

4

3

2

1

SPECIFICATIONS:					
NUMBER OF PHASES: 4		ROTOR INERTIA: 750 g-cm ² (4.09 oz-in ²) NOM			
STEPS PER REVOLUTION: 200		DETENT TORQUE: 120 mN-m (16.99 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	TEMP. RISE: 80°C MAX. 9
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: 1500 G (3.3 LB) 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	2.0	8.8	3.0	2.5	354
BI-POLAR PARALLEL	0.5	2.2	6.0	2.5	354
UNI-POLAR	1.0	2.2	4.24	1.77	250.6

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

ADD "D" TO END OF PART NUMBER IF DOUBLE SHAFT IS REQUIRED.

DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTION.

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.

REVISIONS				
ECO #	REV.	DESCRIPTION	DATE	APPROVED
6517	A	INITIAL RELEASE	5/8/12	J. KORDIK
6636	B	SPECS REVISED	11/13/12	B. LOYZIM
6807	C	REVISE FLANGE THICKNESS	9/9/13	J. KORDIK
7445	D	REVISE NOTE 10	6/6/16	J. KORDIK
7944	E	ADD UL TO LABEL	5/3/18	J. KORDIK
8306	F	REVISE MTG FLANGE, SPECS	8/14/19	J. KORDIK
8544	G	REMOVE UL FROM LABEL	10/1/20	J. KORDIK
8705	H	REDRAWN IN SOLIDWORKS	8/24/21	L. LIU
8787	J	REVISED MODEL & UPDATED SHEET FORMAT	5/20/22	L. LIU

WIRING DIAGRAM

ORANGE
ORG/WHT
BLK/WHT
BLACK

PM

RED
RED/WHT
YELLOW
YEL/WHT

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

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APPLIED MOTION PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF APPLIED MOTION PRODUCTS IS PROHIBITED.

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

Y. LAPNET

5/20/22

C. BREUNINGER

5/20/22

TITLE:

STEPPER MOTOR

SIZE

DWG. NO.

REV

B

HT23-603

J

SCALE: 1:1

SHEET 1 OF 2

4

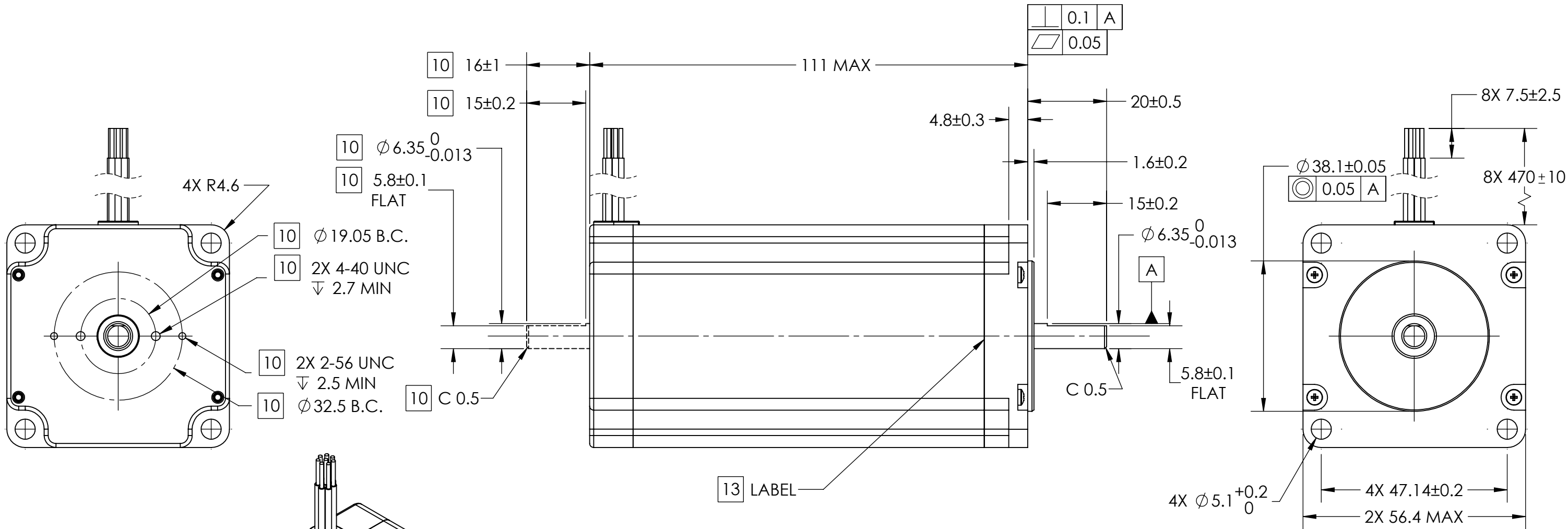
3

2

1

B

B



A


A

4

3

2

1

 <div>Applied Motion Products</div> <div>A MOONS' COMPANY</div>	THIRD ANGLE PROJECTION		NAME	DATE	TITLE: STEPPER MOTOR		
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES: - ANGULAR: ± 0.5 - ONE DECIMAL PLACE: ± 0.25 - TWO DECIMAL PLACES: ± 0.13	DRAWN	Y. LAPNET	5/20/22			
		PRE.CHECK					
		PRE.APPROVAL					
		FIN.CHECK	C. BREUNINGER	5/20/22			
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APPLIED MOTION PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF APPLIED MOTION PRODUCTS IS PROHIBITED.	MATERIAL	SAP: 4611110010192			SIZE	DWG. NO.	REV
	FINISH	ALT DWG. NO.: HT23-603D			B	HT23-603	J
	DO NOT SCALE DRAWING	ALT SAP: 4611110010193					
					SCALE: 1:2		SHEET 2 OF 2