

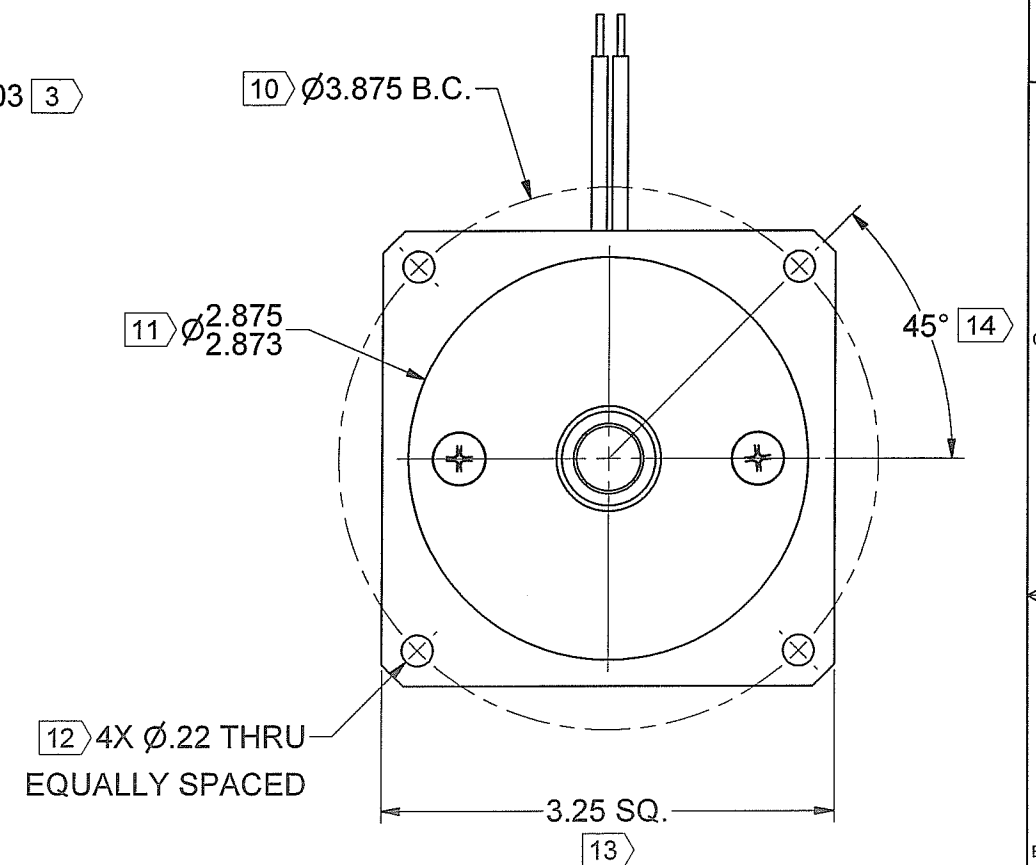
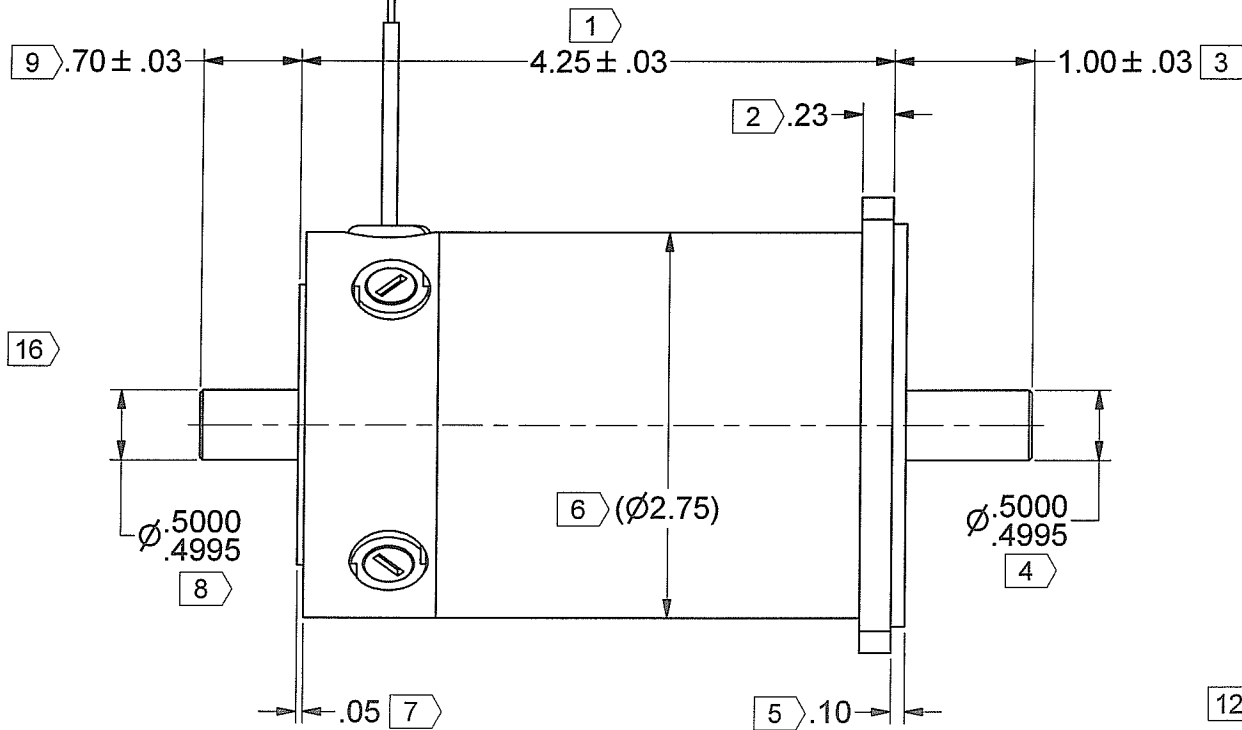
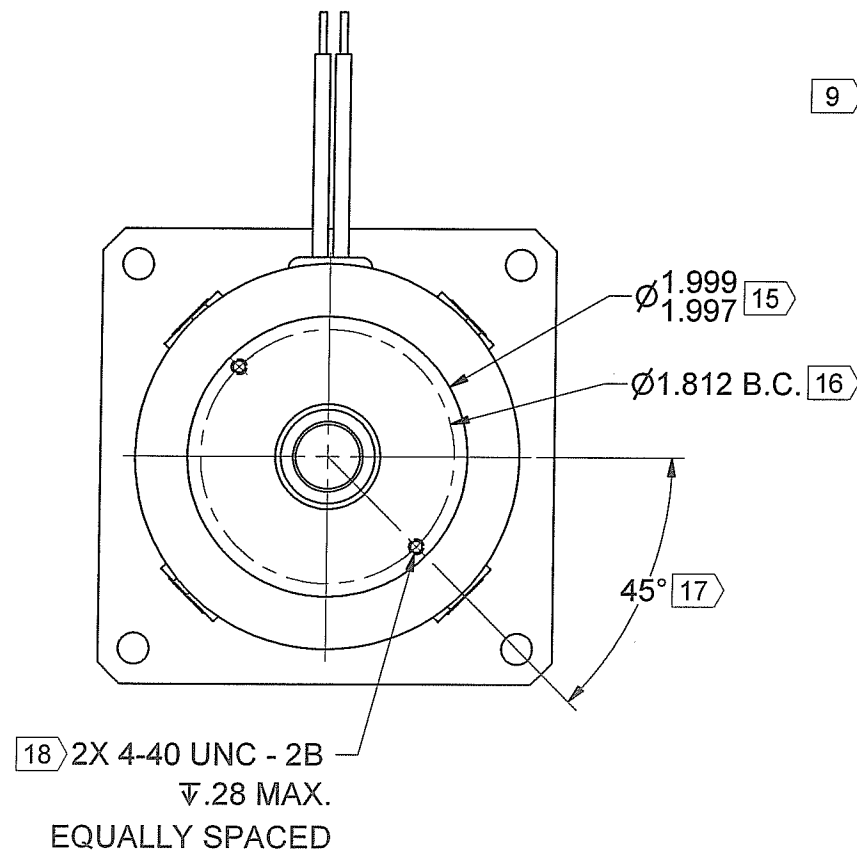
REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-
B	HOLE Ø.27 WAS .22 0.10 WAS 0.1000	6/28/07	SLC	-
C	4.25 WAS 5.25 & 2.95 WAS 2.80	6/29/17	SLC	-
D	UPDATED ENDBELL AND FLANGE TO MAKE THIS A STANDARD MOTOR	9/7/17	SLC	-

