

MOTOR DATA @ 110 VAC (SINE)

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP RATED	.16
KILOWATTS	KW RATED	.12
MAX. OPERATING SPEED	N MAX RPM	3000
SPEED @ RATED TORQUE	N RATED RPM	2500
* CONTINUOUS RATED TORQUE @ 2500 RPM	IN-LBS[Nm]	4.0[0.45]
* CONTINUOUS STALL TORQUE	IN-LBS[Nm]	5.0[0.56]
CONTINUOUS LINE CURRENT	AMPS(RMS/φ)	1.1
PEAK TORQUE	IN-LBS[Nm]	15.1[1.7]
PEAK CURRENT	AMPS(RMS/φ)	3.3
MAX. THEORETICAL ACCEL.	RAD/SEC ²	123,770
TORQUE SENSITIVITY	Kt N-LBS/AMP(RMS/φ) [Nm/AMP(RMS/φ)]	4.5[0.51]
BACK EMF (LINE TO LINE)	Vrms/Krpm	28.3
D.C. RESISTANCE (P-P)	OHMS	18.5
INDUCTANCE (P-P)	MILLIHENRIES	26.4
ROTOR INERTIA W/BRAKE	Jm IN-LBS-SEC ² [Kg-M ²]	.000122[.0000137]
STATIC FRICTION	Tf IN-LBS[Nm]	0.5[0.06]

*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 10" X 10" X 1/4" 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:

1. AXIAL LOAD: 15 LBS MAX
2. RADIAL LOAD: 20 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 3.5 LBS. [1.6 kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. INCHES (MILLIMETERS)

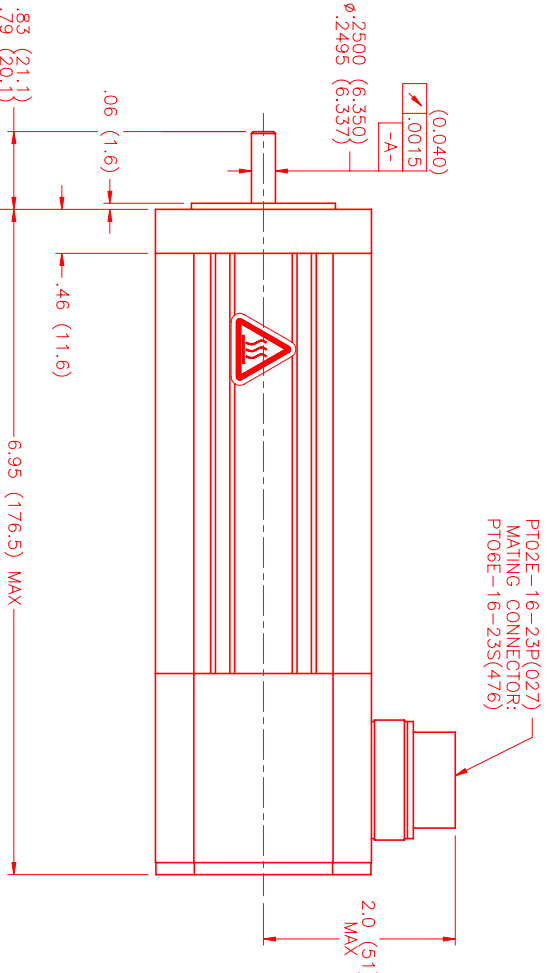
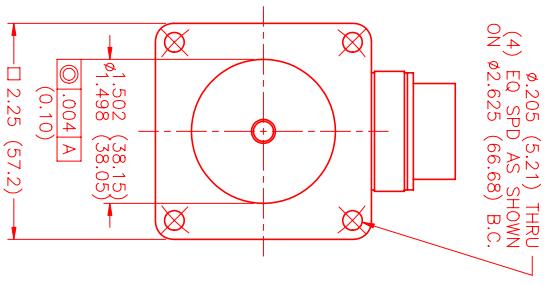
ENCODER: (290-00056)

OH35-2000P4-L6-5V
 FAULTSAFE BRAKE:
 MIN HOLDING TORQUE: 10 IN-LBS
 INPUT VOLTAGE: 24 VOLTS

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

MOTOR WIRE LEADS	ENC/THERM/BRK WIRE LEADS
PIN	PIN
WIRE FUNCTION	WIRE FUNCTION
WIRE COLOR	WIRE COLOR
A φR	T GROUND
B φS	E +5VDC
C φT	F CH A
D PE GND	G CH B
	H CH V
	I CH W
	J CH X
	K CH Y
	L CH Z
	M GND/CABLE SHLD
	N THERM
	P BRK (+)
	R BRK (-)
	Z IN4007

PIN	WIRE FUNCTION	WIRE COLOR
A	φR	RED
B	φS	BLACK
C	φT	BLUE
D	PE GND	GRN/YEL
G	CH B	GREEN
V	CH V	GRN/BLK
H	CH W	YELLOW
W	CH X	YEL/BLK
J	CH Y	BROWN
K	CH U	BROWN/BLK
X	CH V	GRAY
L	CH V	GRAY/BLK
Y	CH W	WHITE
M	CH W	WHI/BLK
N	GND/CABLE SHLD	SHLD
S	THERM	BLACK
R	THERM	BLACK
P	BRK (+)	DIODE
Z	BRK (-)	IN4007



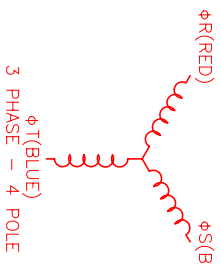
PTO2E-16-23P(027)
 MATING CONNECTOR:
 PTO6E-16-23S(476)

2.0 (51)
 MAX

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	AAAF	AAAA	AAAA

*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	PTO2E-16-23P(027)	MATING CONNECTOR	1
2	PTO6E-16-23S(476)	MATING CONNECTOR	1
3	OH35-2000P4-L6-5V	ENCODER	1
4	290-00056	ENCODER	1
5	MPM662BSF6JN1R	MOTOR	1

MTS MTS Systems Corporation
 Automation Division

DATE: 10/6/99
 DRAWN: MVS
 CHECKED: MVS
 APPROVED: MVS
 SCALE: 1/2=1