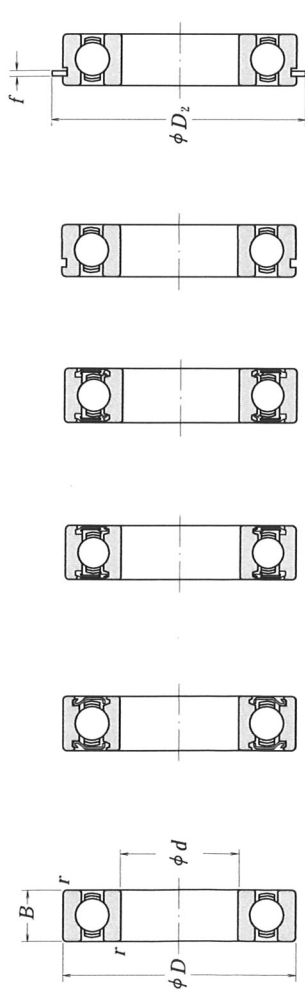


Bore Diameter 10 – 22 mm



Dynamic Equivalent Load

$$P = X F_r + Y F_a$$

$\frac{f_0 F_a}{C_{0r}}$	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
	X	Y	X	Y
0.172	1	0	0.56	2.30
0.345	1	0	0.56	1.99
0.689	1	0	0.56	1.71
1.03	1	0	0.56	1.55
1.38	1	0	0.56	1.45
2.07	1	0	0.56	1.31
3.45	1	0	0.56	1.15
5.17	1	0	0.56	1.04
6.89	1	0	0.56	1.00

Static Equivalent Load

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

$$F_r \leq 0.8, P_0 = F_r$$

Boundary Dimensions (mm)	Basic Load Ratings (kgf)			Factor	Limiting Speeds (min <sup>-1</sup> )			Bearing Numbers					
	$C_r$	$C_{0r}$	$C_T$		Grease Open Z	Oil open Z	Open	Shielded	Sealed				
10	19	5	0.3	14.8	34 000	24 000	40 000	6800	ZZ	VV	DD		
	22	6	0.3	12.9	32 000	22 000	38 000	6900	ZZ	VV	DD		
	26	8	0.3	12.4	30 000	22 000	36 000	6000	ZZ	VV	DDU		
	30	9	0.6	13.2	24 000	18 000	30 000	6200	ZZ	VV	DDU		
	35	11	0.6	11.2	22 000	17 000	26 000	6300	ZZ	VV	DDU		
	40	14	0.6	10.6	15.3	32 000	20 000	38 000	6801	ZZ	VV	DD	
12	24	6	0.3	2.890	14.5	30 000	36 000	6901	ZZ	VV	DD		
	28	7	0.3	5.100	2.370	28 000	—	16001	—	—	—		
	32	10	0.6	6.800	3.050	22 000	17 000	28 000	6201	ZZ	VV	DDU	
	37	12	1	9.700	4.200	20 000	16 000	24 000	6301	ZZ	VV	DDU	
	42	15	0.3	2.070	1.260	28 000	17 000	34 000	6802	ZZ	VV	DD	
	48	20	0.3	4.350	2.260	23.0	17 000	30 000	16002	—	—	—	
15	24	5	0.3	5.600	2.830	24 000	—	28 000	6002	ZZ	VV	DDU	
	28	7	0.3	7.650	3.750	20 000	14 000	24 000	6202	ZZ	VV	DDU	
	32	9	0.3	11.400	5.450	17 000	13 000	20 000	6302	ZZ	VV	DDU	
	35	11	0.6	2.630	1.570	26 000	15 000	30 000	6803	ZZ	VV	DD	
	42	13	1	4.600	2.550	24.0	15 000	28 000	16003	—	—	—	
	48	18	0.3	6.000	3.250	14.4	22 000	—	26 000	6003	ZZ	VV	DDU
17	26	5	0.3	9.550	4.800	17 000	12 000	20 000	6203	ZZ	VV	DDU	
	30	7	0.3	13.600	6.650	15 000	11 000	18 000	6303	ZZ	VV	DDU	
	35	10	0.3	4.000	2.470	22 000	13 000	26 000	6804	ZZ	VV	DD	
	40	12	0.6	6.50	3.75	19 000	12 000	22 000	16004	—	—	—	
	47	14	1	7.900	4.450	18 000	—	20 000	6004	ZZ	VV	DDU	
	52	17	0.3	9.400	5.000	13.8	18 000	11 000	20 000	6204	ZZ	VV	DDU
20	28	7	0.3	12.800	6.600	14.4	15 000	10 000	6304	ZZ	VV	DDU	
	32	9	0.3	17.000	8.500	12.4	14 000	10 000	60/22	ZZ	VV	DDU	
	37	11	0.6	24.000	12.000	10.6	13 000	9 500	62/22	ZZ	VV	DDU	
	42	14	1	32.000	16.000	9.400	11 000	8 000	63/22	ZZ	VV	DDU	
	48	18	0.3	4.400	2.200	14.0	17 000	11 000	20 000	60/22	ZZ	VV	DDU
	55	22	0.3	6.800	3.400	13.5	14 000	9 500	16 000	62/22	ZZ	VV	DDU
22	30	8	0.3	9.400	4.700	12.4	14 000	10 000	63/22	ZZ	VV	DDU	
	35	10	0.3	12.800	6.400	10.6	13 000	9 500	60/22	ZZ	VV	DDU	
	40	12	0.6	17.000	8.500	9.400	11 000	8 000	62/22	ZZ	VV	DDU	
	47	14	1	24.000	12.000	8.000	10 000	7 000	63/22	ZZ	VV	DDU	
	52	17	0.3	3.200	1.600	14.0	17 000	11 000	20 000	60/22	ZZ	VV	DDU
	58	22	0.3	4.800	2.400	13.5	14 000	9 500	16 000	62/22	ZZ	VV	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  $d_f$  and decrease  $D_a$  from the above values.

