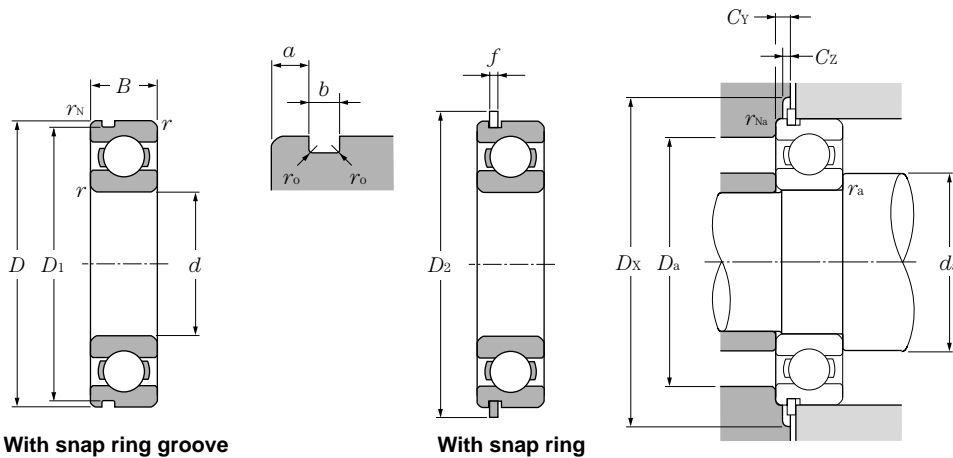


d 65 ~ 85mm

d	Boundary dimensions				Basic load ratings				Limiting speeds			Bearing numbers			
	mm				dynamic		static		rpm			open type	sealed type	non-contact type	contact type
	D	B	r _{s min} ^①	r _{NS min}	C _r	C _{or}	C _r	C _{or}	grease open type ZZ LLB	oil open type Z LB	LLU				
65	85	10	0.6	0.5	11.6	11.0	1,180	1,120	7,400	8,700	4,100	6813	ZZ	LLB	LLU
	90	13	1	0.5	17.4	16.1	1,770	1,640	7,000	8,200	4,000	6913	ZZ	LLB	LLU
	100	11	0.6		20.5	18.7	2,090	1,910	6,500	7,700		16013			
	100	18	1.1	0.5	30.5	25.2	3,100	2,570	6,500	7,700	3,900	6013	ZZ	LLB	LLU
	120	23	1.5	0.5	57.5	40.0	5,850	4,100	5,500	6,500	3,600	6213	ZZ	LLB	LLU
	140	33	2.1	0.5	92.5	60.0	9,450	6,100	4,900	5,800	3,300	6313	ZZ	LLB	LLU
	160	37	2.1		111	72.5	11,300	7,400	4,400	5,200		6413			
70	90	10	0.6	0.5	12.1	11.9	1,230	1,220	6,900	8,100	3,800	6814	ZZ	LLB	LLU
	100	16	1	0.5	23.7	21.2	2,420	2,160	6,500	7,700	3,700	6914	ZZ	LLB	LLU
	110	13	0.6		24.4	22.6	2,480	2,300	6,100	7,100		16014			
	110	20	1.1	0.5	38.0	31.0	3,900	3,150	6,100	7,100	3,600	6014	ZZ	LLB	LLU
	125	24	1.5	0.5	62.0	44.0	6,350	4,500	5,100	6,000	3,400	6214	ZZ	LLB	LLU
	150	35	2.1	0.5	104	68.0	10,600	6,950	4,600	5,400	3,100	6314	ZZ	LLB	LLU
	180	42	3		128	89.5	13,100	9,100	4,100	4,800		6414			
75	95	10	0.6	0.5	12.5	12.9	1,280	1,310	6,400	7,600	3,600	6815	ZZ	LLB	LLU
	105	16	1	0.5	24.4	22.6	2,480	2,300	6,100	7,200	3,500	6915	ZZ	LLB	LLU
	115	13	0.6		25.0	24.0	2,540	2,450	5,700	6,700		16015			
	115	20	1.1	0.5	39.5	33.5	4,050	3,400	5,700	6,700	3,300	6015	ZZ	LLB	LLU
	130	25	1.5	0.5	66.0	49.5	6,750	5,050	4,800	5,600	3,200	6215	ZZ	LLB	LLU
	160	37	2.1	0.5	113	77.0	11,600	7,850	4,300	5,000	2,900	6315	ZZ	LLB	LLU
	190	45	3		138	99.0	14,000	10,100	3,800	4,500		6415			
80	100	10	0.6	0.5	12.7	13.3	1,290	1,360	6,000	7,100	3,400	6816	ZZ	LLB	LLU
	110	16	1	0.5	24.9	24.0	2,540	2,450	5,700	6,700	3,200	6916	ZZ	LLB	LLU
	125	14	0.6		25.4	25.1	2,590	2,560	5,300	6,200		16016			
	125	22	1.1	0.5	47.5	40.0	4,850	4,050	5,300	6,200	3,100	6016	ZZ	LLB	LLU
	140	26	2	0.5	72.5	53.0	7,400	5,400	4,500	5,300	3,000	6216	ZZ	LLB	LLU
	170	39	2.1	0.5	123	86.5	12,500	8,850	4,000	4,700	2,700	6316	ZZ	LLB	LLU
	200	48	3		164	125	16,700	12,800	3,600	4,200		6416			
85	110	13	1	0.5	18.7	19.0	1,910	1,940	5,700	6,700	3,100	6817	ZZ	LLB	LLU
	120	18	1.1	0.5	32.0	29.6	3,250	3,000	5,400	6,300	3,000	6917	ZZ	LLB	LLU
	130	14	0.6		25.9	26.2	2,640	2,670	5,000	5,900		16017			
	130	22	1.1	0.5	49.5	43.0	5,050	4,400	5,000	5,900	2,900	6017	ZZ	LLB	LLU
	150	28	2	0.5	83.5	64.0	8,500	6,500	4,200	5,000	2,800	6217	ZZ	LLB	LLU
	180	41	3	0.5	133	97.0	13,500	9,850	3,800	4,500	2,600	6317	ZZ	LLB	LLU

