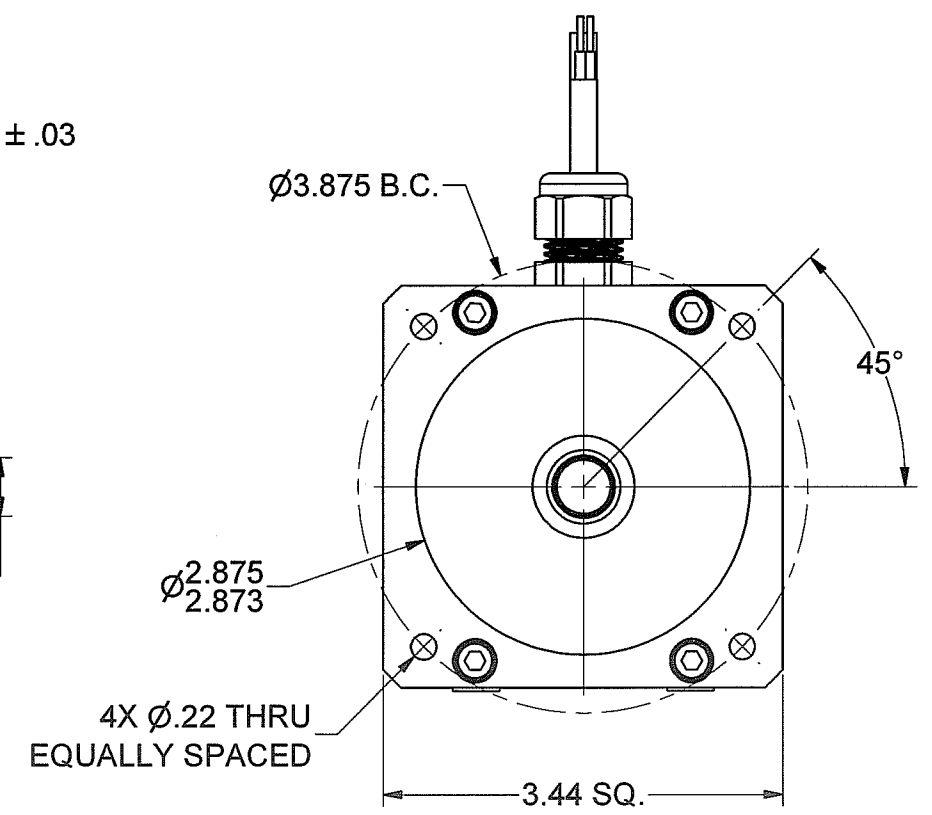
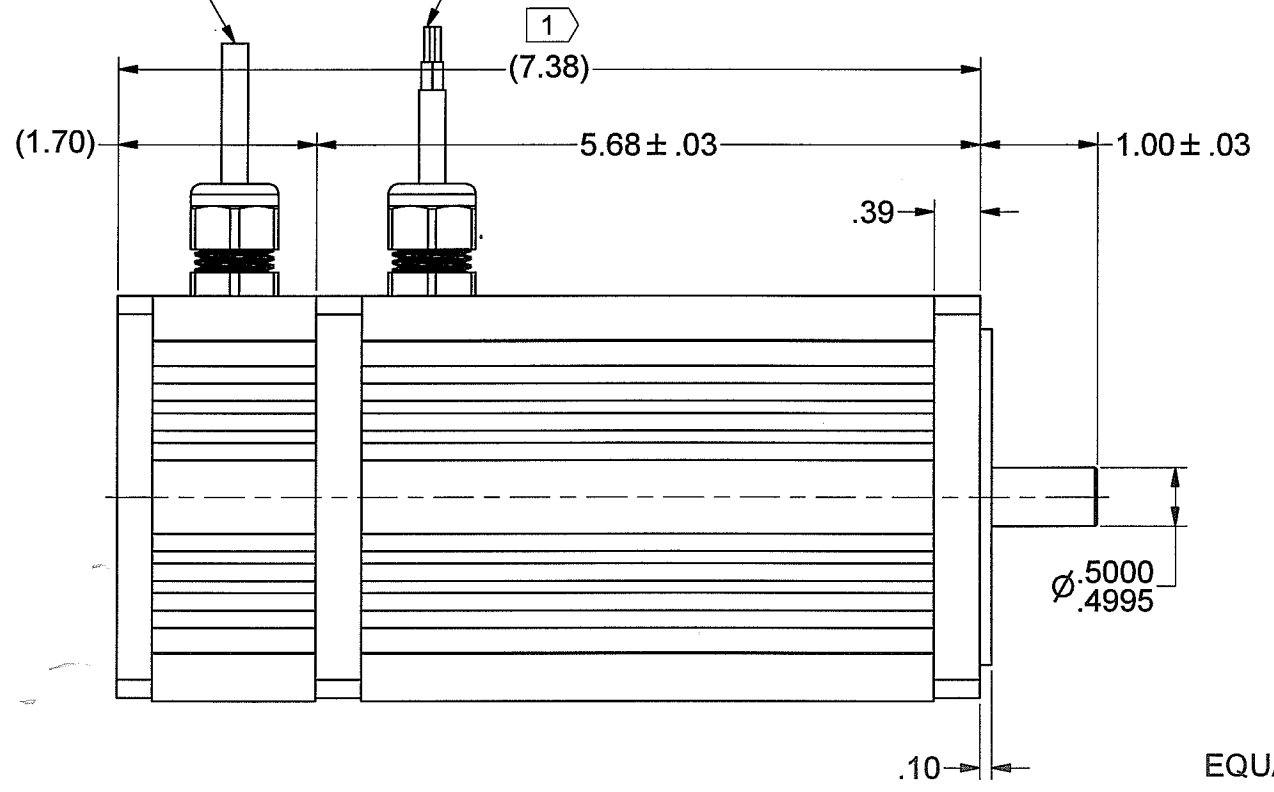
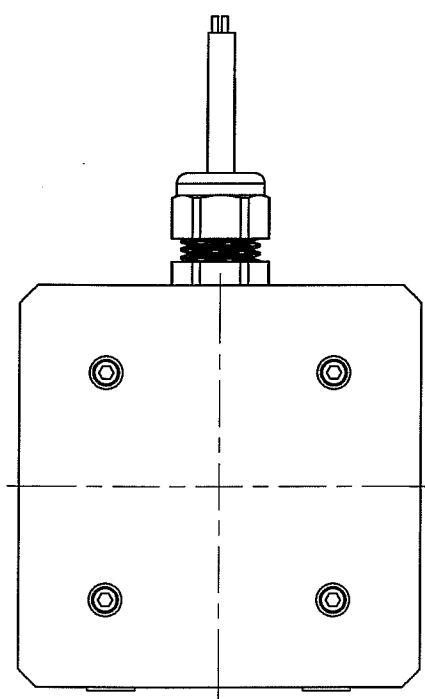


