

### MOTOR DATA @ 230 VAC (SINE)

| MOTOR PARAMETERS                     | UNITS  | VALUE             |
|--------------------------------------|--|-------------------|
| HORSEPOWER                           | HP RATED   | 1.05              |
| KILOWATTS                            | KW RATED   | .78               |
| MAX. OPERATING SPEED                 | N. MAX RPM                                       | 3000              |
| SPEED @ RATED TORQUE                 | N RATED RPM                                      | 2400              |
| * CONTINUOUS RATED TORQUE @ 2400 RPM | IN-LBS[Nm]                                       | 27.5[3.1]         |
| * CONTINUOUS STALL TORQUE            | IN-LBS[Nm]                                       | 30.0[3.4]         |
| CONTINUOUS LINE CURRENT              | AMPS(RMS/Φ)                                      | 2.6               |
| PEAK TORQUE                          | IN-LBS[Nm]                                       | 105.0[11.9]       |
| PEAK CURRENT                         | AMPS(RMS/Φ)                                      | 9.6               |
| MAX. THEORETICAL ACCEL.              | RAD/SEC <sup>2</sup>                             | 92.025            |
| TORQUE SENSITIVITY                   | Kt [IN-LBS/AMP/RMS/ΦNm/AMP(RMS/Φ)]               | 11.6[1.31]        |
| BACK EMF (LINE TO LINE)              | Vrms/Krpm  | 73.2              |
| D.C. RESISTANCE (P-P)                | OHMS   | 6.0               |
| INDUCTANCE (P-P)                     | MILLIHENRIES                                     | 20.2              |
| ROTOR INERTIA W/ BRAKE               | Jm [IN-LBS-SEC <sup>2</sup> [Kg-M <sup>2</sup> ] | .00114[1.0001286] |
| STATIC FRICTION                      | Tf [IN-LBS[Nm]]                                  | .5[.06]           |

\*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 10" X 10" X 10" X 1/4" 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:

- AXIAL LOAD: 25 LBS MAX
- RADIAL LOAD: 40 LBS MAX @ 1" FROM FACE
- MOTOR SEALED TO IP65.
- MOTOR WEIGHT: 12.2 LBS. [ 5.5 Kg ]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- INCHES (MILLIMETERS)

#### FAIL SAFE BRAKE:

MIN HOLDING TORQUE: 60 IN-LBS  
INPUT VOLTAGE: 24 VOLTS

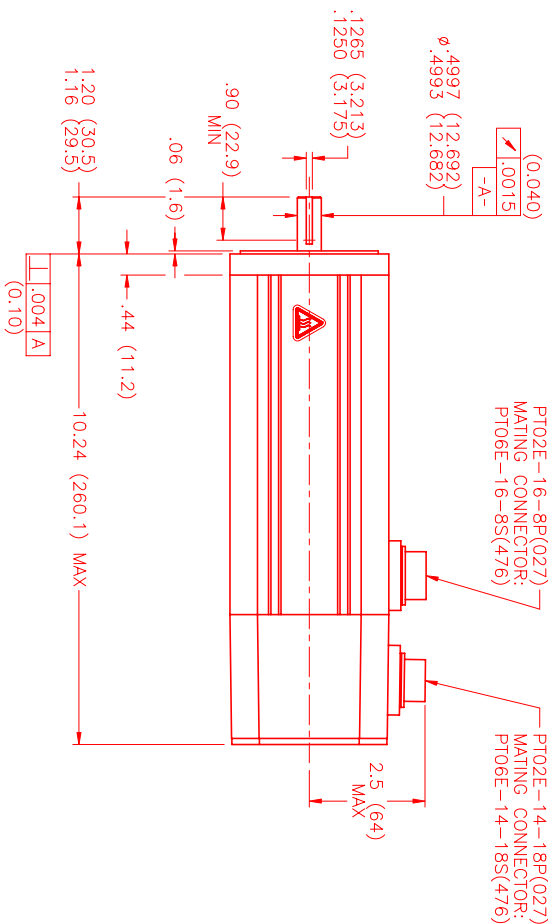
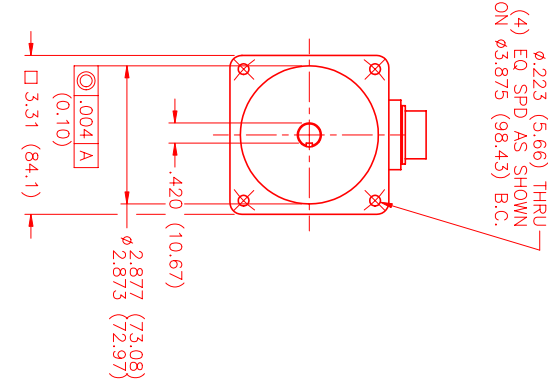
#### CONNECTION CHART