① Smallest allowable dimension for chamfer dimension r.



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				1.48
0.15	0.32	1	0	0.56	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 kg
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	82.9	1.7	1.3	0.4	89.4	1.12	69	70	81	91	2.5	1.2	0.6	0.5	0.128
N	NR	87.9	2.1	1.3	0.4	94.4	1.12	70	71.5	85	96	2.9	1.2	1	0.5	0.206
								69		96				0.6		0.307
N	NR	96.8	2.87	2.7	0.6	106.5	2.46	71.5	74	93.5	108	5	2.5	1	0.5	0.421
N	NR	115.21	4.06	3.1	0.6	129.7	2.82	73	80.5	112	131.5	6.5	2.9	1.5	0.5	0.99
N	NR	135.23	4.9	3.1	0.6	149.7	2.82	76	86	129	152	7.3	2.9	2	0.5	2.08
								76		149				2		3.3
N	NR	87.9	1.7	1.3	0.4	94.4	1.12	74	75.5	86	96	2.5	1.2	0.6	0.5	0.137
N	NR	97.9	2.5	1.3	0.4	104.4	1.12	75	77.5	95	106	3.3	1.2	1	0.5	0.334
								74		106				0.6		0.441
N	NR	106.81	2.87	2.7	0.6	116.6	2.46	76.5	80.5	103.5	118	5	2.5	1	0.5	0.604
N	NR	120.22	4.06	3.1	0.6	134.7	2.82	78	85	117	136.5	6.5	2.9	1.5	0.5	1.07
N	NR	145.24	4.9	3.1	0.6	159.7	2.82	81	92.5	139	162	7.3	2.9	2	0.5	2.52
								83		167				2.5		4.83
N	NR	92.9	1.7	1.3	0.4	99.4	1.12	79	80	91	101	2.5	1.2	0.6	0.5	0.145
N	NR	102.6	2.5	1.3	0.4	110.7	1.12	80	82.5	100	112	3.3	1.2	1	0.5	0.353
								79		111				0.6		0.464
N	NR	111.81	2.87	2.7	0.6	121.6	2.46	81.5	85.5	108.5	123	5	2.5	1	0.5	0.649
N	NR	125.22	4.06	3.1	0.6	139.7	2.82	83	90.5	122	141.5	6.5	2.9	1.5	0.5	1.18
N	NR	155.22	4.9	3.1	0.6	169.7	2.82	86	99	149	172	7.3	2.9	2	0.5	3.02
								88		177				2.5		5.72
N	NR	97.9	1.7	1.3	0.4	104.4	1.12	84	85	96	106	2.5	1.2	0.6	0.5	0.154
N	NR	107.6	2.5	1.3	0.4	115.7	1.12	85	88	105	117	3.3	1.2	1	0.5	0.373
								84		121				0.6		0.597
N	NR	120.22	2.87	3.1	0.6	134.7	2.82	86.5	91.5	118.5	136.5	5.3	2.9	1	0.5	0.854
N	NR	135.23	4.9	3.1	0.6	149.7	2.82	89	95.5	131	152	7.3	2.9	2	0.5	1.4
N	NR	163.65	5.69	3.5	0.6	182.9	3.1	91	105	159	185	8.4	3.1	2	0.5	3.59
								93		187				2.5		6.76
N	NR	107.6	2.1	1.3	0.4	115.7	1.12	90	91	105	117	2.9	1.2	1	0.5	0.27
N	NR	117.6	3.3	1.3	0.4	125.7	1.12	91.5	94	113.5	127	4.1	1.2	1	0.5	0.536
								89		126				0.6		0.626
N	NR	125.22	2.87	3.1	0.6	139.7	2.82	91.5	97	123.5	141.5	5.3	2.9	1	0.5	0.89
N	NR	145.24	4.9	3.1	0.6	159.7	2.82	94	103	141	162	7.3	2.9	2	0.5	1.79
N	NR	173.66	5.69	3.5	0.6	192.9	3.1	98	112	167	195	8.4	3.1	2.5	0.5	4.23

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.