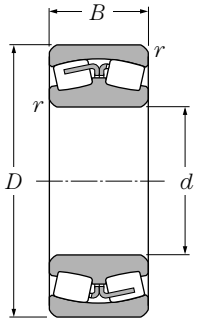
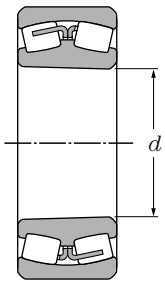


Cylindrical bore

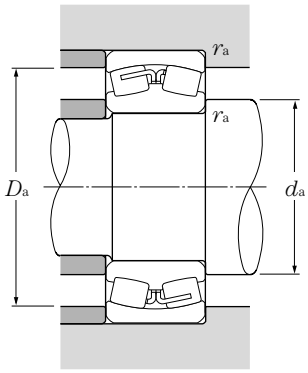


Tapered bore
taper 1:12

d 25～75mm

Boundary dimensions mm				Basic load ratings dynamic kN	static kN	dynamic kgf	static kgf	Limiting speeds ❶ rpm		Bearing numbers	
d	D	B	$r_{s\,min}$ ❸	C_r	C_{or}	C_r	C_{or}	grease	oil	cylindrical bore	tapered ❷ bore
25	52	18	1	36.5	36	3,750	3,650	6,500	10,000	**22205C**	**22205CK**
30	62	20	1	49	49	5,000	5,000	5,700	8,800	**22206C**	**22206CK**
35	72	23	1.1	69.5	71	7,050	7,200	4,900	7,500	**22207C**	**22207CK**
40	80	23	1.1	79	88.5	8,050	9,000	4,300	6,600	**22208C**	**22208CK**
	90	23	1.5	88	90	8,950	9,150	3,200	4,900	**21308C**	**21308CK**
	90	33	1.5	121	128	12,300	13,000	3,800	5,900	**22308C**	**22308CK**
45	85	23	1.1	82.5	95	8,400	9,700	3,800	5,900	**22209C**	**22209CK**
	100	25	1.5	102	106	10,400	10,800	2,900	4,400	**21309C**	**21309CK**
	100	36	1.5	148	167	15,100	17,000	3,400	5,300	**22309C**	**22309CK**
50	90	23	1.1	86	102	8,750	10,400	3,500	5,300	**22210C**	**22210CK**
	110	27	2	118	127	12,000	12,900	2,600	4,000	**21310C**	**21310CK**
	110	40	2	186	212	19,000	21,600	3,100	4,800	**22310C**	**22310CK**
55	100	25	1.5	118	144	12,000	14,700	3,200	4,900	**22211E**	**22211EK**
	100	25	1.5	93.5	110	9,500	11,200	3,200	4,200	**22211B**	**22211BK**
	120	29	2	145	163	14,800	16,600	2,400	3,700	**21311**	**21311K**
	120	43	2	204	234	20,800	23,900	2,800	4,400	**22311B**	**22311BK**
60	110	28	1.5	150	182	15,300	18,500	2,900	4,500	**22212E**	**22212EK**
	110	28	1.5	115	147	11,700	15,000	2,900	4,500	**22212B**	**22212BK**
	130	31	2.1	167	191	17,100	19,500	2,200	3,400	**21312**	**21312K**
	130	46	2.1	238	273	24,300	27,800	2,600	4,000	**22312B**	**22312BK**
65	120	31	1.5	177	217	18,000	22,200	2,700	4,200	**22213E**	**22213EK**
	120	31	1.5	143	179	14,600	18,300	2,700	4,200	**22213B**	**22213BK**
	140	33	2.1	194	228	19,800	23,200	2,000	3,100	**21313**	**21313K**
	140	48	2.1	265	320	27,100	32,500	2,400	3,700	**22313B**	**22313BK**
70	125	31	1.5	184	232	18,700	23,600	2,500	3,900	**22214E**	**22214EK**
	125	31	1.5	154	201	15,700	20,500	2,500	3,900	**22214B**	**22214BK**
	150	35	2.1	220	262	22,400	26,800	1,900	2,900	**21314**	**21314K**
	150	51	2.1	325	380	33,000	39,000	2,300	3,500	**22314B**	**22314BK**
75	130	31	1.5	190	246	19,400	25,100	2,300	3,600	**22215E**	**22215EK**

❶ This value was achieved with machined cages and molded resin cages; for pressed cages, 75% of this value is allowable.
❷ "**K**" indicates bearings have tapered bore with a taper ratio of 1: 12. ❸ Smallest allowable dimension for chamfer dimension r.



