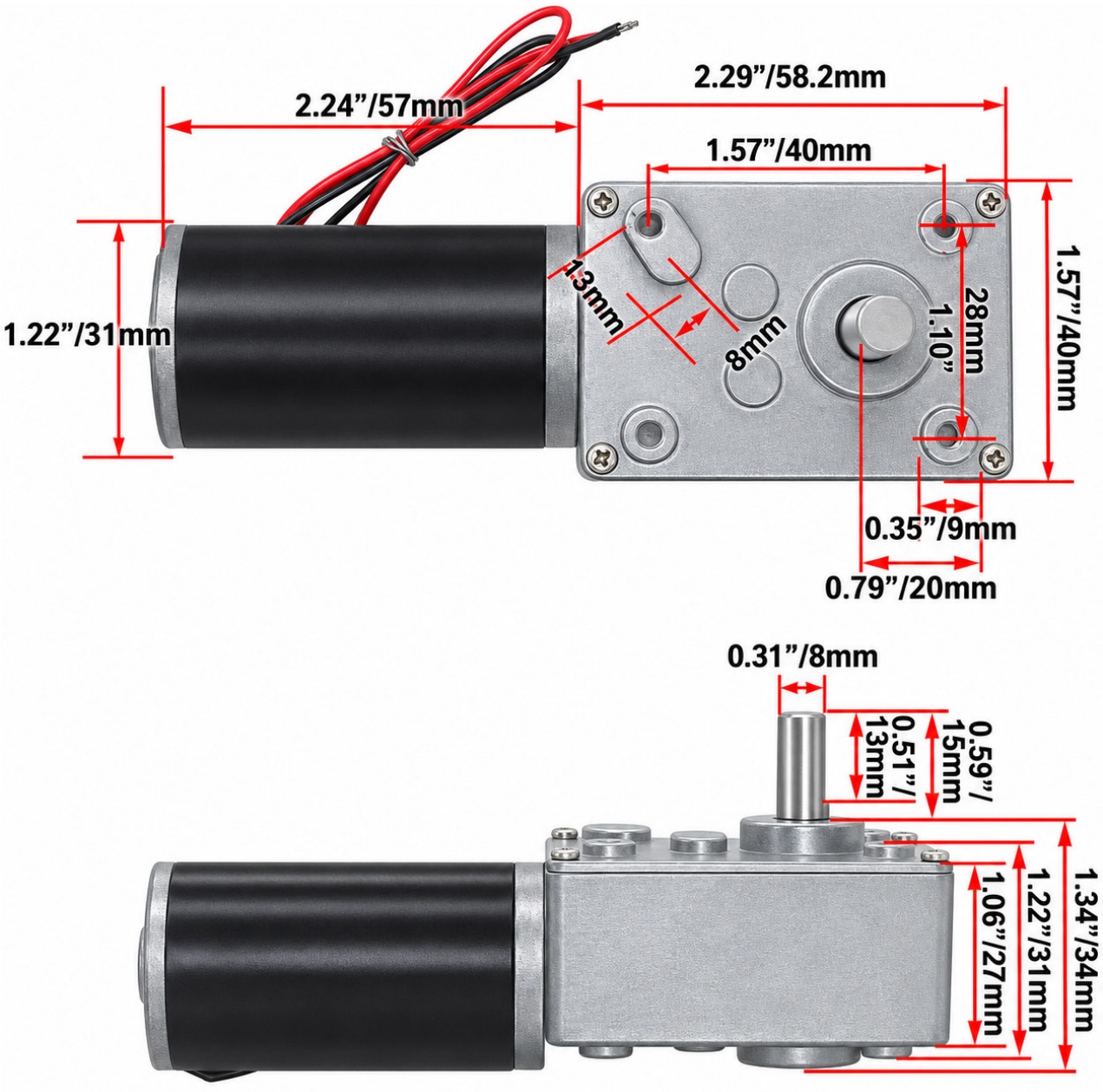
# USER MANUAL

12V / 24V DC Worm Gear Motor | 5-470 RPM | 8 mm Shaft

Dimensional Drawing:




## 01 PRODUCT OVERVIEW

The A58SW31ZY is a compact right-angle DC worm gear motor with a self-locking gear mechanism and reversible CW/CCW rotation. Multiple voltage and speed variants are available.

| | | |
|---|---|---|
| **12 V / 24 V DC** | **5-470 RPM options** | **8 mm shaft** |

