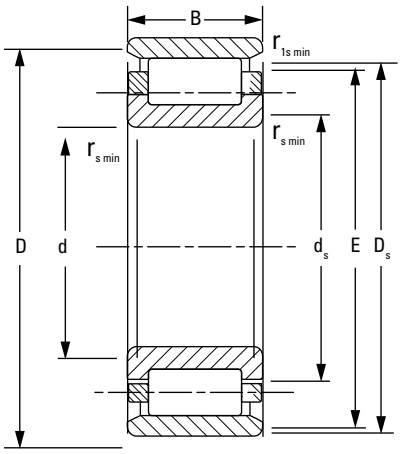
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CYLINDRICAL ROLLER BEARING CATALOG

NOMENCLATURE

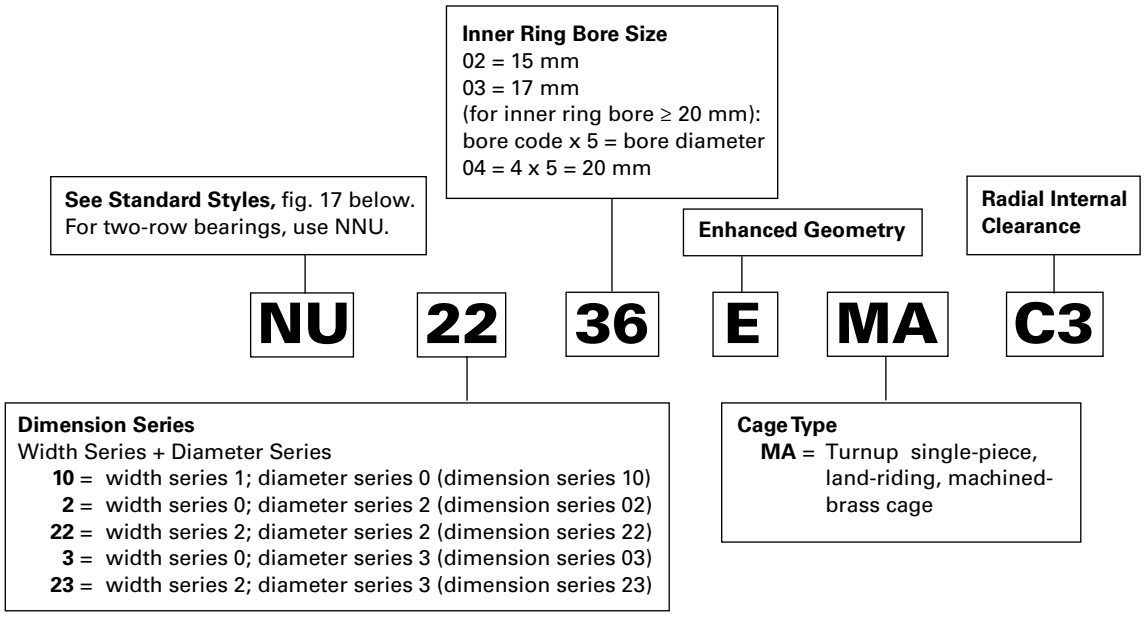


Fig. 16. Metric ISO radial cylindrical roller bearings nomenclature.

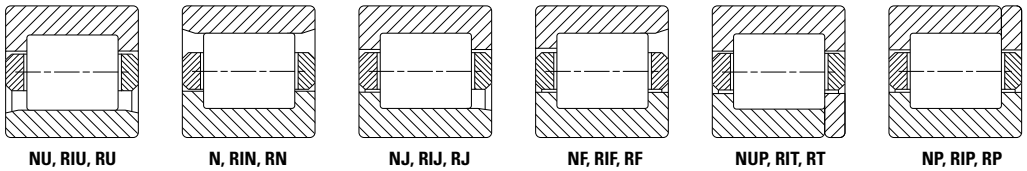


Fig. 17. Standard cylindrical roller bearing styles metric/inch.

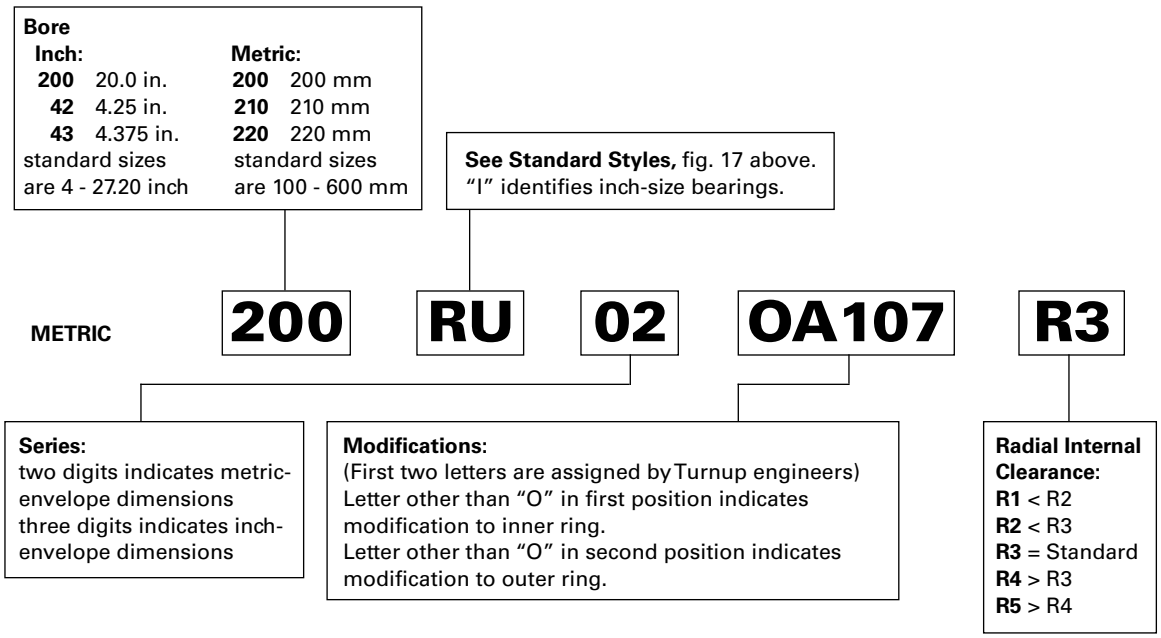


Fig. 18. ABMA radial cylindrical roller bearings nomenclature.

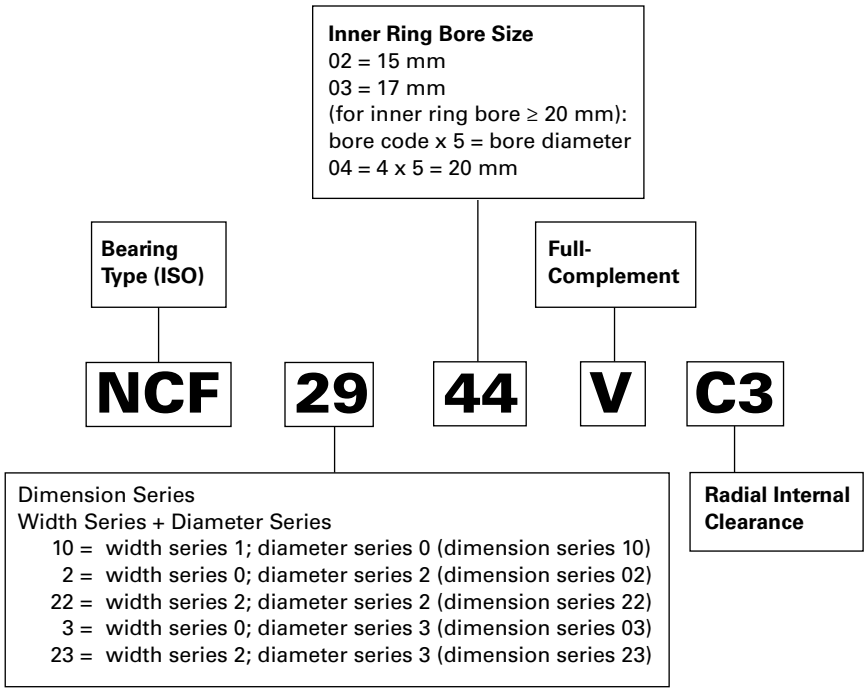


Fig. 19. Full-complement (NCF) cylindrical roller bearing nomenclature.

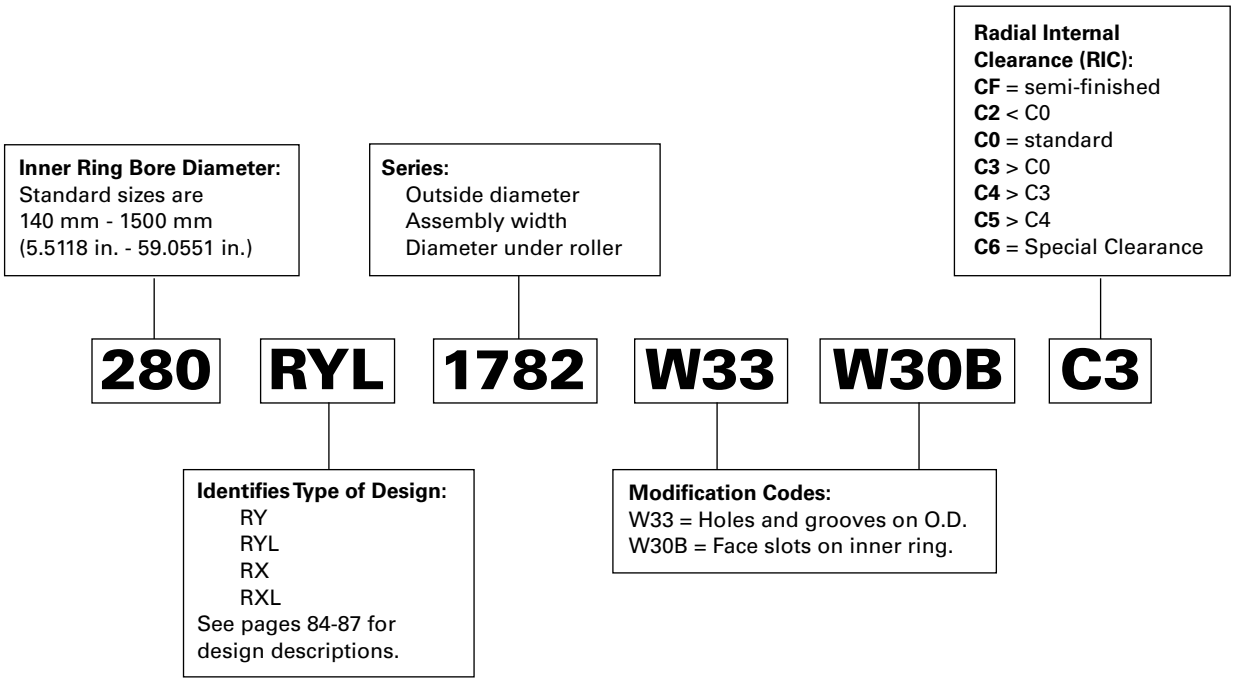
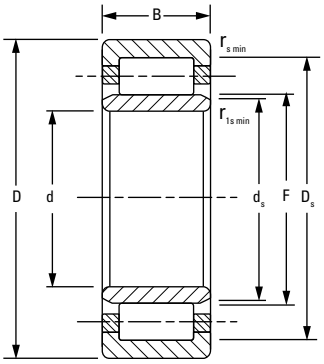
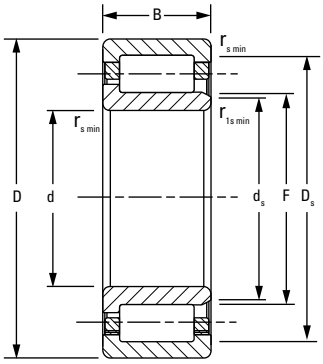


Fig. 20. Four-row cylindrical roller bearing nomenclature.

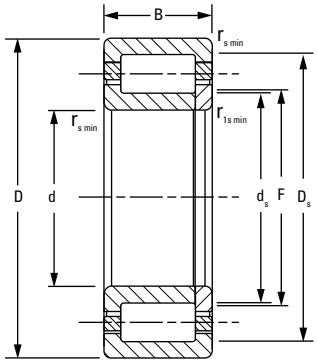
ONE-ROW METRIC ISO SERIES



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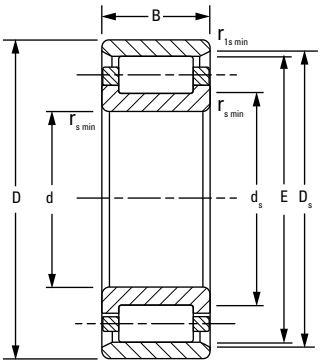


NUP

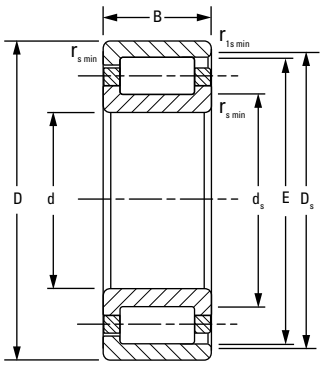
Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s		C_g	Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
65.000 2.5591	**140.000** 5.5118	**33.000** 1.2992	**82.500** 3.2480	**196** 44100	**204** 45900	NU313EMA	**2.1** 0.08	**2.1** 0.08	**78.2** 3.08	**124.5** 4.90	**2.5** 0.10	0.075	4800	4100	**2.50** 5.40
65.000 2.5591	**140.000** 5.5118	**48.000** 1.8898	**82.500** 3.2480	**293** 65900	**282** 63300	NU2313EMA	**2.1** 0.08	**2.1** 0.08	**77.1** 3.04	**124.5** 4.90	**4.0** 0.16	0.082	4500	3900	**3.60** 8.00
70.000 2.7559	**150.000** 5.9055	**51.000** 2.0079	**89.000** 3.5039	**328** 73700	**311** 69800	NU2314EMA	**2.1** 0.08	**2.1** 0.08	**83.3** 3.28	**133.0** 5.24	**4.7** 0.19	0.087	4300	3700	**4.40** 9.80
75.000 2.9528	**190.000** 7.4803	**45.000** 1.7717	**104.500** 4.1142	**305** 68700	**318** 71500	NU415EMA	**3.0** 0.12	**3.0** 0.12	**98.8** 3.89	**160.5** 6.32	**4.0** 0.16	0.089	4400	3800	**7.00** 15.40
80.000 3.1496	**140.000** 5.5118	**26.000** 1.0236	**95.300** 3.7520	**169** 38000	**155** 34900	NU216EMA	**2.0** 0.08	**2.0** 0.08	**92.4** 3.64	**127.3** 5.01	**1.7** 0.07	0.079	4900	4100	**1.80** 3.63
80.000 3.1496	**140.000** 5.5118	**33.000** 1.2992	**95.300** 3.7520	**245** 55100	**208** 46800	NU2216EMA	**2.0** 0.08	**2.0** 0.08	**91.3** 3.59	**127.3** 5.01	**1.7** 0.07	0.086	3800	3300	**2.20** 4.80
80.000 3.1496	**140.000** 5.5118	**33.000** 1.2992	**95.300** 3.7520	**245** 55100	**208** 46800	NJ2216EMA	**2.0** 0.08	**2.0** 0.08	**91.3** 3.59	**127.3** 5.01	**1.7** 0.07	0.086	3800	3300	**2.20** 4.90
80.000 3.1496	**140.000** 5.5118	**33.000** 1.2992	**95.300** 3.7520	**245** 55100	**208** 46800	NUP2216EMA	**2.0** 0.08	**2.0** 0.08	**95.3** 3.75	**127.3** 5.01	– –	0.086	3800	3300	**2.30** 5.10
80.000 3.1496	**170.000** 6.6929	**39.000** 1.5354	**101.000** 3.9764	**289** 64900	**290** 65300	NU316EMA	**2.1** 0.08	**2.1** 0.08	**96.5** 3.80	**151.0** 5.94	**2.4** 0.09	0.088	4500	3900	**4.60** 10.12
80.000 3.1496	**170.000** 6.6929	**58.000** 2.2835	**101.000** 3.9764	**439** 98700	**406** 91300	NU2316EMA	**2.1** 0.08	**2.1** 0.08	**95.4** 3.76	**151.0** 5.94	**5.0** 0.20	0.097	3800	3300	**6.00** 12.50
85.000 3.3465	**150.000** 5.9055	**28.000** 1.1024	**100.500** 3.9567	**201** 45200	**186** 41900	NU217EMA	**2.0** 0.08	**2.0** 0.08	**96.6** 3.80	**136.5** 5.37	**1.7** 0.07	0.083	4600	3900	**2.10** 5.80
85.000 3.3465	**150.000** 5.9055	**36.000** 1.4173	**100.500** 3.9567	**282** 63300	**244** 54900	NU2217EMA	**2.0** 0.08	**2.0** 0.08	**97.1** 3.82	**136.5** 5.37	**2.2** 0.09	0.090	3600	3200	**2.70** 5.80
85.000 3.3465	**180.000** 7.0866	**41.000** 1.6142	**108.000** 4.2520	**314** 70600	**313** 70400	NU317EMA	**3.0** 0.12	**3.0** 0.12	**103.6** 4.08	**160.0** 6.30	**3.5** 0.14	0.092	4300	3700	**5.10** 11.22
85.000 3.3465	**180.000** 7.0866	**60.000** 2.3622	**108.000** 4.2520	**458** 103000	**423** 95200	NU2317EMA	**3.0** 0.12	**3.0** 0.12	**101.8** 4.01	**160.0** 6.30	**5.5** 0.22	0.100	3700	3200	**7.40** 16.40
85.000 3.3465	**180.000** 7.0866	**60.000** 2.3622	**108.000** 4.2520	**458** 103000	**423** 95200	NJ2317EMA	**3.0** 0.12	**3.0** 0.12	**101.8** 4.01	**160.0** 6.30	**5.5** 0.22	0.100	3700	3200	**7.60** 16.70

