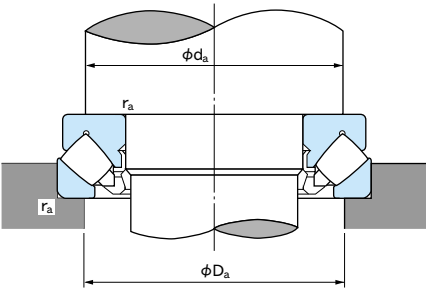
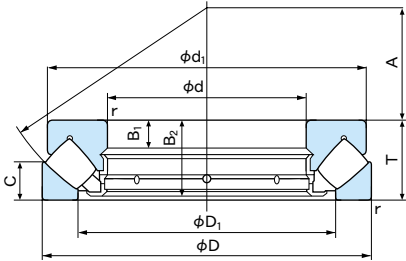


Spherical Roller Thrust Bearings

Bore Diameter : 60~220mm



- Dynamic equivalent axial load
Pa=Fa+1.2Fr
 - Static equivalent axial load
Poa=Fa+2.7Fr
where, Fa :Axial load
Fr :Radial load
- However $\frac{Fr}{Fa} \leq 0.55$ must be satisfied

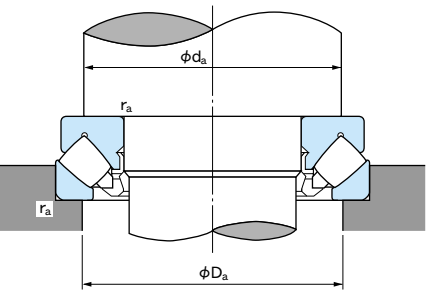
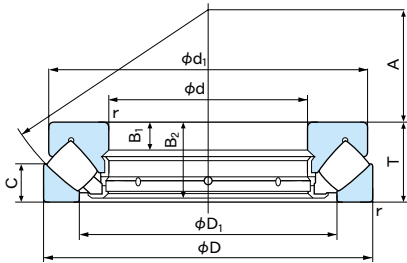
1N=0.102kgf

