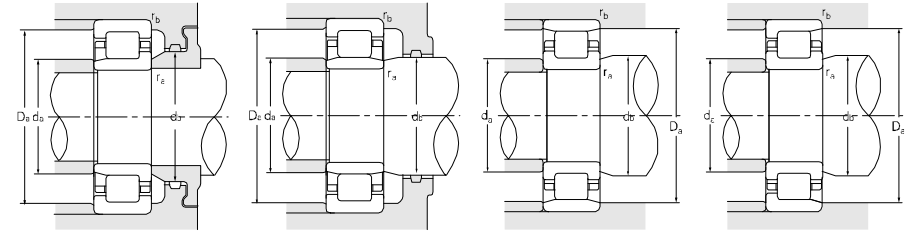
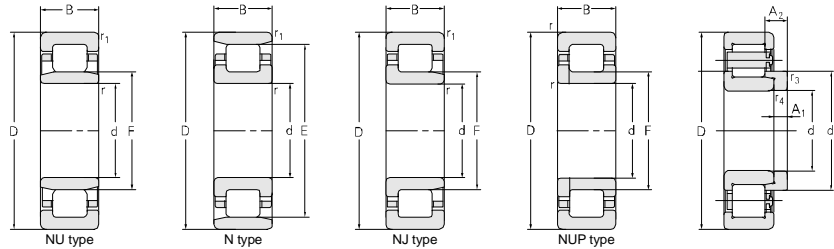


# Single-row Cylindrical Roller Bearing



d 95 mm

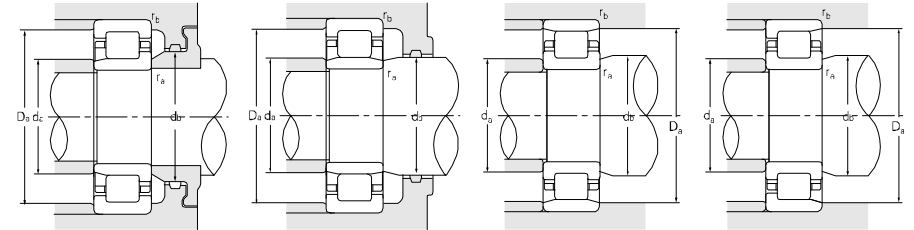
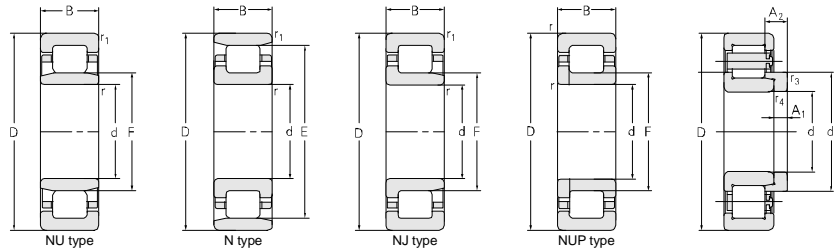


Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
<b>95</b>	170	32	2.1	2.1		154.5	245	255	3400	4000	<b>N219EJ</b>
	170	32	2.1	2.1		154.5	245	255	3400	4000	<b>N219E</b>
	170	32	2.1	2.1	112.5		245	255	3400	4000	<b>NU219E</b>
	170	32	2.1	2.1	112.5		245	255	3400	4000	<b>NU219ETN1/C9</b>
	170	32	2.1	2.1	112.5		245	255	3400	4000	<b>NJ219E</b>
	170	32	2.1	2.1	112.5		245	255	3400	4000	<b>NJ219EM</b>
	170	32	2.1	2.1	112.5		245	255	3400	4000	<b>NJ219ETN1</b>
	170	32	2.1	2.1		154.5	245	255	3400	4000	<b>N219EM</b>
	170	32	2.1	2.1		154.5	245	255	3400	4000	<b>NF219EM</b>
	170	43	2.1	2.1		151.5	242	315	3400	4000	<b>N2219M</b>
	170	43	2.1	2.1	113.5		242	315	3200	3900	<b>NU2219M</b>
	170	43	2.1	2.1	113.5		242	315	3200	3900	<b>NJ2219M</b>
	170	55.56	3.2	2		149.61	305	445	3400	4000	<b>NU5219XPC3</b>
	170	55.56	3.2	2		113.612	305	445	3400	4000	<b>NU3219X2M/C9YA6</b>
	200	45	3	3		173.5	295	340	2600	3200	<b>N319M</b>
	200	45	3	3		173.5	295	340	2600	3200	<b>N319J</b>
	200	45	3	3	121.5		295	340	2600	3200	<b>NU319M</b>
	200	45	3	3	121.5		295	340	2600	3200	<b>NJ319M</b>
	200	45	3	3	121.5		375	375	2600	3200	<b>NU319EM/Z1</b>
	200	45	3	3		177.5	375	375	2600	3200	<b>N319EM</b>
	200	45	3	3	121.5		375	375	2600	3200	<b>NU319EM/W124</b>
	200	45	3	3		177.5	375	375	2600	3200	<b>N319E</b>
	200	45	3	3		177.5	375	375	2600	3200	<b>N319ETN1</b>
	200	45	3	3	121.5		375	375	2600	3200	<b>NJ319E</b>
	200	45	3	3	121.5		375	375	2600	3200	<b>NU319E</b>
	200	45	3	3	121.5		375	375	2600	3200	<b>NU319EM-DT</b>
	200	67	3	3	121.5		435	565	2600	3200	<b>NU2319Q1</b>
	200	67	3	3	121.5		435	565	2600	3200	<b>NU2319M</b>
	200	67	3	3	121.5		435	565	2600	3200	<b>NJ2319M</b>
	200	67	3	3	121.5		435	565	2600	3200	<b>NJ2319M/YA8</b>
	200	67	3	3	121.5		435	565	2600	3200	<b>NJ2319M/C4W124YA8</b>
	200	67	3	3	121.5		435	565	2600	3200	<b>NJ2319M/W20</b>
	200	67	3	3	121.5		510	560	2600	3200	<b>NU2319E</b>
	200	67	3	3	121.5		510	560	2600	3200	<b>NU2319ETN1/C9</b>
	200	67	3	3	121.5		510	560	2600	3200	<b>NJ2319E</b>

Abutment and fillet dimensions							Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>	r <sub>bmax</sub>				A1	A2	r <sub>3,4</sub>
mm							kg	kg	mm			
106	152		159	157	2	2	2.91					
106	152		159	157	2	2	3.07					
106	110	115	159		2	2	3.06					
106	110	115	159		2	2	2.80					
106	110	123	159		2	2	3.12					
106	110	123	159		2	2	3.24					
106	110	123	159		2	2	2.86					
106	152		159	157	2	2	3.19					
106	152		159	157	2	2	3.23					
106	152		159	157	2	2	4.27					
107	110	115	158		2	2	4.31					
107	110	115	158		2	2	4.39					
107.5	112	116	161		1.5	3	5.48					
107.5	112	116	161		1.5	3	5.48					
108	170		187	178	2.5	2.5	6.67					
108	170		187	181	2.5	2.5	6.74					
108	118	124	187		2.5	2.5	7.00					
108	118	133	187		2.5	2.5	7.06					
108	118	124	187		2.5	2.5	6.68					
108	174		187	181	2.5	2.5	7.00					
108	118	124	187		2.5	2.5	6.68					
108	174		187	181	2.5	2.5	6.92					
108	174		187	181	2.5	2.5	6.31					
108	118	135	187		2.5	2.5	6.86					
108	118	124	187		2.5	2.5	6.74					
108	118	124	187		2.5	2.5	6.73					
108	116	124	187		2.5	2.5	9.86	HJ2319	0.864	13	26.23 3	
108	116	124	187		2.5	2.5	10.3	HJ2319	0.864	13	26.23 3	
108	116	135	187		2.5	2.5	10.2	HJ2319	0.864	13	26.23 3	
108	116	135	187		2.5	2.5	10.1	HJ2319	0.864	13	26.23 3	
108	116	135	187		2.5	2.5	10.1	HJ2319	0.864	13	26.23 3	
108	116	135	187		2.5	2.5	10.2	HJ2319	0.864	13	26.23 3	
108	116	124	187		2.5	2.5	9.84					
108	116	124	187		2.5	2.5	9.40					
108	116	135	187		2.5	2.5	9.77					

