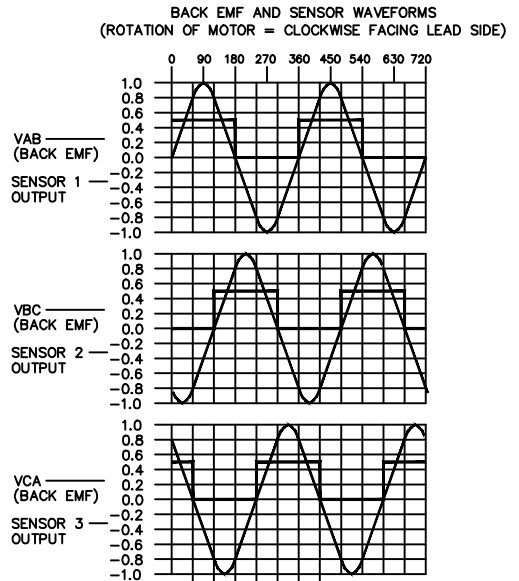


WINDING CONSTANTS *	UNITS	TOL	SYM	WDG A
DC RESISTANCE	OHMS	±12.5%	R	0.46
VOLTAGE @ I_p	VOLTS	NOMINAL	V_p	5.43
CURRENT @ I_p	AMPERES	NOMINAL	I_p	11.8
TORQUE SENSITIVITY	OZ IN/AMP	±10%	K_T	4.22
BACK EMF CONSTANT	VOLTS/(RAD/SEC)	±10%	K_B	0.0298
INDUCTANCE	MILLIHENRY	±30%	L	0.49

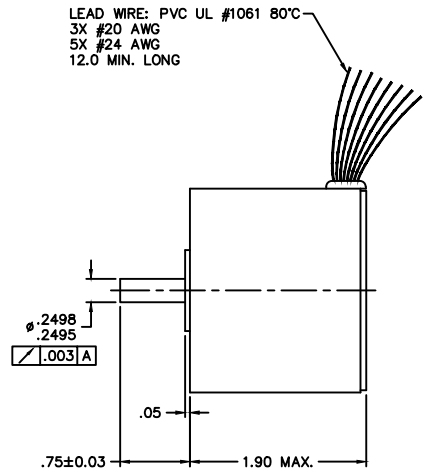
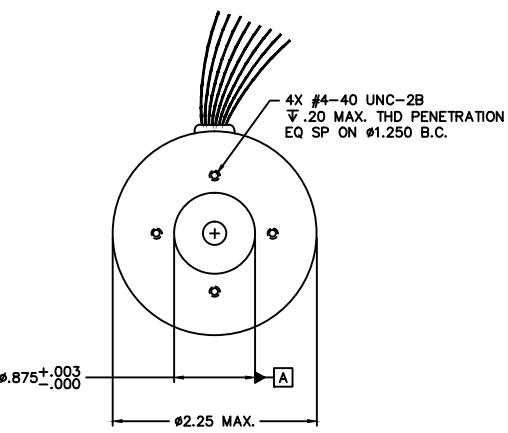
MOTOR PARAMETERS *	UNITS	SYM	NOM. VALUE
PEAK TORQUE	OZ-IN	T_p	50
CONTINUOUS STALL TORQUE **	OZ-IN	T_{cs}	22.3
MOTOR CONSTANT	OZ-IN/ \sqrt{WATT}	K_M	6.22
ELECTRICAL TIME CONSTANT	MILLISECOND	τ_e	1.07
MECHANICAL TIME CONSTANT	MILLISECOND	τ_m	5.56
POWER I ² R @ I_p	WATTS	P_p	64.1
DAMPING FACTOR (ZERO IMPEDANCE)	OZ-IN/(RAD/SEC)	F_0	0.27
BREAKAWAY TORQUE	OZ-IN	T_b	1.0
ROTOR INERTIA	OZ-IN SEC ²	J_M	1.5x10 ⁻³
MAX ALLOWABLE SPEED	RPM	S_M	16,000
SPEED @ 12 OZ IN & 24 VDC	RPM	S_l	6,500
THEO ACC @ 50 OZ-IN	RAD/SEC ²	α_T	3.3x10 ⁴
THERMAL RESISTANCE	°C/WATT	θ_{TH}	5.6
MAX ALLOWABLE WINDING TEMP	°C	TEMP	125
NUMBER OF PHASES/WINDING TYPE			3/Y
NUMBER OF POLES			8
WEIGHT	OZ	W_T	14.6

* 25°C AMBIENT TEMP
 ** 25°C AMBIENT, 125° WINDING TEMP

LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X1	110xxx	INITIAL RELEASE		JWT	



MOTOR LEADS	A	B	C
1	RED	+	+
2	BLK	-	+
3	GRN	-	-
4	BLU	0	1
5	ORG	0	0
6	YEL	1	1
Vcc+	YEL		
GND	GRY		



LEAD WIRE: PVC UL #1061 80°C
 3X #20 AWG
 5X #24 AWG
 12.0 MIN. LONG

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
 -ALL DIMENSIONS ARE IN INCHES
 -BREAK SHARP EDGES .015 MAX
 -SURFACE ROUGHNESS $\sqrt{63}$
 -DIMENSIONS APPLY AFTER FINISH
 -MAX FILLET R .010
 -DIAMETERS SHALL NOT EXCEED A RUNDOUT OF .005 FIM

TOLERANCES:
 DECIMALS: .XX ± .03
 .XX ± .01
 .XXX ± .005
 DO NOT SCALE DRAWING

BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

DRAWN J. THOMPSON	DATE 09/01/11	TITLE BLDC MOTOR
APP'D	SIZE C	FILE NO. M:\TOP LEVEL\DIH\...
MESH CHECK	PSGM NO. 55789	DRW NO. DIH23-19-BDNA
SCALE: NONE	REV X1	SHEET 1 OF 1

- ALL ABBREVIATIONS IAW ASME Y14.38.
 - INTERPRET DRAWING IAW ASME Y14.100.
 - INTERPRET DIMENSIONING AND TOLERANCING IAW ASME Y14.5M-1994.
- NOTES: UNLESS OTHERWISE SPECIFIED