Equivalent bearing load

dynamic

$P_r = XF_r + YF_a$

$\frac{F_a}{F_r} \leqq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y_1	0.67	Y_2

static

$P_{or} = F_r + Y_o F_a$

For values of e, Y_1, Y_2 and Y_o see the table below.

Abutment and fillet dimensions					Constant	Axial load factors			Mass (approx.)	
mm									kg	
d_a		D_a		r_{as}					cylindrical bore	tapered bore
min	max	min	max	max	e	Y_1	Y_2	Y_o		
31	—	—	46	1	0.35	1.92	2.86	1.88	0.186	0.182
36	—	—	56	1	0.33	2.07	3.09	2.03	0.287	0.282
42	—	—	65	1	0.32	2.09	3.11	2.04	0.446	0.437
47	—	—	73	1	0.29	2.35	3.50	2.30	0.526	0.515
48.5	—	—	81.5	1.5	0.26	2.55	3.80	2.50	0.705	0.694
48.5	—	—	81.5	1.5	0.38	1.76	2.62	1.72	0.974	0.951
52	—	—	78	1	0.27	2.50	3.72	2.44	0.584	0.572
53.5	—	—	91.5	1.5	0.26	2.60	3.87	2.54	0.927	0.912
53.5	—	—	91.5	1.5	0.36	1.86	2.77	1.82	1.33	1.3
57	—	—	83	1	0.25	2.69	4.01	2.63	0.63	0.616
60	—	—	100	2	0.26	2.64	3.93	2.58	1.21	1.19
60	—	—	100	2	0.37	1.80	2.69	1.76	1.79	1.75
63.5	67	89.5	91.5	1.5	0.24	2.83	4.21	2.76	0.808	0.79
63.5	—	—	91.5	1.5	0.28	2.42	3.61	2.37	0.85	0.832
65	—	—	110	2	0.25	2.69	4.01	2.63	1.71	1.69
65	—	—	110	2	0.40	1.68	2.50	1.64	2.3	2.25
68.5	72	98	101.5	1.5	0.25	2.75	4.09	2.69	1.09	1.07
68.5	—	—	101.5	1.5	0.27	2.49	3.71	2.44	1.15	1.13
72	—	—	118	2	0.25	2.69	4.00	2.63	2.1	2.07
72	—	—	118	2	0.42	1.62	2.42	1.59	2.9	2.83
73.5	78.5	107	111.5	1.5	0.25	2.71	4.04	2.65	1.43	1.4
73.5	—	—	111.5	1.5	0.28	2.42	3.60	2.37	1.5	1.47
77	—	—	128	2	0.25	2.69	4.00	2.63	2.55	2.51
77	—	—	128	2	0.38	1.79	2.67	1.75	3.45	3.37
78.5	83.5	112.5	116.5	1.5	0.24	2.86	4.25	2.79	1.51	1.47
78.5	—	—	116.5	1.5	0.26	2.55	3.80	2.50	1.55	1.52
82	—	—	138	2	0.25	2.69	4.00	2.63	3.18	3.14
82	—	—	138	2	0.37	1.81	2.70	1.77	4.22	4.12
83.5	89	117.5	121.5	1.5	0.22	3.00	4.47	2.94	1.59	1.55

Note: Upon request, bearings with oil inlets and oil grooves on the outer ring can also be manufactured. In such cases, please add the suffix "**D1**" to the end of the bearing number. (Example: **22214BD1**)