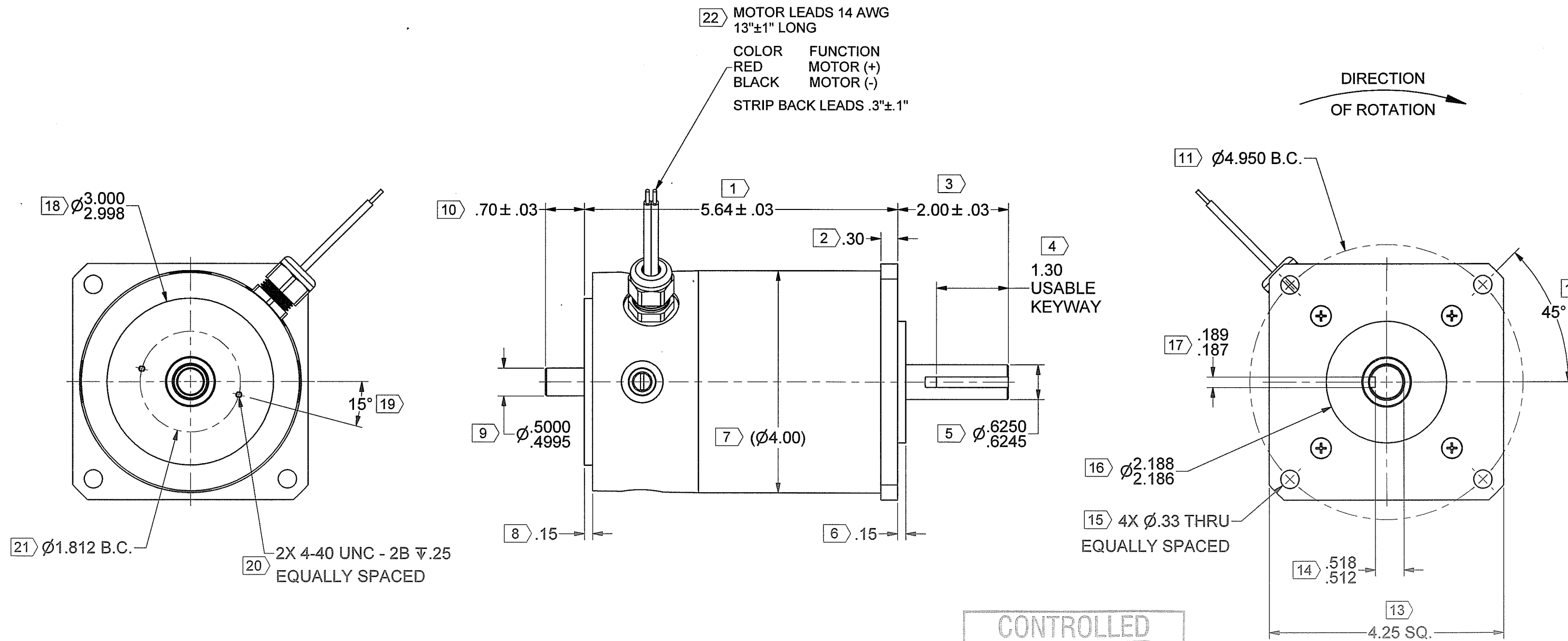


REV	DESCRIPTION	REVISION	DATE	BY	APPROVED
A	PROTOTYPE				



CONTROLLED  
JUL 14 2022  
DOCUMENT

**MOTOR SPECIFICATIONS:**

TORQUE CONSTANT (Kt) = 32.5 ± 10% OZ-IN/AMP  
VOLTAGE CONSTANT (Ke) = 24.0 ± 10% VOLTS/KRPM

**NOTES:**

- MOTOR ROTATION IS CLOCKWISE WHEN VIEWED FROM OUTPUT SHAFT WITH POSITIVE VOLTAGE APPLIED TO RED LEAD.
- SCREW PENETRATION NOT TO EXCEED SPECIFIED THREAD DEPTH.
- [X] IDENTIFIES INSPECTION DIMENSIONS.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & [mm]		THIRD ANGLE PROJECTION		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>
TOLERANCES ON: ANGLES = ± 12° XX [X] = ± .01 [0.25] XXX [X.X] = ± .005 [0.12]		DO NOT SCALE DRAWING		SIGNATURES		
MATERIAL	-	DRAWN	CGW	DATE	6/7/2022	TITLE
SPEC	-	CHECKED	<i>JK</i>	DATE	7/14/22	MOTOR ASSEMBLY, C40-D-200FX
FINISH	NONE	ENG APPR.	<i>MLM</i>	DATE	7/14/22	SIZE
SPEC	-	MFG APPR.	<i>BT</i>	DATE	7/14/22	NUMBER
UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE. FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		Q.A.		SCALE: -		WEIGHT: - LB.
				SHEET 1 OF 3		REV <b>A</b>



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

**MOTOR PERFORMANCE / SPECIFICATIONS**

**Attn.:**

Final Product No.: **C40-D-200FX**

Customer:

RFQ 500400257

Phone/Fax:

By: MM

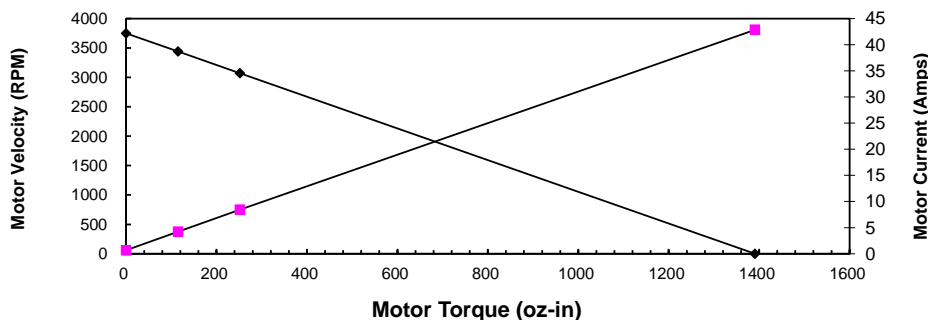
Date: 8/10/2022

This is a calculation data sheet

