

## SPECIFICATIONS:

NUMBER OF PHASES: 4	ROTOR INERTIA: 4400 g-cm <sup>2</sup> ( 24.06 oz-in <sup>2</sup> ) NOM	
STEPS PER REVOLUTION: 200	DETENT TORQUE: N/A mNm ( N/A oz-in ) MIN	
STEP ANGLE: 1.8°	INSULATION CLASS: B	
STEP TO STEP ACCURACY: ±0.09°	[1]	[2]
POSITIONAL ACCURACY: ±0.09°	[1]	[3]
HYSTERESIS: N/A%	BEARINGS: ABEC 3, DOUBLE SHIELDED	
SHAFT RUNOUT: 0.05 mm T.I.R. MAX	TEMP. RISE: 80 °C MAX.	
RADIAL PLAY: 0.02 mm MAX (.5KG RADIAL LOAD)	OPERATING TEMP. RANGE: -20 TO +50 °C	
END PLAY: 0.08 mm MAX (.5KG AXIAL LOAD)	STORAGE TEMP. RANGE: -30 TO +70 °C	
	RELATIVE HUMIDITY RANGE: 15 TO 85 %	
	WEIGHT: 5.2kg (11.464 lb)	

7 8 1 1

SPECIFICATION CONNECTION	RESISTANCE PER PHASE (ohm $\pm 10\%$ )	INDUCTANCE PER PHASE (mH $\pm 20\%$ )	RATED CURRENT (amp)	HOLDING TORQUE (Nm MIN)	HOLDING TORQUE (oz-in Min)
UNI-POLAR	2.4	11.2	3.6	10	1416
BI-POLAR SERIES	4.45	44.8	2.55	13	1841
BI-POLAR PARALLEL	1.375	11.2	5.1	13	1841

NOTES, UNLESS OTHERWISE SPECIFIED:

1. MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
2. BETWEEN ANY TWO ADJACENT FULL STEP POSITIONS.
3. MAXIMUM ERROR IN 360°.
4. HIPOT 1150 VAC, 60 Hz FOR ONE MINUTE.
5. LEADS: 8 , AWG 22, 7 STRAND MIN., UL AND CSA APPROVED, UL 2517.
6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
7. AS MEASURED ACROSS EACH PHASE.
8. AS MEASURED ACROSS EACH PHASE USING AN A.C. INDUCTANCE BRIDGE AT 1 KHz.
9. AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES; WITH MOTOR AT REST.
10. ENCODER P/N 970-1005. COVER P/N 400-1766.  
ENCODER CABLE 3004-195-10 TO BE INCLUDED WITH MOTOR.
11. ROTOR & STATOR LAMINATED CONSTRUCTION.
12. THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU RoHS DIRECTIVE.
13. MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, AMP P/N, 'MADE IN (COUNTRY OF ORIGIN)', AND DATE CODE.
14. HI 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.
15. GROUND LEAD: AWG 22, UL 2517 DRAIN WIRE TO BE CONNECTED TO INSIDE OF REAR ENDBELL.
16. CABLE GLAND TO BE NICKEL-PLATED BRASS, ASI P/N 3012215 OR EQUIVALENT.
17. ASSEMBLE PER AMP SPEC 960-0084.

111731 607D VAC

## REVISIONS

LABEL DETAIL

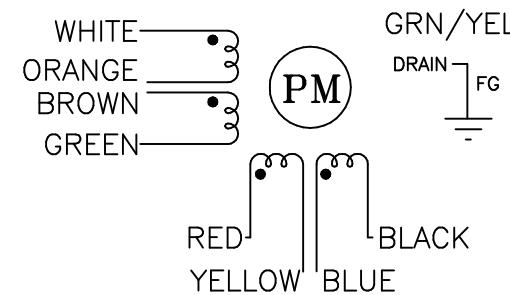


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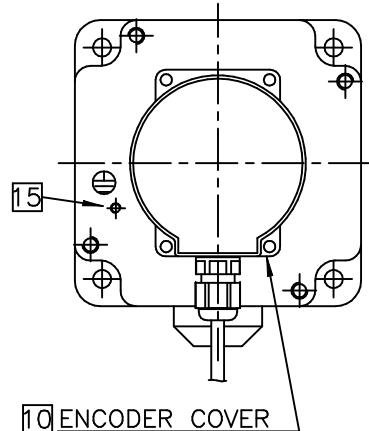
## FULL STEP SWITCHING SEQUENCE PARALLEL CONNECTION. FACING MOUNTING END

