

ANGULAR CONTACT BALL BEARINGS

The limit speed of angular contact ball bearing is high, it can bear both radial and axial load,also can bear the pure axial load,its capacity of axial load is depended on its **contact angle**,and will increase with the **contact angle's increase**.such bearings have following three structures:

Single-row angular contact ball bearings, including separation type and non-separation type two forms. S70000 type is the basic of separation-type ,SN70000 type is a inner ring separation type. Its inner ring and outer ring can be installed separately,suitable for **installation condition which is restricted** . Its **contact angular is 15**.non-separation angular contact ball bearings the inner ring and outer ring can not be installed separately.the following is three structures:

Contact angle $\alpha=15^\circ$, **latch at the outer ring is 70000C type**

Contact angle $\alpha=25^\circ$, **latch at the outer ring is 70000AC type**

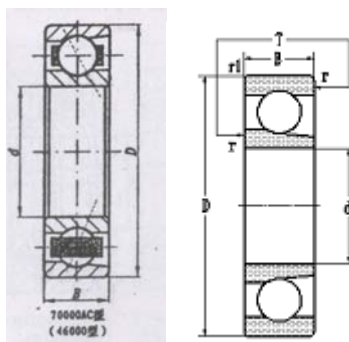
Contact angle $\alpha=40^\circ$, **latch at the outer ring is 70000B type**

Double-row angular contact ball bearings are non-separation bearings ,they can bear greater radial and axial bi-direction load and torque load,but mainly radial load,it can limit axial or shell do two-way axial displacement,compare to the single-row angular contact ball bearings,they have better rigidity,the contact angle is 30.

Four-point angular contact ball bearings are **separate** bearings, QJ0000 type with two-semi-inner **rings**, QJF0000 type with two-semi-outer **rings**,the contact angular is 35. at no load and pure radial load,steel ball and **rings will be four-point contact**,while, under pure radial load,steel ball and **rings will be two-point contact** and can bear bi-direction axial load. such bearings also can bear torque load **and** have the function of both single-row and double-row angular contact ball bearings. Only when have two-point contact, this bearing can be guaranted in normal work

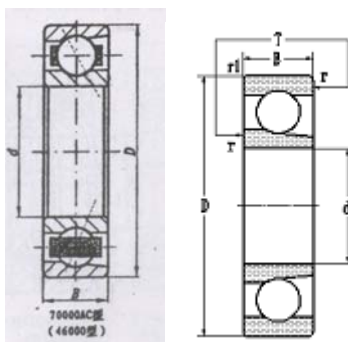
Angular contact ball bearings in our company **mainly use the machined solid cage**,four-point contact ball bearings use the brass or aluminum machined solid **cage**.

