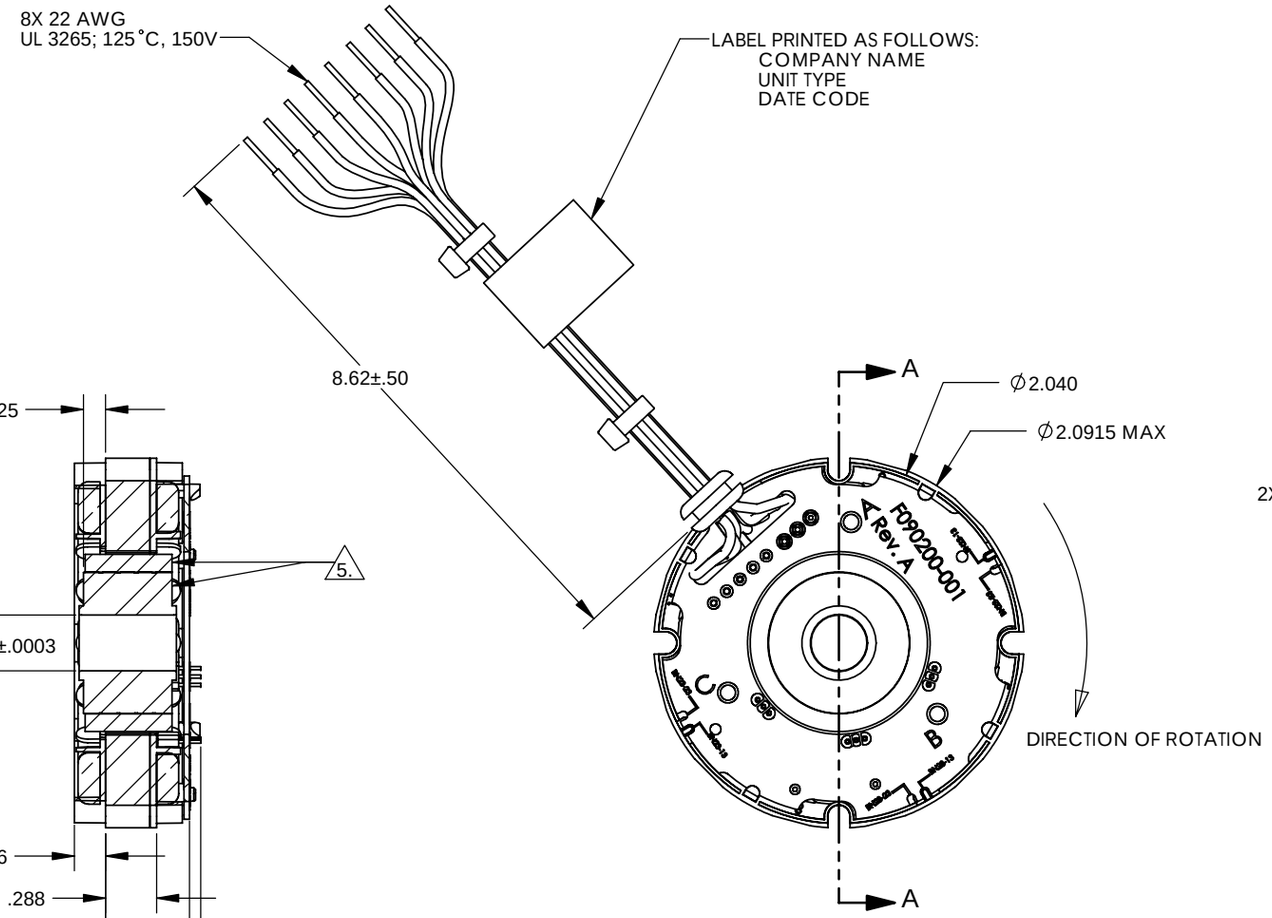
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	NEW DRAWING/NTD 10173		



