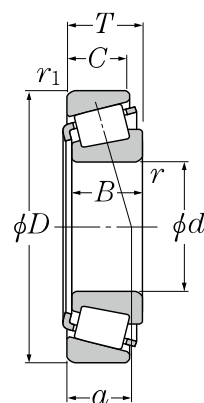


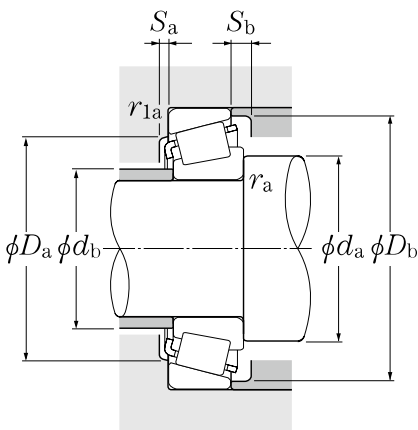
Metric series



d 90 ~ 110mm

Boundary dimensions							Basic load rating		Fatigue load limit kN C _u	Allowable speed min ⁻¹		Bearing number ²⁾
mm							dynamic kN C _R	static C _{0r}		Grease lubrication	Oil lubrication	
d	D	T	B	C	r _{s min} ¹⁾	r _{ls min} ¹⁾						
90	160	32.5	30	26	2.5	2	230	267	30.5	2 200	3 000	30218U
	160	42.5	40	34	2.5	2	291	360	41.0	2 200	3 000	32218U
	160	55	55	42	2.5	2.5	360	490	56.0	2 300	3 000	33218U
	190	46.5	43	36	4	3	375	405	44.5	2 000	2 700	30318U
	190	46.5	43	30	4	3	300	320	35.5	1 800	2 400	30318DU
	190	67.5	64	53	4	3	500	595	65.5	2 000	2 700	32318U
95	130	23	23	18	1.5	1.5	112	178	21.0	2 500	3 400	32919XU
	145	32	32	24	2	1.5	190	280	32.5	2 300	3 100	32019XU
	145	39	39	32.5	2	1.5	243	375	43.0	2 300	3 100	33019U
	170	34.5	32	27	3	2.5	250	290	32.5	2 100	2 800	30219U
	170	45.5	43	37	3	2.5	330	415	47.0	2 100	2 800	32219U
	200	49.5	45	38	4	3	405	445	48.5	1 900	2 500	30319U
	200	49.5	45	32	4	3	330	355	38.5	1 700	2 200	30319DU
	200	71.5	67	55	4	3	560	670	73.0	1 900	2 500	32319U
100	140	25	25	20	1.5	1.5	134	206	23.8	2 400	3 200	32920XU
	140	25	24	20	1.5	1.5	108	162	18.6	2 400	3 200	○ 32920
	145	24	22.5	17.5	3	3	119	153	—	1 800	2 400	4T-T4CB100
	150	32	32	24	2	1.5	188	281	32.0	2 200	3 000	32020XU
	150	39	39	32.5	2	1.5	248	390	44.5	2 200	3 000	33020U
	180	37	34	29	3	2.5	286	335	37.0	2 000	2 700	30220U
	180	49	46	39	3	2.5	365	465	51.0	2 000	2 700	32220U
	180	63	63	48	3	2.5	465	650	71.5	2 000	2 700	33220U
	215	51.5	47	39	4	3	455	500	53.0	1 800	2 400	30320U
	215	56.5	51	35	4	3	395	435	46.0	1 800	2 400	31320XU
215	77.5	73	60	4	3	635	770	82.0	1 800	2 400	32320U	
105	145	25	25	20	1.5	1.5	139	219	25.0	2 300	3 000	○ 32921XA
	160	35	35	26	2.5	2	223	335	37.5	2 100	2 800	32021XU
	160	43	43	34	2.5	2	272	420	47.0	2 100	2 800	33021U
	190	39	36	30	3	2.5	320	380	41.0	1 900	2 500	30221U
	190	53	50	43	3	2.5	420	540	59.0	1 900	2 500	32221U
	225	53.5	49	41	4	3	485	535	56.0	1 700	2 300	30321U
	225	58	53	36	4	3	420	470	49.0	1 700	2 300	31321XU
	225	81.5	77	63	4	3	680	825	87.0	1 700	2 300	32321U
110	150	25	25	20	1.5	1.5	141	226	25.5	2 200	2 900	○ 32922XA
	170	38	38	29	2.5	2	261	390	43.0	2 000	2 700	32022XU

1) Smallest allowable dimension for chamfer dimension r or r_1 .
2) Bearings with a ○ mark do not incorporate the subunit dimensions.



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 , Y_2 and Y_0 see the table below.

