

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

MOTOR PARAMETERS	UNITS	VALUE
HORSEPOWER	HP	2.1
KILOWATTS	KW RATED	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	IN-LBS [Nm]	189.1 [21.3]
PEAK CURRENT	AMPS	30.5
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	48,487
TORQUE SENSITIVITY	Kt [IN-LBS/AMP] [Nm/AMP]	6.2 [ .71]
BACK EMF (LINE TO LINE)	Vrms/Krpm	55.0
D.C. RESISTANCE (P-P)	OHMS	.82
INDUCTANCE (P-P)	MILLIHENRIES	6.1
ROTOR INERTIA W/BRAKE	Jm [IN-LBS-SEC <sup>2</sup> ] [Kg-M <sup>2</sup> ]	.00391 [0.0044]
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:**

- AXIAL LOAD: 50 LBS MAX
- RADIAL LOAD: 100 LBS MAX @ 1" FROM FACE
- MOTOR SEALED TO IP65.
- MOTOR WEIGHT: 23.1 LBS. [10.5 kg]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- MILLIMETERS (INCHES)

**ENCODER: (290-00101)**

OIH48-3000P6-L6-5V

**FAILSAFE BRAKE:**

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

**CONNECTION CHART**

MOTOR/BRAKE CONNECTOR:  
PT02E-16-8P(027)

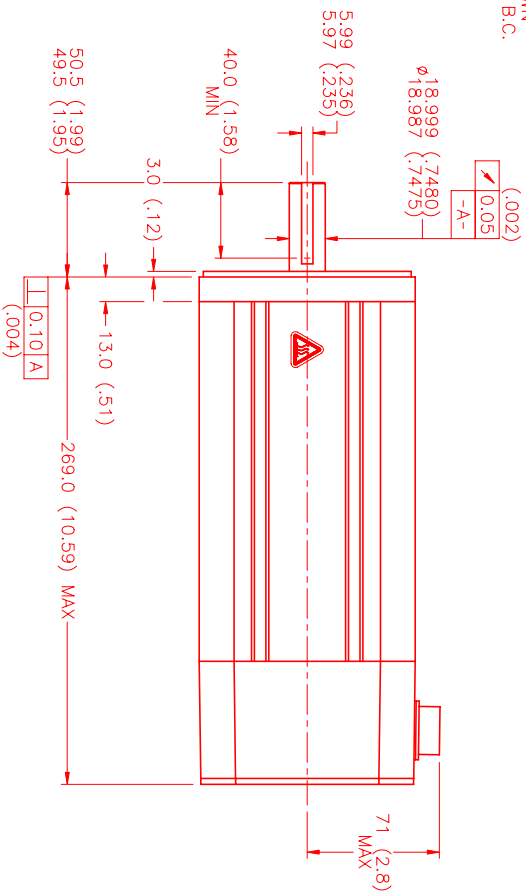
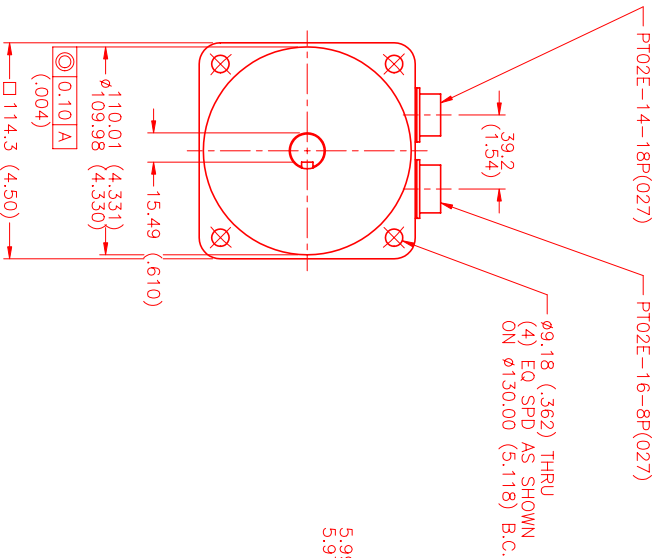
(270-00032)

MOTOR/BRAKE	WIRE	WIRE LEADS
PIN	FUNCTION	COLOR
A	ΦR	RED
B	ΦS	BLACK
C	ΦT	BLUE
D	PE GND	GRN/YEL
E	BRK SHLD	-
F	BRK (+)	BLUE
G	BRK (-)	BLUE
H	-	-

ENCODER/THERM CONNECTOR:  
PT02E-14-18P(027)

(270-00024)

ENC/THERM	WIRE	WIRE LEADS
PIN	FUNCTION	COLOR
T	GROUND	BLACK
K	+5VDC	RED
B	CH A	BLUE
C	CH A	BLUE/BLK
N	CH B	GREEN
P	CH B	GRN/BLK
M	CH Z	YELLOW
U	CH Z	YEL/BLK
E	CH U	BROWN
R	CH U	BRN/BLK
F	CH V	GRAY
S	CH V	GRAY/BLK
G	CH W	WHITE
H	CH W	WHT/BLK
D	GND/CABLE	SHLD
L	THERM	BLACK
A	THERM	BLACK
J	GND	GRN/YEL

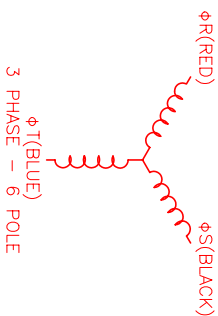


\*MOTOR ROTATION C/W (COUNTER CLOCKWISE)  
(LOOKING AT THE FACE OF THE MOTOR)



**MOTOR & HALL POSITION CHART**

HALL LEADS	BROWN	GRAY	WHITE
MOTOR LEADS	BLACK respect to RED	RED respect to BLUE	BLUE respect to BLACK
VIEW ON THE OSCILLOSCOPE	AAAA	AAAA	AAAA



NO.	PART NUMBER	DESCRIPTION	QTY.
1	290-00101	ENCODER	1
2	290-00032	CONNECTION CHART	1
3	290-00024	ENCODER/THERM CONNECTOR	1
4	290-00032	MOTOR/BRAKE CONNECTOR	1
5	290-00024	ENCODER/THERM CONNECTOR	1
6	290-00032	MOTOR/BRAKE CONNECTOR	1
7	290-00024	ENCODER/THERM CONNECTOR	1
8	290-00032	MOTOR/BRAKE CONNECTOR	1
9	290-00024	ENCODER/THERM CONNECTOR	1
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11	290-00024	ENCODER/THERM CONNECTOR	1
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13	290-00024	ENCODER/THERM CONNECTOR	1
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99	290-00024	ENCODER/THERM CONNECTOR	1
100	290-00032	MOTOR/BRAKE CONNECTOR	1

REV.	DESCRIPTION	DATE	APP.
PRELIMINARY		8/3/01	LIN

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