MOTOR DATA @ 460 VAC (TRAP)

MOTOR PARAMETERS		UNITS	VALUE
HORSEPOWER	HP RATED	Hp	2.9
KILOWATTS	KW RATED	KW	2.1
MAX. OPERATING SPEED	N MAX	RPM	1750
SPEED @ RATED TORQUE	N RATED	RPM	1500
* CONTINUOUS RATED TORQUE @ 1500 RPM		IN-LBS[Nm]	120.0[13.5]
* CONTINUOUS STALL TORQUE		IN-LBS[Nm]	130.0[14.7]
CONTINUOUS LINE CURRENT		AMPS	4.9
PEAK TORQUE	Tpk	IN-LBS[Nm]	390.0[43.9]
PEAK CURRENT		AMPS	14.8
MAX. THEORETICAL ACCEL.		RAD/SEC²	30,233
TORQUE SENSITIVITY	Kt	IN-LBS/AMP[Nm/AMP]	26.6[3.0]
BACK EMF (LINE TO LINE)	±10%	Vrms/Krpm	230.0
D.C. RESISTANCE (P-P)	±10%	OHMS	6.8
INDUCTANCE (P-P)	±10%	MILLIHENRIES	48.9
ROTOR INERTIA W/ BRAKE	Jm	IN-LBS-SEC²[Kg-M²]	.0129[.00145]
STATIC FRICTION	Tf	IN-LBS[Nm]	2.4[.27]

*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: 150 LBS MAX @ 1" FROM FACE
3. MOTOR SEALED TO IP65.
4. MOTOR WEIGHT: 45 LBS. [20.4 Kg]
5. MOTOR FINISH: BLACK EPOXY
6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
7. MILLIMETERS (INCHES)

FAILSAFE BRAKE:
MIN HOLDING TORQUE: 360 IN-LBS
INPUT VOLTAGE: 24 VOLTS

CONNECTION CHART

MOTOR CONNECTOR:
SG3102E-22-22P(027)
(270-00017)

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

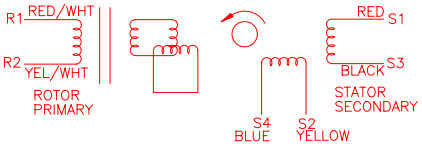
RESOLVER/THERM CONNECTOR:
PT02E-14-18P(027)
(270-00024)

RES/THERM/BRK 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	BRK (+)	DIODE
B	BRK (-)	1N4007
C	BRK SHLD	–
J	–	–
K	–	–
L	–	–
M	–	–
T	–	–

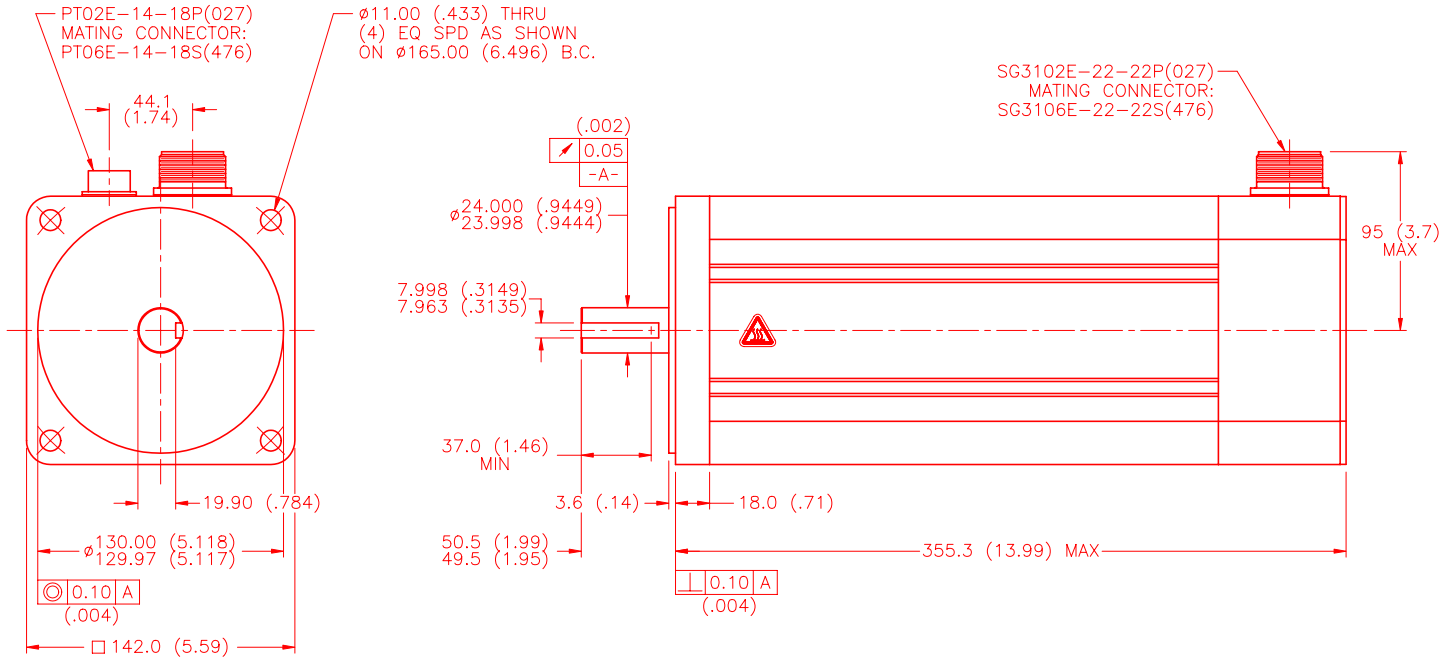
TITLE:	DRAWING NUMBER:
"D"/MET/RES/CONN/BRK	MPM1421DTJ7G1R

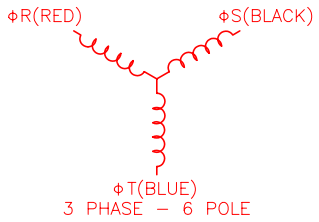
REVISIONS

REV.	DESCRIPTION	DATE	APPD.
	PRELIMINARY	8/5/99	MVS



SCHEMATIC DRAWING FOR BRUSHLESS RESOLVER





3 PHASE – 6 POLE

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
DATE: 8/5/99
CHECKED:
APPROVED:

TITLE: "D"/460/MET/RES/CONN/BRK
REV.
MATERIAL:
DRAWING NUMBER: MPM1421DTJ7G1R
SCALE: 1/2:1