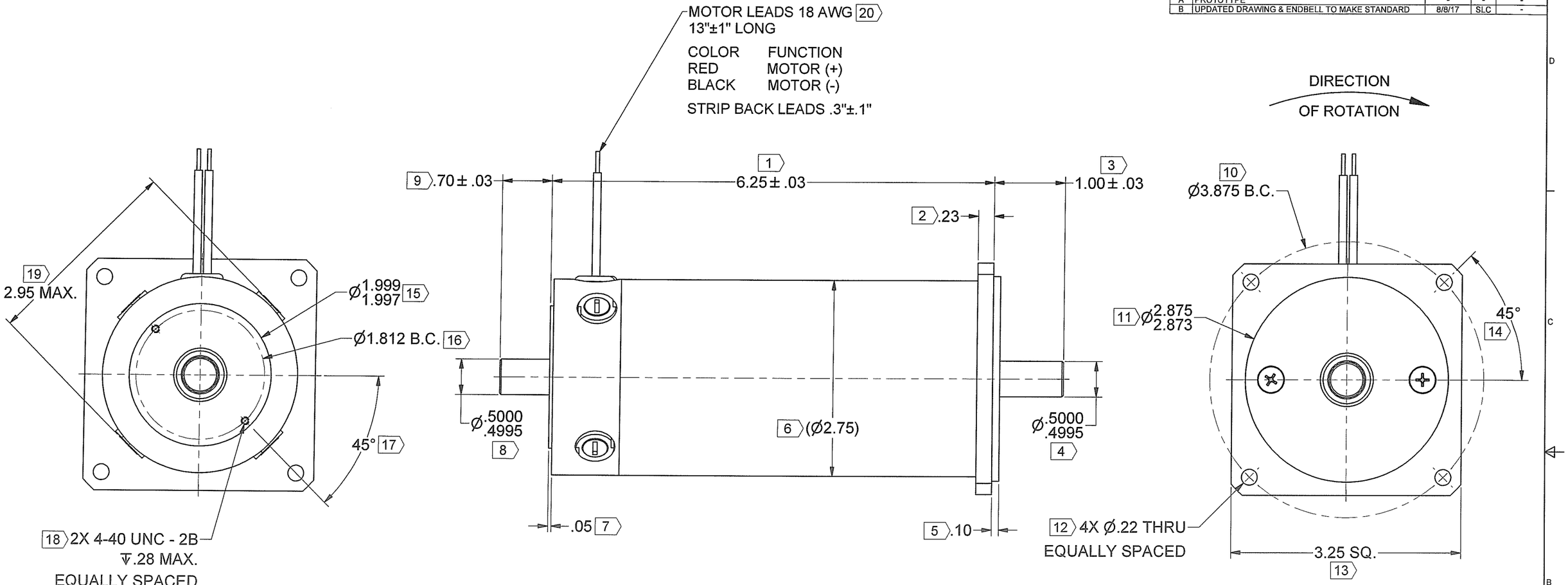
REVISION				
REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-
B	UPDATED DRAWING & ENDBELL TO MAKE STANDARD	8/8/17	SLC	-



MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 34.4 ± 10% OZ-IN/AMP - SPECIAL
VOLTAGE CONSTANT (Ke) = 25.4 ± 10% VOLTS/KRPM - SPECIAL

NOTES:

1.) MOTOR ROTATION IS CLOCKWISE WHEN VIEWED FROM OUTPUT SHAFT WITH POSITIVE VOLTAGE APPLIED TO RED LEAD.

2.) SCREW PENETRATION NOT TO EXCEED SPECIFIED THREAD DEPTH.

3.) X IDENTIFIES INSPECTION DIMENSIONS.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & [mm]
TOLERANCES ON:
ANGLES = ± 1/2°
X.XX [X.X] = ± .01 [0.25]
X.XXX [X.XX] = ± .005 [0.12]
125

THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING

Magmotor™

SIGNATURES		DATE
DRAWN	SLC	3/27/2009
CHECKED		10/26/17
ENG APPR.		
MFG APPR.		10/26/17
Q.A.		

