

SPECIFICATIONS:

STEPS PER REVOLUTION: 200	ROTOR INERTIA: 220 G-CM ² (3.12X10 ⁻³ oz-in-sec ²) NOM
STEP ANGLE: 1.8°	INSULATION CLASS: B
STEP TO STEP ACCURACY: ±0.09 DEGREE [1], [2]	WEIGHT: 0.55 KG (1.21 LB)
RADIAL PLAY: 0.02 mm MAX W/.5KG RADIAL LOAD	OPERATING TEMP. RANGE: -20 TO +50 °C
END PLAY: 0.08 MAX W/1.0 KG AXIAL LOAD	STORAGE TEMP. RANGE: -30 TO +70 °C
SHAFT RUNOUT: 0.05 T.I.R.	TEMP. RISE: 80 °C MAX. [9]
	RELATIVE HUMIDITY RANGE: 15 TO 99 %

	[7]	[8]	[1]	[1]	
SPECIFICATION	RESISTANCE PER PHASE OHM ±10%	INDUCTANCE PER PHASE mH ±20%	RATED CURRENT Amp	HOLDING TORQUE N-m Min	HOLDING TORQUE oz-in Min
BI-POLAR SERIES	14.0	51.2	0.71	1.08	153
BI-POLAR PARALLEL	3.5	12.8	1.41	1.08	153
UNI-POLAR	7.0	12.8	1.00	0.83	117

NOTES, UNLESS OTHERWISE SPECIFIED:

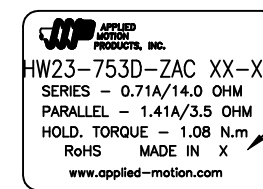
- [1] MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- [2] BETWEEN ANY TWO ADJACENT FULL STEP POSITIONS.
- 3. ASSEMBLE PER AMP SPEC 960-0082.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- [5] LEADS: 8, 22 AWG, 7 STRAND MIN., UL AND CSA APPROVED, 105°C RATED CABLE 666-2126, 8 COND W/DRAIN.
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- [7] MEASUREMENTS MADE AT LEAD ENDS.
- [8] AS MEASURED ACROSS ANY WINDING USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz. MEASUREMENTS MADE AT LEAD ENDS.
- [9] AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES; WITH MOTOR AT REST.
- 10. HIGH TORQUE MOTOR DESIGN, MICROSTEP LAMINATION, INTENDED FOR USE WITH 120V DRIVES WHEN WINDINGS CONNECTED IN PARALLEL AND WITH 220V DRIVES WHEN WINDINGS CONNECTED IN SERIES.
- 11. THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH EU DIRECTIVE "ROHS 2002/95/EC".
- [12] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, DATE CODE AND "MADE IN (COUNTRY OF ORIGIN)".
- [13] MOTOR TO MEET IP65 STANDARDS. CABLE GLAND TO BE NICKEL-PLATED BRASS, ASI P/N 3012215 OR EQUIVALENT.
- [14] 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.

HW23-753D-ZAC

REVISIONS

ECO NO.	REV	DESCRIPTION	DATE	APPROVED
6449	A	INITIAL RELEASE	3/7/12	J KORDIK
6564	B	WAS -ZAA, DRAWING CLEANUP	7/25/12	J KORDIK
6578	C	105°C CABLE/DRAWING CLEANUP	8/22/12	J KORDIK