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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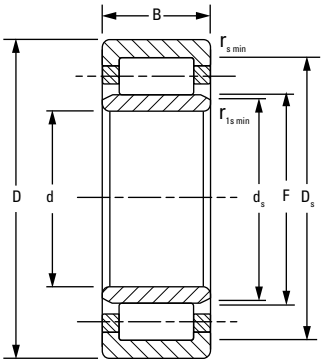
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Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
90.000 3.5433	**160.000** 6.2992	**30.000** 1.1811	**107.000** 4.2126	**225** 50500	**206** 46400	NU218EMA	**2.0** 0.08	**2.0** 0.08	**103.6** 4.08	**145.0** 5.71	**2.7** 0.11	0.087	4400	3700	**2.60** 5.80
90.000 3.5433	**160.000** 6.2992	**30.000** 1.1811	**107.000** 4.2126	**225** 50500	**206** 46400	NJ218EMA	**2.0** 0.08	**2.0** 0.08	**103.6** 4.08	**145.0** 5.71	**2.7** 0.11	0.087	4400	3700	**2.70** 5.90
90.000 3.5433	**160.000** 6.2992	**40.000** 1.5748	**107.000** 4.2126	**322** 72400	**275** 61900	NU2218EMA	**2.0** 0.08	**2.0** 0.08	**103.0** 4.06	**145.0** 5.71	**3.2** 0.12	0.094	3600	3100	**3.50** 7.70
90.000 3.5433	**160.000** 6.2992	**40.000** 1.5748	**107.000** 4.2126	**322** 72400	**275** 61900	NJ2218EMA	**2.0** 0.08	**2.0** 0.08	**102.9** 4.05	**145.0** 5.71	**3.2** 0.12	0.094	3600	3100	**3.60** 7.90
90.000 3.5433	**160.000** 6.2992	**40.000** 1.5748	**107.000** 4.2126	**322** 72400	**275** 61900	NUP2218EMA	**2.0** 0.08	**2.0** 0.08	**102.9** 4.05	**145.0** 5.71	– –	0.094	3600	3100	**3.60** 8.00
90.000 3.5433	**190.000** 7.4803	**43.000** 1.6929	**113.500** 4.4685	**362** 81500	**359** 80700	NU318EMA	**3.0** 0.12	**3.0** 0.12	**107.9** 4.25	**169.5** 6.67	**2.5** 0.10	0.096	4000	3500	**6.10** 13.40
90.000 3.5433	**190.000** 7.4803	**43.000** 1.6929	**113.500** 4.4685	**362** 81500	**359** 80700	NJ318EMA	**3.0** 0.12	**3.0** 0.12	**107.9** 4.25	**169.5** 6.67	**2.5** 0.10	0.096	4000	3500	**6.20** 13.60
90.000 3.5433	**190.000** 7.4803	**64.000** 2.5197	**113.500** 4.4685	**544** 122000	**497** 112000	NU2318EMA	**3.0** 0.12	**3.0** 0.12	**106.8** 4.20	**169.5** 6.67	**5.0** 0.20	0.106	3300	2900	**9.10** 20.00
90.000 3.5433	**190.000** 7.4803	**64.000** 2.5197	**113.500** 4.4685	**544** 122000	**497** 112000	NJ2318EMA	**3.0** 0.12	**3.0** 0.12	**106.8** 4.20	**169.5** 6.67	**5.0** 0.20	0.106	3300	2900	**9.30** 20.40
95.000 3.7402	**170.000** 6.6929	**32.000** 1.2598	**112.500** 4.4291	**271** 60900	**248** 55800	NU219EMA	**2.1** 0.08	**2.1** 0.08	**109.1** 4.30	**154.5** 6.08	**1.8** 0.07	0.092	4100	3500	**3.10** 6.90
95.000 3.7402	**170.000** 6.6929	**32.000** 1.2598	**112.500** 4.4291	**271** 60900	**248** 55800	NJ219EMA	**2.1** 0.08	**2.1** 0.08	**109.1** 4.30	**154.5** 6.08	**1.8** 0.07	0.092	4100	3500	**3.20** 7.00
95.000 3.7402	**170.000** 6.6929	**43.000** 1.6929	**112.500** 4.4291	**378** 84900	**324** 72800	NU2219EMA	**2.1** 0.08	**2.1** 0.08	**108.1** 4.26	**154.5** 6.08	**3.5** 0.14	0.099	3400	2900	**4.20** 9.30
95.000 3.7402	**170.000** 6.6929	**43.000** 1.6929	**112.500** 4.4291	**378** 84900	**324** 72800	NJ2219EMA	**2.1** 0.08	**2.1** 0.08	**108.1** 4.26	**154.5** 6.08	**3.5** 0.14	0.099	3400	2900	**4.30** 9.50
95.000 3.7402	**200.000** 7.8740	**45.000** 1.7717	**121.500** 4.7835	**395** 88900	**379** 85300	NU319EMA	**3.0** 0.12	**3.0** 0.12	**115.3** 4.54	**177.5** 6.99	**3.0** 0.12	0.101	3900	3400	**7.10** 15.70
95.000 3.7402	**200.000** 7.8740	**45.000** 1.7717	**121.500** 4.7835	**395** 88900	**379** 85300	NJ319EMA	**3.0** 0.12	**3.0** 0.12	**115.3** 4.54	**177.5** 6.99	**3.0** 0.12	0.101	3900	3400	**7.30** 16.00

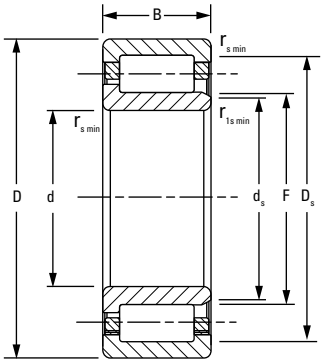
[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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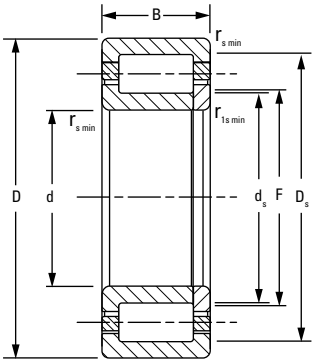
ONE-ROW METRIC ISO SERIES – *continued*



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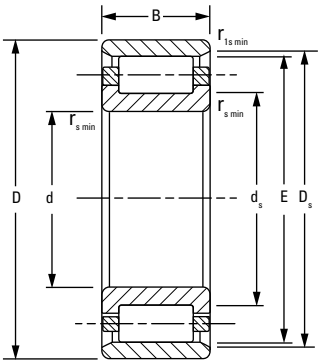


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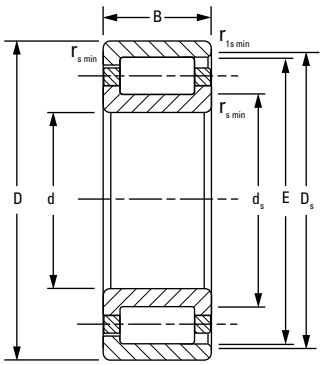
Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geometry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
95.000 3.7402	**200.000** 7.8740	**67.000** 2.6378	**121.500** 4.7835	**593** 133000	**525** 118000	NU2319EMA	**3.0** 0.12	**3.0** 0.12	**115.5** 4.55	**177.5** 6.99	**7.1** 0.28	0.111	3100	2700	**10.40** 22.80
95.000 3.7402	**200.000** 7.8740	**67.000** 2.6378	**121.500** 4.7835	**593** 133000	**525** 118000	NJ2319EMA	**3.0** 0.12	**3.0** 0.12	**115.5** 4.55	**177.5** 6.99	**7.1** 0.28	0.111	3100	2700	**10.60** 23.30
100.000 3.9370	**180.000** 7.0866	**34.000** 1.3386	**119.000** 4.6850	**311** 70000	**280** 63000	NU220EMA	**2.1** 0.08	**2.1** 0.08	**115.0** 4.53	**163.0** 6.42	**2.3** 0.09	0.097	3900	3300	**3.80** 8.40
100.000 3.9370	**180.000** 7.0866	**34.000** 1.3386	**119.000** 4.6850	**311** 70000	**280** 63000	NJ220EMA	**2.1** 0.08	**2.1** 0.08	**115.0** 4.53	**163.0** 6.42	**2.3** 0.09	0.097	3900	3300	**3.90** 8.60
100.000 3.9370	**180.000** 7.0866	**46.000** 1.8110	**119.000** 4.6850	**451** 101000	**377** 84800	NU2220EMA	**2.1** 0.08	**2.1** 0.08	**115.0** 4.53	**163.0** 6.42	**3.3** 0.13	0.105	3100	2800	**5.20** 11.40
100.000 3.9370	**180.000** 7.0866	**46.000** 1.8110	**119.000** 4.6850	**451** 101000	**377** 84800	NJ2220EMA	**2.1** 0.08	**2.1** 0.08	**115.0** 4.53	**163.0** 6.42	**3.3** 0.13	0.105	3100	2800	**5.30** 11.60
100.000 3.9370	**215.000** 8.4646	**47.000** 1.8504	**127.500** 5.0197	**442** 99400	**437** 98200	NU320EMA	**3.0** 0.12	**3.0** 0.12	**120.7** 4.75	**191.5** 7.54	**3.0** 0.12	0.104	3600	3200	**8.60** 19.00
100.000 3.9370	**215.000** 8.4646	**47.000** 1.8504	**127.500** 5.0197	**442** 99400	**437** 98200	NJ320EMA	**3.0** 0.12	**3.0** 0.12	**120.7** 4.75	**191.5** 7.54	**3.0** 0.12	0.104	3600	3200	**8.80** 19.40
100.000 3.9370	**215.000** 8.4646	**73.000** 2.8740	**127.500** 5.0197	**737** 166000	**658** 148000	NU2320EMA	**3.0** 0.12	**3.0** 0.12	**120.4** 4.74	**191.5** 7.54	**5.2** 0.20	0.117	2700	2400	**13.40** 29.50
100.000 3.9370	**215.000** 8.4646	**73.000** 2.8740	**127.500** 5.0197	**737** 166000	**658** 148000	NJ2320EMA	**3.0** 0.12	**3.0** 0.12	**120.4** 4.74	**191.5** 7.54	**5.2** 0.20	0.117	2700	2400	**13.70** 30.10
110.000 4.3307	**200.000** 7.8740	**38.000** 1.4961	**132.500** 5.2165	**374** 84000	**331** 74400	NU222EMA	**2.1** 0.08	**2.1** 0.08	**128.5** 5.06	**180.5** 7.11	**2.5** 0.10	0.104	3600	3100	**5.40** 11.90
110.000 4.3307	**200.000** 7.8740	**38.000** 1.4961	**132.500** 5.2165	**374** 84000	**331** 74400	NJ222EMA	**2.1** 0.08	**2.1** 0.08	**128.5** 5.06	**180.5** 7.11	**2.5** 0.10	0.104	3600	3100	**5.50** 12.10
110.000 4.3307	**200.000** 7.8740	**53.000** 2.0866	**132.500** 5.2165	**527** 118000	**436** 98000	NU2222EMA	**2.1** 0.08	**2.1** 0.08	**126.8** 4.99	**180.5** 7.11	**4.1** 0.16	0.113	3000	2700	**7.50** 16.50
110.000 4.3307	**200.000** 7.8740	**53.000** 2.0866	**132.500** 5.2165	**527** 118000	**436** 98000	NJ2222EMA	**2.1** 0.08	**2.1** 0.08	**126.8** 4.99	**180.5** 7.11	**4.1** 0.16	0.113	3000	2700	**7.60** 16.80
110.000 4.3307	**240.000** 9.4488	**50.000** 1.9685	**143.000** 5.6299	**546** 123000	**519** 11700	NU322EMA	**3.0** 0.12	**3.0** 0.12	**136.2** 5.36	**211.0** 8.31	**3.0** 0.12	0.114	3100	2800	**11.60** 25.40

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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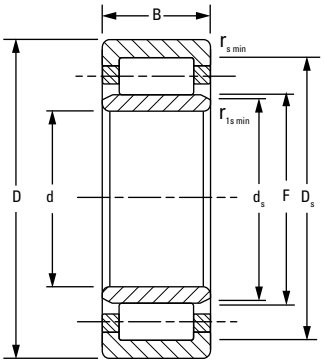
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Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
110.000 4.3307	**240.000** 9.4488	**50.000** 1.9685	**143.000** 5.6299	**546** 123000	**519** 11700	NJ322EMA	**3.0** 0.12	**3.0** 0.12	**136.2** 5.36	**211.0** 8.31	**3.0** 0.12	0.114	3100	2800	**11.80** 25.90
110.000 4.3307	**240.000** 9.4488	**80.000** 3.1496	**143.000** 5.6299	**891** 200000	**768** 173000	NU2322EMA	**3.0** 0.12	**3.0** 0.12	**134.6** 5.30	**211.0** 8.31	**6.4** 0.25	0.128	2400	2100	**18.60** 40.90
110.000 4.3307	**240.000** 9.4488	**80.000** 3.1496	**143.000** 5.6299	**891** 200000	**768** 173000	NJ2322EMA	**3.0** 0.12	**3.0** 0.12	**134.6** 5.30	**211.0** 8.31	**6.4** 0.25	0.128	2400	2100	**19.20** 42.10
120.000 4.7244	**180.000** 7.0866	**28.000** 1.1024	**135.000** 5.3150	**202** 45300	**158** 35600	NU1024MA	**2.0** 0.08	**1.1** 0.04	**131.2** 5.17	**165.0** 6.50	**3.8** 0.15	0.096	3600	2900	**2.60** 5.60
120.000 4.7244	**215.000** 8.4646	**40.000** 1.5748	**143.500** 5.6496	**431** 97000	**379** 85300	NU224EMA	**2.1** 0.08	**2.1** 0.08	**138.0** 5.43	**195.5** 7.70	**2.1** 0.08	0.111	3400	2900	**6.50** 14.30
120.000 4.7244	**215.000** 8.4646	**40.000** 1.5748	**143.500** 5.6496	**431** 97000	**379** 85300	NJ224EMA	**2.1** 0.08	**2.1** 0.08	**138.0** 5.43	**195.5** 7.70	**2.1** 0.08	0.111	3400	2900	**6.60** 14.50
120.000 4.7244	**215.000** 8.4646	**58.000** 2.2835	**143.500** 5.6496	**630** 142000	**514** 116000	NU2224EMA	**2.1** 0.08	**2.1** 0.08	**137.4** 5.41	**195.5** 7.70	**4.6** 0.18	0.121	2700	2400	**9.40** 20.80
120.000 4.7244	**215.000** 8.4646	**58.000** 2.2835	**143.500** 5.6496	**630** 142000	**514** 116000	NJ2224EMA	**2.1** 0.08	**2.1** 0.08	**137.4** 5.41	**195.5** 7.70	**4.6** 0.18	0.121	2700	2400	**9.60** 21.20
120.000 4.7244	**260.000** 10.2362	**55.000** 2.1654	**154.000** 6.0630	**614** 138000	**594** 134000	NU324EMA	**3.0** 0.12	**3.0** 0.12	**147.0** 5.79	**230.0** 9.06	**3.8** 0.15	0.120	2900	2500	**14.70** 32.30
120.000 4.7244	**260.000** 10.2362	**55.000** 2.1654	**154.000** 6.0630	**614** 138000	**594** 134000	NJ324EMA	**3.0** 0.12	**3.0** 0.12	**147.0** 5.79	**230.0** 9.06	**3.8** 0.15	0.120	2900	2500	**15.00** 32.90
120.000 4.7244	**260.000** 10.2362	**86.000** 3.3858	**154.000** 6.0630	**1040** 233000	**902** 203000	NU2324EMA	**3.0** 0.12	**3.0** 0.12	**145.9** 5.74	**230.0** 9.06	**6.3** 0.25	0.136	2100	1900	**23.10** 50.90
120.000 4.7244	**260.000** 10.2362	**86.000** 3.3858	**154.000** 6.0630	**1040** 233000	**902** 203000	NJ2324EMA	**3.0** 0.12	**3.0** 0.12	**145.9** 5.74	**230.0** 9.06	**6.3** 0.25	0.136	2100	1900	**23.60** 52.00
130.000 5.1181	**200.000** 7.8740	**33.000** 1.2992	**148.000** 5.8268	**251** 56500	**197** 44300	NU1026MA	**2.0** 0.08	**1.1** 0.04	**142.6** 5.61	**182.0** 7.17	**2.2** 0.09	0.104	3500	2900	**7.20** 15.80
130.000 5.1181	**230.000** 9.0551	**40.000** 1.5748	**153.500** 6.0433	**464** 104000	**411** 92300	NU226EMA	**3.0** 0.12	**3.0** 0.12	**148.0** 5.83	**209.5** 8.25	**2.2** 0.09	0.115	3100	2700	**7.20** 15.80
130.000 5.1181	**230.000** 9.0551	**40.000** 1.5748	**153.500** 6.0433	**464** 104000	**411** 92300	NJ226EMA	**3.0** 0.12	**3.0** 0.12	**148.0** 5.83	**209.5** 8.25	**2.2** 0.09	0.115	3100	2700	**7.30** 16.10

