MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	1.2
KILOWATTS	KW RATED	KW	.88
MAX. OPERATING SPEED	N MAX	RPM	2100
SPEED @ RATED TORQUE	N RATED	RPM	1500
* CONTINUOUS RATED TORQUE @ 3000 RPM		IN-LBS[Nm]	50.0[5.6]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	54.0[6.1]
CONTINUOUS LINE CURRENT		AMPS(RMS/Φ)	3.1
PEAK TORQUE	Tpk	IN-LBS[Nm]	189.1[21.3]
PEAK CURRENT		AMPS(RMS/Φ)	10.8
MAX. THEORETICAL ACCEL.		RAD/SEC²	72,961
TORQUE SENSITIVITY	Kt	IN-LBS/AMP(RMS/Φ)[Nm/AMP(RMS/Φ)]	17.5[1.98]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	110.0
D.C. RESISTANCE (P-P)	±10%	OHMS	3.3
INDUCTANCE (P-P)	±10%	MILLIHENRIES	24.4
ROTOR INERTIA	Jm	IN-LBS-SEC²[Kg-M²]	.0026[.000300]
STATIC FRICTION	Tf	IN-LBS[Nm]	1.0[.11]

*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: 18 LBS. [8.2 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. MILLIMETERS (INCHES)

CONNECTION CHART

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

MOTOR WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
A	ΦR	RED
B	ΦS	BLACK
C	ΦT	BLUE
D	PE GND	GRN/YEL
E	–	–

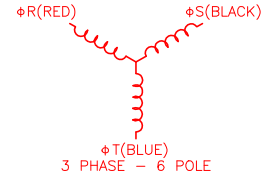
RESOLVER/THERM CONNECTOR: PT02E-14-18P(027) (270-00024)

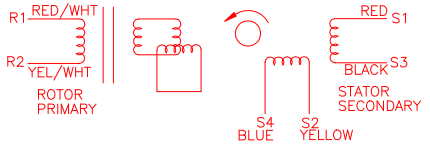
RES/THERM WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
U	THERM	BLACK
N	THERM	BLACK
H	SIN	YELLOW
G	COS GND	BLACK
S	COS	RED
F	SIN GND	BLUE
R	REF GND	YEL/WHT
E	REF	RED/WHT
D	RES SHLD	GRN/YEL
P	GND	GRN/YEL
A	–	–
B	–	–
C	–	–
J	–	–
K	–	–
L	–	–
M	–	–
T	–	–

TITLE: "B"/SINE/230/MET/RES/CONN	DRAWING NUMBER: MPM1141BSG7G1N

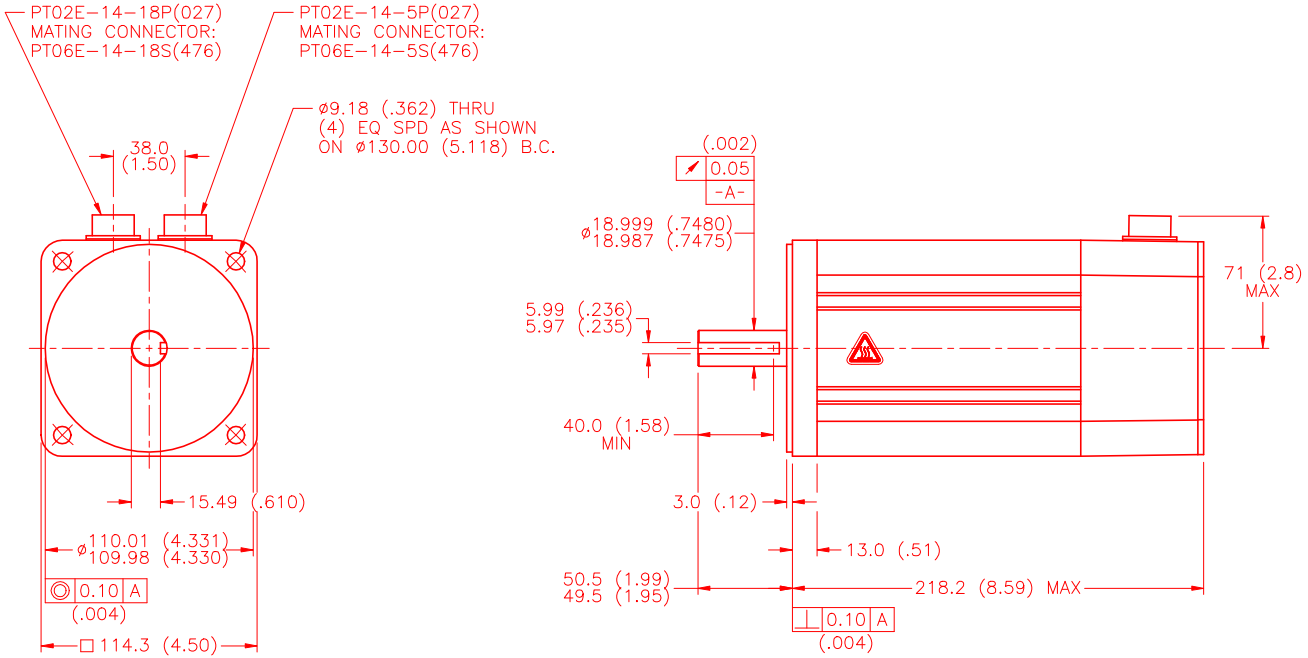
REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	2/10/00	LIN





SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER



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: "B"/SINE/230/MET/RES/CONN	REV.
DATE: 9/3/99		
CHECKED:	MATERIAL:	
APPROVED:	DRAWING NUMBER: MPM1141BSG7G1N	SCALE: 1/2:1