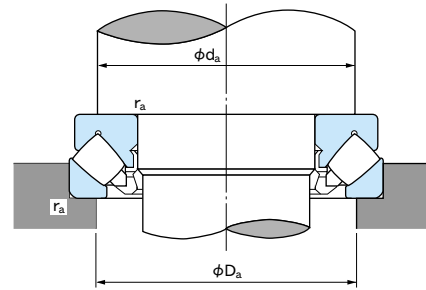
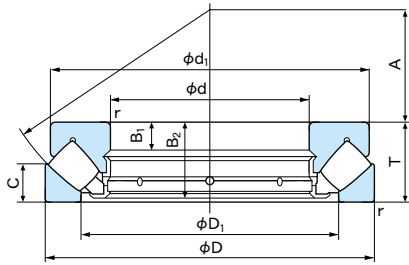


Spherical Roller Thrust Bearings

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

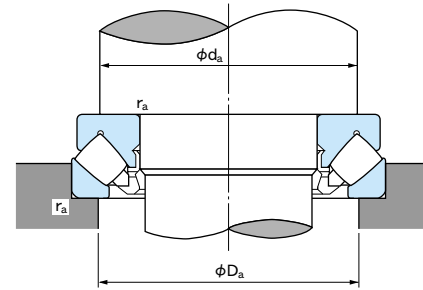
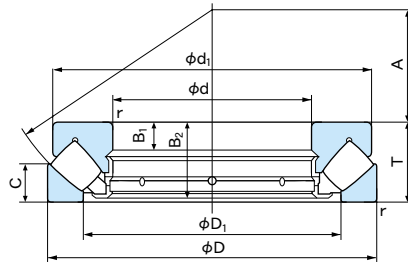
1N=0.102kgf

