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DIP30-07-001A

X1

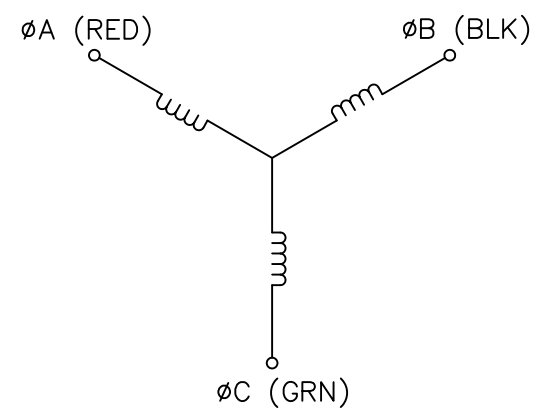
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WINDING CONSTANTS *	UNITS	TOL	SYM	WDG A
DC RESISTANCE	OHMS	±12.5%	R	5.6
VOLTAGE @ T _p	VOLTS	NOMINAL	V _p	17.4
CURRENT @ T _p	AMPERES	NOMINAL	I _p	3.1
TORQUE SENSITIVITY	OZ-IN/AMP	±10%	K _T	32.0
BACK EMF CONSTANT	VOLTS/(RAD/SEC)	±10%	K _B	0.226
INDUCTANCE @ 1 KHZ	MILLIHENRY	±30%	L	8.0

MOTOR PARAMETERS *	UNITS	SYM	NOM. VALUE
PEAK TORQUE	OZ-IN	T _p	100
MOTOR CONSTANT	OZ-IN/ $\sqrt{\text{WATT}}$	K _M	13.5
ELECTRICAL TIME CONSTANT	MILLISECOND	τ_E	1.43
MECHANICAL TIME CONSTANT	MILLISECOND	τ_M	1.49
POWER I ² R @ T _p	WATTS	P _p	53.8
DAMPING FACTOR (ZERO IMPEDANCE)	OZ-IN/(RAD/SEC)	F ₀	1.29
ROTOR INERTIA	OZ-IN SEC ²	J _M	1.923x10 ⁻³
THEO. NO-LOAD SPEED @ 24 VDC	RAD/SEC	ω_0	106
THEO ACC @ T _p	RAD/SEC ²	α_T	5.2x10 ⁴
THERMAL RESISTANCE	°C/WATT	θ_{TH}	5.2
MAX ALLOWABLE WINDING TEMP	°C	TEMP	155
NUMBER OF PHASES/WINDING TYPE			3/Y
NUMBER OF POLES			12
WEIGHT	OZ	W _T	7.5

