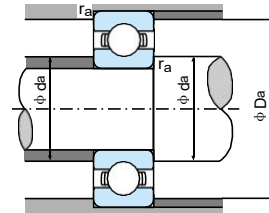
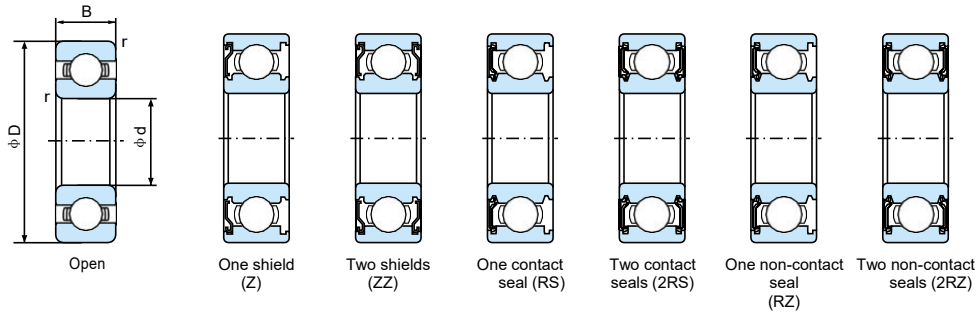


Deep-groove Ball Bearings



1N=0.102kgf

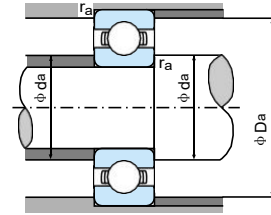
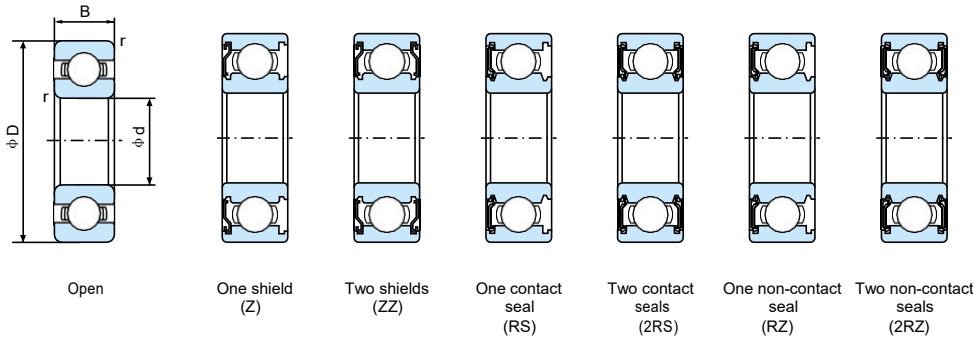
• Dynamic equivalent radial load
 $Pr = XFr + YFa$

• Static equivalent radial load
 Larger value of following to be used:
 $Por = 0.6Fr + 0.5Fa$
 $Por = Fr$

Fa Cor	e	Fa ≤ e		Fa > e	
		X	Y	X	Y
0.014	0.19	1	0	0.56	2.30
0.028	0.22				1.99
0.056	0.26				1.71
0.084	0.28	1	0	0.56	1.55
0.11	0.30				1.45
0.17	0.34				1.31
0.28	0.38	1	0	0.56	1.15
0.42	0.42				1.04
0.56	0.44				1.00

