





Deep Groove Ball Bearings

 101



Deep Groove Ball Bearings

 121

Deep Groove Ball Bearings with a Snap Ring Groove

  127

Deep Groove Ball Bearings with Shield

  133

Deep Groove Ball Bearings with Seals



Deep Groove Ball Bearings

LYC's deep groove ball bearings are one kind of radial bearings widely used. They are simple in structure, non-separable and cheap in price. In addition, they require little maintenance in service, and they are capable to be operated at high speeds.

Both the inner and outer ring of single row deep groove ball bearings have a deep groove raceway, and they are with good sealing quality between raceway and ball. This enable them to carry radial loads as well as certain axial loads. After the radial clearance is increased, the axial load carrying capacity will be improved. This is the reason why they can replace high speed angular contact ball bearings in some cases.

Sealed Bearings

LYC's deep groove ball bearings have various types of structure. Not only the open type bearings are provided, but also the bearings with shield or seal at one side, shields or seals at both sides.

The seal ring can be divided into contact and non-contact (low friction) according to contact ways. Usually the bearings with seals at both sides have been filled with grease lubricant before delivery. The filler amount would be 25%-30% of the effective space in bearings. If customers have special requirements, other types of greases can be filled and the filler amount could be adjusted accordingly.

The bearings sealed at both sides are forbidden to washed. Bearings with seals can maintain their reliable operation at working temperature between -30°C and 100°C.

Contact sealed bearings should not be chosen to use in high speed working conditions, because the friction existing between seal and inner ring of the bearing would make the ambient temperature higher than that of non-contact sealed bearings. As a consequence, contact sealed bearings are suitable for middle or slow speed working conditions.

Deep Groove Ball Bearings with a Snap Ring Groove

Deep groove ball bearings with a snap ring groove can be located by a snap ring. When installing, they can be fastened in the housing by a snap ring. So when the mounting position is limited, a deep groove ball bearing with a snap ring groove would be the first choice.

After a combined design, shields, seals and snap ring groove mentioned above can be provided according to different applications.

Low-Noise Bearings

In order to meet users' special needs of bearings with low noise (or low vibration), LYC can provide users with deep groove ball bearings with different levels of vibration, which are identified by a suffix. This is explained in the chapter of "LYC Bearing Designation".

LYC can provide customers deep groove ball bearings with other structures, such as insulative deep groove ball bearing, ceramic deep groove ball bearing, stainless steel deep groove ball bearing, and a full ball bearing with filling slot etc. All types can not be listed in this catalogue. If customers require other types, then please consult LYC technical department.

Cage

LYC deep groove ball bearings are supplied with a pressed steel cage, a machined solid cage or glass fiber reinforced polyimide 66 and other engineering plastic cages. Cages of different materials are identified by suffix, the designation is explained in the chapter of "LYC Bearing Designation"

Axial Load Carrying Capacity

Generally, if the deep groove ball bearings are need to carry pure axial load, the load can not be over 0.5C0. For bearings with a small size (inner diameter is under 12mm) and light series (the diameter series is 8、9、0 and 1), the axial load can not be over 0.25C0. Extra large axial load would make the bearing life shorten greatly.

Minimum Load

In order to keep bearings working in a good condition, a minimum load must be imposed, particularly on bearings working at high speeds, high accelerations, or with the load direction changing frequently, because under these working conditions, inertial force of balls and cage and lubricant friction will have bad influence on the rotation of bearings, and detrimental sliding movement may be caused.

$$F_{min} = K_r \cdot \left(\frac{Vn}{1000} \right)^{\frac{2}{3}} \cdot \left(\frac{dm}{1000} \right)^2$$

Where

- V — oil viscosity at operating temperature, mm²/s
- n — speed, r/min
- dm— mean diameter of bearing dm=0.5 (d+D), mm
- Kr— minimum load factor, refer to bearing series as below

Bearing Series					
Kr	618	619, 610	619, 161, 62	63	64
	15	20	25	30	35

When bearings are started at low ambient temperatures or in a condition where the viscosity of lubricant is very high, a larger minimum load probably is required. Usually, the weight of bearing supporting parts plus the load on the bearing have been over the required minimum load. If the weight can not be up to the minimum load, then extra radial load must be imposed on this type of bearing in order to meet the requirement of minimum load. The requirement can be met through axial preloading with springs.

Relative Axial Load		Single Row Bearing				Double-Row Bearing				e
$\frac{f_0 F_a}{C_{or}}$	$\frac{F_a}{iZC^{\frac{1}{3}}W}$	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$		$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$		
		X	Y	X	Y	X	Y	X	Y	
0.172	0.172				2.3				2.3	0.19
0.345	0.345				1.99				1.99	0.22
0.689	0.689				1.71				1.71	0.26
1.03	1.03				1.55				1.55	0.28
1.38	1.38	1	0	0.56	1.45	1	0	0.56	1.45	0.3
2.07	2.07				1.31				1.31	0.34
3.45	3.45				1.15				1.15	0.38
5.17	5.17				1.04				1.04	0.42
6.89	6.89				1				1	0.44

Equivalent Dynamic Load

Equivalent dynamic load of deep groove ball bearings is not only dependant on the ratio of the axial load and the basic static load rating, but, are also influenced by the magnitude of the radial internal clearance. Increased radial clearance enables axial load carrying capacity to be higher. The equivalent dynamic load of deep groove ball bearings can be calculated as follows

$$\begin{aligned} \text{when } Fa/Fr \leq e \quad P &= Fr \\ \text{when } Fa/Fr > e \quad P &= X \cdot Fr + Y \cdot Fa \end{aligned}$$

where

- P — Equivalent dynamic load, N
- Fa— Axial load, N
- Fr — Radial load, N
- X — Radial load factor
- Y — Axial load factor

Dimension, Tolerance, and Clearance

The boundary dimension of LYC's standard deep groove ball bearings are in according to GB/T273.3 <Rolling Bearing, Radial Bearing, and Boundary Dimension General Specification>, and GB/T276 <Rolling Bearing, Radial Bearing and Boundary Dimensions>

The tolerance of the LYC standard deep groove ball bearing conforms to GB/T307.1 <Rolling Bearing, Radial Bearing and Tolerance>.

The clearance of the LYC standard deep groove ball bearing is according to GB/4604 <Rolling Bearing, Radial Clearance>.

The dimensional tolerance of the LYC standard deep groove ball bearing is usually the normal grade P0 and the clearance is group 0. If customers have other special requirements on dimension, tolerance, and clearance, please consult LYC technical department.

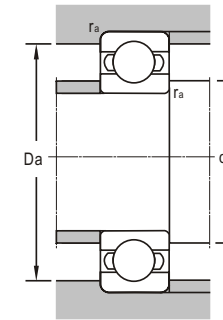
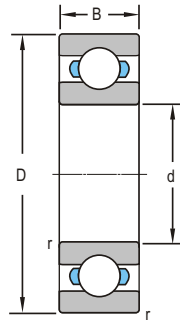
The values of factor e, X and Y are given in the above table.

Equivalent Static Load

The equivalent static load of deep groove ball bearings can be calculated as follows

$$P_0 = 0.6Fr + 0.5Fa$$

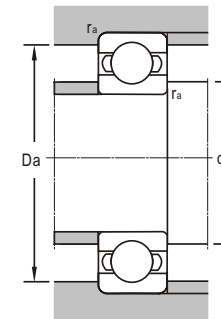
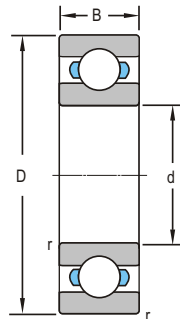
$$\text{when } P_0 < Fr \quad P_0 = Fr$$



d 10~20mm

d	Boundary Dimensions			Basic Load Ratings		Limiting Speeds	
	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
10	26	8	0.3	4.58	1.97	30000	36000
	30	9	0.6	6.6	3.1	24000	30000
	35	11	0.6	8.06	3.4	20000	26000
12	28	8	0.3	4.98	2.39	26000	32000
	32	10	0.6	6.89	3.1	22000	28000
	32	10	0.6	6.89	3.1	22000	28000
	37	12	1	9.75	4.15	19000	24000
	42	13	1	10.4	4.63	17000	21000
15	28	7	0.3	4.31	1.94	24000	30000
	32	8	0.3	5.48	2.8	19800	25000
	32	9	0.3	5.48	2.8	22000	28000
	35	11	0.6	7.8	3.75	19000	24000
	35	11	0.6	7.8	3.75	19000	24000
	42	13	1	11.4	5.4	17000	20000
16	35	11	0.6	7.8	3.75	18500	23500
17	35	8	0.3	5.93	3.18	19000	24000
	35	10	0.3	5.93	3.18	19000	24000
	40	12	0.6	9.56	4.75	17000	20000
	40	12	0.6	9.56	4.75	17000	20000
	40	12	0.6	9.56	4.75	17000	20000
	42	13	0.6	9.56	4.75	16300	19000
	42	12	0.6	9.56	4.75	16300	19000
	47	14	1	13.5	6.5	15500	18000
19	35	8	0.3	6	3.29	18500	23000
20	42	8	0.3	6.91	3.97	17000	20000
	42	12	0.6	9.17	4.9	17000	20000
	47	14	1	12.7	6.5	15000	18000
	47	14	1	12.7	6.5	15000	18000
	47	14	1	12.7	6.5	15000	18000
	47	14	1	12.7	6.5	15000	18000
	47	14	1	12.7	6.5	15000	18000
	47	14	1	12.7	6.5	15000	18000
	47	15	1	12.7	6.5	15000	18000
	47	15	1	12.7	6.5	15000	18000
	52	15	1.1	18.2	10.2	13000	16000
	55	15	1.1	18.2	10.2	13000	16000

