


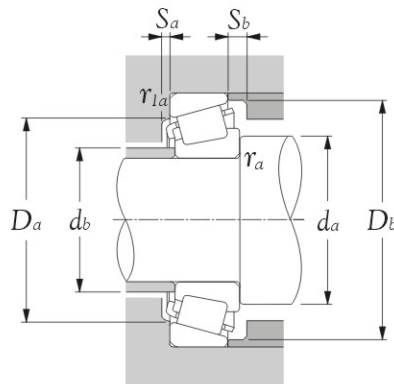
Inner bore <i>d</i> mm	Bearing numbers	Boundary dimensions						Basic load ratings				Limiting speeds	
		<i>D</i>	<i>T</i>	<i>B</i>	<i>C</i>	<i>r_s</i> min ¹⁾	<i>r_{ls}</i> min ¹⁾	dynamic <i>C_r</i> kN	static <i>C_{0r}</i>	dynamic <i>C_r</i> kgf	static <i>C_{0r}</i>	grease oil	min ⁻¹
17	30203-A	40	13.25	12	11	1.0	1.0	20.5	20.3	2090	2070	9900	13000
20	30204-A	47	15.25	14	12	1.0	1.0	28.2	28.7	2870	2930	8800	12000
25	30205-A	52	16.25	15	13	1.0	1.0	31.5	34.0	3200	3450	7300	9800
30	30206-A	62	17.25	16	14	1.0	1.0	43.5	48.0	4450	4900	6300	8400
35	30207-A	72	18.25	17	15	1.5	1.5	55.5	61.5	5650	6250	5500	7400
40	30208-A	80	19.75	18	16	1.5	1.5	61.0	67.0	6250	6850	4900	6600
45	30209-A	85	20.75	19	16	1.5	1.5	67.5	78.5	6900	8000	4400	5900
50	30210-A	90	21.75	20	17	1.5	1.5	77.0	93.0	7850	9450	4000	5300
55	30211-A	100	22.75	21	18	2.0	1.5	93.0	111.0	9500	11300	3600	4900
60	30212-A	110	23.75	22	19	2.0	1.5	105.0	125.0	10700	12700	3400	4500
65	30213-A	120	24.75	23	20	2.0	1.5	123.0	148.0	12500	15000	3100	4200
70	30214-A	125	26.25	24	21	2.0	1.5	131.0	162.0	13400	16500	2900	3900
75	30215-A	130	27.25	25	22	2.0	1.5	139.0	175.0	14200	17900	2700	3600
80	30216-A	140	28.25	26	22	2.5	2.0	160.0	200.0	16300	20400	2500	3400
85	30217-A	150	30.50	28	24	2.5	2.0	183.0	232.0	18600	23600	2400	3200
90	30218-A	160	32.50	30	26	2.5	2.0	208.0	267.0	21200	27200	2200	3000
95	30219-A	170	34.50	32	27	3.0	2.5	226.0	290.0	23000	29600	2100	2800
100	30220-A	180	37.00	34	29	3.0	2.5	258.0	335.0	26300	34500	2000	2700

Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.



Technical supplement

Cages	Precision	Grease
Steel - <input checked="" type="checkbox"/>	Normal (ISO)	Nil
Polymid - <input checked="" type="checkbox"/>		
Brass - <input checked="" type="checkbox"/>		



Equivalent radial load dynamic

$P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	0	0.4	Y ₂

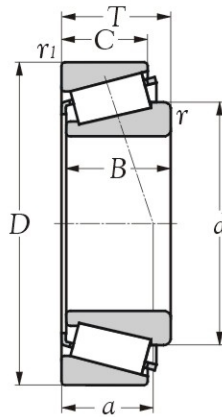
Static

$P_r = 0.5 F_r + Y_0 F_a$

When $P_{or} < F_r$ use $P_{or} = F_r$


For values of e, Y_2 and Y_0 see the table below.

