



USER MANUAL

KERC2206N-W

Roller Shutter and Blind Controller

Manufacturer: KONSTRUCTHOR ALL S.R.L., Str. Teleorman nr. 53A, ap. 2, 400573 Cluj-Napoca, Cluj County, Romania

Read this manual before installation and keep it. Version v3, October 2026.

Overview

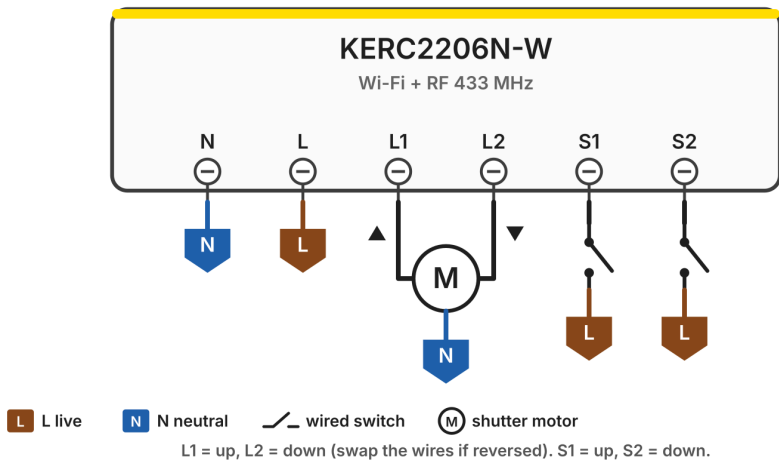
The KERC2206N-W is a mini controller for roller shutter, blind and curtain motors (two-direction, mains-powered motors). It fits in a switch box. It receives commands at 433 MHz from KINETIC ENERGY switches (wireless, battery-free), from the Tuya Smart / Smart Life app over Wi-Fi 2.4 GHz, and by voice (Amazon Alexa, Google Home). It keeps the terminals for the existing wired roller shutter switch (rocker switch or push button (momentary)).

Specifications

Parameter	KERC2206N-W
Supply voltage	100–240 V AC, 50/60 Hz
Output channels	2 (one direction of travel per channel)
Maximum current	1.7 A (inductive load)
Maximum power	374 W inductive load (at 220 V)
Service life (on/off cycles)	≥ 30 000
Communication	Wi-Fi 2.4 GHz (IEEE 802.11 b/g/n) + RF 433 MHz
Terminals	N, L, L1, L2, S1, S2
Operating range	up to 50 m outdoors; less indoors
Dimensions	44 × 44 × 22 mm

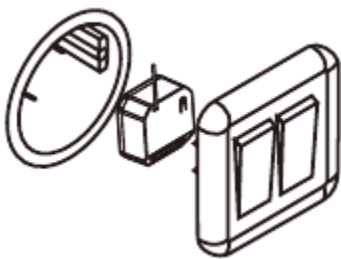
Note: The operating range is a laboratory value. In practice it depends on the building (walls, reinforcement, metal enclosures).

Connection



Wiring diagram — KERC2206N-W

- **N** — supply neutral (also connect to the motor neutral)
- **L** — supply phase
- **L1 / L2** — phase outputs to the two direction wires of the motor
- **S1 / S2** — inputs for the wired roller shutter switch (the two rockers: up / down)



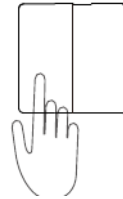
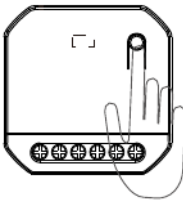
Mounting location: in the switch or socket box

Note: Connect only motors with a load within the specified limit (1.7 A / 374 W).

Pairing with KINETIC ENERGY switches

Standard pairing (from the controller button)

1. Power the controller.
2. Press and hold the pairing button for 3 seconds. The LED blinks slowly (once per second): the controller is in pairing mode.
3. Press any rocker of the KINETIC ENERGY switch once.
4. The LED goes out: pairing is complete.



Standard pairing: 3 seconds on the controller button, then one press on the switch

Controlling the roller shutter after pairing

- **2-gang switch:** the right rocker opens (raises) the roller shutter; pressing again stops the movement. The left rocker closes (lowers) the roller shutter; pressing again stops the movement.
- **3-gang switch:** the right rocker opens, the middle rocker stops, the left rocker closes.
- If you press the opposite-direction rocker during movement, the roller shutter starts in the opposite direction after one second.

Pairing from the wired switch

This method works only within the first 2 minutes after the controller is powered.

1. Power the controller.
2. Within the first 2 minutes, press the wired switch 5 times quickly, within 2 seconds. The controller enters pairing mode.
3. Press any rocker of the KINETIC ENERGY switch once.

Pairing from the app

1. Open the controller in the Tuya Smart / Smart Life app.
2. Tap "Pairing" → "Start Pairing".
3. When the app shows "waiting for pairing", press the rocker of the KINETIC ENERGY switch that you want to pair.

4. The app confirms with the message "Pairing succeeded".

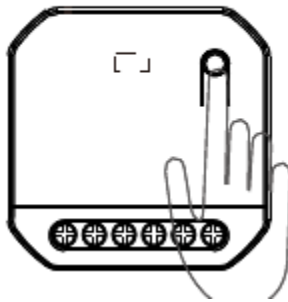
Clearing pairings with switches

From the app:

1. Tap "Pairing" → "Unpair".
2. The app confirms when clearing is complete.

From the controller button:

1. Press and hold the pairing button for approximately 12 seconds.
2. The LED blinks, stays on, then goes out. Release the button.
3. All paired switches are cleared. To pair again, follow the steps above.



