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SPECIFICATIONS:

NUMBER OF PHASES: 4	ROTOR INERTIA: 460 g-cm ² (2.515 oz-in ²) NOM
STEPS PER REVOLUTION: 200	DETENT TORQUE: 713.8 g-cm (9.91 oz-in) MIN
STEP ANGLE: 1.8°	INSULATION CLASS: B
STEP TO STEP ACCURACY: 0.09°	BEARINGS: ABEC 3, DOUBLE SHIELDED
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: 1470 G (51.85 oz) APPROXIMATE

CONNECTION	RESISTANCE PER PHASE (ohm ±10%)	INDUCTANCE PER PHASE (mH ±20%)	RATED CURRENT (Amp)	HOLDING TORQUE (Nm MIN)	HOLDING TORQUE (oz-in)
BI-POLAR SERIES	2.0	6.8	2.12	1.90	269
BI-POLAR PARALLEL	0.5	1.75	4.24	1.90	269
UNI-POLAR	1.0	1.75	3.00	1.35	191

NOTES, UNLESS OTHER WISE 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 500 VAC, 60Hz FOR ONE MINUTE.
- 5 LEADS: 8, 22 AWG, 7 STRAND MIN. UL AND CSA APPROVED. UL 1430 OR UL 3265
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 1KHz.
- 9 AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES: WITH MOTOR AT REST.
- 10 BRAKE ATTACHED TO REAR END OF MOTOR. TWO BREAK LEADS ARE 24 AWG, UL1332, RED="+".
11. ROTOR AND STATOR LAMINATED CONSTRUCTION.
12. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH CURRENT EU RoHS DIRECTIVE.
- 13 MOTOR LABEL TO INCLUDE AMP LOGO, AMP WEBSITE ADDRESS, "RoHS" COMPLIANCE LOGO, AMP P/N, "MADE IN (COUNTRY)", AND DATE CODE.

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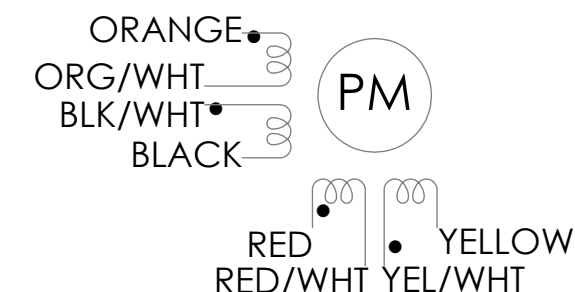
BRAKE SPECIFICATIONS

VOLTAGE	CURRENT	POWER	TORQUE	MAX. SPEED	ENGAGE DELAY	DISENGAGE DELAY	INSULAGION CLASS
24 VDC	167 mA	4 W	1.5 Nm	1000 RPM	50 ms	50 ms	B

REVISIONS

ECO #	REV.	DESCRIPTION	DATE	APPROVED
7462	A	INITIAL RELEASE	8/9/16	J. KORDIK
7852	B	REVISED MOTOR WEIGHT	3/1/18	J. KORDIK
8705	C	UPDATED SHAFT RUNOUT, WIRE GAUGE & END BELL THK	8/23/21	L. LIU
8787	D	REVISED MODEL & UPDATED SHEET FORMAT	5/20/22	L. LIU

WIRING DIAGRAM

DRIVE SEQUENCE MODEL
BI-POLAR PARALLEL FULL STEP

STEP	(A+) ORG & BKL/WHT	(A-) BLK & ORG/WHT	(B+) RED & YEL/WHT	(B-) YEL & RED/WHT	CCW
1	+	-	+	-	↑
2	-	+	+	-	
3	-	+	-	+	
4	+	-	-	+	
1	+	-	+	-	

CW (CLOCKWISE) AND CCW (COUNTER-CLOCKWISE) ROTATION
WHEN SEEN FROM THE MOUNTING FACE END OF THE MOTOR

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	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	DRAWN	Y. LAPNET	5/20/22	STEPPER MOTOR	
	TOLERANCES:	PRE.CHECK				
	- ANGULAR: ± 0.5	PRE.APPROVAL				
	- ONE DECIMAL PLACE: ± 0.25	FIN.CHECK	C. BREUNINGER	5/20/22		
- TWO DECIMAL PLACES: ± 0.13	SAP: 4611110060885			SIZE	DWG. NO.	REV
MATERIAL	ALT DWG. NO.:			B	HT23-601B	D
FINISH	ALT SAP:			SCALE: 1:1		SHEET 1 OF 2
DO NOT SCALE DRAWING						

