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 [7] (ohm ±10%)	INDUCTANCE PER PHASE [8] (mH ±20%)	RATED CURRENT (Amp)	HOLDING TORQUE [1] (Nm MIN)	HOLDING TORQUE [1] (oz-in)
BI-POLAR SERIES	2.0	8.8	2.5	2.5	354
BI-POLAR PARALLEL	0.5	2.2	5.0	2.5	354
UNI-POLAR	1.0	2.2	3.5	1.86	264

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.

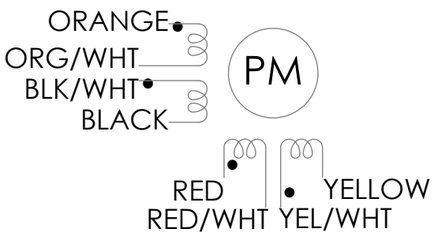
12. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH CURRENT EU RoHS DIRECTIVE.

[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	6/16/14	JEFF. K
8034	B	CHG REAR SHAFT LENGTH/TYPO	8/28/18	JEFF. K
8705	C	REDRAWN IN SOLIDWORKS BY ALAN. N, FRONT END BELL THK FROM 5+/-0.5 TO 4.8+/-0.3, SHAFT L 16 +/-0.2 TO +/-1.	8/23/21 ALAN. N	LEO. L

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 ↓ CCW ↑

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

Applied Motion Products
A MOOG COMPANY

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
TOLERANCES:
ANGULAR: ± 0.5
ONE PLACE DECIMAL ± 0.25
TWO PLACE DECIMAL ± 0.13
THIRD ANGLE PROJECTION

MATERIAL

FINISH

DO NOT SCALE DRAWING

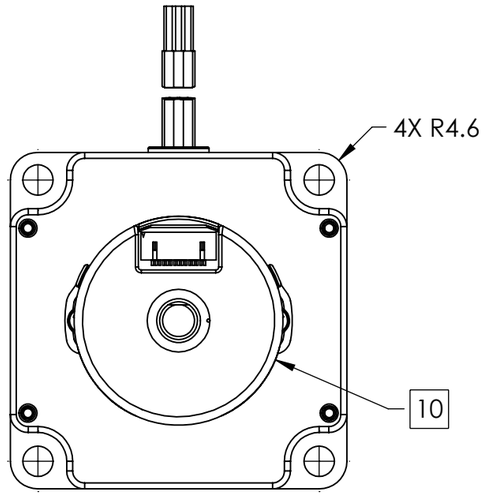
	NAME	DATE
DRAWN	ALAN. N	8/25/21
CHECKED	YANN. L	8/25/21

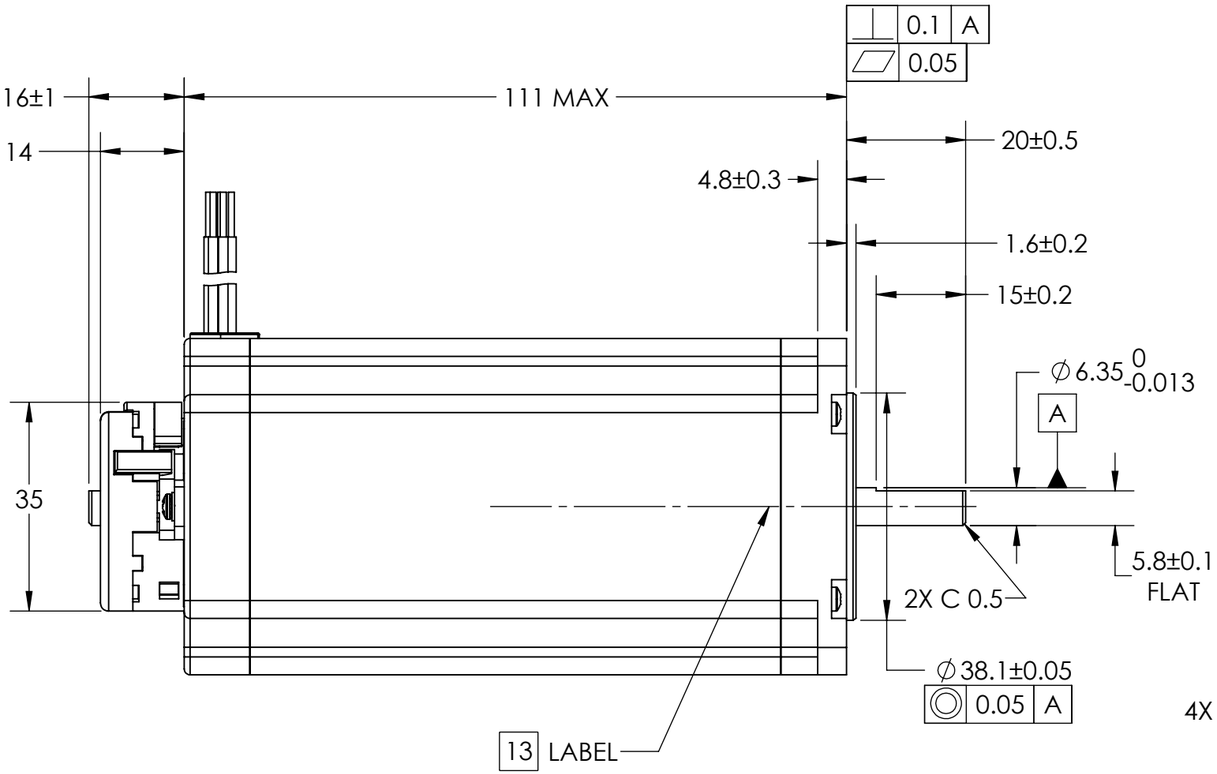
COMMENTS:

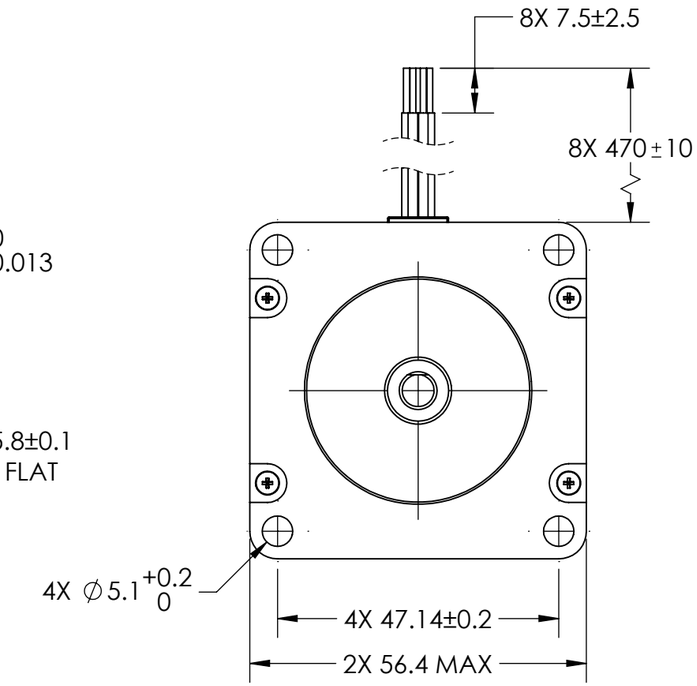
TITLE:
STEPPER MOTOR

SIZE	DWG. NO.	REV
B	HT23-603D-ZAA	C

SCALE: 1:1 | WEIGHT: | SHEET 1 OF 2

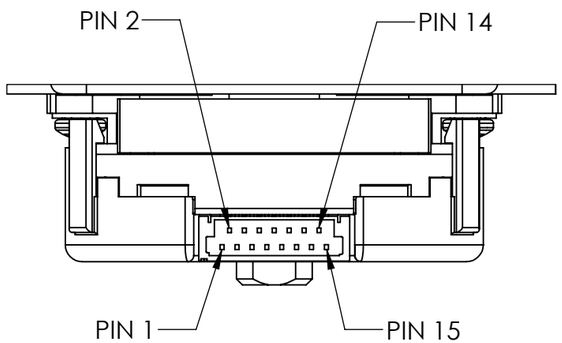




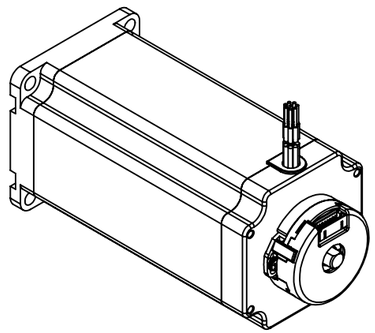


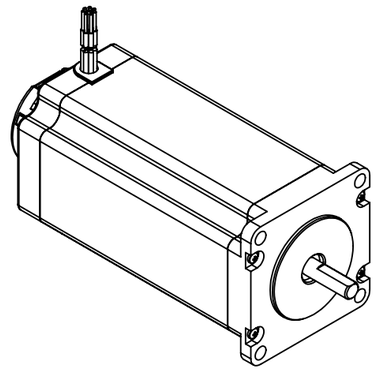
10

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





Applied Motion Products
A MOOG COMPANY

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
TOLERANCES:
ANGULAR: ± 0.5
ONE PLACE DECIMAL ± 0.25
TWO PLACE DECIMAL ± 0.13
THIRD ANGLE PROJECTION
MATERIAL
FINISH
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	ALAN. N	8/25/21
CHECKED	YANN. L	8/25/21

COMMENTS:

TITLE:
STEPPER MOTOR

SIZE	DWG. NO.	REV
B	HT23-603D-ZAA	C

SCALE: 1:1 | WEIGHT: | SHEET 2 OF 2