# Single-row Cylindrical Roller Bearing

d 95-100 mm



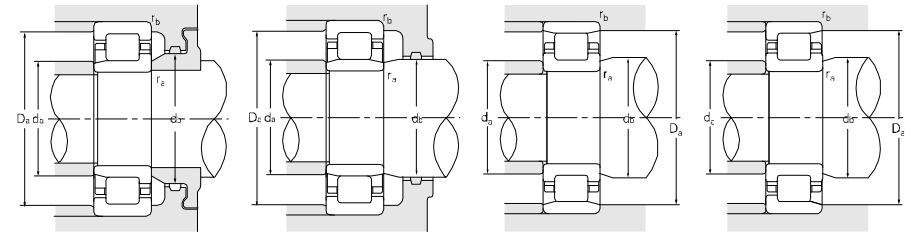
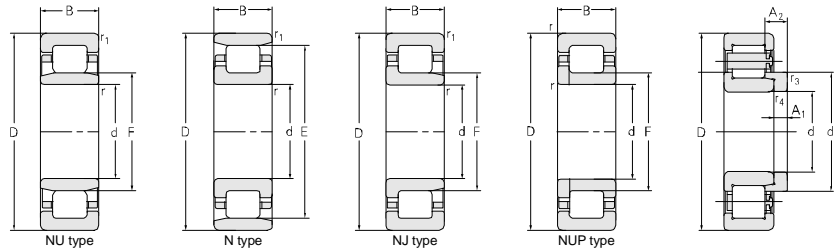
Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
<b>95</b>	200	67	3	3		177.5	510	560	2600	3200	<b>N2319E</b>
	240	55	4	4		201.5	455	525	2600	3200	<b>N419M</b>
	240	55	4	4	133.5		455	525	2600	3200	<b>NU419M</b>
	240	55	4	4	133.5		455	525	2600	3200	<b>NJ419M</b>
	240	55	4	4	133.5		455	525	2600	3200	<b>NUP419M</b>
<b>99.5</b>	180	46	2.1	2.1	120		275	385	3200	3800	<b>NJ2220X4M/P63</b>
<b>100</b>	140	20	1.1	1.1	110		75.5	110	3600	4300	<b>NU1920M</b>
	150	24	1.5	1.1	113		94.5	125	3600	4300	<b>NJ1020M</b>
	180	34	2.1	2.1		160	208	256	3200	3800	<b>N220M</b>
	180	34	2.1	2.1		160	208	256	3200	3800	<b>NF220M</b>
	180	34	2.1	2.1	120		208	256	3200	3800	<b>NJ220M</b>
	180	34	2.1	2.1	120		208	256	3200	3800	<b>NU220M</b>
	180	34	2.1	2.1	120		208	256	3200	3800	<b>NU220M/W124</b>
	180	34	2.1	2.1	120		208	256	3200	3800	<b>NU220Q1</b>
	180	34	2.1	2.1		163	275	330	3200	3800	<b>N220E</b>
	180	34	2.1	2.1		163	275	330	3200	3800	<b>N220ETN1</b>
	180	34	2.1	2.1	119		275	330	3200	3800	<b>NU220E</b>
	180	34	2.1	2.1	119		275	330	3200	3800	<b>NU220ETN1</b>
	180	34	2.1	2.1	119		275	330	3200	3800	<b>NU220ETN1/C9</b>
	180	34	2.1	2.1	119		275	330	3200	3800	<b>NJ220E</b>
	180	34	2.1	2.1	119		275	330	3200	3800	<b>NJ220ETN1</b>
	180	34		2.1	119		275	330	3200	3800	<b>NUP220E</b>
	180	34		2.1	119		275	330	3200	3800	<b>NUP220ETN1</b>
	180	34		2.1	120		231	240	3200	3800	<b>NUP220M</b>
	180	34	2.1	2.1	120		195	240	3200	3800	<b>NU220M-DT</b>
	180	46	2.1	2.1		160	275	385	3200	3800	<b>N2220M</b>
	180	46		2.1	120		275	385	3200	3800	<b>NUP2220M</b>
	180	46	2.1	2.1	120		275	385	3200	3800	<b>NJP2220M/P63</b>
	180	46	2.1	2.1	120		275	385	3200	3800	<b>NJ2220M</b>
180	46	2.1	2.1	120		275	385	3200	3800	<b>NU2220M</b>	
180	46	2.1	2.1	119		365	470	3200	3800	<b>NU2220E</b>	
180	46	2.1	2.1	119		365	470	3200	3800	<b>NU2220ETN1</b>	
180	60.3	2.1	2.1	120		208	256	3200	3800	<b>NU3220M/C3</b>	
180	60.3	2.1	2.1	119		335	440	3200	3800	<b>NJP3220TN1/HG2P54</b>	

Abutment and fillet dimensions							Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>	r <sub>bmax</sub>				A1	A2	r <sub>3,r4</sub>
mm							kg	kg	mm			
108	116		187	181	2.5	2.5	9.76					
111	198		224	205	3	3	13.3					
111	130	136	224		3	3	13.6	HJ419	1.35	15	25.23	4
111	130	150	224		3	3	13.9	HJ419	1.35	15	25.23	4
111		150	224		3	3	14.2					
111	116	130	169		2	2	5.42					
102	107	118	133		1	1	0.900					
105	110	123	132		1	1	1.51					
111	157		169	163	2	2	3.45					
111			169	163	2	2	3.55					
111	116	130	169		2	2	3.61					
111	116	123	169		2	2	3.52					
111	116	123	169		2	2	3.52					
111	116	123	169		2	2	3.57					
111	160		169	166	2	2	3.77					
111	160		169	166	2	2	3.75					
111	116	122	169		2	2	3.75					
111	116	122	169		2	2	3.39					
111	116	122	169		2	2	3.39					
111	116	130	169		2	2	3.81					
111	116	130	169		2	2	3.45					
111		130	169		2	2	3.90					
111		130	169		2	2	3.54					
112		130	168		2	2	3.71					
111	116	123	169		2	2	3.03					
111	116		169	166	2	2	5.25					
111	116	130	169		2	2	5.49					
111	116	130	169		2	2	5.38					
111	116	130	169		2	2	5.86					
111	116	122	169		2	2	5.20					
111	116	122	169		2	2	5.08					
111	116	122	169		2	2	4.69					
121	140	147	244		3	3	6.81					
121	140	147	244		3	3	5.98					

