

KOYO



Koyo

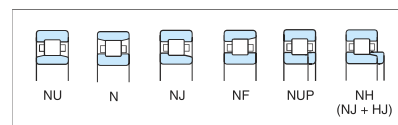
Cylindrical roller bearings

Cylindrical roller bearings feature high radial load capacity because the rollers and raceway are in linear contact. These bearings are suitable for applications that involve heavy radial and impact loading.

They are also appropriate for high-speed applications in that they can be machined very accurately due to their structure.

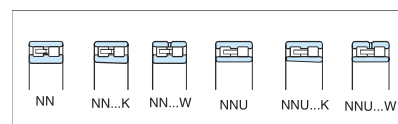
Having a separable inner ring or outer ring, these bearings can be mounted and dismounted easily.

Single-row cylindrical roller bearings



- The NU and N types exhibit their best performance when used as free side bearings since they adjust to the shaft's axial movement, to a certain extent, relative to the housing position.
- The NJ and NF types carry axial load in one direction, while the NUP and NH types can carry a certain degree of axial load in both directions.
- Type R cylindrical roller bearings feature enhanced load rating compared with standard series, though both have equal dimensions. This is because type R bearings have different internal design. They are identified by supplementary code "R".

Double-row cylindrical roller bearings



- Double-row cylindrical roller bearings come in two types : with a cylindrical bore, and with a tapered bore. As for those with a tapered bore, the specified amount of clearance can be obtained by adjusting the press-in distance. Some bearings have lubrication holes and lubrication grooves on the outer ring. They are identified by supplementary code "W".
- These bearings can accommodate high radial loads, and are often used on machine tool spindles.

Single-row cylindrical roller bearings



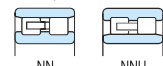
Bore diameter **20 – 460 mm**



Thrust collar

Bore diameter **20 – 320 mm**

Double-row cylindrical roller bearings



Bore diameter **25 – 480 mm**

Boundary dimensions	The dimensions of standard series are as specified in JIS B 1512.																																																												
Tolerances	As specified in JIS B 1514-1 (refer to Table 7-3 on pp. A 54 – A 57). Tolerances of roller set bore diameter F_w and roller set outside diameter E_w of interchangeable bearings are as follows : Unit : μm <table><tr><th colspan="2">Nominal bore diameter d (mm)</th><th colspan="2">ΔF_w Roller set bore diameter deviation</th><th colspan="2">ΔE_w Roller set outside diameter deviation</th></tr><tr><th>over</th><th>up to</th><th>upper</th><th>lower</th><th>upper</th><th>lower</th></tr><tr><td>—</td><td>20</td><td>+ 10</td><td>0</td><td>0</td><td>— 10</td></tr><tr><td>20</td><td>50</td><td>+ 15</td><td>0</td><td>0</td><td>— 15</td></tr><tr><td>50</td><td>120</td><td>+ 20</td><td>0</td><td>0</td><td>— 20</td></tr><tr><td>120</td><td>200</td><td>+ 25</td><td>0</td><td>0</td><td>— 25</td></tr><tr><td>200</td><td>250</td><td>+ 30</td><td>0</td><td>0</td><td>— 30</td></tr><tr><td>250</td><td>315</td><td>+ 35</td><td>0</td><td>0</td><td>— 35</td></tr><tr><td>315</td><td>400</td><td>+ 40</td><td>0</td><td>0</td><td>— 40</td></tr><tr><td>400</td><td>500</td><td>+ 45</td><td>0</td><td>—</td><td>—</td></tr></table> [Remark] Interchangeable bearings have an inner ring with rollers that can be matched with the outer ring, or an outer ring with rollers that can be matched with the inner ring, without affecting performance in the bearing that has the same bearing number in one category. Tapered bore tolerance and allowable values of high precision double-row cylindrical roller bearings (classes 5 and 4) are provided in JTEKT standards (refer to Table 7-11 on p. A 70).	Nominal bore diameter d (mm)		ΔF_w Roller set bore diameter deviation		ΔE_w Roller set outside diameter deviation		over	up to	upper	lower	upper	lower	—	20	+ 10	0	0	— 10	20	50	+ 15	0	0	— 15	50	120	+ 20	0	0	— 20	120	200	+ 25	0	0	— 25	200	250	+ 30	0	0	— 30	250	315	+ 35	0	0	— 35	315	400	+ 40	0	0	— 40	400	500	+ 45	0	—	—
Nominal bore diameter d (mm)		ΔF_w Roller set bore diameter deviation		ΔE_w Roller set outside diameter deviation																																																									
over	up to	upper	lower	upper	lower																																																								
—	20	+ 10	0	0	— 10																																																								
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120	200	+ 25	0	0	— 25																																																								
200	250	+ 30	0	0	— 30																																																								
250	315	+ 35	0	0	— 35																																																								
315	400	+ 40	0	0	— 40																																																								
400	500	+ 45	0	—	—																																																								
Radial internal clearance	· Cylindrical bore and tapered bore bearings(refer to Table 10-8 on pp. A 100, 101.) · Motor bearings.....(refer to Table 10-7 on p. A 99.)																																																												
Recommended fits	Refer to Table 9-4 on pp. A 85, 86.																																																												
Standard cages	■ For single-row cylindrical roller bearings : · Pressed steel cage (supplementary code : //) · Copper alloy machined cage (supplementary code : FY) 〔Copper alloy machined cages without rivets (LY) are also used for some special purposes.〕 ■ For double-row cylindrical roller bearings : · Prong type copper alloy machined cage (supplementary code : FY) · Separable prong type copper alloy machined cage (supplementary code : FW)for class 5 or higher precision bearings For application range, refer to Table 1.																																																												

Allowable misalignment	Allowable misalignment of single-row cylindrical roller bearings depends on bearing type and specification. General values are as follows : 1) When P_r / C_r is approx. 10% under load of normal use0.000 6 rad (2') – 0.000 9 rad (3') 2) When P_r / C_r is approx. 6% under load lighter than 1)0.001 2 rad (4') When very large allowable misalignment is required, consult with JTEKT.
Equivalent radial load	Dynamic equivalent radial load $P_r = F_r$ Static equivalent radial load $P_{0r} = F_r$
Allowable axial load	Cylindrical roller bearings with ribs, including loose rib and thrust collar, on both inner and outer rings accommodate axial load to a certain extent. (NJ and NF types accommodate load applied in one direction : NUP and NH in both directions.) For calculation of allowable axial load, refer to p. A 40.

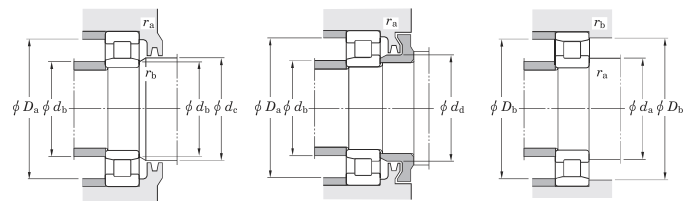
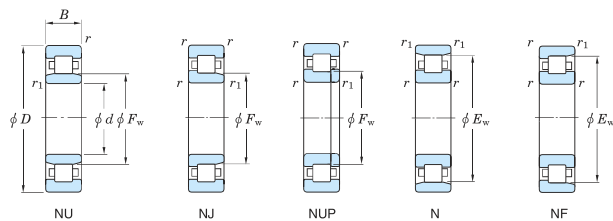
Table 1 Application of standard cages

Bearing series	Pressed cage	Synthetic resin molded cage	Machined cage
NU, NUP 10	—	—	1005 – 1092
N, NF 2	204 – 220	—	204 – 264
NU, NJ, NUP 2	—	—	244 – 264
NU, NJ, NUP 2 R	—	204R – 213R	214R – 240R
NU, NJ, NUP 22	2204 – 2220	—	2204 – 2252
NU, NJ, NUP 22 R	2204R – 2220R	—	2204R – 2240R
NU 32	—	—	3206 – 3252
N, NF 3	304 – 320	—	304 – 348
NU, NJ, NUP 3	—	—	334 – 348
NU, NJ, NUP 3 R	—	304R – 314R	315R – 332R
NU, NJ, NUP 23	2304 – 2320	—	2304 – 2340
NU, NJ, NUP 23 R	2304R – 2320R	—	2304R – 2332R
NU 33	—	—	3306 – 3352
NU, NJ, NUP, NF 4	406 – 420	—	406 – 430

Single-row cylindrical roller bearings

d 20 ~ (30) mm

Koyo

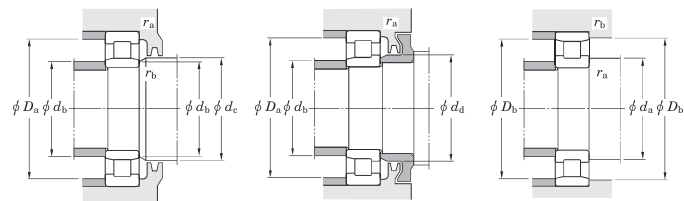
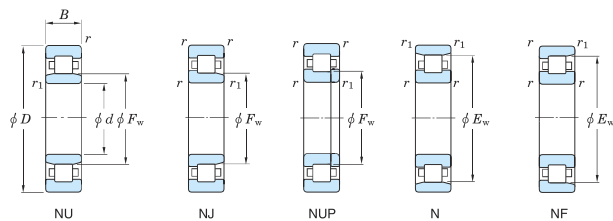


Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)
d	D	B	r min.	r ₁ min.	F _w	E _w	C _r	C _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d _a min.	d _b min.	d _c max.	d _d min.	D _a max.	D _b max.	r _a max.	r _b max.	r _c max.		
20	47	14	1	0.6	—	40	15.4	12.7	15 000	18 000	—	—	—	N204	NF204	25	—	—	—	32	42	43	42	1	0.6	(0.108)
	47	14	1	0.6	26.5	—	25.7	22.6	15 000	18 000	NU204R	NJ204R	NUP204R	—	—	25	24	26	29	32	42	—	1	0.6	0.112	
	47	18	1	0.6	27	—	20.7	18.4	13 000	18 000	NU2204	NJ2204	NUP2204	—	—	25	24	26	29	32	42	—	1	0.6	0.146	
	47	18	1	0.6	26.5	—	30.6	28.3	13 000	18 000	NU2204R	NJ2204R	NUP2204R	—	—	25	24	26	29	32	42	—	1	0.6	0.146	
	52	15	1.1	0.6	—	44.5	23.1	19.2	12 000	16 000	—	—	—	N304	NF304	26.5	—	—	—	33	45.5	48	45.5	1	0.6	(0.147)
	52	15	1.1	0.6	27.5	—	31.5	26.9	12 000	16 000	NU304R	NJ304R	NUP304R	—	—	26.5	24	27	30	33	45.5	—	1	0.6	0.153	
	52	21	1.1	0.6	28.5	—	32.9	30.2	11 000	16 000	NU2304	NJ2304	NUP2304	—	—	26.5	24	27	30	33	45.5	—	1	0.6	0.212	
	52	21	1.1	0.6	27.5	—	42.0	38.8	11 000	16 000	NU2304R	NJ2304R	NUP2304R	—	—	26.5	24	27	30	33	45.5	—	1	0.6	0.215	
25	47	12	0.6	0.3	30.5	—	14.3	13.1	15 000	18 000	NU1005	—	NUP1005	—	—	29	27	30	32	—	43	—	—	0.6	0.3	0.084
	52	15	1	0.6	—	45	17.7	15.7	13 000	16 000	—	—	—	N205	NF205	30	—	—	—	37	47	48	47	1	0.6	(0.132)
	52	15	1	0.6	31.5	—	29.3	27.7	13 000	15 000	NU205R	NJ205R	NUP205R	—	—	30	29	31	34	37	47	—	1	0.6	0.138	
	52	18	1	0.6	32	—	23.7	22.8	12 000	16 000	NU2205	NJ2205	NUP2205	—	—	30	29	31	34	37	47	—	1	0.6	0.163	
	52	18	1	0.6	31.5	—	34.9	34.6	12 000	15 000	NU2205R	NJ2205R	NUP2205R	—	—	30	29	31	34	37	47	—	1	0.6	0.166	
	62	17	1.1	1.1	—	53	29.3	25.2	10 000	14 000	—	—	—	N305	NF305	31.5	—	—	—	40	55.5	55.5	55	1	1	(0.235)
	62	17	1.1	1.1	34	—	41.6	37.4	10 000	14 000	NU305R	NJ305R	NUP305R	—	—	31.5	31.5	33	37	40	55.5	—	1	1	0.243	
	62	24	1.1	1.1	35	—	42.7	40.9	9 100	14 000	NU2305	NJ2305	NUP2305	—	—	31.5	31.5	33	37	40	55.5	—	1	1	0.340	
62	24	1.1	1.1	34	—	57.0	56.1	9 100	14 000	NU2305R	NJ2305R	NUP2305R	—	—	31.5	31.5	33	37	40	55.5	—	1	1	0.350		
30	55	13	1	0.6	36.5	—	18.7	18.4	13 000	15 000	NU1006	—	NUP1006	—	—	35	34	35	38	—	50	—	—	1	0.6	0.121
	62	16	1	0.6	—	53.5	23.5	21.5	11 000	13 000	—	—	—	N206	NF206	35	—	—	—	44	57	58	56	1	0.6	(0.206)
	62	16	1	0.6	37.5	—	39.1	37.4	11 000	13 000	NU206R	NJ206R	NUP206R	—	—	35	34	37	40	44	57	—	1	0.6	0.209	
	62	20	1	0.6	38.5	—	32.9	33.1	9 800	13 000	NU2206	NJ2206	NUP2206	—	—	35	34	37	40	44	57	—	1	0.6	0.262	
	62	20	1	0.6	37.5	—	48.9	49.8	9 700	13 000	NU2206R	NJ2206R	NUP2206R	—	—	35	34	37	40	44	57	—	1	0.6	0.262	
	62	23.8	1	1	38.5	—	42.7	46.4	8 700	13 000	NU3206	—	—	—	—	35	35	37	40	—	57	—	1	0.6	0.343	
	72	19	1.1	1.1	—	62	38.6	35.2	8 700	12 000	—	—	—	N306	NF306	36.5	—	—	—	48	65.5	65.5	64	1	1	(0.353)
	72	19	1.1	1.1	40.5	—	53.1	50.2	8 700	12 000	NU306R	NJ306R	NUP306R	—	—	36.5	36.5	40	44	48	65.5	—	1	1	0.361	
	72	27	1.1	1.1	42	—	51.4	50.8	7 700	12 000	NU2306	NJ2306	NUP2306	—	—	36.5	36.5	40	44	48	65.5	—	1	1	0.500	
	72	27	1.1	1.1	40.5	—	74.6	77.6	7 800	12 000	NU2306R	NJ2306R	NUP2306R	—	—	36.5	36.5	40	44	48	65.5	—	1	1	0.534	

(Remarks) 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NU and NH.

