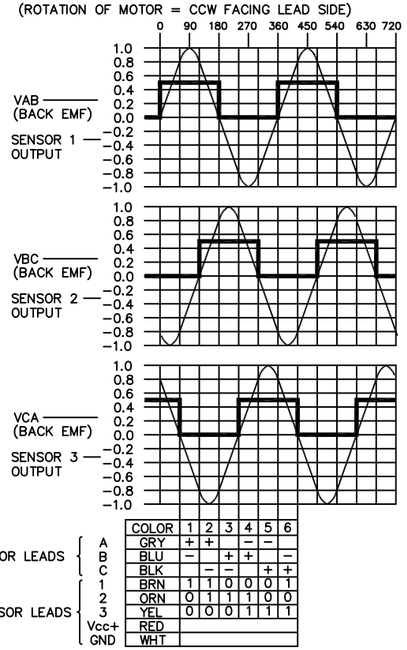
WINDING CONSTANTS *	UNITS	TOL	SYMBOL	WDG A
DC RESISTANCE	OHMS	±12.5%	R	0.41
VOLTAGE @ T_P	VOLTS	NOMINAL	V_P	13.9
CURRENT @ T_P	AMPERES	NOMINAL	I_P	33.8
TORQUE SENSITIVITY	OZ-IN/AMP	±10%	K_T	4.25
	Nm/AMP	±10%		0.03
BACK EMF CONSTANT	V/(RAD/SEC)	±10%	K_B	0.03
INDUCTANCE @ 1 KHz	MILLI-HENRY	±30%	L	0.26

MOTOR PARAMETERS *	UNITS	SYMBOL	NOM. VALUE
PEAK TORQUE	OZ-IN	T_P	143.47
	Nm		1.013
CONTINUOS STALL TORQUE **	OZ-IN	T_{CS}	24.8
	Nm		0.175
MOTOR CONSTANT	OZ-IN/$\sqrt{WATT}$	K_M	6.64
	Nm/ $\sqrt{WATT}$		0.047
ELECTRICAL TIME CONSTANT	MILLI-SEC	τ_E	0.63
MECHANICAL TIME CONSTANT	MILLI-SEC	τ_M	3.29
POWER I^2R @ T_P	WATTS	P_P	468.4
DAMPING FACTOR (ZERO IMPEDANCE)	OZ-IN/(RAD/SEC)	F_O	0.31
	Nm/(RAD/SEC)		0.0022
FRICTION TORQUE	OZ-IN	T_F	3.21
	Nm		0.023
ROTOR INERTIA	OZ-IN-SEC^2	J_M	$1.02x10^{-3}$
	Kgm^2		$7.20x10^{-6}$
THEO. NO-LOAD SPEED @ 110 VDC	RPM	S_O	35021
THEORETICAL ACCELERATION @ T_P	RAD/SEC^2	α_T	$1.41x10^5$
THERMAL RESISTANCE	°C/WATT	θ_{TH}	8.4
MAX. ALLOWABLE WINDING TEMP.	°C	TEMP	240
NUMBER OF PHASES/WINDING TYPE			3/Y
NUMBER OF POLES			4
WEIGHT	OZ	W_T	33.16
	KG		0.940

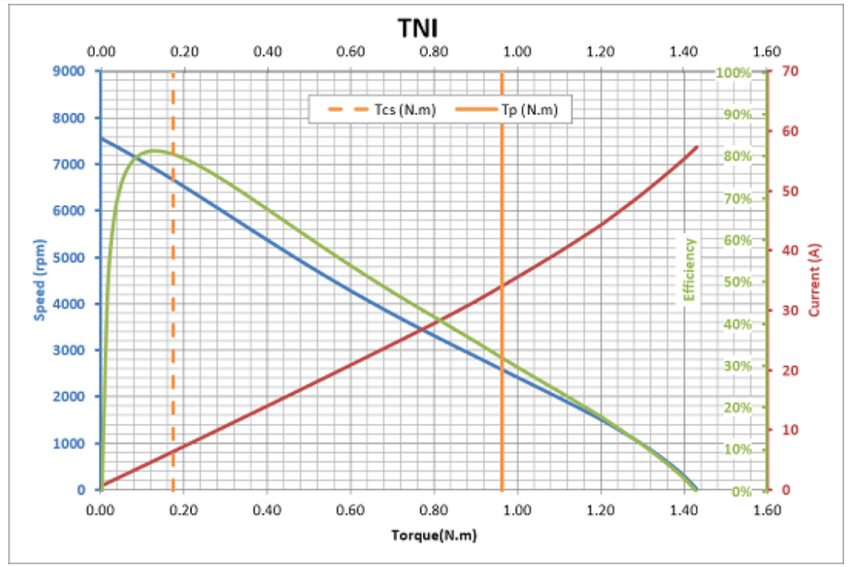
* 25°C AMBIENT TEMP
** 25°C AMBIENT, 240° WINDING TEMP

