

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

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP	6.5
KILOWATTS	KW	4.9
MAX. OPERATING SPEED	N. MAX RPM	1500
SPEED @ RATED TORQUE	N RATED RPM	1200
* CONTINUOUS RATED TORQUE @ 1200 RPM	IN-LBS[Nm]	344.0 [38.6]
* CONTINUOUS STALL TORQUE	IN-LBS[Nm]	400.0 [44.9]
CONTINUOUS LINE CURRENT	AMPS/(RMS/Φ)	15.9
PEAK TORQUE	IN-LBS[Nm]	1200.0 [134.8]
PEAK CURRENT	AMPS/(RMS/Φ)	47.7
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	29,197
TORQUE SENSITIVITY	Kt [N-LBS/AMPS/Φ] / [Nm/AMPS/Φ]	24.9 [2.81]
BACK EMF (LINE TO LINE)	Vrms/Krpm	158.0
D.C. RESISTANCE (P-P)	OHMS	1.41
INDUCTANCE (P-P)	MILLIHENRIES	15.5
ROTOR INERTIA	Jm [IN-LBS-SEC <sup>2</sup> ] [Kg-M <sup>2</sup> ]	.0411 [0.00464]
STATIC FRICTION	Tf [IN-LBS] [Nm]	8.2 [ .92]

\*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 14" X 14" X 3/4" 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:**
- AXIAL LOAD: 100 LBS MAX
  - RADIAL LOAD: 250 LBS MAX @ 1" FROM FACE
  - MOTOR SEALED TO IP65
  - MOTOR WEIGHT: 67 LBS [ 30.4 kg]
  - MOTOR FINISH: BLACK EPOXY
  - MILLIMETERS (INCHES)

**ENCODER: (290-00052)**  
OH48-2000P6-16-SV

**CONNECTION CHART**  
MOTOR CONNECTOR:  
SG3102E-32-17P(027)  
(270-00066)

MOTOR WIRE LEADS	WIRE FUNCTION	WIRE COLOR
A	ΦR	BLACK
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 U	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

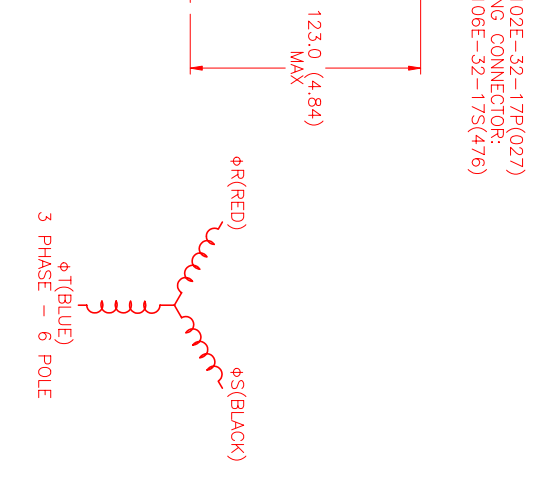
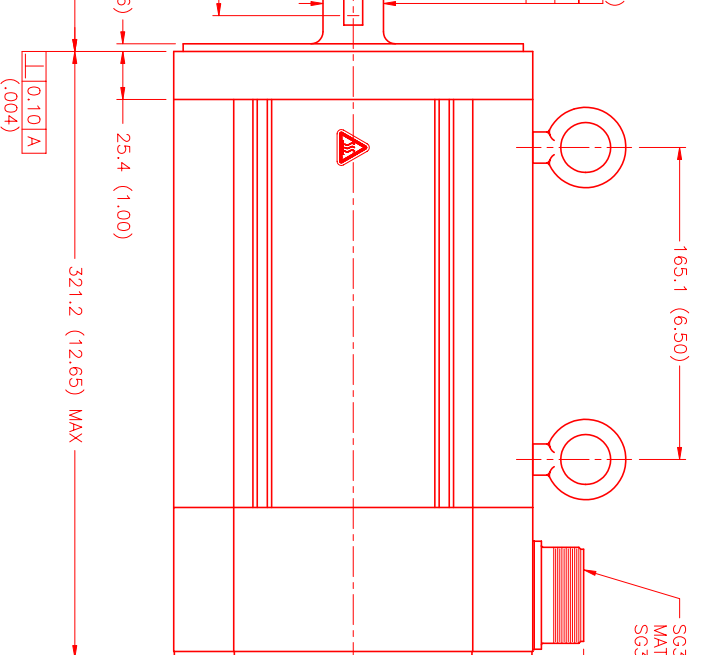
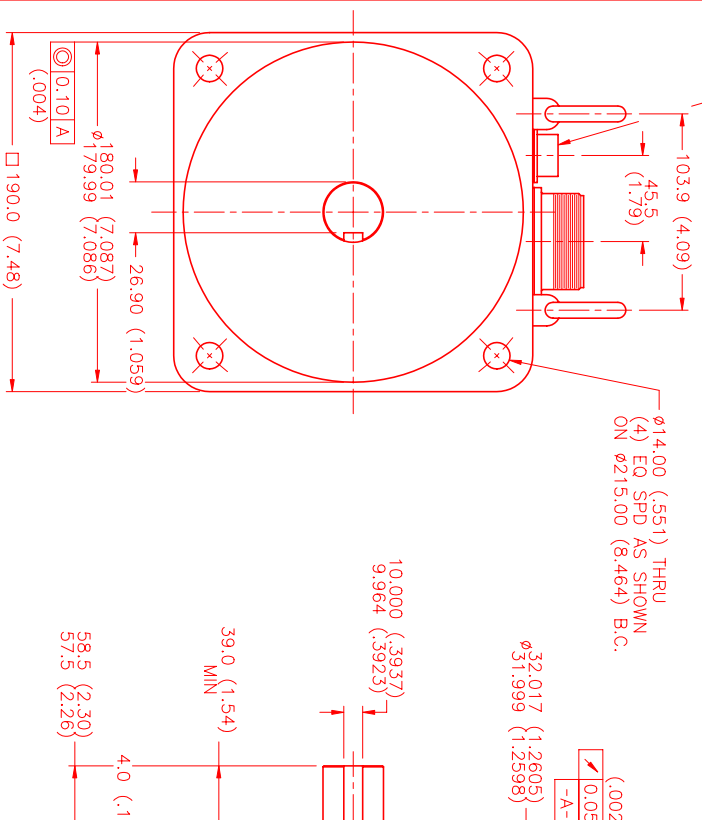
**MOTOR & HALL POSITION CHART**

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



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

**WAVE REPRESENTING STATOR OUTPUT WAVE REPRESENTING HALL SENSOR**



NO.	PART NUMBER	DESCRIPTION	QTY
1	SG3102E-32-17P(027)	MOTOR	1
2	SG3106E-32-17S(476)	MATING CONNECTOR	1

**MTS Systems Corporation**  
Automation Division

DATE: 6/6/00  
SCALE: 1/2:1