MATERIAL: -
SPEC:
FINISH: NONE
SPEC:

UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES, COUNTERSINK TAPPED HOLES TO BODY SIZE FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.

TITLE: MOTOR ASSEMBLY, S28-E-400FX

SIZE	NUMBER	REV
D	500280376	B

SCALE: - | WEIGHT: - LB. | SHEET 1 OF 3

10 Coppage Drive
Worcester, MA 01603
1/19/2018

MOTOR PERFORMANCE / SPECIFICATIONS

Final Product No.: **S28 E 400 FX**
RFQ **500280376**
By: **JC**

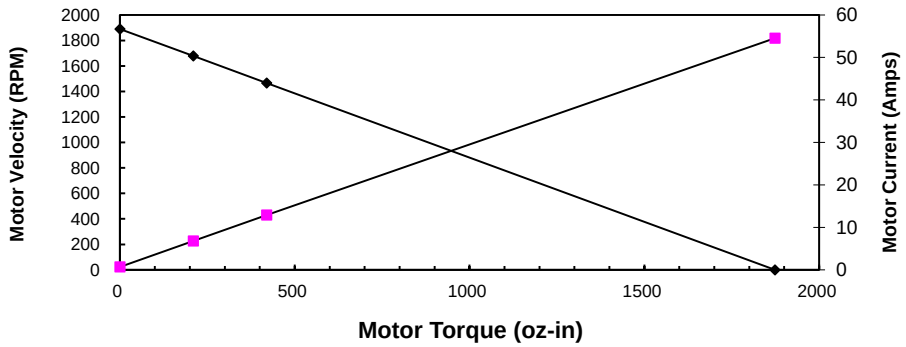
Attn.:
Customer:
Phone/Fax:
Date: **8/7/2017**

This is a calculation data sheet X

SPECS	C/S	Frame	PM	-	Winding	-	Stack	Options	Gear Ratio
MODEL #	**S**	**28**			**E**		**400**	**FX**	**1.0**

V in =*	**48**	Vdc	Input Voltage		**eff = 0.9**
Ke =*	**25.4**	V/krpm	Voltage Constant		
Kt =	34.4	oz-in/A	Torque Constant		
Rt =*	**0.88**	Ohms(@20° C)	Terminal Resistance+Amplifier		
Io=*	**0.68**	Amps	No load current		
I as =	54.5	Amps	Stall Current (reference only)		
T gs =	1874	oz-in	Stall Torque (reference only @ V in)		
I 1 =	**6.8**	**Amps**	**Current @ Torque-1**		
T 1 =*	**210**	oz-in	Torque-1	189.0 oz-in	**149.5 Nm**
T 2 =*	**420**	oz-in	Torque-2	378.0 oz-in	**299 Nm**
I 2 =	12.9	Amps	Current @ Torque-2		
RPM nl =	**1890**	**RPM**	No Load Velocity		**1889.8 rpm**
RPM r =	**1678**	**RPM**	**RPM @ T1**		**1678.0 rpm**
RPM p=	**1466**	**RPM**	RPM @ T2		**1466.2 rpm**
R ah =	1.15	Ohms(@105° C)	Term. Resistance Hot		
T gsh =	1432	oz-in	Stall Torque Hot		
I ash =	41.7	Amps	Stall Current Hot		
R th =*	**1.8**	°C/W	Thermal Resistance		
Tr =	**118**	**°C**	**Without cooling air**	**Temperature Rise (above ambient)**	
Nm/A=	0.24		Torque Constant		
Lb in/A=	2.15		Torque Constant		
Km=	36.6	Kt//r	Motor Constant		

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	1890	0.7	0	0
48	**210**	**1678**	**6.8**	**0.79928**	**260.63021**
48	420	1466	12.9	0.73518	455.46404
48	1874	0	54.5	0	0