



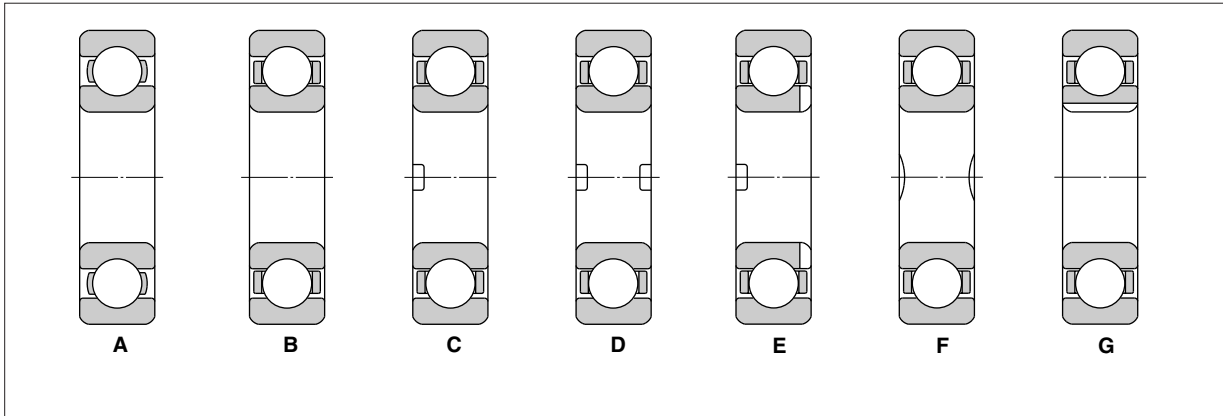
Deep Groove Ball Bearings

1. Structure and Characteristics

A widely used bearing, the deep groove ball bearing takes its name from the track formed on both the inner and outer rings of the bearing. The bearings can sustain radial and axial loads and the resultant forces of these loads and they are suitable for high speed operation.

The dimensional table below represents the various cage models and special shapes. **Drawing A** is the pressed cage;

drawing B shows the machined cage; **drawings C** through **F** show the position and shape of the notch on the inner ring; and **drawing G** shows a bearing with the key groove on the inner ring. Pressed cages are generally used, though machined cages are used for larger sized bearings, or bearings for high speed rotation.



Deep groove ball bearings drawing

2. Dimensional Accuracy/Rotation Accuracy

Refer to Table 3.3 (Page A-12)

3. Recommended Fitting

Refer to Table 4.2 (Page A-24)

4. Bearing Internal Clearance

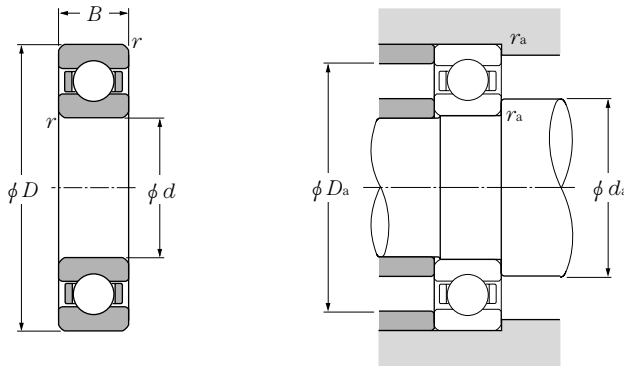
Refer to Table 5.2 (Page A-30)

5. Permissible slant angle

0.0006-0.003 radian

6. General Operating Cautions

Slippage between the balls and raceways may occur when bearings are operated under small loads (about $F_r \leq 0.01C_{or}$) and may cause smearing. This is most apparent when using large size deep groove ball bearings due to the large cage mass. Please consult NTN Engineering for further details.



