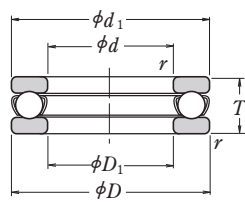
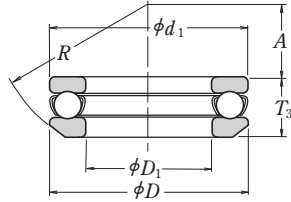


SINGLE-DIRECTION THRUST BALL BEARINGS

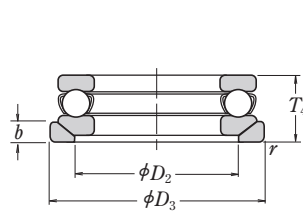
Bore Diameter 55 – 100 mm



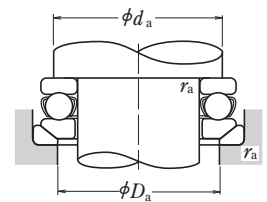
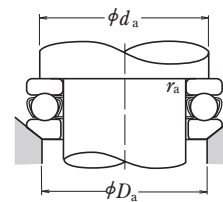
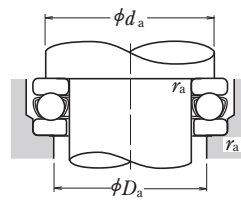
With Flat Seat



