MOTOR DATA @ 230 VAC (SINE)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	.41
KILOWATTS	KW RATED	KW	.31
MAX. OPERATING SPEED	N MAX	RPM	6800
SPEED @ RATED TORQUE	N RATED	RPM	5500
* CONTINUOUS RATED TORQUE @ 6000 RPM		IN-LBS[Nm]	4.7[0.53]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	5.8[0.70]
CONTINUOUS LINE CURRENT		AMPS(RMS/Φ)	1.4
PEAK TORQUE	Tpk	IN-LBS[Nm]	17.0[2.0]
PEAK CURRENT		AMPS(RMS/Φ)	4.2
MAX. THEORETICAL ACCEL.		RAD/SEC²	113,333
TORQUE SENSITIVITY	Kt	IN-LBS/AMP(RMS/Φ)[Nm/AMP(RMS/Φ)]	4.12[0.465]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	25.9
D.C. RESISTANCE (P-P)	±10%	OHMS	11.0
INDUCTANCE (P-P)	±10%	MILLIHENRIES	17.0
ROTOR INERTIA	Jm	IN-LBS-SEC²[Kg-M²]	0.00015[0.000017]
STATIC FRICTION	Tf	IN-LBS[Nm]	0.6[0.07]

*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 85°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: 20 LBS MAX
2. RADIAL LOAD: 35 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 3.4 LBS. [1.5 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. MILLIMETERS (INCHES)
8. THIS MOTOR'S OUTPUT KEY IS A PRESS FIT.

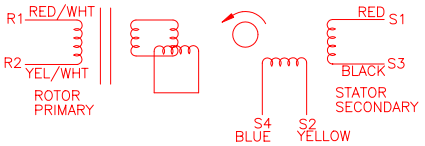
CONNECTION CHART

MOTOR/THERM CONNECTOR:
Ⓓ BEGA089NN00000007000
(270-00256)

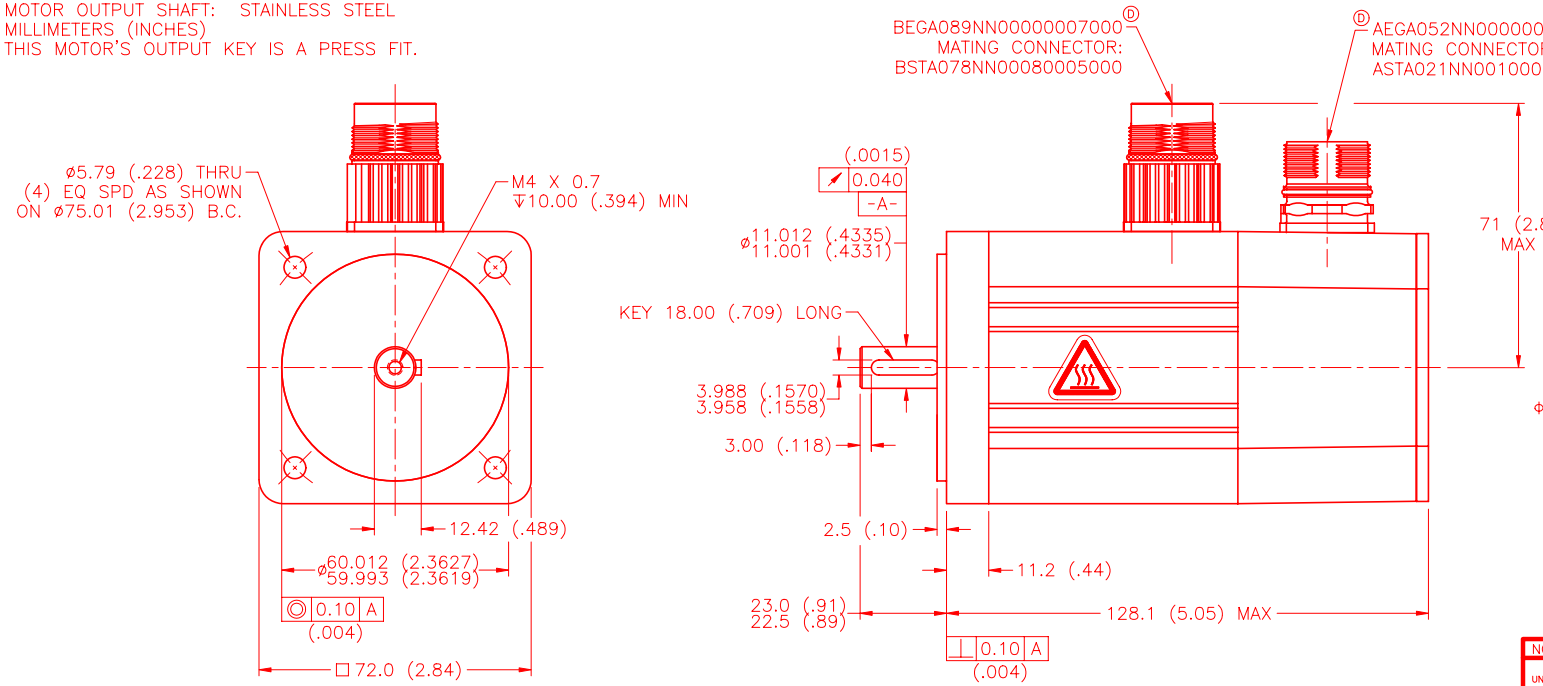
MOTOR/THERM WIRE LEADS		
PIN	WIRE FUNCTION	WIRE COLOR
1	ΦR(U1)	RED
2	PE GND	GRN/YEL
3	ΦT(W1)	BLUE
4	ΦS(V1)	BLACK
A	–	–
B	–	–
C	THERM	BLACK
D	THERM	BLACK

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	–	–



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



TITLE: "B"/SINE/230/MET/TBFR/INT	DRAWING NUMBER: MPM721BSG7H2N

REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	3/30/99	MS
A	E.C.O. – 526	6/15/99	ELS
B	E.C.O. – 558	2/2/00	AJS
C	E.C.O. – 572	5/25/00	AJS
D	E.C.O. – 620	4/10/01	AJS

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: MS	TITLE: "B"/SINE/230/MET/TBFR/INT	REV. D
DATE: 3/23/99		
CHECKED:	MATERIAL:	
APPROVED:	DRAWING NUMBER: MPM721BSG7H2N	SCALE: 1:1