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	d <sub>1</sub>	D <sub>1</sub>	B <sub>1</sub>	B <sub>2</sub>	C	A	d <sub>a</sub> <sup>(1)</sup> (min)	D <sub>a</sub> (max)		
60	130	42	1.5	29412E	299000	890000	2800	123	89	15	39.5	20	38	91	108	1.5	2.75	29412E
65	140	45	2	29413E	345000	1040000	2700	133	96	16	42.5	21	42	99	115	2	3.41	29413E
70	150	48	2	29414E	375000	1110000	2400	142	103	17	45.5	23	44	106	125	2	4.16	29414E
75	160	51	2	29415E	445000	1380000	2300	152	109	18	48	24	47	113	132	2	4.98	29415E
80	170	54	2.1	29416E	480000	1490000	2100	162	117	19	51	26	50	120	140	2	5.95	29416E
85	150	39	1.5	29317E	293000	990000	2700	143.5	114	13	37	19	50	115	135	1.5	2.87	29317E
	180	58	2.1	29417E	540000	1720000	2000	170	125	21	55	28	54	130	150	2	7.19	29417E
90	155	39	1.5	29318E	300000	1040000	2700	148.5	117	13	37	19	52	120	140	1.5	3.06	29318E
	190	60	2.1	29418E	620000	2020000	1900	180	132	22	57	29	56	135	157	2	8.28	29418E
100	170	42	1.5	29320E	355000	1260000	2500	163	129	14	40	20.8	58	130	150	1.5	3.91	29320E
	210	67	3	29420E	690000	2230000	1700	200	146	24	64	32	62	150	175	2.5	11.2	29420E
110	190	48	2	29322E	470000	1680000	2100	182	143	16	45.5	23	64	145	165	2	5.67	29322E
	230	73	3	29422E	845000	2820000	1500	220	162	26	69	35	69	165	190	2.5	14.7	29422E
120	210	54	2.1	29324E	565000	2030000	1900	200	159	18	51	26	70	160	180	2	7.9	29324E
	250	78	4	29424E	1030000	3450000	1400	236	174	29	74	37	74	180	205	3	18.5	29424E
130	225	58	2.1	29326E	665000	2420000	1800	215	171	19	55	28	76	170	195	2	9.45	29326E
	270	85	4	29426E	1140000	3850000	1200	255	189	31	81	41	81	195	225	3	23.5	29426E
140	240	60	2.1	29328E	700000	2560000	1600	230	183	20	57	29	82	185	205	2	11.2	29328E
	280	85	4	29428E	1200000	4050000	1200	268	199	31	81	41	86	205	235	3	24.6	29428E
150	215	39	1.5	29230E	335000	1390000	2100	208	178	14	37	19	82	179	196	1.5	4.60	29230E
	250	60	2.1	29330E	735000	2840000	1600	240	194	20	57	29	87	195	215	2	11.7	29330E
	300	90	4	29430E	1330000	4600000	1100	285	214	32	86	44	92	220	250	3	29.6	29430E
160	225	39	1.5	29232E	345000	1470000	2100	219	188	14	37	19	85	189	206	1.5	4.70	29232E
	270	67	3	29332E	880000	3400000	1400	260	208	23	64	32	92	210	235	2.5	15.5	29332E
	320	95	5	29432E	1510000	5350000	1000	306	229	34	91	45	99	230	265	4	35.9	29432E
170	240	42	1.5	29234E	390000	1700000	1900	233	198	15	40	20	92	201	218	1.5	6.00	29234E
	280	67	3	29334E	900000	3550000	1400	270	216	23	64	32	96	220	245	2.5	16.3	29334E
	340	103	5	29434E	1670000	5900000	950	324	243	37	99	50	104	245	285	4	44.0	29434E
180	250	42	1.5	29236E	420000	1900000	1900	243	208	15	40	21	95	211	228	1.5	6.30	29236E
	300	73	3	29336E	1020000	3950000	1300	290	232	25	69	35	103	235	260	2.5	20.7	29336E
	360	109	5	29436E	1950000	7000000	860	342	255	39	105	52	110	260	300	4	52.2	29436E
190	270	48	2	29238E	540000	2300000	1800	262	223	15	45	24	104	225	245	2	8.50	29238E
	320	78	4	29338E	1170000	4550000	1100	308	246	27	74	38	110	250	275	3	25.5	29338E
	380	115	5	29438E	2120000	7750000	800	360	271	41	111	55	117	275	320	4	61.4	29438E
200	280	48	2	29240E	550000	2410000	1800	271	236	15	45	24	108	235	255	2	9.08	29240E
	340	85	4	29340E	1350000	5250000	1000	325	261	29	81	41	116	265	295	3	32	29340E
	400	122	5	29440E	2350000	8450000	740	380	286	43	117	59	122	290	335	4	73	29440E
220	300	48	2	29244E	595000	2750000	1600	292	254	15	45	24	117	260	275	2	9.84	29244E
	360	85	4	29344E	1410000	5750000	1000	345	280	29	81	41	125	285	315	3	34.5	29344E
	420	122	6	29444E	2410000	8950000	720	400	308	43	117	58	132	310	355	5	74.2	29444E

Note: (1) For heavy load application, d<sub>a</sub> should be large enough to support the shaft washer rib.