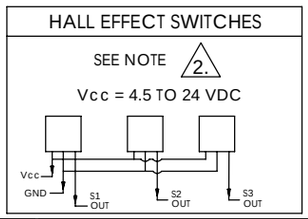
NOTES UNLESS OTHERWISE SPECIFIED:

1. INTERPRET DRAWING PER ASME Y14.100.
2. OPEN COLLECTOR OUTPUTS, USE PULL UP RESISTORS BETWEEN Vcc AND OUTPUTS.
3. TESTED AS A MOTOR ASSEMBLY MOUNTED TO 6" X 6" X 1/4" ALUMINUM PLATE, STILL AIR.
4. MAXIMUM WINDING TEMPERATURE OF 155˚C.
5. MAGNET RING AND ROTOR CORE: FLUSH ±.002 ON THIS SIDE.
6. RECOMENDED ROTOR CORE TO STACK MOUNTING DIMENSION.

PERFORMANCE AT 25°C 3.				
PARAMETER	**SYMBOL**	**UNITS**	**TOLERANCE**	**VALUE**
TERMINAL VOLTAGE	V	VOLTS DC	NOMINAL	36
PEAK TORQUE	T_P	OZ-IN	MAXIMUM	35
CONTINUOUS STALL TORQUE	T_C[1]	OZ-IN	MAXIMUM	17.7
NO LOAD SPEED	S_{NL}	RPM	NOMINAL	12500
RATED SPEED	S_R	RPM		9060
RATED TORQUE		OZ-IN	MAXIMUM	16.1
RATED CURRENT		AMPS		4.30
RATED POWER		WATTS		108
TORQUE SENSITIVITY	K_T	OZ-IN/AMP	±10%	3.78
BEMF CONSTANT	K_E	VOLTS/KRPM	±10%	2.80
TERMINAL RESISTANCE	R_M	OHMS	±12%	0.939
TERMINAL INDUCTANCE	L_M	mH	±30%	0.758
MOTOR CONSTANT	K_M	OZ-IN/?¯WATTS	NOMINAL	3.90
SPEED TORQUE GRADIENT		RPM/OZ-IN		214
MECHANICAL TIME CONSTANT		msec		4.70
ELECTRICAL TIME CONSTANT		msec		0.81
THERMAL RESISTIVITY		°C/WATT		2.34

TERMINATION TABLE	
COLOR	CONNECTION
VIOLET	A COIL
BLACK	B COIL
GREEN	C COIL
YELLOW	Vcc
GREY	GROUND
BROWN	S1 OUT
BLUE	S2 OUT
WHITE	S3 OUT

TIMING DIAGRAM (8 POLE) CCW ROTATION													
DEGREES	ELEC.	0	60	120	180	240	300	360	60	120	180	240	300	360
	MECH.	0	15	30	45	60	75	90	105	120	135	150	165	180
S1 OUT														
S2 OUT														
S3 OUT														
A COIL		---	O	+	+	O	---	---	O	+	+	O	---	
B COIL		+	+	O	---	---	O	+	+	O	---	---	O	
C COIL		O	---	---	O	+	+	O	---	---	O	+	+	



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
DECIMALS .XX ±.010 .XXX ±.005 .XXXX ±.0005
ANGLES ±0°30'
FRACTIONS ±1/64
DO NOT SCALE DRAWING
MATERIAL
FINISH

CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE

APPROVALS		DATE
DRAWN	R. PACE	1/31/06
CHECKED	R. MARTIN	2/10/06
ENGR	D. THOMPSON	2/10/06
RELEASED	R. MARTIN	2/14/06
MFG ENGR	L. FORRISTER	2/13/06
SHOP ENGR		
QA	B. LITTLE	2/10/06

MOOG COMPONENTS GROUP

TITLE
BRUSHLESS D.C. MOTOR
OUTLINE

SIZE	CAGE CODE	DWG. NO.
C	4H618	BN23-13ZMG-02LH

SCALE	CAD FILE	SHEET
1.5:1	BN23-13ZMG-02LH	1 OF 1