Boundary dimensions (mm)				Bearing No.						Basic dynamic load rating Cr(N)	Basic static load rating Cor(N)	Limiting speed (rpm)			Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.	
d	D	B	r (min)	Open type	Shield type	Contact seal type		Non-contact seal type				Grease lubrication Open type,Z ZZ,RZ,2RZ	Oil lubrication RS,2RS	Open type,Z	da (min)	Da (max)	ra (max)			
10	19	5	0.3	6800	6800Z	6800ZZ	—	—	—	2120	985	37000	24000	44000	12	17	0.3	0.005	6800	
	22	6	0.3	6900	6900Z	6900ZZ	6900RS	6900-2RS	6900RZ	6900-2RZ	2490	1130	33000	22000	38000	12	20	0.3	0.009	6900
	26	8	0.3	6000	6000Z	6000ZZ	6000RS	6000-2RS	6000RZ	6000-2RZ	4550	1970	30000	20000	36000	12	24	0.3	0.019	6000
	30	9	0.6	6200	6200Z	6200ZZ	6200RS	6200-2RS	6200RZ	6200-2RZ	5100	2390	24000	17000	30000	15	25	0.6	0.032	6200
12	35	11	0.6	6300	6300Z	6300ZZ	6300RS	6300-2RS	6300RZ	6300-2RZ	8100	3450	21000	17000	26000	15	30	0.6	0.053	6300
	21	5	0.3	6801	6801Z	6801ZZ	6801RS	6801-2RS	6801RZ	6801-2RZ	1920	1040	32000	20000	39000	14	19	0.3	0.006	6801
	24	6	0.3	6901	6901Z	6901ZZ	6901RS	6901-2RS	6901RZ	6901-2RZ	2700	1320	30000	19000	35000	14	22	0.3	0.011	6901
	28	8	0.3	6001	6001Z	6001ZZ	6001RS	6001-2RS	6001RZ	6001-2RZ	5100	2390	27000	17000	32000	14	26	0.3	0.023	6001
15	32	10	0.6	6201	6201Z	6201ZZ	6201RS	6201-2RS	6201RZ	6201-2RZ	6800	3050	22000	16000	27000	17	27	0.6	0.037	6201
	37	12	1	6301	6301Z	6301ZZ	6301RS	6301-2RS	6301RZ	6301-2RZ	9750	4250	19000	15000	24000	18	31	1.0	0.060	6301
	24	5	0.3	6802	6802Z	6802ZZ	6802RS	6802-2RS	6802RZ	6802-2RZ	2080	1260	27000	16000	32000	17	22	0.3	0.007	6802
	28	7	0.3	6902	6902Z	6902ZZ	6902RS	6902-2RS	6902RZ	6902-2RZ	4300	2250	26000	15000	31000	17	26	0.3	0.016	6902
17	32	8	0.3	16002	—	—	—	—	—	5600	2840	23000	—	28000	20	27	0.3	0.025	16002	
	32	9	0.3	6002	6002Z	6002ZZ	6002RS	6002-2RS	6002RZ	6002-2RZ	5600	2840	23000	14000	28000	17	30	0.3	0.032	6002
	35	11	0.6	6202	6202Z	6202ZZ	6202RS	6202-2RS	6202RZ	6202-2RZ	7650	3700	19000	13000	24000	20	30	0.6	0.045	6202
	42	13	1	6302	6302Z	6302ZZ	6302RS	6302-2RS	6302RZ	6302-2RZ	11400	5400	17000	12000	20000	21	36	1.0	0.082	6302
20	26	5	0.3	6803	6803Z	6803ZZ	6803RS	6803-2RS	6803RZ	6803-2RZ	2630	1570	25000	15000	30000	19	24	0.3	0.008	6803
	30	7	0.3	6903	6903Z	6903ZZ	6903RS	6903-2RS	6903RZ	6903-2RZ	4600	2550	24000	14000	29000	19	28	0.3	0.018	6903
	35	8	0.3	16003	—	—	—	—	—	6000	3250	20000	—	24000	22	30	0.3	0.032	16003	
	35	10	0.3	6003	6003Z	6003ZZ	6003RS	6003-2RS	6003RZ	6003-2RZ	6000	3250	20000	13000	25000	19	33	0.3	0.039	6003
22	40	12	0.6	6203	6203Z	6203ZZ	6203RS	6203-2RS	6203RZ	6203-2RZ	9550	4800	17000	12000	21000	22	35	0.6	0.065	6203
	47	14	1	6303	6303Z	6303ZZ	6303RS	6303-2RS	6303RZ	6303-2RZ	13600	6550	15000	11000	18000	23	41	1.0	0.115	6303
	32	7	0.3	6804	6804Z	6804ZZ	6804RS	6804-2RS	6804RZ	6804-2RZ	4000	2640	20000	12000	24000	22	30	0.3	0.019	6804
	37	9	0.3	6904	6904Z	6904ZZ	6904RS	6904-2RS	6904RZ	6904-2RZ	6350	3700	19000	11000	23000	22	35	0.3	0.036	6904
25	42	8	0.3	16004	—	—	—	—	—	7900	4500	17000	—	21000	25	37	0.3	0.050	16004	
	42	12	0.6	6004	6004Z	6004ZZ	6004RS	6004-2RS	6004RZ	6004-2RZ	9400	5000	17000	11000	21000	24	38	0.6	0.070	6004
	47	14	1	6204	6204Z	6204ZZ	6204RS	6204-2RS	6204RZ	6204-2RZ	12800	6600	14000	10000	18000	26	41	1.0	0.106	6204
	52	15	1.1	6304	6304Z	6304ZZ	6304RS	6304-2RS	6304RZ	6304-2RZ	15900	7900	13000	9500	16000	27	45	1.1	0.144	6304
22	50	14	1	62/22	62/22Z	62/22ZZ	62/22RS	62/22-2RS	62/22RZ	62/22-2RZ	13900	6950	13000	9000	17000	28	44	1.0	0.120	62/22
	56	16	1.1	63/22	63/22Z	63/22ZZ	63/22RS	63/22-2RS	63/22RZ	63/22-2RZ	18400	9250	12000	8000	15000	29	49	1.0	0.176	63/22
25	37	7	0.3	6805	6805Z	6805ZZ	6805RS	6805-2RS	6805RZ	6805-2RZ	4300	2940	18000	10000	20000	27	35	0.3	0.022	6805
	42	9	0.3	6905	6905Z	6905ZZ	6905RS	6905-2RS	6905RZ	6905-2RZ	7000	4500	16000	9500	20000	27	40	0.3	0.042	6905
	47	8	0.3	16005	—	—	—	—	—	6950	4600	15000	—	18000	30	42	0.3	0.060	16005	
	47	12	0.6	6005	6005Z	6005ZZ	6005RS	6005-2RS	6005RZ	6005-2RZ	10100	5850	15000	9000	18000	29	43	0.6	0.079	6005
25	52	15	1	6205	6205Z	6205ZZ	6205RS	6205-2RS	6205RZ	6205-2RZ	14000	7900	12000	8500	16000	31	46	1.0	0.128	6205
	62	17	1.1	6305	6305Z	6305ZZ	6305RS	6305-2RS	6305RZ	6305-2RZ	23600	12100	11000	8000	14000	32	55	1.0	0.232	6305