Boundary dimensions (mm)				Bearing No.	Basic dynamic load rating Ca (N)	Basic static load rating Coa (N)	Limiting speed (rpm)	Reference Dimensions (mm)						Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.
d	D	T	r (min)					Oil lubrication	d1	D1	B1	B2	C	A	da ⁽¹⁾ (min)	Da (max)	ra (max)	
60 65 70	130 140 150	42 45 48	1.5 2 2	29412E 29413E 29414E	299000 345000 375000	890000 1040000 1110000	2800 2700 2400	123 133 142	89 96 103	15 16 17	39.5 42.5 45.5	20 21 23	38 42 44	91 99 106	108 115 125	1.5 2 2	2.75 3.41 4.16	29412E 29413E 29414E
75 80	160 170	51 54	2 2.1	29415E 29416E	445000 480000	1380000 1490000	2300 2100	152 162	109 117	18 19	48 51	24 26	47 50	113 120	132 140	2 2	4.98 5.95	29415E 29416E
85	150 180	39 58	1.5 2.1	29317E 29417E	293000 540000	990000 1720000	2700 2000	143.5 170	114 125	13 21	37 55	19 28	50 54	115 130	135 150	1.5 2	2.87 7.19	29317E 29417E
90	155 190	39 60	1.5 2.1	29318E 29418E	300000 620000	1040000 2020000	2700 1900	148.5 180	117 132	13 22	37 57	19 29	52 56	120 135	140 157	1.5 2	3.06 8.28	29318E 29418E
100	170 210	42 67	1.5 3	29320E 29420E	355000 690000	1260000 2230000	2500 1700	163 200	129 146	14 24	40 64	20.8 32	58 62	130 150	150 175	1.5 2.5	3.91 11.2	29320E 29420E
110	190 230	48 73	2 3	29322E 29422E	470000 845000	1680000 2820000	2100 1500	182 220	143 162	16 26	45.5 69	23 35	64 69	145 165	165 190	2 2.5	5.67 14.7	29322E 29422E
120	210 250	54 78	2.1 4	29324E 29424E	565000 1030000	2030000 3450000	1900 1400	200 236	159 174	18 29	51 74	26 37	70 74	160 180	180 205	2 3	7.9 18.5	29324E 29424E
130	225 270	58 85	2.1 4	29326E 29426E	665000 1140000	2420000 3850000	1800 1200	215 255	171 189	19 31	55 81	28 41	76 81	170 195	195 225	2 3	9.45 23.5	29326E 29426E
140	240 280	60 85	2.1 4	29328E 29428E	700000 1200000	2560000 4050000	1600 1200	230 268	183 199	20 31	57 81	29 41	82 86	185 205	205 235	2 3	11.2 24.6	29328E 29428E
150	215 250 300	39 60 90	1.5 2.1 4	29230E 29330E 29430E	335000 735000 1330000	1390000 2840000 4600000	2100 1600 1100	208 240 285	178 194 214	14 20 32	37 57 86	19 29 44	82 87 92	179 195 220	196 215 250	1.5 2 3	4.60 11.7 29.6	29230E 29330E 29430E
160	225 270 320	39 67 95	1.5 3 5	29232E 29332E 29432E	345000 880000 1510000	1470000 3400000 5350000	2100 1400 1000	219 260 306	188 208 229	14 23 34	37 64 91	19 32 45	85 92 99	189 210 230	206 235 265	1.5 2.5 4	4.70 15.5 35.9	29232E 29332E 29432E
170	240 280 340	42 67 103	1.5 3 5	29234E 29334E 29434E	390000 900000 1670000	1700000 3550000 5900000	1900 1400 950	233 270 324	198 216 243	15 23 37	40 64 99	20 32 50	92 96 104	201 220 245	218 245 285	1.5 2.5 4	6.00 16.3 44.0	29234E 29334E 29434E
180	250 300 360	42 73 109	1.5 3 5	29236E 29336E 29436E	420000 1020000 1950000	1900000 3950000 7000000	1900 1300 860	243 290 342	208 232 255	15 25 39	40 69 105	21 35 52	95 103 110	211 235 260	228 260 300	1.5 2.5 4	6.30 20.7 52.2	29236E 29336E 29436E
190	270 320 380	48 78 115	2 4 5	29238E 29338E 29438E	540000 1170000 2120000	2300000 4550000 7750000	1800 1100 800	262 308 360	223 246 271	15 27 41	45 74 111	24 38 55	104 110 117	225 250 275	245 275 320	2 3 4	8.50 25.5 61.4	29238E 29338E 29438E
200	280 340 400	48 85 122	2 4 5	29240E 29340E 29440E	550000 1350000 2350000	2410000 5250000 8450000	1800 1000 740	271 325 380	236 261 286	15 29 43	45 81 117	24 41 59	108 116 122	235 265 290	255 295 335	2 3 4	9.08 32 73	29240E 29340E 29440E
220	300 360 420	48 85 122	2 4 6	29244E 29344E 29444E	595000 1410000 2410000	2750000 5750000 8950000	1600 1000 720	292 345 400	254 280 308	15 29 43	45 81 117	24 41 58	117 125 132	260 285 310	275 315 355	2 3 5	9.84 34.5 74.2	29244E 29344E 29444E

Note: (1) For heavy load application, da should be large enough to support the shaft washer rib.

Spherical Roller Thrust Bearings

Bore Diameter : 240~530mm



- Dynamic equivalent axial load
 $P_a = F_a + 1.2 F_r$
 - Static equivalent axial load
 $P_{0a} = F_a + 2.7 F_r$
where, F_a : Axial load
 F_r : Radial load
- However $\frac{F_r}{F_a} \leq 0.55$ must be satisfied

