

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 1000000250

REFERENCES		DESCRIPTION		CAD DOCUMENT			
VERSION / CHANGE NUMBER		HPK-B1307C-MA42AA,ESE		CONFIDENTIAL AND PROPRIETARY INFORMATION			
00	10000007			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	7/3/2006
						SHEET 1 OF 5	
				DOCUMENT NUMBER			
				1000000232			


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 (991lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 260 Nm (2301 lb-in) max.
6. Continuous output rating: 17.1 kW max at 1465 RPM. Continuous current @ 1465 RPM 102 Amps 0 to peak max.(34.2 Amps.RMS)
7. Operating voltage: 460 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 102 Amps 0 to peak max.(34.2 Amps.RMS)
9. Magnetizing current: 15.8 Amps. RMS ref.
10. Peak stall current: 113 Amps 0 to peak max.(80 Amps. RMS)
11. Insulation class: 180 (H).
12. Housing temperature: 125C max.
13. Winding resistance: .181 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 14 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-m2 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 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: .650 Ohms/phs Ref at 20C to 30C.
X2: .704 Ohms/phs Ref at 20C to 30C.
Xm : 14.7 Ohms/phs Ref at 20C to 30C
R1: .181 Ohms/phs Ref at 20C to 30C
R2: .119 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. 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.

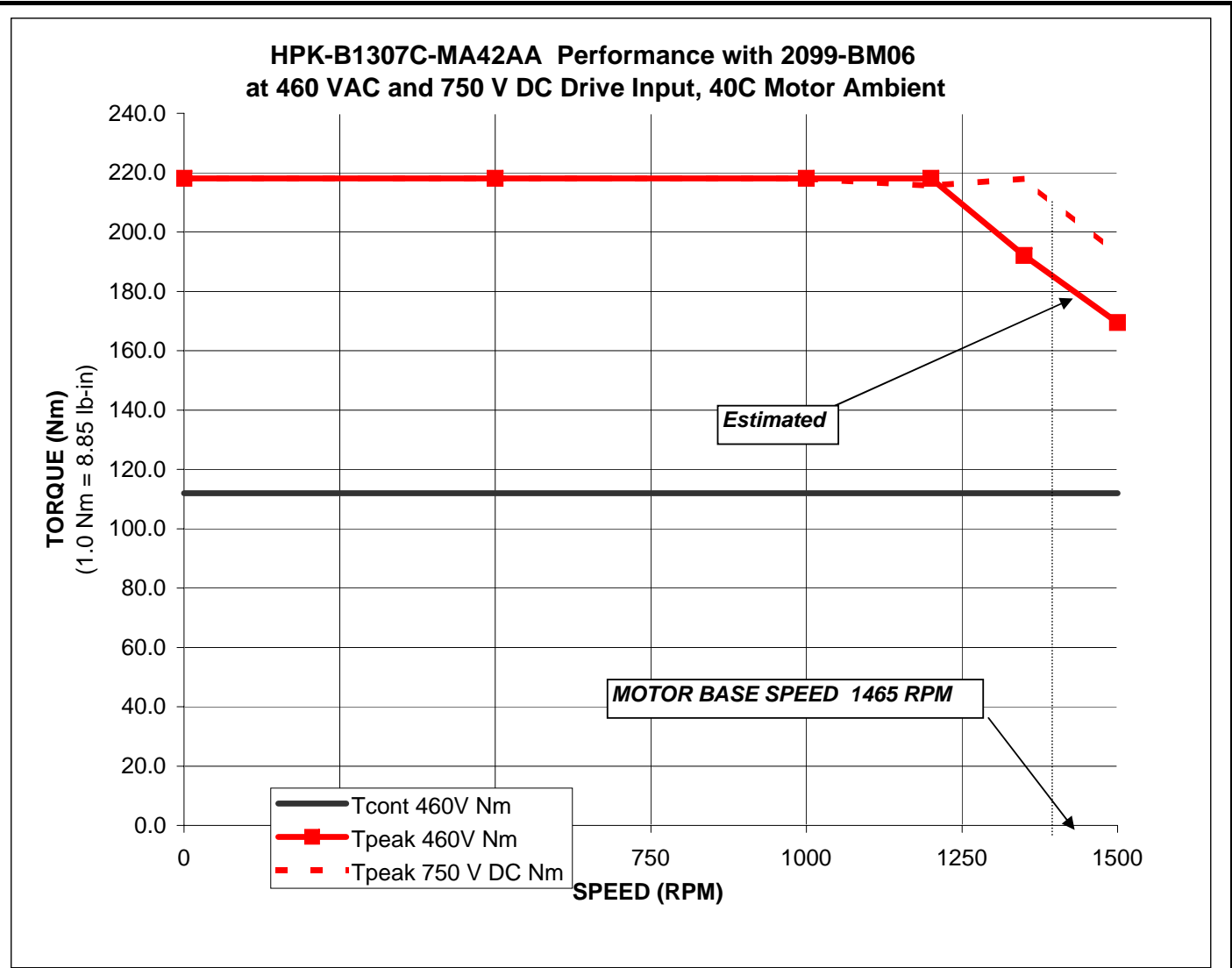
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SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	Nm	Nm	Nm
0	112.0	218.1	218.1
500	112.0	218.1	218.1
1000	112.0	218.1	218.1
1200	112.0	218.1	215.6
1350	112.0	192.1	218.1
1500	112.0	169.5	192.1

SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	991.0	1930	1930
500	991.0	1930	1930
1000	991.0	1930	1930
1200	991.0	1930	1930
1350	991.0	1700	1930
1500	991.0	1500	1700

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



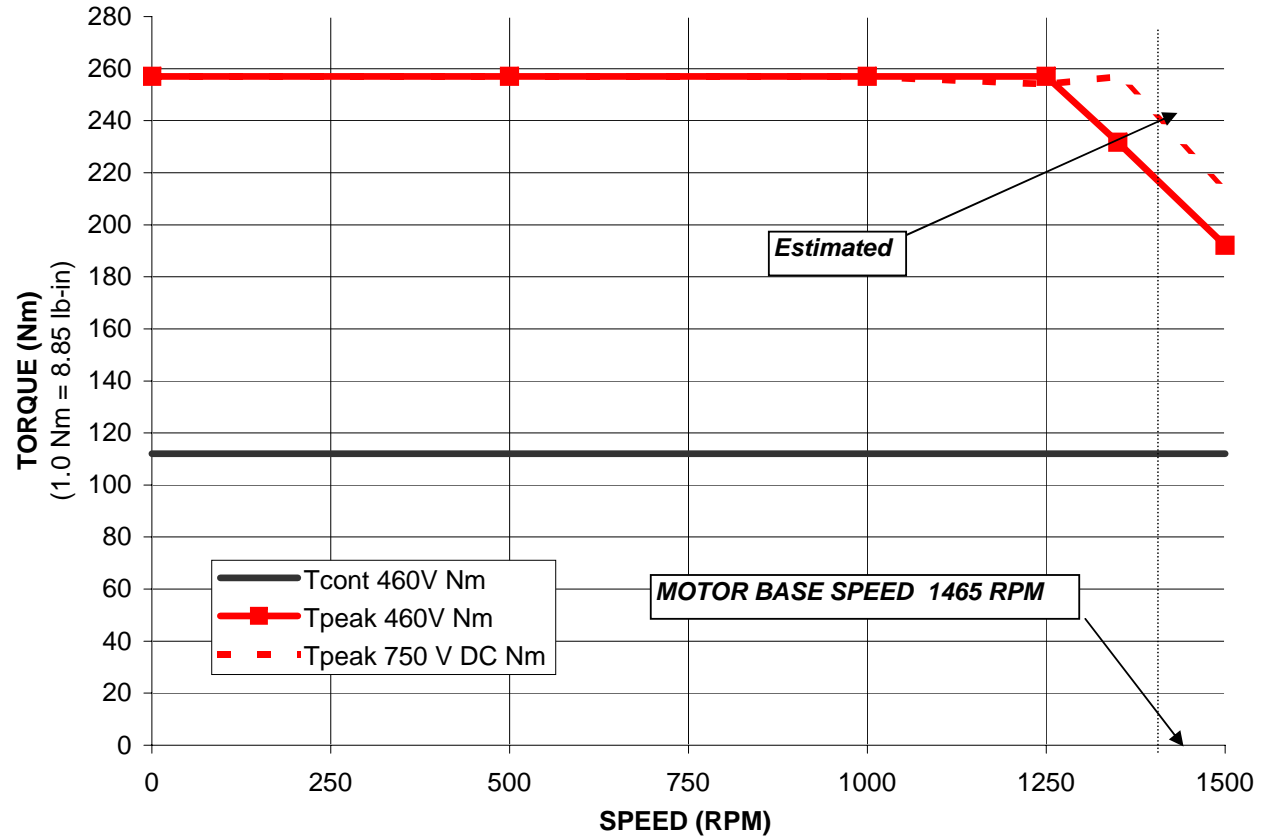
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SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	Nm	Nm	Nm
0	112	257	257
500	112	257	257
1000	112	257	257
1250	112	257	254
1350	112	232	257
1500	112	192	215

SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	991	2274	2274
500	991	2274	2274
1000	991	2274	2274
1250	991	2274	2274
1350	991	2050	2274
1500	991	1700	1900

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

**HPK-B1307C-MA42AA Performance with 2099-BM07
at 460 VAC and 750 V DC Drive Input, 40C Motor Ambient**



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