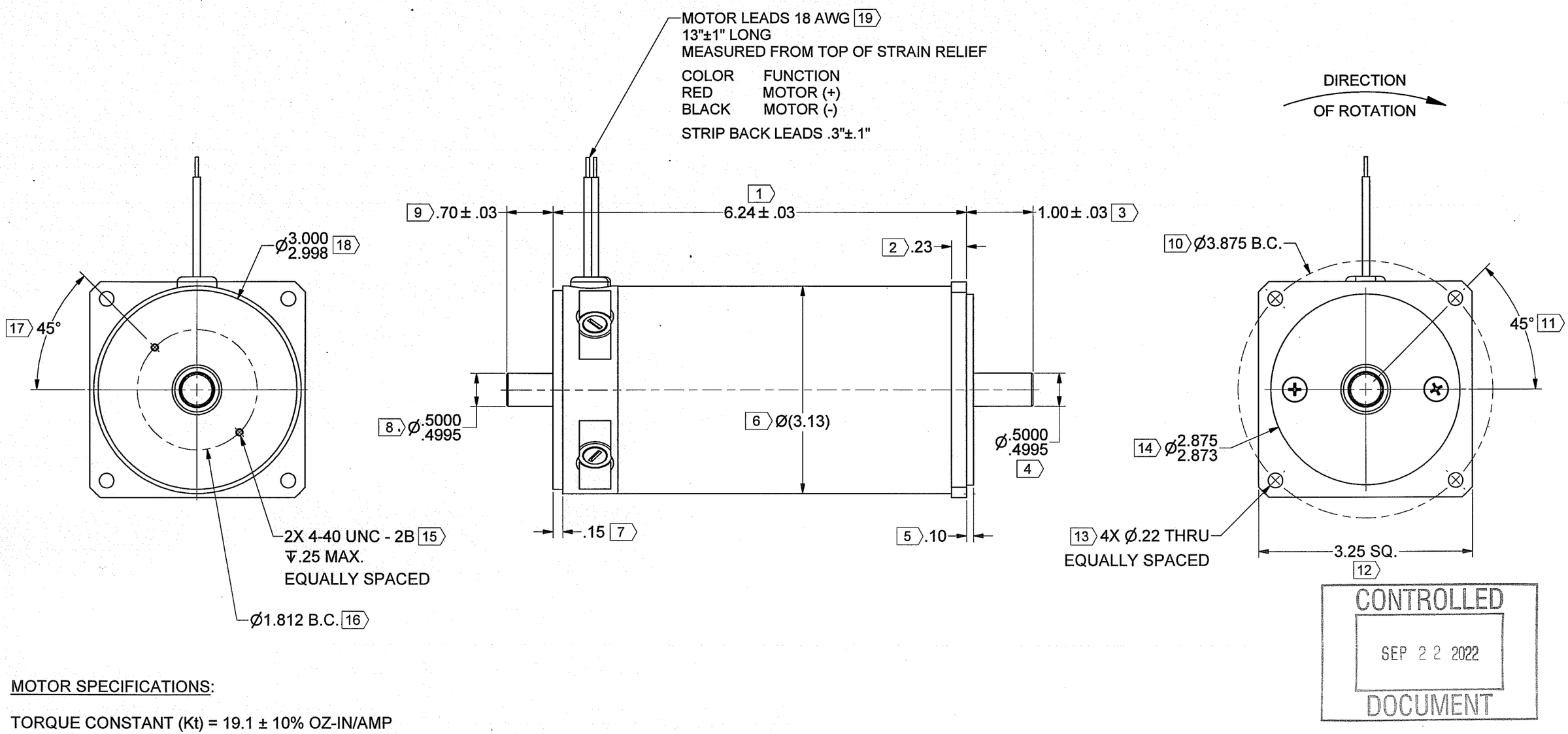
REVISION				
REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-



CONTROLLED
SEP 22 2022
DOCUMENT

MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 19.1 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 14.1 ± 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.	BT	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-D-400FX

SIZE	NUMBER	REV
D	500280470	A

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

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

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

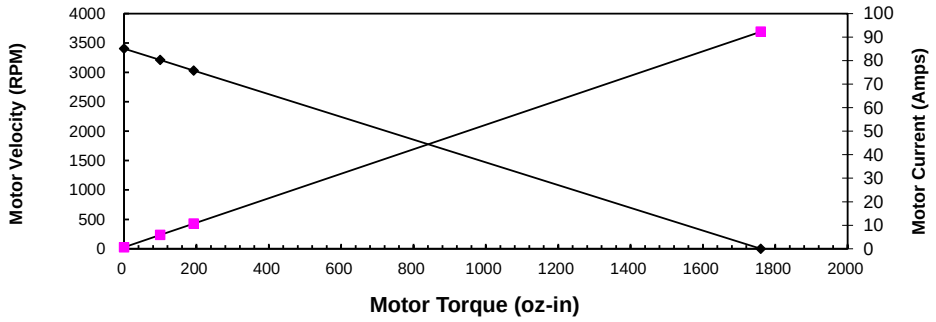
Final Product No.: **C33-D-400FX**
Customer:
RFQ 500280470
Phone/Fax:
By: MM
Date: 11/23/2022

This is a calculation data sheet X

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

V in =*	48	Vdc		Input Voltage		**Eff =**	0.9
Ke =*	14.10	V/krpm		Voltage Constant			
Kt =	19.1	oz-in/A		Torque Constant			
Rt =*	0.52	Ohms(@20° C)		Terminal Resistance+Amplifier			
Io=*	0.63	Amps		No load current			
I as =	92.3	Amps		Stall Current (reference only)			
T gs =	1760	oz-in		Stall Torque (reference only @ V in)			
I 1 =	5.9	Amps		Current @ Torque-1			
I 2 =	10.7	Amps		Current @ Torque-2			
T 1 =*	100	oz-in		Torque-1	0.0 oz-in	0.0 in-lb	
T 2 =*	193	oz-in		Torque-2	0.0 oz-in	0.0 in-lb	
RPM nl =	3404	RPM		No Load Velocity		#DIV/0!	rpm
RPM r =	3211	RPM		RPM @ T1		**#DIV/0!**	**rpm**
RPM p=	3031	RPM		RPM @ T2		#DIV/0!	rpm
R ah =	0.68	Ohms(@105° C)		Term. Resistance Hot			
T gsh =	1345	oz-in		Stall Torque Hot			
I ash =	70.6	Amps		Stall Current Hot			
R th =*	1.8	°C/W		Thermal Resistance			
Tr =	80	°C	Without cooling air	Temperature Rise @ T1 (above ambient)			
Tr =	150	°C	Without cooling air	Temperature Rise @ T2 (above ambient)			
Nm/A=	0.13			Torque Constant			
Lb in/A=	1.19			Torque Constant			
Km=	26.4	Kt//r		Motor Constant			

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	3404	0.6	0	0
48	100	3211	5.9	0.842998564	237.48918
48	193	3031	10.7	0.838818583	432.67835
48	1760	0	92.3	0	0