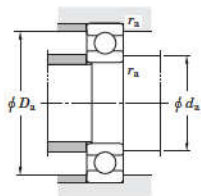
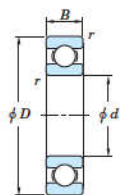


Single-row deep groove ball bearings
open type

d (65) ~ (85) mm



d (85) ~ 105 mm

Boundary dimensions (mm)	Basic load ratings (kN)			Factor f_0	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)			(Refer.) Mass (kg)		
	d	D	B		$r_{min.}$	C_r		C_{0r}	d_a min.	D_a max.		r_a max.	
65	120	23	1.5	57.2	40.1	14.4	5 400	6 400	6213	73	112	1.5	0.990
	140	33	2.1	92.7	59.9	13.2	4 800	5 800	6313	76	129	2	2.08
	160	37	2.1	118	79.2	12.4	4 300	5 200	6413	76	149	2	3.30
70	90	10	0.6	12.1	11.9	16.1	6 800	8 100	6814	74	86	0.6	0.134
	100	16	1	23.7	21.2	16.3	6 400	7 600	6914	75	95	1	0.342
	110	13	0.6	30.1	25.6	16.0	6 100	7 200	16014	74	106	0.6	0.433
	110	20	1.1	38.1	30.9	15.6	6 100	7 200	6014	76.5	103.5	1	0.602
	125	24	1.5	62.2	44.1	14.5	5 100	6 100	6214	78	117	1.5	1.07
	150	35	2.1	104	68.2	13.2	4 500	5 400	6314	81	139	2	2.52
	180	42	3	144	104	12.2	3 900	4 600	6414	83	167	2.5	4.83
75	95	10	0.6	12.5	12.9	16.0	6 400	7 600	6815	79	91	0.6	0.142
	105	16	1	24.4	22.6	16.5	6 100	7 200	6915	80	100	1	0.363
	115	13	0.6	27.5	25.3	16.4	5 700	6 700	16015	79	111	0.6	0.457
	115	20	1.1	39.6	33.5	15.8	5 700	6 800	6015	81.5	108.5	1	0.638
	130	25	1.5	67.4	48.3	14.5	4 800	5 800	6215	83	122	1.5	1.18
	160	37	2.1	113	77.2	13.2	4 200	5 000	6315	86	149	2	3.02
	190	45	3	154	115	12.3	3 600	4 400	6415	88	177	2.5	5.87
	80	100	10	0.6	12.7	13.3	16.0	6 100	7 200	6816	84	96	0.6
110		16	1	25.0	24.0	16.6	5 700	6 800	6916	85	105	1	0.382
125		14	0.6	31.7	29.7	16.4	5 200	6 100	16016	84	121	0.6	0.597
125		22	1.1	47.6	39.8	15.6	5 300	6 300	6016	86.5	118.5	1	0.850
140		26	2	72.7	53.0	14.6	4 500	5 400	6216	89	131	2	1.40
170		39	2.1	123	86.7	13.3	3 900	4 700	6316	91	159	2	3.59
200		48	3	164	125	12.3	3 400	4 100	6416	93	187	2.5	6.84
85		110	13	1	18.7	19.0	16.2	5 600	6 600	6817	90	105	1
	120	18	1.1	31.9	29.6	16.4	5 300	6 300	6917	91.5	113.5	1	0.535
	130	14	0.6	32.6	31.7	16.5	4 900	5 800	16017	89	126	0.6	0.626

[Remark] Standard cage types used for the above bearings are described earlier in this section.

Boundary dimensions (mm)	Basic load ratings (kN)			Factor f_0	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)			(Refer.) Mass (kg)		
	d	D	B		$r_{min.}$	C_r		C_{0r}	d_a min.	D_a max.		r_a max.	
85	130	22	1.1	49.5	43.1	15.8	5 000	5 900	6017	91.5	123.5	1	0.890
	150	28	2	84.0	61.9	14.5	4 200	5 000	6217	94	141	2	1.79
	180	41	3	133	96.8	13.3	3 700	4 400	6317	98	167	2.5	4.23
	210	52	4	173	136	12.3	3 300	3 900	6417	101	194	3	8.07
90	115	13	1	19.0	19.7	16.1	5 300	6 300	6818	95	110	1	0.279
	125	18	1.1	32.8	31.6	16.5	5 100	6 000	6918	96.5	118.5	1	0.565
	140	16	1	39.9	37.0	16.3	4 700	5 600	16018	95	135	1	0.848
	140	24	1.5	58.2	49.7	15.6	4 700	5 600	6018	98	132	1.5	1.16
	160	30	2	96.1	71.5	14.5	3 900	4 700	6218	99	151	2	2.15
	190	43	3	143	107	13.3	3 500	4 200	6318	103	177	2.5	4.91
	225	54	4	184	149	12.5	3 100	3 700	6418	106	209	3	9.78
95	130	18	1.1	33.7	33.5	16.6	4 800	5 700	6919	101.5	123.5	1	0.705
	145	16	1	41.2	39.6	16.4	4 500	5 300	16019	100	140	1	0.885
	145	24	1.5	60.4	53.9	15.8	4 400	5 200	6019	103	137	1.5	1.21
	170	32	2.1	109	81.9	14.4	3 700	4 400	6219	106	159	2	2.62
200	45	3	153	119	13.3	3 300	4 000	6319	108	187	2.5	5.67	
100	125	13	1	19.6	21.2	16.0	4 800	5 700	6820	105	120	1	0.309
	140	20	1.1	45.0	41.9	16.2	4 500	5 300	6920	106.5	133.5	1	0.960
	150	16	1	42.4	42.1	16.5	4 300	5 100	16020	105	145	1	0.910
	150	24	1.5	60.2	54.2	15.9	4 300	5 100	6020	108	142	1.5	1.25
	180	34	2.1	122	93.1	14.4	3 500	4 200	6220	111	169	2	3.14
	215	47	3	173	141	13.2	3 000	3 600	6320	113	202	2.5	7.00
105	145	20	1.1	46.5	44.8	16.4	4 300	5 100	6921	111.5	138.5	1	1.00
	160	18	1	41.9	42.2	16.5	4 100	4 800	16021	110	155	1	1.20
	160	26	2	72.3	65.8	15.8	4 000	4 700	6021	114	151	2	1.59
	190	36	2.1	133	105	14.4	3 300	3 900	6221	116	179	2	3.70
	225	49	3	184	153	13.2	2 900	3 500	6321	118	212	2.5	8.05

