

RADIAL LOAD CAPACITY (Kgs) - NO AXIAL LOAD - FOR L10 LIFE OF 10,000 HOURS				
Radial Load Capacity at the End of the Shaft (Kgs)				
2500 RPM	1750 RPM	1150 RPM	850 RPM	
350	390	450	500	
AXIAL THRUST CAPACITY (Kgs) - NO RADIAL LOAD - FOR L10 LIFE OF 10,000 HOURS				
Horizontal Mounting Load Capacity at the End of the Shaft (Kgs)				
2500 RPM	1750 RPM	1150 RPM	850 RPM	
250	290	330	360	

Notes: Print or enlarge waveforms for improved clarity.  
For additional specifications see 10000000120

REFERENCES		DESCRIPTION		CAD DOCUMENT			
VERSION / CHANGE NUMBER		HPK-E1613C-SA42AA,ESE		CONFIDENTIAL AND PROPRIETARY INFORMATION			
00	10000004			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.			
				PARTS MUST CONFORM TO APPLICABLE ROCKWELL AUTOMATION MANUFACTURING STANDARDS			
				DR.	VS	DATE	6/15/2006
						SHEET 1 OF 4	
				DOCUMENT NUMBER			
				1000000098			


Specifications:

1. Motor type: 4 pole, 3 phase, asynchronous, ventilated
2. Base speed: 1470 RPM.
3. Maximum speed: 3000 RPM.
4. Continuous stall torque: 271 Nm (2398 lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 625 Nm (5531 lb-in) max.
6. Continuous output rating: 41.7 kW ( hp) max at 1470 RPM.      Continuous current @ 1470 RPM 133 Amps 0 to peak max.( 94Amps.RMS)
7. Operating voltage: 400 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 133 Amps 0 to peak max.( 94 Amps.RMS)
9. Magnetizing current: 36.6 Amps. RMS ref.
10. Peak stall current: 310 Amps 0 to peak max.( 220 Amps. RMS)
11. Insulation class: 180 (H).
12. Housing temperature: 125C max.
13. Winding resistance: .081 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 3.37 mH, phase to phase Ref.
15. Dielectric rating of motor power connections (U,V,W), and thermostat connections (TS+, TS-) to ground: 2350 VAC RMS 50/60 Hz for 1 second.
16. Rotor inertia: .206 kg-m2 Ref.
17. Rotor balancing: Quality grade G-6.3.
18. Product weight: 275 kg (606 lb) Ref.
19. Operating ambient temperature: 0C to 40C (32F to 104F).
20. Storage ambient temperature: -30C to 70C (-22F to 158F).
21. Relative humidity: 5% to 95% non-condensing.
22. Liquid / dust protection: IP54 w/lt blower installed..
23. Shock: 10 g peak max, 6 msec duration (18 occurances tested).
24. Vibration: 2.5 g peak max, 30 to 2000 Hz.
25. Shaft material: Steel, grade 1040/1045.
26. Paint: Black. Shaft, key (if provided), front mounting surface, and connectors are not painted.

Equivalent circuit parameters

- X1: .169 Ohms/phs Ref at 20C to 30C.  
X2: .211 Ohms/phs Ref at 20C to 30C.  
Xm : 5.15 Ohms/phs Ref at 20C to 30C  
R1: .0407 Ohms/phs Ref at 20C to 30C  
R2: .0315 Ohms/phs Ref at 20C to 30C

Notes: "Ref" denotes untoleranced specifications, provided for reference only.  
Speed, torque and current specifications are for motor operation with Allen Bradley drives.

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Feedback Specifications:


Electrical Hardware:

1. SIN, COS waveform output: 1024 sinusoids/rev.
2. SIN, COS waveform amplitude: 0.9 to 1.1 Volts peak to peak.
3. SIN -, COS - voltage offset with respect to power input common: 2.2 to 2.8 VDC.
4. +5VDC voltage input: 4.5 to 12.0 VDC.
5. +5VDC current input: 125 mA DC max continuous, 1.0 A DC max inrush.
6. TS+, TS- thermostat operating voltage: 250 Volts max.
7. TS+, TS- thermostat operating current: 1.6/2.5 Amps max at 0.6/1.0 power factor.

