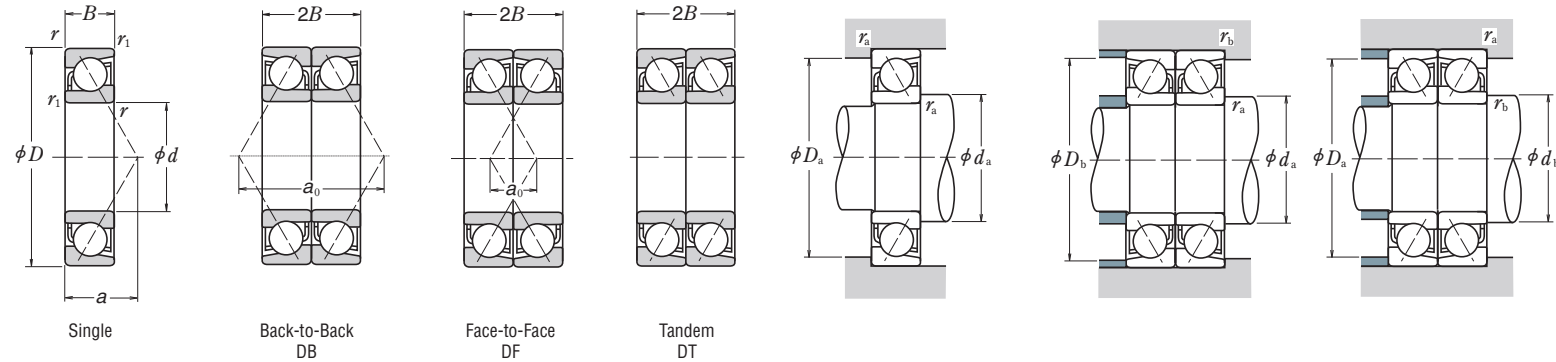


ANGULAR CONTACT BALL BEARINGS
SINGLE/MATCHED MOUNTINGS
Bore Diameter 70 – 80 mm


Dynamic Equivalent Load $P = XF_r + YF_a$

Contact Angle	$i f_0 F_a^* / C_{0r}$	e	Single, DT				DB or DF			
			$F_a/F_r \leq e$		$F_a/F_r > e$		$F_a/F_r \leq e$		$F_a/F_r > e$	
			X	Y	X	Y	X	Y	X	Y
30°	—	0.80	1	0	0.39	0.76	1	0.78	0.63	1.24
40°	—	1.14	1	0	0.35	0.57	1	0.55	0.57	0.93

*For i , use 2 for DB and DF and 1 for DT

Static Equivalent Load $P_0 = X_0 F_r + Y_0 F_a$

Contact Angle	Single, DT		DB or DF		Single or DT mounting When $F_r > 0.5 F_r + Y_0 F_a$ use $F_0 = F_r$
	X_0	Y_0	X_0	Y_0	
	30°	40°	30°	40°	
30°	0.5	0.33	1	0.66	
40°	0.5	0.26	1	0.52	

