

SPECIFICATIONS:

NUMBER OF PHASES: 4	ROTOR INERTIA: 460 g-cm ² (2.51 oz-in ²) NOM
STEPS PER REVOLUTION: 200	DETENT TORQUE: 70 mNm (9.91 oz-in) MIN
STEP ANGLE: 1.8°	INSULATION CLASS: B
STEP TO STEP ACCURACY: ±0.09° [1], [2]	BEARINGS: ABEC 3, DOUBLE SHIELDED
POSITIONAL ACCURACY: ±0.09° [1], [3]	TEMP. RISE: 80 °C MAX. [9]
HYSTERESIS: N/A%	OPERATING TEMP. RANGE: -20 TO +50 °C
SHAFT RUNOUT: 0.05 mm T.I.R. MAX	STORAGE TEMP. RANGE: -30 TO +70 °C
RADIAL PLAY: 0.02 mm MAX (.5KG RADIAL LOAD)	RELATIVE HUMIDITY RANGE: 15 TO 85 %
END PLAY: 0.08 mm MAX (.5KG AXIAL LOAD)	WEIGHT: 1.47 kg (3.25 lb)

SPECIFICATION	[7]	[8]	[1]	[1]	
CONNECTION	RESISTANCE PER PHASE (ohm ±10%)	INDUCTANCE PER PHASE (mH ±20%)	RATED CURRENT (amp)	HOLDING TORQUE (Nm MIN)	HOLDING TORQUE (oz-in Min)
UNI-POLAR	1.0	1.7	3.00	1.35	191
BI-POLAR SERIES	2.0	6.8	2.12	1.90	269
BI-POLAR PARALLEL	0.5	1.7	4.24	1.90	269

NOTES, UNLESS OTHERWISE 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, 60 Hz FOR ONE MINUTE.
5. LEADS: 8, AWG 20, 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 1 KHz.
- [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 BRAKE LEADS ARE AWG24, UL1332, RED="+".
11. ROTOR & STATOR LAMINATED CONSTRUCTION.
12. THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU RoHS DIRECTIVE.
- [13] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, AMP P/N, 'MADE IN (COUNTRY OF ORIGIN)', AND DATE CODE.
14. HI TORQUE MOTOR DESIGN.