Abutment and fillet dimensions										Load center <i>a</i> mm	Constant <i>e</i>	Axial load factors		Weight kg(s).
<i>d_a</i> mm	<i>d_b</i> mm	<i>D_a</i> mm	<i>D_b</i> mm	<i>S_a</i> mm	<i>S_b</i> mm	<i>r_{as}</i> mm	<i>r_{las}</i> mm	<i>Y₂</i>	<i>Y₀</i>					
22.5	23	34.5	33	37	2	2.0	1.0	1.0	9.5	0.35	1.74	0.96	0.080	
25.5	27	41.5	40	44	2	3.0	1.0	1.0	11.5	0.35	1.74	0.96	0.127	
30.5	31	46.5	44	48	2	3.0	1.0	1.0	12.5	0.37	1.60	0.88	0.154	
35.5	37	56.5	53	57	2	3.0	1.0	1.0	13.5	0.37	1.60	0.88	0.241	
43.5	44	63.5	62	67	3	3.0	1.5	1.5	15.0	0.37	1.60	0.88	0.344	
48.5	49	71.5	69	75	3	3.5	1.5	1.5	16.5	0.37	1.60	0.88	0.435	
53.5	54	76.5	74	80	3	4.5	1.5	1.5	18.0	0.40	1.48	0.81	0.495	
58.5	58	81.5	79	85	3	4.5	1.5	1.5	19.5	0.42	1.43	0.79	0.563	
65.0	64	91.5	88	94	4	4.5	2.0	1.5	21.0	0.40	1.48	0.81	0.740	
70.0	70	101.5	96	103	4	4.5	2.0	1.5	22.0	0.40	1.48	0.81	0.949	
75.0	77	111.5	106	113	4	4.5	2.0	1.5	23.5	0.40	1.48	0.81	1.180	
80.0	81	116.5	110	118	4	5.0	2.0	1.5	25.5	0.42	1.43	0.79	1.260	
85.0	85	121.5	115	124	4	5.0	2.0	1.5	27.0	0.44	1.38	0.76	1.410	
92.0	91	130.0	124	132	4	6.0	2.0	2.0	27.5	0.42	1.43	0.79	1.720	
97.0	97	140.0	132	141	5	6.5	2.0	2.0	30.0	0.42	1.43	0.79	2.140	
102.0	103	150.0	140	150	5	6.5	2.0	2.0	32.0	0.42	1.43	0.79	2.660	
109.0	110	158.0	149	159	5	7.5	2.5	2.0	34.0	0.42	1.43	0.79	3.070	
114.0	116	168.0	157	168	5	8.0	2.5	2.0	36.0	0.42	1.43	0.79	3.780	



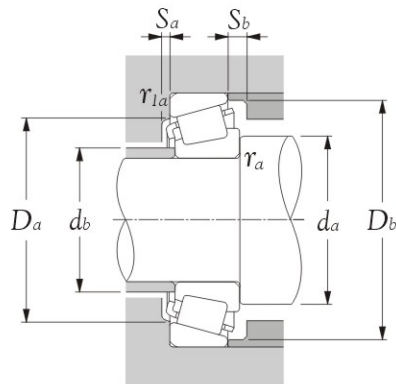
Inner bore <i>d</i> mm	Bearing numbers	Boundary dimensions						Basic load ratings				Limiting speeds	
		<i>D</i>	<i>T</i>	<i>B</i>	<i>C</i>	$r_{1s} \text{ min}^{(1)}$	$r_{1s} \text{ min}^{(1)}$	dynamic <i>C_r</i> kN	static <i>C_{0r}</i> kgf	dynamic <i>C_r</i> kgf	static <i>C_{0r}</i> kgf	grease min ⁻¹	oil min ⁻¹
17	30303	47	15.25	14	12	1.0	1.0	28.9	26.3	2940	2680	9000	12000
20	30304	52	16.25	16	13	1.5	1.5	35.5	34.0	3600	3450	8000	11000
25	30305	62	18.25	17	15	1.5	1.5	48.5	47.5	4950	4850	6700	8900
30	30306	72	20.75	19	16	1.5	1.5	60.0	61.0	6100	6200	5700	7600
35	30307	80	22.75	21	18	2.0	1.5	75.0	77.0	7650	7900	5000	6600
40	30308	90	25.25	23	20	2.0	1.5	91.5	102.0	9350	10400	4400	5900
45	30309	100	27.25	25	22	2.0	1.5	111.0	126.0	11300	12800	4000	5300
50	30310	110	29.25	27	23	2.5	2.0	133.0	152.0	13500	15500	3600	4800
55	30311	120	31.50	29	25	2.5	2.0	155.0	179.0	15800	18300	3300	4400
60	30312	130	33.50	31	26	3.0	2.5	180.0	210.0	18300	21400	3000	4000
65	30313	140	36.00	33	28	3.0	2.5	203.0	238.0	20700	24300	2800	3700
70	30314	150	38.00	35	30	3.0	2.5	230.0	272.0	23400	27800	2600	3500
75	30315	160	40.00	37	31	3.0	2.5	255.0	305.0	26000	31000	2400	3200
80	30316	170	42.50	39	33	3.0	2.5	291.0	350.0	29700	36000	2300	3000

Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.



Technical supplement

Cages	Precision	Grease
Steel - <input checked="" type="checkbox"/>	Normal (ISO)	Nil
Polymid - <input type="checkbox"/>		
Brass - <input type="checkbox"/>		



Equivalent radial load dynamic

$$P_r = X F_r + Y F_a$$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	0	0.4	Y ₂

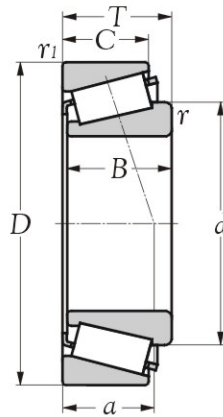
Static

$$P_r = 0.5 F_r + Y_0 F_a$$

When $P_{or} < F_r$ use $P_{or} = F_r$

For values of e, Y_2 and Y_0 see the table below.

Abutment and fillet dimensions									Load center <i>a</i> mm	Constant <i>e</i>	Axial load factors		Weight kg(s).
<i>d_a</i> mm	<i>d_b</i> mm	<i>D_a</i> mm	<i>D_b</i> mm	<i>S_a</i> mm	<i>S_b</i> mm	<i>r_{as}</i> mm	<i>r_{las}</i> mm	<i>Y₂</i>			<i>Y₀</i>		
22.5	24.0	41.5	40.0	42.0	3	3.5	1.0	1.0	10.5	0.29	2.11	1.16	0.134
28.5	28.0	43.5	42.5	47.5	3	3.0	1.5	1.5	10.5	0.30	2.00	1.10	0.176
33.5	34.0	53.5	52.0	57.0	3	3.0	1.5	1.5	13.0	0.30	2.00	1.10	0.272
38.5	40.0	63.5	62.0	66.0	3	4.5	1.5	1.5	15.0	0.31	1.90	1.05	0.408
45.0	45.0	71.5	70.0	74.0	3	4.5	2.0	1.5	17.0	0.31	1.90	1.05	0.540
50.0	52.0	81.5	77.0	82.0	3	5.0	2.0	1.5	19.5	0.35	1.74	0.96	0.769
55.0	59.0	91.5	86.0	93.0	3	5.0	2.0	1.5	21.0	0.35	1.74	0.96	1.010
62.0	65.0	100.0	95.0	102.0	3	6.0	2.0	2.0	23.0	0.35	1.74	0.96	1.310
67.0	71.0	110.0	104.0	111.0	4	6.5	2.0	2.0	24.5	0.35	1.74	0.96	1.660
74.0	77.0	118.0	112.0	120.0	4	7.5	2.5	2.0	26.5	0.35	1.74	0.96	2.060
79.0	83.0	128.0	122.0	130.0	4	8.0	2.5	2.0	28.5	0.35	1.74	0.96	2.550
84.0	89.0	138.0	130.0	140.0	4	8.0	2.5	2.0	30.0	0.35	1.74	0.96	3.060
89.0	95.0	148.0	139.0	149.0	4	9.0	2.5	2.0	32.0	0.35	1.74	0.96	3.570
94.0	102.0	158.0	148.0	159.0	4	9.5	2.5	2.0	34.0	0.35	1.74	0.96	4.410

