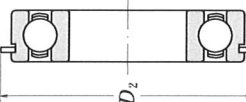
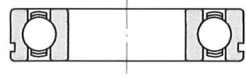
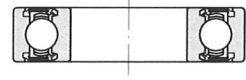
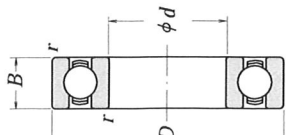


Bore Diameter 50 – 75 mm



Open Type

Shielded Type
ZZ

Non-Contact
Sealed Type
VV

Contact
Sealed Type
DD · DDU

With Snap
Ring Groove
N

With Snap
Ring
NR

d	Boundary Dimensions (mm)		Basic Load Ratings (N)		Factor	Limiting Speeds (min ⁻¹)			Bearing Numbers		
	D	B	C _r	C _{nr}		Grease Open Z	Oil Open Z	Sealed Open Z	Open	Shielded	Sealed
50	65	7	6 400	6 200	17.2	9 500	5 300	11 000	6810	ZZ	DDU
	72	12	14 500	11 700	16.1	9 000	5 300	11 000	6910	ZZ	DDU
	80	10	15 400	12 400	16.1	8 500	—	10 000	16010	—	—
	80	16	21 800	16 600	15.6	8 500	4 800	10 000	6010	ZZ	DDU
	90	20	35 000	23 200	14.4	7 100	4 800	8 500	6210	ZZ	DDU
55	70	27	62 000	38 500	13.2	6 000	4 300	7 500	6310	ZZ	DDU
	72	9	8 800	8 500	17.0	8 500	4 800	10 000	6811	ZZ	DDU
	80	13	16 000	13 300	16.2	8 000	4 500	9 500	6911	ZZ	DDU
	90	11	19 400	16 300	16.2	7 500	—	9 000	16011	—	—
	90	18	28 300	21 200	15.3	7 500	4 500	9 000	6011	ZZ	DDU
60	100	21	43 500	29 300	14.3	6 300	4 300	7 500	6211	ZZ	DDU
	120	29	71 500	44 500	13.1	5 600	4 000	6 700	6311	ZZ	DDU
	78	10	11 500	10 900	16.9	8 000	4 500	9 500	6812	ZZ	DD
	85	13	19 400	16 300	16.2	7 500	4 300	9 000	6912	ZZ	DDU
	95	11	20 000	17 500	16.3	7 100	—	8 500	16012	—	—
65	95	18	29 500	23 200	15.6	7 100	4 000	8 500	6012	ZZ	DDU
	110	22	52 500	36 000	14.3	5 600	3 800	7 100	6212	ZZ	DDU
	130	31	82 000	52 000	13.1	5 300	3 600	6 300	6312	ZZ	DDU
	85	10	11 900	12 100	17.0	7 500	4 000	8 500	6813	ZZ	DD
	90	13	17 400	16 100	16.6	7 100	4 000	8 500	6913	ZZ	DDU
70	100	11	20 500	18 700	16.5	6 700	—	8 000	16013	—	—
	100	18	30 500	25 200	15.8	6 700	4 000	8 000	6013	ZZ	DDU
	120	23	57 500	40 000	14.4	5 300	3 600	6 300	6213	ZZ	DDU
	140	33	92 500	60 000	13.2	4 800	3 400	6 000	6313	ZZ	DDU
	100	16	23 700	21 200	17.2	6 700	3 800	8 000	6814	ZZ	DD
75	110	13	26 800	23 600	16.3	6 000	—	7 100	16014	—	—
	110	20	38 000	31 600	15.6	6 000	3 600	7 100	6014	ZZ	DDU
	125	24	62 000	44 000	14.5	5 000	3 400	6 300	6214	ZZ	DDU
	150	35	104 000	69 500	13.2	4 500	3 200	5 300	6314	ZZ	DDU
	95	10	12 500	13 900	17.3	6 300	3 600	7 500	6815	ZZ	DDU
80	105	16	24 400	22 600	16.5	6 000	3 400	7 100	6915	ZZ	DDU
	115	13	27 600	25 300	16.4	5 600	—	6 700	16015	—	—
	115	20	39 500	33 500	15.8	5 600	3 400	6 700	6015	ZZ	DDU
	130	25	66 000	49 500	14.7	4 800	3 200	5 600	6215	ZZ	DDU
	160	37	113 000	77 000	13.2	4 300	2 800	5 000	6315	ZZ	DDU

Notes (1) For tolerances for the snap ring grooves and snap ring dimensions, refer to Pages A50 to A53.
(2) When heavy axial loads are applied, increase d_2 and decrease d_1 from the above values.

