

4

3

2

1

SPECIFICATIONS:					
NUMBER OF PHASES: 4		ROTOR INERTIA: 260 g-cm ² (1.422 oz-in ²) NOM			
STEPS PER REVOLUTION: 200		DETENT TORQUE: 407.9 g-cm (5.66 oz-in) MIN			
STEP ANGLE: 1.8°		INSULATION CLASS: B			
STEP TO STEP ACCURACY: 0.09°		1	,	2	BEARINGS: ABEC 3, DOUBLE SHIELDED
POSITION ACCURACY: 0.09°		1	,	3	
HYSTERESIS: N/A%		TEMP. RISE: 80°C MAX. 9			
SHAFT RUNOUT: 0.03 mm T.I.R. MAX		OPERATING TEMP. RANGE: -20 TO +50°C			
RADIAL PLAY: 0.02 mm MAX (0.5 kg RADIAL LOAD)		STORAGE TEMP. RANGE: -30 TO +70°C			
END PLAY: 0.08 mm MAX (0.5 kg AXIAL LOAD)		RELATIVE HUMIDITY RANGE 15 TO 85%			
		WEIGHT: 600 G (21.16 oz) APPROXIMATE			

CONNECTION	RESISTANCE PER PHASE (ohm ±10%) 7	INDUCTANCE PER PHASE (mH ±20%) 8	RATED CURRENT (Amp)	HOLDING TORQUE (Nm MIN) 1	HOLDING TORQUE (oz-in) 1
BI-POLAR SERIES	1.7	5.7	2.12	1.12	158.6
BI-POLAR PARALLEL	0.4	1.4	4.24	1.12	158.6
UNI-POLAR	0.9	1.4	3.00	0.85	120.4

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 ENCODER 970-1001 INSTALLED PER AMP ASSEMBLY PRACTICES. RESOLUTION: 2000 CPR WITH MARKER PULSE. ENCODER CABLE SOLD SEPARATELY.

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.

14. OTHER TAPPED HOLES MAY BE PRESENT ON REAR OF MOTOR.

REVISIONS				
ECO #	REV.	DESCRIPTION	DATE	APPROVED
6941	A	INITIAL RELEASE	1/16/14	J. KORDIK
8034	B	CHG REAR SHAFT LENGTH/TYPO	8/25/18	J. KORDIK
8705	C	UPDATED FRONT END BELL THICKNESS, SHAFT LENGTH	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
1	+	-	+	-
2	-	+	+	-
3	-	+	-	+
4	+	-	-	+
1	+	-	+	-

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

Applied Motion Products

A MOONS' COMPANY

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THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:
- ANGULAR: ± 0.5
- ONE DECIMAL PLACE: ± 0.25
- TWO DECIMAL PLACES: ± 0.13

MATERIAL

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	Y. LAPNET	5/20/22
PRE.CHECK		
PRE.APPROVAL		
FIN.CHECK	C. BREUNINGER	5/20/22

SAP: 4611110060866

ALT DWG. NO.:

ALT SAP:

TITLE:

STEPPER MOTOR

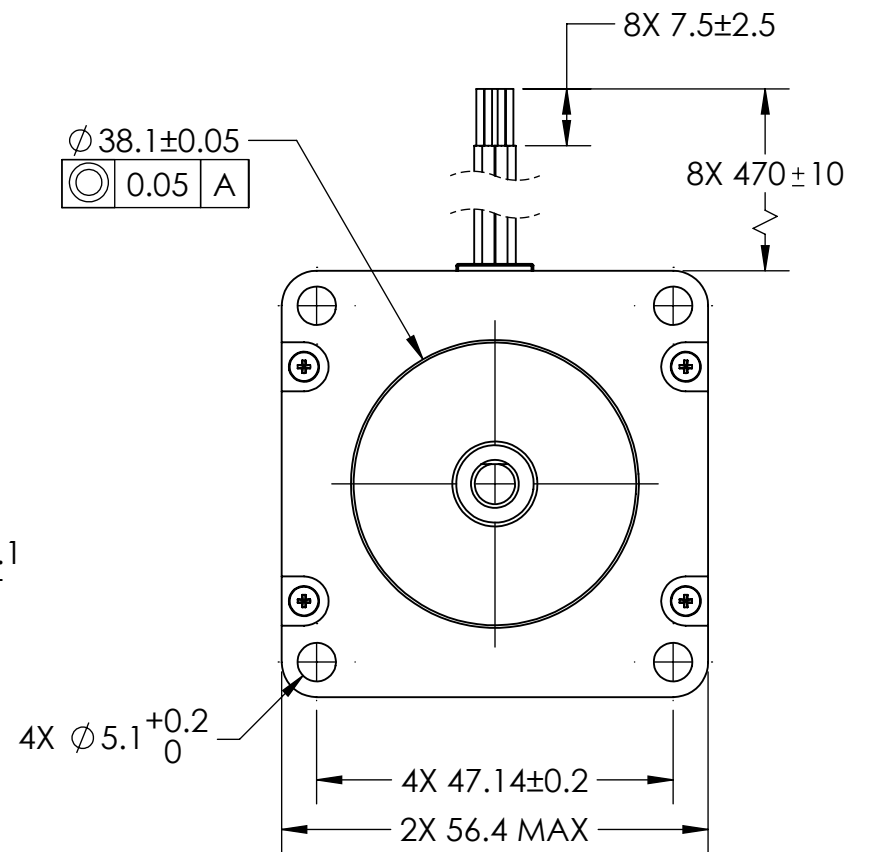
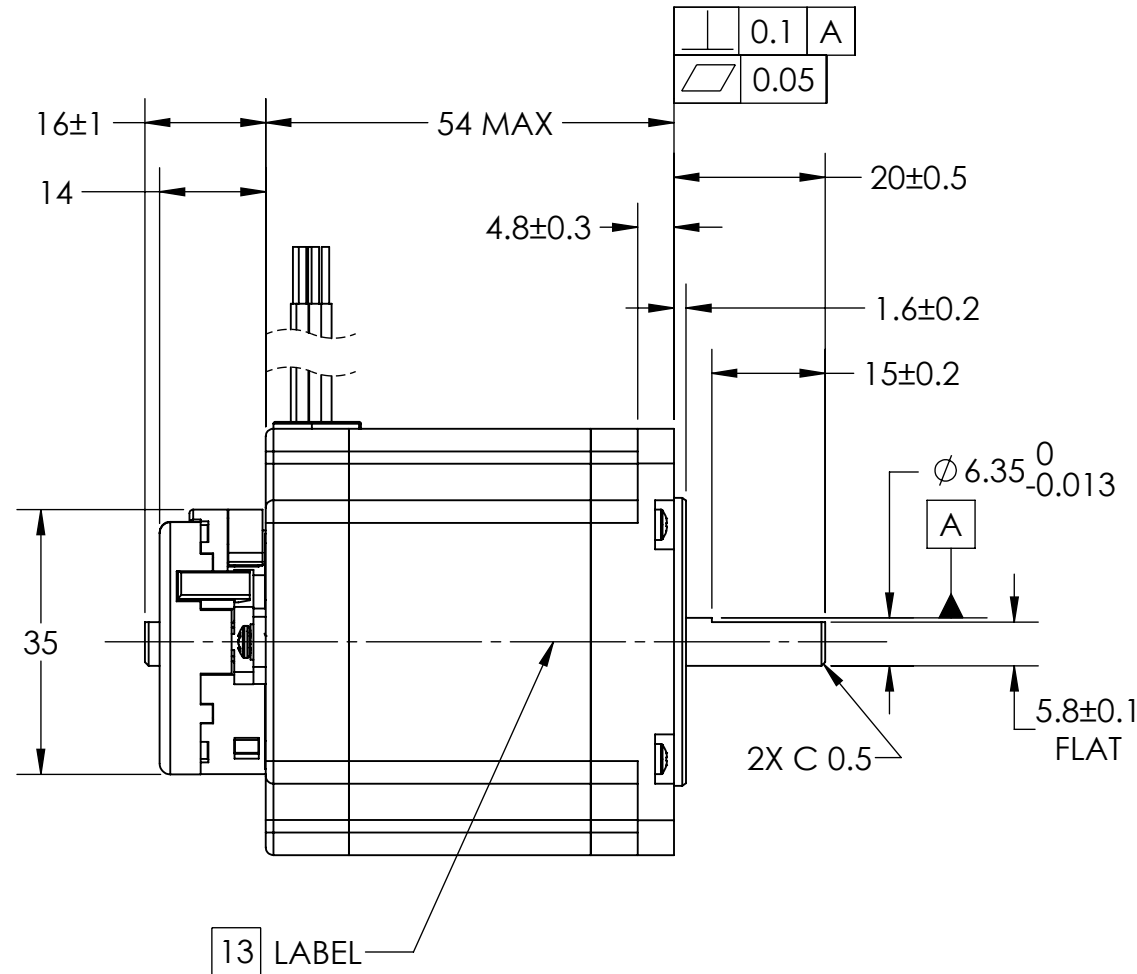
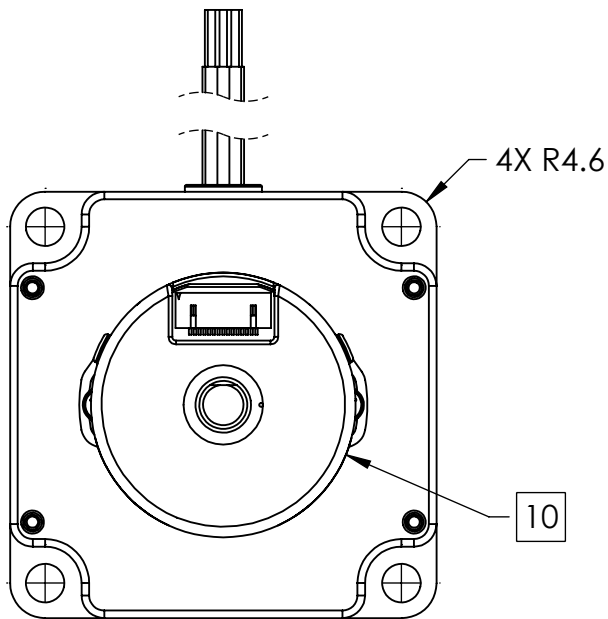
SIZE B

