

Dr.

Scott Johnson

Date

A

08-26-09

01

DISCLOSED TO OTHERS, EXCEPT WITH THE AUTHORIZED WRITTEN

PERMISSION OF ROCKWELL AUTOMATION, INC.

General Specifications:						
1. Motor type: 3 phase, wye wi	nding, permanent magnet rotor, totally	enclosed, non-ventilated.				
2. Motor poles:				8		
Operating Speed, max				6000 RPM		
4. Base speed (max speed at p	eak torque), Ref:			4500 RPM		
Operating voltage at base sp	eed:			220 VAC RM	S	
6. Continuous stall torque, max	, at max winding temperature in a 40C a	ambient:		2.18 Nm (19.		
Winding temperature, max, in	n a 40C ambient:			140 degrees	С	
8. Continuous stall current, max	x: ached to front mounting flange for conti			7.65 Amps 0	to peak	
9. Heatsink size, aluminum, atta	ached to front mounting flange for conti	nuous torque specifications	S:	305 x 305 x 1	2.7mm (12 x 12 x 0.5 inch)	
10. Peak stall torque, max:				6.6 Nm (58 lb-in)		
11. Peak stall current, max:				30.56 Amps (O to peak	
12. Rated Speed (Speed at max	continous power)			5000		
13. Continuous output rating, m	nax at rated speed:			0.90 kW (1.2	1 hp)	
14. Continuous torque, max, at	rated speed:			1.69 Nm (15 lb-ln)		
15. Continuous current, Ref, at	rated speed:			6.0 Amps 0 to	o peak	
16. Operating voltage, Ref (Not	rated speed: for direct connection to AC line):			240 VAC RM	S	
17. Insulation class:				1000 (Class	F)	
Housing temperature, max:	e at 25C +/- 5C:			125C (257F)		
19. Ke, +/-10%, phase to phase	e at 25C +/- 5C:			38 V/kRPM 0	to peak	
20. Kt (Sille), Kel, at 250 +/- 50	<i>)</i> .			0.51 MIII/AIII	o (2.78 lb-in/Amp) 0 to peak	
21. Winding resistance, +/- 10%	6, phase to phase at 25C +/- 5C:			1.22 ohms		
22. Winding inductance, Ref, pl	hase to phase:			5.13 MH		
23. Dielectric rating of motor po	ower connections (U, v, vv), to ground for	1 secona:		1000 VAC KI	MS 50/60 Hz	
Audible noise, Ref, at 1 me	ter distance:			XX dBA		
25. Rotor inertia, +/- 10%:	J			0.00065 kg-m	n² (0.00575 lb-in-sec²)	
Rotor balancing quality grad	de:			G-0.3		
27. Friction torque, Ref:				0.07 Nm (0.6	5 lb-in)	
28. Friction torque, Ref, with sh	aft seal option installed:			0.21 Nm (1.9	lb-in)	
29. Cogging torque, Ref:				0.028 Nm (0.:	25 lb-in) peak to peak	
30. Thermal resistance, Ref, wi	nding to ambient:			0.71 degrees	C/watt	
31. Thermal time constant, Ref	, winding to ambient:			16 minutes		
32. Product weight, Ref:				3.45 kg (7.6 l	b)	
33. Shipping weight, Ref:				4.65 kg (10.2		
Operating ambient tempera	ture:			0C to 40C (32	2F to 104F)	
<u>notes:</u>						
	pecifications, provided for reference only	•				
Speed, torque and current sp	ecifications are for operation with Allen	•				
Declaration	CONFIDENTIAL AND PROPRIETARY INFORMATION	Engineering Specificati	on Electrical	She	eet 2 of	4
Rockwell	THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF ROCKWELL AUTOMATION, INC. AND MAY NOT BE USED, COPIED OR	MPM-A1151M-SJ72AA		Size	10000	Ver
Automation	OF ROCKWELL AUTOMATION, INC. AND MAY NOT BE USED, COPIED OR DISCLOSED TO OTHERS, EXCEPT WITH THE AUTHORIZED WRITTEN PERMISSION OF ROCKWELL AUTOMATION, INC.		1	<u> </u>	10000073869	01
	,	Dr. Scott Johnson	Date 08-26-0	9		<u> </u>

