



## **WAREMA external venetian blind drive**

**Type D339-G NHG**

### **Setting instructions and wiring diagram**

**For qualified technicians only**

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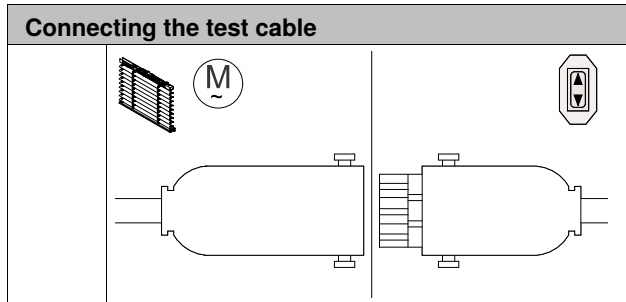
# 1 Brief instructions for trial run



Always follow Section 2.3 "Important safety instructions" on p. 4 ff.



The brief instructions are not a substitute for reading and following the full instructions. A detailed description can be found in the full instructions.



Trial run	
<b>1</b>	<p>Lower the drive to the lower limit position.</p>
<b>2</b>	<p>The drive stops automatically.</p>
<b>3</b>	<p>Raise the drive to the upper limit position.</p>
<b>4</b>	<p>The drive stops automatically.</p>
<b>5</b>	<p>The trial run is completed.</p>

## 2 Introduction

### 2.1 Information on safety

It is important to follow these instructions in the interests of personal safety. Failure to comply with these instructions when operating the product may result in personal injury and/or property damage. Failure to comply with these instructions relieves WAREMA of liability.



Warnings are marked with these symbols in the instructions.



- Read through the instructions carefully **before** use.
- Read and observe all warnings.
- Observe **all** safety and setting instruction.

### 2.2 Information on the target group and application of these instructions

#### Target group

These instructions are intended for use by qualified fitters and electricians. Knowledge of how the drive functions and how the product is operated is required. If any of these qualifications are unavailable, the work must be carried out by a specialist fitting company.

The electrical installation must be performed by a certified electrician in accordance with the electrical installation regulations published by the Association of German Electrical Engineers (VDE 0100) or the standards and regulations of the country in which the product is being installed.

#### Contents

These instructions are a part of this product and contain important information on electrically installing the motor in the external venetian blind with auxiliary motor and battery operated emergency retraction system.

#### Permissible activities

No other alterations, additions, conversions or maintenance work are to be carried out on the product other than as described in these instructions without the written approval of WAREMA.

### 2.3 Important safety information

The safety instructions and warnings described here are intended to safeguard your health as well as protect the product. The following points must be **read through** carefully.

Damage resulting from inappropriate use or the failure to observe these instructions or safety information is **not** covered by the guarantee. Liability will **not** be accepted for secondary damage.

#### Preparations

- ▶ The order of the setting steps and setting instructions must be followed and the setting procedure must always be completed to the end.
- ▶ **Danger to life** and product damage from incorrectly set limit positions! Do **not** set the upper limit position of the motor. The motor is set at the factory. It is **not** permissible to change the limit positions. The escape door could be blocked if it is impossible to raise the sun shading system.
- ▶ Risk of crushing and injury from insufficient care. Ensure that the projection area of the product is clear of people and obstacles. If necessary, disconnect the product from the automatic control and change to manual operation.
- ▶ Assign one person to monitor the operating element.
- ▶ **Danger to life** from restrictions in the escape route while working on the external venetian blind with auxiliary motor and **battery-operated emergency retraction set!** Before beginning work, inform the safety officer that the rescue route is available only to a limited extent. It must be ensured that the building can be evacuated along a different escape route.
- ▶ Product damage due to incorrect procedure! Before installation, deactivate all lines and control systems that are not needed for installation.
- ▶ Product damage! Keep the lines away from the drive and/or moving parts. Moving parts can damage the lines. The drive can heat up.

## Electrical connection

- ▶ The standards and regulations of the respective country concerning the electrical installation must be complied with (e. g. VDE 0100).
- ▶ Observe the wiring diagram. The incremental encoder may become destroyed if the equipment is connected incorrectly.
- ▶ Short circuit from overloading the power supply! Only connect the drive if the power supply corresponds to the information given on the type label.
- ▶ Connect the motor to a bus system via suitable bus actuators if necessary.
- ▶ An on-site overload current disconnecting and isolating switch to switch off the entire product must be provided.
- ▶ The line of the drive may only be replaced by the same line type as supplied by WAREMA. The drive must be replaced if this is not possible.
- ▶ Use mechanically or electrically locked switching elements with a marked zero position.
- ▶ Use switching elements with an integrated switchover delay that prevents a direct reversal of the running direction. (The minimum pause time when the direction of rotation reverses is 0.5 s.)
- ▶ Do not connect other devices or power consumers directly to the lines of the drives. The drives and the additional devices must be decoupled by means of relay controls.
- ▶ When installing the product, all motor poles must be separated from the mains or a two-pole switch with at least a 3-mm contact gap must be used.

