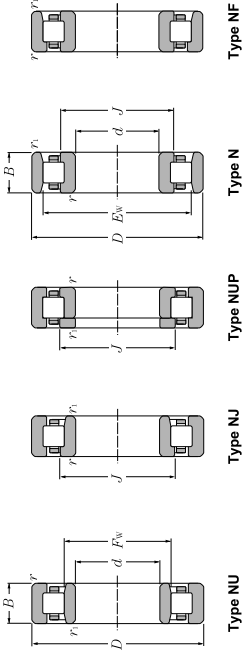


# Cylindrical Roller Bearings

NTN



d 20~35mm

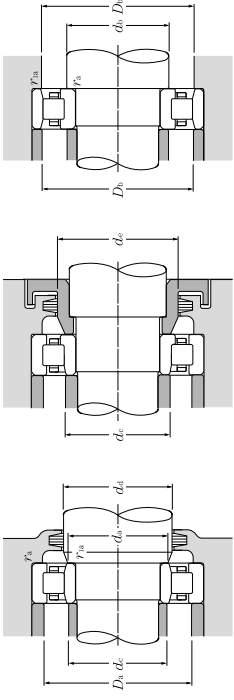
Boundary dimensions mm	Basic load ratings dynamic	Basic load ratings static	Limiting speeds <sup>①</sup> rpm	Bearing numbers			Type						
				dynamic	static	kgf		type	type	type			
d	D	B	$r_{a, min}$	$r_{i, min}$	$C_r$	$C_{2r}$	grease	oil	type	type	type	N	
47	14	1	0.6	0.6	25.7	22.6	2,620	15,000	18,000	NU204E	NJ	NUP	N
47	18	1	0.6	0.6	30.5	28.3	3,100	2,890	14,000	NU2204E	NJ	NUP	N
52	15	1.1	0.6	0.6	31.5	26.9	3,200	2,740	13,000	NU304E	NJ	NUP	N
52	21	1.1	0.6	0.6	42.0	39.0	4,300	3,950	12,000	NU2304E	NJ	NUP	N
57	12	0.6	0.3	0.3	15.1	14.1	1,540	1,430	16,000	NU1005	NJ	NUP	N
57	15	1	0.6	0.6	29.9	27.7	2,990	2,830	13,000	NU205E	NJ	NUP	N
52	18	1	0.6	0.6	35.0	34.5	3,550	3,550	11,000	NU2205E	NJ	NUP	N
62	17	1.1	1.1	1.1	41.5	37.5	4,250	3,800	11,000	NU305E	NJ	NUP	N
62	24	1.1	1.1	1.1	57.0	56.0	5,700	5,700	9,700	NU2305E	NJ	NUP	N
80	21	1.5	1.5	1.5	46.5	40.0	4,750	4,050	8,500	NU405	NJ	NUP	N
55	13	1	0.6	0.6	19.7	19.6	2,000	2,000	14,000	NU1006	NJ	NUP	N
62	16	1	0.6	0.6	39.0	37.5	4,000	3,800	11,000	NU206E	NJ	NUP	N
62	20	1	0.6	0.6	49.0	50.0	5,000	5,100	9,300	NU2206E	NJ	NUP	N
72	19	1.1	1.1	1.1	53.0	50.0	5,400	5,100	9,300	NU306E	NJ	NUP	N
72	27	1.1	1.1	1.1	74.5	77.5	7,600	7,900	8,300	NU2306E	NJ	NUP	N
90	23	1.5	1.5	1.5	62.5	55.0	6,400	5,600	7,300	NU406	NJ	NUP	N
62	14	1	0.6	0.6	22.6	23.2	2,310	2,360	12,000	NU1007	NJ	NUP	N
72	17	1.1	0.6	0.6	50.5	51.50	5,100	5,100	9,500	NU207E	NJ	NUP	N
72	23	1.1	0.6	0.6	61.5	65.5	6,300	6,850	8,500	NU2207E	NJ	NUP	N
80	21	1.5	1.1	1.1	71.0	71.0	7,200	7,200	8,100	NU307E	NJ	NUP	N
80	31	1.5	1.1	1.1	99.0	109	10,100	11,100	7,200	NU2307E	NJ	NUP	N
100	25	1.5	1.5	1.5	75.5	69.0	7,700	7,050	6,400	NU407	NJ	NUP	N
68	15	1	0.6	0.6	27.3	29.0	2,780	2,950	11,000	NU1008	NJ	NUP	N
80	18	1.1	1.1	1.1	43.5	43.0	4,450	4,350	9,400	NU208	NJ	NUP	N
80	18	1.1	1.1	1.1	55.5	55.5	5,700	5,650	8,500	NU2208	NJ	NUP	N
80	23	1.1	1.1	1.1	58.0	62.0	5,950	6,300	8,500	NU2308	NJ	NUP	N
80	23	1.1	1.1	1.1	72.5	77.5	7,400	7,900	8,900	NU308	NJ	NUP	N
90	23	1.5	1.5	1.5	58.5	57.0	6,000	5,800	8,000	NU2308	NJ	NUP	N
90	33	1.5	1.5	1.5	82.5	81.5	8,500	8,300	7,200	NU308E	NJ	NUP	N
90	33	1.5	1.5	1.5	82.0	88.0	8,400	8,950	8,200	NU2308	NJ	NUP	N
90	33	1.5	1.5	1.5	114	122	11,600	12,500	6,400	NU2308E	NJ	NUP	N
110	27	2	2	2	95.5	89.0	9,750	9,100	5,700	NU408	NJ	NUP	N

<sup>①</sup> This value achieved with machined cages; when pressed cages are used, 80% of this value is acceptable.  
<sup>②</sup> Minimal allowable dimension for chamfer dimension  $r_{i, cr}$ .

