

DII14-60-000A

A

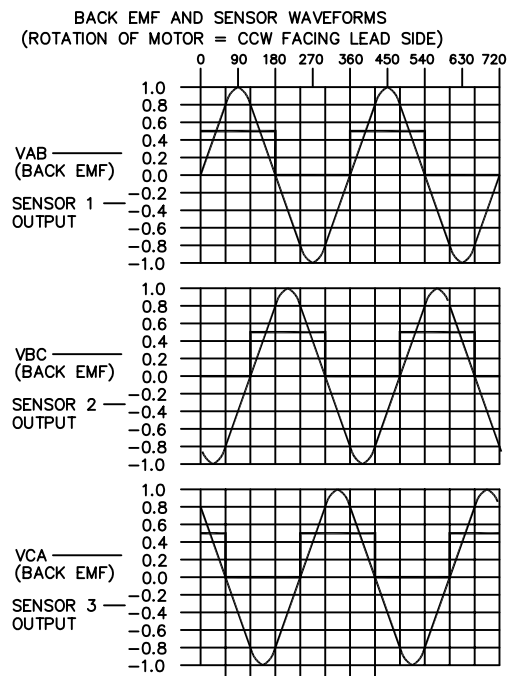
1

LTR	ECO NO.	DESCRIPTION	DRN	APP'D	DATE
A	100015	INITIAL RELEASE	SLM	BD	01/28/10

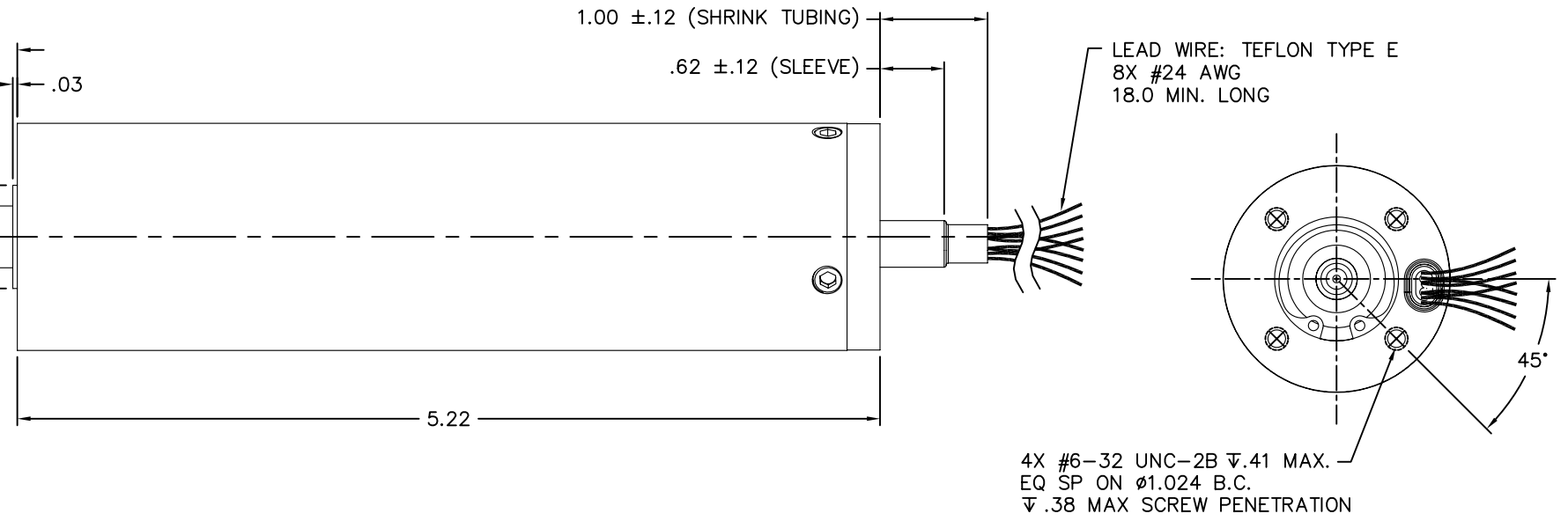
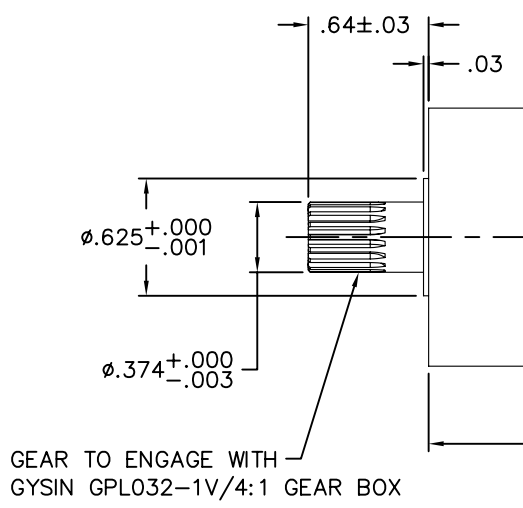
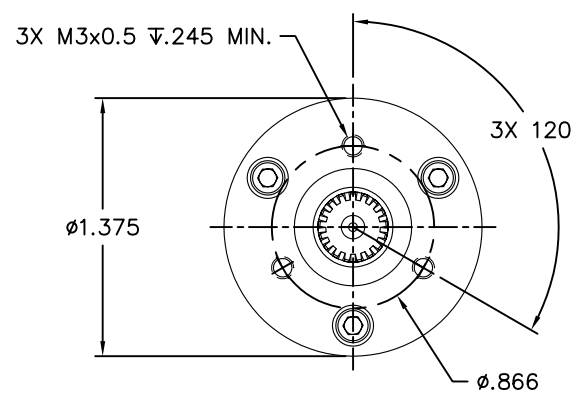
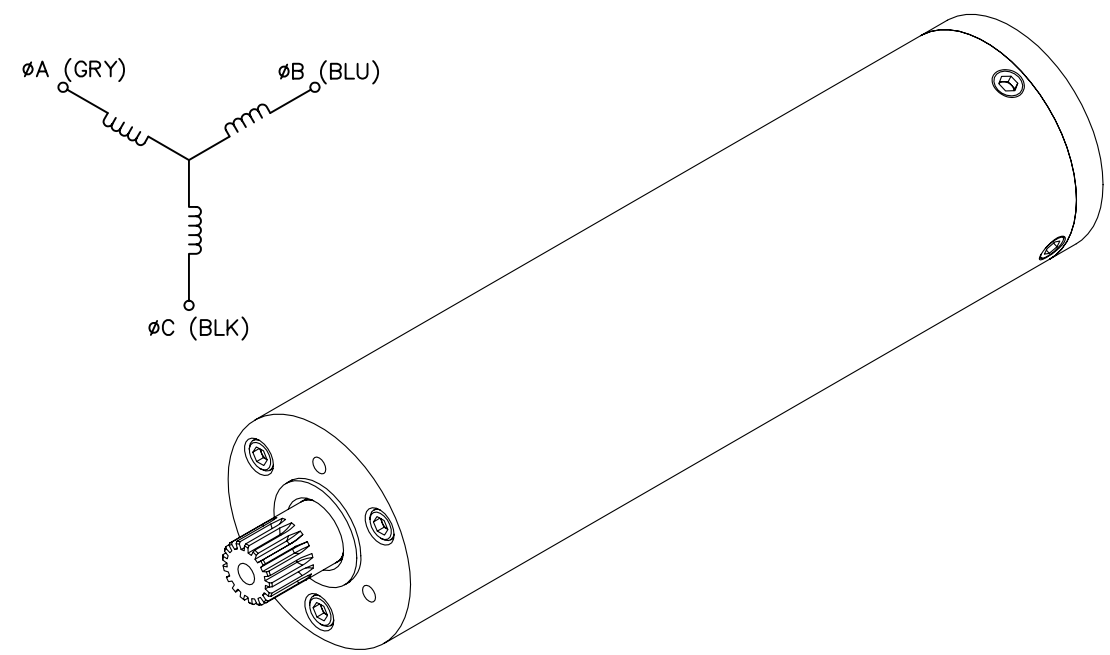
WINDING CONSTANTS *	UNITS	TOL	SYM	WDG Z
DC RESISTANCE	OHMS	±12.5%	R	1.90
VOLTAGE @ T _p	VOLTS	NOMINAL	V _p	11.23
CURRENT @ T _p	AMPERES	NOMINAL	I _p	5.9
TORQUE SENSITIVITY	OZ IN/AMP	±10%	K _T	11.0
BACK EMF CONSTANT	VOLTS/(RAD/SEC)	±10%	K _B	0.078
INDUCTANCE	MILLIHENRY	±30%	L	1.85

