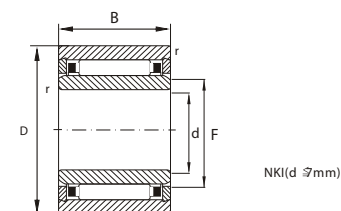


## NEEDLE ROLLER BEARING WITH INNER RING



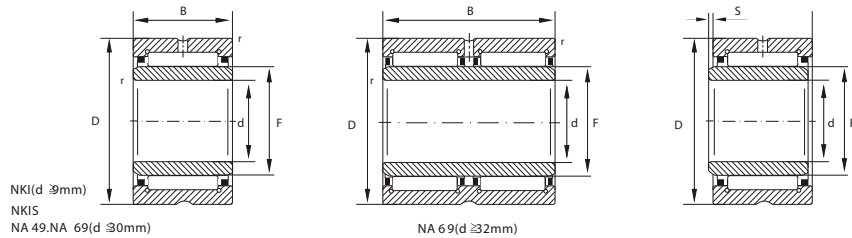
Shaft Diameter (mm)	Principal dimensions (mm)						Bearing Number				Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min		
	d	F	D	B	r min	s <sup>1)</sup>	NKI	NA 49	NA 69	NKIS	Weight <sub>ISO</sub> g	Dynamic C			Static C <sub>0</sub>	
5	5	8	15	12	0.3	1.5	+ NKI 5/12 TN	-	-	-	-	11.5	3.95	4.1	32000	38000
	5	8	15	16	0.3	2.0	+ NKI 5/16 TN	-	-	-	15.3	5.10	5.8	32000	37000	
6	6	9	16	12	0.3	1.5	+ NKI 6/12 TN	-	-	-	-	13.5	4.50	5.0	30000	33000
	6	9	16	16	0.3	2.0	+ NKI 6/16 TN	-	-	-	17.4	5.90	7.1	30000	33000	
7	7	10	17	12	0.3	1.5	+ NKI 7/12 TN	-	-	-	-	13.7	4.75	5.5	29000	30000
	7	10	17	16	0.3	2.0	+ NKI 7/16 TN	-	-	-	18.2	6.20	7.8	29000	30000	
9	9	12	19	12	0.3	1.5	NKI 9/12	-	-	-	-	16.6	6.40	7.1	27000	24000
	9	12	19	16	0.3	2.0	NKI 9/16	-	-	-	21.9	9.00	11.0	27000	23000	
10	10	14	22	16	0.3	0.5	NKI 10/16	-	-	-	-	29.4	10.10	11.5	25000	19000
	10	14	22	20	0.3	0.5	NKI 10/20	-	-	-	37.1	12.80	15.6	25000	19000	
12	10	14	22	13	0.3	0.5	-	NA 4900	-	-	-	23.0	8.50	9.2	25000	20000
	12	16	24	16	0.3	0.5	NK 12/16	-	-	-	-	33.3	11.30	13.9	24000	17000
12	12	16	24	20	0.3	0.5	NK 12/20	-	-	-	-	41.9	14.40	18.8	24000	17000
	12	16	24	13	0.3	0.5	-	NA 4901	-	-	-	26.0	9.40	10.9	24000	17000
15	12	16	24	22	0.3	1.0	-	-	NA 6901	-	-	46.0	16.00	21.6	24000	16000
	15	19	27	16	0.3	0.5	NK 15/16	-	-	-	-	38.8	13.00	17.4	22000	14000
15	15	19	27	20	0.3	0.5	NK 15/20	-	-	-	-	48.7	16.50	23.6	22000	14000
	15	20	28	13	0.3	0.5	-	NA 4902	-	-	-	34.0	10.60	13.6	22000	14000
15	15	20	28	23	0.3	1.0	-	-	NA 6902	-	-	63.6	17.30	25.5	22000	13000
	15	22	35	20	0.6	0.5	-	-	-	NKIS 15	-	92.0	24.50	28.0	20000	11000
17	17	21	29	16	0.3	0.5	NK 17/16	-	-	-	-	42.4	13.50	18.7	21000	13000
	17	21	29	20	0.3	0.5	NK 17/20	-	-	-	-	53.4	17.10	25.5	21000	13000
17	17	22	30	13	0.3	0.5	-	NA 4903	-	-	-	37.0	11.00	14.6	21000	12000
	17	22	30	23	0.3	1.0	-	-	NA 6903	-	-	72.0	18.60	29.0	21000	11000
17	24	37	20	0.6	0.5	-	-	-	NKIS 17	-	98.0	26.00	31.0	18000	10000	

TN = Plastic cage, Limiting working temperature: +120°C (Continuous working)

