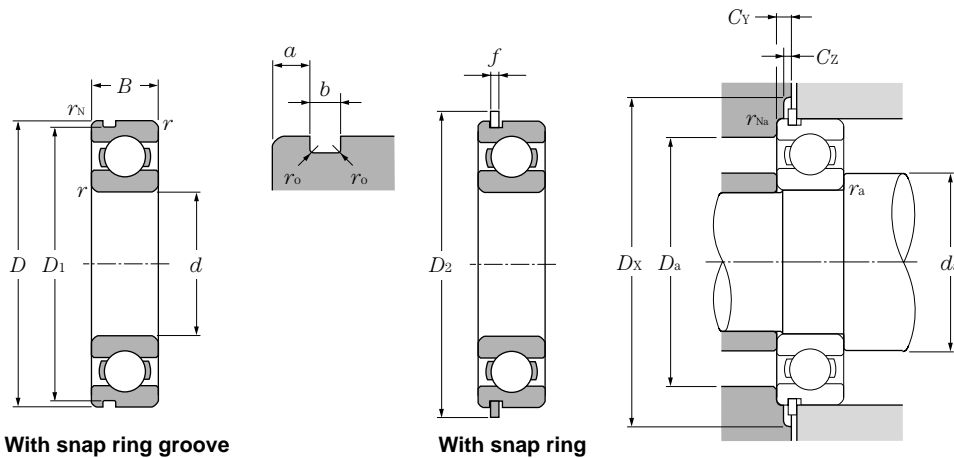


d 40 ~ 60mm

d	Boundary dimensions				Basic load ratings				Limiting speeds				Bearing numbers				
	mm				dynamic		static		rpm				open type	sealed type	non-contact type	low torque type	contact type
	D	B	r _{s min} ^①	r _{NS min}	C _r	C _{or}	C _r	C _{or}	grease open type ZZ	oil open type Z	LLB	LB					
40	52	7	0.3	0.3	5.10	4.40	520	445	12,000	14,000			6,700	6808	ZZ	LLB	LLU
	62	12	0.6	0.5	12.2	8.90	1,240	910	11,000	13,000			6,300	6908	ZZ	LLB	LLU
	68	9	0.3		12.6	9.65	1,290	985	10,000	12,000				16008			
	68	15	1	0.5	16.8	11.5	1,710	1,170	10,000	12,000	7,300	6,100	6008	ZZ	LLB	LLH	LLU
	80	18	1.1	0.5	29.1	17.8	2,970	1,820	8,700	10,000	6,700	5,600	6208	ZZ	LLB	LLH	LLU
	90	23	1.5	0.5	40.5	24.0	4,150	2,450	7,800	9,200	6,400	5,300	6308	ZZ	LLB	LLH	LLU
	110	27	2		63.5	36.5	6,500	3,750	7,000	8,200				6408			
45	58	7	0.3	0.3	5.35	4.95	550	500	11,000	12,000			5,900	6809	ZZ	LLB	LLU
	68	12	0.6	0.5	13.1	10.4	1,330	1,060	9,800	12,000			5,600	6909	ZZ	LLB	LLU
	75	10	0.6		12.9	10.5	1,320	1,070	9,200	11,000				16009			
	75	16	1	0.5	21.0	15.1	2,140	1,540	9,200	11,000	6,500	5,400	6009	ZZ	LLB	LLH	LLU
	85	19	1.1	0.5	32.5	20.4	3,350	2,080	7,800	9,200	6,200	5,200	6209	ZZ	LLB	LLH	LLU
	100	25	1.5	0.5	53.0	32.0	5,400	3,250	7,000	8,200	5,600	4,700	6309	ZZ	LLB	LLH	LLU
120	29	2		77.0	45.0	7,850	4,600	6,300	7,400				6409				
50	65	7	0.3	0.3	6.60	6.10	670	620	9,600	11,000			5,300	6810	ZZ	LLB	LLU
	72	12	0.6	0.5	13.4	11.2	1,370	1,140	8,900	11,000			5,100	6910	ZZ	LLB	LLU
	80	10	0.6		13.2	11.3	1,350	1,150	8,400	9,800				16010			
	80	16	1	0.5	21.8	16.6	2,230	1,690	8,400	9,800	6,000	5,000	6010	ZZ	LLB	LLH	LLU
	90	20	1.1	0.5	35.0	23.2	3,600	2,370	7,100	8,300	5,700	4,700	6210	ZZ	LLB	LLH	LLU
	110	27	2	0.5	62.0	38.5	6,300	3,900	6,400	7,500	5,000	4,200	6310	ZZ	LLB	LLH	LLU
130	31	2.1		83.0	49.5	8,450	5,050	5,700	6,700				6410				
55	72	9	0.3	0.3	8.80	8.10	900	825	8,700	10,000			4,800	6811	ZZ	LLB	LLU
	80	13	1	0.5	16.0	13.3	1,630	1,350	8,200	9,600			4,600	6911	ZZ	LLB	LLU
	90	11	0.6		18.6	15.3	1,900	1,560	7,700	9,000				16011			
	90	18	1.1	0.5	28.3	21.2	2,880	2,170	7,700	9,000		4,500	6011	ZZ	LLB	LLU	
	100	21	1.5	0.5	43.5	29.2	4,450	2,980	6,400	7,600		4,300	6211	ZZ	LLB	LLU	
	120	29	2	0.5	71.5	45.0	7,300	4,600	5,800	6,800		3,900	6311	ZZ	LLB	LLU	
140	33	2.1		89.0	54.0	9,050	5,500	5,200	6,100				6411				
60	78	10	0.3	0.3	11.5	10.6	1,170	1,080	8,000	9,400			4,400	6812	ZZ	LLB	LLU
	85	13	1	0.5	16.4	14.3	1,670	1,450	7,600	8,900		4,300	6912	ZZ	LLB	LLU	
	95	11	0.6		20.0	17.5	2,040	1,780	7,000	8,300				16012			
	95	18	1.1	0.5	29.5	23.2	3,000	2,370	7,000	8,300		4,100	6012	ZZ	LLB	LLU	
	110	22	1.5	0.5	52.5	36.0	5,350	3,700	6,000	7,000		3,800	6212	ZZ	LLB	LLU	
	130	31	2.1	0.5	82.0	52.0	8,350	5,300	5,400	6,300		3,600	6312	ZZ	LLB	LLU	
150	35	2.1		102	64.5	10,400	6,550	4,800	5,700				6412				

