

| 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 10000000132.

| REFERENCES | | DESCRIPTION | | CAD DOCUMENT | | | |
|-------------------------|----------|----------------------------|--|---|----|--------------|-----------|
| VERSION / CHANGE NUMBER | | HPK-E1611E-MA42AA,ESE | | CONFIDENTIAL AND PROPRIETARY INFORMATION | | | |
| 00 | 10000004 | 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. | | | |
| | | | | PARTS MUST CONFORM TO APPLICABLE ROCKWELL AUTOMATION MANUFACTURING STANDARDS | | | |
| | | | | DR. | VS | DATE | 6/15/2006 |
| | | | | | | SHEET 1 OF 4 | |
| | | | | DOCUMENT NUMBER | | | |
| | | | | 10000000111 | | | |

Specifications:


1. Motor type: 4 pole, 3 phase, asynchronous, ventilated
2. Base speed: 2975 RPM.
3. Maximum speed: 5000 RPM.
4. Continuous stall torque: 183 Nm (1619 lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 430 Nm (3805 lb-in) max.
6. Continuous output rating: 57 kW (hp) max at 2975 RPM. Continuous current @ 2975 RPM 185 Amps 0 to peak max.(131 Amps.RMS)
7. Operating voltage: 460 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 185 Amps 0 to peak max.(131 Amps.RMS)
9. Magnetizing current: 59 Amps. RMS ref.
10. Peak stall current: 440 Amps 0 to peak max.(312 Amps. RMS)
11. Insulation class: 180 (H).
12. Housing temperature: 125C max.
13. Winding resistance: .0266 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 2.17 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: .177 kg-m2 Ref.
17. Rotor balancing: Quality grade G-6.3.
18. Product weight: 244 kg (538 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 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), flange mounting surface, and connectors are not painted.

Equivalent circuit parameters

X1: .109 Ohms/phs Ref at 20C to 30C.
X2: .143 Ohms/phs Ref at 20C to 30C.
Xm : 3.14 Ohms/phs Ref at 20C to 30C
R1: .0133 Ohms/phs Ref at 20C to 30C
R2: .00997 Ohms/phs Ref at 20C to 30C

not painted.

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. Multi-turn absolute shaft revolution value range: 0 to 32,767 revolutions (12bit).
5. Absolute position data: Binary, value increases with CW shaft rotation viewing motor mounting face.
6. Data (byte) format: Start bit, 8 data bits, parity bit, stop bit.
7. Memory storage capacity: 128 bytes, EEPROM.
8. Encoder temperature data: Binary value of encoder temperature in degrees C.

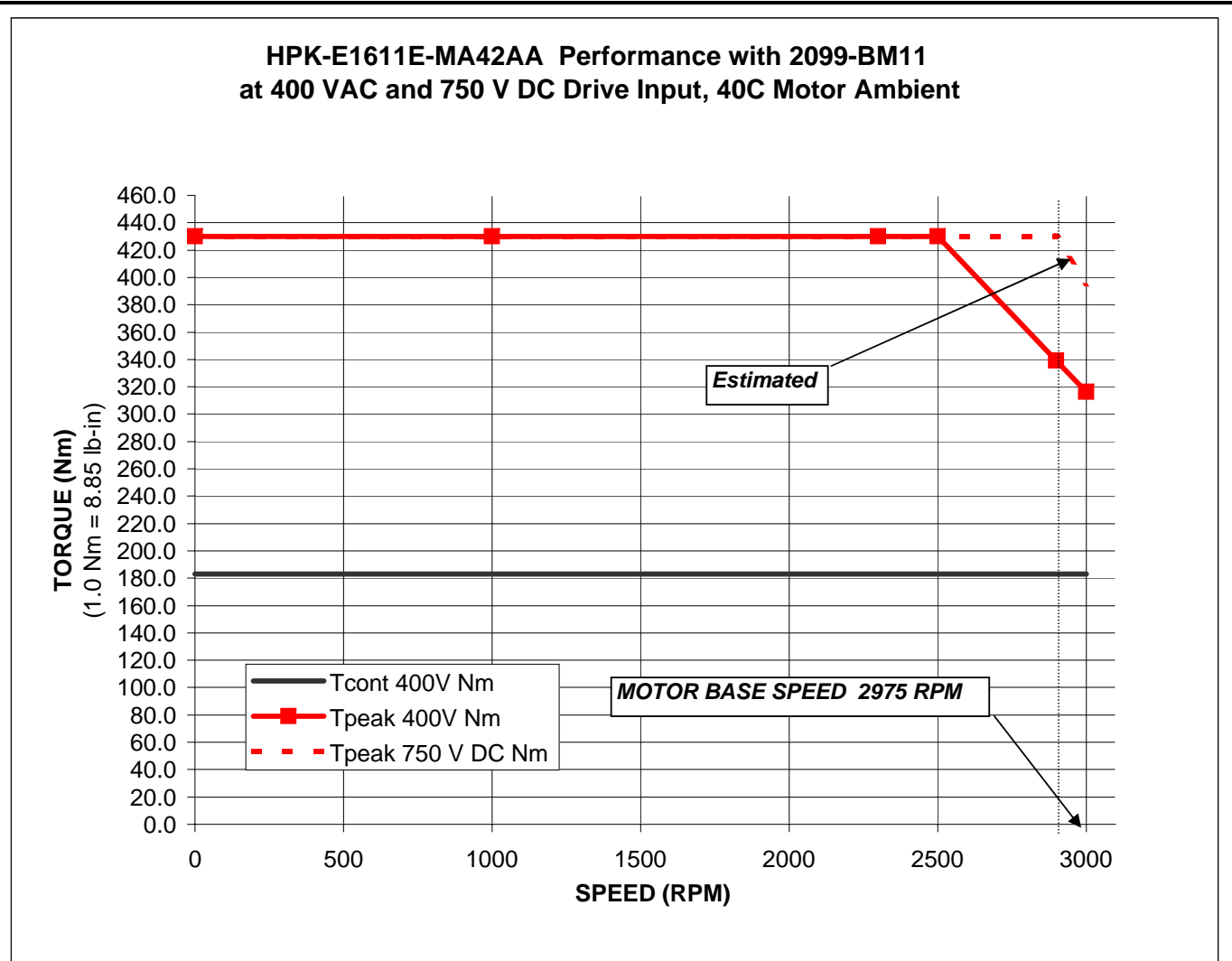
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| SPEED RPM | TORQUE | | |
|--------------|------------|------------|-------------------|
| | Tcont 400V | Tpeak 400V | Tpeak 750 V DC |
| | Nm | Nm | Nm |
| 0 | 182.9 | 429.9 | 429.9 |
| 1000 | 182.9 | 429.9 | 429.9 |
| 2300 | 182.9 | 429.9 | 429.9 |
| 2500 | 182.9 | 429.9 | 429.9 |
| 2900 | 182.9 | 339.0 | 429.9 |
| 3000 | 182.9 | 316.4 | 395.5 |

| SPEED RPM | TORQUE | | |
|--------------|------------|------------|-------------------|
| | Tcont 460V | Tpeak 460V | Tpeak 750 V DC |
| | lb-in | lb-in | lb-in |
| 0 | 1619.0 | 3805 | 3805 |
| 1000 | 1619.0 | 3805 | 3805 |
| 2300 | 1619.0 | 3805 | 3805 |
| 2500 | 1619.0 | 3805 | 3805 |
| 2900 | 1619.0 | 3000 | 3805 |
| 3000 | 1619.0 | 2800 | 3500 |

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



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