## MDM N-Series Product Guide





Flexible, simple, economical drop in replacement for Rockwell N-Series

The MDM N-Series is based on Torque Systems industry leading MDM technology, which provides energy efficient motor configurations in NEMA 23, 34, 42 and 56 standard frame sizes. These motor configurations are ideal for use in Semiconductor, Robotics, and Material Handling, as well as Web Processing, Printing and Packaging industry applications.

Torque Systems engineers designed the MDM N-Series to effectively replace Rockwell's discontinued N-Series motor.

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FEATURES	BENEFITS						
Identical front flange and shaft for all MDM N-series offerings	Identical front flanges and shafts is convenient for easy replacement installation						
Identical electrical connectors for all MDM N-Series offerings	Eliminating "change-out" headaches						
Full IP 65 compliance without shaft seals (optional shaft seals are available)	Maintains internal integrity in a wet environment						
Complete conformance to UL/ CUL and CE standards across the entire product line	Required industry defined standards conformance in North America						
Higher torque densities as compared to original N-series product offerings	Same or better overall performance in a smaller package size						
Motor-brake feature standard across the entire product line	Flexible option convenience for most replacement requirements						
Brake current within maximum available system current for all configurations	Customers need not modify their designs in anyway to manage brake current issues. Easy Integration!						
Optional encoder line counts up to 5,000 available for all configurations	Performance enhancement and feature convenience that allows Torque Systems motors to be considered and incorporated into a broader range of applications						

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				CN	IC N	1DM	N-Series	-Series	Technic	al Data					
	Model #	Outline Drawing No	Continuous Stall Torque (1)		Peak Torque (1)		Ke Back emf (2,3)	Torque cons		Resistance L-L (2)	Inductance L-L (2)	Inertia (6)		Motor Length (7)	
			lb-in	Nm	lb-in	Nm	Vpeak/Krpm	lb-in/Apeak	Nm/Apeak	OHM	mH	lb-in-sec^2	Kg cm <sup>2</sup>	Inch	mm
Rockwell N Series	N-2302-1-F00AA	N/A	1.7	0.2	4.7	0.53	10	0.73	0.082	3.18	4.1	0.000083	0.0938	4.63	118
CMC MDM N- Series	T0601T0104 (5)	33030-004	4.4	0.5	22	2.5	10	0.73	0.082	1.35	1.7	0.00014	0.15593	4.4	112
Rockwell N Series	N2304-1-F00AA	N/A	4.4	0.5	13	1.4	22	1.6	0.18	4.85	8.1	0.000166	0.1875	6.13	156
CMC MDM N- Series	T0601B8100 (5)	33030-004	4.4	0.5	22	2.5	22	1.6	0.18	6.7	8.2	0.00014	0.15593	4.4	112
Rockwell N Series	N-3406-2-H00AA	N/A	6.8	0.77	18.5	2.1	21	1.5	0.17	2.199	6.1	0.0007	0.7969	5.67	144
CMC MDM N- Series	T0851A0109	31030-078	17.7	2	56.6	6.4	20	1.46	0.165	0.36	1.9	0.0021	2.37288	5.8	147
Rockwell N Series	N-3412-2-H00AA	N/A	13.8	1.56	36	4.1	41	3	0.34	2.699	8.601	0.0013	1.4688	6.67	169
CMC MDM N- Series	T0851C0103	31030-078	17.7	2	56.6	6.4	40	2.93	0.33	1.45	7.6	0.0021	2.37288	5.8	147
Rockwell N Series	N-4214-2-H00AA	N/A	18	2	50	5.7	49	3.6	0.41	2.8	11.0	0.0021	2.375	6.85	174
CMC MDM N- Series	T1101D0102	32030-047	43	4.9	106	12	50	3.66	0.413	1.04	5.0	0.0021	2.37288	6.3	160
Rockwell N Series	N-4220-2 H00AA	N/A	26	2.9	63	7.1	34	2.5	0.28	0.8	2.898	0.003	3.5	7.85	199
CMC MDM N- Series	T1101C6100	32030-047	43	4.9	106	12	34	2.5	0.28	0.44	2.3	0.0021	2.37288	6.3	160
Rockwell N Series	N-5630-2-H00AA	N/A	34	3.8	95	10.7	47	3.5	0.38	0.898	4.3	0.008	9.046	7.83	199
CMC MDM N- Series	T1101D3100	32030-050	43	4.9	106	12	47	3.5	0.38	0.87	4.4	0.0021	2.37288	6.3	160
Rockwell N Series	N-5637-2-H00AA	N/A	46	5.2	120	13.5	60	4.4	0.5	1.0	5.19	0.01	11.2969	8.83	224
CMC MDM N- Series	T1102E0103	32030-052	75	8.5	193	21.9	60	4.4	0.5	0.58	3.6	0.0038	4.29379	7.4	188

- (1) Specification at 40 degrees C ambient with motor mounted on T0601 and T0851: 254 mm x 254 mm x 6.35 mm; T1101 & T1102: 304.8 mm x 304.8 mm x 12.7 mm aluminum heat sink
- (2) Values @ 25 degrees C ambient
- (3) Peak value of sinusoidal phase to phase voltage
- (4) Peak value of per phase sine wave amps
- (5) Power & feedback connectors are on the flying lead end not on the motor
- (6) Note inertia differences and validate application suitabilty

