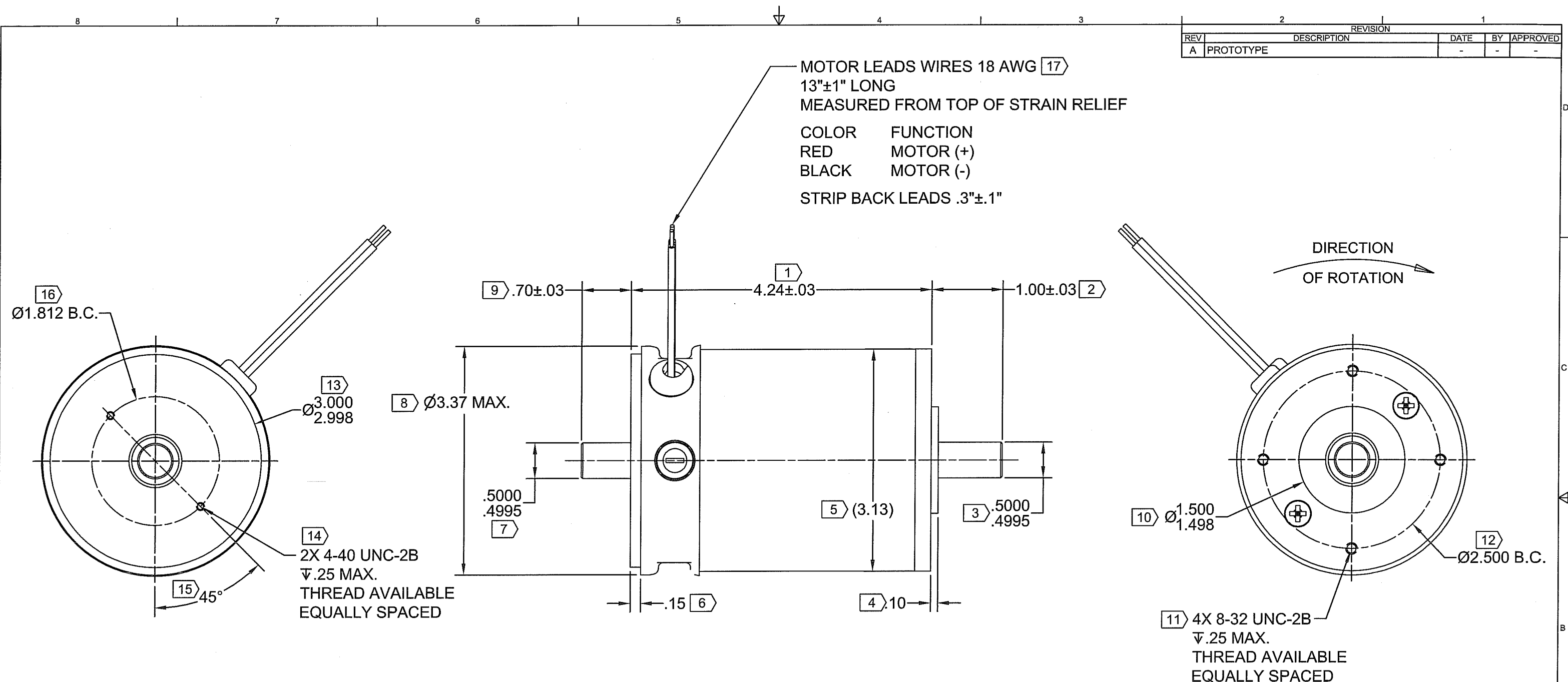


REV	DESCRIPTION	REVISION	DATE	BY	APPROVED
A	PROTOTYPE		-	-	-

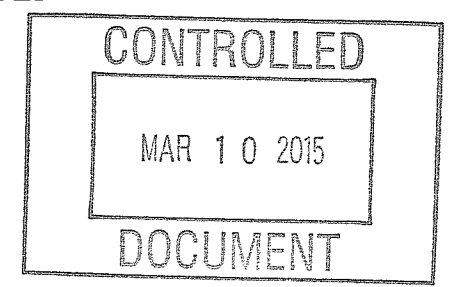


**MOTOR SPECIFICATIONS:**

TORQUE CONSTANT (Kt) = 25.0 ± 10% OZ-IN/AMP  
 VOLTAGE CONSTANT (Ke) = 18.5 ± 10% VOLTS/KRPM

**NOTES:**

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



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 = ± 12° X.XX [X.X] = ± .01 [0.25] X.XXX [X.XX] = ± .005 [0.12]		SIGNATURES		DATE		TITLE	
MATERIAL		DRAWN R. LANDRY		8/27/2004		MOTOR ASSEMBLY, C33-H-200X	
SPEC -		CHECKED <i>Ala</i>		<i>3/10/15</i>			
FINISH -		ENG APPR.					
SPEC -		MFG APPR. <i>BT</i>		<i>3/10/15</i>			
Q.A.		UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE. FILLETS: .03 MAX. / EXTERNAL CORNERS: .015 MAX.		SIZE NUMBER		REV	
		SCALE: NONE		WEIGHT: -		SHEET 1 OF 3	
		D 500280275				A	



10 Coppage Drive  
Worcester, MA 01603  
10/24/2016

**MOTOR PERFORMANCE / SPECIFICATIONS**

**Attn.:**

Final Product No.: **C33-H-200X**

Customer:

RFQ **500280275**

Phone/Fax:

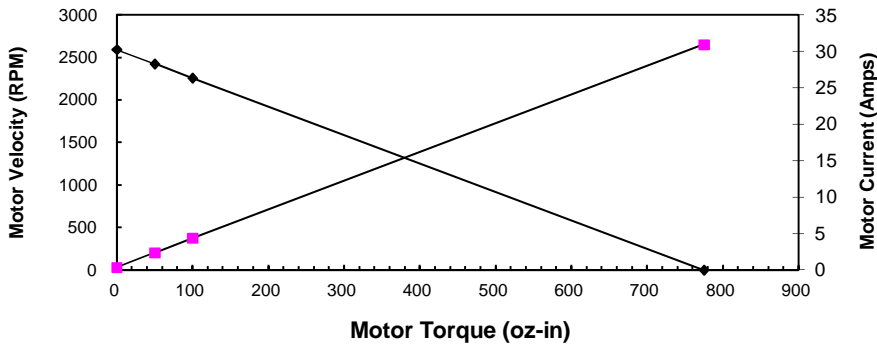
By: **JC**

Date:

This is a calculation data sheet

SPECS	C/S	Frame	PM	- Winding -	Stack	Options	Gear Ratio
MODEL #	<b>S</b>	<b>28</b>		<b>D4</b>	<b>400</b>	<b>X</b>	<b>1.0</b>
