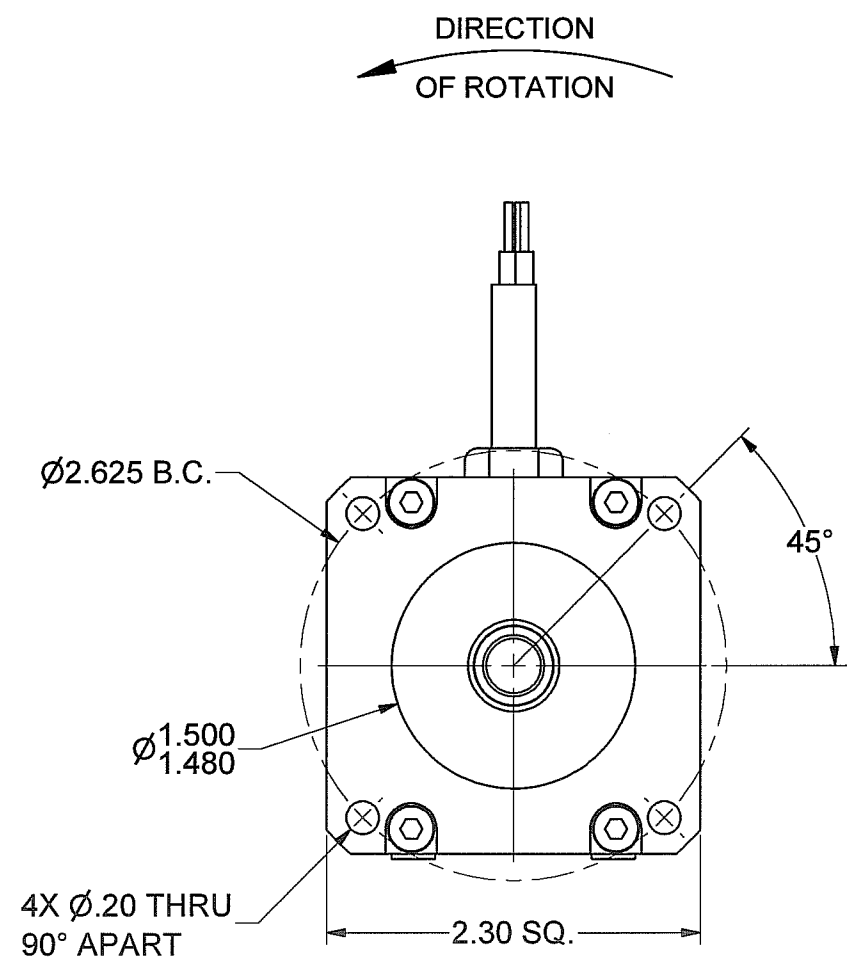
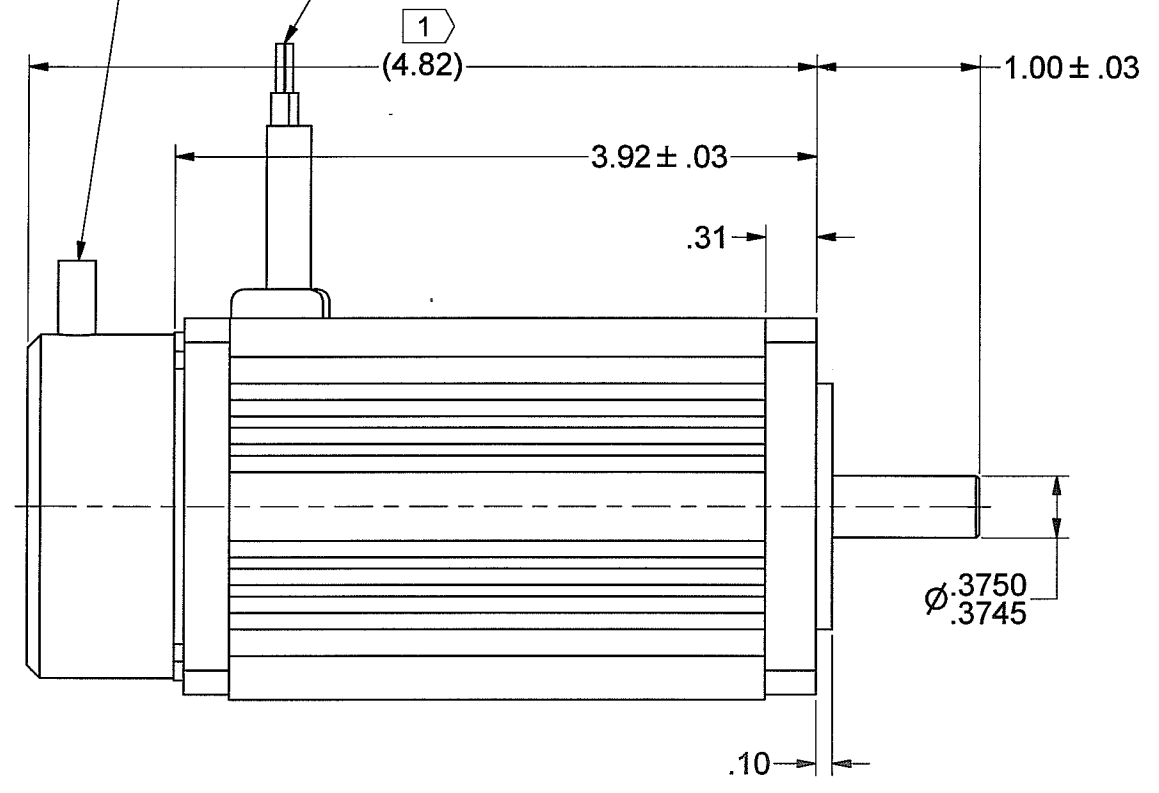
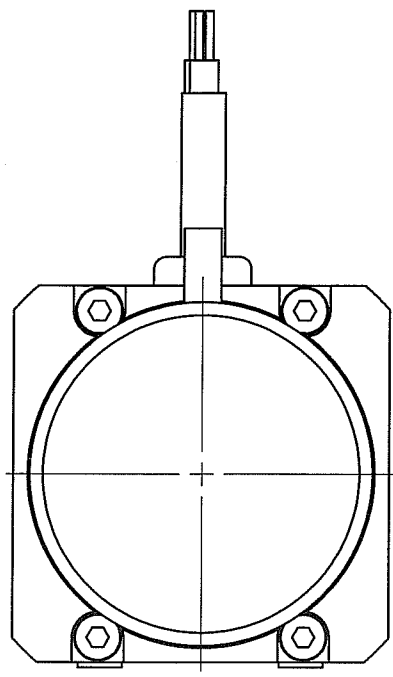


REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE			

2) 2000 LINE INCREMENTAL / COMMUTATING ENCODER
24"±1" LONG SHIELDED CABLE
(SEE CHART FOR FUNCTIONS AND COLORS)

MOTOR LEAD WIRES, 18"±1" LONG (TEFLON) 3)
MEASURED FROM TOP OF STRAIN RELIEF
COVERED WITH CLEAR HEAT SHRINK
(SEE CHART FOR FUNCTIONS AND COLORS)



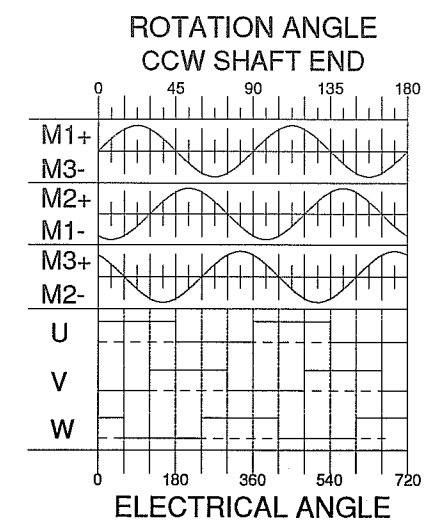
MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 20.3 ± 10% OZ-IN/AMP - SPECIAL
VOLTAGE CONSTANT (Ke) = 15.0 ± 10% VOLTS/KRPM - SPECIAL

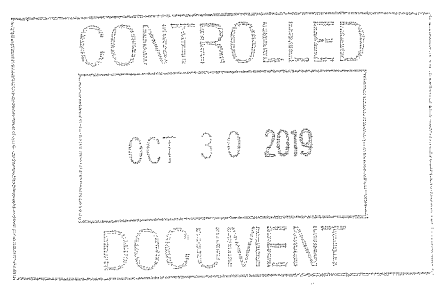
NOTES:

1.) X IDENTIFIES INSPECTION DIMENSIONS.

