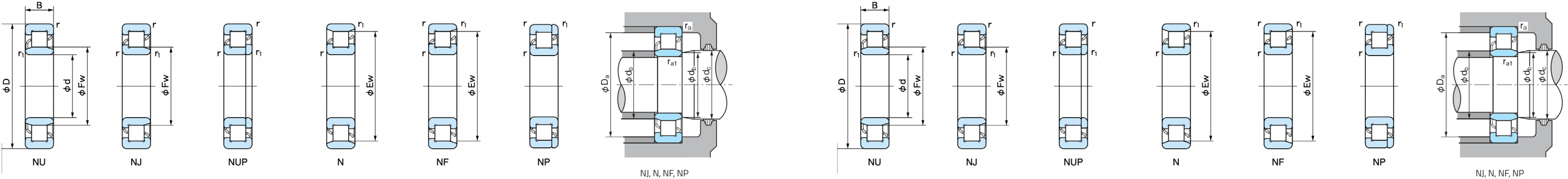


Cylindrical Roller Bearings
200 & 2200 Series

Cylindrical Roller Bearings
200 & 2200 Series

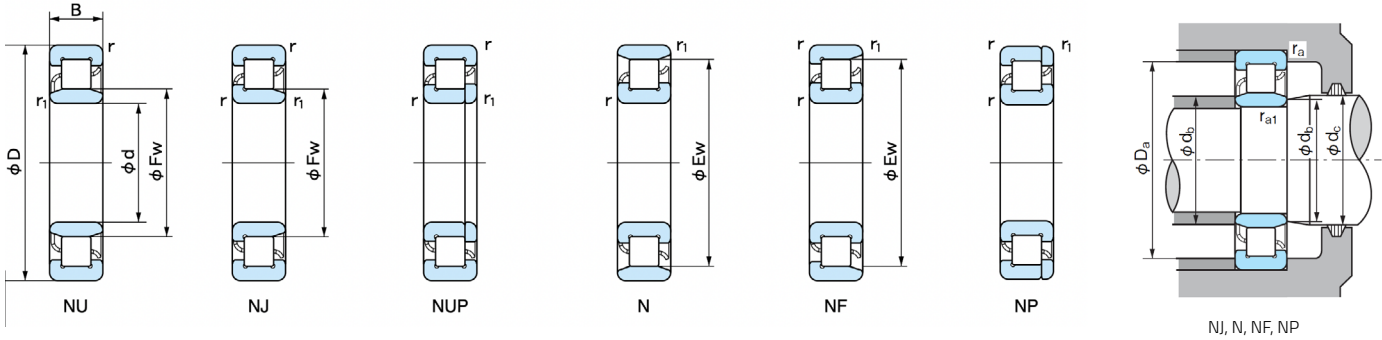
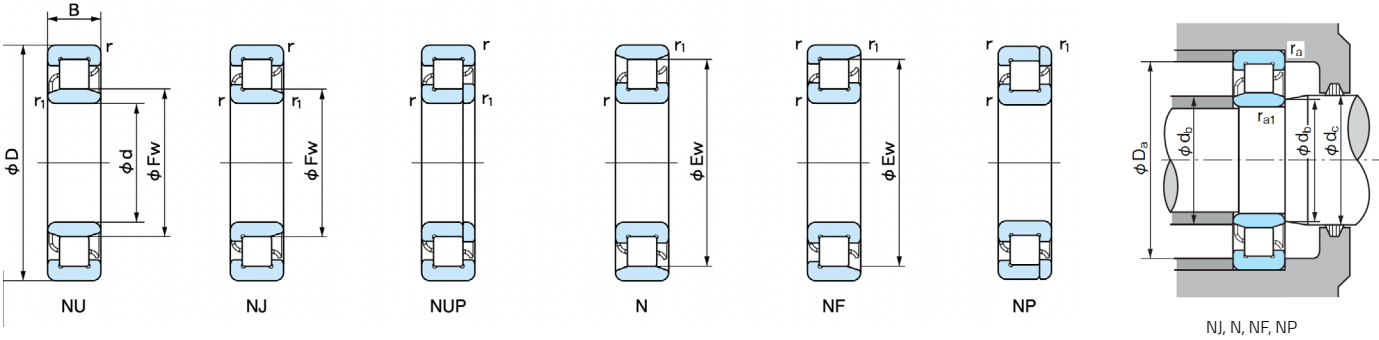


