

DIH10-36-001A

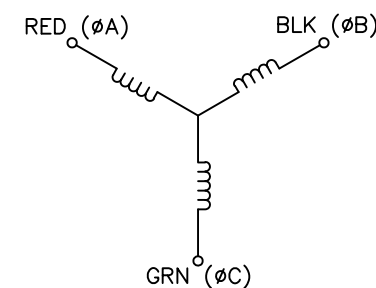
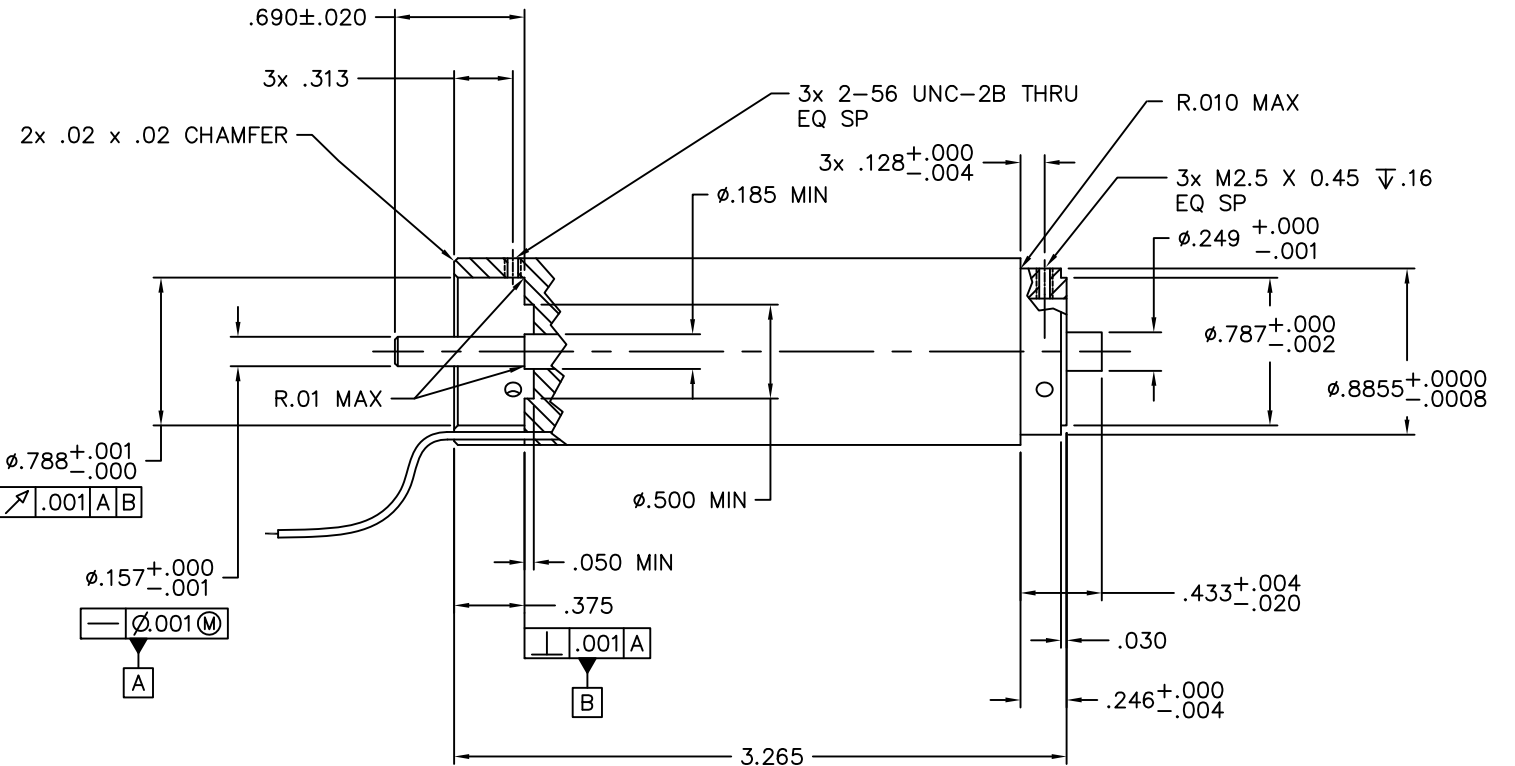
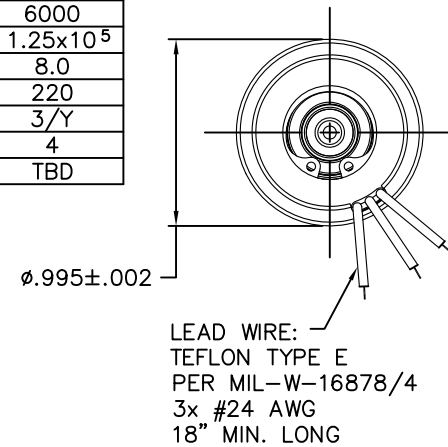
X1