36. Relative humidity, non-condensing: 5% to 95% 37. Liquid / dust protection: 1P66 38. Shock, max, 6 msec duration: 20 g peak 39. Vibration, max, 30 to 2000 Hz: 2.5 g peak 40. Shaft material: Steel, 1144 41. Paint, color: Black 42. Shaft, key (if provided), front mounting surface, and connector mating surfaces are not painted. Feedback Specifications: 1.0 VAC peak to peak 42. SlN, COS waveform output: 1024 sinusoids/rev 43. SIN, COS waveform amplitude, ± 10%: 1.0 VAC peak to peak 43. SIN, COS voltage offset with respect to ECOM ±0.3 VDC: 2.2 to 2.8 VDC 44. EPWR 5V (encoder power) input voltage: 4.5 to 12.0 VDC 55. EPWR 5V continuous input current, max, at 5.0 VDC: 125 mADC 66. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 3.2 ADC 77. EPWR 9V (encoder power) input voltage: N/A 88. EPWR 9V continuous input current, max, at 9.0 VDC: N/A 99. EPWR 9V inrush input current, max, at 9.0 VDC: N/A 90. EPWR 9V inrush input current, max, at 9.0 VDC: N/A 91. TS+, TS- thermostat operating voltage, max: 250 Volts 11. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 1.6 Amps 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 2.5 Amps 13. DATA+, DATA+, DATA+ signal type, rate, asynchronous: RS 485, 9600 baud 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 0 to 32,767 (15 bit) 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 128 bytes	158F)
38. Shock, max, 6 msec duration: 39. Vibration, max, 30 to 2000 Hz: 40. Shaft material: 41. Paint, color: 42. Shaft, key (if provided), front mounting surface, and connector mating surfaces are not painted. Feedback Specifications: 1. SIN, COS waveform output: 2. SIN, COS waveform amplitude, ± 10%: 3. SIN, COS vaveform amplitude, ± 10%: 3. SIN, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V continuous input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V (encoder power) input voltage: 9. N/A 10. TS+, TS- thermostat operating voltage, max: 10. VAC peak to peak 10. VAC peak to peak 12. N/A 10. TS+, TS- thermostat continuous current, max, at 0.0 VDC: 12. TS+, TS- thermostat continuous current, max, at 0.0 VDC: 12. TS+, TS- thermostat continuous current, max, at 0.0 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 128 bytes	,
38. Shock, max, 6 msec duration: 20 g peak 39. Vibration, max, 30 to 2000 Hz: 2.5 g peak 40. Shaft material: 41. Paint, color: 42. Shaft, key (if provided), front mounting surface, and connector mating surfaces are not painted. Feedback Specifications: 1. SIN, COS waveform output: 2. SIN, COS waveform amplitude, ± 10%: 3. SIN, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V (encoder power) input voltage: 8. EPWR 9V (inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. N/A 8. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, at 0.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 0.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit.	
39. Vibration, max, 30 to 2000 Hz: 40. Shaft material: 41. Paint, color: Black 42. Shaft, key (if provided), front mounting surface, and connector mating surfaces are not painted. Feedback Specifications: 1. SIN, COS waveform output: 2. SIN, COS waveform amplitude, ± 10%: 3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V (encoder power) input voltage: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, when connected to Kinetix6000 drive: 8. EPWR 9V continuous input current, max, at 1.0 VDC: 9. EPWR 9V continuous input current, max, at 9.0 VDC: 10. TS+, TS- thermostat operating voltage, max: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit.	
40. Shaft material: 41. Paint, color: 42. Shaft, key (if provided), front mounting surface, and connector mating surfaces are not painted. Feedback Specifications: 1. SIN, COS waveform output: 2. SIN, COS waveform amplitude, ± 10%: 3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 4. 5 to 12.0 VDC 4. EPWR 5V (encoder power) input current, max, at 5.0 VDC: 5. EPWR 5V continuous input current, max, when connected to Kinetix6000 drive: 6. EPWR 5V (encoder power) input voltage: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, at 0.6 power factor: 10. Ts+, Ts- thermostat continuous current, max, at 1.0 power factor: 11. Ts+, Ts- thermostat continuous current, max, at 1.0 power factor: 12. 5 Amps 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit.	
