

## Walfront Walfront56d2mbgqcx (Various Stroke Lengths)

# Walfront DC 12V Heavy Duty Electric Linear Actuator User Manual

Model: Walfront56d2mbgqcx (Various Stroke Lengths)

## 1. INTRODUCTION

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This manual provides essential information for the safe and effective use of your Walfront DC 12V Heavy Duty Electric Linear Actuator. Please read these instructions thoroughly before installation and operation. Retain this manual for future reference.

### 1.1 Safety Information

- Always disconnect power before performing any installation, maintenance, or troubleshooting.
- Ensure the power supply matches the actuator's voltage (DC 12V).
- Do not exceed the maximum load capacity of 150kg (330 lbs).
- Avoid operating the actuator in environments outside its specified temperature range (-26°C to +50°C).
- Keep hands and loose clothing clear of moving parts during operation.

## 2. PRODUCT OVERVIEW

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The Walfront DC 12V Heavy Duty Electric Linear Actuator is designed for applications requiring controlled linear motion. It features a robust metal construction, a high-performance motor, and built-in limit switches for reliable operation. This actuator is suitable for various uses, including medical beds, electric sofas, lift systems, and industrial equipment.



Figure 2.1: Walfront DC 12V Heavy Duty Electric Linear Actuator, showing the motor housing, linear rod, and mounting points.

## 2.1 Key Features

- **Sensitive Action:** Provides stable and responsive operation.
- **Environmental Adaptability:** Designed for good performance in various conditions.
- **Durable Construction:** Made from metal material with a high-performance motor.
- **Built-in Limit Switches:** Automatically stops the actuator at the end of its stroke to prevent damage.
- **High Load Capacity:** Maximum push/pull force of 150kg (330 lbs).
- **Multiple Stroke Lengths:** Available in 50mm, 100mm, 150mm, 250mm, and 300mm options.



Figure 2.2: Diagram highlighting key features including limit switches, aluminum alloy shell, metal gear, and low resistance wiring.

### 3. SETUP AND INSTALLATION

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Proper installation is crucial for the actuator's performance and longevity. Follow these general guidelines:

- 1. Mounting:** Securely attach the actuator to your application using appropriate mounting brackets (not included). Ensure the mounting points are strong enough to support the actuator's weight and the applied load.
- 2. Orientation:** The actuator can be mounted in any orientation, but ensure it does not interfere with other components during its full stroke.
- 3. Electrical Connection:** Connect the actuator to a DC 12V power source. The actuator typically has two wires; reversing the polarity will reverse the direction of the rod extension/retraction.
- 4. Cable Management:** Route the power cable safely, ensuring it is not pinched or subjected to excessive strain.

