

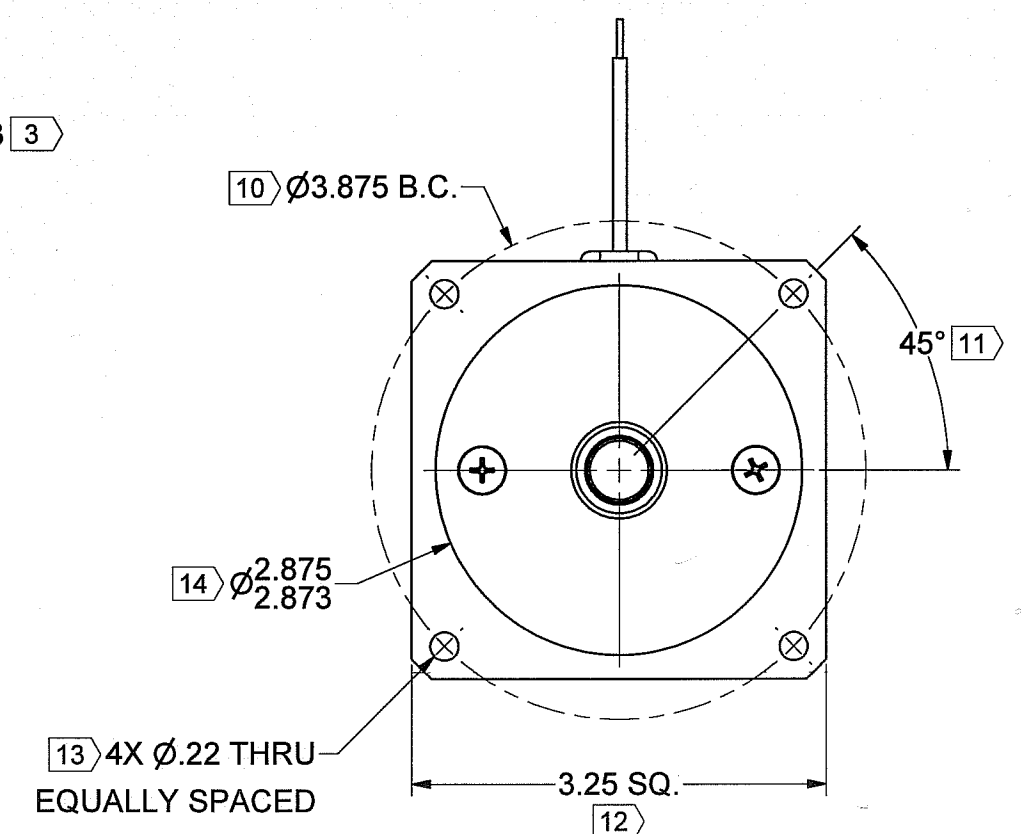
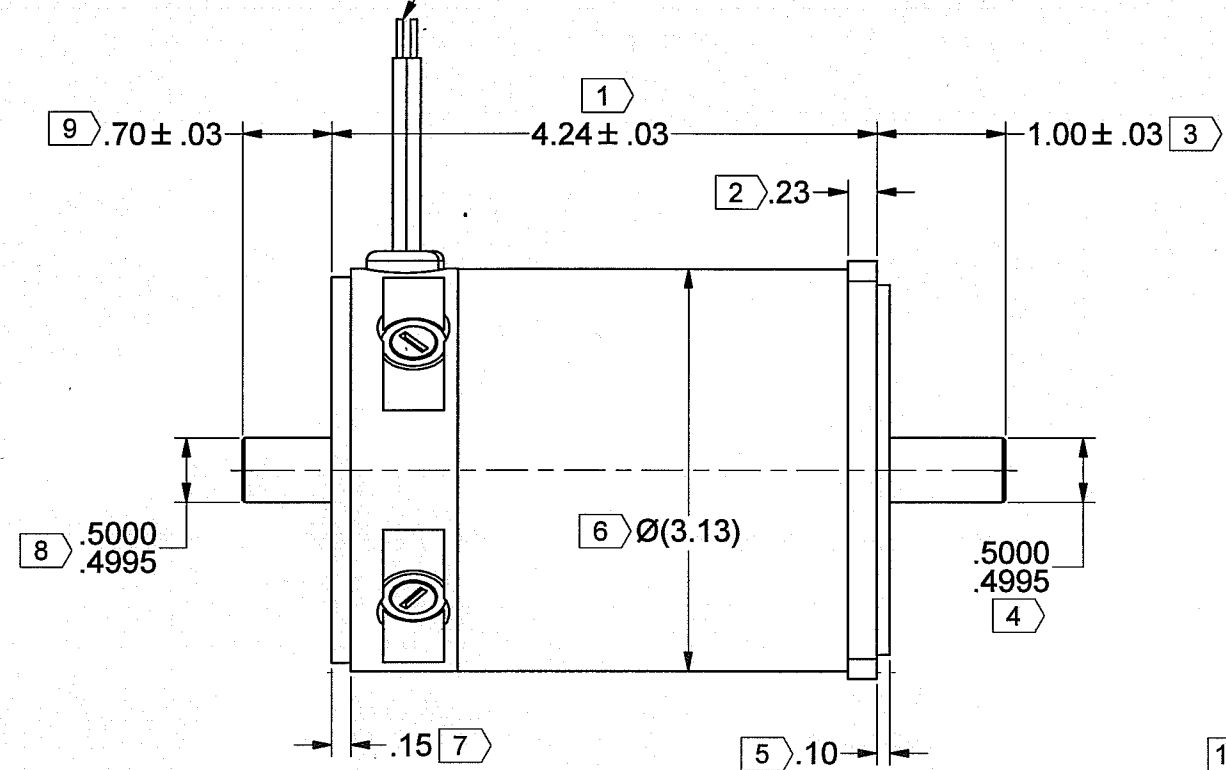
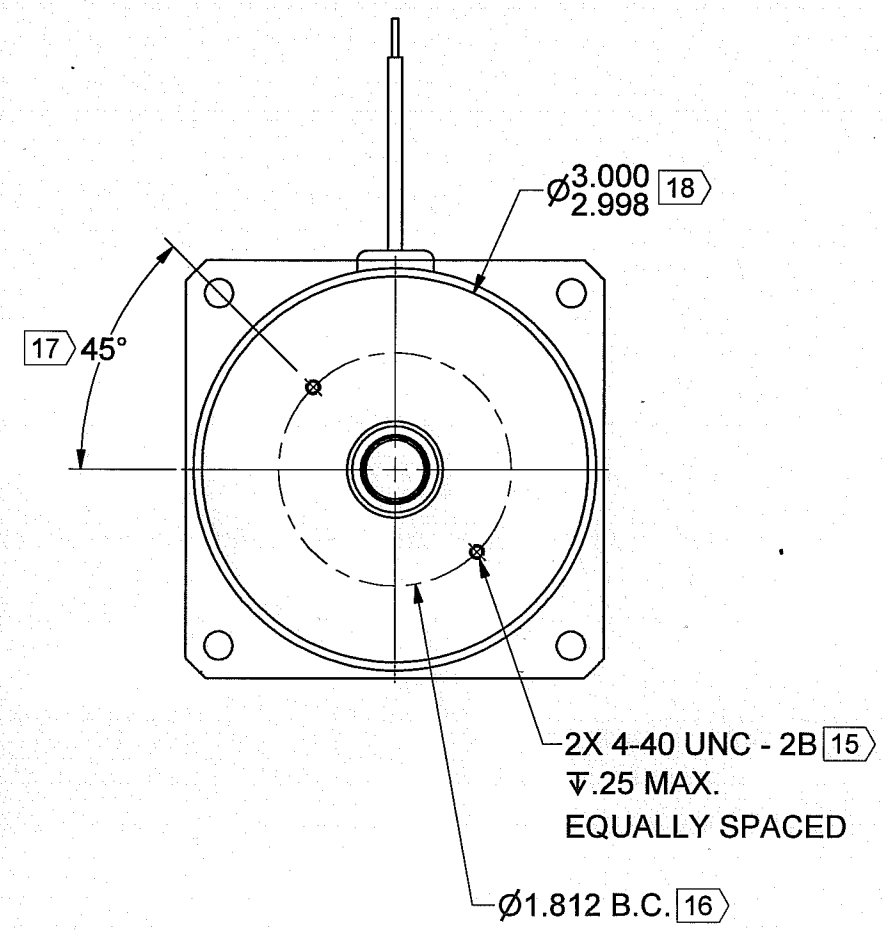
REV	DESCRIPTION	DATE	BY	APPROVED
1	RELEASE TO PRODUCTION, .5000/.4995 WAS .4998/.4994, ECO M03-0022	7/8/03	-	-
2	Ke 12.1 WAS 11.2, Kt 16.4 WAS 15.2, ECO M07-0003	1/30/07	RAL	-
3	UPDATED DRAWING & MOTOR TO STANDARD, CHANGED TO STANDARD FLANGE & STANDARD MACHINED ENDBELL, ECO # M22-0005	8/25/22	SLC	-