MOTOR PARAMETERS *	UNITS	SYM	VALUE
PEAK TORQUE	OZ IN	T _p	65.0
CONTINUOUS STALL TORQUE **	OZ IN	T _{CS}	32.0
MOTOR CONSTANT	OZ IN/√WATT	K _M	7.98
ELECTRICAL TIME CONSTANT	MILLISECOND	τ _E	0.97
MECHANICAL TIME CONSTANT	MILLISECOND	τ _M	2.21
POWER I ² R @ T _p	WATTS	P _p	66.0
DAMPING FACTOR (ZERO IMPEDANCE)	OZ IN/(RAD/SEC)	F ₀	0.45
FRICITION TORQUE	OZ IN	T _F	5.0
ROTOR INERTIA	OZ IN SEC ²	J _M	0.001
MAX ALLOWABLE SPEED	RPM	S _M	3100
SPEED @ 15 OZ IN & 24 VDC	RPM	S _L	2630
THEO ACC @ T _p	RAD/SEC ²	α _T	6.5x10 ⁴
THERMAL RESISTANCE	°C/WATT	θ _{TH}	5.4
MAX ALLOWABLE WINDING TEMP	°C	TEMP	220
PHASES/WINDING TYPE			3/Y
POLES			4
WEIGHT	OZ	W _T	25.6

* 25°C AMBIENT TEMP
 ** 25°C AMBIENT, 220°C WINDING TEMP



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



- ALL ABBREVIATIONS IAW ASME Y14.38.
- INTERPRET DRAWING IAW ASME Y14.100.
- INTERPRET DIMENSIONING AND TOLERANCING IAW 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 √63	
-DIMENSIONS APPLY AFTER FINISH	
-MAX FILLET R .010	
-DIAMETERS SHALL NOT EXCEED A RUNOUT OF .005 FIM.	
TOLERANCES:	
DECIMALS	ANGULAR
.X ± .03	±0° 30'
.XX ± .01	
.XXX ± .005	
DO NOT SCALE DRAWING	

BEI KIMCO MAGNETICS DIVISION
 VISTA, CA 92081

DRAWN		DATE	TITLE		
McGHEE		01/25/10	BLDC MOTOR		
MECH CHECK		DATE	SIZE	FSCM NO.	DWG NO.
J. THOMPSON		01/28/10	B	55789	DII14-60-000A
APPD		DATE	SCALE	SHEET	
B. Du		01/28/10	NONE	1 OF 1	
FILE NO.		REV			
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