

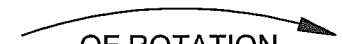
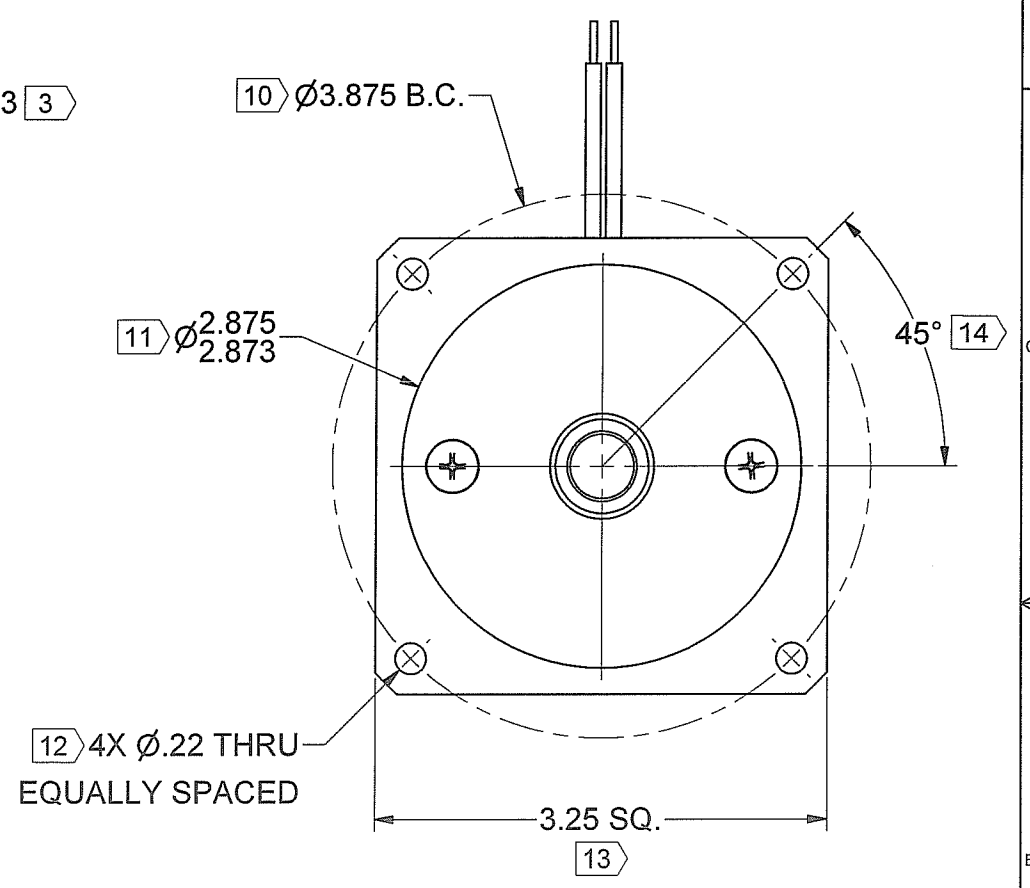
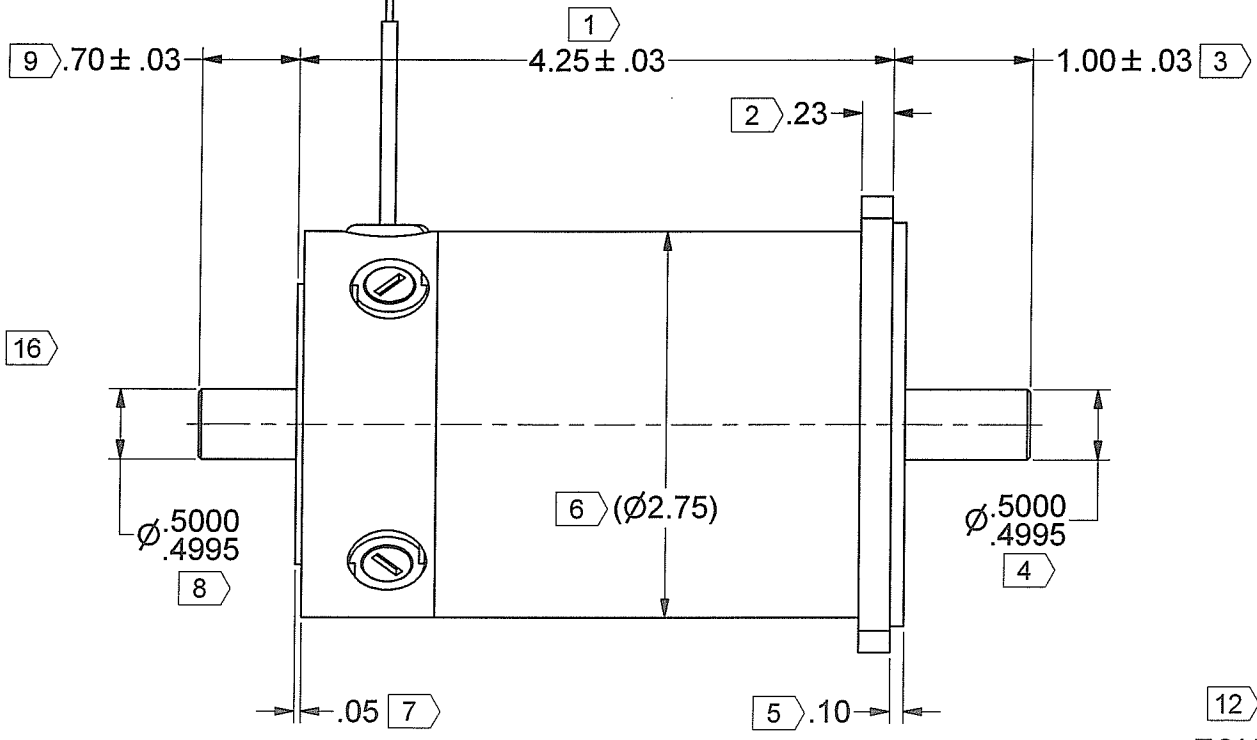
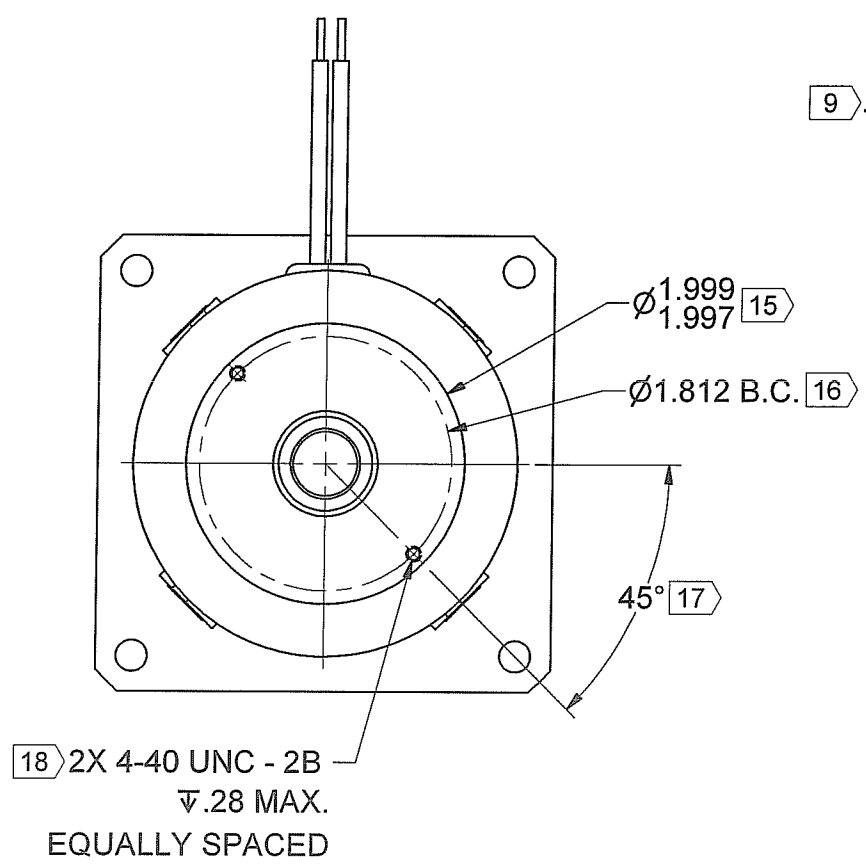
REVISION		DATE	BY	APPROVED
REV	DESCRIPTION			
A	PROTOTYPE			

19) 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) = 34.9 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 25.8 ± 10% VOLTS/KRPM

NOTES:

- MOTOR ROTATION IS CLOCKWISE WHEN VIEWED FROM OUTPUT SHAFT WITH POSITIVE VOLTAGE APPLIED TO RED LEAD.
- SCREW PENETRATION NOT TO EXCEED SPECIFIED THREAD DEPTH.
- X IDENTIFIES INSPECTION DIMENSIONS.

