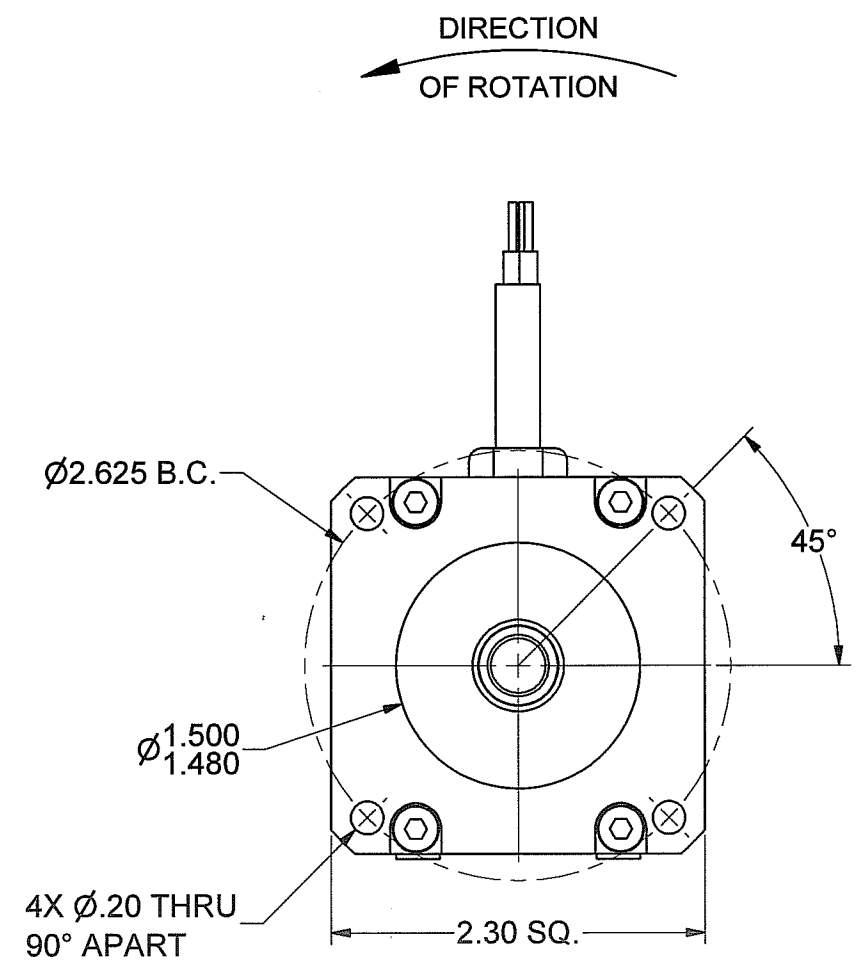
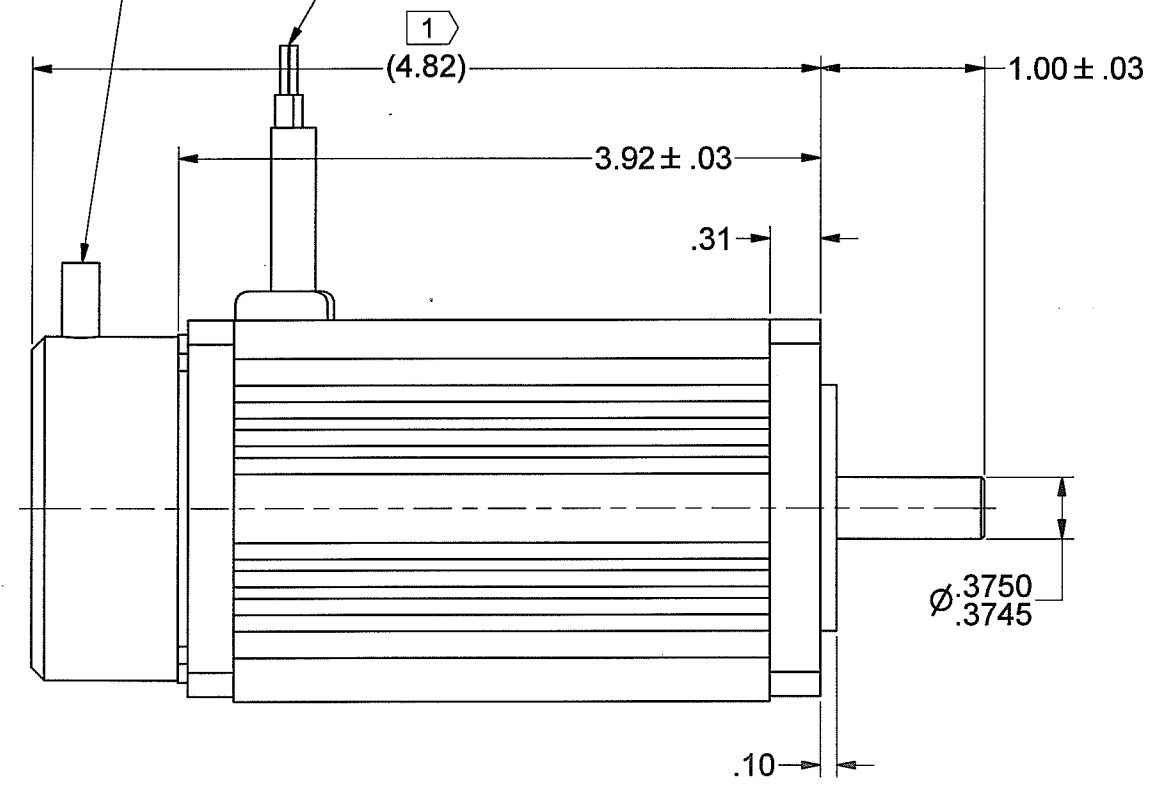
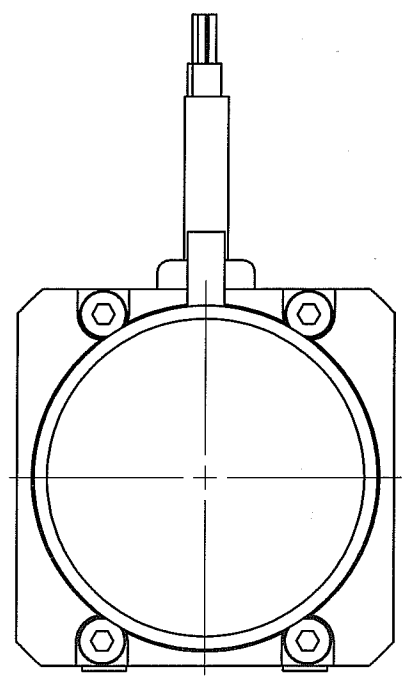