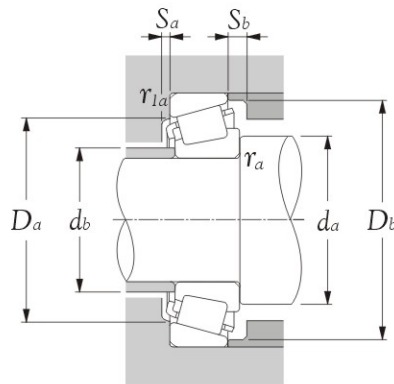


Inner bore <i>d</i> mm	Bearing numbers	Boundary dimensions						Basic load ratings				Limiting speeds	
		<i>D</i>	<i>T</i>	<i>B</i>	<i>C</i>	$r_{s \min}^{1)}$	$r_{ls \min}^{1)}$	dynamic <i>C_r</i> kN	static <i>C_{0r}</i> kgf	dynamic <i>C_r</i> kgf	static <i>C_{0r}</i> kgf	grease min ⁻¹	oil min ⁻¹
22	32022 X	44	15	15	11.5	0.6	0.6	27.0	31.5	2760	3250	8900	12000
28	32028 X	52	16	16	12.0	1.0	1.0	33.0	40.5	3400	4150	7300	9700
32	32032 X	58	17	17	13.0	1.0	1.0	37.0	46.5	3750	4750	6600	8700
20	32004 X	42	15	15	12.0	0.6	0.6	24.9	27.9	2540	2840	9500	13000
25	32005 X	47	15	15	11.5	0.6	0.6	27.8	33.5	2830	3450	7900	11000
30	32006 X	55	17	17	13.0	1.0	1.0	37.5	46.0	3800	4700	6900	9200
35	32007 X	62	18	18	14.0	1.0	1.0	41.5	52.5	4250	5350	6100	8100
40	32008 X	68	19	19	14.5	1.0	1.0	50.0	65.5	5100	6650	5300	7100
45	32009 X	75	20	20	15.5	1.0	1.0	57.5	76.5	5850	7800	4800	6400
50	32010 X	80	20	20	15.5	1.0	1.0	62.5	88.0	6400	9000	4400	5800
55	32011 X	90	23	23	17.5	1.5	1.5	80.5	118.0	8200	12000	4000	5400
60	32012 X	95	23	23	17.5	1.5	1.5	82.0	123.0	8350	12500	3700	4900
65	32013 X	100	23	23	17.5	1.5	1.5	83.0	128.0	8450	13000	3400	4600
70	32014 X	110	25	25	19.0	1.5	1.5	105.0	160.0	10700	16400	3200	4200
75	32015 X	115	25	25	19.0	1.5	1.5	106.0	167.0	10800	17000	3000	4000
80	32016 X	125	29	29	22.0	1.5	1.5	139.0	216.0	14200	22000	2800	3700
85	32017 X	130	29	29	22.0	1.5	1.5	142.0	224.0	14400	22900	2600	3500
90	32018 X	140	32	32	24.0	2.0	1.5	168.0	270.0	17200	27600	2500	3300
95	32019 X	145	32	32	24.0	2.0	1.5	171.0	280.0	17500	28600	2300	3100
100	32020 X	150	32	32	24.0	2.0	1.5	170.0	281.0	17300	28600	2200	3000
105	32021 X	160	35	35	26.0	2.5	2.0	201.0	335.0	20500	34000	2100	2800
110	32022 X	170	38	38	29.0	2.5	2.0	236.0	390.0	24000	39500	2000	2700
120	32024 X	180	38	38	29.0	2.5	2.0	245.0	420.0	25000	43000	1800	2500

Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

Technical supplement

Cages	Precision	Grease
Steel - <input checked="" type="checkbox"/>	Normal (ISO)	Nil
Polymid - <input type="checkbox"/>		
Brass - <input type="checkbox"/>		



Equivalent radial load dynamic

$P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	0	0.4	Y ₂

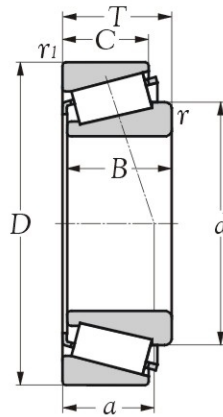
Static

$P_r = 0.5 F_r + Y_0 F_a$

When $P_{or} < F_r$ use $P_{or} = F_r$

For values of e, Y_2 and Y_0 see the table below.