## 2.4 Intended use

Drive type D339-G NHG is an AC drive designed for use in external sun shading systems.

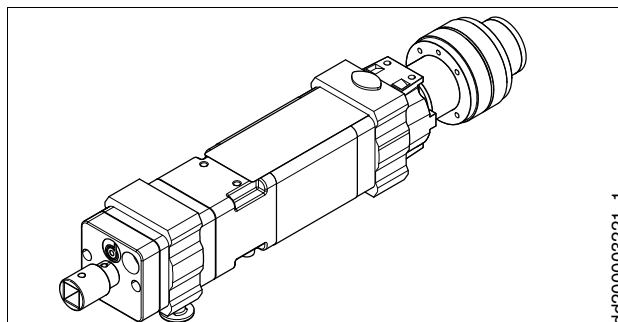


Fig. 1: Drive D339-G NHG

Drive with a laterally connected differential gearbox. This motor may only be used with the external venetian blind with auxiliary motor and battery-operated emergency retraction set. The motor also features an incremental encoder. It generates a pulse, proportional to the distance traveled, that is counted by the control unit.

The signal transducer line (type: Li2X2X-C-VI-2X 28 x 0.15 mm) of the incremental encoder is connected to the control unit via a plug-in connection (SAC-4P-5.0-28X/M12FS SH OD).

Drive with two integrated freely adjustable limit switches. The upper limit position, which is set at the factory, must **not** be changed.

### NOTE

The motor may **only** be changed at the factory.

## 3 Commissioning of the external venetian blind with motor type D339-G NHG

### NOTE

The motors are preset at the factory. It is **not** permissible to set the upper limit position.



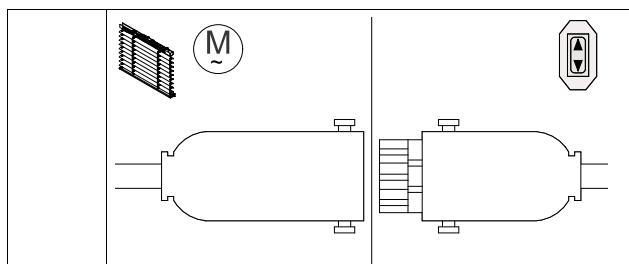
### DANGER

**Danger to life** and product damage from incorrectly set limit positions!

- Do **not** adjust the upper limit position of the motor. It is **not** permitted to change the factory setting.
- The escape door could be blocked if it becomes impossible to raise the sun shading system.

### 3.1 Connecting the test cable

- Connect the motor line with the test cable.



- Plug the power plug into the power socket.

### 3.2 Performing a trial run

	<ul style="list-style-type: none"> <li>■ Press and hold the DOWN button. The drive moves to the lower limit position.</li> </ul>
	<ul style="list-style-type: none"> <li>■ The drive stops automatically when the lower limit position is reached.</li> </ul>
	<ul style="list-style-type: none"> <li>■ Press and hold the UP button. The drive moves to the upper limit position. The product must move smoothly and without interruptions.</li> </ul>
	<ul style="list-style-type: none"> <li>■ The drive stops automatically when the upper limit position is reached.</li> </ul>

- Instruct operators in how to use the motor and the motor's special features.

## 3.3 Readjusting the lower limit position

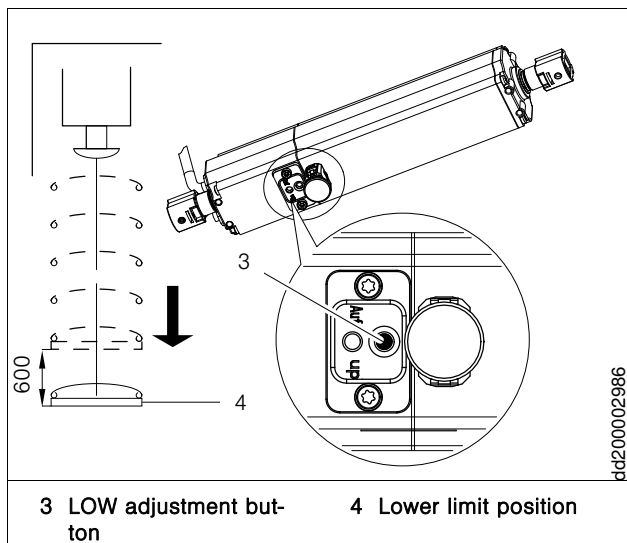


Fig. 2: Setting the lower limit position (all dimensions in mm)



### WARNING

Product damage when the bottom reversal point is overrun during adjustment! The contact switch only interrupts the drive in the UP direction of rotation.