REVISION		DATE	BY	APPROVED
REV	DESCRIPTION			
A	PROTOTYPE			

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

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



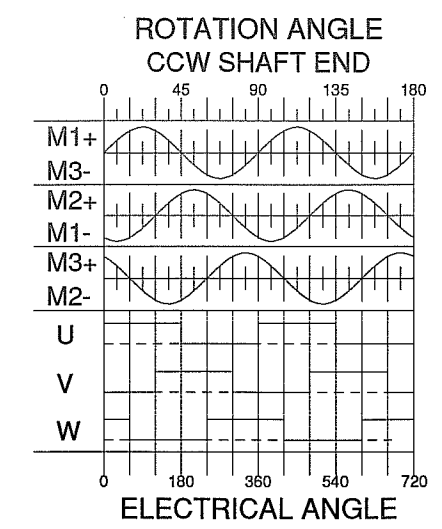
MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 10.1 ± 10% OZ-IN/AMP - SPECIAL
VOLTAGE CONSTANT (Ke) = 7.5 ± 10% VOLTS/KRPM - SPECIAL

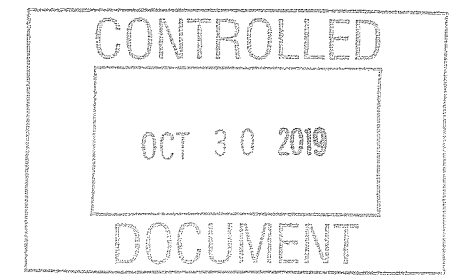
NOTES:

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 = ± 12° X.XX (X.X) = ± .01 (0.25) X.XXX (X.XX) = ± .005 (0.12)		SIGNATURES		DATE		TITLE	
MATERIAL		DRAWN SLC		10/24/2019		FINAL ASSEMBLY, BFA23-2F-200FE	
SPEC		CHECKED <i>Al</i>		10/30/19		REV	
FINISH		ENG APPR.		MFG APPR. <i>RT</i>		SIZE	
NONE		Q.A.		10/30/19		NUMBER	
SPEC		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE. FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.				D 730240057	
		SCALE: -		WEIGHT: -LB.		SHEET 1 OF 3	



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

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

Final Product No.: **BFA 23 2F 200 FE**

Customer:

RFQ 730240057

Phone/Fax:

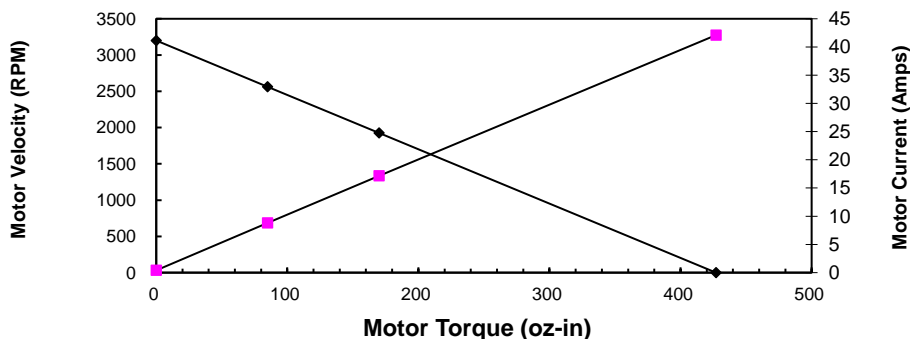
By: JC

Date: 10/9/2019

This is a calculation data sheet

SPECS	C/S	Frame	PM	- Winding -	Stack	Options	Gear Ratio
MODEL #	BFA	23		2F	200	FE	1.0
V in =*	24	Vdc					eff = 0.9
Ke =*	7.5	V/krpm					
Kt =	10.1	oz-in/A					
Rt =*	0.57	Ohms(@20° C)					
Io=*	0.41	Amps					
I as =	42.1	Amps					
T gs =	427	oz-in					
I 1 =	8.8	Amps					
T 1 =*	85	oz-in					
T 2 =*	170	oz-in					
I 2 =	17.2	Amps					
RPM nl =	3200	RPM					3200.0 rpm
RPM r =	2563	RPM					2563.1 rpm
RPM p=	1926	RPM					1926.2 rpm
R ah =	0.75	Ohms(@105° C)					
T gsh =	326	oz-in					
I ash =	32.2	Amps					
R th =*	2	°C/W					
Tr =	100	°C	Without cooling air				Temperature Rise (above ambient)
Nm/A=	0.07						Torque Constant
Lb in/A=	0.63						Torque Constant
Km=	13.4	Kt//r					Motor Constant

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
24	0	3200	0.4	0	0
24	85	2563	8.8	0.76384	161.14212
24	170	1926	17.2	0.58774	242.20161
24	427	0	42.1	0	0