MOTOR LEADS 18 AWG [19]  
 13"±1" LONG  
 MEASURED FROM TOP OF STRAIN RELIEF

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

STRIP BACK LEADS .3"±.1"

DIRECTION  
 OF ROTATION



**MOTOR SPECIFICATIONS:**

TORQUE CONSTANT (Kt) = 16.4 ± 10% OZ-IN/AMP  
 VOLTAGE CONSTANT (Ke) = 12.1 ± 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.

**CONTROLLED**  
 SEP 28 2022  
**DOCUMENT**

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & [mm]		THIRD ANGLE PROJECTION DO NOT SCALE DRAWING		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>Magnmotor</b>	
TOLERANCES ON: ANGLES = ± 1/2° X.XX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		SIGNATURES		DATE		TITLE	
MATERIAL		DRAWN BL		5/7/2001		MOTOR ASSEMBLY, C33-F-200FX	
SPEC		CHECKED <i>ML</i>		9/28/22		REV 3	
FINISH		ENG APPR. <i>MLM</i>		9/28/22		SIZE D	
NONE		MFG APPR. <i>BT</i>		9/28/22		NUMBER 500280222	
SPEC		Q.A.		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES, COUNTERSINK TAPPED HOLES TO BODY SIZE FILETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		SCALE: -	
						WEIGHT: - LB.	
						SHEET 1 OF 3	



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

**MOTOR PERFORMANCE / SPECIFICATIONS**

**Attn.:**

Final Product No.: **C33-F-200FX**  
RFQ: 500280222  
By: MM

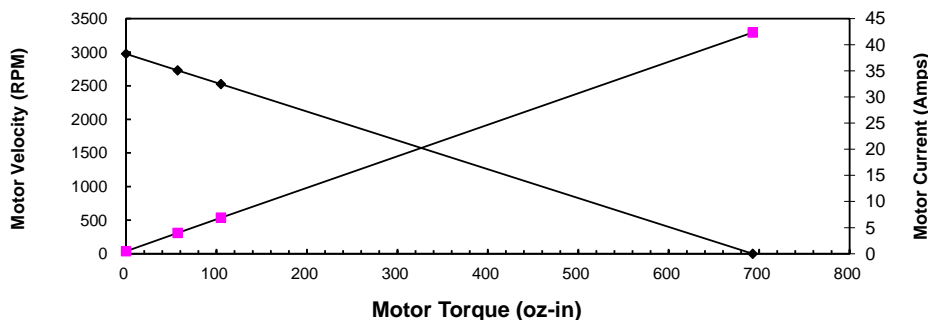
Customer:  
Phone/Fax:  
Date: 11/23/2022

**This is a calculation data sheet**

SPECS	C/S	Frame	PM	Winding	-	Stack	Options	Gear Ratio
MODEL #	<b>C</b>	<b>33</b>	-	<b>F</b>	-	<b>200</b>	<b>FX</b>	

V in =*	<b>36</b> Vdc							Input Voltage
Ke =*	<b>12.10</b> V/krpm							Voltage Constant
Kt =	16.4 oz-in/A							Torque Constant
Rt =*	<b>0.85</b> Ohms(@20° C)							Terminal Resistance+Amplifier
Io =*	<b>0.48</b> Amps							No load current
I as =	42.4 Amps							Stall Current (reference only)
T gs =	693 oz-in							Stall Torque (reference only @ V in)
I 1 =	4.0 Amps							Current @ Torque-1
I 2 =	6.9 Amps							Current @ Torque-2
T 1 =*	<b>57</b> oz-in							Torque-1
T 2 =*	<b>105</b> oz-in							Torque-2
RPM nl =	2975 RPM							No Load Velocity
RPM r =	2731 RPM							RPM @ T1
RPM p =	2524 RPM							RPM @ T2
R ah =	1.11 Ohms(@105° C)							Term. Resistance Hot
T gsh =	530 oz-in							Stall Torque Hot
I ash =	32.4 Amps							Stall Current Hot
R th =*	<b>2.9</b> °C/W							Thermal Resistance
Tr =	<b>80</b> °C	Without cooling air						Temperature Rise @ T1 (above ambient)
Tr =	<b>151</b> °C	Without cooling air						Temperature Rise @ T2 (above ambient)
Nm/A =	0.12							Torque Constant
Lb in/A =	1.02							Torque Constant
Km =	17.7	Kt/r						Motor Constant

**Torque Curve**



**Calculation data**

Voltage	Torque	RPM	Amp	Efficiency	Watts out
36	0	2975	0.5		0
36	57	2731	4.0	0.806843218	115.11789
36	105	2524	6.9	0.789676762	196.05645
36	693	0	42.4		0