200 Series																	200 Series																				
Boundary dimensions (mm)							Bearing No.						Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (min-1)(1)			Abutment and fillet dimensions (mm)										Mass (kg)		Dimensions of L-shaped thrust collar (mm)							
d	D	B	Ew	Fw	r (min)	r1 (min)	NU	NJ	NUP*	N*	NF	NP*			Grease lubrication	Oil lubrication		da (min)	db		dc (min)	dd (min)	Da (max)	Db		ra (max)	ra1 (max)	NU	N	Bearing No.	d	d1 (max)	B1	B2	r1 (min)	Mass (kg)	
17	40	12	33.9	22.9	0.6	0.3	NU 203	NJ	NUP	N	NF	NP	12600	7950	16000	19000		22	19	22	24	25	35	34	34	0.6	0.3	0.082	0.08	-	-	-	-	-	-	-	
20	47	14	40	27	1	0.6	NU 204	NJ	NUP	N	NF	NP	15400	12700	15000	18000		26	25	26	29	32	41	42	42	1	0.6	0.112	0.11	HJ 204	20	30	3	6.75	0.6	0.012	
25	52	15	45	32	1	0.6	NU 205	NJ	NUP	N	NF	NP	17700	15700	13000	16000		31	30	31	34	37	46	47	47	1	0.6	0.133	0.13	HJ 205	25	35	3	7.25	0.6	0.015	
30	62	16	53.5	38.5	1	0.6	NU 206	NJ	NUP	N	NF	NP	23500	21500	11000	13000		36	35	37	40	44	56	57	56	1	0.6	0.204	0.2	HJ 206	30	41.8	4	8.25	0.6	0.026	
35	72	17	61.8	43.8	1.1	0.6	NU 207	NJ	NUP	N	NF	NP	33500	31500	9500	11000		42	40	43	46	50	65	67	64	1	0.6	0.295	0.29	HJ 207	35	47.6	4	8	0.6	0.032	
40	80	18	70	50	1.1	1.1	NU 208	NJ	NUP	N	NF	NP	43500	43000	8500	10000		47	47	49	52	56	73	73	72	1	1	0.369	0.36	HJ 208	40	54.2	5	9	1.1	0.049	
45	85	19	75	55	1.1	1.1	NU 209	NJ	NUP	N	NF	NP	46000	47000	7500	9000		52	52	54	57	61	78	78	77	1	1	0.43	0.42	HJ 209	45	59	5	9.5	1.1	0.054	
50	90	20	80.4	60.4	1.1	1.1	NU 210	NJ	NUP	N	NF	NP	48000	51000	7100	8500		57	57	58	62	67	83	83	83	1	1	0.481	0.47	HJ 210	50	64.6	5	10	1.1	0.063	
55	100	21	88.5	66.5	1.5	1.1	NU 211	NJ	NUP	N	NF	NP	58000	62500	6300	7500		63.5	62	65	68	73	91.5	93	91	1.5	1	0.634	0.63	HJ 211	55	70.8	6	11	1.1	0.086	
60	110	22	97.5	73.5	1.5	1.5	NU 212	NJ	NUP	N	NF	NP	68500	75000	6000	7100		68.5	68.5	71	75	80	101.5	101.5	100	1.5	1.5	0.835	0.82	HJ 212	60	78.4	6	11	1.5	0.109	
65	120	23	105.6	79.6	1.5	1.5	NU 213	NJ	NUP	N	NF	NP	84000	94500	5300	6300		73.5	73.5	77	81	87	111.5	111.5	108	1.5	1.5	1.06	1.04	HJ 213	65	84.8	6	11	1.5	0.127	
70	125	24	110.5	84.5	1.5	1.5	NU 214	NJ	NUP	N	NF	NP	83500	95000	5000	6300		78.5	78.5	82	86	92	116.5	116.5	114	1.5	1.5	1.16	1.14	HJ 214	70	89.6	7	12.5	1.5	0.154	
75	130	25	-	88.5	1.5	1.5	NU 215 E	NJ	NUP	-	-	-	130000	156000	4300	5300		-	83.5	87	90	96	121.5	-	-	1.5	1.5	1.38	-	HJ 215 E	75	94.5	7	11	1.5	0.159	
75	130	25	116.5	88.5	1.5	1.5	NU 215	NJ	NUP	N	NF*	NP	96500	111000	4800	6000		83.5	83.5	87	90	96	121.5	121.5	120	1.5	1.5	1.24	1.22	HJ 215	75	94	7	12.5	1.5	0.161	
80	140	26	125.3	95.3	2	2	NU 216	NJ	NUP	N	NF*	NP	106000	122000	4500	5300		90	90	94	97	104	130	130	128	2	2	1.53	1.5	HJ 216	80	101.2	8	13.5	2	0.214	
85	150	28	133.8	101.8	2	2	NU 217	NJ	NUP	N	NF*	NP	120000	140000	4300	5000		95	95	99	104	110	140	140	137	2	2	1.92	1.87	HJ 217	85	108.2	8	14	2	0.253	
90	160	30	143	107	2	2	NU 218	NJ	NUP	N	NF*	NP	152000	178000	4000	4800		100	100	105	109	116	150	150	146	2	2	2.3	2.25	HJ 218	90	114.2	9	15	2	0.311	
95	170	32	151.5	113.5	2.1	2.1	NU 219	NJ	NUP	N	NF*	NP	165000	195000	3800	4500		107	107	111	116	123	158	158	155	2	2	2.81	2.75	HJ 219	95	121	9	15.5	2.1	0.357	
100	180	34	160	120	2.1	2.1	NU 220	NJ	NUP	N	NF*	NP	183000	217000	3600	4300		112	112	117	122	130	168	168	164	2	2	3.3	3.23	HJ 220	100	128	10	17	2.1	0.448	

