

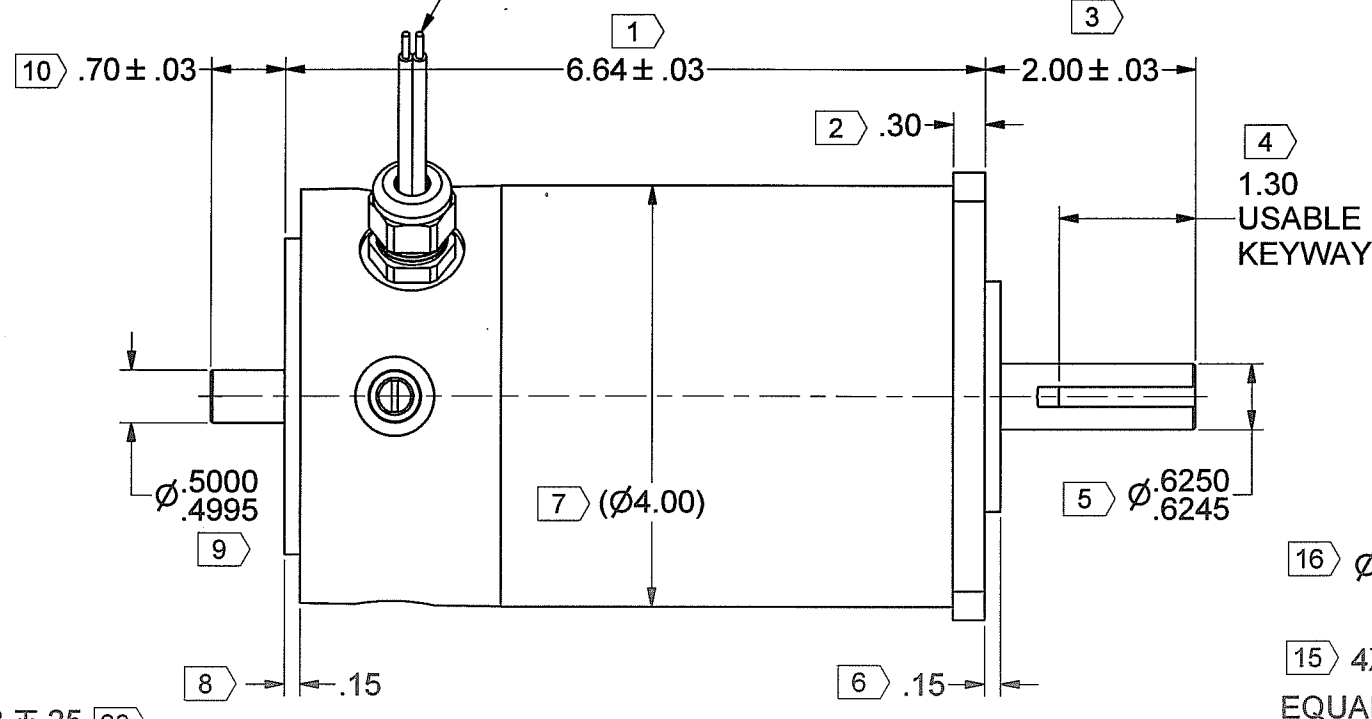
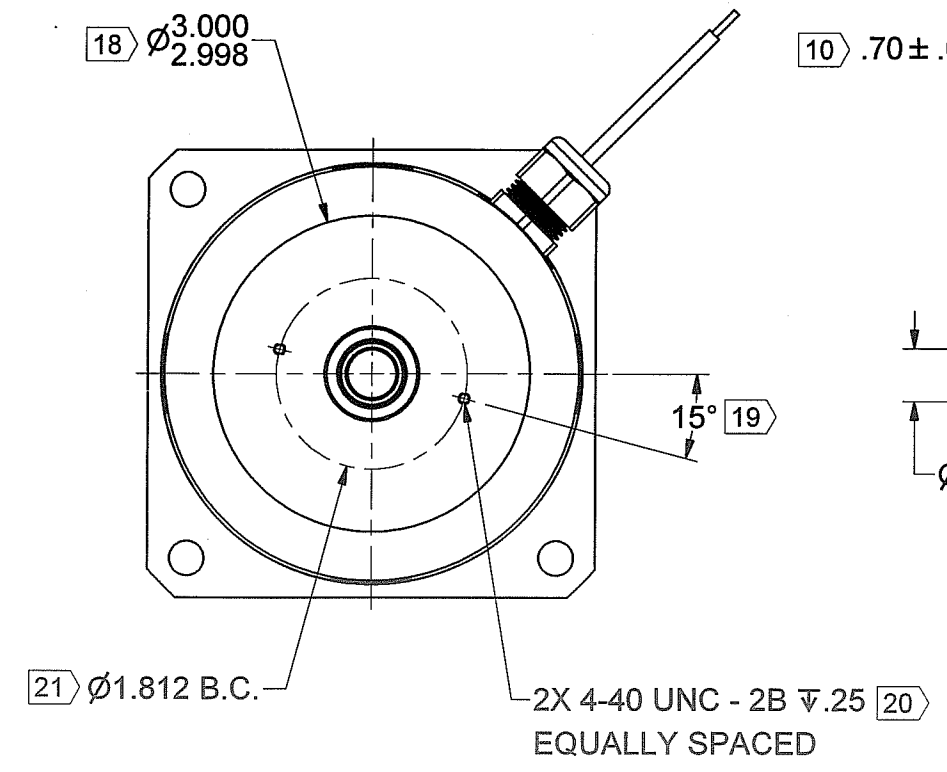
REVISION				
REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-
B	K(T) = 59.6 WAS 62.2 K(E) = 44.1 WAS 46.0	2/7/2004	-	CHEN
C	UPDATED ENDBELL & ARMATURE TO STANDARD	6/2/2022	CGW	-