Single-row cylindrical roller bearings
d (30) ~ (45) mm

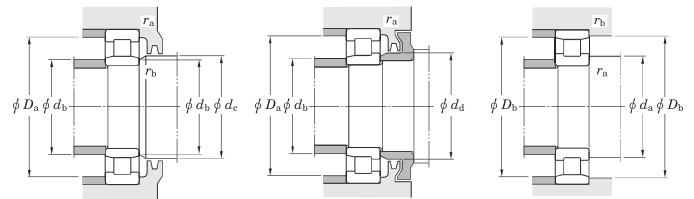
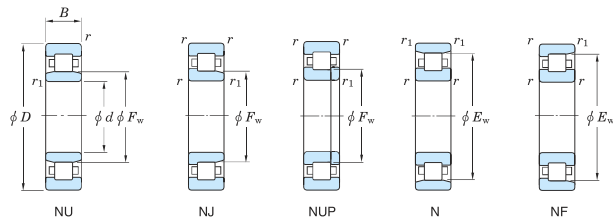


Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (kg)		
d	D	B	r min.	r ₁ min.	F _w	E _w	C _r	C _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d _a min.	d _b min.	d _c max.	d _d min.	D _a max.	D _b max.	r _a max.	r _b max.					
30	72	30.2	1.1	1.1	42	—	69.1	74.3	7 700	12 000	NU3306	—	—	—	—	36.5	36.5	40	44	—	65.5	—	—	1	1	0.650		
	90	23	1.5	1.5	45	73	62.8	55.0	7 600	10 000	NU406	NJ406	NUP406	N406	NF406	38	38	44	47	52	82	82	74	1.5	1.5	0.753		
35	62	14	1	0.6	42	—	22.6	23.2	11 000	13 000	NU1007	—	NUP1007	—	—	40	39	41	44	—	57	—	—	1	0.5	0.182		
	72	17	1.1	0.6	—	61.8	33.6	31.5	9 500	11 000	—	—	—	N207	NF207	41.5	—	—	—	50	65.5	68	64	1	0.6	(0.293)		
	72	17	1.1	0.6	44	—	50.2	50.2	9 300	11 000	NU207R	NJ207R	NUP207R	—	—	41.5	39	43	46	50	65.5	—	—	1	0.6	0.306		
	72	23	1.1	0.6	43.8	—	49.0	51.2	8 500	11 000	NU2207	NJ2207	NUP2207	—	—	41.5	39	43	46	50	65.5	—	—	1	0.6	0.402		
	72	23	1.1	0.6	44	—	61.6	65.3	8 300	11 000	NU2207R	NJ2207R	NUP2207R	—	—	41.5	39	43	46	50	65.5	—	—	1	0.6	0.404		
	72	27	1.1	1.1	43.8	—	54.8	59.1	7 600	11 000	NU3207	—	—	—	—	41.5	41.5	43	46	—	65.5	—	—	1	0.6	0.524		
	80	21	1.5	1.1	—	68.2	49.6	46.9	7 900	10 000	—	—	—	N307	NF307	43	—	—	—	53	72	73.5	71	1.5	1	(0.477)		
	80	21	1.5	1.1	46.2	—	66.6	65.4	7 700	10 000	NU307R	NJ307R	NUP307R	—	—	43	41.5	45	48	53	72	—	—	1.5	1	0.482		
	80	31	1.5	1.1	46.2	—	64.4	65.7	7 000	10 000	NU2307	NJ2307	NUP2307	—	—	43	41.5	45	48	53	72	—	—	1.5	1	0.696		
	80	31	1.5	1.1	46.2	—	93.1	101	6 900	10 000	NU2307R	NJ2307R	NUP2307R	—	—	43	41.5	45	48	53	72	—	—	1.5	1	0.729		
	80	34.9	1.5	1.5	46.2	—	81.7	89.1	7 000	10 000	NU3307	—	—	—	—	43	43	45	48	—	72	—	—	1.5	1	0.908		
	100	25	1.5	1.5	53	83	75.2	68.9	6 600	8 800	NU407	NJ407	NUP407	N407	NF407	43	43	52	55	61	92	92	84	1.5	1.5	1.02		
40	68	15	1	0.6	47	—	24.9	25.7	10 000	12 000	NU1008	—	NUP1008	—	—	45	44	46	49	—	63	—	—	1	0.6	0.223		
	80	18	1.1	1.1	—	70	43.8	42.9	8 300	10 000	—	—	—	N208	NF208	46.5	—	—	—	56	73.5	73.5	72	1	1	(0.374)		
	80	18	1.1	1.1	49.5	—	55.7	55.4	8 300	9 900	NU208R	NJ208R	NUP208R	—	—	46.5	46.5	49	52	56	73.5	—	—	1	1	0.384		
	80	23	1.1	1.1	50	—	58.3	62.0	7 500	10 000	NU2208	NJ2208	NUP2208	—	—	46.5	46.5	49	52	56	73.5	—	—	1	1	0.490		
	80	23	1.1	1.1	49.5	—	72.3	77.6	7 400	9 900	NU2208R	NJ2208R	NUP2208R	—	—	46.5	46.5	49	52	56	73.5	—	—	1	1	0.490		
	80	30.2	1.1	1.1	50	—	78.3	90.6	6 700	10 000	NU3208	—	—	—	—	46.5	46.5	49	52	—	73.5	—	—	1	1	0.711		
	90	23	1.5	1.5	—	77.5	58.6	56.9	6 900	9 100	—	—	—	N308	NF308	48	—	—	—	60	82	82	80	1.5	1.5	(0.646)		
	90	23	1.5	1.5	52	—	83.1	81.5	6 800	9 100	NU308R	NJ308R	NUP308R	—	—	48	48	51	55	60	82	—	—	1.5	1.5	0.664		
	90	33	1.5	1.5	53.5	—	82.2	88.0	6 100	9 100	NU2308	NJ2308	NUP2308	—	—	48	48	51	55	60	82	—	—	1.5	1.5	0.956		
	90	33	1.5	1.5	52	—	114	122	6 100	9 100	NU2308R	NJ2308R	NUP2308R	—	—	48	48	51	55	60	82	—	—	1.5	1.5	0.962		
	90	36.5	1.5	1.5	53.5	—	104	119	6 100	9 100	NU3308	—	—	—	—	48	48	51	55	—	82	—	—	1.5	1.5	1.19		
	110	27	2	2	58	92	97.1	89.1	6 000	8 000	NU408	NJ408	NUP408	N408	NF408	49	49	57	60	67	101	101	93	2	2	1.30		

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Single-row cylindrical roller bearings
d (45) ~ (55) mm

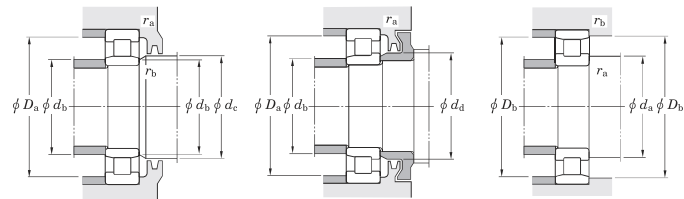
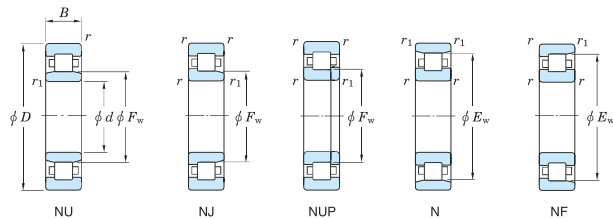


Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.				Mounting dimensions (mm)										(Refer.) Mass NU (kg)		
d	D	B	r min.	r ₁ min.	F _w	E _w	C _r	C _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d _{in} min.	d _b min.	d _b max.	d _c min.	d _d min.	D _{ax} max.	D _b max.	D _b min.	r _{ax} max.	r _b max.	r _b min.	
45	85	19	1.1	1.1	—	75	46.1	46.9	7 700	9 200	—	—	—	N209	NF209	51.5	—	—	—	61	78.5	78.5	77	1	1	1	(0.427)
	85	19	1.1	1.1	54.5	—	63.1	66.4	7 600	9 200	NU209R	NJ209R	NUP209R	—	—	51.5	51.5	54	57	61	78.5	—	—	1	1	1	0.439
	85	23	1.1	1.1	55	—	61.4	67.8	6 900	9 200	NU2209	NJ2209	NUP2209	—	—	51.5	51.5	54	57	61	78.5	—	—	1	1	1	0.536
	85	23	1.1	1.1	54.5	—	76.1	84.6	6 900	9 200	NU2209R	NJ2209R	NUP2209R	—	—	51.5	51.5	54	57	61	78.5	—	—	1	1	1	0.536
	85	30.2	1.1	1.1	55	—	82.4	99.0	6 100	9 200	NU3209	—	—	—	—	51.5	51.5	54	57	—	78.5	—	—	1	1	1	0.770
	100	25	1.5	1.5	—	86.5	78.8	77.5	6 200	8 300	—	—	—	N309	NF309	53	—	—	—	66	92	92	89	1.5	1.5	1	(0.865)
	100	25	1.5	1.5	58.5	—	97.4	98.3	6 100	8 200	NU309R	NJ309R	NUP309R	—	—	53	53	57	60	66	92	—	—	1.5	1.5	1	0.909
	100	36	1.5	1.5	58.5	—	106	113	5 500	8 300	NU2309	NJ2309	NUP2309	—	—	53	53	57	60	66	92	—	—	1.5	1.5	1	1.25
	100	36	1.5	1.5	58.5	—	137	153	5 400	8 200	NU2309R	NJ2309R	NUP2309R	—	—	53	53	57	60	66	92	—	—	1.5	1.5	1	1.32
	100	39.7	1.5	1.5	58.5	—	131	149	5 500	8 300	NU3309	—	—	—	—	53	53	57	60	—	92	—	—	1.5	1.5	1	1.59
	120	29	2	2	64.5	100.5	115	112	5 400	7 200	NU409	NJ409	NUP409	N409	NF409	54	54	63	66	74	111	111	102	2	2	2	1.64
50	80	16	1	0.6	57.5	—	33.6	36.8	8 400	9 900	NU1010	—	NUP1010	—	—	55	54	57	59	—	75	—	—	1	0.6	1	0.306
	90	20	1.1	1.1	—	80.4	48.2	51.0	7 100	8 500	—	—	—	N210	NF210	56.5	—	—	—	67	83.5	83.5	82	1	1	1	(0.479)
	90	20	1.1	1.1	59.5	—	66.1	71.9	7 100	8 500	NU210R	NJ210R	NUP210R	—	—	56.5	56.5	58	62	67	83.5	—	—	1	1	1	0.497
	90	23	1.1	1.1	60.4	—	64.2	73.6	6 400	8 500	NU2210	NJ2210	NUP2210	—	—	56.5	56.5	58	62	67	83.5	—	—	1	1	1	0.580
	90	23	1.1	1.1	59.5	—	79.7	91.5	6 400	8 500	NU2210R	NJ2210R	NUP2210R	—	—	56.5	56.5	58	62	67	83.5	—	—	1	1	1	0.580
	90	30.2	1.1	1.1	60.4	—	86.2	108	5 700	8 500	NU3210	—	—	—	—	56.5	56.5	58	62	—	83.5	—	—	1	1	1	0.829
	110	27	2	2	—	95	92.2	93.4	5 600	7 500	—	—	—	N310	NF310	59	—	—	—	73	101	101	98	2	2	2	(1.15)
	110	27	2	2	65	—	110	113	5 500	7 400	NU310R	NJ310R	NUP310R	—	—	59	59	63	67	73	101	—	—	2	2	2	1.15
	110	40	2	2	65	—	128	142	5 000	7 500	NU2310	NJ2310	NUP2310	—	—	59	59	63	67	73	101	—	—	2	2	2	1.69
	110	40	2	2	65	—	163	187	4 900	7 400	NU2310R	NJ2310R	NUP2310R	—	—	59	59	63	67	73	101	—	—	2	2	2	1.76
	110	44.4	2	2	65	—	156	183	5 000	7 500	NU3310	—	—	—	—	59	59	63	67	—	101	—	—	2	2	2	2.14
	130	31	2.1	2.1	70.8	110.8	139	136	4 900	6 600	NU410	NJ410	NUP410	N410	NF410	61	61	69	73	81	119	119	112	2	2	2	2.01
55	90	18	1.1	1	64.5	—	37.4	43.8	7 600	8 900	NU1011	—	NUP1011	—	—	61.5	60	63	66	—	83.5	—	—	1	1	1	0.445
	100	21	1.5	1.1	—	88.5	58.0	62.3	6 400	7 700	—	—	—	N211	NF211	63	—	—	—	73	92	93.5	91	1.5	1	1	(0.633)
	100	21	1.5	1.1	66	—	86.4	98.7	6 400	7 700	NU211R	NJ211R	NUP211R	—	—	63	61.5	65	68	73	92	—	—	1.5	1	1	0.650
	100	25	1.5	1.1	66.5	—	75.3	87.2	5 800	7 700	NU2211	NJ2211	NUP2211	—	—	63	61.5	65	68	73	92	—	—	1.5	1	1	0.780