Equivalent bearing load dynamic

$$P_r = XF_r + YF_a$$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18	1	0	0.56	2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29				1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$$P_{or} = 0.6F_r + 0.5F_a$$

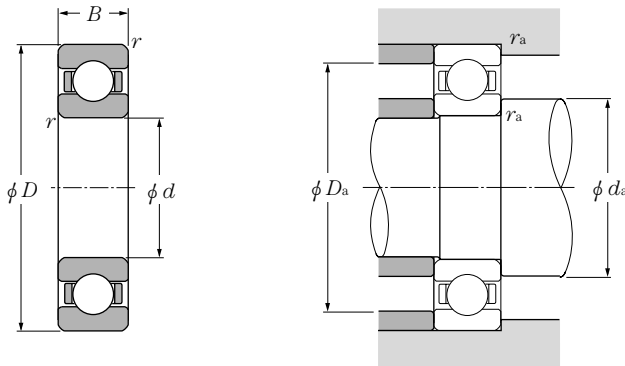
When $P_{or} < F_r$ use $P_{or} = F_r$

d 100~140mm

	Boundary dimensions				Basic load ratings				Bearing numbers	Drawing ^① No.	Abutment and fillet dimensions			Mass kg (approx.)
	mm				dynamic kN	static kgf	dynamic	static			mm			
d	D	B	$r_{s\ min}^{②}$	C_r	C_{or}	C_r	C_{or}	C_r	C_{or}	d_a min	D_a max	r_{as} max		
100	125	13	1	19.6	21.2	2,000	2,160	6820	A	105	120	1	0.31	
	140	20	1.1	41	39.5	4,200	4,050	6920	A	106.5	133.5	1	0.78	
	150	16	1	35	36.5	3,600	3,750	16020	A	105	145	1	0.91	
	150	24	1.5	60	54	6,150	5,500	6020	A	108	142	1.5	1.15	
	180	34	2.1	122	93	12,500	9,450	6220	A	111	169	2	3.14	
	215	47	3	173	141	17,600	14,400	6320	A	113	202	2.5	7	
105	130	13	1	19.8	22	2,020	2,240	6821	A	110	125	1	0.33	
	145	20	1.1	42.5	42	4,300	4,300	6921	A	111.5	138.5	1	0.81	
	160	18	1	52	50.5	5,300	5,150	16021	A	110	155	1	1.2	
	160	26	2	72.5	65.5	7,400	6,700	6021	A	114	151	2	1.59	
	190	36	2.1	133	105	13,600	10,700	6221	A	116	179	2	3.7	
	225	49	3	184	153	18,700	15,700	6321	A	118	212	2.5	8.05	
110	140	16	1	24.9	28.2	2,540	2,880	6822	A	115	135	1	0.51	
	150	20	1.1	43.5	44.5	4,450	4,550	6922	A	116.5	143.5	1	0.85	
	170	19	1	57.5	56.5	5,850	5,800	16022	A	115	165	1	1.46	
	170	28	2	82	73	8,350	7,450	6022	A	119	161	2	1.96	
	200	38	2.1	144	117	14,700	11,900	6222	A	121	189	2	4.36	
	240	50	3	205	179	20,900	18,300	6322	A	123	227	2.5	9.54	
120	150	16	1	28.9	33	2,950	3,350	6824	A	125	145	1	0.55	
	165	22	1.1	53	54	5,400	5,500	6924	A	126.5	158.5	1	1.15	
	180	19	1	63	63.5	6,450	6,450	16024	A	125	175	1	1.56	
	180	28	2	85	79.5	8,650	8,100	6024	A	129	171	2	2.07	
	215	40	2.1	155	131	15,900	13,400	6224	A	131	204	2	5.15	
	260	55	3	207	185	21,100	18,800	6324	A	133	247	2.5	12.4	
130	165	18	1.1	37	41	3,750	4,200	6826	A	136.5	158.5	1	0.8	
	180	24	1.5	65	67.5	6,650	6,850	6926	A	138	172	1.5	1.52	
	200	22	1.1	80	79.5	8,150	8,100	16026	A	136.5	193.5	1	2.31	
	200	33	2	106	101	10,800	10,300	6026	A	139	191	2	3.16	
	230	40	3	167	146	17,000	14,900	6226	A	143	217	2.5	5.82	
	280	58	4	229	214	23,400	21,800	6326	A	146	264	3	15.3	
140	175	18	1.1	38.5	44.5	3,900	4,550	6828	A	146.5	168.5	1	0.85	
	190	24	1.5	66.5	71.5	6,800	7,300	6928	A	148	182	1.5	1.62	
	210	22	1.1	82	85	8,350	8,650	16028	A	146.5	203.5	1	2.45	
	210	33	2	110	109	11,200	11,100	6028	A	149	201	2	3.35	

① Drawing details are shown in Page B-5.