thickness : 4cm / 1.57inch

## PACKAGE INCLUDED:

1 x Linear Actuator

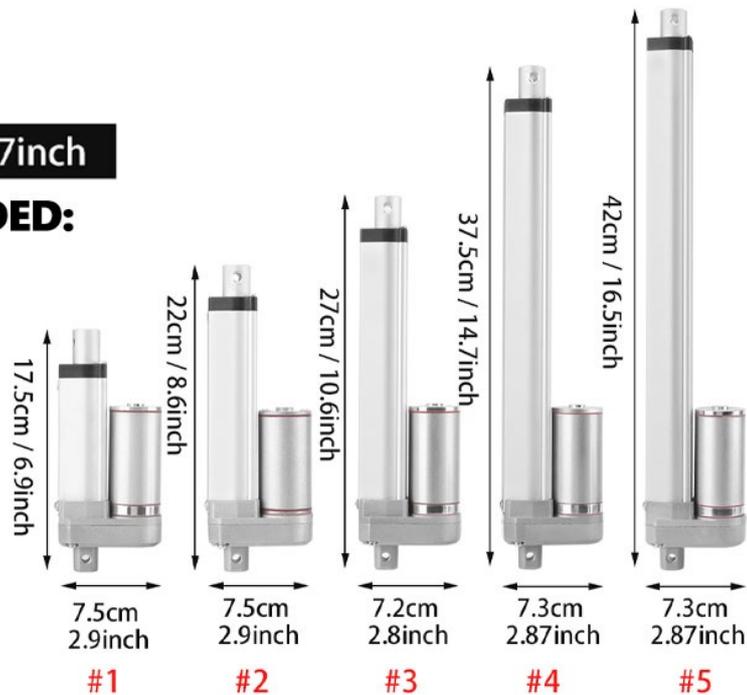


Figure 3.1: Dimensions for various stroke lengths (17.5cm/6.9inch, 22cm/8.6inch, 27cm/10.6inch, 37.5cm/14.7inch, 42cm/16.5inch) and package contents (1x Linear Actuator).

## 4. OPERATING INSTRUCTIONS

The Walfront linear actuator is simple to operate once correctly installed:

1. **Power On:** Apply DC 12V power to the actuator.
2. **Direction Control:** The direction of the actuator's movement (extension or retraction) is controlled by the polarity of the DC 12V input. Reversing the positive and negative connections will reverse the direction of the rod.
3. **Stopping:** The actuator will automatically stop when it reaches its fully extended or fully retracted position due to the built-in limit switches. It can also be stopped at any intermediate position by cutting power.
4. **Load Management:** Ensure the load applied does not exceed the maximum push/pull capacity of 150kg. Overloading can damage the motor and internal components.

## 5. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your linear actuator:

- **Cleaning:** Keep the actuator body and rod clean and free from dust, dirt, and debris. Use a soft, dry cloth for cleaning.
- **Lubrication:** The internal components are pre-lubricated. Avoid applying external lubricants unless specifically instructed by the manufacturer, as this may attract dirt.
- **Inspection:** Periodically inspect the actuator for any signs of wear, damage, or loose connections. Check the mounting points for stability.
- **Cable Integrity:** Ensure the power cable is not frayed, cut, or damaged. Replace damaged cables immediately.

## 6. TROUBLESHOOTING

If you encounter issues with your Walfront linear actuator, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Actuator does not move	No power, incorrect wiring, motor failure, or jammed mechanism.	Check power supply (DC 12V). Verify wiring connections. Ensure no obstructions are preventing movement. If motor is unresponsive, contact support.
Actuator moves slowly	Insufficient power, excessive load, or internal friction.	Confirm power supply provides adequate current. Reduce load if it exceeds specifications. Check for any binding in the application.
Actuator stops prematurely	Overload protection triggered, or internal limit switch issue.	Reduce load. Check for obstructions. If the issue persists, the internal limit switch may be faulty.
Unusual noise during operation	Mechanical wear, foreign object, or motor issue.	Inspect for foreign objects. If noise persists, it may indicate internal wear; contact support.

## 7. SPECIFICATIONS

The following table details the technical parameters for the Walfront DC 12V Heavy Duty Electric Linear Actuator:

TECHNICAL PARAMETER	
Material:	Metal
Voltage:	DC 12V
Maximum push/pull:	Approx. 150kg/140kg
Stroke length(Optional):	Approx. 50mm / 1.97inch, 100mm / 3.94inch, 150mm / 5.91inch, 250mm / 9.84inch, 300mm / 11.81inch
No-load speed:	6mm/s
Relationship of speed and pull:	5mm/s(kg)-/ 50s(50kg)
Environment temperature:	-26°C to +50°C
Standard protection level:	IP54
Built-in stroke switch:	Yes
Color:	Silver
Weight:	723g(50mm), 846g(100mm), 947g(150mm), 1136g(250mm), 1215g(300mm)
Quantity:	1pc

Figure 7.1: Detailed technical parameters for the linear actuator.

