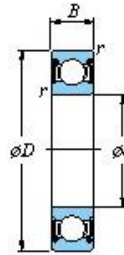
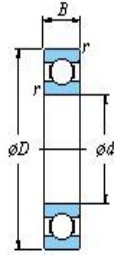


EE Series Miniature Ball Bearing Specifications



Boundary dimensions (mm/inch)					Basic load ratings (kN/lbs)		Max axial (kN/lbs) *See note below*	Limiting speeds (rpm) approx.			Basic bearing #
d	D	B		r (min.)	Open	Cor		Grease lub.		Oil lub	
		Open	Shields/seals		Cr	Cor	Z, ZZ, RU, 2RU	RS, 2RS	(Z)		
3.175 / .1250	9.525 / .3750	3.967 / .1562	3.967 / .1562	.300 / .0197	.64 / 144	.23 / 52	.5463 / 123	59,000	36,000	70,000	EE0
4.763 / .1875	12.700 / .5000	3.967 / .1562	4.978 / .1960	.300 / .0118	1.30 / 293	.49 / 110	.5366 / 121	50,000	30,500	60,000	EE1
6.350 / .2500	15.875 / .6250	4.978 / .1960	4.978 / .1960	.300 / .0118	1.48 / 333	.62 / 140	.2297 / 52	44,000	26,800	52,000	EE1-1/2
6.350 / .2500	19.050 / .7500	5.558 / .2188	7.142 / .2812	.500 / .0197	2.80 / 630	1.05 / 236	.8063 / 181	40,000	24,400	47,000	EE2
9.525 / .3750	22.225 / .8750	5.558 / .2188	7.142 / .2812	.500 / .0197	3.35 / 754	1.40 / 315	1.1794 / 265	33,000	20,100	40,000	EE3
12.700 / .5000	28.575 / 1.1250	6.350 / .2500	7.938 / .3125	.450 / .0177	5.10 / 1148	2.40 / 540	1.6339 / 368	15,600	9,500	24,000	EE4
15.875 / .6250	34.925 / 1.3750	7.142 / .2812	8.733 / .3438	1.200 / .0472	6.00 / 1350	3.25 / 731	2.0966 / 472	12,700	7,800	19,600	EE5
19.050 / .7500	41.275 / 1.6250	7.938 / .3125	11.113 / .4375	1.200 / .0472	7.95 / 1789	4.45 / 1001	.9830 / 221	11,400	6,900	17,500	EE6
19.050 / .7500	44.450 / 1.7500	9.525 / .3750	12.700 / .5000	1.200 / .0472	9.40 / 2115	5.50 / 1238	2.5859 / 582	10,200	6,200	15,700	EE7
22.225 / .8750	47.625 / 1.8750	9.525 / .3750	12.700 / .5000	1.200 / .0472	10.10 / 2273	5.85 / 1316	2.8841 / 649	9,300	5,700	14,300	EE8
25.400 / 1.0000	50.800 / 2.0000	9.525 / .3750	12.700 / .5000	1.200 / .0472	10.70 / 2408	6.60 / 1485	2.8841 / 649	8,500	5,200	13,100	EE9
28.575 / 1.1250	53.975 / 2.1250	9.525 / .3750	12.700 / .5000	1.200 / .0472	10.60 / 2385	6.70 / 1508	N/A	7,900	4,800	12,100	EE10
31.750 / 1.2500	57.150 / 2.2500	9.525 / .3750	12.700 / .5000	1.200 / .0472	10.60 / 2385	6.80 / 1530	N/A	7,300	4,400	11,200	EE11
34.925 / 1.3750	63.500 / 2.5000	11.113 / .4375	14.288 / .5625	1.200 / .0472	16.00 / 3600	10.30 / 2318	N/A	6,200	3,800	9,500	EE12
38.100 / 1.5000	66.700 / 2.6250	11.100 / .4375	14.300 / .5625	0.900 / 0.0390	16.70 / 3761	9.20 / 2079	N/A	9,000	N/A	11,000	EE13

Note - Please realize that this maximum load is strictly based on a maximum allowable contact stresses within the bearing. It is not related to a specified life.

EE Series Miniature Ball Bearing Specifications

Table 7-2 Radial internal clearance of extra-small/miniature ball bearings

unit: microns

Clearance code	M1		M2		M3		M4		M5		M6	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
Clearance	0	5	3	8	5	10	8	13	13	20	20	28

[Remark] For measured clearance, the following amounts should be added for correction.

Measurement load, N	Amounts of clearance correction, μ m					
	M1	M2	M3	M4	M5	M6
2.3	1	1	1	1	1	1

Miniature ball bearing : under 9 mm in outside diameter

Extra-small ball bearing : 9 mm or larger in outside diameter and under 10 mm in bore diameter

Table 7-1 Radial internal clearance of deep groove ball bearings

units: microns

Nominal bore diameter d , mm		Clearance									
		C2		CN		C3		C4		C5	
over	up to	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
2.5	6	0	7	2	13	8	23	14	29	20	37
6	10	0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120
100	120	2	20	15	41	36	66	61	97	90	140
120	140	2	23	18	48	41	81	71	114	105	160
140	160	2	23	18	53	46	91	81	130	120	180
160	180	2	25	20	61	53	102	91	147	135	200
180	200	2	30	25	71	63	117	107	163	150	230
200	225	2	35	25	85	75	140	125	195	175	265
225	250	2	40	30	95	85	160	145	225	205	300
250	280	2	45	35	105	90	170	155	245	225	340
280	315	2	55	40	115	100	190	175	270	245	370
315	355	3	60	45	125	110	210	195	300	275	410
355	400	3	70	55	145	130	240	225	340	315	460

[Remarks] 1 For measured clearance, the increase of radial internal clearance caused by the measurement load

2 Values typed in italics are based on the Koyo standards.

Nominal bore diameter d , mm		Measurement load N	Amounts of clearance correction, μ m				
			C2	CN	C3	C4	C5
2.5	18	24.5	3 to 4	4	4	4	4
18	50	49	4 to 5	5	6	6	6
50	280	147	6 to 8	8	9	9	9