

**MOTOR DATA @ 230 VAC (TRAP)**

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP RATED	1.2
KILOWATTS	KW RATED	.88
MAX. OPERATING SPEED	N MAX	2100
SPEED @ RATED TORQUE	N RATED	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	4.4
PEAK TORQUE	IN-LBS [Nm]	189.1 [21.3]
PEAK CURRENT	AMPS	15.3
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	54,029
TORQUE SENSITIVITY	Kt [IN-LBS/AMP] [Nm/AMP]	12.4 [1.42]
BACK EMF (LINE TO LINE)	Vrms/Krpm	110.0
D.C. RESISTANCE (P-P)	OHMS	3.3
INDUCTANCE (P-P)	MILLIHENRIES	24.4
ROTOR INERTIA	Jm [IN-LBS-SEC <sup>2</sup> ] [Kg-M <sup>2</sup> ]	.0035 [0.00039]
STATIC FRICTION	Tf [IN-LBS] [Nm]	1.0 [0.11]

\*25C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100C ON MOTOR. MOTOR MOUNTED ON A 12" X 12" X 1/2" ALUMINUM HEATSINK. THERMOSTAT IN STATOR WINDINGS WILL OPEN IF WINDING TEMPERATURE EXCEEDS 155C. 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. MILLIMETERS (INCHES)

**ENCODER: (290-00064)**  
**OH48-1000P6-L6-5V**

**CONNECTION CHART**

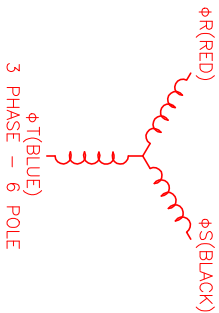
MOTOR CONNECTOR:  
PT02E-14-5P(027)  
(270-00026)

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)

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	GRN/BLK
M	CH Z	YELLOW
U	CH U	YELLOW/BLK
E	CH U	BROWN
R	CH V	BRN/BLK
F	CH V	GRAY
S	CH V	GRAY/BLK
G	CH W	WHITE
H	CH W	WHT/BLK
D	GND/CABLE	SHLD
A	THERM	BLACK
L	THERM	BLACK
J	GND	GRN/YEL

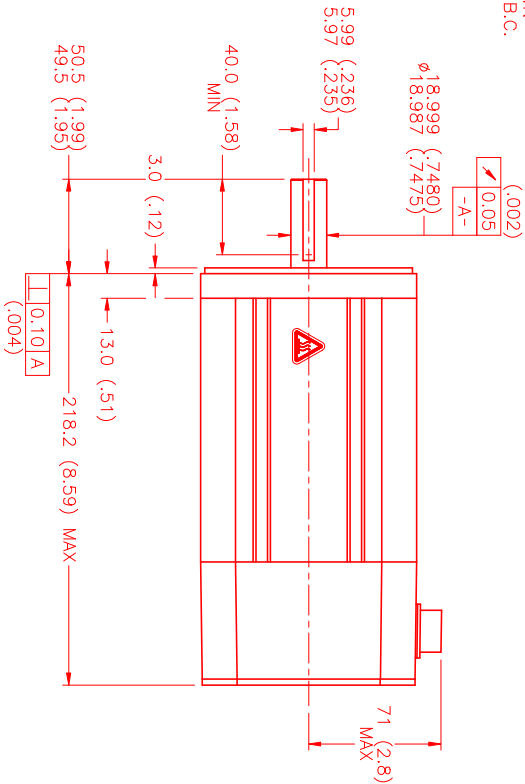
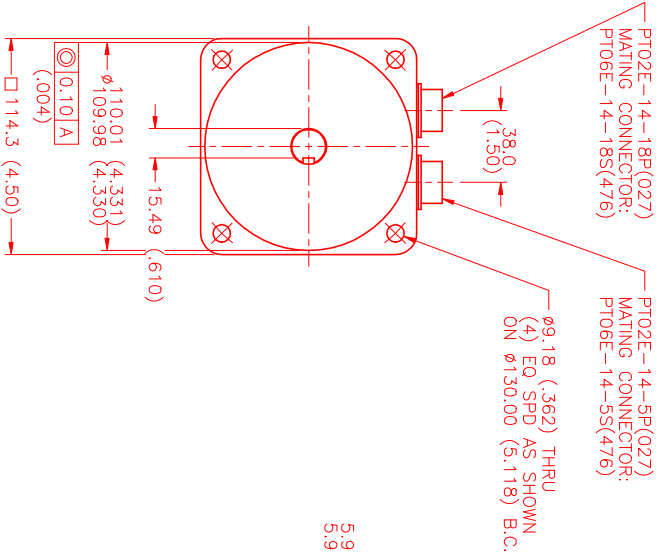


MOTOR & HALL POSITION CHART

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 COW (COUNTER CLOCKWISE)

WAVE REPRESENTING STATOR OUTPUT (LOOKING AT THE FACE OF THE MOTOR)  
WAVE REPRESENTING HALL SENSOR



NO.	PART NUMBER	DESCRIPTION	QTY.
UNLDESIGNED			
DESIGN: MVS			
DATE: 1/26/99			
APPROVED:			
SCALE: 1/2:1			

**MTS** Systems Corporation  
Automation Division

RESISTANCE TO SOLVENTS: RESISTANT TO MOST COMMON INDUSTRIAL SOLVENTS. RESISTANT TO OILS AND GREASES. RESISTANT TO WEAR AND TEAR. RESISTANT TO CORROSION.

WARRANTY: MPM1141BTGJUM1N