# Single-row Cylindrical Roller Bearing



d 100 mm



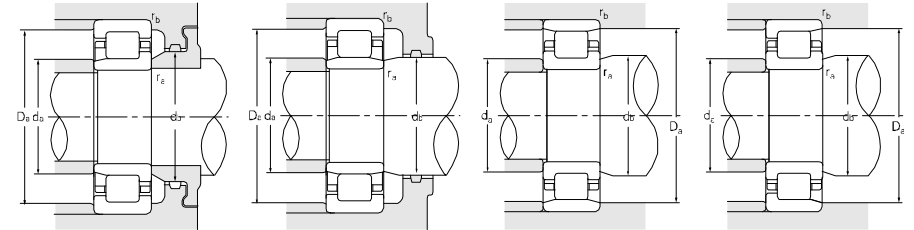
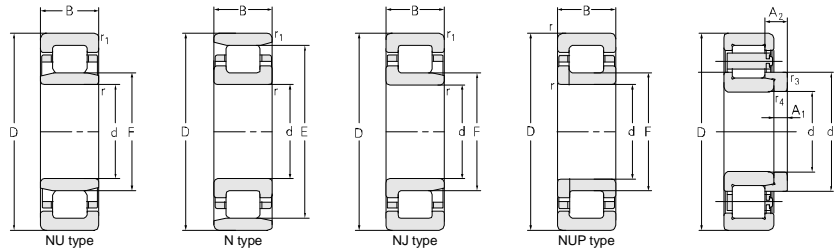
Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
<b>100</b>	180	60.3	2.1	2.1	120.8		335	440	3200	3800	<b>NU3220Q1/P691YAD-XD</b>
	180	60.3	3*45*	2.1	120		208	256	3200	3800	<b>NU3220M/P59YAD</b>
	180	60.32	4	2.1	121.005		358	515	3200	3800	<b>NU5220XPC3</b>
	180	60.32	4	2.1	121.005		345	495	3200	3800	<b>NU3220X2M/C9YA6</b>
	215	47	3	3	127.5		390	440	2400	3000	<b>NJ320EM</b>
	215	47	3	3	129.5		335	400	2400	3000	<b>NU320Q1</b>
	215	47	3	3	129.5		335	400	2400	3000	<b>NH320M</b>
	215	47	3	3	129.5		335	400	2400	3000	<b>NUP320M</b>
	215	47	3	3	129.5		335	400	2400	3000	<b>NU320M-DT</b>
	215	47	3.6	4	130.19		350	420	2400	3000	<b>A-0320-22</b>
	215	47	3	3	128.925		390	410	2400	3000	<b>NH320EQ1/HAYB2</b>
	215	47	3	3	127.5		390	410	2400	3000	<b>NJ320EQ1/HA</b>
	215	47	3	3		191.5	430	465	2400	3000	<b>N320E</b>
	215	47	3	3		191.5	430	465	2400	3000	<b>N320EM</b>
	215	47	3	3	127.5		430	465	2400	3000	<b>NU320E</b>
	215	47	3	3	127.5		430	465	2400	3000	<b>NU320EM</b>
	215	47	3	3	127.5		430	465	2400	3000	<b>NU320EM/W124</b>
	215	47	3	3	127.5		430	465	2400	3000	<b>NU320EM/C9</b>
	215	47	3	3	127.5		430	465	2400	3000	<b>NU320EQ1</b>
	215	47	3	3	127.5		430	465	2400	3000	<b>NJ320E</b>
	215	73	3	3		185.5	480	625	2400	3000	<b>N2320M</b>
	215	73	3	3	129.5		480	625	2400	3000	<b>NU2320M</b>
	215	73	3	3	129.5		480	625	2400	3000	<b>NJ2320M</b>
	215	73	3	3	129.5		480	625	2400	3000	<b>NJ2320M/YA8</b>
	215	73	3	3	129.5		480	625	2400	3000	<b>NJ2320M/C4W124YA8</b>
	215	73	3	3		191.5	645	760	2400	3000	<b>N2320E</b>
	215	73	3	3	127.5		645	760	2400	3000	<b>NU2320E</b>
	215	73	3	3	127.5		645	760	2400	3000	<b>NU2320EM/C9</b>
	215	73	3	3	127.5		645	760	2400	3000	<b>NU2320ETN1/C9</b>
	215	73	3	3	127.5		645	760	2400	3000	<b>NJ2320E</b>
	215	73	3	3	127.5		645	760	2400	3000	<b>NJ2320EQ1</b>
	215	73	3	3	127.5		645	760	2400	3000	<b>NU2320EMA</b>
	215	82.6	3	3		185.5	560	760	2400	3000	<b>NF3320Q1</b>
	250	58	4	4		211	505	590	2400	3000	<b>N420M</b>
	250	58	4	4	139		505	590	2400	3000	<b>NU420M</b>
	250	58	4	4	139		505	590	2400	3000	<b>NJ420M</b>

Abutment and fillet dimensions						Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>				r <sub>bmax</sub>	A1	A2
mm						kg	kg	mm			
121	140	147	244		3	3	7.17				
121	140	147	244		3	3	7.06				
115	119	123	170		2	2	7.69				
115	119	123	170		2	2	7.69				
113	124	142	202		2.5	2.5	9.82	HJ320E	0.888	13 20.5 3	
113	124	132	202		2.5	2.5	8.78	HJ320	0.867	13 22.5 3	
113	124	142	202		2.5	2.5	9.64				
113	124	142	202		2.5	2.5	9.05				
113	120	142	202		2.5	2.5	8.55	HJ320	0.867	13 22.5 3	
113	124	142	202		2.5	2.5	9.15				
113	124	142	202		2.5	2.5	9.69				
113	124	142	202		2.5	2.5	9.59	HJ320E	0.888	13 20.5 3	
113	188	202	202	195	2.5	2.5	8.24				
113	188	202	202	195	2.5	2.5	9.67				
113	124	130	202		2.5	2.5	8.35	HJ320E	0.888	13 20.5 3	
113	124	130	202		2.5	2.5	9.67	HJ320E	0.888	13 20.5 3	
113	124	130	202		2.5	2.5	9.67	HJ320E	0.888	13 20.5 3	
113	124	130	202		2.5	2.5	9.67	HJ320E	0.888	13 20.5 3	
113	124	130	202		2.5	2.5	9.59	HJ320E	0.888	13 20.5 3	
113	124	142	202		2.5	2.5	8.50	HJ320E	0.888	13 20.5 3	
113	182	202	202	190	2.5	2.5	13.1				
113	125	133	202		2.5	2.5	13.2	HJ2320	0.98	13 27.23 3	
113	125	142	202		2.5	2.5	13.5	HJ2320	0.98	13 27.23 3	
113	125	142	202		2.5	2.5	13.5	HJ2320	0.98	13 27.23 3	
113	125	142	202		2.5	2.5	13.5	HJ2320	0.98	13 27.23 3	
113	125	142	202		2.5	2.5	13.5	HJ2320	0.98	13 27.23 3	
113	188	202	202	195	2.5	2.5	12.9				
113	124	130	202		2.5	2.5	12.7	HJ2320E0.946		23.28 23.5 3	
113	124	130	202		2.5	2.5	13.8	HJ2320E0.946		23.28 23.5 3	
113	124	130	202		2.5	2.5	11.5	HJ2320E0.946		23.28 23.5 3	
113	124	142	202		2.5	2.5	12.9	HJ2320E0.946		23.28 23.5 3	
113	124	142	202		2.5	2.5	12.9	HJ2320E0.946		23.28 23.5 3	
113	124	130	202		2.5	2.5	13.4				
113	124	130	202	195	2.5	2.5	15.6				
116	208	234	215		3	3	15.4				
116	135	142	234		3	3	15.5				
116	135	156	234		3	3	15.9				

