MOTOR DATA @ 110 VAC (TRAP)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	.48
KILOWATTS	KW RATED	KW	.35
MAX. OPERATING SPEED	N MAX	RPM	6000
SPEED @ RATED TORQUE	N RATED	RPM	5000
* CONTINUOUS RATED TORQUE @ 5000 RPM		IN-LBS[Nm]	6.0[.68]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	10.0[1.12]
CONTINUOUS LINE CURRENT		AMPS	5.0
PEAK TORQUE	Tpk	IN-LBS[Nm]	30.0[3.4]
PEAK CURRENT		AMPS	15.0
MAX. THEORETICAL ACCEL.		RAD/SEC²	187,500
TORQUE SENSITIVITY	Kt	IN-LBS/AMP[Nm/AMP]	2.0[.23]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	17.8
D.C. RESISTANCE (P-P)	±10%	OHMS	3.1
INDUCTANCE (P-P)	±10%	MILLIHENRIES	5.1
ROTOR INERTIA W/BRAKE	Jm	IN-LBS-SEC²[Kg-M²]	.000184[.0000207]
STATIC FRICTION	Tf	IN-LBS[Nm]	.8[.09]

*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: 4.5 LBS. [2.0 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. INCHES (MILLIMETERS)

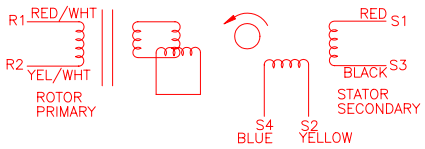
FAILSAFE BRAKE:

MIN HOLDING TORQUE: 10 IN-LBS
INPUT VOLTAGE: 24 VOLTS

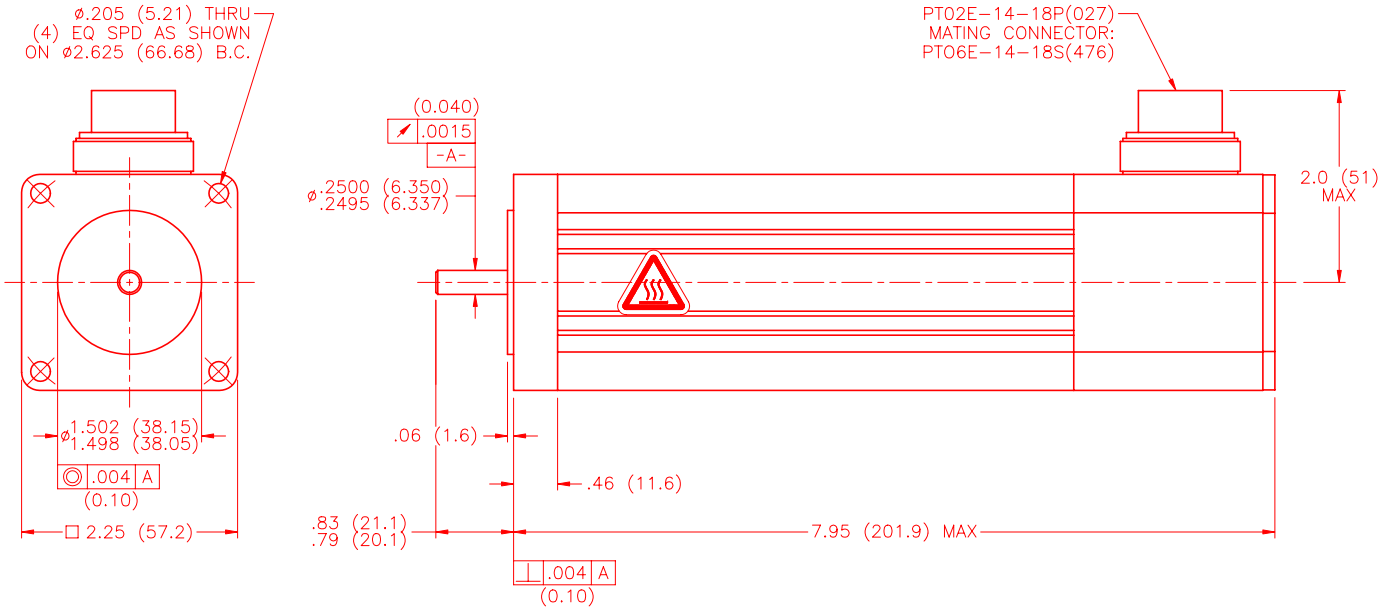
CONNECTION CHART

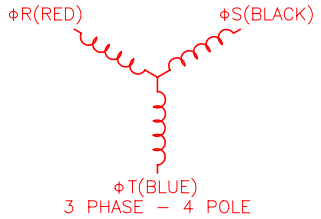
MOTOR/THERM/RES/BRAKE CONNECTOR:
PT02E-14-18P(027)
(270-00024)

MTR/THERM/RES/BRK 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	BRK (+)	DIODE 1N4007
L	BRK (-)	
M	BRK SHLD	–
P	–	–
T	–	–



SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER





TITLE: "A"/TRAP/110/ENG/RES/CONN/BRK
DRAWING NUMBER: MPM664ATF6G1R

REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	5/7/99	MVS

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

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DRAWN: MVS
DATE: 5/7/99
CHECKED:
APPROVED:
TITLE: "A"/TRAP/110/ENG/RES/CONN/BRK
REV.
MATERIAL:
DRAWING NUMBER: MPM664ATF6G1R
SCALE: 1:1