

### Cylindrical Roller Bearings (Cage Type):

Double Row Cylindrical Roller Bearings have no ribs on either the inner or outer ring, so the rings can move axially relative to each other. These can be used as free-end bearings. Ex-NN\*\*/NNU\*\* type.

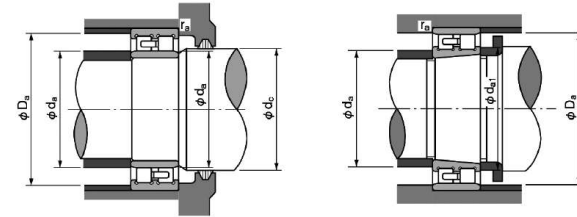
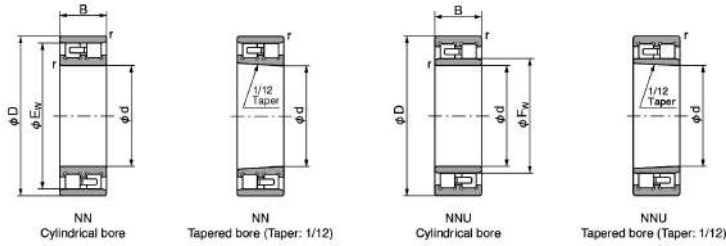


Suffix and Corresponding Description For Double Row Cylindrical Roller Bearings	
Suffix	Description of Suffix
M	Machined Brass Cage
TVP	Glass fiber reinforced Polyamide PA66 Cage
K	Tapered Bore
C1	Radial Internal Clearance C1 (Clearance lesser than C2)
C2	Radial Internal Clearance C2 (Clearance lesser than CN)
No Symbol	(CN) Normal Internal Clearance
C3	Radial Internal Clearance C3 (Clearance Larger than Normal)
C4	Radial Internal Clearance C4 (Clearance Larger than C3)
No Symbol	ISO Normal
P6	ISO Class 6
P5	ISO Class 5
P4	ISO Class 4
P2	ISO Class 2

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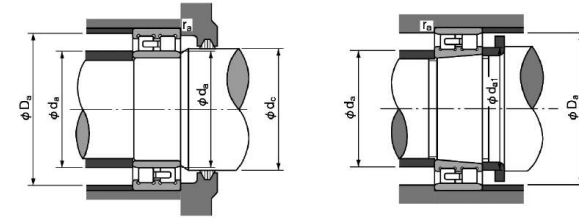
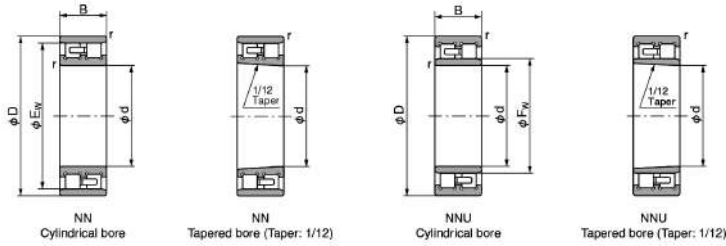