REVISION		DATE	BY	APPROVED
REV	DESCRIPTION			
A	PROTOTYPE			

2) 2000 LINE INCREMENTAL ENCODER
22"±1" LONG SHIELDED CABLE
MEASURED FROM TOP OF STRAIN RELIEF
(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)

DIRECTION
OF ROTATION

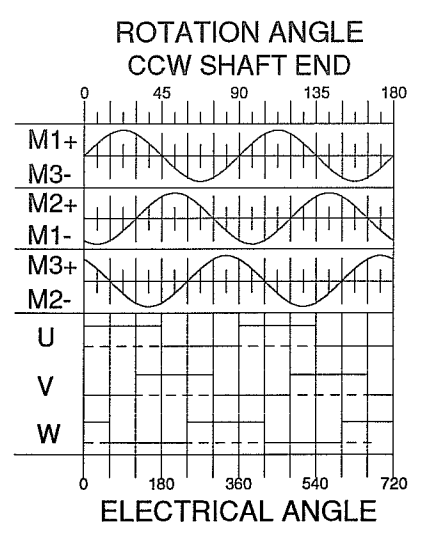


MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 39.6 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 29.3 ± 10% VOLTS/KRPM

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'
DRAIN	BARE

MOTOR LEADS - 16 AWG	
M1	RED
M2	BLACK
M3	WHITE

CONTROLLED
APR 24 2019
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.		MAGMOTOR™	
TOLERANCES ON: ANGLES = ± 1/2° X.XX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		SIGNATURES		DATE		TITLE	
MATERIAL		DRAWN SLC		4/23/2019		FINAL ASSEMBLY, BFA34-E-300FE	
SPEC		CHECKED [Signature]		4/24/19		SIZE NUMBER	
FINISH		ENG APPR.		MFG APPR. [Signature]		D 730340090	
NONE		Q.A.		SCALE: -		WEIGHT: - LB.	
SPEC		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES, COUNTERSINK TAPPED HOLES TO BODY SIZE FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		SHEET 1 OF 3		REV A	



10 Coppage Drive
Worcester, MA 01603
6/11/2019

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

Final Product No.: **BFA34 E 300 FE**

Customer:

RFQ **730340090**

Phone/Fax:

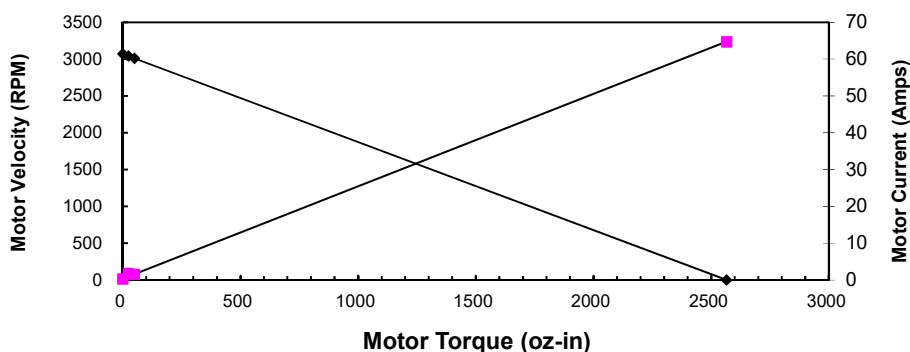
By: PR

Date: 4/23/2019

This is a calculation data sheet

SPECS	C/S	Frame	PM	- Winding -	Stack	Options	Gear Ratio
MODEL #		BFA34		E	300		1.0
V in =*	90	Vdc			Input Voltage		eff = 0.9
Ke =*	29.3	V/krpm			Voltage Constant		
Kt =	39.6	oz-in/A			Torque Constant		
Rt =*	1.39	Ohms(@20° C)			Terminal Resistance+Amplifier		
Io=*	0.29	Amps			No load current		
I as =	64.7	Amps			Stall Current (reference only)		
T gs =	2566	oz-in			Stall Torque (reference only @ V in)		
I l =	1.9	Amps			Current @ Torque-1		
T 1 =*	25	oz-in			Torque-1	22.5 oz-in	1.4 in-lb
T 2 =*	50	oz-in			Torque-2	45.0 oz-in	2.8 in-lb
I 2 =	1.6	Amps			Current @ Torque-2		
RPM nl =	3072	RPM			No Load Velocity		3071.7 rpm
RPM r =	3042	RPM			RPM @ T1		3041.7 rpm
RPM p=	3012	RPM			RPM @ T2		3011.8 rpm
R ah =	1.82	Ohms(@105° C)			Term. Resistance Hot		
T gsh =	1961	oz-in			Stall Torque Hot		
I ash =	49.5	Amps			Stall Current Hot		
R th =*	0.51	°C/W			Thermal Resistance		
Tr =	56	°C	Without cooling air		Temperature Rise (above ambient)		
Nm/A=	0.28				Torque Constant		
Lb in/A=	2.48				Torque Constant		
Km=	33.6	Kt//r			Motor Constant		
HP nl=	7.82	HP			Motor Horsepower		

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
90	0	3072	0.3	0	0
90	25	3042	1.9	0.33735	56.245226
90	50	3012	1.6	0.79751	111.38355
90	2566	0	64.7	0	0