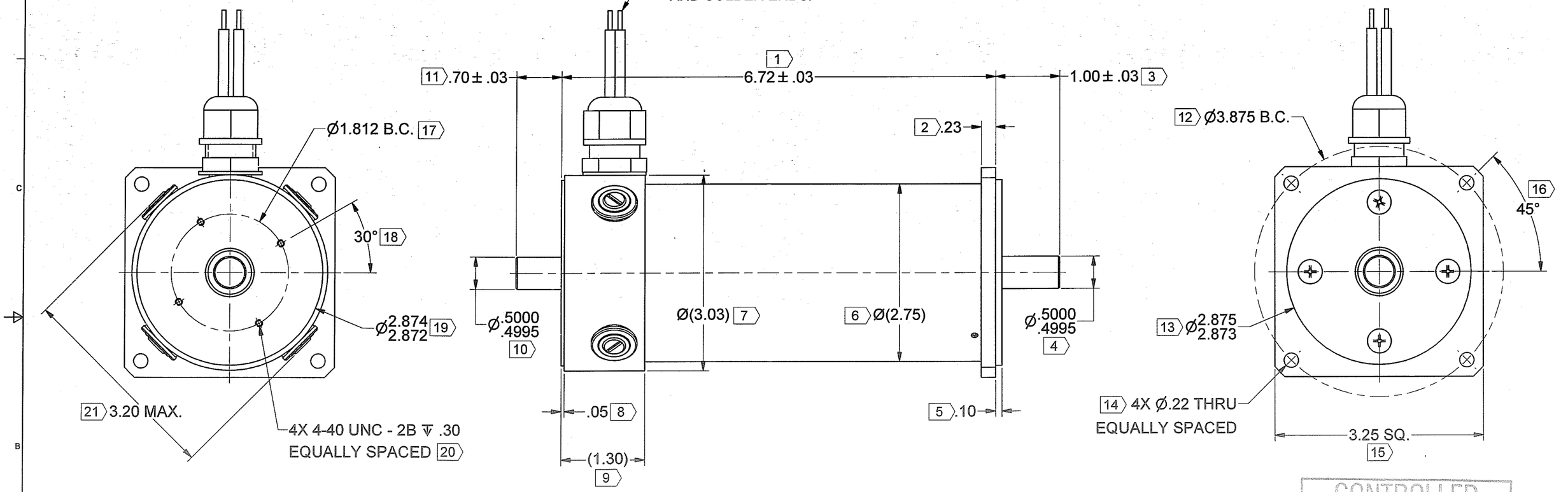
REVISION				
REV	DESCRIPTION	DATE	BY	APPROVED
A	PROTOTYPE	-	-	-



MOTOR SPECIFICATIONS:

TORQUE CONSTANT (Kt) = 17.0 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 12.6 ± 10% VOLTS/KRPM

NOTES:

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

2.) RUNNING MOTOR WITH ONLY ONE BLACK AND ONE RED LEAD WILL DAMAGE MOTOR.

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

4.) 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	8/7/2017
CHECKED		1/11/22
ENG APPR.		1/11/22
MFG APPR.		1/11/22
Q.A.		

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

MATERIAL: -
SPEC:
FINISH: NONE
SPEC:

TITLE: MOTOR ASSEMBLY, S28-D2-400FX

SIZE: D | NUMBER: 500280452 | REV: A

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

10 Coppage Drive
Worcester, MA 01603
1/11/2022

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

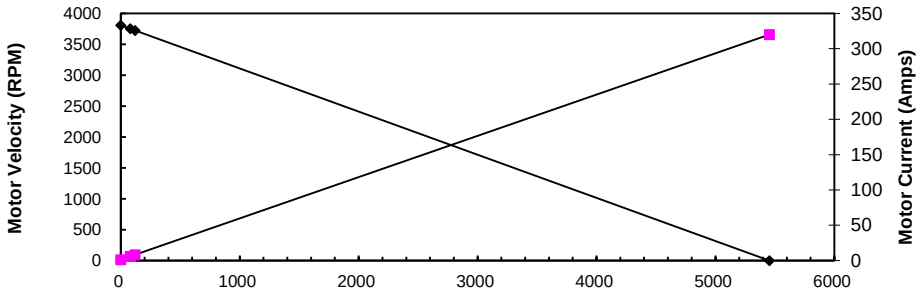
Final Product No.: **S28-D2-400FX**
Customer:
RFQ 500280452
Phone/Fax:
By: MM
Date: 1/11/2022

This is a calculation data sheet X

SPECS	C/S	Frame	PM	-	Winding	-	Stack	Options	Gear Ratio
MODEL #	**S**	**28**			**D2**		**400**	**FX**	

V in =*	**48**	Vdc		Input Voltage	**eff = 0.9**	
Ke =*	**12.6**	V/krpm		Voltage Constant		
Kt =	17.0	oz-in/A		Torque Constant		
Rt =*	**0.15**	Ohms(@20° C)		Terminal Resistance+Amplifier		
Io=*	**1.3**	Amps		No load current		
I as =	320.0	Amps		Stall Current (reference only)		
T gs =	5453	oz-in		Stall Torque (reference only @ V in)		
I 1 =	6.0	Amps		Current @ Torque-1		
I 2 =	8.3	Amps		Current @ Torque-2		
T 1 =*	**80**	oz-in		Torque-1	0.0 oz-in	0.0 in-lb
T 2 =*	**120**	oz-in		Torque-2	0.0 oz-in	0.0 in-lb
RPM nl =	3810	RPM		No Load Velocity	#DIV/0!	rpm
RPM r =	3754	RPM		RPM @ T1	#DIV/0!	rpm
RPM p=	3726	RPM		RPM @ T2	#DIV/0!	rpm
R ah =	0.20	Ohms(@105° C)		Term. Resistance Hot		
T gsh =	4168	oz-in		Stall Torque Hot		
I ash =	244.6	Amps		Stall Current Hot		
R th =*	**1.8**	°C/W		Thermal Resistance		
Tr =	**88**	°C	Without cooling air	Temperature Rise @ T1 (above ambient)		
Tr =	**96**	°C	Without cooling air	Temperature Rise @ T2 (above ambient)		
Nm/A=	0.12			Torque Constant		
Lb in/A=	1.06			Torque Constant		
Km=	44.0	Kt//r		Motor Constant		

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	3810	1.3	0	0
48	80	3754	6.0	0.77188	222.1085
48	120	3726	8.3	0.82583	330.68242
48	5453	0	320.0	0	0