



USER MANUAL

KERC102-U-Tasmota

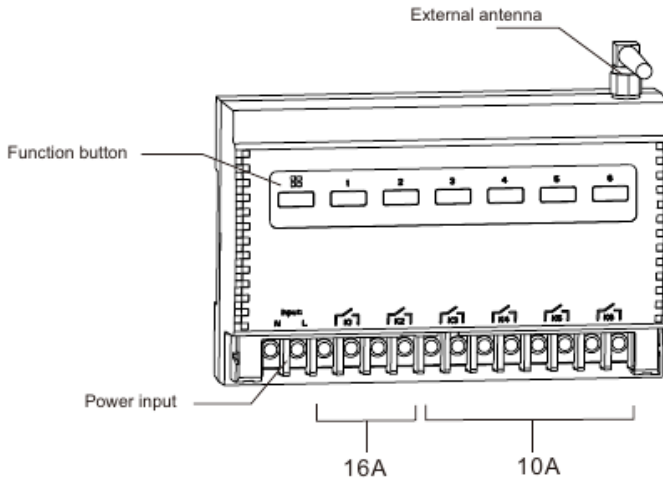
DIN Rail Controllers

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 KERC102-U-Tasmota is a 6-channel DIN rail controller with dry contact (volt-free) outputs, easy to wire centrally in the panel. You can mount it on a DIN rail or in a false-ceiling void. It is supplied from the factory with Tasmota firmware for local integration (Home Assistant, MQTT) and is controlled from KINETIC ENERGY switches (wireless, battery-free). **Do not use it with the Tuya Smart / Smart Life app.**



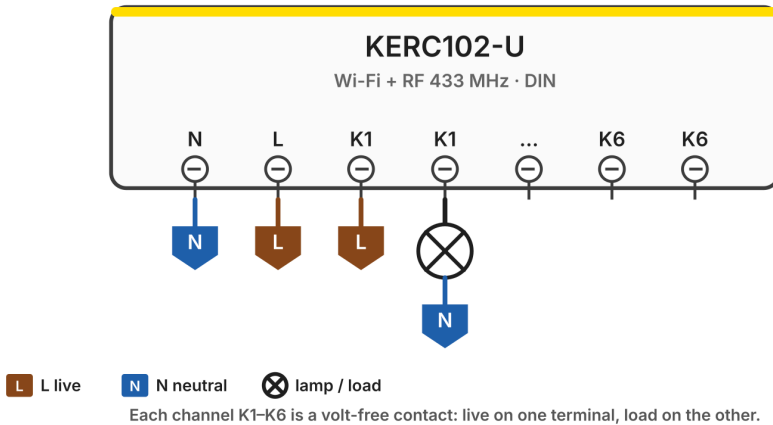
Function button, the 6 channel buttons, external antenna and terminals

Specifications

Parameter	KERC102-U-Tasmota
Supply voltage	100–240 V AC, 50/60 Hz
Number of channels	6
Output type	dry contact (volt-free)
Rated current	2 × 10 A (channels 1–2) + 4 × 5 A (channels 3–6)
Maximum power per channel	channels 1–2: LED 1100 W, resistive 2200 W; channels 3–6: LED 500 W, resistive 1000 W
Communication	RF 433 MHz + Wi-Fi 2.4 GHz (Tasmota firmware)
App	Tasmota web interface, MQTT
Inputs for wired switch	no
KINETIC ENERGY buttons stored	up to 5 per channel
Receiver sensitivity	-110 dBm
Operating range	up to 80 m outdoors / 25 m indoors
Operating temperature	-20...+55 °C
Mounting	DIN rail or false ceiling
Protection rating	–
Dimensions	126 × 80 × 34 mm

Note: Operating ranges are laboratory values. In practice they depend on the building (walls, reinforcement, metal panels).

Connection



Wiring diagram

Installation must be carried out only by a qualified electrician, with the power disconnected at the circuit breaker. Follow the L (phase) and N (neutral) symbols on the housing.

The outputs are **dry contact (volt-free)**. Each channel has two terminals and works as a volt-free relay contact: on command, the channel contact closes (the two terminals of the channel are connected together). **The controller does not supply voltage on the outputs.** The power for the load does not come from the controller supply, but from a phase that you bring to the channel input terminal.

- **Method 1:** each channel gets its own phase on the input terminal (for example, from different circuit breakers in the panel). The channel output terminal goes to the load; the load neutral goes directly to neutral.
- **Method 2:** the controller supply phase is bridged to the channel input terminals. The output terminal of each channel goes to its own load.