BRAKE SPECIFICATIONS

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

FULL STEP SWITCHING SEQUENCE

BI-POLAR SERIES, FACING MOUNTING END

2 PHASE ON WITH A- WIRE CONNECTED TO C+ WIRE AND B- WIRE CONNECTED TO D+ WIRE.

STEP	A+	C-	B+	D-
0	+	-	+	-
1	-	+	+	-
2	-	+	-	+
3	+	-	-	+
4	+	-	+	-

CCW ↑

CW ↓

ORANGE A+
ORG/WHT A-
BLK/WHT C+
BLACK C-

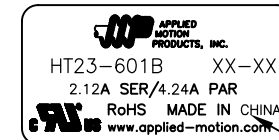
RED B+
B-
RED/WHT D+
YELLOW D-
YEL/WHT

PM

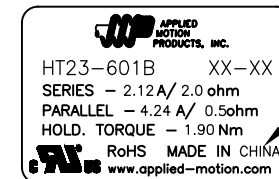
HT23-601B

REVISIONS

ECO NO.	REV	DESCRIPTION	DATE	APPROVED
7462	A	PRELIMINARY RELEASE	8/9/16	J.KORDIK
7852	B	REVISE MOTOR WEIGHT	3/1/18	J.KORDIK
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
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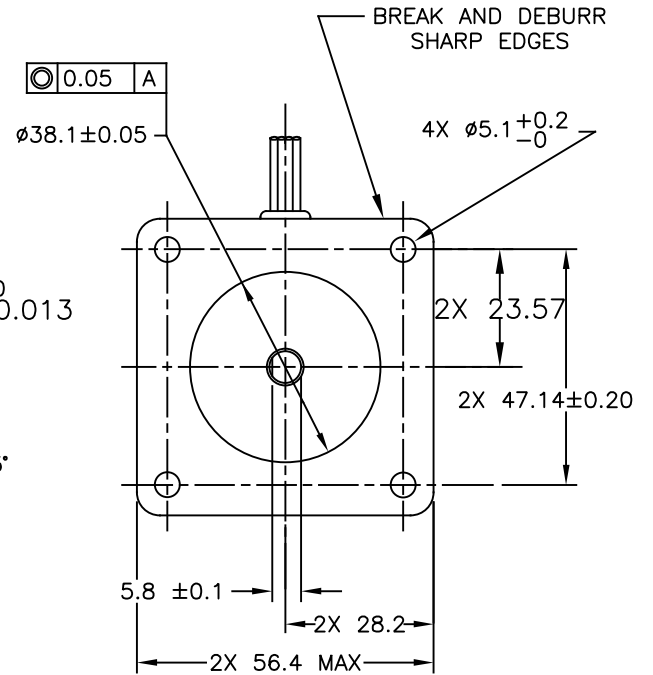
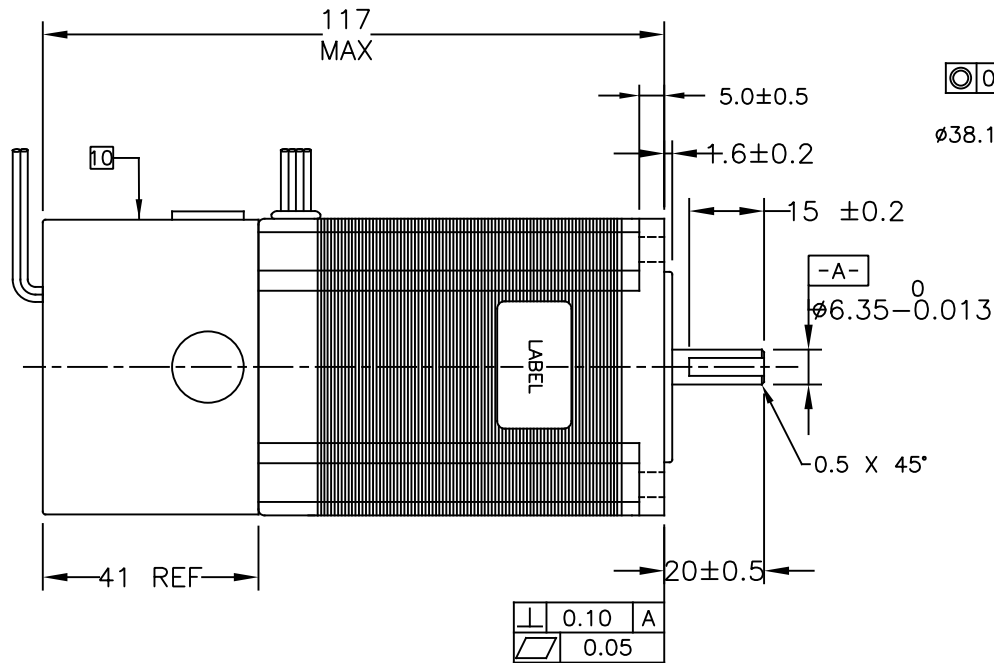
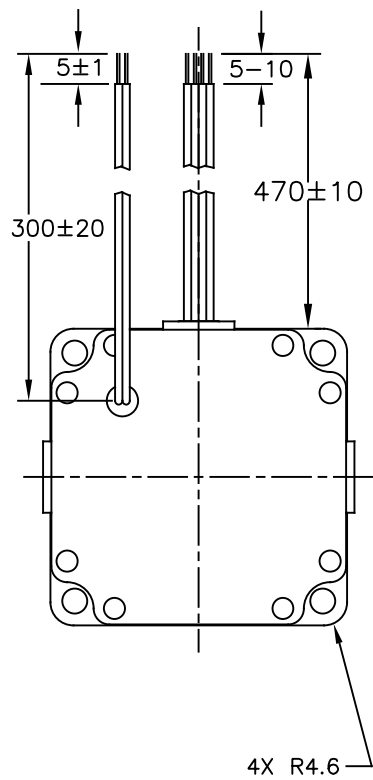


LABEL DETAIL
BOTH OPTIONS ACCEPTABLE



[13]

CONTRACT NO. -		APPLIED MOTION PRODUCTS, INC.		
APPROVALS	DATE	STEP MOTOR OUTLINE COMPUTER DATA BASE DRAWING DWG NO. HT23-601B SCALE: NONE SHEET 1 OF 2		
DRAWN K.KESLER	8/1/16			
CHECKED	-			
APPROVED	-			
APPROVED	-	B	REV B	



TOLERANCES	THIRD ANGLE PROJECTION		APPLIED MOTION PRODUCTS, INC.	
*ALL DIMENSIONS IN MM				
DECIMALS: MM				
X.XX = ±0.13	APPROVALS	DATE	STEP MOTOR OUTLINE	
X.X = ±0.25	DRAWN	8/1/16		
ANGLES:	CHECKED	-		
MACH. = ±0.5°	APPROVED	-		
CHAM. = ±5°	COMPUTER DATA	-	SCALE: NONE	SHEET 2 OF 2
	BASE DRAWING	-		

B DWG NO. HT23-601B REV B