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

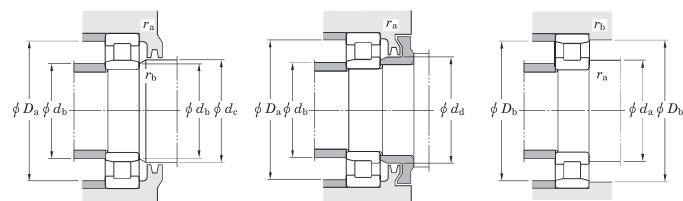
Single-row cylindrical roller bearings
d (55) ~ (65) mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)
d	D	B	r _{min.}	r _{1 min.}	F _w	E _w	C _r	C _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d _a min.	d _b min.	d _c max.	d _d min.	D _a max.	D _b max.	r _a min.	r _b max.	r _c max.	r _d max.	
55	100	25	1.5	1.1	66	—	101	122	5 800	7 700	NU2211R	NJ2211R	NUP2211R	—	—	63	61.5	65	68	73	92	—	—	1.5	1	0.806
	100	33.3	1.5	1.5	66.5	—	95.5	118	5 100	7 700	NU3211	—	—	—	—	63	63	65	68	—	92	—	—	1.5	1	1.14
	120	29	2	2	—	104.5	111	111	5 100	6 800	—	—	—	N311	NF311	64	—	—	—	80	111	111	107	2	2	(1.44)
	120	29	2	2	70.5	—	137	143	5 100	6 700	NU311R	NJ311R	NUP311R	—	—	64	64	69	72	80	111	—	—	2	2	1.50
	120	43	2	2	70.5	—	148	162	4 500	6 800	NU2311	NJ2311	NUP2311	—	—	64	64	69	72	80	111	—	—	2	2	2.10
	120	43	2	2	70.5	—	201	233	4 500	6 700	NU2311R	NJ2311R	NUP2311R	—	—	64	64	69	72	80	111	—	—	2	2	2.25
	120	49.2	2	2	70.5	—	188	220	4 500	6 800	NU3311	—	—	—	—	64	64	69	72	—	111	—	—	2	2	2.81
	140	33	2.1	2.1	77.2	117.2	142	138	4 600	6 100	NU411	NJ411	NUP411	N411	NF411	66	66	76	79	87	129	129	119	2	2	2.51
	110	22	1.5	1.5	—	97.5	71.9	79.9	5 800	7 000	—	—	—	N212	NF212	68	—	—	—	80	102	102	100	1.5	1.5	(0.823)
	110	22	1.5	1.5	72	—	97.7	107	5 800	6 900	NU212R	NJ212R	NUP212R	—	—	68	68	71	75	80	102	—	—	1.5	1.5	0.830
60	110	28	1.5	1.5	73.5	—	101	123	5 200	7 000	NU2212	NJ2212	NUP2212	—	—	68	68	71	75	80	102	—	—	1.5	1.5	1.07
	110	28	1.5	1.5	72	—	131	157	5 200	6 900	NU2212R	NJ2212R	NUP2212R	—	—	68	68	71	75	80	102	—	—	1.5	1.5	1.09
	110	36.5	1.5	1.5	73.5	—	128	167	4 700	7 000	NU3212	—	—	—	—	68	68	71	75	—	102	—	—	1.5	1.5	1.52
	130	31	2.1	2.1	—	113	124	126	4 700	6 300	—	—	—	N312	NF312	71	—	—	—	86	119	119	116	2	2	(1.83)
	130	31	2.1	2.1	77	—	150	157	4 600	6 200	NU312R	NJ312R	NUP312R	—	—	71	71	75	79	86	119	—	—	2	2	1.87
	130	46	2.1	2.1	77	—	168	188	4 200	6 300	NU2312	NJ2312	NUP2312	—	—	71	71	75	79	86	119	—	—	2	2	2.69
	130	46	2.1	2.1	77	—	223	262	4 100	6 200	NU2312R	NJ2312R	NUP2312R	—	—	71	71	75	79	86	119	—	—	2	2	2.81
	130	54	2.1	2.1	77	—	220	265	4 200	6 300	NU3312	—	—	—	—	71	71	75	79	—	119	—	—	2	2	3.61
	150	35	2.1	2.1	83	127	178	184	4 200	5 700	NU412	NJ412	NUP412	N412	NF412	71	71	82	85	94	139	139	128	2	2	3.02
	120	23	1.5	1.5	—	105.6	83.8	94.4	5 400	6 400	—	—	—	N213	NF213	73	—	—	—	87	112	112	108	1.5	1.5	(1.05)
65	120	23	1.5	1.5	78.5	—	108	119	5 300	6 400	NU213R	NJ213R	NUP213R	—	—	73	73	77	81	87	112	—	—	1.5	1.5	1.05
	120	31	1.5	1.5	79.6	—	120	149	4 800	6 400	NU2213	NJ2213	NUP2213	—	—	73	73	77	81	87	112	—	—	1.5	1.5	1.43
	120	31	1.5	1.5	78.5	—	149	181	4 800	6 400	NU2213R	NJ2213R	NUP2213R	—	—	73	73	77	81	87	112	—	—	1.5	1.5	1.45
	120	38.1	1.5	1.5	79.6	—	148	197	4 300	6 400	NU3213	—	—	—	—	73	73	77	81	—	112	—	—	1.5	1.5	1.90
	140	33	2.1	2.1	—	121.5	137	139	4 300	5 800	—	—	—	N313	NF313	76	—	—	—	93	129	129	125	2	2	(2.19)

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

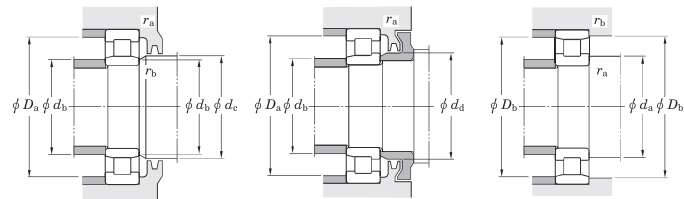
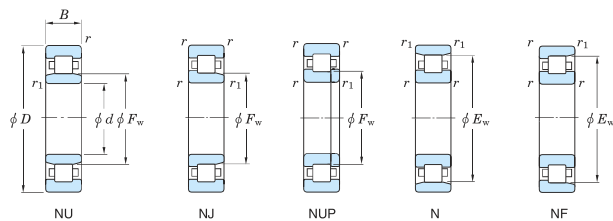
$d \quad (65) \sim (75) \text{ mm}$ 

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Single-row cylindrical roller bearings
d (75) ~ (90) mm

Koyo

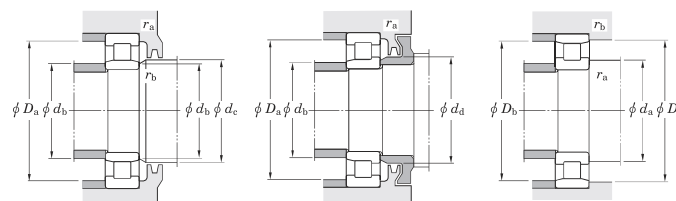
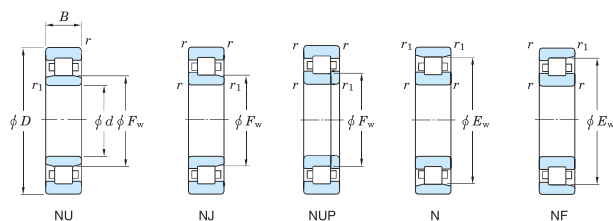


Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)
d	D	B	r _{min.}	r _{1 min.}	F _w	E _w	C _r	C _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d _{a min.}	d _{b min.}	d _{b max.}	d _{c min.}	d _{d min.}	D _{a max.}	D _{b max.}	r _{a min.}	r _{b max.}	r _{a max.}	r _{b max.}
75	160	68.3	2.1	2.1	95.5	—	338	430	3 400	5 000	NJ3315	—	—	—	—	86	86	93	97	—	149	—	—	2	2	6.86
	190	45	3	3	104.5	160.5	265	274	3 300	4 400	NJ415	NJ415	NUP415	N415	NF415	88	88	103	107	118	177	177	162	2.5	2.5	6.25
80	125	22	1.1	1	91.5	—	69.3	86.4	5 300	6 300	NJ1016	—	NUP1016	—	—	86.5	85	90	94	—	118.5	—	—	1	1	0.994
	140	26	2	2	—	125.3	106	122	4 500	5 400	—	—	—	N216	NF216	89	—	—	—	104	131	131	128	2	2	(1.51)
	140	26	2	2	95.3	—	139	167	4 400	5 300	NJ216R	NJ216R	NUP216R	—	—	89	89	94	97	104	131	—	—	2	2	1.56
	140	33	2	2	95.3	—	148	186	4 000	5 400	NJ2216	NJ2216	NUP2216	—	—	89	89	94	97	104	131	—	—	2	2	1.96
	140	33	2	2	95.3	—	186	243	4 000	5 300	NJ2216R	NJ2216R	NUP2216R	—	—	89	89	94	97	104	131	—	—	2	2	2.03
	140	44.4	2	2	95.3	—	190	259	3 600	5 400	NJ3216	—	—	—	—	89	89	94	97	—	131	—	—	2	2	2.87
	170	39	2.1	2.1	—	147	194	207	3 500	4 700	—	—	—	N316	NF316	91	—	—	—	114	159	159	151	2	2	(3.83)
	170	39	2.1	2.1	101	—	259	282	3 500	4 700	NJ316R	NJ316R	NUP316R	—	—	91	91	99	105	114	159	—	—	2	2	4.00
	170	58	2.1	2.1	103	—	275	332	3 100	4 700	NJ2316	NJ2316	NUP2316	—	—	91	91	99	105	114	159	—	—	2	2	5.83
	170	58	2.1	2.1	101	—	361	431	3 100	4 700	NJ2316R	NJ2316R	NUP2316R	—	—	91	91	99	105	114	159	—	—	2	2	5.95
	170	68.3	2.1	2.1	103	—	338	436	3 100	4 700	NJ3316	—	—	—	—	91	91	99	105	—	159	—	—	2	2	7.72
	200	48	3	3	110	170	302	315	3 100	4 200	NJ416	NJ416	NUP416	N416	NF416	93	93	109	112	124	187	187	172	2.5	2.5	7.28
85	130	22	1.1	1	96.5	—	71.4	91.2	5 100	6 000	NJ1017	—	NUP1017	—	—	91.5	90	95	99	—	123.5	—	—	1	1	1.04
	150	28	2	2	—	133.8	121	140	4 200	5 000	—	—	—	N217	NF217	94	—	—	—	110	141	141	137	2	2	(1.90)
	150	28	2	2	100.5	—	167	199	4 200	5 000	NJ217R	NJ217R	NUP217R	—	—	94	94	99	104	110	141	—	—	2	2	1.94
	150	36	2	2	101.8	—	169	218	3 800	5 000	NJ2217	NJ2217	NUP2217	—	—	94	94	99	104	110	141	—	—	2	2	2.50
	150	36	2	2	100.5	—	218	279	3 700	5 000	NJ2217R	NJ2217R	NUP2217R	—	—	94	94	99	104	110	141	—	—	2	2	2.53
	150	49.2	2	2	101.8	—	215	296	3 300	5 000	NJ3217	—	—	—	—	94	94	99	104	—	141	—	—	2	2	3.67
	180	41	3	3	—	156	225	247	3 300	4 500	—	—	—	N317	NF317	98	—	—	—	119	167	167	160	2.5	2.5	(4.52)
	180	41	3	3	108	—	291	330	3 300	4 400	NJ317R	NJ317R	NUP317R	—	—	98	98	106	110	119	167	—	—	2.5	2.5	4.80
	180	60	3	3	108	—	315	382	3 000	4 500	NJ2317	NJ2317	NUP2317	—	—	98	98	106	110	119	167	—	—	2.5	2.5	6.62
	180	60	3	3	108	—	394	485	2 900	4 400	NJ2317R	NJ2317R	NUP2317R	—	—	98	98	106	110	119	167	—	—	2.5	2.5	6.98
	180	73	3	3	108	—	399	517	3 000	4 500	NJ3317	—	—	—	—	98	98	106	110	—	167	—	—	2.5	2.5	9.23
	210	52	4	4	113	177	340	350	3 000	4 000	NJ417	NJ417	NUP417	N417	NF417	101	101	111	115	128	194	194	179	3	3	8.68
90	140	24	1.5	1.1	103	—	84.7	109	4 700	5 600	NJ1018	—	NUP1018	—	—	98	96.5	101	106	—	132	—	—	1.5	1	1.34

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Single-row cylindrical roller bearings

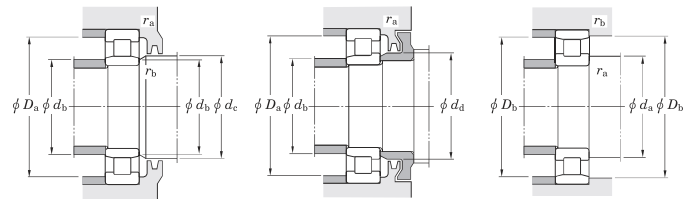
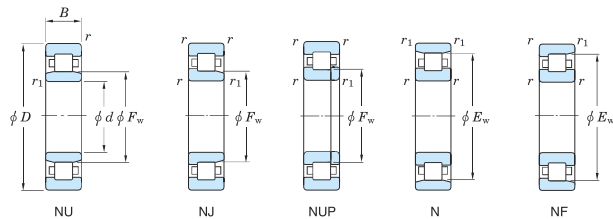
 $d \quad (90) \sim (100) \text{ mm}$ 

