

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	
450	530	530	530	
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	
260	310	380	440	

01	1020346	VS	RELEASED		
REV	ECN	BY	REVISION DESCRIPTION	CHKR	DATE
PREPARED BY		DATE	DESIGN ENGINEER		DATE
VS		2/1/2006			
TITLE					
ES, ELEC, HPK-B1815C-MA42BA					
Allen-Bradley			PART NO.		
			L18M5173ESE		
			A SIZE	SHEET	1 OF 4

Notes: Print or enlarge waveforms for improved clarity.
For additional specifications see L18M5173ESM.

Specifications:

1. Motor type: 4 pole, 3 phase, asynchronous, ventilated
2. Base speed: 1480 RPM.
3. Maximum speed: 3000 RPM.
4. Continuous stall torque: 360 Nm (3186 lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 850 Nm (7523 lb-in) max.
6. Continuous output rating: 55.9 kW (hp) max at 1480 RPM. Continuous current @ 1480 RPM 153.7 Amps 0 to peak max.(109 Amps.RMS)
7. Operating voltage: 460 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 153.7 Amps 0 to peak max.(109 Amps.RMS)
9. Magnetizing current: 54 Amps. RMS ref.
10. Peak stall current: 402 Amps 0 to peak max.(285 Amps. RMS)
11. Insulation class: 180 (H).
12. Housing temperature: 125C max.
13. Winding resistance: .054 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 3.2 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: .468 kg-m² Ref.
17. Rotor balancing: Quality grade G-6.3.
18. Product weight: 474 kg (1045lb) 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 w/lt 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), front mounting surface, and connectors are

Equivalent circuit parameters

X1: .159 Ohms/phs Ref at 20C to 30C.
X1: .226 Ohms/phs Ref at 20C to 30C.
Xm : 4.22 Ohms/phs Ref at 20C to 30C
R1: .0272 Ohms/phs Ref at 20C to 30C
R2: .0198 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.

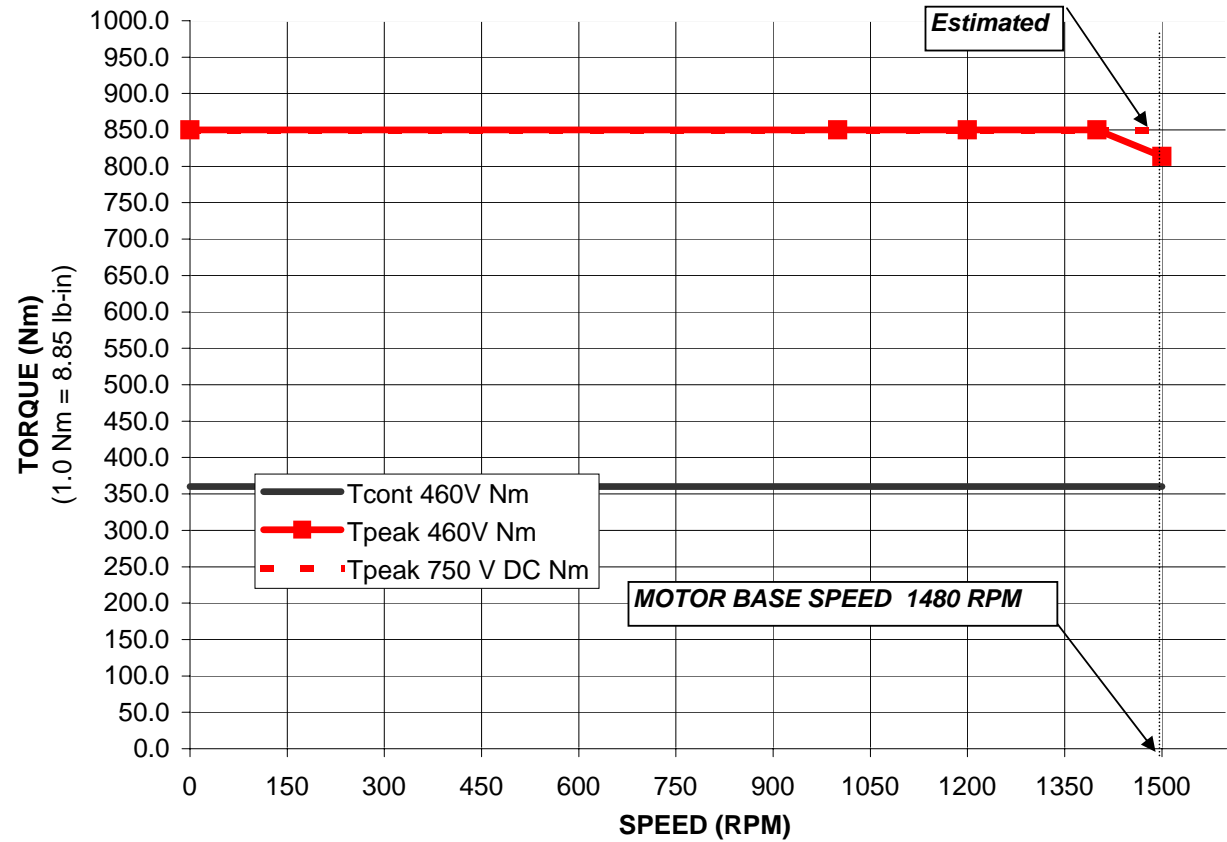
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SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	Nm	Nm	Nm
0	360.0	850.1	850.1
1000	360.0	850.1	850.1
1200	360.0	850.1	850.1
1400	360.0	850.1	850.1
1500	360.0	813.6	850.1

SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	3186.0	7523	7523
1000	3186.0	7523	7523
1200	3186.0	7523	7523
1400	3186.0	7523	7523
1500	3186.0	7200	7523

**HPK-B1815C-MA42BA Performance with 2099-BM11
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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