SINGLE ROW ANGULAR CONTACT BALL BEARINGS d220-360mm



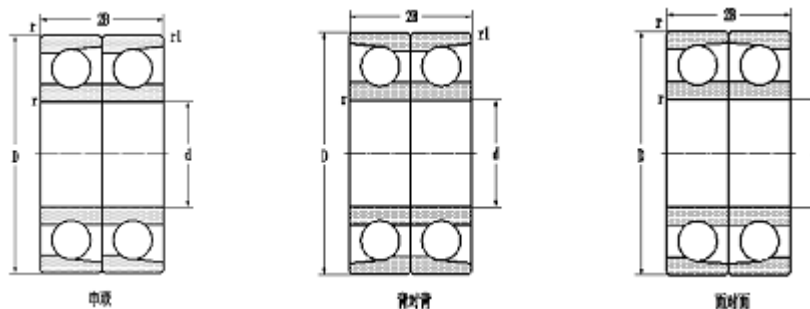
Principle dimensions	Basic load ratings					Old spec.	Designations	Speed ratings		Weight		
	d	D	B	r _{1min}	r _{1smin}			a	Dyc		stc	Grease
mm						KN		r/min		kg		
220	400	65	4	1.5	164	290	420	66244	7244B	1400	1800	37.5
	460	88	5	2	187	445	650	66344	7344B	1200	1600	70
240	320	38	2.1	1.1	84	195	270	1046948	71948AC	1700	2200	9
	360	56	3	1.1	68	315	445	36148	7048C	1500	2000	21
	360	56	3	1.1	98	300	420	46148	7048AC	1500	2000	21
	360	56	3	1.1	154	235	340	66148	7048B	1500	2000	21
	440	72	4	1.5	180	330	490	66248	7248B	1200	1600	49
260	360	46	2.1	1.1	95	200	380	1046952	71952AC	1400	1900	15
	480	80	5	2	195	460	710	66252	7252B	1100	1400	66
280	380	46	2.1	1.1	119	230	345	1046956	71956AC	1400	1800	15.8
	420	65	4	1.5	74	355	550	36156	7056C	1300	1700	30
	420	65	4	1.5	179	290	450	66156	7056B	1300	1700	30
	500	80	5	2	204	470	770	66256	7256B	1100	1400	70
300	460	74	4	1.5	196	340	570	66160	7060B	1100	1500	43
	540	85	5	2.1	219	500	840	66260	7260B	1000	1300	87
320	480	74	4	1.5	205	355	610	66164	7064B	1100	1400	45
	580	92	5	2	236	565	1010	66264	7264B	900	1200	110
340	460	56	3	1.1	196	270	480	1066968	71968B	1100	1400	27
	520	82	5	2	223	405	735	66168	7068B	1000	1300	62
	620	92	6	3	248	635	1200	66268	7268B	850	1100	125
360	440	38	2.1	1.1	112	215	385	-	71872AC	1100	1400	12
	480	56	3	1.1	204	275	500	1066972	71972B	1100	1400	29
	540	82	5	2	101	450	950	36172	7072C	1000	1300	63
	540	82	5	2	230	520	765	66172	7072B	1000	1300	63
	650	95	6	3	261	585	1125	66272	7272B	700	950	145

SINGLE ROW ANGULAR CONTACT BALL BEARINGS d380-750mm



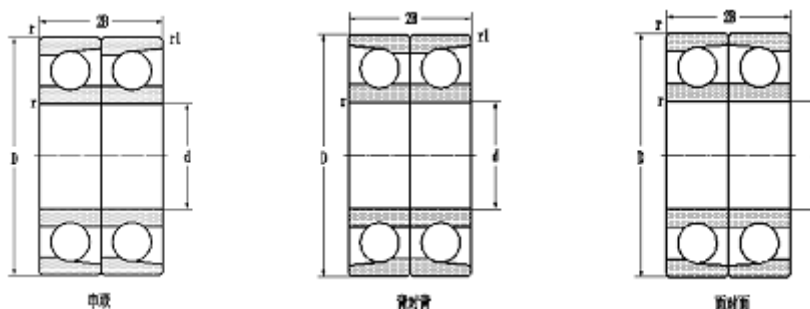
Principle dimensions						Basic load ratings		Old spec.	Designations	Speed ratings		Weight
d	D	B	r _{smin}	r _{1smin}	a	Dyc	stc			Grease	oil	
mm						KN				r/min		kg
80	480	46	2.1	1.1	123	265	450	-	71876AC	1000	1300	18
	520	65	4	1.5	137	370	665	1046976	71976AC	1000	1300	43
	520	65	4	1.5	221	320	630	1066976	71976B	1000	1300	43
	520	82	4	1.5	146	410	730	2046976	72976AC	1000	1300	50
	560	82	5	2	238	425	795	66176	7076B	900	1200	66
400	600	90	5	2	255	475	920	66180	7080B	850	1100	85
	720	103	6	3	287	660	1350	66280	7280B	600	800	190
420	560	65	4	1.5	238	330	605	1066984	71984B	850	1100	45
	620	90	5	2	263	490	955	66184	7084B	850	1100	89
440	650	94	6	3	276	520	1065	66188	7088B	750	1000	100
460	620	74	4	1.5	163	460	940	1046992	71992AC	750	1000	58
	680	100	6	3	289	560	1165	66192	7092B	700	950	120
480	700	100	6	3	298	565	1210	66196	7096B	670	900	125
500	720	100	6	3	306	575	1260	661/500	70/500B	670	900	130
530	650	56	3	1.1	166	370	840	-	718/530AC	670	900	40
	710	82	5	2	186	560	1210	10469/530	719/530AC	630	850	92
	780	112	6	3	332	670	1530	661/530	70/530B	600	800	180
600	730	60	3	1.1	185	425	1040	-	718/600AC	600	800	47
	800	90	5	2	208	645	1560	10469/600	719/600AC	560	750	125
670	820	69	4	1.5	208	500	1160	-	718/670AC	500	670	80
710	870	74	4	1.5	221	545	1470	-	718/710AC	480	630	94
	950	106	6	3	247	770	1980	10469/710	719/710AC	450	600	195
750	920	78	5	2	234	585	1620	-	718/750AC	450	600	100