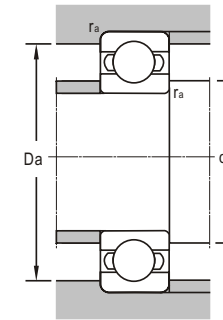
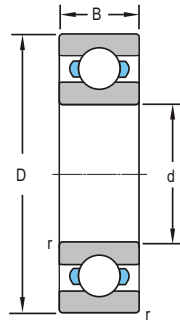
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	Da _{max}	r _a _{max}	
		mm			kg
6000E	100E	12	24	0.3	0.0188
6200E	200E	14	26	0.6	0.0311
6300E	300E	14	31	0.6	0.053
6001E	101E	14	26	0.3	0.0206
6201E	201E	16	28	0.6	0.0356
6201E/YA	201EK1	16	28	0.6	0.0324
6301E	301E	17	32	1	0.058
401TN1	370401	17	37	1	0.098
61902E	1000902E	17	26	0.3	0.015
16002E	7000102E	17	30	0.3	0.0274
6002E	102E	17	30	0.3	0.0304
6202E	202E	19	31	0.6	0.0428
6202E/YA	202EK1	19	31	0.6	0.0371
6302E	302E	20	37	1	0.0811
6202E/YA2		20	31	0.6	0.041
16003E	7000103E	19	33	0.3	0.0311
6003E	103E	19	33	0.3	0.0382
6203E	203E	21	36	0.6	0.0663
6203E/YA	203EK1	21	36	0.6	0.062
6203E/C9	203EU	21	36	0.6	0.0663
6203 X3		21	38	0.6	0.0831
6203 X1		21	38	0.6	0.0784
6303E	303E	22	42	1	0.11
66/19E		21	33	0.3	0.0285
16004	7000104E	22	40	0.3	0.0486
6004E	104E	24	38	0.6	0.0686
6204E	204E	25	42	1	0.105
6204ETN1		25	42	1	0.102
6204E/YA	204EK1	25	42	1	0.0996
6204E/C9		25	42	1	0.105
6204E/C9YB2		25	42	1	0.105
6204X2/C3YA4	V204S-C3	25	42	1	0.112
6204X2TN1/C3YA4	V204AS-C3	25	42	1	0.109
6304E	304E	26.5	45.5	1	0.144
6304EX1		26.5	45.5	1	0.173



d 22~35mm

d	Boundary Dimensions			Basic Load Ratings		Limiting Speeds	
	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
22	42	8	0.3	6.91	3.97	15100	19100
	50	14	1	14.5	9.28	13000	16000
	56	16	1.1	18	10.5	12000	15000
25	42	9	0.3	9.55	4.6	14500	18300
	42	9	0.3	7.03	4.53	14500	18300
	47	12	0.6	11	6.42	15000	18000
	47	15	0.6	10.1	4.96	15000	18000
	52	12	0.6	15.2	8.05	12000	15000
	52	13	1	15.1	8.9	12000	15000
	52	15	1	15.1	8.9	12000	15000
	52	15	1	15.1	8.9	12000	15000
	52	15	1	15.1	8.9	12000	15000
	52	15	1	15.1	8.9	12000	15000
	52	9	1	14	7.8	12000	15000
	52	9	0.3	14	7.8	12000	15000
	62	17	1.1	22.5	11.6	11000	14000
	62	17	1.1	22.5	11.6	11000	14000
	62	12	0.6	22.5	11.6	11000	14000
62	16	0.6	22.5	11.6	11000	14000	
80	21	1.5	37.2	18.8	9000	11000	
28	58	16	1	16.5	9.65	11000	14000
	68	18	1.1	33.5	14.2	9500	12000
30	42	7	0.3	4	3.15	14000	19000
	55	13	1	13	8.15	12000	15000
	62	10	0.6	19.5	11.2	10000	13000
	62	16	1	19.5	11.2	10000	13000
	72	19	0.2	26.7	15	7500	
	72	19	1.1	28.1	16	9000	11000
	72	19	1.1	28.1	16	9000	11000
	72	19	1.1	28.1	16	9000	11000
32	65	16	1	19.5	11.2	10500	13000
	65	16	0.6	23.5	13.1	10500	13000
35	47	7	0.3	4.02	3.28	11500	15000
	62	14	1	16.5	10.5	10000	13000
	72	17	1.1	25.5	15.3	9000	11000

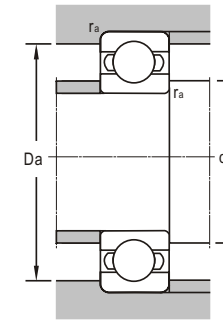
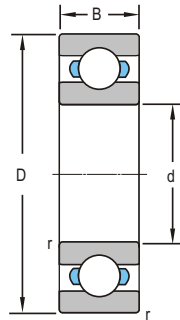
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	Da _{max}	r _a _{max}	
		mm			kg
160/22X1		24	40	0.6	0.0441
62/22 E		27	45	1	0.117
63/22E		28.5	46.5	1	0.177
61905E	1000905E	27	40	0.3	0.0424
		27	40	0.3	0.0441
6005E	105E	29	43	0.6	0.0794
6005 X2/C3YA4	V005S-C3	30	42	1	0.0964
6205EX2TN1/C4	SR205C4	29	48	0.6	0.1
6205 X2/C9		30	47	1	0.111
6205E	205E	30	47	1	0.129
6205ETN1	205EA	30	47	1	0.121
6205E/C3YB2		30	47	1	0.129
6205E/YA5		30	47	1	0.134
6205 X2		30	47	1	0.0859
		27	50	0.3	0.0824
6305E	305E	31.5	55.5	1	0.22
6305E/YA	305EK1	31.5	55.5	1	0.209
68305		29	58	0.6	0.18
6305EX2		29	58	0.6	0.217
6405E	405E	33	72	1.5	0.53
62/28E		33	53	1	0.162
63/28E		34.5	61.5	1	0.292
61806		32	40	0.3	0.0255
6006E	106E	35	50	1	0.113
6206EX2		34	58	0.6	0.188
6206E	206E	35	57	1	0.2
6306E-2ZTN1/p64Z2YA		36.5	65.5	0.2	0.343
6306E	306E	36.5	65.5	1	0.349
6306E/YA	306EK1	36.5	65.5	1	0.334
6306EQ1	306EQ	36.5	65.5	1	0.41
6406E	406E	38	82	1.5	0.715
62/32X3		37	60	1	0.197
62/32EX2		36	61	0.6	0.211
61807/P4		37	45	0.3	0.0289
6007E	107	40	57	1	0.149
6207E	207E	41.5	65.5	1	0.284



d 35~55mm

d	Boundary Dimensions			Basic Load Ratings		Limiting Speeds	
	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
35	72	17	1.1	25.5	15.3	9000	11000
	72	17	1.1	25.5	15.3	9000	11000
	80	21	1.5	33.5	19.3	8500	10000
	80	21	1.5	33.5	19.3	8500	10000
	100	25	1.5	55.3	31	7000	8500
40	68	15	1	21.8	11.6	9200	11600
	80	18	1.1	30.1	18.6	8200	9700
	80	18	1.1	30.1	18.6	8200	9700
	90	23	1.5	41.2	24.3	7300	8700
	90	23	1.5	39.8	23.3	7300	8700
41	80	17	1.1	32.6	19.8	8400	9900
	80	17	1.1	32.6	19.8	8400	9900
	85	17.2	1	36.4	22.6	7800	9300
	85	17.2	1	36.4	22.6	7800	9300
	110	27	2	67.8	36.4	6500	7800
43	75	16	1	21	14.9	8300	10500
	75	16	1	20.9	15.2	8300	10500
	85	19	1.1	33.2	21	7500	8700
	85	19	1.1	33.2	21	7500	8700
	100	25	1.5	52.7	30.5	6500	7800
45	85	19	1.1	33.2	21	7500	8700
	85	19	1.1	33.2	21	7500	8700
	85	19	1.1	33.2	21.3	7500	8700
	100	25	1.5	52.7	30.5	6500	7800
	100	25	1.5	52.7	30.5	6500	7800
50	80	16	1	22	16.2	8000	9700
	90	20	1.1	35.4	23.3	6800	8200
	90	30.2	1.1	34.4	22.7	6800	8200
	110	27	2	61.8	37.9	6100	7300
	110	27	2	61.8	37.9	6100	7300
55	90	18	1.1	31.9	22	6800	8700
	100	21	1.5	43.3	28.1	6100	7300
	100	21	1.5	43.3	28.1	6100	7300
	100	21	1.5	43.3	28.1	6100	7300
	100	21	1.5	43.3	28.1	6100	7300

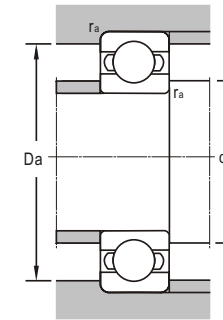
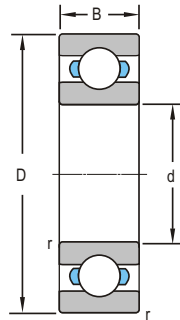
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _a _{max}	r _a _{max}	kg
		mm			kg
6207EQ4		41.5	65.5	1	0.338
6207E/C3YB2		41.5	65.5	1	0.284
6307E	307E	43	72	1.5	0.462
6307E/YA	307EK1	43	72	1.5	0.452
6407E	407E	43	92	1.5	0.922
6407E-2Z		43	92	1.5	0.99
6008E	108	45	63	1	0.185
6208E	208E	46.5	73.5	1	0.36
6208E/YA	208EK1	46.5	73.5	1	0.333
6308E	308E	48	82	1.5	0.609
6308E/YA	308EK1	48	82	1.5	0.588
6308EQ1	308EQ	48	82	1.5	0.764
6408E	408E	49	101	2	1.17
62/41X/C3		48	73	1	0.338
CC-62/43		48.8	79.2	1	0.394
6009E	109E	50	70	1	0.236
6009E/YA/P53V2		50	69.2	1	0.243
6209E	209E	51.5	78.5	1	0.408
6209E/YA	209EK1	51.5	78.5	1	0.385
6209EQ1	209EQ1	51.5	78.5	1	0.511
6209E/YA5		51.5	78.5	1	0.416
6309E	309E	53	92	1.5	0.839
6309E/YA	309EK1	53	92	1.5	0.818
6409E	409E	54	111	2	1.57
6409E/YA4	700409	54	111	2	1.63
6010E	110E	55	75	1	0.252
6210E	210E	56.5	83.5	1	0.463
63210	3000210	56.5	83.5	1	0.681
6310E	310E	59	101	2	1.06
6310EQ1		59	101	2	1.32
310J	370310	59	101	2	1.16
6410	410	61	119	2	1.87
6011E	111E	61.5	83.5	1	0.365
6211E	211E	63	92	1.5	0.605
6211E		63	92	1.5	0.602



d 55~85mm

d	Boundary Dimensions			Basic Load Ratings		Limiting Speeds	
	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
55	120	29	2	71.5	44.6	5400	6500
	120	29	2	71.5	44.6	5400	6500
	120	29	2	71.5	44.6	5400	6500
	140	33	2.1	101	62.4	4800	5800
56	120	28.7	2	71.5	44.6	5600	7100
60	95	18	1.1	30.7	22.7	6400	8100
	110	22	1.5	53.1	33.8	5400	6800
	130	31	1.5	81.8	51.8	3700	
	130	31	2.1	82.5	50.4	4800	5800
	130	31	2.1	81.8	51.8	4800	5800
150	35	2.1	109.8	70.3	4600	5400	
65	85	10	0.6	11.9	11.5	7100	8500
	120	23	1.5	56.2	41.3	5100	6100
	120	23	1.5	60.2	64	5100	6100
	140	33	2.1	92.8	59.7	4600	5400
	140	33	4	92.7	59.7	4600	5400
	160	37	2.1	119	78	4400	5100
	100	18	1.1	32.1	24.9	6000	7600
	100	11	0.6	20.5	18.6	6000	7600
100	18	1.1	32.1	24.9	6000	7600	
70	125	24	1.5	60.8	46.5	4800	5800
	150	35	2.1	105	69	4400	5100
	180	42	3	143	103	3700	4400
	110	20	1.1	38.6	30.6	5500	6900
75	115	20	1.1	37.7	33.1	5200	6500
	115	13	0.6	37.7	33.1	5200	6500
	130	25	1.5	66.5	50.5	4600	5400
	160	37	2.1	114	117	4200	4800
	190	45	3	153	114	3500	4200
80	125	22	1.1	47.5	39.8	4770	6000
	140	26	2	72.7	55	4400	5100
	170	39	2.1	120	87	3700	4400
	200	48	3	164	126	3300	3900
85	130	22	1.1	50.3	41.2	4800	5600