Boundary dimensions							Basic load ratings		Limiting speeds		Bearing No.					Mounting dimensions										(Refer.) Mass NU (N (kg))
<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i> min.	<i>r</i> ₁ min.	<i>F</i> _w	<i>E</i> _w	<i>C</i> _r	<i>C</i> _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	<i>d</i> _a min.	<i>d</i> _b min.	<i>d</i> _c max.	<i>d</i> _d min.	<i>D</i> _a max.	<i>D</i> _b max.	<i>r</i> _a min.	<i>r</i> _a max.	<i>r</i> _b max.		
90	160	30	2	2	—	143	152	178	3 900	4 700	—	—	—	N218	NF218	99	—	—	—	116	151	151	146	2	2	(2.32)
	160	30	2	2	107	—	182	217	3 900	4 700	NU218R	NJ218R	NUP218R	—	—	99	99	105	109	116	151	—	2	2	2.38	
	160	40	2	2	107	—	207	265	3 500	4 700	NU2218	NJ2218	NUP2218	—	—	99	99	105	109	116	151	—	2	2	3.10	
	160	40	2	2	107	—	242	314	3 500	4 700	NU2218R	NJ2218R	NUP2218R	—	—	99	99	105	109	116	151	—	2	2	3.21	
	160	52.4	2	2	107	—	270	373	3 100	4 700	NU3218	—	—	—	—	99	99	105	109	—	151	—	2	2	4.49	
	190	43	3	3	—	165	243	265	3 100	4 200	—	—	—	N318	NF318	103	—	—	—	127	177	177	169	2.5	2.5	(5.27)
	190	43	3	3	113.5	—	316	355	3 100	4 100	NU318R	NJ318R	NUP318R	—	—	103	103	111	117	127	177	—	2.5	2.5	5.47	
	190	64	3	3	115	—	329	395	2 800	4 200	NU2318	NJ2318	NUP2318	—	—	103	103	111	117	127	177	—	2.5	2.5	7.90	
	190	64	3	3	113.5	—	437	534	2 800	4 100	NU2318R	NJ2318R	NUP2318R	—	—	103	103	111	117	127	177	—	2.5	2.5	8.12	
	190	73	3	3	115	—	428	559	2 800	4 200	NU3318	—	—	—	—	103	103	111	117	—	177	—	2.5	2.5	10.3	
	225	54	4	4	123.5	191.5	374	400	2 800	3 700	NU418	NJ418	NUP418	N418	NF418	106	106	122	125	139	209	209	194	3	3	10.3
95	145	24	1.5	1.1	108	—	87.2	115	4 500	5 300	NU1019	—	NUP1019	—	—	103	101.5	106	111	—	137	—	—	1.5	1	1.40
	170	32	2.1	2.1	—	151.5	165	195	3 700	4 400	—	—	—	N219	NF219	106	—	—	—	123	159	159	155	2	2	(2.80)
	170	32	2.1	2.1	112.5	—	221	265	3 700	4 400	NU219R	NJ219R	NUP219R	—	—	106	106	111	116	123	159	—	2	2	2.92	
	170	43	2.1	2.1	113.5	—	230	298	3 300	4 400	NU2219	NJ2219	NUP2219	—	—	106	106	111	116	123	159	—	2	2	3.85	
	170	43	2.1	2.1	112.5	—	287	371	3 300	4 400	NU2219R	NJ2219R	NUP2219R	—	—	106	106	111	116	123	159	—	2	2	3.93	
	170	55.6	2.1	2.1	113.5	—	297	412	3 000	4 400	NU3219	—	—	—	—	106	106	111	116	—	159	—	2	2	5.42	
	200	45	3	3	—	173.5	277	311	3 000	4 000	—	—	—	N319	NF319	108	—	—	—	134	187	187	178	2.5	2.5	(6.10)
	200	45	3	3	121.5	—	334	387	2 900	3 900	NU319R	NJ319R	NUP319R	—	—	108	108	119	124	134	187	—	2.5	2.5	6.42	
	200	67	3	3	121.5	—	394	496	2 600	4 000	NU2319	NJ2319	NUP2319	—	—	108	108	119	124	134	187	—	2.5	2.5	9.39	
	200	77.8	3	3	121.5	—	487	654	2 600	4 000	NU3319	—	—	—	—	108	108	119	124	—	187	—	2.5	2.5	12.1	
	240	55	4	4	133.5	201.5	410	444	2 600	3 400	NU419	NJ419	NUP419	N419	NF419	111	111	132	136	149	224	224	204	3	3	13.6
100	150	24	1.5	1.1	113	—	91.0	120	4 300	5 100	NU1020	—	NUP1020	—	—	108	106.5	111	116	—	142	—	—	1.5	1	1.46
	180	34	2.1	2.1	—	160	183	217	3 500	4 200	—	—	—	N220	NF220	111	—	—	—	130	169	169	164	2	2	(3.38)
	180	34	2.1	2.1	119	—	250	306	3 500	4 200	NU220R	NJ220R	NUP220R	—	—	111	111	117	122	130	169	—	2	2	3.52	
	180	46	2.1	2.1	120	—	259	338	3 100	4 200	NU2220	NJ2220	NUP2220	—	—	111	111	117	122	130	169	—	2	2	4.67	
	180	46	2.1	2.1	119	—	334	444	3 100	4 200	NU2220R	NJ2220R	NUP2220R	—	—	111	111	117	122	130	169	—	2	2	4.82	

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NU1 and NH.

Single-row cylindrical roller bearings
d (100) ~ 110 mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)
d	D	B	r _{min.}	r _{1 min.}	F _w	E _w	C _r	C _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d _{a min.}	d _{b min.}	d _{c max.}	d _{d min.}	d _{d max.}	D _{a max.}	D _{b max.}	r _{a min.}	r _{a max.}	r _{b max.}	
100	180	60.3	2.1	2.1	120	—	327	459	2 800	4 200	NU3220	—	—	—	—	111	111	117	122	—	169	—	—	2	2	6.62
	215	47	3	3	—	185.5	323	337	2 800	3 700	—	—	—	N320	NF320	113	—	—	—	143	202	202	190	2.5	2.5	(7.59)
	215	47	3	3	127.5	—	379	424	2 700	3 600	NU320R	NJ320R	NUP320R	—	—	113	113	125	132	143	202	—	—	2.5	2.5	7.75
	215	73	3	3	129.5	—	464	548	2 500	3 700	NU2320	NJ2320	NUP2320	—	—	113	113	125	132	143	202	—	—	2.5	2.5	11.9
	215	73	3	3	127.5	—	570	717	2 400	3 600	NU2320R	NJ2320R	NUP2320R	—	—	113	113	125	132	143	202	—	—	2.5	2.5	12.1
	215	82.6	3	3	129.5	—	530	706	2 500	3 700	NU3320	—	—	—	—	113	113	125	132	—	202	—	—	2.5	2.5	15.0
	250	58	4	4	139	211	458	498	2 500	3 300	NU420	NJ420	NUP420	N420	NF420	116	116	137	141	156	234	234	213	3	3	14.0
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
105	160	26	2	1.1	119.5	—	108	149	4 100	4 800	NU1021	—	NUP1021	—	—	114	111.5	118	122	—	151	—	—	2	1	1.85
	190	36	2.1	2.1	—	168.8	201	241	3 300	3 900	—	—	—	N221	NF221	116	—	—	—	137	179	179	173	2	2	(4.44)
	190	65.1	2.1	2.1	126.8	—	344	482	2 600	3 900	NU3221	—	—	—	—	116	116	124	129	—	179	—	—	2	2	8.00
	225	49	3	3	—	195	366	417	2 600	3 500	—	—	—	N321	NF321	118	—	—	—	149	212	212	199	2.5	2.5	(8.68)
	225	77	3	3	135	—	568	750	2 300	3 500	NU2321	—	NUP2321	—	—	118	118	131	138	—	212	—	—	2.5	2.5	15.6
	225	87.3	3	3	135	—	638	871	2 300	3 500	NU3321	—	—	—	—	118	118	132	137	—	212	—	—	2.5	2.5	17.4
	260	60	4	4	144.5	220.5	471	510	2 400	3 100	NU421	NJ421	NUP421	N421	NF421	121	121	143	147	162	244	244	223	3	3	19.1
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
110	170	28	2	1.1	125	—	134	171	3 800	4 500	NU1022	—	NUP1022	—	—	119	116.5	124	128	—	161	—	—	2	1	2.31
	200	38	2.1	2.1	—	178.5	241	290	3 100	3 700	—	—	—	N222	NF222	121	—	—	—	144	189	189	182	2	2	(5.24)
	200	38	2.1	2.1	132.5	—	293	365	3 100	3 700	NU222R	NJ222R	NUP222R	—	—	121	121	130	135	144	189	—	—	2	2	4.90
	200	53	2.1	2.1	132.5	—	334	442	2 800	3 700	NU2222	NJ2222	NUP2222	—	—	121	121	130	135	144	189	—	—	2	2	6.93
	200	53	2.1	2.1	132.5	—	384	517	2 800	3 700	NU2222R	NJ2222R	NUP2222R	—	—	121	121	130	135	144	189	—	—	2	2	6.93
	200	69.8	2.1	2.1	132.5	—	427	607	2 500	3 700	NU3222	—	—	—	—	121	121	130	135	—	189	—	—	2	2	9.55
	240	50	3	3	—	207	411	467	2 500	3 300	—	—	—	N322	NF322	123	—	—	—	158	227	227	211	2.5	2.5	(10.4)
	240	50	3	3	143	—	451	525	2 400	3 200	NU322R	NJ322R	NUP322R	—	—	123	123	140	145	158	227	—	—	2.5	2.5	10.7
	240	80	3	3	143	—	604	789	2 200	3 300	NU2322	NJ2322	NUP2322	—	—	123	123	140	145	158	227	—	—	2.5	2.5	18.8
	240	80	3	3	143	—	680	880	2 200	3 200	NU2322R	NJ2322R	NUP2322R	—	—	123	123	140	145	158	227	—	—	2.5	2.5	18.8
	240	92.1	3	3	143	—	678	918	2 200	3 300	NU3322	—	—	—	—	123	123	140	145	—	227	—	—	2.5	2.5	21.1
	280	65	4	4	155	235	550	621	2 200	2 900	NU422	NJ422	NUP422	N422	NF422	126	126	153	157	173	264	264	237	3	3	19.9
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

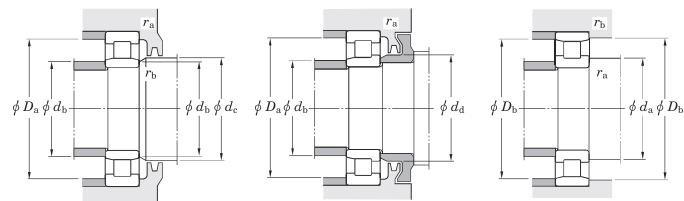
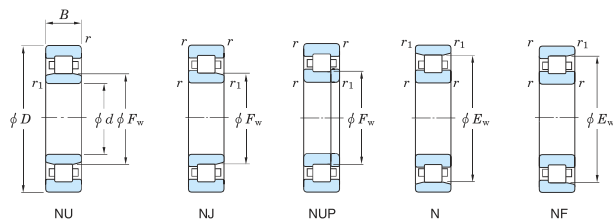
[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Single-row cylindrical roller bearings

d 120 ~ (140) mm

Koyo

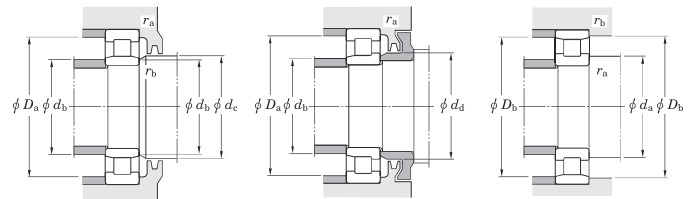
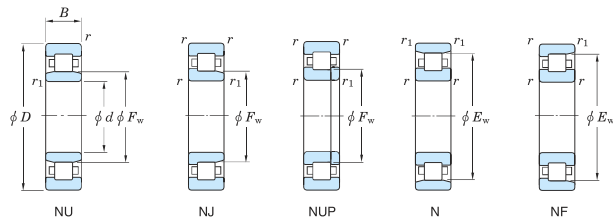


Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (kg)
d	D	B	r min.	r ₁ min.	F _w	E _w	C _r	C _{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d _a min.	d _b min.	d _b max.	d _c min.	d _d min.	D _a max.	D _b min.	r _a max.	r _b max.		
120	180	28	2	1.1	135	—	137	181	3 500	4 200	NU1024	—	NUP1024	—	—	129	126.5	134	138	—	171	—	—	2	1	2.47
	215	40	2.1	2.1	—	191.5	260	318	2 900	3 400	—	—	—	N224	NF224	131	—	—	—	156	204	204	196	2	2	(6.31)
	215	40	2.1	2.1	143.5	—	336	421	2 800	3 400	NU224R	NJ224R	NUP224R	—	—	131	131	141	146	156	204	—	—	2	2	5.85
	215	58	2.1	2.1	143.5	—	367	492	2 600	3 400	NU2224	NJ2224	NUP2224	—	—	131	131	141	146	156	204	—	—	2	2	8.56
	215	58	2.1	2.1	143.5	—	452	619	2 600	3 400	NU2224R	NJ2224R	NUP2224R	—	—	131	131	141	146	156	204	—	—	2	2	8.56
	215	76	2.1	2.1	143.5	—	477	695	2 300	3 400	NU3224	—	—	—	—	131	131	141	146	—	204	—	—	2	2	11.9
	260	55	3	3	—	226	485	551	2 200	3 000	—	—	—	N324	NF324	133	—	—	—	171	247	247	230	2.5	2.5	(13.1)
	260	55	3	3	154	—	528	610	2 200	3 000	NU324R	NJ324R	NUP324R	—	—	133	133	151	156	171	247	—	—	2.5	2.5	13.4
	260	86	3	3	154	—	708	918	2 000	3 000	NU3234	NJ3234	NUP3234	—	—	133	133	151	156	171	247	—	—	2.5	2.5	23.1
	260	86	3	3	154	—	793	1 030	2 000	3 000	NU2324R	NJ2324R	NUP2324R	—	—	133	133	151	156	172	247	—	—	2.5	2.5	23.1
	260	106	3	3	154	—	826	1 120	2 000	3 000	NU3324	—	—	—	—	133	133	151	156	—	247	—	—	2.5	2.5	28.3
	310	72	5	5	170	260	690	770	1 900	2 600	NU424	NJ424	NUP424	N424	NF424	140	140	168	172	190	290	290	262	4	4	28.0
130	200	33	2	1.1	148	—	171	238	3 200	3 800	NU1026	—	NUP1026	—	—	139	136.5	146	151	—	191	—	—	2	1	3.77
	230	40	3	3	—	204	282	362	2 700	3 200	—	—	—	N226	NF226	143	—	—	—	168	217	217	208	2.5	2.5	(7.21)
	230	40	3	3	153.5	—	364	453	2 600	3 200	NU226R	NJ226R	NUP226R	—	—	143	143	151	158	168	217	—	—	2.5	2.5	6.60
	230	64	3	3	156	—	395	560	2 400	3 200	NU2226	NJ2226	NUP2226	—	—	143	143	151	158	168	217	—	—	2.5	2.5	11.2
	230	64	3	3	153.5	—	530	737	2 400	3 200	NU2226R	NJ2226R	NUP2226R	—	—	143	143	151	158	168	217	—	—	2.5	2.5	11.2
	230	80	3	3	156	—	550	857	2 100	3 200	NU3226	—	—	—	—	143	143	151	158	—	217	—	—	2.5	2.5	14.1
	280	58	4	4	—	243	564	667	2 100	2 700	—	—	—	N326	NF326	146	—	—	—	184	264	264	247	3	3	(16.4)
	280	58	4	4	167	—	616	736	2 000	2 700	NU326R	NJ326R	NUP326R	—	—	146	146	164	169	184	264	—	—	3	3	16.7
	280	93	4	4	167	—	838	1 130	1 800	2 700	NU2326	NJ2326	NUP2326	—	—	146	146	164	169	184	264	—	—	3	3	29.1
	280	93	4	4	167	—	920	1 230	1 800	2 700	NU2326R	NJ2326R	NUP2326R	—	—	146	146	164	169	186	264	—	—	3	3	29.1
	280	112	4	4	167	—	936	1 290	1 800	2 700	NU3326	—	—	—	—	146	146	164	169	—	264	—	—	3	3	34.6
	340	78	5	5	185	285	771	876	1 800	2 300	NU426	NJ426	NUP426	N426	NF426	150	150	183	187	208	320	320	287	4	4	36.1
140	210	33	2	1.1	158	—	175	250	3 000	3 600	NU1028	—	NUP1028	—	—	149	146.5	156	161	—	201	—	—	2	1	4.00
	250	42	3	3	—	221	324	421	2 400	2 900	—	—	—	N228	NF228	153	—	—	—	182	237	237	228	2.5	2.5	(8.78)
	250	42	3	3	169	—	392	514	2 400	2 900	NU228R	NJ228R	NUP228R	—	—	153	153	166	171	182	237	—	—	2.5	2.5	8.50

