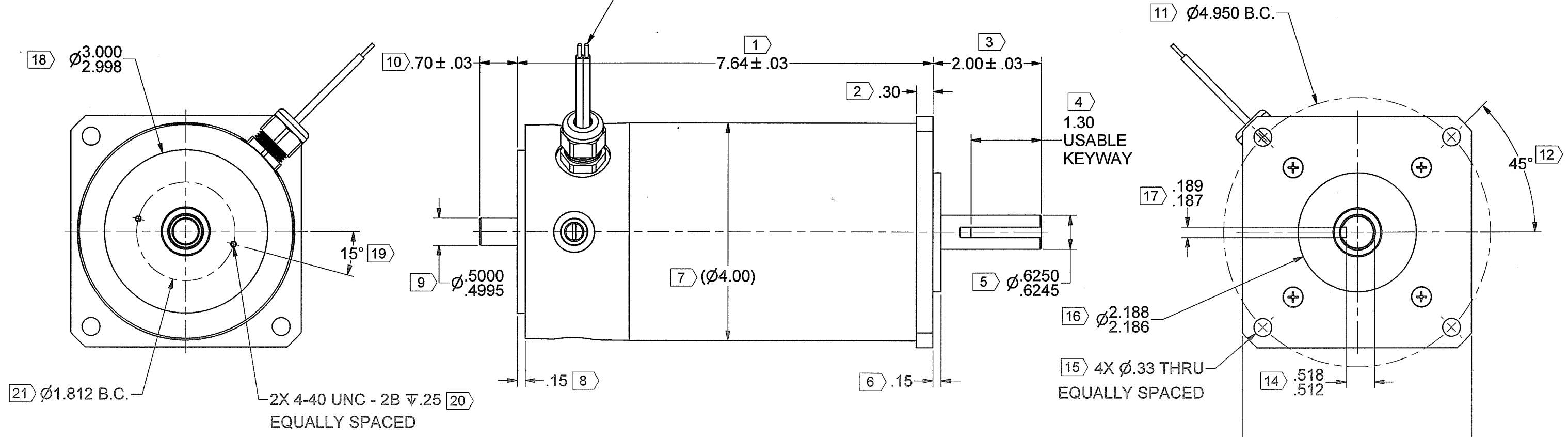


REVISION		DATE	BY	APPROVED
REV	DESCRIPTION			
A	PROTOTYPE	-	-	-

22 MOTOR LEADS 14 AWG
13"±1" LONG

COLOR	FUNCTION
RED	MOTOR (+)
BLACK	MOTOR (-)
STRIP BACK LEADS .3"±.1"	

DIRECTION
OF ROTATION



CONTROLLED
JUN 9 2022
DOCUMENT

MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 31.8 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 23.5 ± 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.

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & (mm)</small> <small>TOLERANCES ON:</small> <small>ANGLES = ± 1/2°</small> <small>X.XX [X.X] = ± .01 [0.25]</small> <small>X.XXX [X.XX] = ± .005 [0.12]</small>	 THIRD ANGLE PROJECTION DO NOT SCALE DRAWING	<small>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.</small>			
		SIGNATURES	DATE		TITLE
		DRAWN CGW	6/7/2022		MOTOR ASSEMBLY, C40-A-400FX
		CHECKED MCH	6/9/22		
SPEC	MFG APPR. BT	6/9/22			
FINISH NONE	Q.A.		SIZE D	NUMBER 500400261	
SPEC	<small>UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES, COUNTERSINK TAPPED HOLES TO BODY SIZE</small> <small>FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.</small>		SCALE: -	WEIGHT: - LB.	
				SHEET 1 OF 3	



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

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

Final Product No.: **C40-A-400FX**

Customer:

RFQ 500400261

Phone/Fax:

By: MM

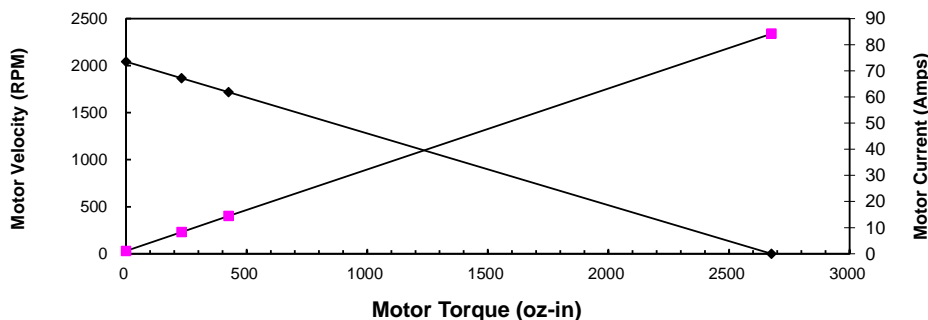
Date: 8/10/2022

This is a calculation data sheet

SPECS	C/S	Frame	PM	Winding	-	Stack	Options	Gear Ratio
MODEL #	C	40	-	A	-	400	FX	

V in =*	48 Vdc					Input Voltage		Eff = 0.9
Ke =*	23.5 V/krpm					Voltage Constant		
Kt =	31.8 oz-in/A					Torque Constant		
Rt =*	0.57 Ohms(@20° C)					Terminal Resistance+Amplifier		
Io =*	1.091 Amps					No load current		
I as =	84.2 Amps					Stall Current (reference only)		
T gs =	2676 oz-in					Stall Torque (reference only @ V in)		
I 1 =	8.3 Amps					Current @ Torque-1		
I 2 =	14.5 Amps					Current @ Torque-2		
T 1 =*	230 oz-in					Torque-1		
T 2 =*	425 oz-in					Torque-2		
RPM nl =	2043 RPM					No Load Velocity		
RPM r =	1867 RPM					RPM @ T1		
RPM p =	1718 RPM					RPM @ T2		
R ah =	0.75 Ohms(@105° C)					Term. Resistance Hot		
T gsh =	2046 oz-in					Stall Torque Hot		
I ash =	64.4 Amps					Stall Current Hot		
R th =*	0.98 °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 =	0.22					Torque Constant		
Lb in/A =	1.99					Torque Constant		
Km =	42.1	Kt/r				Motor Constant		

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	2043	1.1	0	0
48	230	1867	8.3	0.794549921	317.61417
48	425	1718	14.5	0.777978104	540.11354
48	2676	0	84.2	0	0