- When pressing the LOW adjustment button for the lower limit position, do not allow the blind to pass through the bottom reversal point (depending on the lifting tape length) and move back up. If the blind hits the contact switch in this situation, the motor will not shut off and the blind could be damaged.



### WARNING

Product damage from repeated LOW command! If the LOW adjustment button on the motor is only pressed briefly, the motor loses the lower limit position setting.

- If the LOW command is issued again, the blind passes through the lower limit position and moves back up in the reverse direction. Because the contact switch does not respond to LOW, the blind could be destroyed.

### NOTE

The external venetian blind is in the retracted position when programming begins.

	<ul style="list-style-type: none"> <li>Press the DOWN button and lower the external venetian blind to at least 600 mm above the desired limit position.</li> <li>Then release the DOWN button.</li> </ul>
	<ul style="list-style-type: none"> <li>Press and hold the LOW adjustment button.</li> </ul>
<p>&gt; 600 mm</p>	<ul style="list-style-type: none"> <li>Now also press the DOWN button and move to the desired lower limit position.</li> </ul> <p><b>NOTE</b> After approx. 600 mm, the LOW adjustment button goes into lock mode.</p> <p><b>NOTE</b> Jog the button to make fine adjustments.</p>
<p>&gt; 6 s</p>	<ul style="list-style-type: none"> <li>When the final lower limit position is reached, press the UP button and raise the external venetian blind for approx. 6 s until the LOW adjustment button snaps back audibly.</li> </ul>
	<p>The procedure is completed. The lower limit position is set.</p>

## 4 Wiring diagram



Before connecting, de-energise the product and lines.

### 4.1 Wiring diagram of the plug-in connection

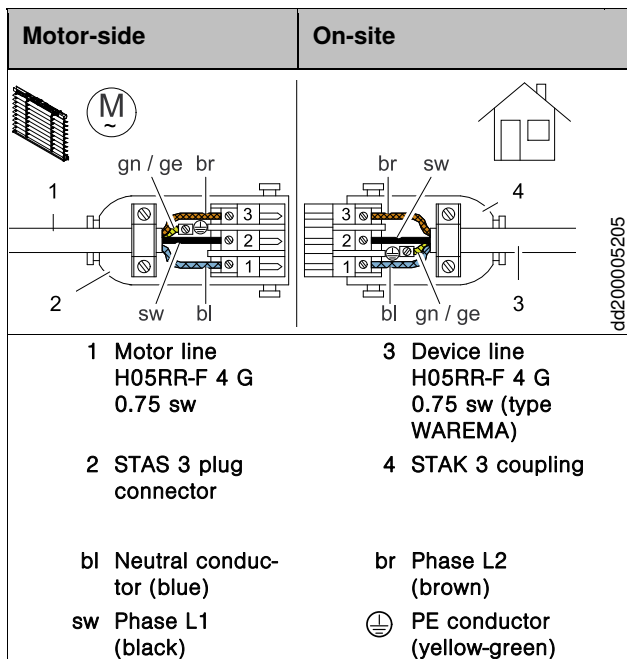


Fig. 3: Wiring diagram with plug-in connection

### 4.2 Wiring diagram of the plug-in connection for the incremental encoder

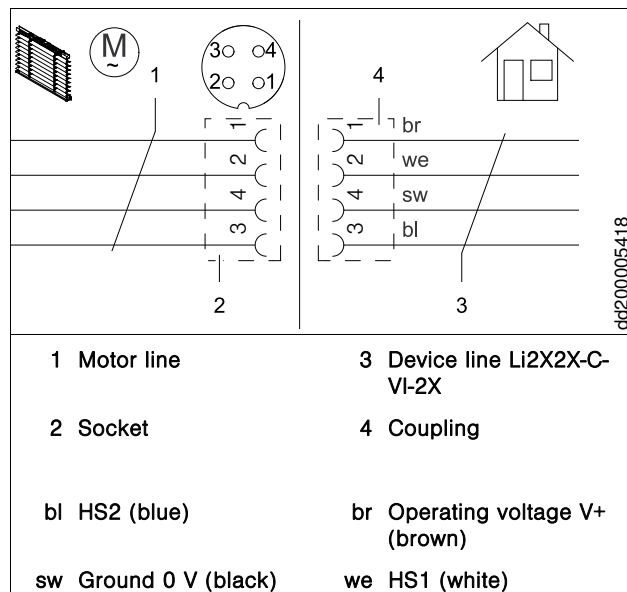


Fig. 4: Wiring diagram and contact arrangement of the plug-in connection for incremental encoder (D339-G)

## 5 Technical data

Parameter	D339-G NHG
Rated torque	9 Nm
Output speed	26 rpm
Mains voltage	230 V AC/50 Hz
Current consumption	0.57 A
Power consumption	131 W
Degree of protection	IP 54
Safety class	I
Short-term operation (S2)	4 minutes
Limit switch range	97 revolutions

Tab. 1: Technical data of drives