Abutment and fillet dimensions									Load center <i>a</i> mm	Constant <i>e</i>	Axial load factors		Weight kg(s).
<i>d_a</i> mm	<i>d_b</i> mm	<i>D_a</i> mm	<i>D_b</i> mm	<i>S_a</i> mm	<i>S_b</i> mm	<i>r_{as}</i> mm	<i>r_{las}</i> mm	<i>Y₂</i>			<i>Y₀</i>		
26.5	27	39.5	38	41	3	3.5	0.6	0.6	11.0	0.40	1.51	0.83	0.106
33.5	33	46.5	45	49	3	4.0	1.0	1.0	12.5	0.43	1.39	0.77	0.146
37.5	38	52.5	50	55	3	4.0	1.0	1.0	14.5	0.45	1.32	0.73	0.181
24.5	25	37.5	36	39	3	3.0	0.6	0.6	10.5	0.37	1.60	0.88	0.097
29.5	30	42.5	40	44	3	3.5	0.6	0.6	12.0	0.43	1.39	0.77	0.114
35.5	35	49.5	48	52	3	4.0	1.0	1.0	13.5	0.43	1.39	0.77	0.166
40.5	40	56.5	54	59	4	4.0	1.0	1.0	15.5	0.45	1.32	0.73	0.224
45.5	46	62.5	60	65	4	4.5	1.0	1.0	15.0	0.38	1.58	0.87	0.273
50.5	51	69.5	67	72	4	4.5	1.0	1.0	16.5	0.39	1.53	0.84	0.346
55.5	56	74.5	72	77	4	4.5	1.0	1.0	17.5	0.42	1.42	0.78	0.366
63.5	63	81.5	81	86	4	5.5	1.5	1.5	20.0	0.41	1.48	0.81	0.563
68.5	67	86.5	85	91	4	5.5	1.5	1.5	21.0	0.43	1.39	0.77	0.576
73.5	72	91.5	90	97	4	5.5	1.5	1.5	22.5	0.46	1.31	0.72	0.630
78.5	78	101.5	98	105	5	6.0	1.5	1.5	24.0	0.43	1.38	0.76	0.848
83.5	83	106.5	103	110	5	6.0	1.5	1.5	25.5	0.46	1.31	0.72	0.909
88.5	89	116.5	112	120	6	7.0	1.5	1.5	27.0	0.42	1.42	0.78	1.280
93.5	94	121.5	117	125	6	7.0	1.5	1.5	28.5	0.44	1.36	0.75	1.350
100.0	100	131.5	125	134	6	8.0	2.0	1.5	30.0	0.42	1.42	0.78	1.790
105.0	105	136.5	130	140	6	8.0	2.0	1.5	31.5	0.44	1.36	0.75	1.830
110.0	109	141.5	134	144	6	8.0	2.0	1.5	32.5	0.46	1.31	0.72	1.910
117.0	116	150.0	143	154	6	9.0	2.0	2.0	34.5	0.44	1.35	0.74	2.420
122.0	122	160.0	152	163	7	9.0	2.0	2.0	36.5	0.43	1.39	0.77	3.070
132.0	131	170.0	161	173	7	9.0	2.0	2.0	39.0	0.46	1.31	0.72	3.250