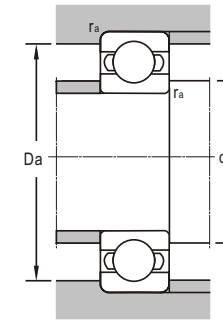
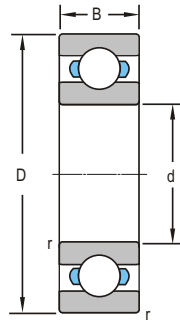
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _{dmax}	r _{dmax}	
		mm			kg
6311E	311E	64	111	2	1.34
6311EK		64	111	2	1.32
6311EQ1		64	111	2	1.68
6411E	411E	66	129	2	2.34
63/56		66	110	2	1.31
6012E	112E	66.5	88.5	1	0.385
6212E	212E	68	102	1.5	0.791
6312E-2ZTN1/P64Z2YA		72	118	1.5	1.57
6312E	312E	71	119	2	1.7
6312EQ1		71	119	2	2.08
6412E	412E	71	139	2	2.8
61813/P4		68.2	81.8	0.6	0.129
6213E	213E	73	112	1.5	0.989
213J	370213	73	112	1.5	1.09
6313	313	76	129	2	2.08
6313K		76	129	2	2.08
6413E	413E	76	149	2	3.35
6013E	113E	71.5	93.5	1	0.411
16013E	700113E	69	96	0.6	0.292
		71.5	93.5	1	0.454
6214E	214E	78	117	1.5	1.08
6314E	314E	81	139	2	2.55
6414E	414E	83	167	2.5	4.64
6014E	114E	76.5	103.5	1	0.577
6015 E	115	81.5	108.5	1	0.604
16015E	700115E	79	111	0.6	0.453
6215E	215	83	122	1.5	1.22
6315	315	86	149	2	3.01
6415E	415E	88	177	2.5	5.69
6016E	116E	86.5	118.5	1	0.816
6216	216	89	131	2	1.4
6316E	316E	91	159	2	3.67
6416E	416	93	187	2.5	7
6017E		91.5	123.5	1	0.841



d 85~127mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r_{min}</i>	Dynamic <i>C</i>	Static <i>C₀</i>	Grease	Oil
mm				kN		r/min	
85	150	28	2	83.2	64	4200	4800
	180	41	3	133	96.5	3500	4200
	180	41	3	133	96.5	3500	4200
	210	52	4	169	137	3100	3700
90	140	24	1.5	58.5	50	4600	5600
	160	30	2	96	72	3700	4400
	190	43	3	144	109	3300	3900
	190	43	6	144	109	3300	3900
	225	54	4	194	159	2900	3500
95	145	16	1	43.9	42	4200	5000
	145	16	1	43.9	42	4200	5000
	145	24	1.5	78.5	50.1	4200	4800
	170	32	2.1	109	79.1	3500	4200
	200	45	3	152	121	3100	3700
100	150	24	1.5	63.5	55.4	4000	4800
	180	34	2.1	123	94	3200	3800
	215	47	3	137	141	2800	3400
	250	58	4	223	195	2600	3200
105	190	36	2.1	133	104	3000	3600
	180	32	2	102	81.7	3100	3600
	225	49	3	240	153	2700	3200
110	170	28	2	81.9	72.9	3400	4200
	150	20	1.1	60	60	3800	4500
	200	38	2.1	136	112	2800	3400
	240	50	3	208	177	2500	3000
120	150	16	1	30	33.8	3500	4400
	165	22	1.1	52.9	53.9	3300	4200
	180	28	2	88.1	79.7	3100	4000
	180	19	1	61	65	3200	4000
	180	19	1	61	65	3200	4000
	215	40	2.1	157	132	2700	3200
260	55	3	228	207	2300	2800	
127	177.8	25.4	2	39	55.2	3200	4000

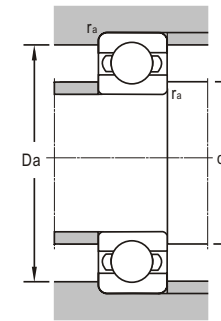
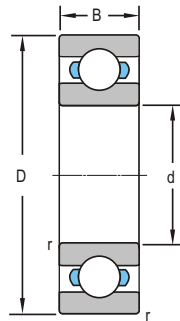
Bearing Designations		Mounting Dimensions			Mass
Present	Original	<i>d_{amin}</i>	<i>D_{amax}</i>	<i>r_{amax}</i>	
		mm			kg
6217E	217E	94	141	2	1.93
6317E		98	167	2.5	4.21
6317EM	317EH	98	167	2.5	5.33
6417E	417E	101	194	3	7.91
6018E		98	132	1.5	1.12
6218E	218E	99	151	2	2.13
6318E	318E	103	177	2.5	4.93
6318E/YA2		103	177	2.5	4.9
6418E	418E	106	209	3	10.1
16019	700119E	100	140	1	0.816
16019/YB3		100	140	1	0.816
6019E		103	137	1.5	1.16
6219E	219E	106	159	2	2.62
6319E	319E	108	187	2.5	5.66
6020E		108	142	1.5	1.2
6220E	220E	111	169	2	3.23
6320E	320E	113	202	2.5	7.11
6420	420	118	232	3	12.8
6221E	221E	116	179	2	3.89
61121X3M/YB2		115	170	2	3.43
6321E	321E	118	212	2.5	8.03
6022E	122E	119	161	2	1.89
61922M		116.5	143.5	1	1.02
6222E	222E	121	189	2	4.45
6322E	322E	123	227	2.5	9.67
61924M	1000924H	126	144	1	0.559
6024E	124E	126.5	158.5	1	1.62
16024		129	171	2	1.99
16024/YB2		125	175	1	1.6
6224E	224E	125	175	1	1.6
6324	324	131	204	2	5.2
66/127M/P5	D3-010	133	247	2.5	12.2
66/127M/P5	D3-010	137	167.8	2	2.38



d 130~200mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i> _{min}	Dynamic <i>C</i>	Static <i>C</i> ₀	Grease	Oil
mm				kN		r/min	
130	200	33	2	102	93.9	3000	3600
	230	40	3	166	148	2500	3000
	280	58	4	250	240	2100	2700
	280	58	4	250	240	2100	2700
	340	78	5	294	285	1400	1800
140	175	18	1.1	43.4	49.7	3000	3800
	175	18	1.1	43.4	49.7	3000	3800
	210	33	2	116	109	2800	3600
	250	42	3	167	151	2300	2800
	300	62	4	254	246	1900	2500
145	203	26	1.5	41.7	62.7	2850	3550
150	190	20	1.1	42.6	49.4	2900	3700
	210	28	2	85	89	2500	3200
	225	35	2.1	132	125	2400	3000
	270	45	3	190	183	1900	2500
	320	65	4	278	280	1800	2300
160	240	25	1.5	102	113	2100	2600
	290	48	3	215	218	1800	2300
	340	68	4	312	325	1700	2100
170	215	22	1.1	65	75.7	2500	3100
	260	42	2.1	161	160	2100	2700
	310	52	4	210	213	1900	2400
	360	72	4	303	330	1700	2000
180	250	33	2	128	137	2100	2600
	259.5	52	2	140	147	2200	2700
	280	46	2.1	196	203	2000	2600
	320	52	4	257	280	1800	2200
	380	75	4	340	393	1600	2000
190	259.5	33	2	117	133	1950	2500
200	250	24	1.5	73.8	98.9	2200	2800
	280	38	2.1	164	161	2000	2600
	310	51	2.1	223	246	1900	2400
	360	58	4	289	336	1700	2000

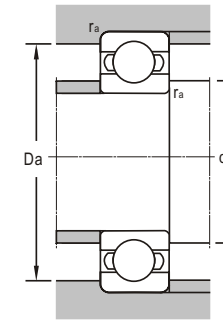
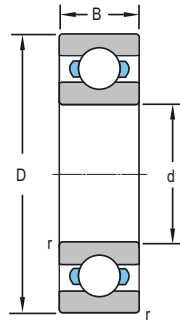
Bearing Designations		Mounting Dimensions			Mass
Present	Original	<i>d</i> _{amin}	<i>D</i> _{amax}	<i>r</i> _{amax}	
		mm			kg
6026		139	191	2	3.15
6226	226	143	217	2.5	6.19
6326M	326H	146	264	3	16.5
6326	326	146	264	3	12.7
6426M	426H	152	318	4	40.9
61828		146.5	168.5	1	0.8
61828/YB3		146.5	168.5	1	0.8
6028E		149	201	2	3.19
6228E	228E	153	237	2.5	7.77
6328M	328H	156	284	3	22.7
6629M/YA1	790829H	154	194	1.5	3.52
61830M/P6		156	184	1	1.43
61930M		159	201	2	3.01
6030EM	130E	161	214	2	4.88
6230	230	163	257	2.5	10.4
6330E	330E	166	304	3	21.7
16032E	700132E	168	252	1.5	3.54
6232E	232E	173	277	2.5	12.2
6332E	332E	176	324	3	26.3
61834	1000834	176.5	208.5	1	1.63
6034M	134	181	249	2	8.09
6234E	234E	186	294	3	15.2
6334E	334E	186	344	3	31.1
61936M	1000936H	189	241	2	5.04
63936X1M		189	250.5	2	8.79
6036	136	191	269	2	8.55
6236M	236H	196	304	3	19.4
6336E	336E	196	364	3	42.5
61938X1M		198	251.5	2	5.4
61840M	1000840H	208	242	1.5	2.691
61940M	1000940H	211	269	2	7.3
6040	140	211	299	2	11.7
6240E	240E	216	344	3	22.5



d 200~393. 7mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r_{min}</i>	Dynamic <i>C</i>	Static <i>C₀</i>	Grease	Oil
mm				kN		r/min	
200	420	80	5	370	460	1500	1800
220	300	38	2.1	152	175	1900	2300
	300	38	2.1	176	175	1900	2400
	340	56	3	251	292	1800	2000
	400	65	4	298	365	1500	1800
	460	88	5	407	522	1300	1600
240	320	38	2.1	154	194	1800	2200
	320	38	2.1	154	194	1800	2200
	360	56	3	256	316	1700	2000
	440	72	4	362	472	1300	1600
260	360	46	2.1	212	269	1600	1900
	400	44	3	231	301	1500	1800
280	380	46	2.1	216	283	1500	1800
	390	46	2.1	216	310	1450	1750
	405	56	2.1	260	346	1450	1750
300	380	38	2.1	167	238	1300	1600
	420	50	3	233	371	1300	1600
	420	56	3	268	372	1300	1600
	460	74	4	356	500	1200	1500
320	400	38	2.1	169	237	1300	1600
	440	37	2.1	279	396	1300	1600
	440	56	3	280	394	1200	1500
	480	74	4	360	524	1100	1400
	480	74	4	360	524	1100	1400
340	460	56	3	283	421	1000	1300
	520	82	5	410	621	1000	1300
	520	82	5	386	576	1000	1300
360	540	82	5	449	713	1000	1300
380	480	46	2.1	280	378	1000	1300
	520	44	3	247	380	950	1100
393.7	520.7	63.5	4	318	500	950	1200

