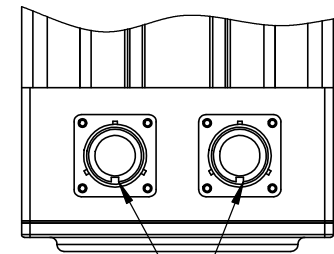
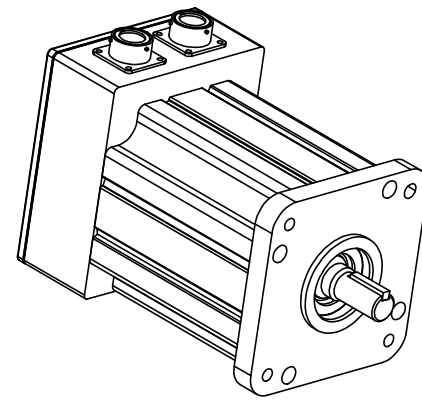


Clockwise rotation, viewed from the motor shaft, results in these waveforms.

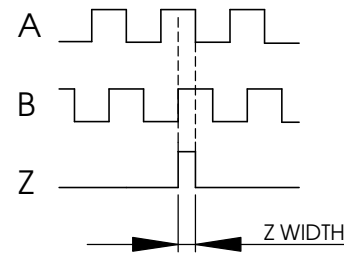
REVISIONS				
REV	ECN	DESCRIPTION	DATE	APP'D
A	DR8318	RELEASED	11/1/06	T.M.
B	ECN3230	ADDED CONFIG AND FRAME NOTES	07/03/07	J.S.



