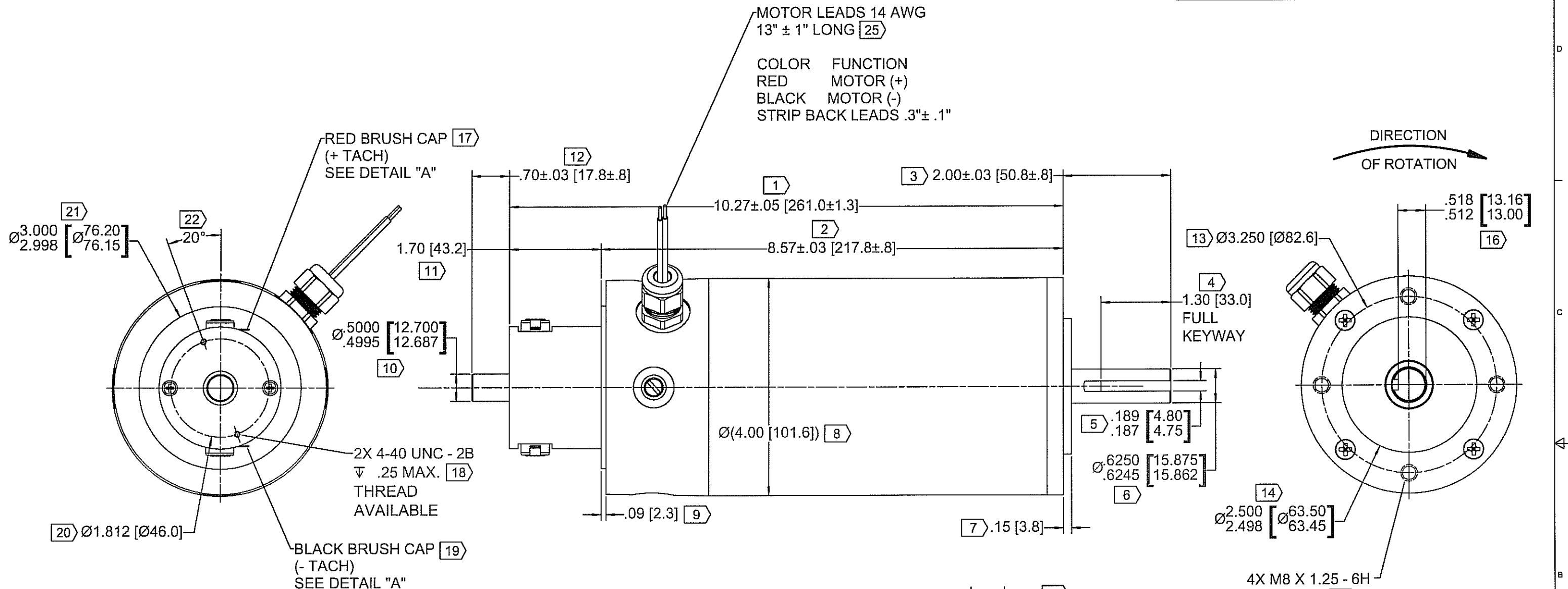


REVISION		DATE	BY	APPROVED
REV	DESCRIPTION			
A	PROTOTYPE	-	-	-



MOTOR SPECIFICATIONS:

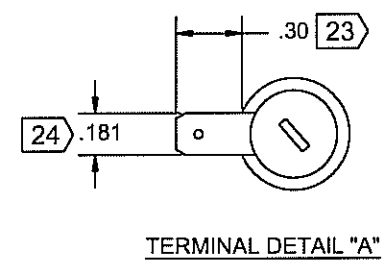
TORQUE CONSTANT (Kt) = 60.9 ± 10% OZ-IN/AMP
VOLTAGE CONSTANT (Ke) = 45.0 ± 10% VOLTS/KRPM

TACH SPECIFICATIONS:

TACH VOLTAGE SENSITIVITY: 5 V/KRPM
TACH VOLTAGE RIPPLE PEAK TO PEAK: 3% MAX.

