

MOTOR DATA @ 230 VAC (SINE)

| MOTOR PARAMETERS | UNITS | VALUE |
|--------------------------------------|--|----------------|
| MOTOR HORSEPOWER | HP RATED | 2.9 |
| | KW RATED | 2.1 |
| MAX. OPERATING SPEED | N MAX | 1750 |
| SPEED @ RATED TORQUE | RPM | 1500 |
| * CONTINUOUS RATED TORQUE @ 1500 RPM | IN-LBS [Nm] | 120.0 [13.5] |
| * CONTINUOUS STALL TORQUE | IN-LBS [Nm] | 130.0 [14.7] |
| * CONTINUOUS LINE CURRENT | AMPS (RMS/φ) | 6.9 |
| PEAK TORQUE | IN-LBS [Nm] | 390.0 [43.9] |
| PEAK CURRENT | AMPS (RMS/φ) | 20.9 |
| MAX. THEORETICAL ACCEL. | RAD/SEC ² | 36,792 |
| TORQUE SENSITIVITY | Kt [IN-LBS/AMP (RMS/φ)] / [Nm/AMP (RMS/φ)] | 18.2 [2.06] |
| BACK EMF (LINE TO LINE) | Vrms/Krpm | 115.0 |
| D.C. RESISTANCE (P-P) | OHMS | 1.7 |
| INDUCTANCE (P-P) | MILLIHENRIES | 12.6 |
| ROTOR INERTIA | Jm [IN-LBS-SEC ²] [Kg-M ²] | .0106 [0.0119] |
| STATIC FRICTION | Tf [IN-LBS] [Nm] | 2.4 [27] |

*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 12" X 12" X 1/2" ALUMINUM HEATSINK. THERMOSTAT IN STATOR WINDINGS WILL OPEN IF WINDING TEMPERATURE EXCEEDS 155°C. THIS ALLOWS FOR AN APPROXIMATE +10% HEADROOM IN THE CONTINUOUS TORQUE RATING BEFORE THERMOSTAT OPENS.

MECHANICAL NOTES:

1. AXIAL LOAD: 50 LBS MAX
2. RADIAL LOAD: 150 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65
4. MOTOR WEIGHT: 32.8 LBS. [14.9 kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. MILLIMETERS (INCHES)

ENCODER: (290-00102)
OH48-4096P6-16-5V

CONNECTION CHART

MOTOR CONNECTOR:
SG3102E-22-22P (027)
(270-00017)

| MOTOR WIRE LEADS | WIRE FUNCTION | WIRE COLOR |
|------------------|---------------|------------|
| A | φR | RED |
| B | φS | BLACK |
| C | φT | BLUE |
| D | PE GND | GRN/YEL |

ENCODER/THERM CONNECTOR:

PT02E-14-18P (027)
(270-00024)

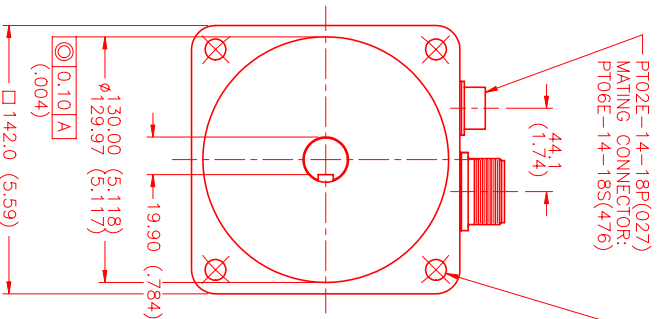
| ENC/THERM WIRE LEADS | PIN | WIRE FUNCTION | WIRE COLOR |
|----------------------|-----------|---------------|------------|
| T | GROUND | BLACK | |
| K | +5VDC | RED | |
| B | CH A | BLUE | |
| C | CH A\ | BLUE/BLK | |
| N | CH B | GREEN | |
| P | CH B\ | GRN/BLK | |
| M | CH Z | YELLOW | |
| U | CH Z\ | YEL/BLK | |
| E | CH U | BROWN | |
| R | CH U\ | BRN/BLK | |
| F | CH V | GRAY | |
| S | CH V\ | GRAY/BLK | |
| G | CH W | WHITE | |
| H | CH W\ | WHT/BLK | |
| D | GND/CABLE | SHLD | |
| A | THERM | BLACK | |
| L | THERM | BLACK | |
| J | GND | GRN/YEL | |

MOTOR & HALL POSITION CHART

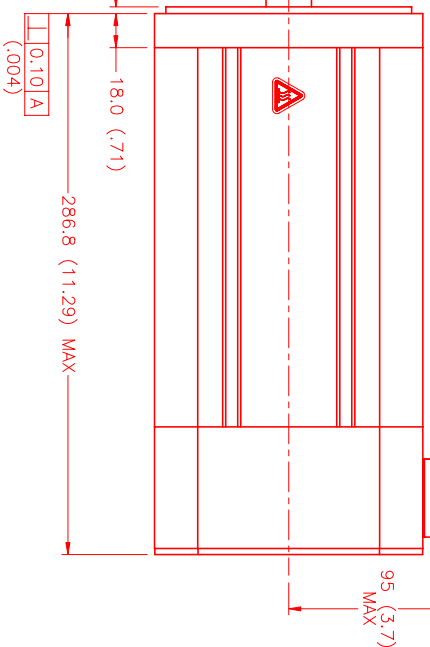
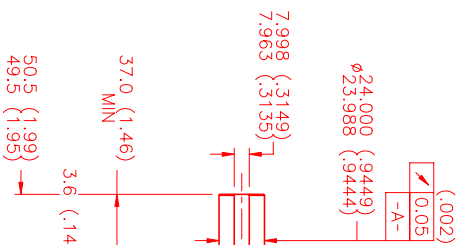
| HALL LEADS | BROWN | GRAY | WHITE |
|--------------------------|----------------------|---------------------|-----------------------|
| MOTOR LEADS | BLACK respect to RED | RED respect to BLUE | BLUE respect to BLACK |
| VIEW ON THE OSCILLOSCOPE | | | |

*MOTOR ROTATION CWM (COUNTER CLOCKWISE) (LOOKING AT THE FACE OF THE MOTOR)

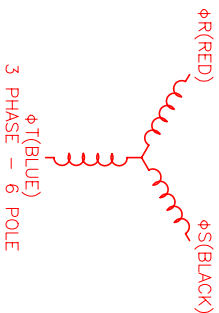
WAVE REPRESENTING HALL SENSOR



φ11.00 (4.33) THRU (4) EO SPD AS SHOWN ON φ1.65(.006) B.C.



SG3102E-22-22P (027)
MATING CONNECTOR:
SG3106E-22-22S (476)



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