22) MOTOR LEADS 14 AWG  
13"±1" LONG

COLOR	FUNCTION
RED	MOTOR (+)
BLACK	MOTOR (-)

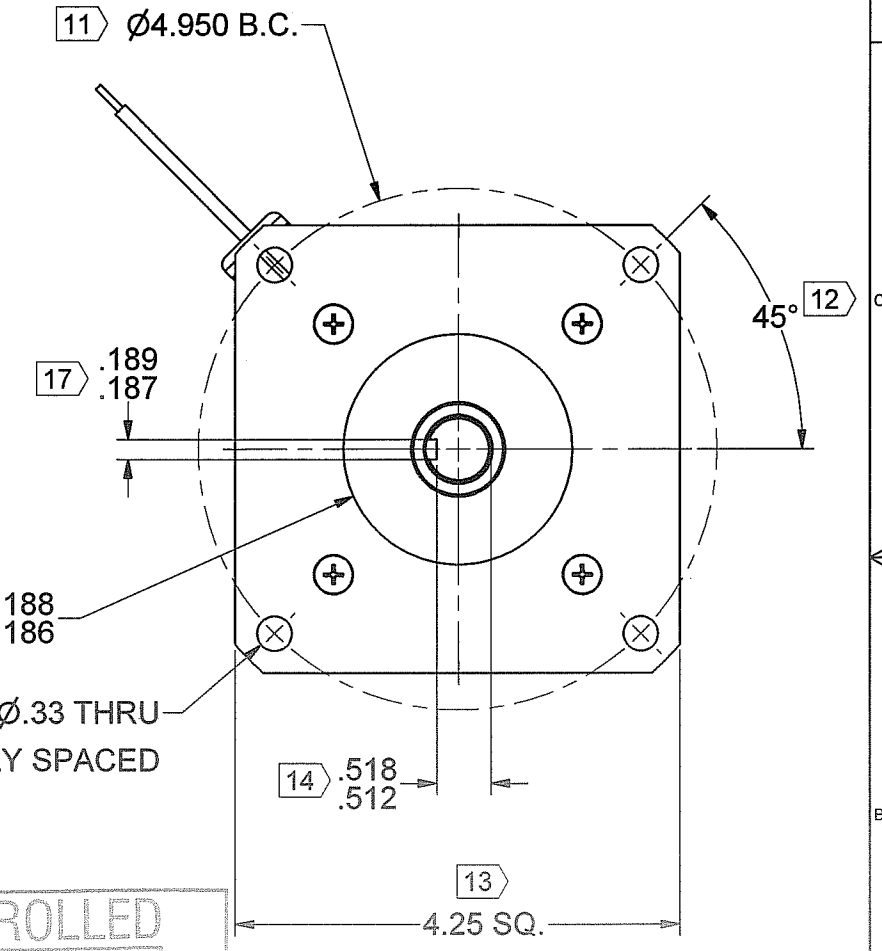
STRIP BACK LEADS .3"±.1"

