MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	0.63
KILOWATTS	KW RATED	KW	0.47
MAX. OPERATING SPEED	N MAX	RPM	4000
SPEED @ RATED TORQUE	N RATED	RPM	3000
* CONTINUOUS RATED TORQUE @ 3500 RPM		IN-LBS[Nm]	13.3[1.50]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	15.0[1.69]
CONTINUOUS LINE CURRENT		AMPS(RMS/Φ)	1.8
PEAK TORQUE	Tpk	IN-LBS[Nm]	45.0[5.1]
PEAK CURRENT		AMPS(RMS/Φ)	5.5
MAX. THEORETICAL ACCEL.		RAD/SEC²	120,000
TORQUE SENSITIVITY	Kt	IN-LBS/AMP(RMS/Φ)[Nm/AMP(RMS/Φ)]	8.17[0.92]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	51.4
D.C. RESISTANCE (P-P)	±10%	OHMS	7.8
INDUCTANCE (P-P)	±10%	MILLIHENRIES	18.0
ROTOR INERTIA	Jm	IN-LBS-SEC²[Kg-M²]	0.00038[0.000043]
STATIC FRICTION	Tf	IN-LBS[Nm]	1.0[0.11]

*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 85°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.

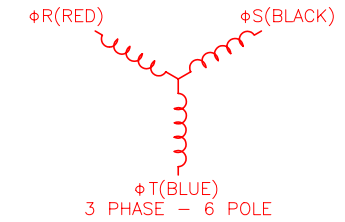
MECHANICAL NOTES:

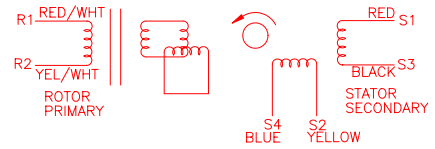
1. AXIAL LOAD: 20 LBS MAX
2. RADIAL LOAD: 35 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 5.2 LBS. [2.4 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. MILLIMETERS (INCHES)
8. THIS MOTOR'S OUTPUT KEY IS A PRESS FIT.

CONNECTION CHART

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

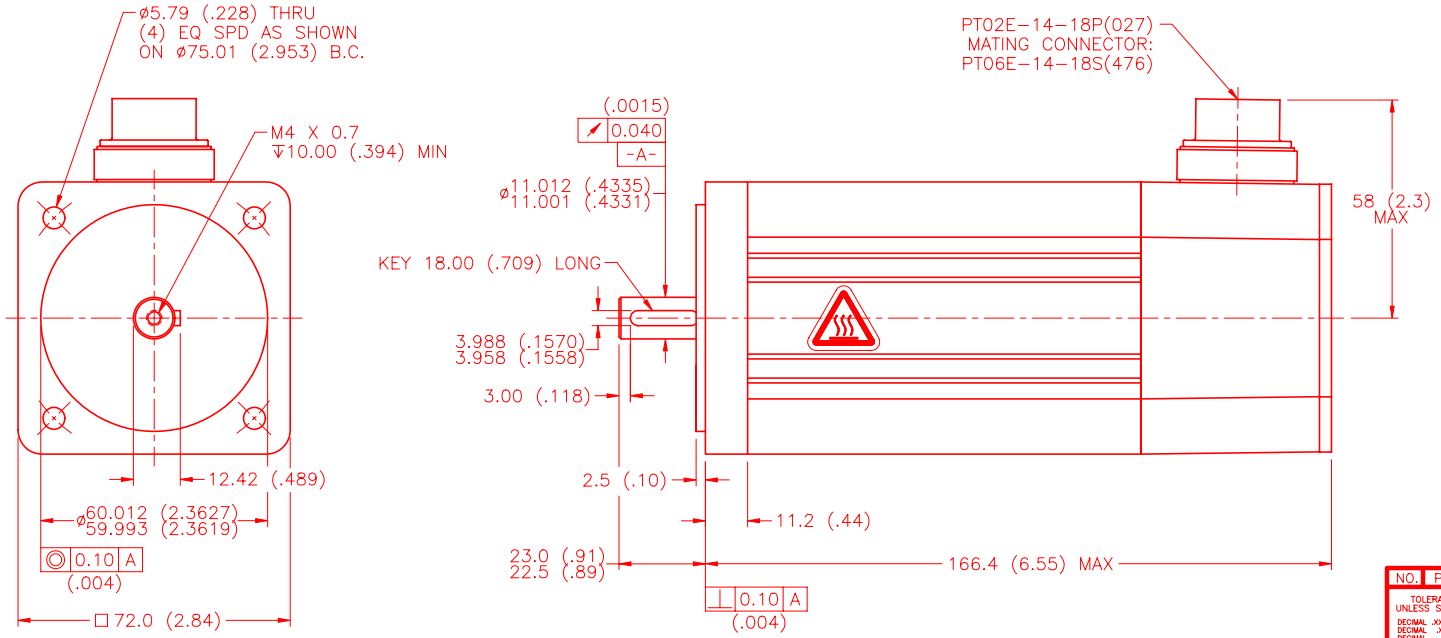
MTR/RES/THERM WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
A	ΦR	RED
B	ΦS	BLACK
C	ΦT	BLUE
D	PE GND	GRN/YEL
U	THERM	BLACK
N	THERM	BLACK
H	SIN	YELLOW
G	COS GND	BLACK
S	COS	RED
F	SIN GND	BLUE
R	REF GND	YEL/WHT
E	REF	RED/WHT
J	RES SHLD	GRN/YEL
K	–	–
L	–	–
M	–	–
P	–	–
T	–	–





SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER

RESOLVER IS SET FOR A TBF/R AMPLIFER



REVISIONS			
REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	5/16/02	MS

TITLE: "C"/SINE/230/MET/TBFR/CONN
DRAWING NUMBER: MPM723CSG7H1N

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: MS
DATE: 5/16/02
CHECKED:
APPROVED:
TITLE: "C"/SINE/230/MET/TBFR/CONN
REV.
MATERIAL:
DRAWING NUMBER: MPM723CSG7H1N
SCALE: 1:1