Deep-groove Ball Bearings



• Dynamic equivalent radial load
 $Pr = XFr + YFa$

• Static equivalent radial load
 Larger value of following to be used:

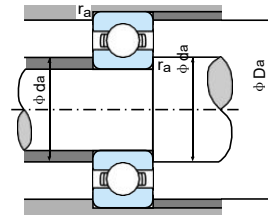
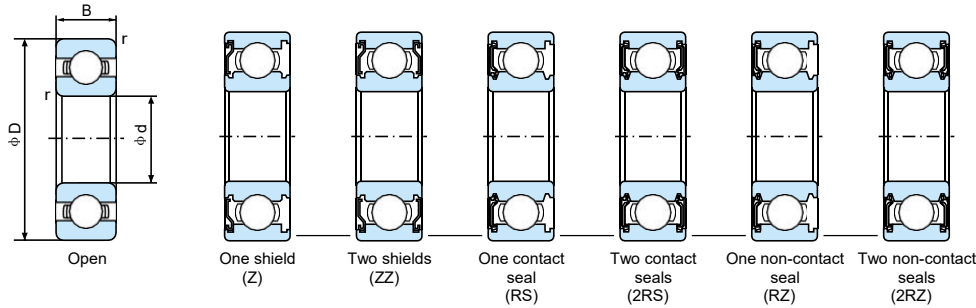
$Por = 0.6Fr + 0.5Fa$
 $Por = Fr$

$\frac{Fa}{Fr} \leq e$		$\frac{Fa}{Fr} > e$	
Cor	e	X	Y
0.014	0.19	1	0
0.028	0.22	0.56	1.99
0.056	0.26	0.56	1.71
0.084	0.28	1	0
0.11	0.30	0.56	1.45
0.17	0.34	0.56	1.31
0.28	0.38	1	0
0.42	0.42	0.56	1.15
0.56	0.44	0.56	1.04
			1.00