# Single-row Cylindrical Roller Bearing



d 105~110 mm



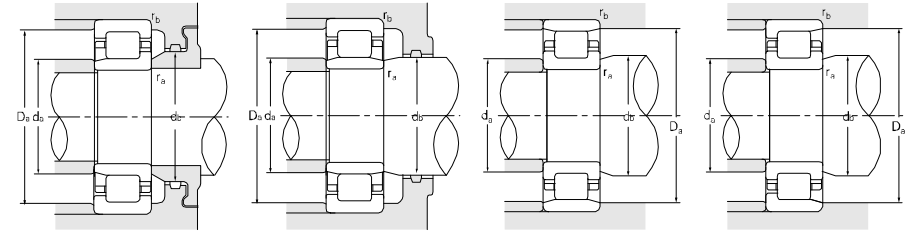
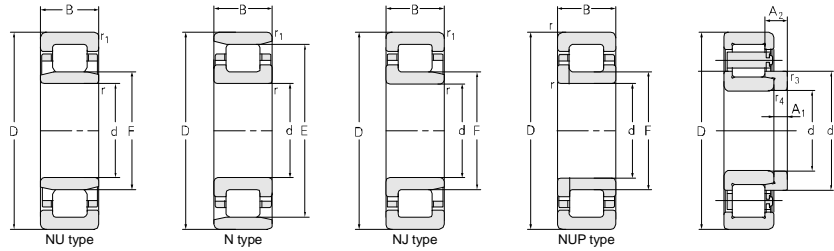
Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
<b>105</b>	160	26	2	1.1		145.5	120	170	4000	4800	<b>NF1021M</b>
	160	26	2	1.1		145.5	120	170	4000	4800	<b>N1021M</b>
	190	36	2.1	2.1		168.8	225	285	3000	3600	<b>N221M</b>
	190	36	2.1	2.1	126.8		225	285	3000	3600	<b>NJ221M</b>
	190	36	2.1	2.1	126.8		225	285	3000	3600	<b>NU221M/W124</b>
	190	36	2.1	2.1	125		290	315	3000	3600	<b>NJ221EM</b>
	190	36	2.1	2.1	125		290	315	3000	3600	<b>NU221EM/C9</b>
	190	36	2.1	2.1	125		290	315	3000	3600	<b>NU221EM</b>
	190	65.1	2.1	2.1	126.8		350	500	3000	3600	<b>NU3221M/C3</b>
	225	49	3	3		201	480	525	2200	2800	<b>N321EM</b>
	225	49	3	3	133		480	525	2200	2800	<b>NJ321EM</b>
	225	49	3	3	133		480	525	2200	2800	<b>NU321EM</b>
	225	49	3	3	133		480	525	2200	2800	<b>NU321EM/C9</b>
	225	87.3	3	3		196	660	910	2200	2800	<b>N3321</b>
	260	60	4	4		220.5	560	655	2200	2800	<b>N421M</b>
	260	60	4	4	144.5		560	655	2200	2800	<b>NU421M</b>
	260	60	4	4	144.5		560	655	2200	2800	<b>NJ421M/C5</b>
	<b>107.95</b>	165.1	57.15	2.5	2.5	127	285	590	3000	3600	<b>NA6/107X4/C9</b>
<b>110</b>	170	28	2	1.1		155	140	195	3800	4500	<b>N1022M</b>
	170	28	2	1.1	125	140	195	3800	4500	<b>NU1022M</b>	
	170	28	2	1.1	125	140	195	3800	4500	<b>NJ1022M</b>	
	170	28	2	1.1	125	140	195	3800	4500	<b>NUP1022M</b>	
	170	28	2	1.1	125	140	195	3800	4500	<b>NUP1022TN1/C9YB2</b>	
	200	38	2.1	2.1		178.5	255	315	2800	3400	<b>N222J</b>
	200	38	2.1	2.1	132.5		255	315	2800	3400	<b>NU222M/YA8</b>
	200	38	2.1	2.1	132.5		255	315	2800	3400	<b>NU222Q1</b>
	200	38	2.1	2.1		178.5	255	315	2800	3400	<b>NF222M</b>
	200	38	2.1	2.1		178.5	270	335	2800	3400	<b>N222M</b>
	200	38	2.1	2.1	132.5		270	335	2800	3400	<b>NJ222M</b>
	200	38	2.1	2.1	132.5		270	335	2800	3400	<b>NU222M/W124</b>
	200	38	2.1	2.1	132.5		270	335	2800	3400	<b>NU222M</b>
	200	38	2.1	2.1	132.5		320	350	2800	3400	<b>NU222EM/C9</b>
	200	38	2.1	2.1		180.5	320	350	2800	3400	<b>N222EM</b>
	200	38	2.1	2.1	132.5		320	350	2800	3400	<b>NJ222EM</b>

Abutment and fillet dimensions							Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>	r <sub>bmax</sub>				A1	A2	r <sub>3,4</sub>
mm							kg	kg	mm			
111.5	141		151	149	2	1	1.93					
111.5	166		151	149	2	1	1.85					
116	121		179	172	2	2	4.33					
116	198	137	179		2	2	4.34					
116	198	137	179		2	2	4.25					
116	198	137	179		2	2	4.52					
116	198	137	179		2	2	4.42					
116	198	137	179		2	2	4.33					
116	122	128	179		2	2	8.22					
118	130		212	203	2.5	2.5	10.5					
118	130	148	212		2.5	2.5	10.7					
118	217	136	212		2.5	2.5	10.6					
118	217	136	212		2.5	2.5	10.6					
116	193		208	199	2.5	2.5	18.3					
121	151		244	224	3	3	17.2					
121	217	136	244		3	3	17.3					
121	217	136	244		3	3	17.6					
114	121	125	155		2	2	5.11					
116.5	123		161	157	2	1	2.31					
116.5	175	128	161		2	1	2.32					
116.5	175	128	161		2	1	2.39					
116		135	161		2	2	2.45					
116		135	161		2	2	2.17					
121	175		189	181	2	2	4.70					
121	129	135	189		2	2	5.30					
121	177	135	189		2	2	5.36					
121	129		189	181	2	2	5.17					
121	129		189	181	2	2	5.02					
121	129	145	189		2	2	5.10					
121	129	135	189		2	2	5.05					
121	129	135	189		2	2	5.05					
121	129		189	183	2	2	5.28					
121	129		189	183	2	2	5.27					
121	204	145	189		2	2	5.38					