POLARIZATION KEY TOWARDS REAR SIDE OF MOTOR

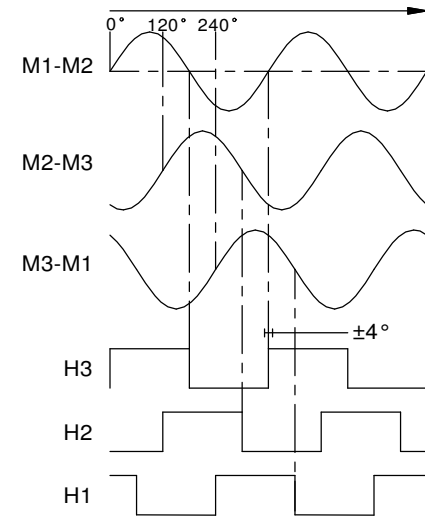


ENCODER WAVEFORMS



Z GATED TO A&B:
Z WIDTH MIN = 80°
Z WIDTH MAX = A&B TRUE

Motor Waveforms CW

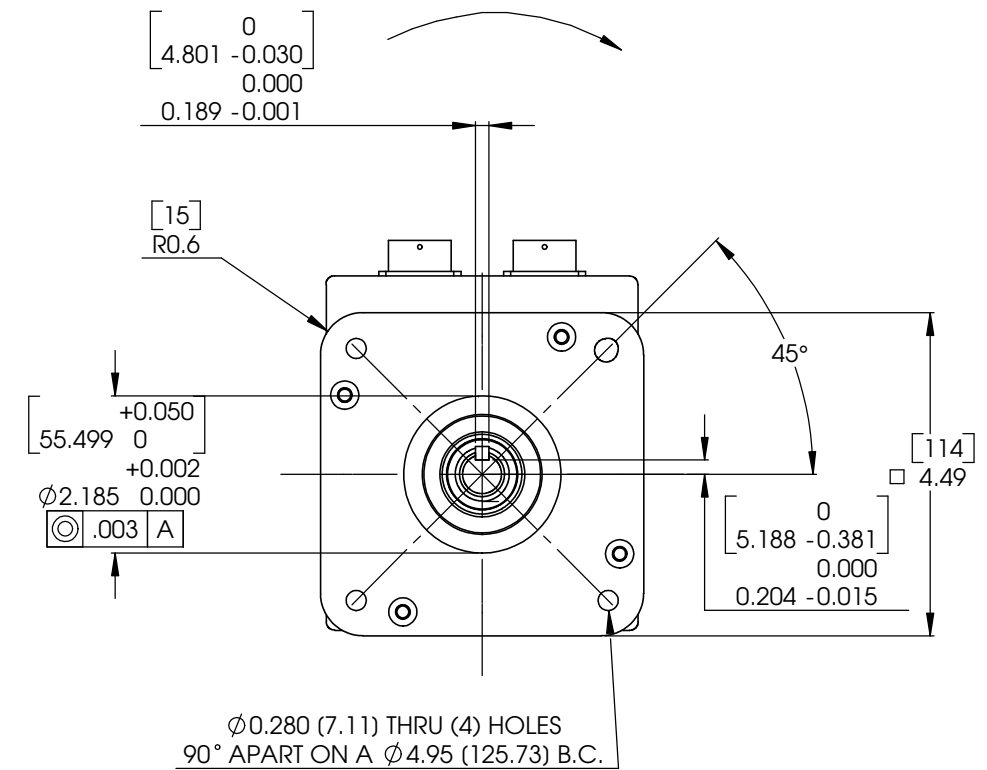
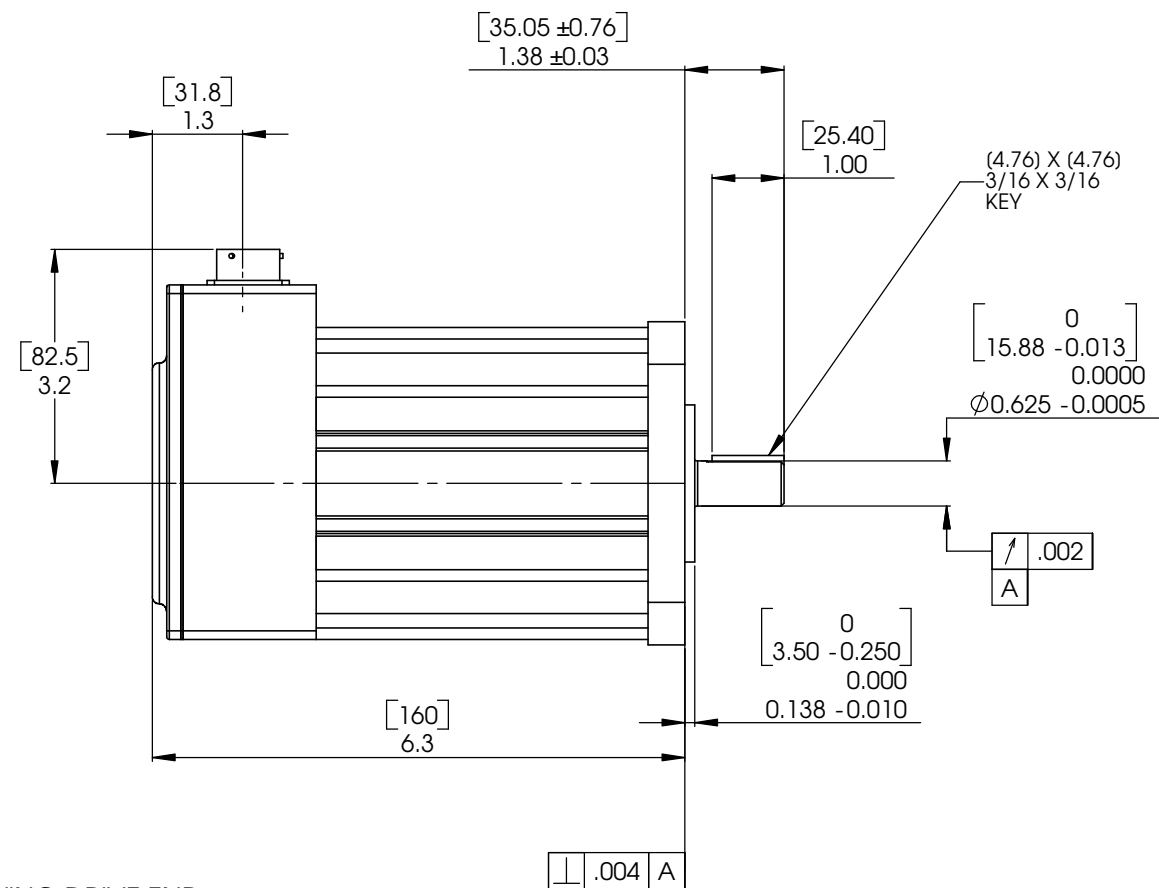
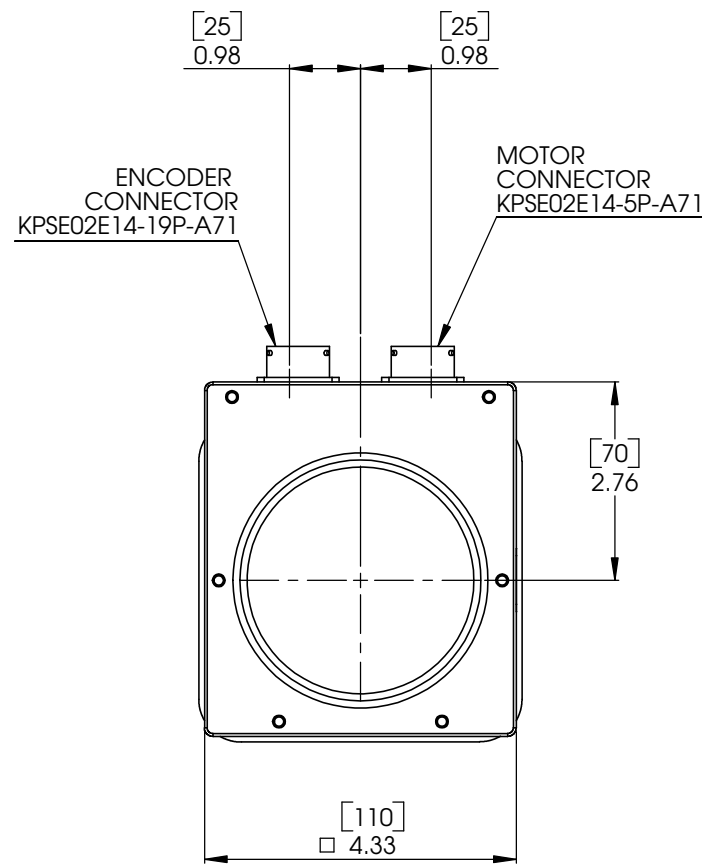