② Smallest allowable dimension for chamfer dimension r .



Equivalent bearing load

dynamic

$$P_r = XF_r + YF_a$$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18	1	0	0.56	2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29				1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$$P_{or} = 0.6F_r + 0.5F_a$$

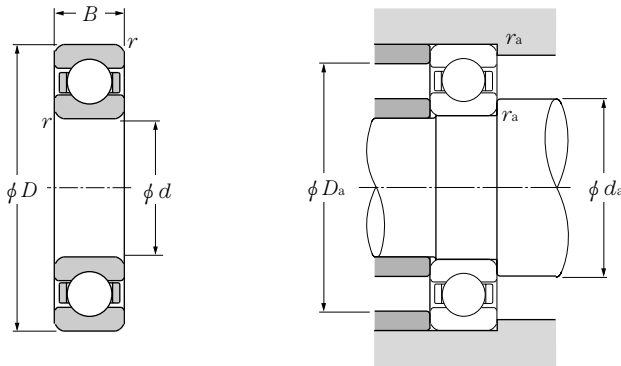
When $P_{or} < F_r$ use $P_{or} = F_r$

d 140~180mm

Boundary dimensions mm	Basic load ratings			dynamic kN	static kgf	dynamic kgf	static kgf	Bearing numbers	Drawing ^① No.	Abutment and fillet dimensions mm			Mass kg (approx.)
	d	D	B							$r_{s \min}$ ^②	C_r	C_{or}	
140	250	42	3	166	150	17,000	15,300	6228 6328	A	153	237	2.5	7.57
	300	62	4	253	246	25,800	25,100						
145	220	38	2.5	126	115	12,800	11,800	SC2951	B	157	208	2	5.07
150	190	20	1.1	47.5	55	4,850	5,600	6830	A	156.5	183.5	1	1.16
	210	28	2	85	90.5	8,650	9,200	6930	A	159	201	2	2.47
	225	24	1.1	96.5	101	9,850	10,300	16030	A	156.5	218.5	1	3.07
	225	35	2.1	126	126	12,800	12,800	6030	A	161	214	2	4.08
	230	35	2.5	120	118	12,300	12,100	SC3002	C	162	218	2	5.18
	230	35	2.5	120	118	12,300	12,100	SC3007	G	162	218	2	5.18
	270	45	3	176	168	18,000	17,100	6230	A	163	257	2.5	9.41
320	65	4	274	284	28,000	28,900	6330	A	166	304	3	22	
160	200	20	1.1	48.5	57	4,950	5,800	6832	A	166.5	193.5	1	1.23
	220	28	2	87	96	8,850	9,800	6932	A	169	211	2	2.61
	229.5	33	2.5	108	111	11,000	11,300	SC3209	B	172	218	2	4.35
	229.5	36	2.5	120	119	12,200	12,100	SC3207	B	172	218	2	4.75
	230	33	2.5	108	111	11,000	11,300	SC3210	B	172	218	2	4.39
	240	25	1.5	99	108	10,100	11,000	16032	A	168	232	1.5	3.64
	240	38	2.1	143	144	14,500	14,700	6032	A	171	229	2	5.05
	290	48	3	185	186	18,900	19,000	6232	A	173	277	2.5	11.7
340	68	4	278	286	28,300	29,200	6332	A	176	324	3	26	
170	215	22	1.1	60	70.5	6,100	7,200	6834	A	176.5	208.5	1	1.63
	230	28	2	86	95.5	8,750	9,750	6934	A	179	221	2	2.74
	260	28	1.5	119	128	12,100	13,100	16034	A	178	252	1.5	4.93
	260	42	2.1	168	172	17,200	17,600	6034	A	181	249	2	6.76
	310	52	4	212	223	21,700	22,800	6234	A	186	294	3	14.5
	360	72	4	325	355	33,500	36,000	6334	A	186	344	3	30.7
180	225	22	1.1	60.5	73	6,200	7,450	6836	B	186.5	218.5	1	2.03
	250	33	2	110	119	11,200	12,200	6936	B	189	241	2	4.76
	265	33	2.5	113	127	11,500	13,000	SC3605	B	192	253	2	6.08
	280	31	2	117	134	11,900	13,600	16036	A	189	271	2	6.49
	280	46	2.1	189	199	19,300	20,300	6036	A	191	269	2	8.8
	320	52	4	227	241	23,200	24,600	6236	A	196	304	3	15.1
	380	75	4	355	405	36,000	41,500	6336	A	196	364	3	35.6

① Drawing details are shown in Page B-5.