Boundary Dimensions						Basic Load Rating		Limiting Speed		Bearing Designation	Abutment and Fillet Dimensions (mm)						Mass Approx (kg)		
(mm)						(KN)		(rpm)			Cylindrical Bore	Tapered Bore	d <sub>a</sub>		d <sub>a1</sub>	d <sub>c</sub>		D <sub>a</sub>	
d	D	B	E <sub>w</sub>	F <sub>w</sub>	r (min)	Cr	Cor	Grease	Oil	(min)			(max)	(min)	(min)	(max)	(min)	(max)	(max)
25	47	16	41.3	—	0.6	25.80	30.00	15000	17000	NN3005	NN3005K	30	—	30	—	42	41.8	0.6	0.123
30	55	19	48.5	—	1	31.00	37.00	12000	15000	NN3006	NN3006K	36	—	37	—	49	49	1	0.199
35	62	20	55	—	1	39.50	50.00	11000	13000	NN3007	NN3007K	41	—	42	—	56	56	1	0.258
40	68	21	61	—	1	43.50	55.50	9800	11000	NN3008	NN3008K	46	—	48	—	62	62	1	0.312
45	75	23	67.5	—	1	52.00	68.50	8800	10000	NN3009	NN3009K	51	—	52	—	69	69	1	0.405
50	80	23	72.5	—	1	53.00	72.50	8200	9600	NN3010	NN3010K	56	—	58	—	74	74	1	0.454
55	90	26	81	—	1.1	69.50	96.50	7300	8600	NN3011	NN3011K	62	—	64	—	83	82	1	0.651
60	95	26	86.1	—	1.1	73.50	106.00	6800	8000	NN3012	NN3012K	67	—	68	—	88	87	1	0.704
65	100	26	91	—	1.1	77.00	116.00	6400	7600	NN3013	NN3013K	72	—	74	—	93	92	1	0.758
70	110	30	100	—	1.1	97.50	148.00	5700	6800	NN3014	NN3014K	77	—	78	—	103	101	1	1.04
75	115	30	105	—	1.1	96.50	149.00	5500	6400	NN3015	NN3015K	82	—	84	—	108	106	1	1.14
80	125	34	113	—	1.1	119.00	186.00	5000	6000	NN3016	NN3016K	87	—	90	—	118	114	1	1.52
85	130	34	118	—	1.1	125.00	201.00	4800	5600	NN3017	NN3017K	92	—	96	—	123	119	1	1.61
90	140	37	127	—	1.5	143.00	228.00	4500	5200	NN3018	NN3018K	98.5	—	100	—	131.5	129	1.5	2.07
95	145	37	132	—	1.5	150.00	246.00	4300	5000	NN3019	NN3019K	103.5	—	106	—	136.5	134	1.5	2.17
100	140	40	—	113	1.1	155.00	305.00	4200	5000	NNU4920	NNU4920K	106.5	111	110	115	133.5	—	1	1.77
100	150	37	137	—	1.5	157.00	265.00	4000	4800	NN3020	NN3020K	108.5	—	112	—	141.5	139	1.5	2.26
105	145	40	—	118	1.1	161.00	325.00	4000	4800	NNU4921	NNU4921K	111.5	116	115	120	138.5	—	1	1.85
105	160	41	146	—	2	198.00	320.00	3800	4500	NN3021	NN3021K	115	—	116	—	150	148	2	2.89
110	150	40	—	123	1.1	167.00	335.00	3900	4600	NNU4922	NNU4922K	116.5	121	120	125	143.5	—	1	1.93
110	170	45	155	—	2	229.00	375.00	3600	4300	NN3022	NN3022K	120	—	122	—	160	157	2	3.68
120	165	45	—	134.5	1.1	183.00	360.00	3500	4200	NNU4924	NNU4924K	126.5	133	130	137	158.5	—	1	2.65
120	180	46	165	—	2	239.00	405.00	3300	3900	NN3024	NN3024K	130	—	132	—	170	167	2	3.98
130	180	50	—	146	1.5	275.00	565.00	3200	3800	NNU4926	NNU4926K	138	144	142	148	172	—	1.5	3.55
130	200	52	182	—	2	284.00	475.00	3000	3600	NN3026	NN3026K	140	—	144	—	190	183	2	5.92
140	190	50	—	156	1.5	283.00	585.00	3000	3600	NNU4928	NNU4928K	148	154	151	158	182	—	1.5	3.80
140	210	53	192	—	2	298.00	515.00	2800	3400	NN3028	NN3028K	150	—	154	—	200	194	2	6.44
150	210	60	—	168.5	2	350.00	715.00	2700	3300	NNU4930	NNU4930K	159	166	162	171	201	—	2	5.95
150	225	56	206	—	2.1	335.00	585.00	2600	3100	NN3030	NN3030K	162	—	164	—	213	208	2	7.81
160	220	60	—	178.5	2	365.00	760.00	2600	3100	NNU4932	NNU4932K	169	176	172	182	211	—	2	6.25

