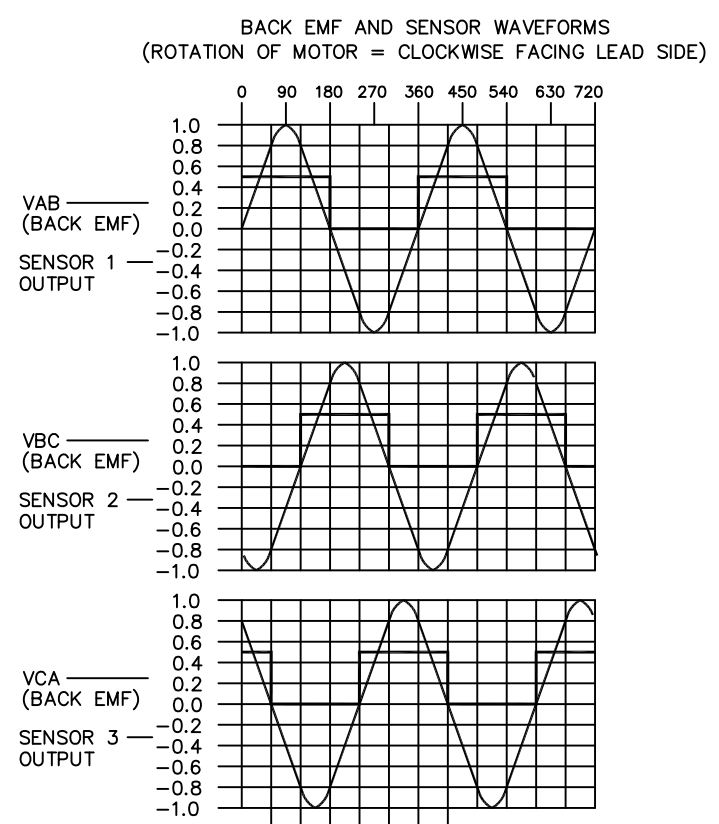


DIH23-16-BDNA		D	1		
LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
C	080047	UPDATE WINDING CONSTANTS & PARAMETERS	SLM	BD	02/25/08
D	080126	ADD RoHS LOGO	SLM	BD	04/11/08

WINDING CONSTANTS	UNITS	TOL	SYM	WDG A
DC RESISTANCE	OHMS	±12.5%	R	0.51
VOLTAGE @ PEAK TORQUE 40 OZ IN	VOLTS	NOMINAL	Vp	6.02
CURRENT @ PEAK TORQUE 40 OZ IN	AMPERES	NOMINAL	Ip	11.8
TORQUE SENSITIVITY	OZ IN/AMP	±10%	Kt	3.40
BACK EMF CONSTANT	VOLTS/(RAD/SEC)	±10%	Kb	0.024
INDUCTANCE	MILLIHENRY	±30%	L	0.60

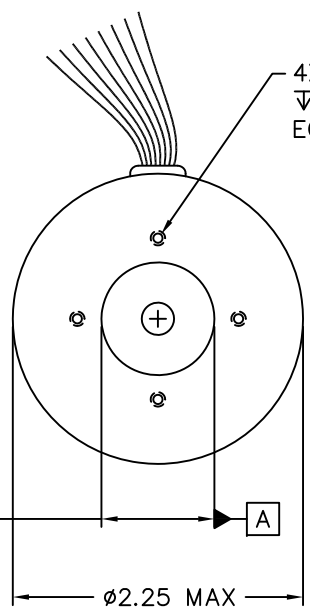
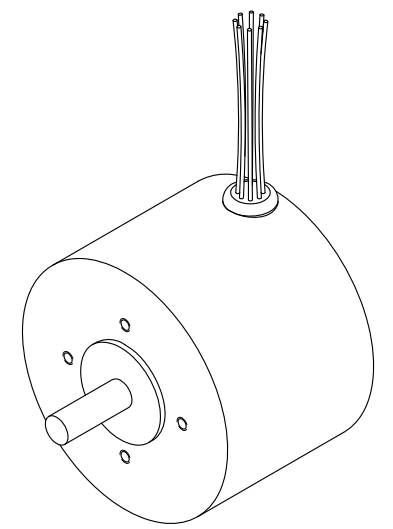
MOTOR PARAMETERS	UNITS	SYM	VALUE
PEAK TORQUE *	OZ IN	Tp	40
CONTINUOUS STALL TORQUE **	OZ IN	Tcs	16.2
MOTOR CONSTANT	OZ IN/√WATT	Km	4.76
ELECTRICAL TIME CONSTANT	MILLISECOND	Te	1.18
MECHANICAL TIME CONSTANT	MILLISECOND	Tm	5.69
POWER I²R @ TORQUE 40 OZ IN	WATTS	P	71.0
DAMPING FACTOR (ZERO IMPEDANCE)	OZ IN/(RAD/SEC)	Fo	0.16
FRICTION TORQUE	OZ IN	Tf	1.0
ROTOR INERTIA	OZ IN SEC²	Jm	9.1x10 ⁻⁴
MAX ALLOWABLE SPEED	RPM	Sm	14,000
SPEED @ 40 OZ IN & VDC	RPM	Sl	
THEO ACC @ 40 OZ IN	RAD/SEC²	αT	4.4x10 ⁴
THERMAL RESISTANCE ***	°C/WATT	θ th	6.2
MAX ALLOWABLE WINDING TEMP	°C	TEMP	125
PHASES/WINDING TYPE			3/Y
POLES			8
WEIGHT	OZ	Wt	11.2

* 10 SEC @ 25°C AMBIENT TEMP
 ** 25°C AMBIENT, 125° WINDING TEMP
 *** WITH 12 X 12' X .25 THICK AL HEAT SINK



COLOR	1	2	3	4	5	6
RED	+	+	-	-		
BLK	-	+	+	-		
GRN	-	-	+	+		
BRN	1	1	0	0	0	1
BLU	0	1	1	1	0	0
ORG	0	0	0	1	1	1
Vcc+	YEL					
GND	GRY					

NOTES: UNLESS OTHERWISE SPECIFIED



4X #4-40 UNC-2B X
 √ .20 MAX. THD PENETRATION
 EQ SP ON Ø1.250 B.C.

Ø.2498
 .2495
 .003 A

.75 ± .03
 .05
 1.6 MAX.

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

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THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
 -ALL DIMENSIONS ARE IN INCHES
 -BREAK SHARP EDGES .015 MAX.
 -SURFACE ROUGHNESS √63
 -DIMENSIONS APPLY AFTER FINISH
 -MAX FILLET R .010

TOLERANCES:
 DECIMALS ANGULAR
 .X ± .03 ±0° 30'
 .XX ± .01
 .XXX ± .005
 DO NOT SCALE DRAWING

BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

DRAWN R.ELLIOTT	DATE 03/05/98	TITLE BRUSHLESS DC MOTOR	
MECH CHECK McGHEE	DATE 09/07/07	SIZE C	FSCM NO. 55789
APPD H.PHAM	DATE 09/08/98	DWG NO. DIH23-16-BDNA	REV D
FILE NO. M:\TOPLEVEL\DIH	SCALE NONE	SHEET 1 OF 1	

DIH23-16-BDNA