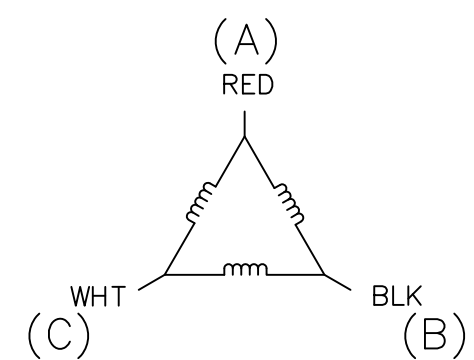


WINDING CONSTANTS *	UNITS	TOL	SYM	WDG A
VOLTAGE @ T _p	VOLTS	NOMINAL	V _p	22.5
CURRENT @ T _p	AMPERES	NOMINAL	I _p	.65
TORQUE SENSITIVITY	OZ-IN/AMP	±10%	K _T	62.0

WINDING CONSTANTS *	UNITS	TOL	SYM	WDG A
DC RESISTANCE	OHMS	±12.5%	R	34.9
CURRENT @ T _p	AMPERES	NOMINAL	I _p	.74
TORQUE SENSITIVITY (PK)	OZ-IN/AMP	±10%	K _T	53.71
TORQUE SENSITIVITY (RMS)	OZ-IN/AMP	±10%		75.96
BACK EMF CONSTANT (PK)	VOLTS/(RAD/SEC)	±10%	K _B	.438
BACK EMF CONSTANT (RMS)	VOLTS/(RAD/SEC)	±10%		.310
INDUCTANCE	MILLIHENRY	±30%	L	38.3

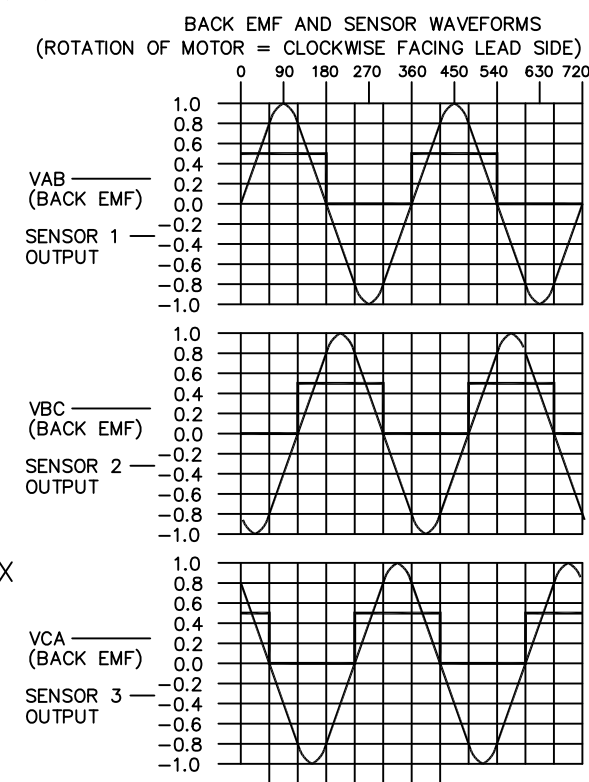
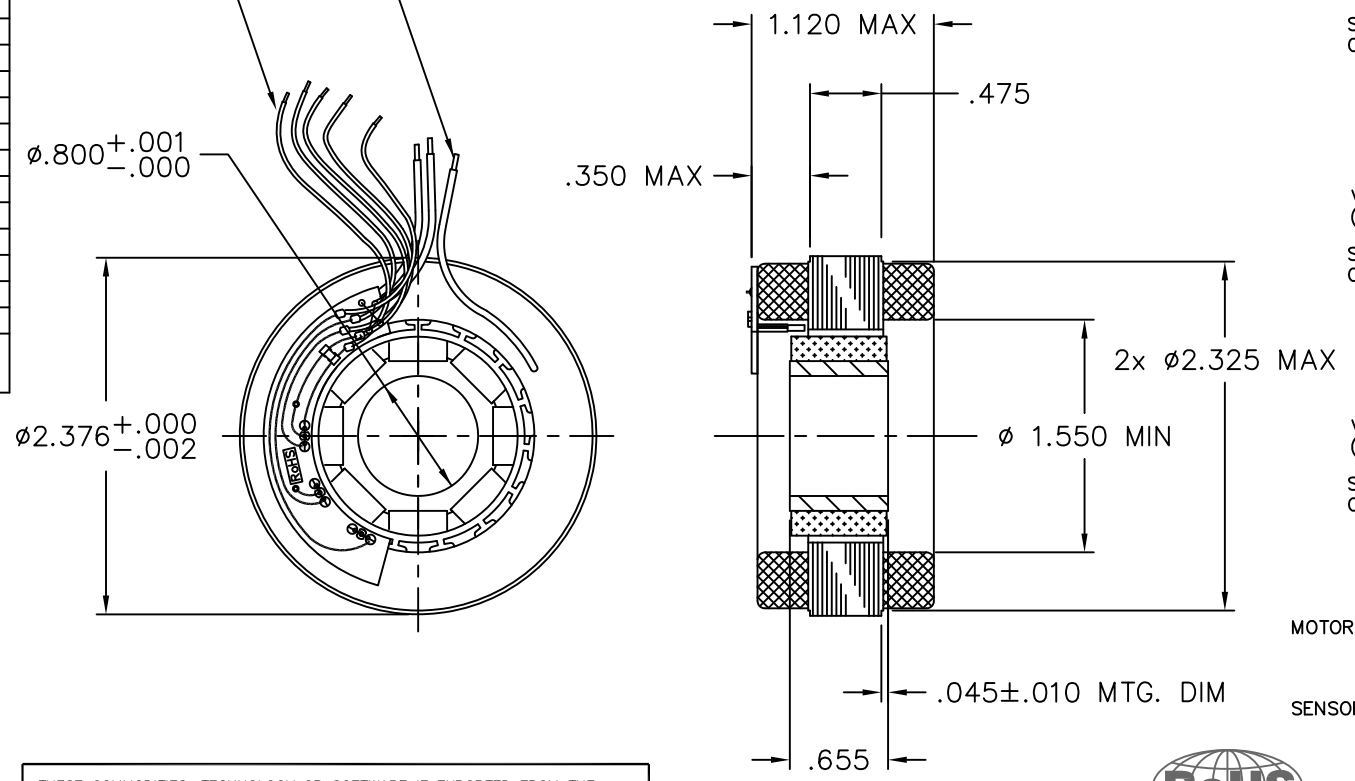
MOTOR PARAMETERS *	UNITS	SYM	NOM. VALUE
PEAK TORQUE	OZ-IN	T _p	120
CONTINUOUS STALL TORQUE **	OZ-IN	T _{CS}	46.1
MOTOR CONSTANT	OZ-IN/√WATT	K _M	10.5
ELECTRICAL TIME CONSTANT	MILLISECOND	τ _E	1.10
MECHANICAL TIME CONSTANT	MILLISECOND	τ _M	2.52
POWER .75 I ² R @ T _p	WATTS	P _p	14.6
DAMPING FACTOR (ZERO IMPEDANCE)	OZ-IN/(RAD/SEC)	F ₀	.67
BREAKAWAY TORQUE	OZ-IN	T _F	.55 MAX
ROTOR INERTIA	OZ-IN SEC ²	J _M	0.00176
THEO. NO-LOAD SPEED @ 18.7 V(RMS)	RAD/SEC	ω _{NLT}	60.32
SPEED @ 10 OZ-IN & 18.6 V(RMS)	RAD/SEC	ω _{L1}	47.12
SPEED @ 38 OZ-IN & 18.0 V(RMS)	RAD/SEC	ω _{L2}	9.0
THEO ACC @ T _p	RAD/SEC ²	α _T	22727
THERMAL RESISTANCE (HOUSED)	°C/WATT	θ _{TH}	4.5
MAX ALLOWABLE WINDING TEMP	°C	TEMP	155
NUMBER OF PHASES/WINDING TYPE			3/Δ
NUMBER OF POLES			8
WEIGHT	OZ	W _T	9.3

LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
P1	-	PRELIMINARY RELEASE	JWT		



HALL SENSOR LEADS
30 AWG PER MIL-W-16878/4
GRN, ORN, YEL, BRN & BLU
12" LG MIN

MOTOR LEADS
20 AWG PER MIL-W-16878/4
RED, BLK & WHT
12" LG MIN



	COLOR	1	2	3	4	5	6
MOTOR LEADS	A RED	+	+	-	-		
	B BLK	-	-	+	+		
	C WHT			+	+		
SENSOR LEADS	1 GRN	1	1	0	0	0	1
	2 YEL	0	1	1	1	0	0
	3 ORN	0	1	0	1	1	1
	Vcc+ BRN						
	GND BLU						

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THIRD ANGLE PROJECTION
UNLESS OTHERWISE SPECIFIED:
-ALL DIMENSIONS ARE IN INCHES
-BREAK SHARP EDGES .015 MAX.
-SURFACE ROUGHNESS √125
-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 J. THOMPSON	DATE 5/04/12	TITLE BRUSHLESS DC MOTOR		
MECH CHECK		SIZE B	FSCM NO. 55789	DWG NO. DIP24-11-001A
APPD		SCALE 1/1	SHEET 1 OF 1	REV P1
FILE NO. M:\TOP\DIP24-11-001A				

4. ROTATION: CW FACING LEAD SIDE PER COMMUTATION TABLE.
3. ALL ABBREVIATIONS IAW ASME Y14.38.
2. INTERPRET DRAWING IAW ASME Y14.100.
1. INTERPRET DIMENSIONING AND TOLERANCING IAW ASME Y14.5M-1994.
NOTES: UNLESS OTHERWISE SPECIFIED