ENCODER CONN WIRING CODE	
FROM	TO PIN
OUTPUT A	A
OUTPUT A'	B
OUTPUT B	C
OUTPUT B'	D
OUTPUT Z	E
OUTPUT Z'	F
CASE GROUND	G
N/A	H
+ 5 VDC	J
+ 5 VDC	K
COMMON	L
COMMON	M
N/A	N
N/A	P
THERMOSTAT	R
THERMOSTAT	S
OUTPUT W (H1)	T
OUTPUT U (H3)	U
OUTPUT V (H2)	V

MOTOR CONN. WIRING CODE	
FROM	TO PIN
MOTOR M1	A
MOTOR M2	B
MOTOR M3	C
CASE	D

NOTE:
TEMPERATURE SENSOR CONTACTS: NORMALLY CLOSED
MAX AMPS: 6 AMP
RATED VOLTAGE: 24VDC

B USE MOTOR CONFIGURATION FILE FROM CMC PER MOTOR MODEL NUMBER



NOTES:

1. ROTATION: CLOCKWISE MOTOR ROTATION VIEWING DRIVE END OCCURS WHEN PHASE A LEADS PHASE B, PHASE B LEADS PHASE C.
2. THE INDEX PULSE OCCURS WHEN FACING THE MOTOR, THE SHAFT KEYWAY IS ORIENTED 90° ± 10° CLOCKWISE (MECHANICAL) FROM CONNECTORS.

B FRAME: T1101 WITH NEMA 42 FLANGE

DIMENSIONS IN BRACKETS (DUAL) ARE IN MILLIMETERS

NOTICE		MILLIMETERS (mm) TOLERANCES UNLESS OTHERWISE SPECIFIED		APPLICATION	
Information contained herein is the sole property of Cleveland Motion Controls, Torque Systems Division. This may not be reproduced, copied or traced in any manner in part or whole without the written permission of Cleveland Motion Controls, Torque Systems Division.		X	± 0.25	NEXT ASY	USED ON
		XX	± 0.25		110mm
		XXX	± 0.300		
		ANGLES	± 0.30	DRAWN	T. MEZHER 1/25/07
THIRD ANGLE PROJECTION		MATERIAL	N/A	CHECKED	
TEMPERATURE SENSORS IN MILLIMETERS (mm) MUST BE USED WITH APPROPRIATE INTERFACING AND IOL PER ASME Y14.24-1994		FINISH	N/A	APPROVED	

CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE.

CMC Cleveland Motion Controls An Ingersoll Rand Company Torque Systems Division	
TITLE: OUTLINE N-4214, N-4220 ELECTROCRRAFT REPLACEMENT	
REV: D	DWG. NO.: 32030-047
SCALE: 1:1	SHEET 1 OF 1

CAD FILE: 32030-047.SUDDRW