

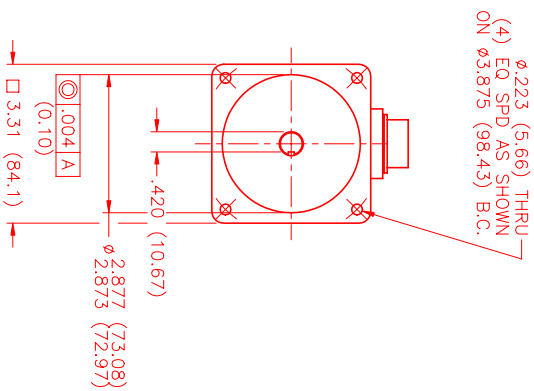
### MOTOR DATA @ 60 VAC (SINE)

MOTOR PARAMETERS	UNITS	VALUE
MOTOR HORSEPOWER	HP	.17
KILOWATTS	KW	.12
MAX. OPERATING SPEED	N MAX RPM	1200
SPEED @ RATED TORQUE	N RATED RPM	800
* CONTINUOUS RATED TORQUE @ 800 RPM	IN-LBS[Nm]	13.0 [1.47]
* CONTINUOUS STALL TORQUE	IN-LBS[Nm]	16.0 [1.81]
CONTINUOUS LINE CURRENT	AMPS/(RMS/φ)	2.7
PEAK TORQUE	IN-LBS[Nm]	58.8 [6.64]
PEAK CURRENT	AMPS/(RMS/φ)	10.0
MAX. THEORETICAL ACCEL. TORQUE SENSITIVITY	Kt [IN-LBS/AMP(RMS/φ)] [Nm/AMP(RMS/φ)]	95.610
BACK EMF (LINE TO LINE)	±10% Vrms/Krpm	37.6
D.C. RESISTANCE (P-P)	±10% OHMS	3.8
INDUCTANCE (P-P)	±10% MILLIHENRIES	10.4
ROTOR INERTIA	Jm [IN-LBS-SEC²] [Kg-M²]	.000615 [0.0000693]
STATIC FRICTION	Tf [IN-LBS[Nm]]	.4 [0.05]

\*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: 7 LBS. [ 3.2 Kg]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- INCHES (MILLIMETERS)



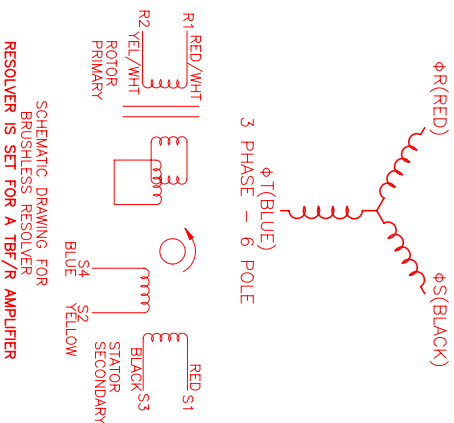
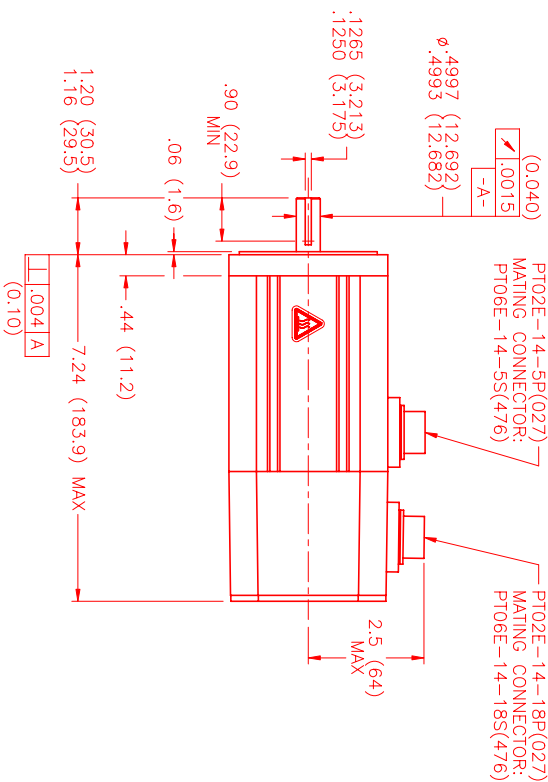
#### CONNECTION CHART

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

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

MOTOR WIRE LEADS	RES/THERM WIRE LEADS
PIN	PIN
WIRE FUNCTION	WIRE FUNCTION
WIRE COLOR	WIRE COLOR
A φR	U THERM
B φS	N THERM
C φT	H SIN
D PE GND	G COS GND
E	S COS

MOTOR WIRE LEADS	RES/THERM WIRE LEADS
PIN	PIN
WIRE FUNCTION	WIRE FUNCTION
WIRE COLOR	WIRE COLOR
A φR	U THERM
B φS	N THERM
C φT	H SIN
D PE GND	G COS GND
E	S COS
F SIN GND	R SIN GND
R REF GND	R REF GND
E REF	YEL/WHI
D RES_SHLD	RED/WHI
P GND	GRN/YEL
A	GRN/YEL
B	
C	
J	
K	
L	
M	
T	



SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER  
RESOLVER IS SET FOR A 1B/R AMPLIFIER

REV	DESCRIPTION	DATE	APP'D.
PRELIMINARY		4/20/00	AJS

NO.	PART NUMBER	DESCRIPTION	QTY.
UNLESS SPECIFIED			
DECIMAL ANG ± .005			
FRAC ANG ± .002			
FRAC ANG ± 1/2°			
DATE: 4/20/00			
CHECKED:			
APPROVED:			

MTS Systems Corporation  
Automation Division

SCALE: 1/2:1