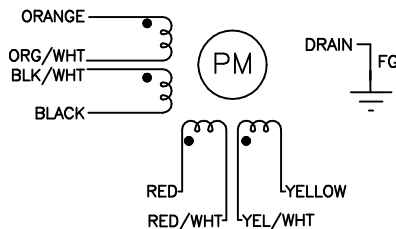
LABEL DETAIL



BIPOLAR, FULL STEP, 2 PHASE ON PARALLEL CONNECTED

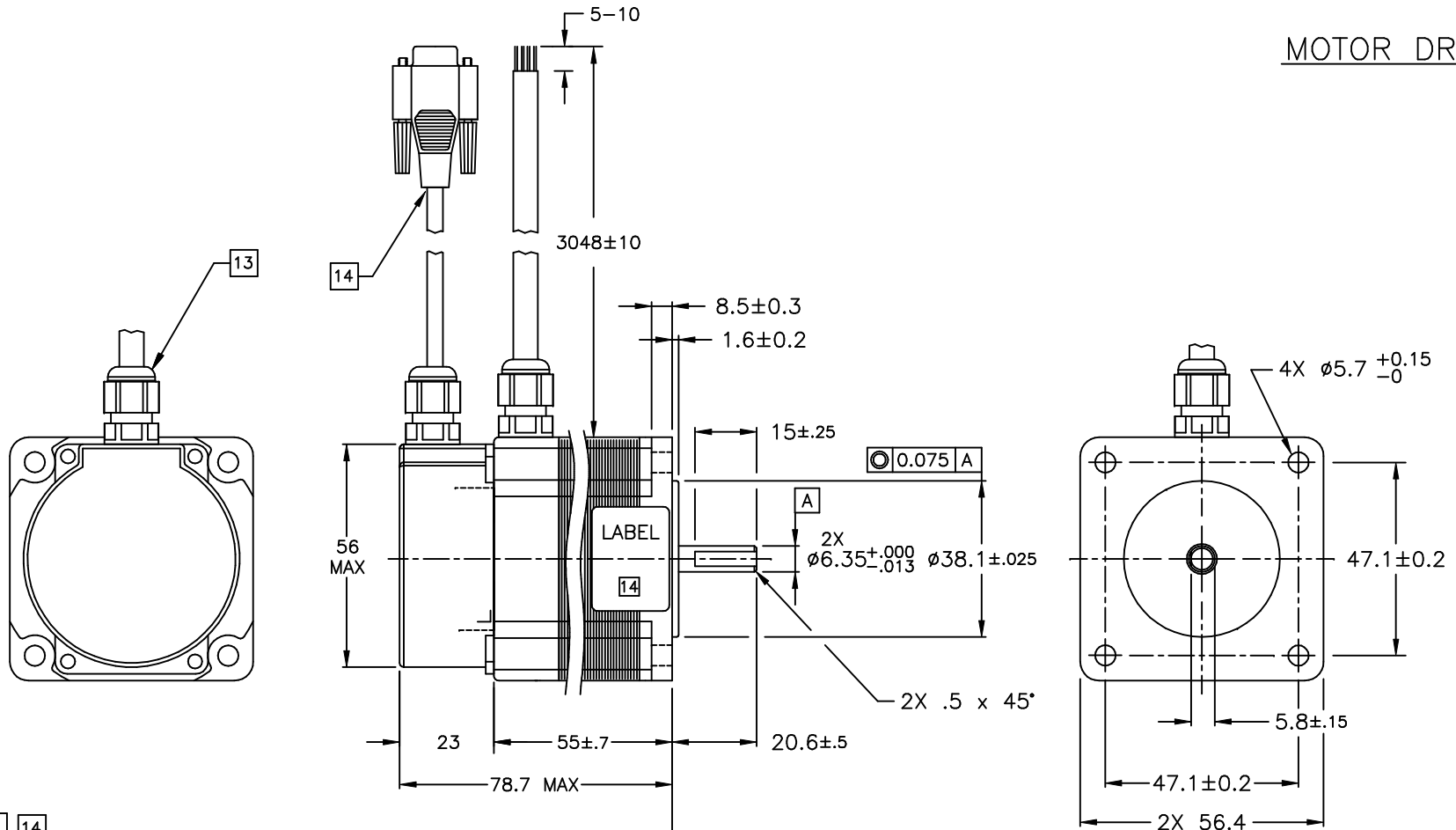
SWITCHING SEQUENCE FOR CW ROTATION FACING MOUNTING END

STEP	ORANGE & BLK/WHT	BLACK & ORN/WHT	RED & YEL/WHT	YELLOW & RED/WHT
0	+	-	+	-
1	-	+	+	-
2	-	+	-	+
3	+	-	-	+
4	+	-	+	-



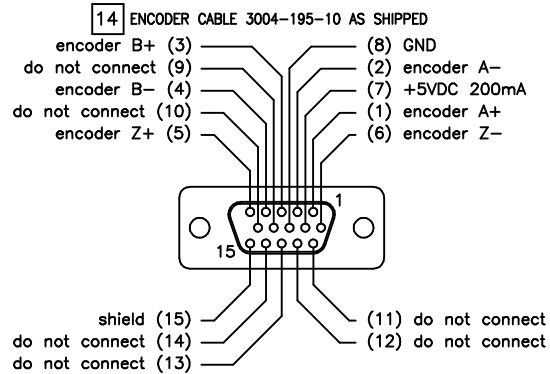
CONTRACT NO. -		<p style="text-align: center;">STEP MOTOR OUTLINE</p>			
APPROVALS	DATE				
DRAWN <i>R.JONEZ</i>	<i>3/7/12</i>	<p style="font-size: 2em; font-weight: bold; text-align: center;">B</p>	COMPUTER DATA BASE DRAWING	DWG NO. HW23-753D-ZAC	REV C
CHECKED			SCALE: NONE	SHEET 1 OF 2	
APPROVED					
APPROVED					

MOTOR DRAWING



CONNECTION TABLE		CONN (REF)
LEAD COLOR	SIGNAL	PIN
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

14



⊥	0.10	A
▱	0.05	

ALL DIMENSIONS ARE IN MILLIMETERS

TOLERANCES		THIRD ANGLE PROJECTION	
DECIMALS: MM (INCH)			
X.XXX = ± .005			
X.XX = ± 0.13 (.010)		APPROVALS	DATE
X.X = ± 0.25 (.020)		DRAWN <i>R. JONEZ</i>	3/7/12
ANGLES:		CHECKED	
MACH. = ± 5°		APPROVED	
CHAM. = ± 5°			
COMPUTER DATA BASE DRAWING			

APPLIED MOTION PRODUCTS, INC.

STEP MOTOR OUTLINE

B DWG NO. HW23-753D-ZAC REV C

SCALE: NONE SHEET 2 OF 2