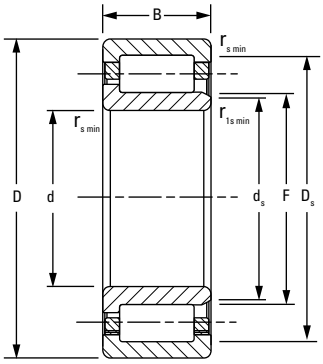
[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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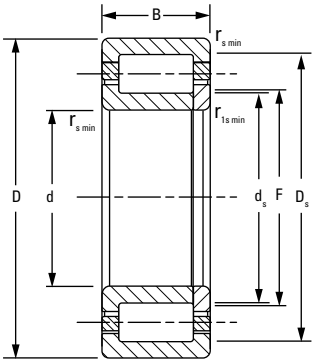
ONE-ROW METRIC ISO SERIES – *continued*



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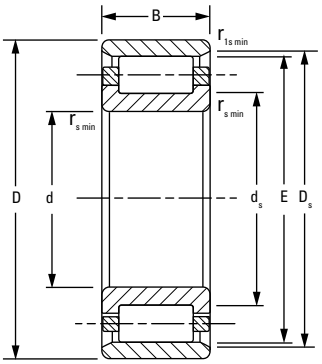


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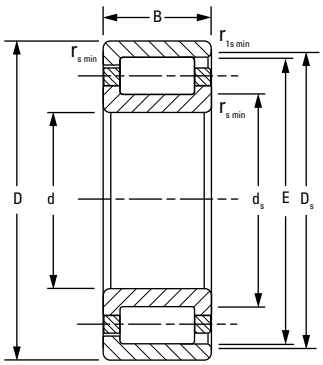
Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
130.000 5.1181	**230.000** 9.0551	**64.000** 2.5197	**153.500** 6.0433	**750** 169000	**603** 135000	NU2226EMA	**3.0** 0.12	**3.0** 0.12	**146.8** 5.78	**209.5** 8.25	**5.0** 0.20	0.129	2400	2200	**11.50** 25.40
130.000 5.1181	**230.000** 9.0551	**64.000** 2.5197	**153.500** 6.0433	**750** 169000	**603** 135000	NJ2226EMA	**3.0** 0.12	**3.0** 0.12	**146.8** 5.78	**209.5** 8.25	**5.0** 0.20	0.129	2400	2200	**11.80** 25.90
130.000 5.1181	**280.000** 11.0236	**58.000** 2.2835	**167.000** 6.5748	**753** 169000	**701** 158000	NU326EMA	**4.0** 0.16	**4.0** 0.16	**159.7** 6.29	**247.0** 9.72	**3.7** 0.14	0.108	2500	2200	**18.10** 39.70
130.000 5.1181	**280.000** 11.0236	**58.000** 2.2835	**167.000** 6.5748	**753** 169000	**701** 158000	NJ326EMA	**4.0** 0.16	**4.0** 0.16	**159.7** 6.29	**247.0** 9.72	**3.7** 0.14	0.108	2500	2200	**18.50** 40.70
130.000 5.1181	**280.000** 11.0236	**93.000** 3.6614	**167.000** 6.5748	**1240** 278000	**1040** 235000	NU2326EMA	**4.0** 0.16	**4.0** 0.16	**158.1** 6.22	**247.0** 9.72	**7.6** 0.30	0.122	1900	1700	**29.30** 64.40
130.000 5.1181	**280.000** 11.0236	**93.000** 3.6614	**167.000** 6.5748	**1240** 278000	**1040** 235000	NJ2326EMA	**4.0** 0.16	**4.0** 0.16	**158.1** 6.22	**247.0** 9.72	**7.6** 0.30	0.122	1900	1700	**29.80** 65.50
140.000 5.5118	**210.000** 8.2677	**33.000** 1.2992	**158.000** 6.2205	**263** 59200	**201** 45200	NU1028MA	**2.0** 0.08	**1.1** 0.04	**152.9** 6.02	**192.0** 7.56	**3.8** 0.15	0.108	3300	2700	**4.00** 8.90
140.000 5.5118	**250.000** 9.8425	**42.000** 1.6535	**169.000** 6.6535	**526** 118000	**443** 99500	NU228EMA	**3.0** 0.12	**3.0** 0.12	**162.4** 6.39	**225.0** 8.86	**2.1** 0.08	0.124	2900	2500	**9.20** 20.30
140.000 5.5118	**250.000** 9.8425	**42.000** 1.6535	**169.000** 6.6535	**526** 118000	**443** 99500	NJ228EMA	**3.0** 0.12	**3.0** 0.12	**162.4** 6.39	**225.0** 8.86	**2.1** 0.08	0.124	2900	2500	**9.40** 20.70
140.000 5.5118	**250.000** 9.8425	**68.000** 2.6772	**169.000** 6.6535	**850** 191000	**650** 146000	NU2228EMA	**3.0** 0.12	**3.0** 0.12	**160.1** 6.30	**225.0** 8.86	**5.0** 0.20	0.138	2200	2000	**14.80** 32.50
140.000 5.5118	**250.000** 9.8425	**68.000** 2.6772	**169.000** 6.6535	**850** 191000	**650** 146000	NJ2228EMA	**3.0** 0.12	**3.0** 0.12	**160.1** 6.30	**225.0** 8.86	**5.0** 0.20	0.138	2200	2000	**15.10** 33.20
140.000 5.5118	**300.000** 11.8110	**62.000** 2.4409	**180.000** 7.0866	**837** 188000	**771** 173000	NU328EMA	**4.0** 0.16	**4.0** 0.16	**174.2** 6.86	**264.0** 10.39	**5.2** 0.20	0.114	2300	2000	**22.10** 48.50
140.000 5.5118	**300.000** 11.8110	**62.000** 2.4409	**180.000** 7.0866	**837** 188000	**771** 173000	NJ328EMA	**4.0** 0.16	**4.0** 0.16	**174.2** 6.86	**264.0** 10.39	**5.2** 0.20	0.114	2300	2000	**22.50** 49.50
140.000 5.5118	**300.000** 11.8110	**102.000** 4.0157	**180.000** 7.0866	**1420** 319000	**1180** 265000	NU2328EMA	**4.0** 0.16	**4.0** 0.16	**171.3** 6.74	**264.0** 10.39	**9.7** 0.38	0.129	1700	1500	**36.10** 79.40
140.000 5.5118	**300.000** 11.8110	**102.000** 4.0157	**180.000** 7.0866	**1420** 319000	**1180** 265000	NJ2328EMA	**4.0** 0.16	**4.0** 0.16	**171.3** 6.74	**264.0** 10.39	**9.7** 0.38	0.129	1700	1500	**36.80** 81.00

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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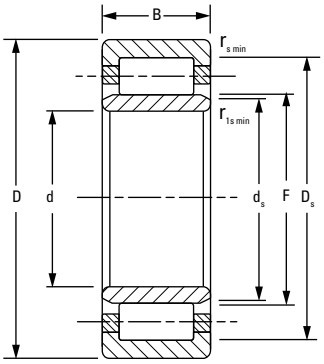
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Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
150.000 5.9055	**225.000** 8.8583	**35.000** 1.3780	**169.500** 6.6732	**309** 69500	**231** 51900	NU1030MA	**2.1** 0.08	**1.5** 0.06	**164.6** 6.48	**205.5** 8.09	**4.9** 0.19	0.115	3100	2500	**4.90** 10.80
150.000 5.9055	**270.000** 10.6299	**45.000** 1.7717	**182.000** 7.1654	**607** 137000	**506** 114000	NU230EMA	**3.0** 0.12	**3.0** 0.12	**176.9** 6.96	**242.0** 9.53	**4.0** 0.16	0.109	2600	2300	**11.60** 25.60
150.000 5.9055	**270.000** 10.6299	**45.000** 1.7717	**182.000** 7.1654	**607** 137000	**506** 114000	NJ230EMA	**3.0** 0.12	**3.0** 0.12	**176.9** 6.96	**242.0** 9.53	**4.0** 0.16	0.109	2600	2300	**12.00** 26.30
150.000 5.9055	**270.000** 10.6299	**45.000** 1.7717	**182.000** 7.1654	**607** 137000	**506** 114000	NUP230EMA	**3.0** 0.12	**3.0** 0.12	**176.9** 6.96	**242.0** 9.53	– –	0.109	2600	2300	**12.10** 26.60
150.000 5.9055	**270.000** 10.6299	**73.000** 2.8740	**182.000** 7.1654	**998** 224000	**752** 169000	NU2230EMA	**3.0** 0.12	**3.0** 0.12	**173.5** 6.83	**242.0** 9.53	**6.0** 0.24	0.123	2000	1800	**18.60** 40.90
150.000 5.9055	**270.000** 10.6299	**73.000** 2.8740	**182.000** 7.1654	**998** 224000	**752** 169000	NJ2230EMA	**3.0** 0.12	**3.0** 0.12	**173.5** 6.83	**242.0** 9.53	**6.0** 0.24	0.123	2000	1800	**18.90** 41.36
150.000 5.9055	**270.000** 10.6299	**73.000** 2.8740	**242.000** 9.5276	**998** 224000	**752** 169000	N2230EMB	**3.0** 0.12	**3.0** 0.12	**182.0** 7.17	**250.5** 9.86	**6.0** 0.24	0.123	2000	1800	**18.40** 40.40
150.000 5.9055	**320.000** 12.5984	**65.000** 2.5591	**193.000** 7.5984	**951** 214000	**870** 196000	NU330EMA	**4.0** 0.16	**4.0** 0.16	**185.7** 7.31	**283.0** 11.14	**4.0** 0.16	0.120	2100	1900	**26.20** 57.70
150.000 5.9055	**320.000** 12.5984	**65.000** 2.5591	**193.000** 7.5984	**951** 214000	**870** 196000	NJ330EMA	**4.0** 0.16	**4.0** 0.16	**185.7** 7.31	**283.0** 11.14	**4.0** 0.16	0.120	2100	1900	**26.70** 58.80
150.000 5.9055	**320.000** 12.5984	**108.000** 4.2520	**193.000** 7.5984	**1620** 364000	**1330** 299000	NU2330EMA	**4.0** 0.16	**4.0** 0.16	**182.7** 7.19	**283.0** 11.14	**9.0** 0.35	0.136	1600	1400	**43.60** 95.80
150.000 5.9055	**320.000** 12.5984	**108.000** 4.2520	**193.000** 7.5984	**1620** 364000	**1330** 299000	NJ2330EMA	**4.0** 0.16	**4.0** 0.16	**182.7** 7.19	**283.0** 11.14	**9.0** 0.35	0.136	1600	1400	**44.40** 97.70
160.000 6.2992	**240.000** 9.4488	**38.000** 1.4961	**180.000** 7.0866	**367** 82500	**276** 62000	NU1032MA	**2.1** 0.08	**1.5** 0.06	**173.9** 6.85	**220.0** 8.66	**4.4** 0.17	0.121	3000	2400	**5.90** 13.00
160.000 6.2992	**290.000** 11.4173	**48.000** 1.8898	**195.000** 7.6772	**695** 156000	**572** 129000	NU232EMA	**3.0** 0.12	**3.0** 0.12	**189.6** 7.46	**259.0** 10.20	**4.2** 0.17	0.115	2400	2100	**14.50** 31.80
160.000 6.2992	**290.000** 11.4173	**48.000** 1.8898	**195.000** 7.6772	**695** 156000	**572** 129000	NJ232EMA	**3.0** 0.12	**3.0** 0.12	**189.6** 7.46	**259.0** 10.20	**4.2** 0.17	0.115	2400	2100	**14.70** 32.40
160.000 6.2992	**290.000** 11.4173	**48.000** 1.8898	**195.000** 7.6772	**695** 156000	**572** 129000	NUP232EMA	**3.0** 0.12	**3.0** 0.12	**189.6** 7.46	**259.0** 10.20	– –	0.115	2400	2100	**15.00** 33.00

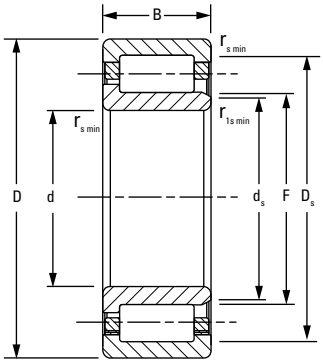
[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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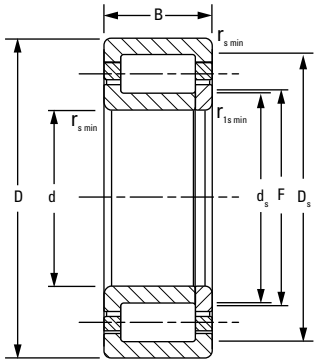
ONE-ROW METRIC ISO SERIES – *continued*



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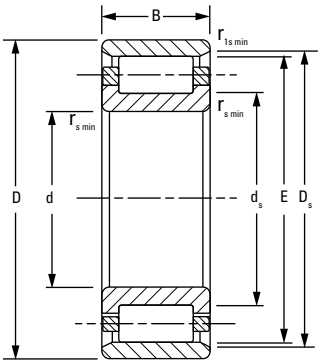


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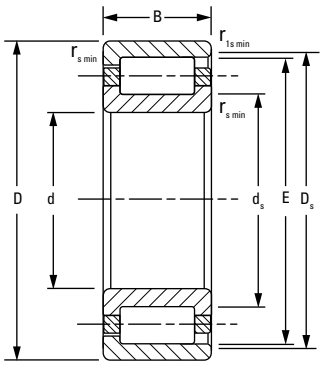
Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geometry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
160.000 6.2992	**290.000** 11.4173	**80.000** 3.1496	**193.000** 7.5984	**1210** 271000	**919** 207000	NU2232EMA	**3.0** 0.12	**3.0** 0.12	**183.6** 7.23	**261.0** 10.28	**4.5** 0.18	0.130	1700	1600	**23.80** 52.40
160.000 6.2992	**290.000** 11.4173	**80.000** 3.1496	**193.000** 7.5984	**1210** 271000	**919** 207000	NJ2232EMA	**3.0** 0.12	**3.0** 0.12	**183.6** 7.23	**261.0** 10.28	**4.5** 0.18	0.130	1700	1600	**24.30** 53.50
160.000 6.2992	**340.000** 13.3858	**68.000** 2.6772	**204.000** 8.0315	**1090** 244000	**985** 221000	NU332EMA	**4.0** 0.16	**4.0** 0.16	**197.3** 7.77	**300.0** 11.81	**5.5** 0.22	0.126	1900	1700	**31.10** 68.40
160.000 6.2992	**340.000** 13.3858	**68.000** 2.6772	**204.000** 8.0315	**1090** 244000	**985** 221000	NJ332EMA	**4.0** 0.16	**4.0** 0.16	**197.3** 7.77	**300.0** 11.81	**5.5** 0.22	0.126	1900	1700	**31.60** 69.50
160.000 6.2992	**340.000** 13.3858	**114.000** 4.4882	**204.000** 8.0315	**1840** 413000	**1500** 337000	NU2332EMA	**4.0** 0.16	**4.0** 0.16	**194.0** 7.64	**300.0** 11.81	**10.0** 0.39	0.143	1400	1300	**52.20** 114.80
160.000 6.2992	**340.000** 13.3858	**114.000** 4.4882	**204.000** 8.0315	**1840** 413000	**1500** 337000	NJ2332EMA	**4.0** 0.16	**4.0** 0.16	**194.0** 7.64	**300.0** 11.81	**10.0** 0.39	0.143	1400	1300	**53.10** 116.80
170.000 6.6929	**260.000** 10.2362	**42.000** 1.6535	**193.000** 7.5984	**425** 95600	**321** 72200	NU1034MA	**2.1** 0.08	**2.1** 0.08	**186.3** 7.33	**237.0** 9.33	**4.9** 0.19	0.107	2800	2300	**8.00** 17.70
170.000 6.6929	**260.000** 10.2362	**67.000** 2.6378	**191.000** 7.5197	**1080** 243000	**722** 162000	NU3034EMA	**2.1** 0.08	**2.1** 0.08	**185.2** 7.29	**241.0** 9.49	**4.4** 0.17	0.131	1500	1300	**8.00** 17.70
170.000 6.6929	**310.000** 12.2047	**52.000** 2.0472	**207.000** 8.1496	**822** 185000	**685** 154000	NU234EMA	**4.0** 0.16	**4.0** 0.16	**201.6** 7.94	**279.0** 10.98	**4.4** 0.17	0.122	2200	1900	**17.60** 38.70
170.000 6.6929	**310.000** 12.2047	**52.000** 2.0472	**207.000** 8.1496	**822** 185000	**685** 154000	NJ234EMA	**4.0** 0.16	**4.0** 0.16	**201.6** 7.94	**279.0** 10.98	**4.4** 0.17	0.122	2200	1900	**17.90** 39.40
170.000 6.6929	**310.000** 12.2047	**86.000** 3.3858	**205.000** 8.0709	**1420** 320000	**1100** 246000	NU2234EMA	**4.0** 0.16	**4.0** 0.16	**196.9** 7.75	**281.0** 11.06	**4.5** 0.18	0.138	1600	1400	**28.70** 63.20
170.000 6.6929	**310.000** 12.2047	**86.000** 3.3858	**205.000** 8.0709	**1420** 320000	**1100** 246000	NJ2234EMA	**4.0** 0.16	**4.0** 0.16	**196.9** 7.75	**281.0** 11.06	**4.5** 0.18	0.138	1600	1400	**29.30** 64.50
170.000 6.6929	**360.000** 14.1732	**72.000** 2.8346	**218.000** 8.5827	**1160** 261000	**1050** 236000	NU334EMA	**4.0** 0.16	**4.0** 0.16	**210.5** 8.29	**318.0** 12.52	**6.4** 0.25	0.131	1800	1600	**36.90** 81.18
170.000 6.6929	**360.000** 14.1732	**72.000** 2.8346	**218.000** 8.5827	**1160** 261000	**1050** 236000	NJ334EMA	**4.0** 0.16	**4.0** 0.16	**210.5** 8.29	**318.0** 12.52	**6.4** 0.25	0.131	1800	1600	**37.50** 82.50
170.000 6.6929	**360.000** 14.1732	**120.000** 4.7244	**216.000** 8.5039	**2110** 474000	**1710** 385000	NU2334EMA	**4.0** 0.16	**4.0** 0.16	**205.7** 8.10	**320.0** 12.60	**10.3** 0.41	0.150	1300	1200	**61.90** 136.20