DOUBLE ROW ANGULAR CONTACT BALL BEARINGS d150-230mm



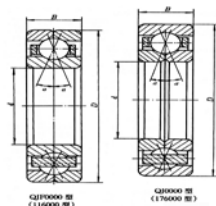
Principle dimensions	Basic load ratings		Old spec.	Designations	Speed ratings		Weight			
	Dyc	Stc			Grease	oil				
d	D	B	r _{smin}	Cr	Cor					
mm				KN		r/min		kg		
150	225	73	3	180	250	-	305286D	-	-	10
	225	75	2.1	180	280	4086130	-	-	-	11
	230	70	2.1	160	280	86830	4030×3D	1700	2200	11.5
	240	84	2.1	260	340	156730	305248	-	-	14
160	215	56	2	90	160	156932	-	1700	2200	6
	240	76	2.1	190	340	156132	-	1700	2200	12.5
	240	80	2.1	190	340	4086132	4032D	1700	2200	13.5
170	259.5	84	2.1	210	390	4086734	-	-	-	17
	260	84	2	210	390	156134	-	1500	2000	17
	260	90	2.1	210	390	4086134	4034D	1500	2000	18
180	259.5	66	2.1	205	405	-	305262D	-	-	113
	259.5	80	2.1	180	340	156836	-	1700	2200	15
	280	92	2.1	240	450	156136	305172B	1400	1800	22
	280	100	2.1	240	450	4086136	4036D	1400	1800	24
190	269.5	66	2.1	180	280	86738	4938×3D	1500	2000	12.5
	290	90	2.1	245	480	156138	305178	1400	1800	23
	290	100	2.1	245	480	4086138	4038D	1400	1800	25
200	279.5	66	2.1	220	345	-	305428D	-	-	14
	280	76	2.1	210	400	156740	305237A	1400	1800	15
	280	80	2.1	210	400	156940	305393	1400	1800	16
	289.5	76	2.1	220	400	86840	4940×3D-1	1400	1800	15
	310	96	3	280	550	156140	305352	1300	1700	30
	310	109	2.1	280	550	4086140	4040D	1300	1700	32
220	309.5	76	3	225	450	86744	4944×3D	1300	1700	19
	340	118	3	290	560	4086144	4044D	1100	1500	40
230	329.5	80	3	240	450	86746	4946×1D	1200	1600	23.5

DOUBLE ROW ANGULAR CONTACT BALL BEARINGS d240-1000mm



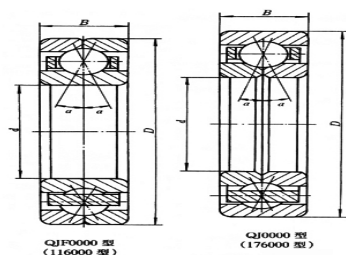
Principle d	dimensions			Basic load ratings		Old spec.	Designations	Speed ratings		Weight
	D	B	r _{smin}	Dyc Cr	Stc Cor			Grease	oil	
mm				KN				r/min		kg
240	360	118	3	320	650	4086148	4048D	1100	1400	44
260	369.5	92	4	335	565	86752	4952×3D	1000	1300	31.8
	400	130	4	440	730	156152	-	1000	1300	56
280	389.5	92	2.1	365	675	-	305269D	-	-	32.5
	390	92	4	359	585	86756	4956×3D	1000	1300	32
	420	140	4	385	900	4086156	4056D	900	1200	71
300	419.5	112	3	380	700	86760	-	-	-	51
	460	160	4	450	1000	4086160	4060D	850	1200	100
320	459.5	140	4	400	950	86764	4064×3D	750	1000	80
650	780	84	3	540	1700	867/650	-	-	-	81
900	1030	135	4	680	2500	867/900	-	-	-	150
1000	1170	140	4	840	3000	867/1000	-	-	-	250