-With rib, without oil hole and oil groove

<sup>1)</sup> Allowed axial displacement of inner ring relative to outer ring

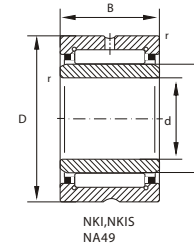
### NEEDLE ROLLER BEARING WITH INNER RING



Shaft Diameter (mm)	Principal dimensions (mm)					Bearing Number				Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min		
	d	F	D	B	r s <sup>1</sup>	NKI	NA 49	NA 69	NKIS	Weight g	Dynamic C			Static C <sub>0</sub>	
20	20	24	32	16	0.3	0.5	NKI 20/16	-	-	-	49	15.0	22.3	19000	12000
	20	24	32	20	0.3	0.5	NKI 20/20	-	-	-	61	19.0	30.5	19000	12000
	20	25	37	17	0.3	0.8	-	NA 4904	-	-	75	21.0	25.5	17000	11000
	20	25	37	30	0.3	1.0	-	-	NA 6904	-	141	36.0	51.0	17000	10000
22	20	28	42	20	0.6	0.5	-	-	-	NKIS 20	129	28.5	36.5	16000	9000
	22	26	34	16	0.3	0.5	NKI 22/16	-	-	-	52	15.3	23.6	18000	11000
	22	26	34	20	0.3	0.5	NKI 22/20	-	-	-	65	19.4	32.0	18000	11000
	22	28	39	17	0.3	0.8	-	NA 49/22	-	-	80	22.8	29.5	16000	9500
25	22	28	39	30	0.3	0.5	-	-	NA 69/22	-	150	37.5	55.0	16000	9000
	25	29	38	20	0.3	1.0	NKI 25/20	-	-	-	79	21.9	34.0	16000	10000
	25	29	38	30	0.3	1.5	NKI 25/30	-	-	-	124	32.5	57.0	16000	9500
	25	30	42	17	0.3	0.8	-	NA 4905	-	-	88	23.6	31.5	15000	9500
28	25	30	42	30	0.3	1.0	-	-	NA 6905	-	161	39.0	59.0	15000	9000
	25	32	47	22	0.6	1.0	-	-	-	NKIS 25	162	33.5	43.5	14000	8500
	28	32	42	20	0.3	1.0	NKI 28/20	-	-	-	96	23.1	37.5	14000	9000
	28	32	42	30	0.3	1.5	NKI 28/30	-	-	-	146	34.5	63.0	14000	9000
30	28	32	45	17	0.3	0.8	-	NA 49/28	-	-	97	24.4	33.5	13000	8500
	28	32	45	30	0.3	1.0	-	-	NA 69/28	-	182	40.5	63.0	13000	8500
	30	35	45	20	0.3	0.5	NKI 30/20	-	-	-	112	24.3	41.5	13000	8500
	30	35	45	30	0.3	1.0	NKI 30/30	-	-	-	170	36.5	69.0	13000	8000
32	30	35	47	17	0.3	0.8	-	-	NA 4906	-	101	25.0	35.5	13000	8000
	30	35	47	30	0.3	1.0	-	-	NA 6906	-	192	43.5	71.0	13000	7500
	30	37	52	22	0.6	1.0	-	-	-	NKIS 30	184	36.5	50.0	12000	7500
	32	37	47	20	0.3	0.5	NKI 32/20	-	-	-	118	24.9	43.5	12000	8000
35	32	37	47	30	0.3	1.0	NKI 32/30	-	-	-	180	37.0	73.0	12000	8000
	32	40	52	20	0.6	0.8	-	NA 49/32	-	-	158	30.5	47.5	12000	7000
	32	40	52	36	0.6	0.5	-	-	NA 69/32	-	288	47.0	82.0	12000	7000
	35	40	50	20	0.3	0.5	NKI 35/20	-	-	-	127	26.0	47.0	12000	7500
35	35	40	50	30	0.3	1.0	NKI 35/30	-	-	-	193	39.0	79.0	12000	7500
	35	42	55	20	0.6	0.8	-	NA 4907	-	-	170	31.5	50.0	11000	7000
	35	42	55	36	0.6	0.5	-	-	NA 6907	-	310	48.0	86.0	11000	7000
	35	43	58	22	0.6	0.5	-	-	-	NKIS 35	220	39.0	57.0	11000	6500