① Smallest allowable dimension for chamfer dimension r.



With snap ring groove

With snap ring

Equivalent bearing load

dynamic

$$P_r = XF_r + YF_a$$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18				2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29	1	0	0.56	1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$$P_{or} = 0.6F_r + 0.5F_a$$

When $P_{or} < F_r$ use $P_{or} = F_r$

Bearing numbers		Snap ring groove dimensions mm				Snap ring dimensions mm		Abutment and fillet dimensions mm								Mass ^④
snap ring groove	snap ring	D_1 max	a max	b min	r_0 max	D_2 max	f max	d_a min	d_a max ^③	D_a max	D_X (approx.)	C_Y max	C_Z min	r_{as} max	r_{Na} max	(approx.)
N	NR	50.7	1.3	0.95	0.25	54.8	0.85	42	43	50	55.5	1.9	0.9	0.3	0.3	0.033
N	NR	60.7	1.7	0.95	0.25	64.8	0.85	44	45	58	65.5	2.3	0.9	0.6	0.5	0.11
N	NR	64.82	2.49	1.9	0.6	74.6	1.7	42	66					0.3		0.125
N	NR	64.82	2.49	1.9	0.6	74.6	1.7	45	47	63	76	3.8	1.7	1	0.5	0.19
N	NR	76.81	3.28	1.9	0.6	86.6	1.7	46.5	51	73.5	88	4.6	1.7	1	0.5	0.366
N	NR	86.79	3.28	2.7	0.6	96.5	2.46	48	54	82	98	5.4	2.5	1.5	0.5	0.63
								49	101					2.0		1.23
N	NR	56.7	1.3	0.95	0.25	60.8	0.85	47	48	56	61.5	1.9	0.9	0.3	0.3	0.04
N	NR	66.7	1.7	0.95	0.25	70.8	0.85	49	51	64	72	2.3	0.9	0.6	0.5	0.128
								49	71					0.6		0.171
N	NR	71.83	2.49	1.9	0.6	81.6	1.7	50	52.5	70	83	3.8	1.7	1	0.5	0.237
N	NR	81.81	3.28	1.9	0.6	91.6	1.7	51.5	55.5	78.5	93	4.6	1.7	1	0.5	0.398
N	NR	96.8	3.28	2.7	0.6	106.5	2.46	53	61.5	92	108	5.4	2.5	1.5	0.5	0.814
								54	111					2		1.53
N	NR	63.7	1.3	0.95	0.25	67.8	0.85	52	54	63	68.5	1.9	0.9	0.3	0.3	0.052
N	NR	70.7	1.7	0.95	0.25	74.8	0.85	54	55.5	68	76	2.3	0.9	0.6	0.5	0.132
								54	76					0.6		0.18
N	NR	76.81	2.49	1.9	0.6	86.6	1.7	55	57.5	75	88	3.8	1.7	1	0.5	0.261
N	NR	86.79	3.28	2.7	0.6	96.5	2.46	56.5	60	83.5	98	5.4	2.5	1	0.5	0.454
N	NR	106.81	3.28	2.7	0.6	116.6	2.46	59	68.5	101	118	5.4	2.5	2	0.5	1.07
								61	119					2		1.88
N	NR	70.7	1.7	0.95	0.25	74.8	0.85	57	59	70	76	2.3	0.9	0.3	0.3	0.083
N	NR	77.9	2.1	1.3	0.4	84.4	1.12	60	61.5	75	86	2.9	1.2	1	0.5	0.18
								59	86					0.6		0.258
N	NR	86.79	2.87	2.7	0.6	96.5	2.46	61.5	64	83.5	98	5	2.5	1	0.5	0.388
N	NR	96.8	3.28	2.7	0.6	106.5	2.46	63	67	92	108	5.4	2.5	1.5	0.5	0.601
N	NR	115.21	4.06	3.1	0.6	129.7	2.82	64	74	111	131.5	6.5	2.9	2	0.5	1.37
								66	129					2		2.29
N	NR	76.2	1.7	1.3	0.4	82.7	1.12	62	64.5	76	84	2.5	1.2	0.3	0.3	0.106
N	NR	82.9	2.1	1.3	0.4	89.4	1.12	65	66.5	80	91	2.9	1.2	1	0.5	0.193
								64	91					0.6		0.283
N	NR	91.82	2.87	2.7	0.6	101.6	2.46	66.5	69	88.5	103	5	2.5	1	0.5	0.414
N	NR	106.81	3.28	2.7	0.6	116.6	2.46	68	75	102	118	5.4	2.5	1.5	0.5	0.783
N	NR	125.22	4.06	3.1	0.6	139.7	2.82	71	80.5	119	141.5	6.5	2.9	2	0.5	1.73
								71	139					2		2.77

② Sealed and shielded bearings are also available.

③ This dimension applies to sealed and shielded bearings.

④ Does not include bearings with snap rings.