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	REVISIONS					
ECO # REV. DESCRIPTION		DATE	APPROVED			
7710 A		INITIAL RELEASE	9/27/17	JEFF. K		
7877	В	DIMENSION MISSING	3/8/18	JEFF. K		
8675	С	RE-DRAW IN SOLIDWORKS, MATCH 3D MODEL	6/15/20	LEO. L		

**SPECIFICATION** ROTOR INERTIA: 82 g-cm<sup>2</sup> (0.44 oz-in<sup>2</sup>) NOM NUMBER OF PHASES: 4 DETENT TORQUE: 244.7 g-cm (3.39 oz-in) MIN STEPS PER REVOLUTION: 200 STEP ANGLE: 1.8° INSULATION CLASS: B STEP TO STEP ACCURACY: 0.09° BEARINGS: ABEC 3, DOUBLE SHIELDED 3 POSITION ACCURACY: 0.09° TEMP. RISE: 80°C MAX. HYSTERESIS: N/A% OPERATING TEMP. RANGE: -20 TO +50 °C SHAFT RUNOUT: 0.03 mm T.I.R. MAX STORAGE TEMP. RANGE: -30 TO +70 °C RADIAL PLAY: 0.02 mm MAX (0.5 kg RADIAL LOAD) **RELATIVE HUMIDITY RANGE: 15 TO 85%** END PLAY: 0.08 mm MAX (0.5 kg AXIAL LOAD) WEIGHT: 360 g (12.6 oz ) APPROXIMATE

CONNECTION	RESISTANCE PER PHASE (ohm ±10%)	INDUCTANCE PER PHASE (mH ±20%)	RATED CURRENT (Amp)	HOLDING TORQUE 1 (Nm MIN)	HOLDING TORQUE 1 (oz-in)
BI-POLAR SERIES	6.6	12.8	0.85	0.55	77.89
BI-POLAR PARALLEL	1.7	3.2	1.70	0.55	77.89
UNI-POLAR	3.3	3.2	1.20	0.39	55.23

## NOTES, UNLESS OTHER WISE SPECIFIED:

- MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- 2 BETWEEN ANY TWO ADJACENT FULL STEP POSITIONS.
- 3 MAXIMUM ERROR IN 360°.
- HIPOT 500 VAC, 60Hz FOR ONE MINUTE.
- LEADS: 8, 26 AWG, 7 STRAND MIN. UL AND CSA APPROVED. UL 1430 OR UL 3265
- 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 1KHz.
- 9 AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES: WITH MOTOR AT REST.
- 10 ENCODER INSTALLED PER AMP ASSEMBLY PRACTICES. ENCODER CABLE SOLD SEPARATELY.
- ROTOR AND STATOR LAMINATED CONSTRUCTION. 11.
- THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH CURRENT EU ROHS DIRECTIVE. 12.
- MOTOR LABEL TO INCLUDE AMP LOGO, AMP WEBSITE ADDRESS, "RoHS" COMPLIANCE LOGO, AMP P/N, "MADE IN (COUNTRY)", AND DATE CODE.

DRIVE SEQUENCE MODEL
<b>BI-POLAR PARALLEL FULL STEP</b>

	STEP	ORG & BLK/WHT	BLK & ORG/WHT	RED & YEL/WHT	YEL & RED/WHT	CCW
	1	+	-	+	-	l T
	2	-	+	+	-	
V	3	-	+	-	+	
CW	4	+	-	-	+	
	1	+	-	+	-	<b>'</b>

CW (CLOCKWISE) AND CCW (COUNTER-CLOCKWISE) ROTATION WHEN SEEN FROM THE FLANGE SIDE OF THE MÓTOR

## WIRING DIAGRAM