1N=0.102kgf

Boundary dimensions (mm)				Bearing No.							Basic dynamic load rating		Basic static load rating		Limiting speed (rpm)			Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.
d	D	B	r (min)	Open type	Shield type	Contact seal type	Non-contact seal type	Cr (N)	Cor (N)	Grease lubrication	Oil lubrication	d _a (min)	D _a (max)	r _a (max)								
										Open type, Z	Oil type, Z											
28	58	16	1	62/28	62/28Z	62/28ZZ	62/28RS	62/28-2RS	62/28RZ	62/28-2RZ	17900	9750	11000	8200	14000	34	52	1.0	0.175	62/28		
	68	18	1.1	63/28	63/28Z	63/28ZZ	63/28RS	63/28-2RS	63/28RZ	63/28-2RZ	26800	14000	10000	7000	12000	35	61	1.0	0.287	63/28		
30	42	7	0.3	6806	6806Z	6806ZZ	6806RS	6806-2RS	6806RZ	6806-2RZ	5350	3800	15000	8700	17000	32	40	0.3	0.026	6806		
	47	9	0.3	6906	6906Z	6906ZZ	6906RS	6906-2RS	6906RZ	6906-2RZ	7250	5000	14000	8200	16000	32	45	0.3	0.045	6906		
	55	9	0.3	16006	—	—	—	—	—	—	9950	6550	12000	—	15000	35	50	0.3	0.085	16006		
	55	13	1	6006	6006Z	6006ZZ	6006RS	6006-2RS	6006RZ	6006-2RZ	13200	8300	12000	7700	15000	35	50	1.0	0.117	6006		
32	62	16	1	6206	6206Z	6206ZZ	6206RS	6206-2RS	6206RZ	6206-2RZ	19500	11300	10000	7300	13000	36	56	1.0	0.199	6206		
	72	19	1.1	6306	6306Z	6306ZZ	6306RS	6306-2RS	6306RZ	6306-2RZ	26700	15000	9200	6600	11000	37	65	1.0	0.346	6306		
	65	17	1	62/32	62/32Z	62/32ZZ	62/32RS	62/32-2RS	62/32RZ	62/32-2RZ	22400	13100	9500	7000	12000	38	59	1.0	0.230	62/32		
35	75	20	1.1	63/32	63/32Z	63/32ZZ	63/32RS	63/32-2RS	63/32RZ	63/32-2RZ	30000	16200	9000	6000	11000	39	68	1.0	0.382	63/32		
	47	7	0.3	6807	6807Z	6807ZZ	6807RS	6807-2RS	6807RZ	6807-2RZ	4750	3800	13000	7600	15000	37	45	0.3	0.029	6807		
35	55	10	0.6	6907	6907Z	6907ZZ	6907RS	6907-2RS	6907RZ	6907-2RZ	10400	7150	12000	7000	14000	39	51	0.6	0.073	6907		
	62	9	0.3	16007	—	—	—	—	—	—	11700	8150	11000	—	13000	40	57	0.3	0.110	16007		
	62	14	1	6007	6007Z	6007ZZ	6007RS	6007-2RS	6007RZ	6007-2RZ	16000	10300	11000	6800	13000	40	57	1.0	0.156	6007		
	72	17	1.1	6207	6207Z	6207ZZ	6207RS	6207-2RS	6207RZ	6207-2RZ	25700	15300	9000	6300	11000	42	65	1.0	0.288	6207		
40	80	21	1.5	6307	6307Z	6307ZZ	6307RS	6307-2RS	6307RZ	6307-2RZ	33500	19200	8400	5900	10000	44	71	1.5	0.457	6307		
	52	7	0.3	6808	6808Z	6808ZZ	6808RS	6808-2RS	6808RZ	6808-2RZ	5950	4900	12000	6700	14000	42	50	0.3	0.033	6808		
	62	12	0.6	6908	6908Z	6908ZZ	6908RS	6908-2RS	6908RZ	6908-2RZ	13700	9950	11000	6100	13000	44	58	0.6	0.108	6908		
40	68	9	0.3	16008	—	—	—	—	—	—	11100	8550	9700	—	12000	45	63	0.3	0.125	16008		
	68	15	1	6008	6008Z	6008ZZ	6008RS	6008-2RS	6008RZ	6008-2RZ	16800	11500	9500	6000	12000	45	63	1.0	0.194	6008		
	80	18	1.1	6208	6208Z	6208ZZ	6208RS	6208-2RS	6208RZ	6208-2RZ	29100	17900	8200	5600	10000	47	73	1.0	0.366	6208		
	90	23	1.5	6308	6308Z	6308ZZ	6308RS	6308-2RS	6308RZ	6308-2RZ	40500	24100	7500	5200	9000	49	81	1.5	0.633	6308		
45	58	7	0.3	6809	6809Z	6809ZZ	6809RS	6809-2RS	6809RZ	6809-2RZ	5350	4900	11000	5900	13000	47	56	0.3	0.040	6809		
	68	12	0.6	6909	6909Z	6909ZZ	6909RS	6909-2RS	6909RZ	6909-2RZ	14100	10900	10000	5600	12000	49	64	0.6	0.122	6909		
	75	10	0.6	16009	—	—	—	—	—	—	12900	10500	9000	—	11000	52	68	0.6	0.170	16009		
	75	16	1	6009	6009Z	6009ZZ	6009RS	6009-2RS	6009RZ	6009-2RZ	20900	15200	8800	5300	11000	50	70	1.0	0.246	6009		
45	85	19	1.1	6209	6209Z	6209ZZ	6209RS	6209-2RS	6209RZ	6209-2RZ	32500	20500	7600	5100	9300	52	78	1.0	0.407	6209		
	100	25	1.5	6309	6309Z	6309ZZ	6309RS	6309-2RS	6309RZ	6309-2RZ	53000	32000	6700	4600	8000	54	91	1.5	0.833	6309		
	65	7	0.3	6810	6810Z	6810ZZ	6810RS	6810-2RS	6810RZ	6810-2RZ	6400	5800	10000	5300	12000	52	63	0.3	0.052	6810		
50	72	12	0.6	6910	6910Z	6910ZZ	6910RS	6910-2RS	6910RZ	6910-2RZ	14500	11700	9500	5100	11000	54	68	0.6	0.125	6910		
	80	10	0.6	16010	—	—	—	—	—	—	16100	13100	8300	—	10000	57	73	0.6	0.180	16010		
	80	16	1	6010	6010Z	6010ZZ	6010RS	6010-2RS	6010RZ	6010-2RZ	21800	16600	8300	4800	10000	55	75	1.0	0.264	6010		
	90	20	1.1	6210	6210Z	6210ZZ	6210RS	6210-2RS	6210RZ	6210-2RZ	35000	23200	7000	4700	8600	57	83	1.0	0.463	6210		
50	110	27	2	6310	6310Z	6310ZZ	6310RS	6310-2RS	6310RZ	6310-2RZ	62000	38000	6200	4100	7300	60	100	2.0	1.07	6310		

Deep-groove Ball Bearings



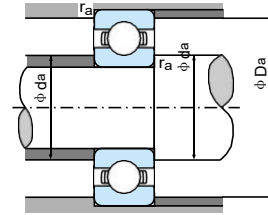
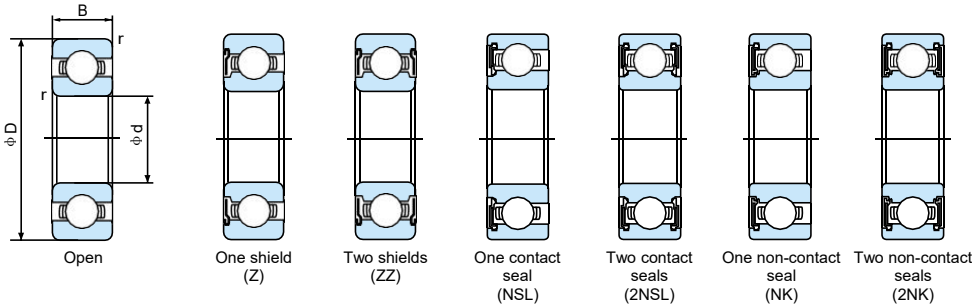
1N=0.102kgf

