

USER AND MAINTENANCE MANUAL

Ø 45 mm and Ø55 mm tubular motors with mechanical limit switch



Dear Customer, thank you for purchasing a STAFER product. This manual describes the operations necessary for the correct installation of the V6 / VM6 / V7 / VM7 products. These tubular motors with mechanical limit switches are suitable for handling the most popular types of rolling shutters. The motor's technical specifications are shown on the label affixed to the motor tube. These devices have not been designed for round-the-clock use. Any use of the product other than what is provided herein is improper and prohibited, and involves warranty voidance and liability disclaimer by the Manufacturer. The product must be assembled and installed only by a qualified technician. At the end of installation, all the manuals accompanying the product must be delivered to the end customer, who must keep them for future reference. Visit the site www.stafer.com to view updated documents, if any.

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VIDEO TUTORIAL



Let's protect the environment

Protecting the environment is everyone's duty! STAFER uses recyclable packaging materials. Dispose of materials in proper containers, in compliance with laws in force in your location. If you are an installer and use a large number of motors, ask your dealer or the Company about receiving motors in "honeycomb pads", an environmentally friendly choice that limits clutter and waste by significantly reducing the amount of packaging materials. This product may contain substances that are polluting for the environment and dangerous to health. At the end of the product life cycle, carefully comply with the appropriate waste disposal rules. It is hazardous, and thus strictly forbidden to dispose of the product in the domestic waste.



01. TECHNICAL SPECIFICATIONS

The motor's technical features are shown on the label affixed to the motor tube. Before installing the motor, we recommend that you copy the technical data (including the full product name) and store them in a safe place. These data could be useful at the time of maintenance or technical assistance. Additional features common to the V6 / VM6 / V7 motor family.

Power supply	: 230 Vac 50 Hz	Protection grade	: Ip44	Revolving operating time	: 4 minutes
Idle consumption	: < 0,5W	Insulation class V6/VM6Rx.3	: H		
Minimum V6/VM6Rx.2 roller diameter	: 50 x 1.5	Insulation class V7Rx.3	: F		
mmMinimum V7Rx.2 roller diameter	: 60 x 1.5 mm	Maximum limit	: 28		

02. WARNINGS

02.1 Safety warnings

Incorrect installation can cause serious injuries. ● Keep these instructions for future maintenance operations and the disposal of the product. ● All the product installation, connection, and maintenance operations must be carried out only by a qualified and skilled technician, who must comply with laws, provisions and local regulations, and the instructions provided herein ● Wiring must comply with current CEI standards. In compliance with the provisions of Italian Ministerial Decree 37/2008, the final electrical system must be installed only by an electrician. ● To prevent potentially dangerous situations, regularly check the operating condition of the rolling shutter/awning.

02.2 Installation warnings

Check that the package is intact and has not been damaged during transport. ● A heavy shock and the use of unsuitable tools can cause the damage of the external or internal parts of the motor. ● Do not pierce or tamper with the motor in any way. Do not modify or replace parts without the Manufacturer's permission. ● Do not handle the motor by the power cable. If the power cable is damaged, the product cannot be used. Do not attempt to replace the power cable. ● Make sure that screws required to complete the installation do not come into contact with the motor. ● The motor must be of power adequate to the charge (check the rating plate data on the motor). ● Use coilers with a minimum thickness of 10/10. ● Leave 1-2 mm clearance on right/left on the coiler. ● Check that the drive pulley and the adapter crown are of shape and dimensions appropriate for the coiler used. Motor accessories, adapters and supports must be selected exclusively from the STAFER catalogue. ● If the product is installed at a height of less than 2.5 m from the floor or other supporting surface, it is necessary to protect the moving parts with a cover, in order to prevent accidental access. In any case, guarantee access for maintenance operations. ● The power cable must be positioned in such a way as to avoid contact with moving parts. ● The product power cable is suitable for indoor installation only. If installing outdoors, lay the cable in a protective tube. ● If there are several radio appliances in the same system, make sure they are at least 1.5m apart. ● Do not install the product near metal surfaces. ● Position the buttons in view of the rolling shutter, but away from its moving parts. Place the buttons at a height greater than 1.5 m from the floor. ● The motors are designed for residential use; they are designed for a continuous maximum work time of 4 minutes. ● During operation, the motor body reaches high temperatures: use caution. ● The motor is internally fitted with a self-restoring thermal safety device, which stops the motor in the event of overheating. The motor returns to normal operation when its temperature drops below the safety limit (normally from 10 to 15 minutes). ● The motor must be installed in such a way that it does not come into contact with liquids and, in any case, in a location protected from the elements. ● The antenna cable is subjected to mains voltage. It is forbidden and dangerous to tamper with the antenna cable. Replace the product if the antenna cable is damaged. ● For your safety, do not work near the coiler while the motor is powered.

