

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	

01	1021550	VS	RELEASED		
REV	ECN	BY	REVISION DESCRIPTION	CHKR	DATE
PREPARED BY			DATE	DESIGN ENGINEER	DATE
VS			4/4/2006		
TITLE					
ES, ELEC, HPK-B1310C-SB44AA					
Allen-Bradley			PART NO.		
			L13M5181ESE		
			A SIZE	SHEET	1 OF 4

Notes: Print or enlarge waveforms for improved clarity.
For additional specifications see L13M5181ESM.

Specifications:

1. Motor type: 4 pole, 3 phase, asynchronous, ventilated
2. Base speed: 1470 RPM.
3. Maximum speed: 3000 RPM.
4. Continuous stall torque: 155 Nm (1372 lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 325 Nm (2876 lb-in) max.
6. Continuous output rating: 23.8 kW (hp) max at 1465 RPM. Continuous current @ 1470 RPM 64.9 Amps 0 to peak max.(46 Amps.RMS)
7. Operating voltage: 460 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 64.9 Amps 0 to peak max.(46 Amps.RMS)
9. Magnetizing current: 19.6 Amps. RMS ref.
10. Peak stall current: 144 Amps 0 to peak max.(102 Amps. RMS)
11. Insulation class: 180 (H).
12. Housing temperature: 125C max.
13. Winding resistance: .232 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 8.9 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: .111 kg-m² Ref.
17. Rotor balancing: Quality grade G-6.3.
18. Product weight: 166 kg (366 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: .446 Ohms/phs Ref at 20C to 30C.
X1: .54 Ohms/phs Ref at 20C to 30C.
Xm : 11.8 Ohms/phs Ref at 20C to 30C
R1: .116 Ohms/phs Ref at 20C to 30C
R2: .0843 Ohms/phs Ref at 20C to 30C

BRAKE: 460VAC 20Nm max. holding torque

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.

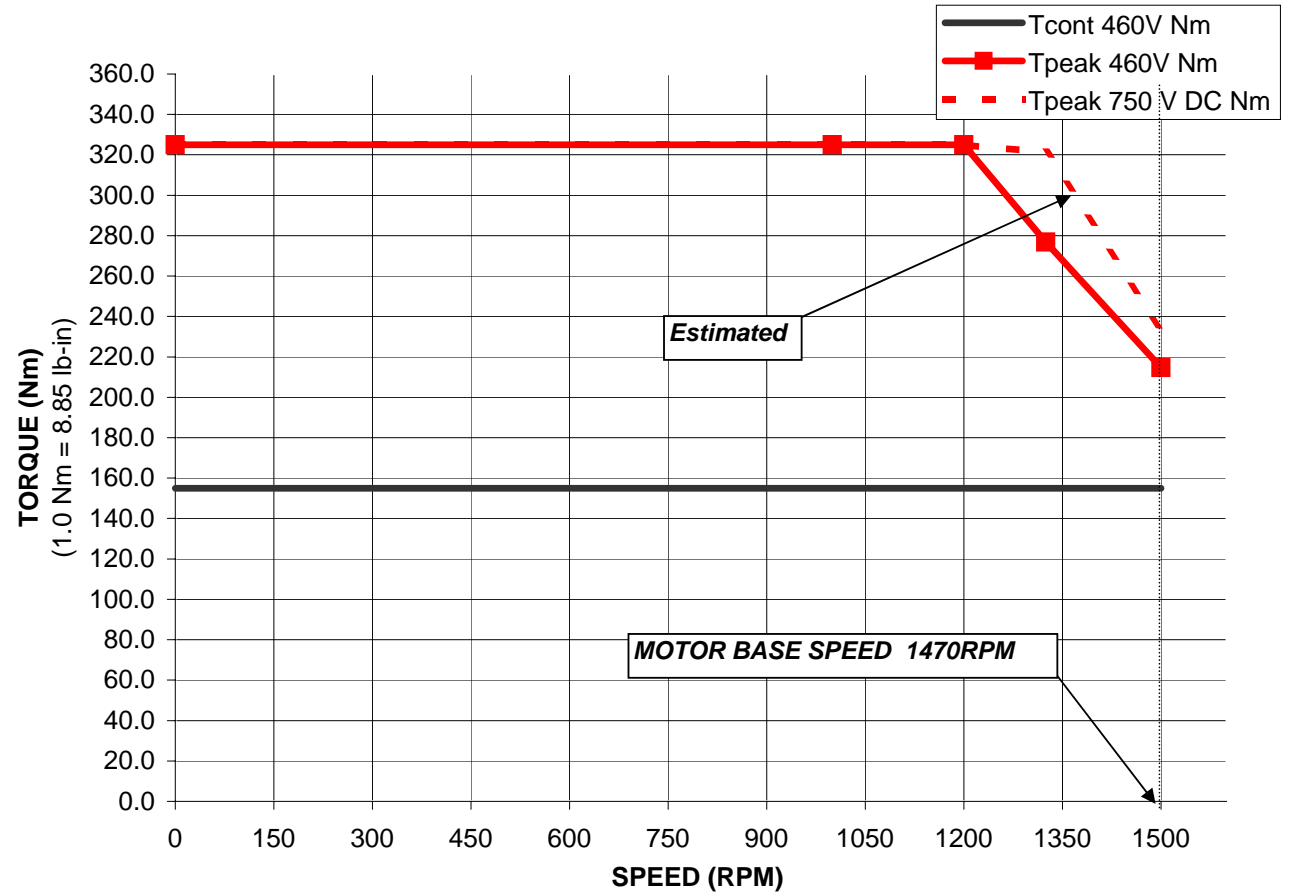
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SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	Nm	Nm	Nm
0	155.0	325.0	325.0
1000	155.0	325.0	325.0
1200	155.0	325.0	325.0
1325	155.0	276.8	321.3
1500	155.0	214.7	234.5

SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	1372.0	2876	2876
1000	1372.0	2876	2876
1200	1372.0	2876	2876
1325	1372.0	2450	2876
1500	1372.0	1900	2075

**HPK-B1310C-SB44AA Performance with 2099-BM08
at 460 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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