

**MOTOR DATA @ 230 VAC (SINE)**

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP	1.05
KILOWATTS	KW	0.78
MAX. OPERATING SPEED	N. MAX RPM	3000
SPEED @ RATED TORQUE	N RATED RPM	2400
* CONTINUOUS RATED TORQUE @ 2400 RPM	N-LBS[Nm]	27.5[3.1]
* CONTINUOUS STALL TORQUE	N-LBS[Nm]	30.0[3.4]
CONTINUOUS LINE CURRENT	AMPS(RMS/φ)	2.6
PEAK TORQUE	N-LBS[Nm]	111.5[12.6]
PEAK CURRENT	AMPS(RMS/φ)	9.6
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	112.513
TORQUE SENSITIVITY	Kt N-LBS/AMPERES/φ[Nm/AMPERES/φ]	11.6[1.31]
BACK EMF (LINE TO LINE)	Vrms/Krpm	73.2
D.C. RESISTANCE (P-P)	OHMS	8.4
INDUCTANCE (P-P)	MILLIHENRIES	27.0
ROTOR INERTIA	Jm [N-LBS-SEC <sup>2</sup> ] Kg-M <sup>2</sup>	.000991[.000116]
STATIC FRICTION	Tf [N-LBS] [Nm]	0.5[0.06]

\*25°C AMBIENT WITH A MAXIMUM CASE TEMPERATURE OF 100°C ON MOTOR. MOTOR MOUNTED ON A 10" X 10" X 1/4" 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: 25 LBS MAX
  2. RADIAL LOAD: 40 LBS MAX @ 1" FROM FACE
  3. MOTOR SEALED TO IP65.
  4. MOTOR WEIGHT: 10.0 LBS. [ 4.5 Kg]
  5. MOTOR FINISH: BLACK EPOXY
  6. MOTOR OUTPUT SHAFT: STAINLESS STEEL
  7. INCHES (MILLIMETERS)

ENCODER: (290-00171)  
0IH48-500P616-5V

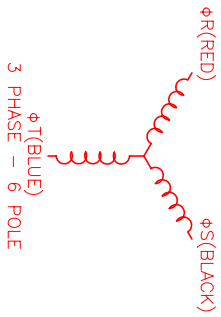
**CONNECTION CHART**

MOTOR CONNECTOR:

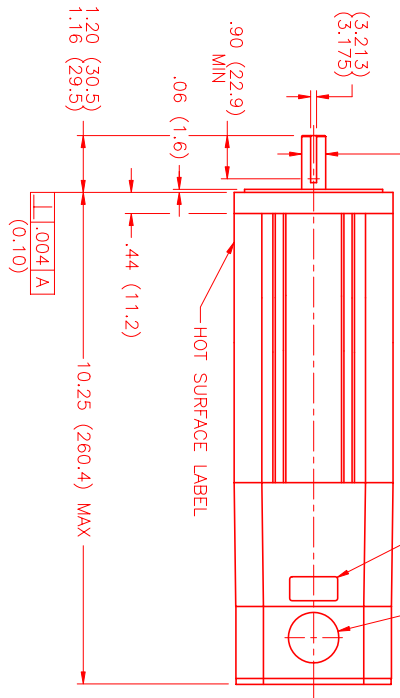
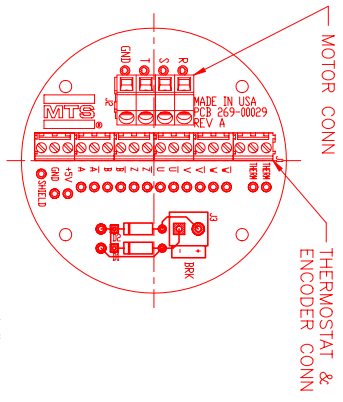
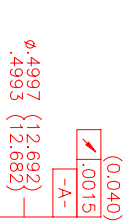
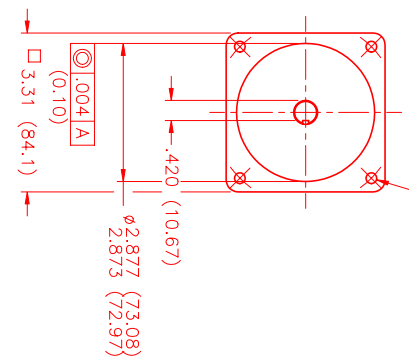
TERMINAL	WIRE FUNCTION	WIRE COLOR
T18	φR	RED
T19	φS	BLACK
T20	φT	BLUE
T21	PE GND	GRN/YEL

ENCODER/THERM CONNECTOR:

BRK/ENC/THERM	WIRE FUNCTION	WIRE COLOR
T2	GROUND	BLACK
T3	+5VDC	RED
T4	CH A	BLUE
T5	CH A	BLUE/BLK
T6	CH B	GREEN
T7	CH B	GRN/BLK
T8	CH Z	YELLOW
T9	CH Z	YEL/BLK
T10	CH U	BROWN
T11	CH U	BRN/BLK
T12	CH V	GRAY
T13	CH V	GRAY/BLK
T14	CH W	WHITE
T15	CH W	WHT/BLK
T16	GND/CABLE SHLD	BLACK
T17	THERM	BLACK



(4) EQ SPD AS SHOWN ON φ3.875 (98.43) B.C.



**MOTOR & HALL POSITION CHART (GERMAN - TBF \)**

HALL LEADS	WHITE	BROWN	GRAY
MOTOR LEADS	BLACK respect to RED	RED respect to BLUE	BLUE respect to BLACK

\*MOTOR ROTATION COW (COUNTER CLOCKWISE) (LOOKING AT THE FACE OF THE MOTOR)

WAVE REPRESENTING STATOR OUTPUT  
WAVE REPRESENTING HALL SENSOR

NO.	PART NUMBER	DESCRIPTION	QTY.
1	MTS	MTS Systems Corporation Automation Division	

REV.	DESCRIPTION	DATE	APPD.
1	PRELIMINARY	7/30/02	AJS