# Single-row Cylindrical Roller Bearing



d 110-120 mm



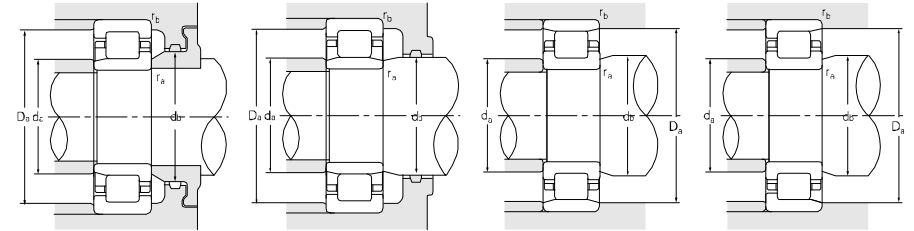
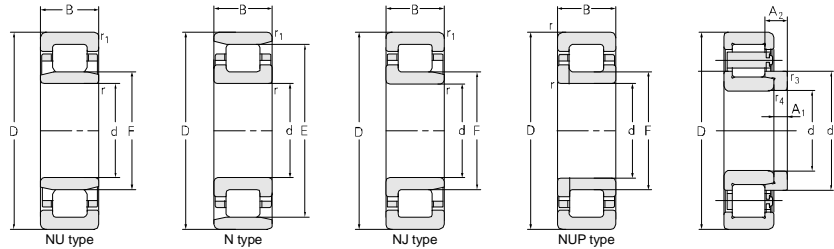
Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
110	200	38	2.1	2.1		180	5320	350	2800	3400	N222E
	200	38	2.1	2.1	132.5		320	350	2800	3400	NU222E
	200	38	2.1	2.1	132.5		320	350	2800	3400	NJ222E
	200	53		2	132		352	470	2800	3400	NUP2222M
	200	53	2.1	2.1	132		352	470	2800	3400	NU2222M
	200	53	2.1	2.1	132		352	470	2800	3400	NJ2222M
	200	53	2	2	132		420	520	2800	3400	NU2222ETN1/C9
	200	69.8	2.1	2.1	132.5		450	655	2800	3400	NU3222M/C3
	240	50	3	3		207	410	480	2000	2600	N322
	240	50	3	3	143		410	480	2000	2600	NU322M-DT
	240	50	3	3		207	430	515	2000	2600	N322M
	240	50	3	3	143		430	515	2000	2600	NJ322M
	240	50	3	3	143		430	515	2000	2600	NU322M
	240	50	3	3	143		430	515	2000	2600	NU322Q1
	240	50	3	3	143		430	515	2000	2600	NUP322M
	240	50	3	3		211	510	520	2000	2600	N322EM
	240	50	3	3	143		510	520	2000	2600	NU322EM
	240	50	3	3	143		510	520	2000	2600	NU322ETN1/C9
	240	50	3	3	143		510	520	2000	2600	NU322EM/W124
	240	50	3	3		211	510	520	2000	2600	N322E
	240	50	3	3	143		510	520	2000	2600	NJ322E
	240	50	3	3	143		510	520	2000	2600	NU322E
	240	50	3	3	143		510	520	2000	2600	NU322EQ1/C9
	240	80	3	3	143		750	865	2000	2600	NU2322EQ1
	240	80	3	3	143		750	865	2000	2600	NJ2322EM/YA8
	240	80	3	3	143		750	865	2000	2600	NJ2322EM
	240	80	3	3	143		750	865	2000	2600	NU2322EM
	240	80	3	3	143		750	865	2000	2600	NU2322M/C9
	240	80	3	3	143		750	865	2000	2600	NU2322E
	240	80	3	3		211	750	865	2000	2600	N2322E
	240	80	3	3	143		750	865	2000	2600	FL-NU2322EM/P6
	280	65	4	4		235	615	725	2000	2600	N422M
280	65	4	4	155		615	725	2000	2600	NU422M	
280	65	4	4	155		615	725	2000	2600	NJ422M	
120	160	27	1.1	1.1	152	105	170	3400	4000	NF2924X1M	

Abutment and fillet dimensions							Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>	r <sub>bmax</sub>				A1	A2	r <sub>3,4</sub>
mm							kg	kg	mm			
121	177		189	183	2	2	5.11					
121	129	135	189		2	2	5.12					
121	204	145	189		2	2	5.02					
121		145	189		2	2	7.95					
121	129	135	189		2	2	7.63					
121	138	145	189		2	2	7.83					
121		145	189		2	2	6.57					
121	129	135	189		2	2	9.92					
123	208		227	210	2.5	2.5	10.2					
123	139	146	227		2.5	2.5	11.6	HJ322E	1.25	14	22	
123	139		227	210	2.5	2.5	11.4					
123	139	159	227		2.5	2.5	11.8					
123	139	146	227		2.5	2.5	11.6					
123		146	227		2.5	2.5	11.6					
123	230	159	227		2.5	2.5	10.3					
123	204		227	215	2.5	2.5	11.4					
123	139	146	227		2.5	2.5	11.5	HJ322E	1.25	14	22	
123	139	146	227		2.5	2.5	10.4	HJ322E	1.25	14	22	
123	139	146	227		2.5	2.5	11.5	HJ322E	1.25	14	22	
123	204		227	215	2.5	2.5	11.2					
123	139	159	227		2.5	2.5	11.4	HJ322E	1.25	14	22	
123	139	146	227		2.5	2.5	11.3	HJ322E	1.25	14	22	
123	139	146	227		2.5	2.5	11.8	HJ322E	1.25	14	22	
123	138	146	227		2.5	2.5	17.6	HJ2322E1.31	1.31	14	26.22	
123	138	159	227		2.5	2.5	18.8	HJ2322E1.31	1.31	14	26.22	
123	138	159	227		2.5	2.5	18.7	HJ2322E1.31	1.31	14	26.22	
123	138	146	227		2.5	2.5	18.3	HJ2322E1.31	1.31	14	26.22	
123	133	146	227		2.5	2.5	18.3	HJ2322E1.31	1.31	14	26.22	
123	138	146	227		2.5	2.5	17.6	HJ2322E1.31	1.31	14	26.22	
123	138		227	215	2.5	2.5	17.5					
123	138	146	227		2.5	2.5	18.6					
126	150		264	240	3	3	21.8					
126	150	158	264		3	3	22.0					
126	129	174	264		3	3	22.3					
126	130		158	150	1	1	1.74					

# Single-row Cylindrical Roller Bearing



d 120 mm



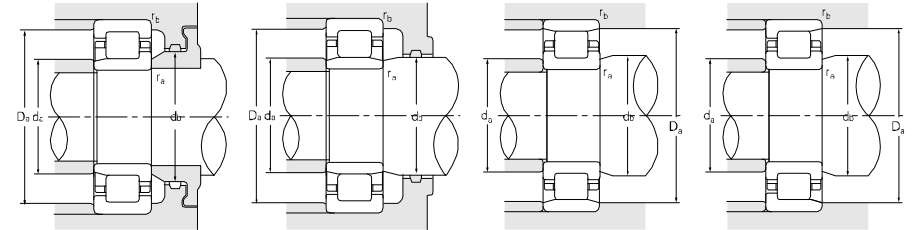
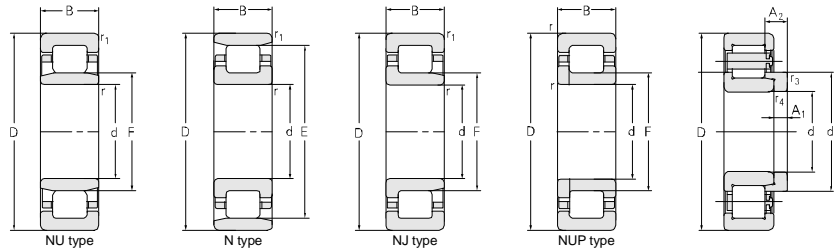
Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>Or</sub>	Grease		Oil
mm						kN		r/min			
120	180	28	2	1.1	135		145	205	3400	4000	NU1024M
	180	28	2	1.1	135		145	205	3400	4000	NU1024MA
	180	28	2	1.1	135		145	205	3400	4000	NJ1024M
	215	40	2.1	2.1	143.5		290	210	2400	3000	NU224M/P59
	215	40	2.1	2.1	143.5	191.5	305	390	2400	3000	N224M
	215	40	2.1	2.1	143.5		305	390	2400	3000	NJ224M
	215	40	2.1	2.1	143.5		305	390	2400	3000	NU224M
	215	40	2.1	2.1	143.5		305	390	2400	3000	NU224M-DT
	215	40	2.1	2.1	143.5		375	420	2400	3000	NU224EMA
	215	40	2.1	2.1	143.5	195.5	375	420	2400	3000	N224E
	215	40	2.1	2.1	143.5		375	420	2400	3000	NU224E
	215	40	2.1	2.1	143.5		375	420	2400	3000	NJ224E
	215	40	2.1	2.1	143.5		375	420	2400	3000	NJ224EM
	215	40	2.1	2.1	143.5		375	420	2400	3000	NUP224E
	215	40	2.1	2.1	143.5		375	420	2400	3000	NU224EQ1
	215	40	2.1	2.1	143.5		375	420	2400	3000	NU224EM
	215	40	2.1	2.1	143.5		375	420	2400	3000	NU224EM/W124
	215	40	2.1	2.1	143.5		375	420	2400	3000	NU224EM/C9
	215	58	2.1	2.1	143.5	191.5	395	550	2400	3000	N2224M
	215	58	2.1	2.1	143.5		395	550	2400	3000	NU2224M
	215	58	2.1	2.1	143.5		395	550	2400	3000	NJ2224M
	215	58	2.1	2.1	143.5		500	605	2400	3000	NJ2224EM
	215	58	2.1	2.1	143.5	195.5	500	605	2400	3000	NF2224EM
	215	58	2.1	2.1	143.5	195.5	500	605	2400	3000	N2224E
	215	58	2.1	2.1	143.5		500	605	2400	3000	NU2224E
	215	58	2.1	2.1	143.5		500	605	2400	3000	NU2224ETN1
	215	58	2.1	2.1	143.5		500	605	2400	3000	NU2224ETN1/C9
	215	58	2.1	2.1	143.5		500	605	2400	3000	NJ2224E
	215	76	2.1	2.1	145.14		515	780	2400	3000	NU3224M
	215	76	2.1	2.1	145.14		515	780	2400	3000	NU3224M/C4
	215	76.2	5.1	2	145.14		515	780	2200	2800	NU3224X2M/C9YA6
	215	76.2	5.1	2	145.14		550	845	2200	2800	NU5224XPC3
240	80	3	3	150		530	790	2400	3200	NJ624M	
260	55	3	3		226	505	600	2400	3000	NF324M	
260	55	3	3		226	460	600	2400	3000	NF324M/YA8	
260	55	3	3		226	490	645	1900	2400	N324M	

