

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

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP RATED	2.1
KILOWATTS	KW RATED	1.6
MAX. OPERATING SPEED	N MAX	4200
SPEED @ RATED TORQUE	RPM	3000
* CONTINUOUS RATED TORQUE @ 3000 RPM	IN-LBS [Nm]	45.0 [5.1]
* CONTINUOUS STALL TORQUE	IN-LBS [Nm]	54.0 [6.1]
CONTINUOUS LINE CURRENT	AMPS	8.7
PEAK CURRENT	IN-LBS [Nm]	189.1 [21.3]
MAX. THEORETICAL ACCEL.	AMPS	30.5
TORQUE SENSITIVITY	RAD/SEC <sup>2</sup>	48,487
BACK EMF (LINE TO LINE)	Kt IN-LBS/AMPI Nm/AMP	6.21 [71]
D.C. RESISTANCE (P-P)	Vrms/Krpm	55.0
INDUCTANCE (P-P)	OHMS	.82
ROTOR INERTIA W/BRAKE	MILLIHENRIES	6.1
STATIC FRICTION	Jm [IN-LBS-SEC <sup>2</sup> ] Kg-M <sup>2</sup>	.00391 [0.0044]
	Tf [IN-LBS]	1.0 [1.1]

\*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 12" X 12" 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: 50 LBS MAX
- RADIAL LOAD: 100 LBS MAX @ 1" FROM FACE
- MOTOR SEALED TO IP65.
- MOTOR WEIGHT: 23.3 LBS. [ 10.6 kg]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- INCHES (MILLIMETERS)

**ENCODER: (290-00064)**

- OIH48-1000P6-L6-SV
- FAILSAFE BRAKE:
- MIN HOLDING TORQUE: 240 IN-LBS
- INPUT VOLTAGE: 24 VOLTS

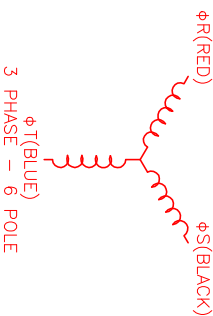
**CONNECTION CHART**

MOTOR/BRAKE CONNECTOR:  
PT02E-16-8P(027)  
(270-00032)

ENCODER/THERM CONNECTOR:  
PT02E-14-18P(027)  
(270-00024)

MOTOR/BRAKE	WIRE	WIRE LEADS
PIN	FUNCTION	WIRE COLOR
A	ΦR	RED
B	ΦS	BLACK
C	ΦT	BLUE
D	PE GND	GRN/YEL
E	BRK SHLD	-
F	BRK (+)	DIODE
G	BRK (-)	1N4007
H	-	-

ENC/THERM	WIRE	WIRE LEADS
PIN	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



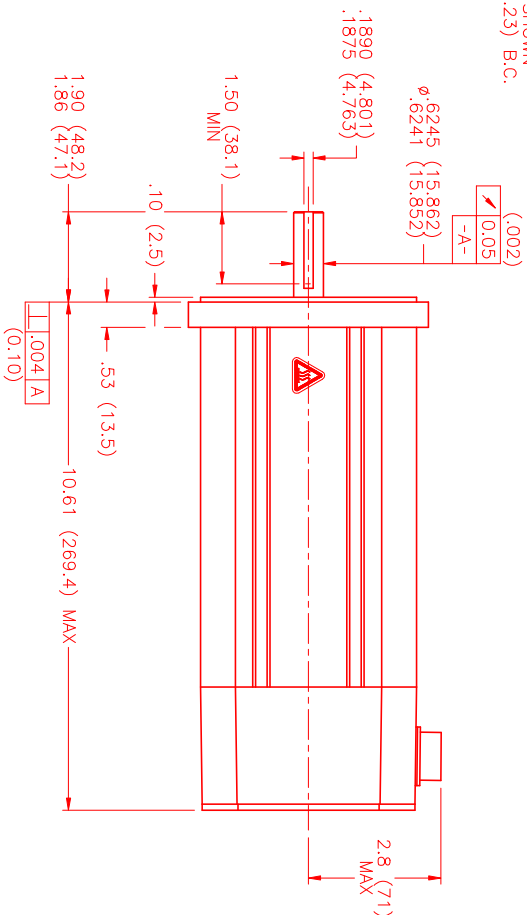
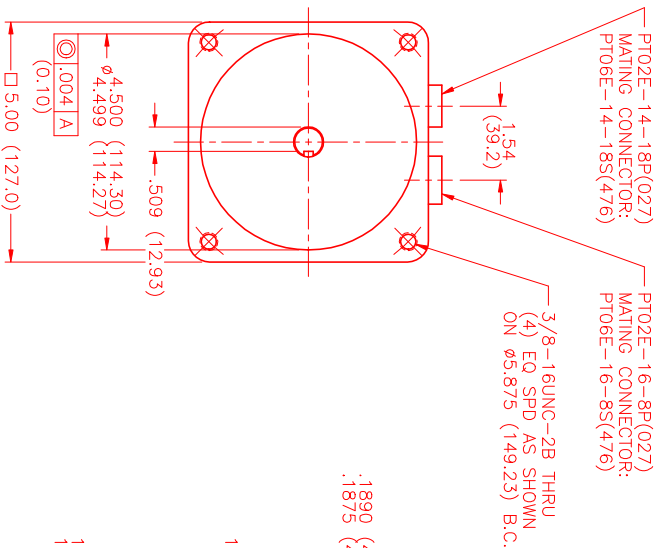
MOTOR & HALL POSITION CHART

HALL LEADS	BROWN	GRAY	WHITE
MOTOR LEADS	BLACK respect to RED	RED respect to BLUE	BLUE respect to BLACK
VIEW ON THE OSCILLOSCOPE	AAAF AAAA AAAA		

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



WAVE REPRESENTING STATOR OUTPUT  
WAVE REPRESENTING HALL SENSOR



NO.	PART NUMBER	DESCRIPTION	QTY.
UNLESS SPECIFIED			
DETAIL: 300 X 4 200			
ISOMETRIC: 3 X 4 200			
SECTION: 1/2"			
SCALE: 1/2"			
DATE: 2/12/99			
DESIGNED BY: MVS			
CHECKED BY:			
APPROVED BY:			
DRAWN BY: MPM1141ATG6JM1R			
SCALE: 1/2:1			

REV.	DESCRIPTION	DATE	APPD.
PRELIMINARY		2/12/99	MVS

TITLE: \*TRAP/230/ENG/T1/CONN/BRK  
DRAWING NUMBER: MPM1141ATG6JM1R

**REVISIONS**