

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

MOTOR PARAMETERS	UNITS	VALUE
MOTOR HORSEPOWER	HP RATED	4.4
	KW RATED	3.3
MAX. OPERATING SPEED	N MAX	2700
SPEED @ RATED TORQUE	N RATED	2400
* CONTINUOUS RATED TORQUE @ 2400 RPM	IN-LBS [Nm]	115.0 [13.0]
* CONTINUOUS STALL TORQUE	IN-LBS [Nm]	130.0 [14.7]
CONTINUOUS LINE CURRENT	AMPS (RMS/φ)	11.3
PEAK TORQUE	IN-LBS [Nm]	390.0 [43.9]
PEAK CURRENT	AMPS (RMS/φ)	33.9
MAX. THEORETICAL ACCEL.	RAD/SEC <sup>2</sup>	36,792
TORQUE SENSITIVITY	Kt [N-LBS/AMP (RMS/φ)] [Nm/AMP (RMS/φ)]	11.21 [1.26]
BACK EMF (LINE TO LINE)	Vrms/Krpm	70.0
D.C. RESISTANCE (P-P)	OHMS	.66
INDUCTANCE (P-P)	MILLIHENRIES	4.7
ROTOR INERTIA	Jm [N-LBS-SEC <sup>2</sup> ] [Kg-M <sup>2</sup> ]	.0106 [0.0119]
STATIC FRICTION	Tf [N-LBS] [Nm]	2.4 [0.27]

\*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. TEMPERATURE 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: 150 LBS MAX @ 1" FROM FACE
- MOTOR SEALED TO IP65.
- MOTOR WEIGHT: 32.8 LBS. [14.9 kg]
- MOTOR FINISH: BLACK EPOXY
- MOTOR OUTPUT SHAFT: STAINLESS STEEL
- MILLIMETERS (INCHES)

**ENCODER: (290-00073)  
OH48-2048P6-L6-5V**

**CONNECTION CHART**

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

MOTOR WIRE LEADS	WIRE FUNCTION	WIRE COLOR
A	φR	RED
B	φS	BLACK
C	φT	BLUE
D	PE GND	GRN/YEL

**ENCODER/THERM CONNECTOR:**

PT02E-14-18P (027)  
(270-00024)

ENC/THERM WIRE LEADS	PIN	WIRE FUNCTION	WIRE 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	
A	THERM	BLACK	
L	THERM	BLACK	
J	GND	GRN/YEL	

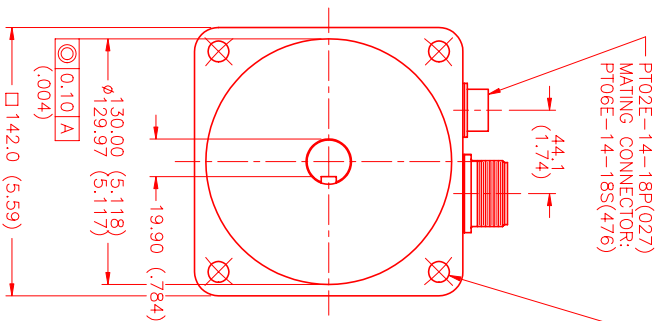
**MOTOR & HALL POSITION CHART**

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

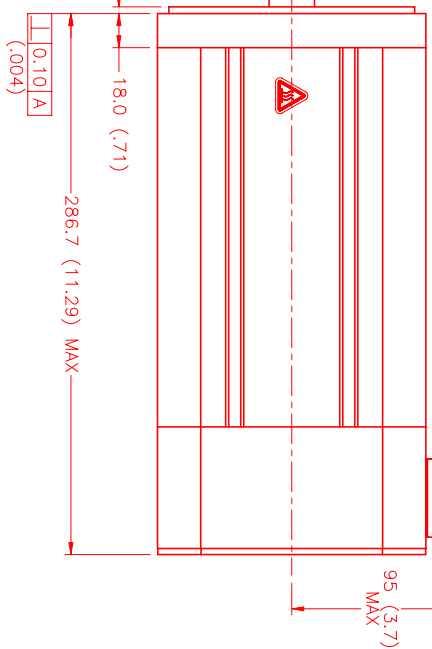
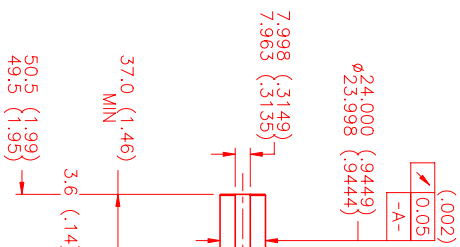
\*MOTOR ROTATION CCM (COUNTER CLOCKWISE) (LOOKING AT THE FACE OF THE MOTOR)



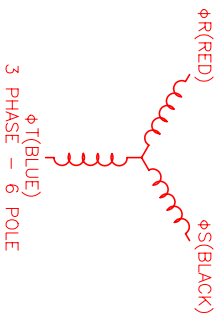
WAVE REPRESENTING HALL SENSOR



φ11.00 (4.33) THRU (4) EO SPD AS SHOWN ON φ165.00 (6.496) B.C.



SG3102E-22-22P (027)  
MATING CONNECTOR:  
SG3106E-22-22S (476)



NO.	PART NUMBER	DESCRIPTION	QTY
1	UNLESS SPECIFIED		
2	REVISIONS		
3	DATE		
4	APPROVED		
5	DATE		
6	REV.		
7	DATE		
8	REV.		
9	DATE		
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11	DATE		
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22	REV.		
23	DATE		
24	REV.		
25	DATE		
26	REV.		
27	DATE		
28	REV.		
29	DATE		
30	REV.		
31	DATE		
32	REV.		
33	DATE		
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45	DATE		
46	REV.		
47	DATE		
48	REV.		
49	DATE		
50	REV.		

REV.	DESCRIPTION	DATE	APPD.
PRELIMINARY		10/3/00	AJS

NO.	PART NUMBER	DESCRIPTION	QTY
1	UNLESS SPECIFIED		
2	REVISIONS		
3	DATE		
4	APPROVED		
5	DATE		
6	REV.		
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