- Dynamic equivalent radial load $P_r = XFr + YFa$
- Static equivalent radial load
Larger value of following to be used:
 $P_{or} = 0.6Fr + 0.5Fa$
 $P_{or} = Fr$

Cor	e	$\frac{Fa}{Fr} \leq e$		$\frac{Fa}{Fr} > e$	
		X	Y	X	Y
0.014	0.19	1	0	0.56	2.30
0.028	0.22				1.99
0.056	0.26				1.71
0.084	0.28	1	0	0.56	1.55
0.11	0.30				1.45
0.17	0.34				1.31
0.28	0.38	1	0	0.56	1.15
0.42	0.42				1.04
0.56	0.44				1.00

Boundary dimensions (mm)				Bearing No.							Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (rpm)		Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.	
d	D	B	r (min)	Open type	Shield type	Contact seal type		Non-contact seal type		Grease lubrication Open type,Z, RS,2RS ZZ,RZ,2RZ,NSL,2NSL			Oil lubrication Open type,Z	d _a (min)	D _a (max)	r _a (max)				
55	72	9	0.3	6811	6811Z	6811ZZ	—	—	—	—	8500	8100	8500	—	10000	57	70	0.3	0.083	6811
	80	13	1	6911	6911Z	6911ZZ	—	—	—	—	16000	13200	8000	—	9000	60	75	1.0	0.177	6911
	90	11	0.6	16011	—	—	—	—	—	—	15200	13500	7500	—	9000	62	83	0.6	0.260	16011
	90	18	1.1	6011	6011Z	6011ZZ	6011RS	6011-2RS	6011RZ	6011-2RZ	28300	21300	7500	4400	9000	61	84	1.0	0.384	6011
	100	21	1.5	6211	6211Z	6211ZZ	6211RS	6211-2RS	6211RZ	6211-2RZ	43500	29300	6300	4200	7700	64	91	1.5	0.607	6211
	120	29	2	6311	6311Z	6311ZZ	6311RS	6311-2RS	6311RZ	6311-2RZ	71500	44500	5600	3800	6600	65	110	2.0	1.37	6311
60	78	10	0.3	6812	6812Z	6812ZZ	—	—	—	—	11500	10600	8000	—	9500	62	76	0.3	0.106	6812
	85	13	1	6912	6912Z	6912ZZ	—	—	—	—	15200	13500	7500	—	9000	65	80	1.0	0.191	6912
	95	11	0.6	16012	—	—	—	—	—	—	16200	14300	7000	—	8200	67	88	0.6	0.280	16012
	95	18	1.1	6012	6012Z	6012ZZ	6012RS	6012-2RS	6012RZ	6012-2RZ	29400	23200	7000	4100	8300	66	89	1.0	0.418	6012
	110	22	1.5	6212	6212Z	6212ZZ	6212RS	6212-2RS	6212RZ	6212-2RZ	52500	36000	5800	3800	7100	69	101	1.5	0.783	6212
	130	31	2.1	6312	6312Z	6312ZZ	6312RS	6312-2RS	6312RZ	6312-2RZ	82000	52000	5100	3500	6100	72	118	2.0	1.70	6312
65	85	10	0.6	6813	6813Z	6813ZZ	—	—	—	—	11900	11500	7500	—	8500	69	81	0.6	0.125	6813
	90	13	1	6913	6913Z	6913ZZ	—	—	—	—	17400	16000	7000	—	8500	70	85	1.0	0.200	6913
	100	11	0.6	16013	—	—	—	—	—	—	20500	18600	6500	—	7500	72	93	0.6	0.300	16013
	100	18	1.1	6013	6013Z	6013ZZ	6013RS	6013-2RS	6013RZ	6013-2RZ	30500	25200	6500	3800	7800	71	94	1.0	0.438	6013
	120	23	1.5	6213	6213Z	6213ZZ	6213RS	6213-2RS	6213RZ	6213-2RZ	57000	40000	5300	3500	6500	74	111	1.5	0.990	6213
	140	33	2.1	6313	6313Z	6313ZZ	6313RS	6313-2RS	6313RZ	6313-2RZ	92500	59500	4700	3300	5700	77	128	2.0	2.08	6313
70	90	10	0.6	6814	6814Z	6814ZZ	—	—	—	—	12100	11900	7000	—	8000	74	86	0.6	0.135	6814
	100	16	1	6914	6914Z	6914ZZ	—	—	—	—	23700	21100	6500	—	7500	75	95	1.0	0.327	6914
	110	13	0.6	16014	—	—	—	—	—	—	26800	23600	6000	—	7000	77	103	0.6	0.433	16014
	110	20	1.1	6014	6014Z	6014ZZ	6014RS	6014-2RS	6014RZ	6014-2RZ	38000	31000	6000	3500	7100	76	104	1.0	0.607	6014
	125	24	1.5	6214	6214Z	6214ZZ	6214RS	6214-2RS	6214RZ	6214-2RZ	62000	44000	5000	3300	5900	79	116	1.5	1.07	6214
	150	35	2.1	6314	6314Z	6314ZZ	6314RS	6314-2RS	6314RZ	6314-2RZ	104000	68000	4400	3100	5300	82	138	2.0	2.52	6314
75	95	10	0.6	6815	6815Z	6815ZZ	—	—	—	—	12500	12800	6500	—	7500	79	91	0.6	0.145	6815
	105	16	1	6915	6915Z	6915ZZ	—	—	—	—	20800	19700	6200	—	7200	80	100	1.0	0.345	6915
	115	13	0.6	16015	—	—	—	—	—	—	27600	25300	5500	—	6500	82	108	0.6	0.457	16015
	115	20	1.1	6015	6015Z	6015ZZ	6015RS	6015-2RS	6015RZ	6015-2RZ	39500	33500	5700	3300	6700	81	109	1.0	0.645	6015
	130	25	1.5	6215	6215Z	6215ZZ	6215RS	6215-2RS	6215RZ	6215-2RZ	66000	49500	4800	3100	5600	84	121	1.5	1.18	6215
	160	37	2.1	6315	6315Z	6315ZZ	6315RS	6315-2RS	6315RZ	6315-2RZ	113000	77000	4100	2900	5000	87	148	2.0	3.02	6315
80	100	10	0.6	6816	6816Z	6816ZZ	—	—	—	—	12700	13300	6000	—	7000	84	96	0.6	0.155	6816
	110	16	1	6916	6916Z	6916ZZ	—	—	—	—	27600	25300	5500	—	6500	85	105	1.0	0.363	6916
	125	14	0.6	16016	—	—	—	—	—	—	32000	29600	5300	—	6200	87	118	0.6	0.597	16016
	125	22	1.1	6016	6016Z	6016ZZ	—	—	—	—	47500	39500	5300	—	6200	86	119	1.0	0.855	6016
	140	26	2	6216	6216Z	6216ZZ	6216NSL	6216-2NSL	6216NK	6216-2NK	72500	53000	4500	3000	5200	90	130	2.0	1.40	6216
	170	39	2.1	6316	6316Z	6316ZZ	6316NSL	6316-2NSL	6316NK	6316-2NK	123000	86500	3800	2700	4500	92	158	2.0	3.59	6316