Spherical Roller Thrust Bearings

Bore Diameter : 240~530mm



- Dynamic equivalent axial load  
 $P_a = F_a + 1.2F_r$
  - Static equivalent axial load  
 $P_{0a} = F_a + 2.7F_r$   
 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	d <sub>1</sub>	D <sub>1</sub>	B <sub>1</sub>	B <sub>2</sub>	C	A	d <sub>a</sub> (1) (min)	D <sub>a</sub> (max)			r <sub>a</sub> (max)
240	340	60	2.1	29248E 29348E 29448E	890000	4000000	1300	330	283	19	57	30	130	285	305	2	17.1	29248E 29348E 29448E	
	380	85	4		1410000	5850000		980	365	300	29	81	41	135	300	330	3		36.3
	440	122	6		2480000	9450000		720	420	326	43	117	59	142	330	375	5		83
260	360	60	2.1	29252E 29352E 29452E	915000	4250000	1300	350	302	19	57	30	139	305	325	2	18.5	29252E 29352E 29452E	
	420	95	5		1810000	7500000		860	405	329	32	91	45	148	330	365	4		51.5
	480	132	6		2940000	11600000		640	460	357	48	127	64	154	360	405	5		106
280	380	60	2.1	29256E 29356E 29456E	935000	4500000	1200	370	323	19	57	30	150	325	345	2	19.5	29256E 29356E 29456E	
	440	95	5		1850000	7950000		840	423	348	32	91	46	158	350	390	4		54
	520	145	6		3450000	13500000		580	495	387	52	140	68	166	390	440	5		137
300	420	73	3	29260E 29360E 29460E	1220000	5850000	1000	405	353	21	69	38	162	355	380	2.5	31	29260E 29360E 29460E	
	480	109	5		2310000	10000000		720	460	379	37	105	50	168	380	420	4		75.4
	540	145	6		3650000	14800000		540	515	402	52	140	70	175	410	460	5		146
320	440	73	3	29264E 29364E 29464E	1270000	6150000	980	430	372	21	69	38	172	375	400	2.5	32.8	29264E 29364E 29464E	
	500	109	5		2370000	10600000		720	482	399	37	105	53	180	400	440	4		80
	580	155	7.5		4050000	16800000		480	555	435	55	149	75	191	435	495	6		179
340	460	73	3	29268E 29368E 29468E	1290000	6350000	950	445	395	21	69	37	183	395	420	2.5	34.5	29268E 29368E 29468E	
	540	122	5		2850000	12400000		630	520	428	41	117	59	192	430	470	4		106
	620	170	7.5		4750000	19300000		430	590	462	61	164	82	201	465	530	6		228
360	500	85	4	29272E 29372E 29472E	1650000	8050000	830	485	423	25	81	44	194	420	455	3	50.4	29272E 29372E 29472E	
	560	122	5		2900000	12900000		600	540	448	41	117	59	202	450	495	4		111
	640	170	7.5		4900000	20500000		410	610	480	61	164	82	210	485	550	6		234
380	520	85	4	29276E 29376E 29476E	1780000	8800000	800	505	441	27	81	42	202	440	475	3	52.8	29276E 29376E 29476E	
	600	132	6		3400000	15300000		540	580	477	44	127	63	216	480	525	5		140
	670	175	7.5		5200000	22000000		400	640	504	63	168	85	230	510	575	6		263
400	540	85	4	29280E 29380E 29480E	1840000	9250000	800	526	460	27	81	42	212	460	490	3	55.1	29280E 29380E 29480E	
	620	132	6		3550000	16300000		530	596	494	44	127	64	225	500	550	5		146
	710	185	7.5		5850000	25000000		360	680	534	67	178	89	236	540	610	6		314
420	580	95	5	29284E 29384E 29484E	2260000	11300000	700	564	489	30	91	46	225	490	525	4	74.9	29284E 29384E 29484E	
	650	140	6		3900000	17900000		480	626	520	48	135	68	235	525	575	5		170
	730	185	7.5		6050000	26000000		360	700	556	67	178	89	244	560	630	6		325
440	600	95	5	29288E 29388E 29488E	2290000	11800000	660	585	508	30	91	49	235	510	545	4	79	29288E 29388E 29488E	
	680	145	6		4050000	19000000		450	655	548	49	140	70	245	550	600	5		192
	780	206	9.5		6950000	30000000		300	745	588	74	199	100	260	595	670	8		421
460	620	95	5	29292E 29392E 29492E	2290000	11900000	660	605	530	30	91	46	245	530	570	4	80.9	29292E 29392E 29492E	
	710	150	6		4600000	21700000		430	685	567	51	144	72	257	575	630	5		216
	800	206	9.5		7150000	31500000		290	765	608	74	199	100	272	615	690	8		435
480	650	103	5	29296E 29396E 29496E	2530000	13200000	600	635	556	33	99	55	259	555	595	4	97.5	29296E 29396E 29496E	
	730	150	6		4630000	21900000		410	705	590	51	144	72	270	595	650	5		224
	850	224	9.5		8250000	36000000		260	810	638	81	216	108	280	645	730	8		543
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 293/500E 294/500E	
	750	150	6		4700000	22600000		410	725	611	51	144	74	280	615	670	5		231
	870	224	9.5		8250000	35000000		250	830	661	81	216	107	290	670	750	8		559
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, d<sub>a</sub> should be large enough to support the shaft washer rib.