② Smallest allowable dimension for chamfer dimension r.



Equivalent bearing load dynamic

$$P_r = XF_r + YF_a$$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18	1	0	0.56	2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29				1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$$P_{or} = 0.6F_r + 0.5F_a$$

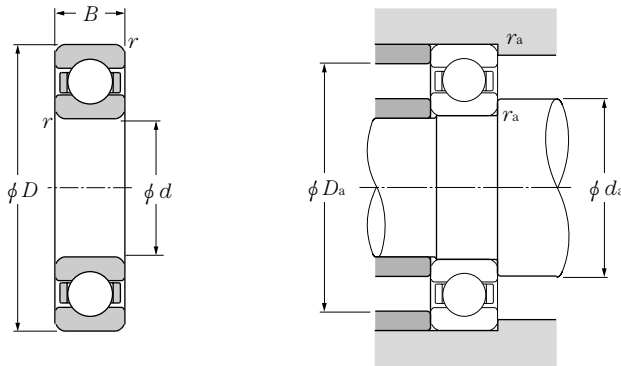
When $P_{or} < F_r$ use $P_{or} = F_r$

d 190~260mm

Boundary dimensions mm	Basic load ratings				Bearing numbers	Drawing ^① No.	Abutment and fillet dimensions mm			Mass kg (approx.)			
	dynamic kN	static kgf	dynamic kgf	static kgf			d_a min	D_a max	r_{as} max				
d	D	B	$r_{s\ min}$ ^②	C_r	C_{or}	C_r	C_{or}						
190	240	24	1.5	73	88	7,450	9,000	6838	B	198	232	1.5	2.62
	260	33	2	113	127	11,500	13,000	6938	B	199	251	2	4.98
	269.5	33	2.5	117	134	11,900	13,600	SC3805	G	202	258	2	5.87
	290	31	2	134	156	13,700	15,900	16038	A	199	281	2	6.77
	290	46	2.1	197	215	20,100	21,900	6038	A	201	279	2	9.18
	340	55	4	255	281	26,000	28,700	6238	A	206	324	3	18.2
	400	78	5	355	415	36,000	42,500	6338	A	210	380	4	41
195	270	35	2.5	130	147	13,300	15,000	SC3904	B	207	258	2	5.94
200	250	24	1.5	74	91.5	7,550	9,300	6840	B	208	242	1.5	2.73
	280	38	2.1	157	168	16,000	17,100	6940	B	211	269	2	7.1
	310	34	2	142	160	14,400	16,300	16040	A	209	301	2	8.68
	310	51	2.1	218	243	22,200	24,800	6040	A	211	299	2	11.9
	360	58	4	269	310	27,400	31,500	6240	A	216	344	3	21.6
	420	80	5	410	500	42,000	51,000	6340	A	220	400	4	46.3
220	270	24	1.5	76.5	98	7,800	10,000	6844	B	228	262	1.5	3
	300	38	2.1	160	180	16,400	18,400	6944	B	231	289	2	7.69
	309.5	38	2.5	176	202	18,000	20,600	SC4401	B	232	298	2	8.77
	319.5	46	2.5	193	220	19,700	22,400	SC4405	B	232	308	2	12
	340	37	2.1	181	216	18,500	22,000	16044	A	231	329	2	11.3
	340	56	3	241	289	24,600	29,400	6044	A	233	327	2.5	15.7
	400	65	4	297	365	30,500	37,000	6244	A	236	384	3	30.2
460	88	5	410	520	42,000	53,000	6344	A	240	440	4	60.8	
230	329.5	40	2.5	191	227	19,500	23,100	SC4605	B	242	318	2	10.8
	339.5	45	3	224	266	22,800	27,200	SC4609	G	244	326	2.5	13.7
240	300	28	2	85	112	8,650	11,400	6848	B	249	291	2	4.6
	320	38	2.1	170	203	17,300	20,700	6948	B	251	309	2	8.28
	360	37	2.1	178	217	18,200	22,100	16048	A	251	349	2	12.1
	360	56	3	249	310	25,400	32,000	6048	A	253	347	2.5	16.8
	440	72	4	360	470	36,500	48,000	6248	B	258	422	3	51.7
	500	95	5	440	590	45,000	60,000	6348	B	262	478	4	93.6
250	349.5	46	2.5	214	262	21,800	26,700	SC5003	B	262	338	2	13.4
260	320	28	2	87	120	8,900	12,200	6852	B	269	311	2	5

① Drawing details are shown in Page B-5.

