MOTOR DATA @ 54 VAC (SINE)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	0.2
KILOWATTS	KW RATED	KW	0.1
MAX. OPERATING SPEED	N MAX	RPM	1100
SPEED @ RATED TORQUE	N RATED	RPM	600
* CONTINUOUS RATED TORQUE @ 600 RPM		IN-LBS[Nm]	18.2[2.1]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	18.8[2.1]
CONTINUOUS LINE CURRENT		AMPS(RMS/Φ)	2.0
PEAK TORQUE	Tpk	IN-LBS[Nm]	110.0[12.4]
PEAK CURRENT		AMPS(RMS/Φ)	13.0
MAX. THEORETICAL ACCEL.		RAD/SEC²	224,490
TORQUE SENSITIVITY	Kt	IN-LB/AMP(RMS/Φ)[Nm/AMP(RMS/Φ)]	8.23[0.930]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	51.8
D.C. RESISTANCE (P-P)	±10%	OHMS	5.5
INDUCTANCE (P-P)	±10%	MILLIHENRIES	13.0
ROTOR INERTIA	Jm	IN-LBS-SEC²[Kg-M²]	0.00049[0.000055]
STATIC FRICTION	Tf	IN-LBS[Nm]	1.2[0.14]

*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:

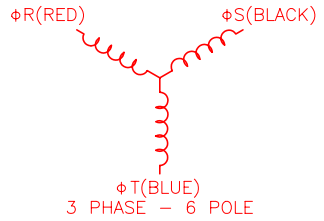
1. AXIAL LOAD: 20 LBS MAX
2. RADIAL LOAD: 35 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 5.9 LBS. [2.7 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. MILLIMETERS (INCHES)
8. THIS MOTOR'S OUTPUT KEY IS A PRESS FIT.

ENCODER: (290-00159)
OIH35-3000P6-L6-5V

CONNECTION CHART
MOTOR/ENCODER/THERM CONNECTOR:
PT02E-16-23P(027)
(270-00219)

ENC/THERM WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
T	GROUND	BLACK
E	+5VDC	RED
F	CH A	BLUE
U	CH A\	BLUE/BLK
G	CH B	GREEN
V	CH B\	GRN/BLK
H	CH Z	YELLOW
W	CH Z\	YEL/BLK
J	CH U	BROWN
K	CH U\	BRN/BLK
X	CH V	GRAY
L	CH V\	GRAY/BLK
Y	CH W	WHITE
M	CH W\	WHT/BLK
N	GND/CABLE	SHLD
S	THERM	BLACK
R	THERM	BLACK
P	–	–
Z	–	–

MOTOR WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
A	ΦR	RED
B	ΦS	BLACK
C	ΦT	BLUE
D	PE GND	GRN/YEL

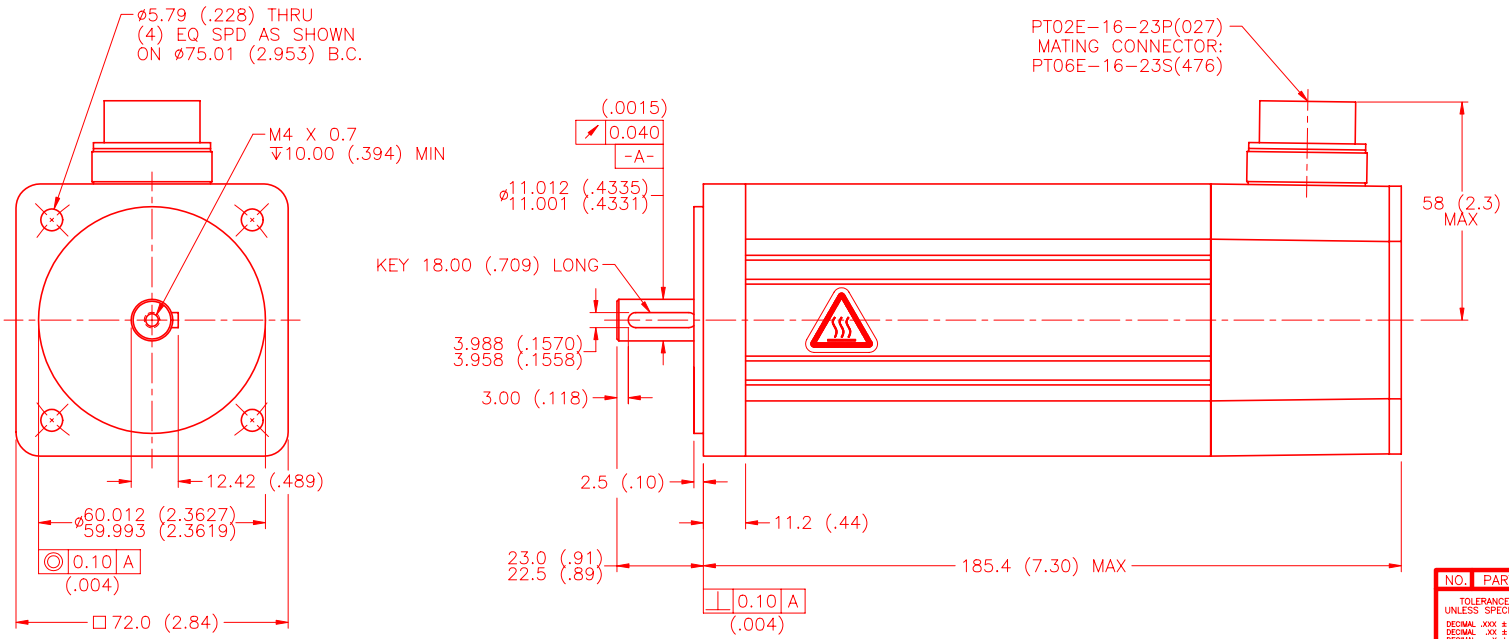


MOTOR & HALL POSITION CHART

HALL LEADS	BROWN	GRAY	WHITE
MOTOR LEADS	BLACK respect to RED	RED respect to BLUE	BLUE respect to BLACK
VIEW ON THE OSCILLOSCOPE			

*MOTOR ROTATION CCW (COUNTER CLOCKWISE) (LOOKING AT THE FACE OF THE MOTOR)

WAVE REPRESENTING STATOR OUTPUT
WAVE REPRESENTING HALL SENSOR



TITLE:	"C"/SINE/54/MET/T3/CONN	DRAWING NUMBER:	MPM724CSE7JP1N

REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	8/14/00	AJS

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: AJS	TITLE: "C"/SINE/54/MET/T3/CONN	REV.
DATE: 8/14/00		
CHECKED:	MATERIAL:	
APPROVED:	DRAWING NUMBER: MPM724CSE7JP1N	SCALE: 1:1