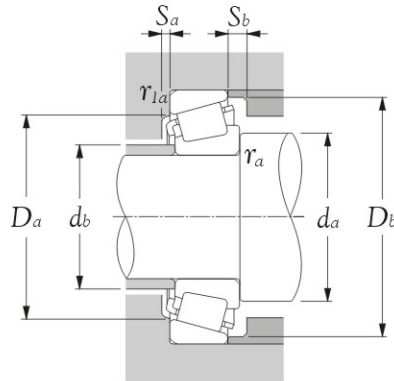


Inner bore <i>d</i> mm	Bearing numbers	Boundary dimensions						Basic load ratings				Limiting speeds	
		<i>D</i>	<i>T</i>	<i>B</i>	<i>C</i>	r_1 min ¹⁾	r_1 max ¹⁾	dynamic <i>C_r</i> kN	static <i>C_{0r}</i>	dynamic <i>C_r</i> kgf	static <i>C_{0r}</i>	grease min ⁻¹	oil min ⁻¹
25	32205-A	52	19.25	18	16	1.0	1.0	42.0	47.0	4300	4800	7300	9800
30	32206-A	62	21.25	20	17	1.0	1.0	54.5	64.0	5600	6550	6300	8400
35	32207-A	72	24.25	23	19	1.5	1.5	72.5	87.0	7400	8900	5500	7400
40	32208-A	80	24.75	23	19	1.5	1.5	79.5	93.5	8100	9550	4900	6600
45	32209-A	85	24.75	23	19	1.5	1.5	82.0	100.0	8350	10200	4400	5900
50	32210-A	90	24.75	23	19	1.5	1.5	87.5	109.0	8900	11100	4000	5300
55	32211-A	100	26.75	25	21	2.0	1.5	108.0	134.0	11000	13700	3600	4900
60	32212-A	110	29.75	28	24	2.0	1.5	130.0	164.0	13200	16800	3400	4500
65	32213-A	120	32.75	31	27	2.0	1.5	159.0	206.0	16200	21000	3100	4200
70	32214-A	125	33.25	31	27	2.0	1.5	166.0	220.0	16900	22400	2900	3900
75	32215-A	130	33.25	31	27	2.0	1.5	168.0	224.0	17100	22800	2700	3600
80	32216-A	140	35.25	33	28	2.5	2.0	199.0	265.0	20300	27000	2500	3400
85	32217-A	150	38.50	36	30	2.5	2.0	224.0	300.0	22900	30500	2400	3200

Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

Technical supplement

Cages	Precision	Grease
Steel - <input checked="" type="checkbox"/>	Normal (ISO)	Nil
Polymid - <input checked="" type="checkbox"/>		
Brass - <input checked="" type="checkbox"/>		



Equivalent radial load dynamic

$P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	0	0.4	Y ₂

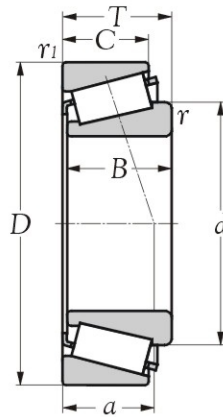
Static

$P_r = 0.5 F_r + Y_0 F_a$

When $P_{or} < F_r$ use $P_{or} = F_r$

For values of e, Y_2 and Y_0 see the table below.

Abutment and fillet dimensions									Load center <i>a</i> mm	Constant <i>e</i>	Axial load factors		Weight kg(s).
<i>d_a</i> mm	<i>d_b</i> mm	<i>D_a</i> mm	<i>D_b</i> mm	<i>S_a</i> mm	<i>S_b</i> mm	<i>r_{as}</i> mm	<i>r_{is}</i> mm	<i>Y₂</i>			<i>Y₀</i>		
30.5	31	46.5	43	49.5	2.0	4.0	1.0	1.0	14.0	0.36	1.67	0.92	0.187
35.5	37	56.5	52	58.0	2.5	4.0	1.0	1.0	15.5	0.37	1.60	0.88	0.301
43.5	43	63.5	61	67.0	3.0	5.0	1.5	1.5	17.5	0.37	1.60	0.88	0.457
48.5	48	71.5	68	75.0	3.0	5.5	1.5	1.5	19.0	0.37	1.60	0.88	0.558
53.5	53	76.5	73	81.0	3.0	5.5	1.5	1.5	20.0	0.40	1.48	0.81	0.607
58.5	58	81.5	78	85.0	3.0	5.5	1.5	1.5	21.0	0.42	1.43	0.79	0.648
65.0	63	91.5	87	95.0	4.0	5.5	2.0	1.5	22.5	0.40	1.48	0.81	0.876
70.0	69	101.5	95	104.0	4.0	5.5	2.0	1.5	25.0	0.40	1.48	0.81	1.180
75.0	75	111.5	104	115.0	4.0	5.5	2.0	1.5	27.0	0.40	1.48	0.81	1.580
80.0	80	116.5	108	119.0	4.0	6.0	2.0	1.5	28.5	0.42	1.43	0.79	1.680
85.0	85	121.5	114	125.0	4.0	6.0	2.0	1.5	30.0	0.44	1.38	0.76	1.740
92.0	90	130.0	122	134.0	4.0	7.0	2.0	2.0	31.0	0.42	1.43	0.79	2.180
97.0	96	140.0	130	142.0	5.0	8.5	2.0	2.0	33.5	0.42	1.43	0.79	2.750