CONTROLLED
OCT 24 2017
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]		125	SIGNATURES		DATE	TITLE	
MATERIAL	DRAWN	SLC	9/8/2017	MOTOR ASSEMBLY, S28-H-200FX			
SPEC	CHECKED	SLC	10/24/17				
FINISH	ENG APPR.						
NONE	MFG APPR.	BT	10/24/17	SIZE	NUMBER	REV	
SPEC	Q.A.		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES, COUNTERSINK TAPPED HOLES TO BODY SIZE, FILETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		D	500280457	A
SCALE: -		WEIGHT: - LB.		SHEET 1 OF 3			



10 Coppage Drive
Worcester, MA 01603
10/26/2017

MOTOR PERFORMANCE / SPECIFICATIONS

Final Product No.: **S28 H 200 FX**
RFQ **500280457**
By: **JC**

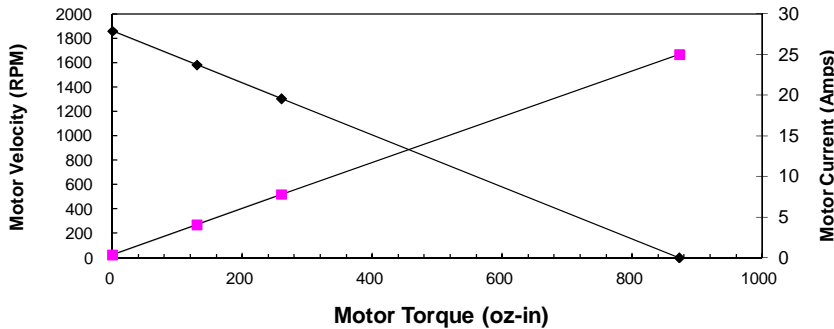
Attn.:
Customer:
Phone/Fax:
Date: **9/8/2017**

This is a calculation data sheet

SPECS	C/S	Frame	PM	- Winding	- Stack	Options	Gear Ratio
MODEL #	S	28		H	200	FX	1.0

V in =*	48 Vdc	Input Voltage	eff = 0.9
Ke =*	25.8 V/krpm	Voltage Constant	
Kt =	34.9 oz-in/A	Torque Constant	
Rt =*	1.92 Ohms(@20°C)	Terminal Resistance+Amplifier	
Io =*	0.345 Amps	No load current	
I as =	25.0 Amps	Stall Current (reference only)	
T gs =	872 oz-in	Stall Torque (reference only @ V in)	
I 1 =	4.1 Amps	Current @ Torque-1	
T 1 =*	130 oz-in	Torque-1	117.0 oz-in 7.3 in-lb
T 2 =*	260 oz-in	Torque-2	234.0 oz-in 14.6 in-lb
I 2 =	7.8 Amps	Current @ Torque-2	
RPM nl =	1860 RPM	No Load Velocity	1860.5 rpm
RPM r =	1583 RPM	RPM @ T1	1583.2 rpm
RPM p=	1306 RPM	RPM @ T2	1305.9 rpm
R ah =	2.51 Ohms(@105°C)	Term. Resistance Hot	
T gsh =	667 oz-in	Stall Torque Hot	
I ash =	19.1 Amps	Stall Current Hot	
R th =*	2.9 °C/W	Thermal Resistance	
Tr =	125 °C	Without cooling air	Temperature Rise (above ambient)
Nm/A=	0.25	Torque Constant	
Lb in/A=	2.18	Torque Constant	
Km=	25.2 Kt/r	Motor Constant	

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	1860	0.3	0	0
48	130	1583	4.1	0.77908	152.23048
48	260	1306	7.8	0.67107	251.14015
48	872	0	25.0	0	0