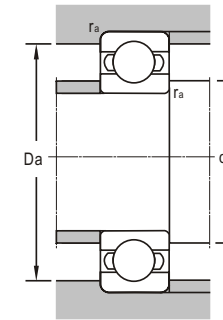
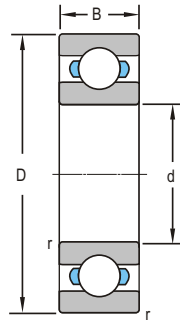
Bearing Designations		Mounting Dimensions			Mass
Present	Original	<i>d_{amin}</i>	<i>D_{amax}</i>	<i>r_{amax}</i>	
		mm			kg
6340M	340H	220	400	4	59.2
61944E	1000944E	231	289	2	8.35
		231	289	2	7.6
		233	327	2.5	19.4
		236	384	3	36.5
		240	440	4	74.6
61948M/YA	1000948H	251	309	2	9.37
		251	309	2	9.6
		253	347	2.5	20.4
		256	424	3	53.9
61952M	1000952H	271	349	2	15.86
		273	387	2.5	22.5
61956M	1000956H	291	369	2	15
		301	369	2	17.3
		293	392	2	25.1
61860M	1000860H	311	369	2	11.1
		311	389	2.5	24.8
		313	407	2.5	24.5
61960	1000960	318	442	3	45.3
		318	442	3	45.3
61864M	1000864H	331	389	2	11.8
		331	389	2	16.8
		333	427	2.5	27
		336	464	3	48.4
		336	464	3	48.4
61968	1000968	353	447	2.5	27
		360	500	4	67.2
		360	500	4	67.8
6072	172	380	520	4	71.6
61876	1000876	391	469	2	20.5
		391	509	2.5	31.2
66/393.7		405	509	3.5	38.4



d 400~630mm

d	Boundary Dimensions			Basic Load Ratings		Limiting Speeds	
	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
400	500	46	3.5	235	385	950	1200
	540	65	4	355	585	950	1100
	600	90	6	505	852	900	1100
	600	90	5	505	852	900	1100
406.4	546.1	69.85	4	353	576	950	1200
418.5	599	75	4	553	720	900	1100
420	520	46	2.1	245	378	920	1150
440	540	46	3.5	247	427	900	1100
	650	94	6	536	936	850	1000
460	580	56	3	310	561	900	1100
	620	74	5	410	728	850	1000
	680	100	6	605	1080	800	950
480	600	56	3	317	570	850	1000
	700	100	6	611	1120	750	900
500	620	56	3	327	611	800	950
	670	78	5	457	852	750	900
	720	100	6	630	1170	750	900
530	650	56	3	317	643	750	900
	710	82	5	475	912	700	850
	780	112	6	680	1300	670	800
	760	100	6	602	1180	680	830
540	800	115	6	643	1270	660	810
560	680	56	3	334	680	700	850
	750	85	5	525	1040	670	800
600	730	60	3	357	759	670	800
	800	90	5	579	1180	650	750
	819	90	5	612	1260	700	830
	870	118	6	715	1450	670	700
630	780	69	4	415	819	630	750

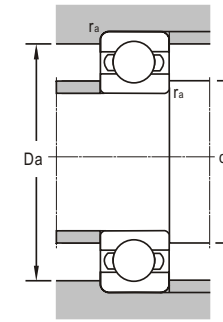
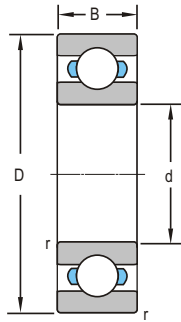
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _a max	r _a max	
		mm			kg
61880	1000880	411	489	2	21.7
61980		416	524	3	42.6
6080	180	420	580	4	107
6080B		420	580	4	91
66/406.4		422	530	3.5	48.3
66/418.5/C9YA3		434.5	583	3.5	72.1
61884		431	509	2	22.6
61888	1000888	451	529	2	23.6
6088	188	466	624	5	107
61892	1000892	473	567	2.5	33.5
61992	1000992	476	604	3	65.6
6092	192	486	654	5	130
61896E	1000896E	493	587	2.5	36.5
6096	196	506	674	5	138
618/500	10008/500	513	607	2.5	36.1
619/500	10009/500	520	650	4	79.5
60/500	1/500	526	694	5	140
618/530	10008/530	543	637	2.5	40
619/530	10009/530	550	690	4	91.8
60/530	1/530	556	754	5	186
66/530		556	734	5	156
66/540		566	774	5	216
618/560E	10008/560E	573	667	2.5	45
619/560	10009/560	580	730	4	111
618/600	10008/600	613	717	2.5	53.1
		620	780	4	129
619/600X1/P63		618	801	4	149
60/600MAS		613	857	5	242
618/630MA		648	762	3	76.3



d 630--1250mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds		
<i>d</i>	<i>D</i>	<i>B</i>	<i>r_{min}</i>	Dynamic <i>C</i>	Static <i>C₀</i>	Grease	Oil	
mm				kN		r/min		
630	780	69	4	415	819	630	750	
	850	100	6	635	1320	600	700	
	920	128	7.5	819	1760	560	670	
670	820	69	4	420	980	560	670	
	820	69	4	359	707	560	670	
	980	136	7.5	894	2000	500	600	
710	870	74	4	480	1010	600	520	
	1030	140	7.5	956	2200	480	560	
750	810	50	2.1	125	238	490	580	
	812	50	2.1	125	238	490	580	
	920	78	5	495	1080	520	600	
	920	78	5	495	1080	520	600	
780	1080	105	9.5	1230	3600	365	435	
	800	980	82	5	550	1360	450	530
		1060	115	6	827	1990	450	530
	1150	155	7.5	1470	2230	450	530	
840	1030	85	5	578	1340	450	520	
850	1150	110	10	1270	3860	430	500	
900	1090	85	5	607	1580	380	450	
	1090	85	5	594	1430	380	450	
	1180	122	6	855	2160	340	400	
	1280	170	7.5	1150	3060	320	380	
1000	1220	100	6	636	1780	340	400	
1060	1500	195	9.5	1310	3770	300	360	
	1500	195	9.5	1310	3770	300	360	
1180	1420	106	6	1170	3230	260	320	
1250	1750	218	9.5	1630	5290	200	250	
	1750	218	9.5	1630	5290	250	305	

Bearing Designations		Mounting Dimensions			Mass	
Present	Original	<i>d_{amin}</i>	<i>D_{amax}</i>	<i>r_{amax}</i>		
		mm			kg	
618/630F1		648	762	3	75	
	619/630	656	824	5	165	
	60/630	663	887	6	294	
618/670	10008/670	686	804	3	81.9	
	618/670MA/C9	685	805	3	81.9	
	60/670NIMAS	703	947	6	348	
618/710MA/C9		725	855	3	95	
	60/710	743	997	6	396	
66/750TN1/C9					24.6	
	66/750TN	1YA1/C9	762	800	2	25.5
	618/750		770	900	4	112
	618/750/YA		770	900	4	111
618/780X3	3707/780	822	1036	8	312	
618/800E	10008/800E	820	960	4	133	
	619/800MA/C9	823	1037	5	294	
	60/800	1/800	836	1114	6	548
618/840		860	1010	4	153	
618/850 X3	3707/850	904	1096	10	429	
618/900	10008/900	920	1070	4	164	
	618/900MA/C9	918	1072	4	164	
	618/900MA/C9	920	1160	5	368	
	60/900 MA	923	1257	6	750	
618/1000	10008/1000	1026	1194	5	266	
60/1060M/C9		1098	1462	8	1212	
	60/1060M/C3 YA	1098	1462	8	1209	
618/1180	18/1180	1208	1392	5	329	
60/1250 M		1288	1712	8	1730	
	60/1250M/C3S0YA	1290	1710	8	1730	



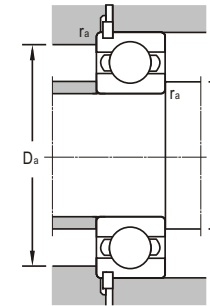
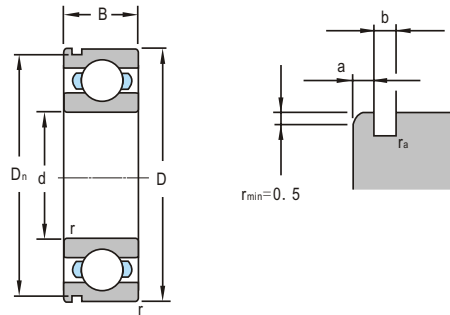
d 1320~1500mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r_{min}</i>	Dynamic <i>C</i>	Static <i>C₀</i>	Grease	Oil
mm				kN		r/min	
1320	1720	175	7.5	1420	4490	190	240
1400	1700	132	7.5	1530	4570	190	240
1500	1820	125	7.5	1620	6170		

Bearing Designations		Mounting Dimensions			Mass
Present	Original	<i>d_{amin}</i>	<i>D_amax</i>	<i>r_amax</i>	
		mm			kg
619/1320/YB2	19/1320K	1356	1684	6	1100
618/1400 V	13708/1400	1436	1664	6	562
618/1500X 2 V/C9					626



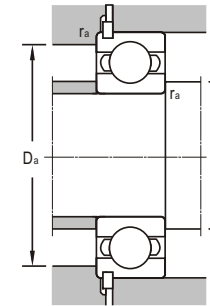
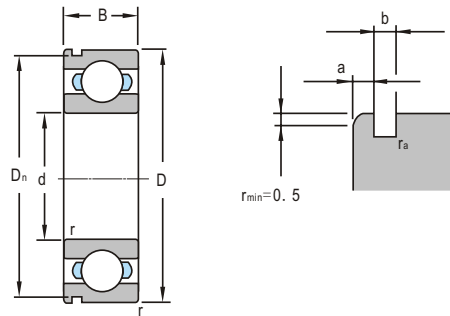
Deep Groove Ball Bearings
with a snap ring groove



d 15~35mm

Boundary Dimensions								Basic Load Ratings		Limiting Speeds	
d	D	B	r _{min}	D _n	a	b	r _{1smin}	Dynamic C	Static C ₀	Grease	Oil
mm								kN		r/min	
15	35	11	0.6	33.17	2.06	1.35	0.5	7.8	3.75	19000	24000
	42	13	1	39.75	2.06	1.35	0.5	11.4	5.42	17000	20000
17	40	12	0.6	38.1	2.06	1.35	0.4	9.56	4.75	17000	20000
	40	12	0.6	38.1	2.06	1.35	0.4	9.56	4.75	17000	20000
	47	14	1	44.6	2.46	1.35	0.4	13.5	6.5	16000	19000
	47	14	1	44.6	2.46	1.35	0.4	13.5	6.5	16000	19000
20	47	14	1	44.6	2.46	1.35	0.4	12.7	6.55	15000	18000
	47	14	1	44.6	2.46	1.35	0.4	12.7	6.55	15000	18000
	52	15	1.1	49.73	2.46	1.35	0.4	15.9	7.8	13000	16000
	52	15	1.1	49.73	2.46	1.35	0.4	15.9	7.8	13000	16000
	72	19	1.1	68.81	3.28	1.9	0.5	30.9	15.2	10000	13000
22	56	16	1.1	53.6	2.46	1.35	0.5	18	10.5	12500	16000
	56	16	1.1	53.6	2.46	1.35	0.5	18	10.5	12500	16000
25	52	15	1	49.73	2.46	1.35	0.4	14.5	8.2	12000	15000
	52	15	1	49.73	2.46	1.35	0.4	14.5	8.2	12000	15000
	62	17	1.1	59.61	3.28	1.9	0.6	22.5	11.6	11000	14000
	62	17	1.1	59.61	3.28	1.9	0.6	22.5	11.6	11000	14000
28	52	12	0.6	49.73	2.06	1.35	0.5	12.4	7.37	12000	15000
	52	12	0.6	49.73	2.06	1.35	0.5	12.4	7.37	12000	15000
	68	18	1.1	64.82	3.28	1.9	0.5	26.8	14	1100	14000
	68	18	1.1	64.82	3.28	1.9	0.5	26.8	14	1100	14000
30	62	16	1	59.61	3.28	1.9	0.6	19.6	11.2	10000	13000
	62	16	1	59.61	3.28	1.9	0.6	19.6	11.2	10000	13000
	72	19	1.1	68.81	3.28	1.9	0.6	28.1	16	9000	11000
	72	19	1.1	68.81	3.28	1.9	0.6	28.1	16	9000	11000
	80	23	0.5				0.5	39.5	21.5	9000	
	90	23	1.5	86.79	3.28		0.6	44.6	23		
32	75	20	1.1	71.83	3.28	1.9	0.5	29.8	16.8	5000	11000
	75	20	1.1	71.83	3.28	1.9	0.5	29.8	16.8	5000	11000
35	72	17	1.1	68.81	3.28	1.9	0.6	25.5	15.3	9000	11000
	72	17	1.1	68.81	3.28	1.9	0.6	25.5	15.3	9000	11000
	80	21	1.5	76.81	3.28	1.9	0.6	35.8	19	8500	10000
	80	21	1.5	76.81	3.28	1.9	0.6	35.8	19	8500	10000
	100	25	1.5	96.8	3.28	2.7	0.6	55.8	31	7000	8500
	100	25	1.5	96.8	3.28	2.7	0.6	55.8	31	7000	8500