Boundary Dimensions (mm)					Basic Load Ratings (Single)		Factor	Limiting Speeds ⁽¹⁾ (min ⁻¹)		Eff. Load Center (mm) a	Abutment and Fillet Dimensions (mm)			Mass (kg) approx.	Bearing Designations ⁽²⁾ Cage Designation ⁽⁴⁾				Basic Load Ratings (Matched) ^(N)		Limiting Speeds ⁽¹⁾ (Matched) (min ⁻¹)		Load Center Spacings (mm) a_0		Abutment and Fillet Dimensions (mm)		
d	D	B	r min.	r_1 min.	C_r (N)	C_{0r}		Grease	Oil		d_a min.	D_a max.	r_a max.		Single	Standard	Option	Arrangement	C_r	C_{0r}	Grease	Oil	DB	DF	d_b ⁽³⁾ min.	D_b max.	r_b ⁽³⁾ max.
70	110	20	1.1	0.6	48 500	41 500	—	5 000	6 700	36.0	77	103	1	0.625	7014 A	W	(M), T, TYN	DB DF DT	79 000	82 500	4 000	5 600	72.0	32.0	75	105	0.6
	125	24	1.5	1	84 000	63 500	—	4 500	6 300	40.1	79	116	1.5	1.11	7214 A	W	(M), T, TYN	DB DF DT	136 000	127 000	3 600	5 000	80.3	32.3	76	119	1
	125	24	1.5	1	76 000	58 000	—	3 200	4 500	52.9	79	116	1.5	1.14	7214 B	W	(M), T	DB DF DT	124 000	116 000	2 600	3 600	105.8	57.8	76	119	1
	125	24	1.5	1	79 500	58 500	—	4 500	6 700	52.9	79	116	1.5	1.08	*7214 BEA	T85	MR, T7	— — —	—	—	3 600	5 300	105.8	57.8	76	119	1
	150	35	2.1	1.1	137 000	93 500	—	3 200	4 300	49.3	82	138	2	2.60	7314 A	W	(M), T	DB DF DT	223 000	187 000	2 600	3 400	98.5	28.5	77	143	1
	150	35	2.1	1.1	129 000	87 500	—	4 000	6 000	63.7	82	138	2	2.53	*7314 BEA	T85	MR, T7	— — —	—	—	3 200	4 800	127.3	57.3	77	143	1
	150	35	2.1	1.1	129 000	87 500	—	2 800	4 000	63.6	82	138	2	2.62	7314 BEA	W	MR, T7	DB DF DT	210 000	175 000	2 400	3 200	127.3	57.3	77	143	1
75	115	20	1.1	0.6	49 500	43 500	—	4 800	6 300	37.4	82	108	1	0.661	7015 A	W	(M), T, TYN	DB DF DT	80 500	87 500	3 800	5 300	74.8	34.8	80	110	0.6
	130	25	1.5	1	83 500	64 500	—	4 300	6 000	42.1	84	121	1.5	1.19	7215 A	W	(M), T, TYN	DB DF DT	136 000	129 000	3 600	4 800	84.2	34.2	81	124	1
	130	25	1.5	1	75 500	58 500	—	3 200	4 300	55.5	84	121	1.5	1.22	7215 B	W	(M), T	DB DF DT	123 000	117 000	2 400	3 400	111.0	61.0	81	124	1
	130	25	1.5	1	82 500	63 500	—	4 300	6 300	55.5	84	121	1.5	1.18	*7215 BEA	T85	MR	— — —	—	—	3 600	5 000	111.0	61.0	81	124	1
	160	37	2.1	1.1	149 000	106 000	—	3 000	4 000	52.4	87	148	2	3.13	7315 A	W	(M), T	DB DF DT	243 000	212 000	2 400	3 200	104.8	30.8	82	153	1
	160	37	2.1	1.1	140 000	98 500	—	3 800	5 600	67.8	87	148	2	3.03	*7315 BEA	T85	MR	— — —	—	—	3 000	4 500	135.6	61.6	82	153	1
	160	37	2.1	1.1	140 000	98 500	—	2 800	3 800	67.8	87	148	2	3.13	7315 BEA	W	MR, T7	DB DF DT	228 000	197 000	2 200	3 000	135.6	61.6	82	153	1
80	125	22	1.1	0.6	60 500	53 000	—	4 300	6 000	40.6	87	118	1	0.880	7016 A	W	(M), T, TYN	DB DF DT	98 500	106 000	3 600	4 800	81.2	37.2	85	120	0.6
	140	26	2	1	98 000	76 000	—	4 000	5 600	44.8	90	130	2	1.46	7216 A	W	(M), T, TYN	DB DF DT	159 000	152 000	3 200	4 500	89.5	37.5	86	134	1
	140	26	2	1	88 500	69 500	—	2 800	4 000	59.1	90	130	2	1.49	7216 B	W	(M), T	DB DF DT	144 000	139 000	2 400	3 200	118.3	66.3	86	134	1
	140	26	2	1	92 000	70 000	—	4 000	6 000	59.2	90	130	2	1.42	*7216 BEA	T85	MR, T7	— — —	—	—	3 200	4 800	118.3	66.3	86	134	1
	170	39	2.1	1.1	162 000	119 000	—	2 800	3 800	55.6	92	158	2	3.71	7316 A	W	(M), T	DB DF DT	263 000	238 000	2 200	3 000	111.2	33.2	87	163	1
	170	39	2.1	1.1	151 000	110 000	—	3 600	5 300	71.9	92	158	2	3.59	*7316 BEA	T85	MR, T7	— — —	—	—	2 800	4 300	143.9	65.9	87	163	1
	170	39	2.1	1.1	151 000	110 000	—	2 600	3 400	71.9	92	158	2	3.84	7316 BEA	W	MR, T7	DB DF DT	246 000	220 000	2 000	2 800	143.9	65.9	87	163	1

- Notes** ⁽¹⁾ For applications operating near the limiting speed, refer to Page C077.
⁽²⁾ Suffixes A and B represent contact angles of 30° and 40° respectively.
⁽³⁾ Use the values of d_a (min) and r_a (max) for bearings with “—” in the d_b column.

- Note** ⁽⁴⁾ Cage designation (M) is usually omitted from the bearing designation.
Remark Bearings with an asterisk (*) are high-accuracy angular contact ball bearings. In arrangements, they are limited to SU universal matching types. See Page C073 for details.