02.3 Use warnings

The product is not intended to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or given instructions about the product way of use by a person responsible for their safety. ● Before operating the rolling shutter, make sure that people or things are not in the area affected by the movement of the rolling shutter. Check the automation during operation and keep people at a safe distance until the end of operation. ● Do not allow children to play with the appliance or with control devices. ● Do not operate the rolling shutter when maintenance operations are being carried out (e.g. window cleaning, etc.). If the control device is automatic, disconnect the motor from the power line.

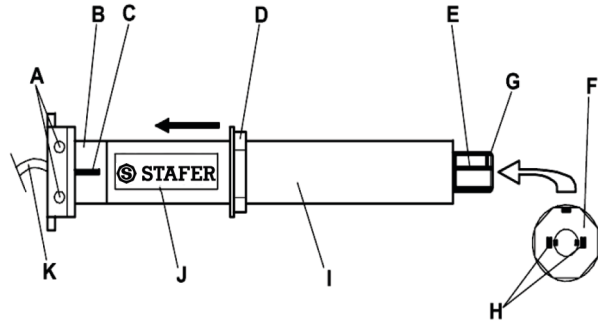


03. CAPACITY TABLES AND MOTOR COMPONENTS

V6

Model	Torque Nm	rpm	Power W
V6 15/13	15	13	125
V6 27/13	27	13	190
V6 35/13	35	13	230
V6 45/13	45	13	290

Model	Torque Nm	rpm	Power W
V6 8/17	8	17	105
V6 12/17	12	17	125
V6 22/17	22	17	190
V6 28/17	28	17	230
V6 38/17	38	17	290

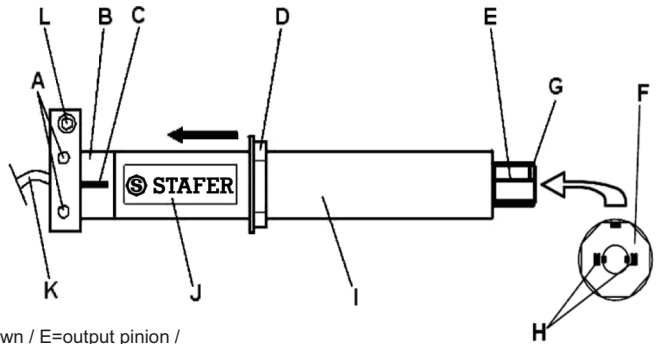


A=limit switch adjustment screws / B=base crown / C=insertion key / D=adapter crown / E=output pinion / F=drive pulley / G=coupling tooth / H=coupling clips (to remove the pulley, widen the clips and pull lightly) / I=gearmotor body / J=nameplate data / K=power cable

Vm6

Model	Torque Nm	rpm	Power W
VM6 15/13	15	13	125
VM6 27/13	27	13	190
VM6 35/13	35	13	230
VM6 45/13	45	13	290

Model	Torque Nm	rpm	Power W
VM6 8/17	8	17	105
VM6 12/17	12	17	125
VM6 22/17	22	17	190
VM6 28/17	28	17	230
VM6 38/17	38	17	290

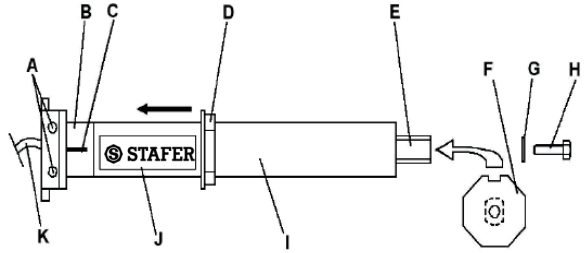


A=limit switch adjustment screws / B=base crown / C=insertion key / D=adapter crown / E=output pinion / F=drive pulley / G=coupling tooth / H=coupling clips (to remove the pulley, widen the clips and pull lightly) / I=gearmotor body / J=nameplate data / K=power cable / L=emergency operation hole