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

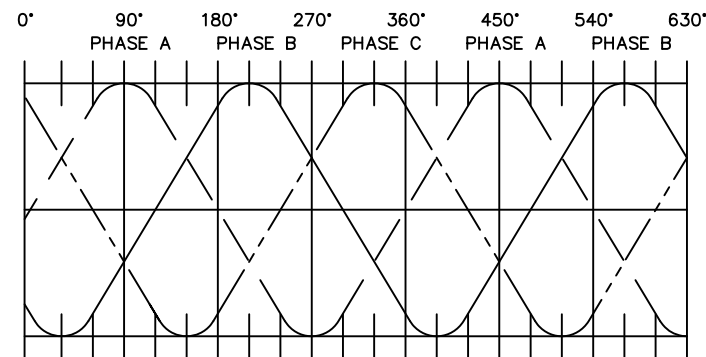
WINDING CONSTANTS*	UNITS	TOL	SYM	WDG A
DC RESISTANCE	OHMS	±12.5%	R	43.6
VOLTAGE @ T _p	VOLTS	NOMINAL	V _p	41.0
CURRENT @ T _p	AMPERES	NOMINAL	I _p	0.94
TORQUE SENSITIVITY	OZ-IN/AMP	±10%	K _T	15.9
BACK EMF CONSTANT	VOLTS/(RAD/SEC)	±10%	K _B	0.112
INDUCTANCE	MILLIHENRY	±30%	L	9.6

MOTOR PARAMETERS*	UNITS	SYM	VALUE
PEAK TORQUE	OZ-IN	T _P	15.0
CONTINUOUS STALL TORQUE **	OZ-IN	T _{CS}	7.93
MOTOR CONSTANT	OZ-IN/√WATT	K _M	2.41
ELECTRICAL TIME CONSTANT	MILLISECOND	T _E	0.22
MECHANICAL TIME CONSTANT	MILLISECOND	T _M	2.93
POWER I ² R @ T _p	WATTS	P _P	38.5
DAMPING FACTOR (ZERO IMPEDANCE)	OZ-IN/(RAD/SEC)	F _O	0.041
FRICTION TORQUE	OZ-IN	T _F	0.25
ROTOR INERTIA	OZ-IN SEC ²	J _M	1.2x10 ⁻⁴
THEO. NO-LOAD SPEED	RPM	S _M	8187
SPEED @ 5 OZ-IN & 96 VDC	RPM	S _L	6000
THEO ACC @ T _p	RAD/SEC ²	α _T	1.25x10 ⁵
THERMAL RESISTANCE ***	°C/WATT	θ _{TH}	8.0
MAX ALLOWABLE WINDING TEMP	°C	TEMP	220
PHASES/WINDING TYPE			3/Y
POLES			4
WEIGHT	OZ	W _T	TBD

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



DIRECTION OF ROTATION
 CW VIEWED FROM LEAD SIDE



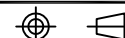
- ALL ABBREVIATIONS IAW ASME Y14.38
- INTERPRET DRAWING IAW ASME Y14.100.
- INTERPRET DIM. & TOL. PER ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

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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 9/02/11	TITLE BRUSHLESS DC MOTOR		
MECH CHECK		SIZE B	FSCM NO. 55789	DWG NO. DIH10-36-001A
APPD		SCALE 1/1	SHEET 1 OF 1	REV X1
FILE NO. M:\DIH\DIH10-36-001A				