

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 10000000116

REFERENCES		DESCRIPTION	CAD DOCUMENT	
VERSION / CHANGE NUMBER			HPK-E1307C-SA42AA,ESE	SHEET 1 OF 1
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.		
		<b>Rockwell Automation</b>	PARTS MUST CONFORM TO APPLICABLE ROCKWELL AUTOMATION MANUFACTURING STANDARDS	
			SHEET 1 OF 5	
		DR.	DATE	DOCUMENT NUMBER
				<b>1000000094</b>


Specifications:

1. Motor type: 4 pole, 3 phase, asynchronous, ventilated
2. Base speed: 1465 RPM.
3. Maximum speed: 3000 RPM.
4. Continuous stall torque: 112 Nm (991 lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 263 Nm (2327 lb-in) max.
6. Continuous output rating: 17.1 kW max at 1465 RPM.                      Continuous current @ 1465 RPM 58.5 Amps 0 to peak max.(41.5 Amps.RMS)
7. Operating voltage: 460 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 58.5 Amps 0 to peak max.(41.5 Amps.RMS)
9. Magnetizing current: 19.4 Amps. RMS ref.
10. Peak stall current: 146.6 Amps 0 to peak max.( 104 Amps. RMS)
11. Insulation class: 180 (H).
12. Housing temperature: 125C max.
13. Winding resistance: .266 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 8.75 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: .081 kg-m<sup>2</sup> Ref.
17. Rotor balancing: Quality grade G-6.3.
18. Product weight: 135 kg (297 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: .439 Ohms/phs Ref at 20C to 30C.  
X2: .477 Ohms/phs Ref at 20C to 30C.  
Xm : 9.89 Ohms/phs Ref at 20C to 30C  
R1: .113 Ohms/phs Ref at 20C to 30C  
R2: ..0804 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.

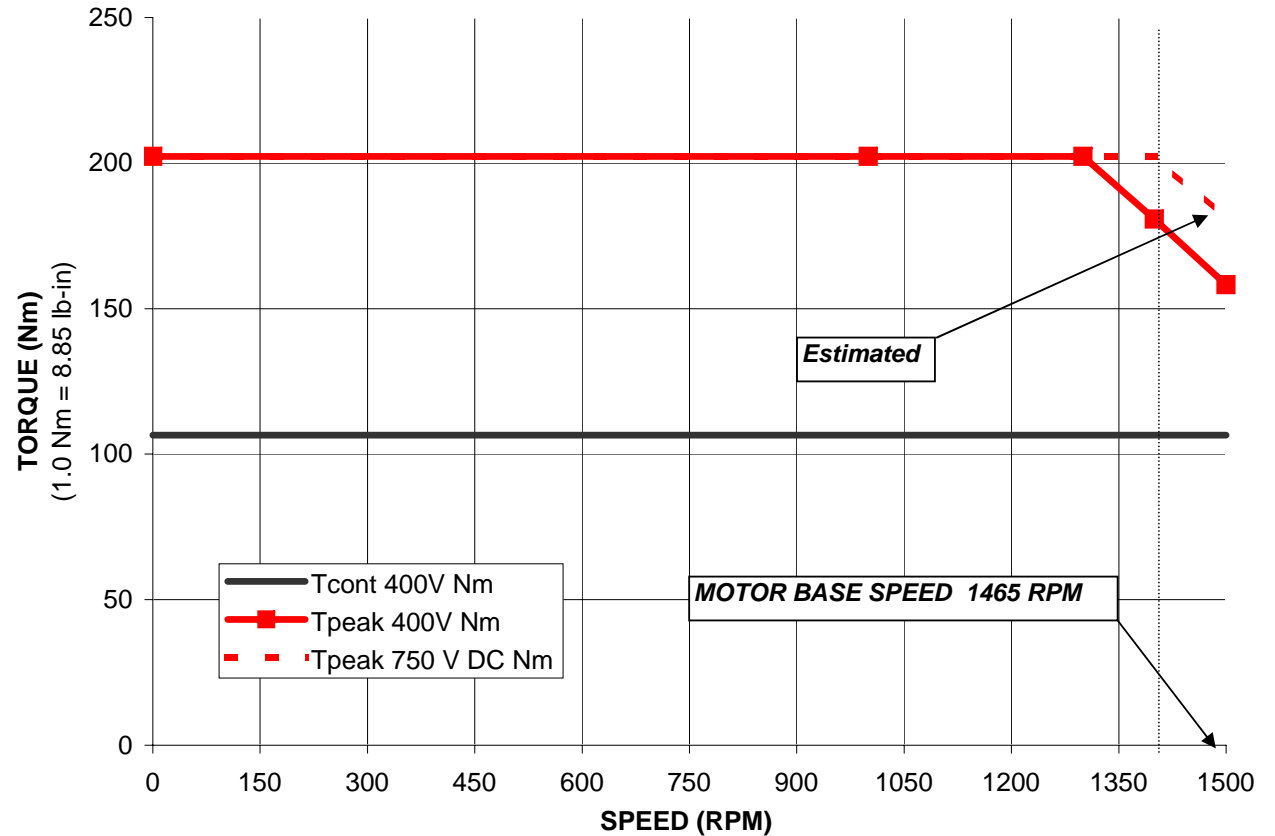
Note: "Ref" denotes untoleranced specifications, provided for reference only.