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Single-row cylindrical roller bearings
d (140) ~ (160) mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)
d	D	B	r min.	r1 min.	Fw	Ew	Cr	C0r	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	da min.	db min.	dc max.	dd min.	dd max.	Db max.	ra min.	ra max.	rb max.		
140	250	68	3	3	169	—	465	671	2 200	2 900	NU2228	NJ2228	NUP2228	—	—	153	153	166	171	182	237	—	—	2.5	2.5	14.3
	250	68	3	3	169	—	572	835	2 200	2 900	NU2228R	NJ2228R	NUP2228R	—	—	153	153	166	171	182	237	—	—	2.5	2.5	14.3
	250	88	3	3	169	—	604	939	1 900	2 900	NU3228	—	—	—	—	153	153	166	171	—	237	—	—	2.5	2.5	18.5
	300	62	4	4	—	260	623	746	1 900	2 500	—	—	—	N328	NF328	156	—	—	—	198	284	284	264	3	3	(21.8)
	300	62	4	4	180	—	663	797	1 900	2 500	NU328R	NJ328R	NUP328R	—	—	156	156	176	182	198	284	—	—	3	3	21.8
	300	102	4	4	180	—	920	1 250	1 700	2 500	NU328R	NJ328R	NUP2328	—	—	156	156	176	182	198	284	—	—	3	3	36.8
	300	102	4	4	180	—	1 020	1 380	1 700	2 500	NU2328R	NJ2328R	NUP2328R	—	—	156	156	176	182	200	284	—	—	3	3	36.8
	300	118	4	4	180	—	1 090	1 550	1 700	2 500	NU3328	—	—	—	—	156	156	176	182	—	284	—	—	3	3	41.5
	360	82	5	5	198	302	874	1 020	1 600	2 200	NU428	NJ428	NUP428	N428	NF428	160	160	195	200	222	340	340	304	4	4	46.8
150	225	35	2.1	1.5	169.5	—	201	281	2 800	3 300	NU1030	—	NUP1030	—	—	161	158	167	173	—	214	—	—	2	1.5	4.83
	270	45	3	3	—	238	374	492	2 200	2 700	—	—	—	N230	NF230	163	—	—	—	196	257	257	245	2.5	2.5	(11.1)
	270	45	3	3	182	—	448	594	2 200	2 600	NU230R	NJ230R	NUP230R	—	—	163	163	179	184	196	257	—	—	2.5	2.5	10.7
	270	73	3	3	182	—	545	800	2 000	2 700	NU2230	NJ2230	NUP2230	—	—	163	163	179	184	196	257	—	—	2.5	2.5	18.7
	270	73	3	3	182	—	662	982	2 000	2 600	NU2230R	NJ2230R	NUP2230R	—	—	163	163	179	184	196	257	—	—	2.5	2.5	18.7
	270	96	3	3	182	—	749	1 200	1 800	2 700	NU3230	—	—	—	—	163	163	179	184	—	257	—	—	2.5	2.5	23.7
	320	65	4	4	—	277	663	807	1 800	2 300	—	—	—	N330	NF330	166	—	—	—	213	304	304	281	3	3	(25.6)
	320	65	4	4	193	—	757	922	1 700	2 300	NU330R	NJ330R	NUP330R	—	—	166	166	190	195	213	304	—	—	3	3	27.0
	320	108	4	4	193	—	1 020	1 400	1 600	2 300	NU2330	NJ2330	NUP2330	—	—	166	166	190	195	213	304	—	—	3	3	44.7
	320	108	4	4	193	—	1 180	1 600	1 500	2 300	NU2330R	NJ2330R	NUP2330R	—	—	166	166	190	195	213	304	—	—	3	3	44.7
	320	128	4	4	193	—	1 290	1 890	1 600	2 300	NU3330	—	—	—	—	166	166	190	195	—	304	—	—	3	3	51.4
	380	85	5	5	213	317	930	1 120	1 500	2 000	NU430	NJ430	NUP430	N430	NF430	170	170	210	216	237	360	360	319	4	4	53.3
160	240	38	2.1	1.5	180	—	236	330	2 600	3 000	NU1032	—	NUP1032	—	—	171	168	178	184	—	229	—	—	2	1.5	5.93
	290	48	3	3	—	255	427	568	2 100	2 500	—	—	—	N232	NF232	173	—	—	—	210	277	277	262	2.5	2.5	(13.9)
	290	48	3	3	195	—	498	666	2 000	2 400	NU232R	NJ232R	NUP232R	—	—	173	173	192	197	210	277	—	—	2.5	2.5	14.8
	290	80	3	3	195	—	631	939	1 800	2 500	NU2232	NJ2232	NUP2232	—	—	173	173	192	197	210	277	—	—	2.5	2.5	23.6
	290	80	3	3	193	—	809	1 190	1 800	2 400	NU2232R	NJ2232R	NUP2232R	—	—	173	173	192	197	210	277	—	—	2.5	2.5	23.6
	290	104	3	3	195	—	857	1 390	1 600	2 500	NU3232	—	—	—	—	173	173	192	197	—	277	—	—	2.5	2.5	29.8

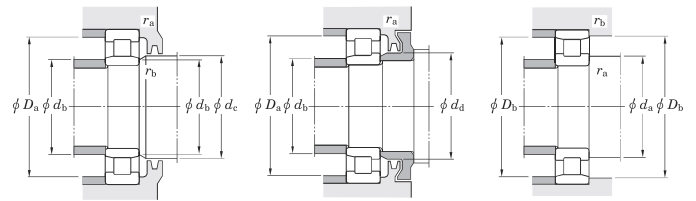
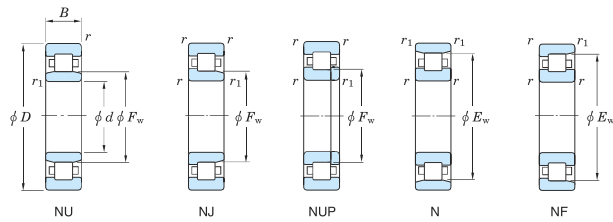
[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Single-row cylindrical roller bearings

d (160)~(190) mm

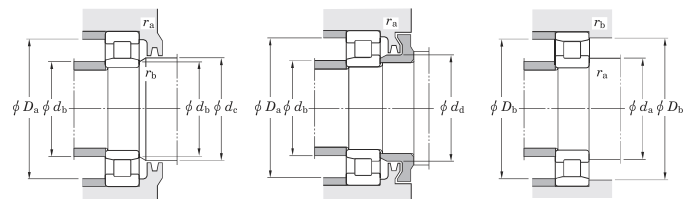
Koyo



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)
d	D	B	r min.	r1 min.	Fw	Ew	Cr	C0r	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d1 min.	d1 min.	d1 max.	d1 min.	d1 min.	d1 max.	D1 max.	D1 min.	r1 max.	r1 max.	r1 max.
160	340	68	4	4	—	292	698	876	1 600	2 200	—	—	—	N332	NF332	176	—	—	—	228	324	324	296	3	3	(30.2)
	340	68	4	4	204	—	857	1 050	1 600	2 100	NU332R	NJ332R	NUP332R	—	—	176	176	200	211	228	324	—	—	3	3	32.0
	340	114	4	4	208	—	1 070	1 520	1 400	2 200	NU2332	NJ2332	NUP2332	—	—	176	176	200	211	228	324	—	—	3	3	53.1
	340	114	4	4	204	—	1 310	1 820	1 400	2 100	NU2332R	NJ2332R	NUP2332R	—	—	176	176	200	211	228	324	—	—	3	3	53.1
	340	136	4	4	208	—	1 270	1 890	1 400	2 200	NU3332	—	—	—	—	176	176	200	211	—	324	—	—	3	3	61.5
170	260	42	2.1	2.1	193	—	276	400	2 400	2 800	NU1034	—	NUP1034	—	—	181	181	190	197	—	249	—	—	2	2	7.90
	310	52	4	4	—	272	475	637	1 900	2 300	—	—	—	N234	NF234	186	—	—	—	223	294	294	280	3	3	(17.2)
	310	52	4	4	207	—	603	802	1 900	2 200	NU234R	NJ234R	NUP234R	—	—	186	186	204	211	223	294	—	—	3	3	18.6
	310	86	4	4	208	—	715	1 080	1 700	2 300	NU2234	NJ2234	NUP2234	—	—	186	186	204	211	223	294	—	—	3	3	29.2
	310	86	4	4	205	—	967	1 410	1 700	2 200	NU2234R	NJ2234R	NUP2234R	—	—	186	186	204	211	223	294	—	—	3	3	29.2
	310	110	4	4	208	—	964	1 580	1 500	2 300	NU3234	—	—	—	—	186	186	204	211	—	294	—	—	3	3	36.2
	360	72	4	4	220	310	809	1 010	1 500	2 000	NU334	NJ334	NUP334	N334	NF334	186	186	216	223	241	344	344	314	3	3	38.6
	360	120	4	4	220	—	1 220	1 750	1 300	2 000	NU2334	NJ2334	NUP2334	—	—	186	186	216	223	241	344	—	—	3	3	62.6
	360	140	4	4	220	—	1 420	2 120	1 300	2 000	NU3334	—	—	—	—	186	186	216	223	—	344	—	—	3	3	70.8
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
180	280	46	2.1	2.1	205	—	356	503	2 200	2 600	NU1036	—	NUP1036	—	—	191	191	203	209	—	269	—	—	2	2	10.5
	320	52	4	4	—	282	492	677	1 800	2 200	—	—	—	N236	NF236	196	—	—	—	233	304	304	290	3	3	(18.0)
	320	52	4	4	217	—	626	852	1 800	2 100	NU236R	NJ236R	NUP236R	—	—	196	196	214	221	233	304	—	—	3	3	19.3
	320	86	4	4	218	—	741	1 140	1 600	2 200	NU2236	NJ2236	NUP2236	—	—	196	196	214	221	233	304	—	—	3	3	30.4
	320	86	4	4	215	—	1 010	1 510	1 600	2 100	NU2236R	NJ2236R	NUP2236R	—	—	196	196	214	221	233	304	—	—	3	3	30.4
	320	112	4	4	218	—	999	1 680	1 400	2 200	NU3236	—	—	—	—	196	196	214	221	—	304	—	—	3	3	38.4
	380	75	4	4	232	328	917	1 150	1 400	1 900	NU336	NJ336	NUP336	N336	NF336	196	196	227	235	255	364	364	332	3	3	42.6
	380	126	4	4	232	—	1 350	1 940	1 300	1 900	NU2336	NJ2336	NUP2336	—	—	196	196	227	235	255	364	—	—	3	3	73.0
	380	150	4	4	232	—	1 660	2 520	1 300	1 900	NU3336	—	—	—	—	196	196	227	235	—	364	—	—	3	3	84.4
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
190	290	46	2.1	2.1	215	—	366	530	2 100	2 500	NU1038	—	NUP1038	—	—	201	201	213	219	—	279	—	—	2	2	10.9
	340	55	4	4	—	299	554	768	1 700	2 000	—	—	—	N238	NF238	206	—	—	—	247	324	324	310	3	3	(21.5)
	340	55	4	4	230	—	694	954	1 700	2 000	NU238R	NJ238R	NUP238R	—	—	206	206	227	234	247	324	—	—	3	3	23.3
	340	92	4	4	231	—	828	1 290	1 500	2 000	NU2238	NJ2238	NUP2238	—	—	206	206	227	234	247	324	—	—	3	3	37.0

[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NU and NH.