MOTOR/BRAKE CONNECTOR:  
PT02E-16-8P(027)  
(270-00032)

RESOLVER/THERM CONNECTOR:  
PT02E-14-18P(027)  
(270-00024)

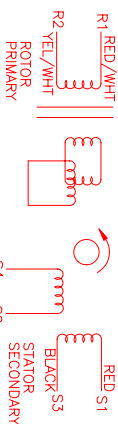
| MOTOR/BRAKE | WIRE     | WIRE LEADS |
|-------------|----------|------------|
| PIN         | FUNCTION | WIRE COLOR |
| A           | ΦR       | RED        |
| B           | ΦS       | BLACK      |
| C           | ΦT       | BLUE       |
| D           | PE GND   | GRN/YEL    |
| E           | BRK SHLD | -          |
| F           | BRK (+)  | DIODE      |
| G           | BRK (-)  | 1N4007     |
| H           | -        | -          |

| RES/THERM | WIRE     | WIRE LEADS |
|-----------|----------|------------|
| PIN       | FUNCTION | WIRE COLOR |
| U         | THERM    | BLACK      |
| N         | THERM    | BLACK      |
| H         | SIN      | YELLOW     |
| G         | COS GND  | BLACK      |
| S         | COS      | RED        |
| F         | SIN GND  | BLUE       |
| R         | REF GND  | YEL/WHI    |
| E         | REF      | RED/WHI    |
| D         | RES SHLD | GRN/YEL    |
| P         | GND      | GRN/YEL    |
| A         | -        | -          |
| B         | -        | -          |
| C         | -        | -          |
| J         | -        | -          |
| K         | -        | -          |
| L         | -        | -          |
| M         | -        | -          |
| T         | -        | -          |

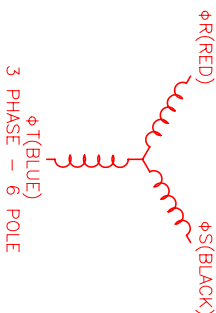


PT02E-16-8P(027)  
MATING CONNECTOR:  
PT06E-16-8S(476)

PT02E-14-18P(027)  
MATING CONNECTOR:  
PT06E-14-18S(476)



SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER



|             |             |         |        |
|-------------|-------------|---------|--------|
| REV         | DESCRIPTION | DATE    | APP'D. |
| PRELIMINARY |             | 8/24/00 | LIN    |

|     |   |             |      |
|-----|---|-------------|------|
| NO. | PART NUMBER   | DESCRIPTION | QTY. |
| 1   | UNLESS SPECIFIED  |             |      |
| 2   | DECIMAL .005 ± .005   |             |      |
| 3   | DECIMAL .010 ± .010   |             |      |
| 4   | DECIMAL .020 ± .020   |             |      |
| 5   | DECIMAL .050 ± .050   |             |      |
| 6   | DECIMAL .125 ± .125   |             |      |
| 7   | DECIMAL .250 ± .250   |             |      |
| 8   | DECIMAL .500 ± .500   |             |      |
| 9   | DECIMAL 1.000 ± 1.000   |             |      |
| 10  | DECIMAL 2.000 ± 2.000   |             |      |
| 11  | DECIMAL 5.000 ± 5.000   |             |      |
| 12  | DECIMAL 10.000 ± 10.000   |             |      |
| 13  | DECIMAL 20.000 ± 20.000   |             |      |
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