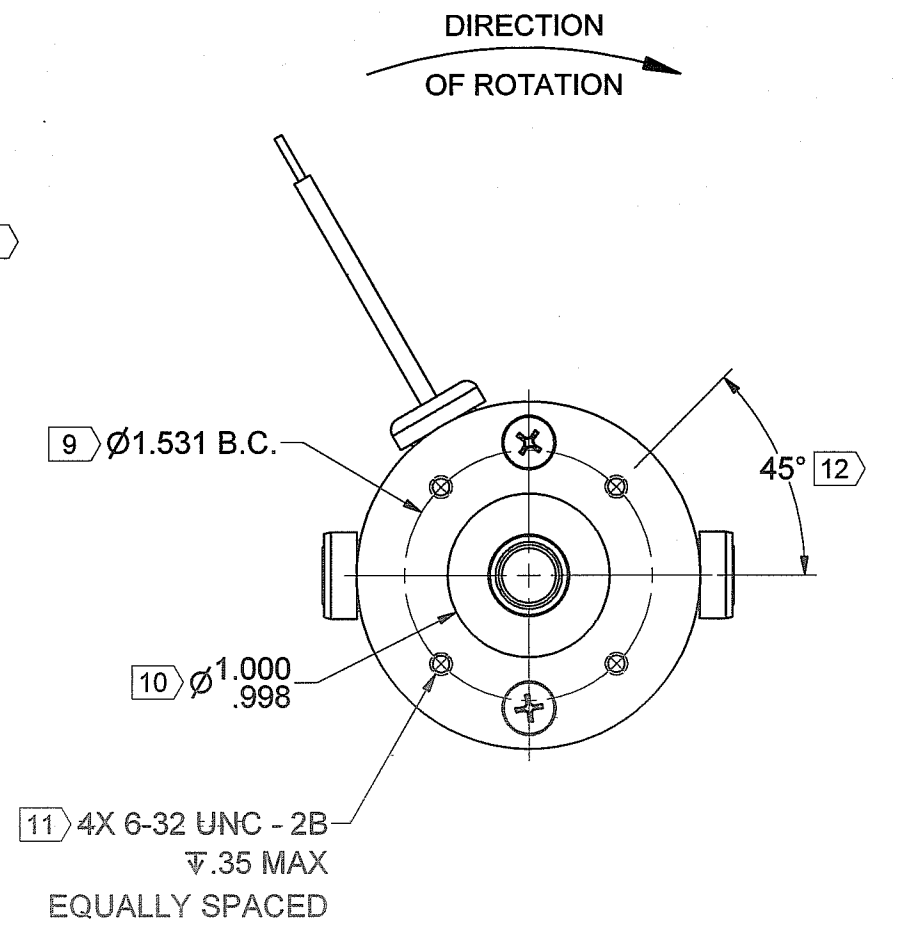
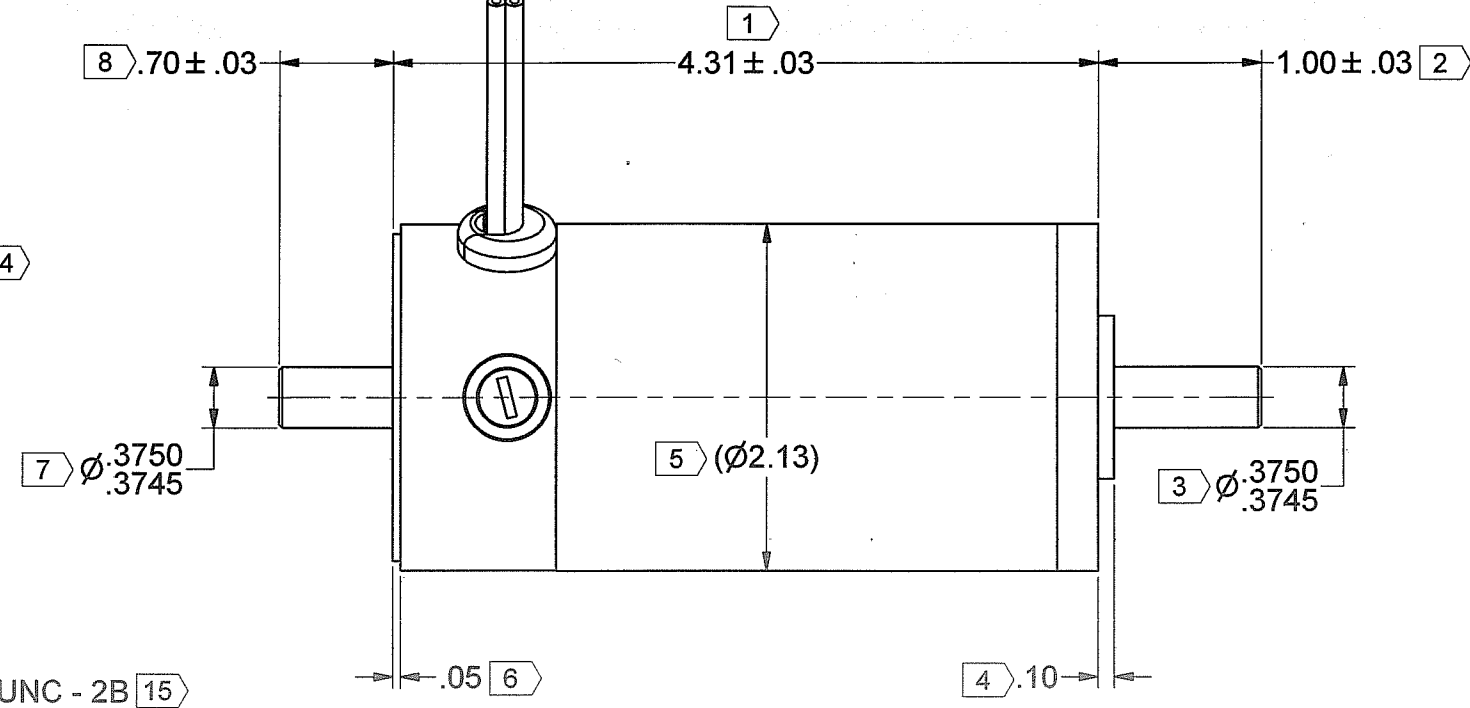