STEP	WHITE	GREEN	RED	BLACK
0	+	-	+	-
1	-	+	+	-
2	-	+	-	+
3	+	-	-	+
4	-		-	

CCW

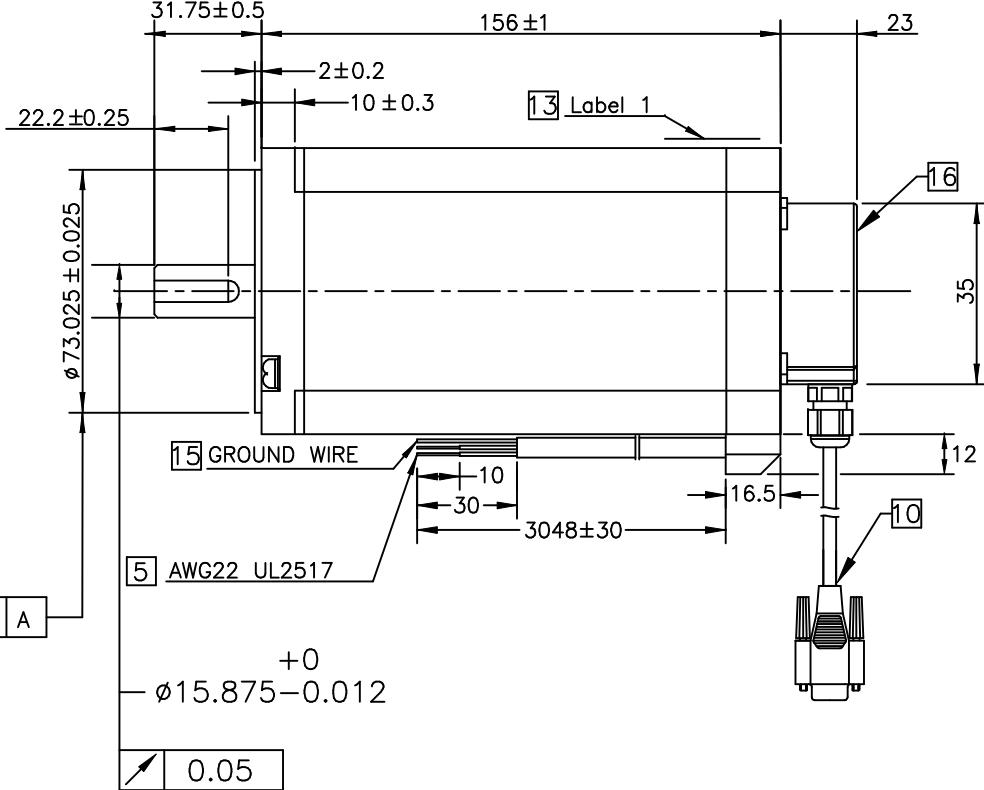


CONTRACT NO. —		 APPLIED MOTION PRODUCTS, INC.		
APPROVALS	DATE	STEP MOTOR OUTLINE		
DRAWN K.KESLER	9/8/16			
CHECKED —	—	B	COMPUTER DATA BASE DRAWING	DWG NO. HT34-697D-YAC
APPROVED —	—			
APPROVED —	—	SCALE: NONE	SHEET 1 OF 2	



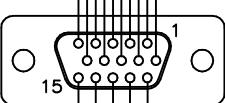
**10 ENCODER COVER**

r	ø 0.075	A
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10 ENCODER CABLE 3004-195-10 AS SHIPPED

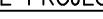
Pin	Encoder	Function
8	Both	GND
2	Encoder A	Encoder A-
7	Encoder A	+5VDC 200mA
1	Encoder A	Encoder A+
6	Encoder B	Encoder Z-
5	Encoder B	Encoder Z+
4	Encoder B	Encoder B-
3	Encoder B	Encoder B+
9	Both	Not connected
10	Both	Not connected



shield (15) \_\_\_\_\_ (11) do not connect  
do not connect (14) \_\_\_\_\_ (12) do not connect  
do not connect (13) \_\_\_\_\_ \*ALL DIMENS\*

\*ALL DIMENSIONS IN MM

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

TOLERANCES		FIRST ANGLE PROJECTION		 <b>APPLIED MOTION PRODUCTS, INC.</b>
DECIMALS: MM X.XX = $\pm 0.13$ X.X = $\pm 0.25$ X = $\pm 0.5$ ANGLES: MACH. = $\pm 0.5^\circ$ CHAM. = $\pm 5^\circ$		 		
APPROVALS		DATE		<b>STEP MOTOR OUTLINE</b> <div style="display: flex; justify-content: space-between;"> <span>DRAWN</span> <span>K.KESLER</span> <span>9/13/16</span> </div> <div style="display: flex; justify-content: space-between;"> <span>CHECKED</span> <span>—</span> <span>—</span> </div> <div style="display: flex; justify-content: space-between;"> <span>COMPUTER DATA</span> <span>APPROVED</span> <span>SCALE: NONE</span> </div> <div style="display: flex; justify-content: space-between;"> <span>BASE DRAWING</span> <span>—</span> <span>SHEET 2 OF 2</span> </div>
DRAWN		K.KESLER		
CHECKED		—		
COMPUTER DATA		APPROVED	—	<span>B</span> DWG NO. <b>HT34-697D-YAC</b> REV <b>A</b>