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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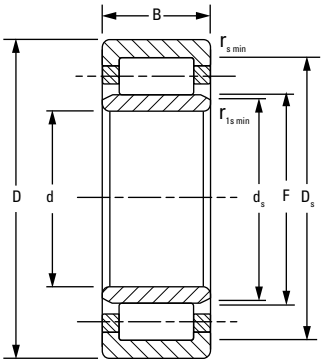
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Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
170.000 6.6929	**360.000** 14.1732	**120.000** 4.7244	**216.000** 8.5039	**2110** 474000	**1710** 385000	NJ2334EMA	**4.0** 0.16	**4.0** 0.16	**205.7** 8.10	**320.0** 12.60	**10.3** 0.41	0.150	1300	1200	**63.00** 138.50
180.000 7.0866	**280.000** 11.0236	**46.000** 1.8110	**205.000** 8.0709	**500** 112000	**386** 86800	NU1036MA	**2.1** 0.08	**2.1** 0.08	**198.9** 7.83	**255.0** 10.04	**6.1** 0.24	0.112	2600	2100	**10.30** 22.80
180.000 7.0866	**320.000** 12.5984	**52.000** 2.0472	**217.000** 8.5433	**874** 196000	**711** 160000	NU236EMA	**4.0** 0.16	**4.0** 0.16	**211.6** 8.33	**289.0** 11.38	**4.4** 0.17	0.126	2000	1800	**18.30** 40.40
180.000 7.0866	**320.000** 12.5984	**52.000** 2.0472	**217.000** 8.5433	**874** 196000	**711** 160000	NJ236EMA	**4.0** 0.16	**4.0** 0.16	**211.6** 8.33	**289.0** 11.38	**4.4** 0.17	0.126	2000	1800	**18.70** 41.10
180.000 7.0866	**320.000** 12.5984	**86.000** 3.3858	**215.000** 8.4646	**1520** 342000	**1140** 256000	NU2236EMA	**4.0** 0.16	**4.0** 0.16	**206.0** 8.11	**291.0** 11.46	**5.5** 0.22	0.143	1400	1300	**30.60** 67.32
180.000 7.0866	**320.000** 12.5984	**86.000** 3.3858	**215.000** 8.4646	**1520** 342000	**1140** 256000	NJ2236EMA	**4.0** 0.16	**4.0** 0.16	**206.0** 8.11	**291.0** 11.46	**5.5** 0.22	0.143	1400	1300	**31.20** 68.60
180.000 7.0866	**380.000** 14.9606	**75.000** 2.9528	**231.000** 9.0945	**1290** 290000	**1150** 258000	NU336EMA	**4.0** 0.16	**4.0** 0.16	**223.2** 8.79	**335.0** 13.19	**6.5** 0.26	0.137	1600	1500	**42.60** 93.60
180.000 7.0866	**380.000** 14.9606	**75.000** 2.9528	**231.000** 9.0945	**1290** 290000	**1150** 258000	NJ336EMA	**4.0** 0.16	**4.0** 0.16	**223.2** 8.79	**335.0** 13.19	**6.5** 0.26	0.137	1600	1500	**43.40** 95.50
180.000 7.0866	**380.000** 14.9606	**126.000** 4.9606	**227.000** 8.9370	**2250** 506000	**1860** 419000	NU2336EMA	**4.0** 0.16	**4.0** 0.16	**215.7** 8.49	**339.0** 13.35	**8.7** 0.34	0.154	1200	1100	**70.90** 155.90
180.000 7.0866	**380.000** 14.9606	**126.000** 4.9606	**227.000** 8.9370	**2250** 506000	**1860** 419000	NJ2336EMA	**4.0** 0.16	**4.0** 0.16	**215.7** 8.49	**339.0** 13.35	**8.7** 0.34	0.154	1200	1100	**72.10** 158.70
190.000 7.4803	**290.000** 11.4173	**46.000** 1.8110	**215.000** 8.4646	**525** 118000	**396** 89100	NU1038MA	**2.1** 0.08	**2.1** 0.08	**207.9** 8.19	**265.0** 10.43	**6.1** 0.24	0.116	2400	2000	**10.70** 23.50
190.000 7.4803	**340.000** 13.3858	**55.000** 2.1654	**230.000** 9.0551	**960** 216000	**777** 175000	NU238EMA	**4.0** 0.16	**4.0** 0.16	**224.2** 8.83	**306.0** 12.05	**4.5** 0.18	0.132	1900	1600	**22.20** 48.80
190.000 7.4803	**340.000** 13.3858	**55.000** 2.1654	**230.000** 9.0551	**960** 216000	**777** 175000	NJ238EMA	**4.0** 0.16	**4.0** 0.16	**224.2** 8.83	**306.0** 12.05	**4.5** 0.18	0.132	1900	1600	**22.60** 49.60
190.000 7.4803	**340.000** 13.3858	**92.000** 3.6220	**228.000** 8.9764	**1680** 377000	**1250** 281000	NU2238EMA	**4.0** 0.16	**4.0** 0.16	**219.0** 8.62	**308.0** 12.13	**7.0** 0.28	0.149	1300	1200	**39.00** 85.80
190.000 7.4803	**340.000** 13.3858	**92.000** 3.6220	**228.000** 8.9764	**1680** 377000	**1250** 281000	NJ2238EMA	**4.0** 0.16	**4.0** 0.16	**219.0** 8.62	**308.0** 12.13	**7.0** 0.28	0.149	1300	1200	**37.80** 83.20

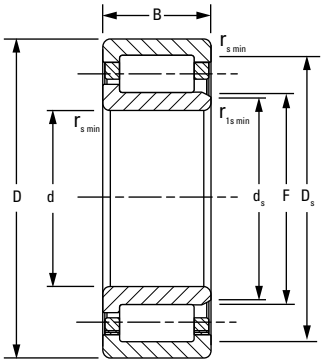
[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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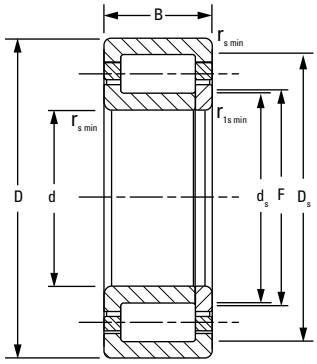
ONE-ROW METRIC ISO SERIES – *continued*



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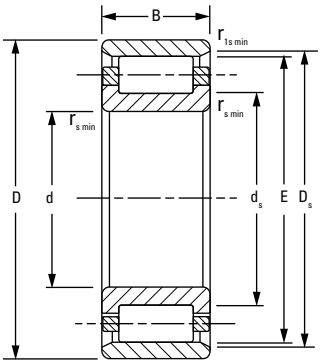


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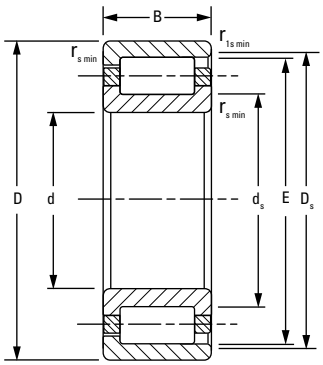
Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
190.000 7.4803	**400.000** 15.7480	**78.000** 3.0709	**245.000** 9.6457	**1500** 337000	**1300** 292000	NU338EMA	**5.0** 0.20	**5.0** 0.20	**236.5** 9.31	**353.0** 13.90	**6.0** 0.24	0.145	1500	1300	**49.40** 108.70
190.000 7.4803	**400.000** 15.7480	**78.000** 3.0709	**245.000** 9.6457	**1500** 337000	**1300** 292000	NJ338EMA	**5.0** 0.20	**5.0** 0.20	**236.5** 9.31	**353.0** 13.90	**6.0** 0.24	0.145	1500	1300	**50.20** 110.50
190.000 7.4803	**400.000** 15.7480	**132.000** 5.1969	**240.000** 9.4488	**2500** 561000	**2060** 464000	NU2338EMA	**5.0** 0.20	**5.0** 0.20	**227.6** 8.96	**360.0** 14.17	**9.8** 0.39	0.161	1100	1000	**80.30** 176.60
190.000 7.4803	**400.000** 15.7480	**132.000** 5.1969	**240.000** 9.4488	**2500** 561000	**2060** 464000	NJ2338EMA	**5.0** 0.20	**5.0** 0.20	**227.6** 8.96	**360.0** 14.17	**9.8** 0.39	0.161	1100	1000	**81.80** 179.90
200.000 7.8740	**310.000** 12.2047	**51.000** 2.0079	**229.000** 9.0157	**596** 134000	**440** 98800	NU1040MA	**2.1** 0.08	**2.1** 0.08	**221.1** 8.70	**281.0** 11.06	**6.5** 0.26	0.122	2300	1900	**14.00** 30.70
200.000 7.8740	**360.000** 14.1732	**58.000** 2.2835	**243.000** 9.5669	**1090** 245000	**870** 196000	NU240EMA	**4.0** 0.16	**4.0** 0.16	**236.9** 9.33	**323.0** 12.72	**4.7** 0.19	0.137	1700	1500	**26.50** 58.30
200.000 7.8740	**360.000** 14.1732	**58.000** 2.2835	**243.000** 9.5669	**1090** 245000	**870** 196000	NJ240EMA	**4.0** 0.16	**4.0** 0.16	**236.9** 9.33	**323.0** 12.72	**4.7** 0.19	0.137	1700	1500	**27.00** 59.40
200.000 7.8740	**360.000** 14.1732	**98.000** 3.8583	**241.000** 9.4882	**1920** 431000	**1410** 316000	NU2240EMA	**4.0** 0.16	**4.0** 0.16	**231.5** 9.11	**325.0** 12.80	**7.0** 0.28	0.156	1200	1100	**44.40** 97.70
200.000 7.8740	**360.000** 14.1732	**98.000** 3.8583	**241.000** 9.4882	**1920** 431000	**1410** 316000	NJ2240EMA	**4.0** 0.16	**4.0** 0.16	**231.5** 9.11	**325.0** 12.80	**7.0** 0.28	0.156	1200	1100	**45.20** 99.50
200.000 7.8740	**420.000** 16.5354	**80.000** 3.1496	**258.000** 10.1575	**1580** 354000	**1360** 306000	NU340EMA	**5.0** 0.20	**5.0** 0.20	**249.9** 9.84	**370.0** 14.57	**7.0** 0.28	0.150	1300	1200	**55.80** 122.70
200.000 7.8740	**420.000** 16.5354	**80.000** 3.1496	**258.000** 10.1575	**1580** 354000	**1360** 306000	NJ340EMA	**5.0** 0.20	**5.0** 0.20	**249.9** 9.84	**370.0** 14.57	**7.0** 0.28	0.150	1300	1200	**56.70** 124.70
200.000 7.8740	**420.000** 16.5354	**138.000** 5.4331	**253.000** 9.9606	**2760** 619000	**2250** 505000	NU2340EMA	**5.0** 0.20	**5.0** 0.20	**240.7** 9.48	**377.0** 14.84	**9.2** 0.36	0.167	1000	940	**93.20** 205.00
200.000 7.8740	**420.000** 16.5354	**138.000** 5.4331	**253.000** 9.9606	**2760** 619000	**2250** 505000	NJ2340EMA	**5.0** 0.20	**5.0** 0.20	**240.7** 9.48	**377.0** 14.84	**9.2** 0.36	0.167	1000	940	**94.80** 208.70
220.000 8.6614	**340.000** 13.3858	**56.000** 2.2047	**250.000** 9.8425	**765** 172000	**565** 127000	NU1044MA	**3.0** 0.12	**3.0** 0.12	**242.6** 9.55	**310.0** 12.20	**8.4** 0.33	0.132	2000	1700	**18.40** 40.40
220.000 8.6614	**340.000** 13.3858	**56.000** 2.2047	**250.000** 9.8425	**765** 172000	**565** 127000	NJ1044MA	**3.0** 0.12	**3.0** 0.12	**242.6** 9.55	**310.0** 12.20	**8.4** 0.33	0.132	2000	1700	**18.90** 41.60

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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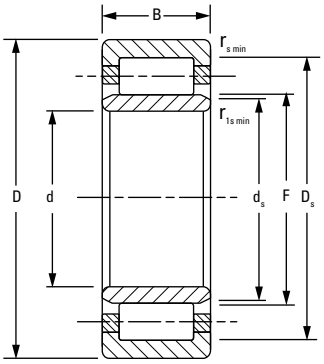
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Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geometry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
220.000 8.6614	**340.000** 13.3858	**90.000** 3.5433	**250.000** 9.8425	**765** 172000	**1210** 272000	NU3044MA	**3.0** 0.12	**3.0** 0.12	**242.5** 9.55	**314.0** 12.36	**8.4** 0.33	0.163	1100	940	**30.70** 67.60
220.000 8.6614	**400.000** 15.7480	**65.000** 2.5591	**268.000** 10.5512	**1290** 290000	**1040** 233000	NU244EMA	**4.0** 0.16	**4.0** 0.16	**261.2** 10.28	**358.0** 14.09	**4.0** 0.16	0.148	1500	1400	**36.90** 81.20
220.000 8.6614	**400.000** 15.7480	**65.000** 2.5591	**268.000** 10.5512	**1290** 290000	**1040** 233000	NJ244EMA	**4.0** 0.16	**4.0** 0.16	**261.2** 10.28	**358.0** 14.09	**4.0** 0.16	0.148	1500	1400	**37.60** 82.70
220.000 8.6614	**400.000** 15.7480	**108.000** 4.2520	**259.000** 10.1969	**2370** 533000	**1820** 409000	NU2244EMA	**4.0** 0.16	**4.0** 0.16	**250.7** 9.87	**363.0** 14.29	**7.3** 0.29	0.165	1000	970	**60.80** 133.80
220.000 8.6614	**400.000** 15.7480	**108.000** 4.2520	**259.000** 10.1969	**2370** 533000	**1820** 409000	NJ2244EMA	**4.0** 0.16	**4.0** 0.16	**250.7** 9.87	**363.0** 14.29	**7.3** 0.29	0.165	1000	970	**61.80** 136.00
220.000 8.6614	**460.000** 18.1102	**88.000** 3.4646	**282.000** 11.1024	**1930** 433000	**1650** 370000	NU344EMA	**5.0** 0.20	**5.0** 0.20	**272.9** 10.74	**406.0** 15.98	**7.5** 0.30	0.162	1100	1000	**73.70** 162.10
220.000 8.6614	**460.000** 18.1102	**88.000** 3.4646	**282.000** 11.1024	**1930** 433000	**1650** 370000	NJ344EMA	**5.0** 0.20	**5.0** 0.20	**272.9** 10.74	**406.0** 15.98	**7.5** 0.30	0.162	1100	1000	**74.90** 164.70
220.000 8.6614	**460.000** 18.1102	**145.000** 5.7087	**277.000** 10.9055	**3130** 704000	**2550** 574000	NU2344EMA	**5.0** 0.20	**5.0** 0.20	**264.1** 10.40	**413.0** 16.26	**11.2** 0.44	0.178	910	840	**118.50** 260.70
220.000 8.6614	**460.000** 18.1102	**145.000** 5.7087	**277.000** 10.9055	**3130** 704000	**2550** 574000	NJ2344EMA	**5.0** 0.20	**5.0** 0.20	**264.1** 10.40	**413.0** 16.26	**11.2** 0.44	0.178	910	840	**120.60** 265.20
220.000 8.6614	**460.000** 18.1102	**145.000** 5.7087	**413.000** 16.2598	**3130** 704000	**2550** 574000	N2344EMB	**5.0** 0.20	**5.0** 0.20	**277.0** 10.91	**425.9** 16.77	**10.2** 0.40	0.178	910	840	**117.50** 258.60
240.000 9.4488	**360.000** 14.1732	**56.000** 2.2047	**270.000** 10.6299	**838** 188000	**595** 134000	NU1048MA	**3.0** 0.12	**3.0** 0.12	**262.6** 10.34	**330.0** 12.99	**7.0** 0.28	0.140	1900	1500	**19.70** 43.40
240.000 9.4488	**440.000** 17.3228	**72.000** 2.8346	**293.000** 11.5354	**1570** 352000	**1250** 281000	NU248EMA	**4.0** 0.16	**4.0** 0.16	**285.5** 11.24	**393.0** 15.47	**6.0** 0.24	0.159	1300	1100	**50.30** 110.60
240.000 9.4488	**440.000** 17.3228	**72.000** 2.8346	**293.000** 11.5354	**1570** 352000	**1250** 281000	NJ248EMA	**4.0** 0.16	**4.0** 0.16	**285.5** 11.24	**393.0** 15.47	**6.0** 0.24	0.159	1300	1100	**51.10** 112.50
240.000 9.4488	**500.000** 19.6850	**95.000** 3.7402	**306.000** 12.0472	**2530** 568000	**2080** 468000	NU348EMA	**5.0** 0.20	**5.0** 0.20	**295.0** 11.61	**442.0** 17.40	**7.5** 0.30	0.170	1100	990	**96.10** 211.40
240.000 9.4488	**500.000** 19.6850	**95.000** 3.7402	**306.000** 12.0472	**2530** 568000	**2080** 468000	NJ348EMA	**5.0** 0.20	**5.0** 0.20	**295.0** 11.61	**442.0** 17.40	**7.5** 0.30	0.170	1100	990	**97.50** 214.50