$d \quad (190) \sim (240) \text{ mm}$ 

Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)			
<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i> min.	<i>r</i> min.	<i>F_w</i>	<i>E_w</i>	<i>C_r</i>	<i>C_{0r}</i>	Grease lub.	Oil lub.	NU	NJ	NUP		N	NF	<i>d_a</i> min.	<i>d_b</i> min.	<i>d_c</i> max.	<i>d_d</i> min.	<i>D_s</i> max.	<i>D_b</i> max.	<i>r_a</i> min.	<i>r_b</i> max.	<i>r_a</i> max.	<i>r_b</i> max.			
190	340	92	4	4	228	—	1 100	1 670	1 500	2 000	NU2238R	NJ2238R	NUP2238R		—	—	—	206	206	227	234	247	324	—	—	3	3	37.0	
	340	120	4	4	231	—	1 310	1 930	1 300	2 000	NU3238	—	—		—	—	—	206	206	227	234	—	324	—	—	3	3	46.8	
	400	78	5	5	245	345	987	1 260	1 300	1 800	NU338	NJ338	NUP338		N338	NF338	—	210	210	240	248	268	380	380	349	4	4	49.9	
	400	132	5	5	245	—	1 520	2 220	1 200	1 800	NU2338	NJ2338	NUP2338		—	—	—	—	210	210	240	248	268	380	—	—	4	4	84.7
	400	155	5	5	245	—	1 870	2 910	1 200	1 800	NU338	—	—		—	—	—	—	210	210	240	248	—	380	—	—	4	4	96.5
200	310	51	2.1	2.1	229	—	388	582	1 900	2 300	NU1040	—	NUP1040		—	—	—	211	211	226	233	—	299	—	—	2	2	14.1	
	360	58	4	4	—	316	618	865	1 600	1 900	—	—	—		N240	NF240	—	216	—	—	—	261	344	344	328	3	3	(25.7)	
	360	58	4	4	243	—	766	1 060	1 600	1 900	NU240R	NJ240R	NUP240R		—	—	—	216	216	240	247	261	344	—	—	—	3	3	27.2
	360	98	4	4	244	—	946	1 490	1 400	1 900	NU2240	NJ2240	NUP2240		—	—	—	216	216	240	247	261	344	—	—	3	3	44.4	
	360	98	4	4	241	—	1 220	1 870	1 400	1 900	NU2240R	NJ2240R	NUP2240R		—	—	—	216	216	240	247	261	344	—	—	3	3	44.4	
	360	128	4	4	244	—	1 200	2 020	1 300	1 900	NU3240	—	—		—	—	—	216	216	240	247	—	344	—	—	3	3	56.2	
	420	80	5	5	260	360	987	1 270	1 200	1 700	NU340	NJ340	NUP340		N340	NF340	—	220	220	254	263	283	400	400	364	4	4	56.2	
	420	138	5	5	260	—	1 520	2 240	1 100	1 700	NU2340	NJ2340	NUP2340		—	—	—	220	220	254	263	283	400	—	—	4	4	97.4	
	420	165	5	5	260	—	1 870	2 930	1 100	1 700	NU3340	—	—		—	—	—	220	220	250	258	—	400	—	—	4	4	113	
220	340	56	3	3	250	—	507	748	1 700	2 000	NU1044	—	NUP1044		—	—	—	233	233	248	254	—	327	—	—	2.5	2.5	18.5	
	400	65	4	4	270	350	766	1 080	1 400	1 700	NU244	NJ244	NUP244		N244	NF244	—	236	236	266	273	289	384	384	362	3	3	38.5	
	400	108	4	4	270	—	1 130	1 810	1 200	1 700	NU2244	NJ2244	—		—	—	—	236	236	266	273	289	384	—	—	—	3	3	60.9
	400	144	4	4	270	—	1 630	2 880	1 100	1 700	NU3244	—	—		—	—	—	236	236	266	273	—	384	—	—	3	3	78.8	
	460	88	5	5	284	396	1 200	1 570	1 100	1 500	NU344	NJ344	NUP344		N344	NF344	—	240	240	279	287	309	440	440	400	4	4	74.4	
	460	145	5	5	284	—	1 810	2 690	990	1 500	NU2344	—	NUP2344		—	—	—	240	240	276	287	—	440	—	—	4	4	119	
	460	180	5	5	284	—	2 130	3 300	990	1 500	NU3344	—	—		—	—	—	240	240	279	287	—	440	—	—	4	4	148	
240	360	56	3	3	270	—	535	822	1 600	1 900	NU1048	—	NUP1048		—	—	—	253	253	268	275	—	347	—	—	2.5	2.5	20.1	
	440	72	4	4	295	385	949	1 340	1 200	1 500	NU248	NJ248	NUP248		N248	NF248	—	256	256	293	298	316	424	424	397	3	3	52.1	
	440	120	4	4	295	—	1 430	2 320	1 100	1 500	NU2248	NJ2248	—		—	—	—	256	256	293	298	316	424	—	—	—	3	3	82.5
	440	160	4	4	295	—	1 950	3 460	990	1 500	NU3248	—	—		—	—	—	256	256	293	298	—	424	—	—	3	3	107	
	500	95	5	5	310	430	1 430	1 950	990	1 300	NU348	NJ348	NUP348		N348	NF348	—	260	260	305	313	337	480	480	434	4	4	94.6	
	500	155	5	5	310	—	2 170	3 320	880	1 300	NU2348	—	NUP2348		—	—	—	260	260	303	313	—	480	—	—	4	4	152	

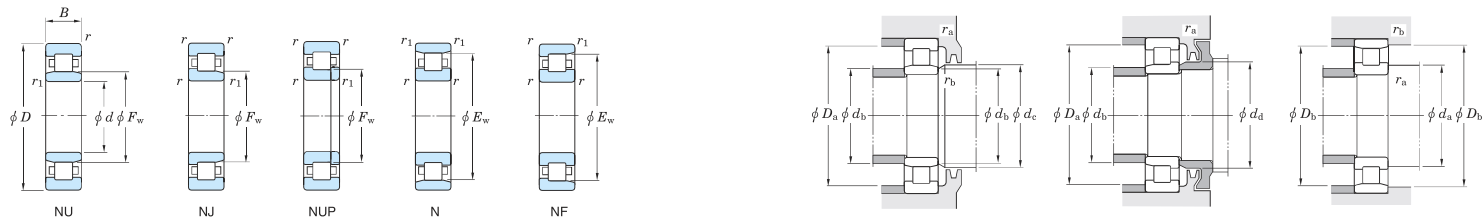
[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage. In values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Single-row cylindrical roller bearings

d (240) ~ 460 mm

Koyo



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.					Mounting dimensions (mm)										(Refer.) Mass NU (N) (kg)
d	D	B	$r_{min.}$	$r_{1min.}$	F_w	E_w	C_r	C_{0r}	Grease lub.	Oil lub.	NU	NJ	NUP	N	NF	d_a min.	d_b min.	d_c max.	d_d min.	D_a max.	D_b max.	r_a min.	r_b max.	r_c max.	r_d max.	
240	500	195	5	5	310	—	2 540	4 070	880	1 300	NU3348	—	—	—	—	260	260	305	313	—	480	—	—	4	4	189
260	400	65	4	4	296	—	651	979	1 400	1 700	NU1052	—	NUP1052	—	—	276	276	292	300	—	384	—	—	3	3	29.2
	480	80	5	5	320	420	1 100	1 580	1 100	1 300	NU252	NJ252	NUP252	N252	NF252	280	280	318	323	343	460	460	432	4	4	69.0
	480	130	5	5	320	—	1 790	2 950	990	1 300	NU2252	NJ2252	—	—	—	280	280	318	323	343	460	—	—	4	4	107
	480	174	5	5	320	—	2 140	3 680	880	1 300	NU3252	—	—	—	—	280	280	318	323	—	460	—	—	4	4	139
	540	165	6	6	336	—	2 430	3 750	790	1 200	NU2352	—	NUP2352	—	—	284	284	327	339	—	516	—	—	5	5	185
	540	206	6	6	336	—	2 940	4 790	790	1 200	NU3352	—	—	—	—	284	284	330	339	—	516	—	—	5	5	232
280	420	65	4	4	316	—	669	1 030	1 300	1 500	NU1056	—	NUP1056	—	—	296	296	313	320	—	404	—	—	3	3	35.2
	500	80	5	5	340	440	1 140	1 680	1 000	1 200	NU256	NJ256	NUP256	N256	NF256	300	300	336	343	365	480	480	452	4	4	72.7
300	460	74	4	4	340	—	890	1 380	1 200	1 400	NU1060	—	NUP1060	—	—	316	316	337	344	—	444	—	—	3	3	44.1
	540	85	5	5	364	476	1 350	1 960	920	1 100	NU260	NJ260	NUP260	N260	NF260	320	320	361	368	392	520	520	487	4	4	90.7
320	480	74	4	4	360	—	913	1 450	1 100	1 300	NU1064	—	NUP1064	—	—	336	336	356	365	—	464	—	—	3	3	48.4
	580	92	5	5	390	510	1 540	2 270	840	1 000	NU264	NJ264	NUP264	N264	NF264	340	340	386	393	419	560	560	522	4	4	114
	670	112	7.5	7.5	425	—	1 970	2 880	650	870	NU364	—	—	—	—	352	352	419	428	—	638	638	575	6	6	199
340	520	82	5	5	385	—	1 090	1 750	980	1 200	NU1068	—	NUP1068	—	—	360	360	381	390	—	500	—	—	4	4	64.1
360	540	82	5	5	405	—	1 120	1 830	920	1 100	NU1072	—	NUP1072	—	—	380	380	401	410	—	520	—	—	4	4	67.1
380	560	82	5	5	425	—	1 150	1 920	860	1 000	NU1076	—	NUP1076	—	—	400	400	421	430	—	540	—	—	4	4	70.1
400	600	90	5	5	450	—	1 400	2 310	780	920	NU1080	—	NUP1080	—	—	420	420	446	455	—	580	—	—	4	4	91.0
420	620	90	5	5	470	—	1 390	2 320	730	860	NU1084	—	NUP1084	—	—	440	440	466	475	—	600	—	—	4	4	94.6
440	650	94	6	6	493	—	1 490	2 520	680	800	NU1088	—	NUP1088	—	—	464	464	489	498	—	626	—	—	5	5	109
460	680	100	6	6	516	—	1 590	2 730	630	750	NU1092	—	NUP1092	—	—	484	484	512	520	—	656	—	—	5	5	127

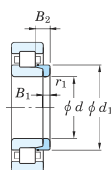
[Remarks] 1) Standard cage types used for the above bearings are shown in Table 1 earlier in this section. Please note that basic load ratings and limiting speeds shown above indicate the value applicable to machined cage. Consult JTEKT about bearings with pressed cage, since they may be different from bearings with machined cage in values above.

2) Bearing numbers of NU and NJ type bearings with mounted thrust collar (refer to specification table shown after this specification table) are NUJ and NH.

Thrust collars for cylindrical roller bearings

$d \ 20 \sim (35) \text{ mm}$

$d \ (35) \sim (50) \text{ mm}$



Thrust collar

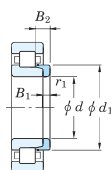
Boundary dimensions (mm)					Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.			NJ	NU
20	29.7	3	6.75	0.6	HJ204	0.012	NJ204	NU204
	29.8	3	5.5	0.6	HJ204R	0.011	NJ204R	NU204R
	30	3	7.5	0.6	HJ2204	0.012	NJ2204	NU2204
	29.8	3	6.5	0.6	HJ2204R	0.012	NJ2204R	NU2204R
	31.8	4	7.5	0.6	HJ304	0.017	NJ304	NU304
	31.4	4	6.5	0.6	HJ304R	0.017	NJ304R	NU304R
	31.8	4	8.5	0.6	HJ2304	0.020	NJ2304	NU2304
	31.4	4	7.5	0.6	HJ2304R	0.018	NJ2304R	NU2304R
	34.7	3	7.25	0.6	HJ205	0.015	NJ205	NU205
	34.8	3	6	0.6	HJ205R	0.014	NJ205R	NU205R
25	34.7	3	7.5	0.6	HJ2205	0.015	NJ2205	NU2205
	34.8	3	6.5	0.6	HJ2205R	0.014	NJ2205R	NU2205R
	39	4	8	1.1	HJ305	0.025	NJ305	NU305
	38.2	4	7	1.1	HJ305R	0.025	NJ305R	NU305R
	39	4	9	1.1	HJ2305	0.025	NJ2305	NU2305
	38.2	4	8	1.1	HJ2305R	0.026	NJ2305R	NU2305R
	41.8	4	8.25	0.6	HJ206	0.025	NJ206	NU206
	41.4	4	7	0.6	HJ206R	0.025	NJ206R	NU206R
	41.8	4	8.5	0.6	HJ2206	0.025	NJ2206	NU2206
	41.4	4	7.5	0.6	HJ2206R	0.025	NJ2206R	NU2206R
30	45.9	5	9.5	1.1	HJ306	0.039	NJ306	NU306
	45.1	5	8.5	1.1	HJ306R	0.042	NJ306R	NU306R
	45.9	5	11.5	1.1	HJ2306	0.039	NJ2306	NU2306
	45.1	5	9.5	1.1	HJ2306R	0.043	NJ2306R	NU2306R
	50.5	7	11.5	1.5	HJ406	0.080	NJ406	NU406
	47.6	4	8	0.6	HJ207	0.030	NJ207	NU207
	48.2	4	7	0.6	HJ207R	0.033	NJ207R	NU207R
	47.6	4	8.5	0.6	HJ2207	0.030	NJ2207	NU2207
	47.6	4	8	0.6	HJ2207R	0.030	NJ2207R	NU2207R
	47.6	4	8.5	0.6	HJ2307	0.030	NJ2307	NU2307

Boundary dimensions (mm)					Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.			NJ	NU
35	48.2	4	8.5	0.6	HJ2207R	0.035	NJ2207R	NU2207R
	50.8	6	11	1.1	HJ307	0.056	NJ307	NU307
	51.1	6	9.5	1.1	HJ307R	0.060	NJ307R	NU307R
	50.8	6	14	1.1	HJ2307	0.056	NJ2307	NU2307
	51.1	6	11	1.1	HJ2307R	0.062	NJ2307R	NU2307R
	59	8	13	1.5	HJ407	0.120	NJ407	NU407
	54.2	5	9	1.1	HJ208	0.046	NJ208	NU208
	54.1	5	8.5	1.1	HJ208R	0.049	NJ208R	NU208R
	54.2	5	9.5	1.1	HJ2208	0.046	NJ2208	NU2208
	54.1	5	9	1.1	HJ2208R	0.050	NJ2208R	NU2208R
40	58.4	7	12.5	1.5	HJ308	0.083	NJ308	NU308
	57.7	7	11	1.5	HJ308R	0.088	NJ308R	NU308R
	58.4	7	14.5	1.5	HJ2308	0.083	NJ2308	NU2308
	57.7	7	12.5	1.5	HJ2308R	0.091	NJ2308R	NU2308R
	64.8	8	13	2	HJ408	0.140	NJ408	NU408
	59	5	9.5	1.1	HJ209	0.053	NJ209	NU209
	59.1	5	8.5	1.1	HJ209R	0.055	NJ209R	NU209R
	59	5	9.5	1.1	HJ2209	0.053	NJ2209	NU2209
	59.1	5	9	1.1	HJ2209R	0.055	NJ2209R	NU2209R
	64	7	12.5	1.5	HJ309	0.099	NJ309	NU309
45	64.5	7	11.5	1.5	HJ309R	0.110	NJ309R	NU309R
	64	7	15	1.5	HJ2309	0.099	NJ2309	NU2309
	64.5	7	13	1.5	HJ2309R	0.113	NJ2309R	NU2309R
	71.8	8	13.5	2	HJ409	0.175	NJ409	NU409
	64.6	5	10	1.1	HJ210	0.063	NJ210	NU210
	64.1	5	9	1.1	HJ210R	0.061	NJ210R	NU210R
	64.6	5	9.5	1.1	HJ2210	0.063	NJ2210	NU2210
	64.1	5	9	1.1	HJ2210R	0.061	NJ2210R	NU2210R
	71	8	14	2	HJ310	0.142	NJ310	NU310
	71	8	14	2	HJ310R	0.142	NJ310R	NU310R

