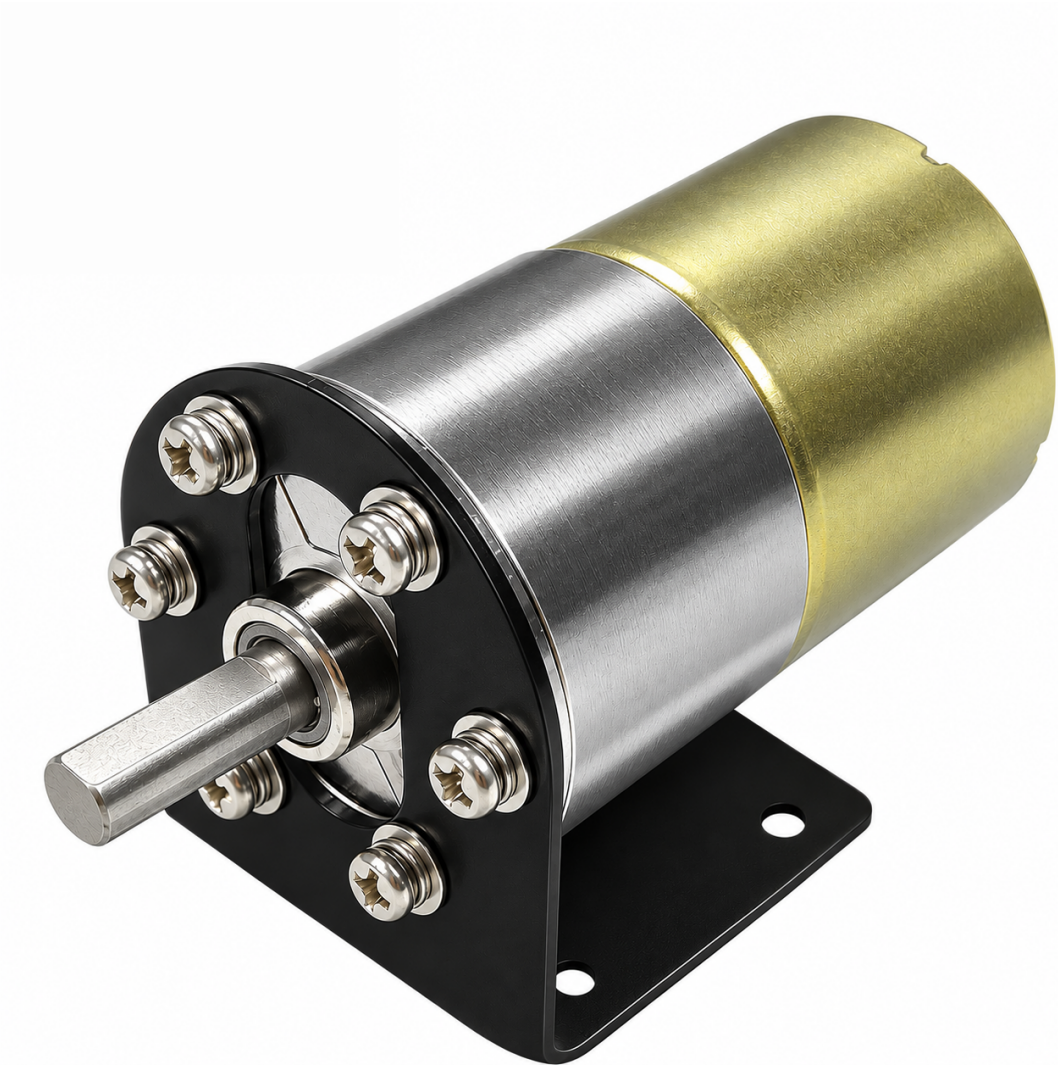
USER MANUAL

JGB37-520X

12V Brushed DC Gear Motor with Mounting Bracket



METAL GEARBOX

Multiple gear ratios

REVERSIBLE

CW / CCW rotation

6 mm SHAFT

14 mm extension

12V DC	10W	5-600 RPM	37 mm
Rated voltage	Rated power	Speed options	Gearbox diameter

PRODUCT GUIDE | INSTALLATION | OPERATION | PERFORMANCE

1 Product Description

The JGB37-520X is a 12V brushed DC gear motor with a metal reduction gearbox.
It offers a selection of output speeds and torque levels for compact drive systems.
An L-shaped metal bracket and mounting hardware are included for installation.

