MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	1.2
KILOWATTS	KW RATED	KW	.88
MAX. OPERATING SPEED	N MAX	RPM	2100
SPEED @ RATED TORQUE	N RATED	RPM	1500
* CONTINUOUS RATED TORQUE @ 1500 RPM		IN-LBS[Nm]	50.0[5.6]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	54.0[6.1]
CONTINUOUS LINE CURRENT		AMPS (RMS/ϕ)	3.1
PEAK TORQUE	Tpk	IN-LBS[Nm]	189.0[21.3]
PEAK CURRENT		AMPS (RMS/ϕ)	10.8
MAX. THEORETICAL ACCEL.		RAD/SEC²	54,000
TORQUE SENSITIVITY	Kt	IN-LBS/AMP(RMS/ϕ)[Nm/AMP(RMS/ϕ)]	17.5[2.0]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	110.0
D.C. RESISTANCE (P-P)	±10%	OHMS	3.3
INDUCTANCE (P-P)	±10%	MILLIHENRIES	24.4
ROTOR INERTIA	Jm	IN-LBS-SEC²[Kg-M²]	.0035[.00039]
STATIC FRICTION	Tf	IN-LBS[Nm]	1.0[.11]

*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°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: 50 LBS MAX
2. RADIAL LOAD: 100 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 17.8 LBS [8.1 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. INCHES (MILLIMETERS)

ENCODER: (290-00073)
OIH48-2048P6-L6-5V

CONNECTION CHART

MOTOR CONNECTOR:
PT02E-14-5P(027)
(270-00026)

MOTOR WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
A	ϕR	RED
B	ϕS	BLACK
C	ϕT	BLUE
D	PE GND	GRN/YEL
E	–	–

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

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

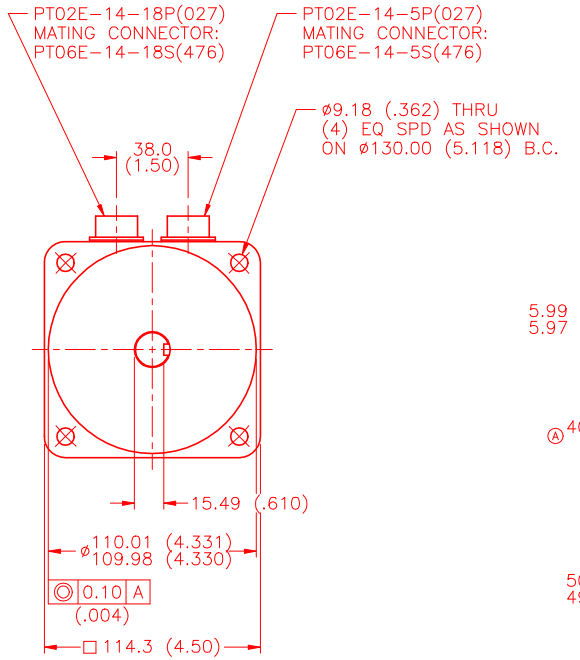
MOTOR & HALL POSITION CHART

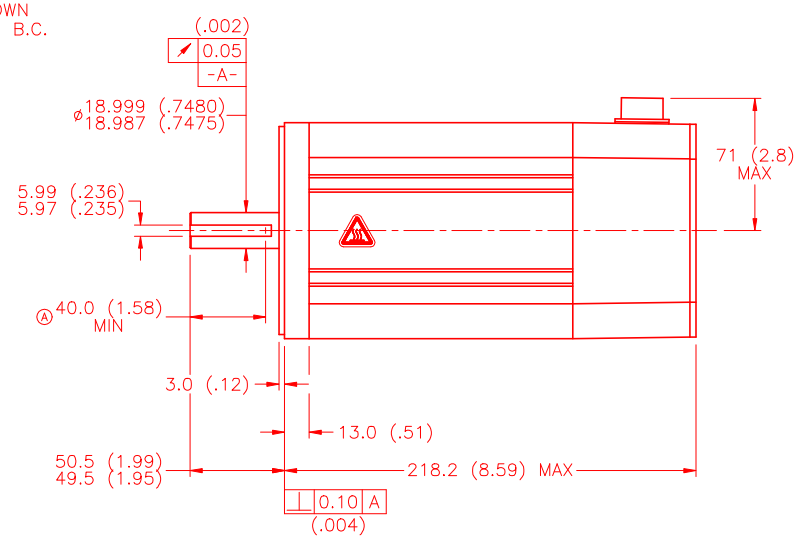
HALL LEADS	BROWN	GRAY	WHITE
MOTOR LEADS	BLACK respect to RED	RED respect to BLUE	BLUE respect to BLACK

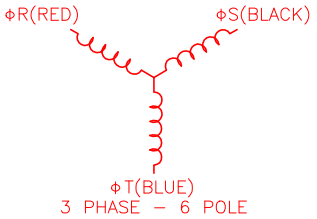
VIEW ON THE OSCILLOSCOPE

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

WAVE REPRESENTING STATOR OUTPUT
WAVE REPRESENTING HALL SENSOR







TITLE: "B"/MET/T2018/CONN
DRAWING NUMBER: MPM1141BSG7JY1N

REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	12/7/98	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

PROPRIETARY RIGHTS OF MTS AUTOMATION ARE INCLUDED IN THE INFORMATION DISCLOSED HEREIN. THIS DRAWING AND/OR DOCUMENT SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR USED OR DISCLOSED TO OTHERS FOR ANY PURPOSE EXCEPT FOR WHICH IWAS SPECIFICALLY FURNISHED.

DRAWN: LIN
DATE: 11/19/98
CHECKED:
APPROVED:
TITLE: "B"/SINE/230/MET/T2048/CONN
REV.
MATERIAL:
DRAWING NUMBER: MPM1141BSG7JY1N
SCALE: 1/2:1