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: 2060 G (4.6 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	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] 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.

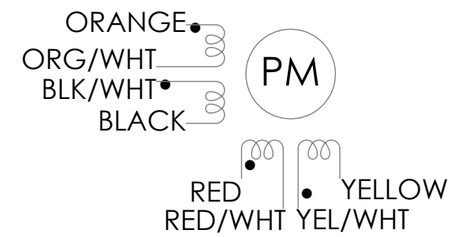
[13] MOTOR LABEL TO INCLUDE AMP LOGO, AMP WEBSITE ADDRESS, "RoHS" COMPLIANCE LOGO, AMP P/N, "MADE IN (COUNTRY)", AND DATE CODE.

[10]

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	2/16/18	J. KORDIK
8705	C	UPDATED SHAFT RUNOUT AND END BELL THICKNESS	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

CCW

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

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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: 4611110060908

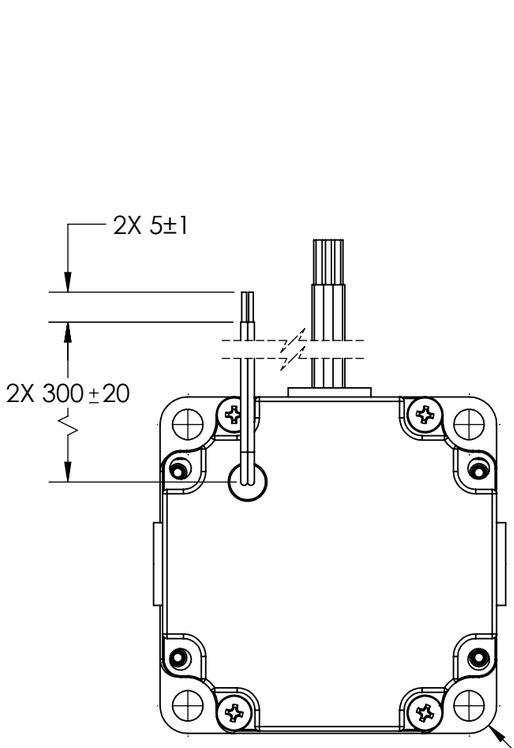
ALT DWG. NO.:

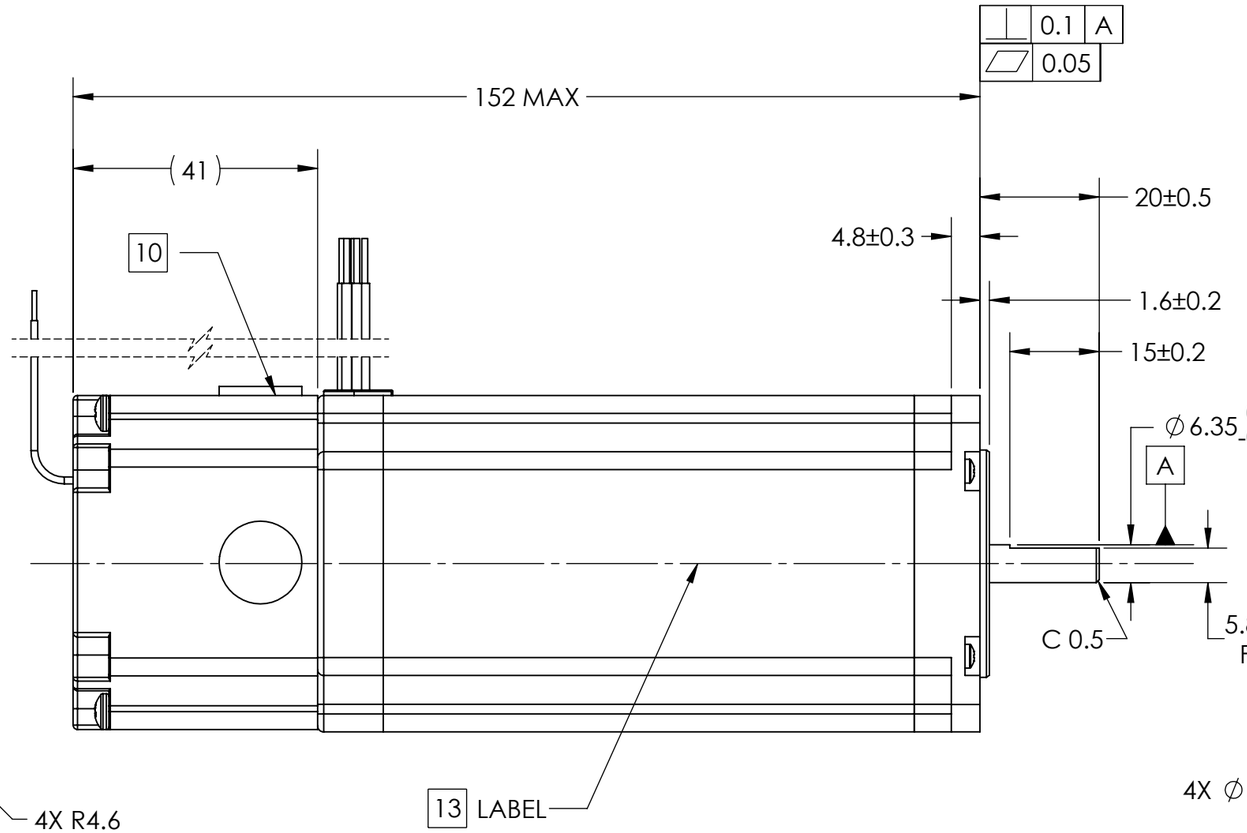
ALT SAP:

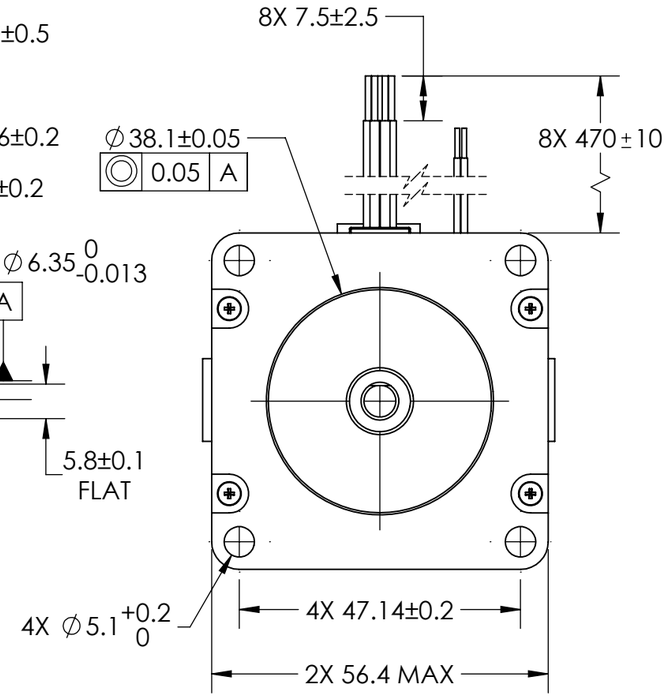
TITLE:
STEPPER MOTOR

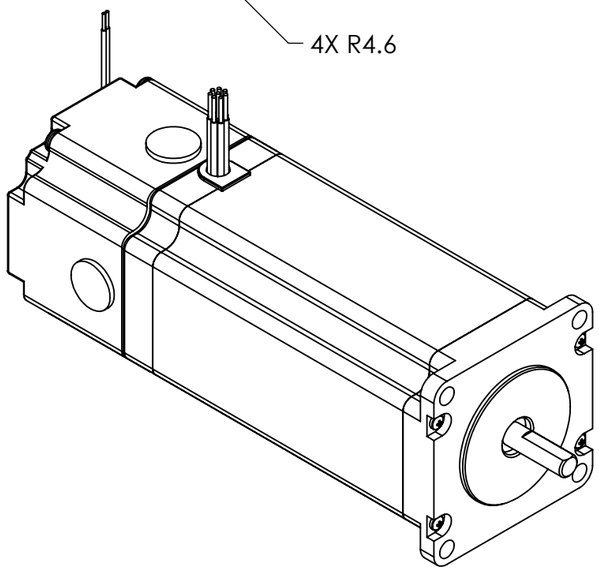
SIZE	DWG. NO.	REV
B	HT23-603B	D

SCALE: 1:1 SHEET 1 OF 2









Applied Motion Products — A MOONS' COMPANY	THIRD ANGLE PROJECTION		TITLE: STEPPER MOTOR
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.	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	SIZE: B DWG. NO.: HT23-603B REV: D
	MATERIAL	SAP: 4611110060908	
	FINISH	ALT DWG. NO.:	
	DO NOT SCALE DRAWING	ALT SAP:	SCALE: 1:2 SHEET 2 OF 2

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