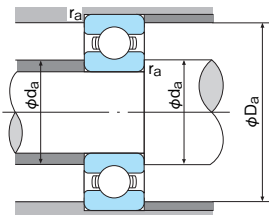
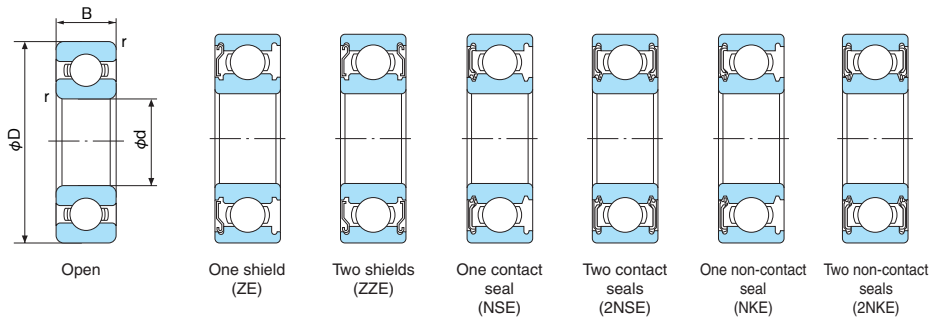


Deep-groove Ball Bearings

Bore Diameter: 55~80mm



Dynamic equivalent radial load
 $P_r = X F_r + Y F_a$

Static equivalent radial load
Larger value of following to be used:
 $P_s = 0.6 F_r + 0.5 F_a$
 $P_s = F_r$

$\frac{F_a}{F_r}$ Cor	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.172	0.19				2.30
0.345	0.22	1	0	0.56	1.99
0.689	0.26				1.71
1.03	0.28				1.55
1.38	0.30	1	0	0.56	1.45
2.07	0.34				1.31
3.45	0.38				1.15
5.17	0.42	1	0	0.56	1.04
6.89	0.44				1.00