1. Disconnect the power at the circuit breaker.
2. Mount the controller on the DIN rail.
3. Connect phase and neutral to the supply terminals (Input N, L).
4. Connect each circuit to the terminals of its channel, using one of the two methods.
5. Observe the maximum current of each channel: 10 A for channels 1-2, 5 A for channels 3-6.
6. Position the external antenna so that metal parts of the panel do not cover it.

Pairing with KINETIC ENERGY switches

You can pair one KINETIC ENERGY switch with any number of controllers. You can pair with any rocker of a single, double or triple switch.

Standard pairing

1. Power the controller.
2. Press and hold the button of the required channel (1–6) for approximately 3 seconds, until the indicator starts to blink. Release the button.
3. Press the selected rocker of the KINETIC ENERGY switch once.
4. The indicator goes out: pairing succeeded.
5. To pair more switches on the same channel, repeat the steps. Each channel stores up to 5 rockers.

Directional pairing

Directional pairing separates switching on from switching off: one rocker switches on, the other switches off. This way, several controllers controlled by the same switch always stay in the same state. It works only with rocker switches and with 2-gang or 6-gang switches.

1. Power the controller.
2. Press and hold the channel button for approximately 3 seconds, until the indicator blinks. Release the button.
3. For a rocker switch: press once at the top and once at the bottom, within a maximum of 0.5 seconds.
4. For a switch with rockers: press any rocker 4 times quickly, within a maximum of 1 second.
5. The indicator goes out: pairing succeeded.
6. Rocker switch: press the bottom to switch on and the top to switch off. Switch with rockers: the left rocker switches off, the right rocker switches on.

Clearing pairings

1. Press and hold the channel button for approximately 10 seconds.
2. The indicator blinks, then goes out. Release the button.
3. All switches paired with that channel are cleared.

Tasmota firmware

The controller is supplied from the factory with Tasmota firmware. **It does not connect to the Tuya Smart / Smart Life app.** Configure it from the Tasmota web interface and integrate it locally over MQTT (for example, in Home Assistant). Pair it with KINETIC ENERGY switches from the channel buttons, as described in "Pairing with KINETIC ENERGY switches".

Reset to the configuration network (AP)

If the device does not show its own configuration Wi-Fi network, reset it:

1. Switch off the device power.
2. Switch the power on and off 7 times. Keep the device off for 4–5 seconds and on for 4–5 seconds in each cycle.
3. The seventh time, leave the device on.
4. After the reset, a new Wi-Fi network appears, for example "tasmota-423521".

Connecting to the Wi-Fi network

1. Connect the phone to the "tasmota-..." network. If the phone warns that the network has no internet access, choose to stay connected.
2. Open a browser and enter the address 192.168.4.1. The Tasmota configuration interface opens.
3. Select the Wi-Fi network that the controller will connect to and enter the password.
4. Reconnect the phone to the same Wi-Fi network.
5. Find the IP address assigned to the controller in the router (for example, 192.168.1.123).
6. Enter this address in the browser to open the controller web interface.

Configuring the 6 channels

1. In the web interface, open **Configuration → Configure Other**.
2. Enter the template below and save.
3. If the 6 channels do not appear after the first restart, enter the template again and save.
4. Enter the MQTT broker details, for integration with your server (for example, Home Assistant).

Template:

```
{"NAME":"KERC102T","GPIO":  
[1,1,1,1,1,0,0,1,1,1,1,0],"FLAG":0,"BASE":54,"CMND":"TuyaMCU 11,1 | TuyaMCU 12,2 |  
TuyaMCU 13,3 | TuyaMCU 14,4 | TuyaMCU 15,5 | TuyaMCU 16,6"}
```

Note: You can update the Tasmota version over the air (OTA) from <https://ota.tasmota.com/tasmota/release/>. For recovery problems and integrations, see the Tasmota documentation (Device Recovery, Integrations): <https://tasmota.github.io/docs/Integrations/>

Troubleshooting

Problem	What to do
The relay operates and the channel indicator lights up, but the load has no voltage	The outputs are dry contacts (volt-free) and do not supply voltage. Bring the phase to the channel input terminal, using method 1 or 2 in the "Connection" section.
The indicator does not light up when the button is pressed	Check the power supply and the L/N wiring. A load above the rated current or a short circuit can damage the controller.
The LED lamp glows faintly when off	Check that the phase (L), not the neutral (N), passes through the channel contact.
The controller does not appear in Tuya Smart / Smart Life	This is normal: the Tasmota version does not work with Tuya. Configure it from the Tasmota web interface.

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 KERC102-U-Tasmota 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
KERC102-U-Tasmota	433 MHz; Wi-Fi 2.4 GHz	4.00 dBm e.r.p. (2.51 mW); 18.93 dBm e.i.r.p. (78 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.