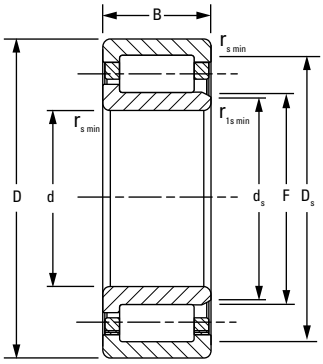
[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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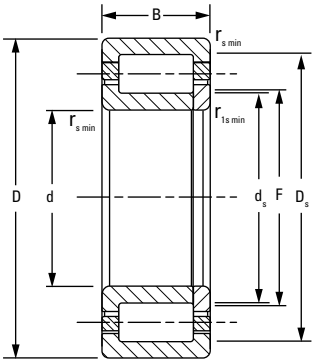
ONE-ROW METRIC ISO SERIES – *continued*



NU



NJ

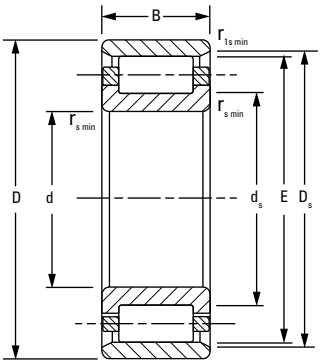


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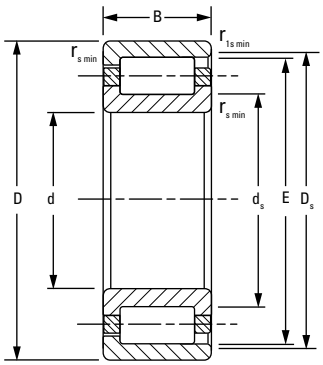
Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
240.000 9.4488	**500.000** 19.6850	**155.000** 6.1024	**303.000** 11.9291	**3760** 846000	**2970** 668000	NU2348EMA	**5.0** 0.20	**5.0** 0.20	**287.8** 11.33	**447.0** 17.60	**11.9** 0.47	0.192	770	700	**153.00** 336.60
240.000 9.4488	**500.000** 19.6850	**155.000** 6.1024	**303.000** 11.9291	**3760** 846000	**2970** 668000	NJ2348EMA	**5.0** 0.20	**5.0** 0.20	**287.8** 11.33	**447.0** 17.60	**11.9** 0.47	0.192	770	700	**155.70** 342.50
260.000 10.2362	**400.000** 15.7480	**65.000** 2.5591	**296.000** 11.6535	**1040** 233000	**737** 166000	NU1052MA	**4.0** 0.16	**4.0** 0.16	**287.2** 11.31	**364.0** 14.33	**8.8** 0.35	0.151	1700	1400	**29.20** 64.10
260.000 10.2362	**400.000** 15.7480	**104.000** 4.0945	**294.000** 11.5748	**2500** 563000	**1580** 354000	NU3052MA	**4.0** 0.16	**4.0** 0.16	**284.9** 11.22	**370.0** 14.57	**7.5** 0.30	0.170	860	770	**29.20** 64.10
260.000 10.2362	**480.000** 18.8976	**80.000** 3.1496	**320.000** 12.5984	**1720** 387000	**1320** 297000	NU252MA	**5.0** 0.20	**5.0** 0.20	**308.8** 12.16	**420.0** 16.54	**7.0** 0.28	0.168	1200	1000	**69.70** 153.30
260.000 10.2362	**480.000** 18.8976	**80.000** 3.1496	**320.000** 12.5984	**1720** 387000	**1320** 297000	NUP252MA	**5.0** 0.20	**5.0** 0.20	**307.0** 12.09	**420.0** 16.54	– –	0.168	1200	1000	**72.30** 159.06
260.000 10.2362	**480.000** 18.8976	**130.000** 5.1181	**320.000** 12.5984	**2950** 663000	**2030** 457000	NU2252MA	**5.0** 0.20	**5.0** 0.20	**305.6** 12.03	**420.0** 16.54	**11.6** 0.46	0.192	850	780	**113.00** 248.60
260.000 10.2362	**540.000** 21.2598	**165.000** 6.4961	**324.000** 12.7559	**4200** 945000	**3370** 758000	NU2352EMA	**6.0** 0.24	**6.0** 0.24	**308.8** 12.16	**484.0** 19.06	**12.2** 0.48	0.201	700	640	**186.10** 409.30
280.000 11.0236	**420.000** 16.5354	**65.000** 2.5591	**316.000** 12.4409	**1090** 245000	**754** 169000	NU1056MA	**4.0** 0.16	**4.0** 0.16	**306.4** 12.06	**384.0** 15.12	**8.0** 0.31	0.157	1600	1300	**31.00** 68.20
300.000 11.8110	**460.000** 18.1102	**74.000** 2.9134	**340.000** 13.3858	**1430** 322000	**1000** 225000	NU1060MA	**4.0** 0.16	**4.0** 0.16	**329.8** 12.98	**420.0** 16.54	**10.7** 0.42	0.169	1400	1200	**43.70** 96.10
320.000 12.5984	**440.000** 17.3228	**56.000** 2.2047	**350.000** 13.7795	**1210** 272000	**767** 172000	NU1964MA	**3.0** 0.12	**3.0** 0.12	**342.0** 13.46	**414.0** 16.30	**5.6** 0.22	0.170	770	660	**26.90** 59.18
320.000 12.5984	**440.000** 17.3228	**72.000** 2.8346	**413.000** 16.2598	**2010** 453000	**1150** 259000	NF2964EMB	**3.0** 0.12	**3.0** 0.12	**349.0** 13.74	**419.7** 16.52	**4.0** 0.16	0.191	710	620	**33.70** 74.20
320.000 12.5984	**480.000** 18.8976	**74.000** 2.9134	**360.000** 14.1732	**1500** 337000	**1020** 230000	NU1064MA	**4.0** 0.16	**4.0** 0.16	**349.8** 13.77	**440.0** 17.32	**9.2** 0.36	0.176	1300	1100	**45.90** 101.00
320.000 12.5984	**580.000** 22.8346	**150.000** 5.9055	**390.000** 15.3543	**3920** 882000	**2690** 605000	NU2264MA	**5.0** 0.20	**5.0** 0.20	**374.2** 14.73	**510.0** 20.08	**15.9** 0.63	0.199	680	620	**178.50** 392.70
340.000 13.3858	**460.000** 18.1102	**72.000** 2.8346	**431.000** 16.9685	**2090** 469000	**1170** 263000	NF2968EMB	**3.0** 0.12	**3.0** 0.12	**367.0** 14.45	**437.8** 17.24	**4.0** 0.16	0.197	660	580	**35.50** 78.00

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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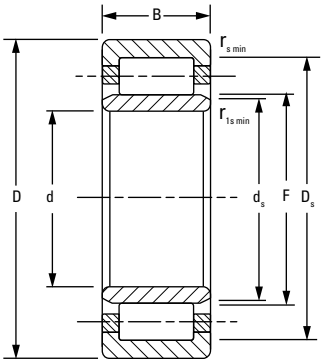
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Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				$s^{(3)}$	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
340.000 13.3858	**520.000** 20.4724	**82.000** 3.2283	**385.000** 15.1575	**1800** 405000	**1240** 278000	NU1068MA	**5.0** 0.20	**5.0** 0.20	**371.5** 14.63	**475.0** 18.70	**7.9** 0.31	0.186	1200	1000	**61.30** 134.90
340.000 13.3858	**520.000** 20.4724	**133.000** 5.2362	**385.000** 15.1575	**4280** 961000	**2550** 572000	NU3068EMA	**5.0** 0.20	**5.0** 0.20	**374.3** 14.74	**481.0** 18.94	**10.0** 0.39	0.228	580	530	**105.50** 232.00
340.000 13.3858	**580.000** 22.8346	**190.000** 7.4803	**399.000** 15.7087	**7010** 158000	**4300** 967000	NU3168EMA	**5.0** 0.20	**5.0** 0.20	**388.8** 15.31	**523.0** 20.59	**8.5** 0.34	0.253	480	450	**224.70** 494.40
360.000 14.1732	**750.000** 29.5276	**224.000** 8.8189	**465.000** 18.3071	**8060** 1810000	**5740** 1290000	NU2372EMA	**7.5** 0.30	**7.5** 0.30	**443.3** 17.45	**655.0** 25.79	**12.7** 0.50	0.266	430	400	**498.10** 1095.90
360.000 14.1732	**540.000** 21.2598	**82.000** 3.2283	**405.000** 15.9449	**1890** 424000	**1270** 285000	NU1072MA	**5.0** 0.20	**5.0** 0.20	**390.3** 15.37	**495.0** 19.49	**6.9** 0.27	0.193	1100	940	**64.20** 141.20
380.000 14.9606	**560.000** 22.0472	**82.000** 3.2283	**425.000** 16.7323	**1970** 443000	**1300** 291000	NU1076MA	**5.0** 0.20	**5.0** 0.20	**412.4** 16.24	**515.0** 20.28	**9.0** 0.35	0.199	1100	890	**67.20** 147.90
400.000 15.7480	**540.000** 21.2598	**82.000** 3.2283	**435.000** 17.1260	**2920** 657000	**1600** 360000	NJ2980EMA	**4.0** 0.16	**4.0** 0.16	**426.6** 16.80	**511.0** 20.12	**4.0** 0.16	0.226	520	460	**54.80** 120.50
400.000 15.7480	**600.000** 23.6220	**90.000** 3.5433	**450.000** 17.7165	**2290** 516000	**1530** 343000	NU1080MA	**5.0** 0.20	**5.0** 0.20	**436.4** 17.18	**550.0** 21.65	**10.0** 0.39	0.209	980	830	**87.50** 192.60
400.000 15.7480	**600.000** 23.6220	**118.000** 4.6457	**449.000** 17.6772	**4290** 965000	**2620** 589000	NU2080EMA	**5.0** 0.20	**5.0** 0.20	**440.4** 17.34	**557.0** 21.93	**9.6** 0.38	0.240	490	440	**119.30** 262.40
420.000 16.5354	**560.000** 22.0472	**82.000** 3.2283	**531.000** 20.9055	**3020** 680000	**1630** 366000	NF2984EMB	**4.0** 0.16	**4.0** 0.16	**455.0** 17.91	**537.9** 21.18	**5.0** 0.20	0.232	490	440	**57.20** 125.80
440.000 17.3228	**650.000** 25.5906	**94.000** 3.7008	**493.000** 19.4094	**2760** 620000	**1760** 395000	NU1088MA	**6.0** 0.24	**6.0** 0.24	**480.0** 18.90	**597.0** 23.50	**11.0** 0.43	0.226	860	730	**106.60** 234.60
440.000 17.3228	**650.000** 25.5906	**122.000** 4.8031	**487.000** 19.1732	**4900** 1100000	**2950** 663000	NU2088EMA	**6.0** 0.24	**6.0** 0.24	**476.1** 18.74	**603.0** 23.74	**8.5** 0.33	0.255	430	390	**141.00** 310.10
440.000 17.3228	**720.000** 28.3465	**226.000** 8.8976	**509.000** 20.0394	**9330** 2100000	**5740** 1290000	NU3188EMA	**6.0** 0.24	**6.0** 0.24	**490.0** 19.29	**665.0** 26.18	**13.6** 0.54	0.292	370	350	**371.20** 816.50
460.000 18.1102	**580.000** 22.8346	**72.000** 2.8346	**489.000** 19.2520	**2660** 599000	**1310** 294000	NJ2892EMA	**3.0** 0.12	**3.0** 0.12	**482.0** 18.98	**553.0** 21.77	**4.0** 0.16	0.238	470	410	**45.70** 100.50
460.000 18.1102	**620.000** 24.4094	**95.000** 3.7402	**579.000** 22.7953	**3690** 830000	**1970** 443000	NF2992EMB	**4.0** 0.16	**4.0** 0.16	**495.0** 19.49	**586.6** 23.09	**6.5** 0.26	0.249	440	390	**84.50** 185.90

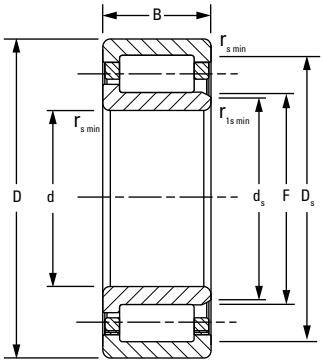
[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

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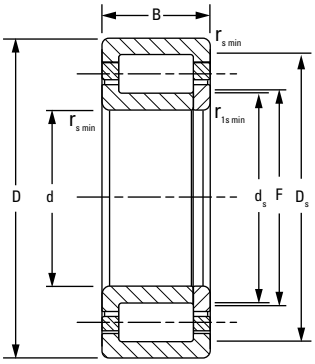
ONE-ROW METRIC ISO SERIES – *continued*



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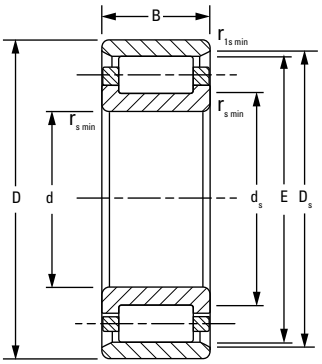


