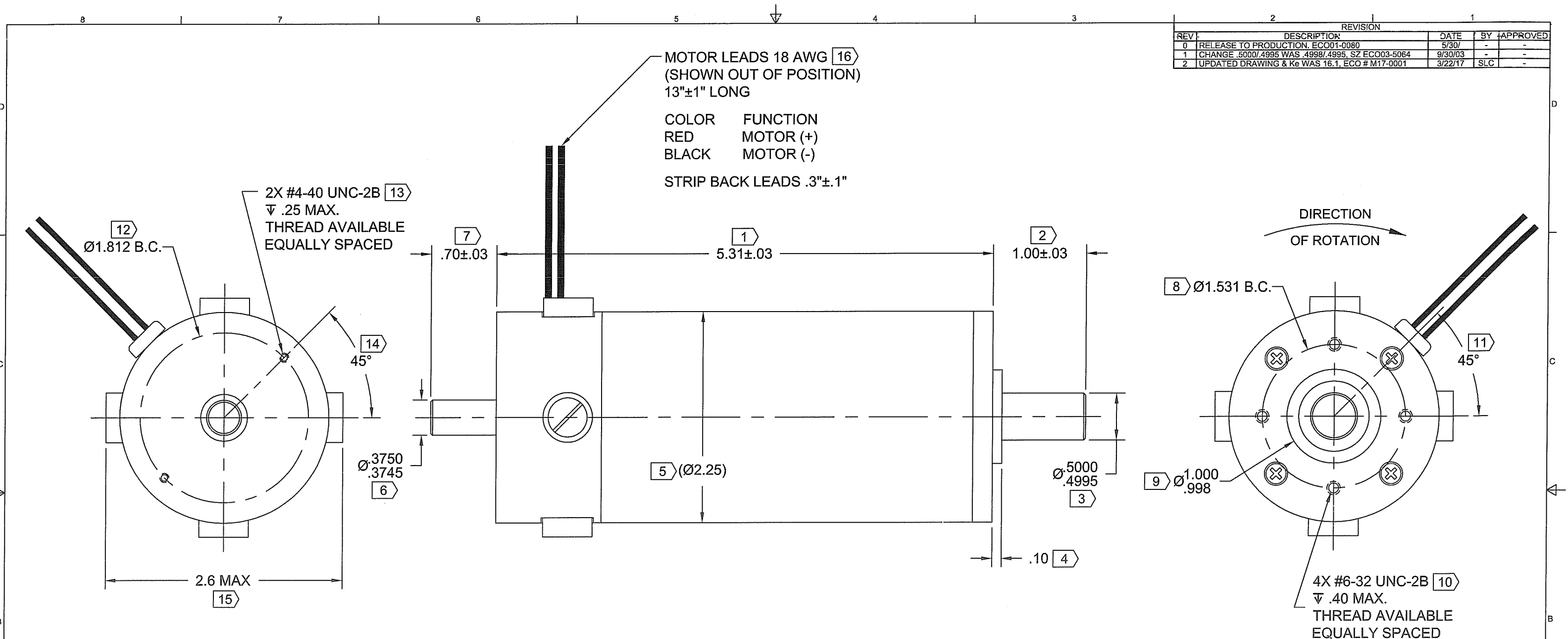


REVISION		DATE	BY	APPROVED
0	RELEASE TO PRODUCTION, ECO01-0080	5/30/	-	-
1	CHANGE .5000/.4995 WAS .4998/.4995, SZ ECO03-5064	9/30/03	-	-
2	UPDATED DRAWING & Ke WAS 16.1, ECO # M17-0001	3/22/17	SLC	-



MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 22.7 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 16.8 ± 10% VOLTS/KRPM

NOTES:

- 1.) MOTOR ROTATION IS CLOCKWISE WHEN VIEWED FROM OUTPUT SHAFT WITH POSITIVE VOLTAGE APPLIED TO RED LEAD.
- 2.) SCREW PENETRATION NOT TO EXCEED SPECIFIED THREAD DEPTH.
- 3.) (X) IDENTIFIES INSPECTION DIMENSIONS.

