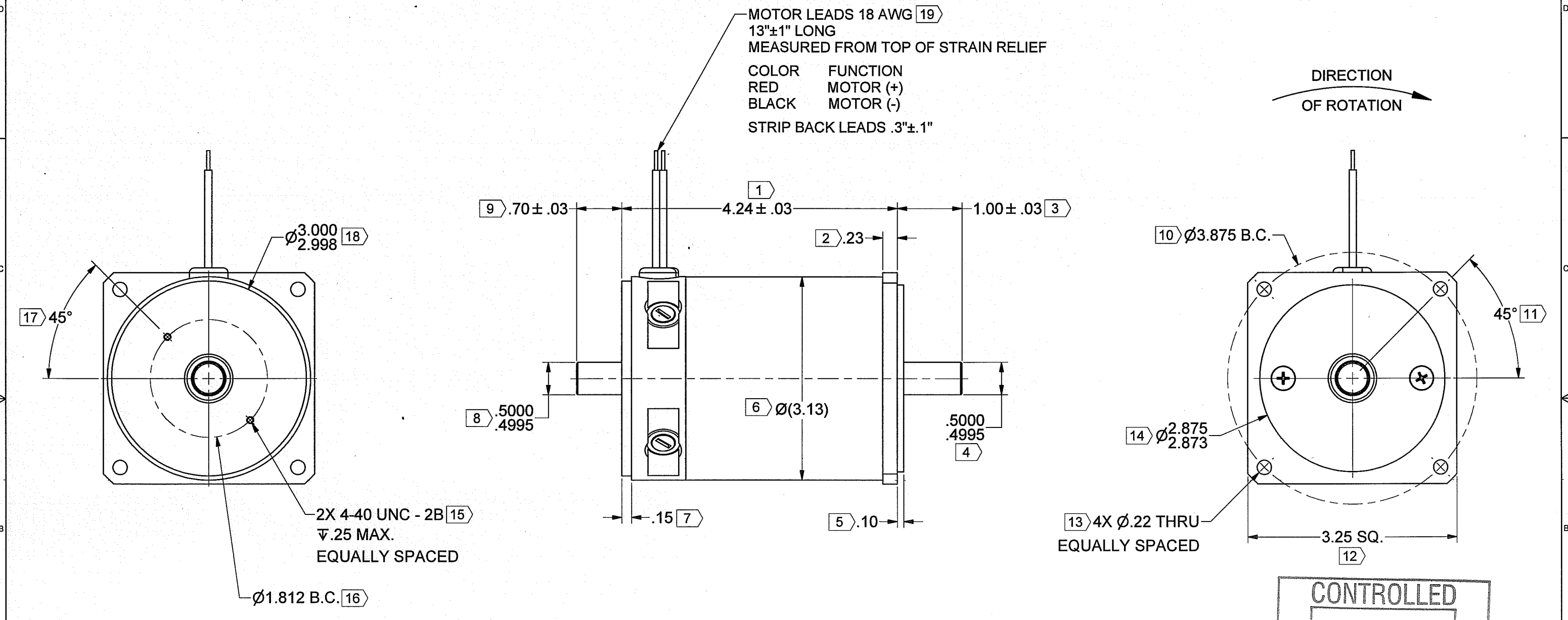


REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE			

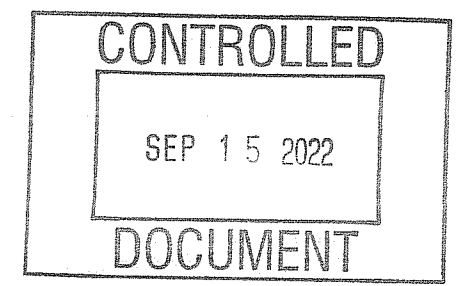


**MOTOR SPECIFICATIONS:**

TORQUE CONSTANT (Kt) = 63.0 ± 10% OZ-IN/AMP  
 VOLTAGE CONSTANT (Ke) = 46.6 ± 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.