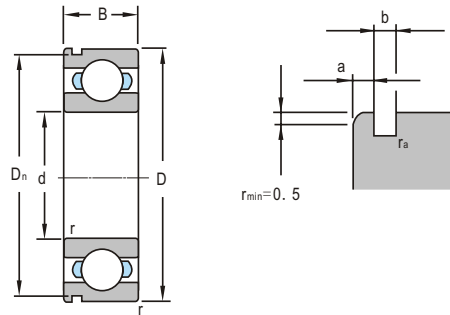
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _{amax}	r _{amax}	
		mm			kg
6202EN		19	31	0.6	0.0417
6302EN		21	37	1	0.0796
6203 EN	50203 E	21	36	0.6	0.0651
6203 E-ZN	150203 E	21	36	0.6	0.0651
6303 EN	50303 E	22	42	1	0.109
6303 E-ZN	150303 E	22	42	1	0.109
6204 EN	50204 E	25	42	1	0.103
6204 E-ZN	150204 E	25	42	1	0.103
6304 EN	50304 E	26.5	45.5	1	0.142
6304 E-ZN	150304 E	26.5	45.5	1	0.14
6404EN		26.5	65.5	1	0.405
63/22 E-NR		29	49	1	0.182
6205 EN	50205 E	30	47	1	0.127
6205 E-ZN	150204 E	30	47	1	0.127
6305 EN	50305 E	31.5	55.5	1	0.217
6305 E-ZN	150305 E	31.5	55.5	1	0.217
60/28EN		33	47	0.5	0.0971
60/28E-RSN		33	47	0.5	0.0971
63/28EN		35	61	1	0.278
63/28E-RSN		35	61	1	0.278
6206 EN	50206 E	35	57	1	0.197
6206 E-ZN	150206 E	35	57	1	0.195
6306 EN	50306 E	36.5	65.5	1	0.349
6306 E-ZN	150304 E	36.5	65.5	1	0.349
63/30EN/S0		38	72	0.5	0.518
6406EN					0.715
63/32 EN		39	68	1	0.397
6207 EN	50207 E	41.5	65.5	1	0.279
6207 E-ZN	150207 E	41.5	65.5	1	0.279
6307 EN	50307 E	43	72	1.5	0.456
6307 E-ZN	150307 E	43	72	1.5	0.42
6407 EN	50407 E	43	92	1.5	0.922
6407 E-ZN	150407 E	43	92	1.5	0.917



d 40~65mm

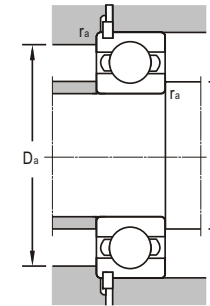
d	Boundary Dimensions							Basic Load Ratings		Limiting Speeds	
	D	B	r _{min}	D _n	a	b	r _{1smin}	Dynamic C	Static C ₀	Grease	Oil
	mm							kN		r/min	
40	80	18	1.1	76.81	3.28	1.9	0.6	30.1	18.6	8500	10000
	80	18	1.1	76.81	3.28	1.9	0.6	30.1	18.6	8500	10000
	80	18	1.1					32.6	19.8		
	90	23	1.5	86.79	3.28	2.7	0.6	41.2	23.3	7300	8700
	90	23	1.5	86.79	3.28	2.7	0.6	41.2	23.3	7300	8700
	110	27	2	106.81	3.28	2.7	0.6	68	36.2	6500	8000
110	27	2	106.81	3.28	2.7	0.6	68	36.2	6500	8000	
45	85	19	1.1	81.81	3.28	1.9	0.6	32.2	21	7500	9000
	85	19	1.1	81.81	3.28	1.9	0.6	32.2	21	7500	9000
	100	25	1.5	96.8	3.28	2.7	0.6	53	30.5	6500	7800
	100	25	1.5	96.8	3.28	2.7	0.6	53	30.5	6500	7800
	120	29	2	115.21	4.06	3.1	0.6	79	44.1	5800	7000
	120	29	2	115.21	4.06	3.1	0.6	79	44.1	5800	7000
50	90	20	1.1	86.79	3.28	2.7	0.6	35.4	22.7	7000	8500
	90	20	1.1	86.79	3.28	2.7	0.6	35.4	22.7	7000	8500
	110	27	2	106.81	3.28	2.7	0.6	61.8	37.9	6300	7500
	110	27	2	106.81	3.28	2.7	0.6	61.8	37.9	6300	7500
	130	31	2.1	125.22	4.06	3.1	0.6	92	55	5300	6300
	130	31	2.1	125.22	4.06	3.1	0.6	92	55	5300	6300
55	100	21	1.5	96.8	3.28	2.7	0.6	43.3	28.1	6300	7500
	100	21	1.5	96.8	3.28	2.7	0.6	43.3	28.1	6300	7500
	120	29	2	115.21	4.06	3.1	0.6	71.5	44.6	5600	6700
	120	29	2	115.21	4.06	3.1	0.6	71.5	44.6	5600	6700
	140	33	2.1	135.23	4.9	3.1	0.6	101	62.4	5000	6000
	140	33	2.1	135.23	4.9	3.1	0.6	101	62.4	5000	6000
60	110	22	1.5	106.81	3.28	2.7	0.6	54	33	6000	7000
	110	22	1.5	106.81	3.28	2.7	0.6	54	33	6000	7000
	130	31	2.1	125.22	4.06	3.1	0.6	83	50.4	5000	6000
	130	31	2.1	125.22	4.06	3.1	0.6	83	50.4	5000	6000
	150	35	2.1	145.24	4.9	3.1	0.6	109	71	4800	5600
	150	35	2.1	145.24	4.9	3.1	0.6	109	71	4800	5600
65	120	23	1.5	115.21	4.06	3.1	0.6	54.2	39.3	5300	6300
	120	23	1.5	115.21	4.06	3.1	0.6	54.2	39.3	5300	6300
	140	33	2.1	135.23	4.9	3.1	0.6	89.5	59.7	4800	5600
	140	33	2.1	135.23	4.9	3.1	0.6	89.5	59.7	4800	5600

Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _{amax}	r _{amax}	
		mm			kg
6208 EN	50208 E	46.5	73.5	1	0.353
6208 E-ZN	150208E	46.5	73.5	1	0.346
6208ENR					0.369
6308 EN	50308 E	48	82	1.5	0.6
6308 E-ZN	150308E	48	82	1.5	0.63
6408 EN	50408 E	49	101	2	1.164
6408 E-ZN	150408E	49	101	2	1.21
6209 EN	50209 E	51.5	78.5	1	0.401
6209 E-ZN	150209E	51.5	78.5	1	0.401
6309 EN	50309 E	53	92	1.5	0.83
6309 E-ZN	150309E	53	92	1.5	0.83
6409 EN	50409 E	54	111	2	1.55
6409 E-ZN	150409E	54	111	2	1.55
6210 EN	50210 E	56.5	83.5	1	0.454
6210 E-ZN	150210E	56.5	83.5	1	0.47
6310 EN	50310 E	59	101	2	1.05
6310 E-ZN	150310E	59	101	2	1.08
6410 EN	50410 E	61	119	2	1.91
6410 E-ZN	150410E	61	119	2	1.91
6211 EN	50211 E	63	92	1.5	0.595
6211 E-ZN	150211E	63	92	1.5	0.58
6311 EN	50311 E	64	111	2	1.33
6311 E-ZN	150311E	64	111	2	1.35
6411 EN	50411 E	66	129	2	2.3
6411 E-ZN	150411E	66	129	2	2.3
6212 EN	50212 E	68	102	1.5	0.785
6212 E-ZN	150212E	68	102	1.5	0.781
6312 EN	50312 E	71	119	2	1.68
6312 E-ZN	150312E	71	119	2	1.71
6412 EN	50412 E	71	139	2	2.77
6412 E-ZN	150412E	71	139	2	2.77
6213 EN	50213 E	73	112	1.5	0.961
6213 E-ZN	150213E	73	112	1.5	0.96
6313 EN	50313 E	76	129	2	2.06
6313 E-ZN	150313E	76	129	2	2.09

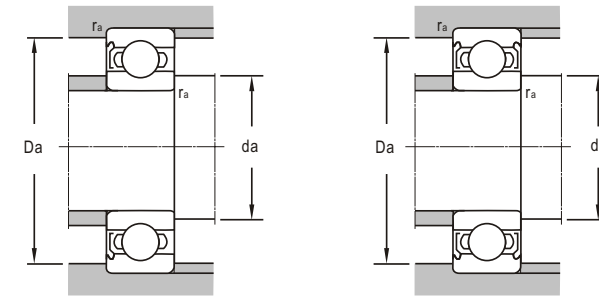
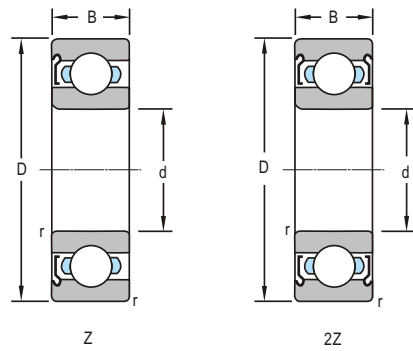


d 70~105mm

Boundary Dimensions								Basic Load Ratings		Limiting Speeds	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r_{min}</i>	<i>D_n</i>	<i>a</i>	<i>b</i>	<i>r_{1smin}</i>	Dynamic <i>C</i>	Static <i>C₀</i>	Grease	Oil
mm								kN		r/min	
70	125	24	1.5	120.22	4.06	3.1	0.6	58.9	43.6	5000	6000
	125	24	1.5	120.22	4.06	3.1	0.6	58.9	43.6	5000	6000
	150	35	2.1	145.24	4.9	3.1	0.6	104	69	4500	5300
	150	35	2.1	145.24	4.9	3.1	0.6	104	69	4500	5300
150	35	2.1	145.24	4.9	3.1	0.6	104	68	4500	5300	
80	140	26	2	135.23	4.9	3.1	0.5	72.7	53	4500	5300
105	190	36	2.1	183.64	5.69	3.5	0.5	133	104	3200	3800