Boundary dimensions (mm)				Bearing No.							Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Factor fo	Limiting speed (min ⁻¹)			Abutment and fillet dimensions (mm)			Mass (kg)	Bearing No.
d	D	B	r (mm)	Open type	Shield type		Contact seal type		Non-contact seal type					Grease lubrication		Oil lubrication	da (mm)	Da (max)	ra (max)		
					Open type, ZE, ZZE, NKE, 2NKE	NSE, 2NSE	Open type, ZE														
55	72	9	0.3	6811	6811Z	6811ZZ	—	—	—	—	8800	8100	16.2	8700	—	10000	57	70	0.3	0.083	6811
	80	13	1	6911	6911Z	6911ZZ	—	—	—	—	16000	13200	16.2	8200	—	9600	60	75	1.0	0.177	6911
	90	11	0.6	16011	—	—	—	—	—	—	15200	13500	16.5	7700	—	9000	62	83	0.6	0.260	16011
	90	18	1.1	6011	6011ZE	6011ZZE	6011NSE	6011-2NSE	6011NKE	6011-2NKE	28300	21300	15.4	7700	4500	9000	61	84	1.0	0.384	6011
	100	21	1.5	6211	6211ZE	6211ZZE	6211NSE	6211-2NSE	6211NKE	6211-2NSE	43500	29300	14.4	6400	4300	7700	64	91	1.5	0.607	6211
	120	29	2	6311	6311ZE	6311ZZE	6311NSE	6311-2NSE	6311NKE	6311-2NKE	71500	44500	13.1	5800	4000	6800	65	110	2.0	1.37	6311
60	78	10	0.3	6812	6812Z	6812ZZ	—	—	—	—	11500	10600	16.3	8000	—	9500	62	76	0.3	0.106	6812
	85	13	1	6912	6912Z	6912ZZ	—	—	—	—	15200	13500	16.5	7600	—	9000	65	80	1.0	0.191	6912
	95	11	0.6	16012	—	—	—	—	—	—	16200	14300	16.5	7100	—	8500	67	88	0.6	0.280	16012
	95	18	1.1	6012	6012ZE	6012ZZE	6012NSE	6012-2NSE	6012NKE	6012-2NKE	29400	23200	15.5	7100	4100	8500	66	89	1.0	0.418	6012
	110	22	1.5	6212	6212ZE	6212ZZE	6212NSE	6212-2NSE	6212NKE	6212-2NKE	52500	36000	14.3	6000	3800	7100	69	101	1.5	0.783	6212
	130	31	2.1	6312	6312ZE	6312ZZE	6312NSE	6312-2NSE	6312NKE	6312-2NKE	82000	52000	13.2	5400	3600	6300	72	118	2.0	1.70	6312
65	85	10	0.6	6813	6813Z	6813ZZ	—	—	—	—	11900	11500	16.2	7500	—	8700	69	81	0.6	0.125	6813
	90	13	1	6913	6913Z	6913ZZ	—	—	—	—	17400	16000	16.5	7100	—	8500	70	85	1.0	0.200	6913
	100	11	0.6	16013	—	—	—	—	—	—	20500	18600	16.4	6700	—	8000	72	93	0.6	0.300	16013
	100	18	1.1	6013	6013ZE	6013ZZE	6013NSE	6013-2NSE	6013NKE	6013-2NKE	30500	25200	15.7	6700	4000	8000	71	94	1.0	0.438	6013
	120	23	1.5	6213	6213ZE	6213ZZE	6213NSE	6213-2NSE	6213NKE	6213-2NKE	57000	40000	14.4	5500	3600	6500	74	111	1.5	0.990	6213
	140	33	2.1	6313	6313ZE	6313ZZE	6313NSE	6313-2NSE	6313NKE	6313-2NKE	92500	59500	13.2	4900	3400	6000	77	128	2.0	2.08	6313
70	90	10	0.6	6814	6814Z	6814ZZ	—	—	—	—	12100	11900	16.1	7000	—	8100	74	86	0.6	0.135	6814
	100	16	1	6914	6914Z	6914ZZ	—	—	—	—	23700	21100	16.3	6500	—	7700	75	95	1.0	0.327	6914
	110	13	0.6	16014	—	—	—	—	—	—	26800	23600	16.2	6100	—	7100	77	103	0.6	0.433	16014
	110	20	1.1	6014	6014ZE	6014ZZE	6014NSE	6014-2NSE	6014NKE	6014-2NKE	38000	31000	15.6	6100	3600	7100	76	104	1.0	0.607	6014
	125	24	1.5	6214	6214ZE	6214ZZE	6214NSE	6214-2NSE	6214NKE	6214-2NKE	62000	44000	14.4	5100	3400	6300	79	116	1.5	1.07	6214
	150	35	2.1	6314	6314ZE	6314ZZE	6314NSE	6314-2NSE	6314NKE	6314-2NKE	104000	68000	13.2	4600	3200	5400	82	138	2.0	2.52	6314
75	95	10	0.6	6815	6815Z	6815ZZ	—	—	—	—	12500	12800	16.0	6500	—	7600	79	91	0.6	0.145	6815
	105	16	1	6915	6915Z	6915ZZ	—	—	—	—	20800	19700	16.5	6200	—	7200	80	100	1.0	0.345	6915
	115	13	0.6	16015	—	—	—	—	—	—	27600	25300	16.4	5700	—	6700	82	108	0.6	0.457	16015
	115	20	1.1	6015	6015ZE	6015ZZE	6015NSE	6015-2NSE	6015NKE	6015-2NKE	39500	33500	15.7	5700	3400	6700	81	109	1.0	0.645	6015
	130	25	1.5	6215	6215ZE	6215ZZE	6215NSE	6215-2NSE	6215NKE	6215-2NKE	66000	49500	14.7	4800	3200	5600	84	121	1.5	1.18	6215
	160	37	2.1	6315	6315ZE	6315ZZE	6315NSE	6315-2NSE	6315NKE	6315-2NKE	113000	77000	13.2	4300	2900	5000	87	148	2.0	3.02	6315
80	100	10	0.6	6816	6816Z	6816ZZ	—	—	—	—	12700	13300	15.9	6000	—	7100	84	96	0.6	0.155	6816
	110	16	1	6916	6916Z	6916ZZ	—	—	—	—	27600	25300	16.4	5700	—	6700	85	105	1.0	0.363	6916
	125	14	0.6	16016	—	—	—	—	—	—	32000	29600	16.4	5300	—	6300	87	118	0.6	0.597	16016
	125	22	1.1	6016	6016Z	6016ZZ	—	—	—	—	47500	39500	15.6	5300	—	6300	86	119	1.0	0.855	6016
	140	26	2	6216	6216Z	6216ZZ	6216NSL	6216-2NSL	6216NK	6216-2NK	72500	53000	14.6	4500	3000	5300	90	130	2.0	1.40	6216
	170	39	2.1	6316	6316Z	6316ZZ	6316NSL	6316-2NSL	6316NK	6316-2NK	123000	86500	13.2	4000	2800	4800	92	158	2.0	3.59	6316