V in =*	<b>48</b>	Vdc			Input Voltage		<b>eff = 0.9</b>
Ke =*	<b>18.5</b>	V/krpm			Voltage Constant		
Kt =	25.0	oz-in/A			Torque Constant		
Rt =*	<b>1.55</b>	Ohms(@20°C)			Terminal Resistance+Amplifier		
Io=*	<b>0.38</b>	Amps			No load current		
I as =	31.0	Amps			Stall Current (reference only)		
T gs =	775	oz-in			Stall Torque (reference only @ V in)		
I 1 =	<b>2.4</b>	Amps			<b>Current @ Torque-1</b>		
T 1 =*	<b>50</b>	oz-in			Torque-1	45.0 oz-in	2.8 in-lb
T 2 =*	<b>100</b>	oz-in			Torque-2	90.0 oz-in	5.6 in-lb
I 2 =	4.4	Amps			Current @ Torque-2		
RPM nl =	2595	RPM			No Load Velocity		2594.6 rpm
<b>RPM r =</b>	<b>2427</b>	<b>RPM</b>			<b>RPM @ T1</b>		<b>2427.2 rpm</b>
RPM p=	2260	RPM			RPM @ T2		2259.7 rpm
R ah =	2.03	Ohms(@105°C)			Term. Resistance Hot		
T gsh =	592	oz-in			Stall Torque Hot		
I ash =	23.7	Amps			Stall Current Hot		
R th =*	<b>2.9</b>	°C/W			Thermal Resistance		
Tr =	<b>71</b>	°C	<b>Without cooling air</b>		<b>Temperature Rise (above ambient)</b>		
Nm/A=	0.18				Torque Constant		
Lb in/A=	1.56				Torque Constant		
Km=	20.1	Kt/r			Motor Constant		

**Torque Curve**



**Calculation data**

Voltage	Torque	RPM	Amp	Efficiency	Watts out
48	0	2595	0.4	0	0
<b>48</b>	<b>50</b>	<b>2427</b>	<b>2.4</b>	<b>0.78624</b>	<b>89.761722</b>
48	100	2260	4.4	0.79555	167.139
48	775	0	31.0	0	0