BACK EMF AND SENSOR WAVEFORMS
(ROTATION OF MOTOR = CCW FACING LEAD SIDE)

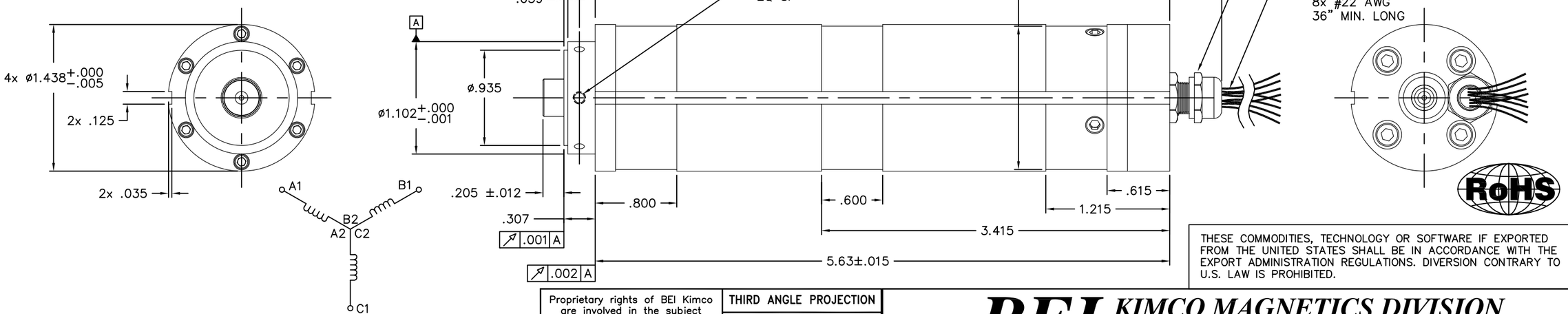


		COLOR	1	2	3	4	5	6
MOTOR LEADS	A	GRY	+	+		−	−	
	B	BLU	−		+	+		−
	C	BLK		−	−		+	+
SENSOR LEADS	1	BRN	1	1	0	0	0	1
	2	ORN	0	1	1	1	0	0
	3	YEL	0	0	0	1	1	1
	Vcc+	RED						
	GND	WHT						

LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
X1	160177	INITIAL RELEASE	JWT	JE	6/08/16



AT 25°C AND 24 VOLTS



RoHS

4. ALL MOTOR COMPONENTS ARE RATED FOR 205°C MAXIMUM AMBIENT TEMPERATURE, 30,000 PSI MAXIMUM PRESSURE AND MAXIMUM LIFE OF 600 HOURS.
3. ALL ABBREVIATIONS IAW ASME Y14.38
2. INTERPRET DRAWING IAW ASME Y14.100.
1. INTERPRET DIM. & TOL. PER ASME Y14.5M-1994.

NOTES: UNLESS OTHERWISE SPECIFIED

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE IF EXPORTED FROM THE UNITED STATES SHALL BE IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW IS PROHIBITED.

Proprietary rights of BEI Kimco are involved in the subject matter of this material and all manufacturing, reproduction, use, and sales pertaining to such subject matter are expressly reserved. This confidential and proprietary document is submitted for a specified purpose, and the recipient by accepting this material agrees that this material will not be used, copied, or reproduced in whole or in part nor its contents revealed in any manner or to any person except to meet the purpose for which it was delivered.

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: .X ± .03; .XX ± .01; .XXX ± .005
ANGULAR: ±0° 30'

DO NOT SCALE DRAWING

BEI KIMCO MAGNETICS DIVISION
VISTA, CA 92081

DRAWN: J. THOMPSON	DATE: 5/06/16	TITLE: BRUSHLESS DC MOTOR
MECH CHECK: S. McGHEE	6/08/16	
APPD: J. ERAL	6/08/16	SIZE: B; FSCM NO.: 55789; DWG NO.: DII15-60-201A; REV: X1
FILE NO.: M:\DII\DII15-60-201A		SCALE: 1/1; SHEET: 1 OF 1