DWG. NO. HT23-598D-ZAA

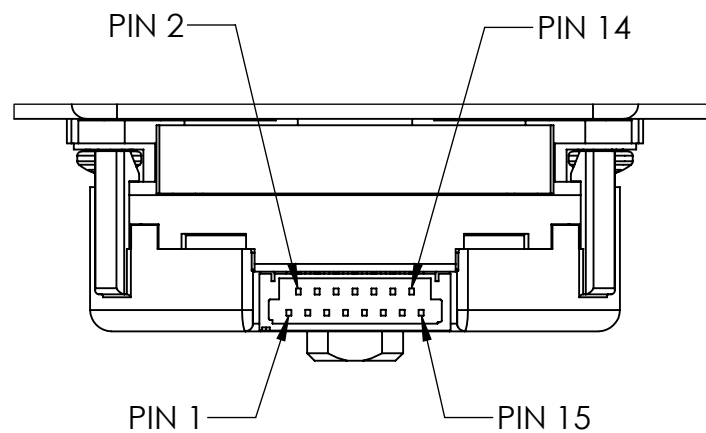
REV D

SCALE: 1:1

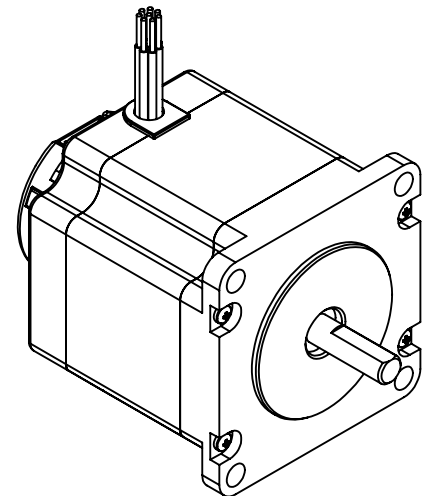
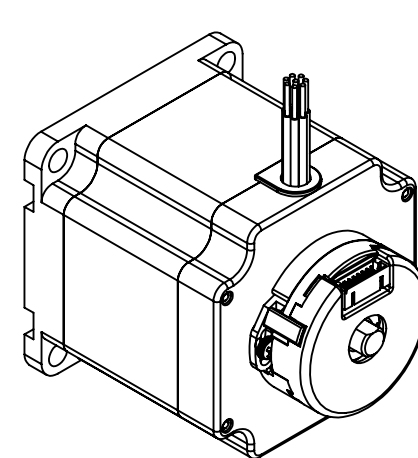
SHEET 1 OF 2




ENCODER CONNECTIONS	
PIN NO:	SIGNAL
1	CH A+
2	CH A-
3	CH B+
4	CH B-
5	INDEX+
6	INDEX-
7	N/C
8	N/C
9	N/C
10	N/C
11	N/C
12	N/C
13	+VCC
14	GND
15	N/C



SCALE 2 : 1



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		PRE.CHECK					
		PRE.APPROVAL					
		FIN.CHECK	C. BREUNINGER	5/20/22			
	MATERIAL	SAP: 4611110060866			SIZE	DWG. NO.	REV
FINISH	ALT DWG. NO.:			B	HT23-598D-ZAA	D	
DO NOT SCALE DRAWING	ALT SAP:			SCALE: 1:2		SHEET 2 OF 2	