41. Paint, color: 42. Shaft, key (if provided), front mounting surface, and connector mating surfaces are not painted. Feedback Specifications: 1. SIN, COS waveform output: 2. SIN, COS waveform amplitude, ± 10%: 3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V continuous input current, max, at 9.0 VDC: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: Black 10. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 10. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 21. Start bit, 8 data bits, parity bit, stop bit.	
42. Shaft, key (if provided), front mounting surface, and connector mating surfaces are not painted. Feedback Specifications: 1. SIN, COS waveform output: 2. SIN, COS waveform amplitude, ± 10%: 3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V continuous input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V (encoder power) input voltage: 8. N/A 8. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, at 0.6 power factor: 9. EPWR 9V inrush input current, max, at 0.6 power factor: 9. EPWR 9V inrush input current, max, at 0.6 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. EPWR 9V inrush input current, max, at 1.0 power factor: 9. Oto 32,767 (15 bit) 9. Inrush input current, max, at 1.0 power factor: 9. Oto 32,767 (15 bit) 9. Inrush input current, max, at 1.0 power factor: 9. Oto 32,767 (15 bit) 9. Inrush input current, max, at 1.0 power factor: 9. Oto 32,767 (15 bit) 9. Inrush input current, max, at 1.0 power factor: 9. Oto 32,767 (15 bit) 9. Inrush input current, max, at 1.0 power factor: 9. Oto 32,767 (15 bit) 9.	
2. SIN, COS waveform amplitude, ± 10%: 3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, at 9.0 VDC: 9. N/A 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. N/A 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 10. ISB viscondaria survey in put voltage in 2.2 to 2.8 VDC 12. to 2.9 VDC	
1. SIN, COS waveform output: 2. SIN, COS waveform amplitude, ± 10%: 3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. KAA 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat operating voltage, max; 12. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 10. TS+ (TS- voltage of seak to peak to pea	
2. SIN, COS waveform amplitude, ± 10%: 3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. EPWR 9V inrush input current, max, at 9.0 VDC: 9.	
3. SIN -, COS - voltage offset with respect to ECOM ±0.3 VDC: 4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 9. N/A 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM:	<
4. EPWR 5V (encoder power) input voltage: 5. EPWR 5V continuous input current, max, at 5.0 VDC: 6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM:	
6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM:	
6. EPWR 5V inrush input current, max, when connected to Kinetix6000 drive: 7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM:	
7. EPWR 9V (encoder power) input voltage: 8. EPWR 9V continuous input current,max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM:	
8. EPWR 9V continuous input current, max, at 9.0 VDC: 9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM:	
9. EPWR 9V inrush input current, max, when connected to Kinetix6000 drive: 10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 18. Memory storage capacity, EEPROM: 18. VA 250 Volts 1.6 Amps 2.5 Amps RS 485, 9600 baud 0 to 32,767 (15 bit) 128 bytes	
10. TS+, TS- thermostat operating voltage, max: 11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 250 Volts 1.6 Amps 2.5 Amps RS 485, 9600 baud 0 to 32,767 (15 bit) 128 bytes	
11. TS+, TS- thermostat continuous current, max, at 0.6 power factor: 12. TS+, TS- thermostat continuous current, max, at 1.0 power factor: 13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM:	
13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 19. RS 485, 9600 baud 0 to 32,767 (15 bit) 19. 128 bytes	
13. DATA+, DATA- signal type, rate, asynchronous: 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 19. RS 485, 9600 baud 0 to 32,767 (15 bit) 19. 128 bytes	
 14. Communication hierarchy: Encoder is slave, communication is externally initiated. 15. Single turn absolute position value range: 0 to 32,767 (15 bit) 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 128 bytes 	
15. Single turn absolute position value range: 16. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face. 17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 10. to 32,767 (15 bit) 15. bit) 16. data bits, parity bit, stop bit.	
17. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit. 18. Memory storage capacity, EEPROM: 128 bytes	
18. Memory storage capacity, EEPROM: 128 bytes	
18. Memory storage capacity, EEPROM: 128 bytes	
19. Encoder temperature data: Binary value of encoder temperature in degrees C.	
19. Encoder temperature data: Binary value of encoder temperature in degrees C.	

