

MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS	UNITS	VALUE
HP RATED	HP	6.8
KILOWATTS	KW	5.1
MAX. OPERATING SPEED	N MAX RPM	2700
SPEED @ RATED TORQUE	N RATED RPM	2400
* CONTINUOUS RATED TORQUE @ 2400 RPM	IN-LBS(INm)	179.0(20.2)
* CONTINUOUS STALL TORQUE	IN-LBS(INm)	210.0(23.7)
CONTINUOUS LINE CURRENT	AMPS(RMS/φ)	18.7
PEAK TORQUE	IN-LBS(INm)	630.0(70.8)
PEAK CURRENT	AMPS(RMS/φ)	56.3
MAX. THEORETICAL ACCEL.	RAD/SEC ²	33,511
TORQUE SENSITIVITY	Kt [N-LBS/AMP(RMS/φ)]/[Nm/AMP(RMS/φ)]	11.2(1.26)
BACK EMF (LINE TO LINE)	Vrms/krpm	70.0
D.C. RESISTANCE (P-P)	OHMS	.25
INDUCTANCE (P-P)	MILLIHENRIES	2.0
ROTOR INERTIA	Jm [N-LBS-SEC ²]/[Kg-M ²]	.0188(.00212)
STATIC FRICTION	Tf [N-LBS(INm)]	3.0(.34)

*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 12" X 12" X 1/2" ALUMINUM HEATSIK. 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: 48.2 LBS. [21.9 Kg]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- MILLIMETERS (INCHES)

ENCODER: (290-00073)
OH48-2048P6-L6-SV

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

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

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

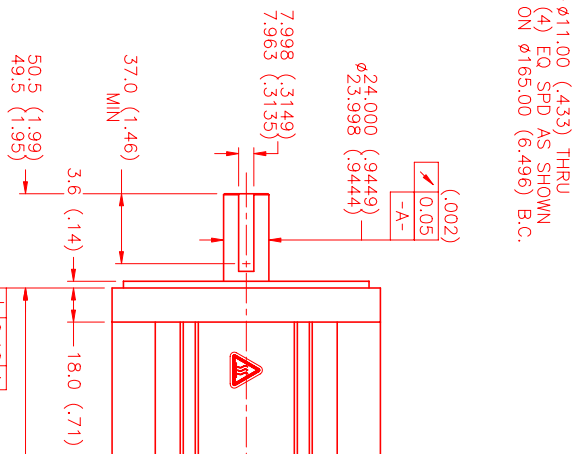
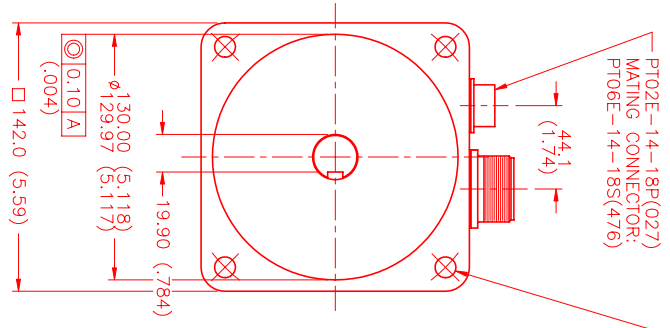
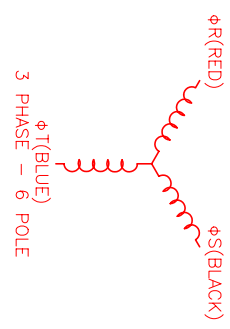
ENC/THERM WIRE	WIRE FUNCTION	WIRE COLOR
J	GND	GRN/YEL
L	THERM	BLACK
A	THERM	BLACK
D	GND/CABLE SHLD	WHT/BLK
H	CH W	WHITE
G	CH V	GRAY/BLK
S	CH V	GRAY
F	CH V	GRAY
R	CH U	BRN/BLK
E	CH U	BROWN
U	CH Z	YEL/BLK
M	CH Z	YELLOW
P	CH B	GRN/BLK
N	CH B	GREEN
C	CH A	BLUE/BLK
B	CH A	BLUE
K	+5VDC	RED
T	GROUND	BLACK

MOTOR & HALL POSITION CHART

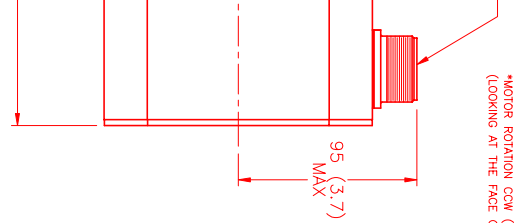
HALL LEADS	BROWN	GRAY	WHITE
MOTOR LEADS	BLACK respect to RED	BLUE respect to BLUE	BLUE respect to BLACK
VIEW ON THE OSCILLOSCOPE	AAAA	AAAA	AAAA

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

WAVE REPRESENTING STATOR OUTPUT
WAVE REPRESENTING HALL SENSOR



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



NO.	PART NUMBER	DESCRIPTION	QTY.
1	SG3102E-22-22P(027)	MOTOR	1
2	SG3106E-22-22S(476)	MATING CONNECTOR	1

DESIGNER: MVS	CHECKED: MVS
DATE: 10/12/99	DATE: 10/12/99
SCALE: 1/2:1	SCALE: 1/2:1

MTS Automation Division
MPS Systems Corporation
1422 S. GUYTON

REV.	DESCRIPTION	DATE	APP.
PRELIMINARY		11/7/99	ELS