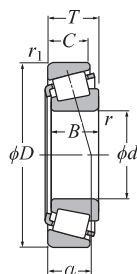


Tapered Roller Bearings

Metric series

NTN



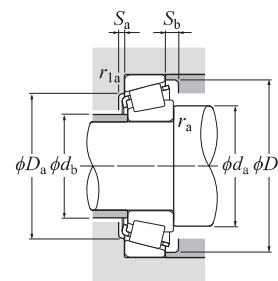
d 60–75 mm

d	Boundary dimensions						Basic load rating		Fatigue load limit kN C _u	Allowable speed min ⁻¹		Bearing number ²⁾
	mm						dynamic	static		Grease lubrication	Oil lubrication	
	D	T	B	C	r _{s min} ¹⁾	r _{1s min} ¹⁾	C _r	C _{0r}				
60	85	17	17	14	1	1	56.5	83.0	10.1	4 000	5 300	○32912XA
	95	23	23	17.5	1.5	1.5	91.0	123	—	3 700	4 900	4T-32012X
	95	27	27	21	1.5	1.5	104	145	—	3 700	4 900	4T-33012
	100	30	30	23	1.5	1.5	126	164	—	3 600	4 700	4T-33112
	110	23.75	22	19	2	1.5	116	125	—	3 400	4 500	4T-30212
	110	29.75	28	24	2	1.5	144	164	20.1	3 400	4 500	32212U
	110	38	38	29	2	1.5	179	223	27.1	3 400	4 500	33212U
	115	40	39	33	2.5	2.5	209	249	—	3 200	4 300	4T-T2EE060
	125	37	33.5	26	3	3	161	186	—	2 800	3 700	4T-T7FC060
	130	33.5	31	26	3	2.5	199	210	25.6	3 000	4 000	30312U
65	130	33.5	31	22	3	2.5	167	176	—	2 700	3 600	4T-30312D
	130	48.5	46	37	3	2.5	271	315	38.5	3 000	4 000	32312U
	130	48.5	46	37	3	2.5	237	296	—	2 900	3 900	4T-32312C
	90	17	17	14	1	1	53.5	85.0	10.4	3 700	4 900	32913XU
	100	23	23	17.5	1.5	1.5	92.0	128	—	3 400	4 600	4T-32013X
	100	27	27	21	1.5	1.5	108	156	—	3 400	4 600	4T-33013
	110	34	34	26.5	1.5	1.5	160	211	—	3 300	4 400	4T-33113
	120	24.75	23	20	2	1.5	136	148	—	3 100	4 200	4T-30213
	120	32.75	31	27	2	1.5	176	206	25.1	3 100	4 200	32213U
	120	41	41	32	2	1.5	216	265	32.5	3 100	4 200	33213U
70	140	36	33	28	3	2.5	225	238	28.7	2 800	3 700	30313U
	140	36	33	23	3	2.5	192	204	—	2 500	3 300	4T-30313D
	140	51	48	39	3	2.5	305	350	42.5	2 800	3 700	32313U
	100	20	20	16	1	1	76.0	110	13.4	3 400	4 600	32914XU
	110	25	25	19	1.5	1.5	116	160	—	3 200	4 200	4T-32014X
	110	31	31	25.5	1.5	1.5	140	204	—	3 200	4 200	4T-33014
	120	37	37	29	2.5	0.6	190	251	30.5	3 100	4 100	33114U
	125	26.25	24	21	2	1.5	146	162	—	2 900	3 900	4T-30214
	125	33.25	31	27	2	1.5	184	220	26.8	2 900	3 900	32214U
	125	41	41	32	2	1.5	223	282	34.5	2 900	3 900	33214U
75	140	39	35.5	27	3	3	191	231	—	2 400	3 200	4T-T7FC070
	150	38	35	30	3	2.5	255	272	32.0	2 600	3 500	30314U
	150	38	35	25	3	2.5	214	229	—	2 300	3 000	4T-30314D
	150	54	51	42	3	2.5	345	405	48.0	2 600	3 500	32314U
	150	54	51	42	3	2.5	300	380	45.0	2 500	3 300	32314CU
	105	20	20	16	1	1	77.0	114	13.9	3 200	4 300	32915XU

1) Smallest allowable dimension for chamfer dimension r or r₁.
2) Bearings with a ○ mark do not incorporate the subunit dimensions.

Tapered Roller Bearings

NTN



Dynamic equivalent radial load

$$P_r = X F_r + Y F_a$$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	0	0.4	Y ₂

Static equivalent radial load

$$P_{0r} = 0.5 F_r + Y_0 F_a$$

When $P_{0r} < F_r$ use $P_{0r} = F_r$.

For values of e, Y₂

and Y₀ see the table below.

