

### MOTOR DATA @ 460 VAC (SINE)

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP RATED	4.9
KILOWATTS	KW RATED	3.6
MAX. OPERATING SPEED	N. MAX RPM	3400
SPEED @ RATED TORQUE	N RATED RPM	2800
* CONTINUOUS RATED TORQUE @ 2800 RPM	IN-LBS[Nm]	110.0 [12.4]
* CONTINUOUS STALL TORQUE	IN-LBS[Nm]	130.0 [14.7]
CONTINUOUS LINE CURRENT	AMPS(RMS/φ)	6.9
PEAK TORQUE	IN-LBS[Nm]	390.0 [43.9]
PEAK CURRENT	AMPS(RMS/φ)	20.9
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	36,792
TORQUE SENSITIVITY	Kt [N-LBS/AMP(RMS/φ)] [Nm/AMP(RMS/φ)]	18.2 [2.1]
BACK EMF (LINE TO LINE)	Vrms/Krpm	115.0
D.C. RESISTANCE (P-P)	OHMS	1.9
INDUCTANCE (P-P)	MILLIHENRIES	13.0
ROTOR INERTIA	Jm [IN-LBS-SEC <sup>2</sup> ] [Kg-M <sup>2</sup> ]	.0106 [0.0119]
STATIC FRICTION	Tf [IN-LBS] [Nm]	2.4 [.27]

\*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 12" X 12" X 1/2" ALUMINUM HEAT SINK. 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:

- AXIAL LOAD: 50 LBS MAX
- RADIAL LOAD: 150 LBS MAX @ 1" FROM FACE
- MOTOR SEALED TO IP65.
- MOTOR WEIGHT: 32.8 LBS. [14.9 kg]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- MILLIMETERS (INCHES)

ENCODER: (290-00073)  
OH48-2048P6-1B-5V

### CONNECTION CHART

MOTOR CONNECTOR:  
SG3102E-22-22P(027)  
(270-00017)

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

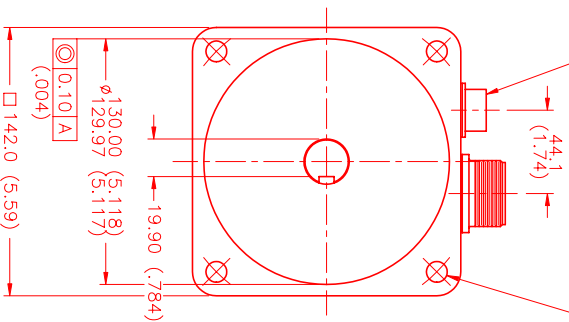
### ENCODER/THERM CONNECTOR:

PT02E-14-18P(027)  
(270-00024)

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

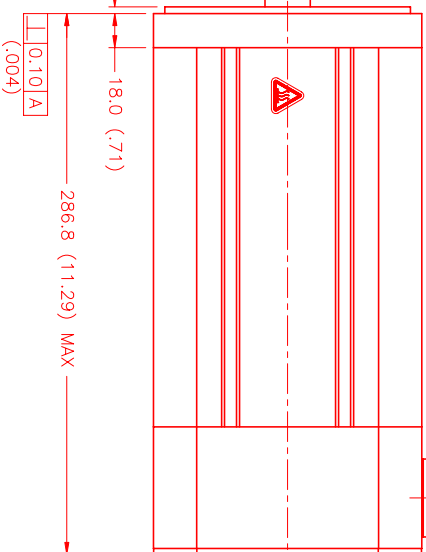
PT02E-14-18P(027)  
MATING CONNECTOR:  
PT06E-14-18S(476)

φ11.00 (4.33) THRU  
(4) EQ. SPD. AS SHOWN  
ON φ1.65.00 (6.496) B.C.



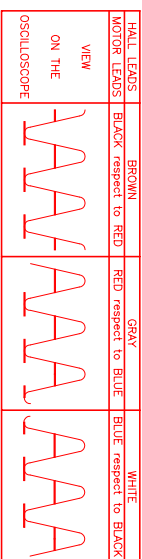
(.002)  
0.05  
-A-

7.998 (.3149)  
7.963 (.3135)  
24.000 (.9449)  
23.998 (.9444)  
37.0 (1.46) MIN  
50.5 (1.99)  
49.5 (1.95)  
3.6 (.14)



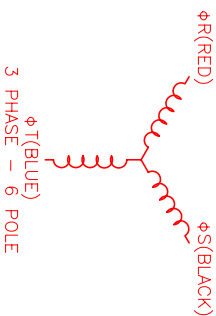
SG3102E-22-22P(027)  
MATING CONNECTOR:  
SG3106E-22-22S(476)

\*MOTOR ROTATION C/W (COUNTER CLOCKWISE)  
(LOOKING AT THE FACE OF THE MOTOR)



MOTOR & HALL POSITION CHART

WAVE REPRESENTING STATOR OUTPUT  
WAVE REPRESENTING HALL SENSOR



REV.	DESCRIPTION	DATE	APPD.
PRELIMINARY		4/7/99	ELS

DATE: "C"/MET/12048/CONN DRAWING NUMBER: MPM1421CSU7JY1N

NO.	PART NUMBER	DESCRIPTION	QTY.
UNLESS SPECIFIED			
DESIGN: A00 # 205			
REVISION: 1			
DATE: 3/29/99			
DESIGNED BY: MVS			
CHECKED BY:			
APPROVED BY:			

MTS  
Automation Division

SCALE: 1/2:1