Parameter	Value
Material	Metal

Parameter	Value
Voltage	DC 12V
Maximum Push/Pull	Approx. 150kg / 140kg (330 lbs / 308 lbs)
Stroke Length (Optional)	50mm (1.97in), 100mm (3.94in), 150mm (5.91in), 250mm (9.84in), 300mm (11.81in)
No-load Speed	6mm/s
Relationship of Speed and Pull	5mm/s (50kg)
Environment Temperature	-26°C to +50°C
Standard Protection Level	IP54
Built-in Stroke Switch	Yes
Color	Silver
Weight (approx.)	723g (50mm), 846g (100mm), 947g (150mm), 1136g (250mm), 1215g (300mm)

## 8. APPLICATIONS

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The Walfront DC 12V Heavy Duty Electric Linear Actuator is versatile and can be used in a wide range of applications, including but not limited to:

- Electric medical beds
- Electric bracket rods
- Camera stands
- Electric sofas and recliners
- Lift systems (e.g., electric lift tables)
- Industrial electric lifting systems
- Surgical beds and traction beds
- Electric booths and wheelchairs

# MANY ENVIRONMENTS, ONE MACHINE

The compact body can be flexibly used in various places, bringing convenience to your life



Electric recliner



Electric sofa



Electric bed



Electric lift table

Figure 8.1: Examples of applications including electric recliner, electric sofa, electric bed, and electric lift table.



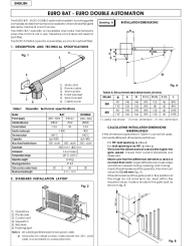
Figure 8.2: Further application examples such as adjustable beds, standing desks, and medical chairs.

## 9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact Walfront customer service through their official channels. Keep your purchase receipt or order details handy when contacting support.

For more information, visit the [Walfront Store on Amazon](#).

### Related Documents - Walfront56d2mbgqcx (Various Stroke Lengths)

 <p>Linear Actuators <b>RS PRO</b></p> <p><b>RS PRO Linear Actuators</b> RS Stock No. 177-4316</p>	<p><a href="#">RS PRO Linear Actuator FD60 - 100mm, 24V DC, 3000N   Technical Specifications</a></p> <p>Detailed technical specifications, features, and dimensions for the RS PRO FD60 Linear Actuator. Includes electrical, mechanical, and compliance information for this 24V DC, 3000N actuator.</p>
 <p><b>NEW</b></p> <p><b>H-Track</b> Electro-Hydraulic Linear Actuator Intrinsically Safe, IP68, 24V DC, 3000N</p> <p><b>THOMSON</b></p>	<p><a href="#">Thomson H-Track Electro-Hydraulic Linear Actuator: Features, Specifications, and Applications</a></p> <p>Discover the Thomson H-Track, a compact and powerful electro-hydraulic linear actuator designed for demanding environments. Learn about its superior performance, IP68 marine-grade option, maintenance-free operation, and detailed technical specifications for industrial, agricultural, and marine applications.</p>
 <p><b>推杆</b> <b>MD120</b></p> <p><b>MOTECK</b></p>	<p><a href="#">Moteck MD120 Electric Actuator: Specifications, Options, and Dimensions</a></p> <p>Comprehensive technical specifications, available options, detailed mechanical dimensions, performance characteristics, and compatibility information for the Moteck MD120 electric linear actuator. Ideal for medical, home care, and industrial applications requiring reliable linear motion.</p>
 <p><b>EURO BAT - EURO DOUBLE AUTOMATION</b></p>	<p><a href="#">EURO BAT - EURO DOUBLE AUTOMATION: Installation and Technical Manual</a></p> <p>Detailed guide for installing and maintaining EURO BAT and EURO DOUBLE automatic swing gate operators, including technical specifications, dimensions, and operational procedures.</p>
 <p><b>Spektra Halo 2</b> Crossover Machine <b>USER MANUAL</b></p> <p>2018</p>	<p><a href="#">Spektra Halo 2 Crossover Machine User Manual - FK Irons</a></p> <p>Comprehensive user manual for the FK Irons Spektra Halo 2 Crossover Machine, covering package contents, machine features, parts identification, assembly, operation, stroke adjustment, voltage recommendations, lubrication, and warranty information.</p>