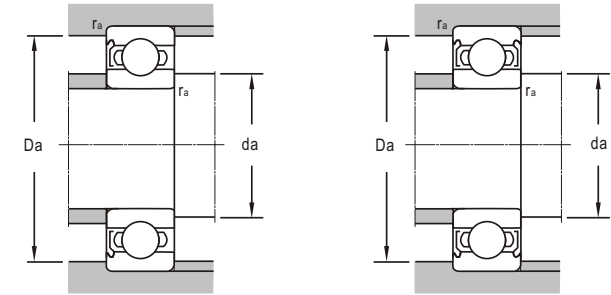
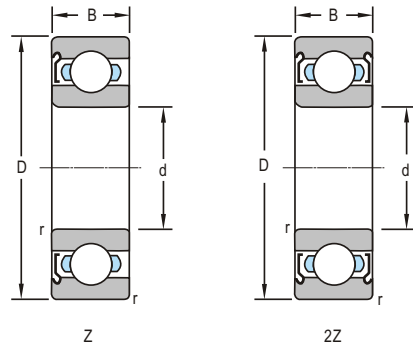
Bearing Designations		Mounting Dimensions			Mass
Present	Original	<i>d_{amin}</i>	<i>D_{amax}</i>	<i>r_{amax}</i>	
		mm			kg
6214 EN	50214 E	78	117	1.5	1.04
6214 E-ZN		78	117	1.5	1.04
6314 EN	50314 E	81	139	2	2.52
6314 E-ZN		81	139	2	2.55
6314EN/YA		81	139	2	2.52
6216N		89	131	2	1.38
6221EN		116	179	2	3.79



d 10~25mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
d	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
10	30	9	0.6	6.6	3.2	24000	30000
	30	9	0.6	6.6	3.2	24000	30000
	35	11	0.6	8.06	3.4	20000	26000
	35	11	0.6	8.06	3.4	20000	26000
12	28	8	0.3	4.98	2.39	26000	32000
	28	8	0.3	4.98	2.39	26000	32000
	32	10	0.6	6.89	3.1	22000	28000
	32	10	0.6	6.89	3.1	22000	28000
	37	12	1	9.75	4.15	19000	24000
	37	12	1	9.75	4.15	19000	24000
15	28	7	0.3	4.31	1.94	24000	30000
	32	9	0.3	5.48	2.8	22000	28000
	32	9	0.3	5.48	2.8	22000	28000
	35	11	0.6	7.8	3.75	19000	24000
	35	11	0.6	7.8	3.75	19000	24000
	42	13	1	11.4	5.4	17000	20000
17	35	10	0.3	5.93	3.18	19000	24000
	35	10	0.3	5.93	3.18	19000	24000
	40	12	0.6	9.56	4.75	17000	20000
	40	12	0.6	9.56	4.75	17000	20000
	47	14	1	13.5	6.5	15500	18000
	47	14	1	13.5	6.5	15500	18000
20	37	9	0.3	6.38	3.68	18000	22000
	37	9	0.3	6.38	3.68	18000	22000
	42	12	0.6	9.17	4.9	17000	20000
	42	12	0.6	9.17	4.9	17000	20000
	47	14	1	12.7	6.5	15000	18000
	47	14	1	12.7	6.5	15000	18000
	52	15	1.1	15.9	7.8	13000	16000
	52	15	1.1	15.9	7.8	13000	16000
22	47	12	0.6	7.74	4.96	15500	18500
	47	12	0.6	11	6.42	15000	18000
25	37	7	0.3	4.27	2.63	16500	19500
	37	7	0.3	4.27	2.63	16500	19500

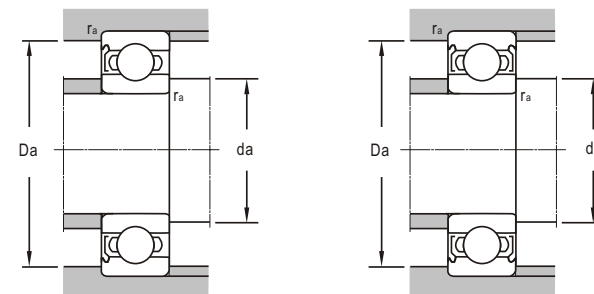
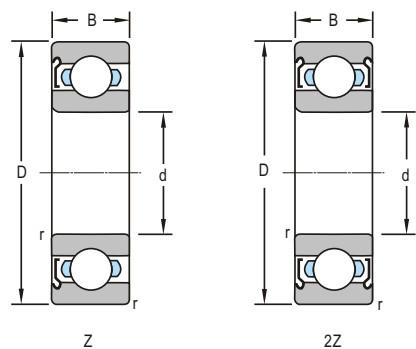
Bearing Designations		Mounting Dimensions			Mass
Present	Original	D _{amin}	D _{amax}	r _{amax}	
		mm			kg
6200E-Z	60200E	14	26	0.6	0.0304
6200E-2Z	80200E	14	26	0.6	0.0296
6300E-Z	60300E	14	31	0.6	0.051
6300E-2Z	80300E	14	31	0.6	0.0486
6001E-Z	60101E	14	26	0.3	0.02
6001E-2Z	80101E	14	26	0.3	0.0194
6201E-Z	60201E	16	28	0.6	0.0346
6201E-2Z	80201E	16	28	0.6	0.0339
6301E-Z	60301E	17	32	1	0.0572
6301E-2Z	80301E	17	32	1	0.0565
61902E-2Z		17	26	0.3	0.0139
6002E-Z	60102E	17	30	0.3	0.0297
6002E-2Z	80102E	17	30	0.3	0.0289
6202E-Z	60202E	19	31	0.6	0.0412
6202E-2Z	80202E	19	31	0.6	0.0395
6302E-Z	60302E	20	37	1	0.0803
6302E-2Z	80302E	20	37	1	0.0802
6003E-Z	60103E	19	33	0.3	0.0374
6003E-2Z	80103E	19	33	0.3	0.0366
6203E-Z	60203E	21	36	0.6	0.0657
6203E-2Z	80203E	21	36	0.6	0.0647
6303E-Z	60303	22	42	1	0.0109
6303E-2Z	80303	22	42	1	0.0108
61904E-Z		22.4	34.8	0.3	0.036
61904E-2Z		22.4	34.8	0.3	0.0359
6004E-Z	60104E	24	38	0.6	0.0677
6004E-2Z	80104E	24	38	0.6	0.0667
6204E-Z	60204E	25	42	1	0.104
6204E-2Z	80204E	25	42	1	0.103
6304E-Z	60304E	26.5	45.5	1	0.142
6304E-2Z	80304E	26.5	45.5	1	0.14
62/22 EX1-Z		26	43	0.6	0.0441
60/22 EX1-Z					0.0857
61805-Z		27	35	0.3	0.0222
61805-2Z		27	35	0.3	0.0222



d 25~45mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
d	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
25	47	12	0.6	11	6.42	15000	18000
	47	12	0.6	11	6.42	15000	18000
	47	12	1	11	6.42	15000	18000
	52	15	1	14.5	8.3	12000	15000
	52	15	1	14.5	8.3	12000	15000
	62	17	1.1	22.5	11.6	11000	14000
30	42	7	0.3	4.4	3	15000	18000
	42	7	0.3	4.4	3	15000	18000
	55	13	1	13.5	8.15	12000	15000
	55	13	1	13.5	8.15	12000	15000
	62	16	1	19.5	11.2	10000	13000
	62	16	1	19.5	11.2	10000	13000
	62	16	1	19.5	11.2	10000	13000
	72	19	1.1	28.1	16	9000	11000
	72	19	1.1	28.1	16	9000	11000
	35	62	14	1	16	10.3	10000
62		14	1	16	10.3	10000	13000
72		17	1.1	25.5	15.3	9000	11000
72		17	1.1	25.5	15.3	9000	11000
80		21	1.5	35.7	19.5	8500	10000
80		21	1.5	35.7	19.5	8500	10000
40	62	12	0.6	13.5	9.75	10000	13000
	62	12	0.6	13.5	9.75	10000	13000
	68	15	1	16.8	11.7	9200	11600
	68	15	1	16.8	11.7	9200	11600
	80	18	1.1	32	18.6	8200	9700
	80	18	1.1	32	18.6	8200	9700
	90	23	1.5	40.8	24	5500	
	90	23	1.5	40.8	24	5500	
	90	23	1.5	41.5	24.3	7300	8700
	90	23	1.5	41.5	24.3	7300	8700
45	75	16	1	21	14.9	8300	10500
	75	16	1	21	14.9	8300	10500
	85	19	1.1	33.2	21	7500	8700
	85	19	1.1	33.2	21	7500	8700
	85	19	1.1	31.7	20.8	7500	8700
	85	19	1.1	31.7	20.8	7500	8700

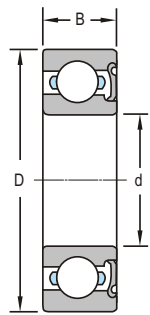
Bearing Designations		Mounting Dimensions			Mass
Present	Original	D _{amin}	D _{amax}	r _{amax}	
		mm			kg
6005 E-Z	60105E	29	43	0.6	0.0753
6005 E-2Z	80105E	29	43	0.6	0.0766
6005 WB1-Z	260105K	29	43	0.6	0.0809
6205 E-Z	60205E	30	47	1	0.129
6205 E-2Z	80205E	30	47	1	0.127
6305 E-Z	60305E	31.5	55.5	1	0.219
6305 E-2Z	80305E	31.5	55.5	1	0.219
61806-Z		32	40	0.3	0.0256
61806-2Z		32	40	0.3	0.0255
6006 E-Z	60106E	35	50	1	0.109
6006 E-2Z	80106E	35	50	1	0.111
6206 E-Z	60206E	35	57	1	0.198
6206 E-2Z	80206E	35	57	1	0.197
6206 E-2Z/HTB		35	57	1	0.196
6306 E-Z	60306E	36.5	65.5	1	0.348
6306 E-2Z	80306E	36.5	65.5	1	0.347
6007 E-Z	60107E	40	57	1	0.149
6007 E-2Z	80107E	40	57	1	0.15
6207 E-Z	60207E	41.5	65.5	1	0.283
6207 E-2Z	80207E	41.5	65.5	1	0.28
6307 E-Z	60307E	43	72	1.5	0.461
6307 E-2Z	80307E	43	72	1.5	0.465
61908-Z		43.2	58.8	0.6	0.12
61908-2Z		43.2	58.8	0.6	0.119
6008 E-Z	60108E	45	63	1	0.189
6008 E-2Z	80108E	45	63	1	0.193
6208 E-Z	60208E	46.5	73.5	1	0.352
6208 E-2Z	80208E	46.5	73.5	1	0.345
6308 E-2ZTN1/P64Z2YA		49	81	1.5	0.591
6308 E-2ZP64Z2YA		49	81	1.5	0.612
6308 E-Z	60308E	48	82	1.5	0.606
6308 E-2Z	80308E	48	82	1.5	0.603
6009 E-Z	60109E	50	70	1	0.231
6009 E-2Z	80109E	50	70	1	0.236
6209 E-Z	60209E	51.5	78.5	1	0.402
6209 E-2Z	80209E	51.5	78.5	1	0.397
6209 E-2Z/YA		51.5	78.5	1	0.437



