



Cylindrical bore

Tapered bore

d 40 ~ 75mm

	Boundary dimensions			Basic load rating		Fatigue load limit kN <i>C_u</i>	Allowable speed		Bearing numbers		Installation-related dimensions		
	<i>d</i>	<i>D</i>	<i>B</i>	<i>r_{s min}</i> ¹⁾	<i>C_r</i>		<i>C_{0r}</i>	Grease lubrication	Oil lubrication	Cylindrical bore	Tapered bore ²⁾	<i>d_a</i>	<i>D_a</i>
40	80	18	1.1	19.3	6.50	0.260	7 500	9 000	1208S	1208SK	46.5	73.5	1
	80	23	1.1	22.4	7.35	0.390	7 500	9 000	2208S	2208SK	46.5	73.5	1
	90	23	1.5	29.8	9.70	0.300	6 700	8 500	1308S	1308SK	48.0	82.0	1.5
	90	33	1.5	45.5	13.5	0.580	6 300	8 000	2308S	2308SK	48.0	82.0	1.5
45	85	19	1.1	22.0	7.35	0.290	7 100	8 500	1209S	1209SK	51.5	78.5	1
	85	23	1.1	23.3	8.15	0.510	7 100	8 500	2209S	2209SK	51.5	78.5	1
	100	25	1.5	38.5	12.7	0.330	6 000	7 500	1309S	1309SK	53.0	92.0	1.5
	100	36	1.5	55.0	16.7	0.710	5 600	7 100	2309S	2309SK	53.0	92.0	1.5
50	90	20	1.1	22.8	8.10	0.330	6 300	8 000	1210S	1210SK	56.5	83.5	1
	90	23	1.1	23.3	8.45	0.570	6 300	8 000	2210S	2210SK	56.5	83.5	1
	110	27	2	43.5	14.1	0.350	5 600	6 700	1310S	1310SK	59.0	101	2
	110	40	2	65.0	20.2	0.860	5 000	6 300	2310S	2310SK	59.0	101	2
55	100	21	1.5	26.9	10.0	0.400	6 000	7 100	1211S	1211SK	63.0	92.0	1.5
	100	25	1.5	26.7	9.90	0.720	6 000	7 100	2211S	2211SK	63.0	92.0	1.5
	120	29	2	51.5	17.9	0.400	5 000	6 300	1311S	1311SK	64.0	111	2
	120	43	2	76.5	24.0	1.00	4 800	6 000	2311S	2311SK	64.0	111	2
60	110	22	1.5	30.5	11.5	0.460	5 300	6 300	1212S	1212SK	68.0	102	1.5
	110	28	1.5	34.0	12.6	0.840	5 300	6 300	2212S	2212SK	68.0	102	1.5
	130	31	2.1	57.5	20.8	0.510	4 500	5 600	1312S	1312SK	71.0	119	2
	130	46	2.1	88.5	28.3	1.20	4 300	5 300	2312S	2312SK	71.0	119	2
65	120	23	1.5	31.0	12.5	0.500	4 800	6 000	1213S	1213SK	73.0	112	1.5
	120	31	1.5	43.5	16.4	0.920	4 800	6 000	2213S	2213SK	73.0	112	1.5
	140	33	2.1	62.5	22.9	0.670	4 300	5 300	1313S	1313SK	76.0	129	2
	140	48	2.1	97.0	32.5	1.40	3 800	4 800	2313S	2313SK	76.0	129	2
70	125	24	1.5	35.0	13.8	0.550	4 800	5 600	1214S	—	78.0	117	1.5
	125	31	1.5	44.0	17.1	1.10	4 500	5 600	2214S	—	78.0	117	1.5
	150	35	2.1	75.0	27.7	0.690	4 000	5 000	1314S	—	81.0	139	2
	150	51	2.1	111	37.5	1.60	3 600	4 500	2314S	—	81.0	139	2
75	130	25	1.5	39.0	15.7	0.630	4 300	5 300	1215S	1215SK	83.0	122	1.5
	130	31	1.5	44.5	17.8	1.20	4 300	5 300	2215S	2215SK	83.0	122	1.5
	160	37	2.1	80.0	30.0	0.720	3 800	4 500	1315S	1315SK	86.0	149	2
	160	55	2.1	125	43.0	1.80	3 400	4 300	2315S	2315SK	86.0	149	2

1) Smallest allowable dimension for chamfer dimension *r*. 2) "K" indicates bearings having a tapered bore with a taper ratio of 1:12

Dynamic equivalent radial load

$$P_r = X F_r + Y F_a$$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
<i>X</i>	<i>Y</i>	<i>X</i>	<i>Y</i>
1	<i>Y</i> ₁	0.65	<i>Y</i> ₂

Static equivalent radial load

$$P_{0r} = F_r + Y_0 F_a$$

For values of *e*, *Y*₁, *Y*₂ and *Y*₀ see the table below.

Constant	Axial load factors			Mass kg (approx.)
	<i>e</i>	<i>Y</i> ₁	<i>Y</i> ₂	
0.22	2.8	4.3	2.9	0.420
0.33	1.9	3.0	2.0	0.506
0.24	2.6	4.0	2.7	0.727
0.43	1.5	2.3	1.5	0.918
0.21	3.0	4.7	3.1	0.470
0.30	2.1	3.2	2.2	0.556
0.25	2.6	4.0	2.7	0.971
0.41	1.5	2.4	1.6	1.200
0.21	3.1	4.7	3.2	0.535
0.28	2.2	3.4	2.3	0.598
0.23	2.7	4.2	2.8	1.230
0.42	1.5	2.3	1.6	1.630
0.20	3.2	4.9	3.3	0.708
0.28	2.3	3.5	2.4	0.807
0.23	2.7	4.2	2.8	1.600
0.41	1.5	2.4	1.6	2.080
0.18	3.4	5.3	3.6	0.910
0.28	2.3	3.5	2.4	1.100
0.23	2.8	4.3	2.9	2.000
0.40	1.6	2.4	1.6	2.580
0.17	3.7	5.7	3.8	1.160
0.28	2.3	3.5	2.4	1.500
0.23	2.7	4.2	2.9	2.470
0.39	1.6	2.5	1.7	3.200
0.18	3.4	5.3	3.6	1.300
0.26	2.4	3.7	2.5	1.550
0.22	2.8	4.4	3.0	3.030
0.38	1.7	2.6	1.8	3.900
0.17	3.6	5.6	3.8	1.360
0.25	2.5	3.9	2.6	1.600
0.22	2.8	4.4	2.9	3.630
0.38	1.6	2.5	1.7	4.780