With Aligning Seat



With Aligning Seat Washer



Boundary Dimensions (mm)							Basic Load Ratings (N)		Limiting Speeds (min ⁻¹)		Bearing	Designations ⁽¹⁾			Dimensions (mm)							Abutment and Fillet Dimensions (mm)			Mass(kg) approx.		
d	D	T	T ₃	T ₄	r min.		C _a	C _{0a}	Grease	Oil	With Flat Seat	With Aligning Seat	With Aligning Seat Washer		d ₁	D ₁	D ₂	D ₃	b	A	R	d _a min.	D _a max.	r _a max.	With Flat Seat	With Aligning Seat	With Aligning Seat Washer
55	78	16	—	—	0.6		35 000	93 000	2 800	4 300	51111	—	—		78	57	—	—	—	—	—	69	64	0.6	0.227	—	—
	90	25	27.3	30	1		70 000	159 000	2 200	3 200	51211	53211	53211 U		90	57	72	95	9	35	72	76	69	1	0.599	0.656	0.819
	105	35	39.3	42	1.1		115 000	244 000	1 600	2 400	51311	53311	53311 U		105	57	80	110	11.5	30	80	85	75	1	1.31	1.45	1.78
	120	48	50.5	55	1.5		181 000	350 000	1 300	1 900	51411	53411	53411 U		120	57	88	125	15.5	28	90	94	81	1.5	2.58	2.59	3.16
60	85	17	—	—	1		41 500	113 000	2 600	4 000	51112	—	—		85	62	—	—	—	—	—	75	70	1	0.281	—	—
	95	26	28	31	1		71 500	169 000	2 000	3 000	51212	53212	53212 U		95	62	78	100	9	32.5	72	81	74	1	0.673	0.731	0.897
	110	35	38.3	42	1.1		119 000	263 000	1 600	2 400	51312	53312	53312 U		110	62	85	115	11.5	41	90	90	80	1	1.4	1.51	1.83
	130	51	54	58	1.5		202 000	395 000	1 200	1 800	51412	53412	53412 U		130	62	95	135	16	34	100	102	88	1.5	3.16	3.2	3.91
65	90	18	—	—	1		42 000	117 000	2 400	3 800	51113	—	—		90	67	—	—	—	—	—	80	75	1	0.324	—	—
	100	27	28.7	32	1		75 500	189 000	1 900	2 800	51213	53213	53213 U		100	67	82	105	9	40	80	86	79	1	0.756	0.812	0.989
	115	36	39.4	43	1.1		123 000	282 000	1 500	2 400	51313	53313	53313 U		115	67	90	120	12.5	38.5	90	95	85	1	1.54	1.67	2.04
	140	56	60.2	65	2		234 000	495 000	1 100	1 700	51413	53413	53413 U		140	68	100	145	17.5	40	112	110	95	2	4.1	4.22	5.13
70	95	18	—	—	1		43 500	127 000	2 400	3 600	51114	—	—		95	72	—	—	—	—	—	85	80	1	0.346	—	—
	105	27	28.8	32	1		74 000	189 000	1 900	2 800	51214	53214	53214 U		105	72	88	110	9	38	80	91	84	1	0.793	0.866	1.05
	125	40	44.2	48	1.1		137 000	315 000	1 400	2 000	51314	53314	53314 U		125	72	98	130	13	43	100	103	92	1	2.0	2.2	2.64
	150	60	63.6	69	2		252 000	555 000	1 000	1 500	51414	53414	53414 U		150	73	110	155	19.5	34	112	118	102	2	5.05	5.12	6.21
75	100	19	—	—	1		43 500	131 000	2 200	3 400	51115	—	—		100	77	—	—	—	—	—	90	85	1	0.389	—	—
	110	27	28.3	32	1		78 000	209 000	1 800	2 800	51215	53215	53215 U		110	77	92	115	9.5	49	90	96	89	1	0.845	1.27	1.11
	135	44	48.1	52	1.5		159 000	365 000	1 300	1 900	51315	53315	53315 U		135	77	105	140	15	37	100	111	99	1.5	2.6	2.8	3.42
	160	65	69	75	2		254 000	560 000	950	1 400	51415	53415	53415 U		160	78	115	165	21	42	125	125	110	2	6.15	6.23	7.58
80	105	19	—	—	1		45 000	141 000	2 200	3 400	51116	—	—		105	82	—	—	—	—	—	95	90	1	0.417	—	—
	115	28	29.5	33	1		79 000	218 000	1 800	2 600	51216	53216	53216 U		115	82	98	120	10	46	90	101	94	1	0.931	1.01	1.23
	140	44	47.6	52	1.5		164 000	395 000	1 300	1 900	51316	53316	53316 U		140	82	110	145	15	50	112	116	104	1.5	2.74	2.94	3.55
	170	68	72.2	78	2.1		272 000	620 000	900	1 300	51416	53416	53416 U		170	83	125	175	22	36	125	133	117	2	7.21	7.33	8.9
85	110	19	—	—	1		46 500	150 000	2 200	3 200	51117	—	—		110	87	—	—	—	—	—	100	95	1	0.44	—	—
	125	31	33.1	37	1		96 000	264 000	1 600	2 400	51217	53217	53217 U		125	88	105	130	11	52	100	109	101	1	1.22	1.35	1.63
	150	49	53.1	58	1.5		207 000	490 000	1 100	1 700	51317	53317	53317 U		150	88	115	155	17.5	43	112	124	111	1.5	3.57	3.78	4.67
	180	72	77	83	2.1		310 000	755 000	850	1 300	51417 X	53417 X	53417 XU		177	88	130	185	23	47	140	141	124	2	8.51	8.72	10.4
90	120	22	—	—	1		60 000	190 000	1 900	3 000	51118	—	—		120	92	—	—	—	—	—	108	102	1	0.646	—	—
	135	35	38.5	42	1.1		114 000	310 000	1 400	2 200	51218	53218	53218 U		135	93	110	140	13.5	45	100	117	108	1	1.69	1.89	2.38
	155	50	54.6	59	1.5		214 000	525 000	1 100	1 700	51318	53318	53318 U		155	93	120	160	18	40	112	129	116	1.5	3.83	4.11	5.09
	190	77	81.2	88	2.1		330 000	825 000	800	1 200	51418 X	53418 X	53418 XU		187	93	140	195	25.5	40	140	149	131	2	10.2	10.3	12.4
100	135	25	—	—	1		86 000	268 000	1 700	2 600	51120	—	—		135	102	—	—	—	—	—	121	114	1	0.96	—	—
	150	38	40.9	45	1.1		135 000	375 000	1 300	2 000	51220	53220	53220 U		150	103	125	155	14	52	112	130	120	1	2.25	2.49	3.03
	170	55	59.2	64	1.5		239 000	595 000	1 000	1 500	51320	53320	53320 U		170	103	135	175	18	46	125	142	128	1.5	4.98	5.31	6.37
	210	85	90	98	3		370 000	985 000	710	1 100	51420 X	53420 X	53420 XU		205	103	155	220	27	50	160	165	145	2.5	14.8	15	18.1

Note ⁽¹⁾ The outside diameter d_1 of shaft washers for bearing designations with an X is smaller than the outside diameter D of the housing washers.