B-92

# Cylindrical Roller Bearings

NTN



Equivalent bearing load  
dynamic  $P_d = F_r$   
static  $P_{sd} = F_r$

Dimensions mm	Abutment and fillet dimensions mm										Mass kg							
	type	$F_r$	$E_r$	$J$	$d_a$ min	$d_a$ max	$d_b$ min	$d_b$ max	$d_e$ min	$d_e$ max	$D_b$ max	$r_{i, min}$	$r_{i, max}$	$r_{a, max}$	$r_{i, max}$	type	type	N
—	26.5	—	29.5	—	24	—	26	29	32	42	—	—	—	—	1	0.6	0.122	—
—	26.5	—	29.5	—	24	—	26	29	32	42	—	—	—	—	1	0.6	0.158	—
—	27.5	—	31.1	—	24	—	27	30	33	45.5	—	—	—	—	1	0.6	0.176	—
—	27.5	—	31.1	—	24	—	27	30	33	45.5	—	—	—	—	1	0.6	0.242	—
—	30.5	41.5	32.7	27	29	30	32	33	33	43	45	42.5	0.6	0.3	0.092	0.091	—	—
—	31.5	—	34.5	29	—	31	34	37	47	—	—	—	—	—	1	0.6	0.151	—
—	31.5	—	34.5	29	—	31	34	37	47	—	—	—	—	—	1	0.6	0.186	—
—	34	—	38	31.5	—	33	37	40	55.5	—	—	—	—	—	1	1	0.275	—
—	34	—	38	31.5	—	33	37	40	55.5	—	—	—	—	—	1	1	0.366	—
—	36.8	62.8	43.6	33	33	33	38	41	46	72	72	64	1.5	1.5	0.55	0.536	—	—
—	36.5	48.5	38.9	34	35	35	35	38	39.5	50	51	49.5	1	0.6	0.13	0.128	—	—
—	37.5	—	41.1	34	—	37	40	44	57	—	—	—	—	—	1	0.6	0.226	—
—	37.5	—	41.1	34	—	37	40	44	57	—	—	—	—	—	1	0.6	0.297	—
—	40.5	—	44.9	36.5	—	40	44	48	65.5	—	—	—	—	—	1	1	0.598	—
—	40.5	—	44.9	36.5	—	40	44	48	65.5	—	—	—	—	—	1	1	0.688	—
—	45	73	50.5	38	38	38	44	47	52	82	82	74	1.5	1.5	0.751	0.732	—	—
—	42	55	44.6	39	40	41	44	45	45	57	58	56	1	0.6	0.179	0.176	—	—
—	44	—	48	39	—	43	46	50	65.5	—	—	—	—	—	1	0.6	0.327	—
—	44	—	48	39	—	43	46	50	65.5	—	—	—	—	—	1	0.6	0.455	—
—	46.2	—	51	41.5	—	45	48	53	72	—	—	—	—	—	1.5	1	0.545	—
—	46.2	—	51	41.5	—	45	48	53	72	—	—	—	—	—	1.5	1	0.78	—
—	53	83	59	43	43	43	52	55	61	92	92	84	1.5	1.5	0.89	0.865	—	—
—	47	61	49.8	44	45	46	49	50.5	63	64	62	64	1	0.6	0.22	0.217	—	—
—	50	70	54.2	46.5	46.5	49	52	56	73.5	73.5	72	73.5	1	1	0.378	0.37	—	—
—	49.5	—	53.9	46.5	—	49	52	56	73.5	—	—	—	—	—	1	1	0.426	—
—	50	70	54.2	46.5	46.5	49	52	56	73.5	73.5	72	73.5	1	1	0.49	0.48	—	—
—	49.5	—	53.9	46.5	—	49	52	56	73.5	—	—	—	—	—	1	1	0.552	—
—	53.5	77.5	58.4	48	48	48	51	55	60	82	82	80	1.5	1.5	0.858	0.843	—	—
—	52	—	57.6	48	—	51	55	60	82	—	—	—	—	—	1.5	1.5	0.754	—
—	53.5	77.5	58.4	48	48	48	51	55	60	82	82	80	1.5	1.5	0.951	0.932	—	—
—	52	—	57.6	48	—	51	55	60	82	—	—	—	—	—	1.5	1.5	1.06	—
—	58	92	64.8	49	49	49	57	60	67	101	101	93	2	2	1.3	1.27	—	—

<sup>①</sup> Does not apply to side of the outer ring rib of type NF bearings.

B-93