ISO Dimension series	Installation-related dimensions									Load center mm	Constant	Axial load factors		Mass kg		
	d_a	d_b	D_a		mm D_b	S_a	S_b	r_{as}	r_{1as}			a	e		Y_2	Y_0
	Min.	Max.	Max.	Min.	Min.	Min.	Max.	Max.	Max.							
3FB	102	103	150	137	151	5	6.5	2	2	32	0.42	1.43	0.79	2.66		
3FC	102	101.5	150	134.5	153.5	5	8.5	2	2	36	0.42	1.43	0.79	3.49		
3FE	102	101.5	150	131.5	154.5	9	13	2	2.5	41	0.42	1.43	0.78	4.62		
2GB	108	112.5	176	162	177.5	5	10.5	3	2.5	37.5	0.35	1.74	0.96	5.83		
7GB	108	108.5	176	148.5	180.5	6	16.5	3	2.5	59	0.83	0.73	0.40	5.58		
2GD	108	108.5	176	154.5	179	5	14.5	3	2.5	45.5	0.35	1.74	0.96	8.66		
2BC	103.5	102	121.5	117	125.5	4	5	1.5	1.5	23.5	0.36	1.68	0.92	0.851		
4CC	105	105	136.5	126	140	6	8	2	1.5	31.5	0.44	1.36	0.75	1.85		
2CE	105	104.5	136.5	127.5	139.5	7	6.5	2	1.5	28.5	0.28	2.16	1.19	2.3		
3FB	109	109.5	158	146.5	160.5	5	7.5	2.5	2	34	0.42	1.43	0.79	3.12		
3FC	109	107.5	158	142.5	163	5	8.5	2.5	2	39	0.42	1.43	0.79	4.29		
2GB	113	118	186	168	185.5	5	11.5	3	2.5	40	0.35	1.74	0.96	6.69		
7GB	113	113.5	186	154.5	189	6	17.5	3	2.5	62.5	0.83	0.73	0.40	6.35		
2GD	113	114.5	186	163.5	187.5	5	16.5	3	2.5	49	0.35	1.74	0.96	10.1		
2CC	108.5	109	131.5	127.5	135.5	4	5	1.5	1.5	24.5	0.33	1.82	1.00	1.12		
	108.5	110	131.5	127	135	4	5	1.5	1.5	25	0.35	1.73	0.95	1.08		
4CB	114	108.5	131	130	140.5	4	6.5	2.5	2.5	30	0.47	1.27	0.70	1.14		
4CC	110	109.5	141.5	130.5	145	6	8	2	1.5	32.5	0.46	1.31	0.72	1.91		
2CE	110	108.5	141.5	132.5	144.5	7	6.5	2	1.5	29.5	0.29	2.09	1.15	2.4		
3FB	114	115.5	168	154.5	169.5	5	8	2.5	2	36	0.42	1.43	0.79	3.76		
3FC	114	113.5	168	151	172	5	10	2.5	2	41.5	0.42	1.43	0.79	5.11		
3FE	114	113	168	147	173	10	15	2.5	2	45.5	0.40	1.48	0.82	6.76		
2GB	118	126	201	181.5	199.5	5	12.5	3	2.5	41.5	0.35	1.74	0.96	8.3		
7GB	118	122.5	201	165.5	203	7	21.5	3	2.5	69	0.83	0.73	0.40	8.7		
2GD	118	122.5	201	174.5	201.5	5	17.5	3	2.5	53	0.35	1.74	0.96	12.8		
	113.5	113.5	136.5	131.5	140.5	5	5	1.5	1.5	25	0.34	1.76	0.97	1.2		
4DC	117	115.5	150	138.5	153.5	6	9	2	2	34.5	0.44	1.35	0.74	2.44		
2DE	117	116	150	141.5	153.5	7	9	2	2	31	0.28	2.12	1.17	3		
3FB	119	121.5	178	163	178.5	6	9	2.5	2	38	0.42	1.43	0.79	4.45		
3FC	119	119	178	158.5	181.5	6	10	2.5	2	44	0.42	1.43	0.79	6.23		
2GB	123	132	211	190	208.5	6	12.5	3	2.5	43.5	0.35	1.74	0.96	9.37		
7GB	123	128.5	211	173.5	213.5	7	22	3	2.5	71.5	0.83	0.73	0.40	9.65		
2GD	123	129	211	182.5	210.5	6	18.5	3	2.5	55	0.35	1.74	0.96	14.7		
	118.5	118.5	141.5	136.5	146	5	5	1.5	1.5	26.5	0.36	1.69	0.93	1.24		
4DC	122	122	160	147.5	164	7	9	2	2	36.5	0.43	1.39	0.77	3.07		