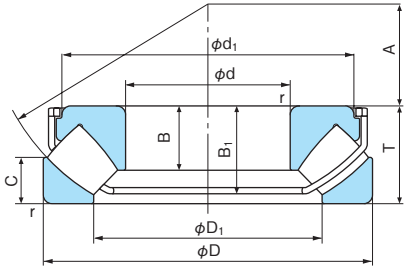
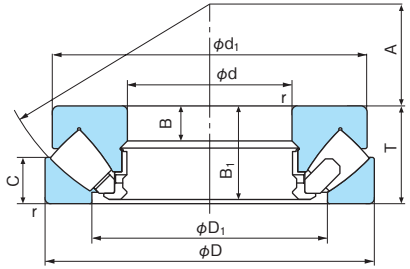
Spherical Roller Thrust Bearings

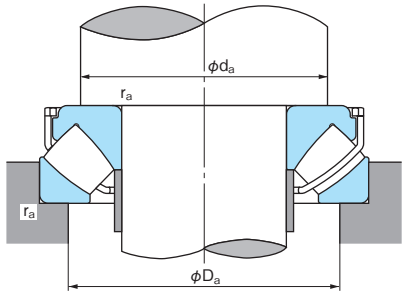
Bore Diameter: 60～130mm

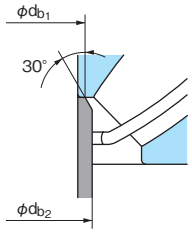


Type EX



Type E





Dynamic equivalent axial load

Pa=Fa+1.2Fr

Static equivalent axial load

Poa=Fa+2.7Fr

where, Fa: Axial load

Fr : Radial load

However $\frac{Fr}{Fa} \leqq 0.55$

However Fr/Fa ≦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 (min-1)		Reference Dimensions (mm)						Abutment and fillet dimensions (mm)			Spacer dimensions (mm)		Mass (kg) (Reference)	Bearing No.
d	D	T	r (min)				Grease lubrication	Oil lubrication	d_1	D_1	B	B_1	C	A	d_a (min)	D_a (max)	r_a (max)	db_1 (max)	db_2 (max)		
60	130	42	1.5	**29412E**	299000	890000	—	2800	123	89	15	39.5	20	38	91	108	1.5	—	—	2.75	**29412E**
	130	42	1.5	**29412EX**	350000	915000	1800	2800	113	87	27	37.1	20	38	91	108	1.5	66.0	66.0	2.50	**29412EX**
65	140	45	2	**29413E**	345000	1040000	—	2700	133	96	16	42.5	21	42	99	115	2.0	—	—	3.41	**29413E**
	140	45	2	**29413EX**	410000	1110000	1700	2700	123	93.5	29.5	40	21	42	99	115	2.0	72.0	72.0	3.20	**29413EX**
70	150	48	2	**29414E**	375000	1110000	—	2400	142	103	17	45.5	23	44	106	125	2.0	—	—	4.16	**29414E**
	150	48	2	**29414EX**	490000	1350000	1600	2400	128.3	98.4	32	42.7	23	44	106	125	2.0	75.5	77.5	3.82	**29414EX**
75	160	51	2	**29415E**	445000	1380000	—	2300	152	109	18	48	24	47	113	132	2.0	—	—	4.98	**29415E**
	160	51	2	**29415EX**	525000	1470000	1600	2300	140	105.6	34.5	45.6	24	47	113	132	2.0	82.5	82.5	4.70	**29415EX**
80	170	54	2.1	**29416E**	480000	1490000	—	2100	162	117	19	51	26	50	120	140	2.0	—	—	5.95	**29416E**
	170	54	2.1	**29416EX**	580000	1630000	1500	2100	149	113	36	48.2	26	50	120	140	2.0	88.0	88.0	5.60	**29416EX**
85	150	39	1.5	**29317E**	293000	990000	—	2700	143.5	114	13	37	19	50	115	135	1.5	—	—	2.87	**29317E**
	150	39	1.5	**29317EX**	365000	1060000	1600	2700	134	110.5	25	35	19	50	115	135	1.5	90.0	90.0	2.67	**29317EX**
	180	58	2.1	**29417E**	540000	1720000	—	2000	170	125	21	55	28	54	130	150	2.0	—	—	7.19	**29417E**
	180	58	2.1	**29417EX**	640000	1810000	1300	2000	158.2	120.5	37	50.6	28	54	130	150	2.0	94.0	94.0	6.69	**29417EX**
