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/THERM CONNECTOR:
BEGA089NN00000007000
(270-00256)

MOTOR/THERM WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
1	ϕR(U1)	RED
2	PE GND	GRN/YEL
3	ϕT(W1)	BLUE
4	ϕS(V1)	BLACK
A	–	–
B	–	–
C	THERM	BLACK
D	THERM	BLACK

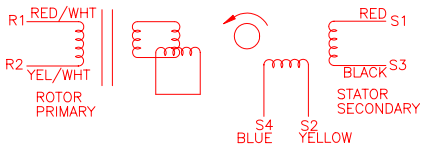
RESOLVER CONNECTOR:
AEGA052NN00000020000
(270-00257)

RESOLVER WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
1	–	–
2	REF(R1)	RED/WHT
3	REF GND(R2)	YEL/WHT
4	COS GND(S1)	BLACK
5	COS(S3)	RED
6	SIN(S2)	YELLOW
7	SIN GND(S4)	BLUE
8	–	–
9	–	–
10	–	–
11	–	–
12	–	–

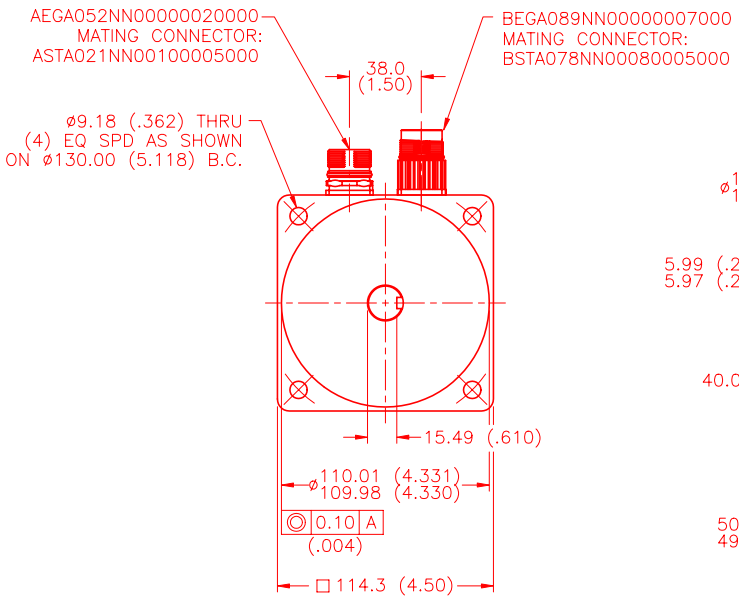
TITLE:	"B"/SINE/230/MET/TBF/R/INTER	DRAWING NUMBER:	MPM1141BSG7H2N

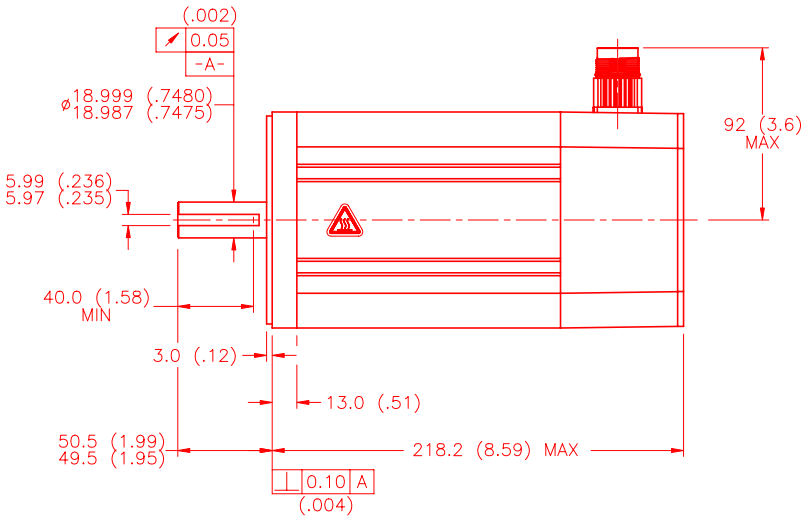
REVISIONS

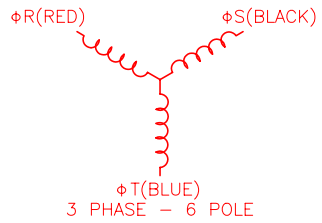
REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	7/30/02	LIN



SCHEMATIC DRAWING FOR
BRUSHLESS RESOLVER
RESOLVER IS SET FOR TBF/R AMPLIFIER







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: LIN	TITLE: "B"/SINE/230/MET/TBF/R/INTER	REV.
DATE: 7/30/02		
CHECKED:	MATERIAL:	
APPROVED:	DRAWING NUMBER: MPM1141BSG7H2N	SCALE: 1/2:1