Deep-groove Ball Bearings



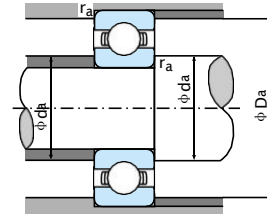
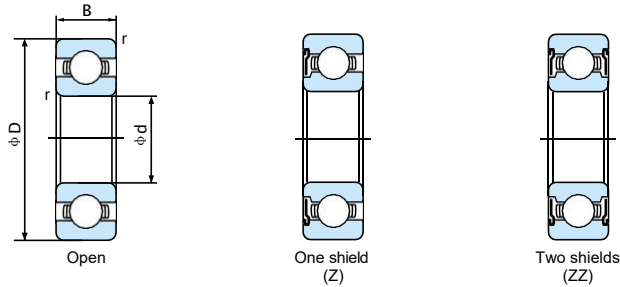
- Dynamic equivalent radial load $P_r = X F_r + Y F_a$
- Static equivalent radial load
Larger value of following to be used:
 $P_o = 0.6 F_r + 0.5 F_a$
 $P_o = F_r$

Fa Cor	e	Fa ≤ e		Fa > e	
		Fr X	Y	Fr X	Y
0.014	0.19	1	0	0.56	2.30
0.028	0.22				1.99
0.056	0.26				1.71
0.084	0.28	1	0	0.56	1.55
0.11	0.30				1.45
0.17	0.34				1.31
0.28	0.38	1	0	0.56	1.15
0.42	0.42				1.04
0.56	0.44				1.00

