MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	4.6
KILOWATTS	KW RATED	KW	3.4
MAX. OPERATING SPEED	N MAX	RPM	4200
SPEED @ RATED TORQUE	N RATED	RPM	3000
* CONTINUOUS RATED TORQUE @ 3000 RPM		IN-LBS[Nm]	96.8[10.9]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	116.2[13.1]
CONTINUOUS LINE CURRENT		AMPS(RMS/Φ)	13.2
PEAK TORQUE	Tpk	IN-LBS[Nm]	406.7[45.7]
PEAK CURRENT		AMPS(RMS/Φ)	46.4
MAX. THEORETICAL ACCEL.		RAD/SEC²	41,081
TORQUE SENSITIVITY	Kt	IN-LBS/AMP(RMS/Φ)[Nm/AMP(RMS/Φ)]	8.8[0.99]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	55.0
D.C. RESISTANCE (P-P)	±10%	OHMS	.27
INDUCTANCE (P-P)	±10%	MILLIHENRIES	2.0
ROTOR INERTIA W/BRAKE	Jm	IN-LBS-SEC²[Kg-M²]	.0099[.00112]
STATIC FRICTION	Tf	IN-LBS[Nm]	1.8[.2]

*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:

1. AXIAL LOAD: 50 LBS MAX
2. RADIAL LOAD: 100 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 41 LBS. [18.6 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. MILLIMETERS (INCHES)

FAILSAFE BRAKE: (290-00006)
MIN HOLDING TORQUE: 240 IN-LBS
INPUT VOLTAGE: 24 VOLTS

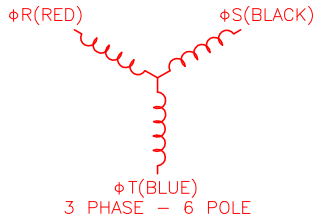
CONNECTION CHART

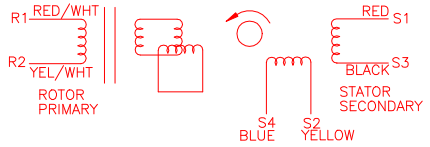
MOTOR/BRAKE CONNECTOR:
PT02E-16-8P(027)
(270-00032)

MOTOR/BRAKE WIRE LEADS		
PIN	WIRE 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	–	–

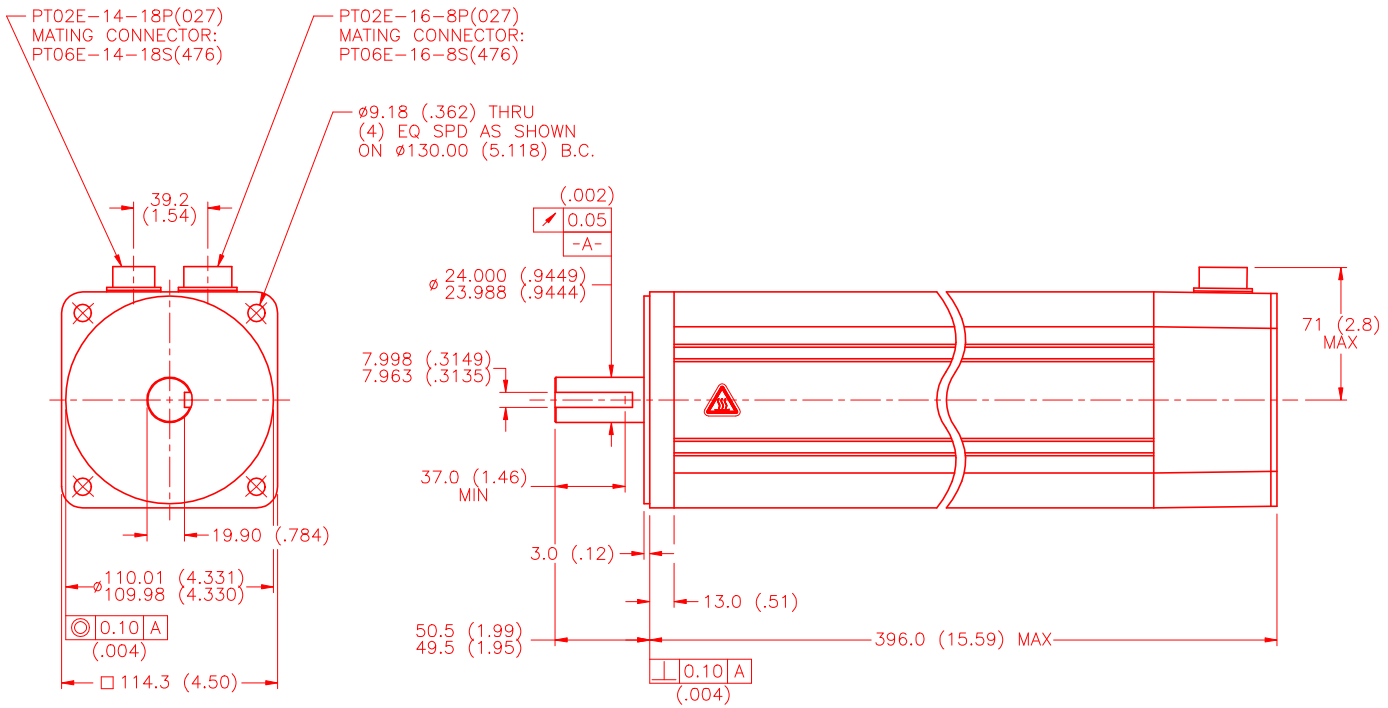
RESOLVER/THERM CONNECTOR:
PT02E-14-18P(027)
(270-00024)

RES/THERM WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
U	THERM	BLACK
N	THERM	BLACK
H	SIN	YELLOW
G	COS GND	BLACK
S	COS	RED
F	SIN GND	BLUE
R	REF GND	YEL/WHT
E	REF	RED/WHT
D	RES SHLD	GRN/YEL
P	GND	GRN/YEL
A	–	–
B	–	–
C	–	–
J	–	–
K	–	–
L	–	–
M	–	–
T	–	–





SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER



TITLE: "A"/230/MET/RES/CONN/BRK	DRAWING NUMBER: MPM1143ASG7G1R

REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	12/7/00	MVS

NO.	PART NUMBER	DESCRIPTION	QTY.

TOLERANCES UNLESS SPECIFIED
DECIMAL .XXX ± .005
DECIMAL .XX ± .010
DECIMAL .X ± .020
FRACTION ± 1/64
ANGLE ± 1/2°

MTS Systems Corporation
Automation Division

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DRAWN: MVS	TITLE: "A"/230/MET/RES/CONN/BRK	REV.
DATE: 12/7/00		
CHECKED:	MATERIAL:	
APPROVED:	DRAWING NUMBER: MPM1143ASG7G1R	SCALE: 1/2:1