# SHAFT & GEARBOX

Output shaft detail and key product features



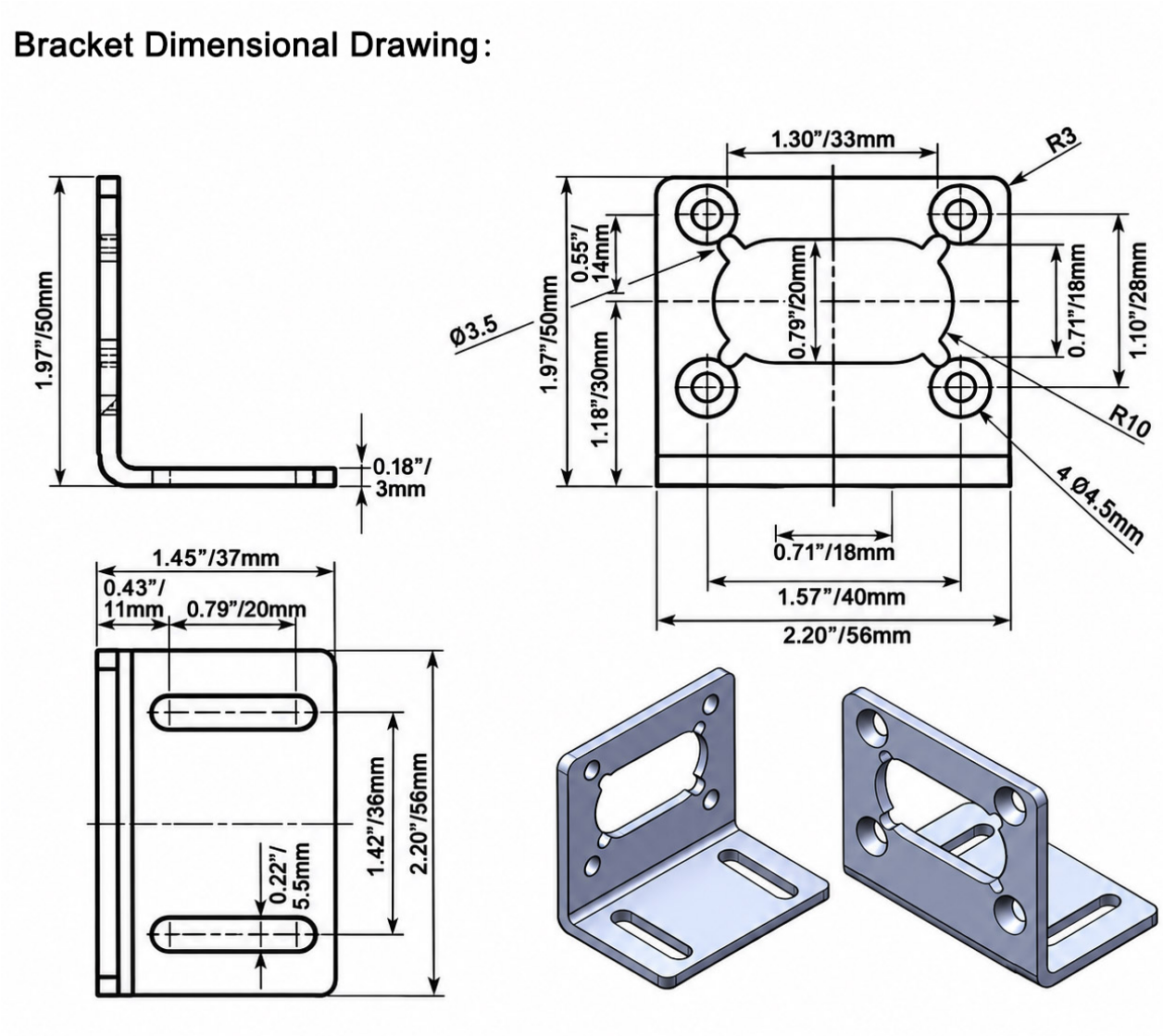

## 02 KEY FEATURES

- Worm gear drive: Right-angle gear reduction for low-speed mechanical output
- Self-locking design: Worm gear assembly provides resistance to back-driving
- Reversible direction: Reverse DC supply polarity to change between CW and CCW
- Multiple options: 12 V and 24 V motor variants with selectable output speeds
- D-shaped shaft: 8 mm output shaft with a 7 mm flat-to-round dimension

# MOUNTING & INSTALLATION

Bracket dimensional drawing and mechanical installation

Bracket Dimensional Drawing:




## 03 INSTALLATION

- Select a rigid and level mounting surface. Position the motor and any mounting bracket to keep the output shaft aligned with the driven mechanism.
- Use compatible fasteners and bracket slots. Tighten the mounting hardware evenly, without distorting the gearbox housing.
- Couple the 8 mm D-shaped shaft to a compatible hub or coupling. Allow sufficient clearance for free rotation and prevent excessive side loading.
- Inspect the assembled mechanism for interference before connecting power.

# SPECIFICATIONS & OPERATION

12 V / 12 RPM configuration and available variants

## 04 TECHNICAL SPECIFICATIONS

| | |
|---|---|
| Model | **A58SW31ZY** |
| Motor type | **DC worm gear motor** |
| Rated voltage (specified configuration) | **12 V DC** |
| No-load speed | **12 RPM** |
| Rated speed | **9 RPM** |
| No-load current | **350 mA** |
| Rated current | **1.6 A** |
| Rated torque | **70 kg.cm** |
| Gear ratio | **670:1** |
| Rotation direction | **CW / CCW** |
| Self-locking | **Yes** |
| Output shaft diameter / length | **8 mm / 15 mm** |
| Motor diameter / length | **31 mm / 57 mm** |
| Gearbox dimensions | **58.2 x 40 x 34 mm** |
| Gear material | **Metal / POM** |

## 05 AVAILABLE OPTIONS

Voltage options: 12 V DC / 24 V DC

No-load speed options: 5 / 12 / 16 / 27 / 40 / 80 / 160 / 260 / 470 RPM

## 06 WIRING & OPERATION

- Match the DC power supply voltage to the selected motor version (12 V or 24 V).
- Connect the motor leads to the DC supply. Reverse the polarity to reverse the shaft rotation direction.
- Begin with the output shaft unloaded, then run the motor briefly to verify direction and smooth motion.
- Stop the motor before adjusting wiring or mechanical connections. Avoid prolonged stalls and excessive loads.

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