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
DEC 17 2012
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.XXX) = ± .005 [0.12]		SIGNATURES		DATE		TITLE	
DRAWN		SLC		12/17/2012		FINAL ASSEMBLY, C40-C-500T5X	
CHECKED		[Signature]		12/17/12			
SPEC		ENG APPR.					
FINISH		MFG APPR. [Signature]		12/17/12			
SPEC		Q.A.					
UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS & SHARP EDGES. COUNTERSINK TAPPED HOLES TO BODY SIZE. FILLETS .03 MAX / EXTERNAL CORNERS .015 MAX.		SCALE: NONE		WEIGHT: -		SHEET 1 OF 3	
		SIZE		NUMBER		REV	
		D		720400059		A	



10 Coppage Drive
Worcester, MA 01603
3/21/2017

MOTOR PERFORMANCE / SPECIFICATIONS

Attn.:

Final Product No.: **C40-C-500T5X**

Customer:

RFQ 720400059

Phone/Fax:

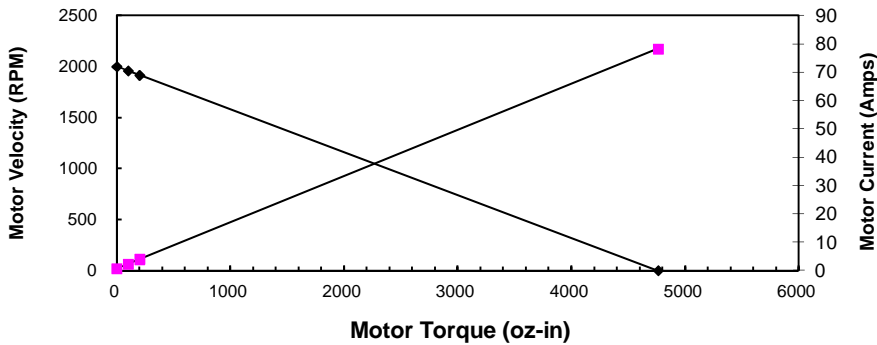
By: JC

Date:

This is a calculation data sheet

SPECS	C/S	Frame	PM	- Winding -	Stack	Options	Gear Ratio
MODEL #							1.0
V in =*	90	Vdc				Input Voltage	eff = 0.9
Ke =*	45.0	V/krpm				Voltage Constant	
Kt =	60.9	oz-in/A				Torque Constant	
Rt =*	1.15	Ohms(@20°C)				Terminal Resistance+Amplifier	
Io =*	0.7	Amps				No load current	
I as =	78.3	Amps				Stall Current (reference only)	
T gs =	4763	oz-in				Stall Torque (reference only @ V in)	
I 1 =	2.3	Amps				Current @ Torque-1	
T 1 =*	100	oz-in				Torque-1	90.0 oz-in 5.6 in-lb
T 2 =*	200	oz-in				Torque-2	180.0 oz-in 11.3 in-lb
I 2 =	4.0	Amps				Current @ Torque-2	
RPM nl =	2000	RPM				No Load Velocity	2000.0 rpm
RPM r =	1958	RPM				RPM @ T1	1958.0 rpm
RPM p =	1916	RPM				RPM @ T2	1916.0 rpm
R ah =	1.50	Ohms(@105°C)				Term. Resistance Hot	
T gsh =	3641	oz-in				Stall Torque Hot	
I ash =	59.8	Amps				Stall Current Hot	
R th =*	0.79	°C/W				Thermal Resistance	
Tr =	52	°C	Without cooling air			Temperature Rise (above ambient)	
Nm/A =	0.43					Torque Constant	
Lb in/A =	3.80					Torque Constant	
Km =	56.8	Kt/r				Motor Constant	

Torque Curve



Calculation data

Voltage	Torque	RPM	Amp	Efficiency	Watts out
90	0	2000	0.7	0	0
90	100	1958	2.3	0.68674	144.82307
90	200	1916	4.0	0.79002	283.43429
90	4763	0	78.3	0	0