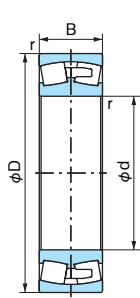
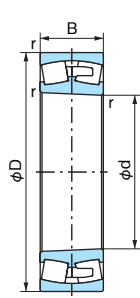


Spherical Roller Bearings

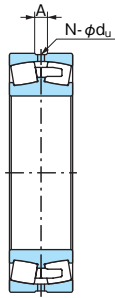
Bore Diameter: 180~200mm



Cylindrical bore

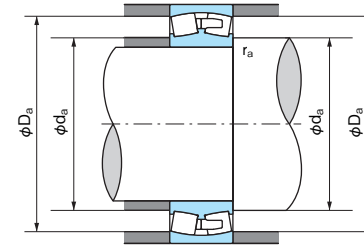


Tapered bore



With oil holes / oil groove (W33)

1N=0.102kgf



Dynamic equivalent radial load
 $P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

Values of Y₁, Y₂ and e from table.

Static equivalent radial load
 $P_0 = F_r + Y_0 F_a$
 Values Y₀ from table.

Boundary dimensions (mm)				Bearing No.		Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (min ⁻¹)			Dimensions of lubrication holes and grooves			Abutment and fillet dimensions (mm)			Constant e	Axial load factor			Mass (kg) Cylindrical bore (Reference)	Bearing No.	
d	D	B	r (min)	Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication		Hole diameter du	Groove width A	Hole count N	d _a (min)	D _a (max)	r _a (max)		Y ₁	Y ₂	Y ₀		Cylindrical bore	Tapered bore
180	250	52	2	23936AX	23936AXK	665000	939000	1,900	2,500		6	10	6	190.0	240.0	2.0	0.19	3.55	5.29	3.48	8.10	23936AX	23936AXK
	280	74	2.1	23036E	23036EK	1070000	1330000	1,500	2,200		8	15	6	192.0	268.0	2.0	0.24	2.84	4.23	2.78	17.4	23036E	23036EK
	280	74	2.1	23036AX	23036AXK	1040000	1280000	2,200	2,800		8	15	6	192.0	268.0	2.0	0.27	2.47	3.67	2.41	17.5	23036AX	23036AXK
	280	100	2.1	24036EX1	24036EX1K30	1330000	1760000	1,600	2,100		8	16	6	192.0	268.0	2.0	0.33	2.04	3.03	1.99	22.7	24036EX1	24036EX1K30
	280	100	2.1	24036AX	24036AXK30	1230000	1580000	1,600	2,100		8	16	6	192.0	268.0	2.0	0.32	2.12	3.15	2.07	22.5	24036AX	24036AXK30
	300	96	3	23136E	23136EK	1490000	1810000	1,300	1,800		8	18	6	194.0	286.0	2.5	0.32	2.12	3.15	2.07	27.9	23136E	23136EK
	300	96	3	23136A2X	23136A2XK	1450000	1740000	1,800	2,200		8	18	6	194.0	286.0	2.5	0.33	2.04	3.04	2.00	28.2	23136A2X	23136A2XK
	300	118	3	24136E	24136EK30	1640000	2040000	1,350	1,800		10	22	6	194.0	286.0	2.5	0.39	1.73	2.57	1.69	33.7	24136E	24136EK30
	320	86	4	22236E	22236EK	1460000	1610000	1,400	1,900		8	18	6	198.0	302.0	3.0	0.28	2.43	3.61	2.37	30.9	22236E	22236EK
	320	112	4	23236E	23236EK	1790000	2100000	1,200	1,600		10	22	6	198.0	302.0	3.0	0.36	1.87	2.79	1.83	39.4	23236E	23236EK
	320	112	4	23236A2X	23236A2XK	1750000	2070000	1,800	2,200		10	22	6	198.0	302.0	3.0	0.39	1.75	2.61	1.71	39.0	23236A2X	23236A2XK
190	380	126	4	22336E	22336EK	2380000	2400000	1,200	1,600		12	26	6	198.0	362.0	3.0	0.36	1.87	2.78	1.83	70.5	22336E	22336EK
	260	52	2	23938AX	23938AXK	675000	969000	1,800	2,400		6	10	6	200.0	250.0	2.0	0.18	3.69	5.50	3.61	8.46	23938AX	23938AXK