(3) Ring types N and NR applicable only to open-type bearings. Please consult NSK about the snap ring groove dimensions of sealed or shielded bearings.

With Snap Ring Groove	Snap Ring Groove Dimensions (mm)			Snap Ring Groove Dimensions (°)			Snap Ring Dimensions (mm)			Abutment and Fillet Dimensions (mm)			Mass (kg) approx.	
	a max.	b min.	D <sub>1</sub> max.	r <sub>0</sub> max.	r <sub>N</sub> min.	r <sub>N</sub> max.	D <sub>2</sub> max.	f max.	d <sub>1</sub> ( <sup>1</sup> ) min.	d <sub>1</sub> ( <sup>2</sup> ) max.	r <sub>a</sub> max.	D <sub>x</sub> min.		C <sub>y</sub> max.
N <sup>(3)</sup> NR <sup>(3)</sup>	1.05	0.8	20.8	0.2	—	—	—	—	12	12	17	0.3	—	—
N <sup>(4)</sup> NR <sup>(4)</sup>	1.35	0.87	24.5	0.2	0.2	0.3	24.8	0.7	12	12.5	20	0.3	25.5	1.5
N NR	2.06	1.35	28.17	0.4	0.5	0.5	28.7	0.84	12	13	24	0.3	29.4	1.9
N NR	2.06	1.35	33.17	0.4	0.5	0.5	34.7	1.12	14	16	26	0.6	35.5	2.9
N NR	2.06	1.35	37.17	0.4	0.5	0.5	39.7	1.12	14	16.5	31	0.6	40.5	2.9
N <sup>(3)</sup> NR <sup>(3)</sup>	1.05	0.8	22.8	0.2	—	—	26.8	0.7	14	14	19	0.3	—	—
N <sup>(4)</sup> NR <sup>(4)</sup>	1.35	0.87	26.5	0.2	0.3	0.3	30.7	0.84	14	14.5	22	0.3	27.5	1.5
N NR	2.06	1.35	30.15	0.4	0.5	0.5	36.7	1.12	16	17	26	0.6	31.4	1.9
N NR	2.06	1.35	34.77	0.4	0.5	0.5	41.3	1.12	17	18	32	1	42	2.9
N <sup>(3)</sup> NR <sup>(3)</sup>	1.3	0.95	26.7	0.25	—	—	30.8	0.85	17	17	22	0.3	—	—
N <sup>(4)</sup> NR <sup>(4)</sup>	1.35	0.95	30.15	0.4	0.3	0.3	36.7	1.12	17	17	26	0.3	31.5	1.8
N NR	2.06	1.35	33.17	0.4	0.5	0.5	39.7	1.12	19	19	30	0.3	33.5	1.8
N NR	2.06	1.35	37.17	0.4	0.5	0.5	46.3	1.12	19	20.5	31	0.6	40.5	2.9
N <sup>(3)</sup> NR <sup>(3)</sup>	1.3	0.95	28.7	0.25	0.3	0.3	32.8	0.85	19	22.5	37	1	47	2.9
N <sup>(4)</sup> NR <sup>(4)</sup>	1.35	0.95	30.7	0.25	0.3	0.3	38.8	0.85	19	19	24	0.3	—	—
N NR	2.06	1.35	33.17	0.4	0.3	0.3	39.7	1.12	19	19.5	28	0.3	33.5	1.8
N NR	2.06	1.35	38.1	0.4	0.5	0.5	44.6	1.12	21	21.5	33	0.3	40.5	2.9
N NR	2.46	1.35	44.6	0.4	0.5	0.5	52.7	1.12	22	23.5	36	0.6	45.5	2.9
N NR	1.3	0.95	30.7	0.25	0.3	0.3	34.8	0.85	22	25.5	42	1	53.5	3.3
N NR	1.7	0.95	35.7	0.25	0.3	0.3	39.8	0.85	22	22	30	0.3	35.5	1.8
N NR	—	—	—	—	—	—	—	—	22	24	35	0.3	40.5	2.3
N NR	2.06	1.35	39.75	0.4	0.5	0.5	46.3	1.12	24	25.5	38	0.6	47	2.9
N NR	2.46	1.35	44.6	0.4	0.5	0.5	52.7	1.12	24	26.5	42	1	53.5	3.3
N NR	2.06	1.35	41.75	0.4	0.5	0.5	48.3	1.12	26	26.5	45.5	1	58.5	3.3
N NR	2.46	1.35	47.6	0.4	0.5	0.5	55.7	1.12	27	29.5	45	1	56.5	3.3
N NR	2.46	1.35	53.6	0.4	0.5	0.5	61.7	1.12	28.5	30.5	49.5	1	62.5	3.3

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.