

② MOTOR DATA @ 230 VAC (TRAP)

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP	0.91
KILOWATTS	KW RATED	0.68
MAX. OPERATING SPEED	N. MAX RPM	6300
SPEED @ RATED TORQUE	N RATED RPM	4500
* CONTINUOUS RATED TORQUE @ 4000 RPM	IN-LBS [Nm]	12.81 [4.7]
* CONTINUOUS STALL TORQUE	IN-LBS [Nm]	15.01 [1.69]
CONTINUOUS LINE CURRENT	AMPS	5.1
PEAK TORQUE	IN-LBS [Nm]	45 [5.1]
PEAK CURRENT	AMPS	15
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	118,421
TORQUE SENSITIVITY	Kt IN-LBS/A/PI [Nm/AMP]	2.96 [3.34]
BACK EMF (LINE TO LINE)	Vrms/Krpm	26.3
D.C. RESISTANCE (P-P)	OHMS	2.2
INDUCTANCE (P-P)	MILLIHENRIES	4.9
ROTOR INERTIA	Jm [IN-LBS-SEC <sup>2</sup> ] [Kg-M <sup>2</sup> ]	0.00038 [0.000043]
STATIC FRICTION	Tf	1.0 [0.11]

\*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 85°C ON MOTOR. MOTOR MOUNTED ON A 1/2" X 1/2" X 1/2" 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:**

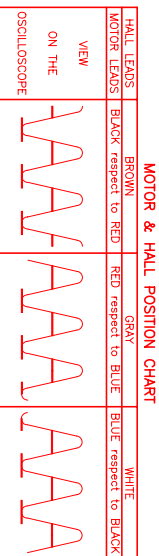
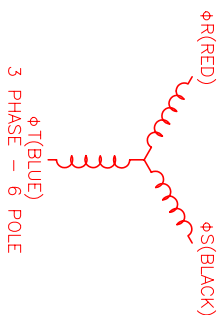
- AXIAL LOAD: 20 LBS MAX
- RADIAL LOAD: 35 LBS MAX @ 1" FROM FACE
- MOTOR SEALED TO IP65.
- MOTOR WEIGHT: 5.0 LBS. [ 2.3 Kg]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- MILLIMETERS (INCHES)
- THIS MOTOR'S OUTPUT KEY IS A PRESS FIT.

