

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
220	250	290	320
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
180	210	240	260

Notes: Print or enlarge waveforms for improved clarity.  
For additional specifications see 10000000128.

REFERENCES		DESCRIPTION		CAD DOCUMENT			
VERSION / CHANGE NUMBER		HPK-E1308E-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			
				PARTS MUST CONFORM TO APPLICABLE ROCKWELL AUTOMATION MANUFACTURING STANDARDS			
				DR.	VS	DATE	6/15/2006
						SHEET 1 OF 4	
				DOCUMENT NUMBER			
				10000000106			


Specifications:

1. Motor type: 4 pole, 3 phase, asynchronous, ventilated
2. Base speed: 2970 RPM.
3. Maximum speed: 5000 RPM.
4. Continuous stall torque: 107 Nm (947 lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 200 Nm (1770 lb-in) max.
6. Continuous output rating: 33.2 kW (45 hp) max at 2970 RPM. Continuous current @ 2970 RPM 112.8 Amps 0 to peak max.(80 Amps.RMS)
7. Operating voltage: 400 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 112.8 Amps 0 to peak max.(80 Amps.RMS)
9. Magnetizing current: 39 Amps. RMS ref.
10. Peak stall current: 217.7 Amps 0 to peak max.( 154 Amps. RMS)
11. Insulation class: 180 (H).
12. Housing temperature: 125C max.
13. Winding resistance: .046 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 3.77 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: .098 kg-m2 Ref.
17. Rotor balancing: Quality grade G-6.3.
18. Product weight: 152 kg (335 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 with blower installed.
23. Shock: 10 g peak max, 6 msec duration (18 occurrences 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), flange mounting surface, and connectors are not painted.

Equivalent circuit parameters

X1: .189 Ohms/phs Ref at 20C to 30C.  
X1: .242 Ohms/phs Ref at 20C to 30C.  
Xm : 4.82 Ohms/phs Ref at 20C to 30C  
R1: .0233 Ohms/phs Ref at 20C to 30C  
R2: .0176 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.

00	DOCUMENT NUMBER	
VER	HPK-E1308E-SA42AA,ESE	
	DOCUMENT NUMBER	
	10000000106	
	A SIZE	SHEET 2 OF 4

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.

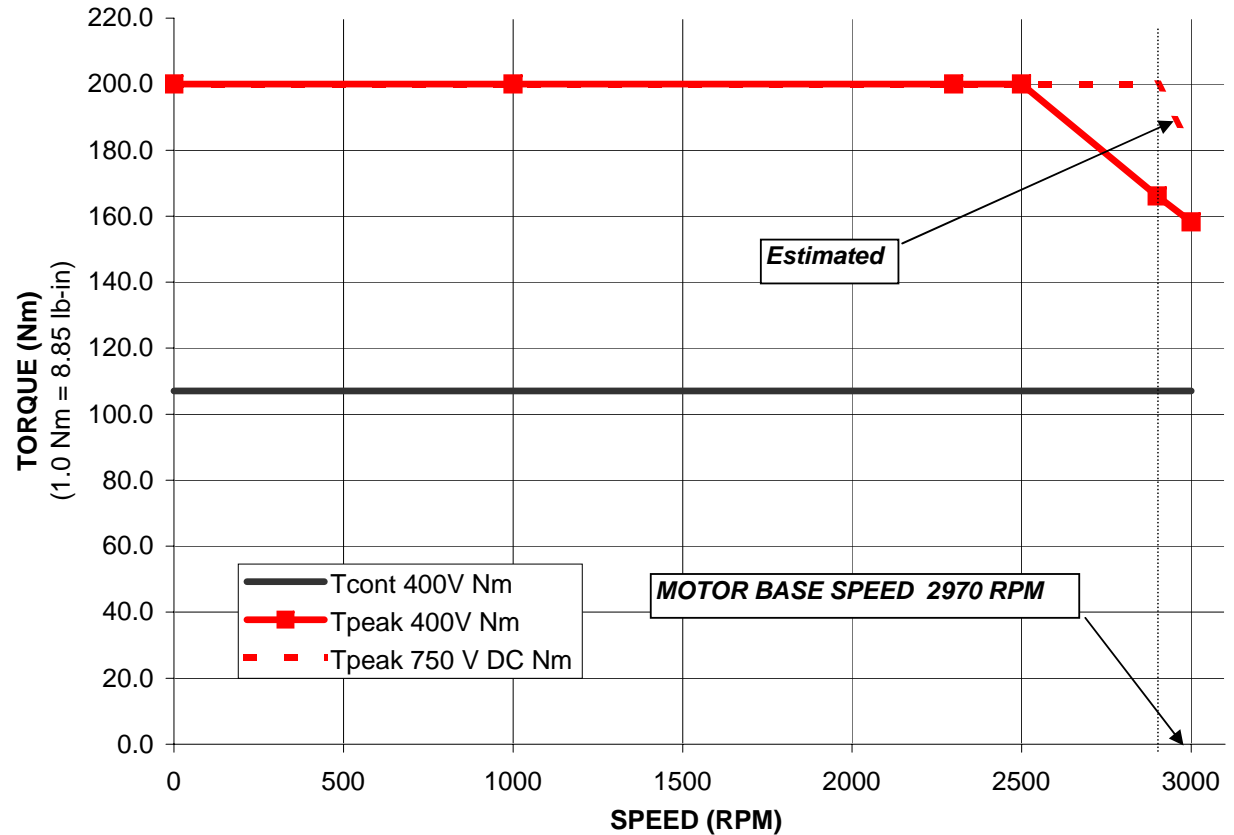
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00	DOCUMENT NUMBER	
VER	HPK-E1308E-SA42AA,ESE	
<b>Rockwell Automation</b>	DOCUMENT NUMBER	
	1000000106	
A SIZE	SHEET	3 OF 4

SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	Nm	Nm	Nm
0	107.0	200.0	200.0
1000	107.0	200.0	200.0
2300	107.0	200.0	200.0
2500	107.0	200.0	200.0
2900	107.0	166.1	200.0
3000	107.0	158.2	180.8

SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	947.0	1770	1770
1000	947.0	1770	1770
2300	947.0	1770	1770
2500	947.0	1770	1770
2900	947.0	1470	1770
3000	947.0	1400	1600

**HPK-E1308E-SA42AA Performance with 2099-BM09  
at 400 VAC and 750 V DC Drive Input, 40C Motor Ambient**



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

00	DOCUMENT NUMBER	
VER	HPK-E1308E-SA42AA,ESE	
<b>Rockwell Automation</b>	DOCUMENT NUMBER	
	1000000106	
A SIZE	SHEET	4 OF 4