

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 |

| 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): | 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:

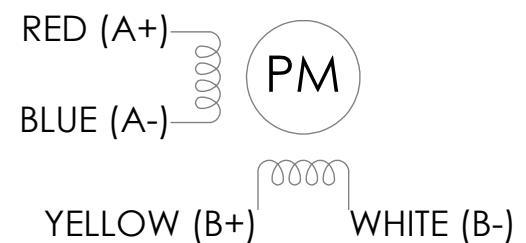
| | | | |
|-----------------------------------|-----------|--------------------------|------------|
| RATIO: | 12.07:1 | EFFICIENCY (%): | 81 |
| MAX TORQUE CONTINUOUS (Nm/oz-in): | 8/1132.9 | BACKLASH (°): | ≤1.2 |
| MAX TORQUE (Nm/oz-in): | 10/1416.1 | MAX RADIAL LOAD (N/lbf): | ≤200/44.96 |
| MAX 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



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APPLIED MOTION PRODUCTS. ANY
REPRODUCTION IN PART OR AS A WHOLE
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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 | |
| MATERIAL | COMMENTS: | | |
| FINISH | DO NOT SCALE DRAWING | | SIZE DWG. NO. B 5014-042-G012 REV B |
| SCALE: 3:2 | WEIGHT: | SHEET 1 OF 2 | |

