

SPECIFICATIONS:

STEPS PER REVOLUTION: 200	ROTOR INERTIA: 900 G-CM ² (4.91 OZ-IN ²) REF
STEP ANGLE: 1.8°	HOLDING TORQUE: 2.5 N-m (354 OZ-IN) MIN ¹
STEP TO STEP ACCURACY: ±5 % ¹ , ²	DETENT TORQUE: 100 mN-m (14.1 OZ-IN) MIN
POSITIONAL ACCURACY: ±5 % ¹ , ³	
HYSTERESIS: - %	INSULATION CLASS: B
WINDING RESISTANCE: 1.1 OHM ±10% AT 25° ⁷	BEARINGS: ABEC 3, DOUBLE SHIELDED
WINDING INDUCTANCE: 2.1 mH ± 20% ⁸	WEIGHT: 1400 G (3 LBS) APPROXIMATE
PHASE VOLTAGE: 3.6 VDC	TEMP. RISE: 80°C MAX. ⁸
PHASE CURRENT: 4.0 AMP (RATED)	OPERATING TEMP. RANGE: -20 TO +50 °C
NUMBER OF PHASES: 2	STORAGE TEMP. RANGE: -30 TO +70 °C
SHAFT RUNOUT: 0.03 T.I.R.	RELATIVE HUMIDITY RANGE: 15 TO 99 %
RADIAL PLAY: 0.02 MAX WITH .5KG RADIAL LOAD.	
END PLAY: 0.08KG MAX WITH .5KG AXIAL LOAD.	

HW24-108D-ZAC

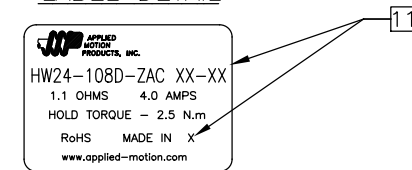
REVISIONS

ECO NO.	REV	DESCRIPTION	DATE	APPROVED
6455	A	INITIAL RELEASE	4/12/12	J Kordik
6565	B	WAS -ZAA, DRAWING CLEANUP	7/20/12	
6578	C	SPEC CHANGE	9/19/12	J Kordik
8106	D	CABLE CHANGE	11/14/18	J Kordik

NOTES, UNLESS OTHERWISE SPECIFIED:

- ¹ MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- ² BETWEEN ANY TWO ADJACENT STEP POSITIONS.
- ³ MAXIMUM ERROR IN 360°.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- ⁵ CABLE, SHIELDED, 3048MM (10FEET MIN), 4 CONDUCTORS AND DRAIN, AWG 22, 7 STRAND MINIMUM, 105°C INSULATION. DRAIN WIRE TO BE CONNECTED TO INSIDE OF REAR ENDBELL.
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- ⁷ AS MEASURED USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz.
- ⁸ AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED VOLTAGE APPLIED TO 2 PHASES; WITH MOTOR AT REST.
- 9. MOTOR TO MEET IP65 STANDARDS. CABLE GLAND TO BE NICKEL-PLATED BRASS, ASI P/N 3012215 OR EQUIVALENT.
- 10. THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH EU DIRECTIVE "ROHS 2002/95/EC".
- ¹¹ MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.
- ¹² ENCODER CABLE 3004-195-10 TO BE INCLUDED WITH MOTOR. PLEASE REFER TO CABLE DRAWING, AVAILABLE ON WEBSITE, FOR FULL DETAILS. ENCODER VOLTAGE: +5V ±5%, ENCODER CURRENT: 160ma.
- 13. ASSEMBLE PER AMP SPEC 960-0082.