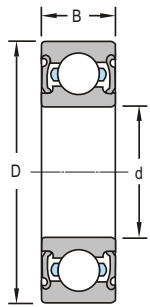
d 45~95mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r_{min}</i>	Dynamic <i>C</i>	Static <i>C₀</i>	Grease	Oil
mm				kN		r/min	
45	100	25	1.5	52.8	30.5	6500	7800
	100	25	1.5	52.8	30.5	6500	7800
50	80	16	1	21.8	16.6	8000	9700
	80	16	1	22	16.2	8000	9700
	80	16	1	22	16.2	8000	9700
	90	20	1.1	35.4	23.8	6800	8200
	90	20	1.1	35.4	23.8	6800	8200
	110	27	2	61.8	37.9	4300	6100
55	100	21	1.5	43.3	28.1	6100	7300
	100	21	1.5	43.3	28.1	6100	7300
	120	29	2	71.5	44.6	5400	6500
60	110	22	1.5	53.3	33.5	5400	6800
	110	22	1.5	53.3	33.5	5400	6800
65	100	18	1.1	32.1	24.9	6000	7600
	100	18	1.1	32.1	24.9	6000	7600
	120	23	1.5	56.5	41.2	5100	6100
	120	23	1.5	56.5	41.2	5100	6100
70	125	24	1.5	60.8	46.5	4800	5800
	125	24	1.5	60.8	46.5	4800	5800
75	130	25	1.5	65	50.5	4600	5400
	130	25	1.5	64.3	47.5	4600	5400
80	140	26	2	72.7	53	4400	5100
	140	26	2	72.7	53	4400	5100
	170	39	1.5	123	86.5	2800	
85	130	22	1.1	50.3	41.2	4800	5600
	130	22	1.1	50.3	41.2	4800	5600
	150	28	2	83.2	64	4200	4800
	150	28	2	83.2	64	4200	4800
90	190	43	2	143	107	2400	
95	145	24	1.5	79	55	4200	4800
	145	24	1.5	79	55	4200	4800

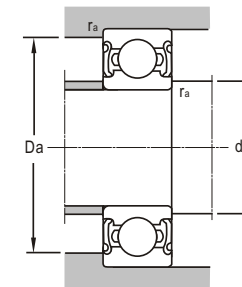
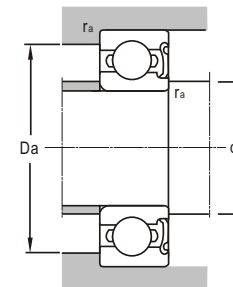
Bearing Designations		Mounting Dimensions			Mass
Present	Original	<i>D_{amin}</i>	<i>D_{amax}</i>	<i>r_{amax}</i>	
		mm			kg
6309E-Z	60309E	53	92	1.5	0.815
6309E-2Z	80309E	53	92	1.5	0.814
6010E/YA/P53V2			75.4	1	0.264
6010E-Z	60110E	55	75	1	0.257
6010E-2Z	80110E	55	75	1	0.263
6210E-Z	60210E	56.5	83.5	1	0.47
6210E-2Z	80210E	56.5	83.5	1	0.476
6310 E-2ZTN1/P64Z2YUA		59	101	0.2	1.03
6310E-Z	60310E	59	101	2	1.06
6310E-2Z	80310E	59	101	2	1.05
6211E-Z	60211E	63	92	1.5	0.614
6211E-2Z	80211E	63	92	1.5	0.621
6311E-Z	60311E	64	111	2	1.35
6311E-2Z	80311E	64	111	2	1.37
6212E-Z	60212E	68	102	1.5	0.793
6212E-2Z	80212E	68	102	1.5	0.791
6013E-Z	60113E	71.5	93.5	1	0.406
6013E-2Z	80113E	71.5	93.5	1	0.414
6213E-Z	60213E	73	112	1.5	0.988
6213E-2Z	80213E	73	112	1.5	0.986
6214E-Z	60214E	78	117	1.5	1.1
6214E-2Z	80214E	78	117	1.5	1.1
6215E-Z	60215E	83	122	1.5	1.25
6215E-2Z	80215E	83	122	1.5	1.28
6216-Z	60216	89	131	2	1.46
6216-2Z	80216	89	131	2	1.47
6316 E-2ZP64Z2YA		92	158	1.5	3.66
6017E-Z	60117E	91.5	123.5	1	0.832
6017E-2Z	80117E	91.5	123.5	1	0.835
6217E-Z	60217E	94	141	2	1.87
6217E-2Z	80217E	94	141	2	1.95
6318 E-2Z/C4YA		104	176	2	4.99
6019E-Z	60119E	103	137	1.5	1.17
6019E-2Z	80119E	103	137	1.5	1.19



RS (RZ)



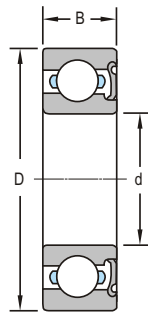
2RS (2RZ)



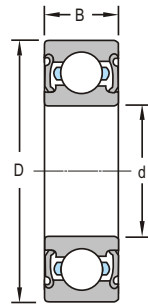
d 10~17mm

Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
d	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
10	30	9	0.6	5.11	2.39	17000	
	30	9	0.6	5.11	2.39	17000	
	30	9	0.6	5.1	2.39	19000	
	30	9	0.6	5.1	2.39	19000	
	35	11	0.6	8.06	3.4	17000	
	35	11	0.6	8.06	3.4	17000	
37	14	0.6	5.11	2.39	14000		
12	28	8	0.3	4.98	2.39	17000	
	28	8	0.3	4.98	2.39	17000	
	28	8	0.3	4.98	2.39	19000	
	28	8	0.3	4.98	2.39	19000	
	32	10	0.6	6.89	3.1	15000	
	32	10	0.6	6.89	3.1	15000	
	32	10	0.6	6.89	3.1	17000	
	32	10	0.6	6.89	3.1	17000	
	37	12	1	9.75	4.15	17000	
	37	12	1	9.75	4.15	17000	
	37	12	1	9.75	4.15	14000	
	37	12	1	9.75	4.15	14000	
	42	18	1	9.71	4.19	13000	
	42	18	1	9.71	4.19	13000	
15	32	9	0.3	5.48	2.8	14000	
	32	9	0.3	5.48	2.8	14000	
	35	11	0.6	7.8	3.75	13000	
	35	11	0.6	7.8	3.75	13000	
	35	11	0.6	7.8	3.75	15000	
	35	11	0.6	7.8	3.75	15000	
	35	14	0.6	7.64	3.72	13000	
	42	13	1	11.4	5.4	14000	
	42	13	1	11.4	5.4	14000	
	42	13	1	11.4	5.4	12000	
	42	13	1	11.4	5.4	12000	
	17	35	10	0.3	5.93	3.18	15500
35		10	0.3	5.93	3.18	15500	
35		10	0.3	5.93	3.18	13000	
35		10	0.3	5.93	3.18	13000	
40		12	0.6	9.56	4.75	14500	
40		12	0.6	9.56	4.75	14500	
40		12	0.6	9.56	4.75	14500	

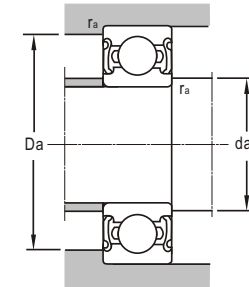
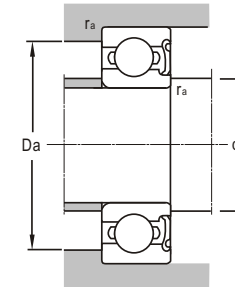
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _{amax}	r _{amax}	
		mm			kg
6200-RS	160200	14	26	0.5	0.0296
6200-2RS	180200	14	26	0.5	0.0296
6200E-RZ	160200K	14	26	0.6	0.0295
6200E-2RZ	180200K	14	26	0.6	0.0295
6300 E-RZ		14	31	0.6	0.0508
6300 E-2RZ		14	31	0.6	0.0483
6400 EWBTN1-2RZ		14	33	0.6	0.0766
6001E-RS		14	26	0.3	0.021
6001E-2RS		14	26	0.3	0.02
6001 E-RZ	160101 EK	14	26	0.3	0.0217
6001 E-2RZ	180101 EK	14	26	0.3	0.0221
6201 E-RS	160201	16	28	0.6	0.0347
6201 E-2RS	180201	16	28	0.6	0.0356
6201 E-RZ	16020K	16	28	0.6	0.025
6201 E-2RZ	180201EK	16	28	0.6	0.034
6301E-RZ		17	32	1	0.0572
6301E-2RZ		17	32	1	0.0566
6301 E-RS		17	32	1	0.0573
6301 E-2RS		17	32	1	0.0566
62401X1S-RS		17	37	1	0.128
62401X1S-2RS		17	37	1	0.127
6002 E-RZ	160102EK	17	30	0.3	0.0292
6002 E-2RZ	180102EK	17	30	0.3	0.0292
6202E-RS	160202	19	31	0.6	0.0419
6202E-2RS	180202E	19	31	0.6	0.0393
6202E-RZ	160202K	19	31	0.6	0.0419
6202E-2RZ	180202EK	19	31	0.6	0.0392
6202 EX2-2RS/C3		20	37	1	0.0839
6302E-RZ		20	37	1	0.082
6302E-2RZ		20	37	1	0.0839
6302 E-RS	160302E	20	37	1	0.08
6302 E-2RS	180302E	20	37	1	0.08
6003 E-RZ	160103EK	19	33	0.3	0.0364
6003 E-2RZ	180103EK	19	33	0.3	0.0364
6003 E-RS		19	33	0.3	0.0668
6003 E-2RS		19	33	0.3	0.0382
6203 E-RZ/C9	60203EKU	21	36	0.6	0.0657
6203 E-2RZ/C9	80203EKU	21	36	0.6	0.0657



RS (RZ)



2RS (2RZ)



d 17~25mm

d	Boundary Dimensions			Basic Load Ratings		Limiting Speeds		
	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil	
mm			kN		r/min			
17	40	12	0.6	9.56	4.75	12000		
	40	12	0.6	9.56	4.75	12000		
	40	12	0.6	9.5	4.75	14500		
	40	12	0.6	9.5	4.75	14500		
	47	14	1	13.5	6.5	11000		
	47	14	1	13.5	6.5	11000		
	47	14	1	13.5	6.5	12500		
	47	14	1	13.5	6.5	12500		
20	42	12	0.6	7.22	4.46	12500		
	42	12	0.6	7.22	4.46	12500		
	42	12	0.6	9.15	4.9	11000		
	42	12	0.6	9.15	4.9	11000		
	47	14	1	12.7	6.5	10000		
	47	14	1	12.7	6.5	10000		
	47	14	1	12.7	6.5	11500		
	47	14	1	12.7	6.5	11500		
	47	18	1	12.7	6.5	11500		
	47	18	1	12.7	6.5	11500		
	52	15	1.1	15.9	7.8	11000		
	52	15	1.1	15.9	7.8	11000		
	52	15	1.1	15.9	7.8	9500		
	52	15	1.1	15.9	7.8	9500		
	22	50	14	1	13.7	7.5	10000	
		50	14	1	13.7	7.5	10000	
25	47	12	0.6	11	6.42	9500		
	47	12	0.6	11	6.42	9500		
	47	12	0.6	11	6.42	11000		
	47	12	0.6	11	6.42	11000		
	52	15	1	14.5	8.2	8500		
	52	15	1	14.5	8.2	8500		
	52	15	1	14.5	8.2	9500		
	52	15	1	14.5	8.2	9500		
	52	18	1	14.5	8.2	8500		
	52	18	1	14.5	8.2	8500		
	62	17	1.1	22.5	11.6	9000		
	62	17	1.1	22.5	11.6	9000		
	62	17	1.1	22.5	11.6	7500		
	62	17	1.1	22.5	11.6	7500		