② Smallest allowable dimension for chamfer dimension r .



Equivalent bearing load

dynamic
 $P_r = XF_r + YF_a$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18	1	0	0.56	2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29				1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$P_{or} = 0.6F_r + 0.5F_a$

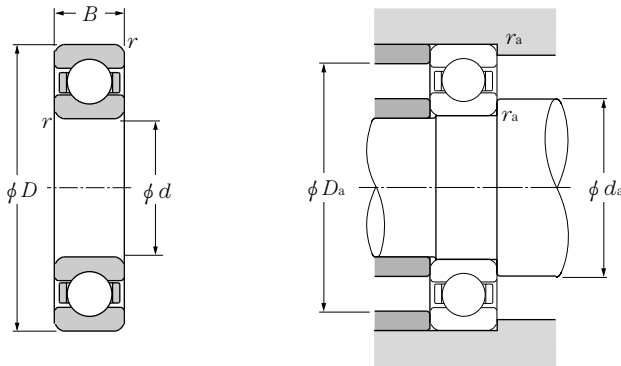
When $P_{or} < F_r$ use $P_{or} = F_r$

d 260~340mm

Boundary dimensions	Basic load ratings							Bearing numbers	Drawing ^① No.	Abutment and fillet dimensions			Mass kg (approx.)
	mm				dynamic kN	static kgf	static			mm			
d	D	B	$r_{s\ min}^{②}$	C_r	C_{or}	C_r	C_{or}			d_a min	D_a max	r_{as} max	
260	360	46	2.1	222	280	22,600	28,500	6952	B	271	349	2	13.9
	379.5	56	4	253	320	25,800	32,500	SC5206	G	278	362	3	20.8
	400	44	3	227	299	23,200	30,500	16052	A	273	387	2.5	18.5
	400	65	4	291	375	29,700	38,500	6052	A	276	384	3	25
	480	80	5	400	540	41,000	55,000	6252	B	282	458	4	65.7
	540	102	6	505	710	51,500	72,500	6352	B	288	512	5	116
280	350	33	2	137	177	13,900	18,100	6856	B	289	341	2	7.4
	360	38	2.5	147	191	14,900	19,500	SC5605	B	292	348	2	9.47
	380	46	2.1	227	299	23,200	30,500	6956	B	291	369	2	14.8
	420	44	3	232	315	23,700	32,500	16056	B	293	407	2.5	23
	420	65	4	325	420	33,000	43,000	6056	B	296	404	3	31
	500	80	5	440	600	44,500	61,000	6256	B	302	478	4	70.9
580	108	6	530	760	54,000	77,500	6356	B	308	552	5	142	
290	419.5	60	5	277	375	28,300	38,500	SC5803	G	312	398	4	26.8
300	380	38	2.1	162	210	16,500	21,500	6860	B	311	369	2	10.5
	420	56	3	276	375	28,200	38,500	6960	B	313	407	2.5	23.5
	460	50	4	292	410	29,800	42,000	16060	B	316	444	3	32.5
	460	74	4	355	480	36,000	49,000	6060	B	316	444	3	43.8
	540	85	5	465	670	47,500	68,500	6260	B	322	518	4	88.9
310	429.5	60	4	275	380	28,000	38,500	SC6201	B	328	412	3	25.8
	450	50	4	286	420	29,200	42,500	SC6203	B	328	432	3	25.9
320	400	38	2.1	168	228	17,200	23,200	6864	B	331	389	2	10.9
	440	56	3	285	405	29,000	41,000	6964	B	333	427	2.5	24.8
	449.5	56	3	276	395	28,200	40,500	SC6406	B	334	436	2.5	27.6
	470	70	4	330	475	34,000	48,500	SC6403	B	338	452	3	40.4
	480	50	4	300	440	30,500	45,000	16064	B	336	464	3	34.2
	480	74	4	370	530	38,000	54,000	6064	B	336	464	3	46.1
580	92	5	530	805	54,500	82,500	6264	B	342	558	4	110	
340	420	38	2.1	170	236	17,400	24,000	6868	2	351	409	2	11.5
	460	56	3	293	430	29,800	44,000	6968	B	353	447	2.5	26.2
	489.5	60	5	290	435	29,600	44,000	SC6802	B	362	468	4	36.2
	520	57	4	340	515	35,000	52,500	16068	B	356	504	3	47.1
	520	82	5	420	610	42,500	62,500	6068	B	360	500	4	61.8

① Drawing details are shown in Page B-5.