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SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	Nm	Nm	Nm
0	107	202	202
1000	107	202	202
1300	107	202	202
1400	107	181	202
1500	107	158	181

SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	943.0	1790	1790
1000	943.0	1790	1790
1300	943.0	1790	1790
1400	943.0	1600	1790
1500	943.0	1400	1600

**HPK-E1307C-SA42AA Performance with 2099-BM07  
at 400 VAC and 750 V DC Drive Input, 40C Motor Ambient**



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

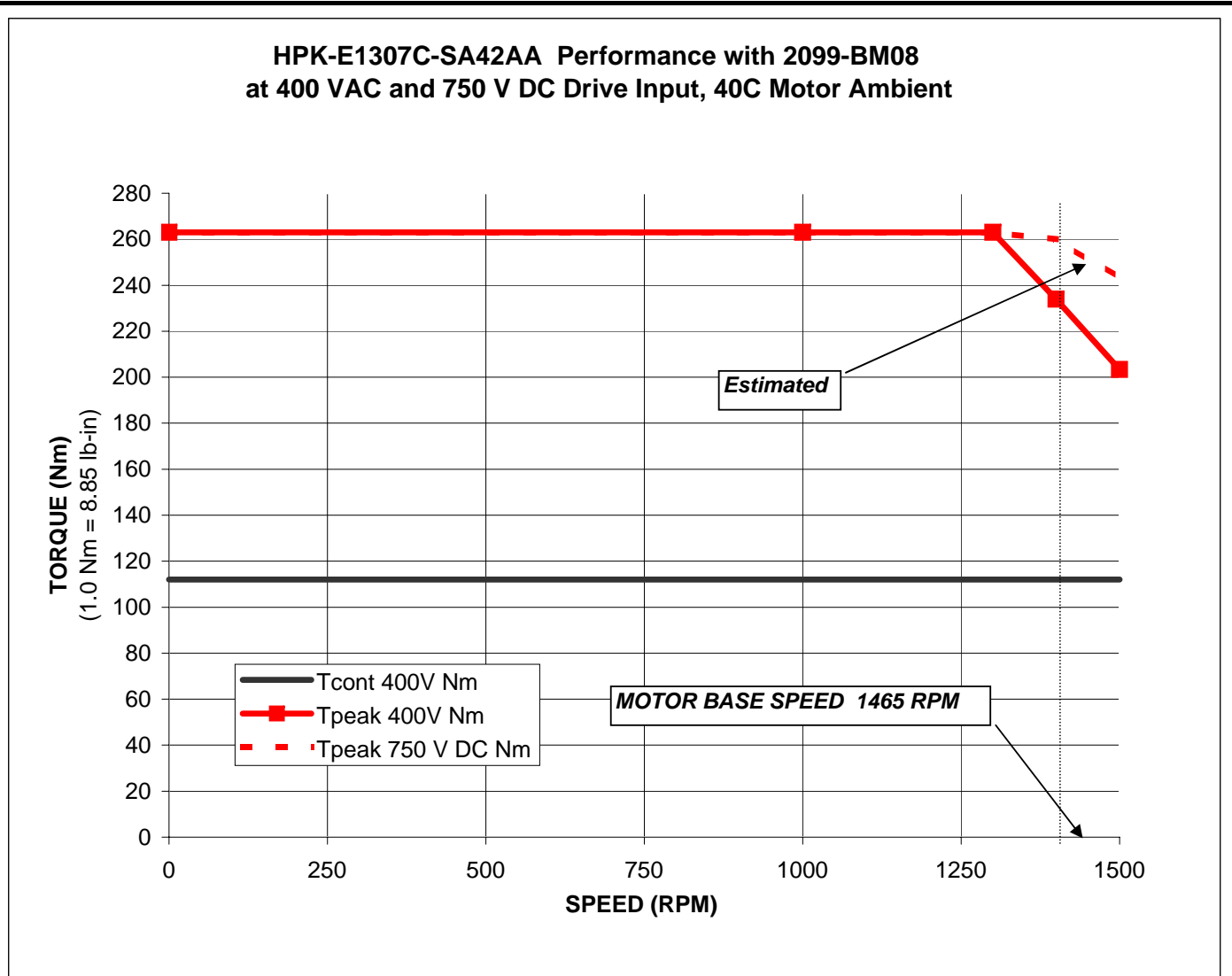
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SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	Nm	Nm	Nm
0	112	263	263
1000	112	263	263
1300	112	263	263
1400	112	234	260
1500	112	203	243

SPEED RPM	TORQUE		
	Tcont 400V	Tpeak 400V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	991.0	2327	2327
1000	991.0	2327	2327
1300	991.0	2327	2327
1400	991.0	2070	2327
1500	991.0	1800	2150

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



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