90	155	39	1.5	**29318E**	300000	1040000	—	2700	148.5	117	13	37	19	52	120	140	1.5	—	—	3.06	**29318E**
	155	39	1.5	**29318EX**	355000	1070000	1600	2700	135.2	116	23.8	35.1	19	52	120	140	1.5	95.0	95.0	2.75	**29318EX**
	190	60	2.1	**29418E**	620000	2020000	—	1900	180	132	22	57	29	56	135	157	2.0	—	—	8.28	**29418E**
	190	60	2.1	**29418EX**	710000	2080000	1300	1900	162	127	40.5	53	29	56	135	157	2.0	99.0	99.0	7.83	**29418EX**
100	170	42	1.5	**29320E**	355000	1260000	—	2500	163	129	14	40	20.8	58	130	150	1.5	—	—	3.91	**29320E**
	170	42	1.5	**29320EX**	435000	1400000	1500	2500	146.9	126	27	38.2	20.8	58	130	150	1.5	105.0	107.0	3.61	**29320EX**
	210	67	3	**29420E**	690000	2230000	—	1700	200	146	24	64	32	62	150	175	2.5	—	—	11.2	**29420E**
	210	67	3	**29420EX**	870000	2530000	1100	1700	181	139	44.5	59.6	32	62	150	175	2.5	108.0	110.0	10.6	**29420EX**
110	190	48	2	**29322E**	470000	1680000	—	2100	182	143	16	45.5	23	64	145	165	2.0	—	—	5.67	**29322E**
	190	48	2	**29322EX**	550000	1730000	1300	2100	165.1	140.6	30.9	44	23	64	145	165	2.0	116.0	117.0	5.22	**29322EX**
	230	73	3	**29422E**	845000	2820000	—	1500	220	162	26	69	35	69	165	190	2.5	—	—	14.7	**29422E**
	230	73	3	**29422EX**	1060000	3150000	950	1500	199.6	153.4	48	64.4	35	69	165	190	2.5	119.5	120.0	14.0	**29422EX**
120	210	54	2.1	**29324E**	565000	2030000	—	1900	200	159	18	51	26	70	160	180	2.0	—	—	7.90	**29324E**
	210	54	2.1	**29324EX**	670000	2160000	1100	1900	184.5	155	34.5	48.7	26	70	160	180	2.0	127.0	128.0	7.30	**29324EX**
	250	78	4	**29424E**	1030000	3450000	—	1400	236	174	29	74	37	74	180	205	3.0	—	—	18.5	**29424E**
	250	78	4	**29424EX**	1210000	3750000	900	1400	218	166.5	54	70.9	37	74	180	205	3.0	131.0	132.0	17.6	**29424EX**
130	225	58	2.1	**29326E**	665000	2420000	—	1800	215	171	19	55	28	76	170	195	2.0	—	—	9.45	**29326E**
	225	58	2.1	**29326EX**	770000	2440000	1000	1800	197.4	165.8	36.8	52.7	28	76	170	195	2.0	136.0	138.0	8.82	**29326EX**
	270	85	4	**29426E**	1140000	3850000	—	1200	255	189	31	81	41	81	195	225	3.0	—	—	23.5	**29426E**
	270	85	4	**29426EX**	1400000	4300000	850	1200	236.4	181	56	75	41	81	195	225	3.0	141.5	143.0	22.3	**29426EX**

Note: For heavy load application, d_a should be large enough to support the shaft washer rib.