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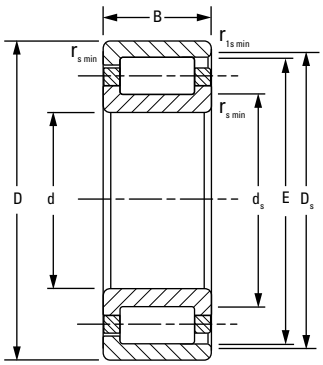
Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geometry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
460.000 18.1102	**760.000** 29.9213	**240.000** 9.4488	**529.300** 20.8386	**10100** 2270000	**6100** 1370000	NU3192EMA	**7.5** 0.30	**7.5** 0.30	**505.6** 19.91	**689.3** 27.14	**17.2** 0.68	0.302	360	330	**448.80** 987.30
480.000 18.8976	**700.000** 27.5591	**100.000** 3.9370	**536.000** 21.1024	**3950** 887000	**2360** 531000	NU1096EMA	**6.0** 0.24	**6.0** 0.24	**527.7** 20.78	**646.0** 25.43	**10.4** 0.41	0.253	710	620	**131.80** 290.00
480.000 18.8976	**700.000** 27.5591	**100.000** 3.9370	**536.000** 21.1024	**3920** 881000	**2360** 531000	NJ1096EMA	**6.0** 0.24	**6.0** 0.24	**528.5** 20.81	**646.0** 25.43	**10.4** 0.41	0.253	710	620	**138.00** 304.20
500.000 19.6850	**830.000** 32.6772	**264.000** 10.3937	**576.000** 22.6772	**12000** 2690000	**7490** 1680000	NU31/500EMA	**7.5** 0.30	**7.5** 0.30	**555.7** 21.88	**764.0** 30.08	**18.0** 0.71	0.319	310	290	**585.00** 1287.10
560.000 22.0472	**680.000** 26.7717	**56.000** 2.2047	**594.000** 23.3858	**1730** 388000	**806** 181000	NU18/560MA	**3.0** 0.12	**3.0** 0.12	**584.3** 23.00	**650.0** 25.59	**6.6** 0.26	0.240	410	350	**40.90** 90.00
600.000 23.6220	**870.000** 34.2520	**200.000** 7.8740	**661.000** 26.0236	**11000** 2480000	**6180** 1390000	NU30/600EMA	**6.0** 0.24	**6.0** 0.24	**646.5** 25.45	**821.0** 32.32	**14.8** 0.58	0.338	270	250	**396.80** 872.90
630.000 24.8031	**920.000** 36.2205	**170.000** 6.6929	**699.000** 27.5197	**9570** 2150000	**5390** 1210000	NU20/630EMA	**7.5** 0.30	**7.5** 0.30	**684.6** 26.95	**855.0** 33.66	**10.9** 0.43	0.336	260	240	**386.10** 849.40
670.000 26.3780	**980.000** 38.5827	**180.000** 7.0866	**746.000** 29.3701	**11100** 2490000	**6170** 1390000	NU20/670EMA	**7.5** 0.30	**7.5** 0.30	**730.0** 28.74	**912.0** 35.91	**11.7** 0.46	0.356	230	210	**468.80** 1031.30
670.000 26.3780	**980.000** 38.5827	**180.000** 7.0866	**746.000** 29.3701	**11100** 2490000	**6170** 1390000	NU20/670EMA	**7.5** 0.30	**7.5** 0.30	**730.0** 28.74	**912.0** 35.91	**11.7** 0.46	0.356	230	210	**468.80** 1031.30
670.000 26.3780	**980.000** 38.5827	**230.000** 9.0551	**744.000** 29.2913	**14000** 3140000	**7510** 1690000	NU30/670EMA	**7.5** 0.30	**7.5** 0.30	**725.1** 28.55	**914.0** 35.98	**17.6** 0.69	0.375	230	210	**608.10** 1337.80
710.000 27.9528	**870.000** 34.2520	**95.000** 3.7402	**751.000** 29.5669	**5110** 1150000	**2200** 494000	NJ28/710EMA	**4.0** 0.16	**4.0** 0.16	**740.9** 29.17	**831.0** 32.72	**7.8** 0.31	0.328	270	240	**125.40** 275.80
710.000 27.9528	**950.000** 37.4016	**140.000** 5.5118	**770.000** 30.3150	**8190** 1840000	**4020** 903000	NJ29/710MA	**6.0** 0.24	**6.0** 0.24	**756.6** 29.79	**890.0** 35.04	**10.5** 0.41	0.351	250	220	**307.00** 676.80
750.000 29.5276	**1090.000** 42.9134	**195.000** 7.6772	**832.000** 32.7559	**13800** 3110000	**7550** 1700000	NU20/750EMA	**7.5** 0.30	**7.5** 0.30	**817.6** 32.19	**1018.0** 40.08	**13.2** 0.52	0.388	190	180	**621.20** 1366.50
800.000 31.4961	**1150.000** 45.2756	**200.000** 7.8740	**882.000** 34.7244	**14600** 3290000	**8040** 1810000	NU20/800EMA	**7.5** 0.30	**7.5** 0.30	**864.6** 34.04	**1080.0** 42.52	**13.4** 0.53	0.400	180	170	**690.30** 1518.60
850.000 33.4646	**1220.000** 48.0315	**212.000** 8.3465	**937.000** 36.8898	**16200** 3640000	**8850** 1990000	NU20/850EMA	**7.5** 0.30	**7.5** 0.30	**917.5** 36.12	**1147.0** 45.16	**14.6** 0.57	0.418	170	160	**820.30** 1804.60

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

Continued on next page.



N



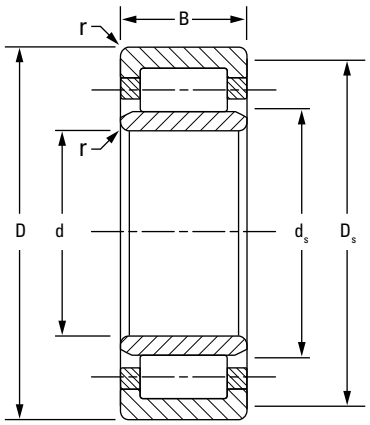
NF

Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				$s^{(3)}$	Geometry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
900.000 35.4331	**1180.000** 46.4567	**206.000** 8.1102	**969.000** 38.1496	**16800** 3770000	**7500** 1690000	NU39/900EMA	**6.0** 0.24	**6.0** 0.24	**949.9** 37.40	**1119.0** 44.06	**10.0** 0.39	0.447	160	150	**609.30** 1340.40
900.000 35.4331	**1280.000** 50.3937	**218.000** 8.5827	**990.000** 38.9764	**16900** 3800000	**9030** 2030000	NU20/900EMA	**7.5** 0.30	**7.5** 0.30	**968.5** 38.13	**1200.0** 47.24	**15.5** 0.61	0.432	160	150	**915.80** 2014.80
1120.000 44.0945	**1360.000** 53.5433	**106.000** 4.1732	**1162.000** 45.7480	**8370** 1880000	**3680** 828000	NJ18/1120EMA	**6.0** 0.24	**6.0** 0.24	**1167.5** 45.96	**1310.0** 51.57	**10.0** 0.39	0.422	150	130	**323.80** 712.40

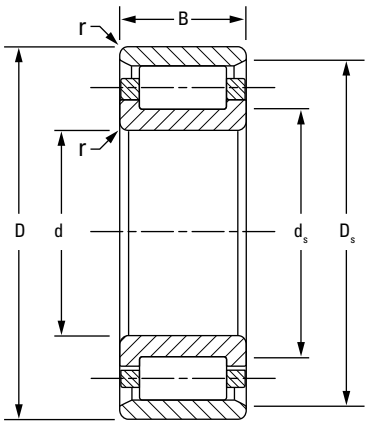
[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

ONE-ROW STANDARD SERIES

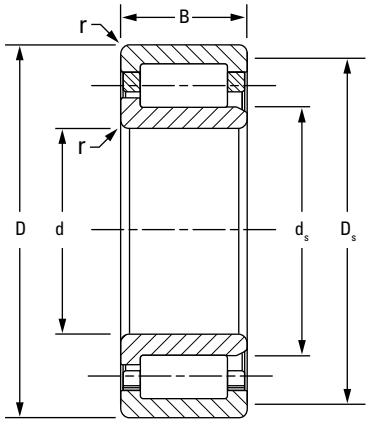
- Similar in construction to ISO counterparts.
- Designed to ABMA standards.
- Inch bearing sizes identified by "I" in the part number.



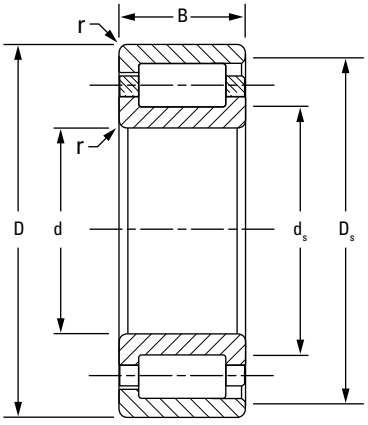
RU



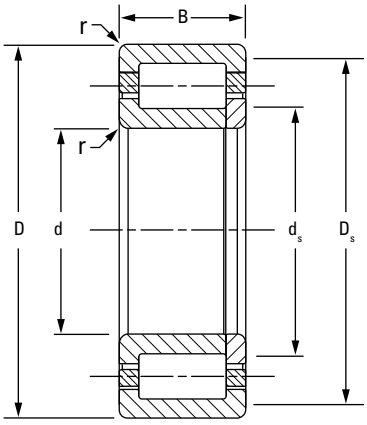
RN



RJ



RF



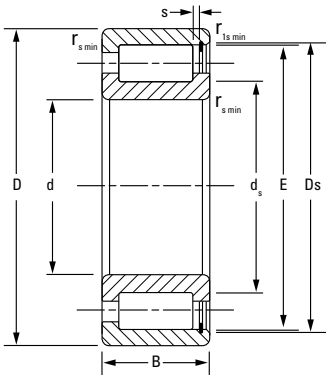
RT

Bearing Number and Style[1]					Bearing Dimensions			Fillet Radius (Max.) r[2]	Backing Diameter		Load Rating		Geometry Factor C_g	Thermal Speed Ratings		Weight
RU RIU	RN RIN	RJ RIJ	RF RIF	RT RIT	Bore d	O.D. D	Width B		Shaft d_s	Housing D_s	Static C_o	Dynamic C_1[3]		Oil	Grease	
					mm in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		RPM	RPM	**kg** lbs.
105RU32	105RN32	105RJ32	105RF32	105RT32	**105.000** 4.1339	**190.000** 7.4803	**65.100** 2.5625	**2.0** 0.08	**120.7** 4.75	**174.6** 6.88	**640** 144000	**471** 106000	0.115	2800	2500	**8.3** 18.3
170RU51	170RN51	170RJ51	170RF51	170RT51	**170.000** 6.6929	**265.000** 10.4331	**42.000** 1.6535	**2.50** 0.10	**184.3** 7.26	**246.1** 9.69	**521** 117000	**391** 87800	0.108	1600	1300	**8.6** 18.8
170RU91	170RN91	170RJ91	170RF91	170RT91	**170.000** 6.6929	**265.000** 10.4331	**76.200** 3.0000	**2.5** 0.10	**187.3** 7.38	**247.7** 9.75	**1170** 264000	**735** 165000	0.131	1500	1400	**16.1** 35.5
170RU93	170RN93	170RJ93	170RF93	170RT93	**170.000** 6.6929	**360.000** 14.1732	**139.700** 5.5000	**3.0** 0.12	**204.7** 8.06	**325.4** 12.81	**2580** 580000	**1820** 410000	0.156	1200	1100	**73.6** 162.4
180RU51	180RN51	180RJ51	180RF51	180RT51	**180.000** 7.0866	**280.000** 11.0236	**44.000** 1.7323	**2.5** 0.10	**196.1** 7.72	**262.7** 10.34	**560** 126000	**419** 94200	0.114	1500	1300	**10.3** 22.7
180RU91	180RN91	180RJ91	180RF91	180RT91	**180.000** 7.0866	**280.000** 11.0236	**82.550** 3.2500	**2.5** 0.10	**196.9** 7.75	**261.9** 10.31	**1440** 323000	**833** 187000	0.142	1400	1200	**19.4** 42.9
190RU91	190RN91	190RJ91	190RF91	190RT91	**190.000** 7.4803	**300.000** 11.8110	**85.725** 3.3750	**2.5** 0.10	**209.6** 8.25	**281.0** 11.06	**1600** 360000	**973** 219000	0.147	1300	1100	**23.8** 52.5
190RU92	190RN92	190RJ92	190RF92	190RT92	**190.000** 7.4803	**340.000** 13.3858	**114.300** 4.5000	**3.0** 0.12	**217.5** 8.56	**311.9** 12.28	**2210** 497000	**1450** 326000	0.156	1200	1000	**47.3** 104.2
200RU91	200RN91	200RJ91	200RF91	200RT91	**200.000** 7.8740	**320.000** 12.5984	**88.900** 3.5000	**3.0** 0.12	**218.9** 8.62	**294.9** 11.61	**1740** 391000	**1060** 239000	0.151	1200	1000	**27.7** 60.9
200RU92	200RN92	200RJ92	200RF92	200RT92	**200.000** 7.8740	**360.000** 14.1732	**120.650** 4.7500	**3.0** 0.12	**230.1** 9.06	**330.2** 13.00	**2590** 581000	**1630** 366000	0.166	1000	940	**56.8** 125.2
210RU92	210RN92	210RJ92	210RF92	210RT92	**210.000** 8.2677	**380.000** 14.9606	**127.000** 5.0000	**3.0** 0.12	**239.8** 9.44	**350.0** 13.78	**2640** 593000	**1740** 391000	0.167	1000	920	**66.1** 145.8
220RU51	220RN51	220RJ51	220RF51	220RT51	**220.000** 8.6614	**350.000** 13.7796	**51.000** 2.0079	**2.5** 0.10	**243.7** 9.59	**326.2** 12.84	**830** 187000	**612** 138000	0.133	1100	960	**19.6** 43.2
220RU91	220RN91	220RJ91	220RF91	220RT91	**220.000** 8.6614	**350.000** 13.7795	**98.425** 3.8750	**2.5** 0.10	**239.3** 9.42	**324.6** 12.78	**2090** 470000	**1290** 289000	0.162	1000	930	**37.6** 82.9
220RU92	220RN92	220RJ92	220RF92	220RT92	**220.000** 8.6614	**400.000** 15.7480	**133.350** 5.2500	**3.0** 0.12	**252.4** 9.94	**368.3** 14.50	**3230** 727000	**2010** 452000	0.180	880	810	**78.4** 172.9
240RU91	240RN91	240RJ91	240RF91	240RT91	**240.000** 9.4488	**390.000** 15.3543	**107.950** 4.2500	**3.0** 0.12	**265.2** 10.44	**365.3** 14.38	**2670** 600000	**1580** 355000	0.178	880	790	**53.4** 117.7
250RU91	250RN91	250RJ91	250RF91	250RT91	**250.000** 9.8425	**410.000** 16.1417	**111.125** 4.3750	**3.0** 0.12	**277.8** 10.94	**382.6** 15.06	**2720** 611000	**1680** 377000	0.180	850	770	**60.9** 134.3

[1]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[2]Maximum shaft or housing fillet radius that bearing corners will clear.
[3]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

FULL-COMPLEMENT (NCF)

- Single-row, full-complement cylindrical roller bearings.
- Features include integral flanges on the inner and outer rings.
- Can manage axial loads in one direction and small axial displacement.



NCF

Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geo-metry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
110.000 4.3307	**150.000** 5.9055	**24.000** 0.9449	**141.100** 5.5551	**223** 50100	**146** 32900	NCF2922V	**1.1** 0.04	**1.0** 0.04	**119.1** 4.69	**142.1** 5.59	**1.5** 0.06	0.136	1200	1000	**1.20** 2.65
120.000 4.7244	**165.000** 6.4961	**27.000** 1.0630	**154.000** 6.0630	**297** 66800	**188** 42400	NCF2924V	**1.1** 0.04	**1.0** 0.04	**130.0** 5.12	**155.0** 6.10	**1.55** 0.061	0.150	1200	970	**1.70** 3.80
130.000 5.1181	**180.000** 7.0866	**30.000** 1.1811	**166.800** 6.5669	**361** 81100	**225** 50600	NCF2926V	**1.5** 0.06	**1.1** 0.04	**140.8** 5.54	**167.5** 6.59	**2.00** 0.079	0.160	1100	920	**2.30** 5.00
140.000 5.5118	**190.000** 7.4803	**30.000** 1.1811	**179.600** 7.0709	**389** 87300	**243** 54700	NCF2928V	**1.5** 0.06	**1.1** 0.04	**151.6** 5.97	**180.2** 7.10	**1.9** 0.075	0.167	1000	850	**2.40** 5.30
150.000 5.9055	**210.000** 8.2677	**36.000** 1.4173	**196.400** 7.7323	**506** 114000	**328** 73800	NCF2930V	**2.0** 0.08	**1.1** 0.04	**162.4** 6.39	**200.5** 7.89	**2.20** 0.087	0.128	1010	840	**3.80** 8.30
160.000 6.2992	**220.000** 8.6614	**36.000** 1.4173	**207.200** 8.1575	**540** 121000	**340** 76300	NCF2932V	**2.0** 0.08	**1.1** 0.04	**173.2** 6.82	**208.5** 8.21	**2.20** 0.087	0.133	940	790	**4.00** 8.70
170.000 6.6929	**230.000** 9.0551	**36.000** 1.4173	**218.000** 8.5827	**574** 129000	**350** 78700	NCF2934V	**2.0** 0.08	**1.1** 0.04	**184.0** 7.24	**219.5** 8.64	**2.20** 0.087	0.116	890	740	**4.20** 9.30
180.000 7.0866	**250.000** 9.8425	**42.000** 1.6535	**231.500** 9.1142	**711** 160000	**436** 98000	NCF2936V	**2.0** 0.08	**1.1** 0.04	**193.5** 7.62	**232.5** 9.15	**2.50** 0.098	0.123	850	710	**6.30** 13.80
190.000 7.4803	**260.000** 10.2362	**42.000** 1.6535	**244.000** 9.6063	**803** 180000	**487** 109000	NCF2938V	**2.0** 0.08	**1.1** 0.04	**204.0** 8.03	**248.2** 9.77	**1.50** 0.059	0.129	780	660	**6.50** 14.30
200.000 7.8740	**250.000** 9.8425	**24.000** 0.9449	**237.500** 9.3504	**337** 75700	**188** 42400	NCF1840V	**1.5** 0.06	**1.1** 0.04	**211.5** 8.33	**238.5** 9.39	**1.80** 0.071	0.146	740	610	**2.52** 5.60
200.000 7.8740	**280.000** 11.0236	**48.000** 1.8898	**261.100** 10.2795	**971** 218000	**587** 132000	NCF2940V	**2.1** 0.08	**1.5** 0.06	**217.1** 8.55	**262.0** 10.32	**1.95** 0.077	0.137	730	620	**9.20** 20.10
220.000 8.6614	**270.000** 10.6299	**24.000** 0.9449	**257.700** 10.1457	**370** 83100	**198** 44400	NCF1844V	**1.5** 0.06	**1.1** 0.04	**231.7** 9.12	**258.7** 10.19	**1.80** 0.071	0.155	670	550	**2.92** 6.44
220.000 8.6614	**300.000** 11.8110	**48.000** 1.8898	**282.100** 11.1063	**1070** 239000	**615** 138000	NCF2944V	**2.1** 0.08	**1.5** 0.06	**238.1** 9.37	**284.0** 11.18	**1.95** 0.077	0.146	650	550	**9.90** 21.70
260.000 10.2362	**320.000** 12.5984	**28.000** 1.1024	**307.000** 12.0866	**553** 124000	**292** 65500	NCF1852V	**2.0** 0.08	**1.1** 0.04	**275** 10.83	**308.0** 12.13	**1.80** 0.071	0.140	580	480	**4.80** 10.60
260.000 10.2362	**360.000** 14.1732	**60.000** 2.3622	**333.400** 13.1260	**1480** 333000	**837** 188000	NCF2952V	**2.1** 0.08	**2.1** 0.08	**281.3** 11.07	**334.6** 13.17	**4.00** 0.157	0.167	540	460	**18.50** 40.80

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

Continued on next page.