1N=0.102kgf

Boundary dimensions (mm)				Bearing No.						Basic dynamic load rating		Basic static load rating		Limiting speed (rpm)			Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.
d	D	B	r (min)	Open type	Shield type	Contact seal type		Non-contact seal type		Cr (N)	Cor (N)	Grease lubrication		Oil lubrication	da (min)	Da (max)	ra (max)				
														Open type,Z, ZZ,NK,2NK	NSL,2NSL	Open type,Z					
85	110	13	1	6817	6817Z	6817ZZ	—	—	—	18700	19000	5500	—	6500	90	105	1.0	0.265	6817		
	120	18	1.1	6917	6917Z	6917ZZ	—	—	—	32000	29600	5200	—	6300	91	113	1.0	0.517	6917		
	130	14	0.6	16017	—	—	—	—	—	31500	29800	5000	—	6000	92	123	0.6	0.626	16017		
	130	22	1.1	6017	6017Z	6017ZZ	—	—	—	49500	43000	5000	—	6000	91	124	1.1	0.895	6017		
	150	28	2	6217	6217Z	6217ZZ	6217NSL	6217-2NSL	6217NK	6217-2NK	84000	62000	4200	2800	4900	95	140	2.0	1.79	6217	
180	41	3	6317	6317Z	6317ZZ	6317NSL	6317-2NSL	6317NK	6317-2NK	133000	96500	3600	2600	4300	99	166	2.5	4.23	6317		
90	115	13	1	6818	6818Z	6818ZZ	—	—	—	19000	19700	5300	—	6200	95	110	1.0	0.280	6818		
	125	18	1.1	6918	6918Z	6918ZZ	—	—	—	33000	31500	5000	—	6000	96	119	1.0	0.540	6918		
	140	16	1	16018	—	—	—	—	—	41500	39500	4800	—	5600	99	131	1.0	0.848	16018		
	140	24	1.5	6018	6018Z	6018ZZ	—	—	—	58000	49500	4700	—	5600	97	133	1.5	1.17	6018		
	160	30	2	6218	6218Z	6218ZZ	6218NSL	6218-2NSL	6218NK	6218-2NK	96000	71500	3900	2600	4600	100	150	2.0	2.15	6218	
190	43	3	6318	6318Z	6318ZZ	6318NSL	6318-2NSL	6318NK	6318-2NK	143000	107000	3400	2400	4000	104	176	2.5	4.91	6318		
95	120	13	1	6819	6819Z	6819ZZ	—	—	—	19300	20500	5000	—	6000	100	115	1.0	0.298	6819		
	130	18	1.1	6919	6919Z	6919ZZ	—	—	—	33500	33500	4700	—	5500	101	124	1.0	0.567	6919		
	145	16	1	16019	—	—	—	—	—	41000	39500	4600	—	5300	104	136	1.0	0.885	16019		
	145	24	1.5	6019	6019Z	6019ZZ	—	—	—	60500	54000	4500	—	5300	102	138	1.5	1.22	6019		
	170	32	2.1	6219	6219Z	6219ZZ	6219NSL	6219-2NSL	6219NK	6219-2NK	109000	81500	3700	2400	4300	107	158	2.0	2.62	6219	
200	45	3	6319	6319Z	6319ZZ	6319NSL	6319-2NSL	6319NK	6319-2NK	153000	118000	3200	2200	3800	109	186	2.5	5.67	6319		
100	125	13	1	6820	6820Z	6820ZZ	—	—	—	19600	21200	4600	—	5500	105	120	1.0	0.311	6820		
	140	20	1.1	6920	6920Z	6920ZZ	—	—	—	37000	36500	4400	—	5300	106	134	1.0	0.771	6920		
	150	16	1	16020	—	—	—	—	—	37500	39500	4300	—	5000	109	141	1.0	0.910	16020		
	150	24	1.5	6020	6020Z	6020ZZ	—	—	—	60000	54000	4200	—	5000	107	143	1.5	1.26	6020		
	180	34	2.1	6220	6220Z	6220ZZ	6220NSL	6220-2NSL	6220NK	6220-2NK	122000	93000	3500	2300	4100	112	168	2.0	3.14	6220	
215	47	3	6320	6320Z	6320ZZ	6320NSL	6320-2NSL	6320NK	6320-2NK	173000	141000	3000	2100	3600	114	201	2.5	7.00	6320		
105	130	13	1	6821	—	—	—	—	—	19900	21900	4500	—	5500	110	125	1.0	0.325	6821		
	145	20	1.1	6921	—	—	—	—	—	42500	42000	4200	—	5100	111	139	1.0	0.793	6921		
	160	18	1	16021	—	—	—	—	—	37500	50500	4000	—	4800	114	151	1.0	1.20	16021		
	160	26	2	6021	6021Z	6021ZZ	—	—	—	72500	65500	4000	—	4800	113	152	2.0	1.60	6021		
	190	36	2.1	6221	6221Z	6221ZZ	—	—	—	133000	104000	3200	—	3900	117	178	2.0	3.76	6221		
225	49	3	6321	6321Z	6321ZZ	—	—	—	184000	153000	2800	—	3400	119	211	2.5	8.05	6321			
110	140	16	1	6822	—	—	—	—	—	27300	29400	4200	—	5100	115	135	1.0	0.510	6822		
	150	20	1.1	6922	—	—	—	—	—	38000	38500	4000	—	5000	116	144	1.0	0.830	6922		
	170	19	1	16022	—	—	—	—	—	44000	45000	3800	—	4500	119	161	1.0	1.46	16022		
	170	28	2	6022	6022Z	6022ZZ	—	—	—	84500	73000	3800	—	4500	118	162	2.0	1.97	6022		
	200	38	2.1	6222	6222Z	6222ZZ	—	—	—	144000	117000	3000	—	3700	122	188	2.0	4.36	6222		
240	50	3	6322	6322Z	6322ZZ	—	—	—	205000	179000	2600	—	3200	124	226	2.5	9.54	6322			