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Boundary Dimensions						Basic Load Rating		Limiting Speed	
(mm)						(KN)		(rpm)	
d	D	B	E <sub>w</sub>	F <sub>w</sub>	r (min)	Cr	Cor	Grease	Oil
160	240	60	219	—	2.1	375.00	660.00	2500	2900
170	230	60	—	188.5	2	375.00	805.00	2400	2900
170	260	67	236	—	2.1	450.00	805.00	2300	2700
180	250	69	—	202	2	480.00	1020.00	2200	2700
180	280	74	255	—	2.1	565.00	995.00	2100	2500
190	260	69	—	212	2	485.00	1060.00	2100	2600
190	290	75	265	—	2.1	595.00	1080.00	2000	2400
200	280	80	—	225	2.1	570.00	1220.00	2000	2400
200	310	82	282	—	2.1	655.00	1170.00	1900	2200
220	300	80	—	245	2.1	600.00	1330.00	1800	2200
220	340	90	310	—	3	815.00	1480.00	1700	2000
240	320	80	—	265	2.1	625.00	1450.00	1700	2000
240	360	92	330	—	3	855.00	1600.00	1600	1900
260	360	100	—	292	2.1	935.00	2100.00	1500	1800
260	400	104	364	—	4	1080.00	2070.00	1400	1700
280	380	100	—	312	2.1	960.00	2230.00	1400	1700
280	420	106	384	—	4	1080.00	2080.00	1300	1600
300	420	118	—	339	3	1230.00	2880.00	1300	1500
300	460	118	418	—	4	1430.00	2740.00	1200	1400
320	440	118	—	359	3	1270.00	3050.00	1200	1400
320	480	121	438	—	4	1430.00	2750.00	1200	1400

Bearing Designation		Abutment and Fillet Dimensions (mm)							Mass Approx (kg)
Cylindrical Bore	Tapered Bore	d <sub>a</sub>		d <sub>a1</sub>	d <sub>c</sub>	D <sub>a</sub>		r <sub>a</sub>	
		(min)	(max)	(min)	(min)	(max)	(min)	(max)	
NN3032	NN3032K	172	—	174	—	228	221	2	8.92
NNU4934	NNU4934K	179	186	182	192	221	—	2	6.60
NN3034	NN3034K	182	—	184	—	248	238	2	12.6
NNU4936	NNU4936K	189	199	194	205	241	—	2	9.50
NN3036	NN3036K	192	—	196	—	268	257	2	16.6
NNU4938	NNU4938K	199	209	204	215	251	—	2	10.0
NN3038	NN3038K	202	—	206	—	278	267	2	17.5
NNU4940	NNU4940K	211	222	214	228	269	—	2	10.1
NN3040	NN3040K	212	—	216	—	298	285	2	21.6
NNU4944	NNU4944K	231	242	234	248	289	—	2	15.5
NN3044	NN3044K	234	—	238	—	326	313	2.5	28.4
NNU4948	NNU4948K	251	262	254	269	309	—	2	17.0
NN3048	NN3048K	254	—	256	—	346	333	2.5	31.8
NNU4952	NNU4952K	271	288	276	296	349	—	2	28.3
NN3052	NN3052K	278	—	280	—	382	367	3	46.0
NNU4956	NNU4956K	291	308	296	316	369	—	2	30.3
NN3056	NN3056K	298	—	300	—	402	387	3	49.6
NNU4960	NNU4960K	313	335	320	343	407	—	2.5	46.7
NN3060	NN3060K	318	—	325	—	442	421	3	68.7
NNU4964	NNU4964K	333	335	340	363	427	—	2.5	49.6
NN3064	NN3064K	338	—	345	—	462	442	3	74.0