* Not a stocked range although available on request. .

2200 Series																	2200 Series																			
Boundary dimensions (mm)							Bearing No.						Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (min-1)(1)			Abutment and fillet dimensions (mm)										Mass (kg)		Dimensions of L-shaped thrust collar (mm)						
d	D	B	Ew	Fw	r (min)	r1 (min)	NU	NJ	NUP*	N*	NF	NP*			Grease lubrication	Oil lubrication		da (min)	db		dc (min)	dd (min)	Da (max)	Db		ra (max)	ra1 (max)	NU	N	Bearing No.	d	d1 (max)	B1	B2	r1 (min)	Mass (kg)
25	52	18	-	32	1	0.6	NU 2205	NJ	NUP	-	-	-	24300	23500	12000	14000		-	30	31	34	37	46	-	-	1	0.6	0.163	-	HJ 2205	25	35	3	7.5	0.6	0.016
30	52	18	-	32	1	0.6	NU 2206	NJ	NUP	-	-	-	24300	23500	12000	14000		-	30	31	34	37	46	-	-	1	0.6	0.163	-	HJ 2206	25	35	3	7.5	0.6	0.016
35	52	18	-	32	1	0.6	NU 2207	NJ	NUP	-	-	-	24300	23500	12000	14000		-	30	31	34	37	46	-	-	1	0.6	0.163	-	HJ 2207	25	35	3	7.5	0.6	0.016
140	250	68	-	169	3	3	NU 2228 E	NJ	NUP	-	-	-	570000	835000	2200	2600		-	154	166	171	182	236	-	-	2.5	2.5	14.9	-	HJ 2228 E	140	180	11	23	3	1.08