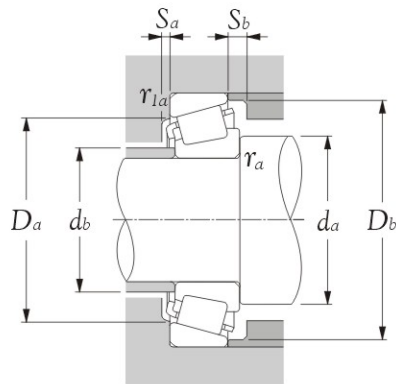


Inner bore <i>d</i> mm	Bearing numbers	Boundary dimensions						Basic load ratings				Limiting speeds	
		<i>D</i>	<i>T</i>	<i>B</i>	<i>C</i>	$r_{1s} \text{ min}^{(1)}$	$r_{1s} \text{ min}^{(1)}$	dynamic <i>C_r</i> kN	static <i>C_{0r}</i> kgf	dynamic <i>C_r</i> kgf	static <i>C_{0r}</i> kgf	grease min ⁻¹	oil min ⁻¹
20	32304-A	52	22.25	21	18	1.5	1.5	46.5	48.5	4750	4950	8000	11000
25	32305-A	62	25.25	24	20	1.5	1.5	61.5	64.5	6250	6600	6700	8900
30	32306-A	72	28.75	27	23	1.5	1.5	81.0	90.0	8250	9150	5700	7600
35	32307-A	80	32.75	31	25	2.0	1.5	101.0	115.0	10300	11700	5000	6600
40	32308-A	90	35.25	33	27	2.0	1.5	122.0	150.0	12500	15300	4400	5900
45	32309-A	100	38.25	36	30	2.0	1.5	154.0	191.0	15700	19500	4000	5300
50	32310-A	110	42.25	40	33	2.5	2.0	184.0	232.0	18700	23600	3600	4800
55	32311-A	120	45.50	43	35	2.5	2.0	215.0	275.0	21900	28000	3300	4400
60	32312-A	130	48.50	46	37	3.0	2.5	244.0	315.0	24900	32000	3000	4000

Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

Technical supplement

Cages	Precision	Grease
Steel - <input checked="" type="checkbox"/>	Normal (ISO)	Nil
Polymid - <input checked="" type="checkbox"/>		
Brass - <input checked="" type="checkbox"/>		



Equivalent radial load dynamic

$P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	0	0.4	Y ₂

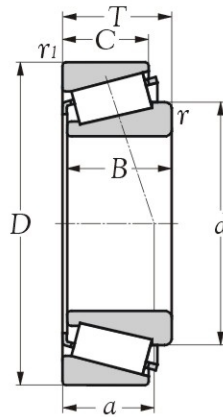
Static

$P_r = 0.5 F_r + Y_0 F_a$

When $P_{or} < F_r$ use $P_{or} = F_r$

For values of e, Y_2 and Y_0 see the table below.

Abutment and fillet dimensions									Load center <i>a</i> mm	Constant <i>e</i>	Axial load factors		Weight kg(s).
<i>d_a</i> mm	<i>d_b</i> mm	<i>D_a</i> mm	<i>D_b</i> mm	<i>S_a</i> mm	<i>S_b</i> mm	<i>r_{as}</i> mm	<i>r_{is}</i> mm	<i>Y₂</i>			<i>Y₀</i>		
28.5	27	43.5	43	47	3	4.0	1.5	1.5	14.0	0.30	2.00	1.10	0.245
33.5	32	53.5	52	57	3	5.0	1.5	1.5	16.0	0.30	2.00	1.10	0.381
38.5	38	63.5	59	66	3	5.5	1.5	1.5	18.5	0.31	1.90	1.05	0.583
45.0	43	71.5	66	74	3	7.5	2.0	1.5	20.5	0.31	1.90	1.05	0.787
50.0	50	81.5	73	82	3	8.0	2.0	1.5	23.0	0.35	1.74	0.96	1.080
55.0	56	91.5	82	93	3	8.0	2.0	1.5	25.5	0.35	1.74	0.96	1.460
62.0	62	100.0	90	102	3	9.0	2.0	2.0	28.5	0.35	1.74	0.96	1.920
67.0	68	110.0	99	111	4	10.5	2.0	2.0	30.5	0.35	1.74	0.96	2.440
74.0	74	118.0	107	120	4	11.5	2.5	2.0	32.0	0.35	1.74	0.96	3.020

