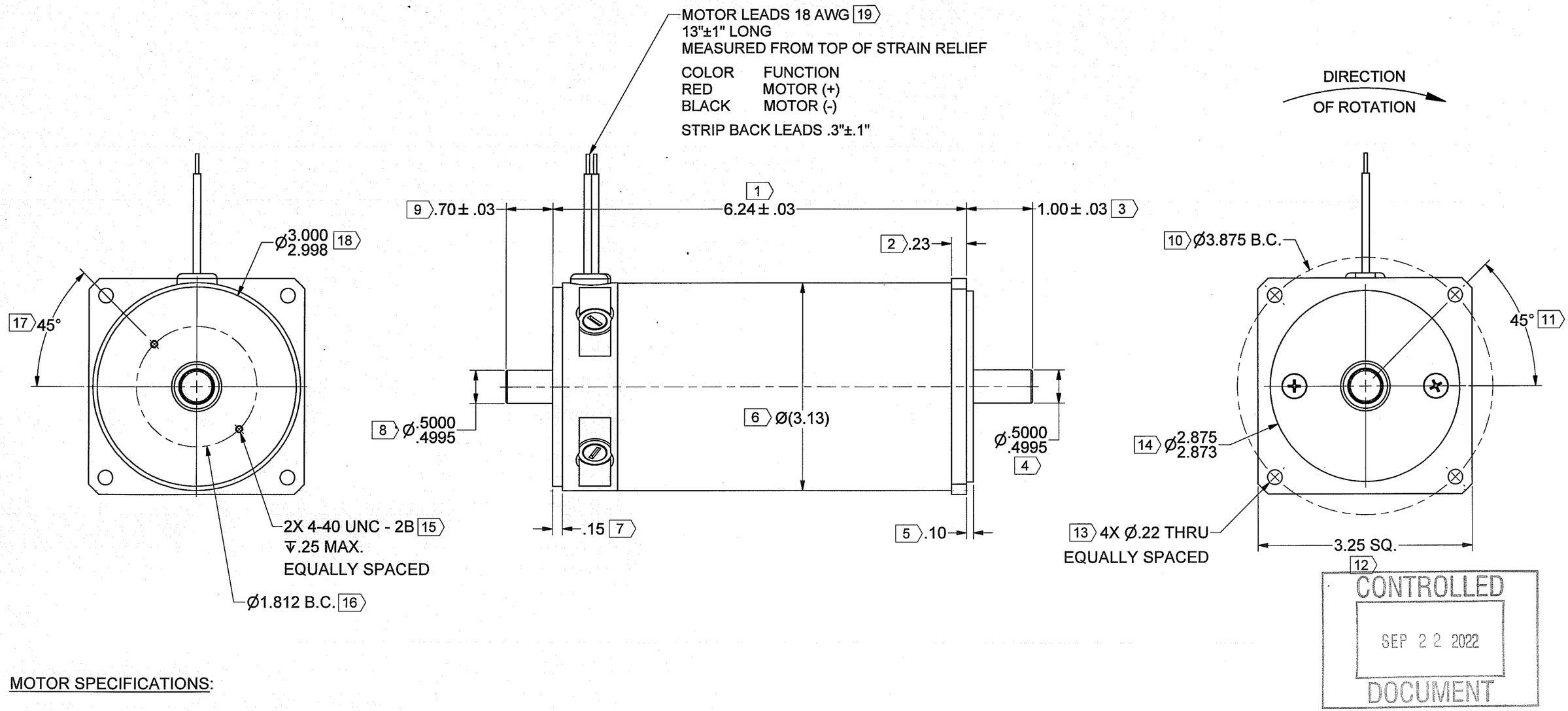
REVISION				
REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-



MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 30.0 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 22.2 ± 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.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & [mm]
TOLERANCES ON:
ANGLES = ± 1/2°
X.XX [X.X] = ± .01 [0.25]
X.XXX [X.XX] = ± .005 [0.12]
125

MATERIAL: -
SPEC:
FINISH: NONE
SPEC:

THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING

SIGNATURES		DATE
DRAWN	CGW	7/26/2022
CHECKED		9/22/22
ENG APPR.		9/22/22
MFG APPR.		9/22/22
Q.A.		

UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES, COUNTERSINK TAPPED HOLES TO BODY SIZE FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.

Magmotor™

TITLE: MOTOR ASSEMBLY, C33-F-400FX

SIZE: D | NUMBER: 500280471 | REV: A

SCALE: - | WEIGHT: - LB. | SHEET 1 OF 3

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

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

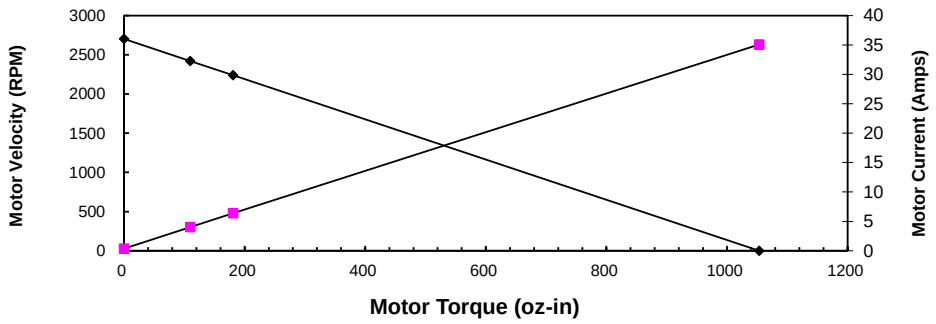
Final Product No.: **C33-F-400FX**
Customer:
RFQ 500280471
Phone/Fax:
By: MM
Date: 11/23/2022

This is a calculation data sheet X

SPECS	C/S	Frame	PM	-	Winding	-	Stack	Options	Gear Ratio
MODEL #	C	33		-	F	-	400	FX	

V in =*	60	Vdc	Input Voltage	**Eff =**	0.9	
Ke =*	22.20	V/krpm	Voltage Constant			
Kt =	30.0	oz-in/A	Torque Constant			
Rt =*	1.71	Ohms(@20° C)	Terminal Resistance+Amplifier			
Io=*	0.36	Amps	No load current			
I as =	35.1	Amps	Stall Current (reference only)			
T gs =	1053	oz-in	Stall Torque (reference only @ V in)			
I 1 =	4.0	Amps	Current @ Torque-1			
I 2 =	6.4	Amps	Current @ Torque-2			
T 1 =*	110	oz-in	Torque-1	0.0 oz-in	0.0 in-lb	
T 2 =*	181	oz-in	Torque-2	0.0 oz-in	0.0 in-lb	
RPM nl =	2703	RPM	No Load Velocity		#DIV/0!	rpm
RPM r =	2420	RPM	RPM @ T1		**#DIV/0!**	**rpm**
RPM p=	2238	RPM	RPM @ T2		#DIV/0!	rpm
R ah =	2.24	Ohms(@105° C)	Term. Resistance Hot			
T gsh =	805	oz-in	Stall Torque Hot			
I ash =	26.8	Amps	Stall Current Hot			
R th =*	1.8	°C/W	Thermal Resistance			
Tr =	80	°C Without cooling air	Temperature Rise @ T1 (above ambient)			
Tr =	151	°C Without cooling air	Temperature Rise @ T2 (above ambient)			
Nm/A=	0.21		Torque Constant			
Lb in/A=	1.88		Torque Constant			
Km=	23.0	Kt//r	Motor Constant			

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
60	0	2703	0.4	0	0
60	110	2420	4.0	0.815697211	196.9333
60	181	2238	6.4	0.781746509	299.65853
60	1053	0	35.1	0	0