DIRECTION  
OF ROTATION



4) 1.30  
USABLE  
KEYWAY

15) 4X Ø.33 THRU  
EQUALLY SPACED



**MOTOR SPECIFICATIONS:**

TORQUE CONSTANT (Kt) = 58.2 ± 10% OZ-IN/AMP  
VOLTAGE CONSTANT (Ke) = 43.0 ± 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  
JUN 2 2022  
DOCUMENT

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.		MAGMOTOR
TOLERANCES ON: ANGLES = ± 1/2° X.XX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		DO NOT SCALE DRAWING		SIGNATURES		
MATERIAL		DRAWN R. LANDRY		DATE 2/5/2004		MOTOR ASSEMBLY, C40-E-300FX
SPEC		CHECKED <i>Sh</i>		DATE 6/2/22		
FINISH NONE		ENG APPR. <i>MCM</i>		DATE 6/2/22		
SPEC		MFG APPR. <i>RT</i>		DATE 6/2/22		SCALE: - WEIGHT: - LB. SHEET 1 OF 3
UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		Q.A.		SIZE D NUMBER 500400167 REV C		



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

**MOTOR PERFORMANCE / SPECIFICATIONS**

**Attn.:**

Final Product No.: **C40-E-300FX**

Customer:

RFQ 500400167

Phone/Fax:

By: MM

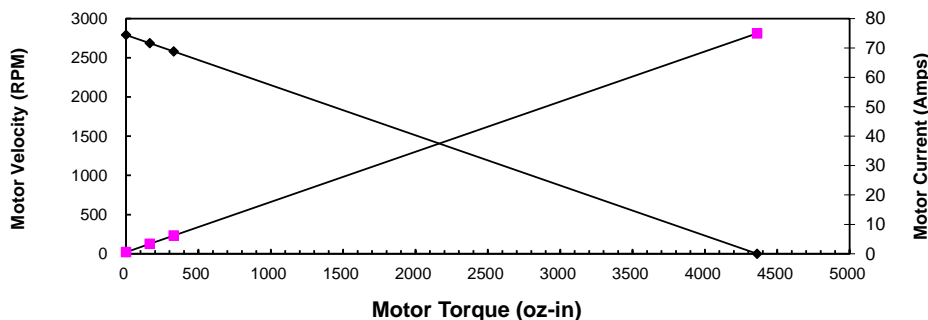
Date: 8/10/2022

This is a calculation data sheet

SPECS	C/S	Frame	PM	Winding	-	Stack	Options	Gear Ratio
MODEL #	<b>C</b>	<b>40</b>	-	<b>E</b>	-	<b>300</b>	<b>FX</b>	

V in =*	<b>120</b> Vdc	Input Voltage	Eff = 0.9
Ke =*	<b>43</b> V/krpm	Voltage Constant	
Kt =	58.2 oz-in/A	Torque Constant	
Rt =*	<b>1.6</b> Ohms(@20° C)	Terminal Resistance+Amplifier	
Io =*	<b>0.53</b> Amps	No load current	
I as =	75.0 Amps	Stall Current (reference only)	
T gs =	4361 oz-in	Stall Torque (reference only @ V in)	
I 1 =	3.4 Amps	Current @ Torque-1	
I 2 =	6.2 Amps	Current @ Torque-2	
T 1 =*	<b>165</b> oz-in	Torque-1	
T 2 =*	<b>330</b> oz-in	Torque-2	
RPM nl =	2791 RPM	No Load Velocity	
RPM r =	2685 RPM	RPM @ T1	
RPM p =	2580 RPM	RPM @ T2	
R ah =	2.09 Ohms(@105° C)	Term. Resistance Hot	
T gsh =	3334 oz-in	Stall Torque Hot	
I ash =	57.3 Amps	Stall Current Hot	
R th =*	<b>1.3</b> °C/W	Thermal Resistance	
Tr =	<b>99</b> °C Without cooling air	Temperature Rise @ T1 (above ambient)	
Tr =	<b>149</b> °C Without cooling air	Temperature Rise @ T2 (above ambient)	
Nm/A =	0.41	Torque Constant	
Lb in/A =	3.63	Torque Constant	
Km =	46.0 Kt/r	Motor Constant	

**Torque Curve**



**Calculation data**

Voltage	Torque	RPM	Amp	Efficiency	Watts out
120	0	2791	0.5	0	0
120	165	2685	3.4	0.810968578	327.69616
120	330	2580	6.2	0.845631349	629.62323
120	4361	0	75.0	0	0