

MOTOR SPECIFICATIONS:

NUMBER OF PHASES:	2	ROTOR INERTIA (g-cm ² /oz-in ²):	20/0.109 NOM
STEPS PER REVOLUTION:	200	INSULATION CLASS:	B (130°)
STEP ANGLE (°):	1.8	BEARINGS:	ABEC 3, DOUBLE SHIELDED

CONNECTION	RESISTANCE PER PHASE 5	INDUCTANCE PER PHASE 6	RATED CURRENT	HOLDING TORQUE 1	
	ohm $\pm 10\%$	mH $\pm 20\%$	AMP	mNm MIN	oz-in MIN
BI-POLAR	8.3	7.5	0.35	56	7.93

GEARMOTOR SPECIFICATIONS:

TEMP. RISE (°C):	7	80 MAX	TOTAL WEIGHT (±10g/±0.35oz):	408/14.4
OPERATING AMB. TEMP. RANGE (°C):		-20 to +50	RELATIVE HUMIDITY RANGE (%):	85 NON-CONDENSING
STORAGE TEMP. RANGE (°C):		-20 to +70		

GEARHEAD SPECIFICATIONS:

RATIO:	32.49:1	EFFICIENCY (%):	81
MAX TORQUE CONTINUOUS (Nm/oz-in):	6/849.7	BACKLASH (°):	≤1.2
MAX TORQUE (Nm/oz-in):	8/1132.9	MAX RADIAL LOAD (N/lbf):	≤200/44.96
MAX INPUT SPEED (RPM):	6000	MAX AXIAL LOAD (N/lbf):	≤200/44.96

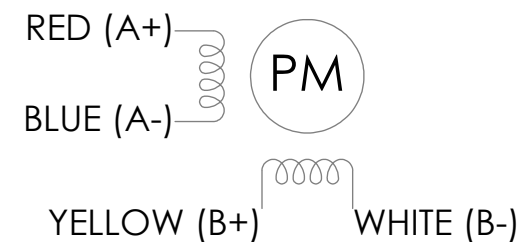
NOTES, UNLESS OTHERWISE SPECIFIED:

- 1 MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
2. HI POT 500 VAC, 60Hz FOR ONE MINUTE.
- 3 LEADS: 4, 26 AWG, 7 STRAND MIN. UL AND CSA APPROVED. UL 1430.
4. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- 5 AS MEASURED ACROSS EACH PHASE.
- 6 AS MEASURED ACROSS EACH PHASE USING AN A.C. INDUCTANCE BRIDGE AT 1KHz.
- 7 AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES; WITH MOTOR AT REST.
8. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH CURRENT EU RoHS DIRECTIVE.
- 9 MOTOR LABEL TO INCLUDE AMP LOGO, AMP WEBSITE ADDRESS, "RoHS" COMPLIANCE LOGO, AMP P/N, 'MADE IN (COUNTRY)', AND DATE CODE.
- 10 ADD "D" TO PART NUMBER IF DOUBLE SHAFT IS REQUIRED.
DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTION.

REVISIONS

ECO #	REV.	DESCRIPTION	DATE	APPROVED
7935	A	INITIAL RELEASE	7/2/18	J.KORDIK
8750	B	REDRAWN IN SOLIDWORKS	2/15/22	L. LIU

WIRING DIAGRAM



DRIVE SEQUENCE MODEL BI-POLAR FULL STEP

STEP	A+	A-	B+	B-
1	+	-	+	-
2	-	+	+	-
3	-	+	-	+
4	+	-	-	+
1	+	-	+	-

The diagram illustrates the sequence of steps for a clockwise (CW) and counter-clockwise (CCW) cycle. The CW cycle is represented by a downward arrow and the CCW cycle by an upward arrow. The steps are defined by the state of four variables: A+, A-, B+, and B-.

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



PROPRIETARY AND CONFIDENTIAL

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

	NAME	DATE
DRAWN	Y. LAPNET	1/28/2
CHECKED	R. BUI	1/31/2

COMMENTS:

TITLE:

STEPPER MOTOR W/ GEARHEAD

SIZE B	DWG. NO. 5014-020-G032	REV B
SCALE: 3:2	WEIGHT:	SHEET 1 OF 2

4

3

2

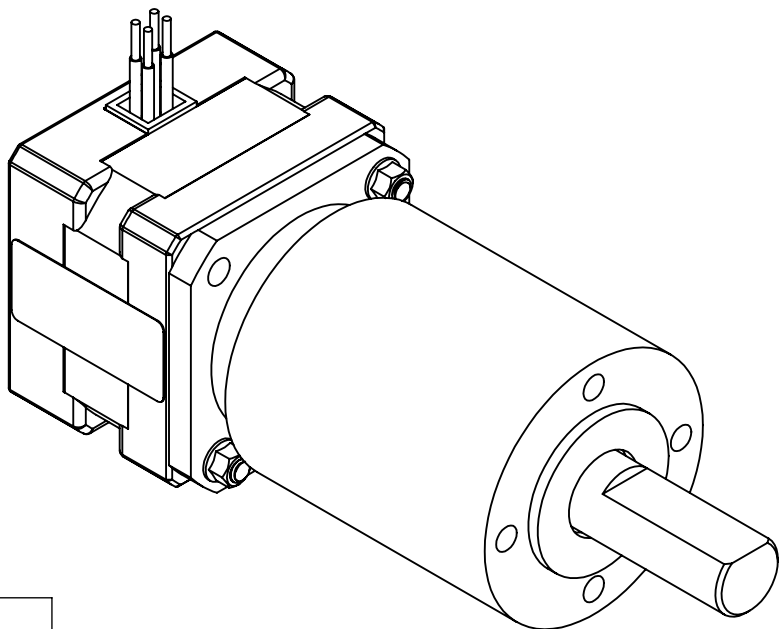
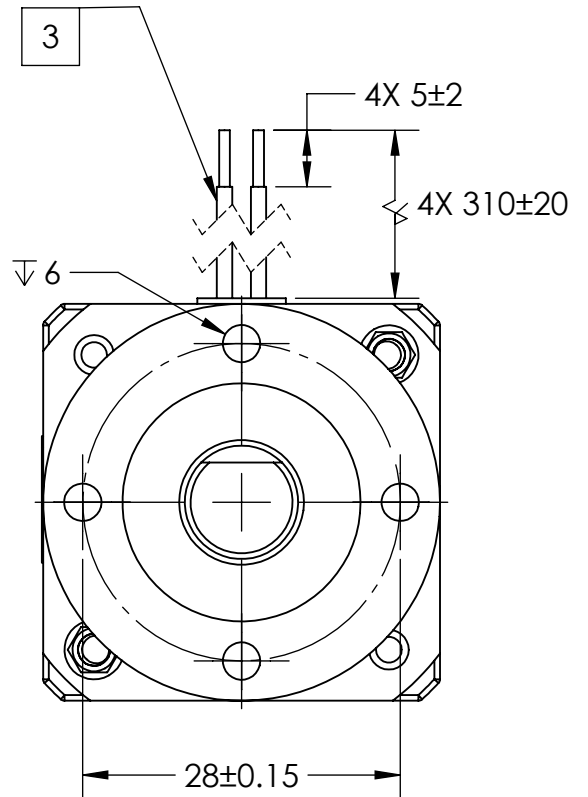
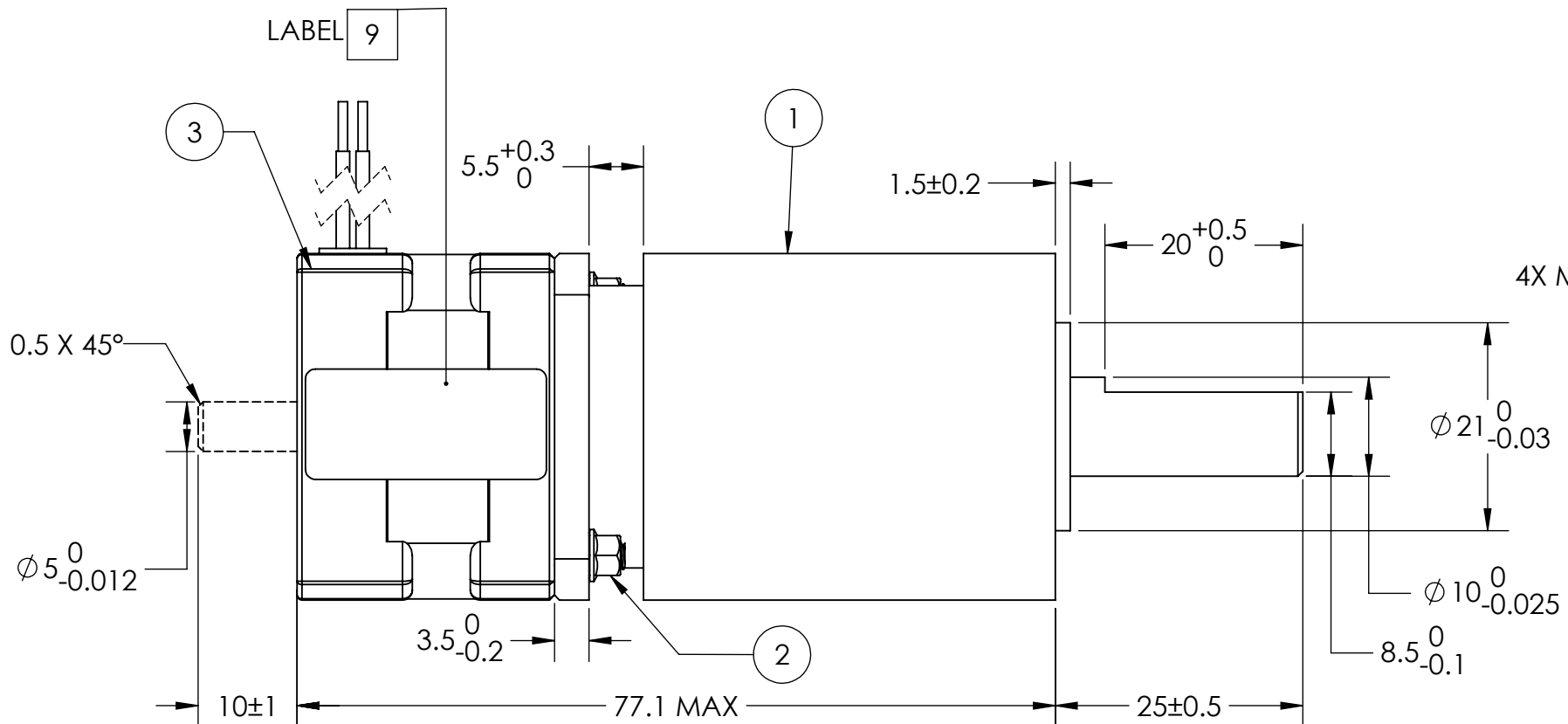
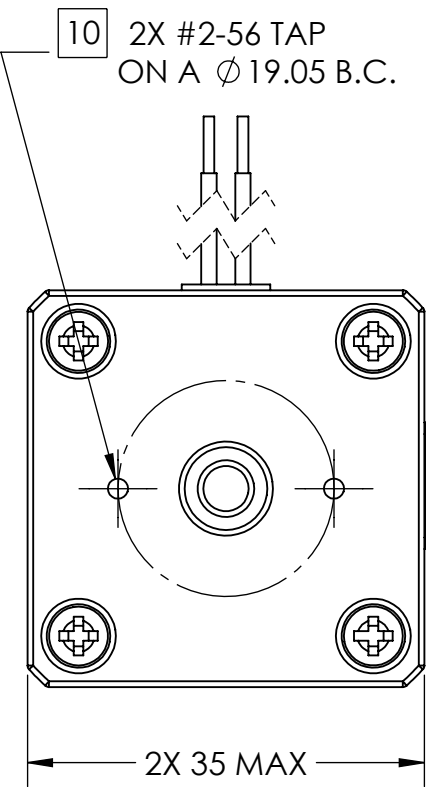
1

B

B


A

A



GEARHEAD MATERIALS:	
GEARTRAIN:	Y15 (1213) STEEL
HOUSING:	304 STAINLESS STEEL
INPUT/OUTPUT FLANGE:	LY12 ALUMINUM
OUTPUT SHAFT:	40Cr STEEL
PINION:	Y15 (1213) STEEL

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35PH032.50-M1	PH GEARHEAD	1
2	11171924 Z/P OR EQUIVALENT	4-40 NYLON LOCKNUT	2
3	5014-020 10	STEP MOTOR	1



Applied Motion Products
A MOONS' COMPANY

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TOLERANCES:

ANGULAR: ± 0.5

ONE PLACE DECIMAL ± 0.25

TWO PLACE DECIMAL ± 0.13

THIRD ANGLE PROJECTION

MATERIAL

FINISH

DO NOT SCALE DRAWING

DRAWN	NAME Y. LAPNET	DATE 1/28/22
CHECKED	R. BUI	1/31/22
COMMENTS:		

TITLE:

**STEPPER MOTOR W/
GEARHEAD**

SIZE	DWG. NO.	REV
B	5014-020-G032	B

SCALE: 3:2	WEIGHT:	SHEET 2 OF 2
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4

3

2

1