NOMENCLATURE

Ball Bearings

Basic Type & Series	
1200:	Metric, Self-aligning Light Series
1300:	Metric, Self-aligning Medium Series
3200:	Metric, 32° Double Row Angular Contact Light Series
3300:	Metric, 32° Double Row Angular Contact Medium Series
5200:	Metric, 24° Double Row Angular Contact Light Series
5300:	Metric, 24° Double Row Angular Contact Medium Series
6800:	Metric, Single Row Ultra Light Series
6900:	Metric, Single Row Extremely Light Series
6000:	Metric, Single Row Extra Light Series
6200:	Metric, Single Row Light Series
6300:	Metric, Single Row Medium Series
6400:	Metric, Single Row Heavy Series
3NC:	Ceramic Rolling Elements

Internal Clearance	
C1:	Smaller than C2
C2:	Smaller than Standard
No code:	Standard
C3:	Greater than Standard
C4:	Greater than C3
CD2:	Smaller than Standard (Double Row BB)
No code:	Standard (Double Row BB)
CD3:	Greater than Standard (Double Row BB)

Tolerance Code	
No Code:	ABEC 1 Precision
P6:	ABEC 3 Precision
P5:	ABEC 5 Precision

62

05

RSH2

ZZ

C3

FY

P5

XM

Bore Size	
For bore series 04 and above, Bore Diameter = Bore Series X 5	
Bore Series	Bore Diameter
00:	10 mm
01:	12 mm
02:	15 mm
03:	17 mm
04:	20 mm
05:	25 mm
10:	50 mm
12:	60 mm
18:	90 mm

Internal Design Material Code	
R	Increased Capacity
SH2	Special Heat Treatment on Inner Ring

Retainer Codes	
No Code:	Pressed Steel Retainer
FY:	Machined Brass Retainer
FG:	Polyamide (Nylon) Retainer

Grease Code	Grease Trade Name	Operating Temperature Range
XM	Polyrex EM	-22° F to 338° F (-30 to 170 °C)
SR	Multemp SRL	-40° F to 266° F (-40 to 130 °C)
A2	Alvania #2	14° F to 212° F (-10 to 100 °C)
P2	Multemp PS2	-58° F to 266° F (-50 to 130 °C)

Shield / Seal/ Snap Ring Codes			Interchange							
One Side	Both Sides	Description	FAG	MRC	Nachi	NSK	NTN	SNR	SKF	Torrington/ Fafnir
Z	ZZ	Fixed Shield(s)	Z/ZZ	F/FF	Z/ZZ	Z/ZZ	Z/ZZ	Z/ZZ	Z/ZZ	D/DD
ZX	ZZX	Removable Shield(s)	N/A	L/LL	ZS/ZZS	ZS/ZZS	ZA/ZZA	N/A	N/A	N/A
RU	2RU	Non-contact Seal(s)	RSD/2RSD	N/A	NKE/2NKE	V/VV	LB/LLB	N/A	RZ/2RZ	PL/PPL
RS	2RS	Contact Seal(s)	RS/2RS	Z/ZZ	NSL/2NSL	DU/DDU	LU/LLU	E/EE	RS/2RS	P/PP
RK	2RK	DbI lip Contact Seal(s)	N/A	N/A	N/A	N/A	LC/LLC	E10/EE10	N/A	Y/YY
RD	2RD	Extremely Light Contact Seal(s)	N/A	N/A	NSE/2NSE	N/A	LH/LLH	N/A	N/A	V/VV
RDT	2RDT	Same as 2RD - for Large Size Ball Bearings	N/A	N/A	NSE/2NSE	N/A	LH/LLH	N/A	N/A	V/VV
NR:		Snap Ring on Outer Ring O.D.	NR	G	NR	NR	NR	NR	NR	G