V7

Model	Torque Nm	rpm	Power W
V7 80/12	80	12	375
V7 100/12	100	12	410
V7 130/9	130	9	410

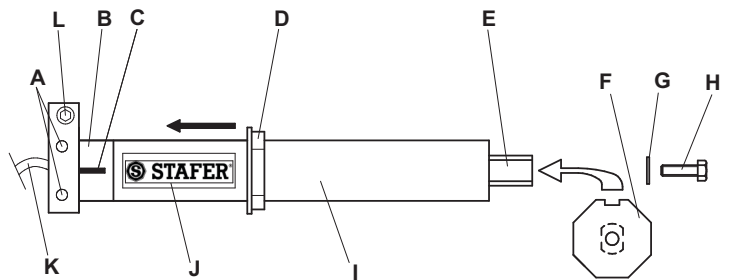
A=limit switch adjustment screws / B=base crown / C=insertion key / D=adapter crown / E=output pinion / F=drive pulley / G=washer / H=locking screw / I=gearmotor body / J=nameplate data / K=power cable



Vm7

Model	Torque Nm	rpm	Power W
VM7 80/12	80	12	375
VM7 100/12	100	12	410
VM7 130/9	130	9	410

A=limit switch adjustment screws / B=base crown / C=insertion key / D=adapter crown / E=output pinion / F=drive pulley / G=washer / H=locking screw / I=gearmotor body / J=nameplate data / K=power cable / L=emergency operation hole



04. ADAPTER ASSEMBLY

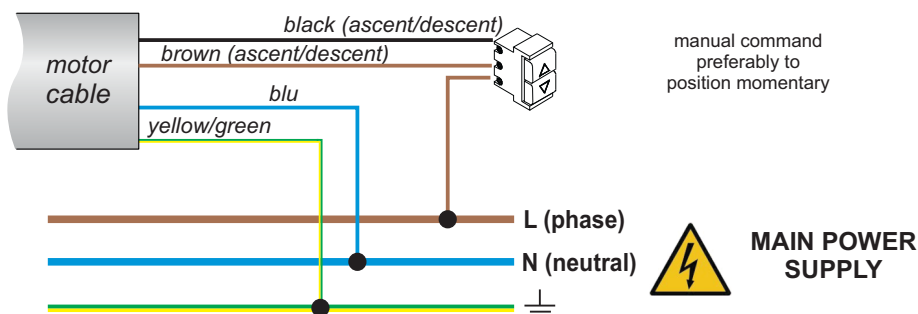
04.1 For V6 and Vm6 motors

- 1) Insert the adapter crown and, after centering the insertion key, push it to the bottom of the base crown.
- 2) Insert the drive pulley, making the clips correspond to the pinion coupling teeth, until you hear a "click".

04.2 For V7 and Vm7 motors

- 1) Insert the adapter crown and, after centering the insertion key, push it to the bottom of the base crown.
- 2) Insert the drive pulley and tighten the locking screw with a wrench.

05. ELECTRICAL CONNECTION



05.1 Warnings for the electrician

Make all connections with the power supply disconnected • Check that the power line does not feed on electrical circuits to be used for lighting • The power line must be equipped with a magnetothermal or differential circuit breaker. A category III overvoltage disconnection device must be fitted on the power supply line, i.e. at a distance of at least 3.5 mm between the contacts • The section of the connecting cables must be proportionate to their length and to the power load absorption, and, in any case, not less than 1.5 mm • The product does not provide for any protection against overloads or short circuits. Provide adequate protection for the load on the power supply line, for example a fuse with a maximum value of 3.15 A • Command buttons are connected to the main voltage, so they must be properly insulated and protected.

05.2 Power supply

The supply voltage must be applied to the BROWN (phase) and BLUE (neutral) wires. Always connect the YELLOW-GREEN wire to the earthing system. The motor's technical specifications are shown on the label affixed to the motor tube.