Abutment and fillet dimensions						Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>				r <sub>bmax</sub>	A1	A2
mm						kg	kg	mm			
126.5	133	138	171		2	1	2.96				
126.5	133	138	171		2	1	2.96				
126.5	188	144	171		2	1	3.09				
131	140	146	204		2	2	6.27				
131	140		204	195			6.11				
131	140	156	204		2	2	6.39	HJ224	0.698	11 18.73 2.1	
131	192	146	204		2	2	6.27	HJ224	0.698	11 18.73 2.1	
131	192	146	204		2	2	6.19				
131	192	146	204		2	2	6.92				
131	140		204	199	2	2	6.32				
131	140	146	204		2	2	6.73				
131		156	204		2	2	6.67				
131		156	204		2	2	6.68				
131		156	204		2	2	6.80				
131	140	146	204		2	2	6.88				
131	140	146	204		2	2	6.74				
131	140	146	204		2	2	6.78				
131	140	146	204		2	2	6.74				
131	188		204	195	2	2	8.92				
131	139	146	204		2	2	9.31				
131	139	156	204		2	2	9.46				
131	140	156	204		2	2	9.80				
130		206	199		2	2	9.72				
131	192		204	199	2	2	9.15				
131	140	146	204		2	2	9.00				
131	140	146	204		2	2	8.33				
131	140	146	204		2	2	8.33				
131	140	156	204		2	2	9.15				
131	140	146	204		2	2	12.4				
131	140	146	204		2	2	12.4				
135.6	142	148	204		1.5	2	12.6				
135.6	142	148	204		1.5	2	12.6				
140	147	165	222		2.5	2.5	17.7				
133	222		247	230	2.5	2.5	14.3				
133	222		247	230	2.5	2.5	14.3				
133			247	230	2.5	2.5	15.1				

# Single-row Cylindrical Roller Bearing



d 120~129 mm



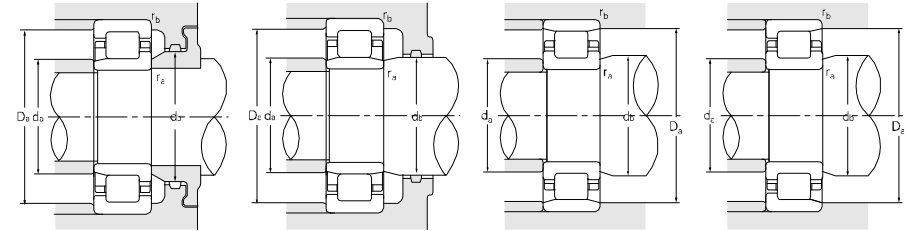
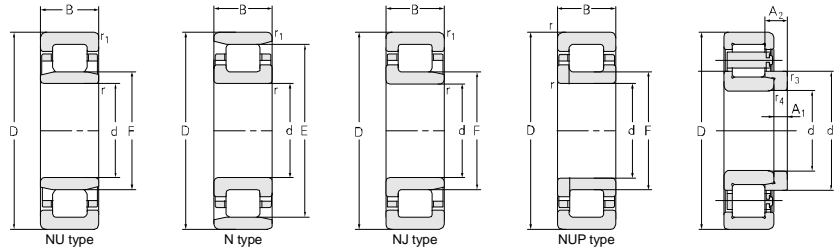
Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
<b>120</b>	<b>260</b>	<b>55</b>	<b>3</b>	<b>3</b>		<b>226</b>	<b>490</b>	<b>645</b>	<b>1900</b>	<b>2400</b>	<b>N324J</b>
	260	55	3	3	154		540	645	1900	2400	<b>NU324M</b>
	260	55	3	3	154		540	645	1900	2400	<b>NU324M/W124</b>
	260	55	3	3	154		540	645	1900	2400	<b>NU324Q1</b>
	260	55	3	3	154		540	645	1900	2400	<b>NJ324M</b>
	260	55	3	3	154		560	660	1900	2400	<b>NJ324EQ1A/C9YA8</b>
	260	55	3	3	154		540	645	1900	2400	<b>NUP324M</b>
	260	55	3	3	154		590	710	1900	2400	<b>NU324EM</b>
	260	55	3	3		<b>230</b>	540	710	1900	2400	<b>N324E</b>
	260	55	3	3	154		595	710	1900	2400	<b>NU324E</b>
	260	55	3	3	154		590	710	1900	2400	<b>NU324ETN1/C9</b>
	260	55	3	3	154		594	710	1900	2400	<b>NJ324E</b>
	260	55	3	3	154		490	710	1900	2400	<b>NU324M-DT/YB2</b>
	260	55	3	3	154		490	710	1900	2400	<b>NU324L3-DT/YB2</b>
	260	55	3	3	154		490	710	1900	2400	<b>NU324L3-DT</b>
	260	55	3	3	154		490	710	1900	2400	<b>NU324M-DT</b>
	260	86	3	3		<b>226</b>	735	970	1900	2400	<b>N2324M</b>
	260	86	3	3	154		735	970	1900	2400	<b>NU2324M</b>
	260	86	3	3	154		780	1040	1900	2400	<b>NJ2324M/YA8-1</b>
	260	86	3	3	154		735	970	1900	2400	<b>NJ2324M</b>
	260	86	3	3	154		780	1040	1900	2400	<b>NJ2324M/C4YA8</b>
	260	86	3	3	154		780	1040	1900	2400	<b>NJ2324M/C4W124YA8-1</b>
	260	86	3	3	154		860	1040	1900	2400	<b>FL-NJ2324EQ1A</b>
	260	86	3	3	154		860	1040	1900	2400	<b>FL-NJ2324EQ1A/C3</b>
	260	104.775	3	3		<b>230</b>	910	1240	1900	2400	<b>N3324X2M</b>
	260	106	3	3		<b>230</b>	990	1380	1900	2400	<b>NF3324Q1</b>
	310	72	5	5		<b>260</b>	770	915	1900	2400	<b>N424M</b>
	310	72	5	5	170		770	915	1900	2400	<b>NU424M</b>
	310	72	5	5	170		770	915	1900	2400	<b>NU424Q1</b>
	310	72	5	5	170		770	915	1900	2400	<b>NJ424M</b>
<b>127</b>	<b>228.6</b>	<b>34.925</b>	<b>2</b>	<b>1.1</b>		<b>199.8</b>	<b>295</b>	<b>410</b>	<b>1900</b>	<b>2400</b>	<b>N6/127M/YAB</b>
<b>129</b>	<b>250</b>	<b>80</b>	<b>3</b>	<b>3.7</b>	<b>158</b>		<b>665</b>	<b>807</b>	<b>1800</b>	<b>2200</b>	<b>NJP3226X1K2</b>
	250	80	3	3.7	158		665	807	1800	2200	<b>NJ3226X1K2</b>