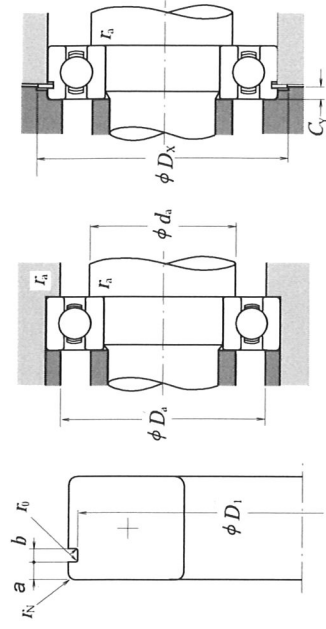
Dynamic Equivalent Load

$P = X F_r + Y F_a$

$\frac{f_0 F_a}{C_{0r}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		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

$F_r > 0.8, P_0 = 0.6 F_r + 0.5 F_a$
 $F_r \leq 0.8, P_0 = F_r$



With Snap Ring Groove	Snap Ring Groove Dimensions (mm)			Snap Ring (l) Dimensions (mm)			Abutment and Fillet Dimensions (mm)			Mass (kg) approx.
	a max	b min	D ₁ max	D ₂ max	f max	d ₁ min	d ₂ max	r _a max	D _x min	
NR	1.3	0.95	63.7	67.8	0.85	52	52.5	63	68.5	1.8
N	1.7	0.95	70.7	74.8	0.85	54	55	68	76	2.3
NR	—	—	—	—	—	54	—	76	0.6	—
N	2.49	1.9	76.81	86.6	1.7	55	58.5	75	1	3.8
NR	3.28	2.7	86.79	96.5	2.46	56.5	60	83.5	1	5.4
N	3.28	2.7	106.81	116.6	2.46	59	68	101	2	5.4
N	1.7	0.95	70.7	74.8	0.85	57	59	70	0.3	2.3
NR	2.1	1.3	77.9	84.4	1.12	60	61.5	75	1	2.9
—	—	—	—	—	—	59	—	86	0.6	—
NR	2.87	2.7	86.79	96.5	2.46	61.5	64	83.5	1	5
NR	3.28	2.7	96.8	106.5	2.46	63	66.5	92	1.5	5.4
N	4.06	3.1	115.21	129.7	2.82	64	72.5	111	2	6.5
N	1.7	1.3	76.2	82.7	1.12	62	64	76	0.3	2.5
NR	2.1	1.3	82.9	89.4	1.12	65	66	80	1	2.9
—	—	—	—	—	—	64	—	91	0.6	—
NR	2.87	2.7	91.82	101.6	2.46	66.5	69	88.5	1	5
NR	3.28	2.7	106.81	116.6	2.46	68	74.5	102	1.5	5.4
N	4.06	3.1	125.22	139.7	2.82	71	79	119	2	6.5
N	1.7	1.3	82.9	89.4	1.12	69	69	81	0.6	2.5
NR	2.1	1.3	87.9	94.4	1.12	70	71.5	85	1	2.9
—	—	—	—	—	—	69	—	96	0.6	—
NR	2.87	2.7	96.8	106.5	2.46	71.5	73	93.5	1	5
NR	4.06	3.1	115.21	129.7	2.82	73	80	112	1.5	6.5
N	4.9	3.1	135.23	149.7	2.82	76	85.5	129	2	7.3
N	1.7	1.3	87.9	94.4	1.12	74	74.5	86	0.6	2.5
NR	2.5	1.3	91.9	104.4	1.12	75	77.5	95	1	3.3
—	—	—	—	—	—	74	—	106	0.6	—
NR	2.87	2.7	106.81	116.6	2.46	76.5	80.5	103.5	1	5
NR	4.06	3.1	120.22	134.7	2.82	78	84	117	1.5	6.5
N	4.9	3.1	145.24	159.7	2.82	81	92	139	2	7.3
N	1.7	1.3	92.9	99.4	1.12	79	79.5	91	0.6	2.5
NR	2.5	1.3	102.6	110.7	1.12	80	82	100	1	3.3
—	—	—	—	—	—	79	—	111	0.6	—
NR	2.87	2.7	111.81	121.6	2.46	81.5	85.5	108.5	1	5
NR	4.06	3.1	125.22	139.7	2.82	83	90	122	1.5	6.5
N	4.9	3.1	155.22	169.7	2.82	86	98.5	149	2	7.3

Remarks 1. Diameter Series 7 (extra thin section bearings) are also available, please contact NSK.
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 sealed and shielded bearings when the diameter of dimension series 18 and 19 is 50 mm or more.