CONTROLLED
 MAR 24 2017
DOCUMENT

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & [mm]		THIRD ANGLE PROJECTION DO NOT SCALE DRAWING		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MAGMOTOR TECHNOLOGIES. ANY REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED THEREIN IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION FROM MAGMOTOR TECHNOLOGIES IS PROHIBITED.		Magmotor™
TOLERANCES ON: ANGLES = ± 1/2° X.XX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		SIGNATURES		DATE		
MATERIAL		DRAWN	BL	5/23/2001		MOTOR ASSEMBLY, S23-G-285X
SPEC		CHECKED	SLC	3/24/17		
FINISH		ENG APPR.				
SPEC		MFG APPR.	SLC	3/24/17		SIZE NUMBER D 500230024
UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		Q.A.				REV 2
		SCALE: NONE		WEIGHT: -		SHEET 1 OF 3

MOTOR SPECIFICATIONS

Final Product No.: **S23 G 285 X**

Attn.:

RFQ **500230024**

Customer:

By: JC

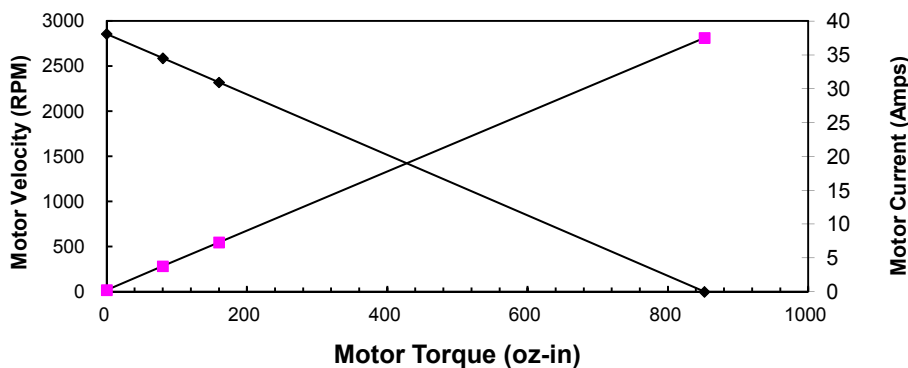
Phone/Fax:

Date: 3/21/2017

This is a calculation data sheet

SPECS	C/S	Frame	PM	- Winding -	Stack	Options	Gear Ratio
MODEL #	S	23		G	285	X	1.0
V in =*	48	Vdc			Input Voltage		eff = 0.9
Ke =*	16.8	V/krpm			Voltage Constant		
Kt =	22.7	oz-in/A			Torque Constant		
Rt =*	1.28	Ohms(@20° C)			Terminal Resistance+Amplifier		
Io =*	0.26	Amps			No load current		
I as =	37.5	Amps			Stall Current (reference only)		
T gs =	852	oz-in			Stall Torque (reference only @ V in)		
I 1 =	3.8	Amps			Current @ Torque-1		
T 1 =*	80	oz-in			Torque-1	72.0 oz-in	4.5 in-lb
T 2 =*	160	oz-in			Torque-2	144.0 oz-in	9.0 in-lb
I 2 =	7.3	Amps			Current @ Torque-2		
RPM nl =	2857	RPM			No Load Velocity		2857.1 rpm
RPM r =	2589	RPM			RPM @ T1		2588.9 rpm
RPM p =	2321	RPM			RPM @ T2		2320.6 rpm
R ah =	1.67	Ohms(@105° C)			Term. Resistance Hot		
T gsh =	651	oz-in			Stall Torque Hot		
I ash =	28.7	Amps			Stall Current Hot		
R th =*	3.5	°C/W			Thermal Resistance		
Tr =	99	°C	Without cooling air		Temperature Rise (above ambient)		
Nm/A =	0.16				Torque Constant		
Lb in/A =	1.42				Torque Constant		
Km =	20.1	Kt/r			Motor Constant		

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	2857	0.3	0	0
48	80	2589	3.8	0.84405	153.18759
48	160	2321	7.3	0.78352	274.62695
48	852	0	37.5	0	0