Bearing Dimensions				Load Rating		Bearing Part Number[2]	Mounting Data				s[3]	Geometry Factor C_g	Thermal Speed Ratings		Weight
							Chamfer		Backing Diameter						
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1[1]		r_{smin}	r_{1smin}	Shaft d_s	Housing D_s			Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.		**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		RPM	RPM	**kg** lbs.
300.000 11.8110	**420.000** 16.5354	**72.000** 2.8346	**390.000** 15.3543	**2260** 508000	**1260** 284000	NCF2960V	**3.0** 0.12	**3.0** 0.12	**326.0** 12.83	**390.5** 15.37	**4.00** 0.157	0.191	430	370	**31.30** 68.80
320.000 12.5984	**400.000** 15.7480	**38.000** 1.4961	**382.800** 15.0709	**900** 202000	**471** 106000	NCF1864V	**2.1** 0.08	**1.5** 0.06	**340.8** 13.42	**383.8** 15.11	**3.00** 0.118	0.167	460	380	**10.60** 23.40
320.000 12.5984	**440.000** 17.3228	**72.000** 2.8346	**410.500** 16.1614	**2400** 540000	**1300** 293000	NCF2964V	**3.0** 0.12	**3.0** 0.12	**346.5** 13.64	**412.0** 16.22	**4.00** 0.157	0.199	400	340	**32.90** 72.53
340.000 13.3858	**420.000** 16.5354	**38.000** 1.4961	**402.800** 15.8583	**953** 214000	**484** 109000	NCF1868V	**2.1** 0.08	**1.5** 0.06	**360.8** 14.20	**403.8** 15.90	**3.00** 0.118	0.174	430	360	**11.00** 24.20
380.000 14.9606	**480.000** 18.8976	**46.000** 1.8110	**457.300** 18.0039	**1350** 304000	**698** 157000	NCF1876V	**2.1** 0.08	**1.5** 0.06	**405.3** 15.96	**458.3** 18.04	**3.50** 0.138	0.193	370	310	**18.90** 41.60
380.000 14.9606	**520.000** 20.4724	**82.000** 3.2283	**487.300** 19.1850	**3360** 756000	**1790** 402000	NCF2976V	**4.0** 0.16	**4.0** 0.16	**411.3** 16.19	**488.8** 19.24	**4.00** 0.157	0.228	310	270	**52.90** 116.62
400.000 15.7480	**500.000** 19.6850	**46.000** 1.8110	**474.000** 18.6614	**1410** 316000	**713** 160000	NCF1880V	**2.1** 0.08	**1.5** 0.06	**422.0** 16.61	**475.0** 18.70	**3.50** 0.138	0.198	350	290	**20.60** 45.41
420.000 16.5354	**520.000** 20.4724	**46.000** 1.8110	**498.800** 19.6378	**1490** 335000	**733** 165000	NCF1884V	**2.1** 0.08	**1.5** 0.06	**446.8** 17.59	**499.8** 19.68	**3.50** 0.138	0.206	330	280	**21.14** 46.50
440.000 17.3228	**540.000** 21.2598	**46.000** 1.8110	**515.500** 20.2953	**1550** 347000	**746** 168000	NCF1888V	**2.1** 0.08	**1.5** 0.06	**463.5** 18.25	**516.5** 20.33	**3.50** 0.138	0.212	310	260	**22.30** 49.16
460.000 18.1102	**580.000** 22.8346	**56.000** 2.2047	**552.600** 21.7559	**2040** 458000	**1030** 232000	NCF1892V	**3.0** 0.12	**3.0** 0.12	**488.6** 19.24	**553.6** 21.80	**4.50** 0.177	0.224	290	250	**33.20** 73.00
460.000 18.1102	**620.000** 24.4094	**95.000** 3.7402	**578.500** 22.7756	**4610** 1040000	**2310** 518000	NCF2992V	**4.0** 0.16	**4.0** 0.16	**494.5** 19.47	**580.0** 22.84	**5.00** 0.197	0.263	240	220	**84.00** 185.19
480.000 18.8976	**650.000** 25.5906	**100.000** 3.9370	**615.200** 24.2205	**4910** 110000	**2570** 579000	NCF2996V	**5.0** 0.20	**5.0** 0.20	**519.2** 20.44	**616.8** 24.28	**6.00** 0.236	0.269	230	210	**94.30** 207.50
500.000 19.6850	**620.000** 24.4094	**56.000** 2.2047	**593.300** 23.3583	**2210** 496000	**1070** 241000	NCF18/500V	**3.0** 0.12	**3.0** 0.12	**529.3** 20.84	**594.3** 23.40	**5.0** 0.197	0.237	260	220	**35.90** 79.00
500.000 19.6850	**670.000** 26.3780	**100.000** 3.9370	**630.900** 24.8386	**5060** 1140000	**2610** 587000	NCF29/500V	**5.0** 0.20	**5.0** 0.20	**534.9** 21.06	**632.5** 24.90	**6.0** 0.236	0.274	220	200	**97.30** 214.10
530.000 20.8661	**650.000** 25.5906	**56.000** 2.2047	**624.000** 24.5669	**2340** 525000	**1100** 248000	NCF18/530V	**3.0** 0.12	**3.0** 0.12	**560.0** 22.05	**625.5** 24.63	**4.1** 0.161	0.246	240	210	**37.80** 83.20
560.000 22.0472	**680.000** 26.7717	**56.000** 2.2047	**654.700** 25.7756	**2460** 554000	**1130** 255000	NCF18/560V	**3.0** 0.12	**3.0** 0.12	**590.7** 23.26	**656.2** 25.84	**4.1** 0.161	0.256	230	190	**39.20** 86.30
600.000 23.6220	**730.000** 28.7402	**60.000** 2.3622	**695.200** 27.3701	**2630** 592000	**1170** 263000	NCF18/600V	**3.0** 0.12	**3.0** 0.12	**631.2** 24.85	**696.7** 27.43	**6.1** 0.240	0.268	210	180	**50.20** 110.40
630.000 24.8031	**780.000** 30.7087	**69.000** 2.7165	**737.500** 29.0354	**3100** 698000	**1410** 316000	NCF18/630V	**4.0** 0.16	**4.0** 0.16	**665.5** 26.20	**739.0** 29.10	**7.5** 0.295	0.281	200	170	**72.20** 159.17
670.000 26.3780	**820.000** 32.2835	**69.000** 2.7165	**782.300** 30.7992	**3320** 746000	**1450** 327000	NCF18/670V	**4.0** 0.16	**4.0** 0.16	**710.3** 27.96	**783.8** 30.86	**7.5** 0.295	0.294	190	160	**74.60** 164.10
710.000 27.9528	**870.000** 34.2520	**74.000** 2.9134	**830.700** 32.7047	**3920** 882000	**1740** 390000	NCF18/710V	**4.0** 0.16	**4.0** 0.16	**750.7** 29.56	**832.7** 32.78	**8.0** 0.315	0.309	170	150	**91.60** 201.94
750.000 29.5276	**920.000** 36.2205	**78.000** 3.0709	**878.000** 34.5669	**4600** 1030000	**2080** 467000	NCF18/750V	**5.0** 0.20	**5.0** 0.20	**788.0** 31.02	**880.0** 34.65	**8.0** 0.315	0.323	160	140	**105.10** 231.20
800.000 31.4961	**980.000** 38.5827	**82.000** 3.2283	**935.000** 36.8110	**4930** 1110000	**2150** 484000	NCF18/800V	**5.0** 0.20	**5.0** 0.20	**845.0** 33.27	**937.0** 36.89	**9.0** 0.354	0.339	150	130	**105.10** 231.20

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

TWO-ROW

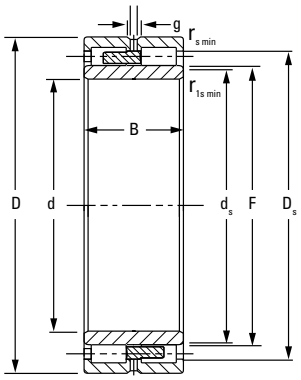
- Additional radial load-carrying capability compared to single-row product.
- Designed to ISO/DIN specified interchangeable dimensions.
- Sold as complete assembly.

Bearing Dimensions				Load Rating		Bearing Part Number [2]
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1 [1]	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.	
150.000 5.9055	**210.000** 8.2677	**60.000** 2.3622	**168.500** 6.6339	**668** 150200	**374** 84100	NNU4930MAW33
160.000 6.2992	**220.000** 8.6614	**60.000** 2.3622	**178.500** 7.0276	**692** 155600	**380** 85300	NNU4932MAW33
170.000 6.6929	**230.000** 9.0551	**60.000** 2.3622	**188.500** 7.4213	**696** 156200	**376** 84600	NNU4934MAW33
180.000 7.0866	**250.000** 9.8425	**69.000** 2.7165	**202.000** 7.9528	**850** 191000	**449** 101000	NNU4936MAW33
190.000 7.4803	**260.000** 10.2362	**69.000** 2.7165	**212.000** 8.3465	**890** 200000	**459** 103000	NNU4938MAW33
200.000 7.8740	**280.000** 11.0236	**80.000** 3.1496	**225.000** 8.8583	**1046** 234000	**550** 124000	NNU4940MAW33
200.000 7.8740	**340.000** 13.3858	**140.000** 5.5118	**235.000** 9.2520	**2460** 552000	**1690** 381000	NNU4140MAW33
220.000 8.6614	**300.000** 11.8110	**80.000** 3.1496	**245.000** 9.6457	**1150** 258000	**577** 130000	NNU4944MAW33
220.000 8.6614	**370.000** 14.5669	**150.000** 5.9055	**258.000** 10.1575	**2960** 666000	**1930** 434000	NNU4144MAW33
240.000 9.4488	**320.000** 12.5984	**80.000** 3.1496	**265.000** 10.4331	**1220** 274000	**591** 133000	NNU4948MAW33
240.000 9.4488	**400.000** 15.7480	**160.000** 6.2992	**282.000** 11.1024	**3680** 828000	**2290** 515000	NNU4148MAW33
260.000 10.2362	**360.000** 14.1732	**100.000** 3.9370	**292.000** 11.4961	**1710** 385000	**856** 192000	NNU4952MAW33
260.000 10.2362	**440.000** 17.3228	**180.000** 7.0866	**306.000** 12.0472	**4540** 1022000	**2840** 639000	NNU4152MAW33
280.000 11.0236	**380.000** 14.9606	**100.000** 3.9370	**312.000** 12.2835	**1834** 412000	**880** 1980	NNU4956MAW33
280.000 11.0236	**460.000** 18.1102	**180.000** 7.0866	**326.000** 12.8346	**4820** 1084000	**2940** 660000	NNU4156MAW33
300.000 11.8110	**420.000** 16.5354	**118.000** 4.6457	**339.000** 13.3465	**2380** 536000	**1170** 263000	NNU4960MAW33

[1] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2] The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3] Permissible axial displacement from normal position of one bearing ring in relation to the other.

NNU-1

- Outer rings with solid ribs.
- Lubrication grooves and holes on outer rings.
- One solid brass cage.



NNU-1

Mounting Data				Lubrication Data				Geometry Factor	Thermal Speed Ratings		Weight
Chamfer		Backing Diameter									
r_{smin}	r_{1smin}	Shaft d_s	Housing D_s	Groove g	Hole Dia. h	Number of Holes z	s[3]	C_g	Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		**mm** in.		RPM	RPM	**kg** lbs.
2.0 0.08	**2.0** 0.08	**165.0** 6.50	**197.0** 7.76	**6.8** 0.27	**3** 0.12	6	**2.6** 0.10	0.199	2100	1800	**6.30** 13.90
2.0 0.08	**2.0** 0.08	**175.0** 6.89	**207.0** 8.15	**6.8** 0.27	**3** 0.12	6	**2.8** 0.11	0.206	2000	1700	**6.60** 14.60
2.0 0.08	**2.0** 0.08	**185.0** 7.28	**217.0** 8.54	**6.8** 0.27	**3** 0.12	6	**2.8** 0.11	0.161	1900	1600	**7.00** 15.40
2.0 0.08	**2.0** 0.08	**198.0** 7.80	**232.0** 9.13	**9.6** 0.38	**4.5** 0.18	6	**3.4** 0.13	0.136	1700	1500	**10.50** 23.10
2.0 0.08	**2.0** 0.08	**207.0** 8.15	**242.0** 9.53	**9.6** 0.38	**4.5** 0.18	6	**2.0** 0.08	0.141	1600	1400	**10.80** 23.80
2.1 0.08	**2.1** 0.08	**220.0** 8.66	**259.0** 10.20	**12.3** 0.48	**6** 0.24	6	**3.9** 0.15	0.147	1500	1300	**15.00** 33.10
3.0 0.12	**3.0** 0.12	**229.0** 9.02	**315.0** 12.40	**12.3** 0.48	**6** 0.24	6	**5.40** 0.21	0.165	1200	1100	**51.00** 112.00
2.1 0.08	**2.1** 0.08	**240.0** 9.45	**279.0** 10.98	**12.3** 0.48	**6** 0.24	6	**3.9** 0.15	0.157	1400	1200	**16.50** 36.40
4.0 0.16	**4.0** 0.16	**251.0** 9.88	**342.0** 13.46	**12.3** 0.48	**6** 0.24	6	**5.6** 0.22	0.180	1000	940	**65.00** 143.00
2.1 0.08	**2.1** 0.08	**260.0** 10.24	**299.0** 11.77	**12.3** 0.48	**6** 0.24	6	**3.9** 0.15	0.165	1200	1100	**17.50** 38.60
4.0 0.16	**4.0** 0.16	**275.0** 10.83	**368.0** 14.49	**12.3** 0.48	**6** 0.24	6	**7.2** 0.28	0.196	870	800	**85.00** 187.40
2.1 0.08	**2.1** 0.08	**287.8** 11.33	**334.0** 13.15	**16.0** 0.63	**7.5** 0.30	6	**4.4** 0.17	0.181	1100	950	**30.30** 66.80
4.0 0.16	**4.0** 0.16	**298.9** 11.77	**402.0** 15.83	**16.0** 0.63	**7.5** 0.30	6	**6.3** 0.41	0.210	760	710	**112.00** 247.00
2.1 0.08	**2.1** 0.08	**304.5** 11.99	**354.0** 13.94	**16.0** 0.63	**7.5** 0.30	6	**4.8** 0.19	0.190	1000	880	**32.50** 71.60
5.0 0.20	**5.0** 0.20	**318.9** 12.56	**422.0** 16.61	**16.0** 0.63	**7.5** 0.29	8	**6.3** 0.28	0.219	990	910	**119.00** 262.00
3.0 0.12	**3.0** 0.12	**330.4** 13.01	**389.0** 15.31	**19.3** 0.76	**9.5** 0.37	8	**5.3** 0.21	0.205	880	780	**50.00** 110.00

Continued on next page.