② Smallest allowable dimension for chamfer dimension r .



Equivalent bearing load dynamic

$$P_r = XF_r + YF_a$$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18	1	0	0.56	2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29				1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$$P_{or} = 0.6F_r + 0.5F_a$$

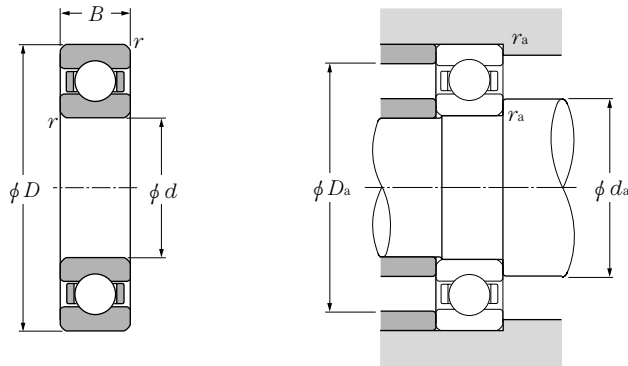
When $P_{or} < F_r$ use $P_{or} = F_r$

d 340~480mm

Boundary dimensions mm	Basic load ratings			dynamic kN	static kN	dynamic kgf	static kgf	Bearing numbers	Drawing ^① No.	Abutment and fillet dimensions mm			Mass kg (approx.)
	d	D	B							$r_{s\ min}^{\text{②}}$	d_a min	D_a max	
340	620	92	6	530	820	54,000	83,500	6268	B	368	592	5	129
355.6	469.9	57.15	5	233	340	23,800	34,500	SC7101	B	377.5	448	4	26.3
360	440	38	2.1	187	258	19,100	26,300	6872	B	371	429	2	12.3
	480	56	3	300	455	30,500	46,500	6972	B	373	467	2.5	27.5
	509.5	70	5	340	515	34,500	52,500	SC7205	B	382	488	4	45
	540	57	4	350	550	36,000	56,000	16072	B	376	524	3	49.3
	540	82	5	440	670	44,500	68,000	6072	B	380	520	4	64.7
650	95	6	555	905	57,000	92,000	6272	B	388	622	5	145	
380	480	46	2.1	231	340	23,600	34,500	6876	B	391	469	2	19.7
	520	65	4	325	510	33,000	52,000	6976	B	396	504	3	39.8
	560	57	4	360	590	37,000	60,000	16076	B	398	542	3	50.1
	560	82	5	455	725	46,500	74,000	6076	B	400	540	4	67.5
400	500	46	2.1	226	340	23,100	34,500	6880	B	411	489	2	20.6
	540	65	4	335	535	34,000	54,500	6980	B	416	524	3	41.6
	600	63	5	370	620	38,000	63,000	16080	B	422	578	4	65.8
	600	90	5	510	825	52,000	84,000	6080	B	420	580	4	87.6
	720	130	6	610	1,080	62,000	110,000	SC8002	D	428	692	5	226
420	520	46	2.1	260	405	26,500	41,500	6884	B	431	509	2	21.6
	560	65	4	340	560	35,000	57,000	6984	B	436	544	3	43.4
	620	90	5	530	895	54,000	91,000	6084	B	440	600	4	91.1
440	540	46	2.1	264	420	26,900	43,000	6888	B	451	529	2	22.5
	599	80	4	425	720	43,000	73,500	SC8803	B	458	581	3	64
	600	74	4	365	615	37,500	63,000	6988	B	456	584	3	60
	650	94	6	525	900	53,500	92,000	6088	B	468	622	5	104
450	629	80	4	435	770	44,500	78,500	SC9001	F	468	611	3	76
460	580	56	3	315	515	32,000	52,500	6892	B	473	567	2.5	34.8
	620	74	4	375	645	38,500	66,000	6992	B	476	604	3	62.2
	680	100	6	605	1,080	62,000	110,000	6092	B	488	652	5	122
480	600	56	3	320	540	32,500	55,000	6896	B	493	587	2.5	36.2
	650	78	5	430	770	44,000	78,500	6996	B	500	630	4	73

① Drawing details are shown in Page B-5.

