

### MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS	UNITS	VALUE
MOTOR HORSEPOWER	HP RATED	1.05
KILOWATTS	KW RATED	.78
MAX. OPERATING SPEED	N. MAX RPM	3000
SPEED @ RATED TORQUE	N RATED RPM	2400
* CONTINUOUS RATED TORQUE @ 4000 RPM	IN-LBS(Nm)	27.5(3.1)
* CONTINUOUS STALL TORQUE	IN-LBS(Nm)	30.0(3.4)
CONTINUOUS LINE CURRENT	AMPS (RMS/φ)	2.6
PEAK TORQUE	IN-LBS(Nm)	111.5(12.6)
PEAK CURRENT	AMPS (RMS/φ)	9.6
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	112.5(13)
TORQUE SENSITIVITY	Kt (IN-LBS/AMP/RMS/φ)/(Nm/AMP/RMS/φ)	11.6(1.31)
BACK EMF (LINE TO LINE)	Vrms/krpm	73.2
D.C. RESISTANCE (P-P)	OHMS	6.0
INDUCTANCE (P-P)	MILLIHENRIES	20.2
ROTOR INERTIA	Jm (IN-LBS-SEC <sup>2</sup> )/(Kg-M <sup>2</sup> )	.000991(.0001116)
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:

- AXIAL LOAD: 25 LBS MAX
- RADIAL LOAD: 40 LBS MAX @ 1" FROM FACE
- MOTOR SEALED TO IP65.
- MOTOR WEIGHT: 9.6 LBS. [ 4.4 Kg ]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- MILLIMETERS (INCHES)

ENCODER: (290-00142)  
OH48-1024B6-L6-5V

#### CONNECTION CHART

MOTOR CONNECTOR:  
PT02E-14-5P(027)  
(270-00026)

PIN	WIRE FUNCTION	WIRE COLOR
A	φR	RED
B	φS	BLACK
C	φT	BLUE
D	PE GND	GRN/YEL.
E	-	-

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

PIN	WIRE 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

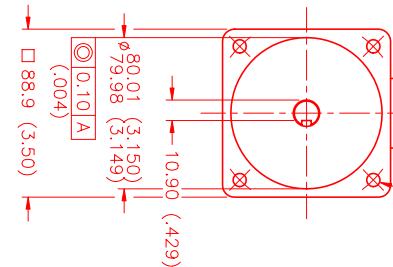
#### MOTOR & HALL POSITION CHART

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

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

WAVE REPRESENTING STATOR OUTPUT  
WAVE REPRESENTING HALL SENSOR

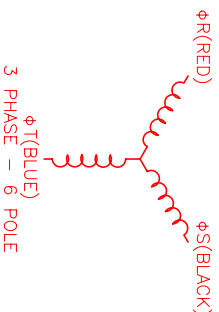
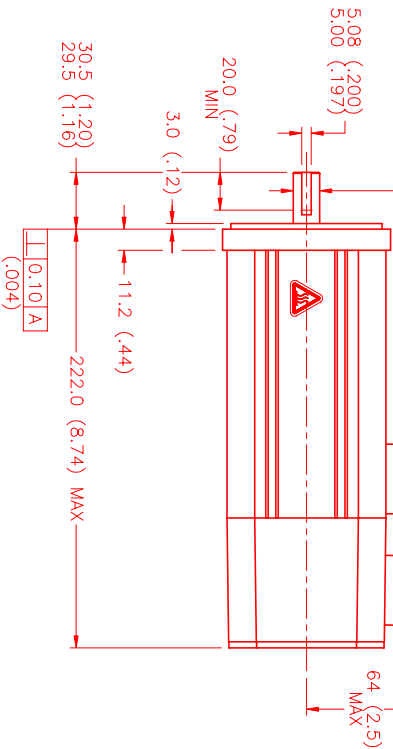
φ7.01 (.276) THRU  
(4) EQ SPD AS SHOWN  
ON φ100.00 (3.937) B.C.



(.0015)  
0.04  
-A-

PT02E-14-5P(027)  
MATING CONNECTOR:  
PT06E-14-5S(476)

PT02E-14-18P(027)  
MATING CONNECTOR:  
PT06E-14-18S(476)



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