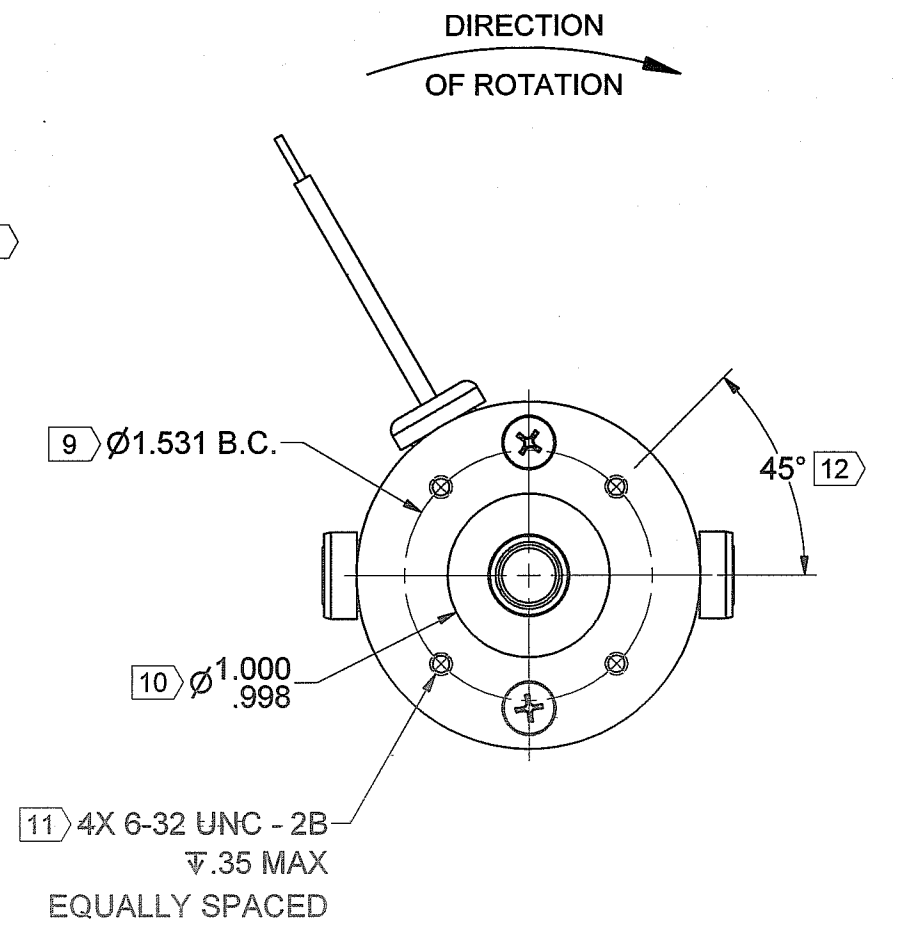
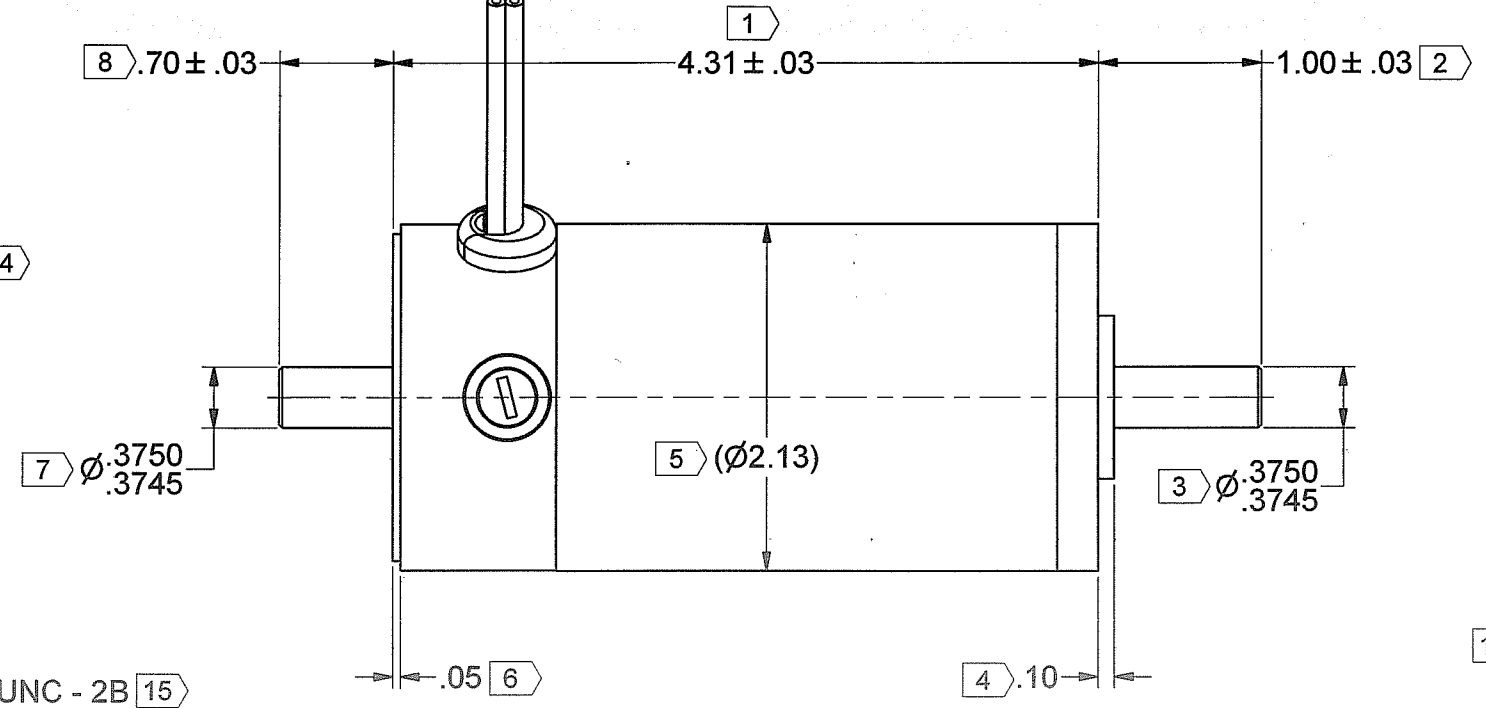
