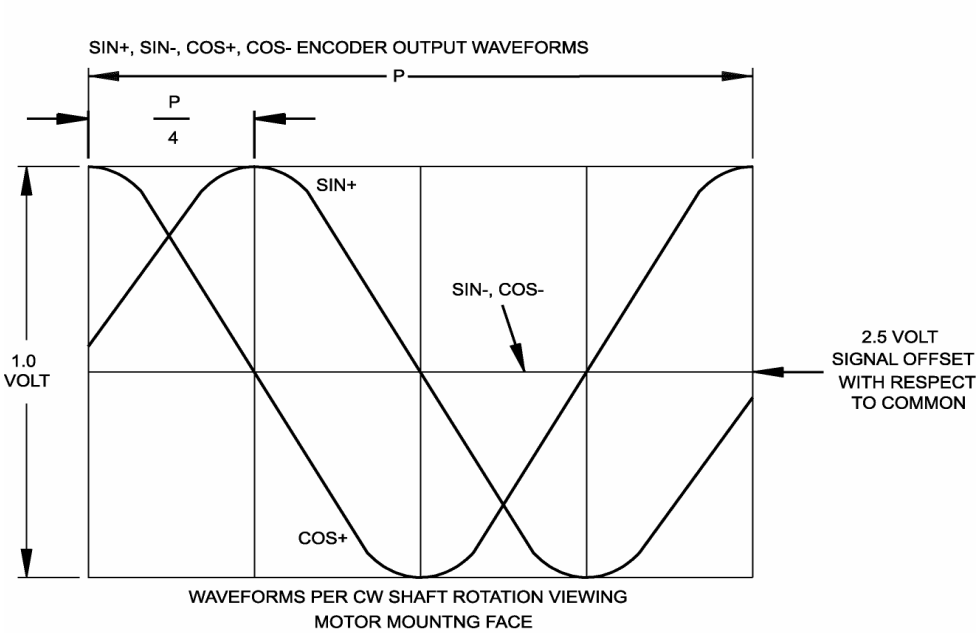

RADIAL LOAD CAPACITY (Kgs) -
NO AXIAL LOAD - FOR L10 LIFE OF 10,000 HOURS
Radial Load Capacity at the End of the Shaft (Kgs)

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

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REV	ECN	BY	REVISION DESCRIPTION	CHKR	DATE

PREPARED BY	DATE	DESIGN ENGINEER	DATE
VS	1/10/2006		

TITLE

ES, ELEC, HPK-B1307E-SA42AA

Allen-Bradley

PART NO.
L13M5165ESE

A SIZE | SHEET 1 OF 4

Notes: Print or enlarge waveforms for improved clarity.
For additional specifications see L13M5165ESM.

Specifications:

1. Motor type: 4 pole, 3 phase, asynchronous, ventilated
2. Base speed: 2970 RPM.
3. Maximum speed: 5000 RPM.
4. Continuous stall torque: 96 Nm (849.6 lb-in) max at 155C winding temperature in a 40C
5. Peak stall torque: 165 Nm (1460 lb-in) max.
6. Continuous output rating: 29.8 kW max at 2970 RPM. Continuous current @ 2970 RPM 81 Amps 0 to peak max.(57.5 Amps.RMS)
7. Operating voltage: 460 VAC RMS Ref. (Not for direct connection to AC line).
8. Continuous stall current: 81 Amps 0 to peak max.(57.5 Amps.RMS)
9. Magnetizing current: 26.1 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: .097 Nom. Ohms, phase to phase at 20C to 30C.
14. Winding inductance: 7.4 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^2 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: .371 Ohms/phs Ref at 20C to 30C.
X1: .423 Ohms/phs Ref at 20C to 30C.
Xm : 8.79 Ohms/phs Ref at 20C to 30C
R1: .0485 Ohms/phs Ref at 20C to 30C
R2: .0338 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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REV	ES, ELEC, HPK-B1307E-SA42AA
Allen-Bradley	PART NO. L13M5165ESE
	A SIZE / SHEET 2 OF 4