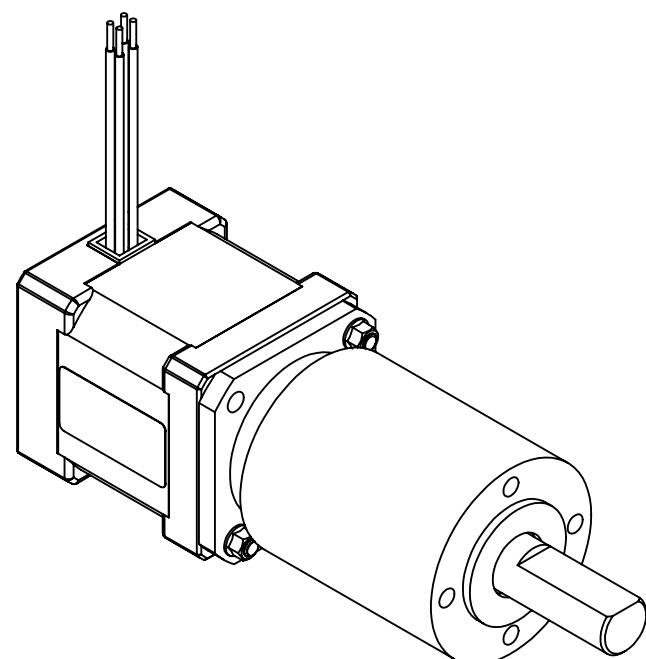
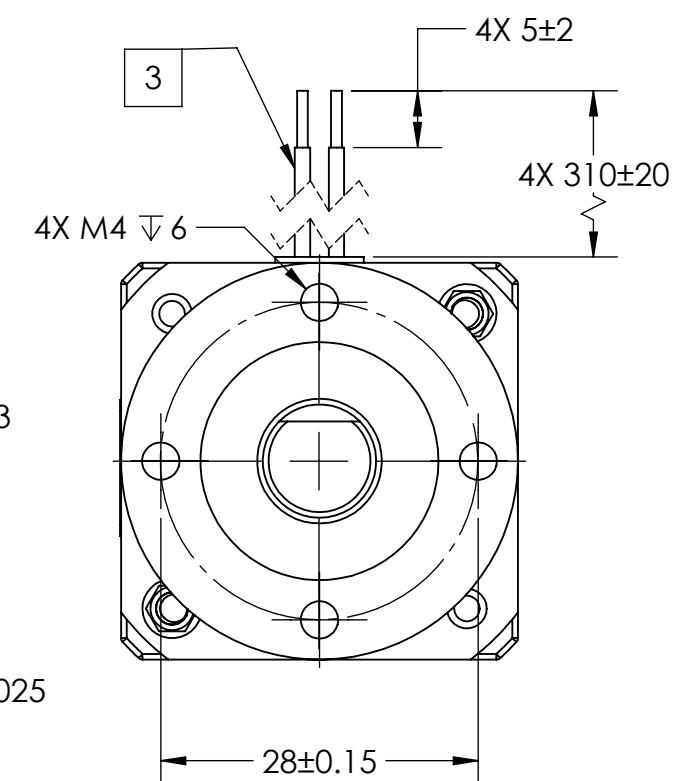
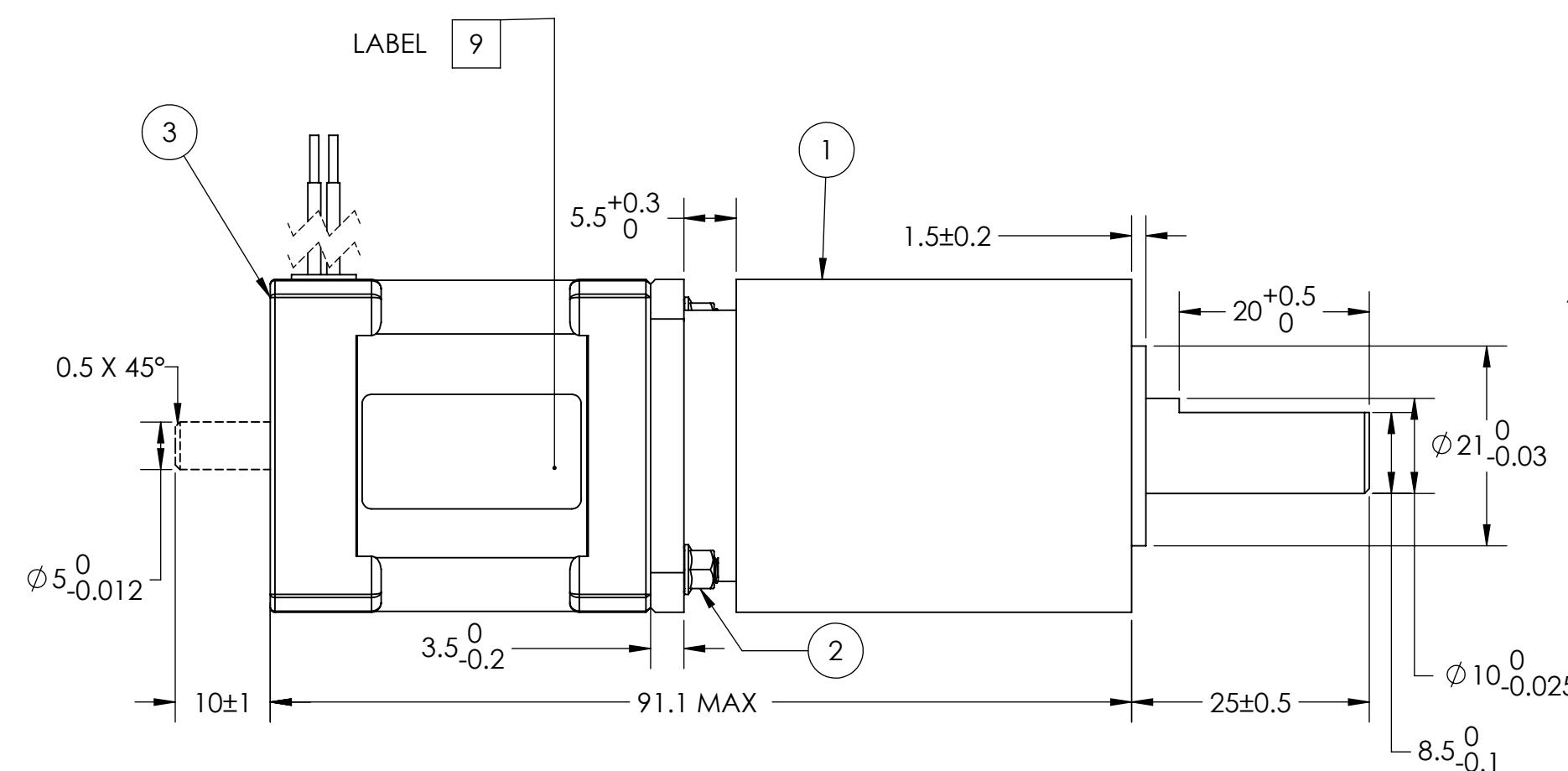
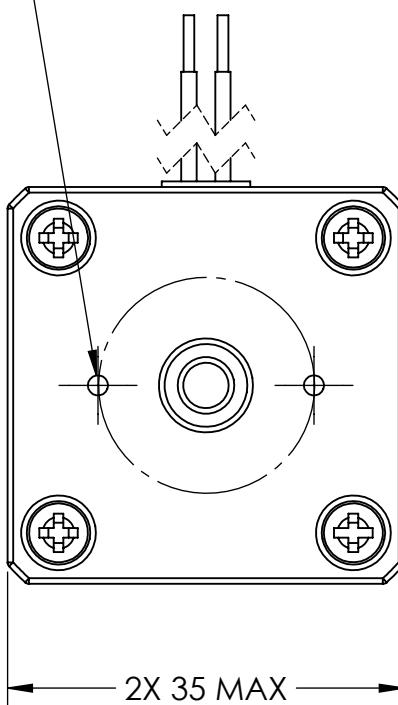
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2

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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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ONE PLACE DECIMAL ± 0.25
TWO PLACE DECIMAL ± 0.13
THIRD ANGLE PROJECTION
MATERIAL
FINISH
DO NOT SCALE DRAWING

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

TITLE: STEPPER MOTOR W/
GEARHEAD
SIZE DWG. NO. REV
B 5014-042-G012 B
SCALE: 3:2 WEIGHT: SHEET 2 OF 2

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