1N=0.102kgf

Boundary dimensions (mm)				Bearing No.	Basic dynamic load rating Ca (N)	Basic static load rating Coa (N)	Limiting speed (rpm)	Reference Dimensions (mm)						Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.
d	D	T	r (min)					Oil lubrication	d1	D1	B1	B2	C	A	da (1) (min)	Da (max)	ra (max)	
240	340	60	2.1	29248E 29348E 29448E	890000	4000000	1300	330	283	19	57	30	130	285	305	2	17.1	29248E
	380	85	4		1410000	5850000	980	365	300	29	81	41	135	300	330	3	36.3	29348E
	440	122	6		2480000	9450000	720	420	326	43	117	59	142	330	375	5	83	29448E
260	360	60	2.1	29252E 29352E 29452E	915000	4250000	1300	350	302	19	57	30	139	305	325	2	18.5	29252E
	420	95	5		1810000	7500000	860	405	329	32	91	45	148	330	365	4	51.5	29352E
	480	132	6		2940000	11600000	640	460	357	48	127	64	154	360	405	5	106	29452E
280	380	60	2.1	29256E 29356E 29456E	935000	4500000	1200	370	323	19	57	30	150	325	345	2	19.5	29256E
	440	95	5		1850000	7950000	840	423	348	32	91	46	158	350	390	4	54	29356E
	520	145	6		3450000	13500000	580	495	387	52	140	68	166	390	440	5	137	29456E
300	420	73	3	29260E 29360E 29460E	1220000	5850000	1000	405	353	21	69	38	162	355	380	2.5	31	29260E
	480	109	5		2310000	10000000	720	460	379	37	105	50	168	380	420	4	75.4	29360E
	540	145	6		3650000	14800000	540	515	402	52	140	70	175	410	460	5	146	29460E
320	440	73	3	29264E 29364E 29464E	1270000	6150000	980	430	372	21	69	38	172	375	400	2.5	32.8	29264E
	500	109	5		2370000	10600000	720	482	399	37	105	53	180	400	440	4	80	29364E
	580	155	7.5		4050000	16800000	480	555	435	55	149	75	191	435	495	6	179	29464E
340	460	73	3	29268E 29368E 29468E	1290000	6350000	950	445	395	21	69	37	183	395	420	2.5	34.5	29268E
	540	122	5		2850000	12400000	630	520	428	41	117	59	192	430	470	4	106	29368E
	620	170	7.5		4750000	19300000	430	590	462	61	164	82	201	465	530	6	228	29468E
360	500	85	4	29272E 29372E 29472E	1650000	8050000	830	485	423	25	81	44	194	420	455	3	50.4	29272E
	560	122	5		2900000	12900000	600	540	448	41	117	59	202	450	495	4	111	29372E
	640	170	7.5		4900000	20500000	410	610	480	61	164	82	210	485	550	6	234	29472E
380	520	85	4	29276E 29376E 29476E	1780000	8800000	800	505	441	27	81	42	202	440	475	3	52.8	29276E
	600	132	6		3400000	15300000	540	580	477	44	127	63	216	480	525	5	140	29376E
	670	175	7.5		5200000	22000000	400	640	504	63	168	85	230	510	575	6	263	29476E
400	540	85	4	29280E 29380E 29480E	1840000	9250000	800	526	460	27	81	42	212	460	490	3	55.1	29280E
	620	132	6		3550000	16300000	530	596	494	44	127	64	225	500	550	5	146	29380E
	710	185	7.5		5850000	25000000	360	680	534	67	178	89	236	540	610	6	314	29480E
420	580	95	5	29284E 29384E 29484E	2260000	11300000	700	564	489	30	91	46	225	490	525	4	74.9	29284E
	650	140	6		3900000	17900000	480	626	520	48	135	68	235	525	575	5	170	29384E
	730	185	7.5		6050000	26000000	360	700	556	67	178	89	244	560	630	6	325	29484E
440	600	95	5	29288E 29388E 29488E	2290000	11800000	660	585	508	30	91	49	235	510	545	4	79	29288E
	680	145	6		4050000	19000000	450	655	548	49	140	70	245	550	600	5	192	29388E
	780	206	9.5		6950000	30000000	300	745	588	74	199	100	260	595	670	8	421	29488E
460	620	95	5	29292E 29392E 29492E	2290000	11900000	660	605	530	30	91	46	245	530	570	4	80.9	29292E
	710	150	6		4600000	21700000	430	685	567	51	144	72	257	575	630	5	216	29392E
	800	206	9.5		7150000	31500000	290	765	608	74	199	100	272	615	690	8	435	29492E
480	650	103	5	29296E 29396E 29496E	2530000	13200000	600	635	556	33	99	55	259	555	595	4	97.5	29296E
	730	150	6		4630000	21900000	410	705	590	51	144	72	270	595	650	5	224	29396E
	850	224	9.5		8250000	36000000	260	810	638	81	216	108	280	645	730	8	543	29496E
500	670	103	5	292/500E 293/500E 294/500E	2590000	13800000	600	654	574	33	99	55	268	575	615	4	101	292/500E
	750	150	6		4700000	22600000	410	725	611	51	144	74	280	615	670	5	231	293/500E
	870	224	9.5		8250000	35000000	250	830	661	81	216	107	290	670	750	8	559	294/500E
530	710	109	5	292/530E	2820000	15100000	540	692	612	35	105	57	288	615	653	4	106	292/530E

Note: (1) For heavy load application, da should be large enough to support the shaft washer rib.