<sup>1</sup>) Allowed axial displacement of inner ring relative to outer ring

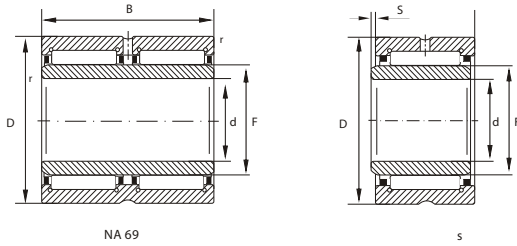
### NEEDLE ROLLER BEARING WITH INNER RING



Shaft Diameter (mm)	Principal dimensions (mm)					Bearing Number				Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min		
	d	F	D	B	r s <sup>1</sup>	NKI	NA 49	NA 69	NKIS	Weight g	Dynamic C			Static C <sub>0</sub>	
38	38	43	53	20	0.3	0.5	NKI 38/20	-	-	-	136	27	51	11000	7000
	38	43	53	30	0.3	1.0	NKI 38/30	-	-	-	207	10	85	11000	7000
40	40	45	55	20	0.3	0.5	NKI 40/20	-	-	-	142	27	53	10000	7000
	40	45	55	30	0.3	1.0	NKI 40/30	-	-	-	216	41	88	10000	6500
42	40	48	62	22	0.6	1.0	-	NA 4908	-	-	230	43	67	9500	6000
	40	48	62	40	0.6	0.5	-	-	NA 6908	-	430	66	116	9500	6000
	40	50	65	22	1.0	0.5	-	-	-	NKIS 40	281	42	67	9500	5500
	42	47	57	20	0.3	0.5	NKI 42/20	-	-	-	148	28	56	10000	6500
45	42	47	57	30	0.3	1.0	NKI 42/30	-	-	-	222	43	94	10000	6500
	45	50	62	25	0.6	1.5	NKI 45/25	-	-	-	229	38	74	9000	6500
	45	50	62	35	0.6	2.0	NKI 45/35	-	-	-	322	50	106	9000	6000
	45	52	68	22	0.6	1.0	-	NA 4909	-	-	271	45	73	8500	5500
50	45	52	68	40	0.6	0.5	-	-	NA 6909	-	495	69	127	8500	5500
	45	55	72	22	1.0	0.5	-	-	-	NKIS 45	336	45	74	8500	5500
	50	55	68	25	0.6	1.5	NKI 50/25	-	-	-	270	40	82	8500	6000
	50	55	68	35	0.6	2.0	NKI 50/35	-	-	-	379	53	118	8500	6000
55	50	58	72	22	0.6	1.0	-	NA 4910	-	-	274	47	80	8000	5000
	50	58	72	40	0.6	0.5	-	-	NA 6910	-	515	73	139	8000	4900
	50	60	80	28	1.1	2.0	-	-	-	NKIS 50	518	63	98	7500	5000
	55	55	60	25	0.6	1.5	NKI 55/25	-	-	-	272	42	90	7500	5500
60	55	60	72	35	0.6	2.0	NKI 55/35	-	-	-	379	56	130	7500	5500
	55	63	80	25	1.0	1.5	-	NA 4911	-	-	393	58	100	7500	4700
	55	63	80	45	1.0	1.5	-	-	NA 6911	-	780	90	176	7500	4700
	55	65	85	28	1.1	2.0	-	-	-	NKIS 55	558	67	108	7000	4700
65	60	68	82	25	0.6	1.0	NKI 60/25	-	-	-	394	43	89	7000	4900
	60	68	82	35	0.6	1.0	NKI 60/35	-	-	-	563	62	139	7000	4800
	60	68	85	25	1.0	1.5	-	NA 4912	-	-	426	60	108	7000	4300
	60	68	85	45	1.0	1.5	-	-	NA 6912	-	808	94	191	7000	4300
65	60	70	90	28	1.1	2.0	-	-	-	NKIS 60	560	68	113	6500	4500
	65	73	90	25	1.0	1.0	NKI 65/25	-	-	-	467	53	100	6500	4600
	65	73	90	35	1.0	1.0	NKI 65/35	-	-	-	659	75	156	6500	4400
	65	72	90	25	1.0	1.5	-	NA 4913	-	-	456	61	112	6500	4100
65	65	72	90	45	1.0	1.5	-	-	NA 6913	-	833	95	198	6500	4100
	65	75	95	28	1.1	2.0	-	-	-	NKIS 65	641	71	123	6500	4200

<sup>1</sup>) Allowed axial displacement of inner ring relative to outer ring

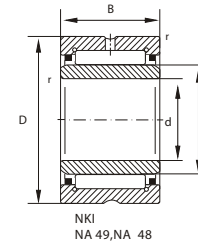
### NEEDLE ROLLER BEARING WITH INNER RING