2 Key Features

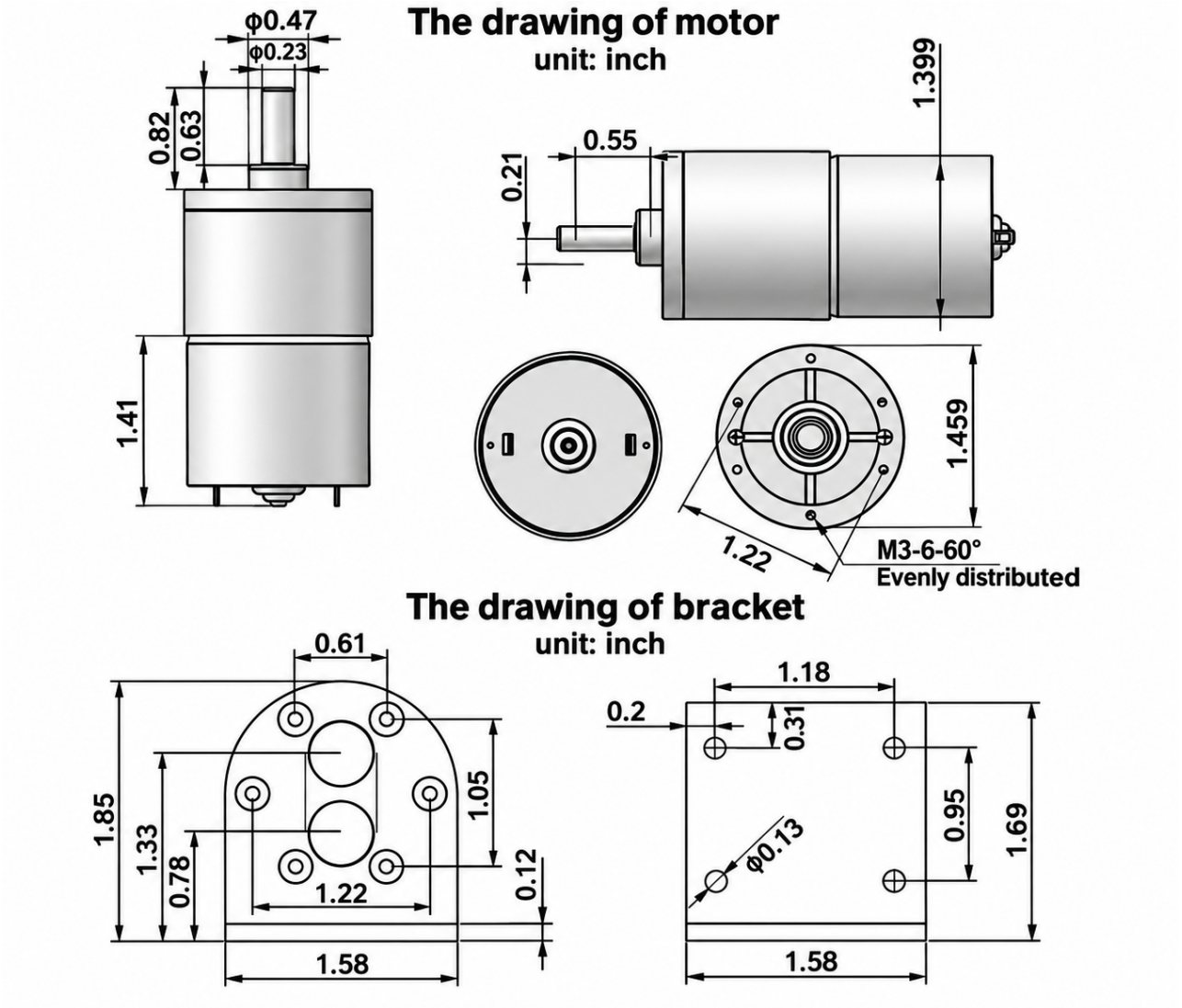
- **Metal gearbox** Gear reduction mechanism in a metal housing.
- **Speed options** 5 to 600 RPM no-load nominal options.
- **Reversible direction** Reverse DC supply polarity to change rotation.
- **Output connection** 6 mm metal shaft, extending 14 mm.
- **Mounting kit** L-shaped bracket with mounting hardware.

3 Technical Specifications

Model	JGB37-520X
Rated voltage	12V DC
Rated power	10W
No-load current	0.15 A
Load current	0.6 A
Stall current	1.65 A
Rotation	CW / CCW (polarity reversible)
Gearbox diameter	37 mm
Motor diameter	35.3 mm
Motor length	31 mm
Output shaft	6 mm diameter x 14 mm extension

4 Dimensions and Mounting

All dimension values below are nominal. Refer to the dimension drawing for hole positions.



5 Bracket & Shaft Dimensions

Bracket type	**L-shaped metal**	Shaft diameter	**6 mm / 0.23 in**
Bracket width	**40 mm / 1.57 in**	Shaft extension	**14 mm / 0.55 in**
Bracket height	**42.9 mm / 1.69 in**	Gearbox length	**24-31 mm (by speed option)**
Mounting holes	**3.3 mm / 0.13 in**	Gearbox diameter	**37 mm / 1.46 in**

Installation sequence

1. Position the bracket and secure it through the base mounting holes.
2. Align the driven component with the 6 mm output shaft.
3. Secure the shaft connection and verify free rotation before power-up.

6 Available Speed / Torque Options

Performance values for 12V DC variants, as supplied in the product data.

No-load RPM	Load RPM	Load torque	Gearbox L
5	4	23.4 kgf.cm	31 mm
10	9	11.7 kgf.cm	31 mm
20	18	5.85 kgf.cm	31 mm
30	28	3.9 kgf.cm	28 mm
50	45	2.34 kgf.cm	28 mm
100	93	1.17 kgf.cm	28 mm
150	128	0.78 kgf.cm	26 mm
200	175	0.58 kgf.cm	26 mm
300	245	0.39 kgf.cm	24 mm
600	535	0.19 kgf.cm	24 mm

Shared electrical data: 0.15 A no-load | 0.6 A load | 1.65 A stall | 10 W rated.

7 Electrical Connection and Operation

1. Connect the motor terminals to a suitable 12V DC supply.
2. Apply power to start rotation; remove power to stop the motor.
3. Reverse the positive and negative connections to reverse shaft direction.
4. Select the gear ratio/speed variant that matches the required load and motion.

8 Operating Checks

Before operation: confirm mounting hardware is secure and the shaft is aligned.

During operation: monitor for unusual noise, binding, vibration or overheating.

If the motor stalls: remove power and correct the mechanical overload.

For sustained operation: avoid prolonged stall conditions and blocked rotation.

9 Quick Reference

Example 600 RPM version

No-load: 600 RPM | Loaded: 535 RPM | Load torque: 0.19 kgf.cm