Thrust collars for cylindrical roller bearings

d (50) ~ (65) mm

d (65) ~ (80) mm



Thrust collar

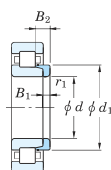
Boundary dimensions (mm)					Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.			NJ	NU
50	71.4	8	13	2	HJ310R	0.151	NJ310R	NU310R
	71	8	17	2	HJ2310	0.142	NJ2310	NU2310
	71.4	8	14.5	2	HJ2310R	0.155	NJ2310R	NU2310R
	78.8	9	14.5	2.1	HJ410	0.230	NJ410	NU410
55	70.8	6	11	1.1	HJ211	0.084	NJ211	NU211
	70.9	6	9.5	1.1	HJ211R	0.087	NJ211R	NU211R
	70.8	6	11	1.1	HJ2211	0.084	NJ2211	NU2211
	70.9	6	10	1.1	HJ2211R	0.088	NJ2211R	NU2211R
	77.2	9	15	2	HJ311	0.182	NJ311	NU311
	77.6	9	14	2	HJ311R	0.195	NJ311R	NU311R
	77.2	9	18.5	2	HJ2311	0.182	NJ2311	NU2311
	77.6	9	15.5	2	HJ2311R	0.200	NJ2311R	NU2311R
	85.2	10	16.5	2.1	HJ411	0.290	NJ411	NU411
	78.4	6	11	1.5	HJ212	0.108	NJ212	NU212
	77.7	6	10	1.5	HJ212R	0.108	NJ212R	NU212R
	78.4	6	11	1.5	HJ2212	0.108	NJ2212	NU2212
60	77.7	6	10	1.5	HJ2212R	0.108	NJ2212R	NU2212R
	84.2	9	15.5	2.1	HJ312	0.220	NJ312	NU312
	84.5	9	14.5	2.1	HJ312R	0.231	NJ312R	NU312R
	84.2	9	19	2.1	HJ2312	0.220	NJ2312	NU2312
	84.5	9	16	2.1	HJ2312R	0.237	NJ2312R	NU2312R
	91.8	10	16.5	2.1	HJ412	0.340	NJ412	NU412
	84.8	6	11	1.5	HJ213	0.123	NJ213	NU213
	84.5	6	10	1.5	HJ213R	0.129	NJ213R	NU213R
65	84.8	6	11.5	1.5	HJ2213	0.123	NJ2213	NU2213
	84.5	6	10.5	1.5	HJ2213R	0.131	NJ2213R	NU2213R
	91	10	17	2.1	HJ313	0.280	NJ313	NU313
	90.6	10	15.5	2.1	HJ313R	0.288	NJ313R	NU313R

Boundary dimensions (mm)					Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.			NJ	NU
65	91	10	20	2.1	HJ2313	0.280	NJ2313	NU2313
	90.6	10	18	2.1	HJ2313R	0.298	NJ2313R	NU2313R
	98.5	11	18	2.1	HJ413	0.420	NJ413	NU413
70	89.6	7	12.5	1.5	HJ214	0.150	NJ214	NU214
	89.5	7	11	1.5	HJ214R	0.157	NJ214R	NU214R
	89.6	7	12.5	1.5	HJ2214	0.150	NJ2214	NU2214
	89.5	7	11.5	1.5	HJ2214R	0.158	NJ2214R	NU2214R
	98	10	17.5	2.1	HJ314	0.330	NJ314	NU314
	97.5	10	15.5	2.1	HJ314R	0.330	NJ314R	NU314R
	98	10	20.5	2.1	HJ2314	0.330	NJ2314	NU2314
	97.5	10	18.5	2.1	HJ2314R	0.345	NJ2314R	NU2314R
	110.5	12	20	3	HJ414	0.605	NJ414	NU414
	94	7	12.5	1.5	HJ215	0.156	NJ215	NU215
	94.5	7	11	1.5	HJ215R	0.166	NJ215R	NU215R
75	94	7	12.5	1.5	HJ2215	0.156	NJ2215	NU2215
	94.5	7	11.5	1.5	HJ2215R	0.167	NJ2215R	NU2215R
	104.2	11	18.5	2.1	HJ315	0.400	NJ315	NU315
	104.2	11	16.5	2.1	HJ315R	0.410	NJ315R	NU315R
	104.2	11	21.5	2.1	HJ2315	0.400	NJ2315	NU2315
	104.2	11	19.5	2.1	HJ2315R	0.430	NJ2315R	NU2315R
	116	13	21.5	3	HJ415	0.710	NJ415	NU415
	101.2	8	13.5	2	HJ216	0.207	NJ216	NU216
	101.6	8	12.5	2	HJ216R	0.222	NJ216R	NU216R
	101.2	8	13.5	2	HJ2216	0.207	NJ2216	NU2216
80	101.6	8	12.5	2	HJ2216R	0.222	NJ2216R	NU2216R
	111.8	11	19.5	2.1	HJ316	0.470	NJ316	NU316
	110.6	11	17	2.1	HJ316R	0.460	NJ316R	NU316R
	111.8	11	23	2.1	HJ2316	0.470	NJ2316	NU2316
	110.6	11	20	2.1	HJ2316R	0.480	NJ2316R	NU2316R

Thrust collars for cylindrical roller bearings

d (80) ~ (100) mm

d (100) ~ 120 mm



Thrust collar

Boundary dimensions (mm)						Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.				NJ	NU
80	122	13	22	3		HJ416	0.780	NJ416	NU416
85	108.2	8	14	2		HJ217	0.250	NJ217	NU217
	107.6	8	12.5	2		HJ217R	0.250	NJ217R	NU217R
	108.2	8	14	2		HJ2217	0.250	NJ2217	NU2217
	107.6	8	13	2		HJ2217R	0.252	NJ2217R	NU2217R
	117.5	12	20.5	3		HJ317	0.560	NJ317	NU317
	117.9	12	18.5	3		HJ317R	0.575	NJ317R	NU317R
	117.5	12	24	3		HJ2317	0.560	NJ2317	NU2317
	117.9	12	22	3		HJ2317R	0.595	NJ2317R	NU2317R
	126	14	24	4		HJ417	0.880	NJ417	NU417
90	114.2	9	15	2		HJ218	0.305	NJ218	NU218
	114.4	9	14	2		HJ218R	0.320	NJ218R	NU218R
	114.2	9	16	2		HJ2218	0.305	NJ2218	NU2218
	114.4	9	15	2		HJ2218R	0.325	NJ2218R	NU2218R
	125	12	21	3		HJ318	0.630	NJ318	NU318
	124.2	12	18.5	3		HJ318R	0.630	NJ318R	NU318R
	125	12	26	3		HJ2318	0.630	NJ2318	NU2318
	124.2	12	22	3		HJ2318R	0.660	NJ2318R	NU2318R
	137	14	24	4		HJ418	1.05	NJ418	NU418
95	121	9	15.5	2.1		HJ219	0.352	NJ219	NU219
	120.6	9	14	2.1		HJ219R	0.355	NJ219R	NU219R
	121	9	16.5	2.1		HJ2219	0.352	NJ2219	NU2219
	120.6	9	15.5	2.1		HJ2219R	0.365	NJ2219R	NU2219R
	132	13	22.5	3		HJ319	0.760	NJ319	NU319
	132.2	13	20.5	3		HJ319R	0.785	NJ319R	NU319R
	132	13	26.5	3		HJ2319	0.760	NJ2319	NU2319
	147	15	25.5	4		HJ419	1.30	NJ419	NU419
100	128	10	17	2.1		HJ220	0.444	NJ220	NU220

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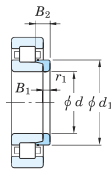
Boundary dimensions (mm)						Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.				NJ	NU
100	127.5	10	15	2.1		HJ220R	0.435	NJ220R	NU220R
	128	10	18	2.1		HJ2220	0.444	NJ2220	NU2220
	127.5	10	16	2.1		HJ2220R	0.450	NJ2220R	NU2220R
	140.5	13	22.5	3		HJ320	0.895	NJ320	NU320
	139.6	13	20.5	3		HJ320R	0.890	NJ320R	NU320R
	140.5	13	27.5	3		HJ2320	0.895	NJ2320	NU2320
	139.6	13	23.5	3		HJ2320R	0.920	NJ2320R	NU2320R
	153.5	16	27	4		HJ420	1.50	NJ420	NU420
105	135	10	17.5	2.1		HJ221	0.505	NJ221	NU221
	147	13	22.5	3		HJ321	0.970	NJ321	NU321
	159.5	16	27	4		HJ421	1.65	NJ421	NU421
110	141.5	11	18.5	2.1		HJ222	0.615	NJ222	NU222
	141.7	11	17	2.1		HJ222R	0.620	NJ222R	NU222R
	141.5	11	20.5	2.1		HJ2222	0.615	NJ2222	NU2222
	141.7	11	19.5	2.1		HJ2222R	0.645	NJ2222R	NU2222R
	155.5	14	23	3		HJ322	1.17	NJ322	NU322
	155.8	14	22	3		HJ322R	1.21	NJ322R	NU322R
	155.5	14	28	3		HJ2322	1.17	NJ2322	NU2322
	155.8	14	26.5	3		HJ2322R	1.27	NJ2322R	NU2322R
	171	17	29.5	4		HJ422	2.10	NJ422	NU422
120	153	11	19	2.1		HJ224	0.715	NJ224	NU224
	153.4	11	17	2.1		HJ224R	0.710	NJ224R	NU224R
	153	11	22	2.1		HJ2224	0.715	NJ2224	NU2224
	153.4	11	20	2.1		HJ2224R	0.745	NJ2224R	NU2224R
	168.5	14	23.5	3		HJ324	1.40	NJ324	NU324
	168.6	14	22.5	3		HJ324R	1.41	NJ324R	NU324R
	168.5	14	28	3		HJ2324	1.40	NJ2324	NU2324
	168.6	14	26	3		HJ2324R	1.46	NJ2324R	NU2324R
	188	17	30.5	5		HJ424	2.60	NJ424	NU424

B 189

Thrust collars for cylindrical roller bearings

d 130 ~ (160) mm

d (160) ~ (200) mm



Thrust collar

Boundary dimensions (mm)					Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.			NJ	NU
130	165.5	11	19	3	HJ226	0.840	NJ226	NU226
	164.2	11	17	3	HJ226R	0.790	NJ226R	NU226R
	165.5	11	25	3	HJ2226	0.840	NJ2226	NU2226
	164.2	11	21	3	HJ2226R	0.840	NJ2226R	NU2226R
	182	14	24	4	HJ326	1.62	NJ326	NU326
	182.3	14	23	4	HJ326R	1.65	NJ326R	NU326R
	182	14	29.5	4	HJ2326	1.62	NJ2326	NU2326
	182.3	14	28	4	HJ2326R	1.73	NJ2326R	NU2326R
	205	18	32	5	HJ426	3.30	NJ426	NU426
140	179.5	11	19	3	HJ228	1.00	NJ228	NU228
	180	11	18	3	HJ228R	0.990	NJ228R	NU228R
	179.5	11	25	3	HJ2228	1.00	NJ2228	NU2228
	180	11	23	3	HJ2228R	1.07	NJ2228R	NU2228R
	196	15	26	4	HJ328	1.93	NJ328	NU328
	196	15	25	4	HJ328R	2.04	NJ328R	NU328R
	196	15	33.5	4	HJ2328	1.98	NJ2328	NU2328
	196	15	31	4	HJ2328R	2.14	NJ2328R	NU2328R
	219	18	33	5	HJ428	3.75	NJ428	NU428
150	193	12	20.5	3	HJ230	1.24	NJ230	NU230
	193.7	12	19.5	3	HJ230R	1.26	NJ230R	NU230R
	193	12	26.5	3	HJ2230	1.24	NJ2230	NU2230
	193.7	12	24.5	3	HJ2230R	1.35	NJ2230R	NU2230R
	210	15	26.5	4	HJ330	2.37	NJ330	NU330
	210	15	25	4	HJ330R	2.35	NJ330R	NU330R
	210	15	34	4	HJ2330	2.37	NJ2330	NU2330
	210	15	31.5	4	HJ2330R	2.48	NJ2330R	NU2330R
	234	20	36.5	5	HJ430	4.70	NJ430	NU430
160	207	12	21	3	HJ232	1.48	NJ232	NU232
	207.3	12	20	3	HJ232R	1.48	NJ232R	NU232R

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Boundary dimensions (mm)					Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.			NJ	NU
160	205	12	28	3	HJ2232	1.48	NJ2232	NU2232
	206.1	12	24.5	3	HJ2232R	1.55	NJ2232R	NU2232R
	225	15	28	4	HJ332	2.75	NJ332	NU332
	222.1	15	25	4	HJ332R	2.59	NJ332R	NU332R
	225	15	37	4	HJ2332	2.75	NJ2332	NU2332
	222.1	15	32	4	HJ2332R	2.76	NJ2332R	NU2332R
170	220.5	12	22	4	HJ234	1.70	NJ234	NU234
	220.8	12	20	4	HJ234R	1.70	NJ234R	NU234R
	219	12	29	4	HJ2234	1.70	NJ2234	NU2234
	219.5	12	24	4	HJ2234R	1.79	NJ2234R	NU2234R
	238	16	29.5	4	HJ334	3.25	NJ334	NU334
	238	16	38.5	4	HJ2334	3.25	NJ2334	NU2334
180	230.5	12	22	4	HJ236	1.80	NJ236	NU236
	230.8	12	20	4	HJ236R	1.79	NJ236R	NU236R
	229	12	29	4	HJ2236	1.80	NJ2236	NU2236
	229.5	12	24	4	HJ2236R	1.88	NJ2236R	NU2236R
	252	17	30.5	4	HJ336	3.85	NJ336	NU336
	252	17	40	4	HJ2336	3.85	NJ2336	NU2336
190	244.5	13	23.5	4	HJ238	2.20	NJ238	NU238
	244.5	13	21.5	4	HJ238R	2.19	NJ238R	NU238R
	243	13	31.5	4	HJ2238	2.20	NJ2238	NU2238
	243.2	13	26.5	4	HJ2238R	2.31	NJ2238R	NU2238R
	265	18	32	5	HJ338	4.45	NJ338	NU338
	265	18	41.5	5	HJ2338	4.45	NJ2338	NU2338
200	258	14	25	4	HJ240	2.60	NJ240	NU240
	258.2	14	23	4	HJ240R	2.65	NJ240R	NU240R
	258	14	34	4	HJ2240	2.60	NJ2240	NU2240
	256.9	14	28	4	HJ2240R	2.78	NJ2240R	NU2240R
	280	18	33	5	HJ340	5.00	NJ340	NU340