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 = ± 12° XXX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		SIGNATURES		DATE		
MATERIAL		DRAWN	CGW	7/27/2022		MOTOR ASSEMBLY, C33-L-200FX
SPEC		CHECKED	ML	9/15/22		
FINISH	NONE	ENG APPR.	HCM	9/15/22		
SPEC		MFG APPR.				
UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE. FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		Q.A.		SIZE		NUMBER
				D		500280475
		SCALE: -		WEIGHT: -LB.		REV
						A
				SHEET 1 OF 3		



10 Coppage Drive  
Worcester, MA 01603  
11/23/2022

**MOTOR PERFORMANCE / SPECIFICATIONS**

**Attn.:**

Final Product No.: **C33-L-200FX**  
RFQ: 500280475  
By: MM

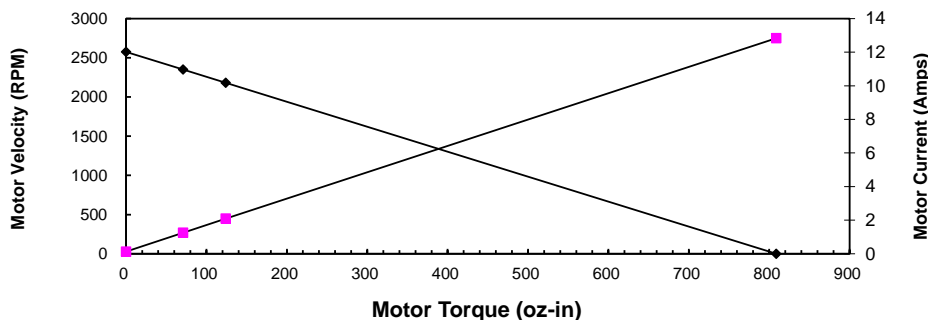
Customer:  
Phone/Fax:  
Date: 11/23/2022

This is a calculation data sheet

SPECS	C/S	Frame	PM	Winding	-	Stack	Options	Gear Ratio
MODEL #	<b>C</b>	<b>33</b>	-	<b>L</b>	-	<b>200</b>	<b>FX</b>	

V in =*	<b>120</b> Vdc							Input Voltage
Ke =*	<b>46.60</b> V/krpm							Voltage Constant
Kt =	63.0 oz-in/A							Torque Constant
Rt =*	<b>9.35</b> Ohms(@20° C)							Terminal Resistance+Amplifier
Io =*	<b>0.13</b> Amps							No load current
I as =	12.8 Amps							Stall Current (reference only)
T gs =	809 oz-in							Stall Torque (reference only @ V in)
I 1 =	1.3 Amps							Current @ Torque-1
I 2 =	2.1 Amps							Current @ Torque-2
T 1 =*	<b>71</b> oz-in							Torque-1
T 2 =*	<b>124</b> oz-in							Torque-2
RPM nl =	2575 RPM							No Load Velocity
RPM r =	2349 RPM							RPM @ T1
RPM p =	2180 RPM							RPM @ T2
R ah =	12.23 Ohms(@105° C)							Term. Resistance Hot
T gsh =	618 oz-in							Stall Torque Hot
I ash =	9.8 Amps							Stall Current Hot
R th =*	<b>2.9</b> °C/W							Thermal Resistance
Tr =	<b>80</b> °C	Without cooling air						Temperature Rise @ T1 (above ambient)
Tr =	<b>150</b> °C	Without cooling air						Temperature Rise @ T2 (above ambient)
Nm/A =	0.44							Torque Constant
Lb in/A =	3.94							Torque Constant
Km =	20.6	Kt/r						Motor Constant

**Torque Curve**



**Calculation data**

Voltage	Torque	RPM	Amp	Efficiency	Watts out
120	0	2575	0.1		0
120	71	2349	1.3	0.818088518	123.36057
120	124	2180	2.1	0.794453309	199.97075
120	809	0	12.8		0