**ENCODER: (290-00155)**  
OH35-1000P6-L6-5V

**CONNECTION CHART**  
MOTOR/ENCODER/THERM CONNECTOR:  
PTO2E-16-23P(027)  
(270-00219)

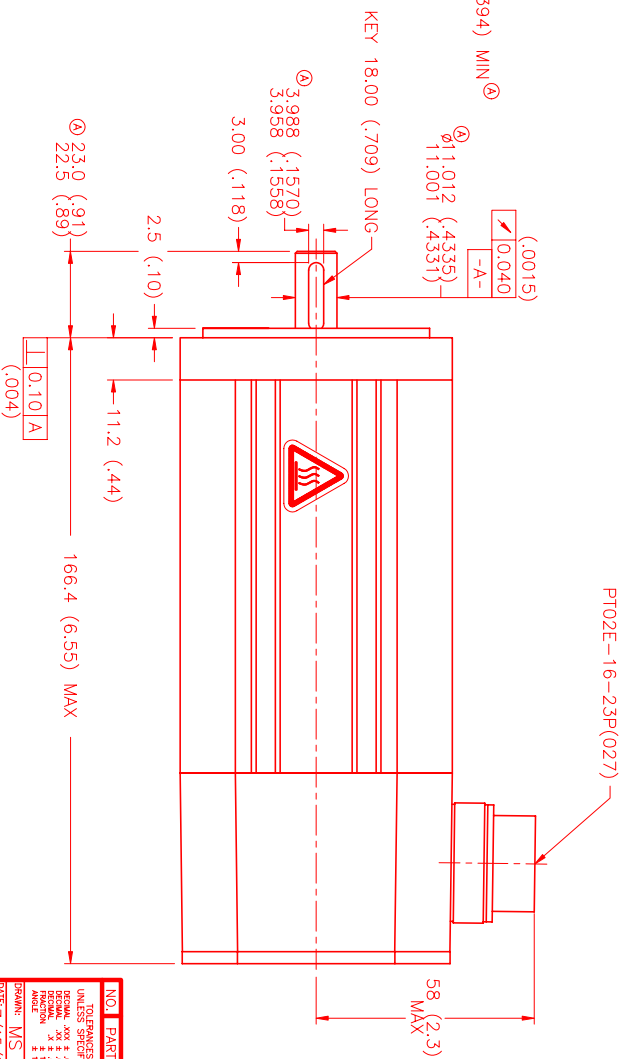
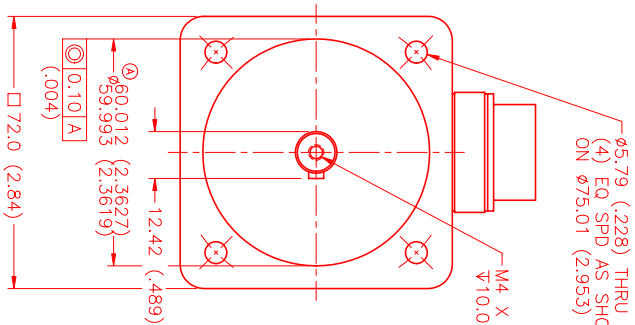
ENC/THERM WIRE LEADS	WIRE FUNCTION	WIRE COLOR
T	GROUND	BLACK
E	+5VDC	RED
F	CH A	BLUE
U	CH A	BLUE/BLK
G	CH B	GREEN
V	CH B	GRN/BLK
H	CH Z	YELLOW
W	CH Z	YEL/BLK
J	CH U	BROWN
K	CH U	BRN/BLK
X	CH V	GRAY
L	CH V	GRAY/BLK
Y	CH W	WHITE
M	CH W	WHT/BLK
N	GND/CABLE	SHLD
S	THERM	BLACK
R	THERM	BLACK
P	-	-
Z	-	-

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



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

WAVE REPRESENTING STATOR OUTPUT



NO.	PART NUMBER	DESCRIPTION	QTY.
1	PTO2E-16-23P(027)	MOTOR/ENCODER/THERM CONNECTOR	1

REV.	DESCRIPTION	DATE	APPD.
A	PRELIMINARY	7/15/99	MS
A	E.C.O. - 558	2/2/00	AJS

NO.	DATE	BY	CHKD.	APPD.
1	7/15/99	MS		

NO.	PART NUMBER	DESCRIPTION	QTY.
1	PTO2E-16-23P(027)	MOTOR/ENCODER/THERM CONNECTOR	1

**MTS** MTS Systems Corporation  
Automation Division

UNLESS SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES UNLESS OTHERWISE SPECIFIED  
FRACTIONS 1/16" MINIMUM  
DECIMALS .005" MINIMUM  
HOLE DIMENSIONS .005" MINIMUM  
HOLE LOCATIONS .010" MINIMUM  
HOLE ANGLES 45° MINIMUM  
HOLE DRILLING 1/2" MINIMUM  
HOLE TAPPING 1/2" MINIMUM  
HOLE REAMING 1/2" MINIMUM  
HOLE POLISHING 1/2" MINIMUM  
HOLE FINISHING 1/2" MINIMUM  
HOLE GRINDING 1/2" MINIMUM  
HOLE HONING 1/2" MINIMUM  
HOLE LAPPING 1/2" MINIMUM  
HOLE POLISHING 1/2" MINIMUM  
HOLE FINISHING 1/2" MINIMUM  
HOLE GRINDING 1/2" MINIMUM  
HOLE HONING 1/2" MINIMUM  
HOLE LAPPING 1/2" MINIMUM