	290	75	2.1	23038E	23038EK	1080000	1330000	1,400	1,900		6	14	6	202.0	278.0	2.0	0.25	2.69	4.00	2.63	18.4	23038E	23038EK
	290	75	2.1	23038A2X	23038A2XK	1080000	1310000	2,100	2,800		6	14	6	202.0	278.0	2.0	0.26	2.55	3.80	2.50	17.8	23038A2X	23038A2XK
	290	100	2.1	24038E	24038EK30	1420000	1920000	1,300	1,800		8	18	6	202.0	278.0	2.0	0.34	1.98	2.94	1.93	24.6	24038E	24038EK30
	320	104	3	23138E	23138EK	1720000	2120000	1,200	1,600		10	22	6	204.0	306.0	2.5	0.32	2.09	3.11	2.04	35.0	23138E	23138EK
	320	104	3	23138A2X	23138A2XK	1710000	2090000	1,600	2,100		10	22	6	204.0	306.0	2.5	0.34	1.96	2.92	1.92	33.5	23138A2X	23138A2XK
	320	128	3	24138E	24138EK30	1900000	2380000	1,200	1,600		12	26	6	204.0	306.0	2.5	0.40	1.68	2.50	1.64	42.0	24138E	24138EK30
	340	92	4	22238E	22238EK	1590000	1740000	1,300	1,800		8	18	6	208.0	322.0	3.0	0.28	2.39	3.56	2.34	37.2	22238E	22238EK
	340	120	4	23238E	23238EK	2070000	2450000	1,200	1,500		10	22	6	208.0	322.0	3.0	0.36	1.87	2.79	1.83	48.0	23238E	23238EK
	340	120	4	23238A2X	23238A2XK	2000000	2370000	1,600	2,100		10	22	6	208.0	322.0	3.0	0.39	1.72	2.56	1.68	47.5	23238A2X	23238A2XK
200	400	132	5	22338E	22338EK	2600000	2670000	1,200	1,600		12	26	6	212.0	378.0	4.0	0.36	1.89	2.81	1.85	81.8	22338E	22338EK
	280	60	2.1	23940AX	23940AXK	840000	1190000	1,800	2,200		6	11	6	212.0	268.0	2.0	0.20	3.44	5.13	3.37	11.9	23940AX	23940AXK
	310	82	2.1	23040E	23040EK	1270000	1560000	1,400	1,900		8	18	6	212.0	298.0	2.0	0.26	2.64	3.93	2.58	23.4	23040E	23040EK
	310	82	2.1	23040A2X	23040A2XK	1270000	1570000	1,900	2,500		8	18	6	212.0	298.0	2.0	0.28	2.45	3.64	2.39	23.3	23040A2X	23040A2XK
	310	109	2.1	24040E	24040EK30	1640000	2230000	1,200	1,600		10	22	6	212.0	298.0	2.0	0.35	1.95	2.90	1.91	31.2	24040E	24040EK30
	340	112	3	23140E	23140EK	1950000	2390000	1,200	1,500		10	22	6	214.0	326.0	2.5	0.33	2.06	3.06	2.01	42.7	23140E	23140EK
	340	112	3	23140A2X	23140A2XK	1900000	2330000	1,600	2,100		10	22	6	214.0	326.0	2.5	0.35	1.94	2.83	1.89	42.5	23140A2X	23140A2XK
	340	140	3	24140E	24140EK30	2220000	2820000	1,200	1,500		12	26	6	214.0	326.0	2.5	0.41	1.63	2.43	1.60	52.9	24140E	24140EK30
	360	98	4	22240E	22240EK	1810000	1990000	1,200	1,600		8	18	6	218.0	342.0	3.0	0.29	2.35	3.50	2.30	44.8	22240E	22240EK
	360	128	4	23240E	23240EK	2290000	2750000	1,200	1,500		12	26	6	218.0	342.0	3.0	0.37	1.85	2.75	1.80	57.7	23240E	23240EK
	360	128	4	23240A2X	23240A2XK	2240000	2680000	1,500	1,900		12	26	6	218.0	342.0	3.0	0.39	1.71	2.54	1.67	57.0	23240A2X	23240A2XK
200	420	138	5	22340E	22340EK	2890000	3000000	1,200	1,500		12	26	6	222.0	398.0	4.0	0.35	1.93	2.87	1.88	93.7	22340E	22340EK

Note: Suffix K or K30 means tapered bore (1/12 or 1/30).