Serial Communication:

1. DATA+, DATA- signal type, rate: RS 485, 9600 baud, asynchronous.
2. Communication hierarchy: Encoder is slave, communication is externally initiated.
3. Single turn absolute position value range: 0 to 32,767 steps (12 bit).
4. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face.
5. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit.
6. Memory storage capacity: 128 bytes, EEPROM.
7. Encoder temperature data: Binary value of encoder temperature in degrees C.

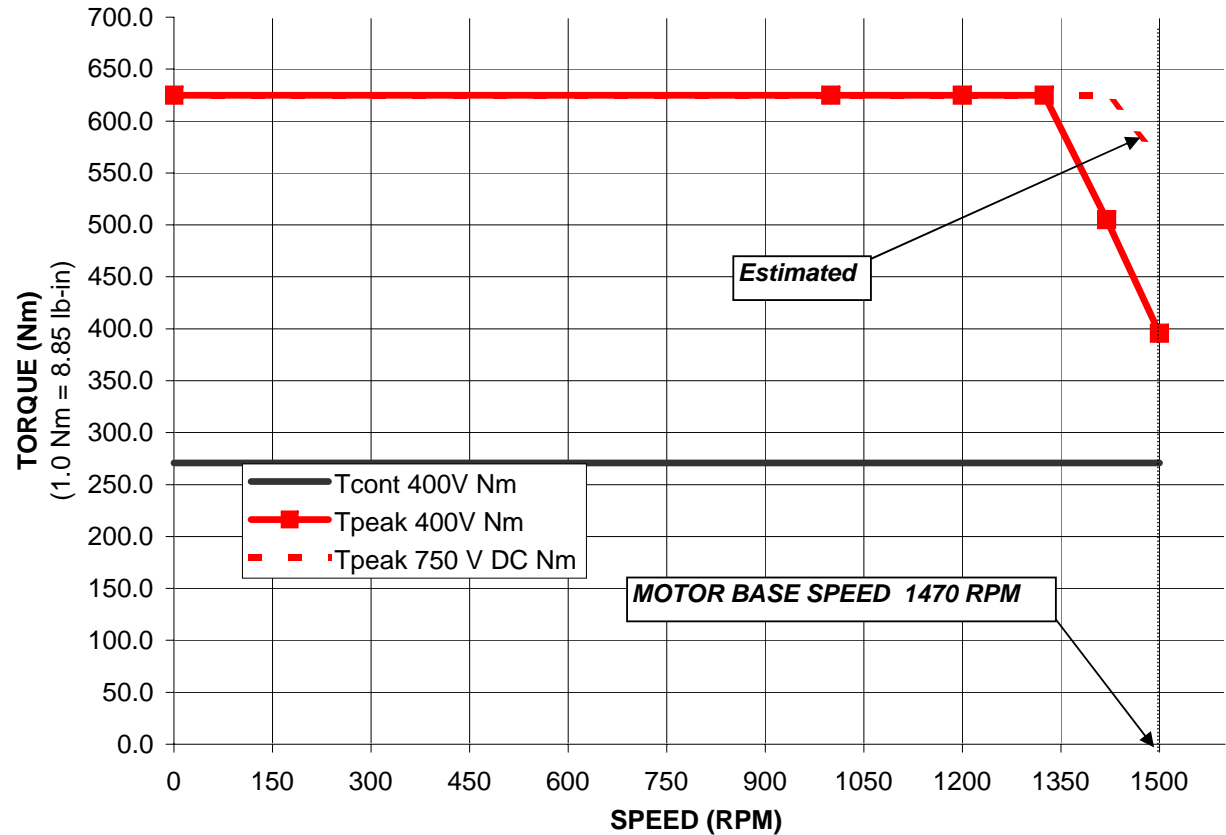
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SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	Nm	Nm	Nm
0	271.0	625.0	625.0
1000	271.0	625.0	625.0
1200	271.0	625.0	625.0
1325	271.0	625.0	625.0
1420	271.0	505.1	625.0
1500	271.0	395.5	565.0

SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	2398.0	5531	5531
1000	2398.0	5531	5531
1200	2398.0	5531	5531
1325	2398.0	5531	5531
1420	2398.0	4470	5531
1500	2398.0	3500	5000

**HPK-E1613C-SA42AA Performance with 2099-BM11  
at 400 VAC and 750 V DC Drive Input, 40C Motor Ambient**



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

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