② Smallest allowable dimension for chamfer dimension r .



Equivalent bearing load

dynamic
 $P_r = XF_r + YF_a$

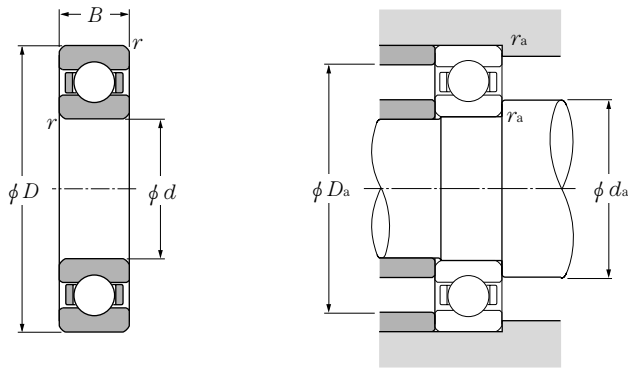
$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18	1	0	0.56	2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29				1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static
 $P_{or} = 0.6F_r + 0.5F_a$
 When $P_{or} < F_r$ use $P_{or} = F_r$

d 480~710mm

Boundary dimensions	dynamic			Basic load ratings				Bearing numbers	Drawing ^① No.	Abutment and fillet dimensions			Mass kg (approx.)
	mm			kN	static	dynamic	static			mm			
d	D	B	$r_{s\ min}^{②}$	C_r	C_{or}	C_r	C_{or}			d_a min	D_a max	r_{as} max	
480	700	100	6	605	1,090	61,500	111,000	6096	B	508	672	5	126
500	620	56	3	325	560	33,500	57,000	68/500	B	513	607	2.5	37.5
	670	78	5	445	805	45,500	82,500	69/500	B	520	650	4	75.5
	689	100	5	545	980	55,500	100,000	SC10006	B	522	667	4	103
	720	100	6	630	1,170	64,000	120,000	60/500	B	528	692	5	130
520	719	100	5	560	1,050	57,000	107,000	SC10403	B	542	697	4	118
530	650	56	3	330	580	34,000	59,500	68/530	B	543	637	2.5	39.5
	710	82	5	455	845	46,500	86,000	69/530	B	552	688	4	89.1
	780	112	6	645	1,270	66,000	129,000	60/530	B	558	752	5	178
560	680	56	3	335	600	34,000	61,500	68/560	B	573	667	2.5	41.5
	750	85	5	525	1,020	53,500	104,000	69/560	B	582	728	4	103
	820	115	6	705	1,410	72,000	143,000	60/560	B	588	792	5	200
570	790	115	6	705	1,400	72,000	143,000	SC11401	B	598	762	5	166
600	730	60	3	375	705	38,500	72,000	68/600	B	613	717	2.5	51.7
	800	90	5	590	1,200	60,500	122,000	69/600	B	622	778	4	122
	870	118	6	725	1,510	74,000	154,000	60/600	B	628	842	5	228
610	869	120	5	725	1,510	74,000	154,000	SC12203	E	632	847	4	223
630	710	69	4	210	395	21,400	40,000	SC12601	B	648	692	3	36
	780	69	4	420	820	43,000	84,000	68/630	B	648	762	3	71.6
	850	100	6	680	1,450	69,500	148,000	69/630	B	658	822	5	158
	920	128	7.5	840	1,770	85,500	181,000	60/630	B	666	884	6	280
650	919	118	6	840	1,780	85,500	181,000	SC13007	B	678	891	5	246
670	820	69	4	425	850	43,000	86,500	68/670	B	688	802	3	75.1
	900	103	6	700	1,530	71,000	156,000	69/670	B	698	872	5	181
	980	136	7.5	975	2,120	99,500	216,000	60/670	B	706	944	6	336
710	870	74	4	440	910	44,500	92,500	68/710	B	728	852	3	91.1
	950	106	6	715	1,600	72,500	163,000	69/710	B	738	922	5	205
	1,030	140	7.5	1,020	2,310	104,000	235,000	60/710	B	746	994	6	379

① Drawing details are shown in Page B-5.
 ② Smallest allowable dimension for chamfer dimension r .