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Boundary dimensions (mm)							Bearing No.						Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (min-1)(1)			Abutment and fillet dimensions (mm)								Mass (kg)		Dimensions of L-shaped thrust collar (mm)								
d	D	B	Ew	Fw	r (min)	r1 (min)	NU	NJ	NUP*	N*	NF	NP*			Grease lubrication	Oil lubrication		da (min)	db		dc (min)	dd (min)	Da (max)	Db		ra (max)	ra1 (max)	NU	N	Bearing No.	d	d1 (max)	B1	B2	r1 (min)	Mass (kg)
																			(min)	(max)				(max)	(min)											
20	52	15	44.5	28.5	1.1	0.6	NU 304	NJ	NUP	N	NF*	NP	21400	17300	12000	15000		27	25	27	30	33	45	47	47	1	0.6	0.154	0.15	HJ 304	20	31.8	4	7.5	0.6	0.017
25	62	17	53	35	1.1	1.1	NU 305	NJ	NUP	N	NF	NP	29300	25200	10000	10000		32	32	33	37	40	55	55	55	1	1	0.238	0.23	HJ 305	25	39	4	8	1.1	0.027
30	72	19	62	42	1.1	1.1	NU 306	NJ	NUP	N	NF	NP	38500	35000	8500	11000		37	37	40	44	48	65	65	64	1	1	0.357	0.35	HJ 306	30	45.9	5	9.5	1.1	0.044
35	80	21	68.2	46.2	1.5	1.1	NU 307	NJ	NUP	N	NF	NP	49500	47000	8000	9500		43.5	42	45	48	53	71.5	73	71	1.5	1	0.47	0.46	HJ 307	35	50.8	6	11	1.1	0.06
40	90	23	77.5	53.5	1.5	1.5	NU 308	NJ	NUP	N	NF	NP	58500	57000	6700	8500		48.5	48.5	51	55	60	81.5	81.5	80	1.5	1.5	0.665	0.65	HJ 308	40	58.4	7	12.5	1.5	0.09
45	100	25	86.5	58.5	1.5	1.5	NU 309	NJ	NUP	N	NF	NP	78500	77500	6300	7500		53.5	53.5	57	60	66	91.5	91.5	89	1.5	1.5	0.871	0.85	HJ 309	45	64	7	12.5	1.5	0.105
50	110	27	95	65	2	2	NU 310	NJ	NUP	N	NF	NP	87000	86000	5600	6700		60	60	63	67	73	100	100	98	2	2	1.17	1.14	HJ 310	50	71	8	14	2	0.145
55	120	29	104.5	70.5	2	2	NU 311	NJ	NUP	N	NF	NP	111000	111000	5000	6300		65	65	69	72	80	110	110	107	2	2	1.43	1.4	HJ 311	55	77.2	9	15	2	0.186
60	130	31	113	77	2.1	2.1	NU 312	NJ	NUP	N	NF	NP	124000	126000	4800	5600		72	72	75	79	86	118	118	116	2	2	1.82	1.78	HJ 312	60	84.2	9	15.5	2.1	0.224
65	140	33	121.5	83.5	2.1	2.1	NU 313	NJ	NUP	N	NF	NP	135000	139000	4500	5300		77	77	81	85	93	128	128	125	2	2	2.27	2.22	HJ 313	65	91	10	17	2.1	0.286
70	150	35	130	90	2.1	2.1	NU 314	NJ	NUP	N	NF	NP	158000	220000	4000	5000		82	82	87	92	100	138	138	134	2	2	2.73	2.68	HJ 314	70	98	10	17.5	2.1	0.336
75	160	37	139.5	95.5	2.1	2.1	NU 315	NJ	NUP	N	NF	NP	190000	205000	3800	4800		87	87	93	97	106	148	148	143	2	2	3.21	3.15	HJ 315	75	104.2	11	18.5	2.1	0.406
80	170	39	147	103	2.1	2.1	NU 316	NJ	NUP	N	NF*	NP	190000	207000	3600	4300		92	92	99	105	114	158	158	151	2	2	3.93	3.83	HJ 316	80	111.8	11	19.5	2.1	0.479
85	180	41	156	108	3	3	NU 317	NJ	NUP	N	NF*	NP	224000	247000	3400	4000		99	99	106	110	119	166	166	160	2.5	2.5	4.54	4.44	HJ 317	85	117.5	12	20.5	3	0.56

* Not a stocked range although available on request .