TWO-ROW – continued

Bearing Dimensions				Load Rating		Bearing Part Number [2]
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1 [1]	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.	
300.000 11.8110	**500.000** 19.6850	**200.000** 7.8740	**351.000** 13.8189	**6140** 1382000	**3780** 850000	NNU4160MAW33
320.000 12.5984	**440.000** 17.3228	**118.000** 4.6457	**359.000** 14.1339	**2660** 598000	**1270** 285000	NNU4964MAW33
320.000 12.5984	**540.000** 21.2598	**218.000** 8.5827	**375.000** 14.7638	**6280** 1410000	**3940** 886000	NNU4164MAW33
340.0000 13.3858	**460.0000** 18.1102	**118.0000** 4.6457	**379.0000** 14.9213	**2660** 598000	**1250** 282000	NNU4968MAW33
340.0000 13.3858	**520.0000** 20.4724	**180.0000** 7.0866	**385.0000** 15.1575	**5130** 1153000	**2980** 669000	NNU4068MAW33
340.000 13.3858	**580.000** 22.8346	**243.000** 9.5669	**402.000** 15.8268	**7580** 1704000	**4660** 1050000	NNU4168MAW33
360.0000 14.1732	**480.0000** 18.8976	**118.0000** 4.6457	**399.0000** 15.7087	**2800** 630000	**1270** 285000	NNU4972MAW33
360.0000 14.1732	**540.0000** 21.2598	**180.0000** 7.0866	**405.0000** 15.9449	**5580** 1256000	**3180** 716000	NNU4072MAW33
360.000 14.1732	**600.000** 23.6220	**243.000** 9.5669	**422.000** 16.6142	**8480** 1906000	**5000** 1120000	NNU4172MAW33
380.000 14.9606	**520.000** 20.4724	**140.000** 5.5118	**426.000** 16.7717	**3720** 836000	**1660** 373000	NNU4976MAW33
380.000 14.9606	**560.0000** 22.0472	**180.0000** 7.0866	**425.0000** 16.7323	**5860** 1316000	**3260** 733000	NNU4076MAW33
380.000 14.9606	**620.000** 24.4094	**243.000** 9.5669	**442.000** 17.4016	**8520** 1916000	**4990** 1120000	NNU4176MAW33
400.000 15.7480	**540.000** 21.2598	**140.000** 5.5118	**446.000** 17.5591	**3920** 882000	**1710** 384000	NNU4980MAW33
400.0000 15.7480	**600.0000** 23.6220	**200.0000** 7.8740	**449.0000** 17.6772	**7210** 1621000	**3970** 893000	NNU4080MAW33
400.000 15.7480	**650.000** 25.5906	**250.000** 9.8425	**463.000** 18.2283	**9460** 2120000	**5530** 1240000	NNU4180MAW33
420.0000 16.5354	**560.0000** 22.0472	**140.0000** 5.5118	**466.0000** 18.3465	**4140** 928000	**1750** 394000	NNU4984MAW33
420.0000 16.5354	**620.0000** 24.4094	**200.0000** 7.8740	**469.0000** 18.4646	**7600** 1706000	**4070** 914000	NNU4084MAW33
420.000 16.5354	**700.000** 27.5591	**280.000** 11.0236	**497.000** 19.5669	**11420** 2560000	**6430** 1450000	NNU4184MAW33
440.0000 17.3228	**600.0000** 23.6220	**160.0000** 6.2992	**490.0000** 19.2913	**5740** 1292000	**2500** 562000	NNU4988MAW33
440.0000 17.3228	**650.0000** 25.5906	**212.0000** 8.3465	**487.0000** 19.1732	**8180** 1840000	**4530** 1020000	NNU4088MAW33
440.0000 17.3228	**720.0000** 28.3465	**280.0000** 11.0236	**511.0000** 20.1181	**11400** 2560000	**6620** 1490000	NNU4188MAW33

[1] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2] The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3] Permissible axial displacement from normal position of one bearing ring in relation to the other.

Mounting Data				Lubrication Data				Geometry Factor	Thermal Speed Ratings		Weight
Chamfer		Backing Diameter		Groove	Hole Dia.	Number of Holes					
r_{smin}	r_{1smin}	Shaft d_s	Housing D_s	g	h	z	s[3]	C_g	Oil	Grease	
mm in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		**mm** in.		RPM	RPM	**kg** lbs.
5.0 0.20	**5.0** 0.20	**343.0** 13.50	**463.0** 18.23	**12.0** 0.47	**6** 0.24	8	**6.5** 0.26	0.236	600	560	**158.00** 348.00
3.0 0.12	**3.0** 0.12	**351.0** 13.82	**409.0** 16.10	**10.0** 0.39	**5.0** 0.20	8	**5.2** 0.20	0.216	790	710	**54.00** 119.00
5.0 0.20	**5.0** 0.20	**365.0** 14.37	**495.0** 19.49	**19.3** 0.76	**9.5** 0.37	10	**8.8** 0.35	0.242	590	550	**200.00** 441.00
3.0 0.12	**3.0** 0.12	**380.0** 14.96	**487.0** 19.17	**19.3** 0.76	**9.5** 0.37	8	**6.3** 0.25	0.222	760	670	**56.00** 123.00
5.0 0.20	**5.0** 0.20	**380.0** 14.96	**487.0** 19.17	**19.3** 0.76	**9.5** 0.37	10	**8.9** 0.35	0.238	610	560	**140.00** 309.00
5.0 0.20	**5.0** 0.20	**391.0** 15.39	**530.0** 20.87	**19.3** 0.76	**9.5** 0.37	10	**9.6** 0.38	0.258	530	490	**260.00** 573.00
3.0 0.12	**3.0** 0.12	**392.0** 15.43	**449.0** 17.68	**19.3** 0.76	**9.5** 0.37	8	**5.6** 0.33	0.229	710	630	**58.50** 129.00
5.0 0.20	**5.0** 0.20	**400.0** 15.75	**507.0** 19.96	**19.3** 0.76	**9.5** 0.37	10	**7.9** 0.33	0.248	560	510	**140.00** 309.00
5.0 0.20	**5.0** 0.20	**408.0** 16.06	**550.0** 21.65	**19.3** 0.76	**9.5** 0.37	10	**9.2** 0.36	0.271	470	440	**275.00** 606.00
4.0 0.16	**4.0** 0.16	**418.0** 16.46	**482.0** 18.98	**19.30** 0.76	**9.50** 0.37	10	**6.6** 0.26	0.248	630	560	**87.50** 193.00
5.0 0.20	**5.0** 0.20	**415.00** 16.34	**525.00** 20.67	**19.30** 0.76	**9.50** 0.37	10	**7.90** 0.31	0.256	530	480	**150.00** 331.00
5.0 0.20	**5.0** 0.20	**429.0** 16.89	**570.0** 22.44	**19.30** 0.76	**9.50** 0.37	10	**9.2** 0.36	0.277	460	430	**285.00** 628.00
4.0 0.16	**4.0** 0.16	**437.0** 17.20	**504.0** 19.84	**19.30** 0.76	**9.50** 0.37	10	**7.1** 0.28	0.257	600	530	**91.70** 202.00
5.0 0.20	**5.0** 0.20	**440.0** 17.32	**560.0** 22.05	**19.30** 0.76	**9.50** 0.37	10	**8.2** 0.32	0.274	460	430	**205.00** 452.00
6.0 0.24	**6.0** 0.24	**451.4** 17.77	**599.0** 23.58	**19.30** 0.76	**9.50** 0.37	12	**9.3** 0.37	0.288	410	390	**325.00** 716.00
4.0 0.16	**4.0** 0.16	**456.4** 17.97	**522.0** 20.55	**19.30** 0.76	**9.50** 0.37	10	**5.9** 0.23	0.265	560	500	**98.00** 216.00
5.0 0.20	**5.0** 0.20	**459.0** 18.07	**577.0** 22.72	**19.30** 0.76	**9.50** 0.37	10	**8.40** 0.33	0.282	430	400	**183.00** 403.00
6.0 0.24	**6.0** 0.24	**490.0** 19.29	**647.0** 25.47	**19.30** 0.76	**9.50** 0.37	12	**9.3** 0.37	0.309	370	350	**440.00** 970.00
4.0 0.16	**4.0** 0.16	**480.4** 18.91	**558.0** 21.97	**16.00** 0.63	**8.00** 0.31	10	**6.8** 0.27	0.286	460	420	**136.00** 300.00
6.0 0.24	**6.0** 0.24	**478.0** 18.82	**607.0** 23.90	**19.30** 0.76	**9.50** 0.37	12	**8.80** 0.35	0.290	410	380	**215.00** 474.00
6.0 0.24	**6.0** 0.24	**497.4** 19.58	**661.0** 26.02	**25.3** 1.00	**13.0** 0.51	12	**11.0** 0.43	0.311	370	340	**119.00** 262.00

Continued on next page.

TWO-ROW – continued

Bearing Dimensions				Load Rating		Bearing Part Number [2]
Bore d	O.D. D	Width B	DUR/DOR F/E	Static C_o	Dynamic C_1 [1]	
mm in.	**mm** in.	**mm** in.	**mm** in.	**kN** lbf.	**kN** lbf.	
460.000 18.1102	**620.000** 24.4094	**160.000** 6.2992	**510.000** 20.0787	**5540** 1246000	**2420** 544000	NNU4992MAW33
460.000 18.1102	**680.0000** 26.7717	**218.0000** 8.5827	**513.0000** 20.1969	**9420** 2120000	**4980** 1120000	NNU4092MAW33
460.000 18.1102	**760.000** 29.9213	**300.000** 11.8110	**537.000** 21.1417	**12960** 2920000	**7440** 1670000	NNU4192MAW33
480.000 18.8976	**650.000** 25.5906	**170.000** 6.6929	**534.000** 21.0236	**6160** 1382000	**2680** 602000	NNU4996MAW33
480.0000 18.8976	**700.0000** 27.5591	**218.0000** 8.5827	**533.0000** 20.9843	**9730** 2189000	**5090** 1150000	NNU4096MAW33
480.000 18.8976	**790.000** 31.1024	**308.000** 12.1260	**557.000** 21.9291	**14260** 3200000	**8190** 1840000	NNU4196MAW33
500.0000 19.6850	**670.0000** 26.3780	**170.0000** 6.6929	**554.0000** 21.8110	**6280** 1410000	**2690** 605000	NNU49/500MAW33
500.0000 19.6850	**720.0000** 28.3465	**218.0000** 8.5827	**553.0000** 21.7717	**10560** 2380000	**5550** 1250000	NNU40/500MAW33
530.0000 20.8661	**710.0000** 27.9528	**180.0000** 7.0866	**588.0000** 23.1496	**8180** 1839000	**3360** 755000	NNU49/530MAW33
530.0000 20.8661	**780.0000** 30.7087	**250.0000** 9.8425	**591.0000** 23.2677	**12160** 2740000	**6330** 1420000	NNU40/530MAW33
560.0000 22.0472	**750.0000** 29.5276	**190.0000** 7.4803	**623.0000** 24.5276	**8780** 1976000	**3590** 808000	NNU49/560MAW33
600.0000 23.6220	**800.0000** 31.4961	**200.0000** 7.8740	**666.0000** 26.2205	**10120** 2280000	**4040** 907000	NNU49/600MAW33
630.0000 24.8031	**850.0000** 33.4646	**218.0000** 8.5827	**704.0000** 27.7165	**11520** 2580000	**4570** 1030000	NNU49/630MAW33
670.0000 26.3780	**900.0000** 35.4331	**230.0000** 9.0551	**738.0000** 29.0551	**13460** 3020000	**5430** 1220000	NNU49/670MAW33
670.0000 26.3780	**980.0000** 38.5827	**308.0000** 12.1260	**744.0000** 29.2913	**18840** 4236000	**9740** 2190000	NNU40/670MAW33
710.0000 27.9528	**950.0000** 37.4016	**243.0000** 9.5669	**782.0000** 30.7874	**14660** 3300000	**6310** 1420000	NNU49/710MAW33
750.0000 29.5276	**1000.0000** 39.3701	**250.0000** 9.8425	**831.0000** 32.7165	**16480** 3700000	**6230** 1400000	NNU49/750MAW33
800.0000 31.4961	**1060.0000** 41.7323	**258.0000** 10.1575	**880.0000** 34.6457	**17390** 3909000	**7070** 1590000	NNU49/800MAW33
850.000 33.4646	**1120.000** 44.0945	**272.000** 10.7087	**939.000** 36.9685	**17900** 4020000	**6810** 1530000	NNU49/850MAW33
900.0000 35.4331	**1180.0000** 46.4567	**280.0000** 11.0236	**986.0000** 38.8189	**20650** 4643000	**7790** 1750000	NNU49/900MAW33

[1]Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[2]The radial internal clearance (RIC) for the bearing assembly must be included when ordering the complete assembly.
[3]Permissible axial displacement from normal position of one bearing ring in relation to the other.

Mounting Data				Lubrication Data				Geometry Factor	Thermal Speed Ratings		Weight
Chamfer		Backing Diameter		Groove	Hole Dia.	Number of Holes			Oil	Grease	
r_{smin}	r_{1smin}	Shaft d_s	Housing D_s	g	h	z	$s^{(3)}$	C_g			
mm in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.	**mm** in.		**mm** in.		RPM	RPM	**kg** lbs.
4.0 0.16	**4.0** 0.16	**500.0** 19.69	**578.0** 22.76	**19.3** 0.76	**9.5** 0.37	10	**6.2** 0.24	0.288	460	420	**135.00** 298.00
6.0 0.24	**6.0** 0.24	**502.0** 19.76	**633.0** 24.92	**19.30** 0.76	**9.50** 0.37	12	**8.40** 0.33	0.305	370	340	**240.00** 529.00
7.5 0.30	**7.5** 0.30	**525.0** 20.67	**697.0** 27.44	**19.30** 0.76	**9.50** 0.37	12	**11.3** 0.44	0.324	330	320	**535.00** 1179.00
5.0 0.20	**5.0** 0.20	**526.0** 20.71	**606.0** 23.86	**19.30** 0.76	**9.50** 0.37	12	**6.8** 0.27	0.299	430	390	**160.00** 353.00
6.0 0.24	**6.0** 0.24	**527.0** 20.75	**653.0** 25.71	**19.3** 0.76	**9.5** 0.37	12	**8.7** 0.34	0.313	350	330	**275.00** 606.00
7.5 0.30	**7.5** 0.30	**543.0** 21.38	**727.0** 28.62	**25.3** 1.00	**13.0** 0.51	12	**12.0** 0.47	0.335	310	290	**590.00** 1301.00
5.0 0.20	**5.0** 0.20	**543.0** 21.38	**626.0** 24.65	**19.3** 0.76	**9.5** 0.37	12	**6.4** 0.25	0.306	420	380	**170.00** 375.00
6.0 0.24	**6.0** 0.24	**544.0** 21.42	**681.0** 26.81	**16.0** 0.63	**7.5** 0.30	12	**7.7** 0.30	0.322	330	310	**288.00** 635.00
5.0 0.20	**5.0** 0.20	**577.7** 22.74	**664.0** 26.14	**19.3** 0.76	**9.5** 0.37	12	**6.3** 0.25	0.334	350	320	**207.00** 456.00
6.0 0.24	**6.0** 0.24	**579.3** 22.81	**727.0** 28.62	**19.30** 0.76	**9.50** 0.37	12	**11.00** 0.43	0.341	300	280	**420.00** 925.93
5.0 0.20	**5.0** 0.20	**612.0** 24.09	**703.0** 27.68	**22.0** 0.87	**12.0** 0.47	12	**6.6** 0.26	0.346	330	300	**245.00** 540.00
5.0 0.20	**5.0** 0.20	**655.0** 25.79	**750.0** 29.53	**25.3** 1.00	**13.0** 0.51	12	**6.9** 0.27	0.365	290	270	**294.00** 648.00
6.0 0.24	**6.0** 0.24	**691.0** 27.20	**794.0** 31.26	**25.3** 1.00	**13.0** 0.51	16	**9.4** 0.37	0.383	270	250	**365.00** 804.70
6.0 0.24	**6.0** 0.24	**726.9** 28.62	**838.0** 32.99	**19.3** 0.76	**9.5** 0.37	16	**8.4** 0.33	0.400	240	230	**428.00** 944.00
7.5 0.30	**7.5** 0.30	**726.9** 28.62	**922.0** 36.30	**22.0** 0.87	**12.0** 0.47	16	**13.0** 0.51	0.404	210	200	**769.00** 1695.00
6.0 0.24	**6.0** 0.24	**767.3** 30.21	**902.1** 35.52	**19.3** 0.76	**9.5** 0.37	16	**10.7** 0.42	0.409	220	210	**488.00** 1076.00
6.0 0.24	**6.0** 0.24	**817.9** 32.20	**933.0** 36.73	**19.3** 0.76	**9.5** 0.37	16	**7.6** 0.30	0.442	200	190	**568.00** 1252.20
6.0 0.24	**6.0** 0.24	**865.4** 34.07	**1000.0** 39.37	**19.3** 0.76	**9.5** 0.37	16	**10.5** 0.41	0.450	190	180	**598.00** 1318.00
6.0 0.24	**6.0** 0.24	**928.0** 36.54	**1047.0** 41.22	**25.3** 1.00	**13** 0.51	16	**16.0** 0.63	0.470	190	170	**360.00** 794.00
6.0 0.24	**6.0** 0.24	**968.8** 38.14	**1106.0** 43.54	**25.3** 1.00	**13** 0.51	16	**11.9** 0.47	0.494	160	150	**839.00** 1850.00


TURNUP