FOUR-POINT CONTACT BALL BEARINGS d150-220mm



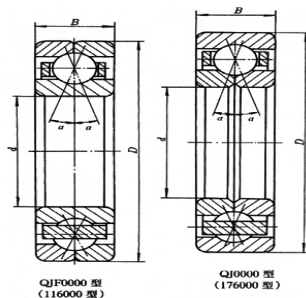
Principle d	dimensions				Basic load ratings		Old spec.		Designations		Speed ratings		Weight
	D	B	r _{smin}	a	D _{yc}	St _c					Grease	oil	
mm					KN						r/min		kg
150	225	35	2.1	131	195	275	176130	116130	QJL030	QJF1030	2000	2600	5.3
	270	45	3	147	305	420	176230	116230	QJ230	QJF230	1500	2000	12.5
	320	65	4	165	445	640	176330	116330	QJ330	QJF330	1400	1900	29
160	239.5	38	2.1	140	225	320	176732	116732	QJL032X1	QJF1032X1	1800	2400	6.3
	240	38	2.1	140	225	320	176132	116132	QJL032	QJF1032	1800	2400	6.5
	290	48	3	158	355	515	176232	116232	QJ232	QJF232	1400	1900	15.5
	340	68	4	175	490	735	176332	116332	QJ332	QJF332	1400	1800	34.5
170	259.5	42	2.1	151	260	365	176734	116734	QJL034X1	QJF1034X1	1700	2200	8.5
	260	42	2.1	151	260	365	176134	116134	QJL034	QJF1034	1700	2200	8.6
	310	52	4	168	360	540	176234	116234	QJ234	QJF234	1400	1900	19.5
	360	72	4	186	560	870	176334	116334	QJ334	QJF334	1200	1600	41.5
180	279.5	52	2.1	161	305	460	176736	116736	QJL036X1	QJF1036X1	1500	2000	10.8
	280	46	2.1	161	305	460	176136	116136	QJ1036	QJF1036	1500	2000	11
	320	52	4	175	395	615	176236	116236	QJ236	QJF236	1400	1800	20.5
	380	75	4	196	575	920	176336	116336	QJ336	QJF336	1200	1600	47.5
190	289.5	46	2.1	168	305	460	176738	116378	QJL038X1	QJF1038X1	1500	2000	11
	290	46	2.1	168	305	460	176138	116138	QJ1038	QJF1038	1500	2000	11.5
	340	55	4	186	440	705	176238	116238	QJ238	QJF238	1200	1600	24.5
200	280	51	2.1	168	220	340	176940	116940	QJL940	QJF1940	1500	2000	10.5
	289.5	58	2.1	172	235	385	176740	116740	QJL040X1	QJF1040X1	1400	1900	13.5
	310	51	2.1	179	355	560	176140	116140	QJL040	QJF1040	1400	1900	15
	360	58	4	196	460	765	176240	116240	QJ240	QJF240	1200	1600	28.5
	360	70	4	280	470	780	-	-	QJL240	QJF1240	1200	1600	32.5
220	300	60	3	182	225	365	176944	116944	QJL944	QJF1944	1400	1900	13
	309.5	60	3	186	250	415	176744	116744	QJ1044X1	QJF1044X1	1400	1800	15
	340	56	3	196	400	675	176144	116144	QJL044	QJF1044	1400	1800	19.5
	400	65	4	217	500	885	176244	116244	QJF244	QJF244	1100	1400	39.5

