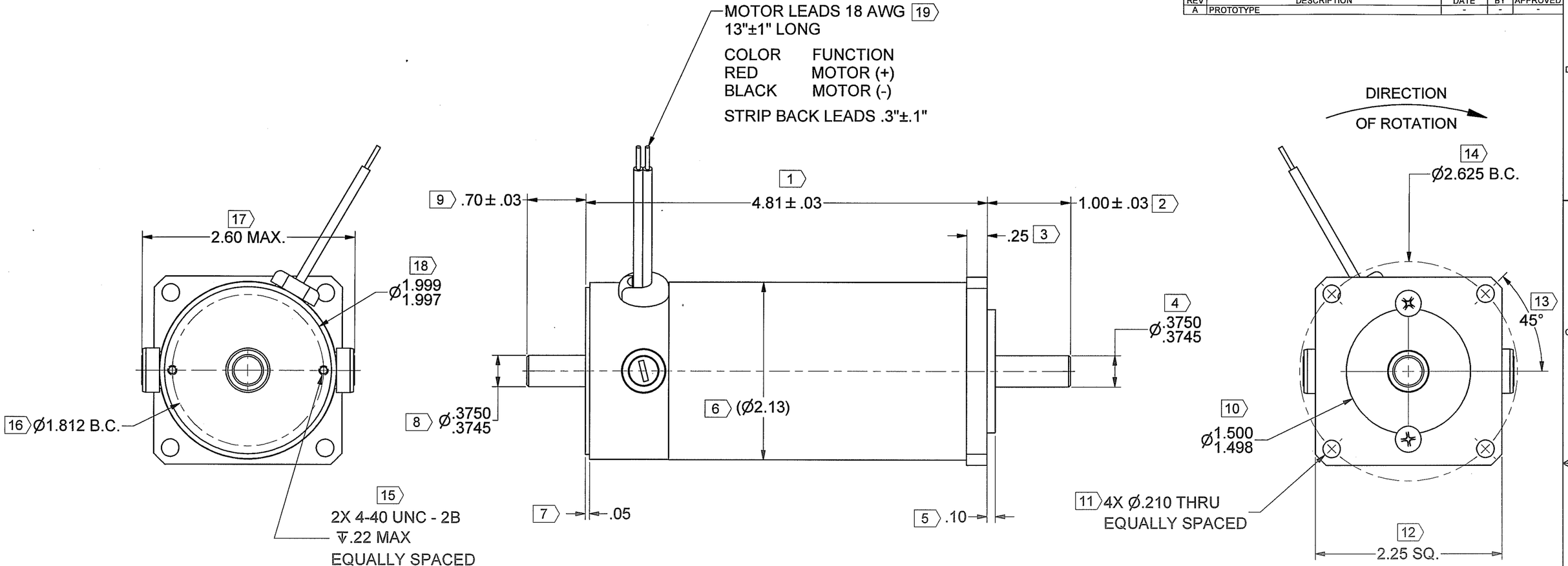
REVISION				
REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-



MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 68.3 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 50.5 ± 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
JUL 5 2022
DOCUMENT

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	6/21/2022
CHECKED		
ENG APPR.	MCM	7/5/22
MFG APPR.	BT	7/5/22
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, C21-M-230FX

SIZE	NUMBER	REV
D	500210360	A

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

10 Coppage Drive
Worcester, MA 01603
8/17/2022

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

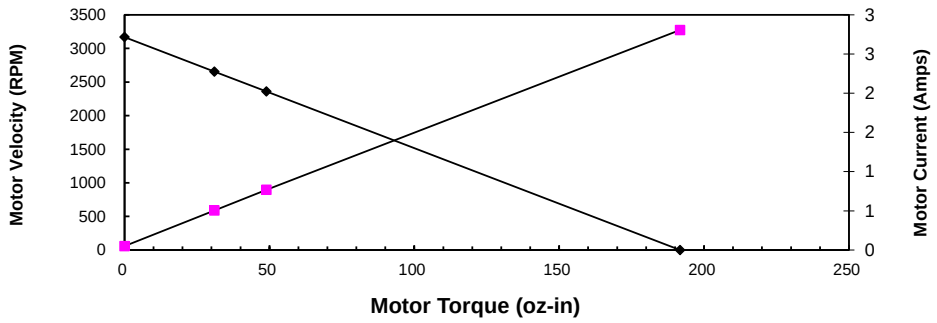
Final Product No.: **C21-M-230FX**
Customer:
RFQ 500210360
Phone/Fax:
By: MM
Date: 8/17/2022

This is a calculation data sheet X

SPECS	C/S	Frame	PM	-	Winding	-	Stack	Options	Gear Ratio
MODEL #	C	21		-	M	-	230	FX	

V in =*	**160**	Vdc	Input Voltage	**Eff =**	0.9	
Ke =*	**50.50**	V/krpm	Voltage Constant			
Kt =	68.3	oz-in/A	Torque Constant			
Rt =*	**57.00**	Ohms(@20° C)	Terminal Resistance+Amplifier			
Io=*	**0.05**	Amps	No load current			
I as =	2.8	Amps	Stall Current (reference only)			
T gs =	192	oz-in	Stall Torque (reference only @ V in)			
I 1 =	0.5	Amps	Current @ Torque-1			
I 2 =	0.8	Amps	Current @ Torque-2			
T 1 =*	**31**	oz-in	Torque-1	0.0 oz-in	0.0 in-lb	
T 2 =*	**49**	oz-in	Torque-2	0.0 oz-in	0.0 in-lb	
RPM nl =	3168	RPM	No Load Velocity		#DIV/0!	rpm
RPM r =	2656	RPM	RPM @ T1		**#DIV/0!**	**rpm**
RPM p=	2359	RPM	RPM @ T2		#DIV/0!	rpm
R ah =	74.57	Ohms(@105° C)	Term. Resistance Hot			
T gsh =	147	oz-in	Stall Torque Hot			
I ash =	2.1	Amps	Stall Current Hot			
R th =*	**4.0**	°C/W	Thermal Resistance			
Tr =	**79**	°C	Without cooling air	Temperature Rise @ T1 (above ambient)		
Tr =	**149**	°C	Without cooling air	Temperature Rise @ T2 (above ambient)		
Nm/A=	0.48		Torque Constant			
Lb in/A=	4.27		Torque Constant			
Km=	9.0	Kt//r	Motor Constant			

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
160	0	3168	0.1	0	0
160	31	2656	0.5	0.755339722	60.899138
160	49	2359	0.8	0.696111982	85.478436
160	192	0	2.8	0	0