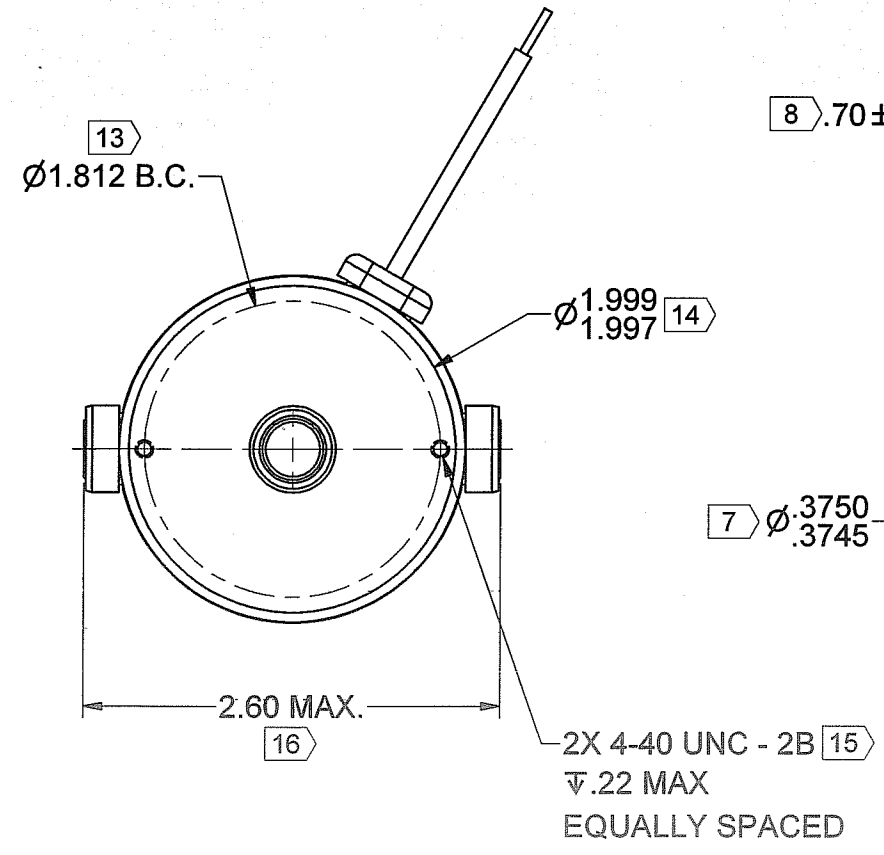


REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-
B	CHANGE DIA. .3750/.3745 WAS .3750/.3746	10/13/03	CHEN	-
C	120210072 WAS 120280007	03/21/06	HONG	-

17 MOTOR LEADS 18 AWG
13"±1" LONG

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

STRIP BACK LEADS .3"±.1"

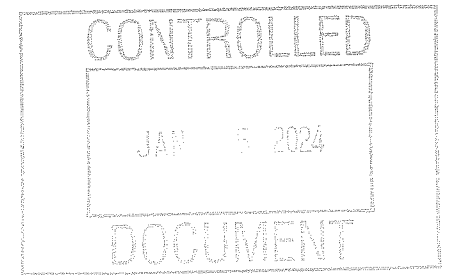


MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 12.2 ± 10% OZ-IN/AMP - SPECIAL
VOLTAGE CONSTANT (Ke) = 9.0 ± 10% VOLTS/KRPM - SPECIAL

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.



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		DATE	
DRAWN TSK		11/21/2001		CHECKED Sh		11/5/24	
SPEC		ENG APPR.		MFG APPR. BT		11/5/24	
FINISH NONE		Q.A.		TITLE		MOTOR ASSEMBLY, C21-F-175X	
SPEC		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES, COUNTERSINK TAPPED HOLES TO BODY SIZE FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		SIZE		NUMBER	
				D		500210252	
				SCALE: -		WEIGHT: - LB.	
						SHEET 1 OF 3	



10 Coppage Drive
Worcester, MA 01603
5/6/2024

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

Final Product No.: **C21-F-175X**

Customer:

RFQ 500210252

Phone/Fax:

By: BT

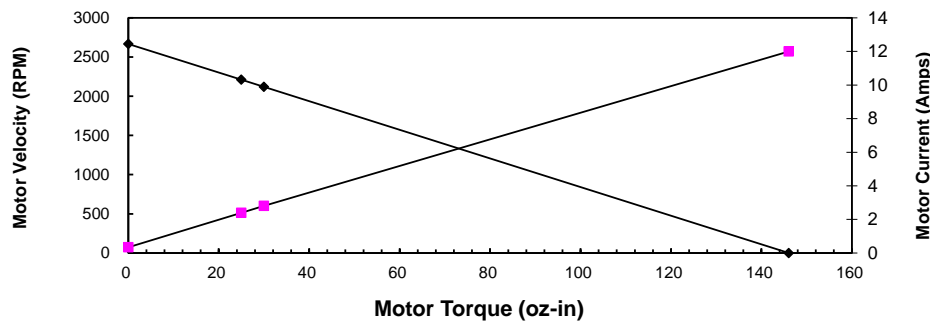
Date: 1/3/2024

This is a calculation data sheet

SPECS	C/S	Frame	PM	-	Winding	-	Stack	Options	Gear Ratio
MODEL #	C	21	-	-	F	-	175	X	1.00

V in =*	24 Vdc		Input Voltage	Eff = 0.9
Ke =*	9.00 V/krpm		Voltage Constant	
Kt =	12.2 oz-in/A		Torque Constant	
Rt =*	2.00 Ohms(@20° C)		Terminal Resistance+Amplifier	
Io =*	0.34 Amps		No load current	
I as =	12.0 Amps		Stall Current (reference only)	
T gs =	146 oz-in		Stall Torque (reference only @ V in)	
I 1 =	2.4 Amps		Current @ Torque-1	
I 2 =	2.8 Amps		Current @ Torque-2	
T 1 =*	25 oz-in		Torque-1	22.5 oz-in 1.4 in-lb
T 2 =*	30 oz-in		Torque-2	27.0 oz-in 1.7 in-lb
RPM nl =	2667 RPM		No Load Velocity	2666.7 rpm
RPM r =	2210 RPM		RPM @ T1	2210.2 rpm
RPM p =	2119 RPM		RPM @ T2	2118.9 rpm
R ah =	2.62 Ohms(@105° C)		Term. Resistance Hot	
T gsh =	112 oz-in		Stall Torque Hot	
I ash =	9.2 Amps		Stall Current Hot	
R th =*	4.9 °C/W		Thermal Resistance	
Tr =	81 °C	Without cooling air	Temperature Rise @ T1 (above ambient)	
Tr =	99 °C	Without cooling air	Temperature Rise @ T2 (above ambient)	
Nm/A =	0.09		Torque Constant	
Lb in/A =	0.76		Torque Constant	
Km =	8.6	Kt/r	Motor Constant	

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
24	0	2667	0.3		0
24	25	2210	2.4	0.711332244	40.869651
24	30	2119	2.8	0.69848636	47.017978
24	146	0	12.0		0