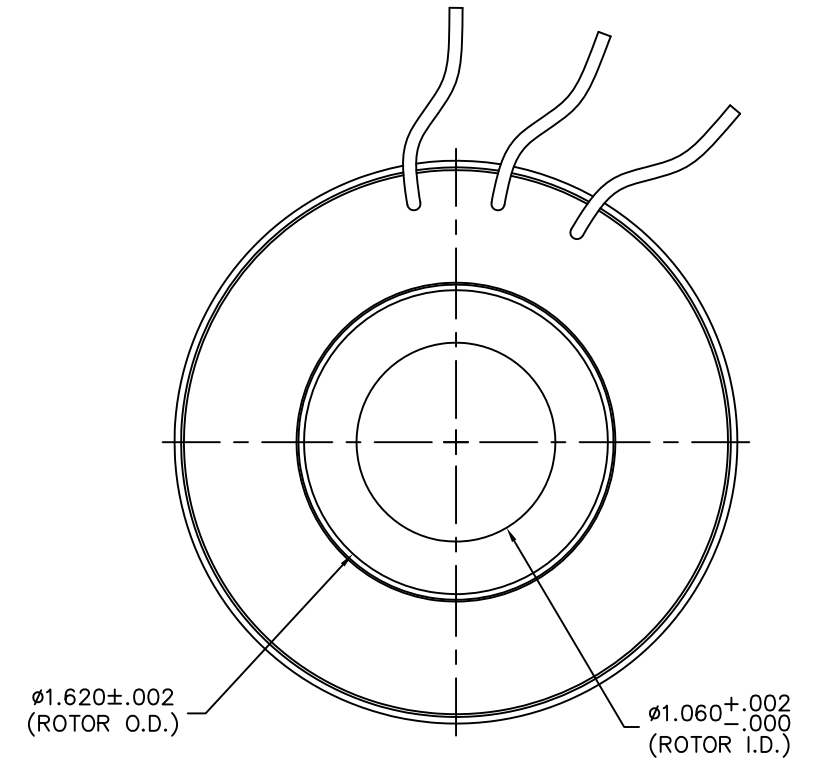
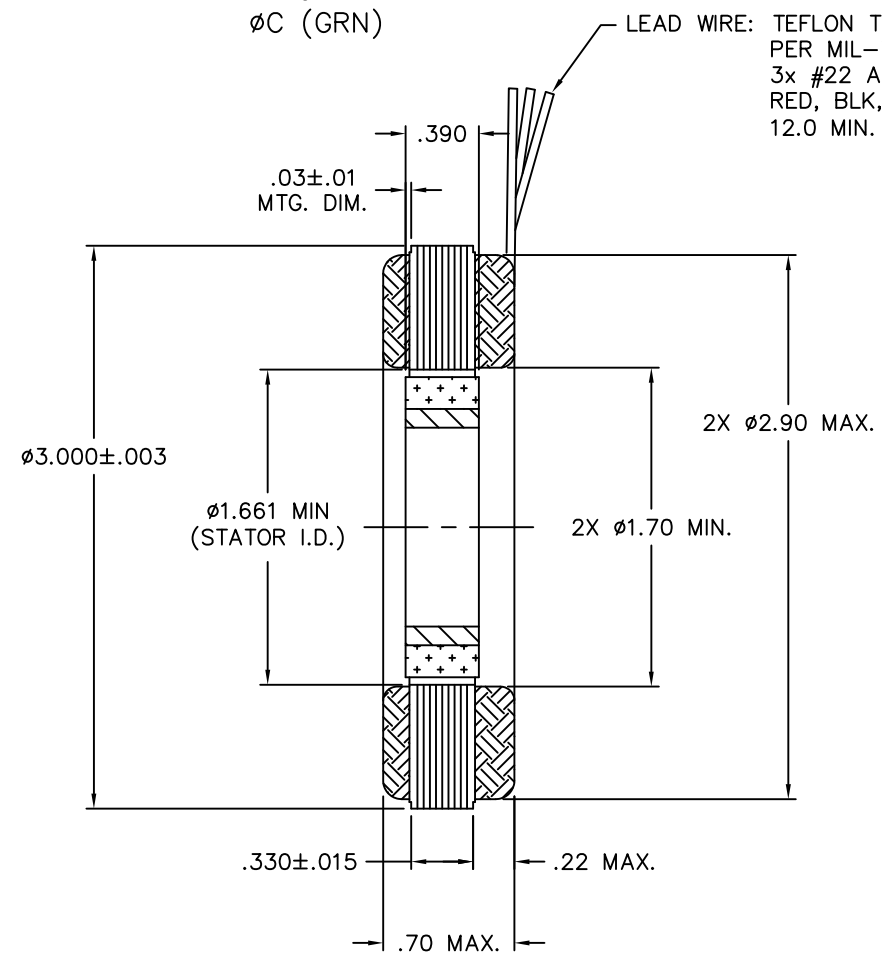
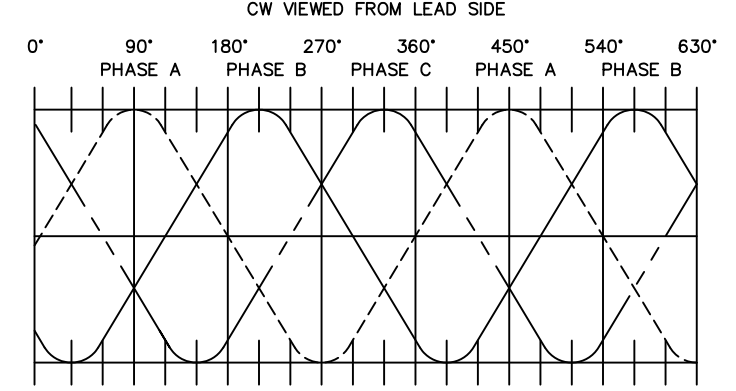
* 25°C AMBIENT

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



LEAD WIRE: TEFLON TYPE E
 PER MIL-W-16878/4
 3x #22 AWG
 RED, BLK, GRN
 12.0 MIN. LONG

DIRECTION OF ROTATION



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THIRD ANGLE PROJECTION
 UNLESS OTHERWISE SPECIFIED:
 -ALL DIMENSIONS ARE IN INCHES
 -BREAK SHARP EDGES .015 MAX.
 -SURFACE ROUGHNESS $\sqrt{63}$
 -DIMENSIONS APPLY AFTER FINISH
 -MAX FILLET R .010
 -DIAMETERS SHALL NOT EXCEED A RUNDOUT OF .005 FIM.
 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 11/21/11	TITLE BLDC MOTOR PART SET		
MECH CHECK	APPD	SIZE B	FSCM NO. 55789	DWG NO. DIP30-07-001A
FILE NO. M:\TOP LEVEL\DIP\...	SCALE: NONE	REV X1	SHEET 1 OF 1	

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

D

D

C

C

B

B

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