ISO Dimension series	Installation-related dimensions										Load center mm	Constant	Axial load factors		Mass kg (approx.)	
	mm												e	Y ₂		Y ₀
	d _a Min.	d _b Max.	D _a Max.	D _b Min.	S _a Min.	S _b Min.	r _{as} Max.	r _{1as} Max.	a							
4CC 2CE 3CE 3EB 3EC 3EE 2EE 7FC 2FB 7FB 2FD 5FD	65.5	66	79.5	76.5	82.5	3	3	1	1	15.5	0.33	1.80	0.99	0.281		
	68.5	67.5	86.5	81.5	91.5	4	5.5	1.5	1.5	21	0.43	1.39	0.77	0.596		
	68.5	67	86.5	82	90	5	6	1.5	1.5	20.5	0.33	1.83	1.01	0.693		
	68.5	67	91.5	84.5	96.5	5	7	1.5	1.5	23.5	0.40	1.51	0.83	0.913		
	70	69.5	101.5	94	103.5	4	4.5	2	1.5	22	0.40	1.48	0.81	0.929		
	70	68.5	101.5	92	105	4	5.5	2	1.5	25	0.40	1.48	0.81	1.18		
	70	68.5	101.5	90	105.5	6	9	2	1.5	27.5	0.40	1.48	0.82	1.53		
	72	69.5	103	95	109	6	7	2	2	28.5	0.33	1.80	0.99	1.86		
	74	71.5	111	92	120	4	11	2.5	2.5	42	0.82	0.73	0.40	2		
	74	77	118	109.5	121.5	4	7.5	2.5	2	26.5	0.35	1.74	0.96	2.05		
	74	73	118	99	124	4	11.5	2.5	2	40.5	0.83	0.73	0.40	1.95		
	74	73.5	118	106	121.5	4	11.5	2.5	2	32	0.35	1.74	0.96	3.01		
74	73	118	96.5	122	5	11	2.5	2	39	0.55	1.10	0.60	3.07			
2BC 4CC 2CE 3DE 3EB 3EC 3EE 2GB 7GB 2GD	70.5	70.5	84.5	80	86	3	3	1	1	16.5	0.35	1.70	0.93	0.315		
	73.5	72.5	91.5	86	97	4	5.5	1.5	1.5	22.5	0.46	1.31	0.72	0.631		
	73.5	72	91.5	87	95.5	5	6	1.5	1.5	21.5	0.35	1.72	0.95	0.742		
	73.5	73	101.5	92.5	106.5	6	7.5	1.5	1.5	26	0.39	1.55	0.85	1.27		
	75	77	111.5	103	114.5	4	4.5	2	1.5	23.5	0.40	1.48	0.81	1.18		
	75	75.5	111.5	101.5	115.5	4	5.5	2	1.5	27	0.40	1.48	0.81	1.57		
	75	74	111.5	99	115.5	7	9	2	1.5	29.5	0.39	1.54	0.85	2		
	79	83	128	119	131.5	4	8	2.5	2	28.5	0.35	1.74	0.96	2.54		
	79	79	128	107.5	133	4	13	2.5	2	44	0.83	0.73	0.40	2.41		
	79	79.5	128	115	131.5	4	12	2.5	2	34.5	0.35	1.74	0.96	3.63		
	2BC 4CC 2CE 3DE 3EB 3EC 3EE 7FC 2GB 7GB 2GD 5GD	75.5	76.5	94.5	90	96.5	4	4	1	1	18	0.32	1.90	1.05	0.475	
		78.5	78	101.5	94.5	105.5	5	6	1.5	1.5	24	0.43	1.38	0.76	0.863	
78.5		79	101.5	96.5	105.5	5	5.5	1.5	1.5	22.5	0.28	2.11	1.16	1.07		
80		79	111.5	101.5	115.5	6	8	2.5	0.6	28	0.38	1.58	0.87	1.68		
80		81	116.5	107.5	119	4	5	2	1.5	25.5	0.42	1.43	0.79	1.3		
80		79.5	116.5	105.5	120.5	4	6	2	1.5	28.5	0.42	1.43	0.79	1.68		
80		78.5	116.5	104	121.5	7	9	2	1.5	31	0.41	1.47	0.81	2.12		
84		81.5	126	104.5	135	5	12	2.5	2.5	47.5	0.87	0.69	0.38	2.62		
84		88.5	138	128	141	4	8	2.5	2	30	0.35	1.74	0.96	3.05		
84		84.5	138	115.5	142.5	4	13	2.5	2	47	0.83	0.73	0.40	2.92		
84		85	138	122.5	141	4	12	2.5	2	36.5	0.35	1.74	0.96	4.44		
84		85	138	112.5	143	5	12	2.5	2	44	0.55	1.10	0.60	4.53		
2BC	80.5	81	99.5	94	101	4	4	1	1	19	0.33	1.80	0.99	0.508		