

MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP	13.1
KILOWATTS	KW	9.8
MAX. OPERATING SPEED	N MAX	3000
SPEED @ RATED TORQUE	N RATED	2400
* CONTINUOUS RATED TORQUE @ 2400 RPM	IN-LBS [Nm]	344.0 [38.6]
* CONTINUOUS STALL TORQUE	IN-LBS [Nm]	400.0 [44.9]
CONTINUOUS LINE CURRENT	AMPS (RMS/φ)	31.7
PEAK TORQUE	IN-LBS [Nm]	1200.0 [134.8]
PEAK CURRENT	AMPS (RMS/φ)	95.3
MAX. THEORETICAL ACCEL.	RAD/SEC ²	24.194
TORQUE SENSITIVITY	Kt [N-LBS/AMP (RMS/φ)]	12.6 [1.4]
BACK EMF (LINE TO LINE)	Vrms/Krpm	79.0
D.C. RESISTANCE (P-P)	OHMS	0.31
INDUCTANCE (P-P)	MILLIHENRIES	3.70
ROTOR INERTIA W/BRAKE	Jm [N-LBS-SEC ² Kg-M ²]	.0496 [0.0560]
STATIC FRICTION	Tf [N-LBS] [Nm]	8.2 [0.92]

*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. TEMPERATURE 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: 85 LBS. [38.6 kg]
- MOTOR FINISH: BLACK EPOXY
- MILLIMETERS (INCHES)

ENCODER: (290-00073)

01H48-2048P6-L6-5V

FAIL SAFE BRAKE:

MIN HOLDING TORQUE: 90 FT-LBS
INPUT VOLTAGE: 24 VOLTS

CONNECTION CHART

ENC/THERM/BRK CONNECTOR:
PTO2E-16-23P(027)
(270-00219)

ENC/THERM/BRK	WIRE FUNCTION	WIRE COLOR	WIRE LEADS
T	GROUND	BLACK	
K	+5VDC	RED	
B	CH A	BLUE	
C	CH AV	BLUE/BLK	
N	CH B	GREEN	
P	CH BV	GRN/BLK	
M	CH Z	YELLOW	
U	CH ZA	YEL/BLK	
E	CH U	BROWN	
R	CH UV	BRN/BLK	
F	CH V	GRAY	
S	CH VV	GRAY/BLK	
G	CH W	WHITE	
H	CH WV	WHT/BLK	
D	GND/CABLE	SHLD	
A	THERM	BLACK	
L	THERM	BLACK	
J	GND	GRN/YEL	
V	BRK (+)	DIODE	
W	BRK (-)	IN4007	
X	BRK SHLD	-	
Y	-	-	
Z	-	-	

MOTOR CONNECTOR:

SG3102E-32-17P(027)
(270-00066)

MOTOR WIRE LEADS	PIN	WIRE FUNCTION	WIRE COLOR
A	φR	φS	RED
B	φS	φT	BLACK
C	φT	φU	BLUE
D	PE	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