SPECS	C/S	Frame	PM	Winding	-	Stack	Options	Gear Ratio
MODEL #	<b>C</b>	<b>40</b>	-	<b>D</b>	-	<b>200</b>	<b>FX</b>	

V in =*	<b>90</b> Vdc					Input Voltage		Eff = 0.9
Ke =*	<b>24</b> V/krpm					Voltage Constant		
Kt =	32.5 oz-in/A					Torque Constant		
Rt =*	<b>2.1</b> Ohms(@20° C)					Terminal Resistance+Amplifier		
Io=*	<b>0.67</b> Amps					No load current		
I as =	42.9 Amps					Stall Current (reference only)		
T gs =	1391 oz-in					Stall Torque (reference only @ V in)		
I 1 =	4.2 Amps					Current @ Torque-1		
I 2 =	8.4 Amps					Current @ Torque-2		
T 1 =*	<b>115</b> oz-in					Torque-1		
T 2 =*	<b>252</b> oz-in					Torque-2		
RPM nl =	3750 RPM					No Load Velocity		
RPM r =	3440 RPM					RPM @ T1		
RPM p=	3071 RPM					RPM @ T2		
R ah =	2.75 Ohms(@105° C)					Term. Resistance Hot		
T gsh =	1063 oz-in					Stall Torque Hot		
I ash =	32.8 Amps					Stall Current Hot		
R th =*	<b>2</b> °C/W					Thermal Resistance		
Tr =	<b>173</b> °C	Without cooling air				Temperature Rise @ T1 (above ambient)		
Tr =	<b>373</b> °C	Without cooling air				Temperature Rise @ T2 (above ambient)		
Nm/A=	0.23					Torque Constant		
Lb in/A=	2.03					Torque Constant		
Km=	22.4	Kt/r				Motor Constant		

**Torque Curve**



**Calculation data**

Voltage	Torque	RPM	Amp	Efficiency	Watts out
90	0	3750	0.7		0
90	115	3440	4.2	0.771675068	292.60186
90	252	3071	8.4	0.754014412	572.34049
90	1391	0	42.9		0