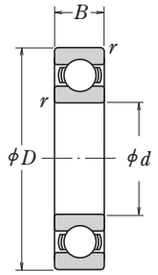
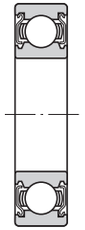
■SINGLE-ROW DEEP GROOVE BALL BEARINGS

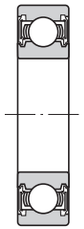
Bore Diameter 65 – 75 mm



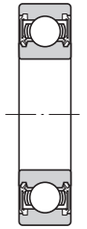
Open



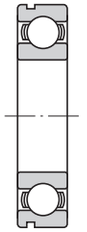
Shielded
ZZ



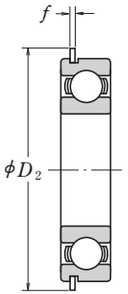
Non-Contact
Sealed
VV



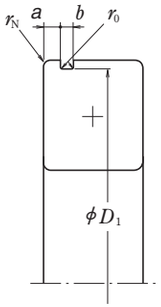
Contact
Sealed
DD · DDU

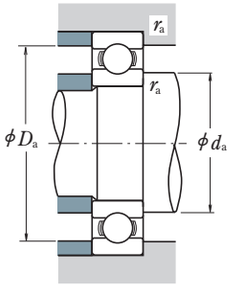


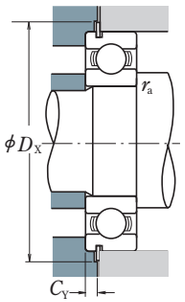
With Snap
Ring Groove
N



With
Snap Ring
NR







Dynamic Equivalent Load

$P = XF_r + YF_a$

$\frac{f_0F_a}{C_{0r}}$	e	$\frac{F_a}{F_r} \leqq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.172	0.19	1	0	0.56	2.30
0.345	0.22	1	0	0.56	1.99
0.689	0.26	1	0	0.56	1.71
1.03	0.28	1	0	0.56	1.55
1.38	0.30	1	0	0.56	1.45
2.07	0.34	1	0	0.56	1.31
3.45	0.38	1	0	0.56	1.15
5.17	0.42	1	0	0.56	1.04
6.89	0.44	1	0	0.56	1.00

