MOTOR DATA @ 230 VAC (TRAP)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	2.1
KILOWATTS	KW RATED	KW	1.6
MAX. OPERATING SPEED	N MAX	RPM	4200
SPEED @ RATED TORQUE	N RATED	RPM	3000
* CONTINUOUS RATED TORQUE @ 3000 RPM		IN-LBS[Nm]	45.0[5.1]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	54.0[6.1]
CONTINUOUS LINE CURRENT		AMPS	8.7
PEAK TORQUE	Tpk	IN-LBS[Nm]	189.1[21.3]
PEAK CURRENT		AMPS	30.5
MAX. THEORETICAL ACCEL.		RAD/SEC²	48,487
TORQUE SENSITIVITY	Kt	IN-LBS/AMP[Nm/AMP]	6.2[0.71]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	55.0
D.C. RESISTANCE (P-P)	±10%	OHMS	0.82
INDUCTANCE (P-P)	±10%	MILLIHENRIES	6.1
ROTOR INERTIA W/BRAKE	Jm	IN-LBS-SEC²[Kg-M²]	.0039[.00044]
STATIC FRICTION	Tf	IN-LBS[Nm]	1.0[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.

CONNECTION CHART

MOTOR WIRE LEADS		
TERMINAL	WIRE FUNCTION	WIRE COLOR
–	ΦR	RED
–	ΦS	BLACK
–	ΦT	BLUE
–	PE GND	GRN/YEL

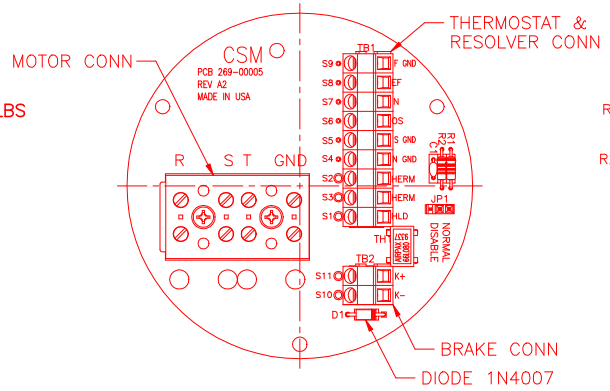
RES/BRAKE WIRE LEADS		
TERMINAL	WIRE FUNCTION	WIRE COLOR
S11	BRK (+)	BLUE
S10	BRK (–)	BLUE
S9	REF GND	YEL/WHT
S8	REF	RED/WHT
S7	SIN	YELLOW
S6	COS	RED
S5	COS GND	BLACK
S4	SIN GND	BLUE
S3	THERM	BLACK
S2	THERM	BLACK
S1	RES SHLD	GRN/YEL

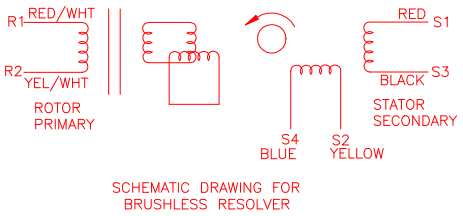
MECHANICAL NOTES:

1. AXIAL LOAD: 50 LBS MAX
2. RADIAL LOAD: 100 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 25.9 LBS. [11.7 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. INCHES (MILLIMETERS)

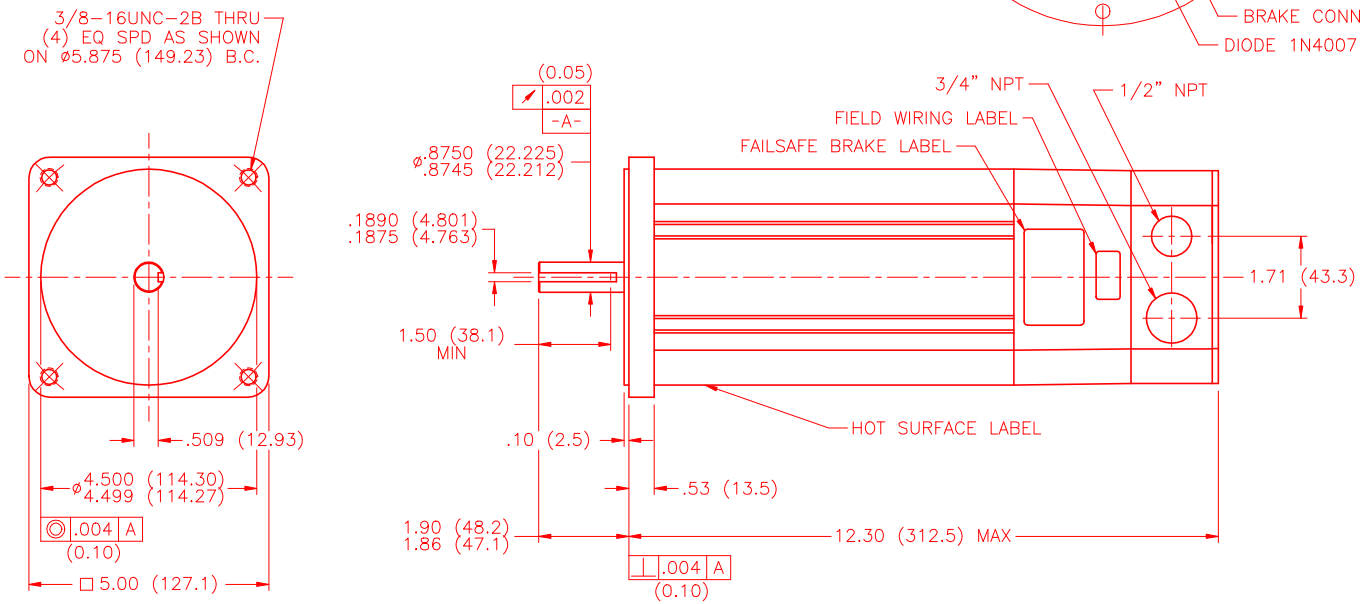
FAILESAFE BRAKE: (290-00006)

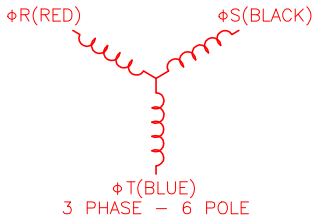
MIN. HOLDING TORQUE: 240 IN-LBS
INPUT VOLTAGE: 24 VOLTS





SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER





TITLE: "A"/230/ENG/RES/NPT/BRK	DRAWING NUMBER: MPM1141ATG6G3R

REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	7/9/99	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"/TRP/230/ENG/RES/NPT/BRK	REV.
DATE: 7/8/99		
CHECKED:	MATERIAL:	
APPROVED:	DRAWING NUMBER: MPM1141ATG6G3R	SCALE: 1/2:1