Shaft Diameter (mm)	Principal dimensions (mm)						Bearing Number			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min	
	d	F	D	B	r	s <sup>1)</sup>	NKI	NA 49	NA 69	Weight ≈ g	Dynamic C			Static C <sub>0</sub>
70	70	80	95	25	1.0	0.8	NKI 70/25	-	-	521	56	119	6000	4100
70	80	95	35	1.0	0.8		NKI 70/35	-	-	737	78	184	6000	4000
70	80	100	30	1.0	1.5		-	NA 4914	-	728	84	156	6000	3800
70	80	100	54	1.0	1.0		-	-	NA 6914	1340	128	265	6000	3800
75	75	85	105	25	1.0	1.0	NKI 75/25	-	-	641	69	123	5500	3900
75	85	105	35	1.0	1.0		NKI 75/35	-	-	908	98	193	5500	3800
75	85	105	30	1.0	1.5		-	NA 4915	-	775	86	162	5500	3600
75	85	105	54	1.0	1.0		-	-	NA 6915	1450	130	275	5500	3500
80	80	90	110	25	1.0	1.0	NKI 80/25	-	-	677	72	132	5000	3700
80	90	110	35	1.0	1.0		NKI 80/35	-	-	959	103	208	5000	3600
80	90	110	30	1.0	1.5		-	NA 4916	-	878	89	174	5000	3400
80	90	110	54	1.0	1.0		-	-	NA 6916	1522	135	300	5000	3200
85	85	95	115	26	1.0	1.5	NKI 85/26	-	-	743	73	137	4900	3600
85	95	115	36	1.0	1.5		NKI 85/36	-	-	1040	107	223	4900	3400
85	100	120	35	1.1	1.0		-	NA 4917	-	1250	111	237	4800	3100
85	100	120	63	1.1	1.0		-	-	NA 6917	2200	166	400	4800	2800
90	90	100	120	26	1.0	1.5	NKI 90/26	-	-	778	76	146	4700	3500
90	100	120	36	1.0	1.5		NKI 90/36	-	-	1090	111	237	4700	3300
90	105	125	35	1.1	1.0		-	NA 4918	-	1312	114	250	4600	3000
90	105	125	63	1.1	1.0		-	-	NA 6918	2310	172	425	4600	2600
95	95	105	125	26	1.0	1.5	NKI 95/26	-	-	816	78	155	4500	3300
95	105	125	36	1.0	1.5		NKI 95/36	-	-	1145	114	250	4500	3200
95	110	130	35	1.1	1.0		-	NA 4919	-	1371	116	260	4400	2800
95	110	130	63	1.1	1.0		-	-	NA 6919	2500	174	440	4400	2500

<sup>1)</sup> Allowed axial displacement of inner ring relative to outer ring

### NEEDLE ROLLER BEARING WITH INNER RING



Shaft Diameter (mm)	Principal dimensions (mm)						Bearing Number			Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min	
	d	F	D	B	r	s <sup>1)</sup>	NKI	NA 49	NA 48	Weight ≈ g	Dynamic C			Static C <sub>0</sub>
100	100	110	130	30	1.1	1.5	NKI 100/30	-	-	990	98	210	4300	3100
100	110	130	40	1.1	2.0		NKI 100/40	-	-	1330	127	290	4300	3000
100	115	140	40	1.1	2.0		-	NA 4920	-	1900	128	270	4100	2900
110	110	125	150	40	1.1	2.0	-	NA 4922	-	2070	132	290	3800	2600
110	120	140	30	1.0	0.8		-	-	NA 4822	1080	94	216	3900	2700
120	120	135	165	45	1.1	2.0	-	NA 4924	-	2860	181	390	3400	2300
120	130	150	30	1.0	0.8		-	-	NA 4824	1170	99	239	3600	2400
130	130	150	180	50	1.5	1.5	-	NA 4926	-	3900	203	470	3200	2000
130	145	165	35	1.1	1.0		-	-	NA 4826	1810	118	310	3300	2100
140	140	160	190	50	1.5	1.5	-	NA 4928	-	4150	209	500	3000	1800
140	155	175	35	1.1	1.0		-	-	NA 4828	1920	120	325	3100	2000
150	150	165	190	40	1.1	1.5	-	-	NA 4830	2720	152	400	2900	1800
160	160	175	200	40	1.1	1.5	-	-	NA 4832	2890	160	435	2700	1700
170	170	185	215	45	1.1	1.5	-	-	NA 4834	3960	185	510	2500	1600
180	180	195	225	45	1.1	1.5	-	-	NA 4836	4200	194	550	2400	1500
190	190	210	240	50	1.5	1.5	-	-	NA 4838	5610	227	690	2300	1300

<sup>1)</sup> Allowed axial displacement of inner ring relative to outer ring