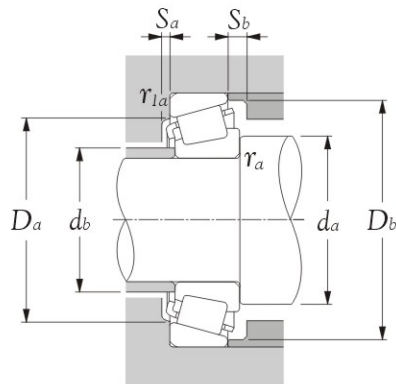


Inner bore <i>d</i> mm	Bearing numbers	Boundary dimensions						Basic load ratings				Limiting speeds	
		<i>D</i>	<i>T</i>	<i>B</i>	<i>C</i>	$r_s \text{ min}^{(1)}$	$r_{ls} \text{ min}^{(1)}$	dynamic <i>C_r</i> kN	static <i>C_{0r}</i>	dynamic <i>C_r</i> kgf	static <i>C_{0r}</i>	grease min ⁻¹	oil min ⁻¹
25	33205	52	22	22	18.0	1.0	1.0	47.5	57.5	4850	5850	7300	9800
30	33206	62	25	25	19.5	1.0	1.0	65.0	77.0	6600	7850	6300	8400
35	33207	72	28	28	22.0	1.5	1.5	87.5	109.0	8900	11200	5500	7400
40	33208	80	32	32	25.0	1.5	1.5	103.0	132.0	10500	13400	4900	6600
45	33209	85	32	32	25.0	1.5	1.5	107.0	141.0	10900	14400	4400	5900
50	33210	90	32	32	24.5	1.5	1.5	115.0	158.0	11700	16100	4000	5300
55	33211	100	35	35	27.0	2.0	1.5	138.0	188.0	14100	19100	3600	4900

Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

Technical supplement

Cages	Precision	Grease
Steel - <input checked="" type="checkbox"/>	Normal (ISO)	Nil
Polymid - <input checked="" type="checkbox"/>		
Brass - <input checked="" type="checkbox"/>		



Equivalent radial load dynamic

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X	Y	X	Y
1	0	0.4	Y ₂

Static

$P_r = 0.5 F_r + Y_0 F_a$

When $P_{or} < F_r$ use $P_{or} = F_r$

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Abutment and fillet dimensions									Load center <i>a</i> mm	Constant <i>e</i>	Axial load factors		Weight kg(s).
<i>d_a</i> mm	<i>d_b</i> mm	<i>D_a</i> mm	<i>D_b</i> mm	<i>S_a</i> mm	<i>S_b</i> mm	<i>r_{as}</i> mm	<i>r_{is}</i> mm	<i>Y</i> ₂			<i>Y</i> ₀		
30.5	30	46.5	43	49	4	4.0	1.0	1.0	14.0	0.35	1.71	0.94	0.217
35.5	36	56.5	53	59	5	5.5	1.0	1.0	16.0	0.34	1.76	0.97	0.344
43.5	42	63.5	61	68	5	6.0	1.5	1.5	18.5	0.35	1.70	0.93	0.531
48.5	47	71.5	67	76	5	7.0	1.5	1.5	21.0	0.36	1.68	0.92	0.728
53.5	52	76.5	72	81	5	7.0	1.5	1.5	22.0	0.39	1.56	0.86	0.783
58.5	57	81.5	77	87	5	7.5	1.5	1.5	23.5	0.41	1.45	0.80	0.852
65.0	62	91.5	85	96	6	8.0	2.0	1.5	25.5	0.40	1.50	0.83	1.150