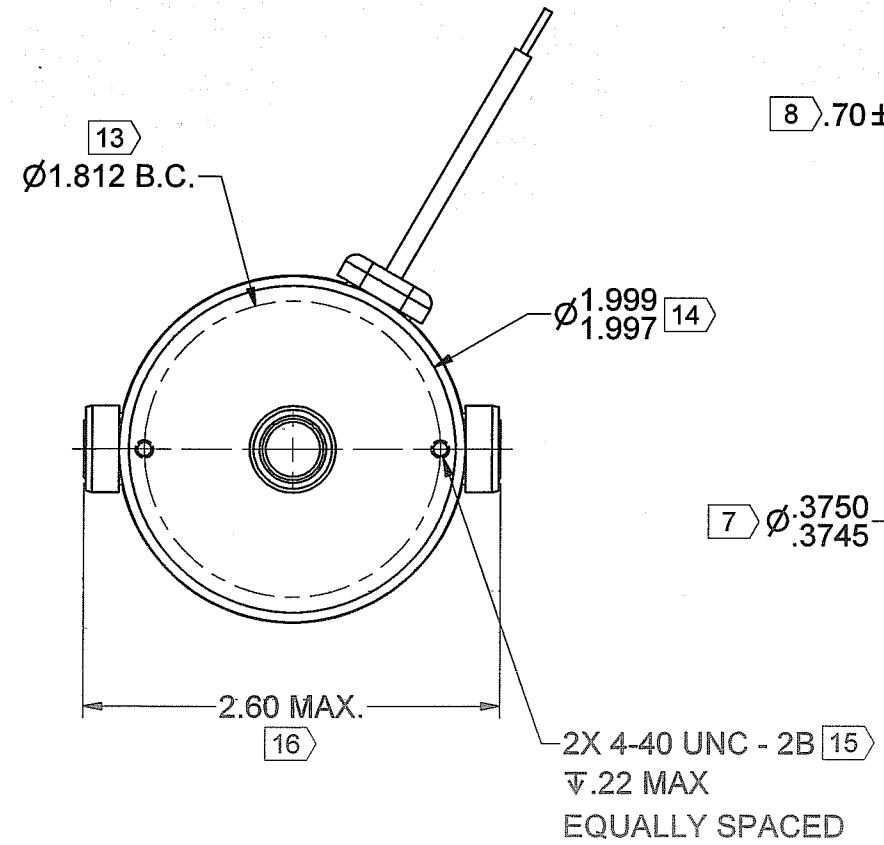


REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-
B	CHANGE DIA. .3750/.3745 WAS .3750/.3746	10/13/03	CHEN	-
C	120210072 WAS 120280007	03/21/06	HONG	-

17) MOTOR LEADS 18 AWG
13"±1" LONG
COLOR FUNCTION
RED MOTOR (+)
BLACK MOTOR (-)
STRIP BACK LEADS .3"±.1"



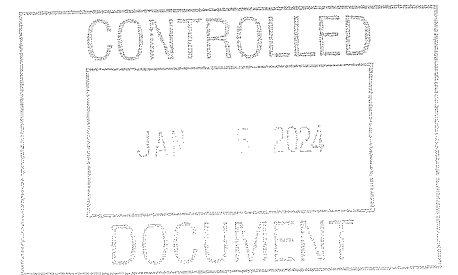
DIRECTION OF ROTATION

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 [Signature]		11/5/24	
SPEC		ENG APPR.		MFG APPR. [Signature]		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
1/4/2024

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.: 0

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

Customer: 0

RFQ 500210252

Phone/Fax: 0

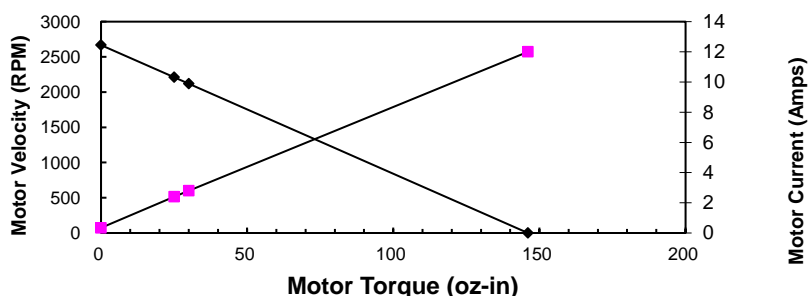
By: **BT**

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	1.0
V in =*	24	Vdc					Input Voltage
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
T 1 =*	25	oz-in					Torque-1
T 2 =*	30	oz-in					Torque-2
I 2 =	2.8	Amps					Current @ Torque-2
RPM nl =	2667	RPM					No Load Velocity
RPM r =	2210	RPM					RPM @ T1
RPM p=	2119	RPM					RPM @ T2
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 (above ambient)
Nm/A=	0.09						Torque Constant
Lb in/A=	0.76						Torque Constant
Km=	8.6	Kt/r					Motor Constant

Torque Curve



[Test Mot. Prod..xls](#)

DRAWING DATA

NO-LOAD

	Nominal	max	min
Volt	24		
Current:		0.37	
Ke	9.00	9.63	8.37
RPM	2667	2853	2480

Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
24	0	2667	0.3	0	0
24	25	2210	2.4	0.71133	40.869651
24	30	2119	2.8	0.69849	47.017978
24	146	0	12.0	0	0

LOADED

	Nominal	max	min
Volt	24		
Torque (oz-in)	25		
Current		2.6	
RPM	2210	2365	2056