

## MOTOR SPECIFICATIONS:

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

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

CONNECTION	RESISTANCE PER PHASE	INDUCTANCE PER PHASE	RATED CURRENT	HOLDING TORQUE	
	ohm ±10%	mH ±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):	355/12.5
OPERATING AMB. TEMP. RANGE (°C):	-20 to +50	RELATIVE HUMIDITY RANGE (%):	85 NON-CONDENSING	
STORAGE TEMP. RANGE (°C):	-20 to +70			

## GEARHEAD SPECIFICATIONS:

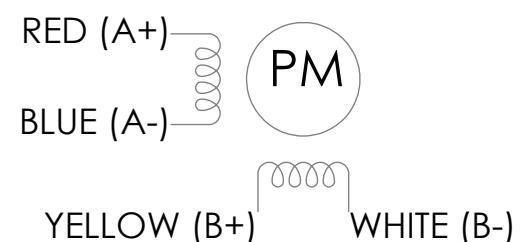
RATIO:	4.62:1	EFFICIENCY (%):	90
MAX TORQUE CONTINUOUS (Nm/oz-in):	2.5/354	BACKLASH (°):	≤0.8
MAX TORQUE (Nm/oz-in):	3.5/495.6	MAX RADIAL LOAD (N/lbf):	≤200/44.96
MAX INPUT SPEED (RPM):	6000	MAX AXIAL LOAD (N/lbf):	≤200/44.96

## NOTES, UNLESS OTHERWISE SPECIFIED:

- 1 MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
2. HIPOT 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.

