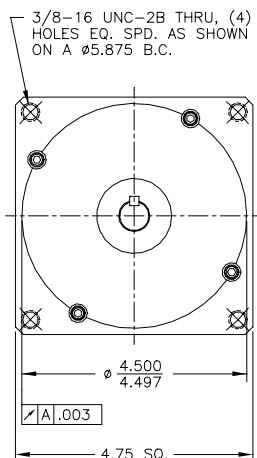
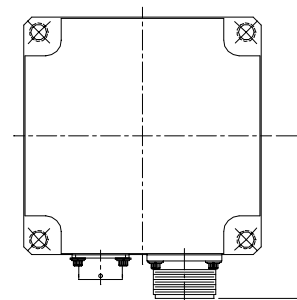
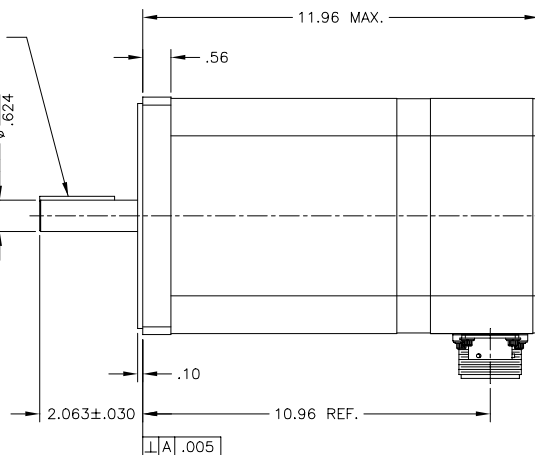


NOTES:
1. MOTOR SEALED TO MEET IP 65, WITH CONNECTOR DOWN.

| REVISIONS | | | |
|-----------|-------------|----------|------|
| REV | DESCRIPTION | DATE | APPD |
| P1 | PRELIMINARY | 11-11-02 | JPH |

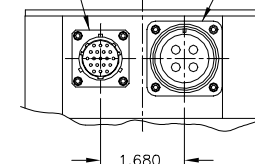


3/16" SQ. KEY
X 1 1/2" LONG

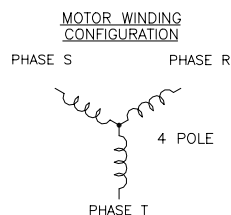
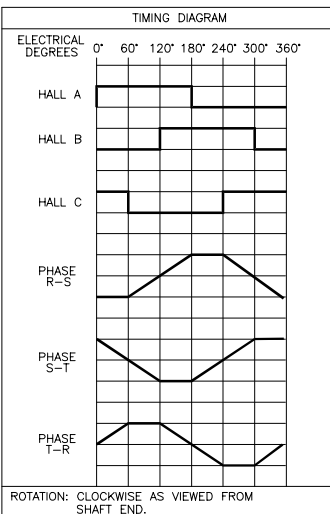


SENSOR/ENCODER
CONNECTOR
MS3112E-14-19P

MOTOR CONNECTOR
MS3102E-20-4P



| SENSOR CONNECTOR PINOUT | |
|----------------------------|----------------|
| PIN | FUNCTION |
| A | THERMOSTAT |
| B | THERMOSTAT |
| C | HALL B |
| D | NO CONNECTION |
| E | NO CONNECTION |
| F | NO CONNECTION |
| G | NO CONNECTION |
| H | NO CONNECTION |
| J | HALL GROUND |
| K | NO CONNECTION |
| L | +5-15 VDC HALL |
| M | HALL A |
| N | NO CONNECTION |
| P | NO CONNECTION |
| R | HALL C |
| S | NO CONNECTION |
| T | NO CONNECTION |
| U | NO CONNECTION |
| V | NO CONNECTION |



| MOTOR PARAMETERS @25°C | | | |
|---|------|------------------------|-------|
| | TOL. | UNITS | VALUE |
| MAX. OPERATING SPEED (S _{nl}) | MAX. | R.P.M. | 3000 |
| CONTINUOUS TORQUE (T _c) | MAX. | LB-IN | 114 |
| PEAK TORQUE (T _p) | MAX. | LB-IN | 342 |
| TORQUE SENSITIVITY (K _t) | ±10% | LB-IN/AMPS | 9.13 |
| BACK EMF CONSTANT (K _e) (L-L, D.C.) | ±10% | V/K R.P.M. | 108.0 |
| D.C. RESISTANCE (R _t) (L-L) | ±10% | OHMS | 0.72 |
| INDUCTANCE (L) (L-L) | ±15% | mH | 5.23 |
| ROTOR INERTIA (J _g) | NOM. | LB-IN-SEC ² | 0.010 |
| FRICITION TORQUE (T _f) | NOM. | LB-IN | 1.37 |
| DAMPING TORQUE (T _d) | NOM. | LB-IN/KRPM | 1.62 |
| WINDING TEMPERATURE | MAX. | °C | 125 |
| WEIGHT | NOM. | LBS | 34 |

| MOTOR CONNECTOR PINOUT | |
|---------------------------|-------------|
| PIN | FUNCTION |
| 1 | PHASE R |
| 2 | PHASE S |
| 3 | PHASE T |
| 4 | CASE GROUND |

NOTE: THIS DRAWING HAS BEEN CREATED BY AUTOCAD.
MANUAL REVISIONS ARE NOT ALLOWED.

| | |
|--|--------------------------|
| DRAWN | |
| CHECKED | |
| APPROVED | |
| TITLE | BRSHLS D.C. MOTOR |
| TOLERANCES ON DECIMALS FRACTIONS ±1/64 XXX ±.010 ANGLES ±1/2° XXX ±.005 UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES | SIZE NUMBER C AB48003 |
| SCALE .625:1 | SHEET 1 of 1 |

THIS DRAWING AND THE INFORMATION DISCLOSED HEREIN ARE PROPRIETARY
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