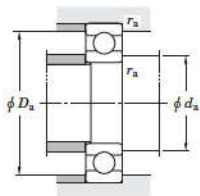
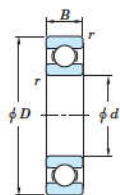


Single-row deep groove ball bearings
open type

d 10 ~ (20) mm



d (20) ~ (30) 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	C_r	C_{0r}		Grease lub.	Oil lub.		d_a min.	D_a max.	r_a max.		
10	19	5	0.3	1.70	0.84	14.8	37 000	43 000	6800	12	17	0.3	0.005
	22	6	0.3	2.70	1.25	14.0	34 000	41 000	6900	12	20	0.3	0.010
	26	8	0.3	4.55	1.95	12.3	31 000	36 000	6000	12	24	0.3	0.019
	30	9	0.6	5.10	2.40	13.2	24 000	29 000	6200	14	26	0.6	0.032
	35	11	0.6	8.10	3.45	11.2	22 000	27 000	6300	14	31	0.6	0.053
12	21	5	0.3	1.90	1.05	15.3	33 000	39 000	6801	14	19	0.3	0.006
	24	6	0.3	2.90	1.45	14.5	31 000	36 000	6901	14	22	0.3	0.011
	28	7	0.3	5.10	2.40	13.2	27 000	32 000	16001	14	26	0.3	0.024
	28	8	0.3	5.10	2.40	13.2	27 000	32 000	6001	14	26	0.3	0.022
	32	10	0.6	6.80	3.05	12.3	22 000	27 000	6201	16	28	0.6	0.037
	37	12	1	9.70	4.20	11.1	20 000	25 000	6301	17	32	1	0.060
15	24	5	0.3	2.10	1.25	15.8	28 000	33 000	6802	17	22	0.3	0.007
	28	7	0.3	4.30	2.25	14.3	26 000	30 000	6902	17	26	0.3	0.017
	32	8	0.3	5.60	2.85	13.9	23 000	28 000	16002	17	30	0.3	0.025
	32	9	0.3	5.60	2.85	13.9	23 000	27 000	6002	17	30	0.3	0.030
	35	11	0.6	7.65	3.75	13.2	20 000	24 000	6202	19	31	0.6	0.045
	42	13	1	11.4	5.45	12.3	17 000	20 000	6302	20	37	1	0.082
17	26	5	0.3	2.60	1.55	15.7	26 000	30 000	6803	19	24	0.3	0.008
	30	7	0.3	4.60	2.55	14.7	23 000	28 000	6903	19	28	0.3	0.018
	35	8	0.3	6.00	3.25	14.4	21 000	25 000	16003	19	33	0.3	0.032
	35	10	0.3	6.00	3.25	14.4	21 000	25 000	6003	19	33	0.3	0.039
	40	12	0.6	9.55	4.80	13.2	17 000	21 000	6203	21	36	0.6	0.065
	47	14	1	13.6	6.65	12.4	15 000	18 000	6303	22	42	1	0.115
	47	14	1	15.6	7.60	12.0	15 000	18 000	6303R	22	42	1	0.121
	62	17	1.1	20.7	9.85	11.6	13 000	15 000	6403	23.5	55.5	1	0.270
20	32	7	0.3	4.00	2.45	15.5	21 000	25 000	6804	22	30	0.3	0.018
	37	9	0.3	6.35	3.70	14.7	19 000	23 000	6904	22	35	0.3	0.036
	42	8	0.3	7.95	4.50	14.4	17 000	21 000	16004	22	40	0.3	0.050

[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	C_r	C_{0r}		Grease lub.	Oil lub.		d_a min.	D_a max.	r_a max.		
20	42	12	0.6	9.40	5.05	13.9	17 000	21 000	6004	24	38	0.6	0.069
	42	12	0.6	11.5	5.85	13.0	18 000	21 000	6004R	24	38	0.6	0.073
	47	14	1	12.8	6.65	13.2	15 000	17 000	6204	25	42	1	0.106
	47	14	1	15.6	7.60	12.0	15 000	18 000	6204R	25	42	1	0.114
	52	15	1.1	15.9	7.85	12.3	14 000	17 000	6304	26.5	45.5	1	0.144
	52	15	1.1	18.1	8.95	12.0	14 000	16 000	6304R	26.5	45.5	1	0.151
	72	19	1.1	31.0	15.2	11.1	11 000	13 000	6404	26.5	65.5	1	0.400
22	44	12	0.6	9.40	5.15	14.1	17 000	20 000	60/22	26	40	0.6	0.073
	50	14	1	12.8	6.65	13.2	15 000	17 000	62/22	27	45	1	0.118
	56	16	1.1	18.5	9.40	12.6	13 000	15 000	63/22	28.5	49.5	1	0.201
25	37	7	0.3	4.30	2.95	16.0	18 000	21 000	6805	27	35	0.3	0.022
	42	9	0.3	7.00	4.55	15.4	16 000	19 000	6905	27	40	0.3	0.041
	47	8	0.3	8.85	5.60	15.1	15 000	18 000	16005	27	45	0.3	0.060
	47	12	0.6	10.1	5.85	14.5	15 000	18 000	6005	29	43	0.6	0.080
	52	15	1	14.0	7.85	13.9	13 000	15 000	6205	30	47	1	0.128
	52	15	1	17.6	9.30	12.8	13 000	16 000	6205R	30	47	1	0.138
	62	17	1.1	20.6	11.3	13.2	11 000	13 000	6305	31.5	55.5	1	0.232
	62	17	1.1	26.2	13.4	11.9	11 000	14 000	6305R	31.5	55.5	1	0.255
	80	21	1.5	36.1	19.4	12.2	9 100	11 000	6405	33	72	1.5	0.530
	28	52	12	0.6	12.4	7.40	14.5	14 000	16 000	60/28	32	48	0.6
58		16	1	17.9	9.75	13.4	12 000	14 000	62/28	33	53	1	0.173
68		18	1.1	23.5	13.1	13.3	10 000	12 000	63/28	34.5	61.5	1	0.328
30	42	7	0.3	4.55	3.40	16.4	15 000	18 000	6806	32	40	0.3	0.026
	47	9	0.3	7.25	5.00	15.8	14 000	17 000	6906	32	45	0.3	0.045
	55	9	0.3	11.2	7.35	15.2	13 000	15 000	16006	32	53	0.3	0.085
	55	13	1	13.2	8.25	14.7	13 000	15 000	6006	35	50	1	0.116
	62	16	1	19.5	11.3	13.9	11 000	13 000	6206	35	57	1	0.199
	62	16	1	23.4	12.8	13.0	11 000	13 000	6206R	35	57	1	0.212

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

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