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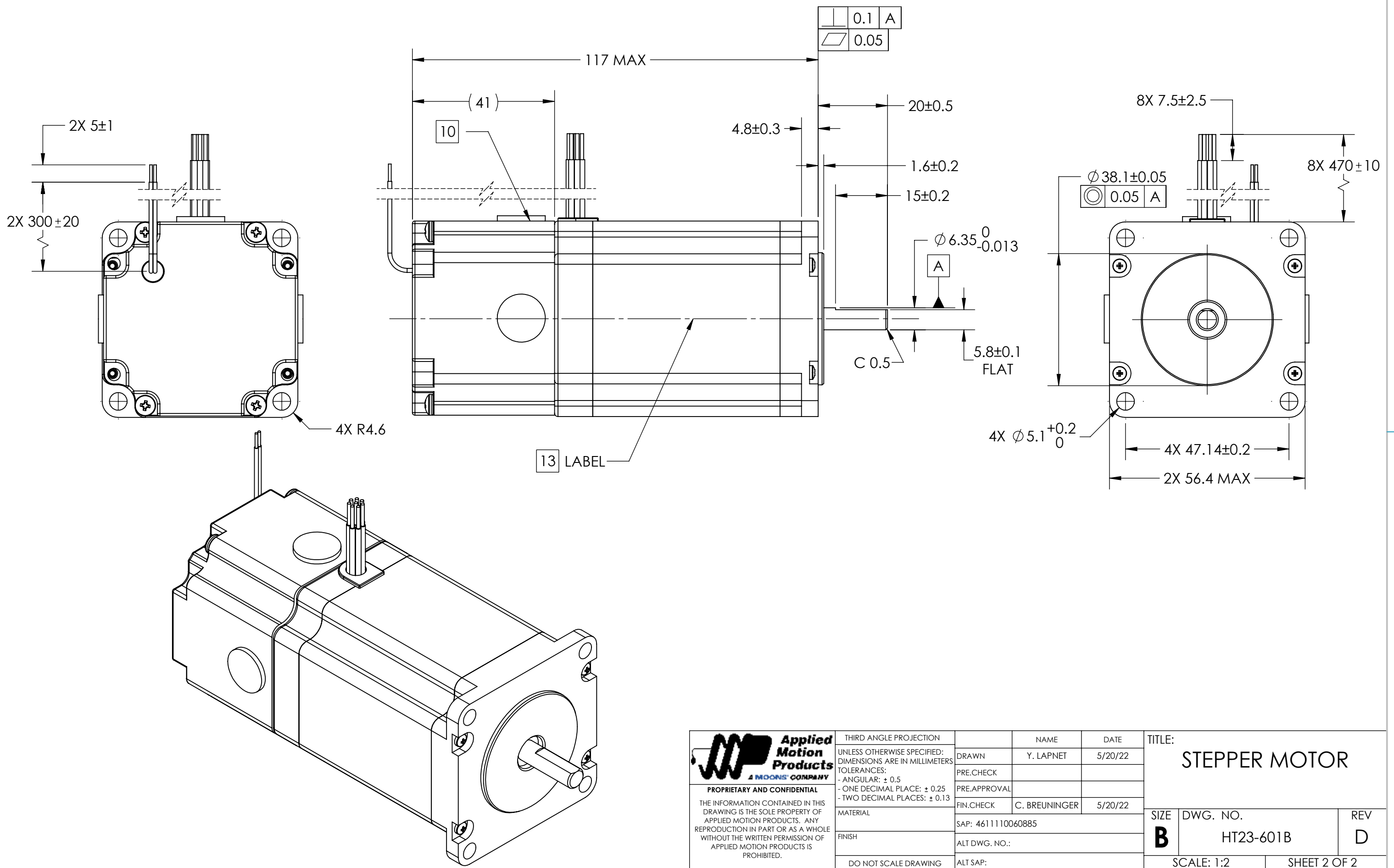
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	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	DRAWN	Y. LAPNET	5/20/22	STEPPER MOTOR	
	TOLERANCES: - ANGULAR: ± 0.5 - ONE DECIMAL PLACE: ± 0.25 - TWO DECIMAL PLACES: ± 0.13	PRE.CHECK				
		PRE.APPROVAL				
MATERIAL	FIN.CHECK	C. BREUNINGER	5/20/22	SIZE	DWG. NO.	
FINISH	SAP: 4611110060885			B	HT23-601B	
DO NOT SCALE DRAWING	ALT DWG. NO.:			REV	D	
	ALT SAP:			SCALE: 1:2 SHEET 2 OF 2		

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