27.0	21.2	14000	22000	0.160
<b>QJ 206 MA</b>	30	62	16.0	37.5	30.5	12000	19000	0.240
<b>QJ 207 N2MA</b>	35	72	17.0	49.0	41.5	10000	17000	0.360
<b>QJ 208 MA</b>	40	80	18.0	56.0	49.0	9000	15000	0.450
<b>QJ 209 MA</b>	45	85	19.0	63.0	56.0	8500	14000	0.520
<b>QJ 210 MA</b>	50	90	20.0	65.5	61.0	7500	13000	0.590
<b>QJ 211 MA</b>	55	100	21.0	85.0	83.0	7000	11000	0.770
<b>QJ 212 MA</b>	60	110	22.0	96.5	93.0	6300	10000	0.990
<b>QJ 212 N2PHAS</b>	60	110	22.0	96.5	93.0	-	-	0.890
<b>QJ 213 MA</b>	65	120	23.0	110.0	112.0	5600	9500	1.200
<b>QJ 214 MA</b>	70	125	24.0	120.0	122.0	5600	9000	1.320
<b>QJ 215 MA</b>	75	130	25.0	125.0	132.0	5300	8500	1.450
<b>QJ 216 MA</b>	80	140	26.0	146.0	156.0	4800	8000	1.850
<b>QJ 217 MA</b>	85	150	28.0	156.0	173.0	4500	7500	2.250
<b>QJ 218 N2MA</b>	90	160	30.0	186.0	200.0	4300	7000	2.750
<b>QJ 219 N2MA</b>	95	170	32.0	212.0	232.0	4000	6700	3.350
<b>QJ 220 N2MA</b>	100	180	34.0	236.0	265.0	3800	6300	4.050
<b>QJ 222 N2MA</b>	110	200	38.0	280.0	325.0	3400	5600	5.600
<b>QJ 224 N2MA</b>	120	215	40.0	300.0	365.0	3200	5000	6.950
<b>QJ 226 N2MA</b>	130	230	40.0	310.0	400.0	2800	4800	7.750
<b>QJ 228 N2MA</b>	140	250	42.0	345.0	475.0	2600	4300	9.850

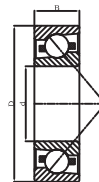
# Angular Contact Ball Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static	Grease	Oil	
	mm			C (kN)	CO (kN)	rpm		kg
<b>QJ 230 N2MA</b>	150	270	45.0	400.0	570.0	2400	4000	12.500
<b>QJ 232 N2MA</b>	160	290	48.0	450.0	670.0	2200	3800	15.500
<b>QJ 234 N2MA</b>	170	310	52.0	455.0	720.0	2200	3400	19.500
<b>QJ 236 N2MA</b>	180	320	52.0	475.0	765.0	2000	3400	20.500
<b>QJ 240 N2MA</b>	200	360	58.0	540.0	915.0	1800	3000	28.500
<b>QJ 248 N2MA</b>	240	440	72.0	650.0	120.0	-	-	53.000
<b>QJ 252 N2MA</b>	260	480	80.0	728.0	1430.0	-	-	68.000

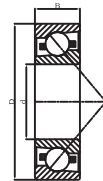
<b>QJ 303 N2MA</b>	17	47	14.0	23.4	15.0	17000	28000	0.140
<b>QJ 304 MA</b>	20	52	15.0	32.0	21.6	15000	24000	0.180
<b>QJ 305 MA</b>	25	62	17.0	39.0	28.0	12000	20000	0.290
<b>QJ 306 MA</b>	30	72	19.0	53.0	41.5	10000	17000	0.420
<b>QJ 307 MA</b>	35	80	21.0	64.0	51.0	9500	15000	0.570
<b>QJ 308 MA</b>	40	90	23.0	78.0	64.0	8500	14000	0.780
<b>QJ 309 MA</b>	45	100	25.0	100.0	83.0	7500	12000	1.050
<b>QJ 310 MA</b>	50	110	27.0	118.0	100.0	6700	11000	1.350
<b>QJ 311 MA</b>	55	120	29.0	137.0	118.0	6000	10000	1.750
<b>QJ 312 MA</b>	60	130	31.0	156.0	137.0	5600	9000	2.150
<b>QJ 313 MA</b>	65	140	33.0	176.0	156.0	5300	8500	2.700
<b>QJ 314 MA</b>	70	150	35.0	200.0	180.0	4800	8000	3.150
<b>QJ 315 N2MA</b>	75	160	37.0	216.0	200.0	4500	7500	3.900
<b>QJ 316 N2MA</b>	80	170	39.0	232.0	228.0	4300	7000	4.600
<b>QJ 317 N2MA</b>	85	180	41.0	250.0	255.0	4000	6700	5.450

