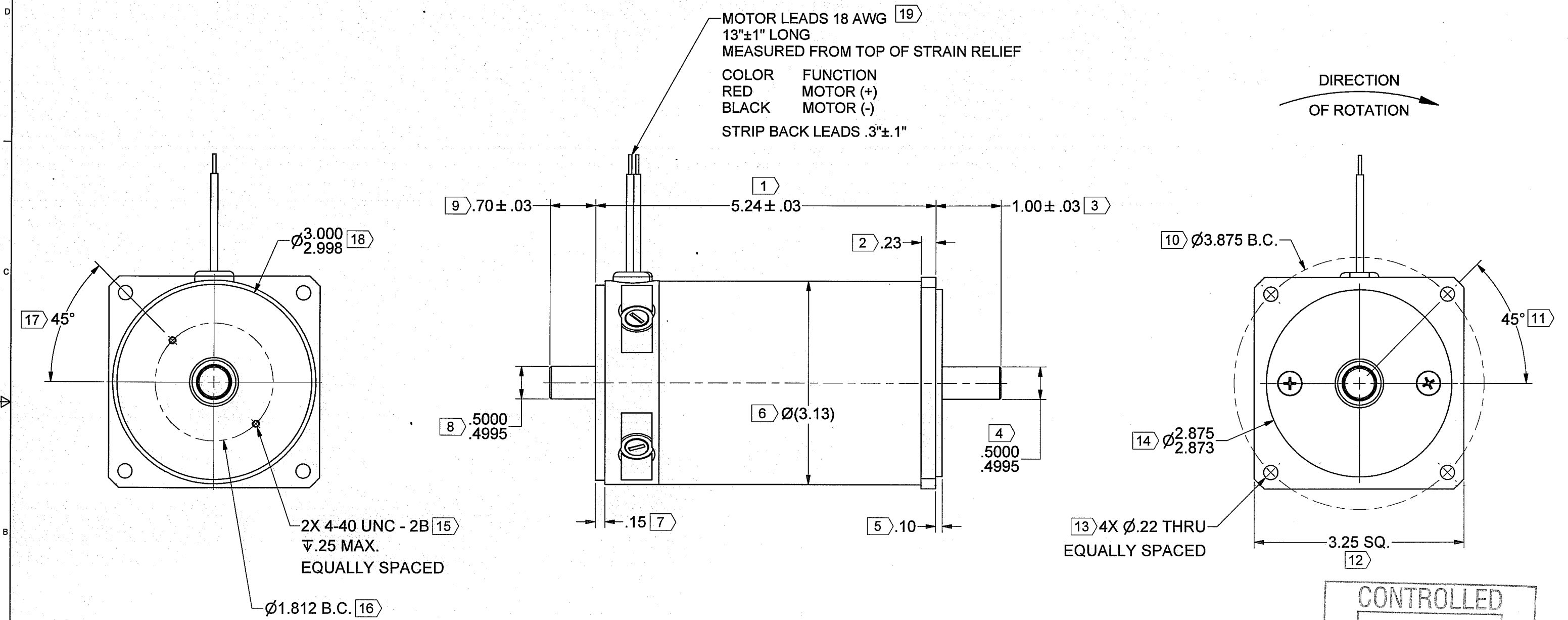


REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE			



**MOTOR SPECIFICATIONS:**

TORQUE CONSTANT (Kt) = 28.7 ± 10% OZ-IN/AMP  
 VOLTAGE CONSTANT (Ke) = 21.2 ± 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**  
 SEP 22 2022  
**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.		<b>Magmotor</b> <sup>TM</sup>	
TOLERANCES ON: ANGLES = ± 1/2° X.XX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		SIGNATURES		DATE			
MATERIAL	DRAWN CGW	7/27/2022		9/22/22		MOTOR ASSEMBLY, C33-G-300FX	
SPEC	CHECKED	[Signature]		[Signature]		SIZE NUMBER	
FINISH	ENG APPR.	[Signature]		[Signature]		D 500280473	
SPEC	MFG APPR.	[Signature]		[Signature]		REV A	
NONE		Q.A.		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		SCALE: - WEIGHT: - LB. SHEET 1 OF 3	



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

**MOTOR PERFORMANCE / SPECIFICATIONS**

**Attn.:**

Final Product No.: **C33-G-300FX**

Customer:

RFQ 500280473

Phone/Fax:

By: MM

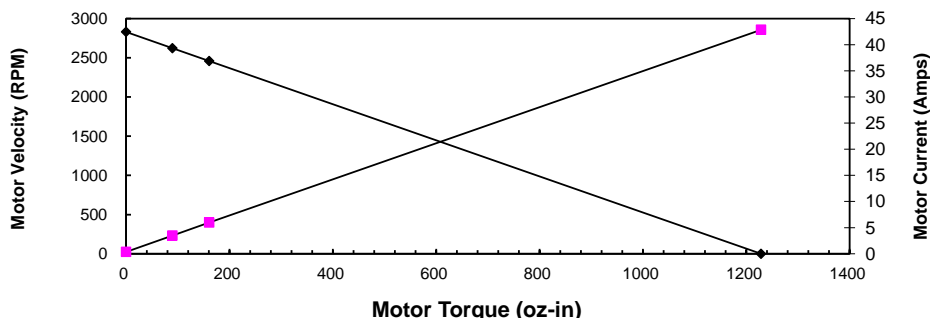
Date: 11/23/2022

This is a calculation data sheet

SPECS	C/S	Frame	PM	Winding	-	Stack	Options	Gear Ratio
MODEL #	<b>C</b>	<b>33</b>	-	<b>G</b>	-	<b>300</b>	<b>FX</b>	

V in =*	<b>60</b> Vdc							Input Voltage
Ke =*	<b>21.20</b> V/krpm							Voltage Constant
Kt =	28.7 oz-in/A							Torque Constant
Rt =*	<b>1.40</b> Ohms(@20° C)							Terminal Resistance+Amplifier
Io =*	<b>0.35</b> Amps							No load current
I as =	42.9 Amps							Stall Current (reference only)
T gs =	1229 oz-in							Stall Torque (reference only @ V in)
I 1 =	3.5 Amps							Current @ Torque-1
I 2 =	6.0 Amps							Current @ Torque-2
T 1 =*	<b>90</b> oz-in							Torque-1
T 2 =*	<b>161</b> oz-in							Torque-2
RPM nl =	2830 RPM							No Load Velocity
RPM r =	2623 RPM							RPM @ T1
RPM p =	2459 RPM							RPM @ T2
R ah =	1.83 Ohms(@105° C)							Term. Resistance Hot
T gsh =	939 oz-in							Stall Torque Hot
I ash =	32.8 Amps							Stall Current Hot
R th =*	<b>2.3</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 =	0.20							Torque Constant
Lb in/A =	1.79							Torque Constant
Km =	24.2	Kt/r						Motor Constant

**Torque Curve**



**Calculation data**

Voltage	Torque	RPM	Amp	Efficiency	Watts out
60	0	2830	0.4	0	0
60	90	2623	3.5	0.834035914	174.60076
60	161	2459	6.0	0.818231129	292.8672
60	1229	0	42.9	0	0