05.3 Command buttons

The command button must be connected as per the above wiring diagram. You must use buttons with spring return ("man present" type), do not use switches with maintained position. Multiple command buttons can be connected via a parallel connection, use special control units. The command buttons are subjected to the mains voltage and, therefore, must be adequately insulated and protected. It is forbidden to connect 2 or more motors in parallel to the same command button (only do it with appropriate control units) as current backflows may occur which compromise the micro switches of the motor, making the set limit switches null and void..

05.4 Motor connection to home automation control units

There are different types of home automation control units. Some home automation control units allow programming the closing time of the output contacts, while others do not allow it; some home automation control units measure the current absorption of the devices applied to the output contacts, while others do not; some home automation control units work with proprietary protocols, while others work with "standard" protocols (for example KNX, MODBUS, etc...). Given the range of features of different home automation control units available on the market, the motor's Manufacturer cannot know in advance whether the motor is compatible with the home automation control unit installed. The command outputs of the home automation control unit must be connected to the push-button inputs of the motor, replacing the manual command buttons. Consequently, the home automation control unit must comply with the operating rules of the command buttons.

Rules for the home automation control unit to comply with to control the motors with MAN PRESENT-operated push buttons.

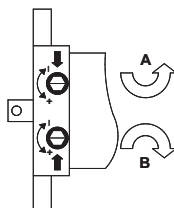
- The home automation control unit MUST NOT measure the current absorbed by the button inputs of the motor (which absorb currents lower than 1 mA).
- The home automation control unit must be connected to the motor as shown in the diagram, replacing the command buttons with the command outputs of the home automation control unit.
- To allow the completion of the entire opening/closing manoeuvre, the home automation control unit must be able to close the up/down contact for the time necessary for the motor to perform the complete opening/closing manoeuvre.
- To stop the motor, the home automation control unit must be able to re-open the up/down contacts at any time.

At the time of printing of this document, no particular problems concerning the connection between STAFER SPA products and home automation control units are known (if the above rules are complied with). In any case, STAFER shall not be liable in the event of lack of compatibility (even partial) with any home automation control unit. If the home automation control unit uses KNX or similar protocols, contact the home automation system supplier to discuss the rules listed above. It is likely that the home automation control unit manufacturer can provide adequate interfaces to connect the motor to the home automation control unit. For additional information, please contact your dealer.

06. LIMIT SWITCH ADJUSTMENT

A. the stroke is lengthened (counterclockwise)

B. the stroke is shortened (clockwise)



The limit switches are integrated in the gearmotor and limit the stroke of the blind, awning, etc. to a maximum of 28 revolutions. Their correct adjustment is necessary to ensure a perfect and long-lasting operation of both gearmotor and applied mechanism. Factory setting allows around 3 revolutions for both directions of travel.

In the case of motors with emergency operation (Mod.Vm6 / Vm7), when manual command is engaged, the limit switch positions must not be exceeded (do not open or close the shutter completely).

Blinds

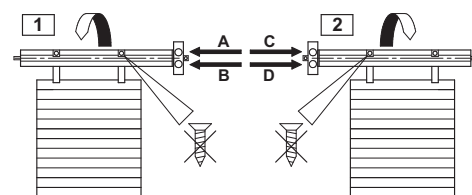
Pay attention to the moving blind and keep away until the blind is completely lowered.

Fig. 1: motor mounted on the right (viewed from the inside)

- A: high limit switch
- B: low limit switch

Fig. 2: motor mounted on the left (viewed from the inside)

- C: high limit switch
- D: low limit switch



It is forbidden to use manual bolts on blinds (where the motor is mounted).

Awning

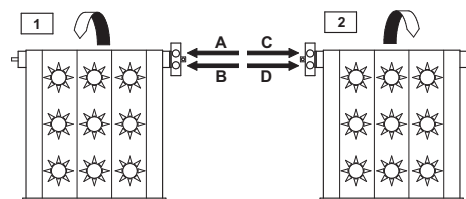
Do not operate the awning when maintenance operations are being conducted nearby, such as window cleaning. In such cases, disconnect the motor if an automatic command is present.

Fig. 1: motor mounted on the right (viewed from the outside)

- A: low limit switch
- B: high limit switch

Fig. 2: motor mounted on the left (viewed from the outside)

- C: low limit switch
- D: high limit switch



SIMPLIFIED DECLARATION OF CONFORMITY

The manufacturer STAFER s.p.a. declares that the product complies with Directives 2014/53/EU, 2014/35/EU, and 2014/30/EU.



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