# Angular Contact Ball Bearings



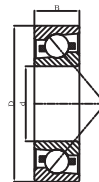
Bearing Designation	Principal Dimensions			Basic Load Ratings		Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static	Grease	Oil	
	mm			C (kN)	CO (kN)	rpm		kg
<b>QJ 318 N2MA</b>	90	190	43	285.0	305.0	3800	6300	6.450
<b>QJ 319 N2MA</b>	95	200	45	305.0	340.0	3600	6000	7.450
<b>QJ 320 N2MA</b>	100	215	47	345.0	400.0	3400	5600	9.300
<b>QJ 322 N2MA</b>	110	240	50	390.0	480.0	3000	4800	12.500
<b>QJ 324 N2MA</b>	120	260	55	415.0	530.0	2800	4500	16.000
<b>QJ 326 N2MA</b>	130	280	58	455.0	610.0	2600	4000	19.500
<b>QJ 328 N2MA</b>	140	300	62	500.0	695.0	2400	3800	24.000
<b>QJ 330 N2MA</b>	150	320	65	530.0	765.0	2200	3600	29.000
<b>QJ 332 N2MA</b>	160	340	68	570.0	880.0	2000	3400	34.500
<b>QJ 334 N2MA</b>	170	360	72	655.0	1040.0	1000	3200	41.500
<b>QJ 336 N2MA</b>	180	380	75	680.0	1020.0	1800	3000	47.500
<b>QJ 338 N2MA</b>	190	400	78	702.0	1116.0	1700	2800	49.000
<b>QJ 344 N2/309829</b>	220	460	88	904.0	1660.0	-	-	78.000
<b>QJ 344 N2MA</b>	220	460	88	780.0	1400.0	-	-	78.000
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<b>QJ 1017 N2MA</b>	85	130	22	85.2	102.0	4000	6400	1.100
<b>QJ 1021 N2MA</b>	105	160	26	124.0	156.0	3200	5360	2.000
<b>QJ 1022 N2MA</b>	110	170	28	146.0	186.0	3040	5040	2.500
<b>QJ 1030 N2MA</b>	150	225	35	216.0	305.0	2240	3600	5.250
<b>QJ 1032 N2MA</b>	160	240	38	247.0	355.0	2080	3440	6.450
<b>QJ 1038 N2MA</b>	190	290	46	338.0	510.0	1760	2720	11.500
<b>QJ 1040 N2MA</b>	200	310	51	390.0	620.0	1600	2560	15.000
<b>QJ 1056 N2MA</b>	280	420	65	553.0	1060.0	1120	1920	33.500

# Angular Contact Ball Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static	Grease	Oil	
	mm			C (kN)	CO (kN)	rpm		kg
<b>QJ 1060 MA</b>	300	460	74	650.0	1340.0	1040	1760	47.500
<b>QJ 1064 MA</b>	320	480	74	715.0	1530.0	960	1600	50.000
<b>QJ 1068 N2MA</b>	340	520	82	180.0	1700.0	880	1440	67.500
<b>QJ 1072 N2MA</b>	360	540	82	793.0	1800.0	880	1360	70.500
<b>QJ 1076 N2MA</b>	380	560	82	819.0	1900.0	800	1360	73.500
<b>QJ 1080 N2MA</b>	400	600	90	904.0	2160.0	760	1200	95.500
<b>QJ 1084 N2MA</b>	420	620	90	923.0	2280.0	720	1200	99.500
<b>QJ 1088 N2MA</b>	440	650	94	995.0	2500.0	680	1120	115.000
<b>QJ 1092 N2MA</b>	460	680	100	1040.0	2650.0	640	1040	130.000
<b>QJ 1096 N2MA</b>	480	700	100	1060.0	2800.0	600	1040	135.000
<b>QJ 1240 N2MA</b>	200	360	70	520.0	865.0	1440	2400	32.500
<b>QJ 1244 N2MA</b>	220	400	78	592.0	1020.0	1280	2080	45.500
<b>QJ1248MA/344524</b>	240	440	85	663.0	1220.0	1200	1920	61.000
<b>QJ 1252 MA</b>	260	480	90	741.0	1460.0	1040	1760	78.000
<b>QJ 1256 N2MA</b>	280	500	90	728.0	1460.0	1040	1600	82.000
<b>QJ 1260 N2MA</b>	300	540	98	832.0	1760.0	960	1520	105.000
<b>QJ 1264 N2MA</b>	320	580	105	923.0	2040.0	1760	2240	130.000
<b>QJ1268MA/344524</b>	340	620	118	1060.0	2450.0	800	1280	165.000
<b>QJ 1272 N2MA</b>	360	650	122	1110.0	2600.0	760	1200	190.000
<b>QJ 1276 N2MA</b>	380	680	132	1170.0	2850.0	720	1120	220.000
<b>QJ 1280 N2MA</b>	400	720	140	1300.0	3250.0	640	1040	265.000
<b>QJ 1284 N2MA</b>	420	760	150	1430.0	3750.0	600	1040	315.000