Static Equivalent Load

$\frac{F_a}{F_r} > 0.8,\ P_0 = 0.6F_r + 0.5F_a$

$\frac{F_a}{F_r} \leqq 0.8,\ P_0 = F_r$

Boundary Dimensions (mm)				Basic Load Ratings (N)		Factor	Limiting Speeds (min⁻¹)			Bearing Designations				With Snap Ring Groove	With Snap Ring	Snap Ring Groove Dimensions (1) (mm)					Snap Ring (1) Dimensions (mm)		Abutment and Fillet Dimensions (mm)						Mass (kg)
							Grease		Oil																				
d	D	B	r min.	C_r	C_{0r}	f_0	Open Z · ZZ V · VV	DU DDU	Open Z	Open	Shielded	Sealed				a max.	b min.	D_1 max.	r_0 max.	r_N min.	D_2 max.	f max.	d_a(2) min.	d_a(2) max.	D_a(2) max.	r_a max.	D_x min.	C_Y max.	approx.
65	85	10	0.6	13 100	12 100	17.0	7 500	4 000	8 500	**6813**	**ZZ**	**VV**	**DD**	**N**	**NR**	1.70	1.3	82.9	0.4	0.5	89.4	1.12	69	69	81	0.6	91	2.5	0.128
	90	13	1	19 100	16 100	16.6	7 100	4 000	8 500	**6913**	**ZZ**	**VV**	**DDU**	**N**	**NR**	2.10	1.3	87.9	0.4	0.5	94.4	1.12	70	71.5	85	1	96	2.9	0.218
	100	11	0.6	22 500	18 700	16.5	6 700	—	8 000	**16013**	—	—	—	—	—	—	—	—	—	—	—	—	69	—	96	0.6	—	—	0.30
	100	18	1.1	33 500	25 200	15.8	7 500	4 000	9 000	**6013**	**ZZ**	**VV**	**DDU**	**N**	**NR**	2.87	2.7	96.8	0.6	0.5	106.5	2.46	71.5	73	93.5	1	108	5	0.439
	120	23	1.5	63 000	40 000	14.4	6 300	3 600	7 500	**6213**	**ZZ**	**VV**	**DDU**	**N**	**NR**	4.06	3.1	115.21	0.6	0.5	129.7	2.82	73	80	112	1.5	131.5	6.5	1.0
	140	33	2.1	102 000	60 000	13.2	5 600	3 400	6 700	**6313**	**ZZ**	**VV**	**DDU**	**N**	**NR**	4.90	3.1	135.23	0.6	0.5	149.7	2.82	76	85.5	129	2	152	7.3	2.11
70	90	10	0.6	13 300	12 700	17.2	6 700	3 800	8 000	**6814**	**ZZ**	**VV**	**DD**	**N**	**NR**	1.70	1.3	87.9	0.4	0.5	94.4	1.12	74	74.5	86	0.6	96	2.5	0.134
	100	16	1	26 100	21 200	16.3	6 300	3 600	7 500	**6914**	**ZZ**	**VV**	**DDU**	**N**	**NR**	2.50	1.3	97.9	0.4	0.5	104.4	1.12	75	77.5	95	1	106	3.3	0.349
	110	13	0.6	29 500	23 600	16.3	6 000	—	7 100	**16014**	—	—	—	—	—	—	—	—	—	—	—	—	74	—	106	0.6	—	—	0.441
	110	20	1.1	42 000	31 000	15.6	7 100	3 600	8 500	**6014**	**ZZ**	**VV**	**DDU**	**N**	**NR**	2.87	2.7	106.81	0.6	0.5	116.6	2.46	76.5	80.5	103.5	1	118	5	0.608
	125	24	1.5	68 500	44 000	14.5	6 000	3 400	7 100	**6214**	**ZZ**	**VV**	**DDU**	**N**	**NR**	4.06	3.1	120.22	0.6	0.5	134.7	2.82	78	84	117	1.5	136.5	6.5	1.09
	150	35	2.1	115 000	68 000	13.2	5 300	3 200	6 300	**6314**	**ZZ**	**VV**	**DDU**	**N**	**NR**	4.90	3.1	145.24	0.6	0.5	159.7	2.82	81	92	139	2	162	7.3	2.57
75	95	10	0.6	13 800	13 900	17.3	6 300	3 600	7 500	**6815**	**ZZ**	**VV**	**DDU**	**N**	**NR**	1.70	1.3	92.9	0.4	0.5	99.4	1.12	79	79.5	91	0.6	101	2.5	0.149
	105	16	1	26 800	22 600	16.5	6 000	3 400	7 100	**6915**	**ZZ**	**VV**	**DDU**	**N**	**NR**	2.50	1.3	102.6	0.4	0.5	110.7	1.12	80	82	100	1	112	3.3	0.364
	115	13	0.6	30 500	25 300	16.4	5 600	—	6 700	**16015**	—	—	—	—	—	—	—	—	—	—	—	—	79	—	111	0.6	—	—	0.463
	115	20	1.1	43 500	33 500	15.8	6 700	3 400	8 000	**6015**	**ZZ**	**VV**	**DDU**	**N**	**NR**	2.87	2.7	111.81	0.6	0.5	121.6	2.46	81.5	85.5	108.5	1	123	5	0.649
	130	25	1.5	73 000	49 500	14.7	5 600	3 200	6 700	**6215**	**ZZ**	**VV**	**DDU**	**N**	**NR**	4.06	3.1	125.22	0.6	0.5	139.7	2.82	83	90	122	1.5	141.5	6.5	1.19
	160	37	2.1	125 000	77 000	13.2	4 800	2 800	6 000	**6315**	**ZZ**	**VV**	**DDU**	**N**	**NR**	4.90	3.1	155.22	0.6	0.5	169.7	2.82	86	98.5	149	2	172	7.3	3.08

Notes (1) For tolerances of snap ring grooves and snap ring dimensions, refer to Pages A116 to A119.

(2) When heavy axial loads are applied, d_a and D_a can be adjusted up to the shoulder diameter of the races. Please consult NSK for details.

Remarks

1. Diameter Series 7 (extra-thin wall) bearings are also available; please contact NSK for details.
2. When using bearings with rotating outer rings, contact NSK if they are sealed, shielded, or have snap rings.
3. Please consult NSK about the snap ring groove dimensions of Dimension Series 18 and 19 sealed and shielded bearings when the diameter is 50 mm or more.