ENCODER WIRING - 28 AWG	
COLOR CODE	FUNCTION
RED	Vcc Inc +5V
BLACK	GND Inc
BLUE	A
BLUE / BLACK	A'
GREEN	B
GREEN / BLACK	B'
VIOLET	Z
VIOLET / BLACK	Z'
BROWN	U
BROWN / BLACK	U'
GRAY	V
GRAY / BLACK	V'
WHITE	W
WHITE / BLACK	W'



MOTOR LEADS - 18 AWG	
M1	RED
M2	BLACK
M3	WHITE



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.		MAGMOTOR™	
TOLERANCES ON: ANGLES = ± 1/2° X.XX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		SIGNATURES		DATE		TITLE	
-		DRAWN SLC		10/28/2019		FINAL ASSEMBLY, BFA23-F-200FE	
-		CHECKED [Signature]		10/30/19		-	
SPEC		ENG APPR.		-		-	
FINISH NONE		MFG APPR. [Signature]		10/30/19		-	
SPEC		Q.A.		-		-	
UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE. FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		SCALE: -		WEIGHT: - LB.		SHEET 1 OF 3	
-		SIZE D		NUMBER 730240058		REV A	



10 Coppage Drive
Worcester, MA 01603
11/5/2019

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

Final Product No.: **BFA 23 F 200 FE**

Customer:

RFQ 730240058

Phone/Fax:

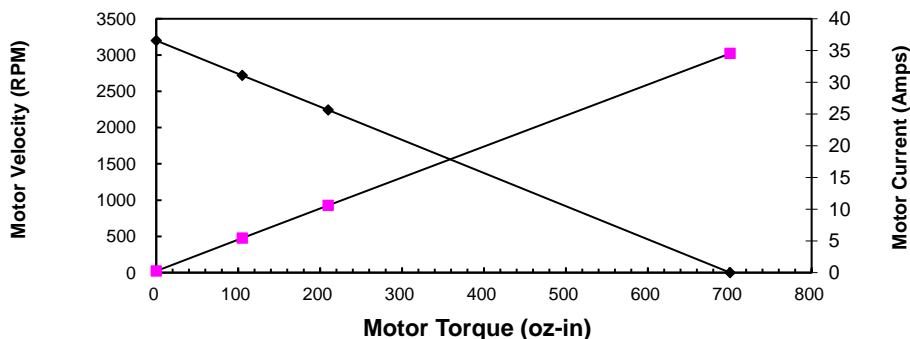
By: JC

Date: 10/9/2019

This is a calculation data sheet

SPECS	C/S	Frame	PM	- Winding -	Stack	Options	Gear Ratio
MODEL #	BFA	23		F	200	FE	1.0
V in =*	48	Vdc					eff = 0.9
Ke =*	15.0	V/krpm					
Kt =	20.3	oz-in/A					
Rt =*	1.39	Ohms(@20° C)					
Io=*	0.25	Amps					
I as =	34.5	Amps					
T gs =	701	oz-in					
I l =	5.4	Amps					
T 1 =*	105	oz-in					
T 2 =*	210	oz-in					
I 2 =	10.6	Amps					
RPM nl =	3200	RPM					3200.0 rpm
RPM r =	2720	RPM					2720.4 rpm
RPM p=	2241	RPM					2240.7 rpm
R ah =	1.82	Ohms(@105° C)					
T gsh =	535	oz-in					
I ash =	26.4	Amps					
R th =*	2	°C/W					
Tr =	98	°C	Without cooling air				Temperature Rise (above ambient)
Nm/A=	0.14						Torque Constant
Lb in/A=	1.27						Torque Constant
Km=	17.2	Kt/r					Motor Constant

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	3200	0.3	0	0
48	105	2720	5.4	0.81118	211.27047
48	210	2241	10.6	0.68391	348.04048
48	701	0	34.5	0	0