

WINDING CONSTANTS	UNITS	TOL	SYM	WDG A
DC RESISTANCE	OHMS	±12.5%	R	0.25
VOLTAGE @ PEAK TORQUE	150 OZ IN VOLTS	NOMINAL	Vp	8.33
CURRENT @ PEAK TORQUE	150 OZ IN AMPERES	NOMINAL	Ip	33.3
TORQUE SENSITIVITY	OZ IN/AMP	±10%	Kt	4.5
BACK EMF CONSTANT	VOLTS/(RAD/SEC)	±10%	Kb	0.032
INDUCTANCE	MILLIHENRY	±30%	L	0.45

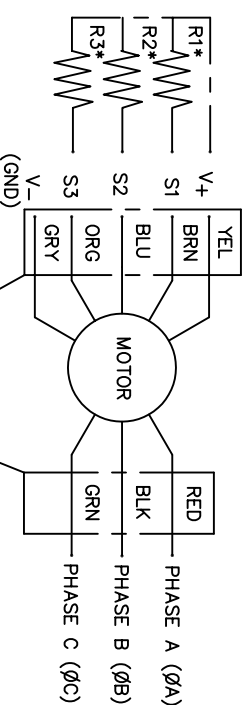
LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
A	95-1221	UPDATE THD CALLOUT	NPF	HP	10/10/95
B	98-0768	UPDATE THD CALLOUT	RLE	HP	07/31/98
C	060748	UPDATE FORMAT	ASK	SH	10/03/06

MOTOR PARAMETERS	UNITS	SYM	VALUE
PEAK TORQUE *	OZ IN	Tp	150
CONTINUOUS STALL TORQUE **	OZ IN	Tcs	46.0
MOTOR CONSTANT	OZ IN/√WATT	Km	9.0
ELECTRICAL TIME CONSTANT	MILLISECOND	Te	1.8
MECHANICAL TIME CONSTANT	MILLISECOND	Tm	4.7
POWER 1/2 R @ TORQUE	150 OZ IN WATTS	P	277.8
DAMPING FACTOR (ZERO IMPEDANCE)	OZ IN/(RAD/SEC)	Fo	0.57
FRICITION TORQUE	OZ IN	Tf	4.0
ROTOR INERTIA	OZ IN SEC ²	Jm	2.9x10 ⁻³
MAX ALLOWABLE SPEED	RPM	Sm	8,000
SPEED @	OZ IN & VDC	SI	
THEO ACC @	150 OZ IN	RAD/SEC ²	5.2x10 ⁴
THERMAL RESISTANCE ***	°C/WATT	θth	3.0
MAX ALLOWABLE WINDING TEMP	°C	TEMP	155
PHASES/WINDING TYPE			3/Y
POLES			4
WEIGHT	OZ	Wt	33.6