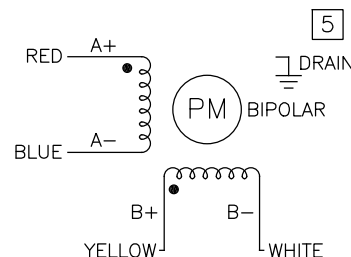
LABEL DETAIL



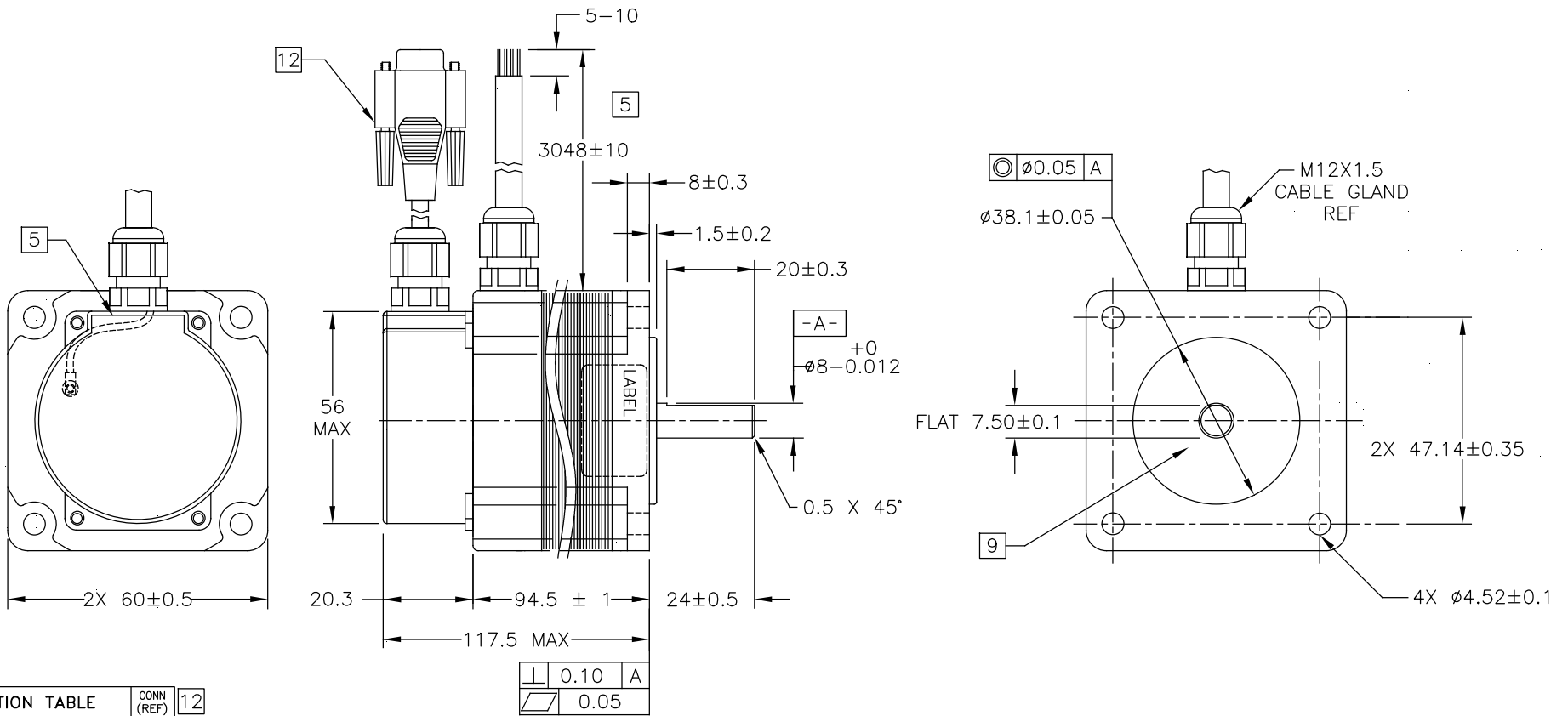
SWITCHING SEQUENCE FOR CW ROTATION
FACING MOUNTING END

STEP	A+	B+	A-	B-
1	+	+	-	-
2	-	+	+	-
3	-	-	+	+
4	+	-	-	+

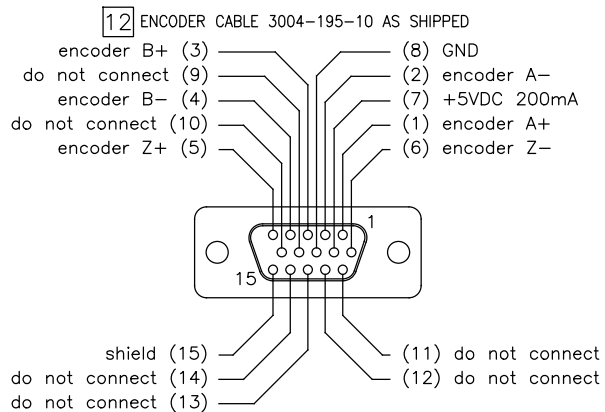
CCW ↑



CONTRACT NO. —		APPLIED MOTION PRODUCTS, INC.			
APPROVALS	DATE	STEP MOTOR OUTLINE			
DRAWN <i>R. JONEZ</i>	4/5/12				
CHECKED		B	COMPUTER DATA BASE DRAWING	DWG NO. HW24-108D-ZAC	REV D
APPROVED			SCALE: NONE	SHEET 1 OF 2	



CONNECTION TABLE			CONN (REF)
LEAD COLOR	SIGNAL	PIN	12
BLUE	CH A	1	
BLUE/WHITE	CH A-	2	
YELLOW	CH B	3	
YELL/WHITE	CH B-	4	
ORANGE	INDEX	5	
ORN/WHITE	INDEX-	6	
-	N/A	9	
-	N/A	10	
-	N/A	13	
-	N/A	14	
-	N/A	11	
-	N/A	12	
RED	+Vcc	7	
BLK	GND	8	
DRAIN	SHIELD	15	



TOLERANCES	THIRD ANGLE PROJECTION		 APPLIED MOTION PRODUCTS, INC.
DECIMALS: MM X.XXX = ± 0.127 X.XX = ± 0.25 X.X = ± 2.5 ANGLES: MACH. = $\pm 5^\circ$ CHAM. = $\pm 5^\circ$			
COMPUTER DATA BASE DRAWING	APPROVALS	DATE	STEP MOTOR OUTLINE B DWG NO. HW24-108D-ZAC REV D
	DRAWN R. JONEZ	4/5/12	
	CHECKED		
	APPROVED		SCALE: NONE SHEET 2 OF 2