# Angular Contact Ball Bearings

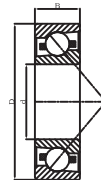


Bearing Designation	Principal Dimensions			Basic Load Ratings		Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static	Grease	Oil	
	mm			C (kN)	CO (kN)	rpm		kg
<b>QJ 1288 N2MA</b>	440	790	155	1400.0	3750.0	690	1104	350.000
<b>QJ 1292 N2MA</b>	460	830	165	1530.0	4250.0	644	1012	415.000
<b>QJ 1296 N2MA</b>	480	870	170	1680.0	4750.0	616	1012	470.000

<b>QJ 1984 MA</b>	420	560	65	637.0	1600.0	874	1472	51.000
<b>QJ 1988 N2MA</b>	440	600	74	761.0	1900.0	828	1380	65.000

<b>BA2B 459304</b>	20	52	30	30.7	20.8	8280	11960	0.280
<b>BA2B 459306</b>	30	72	38	55.9	42.5	6164	8280	0.680
<b>BA2B 459307</b>	35	80	42	62.4	49.0	5520	7360	0.900
<b>BA2B 459308</b>	40	90	46	79.3	65.5	3956	6440	1.250
<b>BA2B 459309</b>	45	100	50	97.5	81.5	4416	5796	1.700
<b>BA2B 459310</b>	50	110	54	119.0	102.0	3956	5152	2.200
<b>BA2B 459311</b>	55	120	58	138.0	120.0	3496	4600	2.800
<b>BA2B 459312</b>	60	130	62	156.0	140.0	3312	4416	3.500
<b>BA2B 459313</b>	65	140	65	174.0	160.0	2944	3956	4.300
<b>BA2B 459314</b>	70	150	70	195.0	180.0	2760	3680	5.300
<b>BA2B 459317</b>	85	180	82	251.0	265.0	2208	3128	8.900
<b>BA2B 459318</b>	90	190	86	270.0	290.0	2024	2944	10.500
<b>BA2B 459320</b>	100	215	94	325.0	380.0	1748	2576	15.000
<b>BA2B 459322</b>	110	240	100	364.0	450.0	1564	2208	20.000
<b>BA2B 459326</b>	130	280	116	403.0	540.0	1380	1840	35.000
<b>BA2B 459328</b>	140	300	124	449.0	620.0	1288	1748	43.000

# Angular Contact Ball Bearings



Bearing Designation	Principal Dimensions			Basic Load Ratings		Speed ratings Lubrication		Mass
	d	D	B	Dynamic	Static	Grease	Oil	
	mm			C (kN)	CO (kN)	rpm		kg
<b>BA2B 459418</b>	90	160	60	178.0	193.0	2392	3312	4.600
<b>BA2B 459420</b>	100	180	68	221.0	245.0	2024	2944	6.600
<b>BA2B 459422</b>	110	200	76	260.0	310.0	1748	2576	9.200
<b>BA2B 459424</b>	120	215	80	270.0	325.0	1564	2208	12.200
<b>BA2B 459428</b>	140	250	84	296.0	390.0	1472	2024	17.700
<b>BA2B 459430</b>	150	270	90	319.0	440.0	1380	1840	23.000
<b>3308 DNRCBM</b>	40	90	36.5	49.4	41.5	6164	6440	1.200
<b>3309DNRCBM</b>	45	100	39.7	61.8	52.0	5520	5796	1.500
<b>3310 DNRCBM</b>	50	110	44.4	81.9	695.0	4876	5152	1.950
<b>3311 DNRCBM</b>	55	120	49.2	95.6	83.0	4416	4600	2.550
<b>3313 DNRCBM</b>	65	140	58.7	138.0	122.0	3956	4140	4.000