Clearing: hold the button for approximately 12 seconds

Tuya Smart / Smart Life app

Adding the device in the app works only on a 2.4 GHz Wi-Fi network (5 GHz networks are not supported). Keep the phone and the controller as close as possible to the router.

1. Download the Tuya Smart or Smart Life app and create an account.
2. Power the controller. By default it enters the mode for adding the device in the app: the LED blinks twice per second.
3. Connect the phone to the 2.4 GHz Wi-Fi network.
4. In the app, tap "+" in the top right corner → "Add Device". The app detects the controller automatically. Confirm.
5. Enter the Wi-Fi network password and tap "Next".
6. Wait for the connection confirmation.

Returning the controller to the mode for adding the device in the app

If the LED does not blink twice per second, use one of these methods:

- **From the controller button:** press and hold the button for 10 seconds, until the LED stays on. Release the button. After 1–2 seconds the LED blinks quickly: the controller is in the mode for adding the device in the app. The previous association with the app is cleared.
- **From the wired switch:** press and hold the wired switch for 10 seconds. Caution: the motor starts during this procedure. Check that nothing blocks the roller shutter. The roller shutter opens for 3 seconds and closes for 3 seconds, then the controller enters the mode for adding the device in the app.

Removing the controller from the app

1. Open the controller in the app and tap the icon in the top right corner.
2. Select remove device and confirm.

Reset from the wired switch

This method works only within the first 2 minutes after the controller is powered.

1. Power the controller.
2. Within the first 2 minutes, press and hold the wired switch for 15 seconds.
3. The motor starts in the opposite direction (for example, if the roller shutter was open, it closes): the association with the app is cleared.
4. The controller enters the mode for adding the device in the app. Add it again from the app.

Voice control

A controller added in Tuya Smart / Smart Life can be controlled with Amazon Alexa or Google Home. You need the Amazon Alexa or Google Home app, an account and a compatible smart speaker.

1. In the app, give the controller an easy-to-pronounce name (for example "bedroom shutter").
2. In the Alexa app, search for the "Smart Life" skill and add it. In Google Home, search for "Smart Life" under "Works with Google" and add it.
3. Link the account with the username and password used in Tuya Smart / Smart Life.
4. Give a voice command, for example "Alexa, open bedroom shutter" or "Ok Google, close bedroom shutter".

Repeater mode (bridge)

Repeater mode (bridge) extends the range of the switches: the controller retransmits the commands it receives to controllers that are further away. The transmit power does not increase.

1. Press and hold the pairing button for 7 seconds. The LED changes from slow blinking to fast blinking (twice per second).
2. Release the button when the LED blinks quickly.
3. The LED blinks once every 2 seconds: repeater mode is active.
4. To deactivate, repeat steps 1–2.

Functions

Wired switch type

The controller detects the type of wired switch connected to S1/S2 automatically (rocker switch or push button (momentary)).

1. After powering, press the wired switch once. The controller stores its type.
2. To reset the type, disconnect the controller power, power it again and repeat step 1.

Troubleshooting

- **The controller does not respond.** Check the LED. If it does not light up at all, check the power supply.
- **Pairing does not work.** Check that the LED blinks in pairing mode. If pairing was lost after a power failure, pair again.
- **The controller does not connect to Wi-Fi.** Check that the network is 2.4 GHz and that the LED blinks twice per second. Move the phone, controller and router closer together.
- **The roller shutter moves opposite to the rocker.** With the power disconnected, swap the motor direction conductors on terminals L1 and L2.
- **The wired switch controls incorrectly.** The switch type was registered incorrectly. Reset it (see "Wired switch type").

Safety instructions

- Installation must be carried out only by a qualified electrician, with the circuit switched off at the circuit breaker.
- For indoor use in dry rooms only, installed in a wall box, false ceiling or distribution board, out of direct reach.
- Do not exceed the maximum load in the specifications. For motors, transformers or other inductive loads, check compatibility before installation.
- Do not modify the product and do not use it if it is damaged.
- The product contains a radio transmitter. Metal enclosures and metal distribution boards reduce the operating range.

Compliance and legal information

Manufacturer

KONSTRUCTHOR ALL S.R.L. · Str. Teleorman nr. 53A, ap. 2, 400573 Cluj-Napoca, Cluj County, Romania. Phone +40 765 999 915 · office@konstructhor.ro · www.kinetic-energy.eu.

Simplified EU declaration of conformity

Hereby, KONSTRUCTHOR ALL S.R.L. declares that the radio equipment type KERC2206N-W is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.kinetic-energy.ro/declaratie-de-conformitate

Frequency bands and maximum radio-frequency power transmitted

Model	Frequency band	Maximum power transmitted
KERC2206N-W	433 MHz; Wi-Fi 2.4 GHz	4.00 dBm e.r.p. (2.51 mW); 16 dBm e.i.r.p. (40 mW)

There are no geographical restrictions on putting into service in the EU Member States.

Waste electrical and electronic equipment (WEEE)



The crossed-out wheeled bin symbol means that the product must not be disposed of with household waste. At the end of its life, take it to a collection point for electrical and electronic equipment or return it to the shop where you bought it. Batteries must be taken separately to a collection point for used batteries.

Warranty

For consumers, the seller is liable for any lack of conformity that exists at delivery and becomes apparent within two years of delivery (Directive (EU) 2019/771; in Romania, Government Emergency Ordinance no. 140/2021). Defects caused solely by incorrect installation, overload, moisture or unauthorised work are not covered. Keep your invoice.

KINETIC ENERGY is a registered trademark. Up-to-date manual and declaration of conformity: www.kinetic-energy.eu. Manual version: v3, October 2026.