FOUR-POINT CONTACT BALL BEARINGS d220-340mm



Principle dimensions					Basic load ratings		Old spec.		Designations		Speed ratings		Weight
d	D	B	r _{smin}	a	D _{yc}	St _c					Grease	oil	
mm					KN						r/min		kg
220	400	78	4	310	535	920	-	-	QJ1244	QJF1244	1100	1400	45.5
	460	88	5	238	705	1260	176344	116344	QJ344	QJF344	1000	1300	78
240	329.5	60	3	200	260	455	176748	116748	QJ1048X1	QJF1048X1	1200	1600	16
	360	56	3	210	405	705	176148	116148	QJ1048	QJF1048	1200	1600	21
	440	72	4	238	585	1080	176248	116248	QJ248	QJF248	1000	1300	53
	440	85	4	340	600	1100	-	-	QJ1248	QJF1248	1000	1300	61
260	359.5	65	2.1	217	285	515	-	116852x3	-	-	1200	1600	21
	369.5	60	4	221	315	585	176752	116752	QJ1052X1	QJF1052X1	1100	1400	22
	360	46	2.1	218	355	640	-	-	QJ1952	QJF1952	1100	1500	15
	400	65	4	231	490	900	176152	116152	QJ1052	QJF1052	1100	1400	31.5
	480	80	5	259	669	1290	176252	116252	QJ252	QJF252	850	1100	68
	480	90	5	370	670	1315	-	-	QJ1252	QJF1252	850	1100	78
280	375	65	4	229	295	540	176956	116956	QJ1956	QJF1956	1100	1400	
	420	65	4	245	500	955	176156	116156	QJ1056	QJF1056	1100	1400	33.5
	500	90	5	390	660	1315	-	-	QJ1256	QJF1256	850	1100	82
280.5	390	70	4	235	325	630	-	3116956k	-	-	1100	1400	27
300	420	65	4	252	370	750	176760	116760	-	-	-	-	29.5
	460	74	4	266	585	1210	176160	116160	QJ1060	QJF1060	900	1200	47.5
	540	98	5	420	745	1585	-	-	QJ1260	QJF1260	750	1000	105
320	440	65	4	266	370	750	176764	116764	-	-	-	-	31
	480	74	4	280	600	1260	176164	116164	QJ1064	QJF1064	850	1100	50
	580	105	5	450	835	1840	-	-	QJ1264	QJF1264	700	950	130
340	520	82	5	301	705	1530	176168	116168	QJ1068	QJF1068	750	1000	67.5
	620	118	6	480	955	2200	-	-	QJ1268	QJF1268	670	900	165

FOUR—POINT CONTACT BALL BEARINGS d360-500mm



Principle d	dimensions				Basic load ratings		Speed ratings		Designations		Speed ratings		Weight kg
	D	B	r _{smin}	a	Dyc Cr	Stc Cor	Grease	oil			Grease	oil	
mm					KN						r/min		
360	540	82	5	315	715	1620	176172	116172	QJ1072	QJF1072	750	1000	70.5
	650	122	6	505	1000	2340	-	-	QJ1272	QJF1272	560	750	190
380	560	82	5	329	740	1700	176176	116176	QJ1076	QJF1076	700	950	73.5
	680	132	6	530	1055	2560	-	-	QJ1276	QJF1276	530	700	220
400	600	90	5	350	815	1900	176180	116180	QJ1080	QJF1080	670	900	95.5
	720	140	6	560	1170	2900	-	-	QJ1280	QJF1280	480	630	265
420	560	65	4	343	575	1440	176984	116984	QJ1984	QJF1984	670	900	51
	620	90	5	364	835	2050	176184	116184	QJ1084	QJF1084	670	900	99.5
	760	150	7.5	590	1290	3370	-	-	QJ1284	QJF1284	-	-	315
440	600	74	4	364	685	1700	116988	116988	QJ1988	QJF1988	670	900	65
	650	94	6	382	900	2250	116188	116188	QJ1088	QJF1088	600	800	115
	790	155	7.5	615	1260	3370	-	-	QJ1288	QJF1288	-	-	350
460	590	45	2	368	225	640	176792Y	-	-	-	-	-	32
	680	100	6	399	940	2385	176192	116192	QJ1092	QJF1092	600	800	130
	830	165	7.5	645	1380	3820	-	-	-	QJF1292	-	-	415
480	700	100	6	413	955	2500	176196	116196	QJ1096	QJF1096	530	700	135
	870	170	7.5	675	1515	4270	-	-	QJ1296	QJF1296	-	-	470
500	720	100	6	427	1000	2550	1761/500	1161/500	QJ10500	QJF10/500	530	700	140