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) = 17.5 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 13.0 ± 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 23 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]		SIGNATURES		DATE		TITLE	
MATERIAL		DRAWN SLC		9/6/2017		MOTOR ASSEMBLY, S28-E-200FX	
SPEC		CHECKED [Signature]		10/23/17		SIZE NUMBER	
FINISH		ENG APPR.		MFG APPR. [Signature]		D 500280343	
NONE		Q.A.		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE FILLET: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		REV D	
SPEC		SCALE: -		WEIGHT: - LB.		SHEET 1 OF 3	



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

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

Final Product No.: **S28 E 200 FX**

Customer:

RFQ **500280343**

Phone/Fax:

By: **JC**

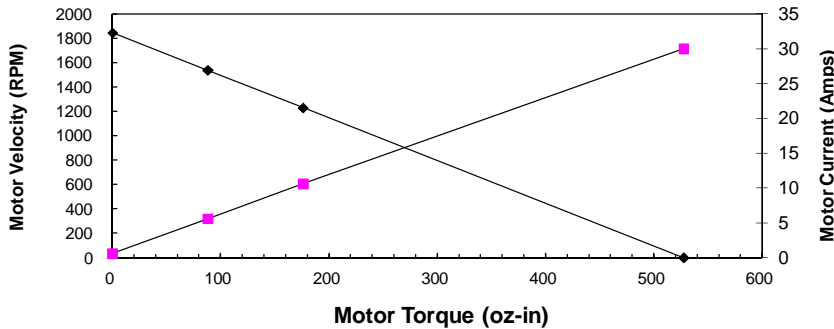
Date: **9/6/2017**

This is a calculation data sheet

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

V in =*	24 Vdc		Input Voltage	eff = 0.9
Ke =*	13.0 V/krpm		Voltage Constant	
Kt =	17.6 oz-in/A		Torque Constant	
Rt =*	0.8 Ohms(@20°C)		Terminal Resistance+Amplifier	
Io =*	0.6 Amps		No load current	
I as =	30.0 Amps		Stall Current (reference only)	
T gs =	527 oz-in		Stall Torque (reference only @ V in)	
I 1 =	5.6 Amps		Current @ Torque-1	
T 1 =*	88 oz-in		Torque-1	79.2 oz-in 5.0 in-lb
T 2 =*	176 oz-in		Torque-2	158.4 oz-in 9.9 in-lb
I 2 =	10.6 Amps		Current @ Torque-2	
RPM nl =	1846 RPM		No Load Velocity	1846.2 rpm
RPM r =	1538 RPM		RPM @ T1	1538.1 rpm
RPM p=	1230 RPM		RPM @ T2	1230.1 rpm
R ah =	1.05 Ohms(@105°C)		Term. Resistance Hot	
T gsh =	403 oz-in		Stall Torque Hot	
I ash =	22.9 Amps		Stall Current Hot	
R th =*	2.9 °C/W		Thermal Resistance	
Tr =	100 °C	Without cooling air	Temperature Rise (above ambient)	
Nm/A=	0.12		Torque Constant	
Lb in/A=	1.10		Torque Constant	
Km=	19.7 Kt/r		Motor Constant	

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
24	0	1846	0.6	0	0
24	88	1538	5.6	0.74419	100.11513
24	176	1230	10.6	0.62882	160.13282
24	527	0	30.0	0	0