Equivalent bearing load

dynamic
 $P_r = XF_r + YF_a$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18	1	0	0.56	2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29				1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$$P_{or} = 0.6F_r + 0.5F_a$$

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

d 750~1,320mm

	Boundary dimensions				Basic load ratings				Bearing numbers	Drawing ^① No.	Abutment and fillet dimensions			Mass kg (approx.)
	mm				dynamic	static	dynamic	static			mm			
	d	D	B	$r_{s\min}$ ^②	C_r	C_{or}	C_r	C_{or}			d_a	D_a	r_{as}	
					kN		kgf				min	max	max	
750	920	78	5	485	1,040	49,500	106,000	68/750 69/750 SC15002 60/750	B	772	898	4	107	
	1,000	112	6	725	1,670	74,000	171,000		B	778	972	5	238	
	1,070	140	7.5	925	2,210	94,500	225,000		C	765	1,055	6	403	
	1,090	150	7.5	1,050	2,500	107,000	255,000		B	765	1,075	6	457	
800	980	82	5	485	1,070	49,500	110,000	68/800 69/800 60/800	B	822	958	4	127	
	1,060	115	6	800	1,900	81,500	194,000		B	828	1,032	5	270	
	1,150	155	7.5	1,090	2,690	111,000	274,000		B	836	1,114	6	515	
820	1,160	160	7.5	1,020	2,540	104,000	259,000	SC16401	C	856	1,124	6	524	
850	1,030	82	5	500	1,140	51,000	116,000	68/850 69/850 60/850	B	872	1,008	4	135	
	1,120	118	6	900	2,240	92,000	228,000		B	878	1,092	5	305	
	1,220	165	7.5	1,120	2,880	114,000	294,000		B	886	1,184	6	615	
900	1,090	85	5	610	1,450	62,500	148,000	68/900 69/900 60/900	B	922	1,068	4	156	
	1,180	122	6	920	2,340	93,500	238,000		B	928	1,152	5	346	
	1,280	170	7.5	1,150	3,100	117,000	315,000		B	936	1,244	6	685	
950	1,150	90	5	630	1,550	64,500	158,000	68/950 69/950 60/950	B	972	1,128	4	184	
	1,250	132	7.5	935	2,430	95,000	248,000		B	986	1,214	6	424	
	1,360	180	7.5	1,130	3,050	116,000	310,000		B	986	1,324	6	855	
1,000	1,220	100	6	710	1,790	72,000	183,000	68/1000 69/1000 60/1000	B	1,028	1,192	5	237	
	1,320	140	7.5	1,010	2,700	103,000	275,000		B	1,036	1,284	6	506	
	1,420	185	7.5	1,160	3,200	119,000	330,000		B	1,036	1,384	6	945	
1,060	1,280	100	6	730	1,910	74,500	195,000	68/1060 69/1060 60/1060	B	1,088	1,252	5	250	
	1,400	150	7.5	1,200	3,400	122,000	345,000		B	1,096	1,364	6	610	
	1,500	195	9.5	1,190	3,350	121,000	345,000		B	1,104	1,456	8	1,126	
1,120	1,360	106	6	885	2,410	90,500	246,000	68/1120 69/1120 60/1120	B	1,148	1,332	5	307	
	1,460	150	7.5	1,230	3,550	125,000	360,000		B	1,156	1,424	6	640	
	1,580	200	9.5	1,170	3,350	120,000	340,000		B	1,164	1,536	8	1,258	
1,180	1,420	106	6	920	2,580	94,000	264,000	68/1180 69/1180	B	1,208	1,392	5	322	
	1,540	160	7.5	1,250	3,700	127,000	375,000		B	1,216	1,504	6	762	
1,250	1,500	112	6	925	2,670	94,500	272,000	68/1250	B	1,278	1,472	5	376	
1,320	1,600	122	6	1,100	3,300	112,000	335,000	68/1320	B	1,348	1,572	5	495	

① Drawing details are shown in Page B-5.

② Smallest allowable dimension for chamfer dimension r .