Deep-groove Ball Bearings



- Dynamic equivalent radial load $P_r = X F_r + Y F_a$
- Static equivalent radial load
Larger value of following to be used:
 $P_{0r} = 0.6 F_r + 0.5 F_a$
 $P_{0r} = F_r$

Cor	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.014	0.19	1	0	0.56	2.30
0.028	0.22				1.99
0.056	0.26				1.71
0.084	0.28	1	0	0.56	1.55
0.11	0.30				1.45
0.17	0.34				1.31
0.28	0.38	1	0	0.56	1.15
0.42	0.42				1.04
0.56	0.44				1.00

1N=0.102kgf

Boundary dimensions (mm)				Bearing No.				Basic dynamic load rating Cr(N)	Basic static load rating Cor(N)	Limiting speed (rpm)			Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.
d	D	B	r (min)	Open type	Shield type	Contact seal type	Non-contact seal type			Grease lubrication Open type,Z, ZZ,NK,2NK	Oil lubrication Open type,Z	NSL,2NSL	da (min)	Da (max)	ra (max)		
120	150	16	1	6824	—	—	—	28300	31500	4000	—	4800	125	145	1.0	0.549	6824
	165	22	1.1	6924	—	—	—	53000	54000	3700	—	4600	126	159	1.0	1.13	6924
	180	19	1	16024	—	—	—	48000	50000	3500	—	4200	129	171	1.0	1.80	16024
	180	28	2	6024	6024Z	6024ZZ	—	88000	79500	3500	—	4200	128	172	2.0	2.67	6024
	215	40	2.1	6224	6224Z	6224ZZ	—	145000	118000	2800	—	3400	132	203	2.0	5.15	6224
	260	55	3	6324	6324Z	6324ZZ	—	207000	185000	2400	—	3000	134	246	2.5	14.6	6324
130	165	18	1.1	6826	—	—	—	37000	41000	3600	—	4400	136	158	1.0	0.790	6826
	180	24	1.5	6926	—	—	—	65000	67000	3400	—	4200	137	173	1.5	1.78	6926
	200	22	1.1	16026	—	—	—	55000	59500	3200	—	3600	144	186	1.0	2.69	16026
	200	33	2	6026	6026Z	6026ZZ	—	106000	101000	3200	—	3800	138	192	2.0	3.92	6026
	230	40	3	6226	6226Z	6226ZZ	—	167000	146000	2600	—	3200	144	216	2.5	5.82	6226
	280	58	4	6326	6326Z	6326ZZ	—	229000	214000	2200	—	2800	148	262	3.0	18.2	6326
140	175	18	1.1	6828	—	—	—	38000	44500	3400	—	4000	146	169	1.0	0.840	6828
	190	24	1.5	6928	—	—	—	66500	71000	3200	—	3800	147	183	1.5	1.90	6928
	210	22	1.1	16028	—	—	—	56000	62000	3000	—	3500	154	196	1.0	2.86	16028
	210	33	2	6028	6028Z	6028ZZ	—	110000	109000	3000	—	3600	148	202	2.0	4.15	6028
	250	42	3	6228	6228Z	6228ZZ	—	166000	150000	2400	—	2900	154	236	2.5	7.47	6228
	300	62	4	6328	6328Z	6328ZZ	—	253000	246000	2100	—	2600	158	282	3.0	21.8	6328
150	190	20	1.1	6830	—	—	—	47500	54500	3100	—	3500	156	184	1.0	1.20	6830
	210	28	2	6930	—	—	—	85500	87000	2800	—	3100	158	202	2.0	2.64	6930
	225	24	1.1	16030	—	—	—	76500	82500	2600	—	3200	164	211	1.0	3.58	16030
	225	35	2.1	6030	6030Z	6030ZZ	—	126000	126000	2600	—	3200	159	216	2.0	4.48	6030
	270	45	3	6230	6230Z	6230ZZ	—	176000	168000	2200	—	2600	164	256	2.5	9.41	6230
	320	65	4	6330	—	—	—	274000	284000	2000	—	2400	168	302	3.0	26.2	6330
160	200	20	1.1	6832	—	—	—	48500	56500	2800	—	3100	166	194	1.0	1.30	6832
	220	28	2	6932	—	—	—	87500	95500	2600	—	2900	168	212	2.0	3.01	6932
	240	38	2.1	6032	—	—	—	137000	135000	2400	—	3000	169	231	2.0	5.89	6032
	290	48	3	6232	6232Z	6232ZZ	—	185000	186000	2000	—	2400	174	276	2.5	14.3	6232
	340	68	4	6332	—	—	—	278000	287000	1800	—	2000	178	322	3.0	28.6	6332
	170	215	22	1.1	6834	—	—	—	60000	70500	2600	—	3000	177	208	1.0	1.85
230		28	2	6934	—	—	—	86000	95000	2400	—	2800	178	222	2.0	3.17	6934
260		42	2.1	6034	—	—	—	161000	160000	2200	—	2800	179	251	2.0	7.92	6034
310		52	4	6234	—	—	—	212000	224000	1900	—	2300	188	292	3.0	17.5	6234
360		72	4	6334	—	—	—	325000	355000	1600	—	1900	188	342	3.0	34.0	6334