## WIRING DIAGRAM

DRIVE SEQUENCE MODEL  
BI-POLAR FULL STEP

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

CCW  
↑  
CW  
↓

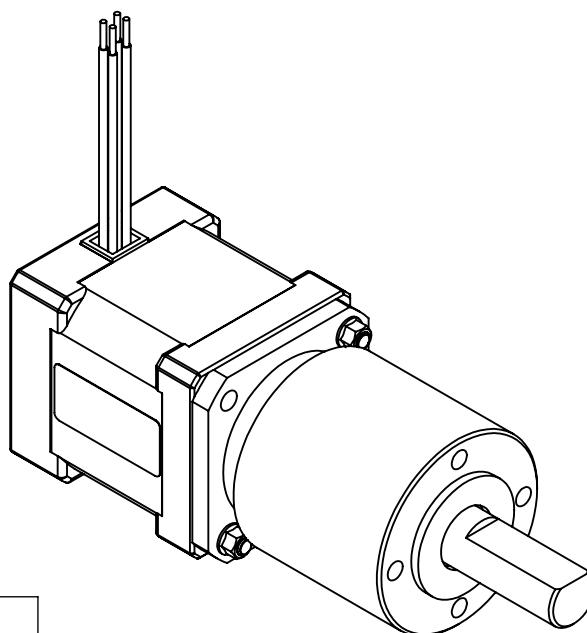
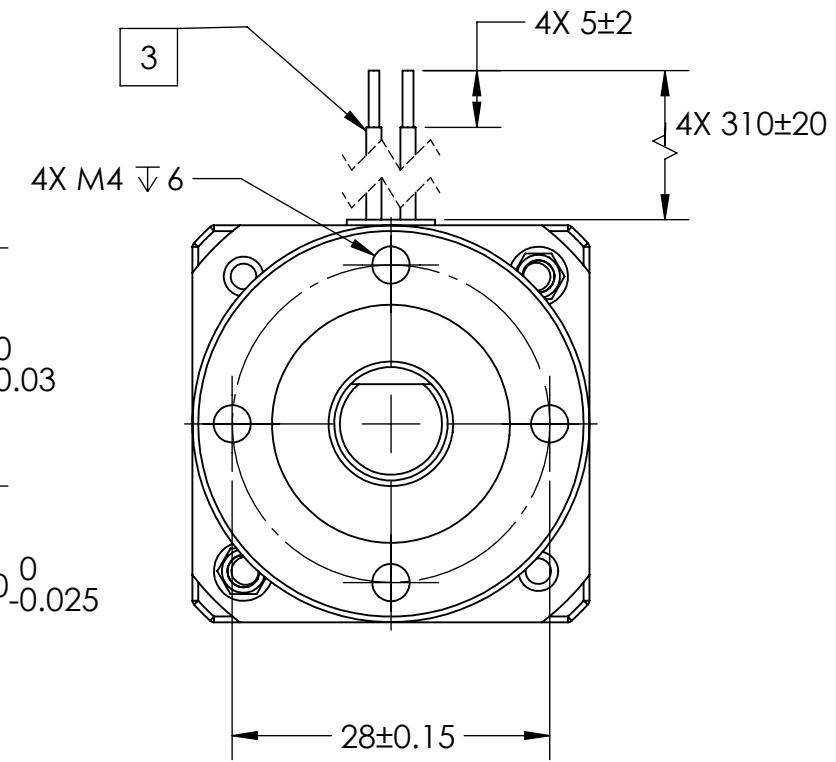
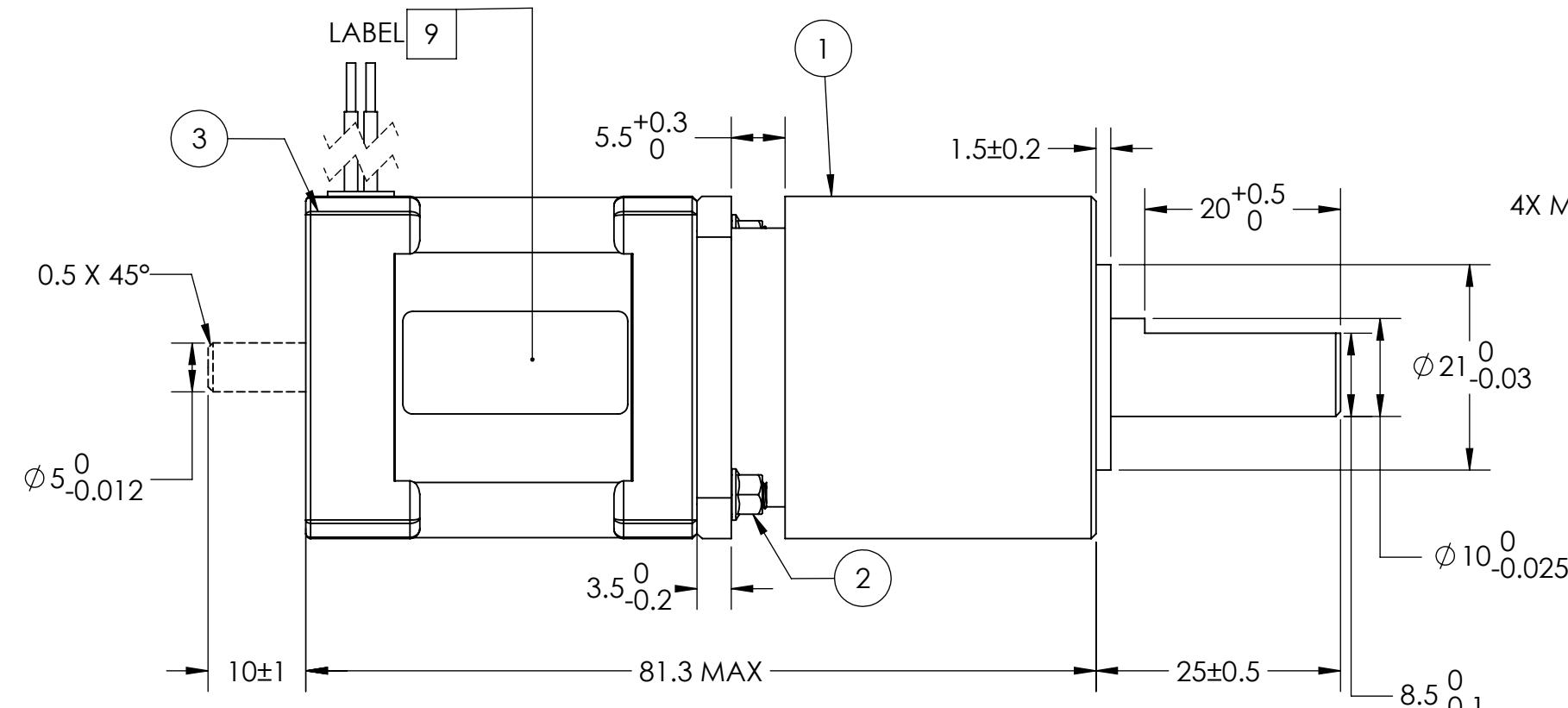
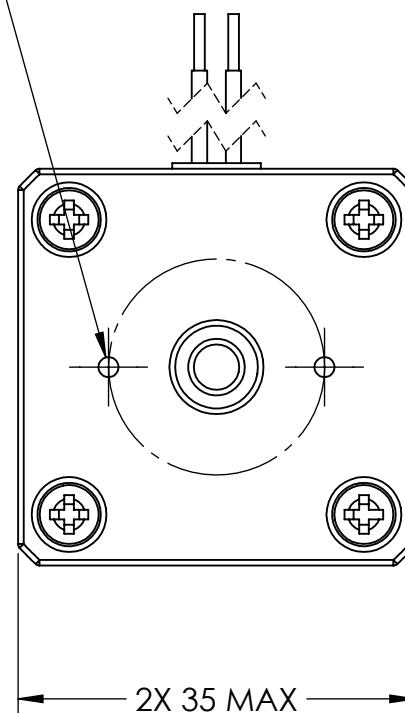
CW (CLOCKWISE) AND CCW (COUNTER-CLOCKWISE) ROTATION  
WHEN SEEN FROM THE MOUNTING FACE END OF THE MOTOR



PROPRIETARY AND CONFIDENTIAL  
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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:	NAME	DATE	TITLE: STEPPER MOTOR W/ GEARHEAD
DIMENSIONS ARE IN MILLIMETERS	Y. LAPNET	1/28/22	
TOLERANCES: ANGULAR: ± 0.5 ONE PLACE DECIMAL ± 0.25 TWO PLACE DECIMAL ± 0.13 THIRD ANGLE PROJECTION	R. BUI	1/31/22	
COMMENTS:			
SIZE	DWG. NO.	REV	
<b>B</b>	5014-042-G004	B	
SCALE: 3:2	WEIGHT:	SHEET 1 OF 2	

10 2X #2-56 TAP  
ON A  $\phi 19.05$  B.C.



#### GEARHEAD MATERIALS:

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



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TOLERANCES:  
ANGULAR:  $\pm 0.5$   
ONE PLACE DECIMAL  $\pm 0.25$   
TWO PLACE DECIMAL  $\pm 0.13$   
THIRD ANGLE PROJECTION

DRAWN Y. LAPNET 1/28/22

CHECKED R. BUI 1/31/22

COMMENTS:

MATERIAL

FINISH

DO NOT SCALE DRAWING

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	35PH004.62-M1	PH GEARHEAD	1
2	11171924 Z/P OR EQUIVALENT	4-40 NYLON LOCKNUT	2
3	5014-042 10	STEP MOTOR	1

TITLE: STEPPER MOTOR W/  
GEARHEAD

SIZE DWG. NO. REV  
B 5014-042-G004 B

SCALE: 3:2 WEIGHT: SHEET 2 OF 2