Abutment and fillet dimensions							Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>	r <sub>bmax</sub>				A1	A2	r <sub>3,r4</sub>
mm							kg	kg	mm			
133	222		247	230	2.5	2.5	13.9					
133	150	157	247		2.5	2.5	15.4					
133	150	157	247		2.5	2.5	15.4					
133	150	157	247		2.5	2.5	15.2					
133	150	171	247		2.5	2.5	15.7					
133	150	171	247		2.5	2.5	15.4					
133		171	247		2.5	2.5	16.0					
133	150	157	247		2.5	2.5	16.3					
133	226		247	<b>234</b>	2.5	2.5	14.3					
133	150	157	247		2.5	2.5	15.8					
133	150	157	247		2.5	2.5	14.6					
133	150	171	247		2.5	2.5	16.0					
133	150	157	247		2.5	2.5	15.0					
133	150	157	247		2.5	2.5	14.9					
133	150	157	247		2.5	2.5	15.0					
133	223		247	<b>229</b>	2.5	2.5	22.9					
133	149	157	247		2.5	2.5	23.1	HJ2324	1.52	14	27.72 3	
133	149	170	247		2.5	2.5	23.7	HJ2324	1.52	14	27.72 3	
133	149	170	247		2.5	2.5	23.6	HJ2324	1.52	14	27.72 3	
133	149	170	247		2.5	2.5	24.6	HJ2324	1.52	14	27.72 3	
133	149	170	247		2.5	2.5	23.7	HJ2324	1.52	14	27.72 3	
133	149	170	247		2.5	2.5	31.0					
133	149	170	247		2.5	2.5	31.0					
133	226		247	<b>234</b>	2.5	2.5	28.0					
133	149	170	247		2.5	2.5	29.9					
140	254		290	<b>266</b>	4	4	29.0					
140	165	173	290		4	4	29.1					
140	165	173	290		4	4	28.8					
140	165	191	290		4	4	29.7					
134	196		223	204	1	1	5.60					
150	170	200	230		3	3	18.6					
150	170	200	230		3	3	18.4					

# Single-row Cylindrical Roller Bearing



d 129.5~130 mm



Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
129.5	250	80	3	3.7	158		665	807	1800	2200	NJP3226X1K1 NJ3226X1K1
	250	80	3	3.7	158		665	807	1800	2200	
130	180	50	1.5	1.5	150		220	555	1900	2400	NA4926/C9 N1026M NU1026M NJ1026M NU2026EMA NJP2226X3TN1/HG2 NJP2226Q1/C4S0 NJ2226X3TN1/HG2 N226J N226M NU226M NU226M/W124 NJ226M NU226EQ1 NU226EM/C9 NJ226EQ1 N226E NF226EM NJ226E NJ226EM NU226E NUP226E NU226M-DT NF2226M N2226M NU2226M NJ2226M NJ2226Q1 NUP2226M NU2226E FL-NU2226EMA/C3 NU2226EQ1
	200	33	2	1.1	148	182	190	274	3200	3800	
	200	33	2	1.1	148		190	274	3200	3800	
	200	33	2	1.1	148		190	274	3200	3800	
	200	42	2	1.1	147		280	415	3000	3700	
	220	62	2	2.1	150		528	675	2200	2800	
	230	64	3	3	150		410	580	2200	2800	
	220	62	2	2.1	150		528	675	2200	2800	
	230	40	3	3		204	301	395	2200	2800	
	230	40	3	3		204	315	415	2200	2800	
	230	40	3	3	156		315	415	2200	2800	
	230	40	3	3	156		315	415	2200	2800	
	230	40	3	3	156		315	415	2200	2800	
	230	40	3	3	153.5		400	465	2200	2800	
	230	40	3	3	153.5		400	465	2200	2800	
	230	40	3	3	153.5		400	465	2200	2800	
	230	40	3	3		209.5	400	465	2200	2800	
	230	40	3	3		209.5	340	420	2200	2800	
	230	40	3	3	153.5		400	465	2200	2800	
	230	40	3	3	153.5		400	465	2200	2800	
	230	40	3	3	153.5		400	465	2200	2800	
	230	40	3	3	153.5		400	465	2200	2800	
	230	40	3	3	156		315	415	2200	2800	
	230	64	3	3		204	430	625	2200	2800	
	230	64	3	3		204	430	625	2200	2800	
	230	64	3	3	156		430	625	2200	2800	
	230	64	3	3	156		430	625	2200	2800	
	230	64	3	3	156		430	625	2200	2800	
	230	64	3	3	156		430	625	2200	2800	
	230	64	3	3	153.5		530	735	2200	2800	
	230	64	3	3	153.5		595	795	2200	2800	
	230	64	3	3	153.5		530	735	2200	2800	