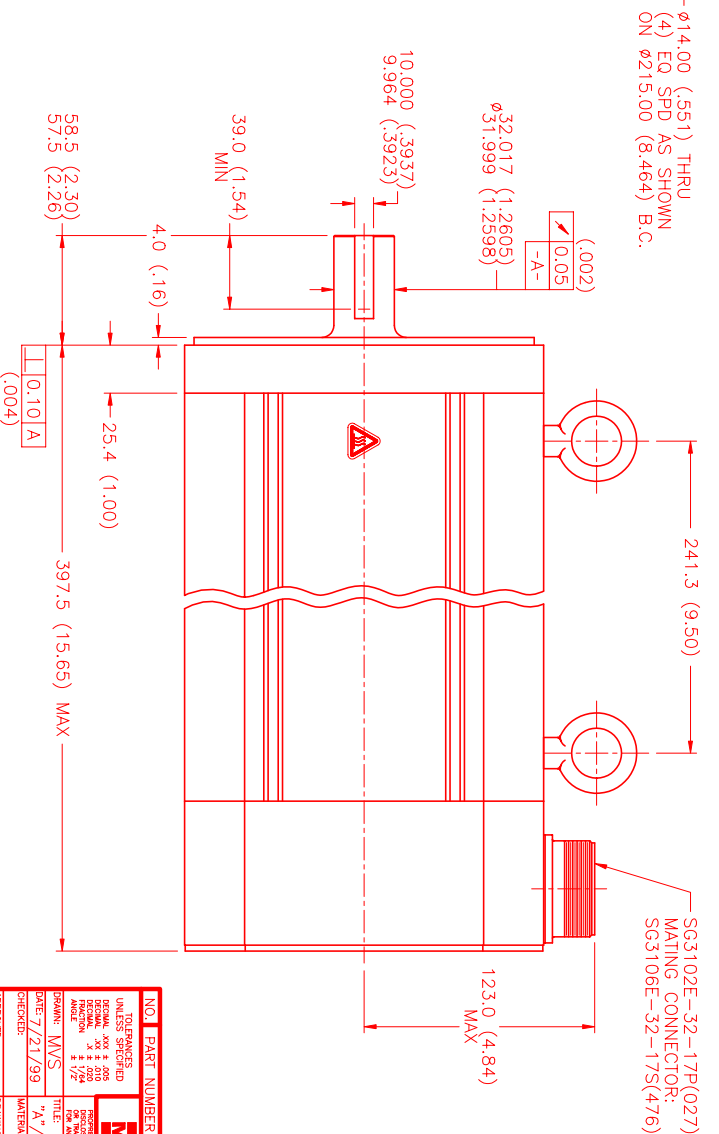
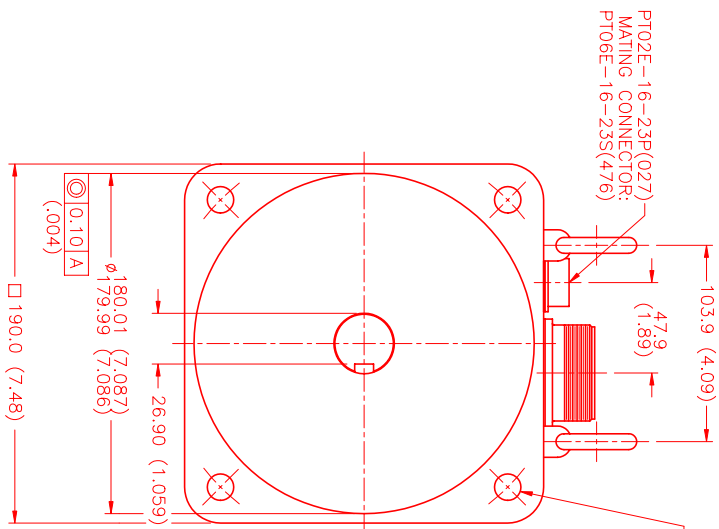
*MOTOR ROTATION C/W (COUNTER CLOCKWISE)
(LOOKING AT THE FACE OF THE MOTOR)

WAVE REPRESENTING STATOR OUTPUT
WAVE REPRESENTING HALL SENSOR

φT(BLUE)
3 PHASE - 6 POLE

φS(BLACK)

REV.	DESCRIPTION	DATE	APP'D.
PRELIMINARY		8/12/99	MVS



NO. PART NUMBER	DESCRIPTION	QTY.
UNLESS SPECIFIED		
DECIMAL: MAX 4 DIG	 MVS Systems Corporation Automation Division	
FRAC: MAX 2 DIG		
ANGLE: MAX 1 DIG		
DATE: 7/21/99	TITLE:	REV:
DRAWN: MVS	"A"/SN/230/MET/72048/CON/BRK	
CHECKED:	MATERIAL:	
APPROVED:	ISSUANCE: MPM1901ASG7UY1R	SCALE: 1/2=1