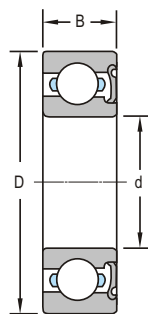
Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _{amax}	r _{amax}	
		mm			kg
6203 E-RS	160203E	21	36	0.6	0.0668
6203 E-2RS	180203E	21	36	0.6	0.0667
6203 E-RZ	160203EK	21	36	0.6	0.0667
6203 E-2RZ	180203EK	21	36	0.6	0.0665
6303E-RS		22	42	1	0.114
6303E-2RS		22	42	1	0.113
6303E-RZ		22	42	1	0.114
6303E-2RZ		22	42	1	0.113
6004E-RZ		24	38	0.6	0.0693
6004E-2RZ		24	38	0.6	0.0673
6004E-RS		24	38	0.6	0.0693
6004E-2RS		24	38	0.6	0.0693
6204 E-RS	160204E	25	42	1	0.104
6204 E-2RS	180204E	25	42	1	0.103
6204 E-RZ	160204K	25	42	1	0.104
6204 E-2RZ	180204EK	25	42	1	0.102
62204 E-RZ		25	42	1	0.133
62204 E-2RZ		25	42	1	0.133
6304E-RZ		26.5	45.5	1	0.147
6304E-2RZ		26.5	45.5	1	0.147
6304 E-RS		26.5	45.5	1	0.147
6304 E-2RS		26.5	45.5	1	0.147
62/22E-RS		27	45	1	0.119
62/22E-2RS		27	45	1	0.119
6005 E-RS		29	43	0.6	0.08
6005 E-2RS		29	43	0.6	0.08
6005 E-RZ		29	43	0.6	0.0756
6005 E-2RZ		29	43	0.6	0.0774
6205 E-RS	160205E	30	47	1	0.128
6205 E-2RS	180205E	30	47	1	0.126
6205 E-RZ	160205EK	30	47	1	0.124
6205 E-2RZ	180205EK	30	47	1	0.126
62205E-RS		30	47	1	0.158
62205E-2RS		30	47	1	0.157
6305E-RZ		31.5	55.5	1	0.225
6305E-2RZ		31.5	55.5	1	0.218
6305 E-RS		31.5	55.5	1	0.225
6305 E-2RS		31.5	55.5	1	0.225



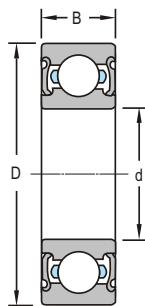
Deep Groove Ball Bearings

with seal

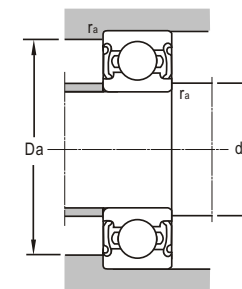
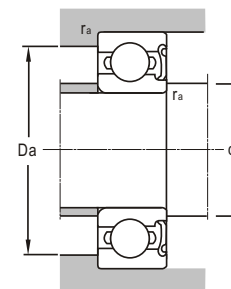
LYC®



RS (RZ)



2RS (2RZ)



d 30~40mm

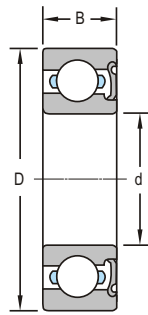
Boundary Dimensions				Basic Load Ratings		Limiting Speeds	
d	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
30	55	13	1	13.5	8.5	9500	
	55	13	1	13.5	8.5	9500	
	55	13	1	13.5	8.5	8000	
	55	13	1	13.5	8.5	8000	
	62	16	1	19.5	11.2	9000	
	62	16	1	19.5	11.2	9000	
	62	16	1	19.5	11.2	7500	
	62	16	1	19.5	11.2	7500	
	62	20	1	19.5	11.2	7500	
	62	20	1	19.5	11.2	7500	
	66	17	0.6	23.5	13.1		
	72	19	1.1	28.1	16	7500	
72	19	1.1	28.1	16	7500		
72	19	1.1	28.1	16	6300		
72	19	1.1	28.1	16	6300		
72	19	1.1	28.2	15.8	7100		
80	23	0.4	39.5	21.5	6500		
32	75	20	1.1	29.8	16.8	6300	
	75	20	1.1	29.8	16.8	6300	
35	62	14	1	16	10.3	7000	
	62	14	1	16	10.3	7000	
	72	17	1.1	25.5	15.3	7500	
	72	17	1.1	25.5	15.3	7500	
	72	17	1.1	25.5	15.3	6300	
	72	17	1.1	25.5	15.3	6300	
	80	21	1.5	36	19.5	7200	
	80	21	1.5	36	19.5	7200	
	80	21	1.5	36	19.5	6000	
	80	21	1.5	36	19.5	6000	
40	68	15	1	16.5	11.5	6300	
	68	15	1	16.5	11.5	6300	
	80	18	1.1	31.3	18.6	6600	
	80	18	1.1	31.3	18.6	6600	
	80	18	1.1	31.3	18.6	5600	
	80	18	1.1	31.3	18.6	5600	
	90	23	1.5	42	24	5000	
	90	23	1.5	42	24	5000	
	90	23	1.5	31.4	22.4	5000	

Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _a _{max}	r _a _{max}	
		mm			kg
6006 E-RZ	160106EK	35	50	1	0.11
6006 E-2RZ	180106EK	35	50	1	0.11
6006 E-RS	160106E	35	50	1	0.114
6006 E-2RS	180106E	35	50	1	0.114
6206 E-RZ		35	57	1	0.21
6206 E-2RZ		35	57	1	0.2
6206 E-RS	160206E	35	57	1	0.02
6206 E-2RS	180206E	35	57	1	0.197
62206 E-RS		35	57	1	0.251
62206 E-2RS		35	57	1	0.254
6206EX3-2RSN		35	57	1	0.258
6306 E-RZ	160306EK	36.5	65.5	1	0.348
6306 E-2RZ	180306EK	36.5	65.5	1	0.348
6306 E-RS		36.5	65.5	1	0.349
6306 E-2RS		36.5	65.5	1	0.347
6306 ETN1-2RZ/P6		37	65	1	0.338
TM6307/30YA9-2RS1/P6CS28Z2		38	72	0.4	0.524
63/32-RS		39	68	1	0.408
63/32-2RS	63/32E-2RS	39	68	1	0.408
6007 E-RS		40	57	1	0.151
6007 E-2RS		40	57	1	0.154
6207 E-RZ		41.5	65.5	1	0.287
6207 E-2RZ		41.5	65.5	1	0.28
6207 E-RS	160207E	41.5	65.5	1	0.27
6207 E-2RS	180207E	41.5	65.5	1	0.28
6307 E-RZ		43	72	1.5	0.466
6307 E-2RZ		43	72	1.5	0.42
6307 E-RS		43	72	1.5	0.42
6307 E-2RS		43	72	1.5	0.466
6008 E-RS		45	63	1	0.188
6008 E-2RS		45	63	1	0.188
6208 E-RZ		46.5	73.5	1	0.364
6208 E-2RZ		46.5	73.5	1	0.356
6208 E-RS	160208E	46.5	73.5	1	0.364
6208 E-2RS	180208E	46.5	73.5	1	0.355
6308 E-RZ	160308EK	48	82	1.5	0.609
6308 E-2RZ	180308EK	48	82	1.5	0.608
6308 E-2RS		48	82	1.5	0.608

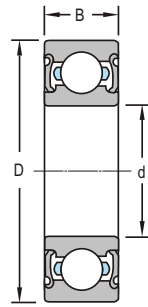


Deep Groove Ball Bearings

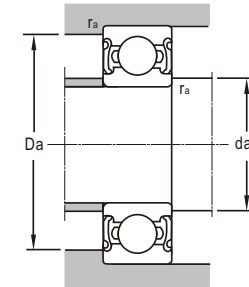
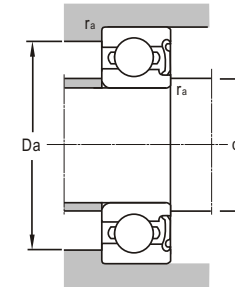
with seal



RS (RZ)



2RS (2RZ)



d 45~80mm

d	Boundary Dimensions			Basic Load Ratings		Limiting Speeds	
	D	B	r _{min}	Dynamic C	Static C ₀	Grease	Oil
mm				kN		r/min	
45	75	16	1	21	14.9	5600	
	75	16	1	21	14.9		
	85	19	1.1	32.2	21	5000	
	85	19	1.1	32.2	21		
	100	25	1.5	53	30.5	6100	
	100	25	1.5	53	30.5	6100	
100	25	1.5	53	30.5	4500		
50	100	25	1.5	53	30.5	4500	
	80	16	1	22	16.2	5000	
	80	16	1	22	16.2	5000	
	110	27	2	61.8	37.9	4300	
	110	27	2	61.8	37.9	4300	
70	110	27	2	61.8	37.9	4300	
	110	27	2	61.8	37.9	4300	
	110	27	2	61.8	37.9	4300	
80	110	20	1.1	38.6	30.6	3600	
	110	20	1.1	38.6	30.6	3600	
	125	24	1.5	62.2	44		
80	125	22	1.1	47.5	39.8	3500	
	170	39	2.1	120	83.9	3500	
	170	39	2.1	120	83.9	3500	

Bearing Designations		Mounting Dimensions			Mass
Present	Original	d _{amin}	D _{a_{max}}	r _{a_{max}}	
		mm			kg
6009 E-RZ		50	70	1	0.227
6009 E-2RZ		50	70	1	0.234
6209 E-RS	160209E	51.5	78.5	1	0.389
6209 E-2RS	180209E	51.5	78.5	1	0.417
6309 E-RZ	160309EK	53	92	1.5	0.845
6309 E-2RZ	180309EK	53	92	1.5	0.845
6309 E-RS		53	92	1.5	0.846
6309 E-2RS		53	92	1.5	0.846
6010 E-RS	160110E	55	75	1	0.252
6010 E-2RS	180110E	55	75	1	0.26
6310 E-RS	160310E	59	101	2	1.07
6310 E-2RS	180310E	59	101	2	1.07
6311 E-2RZ	180311E	59	101	2	1.07
6014 E-RS		76.5	103.5	1	0.563
6014 E-2RS		76.5	103.5	1	0.585
6214E-RS					1.1
6016-2RS		86	119	1	0.822
6316-RZ	160316K	91	159	2	3.61
6316-2RZ	180316K	91	159	2	3.61