## MOTOR DATA @ 110 VAC (TRAP)

| MOTOR PARAMETERS | | UNITS | VALUE |
|---|---|---|---|
| HORSEPOWER | HP RATED | Hp | .15 |
| KILOWATTS | KW RATED | KW | .11 |
| MAX. OPERATING SPEED | N MAX | RPM | 6000 |
| SPEED @ RATED TORQUE | N RATED | RPM | 4000 |
| * CONTINUOUS RATED TORQUE @ 4000 RPM | | IN-LBS[Nm] | 2.3[.26] |
| * CONTINUOUS STALL TORQUE | | IN-LBS[Nm] | 2.6[.29] |
| CONTINUOUS LINE CURRENT | | AMPS | 3.0 |
| PEAK TORQUE | Tpk | IN-LBS[Nm] | 7.8[0.9] |
| PEAK CURRENT | | AMPS | 9.7 |
| MAX. THEORETICAL ACCEL. | | RAD/SEC² | 118,182 |
| TORQUE SENSITIVITY | Kt | IN-LBS/AMP[Nm/AMP] | 1.03[.12] |
| BACK EMF (LINE TO LINE) | ±10% | Vrms/Krpm | 9.2 |
| D.C. RESISTANCE (P-P) | ±10% | OHMS | 6.9 |
| INDUCTANCE (P-P) | ±10% | MILLIHENRIES | 7.7 |
| ROTOR INERTIA | Jm | IN-LBS-SEC²[Kg-M²] | .000066[.0000075] |
| STATIC FRICTION | Tf | IN-LBS[Nm] | .35[.040] |

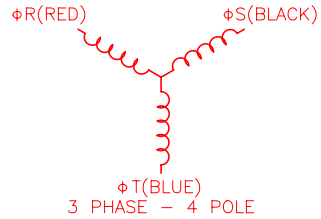
*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 10" X 10" X 1/4" ALUMINUM HEATSINK. THERMOSTAT IN STATOR WINDINGS WILL OPEN IF WINDING TEMPERATURE EXCEEDS 155°C. THIS ALLOWS FOR AN APPROXIMATE +10% HEADROOM IN THE CONTINUOUS TORQUE RATING BEFORE THERMOSTAT OPENS.

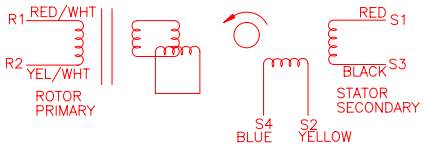
**MECHANICAL NOTES:**

1. AXIAL LOAD: 15 LBS MAX
2. RADIAL LOAD: 20 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 2.2 LBS. [ 1.0 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
6. INCHES (MILLIMETERS)

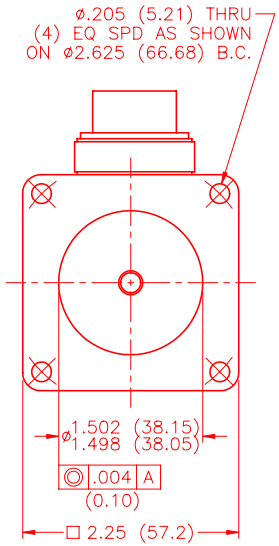
**CONNECTION CHART**
MOTOR/THERM/RESOLVER CONNECTOR:
PT02E-14-18P(027)
(270-00024)

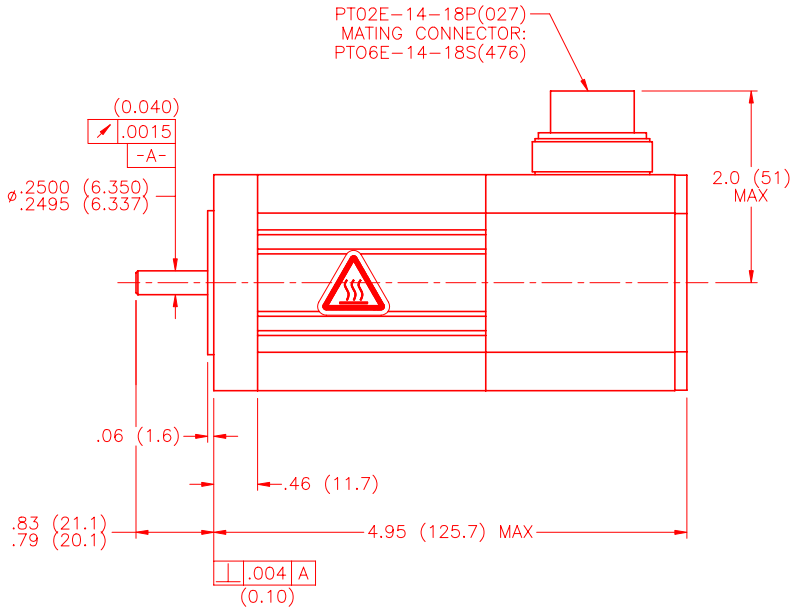
| MTR/THERM/RES WIRE LEADS | | |
|---|---|---|
| PIN | WIRE FUNCTION | WIRE COLOR |
| A | ΦR | RED |
| B | ΦS | BLACK |
| C | ΦT | BLUE |
| D | PE GND | GRN/YEL |
| U | THERM | BLACK |
| N | THERM | BLACK |
| H | SIN | YELLOW |
| G | COS GND | BLACK |
| S | COS | RED |
| F | SIN GND | BLUE |
| R | REF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




SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER




| TITLE: "A"/TRAP/110/ENG/RES/CONN | DRAWING NUMBER: MPM661ATF6G1N |
|---|---|

REVISIONS

| REV. | DESCRIPTION | DATE | APPD. |
|---|---|---|---|
| | PRELIMINARY | 4/11/00 | LIN |

| NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|

TOLERANCES UNLESS SPECIFIED
DECIMAL .XXX ± .005
DECIMAL .XX ± .010
DECIMAL .X ± .020
FRACTION ± 1/64
ANGLE ± 1/2°

MTS Systems Corporation
Automation Division



DRAWN: ELS
DATE: 5/20/99
CHECKED:
APPROVED:

TITLE: "A"/TRAP/110/ENG/RES/CONN
REV.
MATERIAL:
DRAWING NUMBER: MPM661ATF6G1N
SCALE: 1:1