

MOTOR DATA @ 460 VAC (SINE)

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP	13.1
KILOWATTS	KW	9.8
MAX. OPERATING SPEED	N MAX RPM	3000
SPEED @ RATED TORQUE	N RATED RPM	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)	15.9
PEAK TORQUE	IN-LBS [Nm]	1200.0 [134.8]
PEAK CURRENT	AMPS (RMS/Φ)	47.7
MAX. THEORETICAL ACCEL.	RAD/SEC ²	24,194
TORQUE SENSITIVITY	Kt [IN-LBS/AMP (RMS/Φ)] [Nm/AMP (RMS/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 W/BRAKE	Jm [IN-LBS-SEC ²] [Kg-M ²]	.0496 [0.00560]
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. 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)

OIH48-2048P6-L6-5V

FAILSAFE BRAKE:

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

CONNECTION CHART

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

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

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	WIRE FUNCTION	WIRE COLOR	WIRE LEADS
A	ΦR	RED	
B	ΦS	BLACK	
C	ΦT	BLUE	
D	PE GND	GRN/YEL	

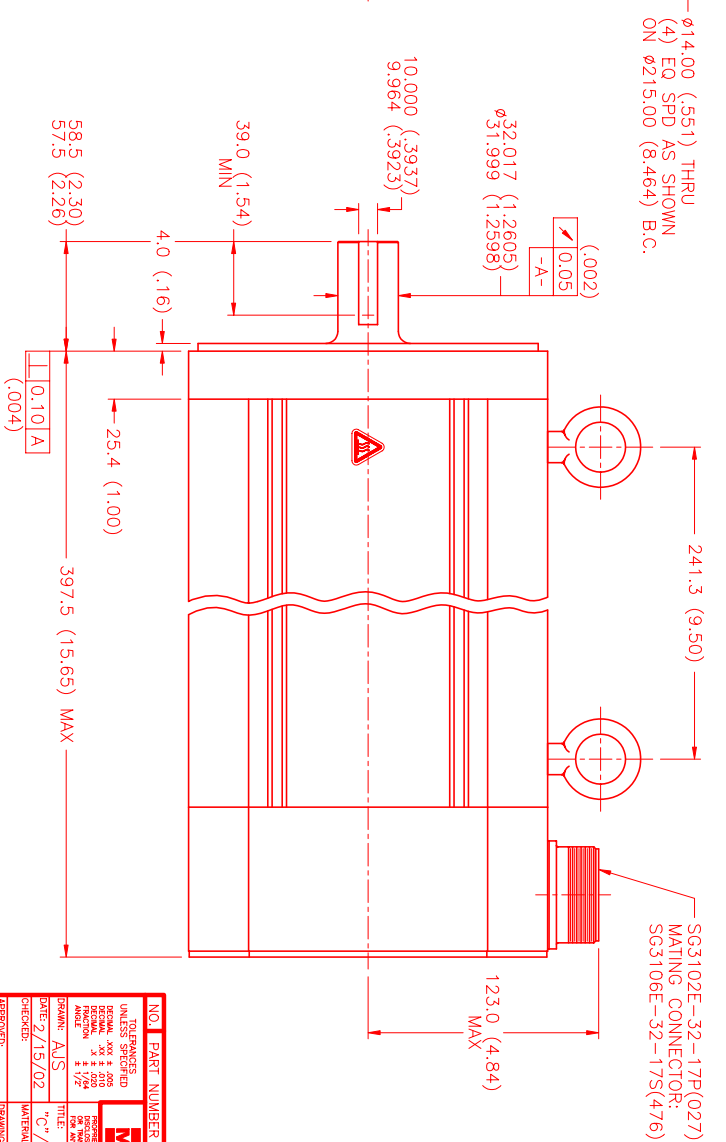
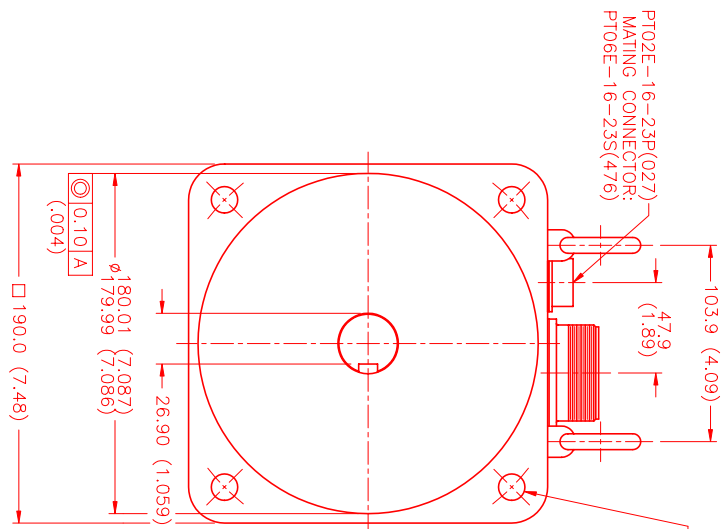
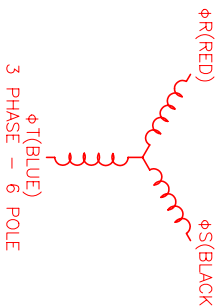
MOTOR & HALL POSITION CHART

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

VIEW ON THE OSCILLOSCOPE



WAVE REPRESENTING STATOR OUTPUT
WAVE REPRESENTING HALL SENSOR



NO.	PART NUMBER	DESCRIPTION	QTY.
1	MTS	MTS Systems Corporation Automation Division	

REV.	DESCRIPTION	DATE	APP.
PRELIMINARY		2/15/02	AJS

UNLESS SPECIFIED	REVISIONS
DECIMAL ANGLES & DIMENSIONS SHALL BE TO UNLESS OTHERWISE SPECIFIED	DATE
ALL DIMENSIONS ARE TO UNLESS OTHERWISE SPECIFIED	APP.
ALL DIMENSIONS ARE TO UNLESS OTHERWISE SPECIFIED	REV.