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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Allen-Bradley	PART NO. L13M5165ESE
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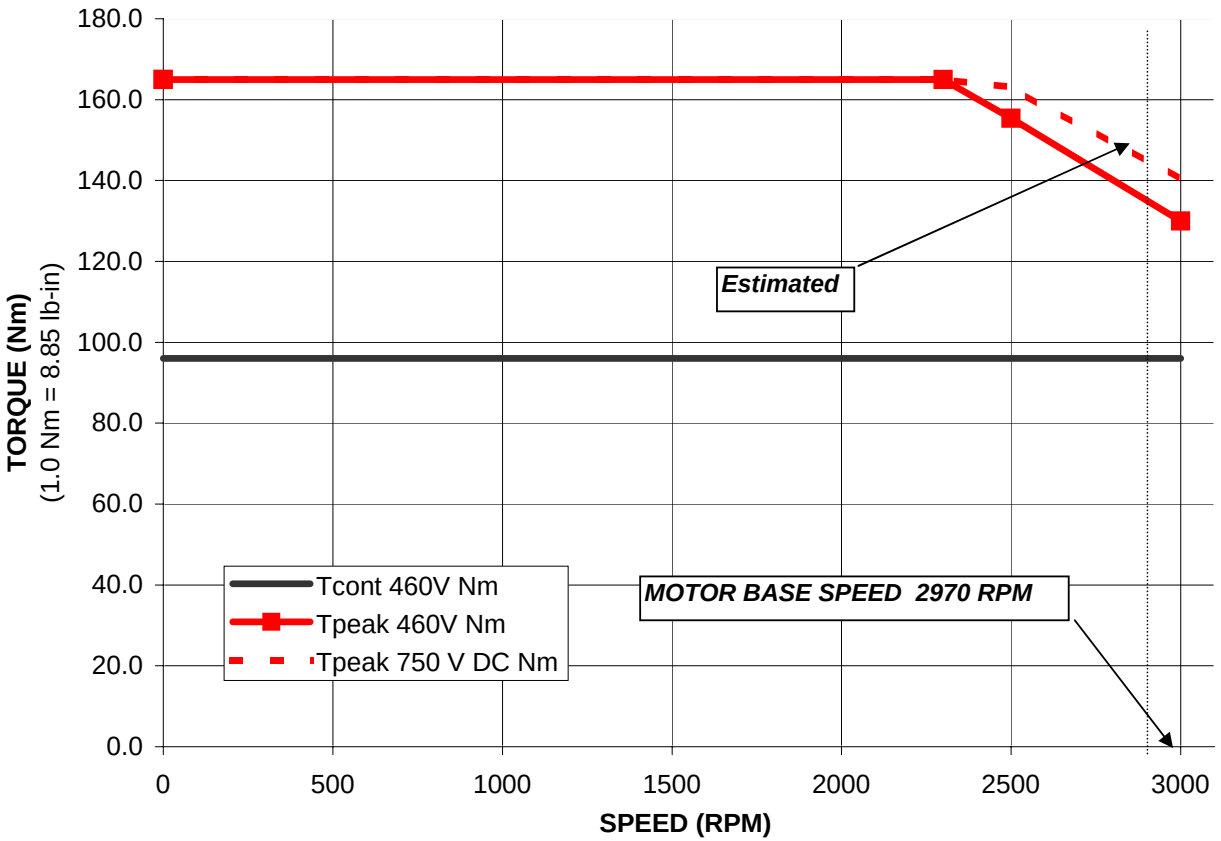
SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	Nm	Nm	Nm
0	96.0	165.0	165.0
0	96.0	165.0	165.0
2300	96.0	165.0	165.0
2500	96.0	155.4	163.1
3000	96.0	129.9	140.1

SPEED RPM	TORQUE		
	Tcont 460V	Tpeak 460V	Tpeak 750 V DC
	lb-in	lb-in	lb-in
0	849.6	1460	1460
0	849.6	1460	1460
2300	849.6	1460	1460
2500	849.6	1375	1460
3000	849.6	1150	1240

HPK-B1307E-SA42AA 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.

01	TITLE
REV	ES, ELEC, HPK-B1307E-SA42AA
Allen-Bradley	PART NO. L13M5165ESE
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