Notes:

1. "Ref" denotes untoleranced specifications, provided for reference only.



THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF ROCKWELL AUTOMATION, INC. AND MAY NOT BE USED, COPIED OR DISCLOSED TO OTHERS, EXCEPT WITH THE AUTHORIZE WRITTEN PERMISSION OF ROCKWELL AUTOMATION, INC.

CONFIDENTIAL AND PROPRIETARY INFORMATION

Engineering Specification Electrical

Dr.

MPM-A1151M-SJ72AA

Scott Johnson | Date | 08-26-09

Size **A**

Sheet

10000073869

of

3

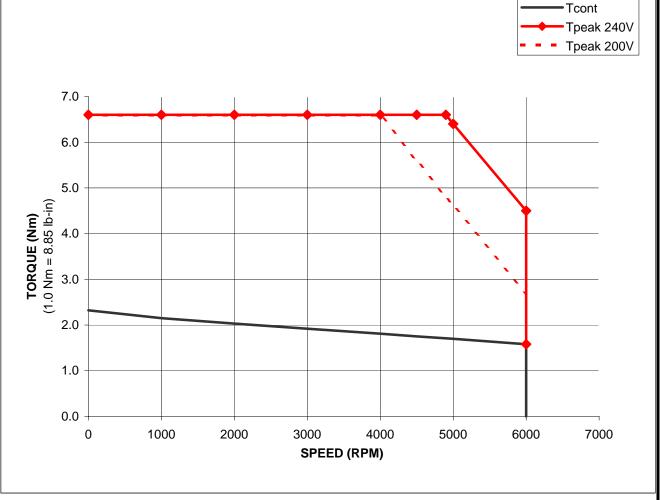
Ver **01**

4

MPM-A1151M-Sxx2xx Performance with 2094-AC09-M02, 3 Phase at 240 VAC Drive Input, 40C Motor Ambient

	TORQUE		
SPEED RPM	Tcont	Tpeak 240V	Tpeak 200V
KFIVI	Nm	Nm	Nm
0	2.32	6.6	6.6
1000	2.15	6.6	6.6
2000	2.03	6.6	6.6
3000	1.92	6.6	6.6
4000	1.81	6.6	6.6
4500	1.75	6.6	5.6
4900	1.71	6.6	4.8
5000	1.7	6.4	4.6
6000	1.58	4.5	2.7
6000	0	1.58	#N/A
#N/A	#N/A	#N/A	#N/A
#N/A	#N/A	#N/A	#N/A

	TORQUE			
SPEED RPM	Tcont	Tpeak 240V	Tpeak 200V	
KEIVI	lb-in	lb-in	lb-in	
0	20.5	58.4	58.4	
1000	19.0	58.4	58.4	
2000	18.0	58.4	58.4	
3000	17.0	58.4	58.4	
4000	16.0	58.4	58.4	
4500	15.5	58.4	49.6	
4900	15.1	58.4	42.5	
5000	15.0	56.6	40.7	
6000	14.0	39.8	23.9	
6000	0.0	14.0	#N/A	
#N/A	#N/A	#N/A	#N/A	
#N/A	#N/A	#N/A	#N/A	



Notes:

1. Nm torque values shown are converted from tested lb-in data.

Rockwell Automation

THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF ROCKWELL AUTOMATION, INC. AND MAY NOT BE USED, COPIED OR DISCLOSED TO OTHERS, EXCEPT WITH THE AUTHORIZED WRITTEN PERMISSION OF ROCKWELL AUTOMATION, INC.

CONFIDENTIAL AND PROPRIETARY INFORMATION

	Engin	eering Specificati	on Elec	trical	
Ν	MPM-A1151M-SJ72AA				
	Dr.	Scott Johnson	Date	08-26-09	

Sh	eet	4	of	4
Size				Ver
Α		1000007	3869	01