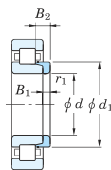
B 191

Thrust collars for cylindrical roller bearings

d

(200) ~ 320 mm

Koyo

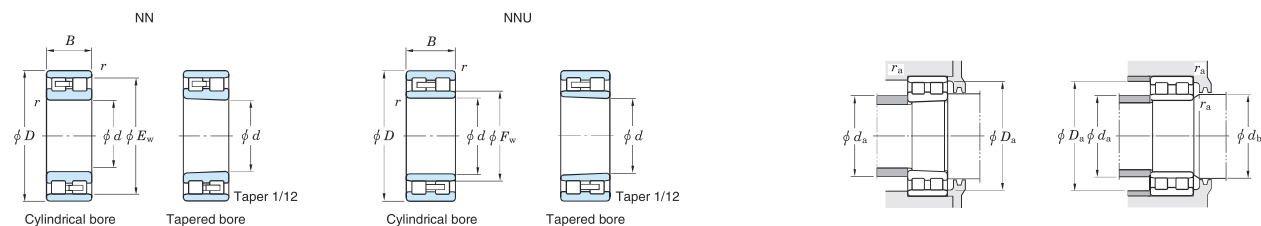


Thrust collar

Boundary dimensions (mm)					Thrust collar No.	(Refer.) Mass (kg)	Applicable bearing No.	
d	d_1	B_1	B_2	r_1 min.			NJ	NU
200	280	18	44.5	5	HJ2340	5.00	NJ2340	NU2340
220	286	15	27.5	4	HJ244	3.55	NJ244	NU244
	286	15	36.5	4	HJ2244	3.55	NJ2244	NU2244
	307	20	36	5	HJ344	7.05	NJ344	NU344
240	313	16	29.5	4	HJ248	4.65	NJ248	NU248
	313	16	38.5	4	HJ2248	4.65	NJ2248	NU2248
	335	22	39.5	5	HJ348	8.20	NJ348	NU348
260	340	18	33	5	HJ252	6.20	NJ252	NU252
	340	18	40.5	5	HJ2252	6.20	NJ2252	NU2252
280	360	18	33	5	HJ256	7.15	NJ256	NU256
300	387	20	34.5	5	HJ260	7.40	NJ260	NU260
320	415	21	37	5	HJ264	11.3	NJ264	NU264

Double-row cylindrical roller bearings

d 25 ~ (110) mm

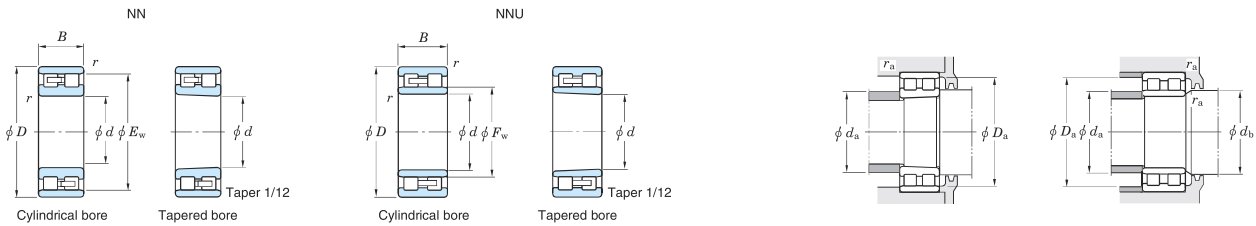


Boundary dimensions (mm)						Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No. NN		NNU		Mounting dimensions (mm)						(Refer.) Mass (kg)	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i> min.	<i>F</i> _w	<i>E</i> _w	<i>C</i> _r	<i>C</i> _{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	Cylindrical bore	Tapered bore	<i>d</i> _a min.	<i>d</i> _a max.	<i>d</i> _b min.	<i>d</i> _b max.	<i>D</i> _a min.	<i>r</i> _a max.	Cylindrical bore	Tapered bore
25	47	16	0.6	—	41.3	25.7	30.0	14 000	17 000	NN3005	NN3005K	—	—	29	—	—	43	42	0.6	0.127	0.123
30	55	19	1	—	48.5	36.8	44.1	12 000	14 000	NN3006	NN3006K	—	—	35	—	—	50	49	1	0.198	0.192
35	62	20	1	—	55	39.1	50.0	10 000	12 000	NN3007	NN3007K	—	—	40	—	—	57	56	1	0.253	0.246
40	68	21	1	—	61	41.3	55.9	9 100	11 000	NN3008	NN3008K	—	—	45	—	—	63	62	1	0.307	0.298
45	75	23	1	—	67.5	53.4	71.9	8 300	9 900	NN3009	NN3009K	—	—	50	—	—	70	69	1	0.404	0.382
50	80	23	1	—	72.5	52.8	72.6	7 600	9 100	NN3010	NN3010K	—	—	55	—	—	75	74	1	0.429	0.415
55	90	26	1.1	—	81	71.2	101	6 800	8 200	NN3011	NN3011K	—	—	61.5	—	—	83.5	82	1	0.637	0.618
60	95	26	1.1	—	86.1	72.8	106	6 400	7 700	NN3012	NN3012K	—	—	66.5	—	—	88.5	87	1	0.685	0.664
65	100	26	1.1	—	91	74.5	111	6 000	7 200	NN3013	NN3013K	—	—	71.5	—	—	93.5	92	1	0.728	0.705
70	110	30	1.1	—	100	96.9	148	5 500	6 500	NN3014	NN3014K	—	—	76.5	—	—	103.5	101	1	1.04	1.02
75	115	30	1.1	—	105	99.0	155	5 200	6 200	NN3015	NN3015K	—	—	81.5	—	—	108.5	106	1	1.11	1.08
80	125	34	1.1	—	113	119	186	4 800	5 800	NN3016	NN3016K	—	—	86.5	—	—	118.5	114	1	1.55	1.50
85	130	34	1.1	—	118	121	194	4 600	5 500	NN3017	NN3017K	—	—	91.5	—	—	123.5	119	1	1.63	1.58
90	140	37	1.5	—	127	142	228	4 200	5 100	NN3018	NN3018K	—	—	98	—	—	132	129	1.5	2.07	2.01
95	145	37	1.5	—	132	150	246	4 100	4 900	NN3019	NN3019K	—	—	103	—	—	137	134	1.5	2.17	2.10
100	140	40	1.1	113	—	139	258	4 000	4 800	—	—	NNU4920	NNU4920K	106.5	111	115	133.5	—	1	1.95	1.87
	150	37	1.5	—	137	157	265	3 900	4 700	NN3020	NN3020K	—	—	108	—	142	139	1.5	—	2.28	2.21
105	145	40	1.1	118	—	157	306	3 900	4 600	—	—	NNU4921	NNU4921K	111.5	116	120	138.5	—	1	2.00	1.91
	160	41	2	—	146	197	322	3 700	4 400	NN3021	NN3021K	—	—	114	—	—	151	148	2	2.88	2.81
110	150	40	1.1	123	—	163	326	3 700	4 500	—	—	NNU4922	NNU4922K	116.5	121	125	143.5	—	1	2.10	2.01

Double-row cylindrical roller bearings

$d \ (110) \sim (260) \text{ mm}$

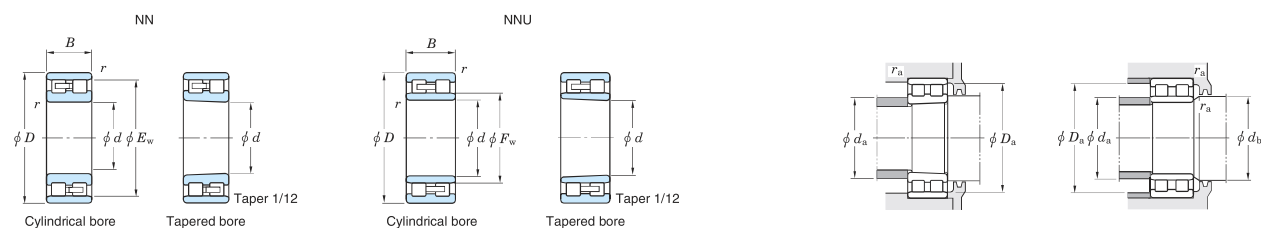
Koyo



Boundary dimensions (mm)						Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No.				Mounting dimensions (mm)						(Refer.) Mass (kg)	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i> min.	<i>F_w</i>	<i>E_w</i>	<i>C_r</i>	<i>C_{0r}</i>	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	Cylindrical bore	Tapered bore	min.	<i>d_a</i> max.	<i>d_b</i> min.	max.	<i>D_a</i> min.	<i>r_a</i> max.	Cylindrical bore	Tapered bore
110	170	45	2	—	155	221	361	3 500	4 200	NN3022	NN3022K	—	—	119	—	—	161	157	2	3.65	3.56
120	165	45	1.1	134.5	—	187	373	3 400	4 000	—	—	NNU4924	NNU4924K	126.5	132	137	158.5	—	1	2.90	2.77
	180	46	2	—	165	232	392	3 200	3 900	NN3024	NN3024K			—	—	129	—	—	171	167	2
130	180	50	1.5	146	—	216	428	3 100	3 700	—	—	NNU4926	NNU4926K	138	143.5	148	172	—	1.5	3.90	3.73
	200	52	2	—	182	283	476	2 900	3 500	NN3026	NN3026K			—	—	139	—	—	191	183	2
140	190	50	1.5	156	—	222	456	2 900	3 500	—	—	NNU4928	NNU4928K	148	153.5	158	182	—	1.5	4.15	3.97
	210	53	2	—	192	297	516	2 700	3 300	NN3028	NN3028K			—	—	149	—	—	201	194	2
150	210	60	2	168.5	—	343	692	2 600	3 100	—	—	NNU4930	NNU4930K	159	166	171	201	—	2	6.50	6.22
	225	56	2.1	—	206	334	587	2 500	3 000	NN3030	NN3030K			—	—	161	—	—	214	208	2
160	220	60	2	178.5	—	340	695	2 500	3 000	—	—	NNU4932	NNU4932K	169	176	182	211	—	2	6.95	6.65
	240	60	2.1	—	219	398	695	2 400	2 800	NN3032	NN3032K			—	—	171	—	—	229	221	2
170	230	60	2	188.5	—	361	763	2 300	2 800	—	—	NNU4934	NNU4934K	179	186	192	221	—	2	7.20	6.88
	260	67	2.1	—	236	471	824	2 200	2 600	NN3034	NN3034K			—	—	181	—	—	249	238	2
180	250	69	2	202	—	458	964	2 100	2 600	—	—	NNU4936	NNU4936K	189	199.5	205	241	—	2	10.5	10.1
	280	74	2.1	—	255	561	958	2 000	2 400	NN3036	NN3036K			—	—	191	—	—	269	257	2
190	260	69	2	210	—	465	996	2 000	2 400	—	—	NNU4938	NNU4938K	199	207	215	251	—	2	11.0	10.5
	290	75	2.1	—	265	598	1 020	1 900	2 300	NN3038	NN3038K			—	—	201	—	—	279	267	2
200	280	80	2.1	223	—	509	1 050	1 900	2 300	—	—	NNU4940	NNU4940K	211	219.5	228	269	—	2	15.4	14.7
	310	82	2.1	—	282	638	1 120	1 700	2 100	NN3040	NN3040K			—	—	211	—	—	299	285	2
220	300	80	2.1	244	—	561	1 220	1 700	2 000	—	—	NNU4944	NNU4944K	231	241	248	289	—	2	16.7	16.0
	340	90	3	—	310	752	1 370	1 600	1 900	NN3044	NN3044K			—	—	233	—	—	327	313	2.5
240	320	80	2.1	263	—	588	1 340	1 600	1 900	—	—	NNU4948	NNU4948K	251	260	269	309	—	2	18.0	17.2
	360	92	3	—	330	864	1 590	1 400	1 700	NN3048	NN3048K			—	—	253	—	—	347	333	2.5
260	360	100	2.1	287	—	941	2 050	1 400	1 700	—	—	NNU4952	NNU4952K	271	284	296	349	—	2	31.4	30.0

Double-row cylindrical roller bearings

d (260) ~ 480 mm



Boundary dimensions (mm)						Basic load ratings (kN)		Limiting speeds (min ⁻¹)		Bearing No. NN				Mounting dimensions (mm)						(Refer.) Mass (kg)	
<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i> min.	<i>F</i> _w	<i>E</i> _w	<i>C</i> _r	<i>C</i> _{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	NNU		<i>d</i> _a min.	<i>d</i> _a max.	<i>d</i> _b min.	<i>d</i> _b max.	<i>D</i> _a min.	<i>r</i> _a max.	Cylindrical bore	Tapered bore
260	400	104	4	—	364	1 030	1 830	1 300	1 500	NN3052	NN3052K	—	—	276	—	—	384	367	3	47.4	46.0
280	380	100	2.1	308	—	976	2 200	1 300	1 500	—	—	NNU4956	NNU4956K	291	305	316	369	—	2	33.1	31.6
	420	106	4	—	384	1 090	2 010	1 200	1 400	NN3056	NN3056K	—	—	296	—	—	404	387	3	51.2	49.6
300	420	118	3	339	—	1 170	2 720	1 100	1 300	—	—	NNU4960	NNU4960K	313	335	343	407	—	2.5	51.9	49.7
	460	118	4	—	418	1 290	2 460	1 100	1 300	NN3060	NN3060K	—	—	316	—	—	444	421	3	70.8	68.7
320	440	118	3	352	—	1 220	2 750	1 100	1 300	—	—	NNU4964	NNU4964K	333	348	363	427	—	2.5	53.7	51.4
	480	121	4	—	438	1 350	2 670	980	1 200	NN3064	NN3064K	—	—	336	—	—	464	442	3	76.4	74.0
340	460	118	3	372	—	1 270	2 930	990	1 200	—	—	NNU4968	NNU4968K	353	368	383	447	—	2.5	56.8	54.3
	520	133	5	—	473	1 580	3 090	880	1 100	NN3068	NN3068K	—	—	360	—	—	500	477	4	101	97.8
360	540	134	5	—	493	1 560	3 090	830	990	NN3072	NN3072K	—	—	380	—	—	520	497	4	107	104
380	560	135	5	—	510	1 650	3 350	780	940	NN3076	NN3076K	—	—	400	—	—	540	514	4	113	109
400	600	148	5	—	548	2 030	4 140	700	850	NN3080	NN3080K	—	—	420	—	—	580	552	4	146	141
420	620	150	5	—	570	2 310	4 570	670	800	NN3084	NN3084K	—	—	440	—	—	600	574	4	154	149
440	650	157	6	—	597	2 520	5 060	620	740	NN3088	NN3088K	—	—	464	—	—	626	602	5	177	171
460	680	163	6	—	627	2 700	5 480	570	690	NN3092	NN3092K	—	—	484	—	—	656	632	5	201	195
480	700	165	6	—	642	2 770	5 710	540	650	NN3096	NN3096K	—	—	504	—	—	676	647	5	211	204