- * 10 SEC @ 25°C AMBIENT TEMP
- ** 25°C AMBIENT, 155° WINDING TEMP
- *** WITH 12 X 12 X .25 THICK AL HEAT SINK

CONNECTION DIAGRAM FOR BLDC MOTOR

MODEL NO **DIH30-25-BBNA**



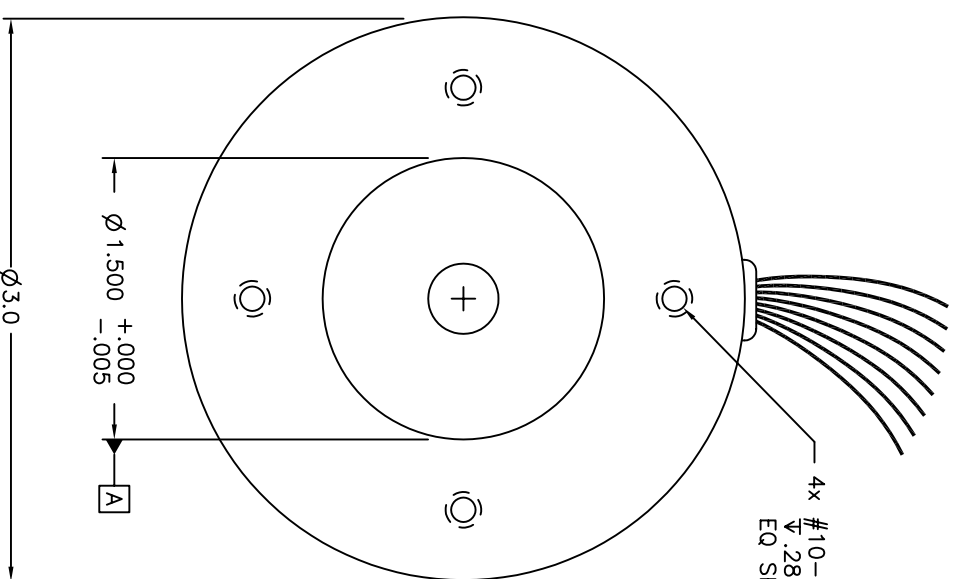
HALL DEVICE SENSOR LEADS
SUPPLY VOLTAGE 4.5 TO 24 VOLTS
MAX SINK CURRENT 50 MA
* PULL UP RESISTORS REQUIRED FOR OPEN COLLECTOR SENSOR OUTPUT
RECOMMENDED R = 100 X V+ (V)
SENSOR SEQUENCE IS 120° (ELECTRICAL)

MOTOR ROTATION CW (AS VIEWED FROM MOUNTING END)
MOTOR ROTATION CCW (AS VIEWED FROM MOUNTING END)

(ELECTRICAL DEGREES)	S1	S2	S3	ØA	ØB	ØC
0°	I	O	I	HI	LO	X
60°	I	O	I	HI	LO	X
120°	O	I	O	HI	LO	X
180°	O	I	O	HI	LO	X
240°	O	I	O	HI	LO	X
300°	I	O	I	HI	LO	X
360°	I	O	I	HI	LO	X

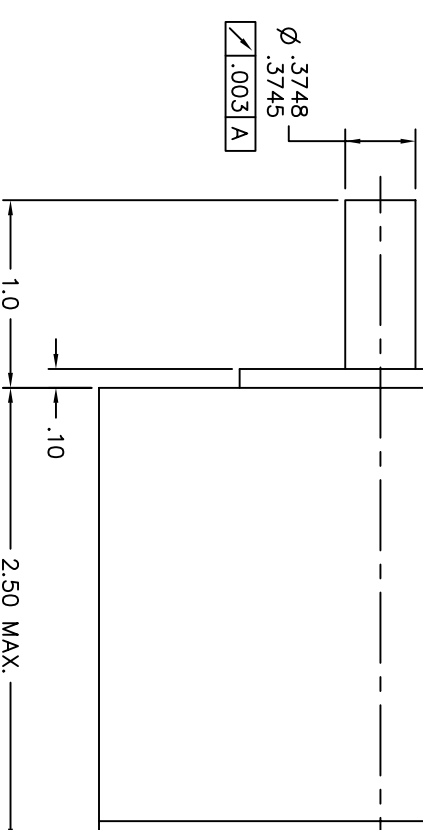
DEFINITIONS:
HI = TURN ON SOURCE SIDE
LO = TURN ON SINK SIDE
X = BOTH OFF
I = HI VOLTAGE
O = LO VOLTAGE

- INTERPET DIM & TOL. PER ASME Y14.5M-1994
- NOTES: UNLESS OTHERWISE SPECIFIED



4x #10-32 UNF-2B
V.28 MAX. THD PENETRATION
EQ SP ON Ø2.250 B.C.

LEAD WIRE: TEFLON TYPE E
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 RUGHNESS √63
-DIMENSIONS APPLY AFTER FINISH
-MAX FILET R .010

TOLERANCES: .±0° .30'
ANGULAR .±0° .30'

DECIMALS .03
XX ± .01
XXX ± .005

DO NOT SCALE DRAWING

BEI KIMCO MAGNETICS DIVISION
VISTA, CA 92081

BRUSHLESS DC MOTOR

DRAWN	S.MCGHEE	DATE	07/09/93
MECH CHECK			
APPD	H.PHAM	08/03/98	
FILE NO.	M:/TOPLEVEL/DIH		
SIZE	B	FSCM NO.	55789
SCALE	NONE	DWG NO.	DIH30-25-BBNA
SHEET	1	OF	1