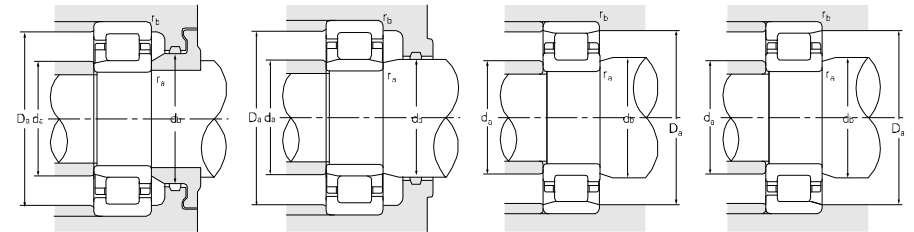
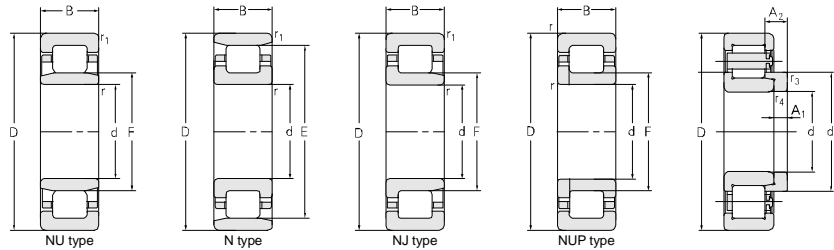
Abutment and fillet dimensions						Weight	Model	Weight	Separate thrust collar		
d <sub>amin</sub>	d <sub>amax</sub>	d <sub>bmin</sub>	D <sub>amax</sub>	D <sub>amin</sub>	r <sub>amax</sub>				r <sub>bmax</sub>	A1	A2
mm						kg	kg	mm			
150	170	200	230		3	3	18.5				
150	170	200	230		3	3	18.4				
150	170	145	160		1.5	1.5	4.36				
136.5	178		191	184	2	1	4.57				
136.5	145	151	191		2	1	4.66				
136.5	145	151	191		2	1	4.61				
143	149	167	217		1	1	4.95				
143	149	167	217		2.5	2.5	8.68				
143	149	167	217		2.5	2.5	11.9				
143	149	167	217		2.5	2.5	8.69				
143	200		217	207	2.5	2.5	6.52				
143	200		217	207	2.5	2.5	7.08				
143	153	159	217		2.5	2.5	7.22				
143	153	159	217		2.5	2.5	7.54				
143	153	167	217		2.5	2.5	7.32				
143	150	156	217		2.5	2.5	7.38				
143	150	156	217		2.5	2.5	7.54				
143	150	167	217		2.5	2.5	7.50				
143	206		217	213	2.5	2.5	7.09				
143	206		217	213	2.5	2.5	7.57				
143	150	167	217		2.5	2.5	7.38				
143	150	167	217		2.5	2.5	7.66				
143	150	156	217		2.5	2.5	7.26				
143	167	217			2.5	2.5	7.49				
143	153	159	217		2.5	2.5	7.12				
143			217	209	2.5	2.5	11.7				
143	200		217	209	2.5	2.5	11.6				
143	153	159	217		2.5	2.5	11.8				
143	153	167	217		2.5	2.5	11.9				
143	153	167	217		2.5	2.5	11.9				
143	167	217			2.5	2.5	12.2				
143	149	156	217		2.5	2.5	11.5				
143	149	156	217		2.5	2.5	11.2				
143	149	156	217		2.5	2.5	11.1				



# Single-row Cylindrical Roller Bearing



d 130 mm



Principal dimensions						Basic load ratings		Limit speed ratings		Designations	
d	D	B	r <sub>1smin</sub>	r <sub>smin</sub>	F	E	C <sub>r</sub>	C <sub>0r</sub>	Grease		Oil
mm						kN		r/min			
130	230	64	3	3		204	430	625	2200	2800	<b>N2226M/YA1</b>
	230	64	3	3	153.5		550	780	2200	2800	<b>NJ2226EQ1</b>
	230	79.38	3	5.3	155		590	890	1800	2200	<b>NU3226X2M/C9YA6</b>
	240	80	3	3	158		655	975	1800	2200	<b>NJ3226X1M-1</b>
	240	85	3	3	158		655	975	1800	2200	<b>NJP3226X1WBM-1</b>
	240	87	3	3	156		580	800	1800	2200	<b>NJ3226X1SCTN</b>
	240	87	3	3	156		580	800	1800	2200	<b>NJP3226X1SCTN</b>
	250	80	3	3	158		665	805	1800	2200	<b>NJP3226X1TN1</b>
	250	80	3	3	158		665	805	1800	2200	<b>NJ3226X1TN1</b>
	250	80	3	3	158		605	805	1800	2200	<b>NJ3226X1K1</b>
	280	58	3	3	167		732	780	1800	2200	<b>NU326Q1/HAC9YA5</b>
	280	58	4	4		243	570	690	1800	2200	<b>N326M</b>
	280	58	4	4	167		570	690	1800	2200	<b>NU326M</b>
	280	58	4	4	167		595	795	1800	2200	<b>NU326EM/W124</b>
	280	58	4	4	167		570	690	1800	2200	<b>NU326Q1</b>
	280	58	4	4	167		570	690	1800	2200	<b>NJ326M</b>
	280	58	4	4	167		595	795	1800	2200	<b>FL-NU326EMA</b>
	280	58	4	4		247	595	795	1800	2200	<b>N326EM</b>
	280	58	4	4		247	595	795	1800	2200	<b>NJ326EM</b>
	280	58	4	4	167		595	795	1800	2200	<b>NU326EM/W124</b>
	280	58	4	4	167		655	795	1800	2200	<b>NU326E</b>
	280	58	4	4		247	655	795	1800	2200	<b>N326E</b>
	280	58	4	4	167		655	795	1800	2200	<b>NJ326E</b>
	280	93	4	4	167		870	1180	1800	2200	<b>NU2326M</b>
	280	93	4	4	167		870	1180	1800	2200	<b>NJ2326M/YA8</b>
	280	93	4	4	167		870	1180	1800	2200	<b>NJ2326M/YA8-2</b>
	280	93	4	4		243	870	1180	1800	2200	<b>N326M</b>
	280	93	4	4	167		870	1180	1800	2200	<b>NJ2326M</b>
	280	93	4	4	167		900	1200	1800	2200	<b>NU2326EM/C9</b>
	280	93	4	4	167		790	1180	1800	2200	<b>NJ2326M/C4W124YA8-1</b>
	280	93	4	4	167		870	1180	1800	2200	<b>NJ2326J</b>
	280	93	4	4	167		870	1180	1800	2200	<b>NUP2326M</b>
280	93	4	4	167		780	1060	1800	2200	<b>32626QTY</b>	
280.01	58.001	4.318	6.477	166.848		660	795	1800	2200	<b>A-0326-WAB-30-1</b>	
340	78	5	5	185		941	1110	1800	2200	<b>NU426M</b>	

Abutment and fillet dimensions							Weight	Model	Weight	Separate thrust collar		
damin	damax	dbmin	Damax	Damin	ramax	rbmax				A1	A2	r <sub>3,4</sub>
mm							kg	kg	mm			
143	200		217	209	2.5	2.5	11.6					
143	149	167	217		2.5	2.5	11.5					
146	240		264	246	3	3	14.6					
146	153	167	227		2.5	2.5	17.0					
146	153	167	227		2.5	2.5	17.3					
146	153	167	227		2.5	2.5	14.95					
146	153	167	227		2.5	2.5	14.79					
146	153	167	227		2.5	2.5	16.8					
146	153	167	227		2.5	2.5	16.8					
146	153	167	227		2.5	2.5	18.4					
146	163	170	264		3	3	19					
146	239		264	247	3	3	17.8					
146	163	170	264		3	3	17.9					
146	163	170	264		3	3	18.7					
146	163	170	264		3	3	17.9					
146	163	185	264		3	3	18.2					
146	163	170	264		3	3	18.7					
146	243		264	251	3	3	18.5					
146	243		264	251	3	3	19.0					
146	163	170	264		3	3	18.7					
146	163	170	264		3	3	18.7					
146	243		264	251	3	3	18.5					
146	163	185	264		3	3	19.0					
146	161	170	264		3	3	28.7	HJ2326	1.8	14	29.17	4
146	161	185	264		3	3	30.0	HJ2326	1.8	14	29.17	4
146	161	185	264		3	3	29.4	HJ2326	1.8	14	29.17	4
146	240		264	246	3	3	29.01					
146	161	185	264		3	3	29.0	HJ2326	1.8	14	29.17	4
146	161	185	264		3	3	29.3	HJ2326E1.79		14	27.69	4
146	161	185	264		3	3	29.1	HJ2326	1.8	14	29.17	4
146	161	185	264		3	3	30.0	HJ2326	1.8	14	29.17	4
146		185	264		3	3	29.5					
146	161	170	264		3	3	29.3					
146	161	170	264		3	3	18.7					
150	180	190	320		4	4	39.5					