



TKBHome

## Smart energy plug in switch

SKU: TKBETZ69-G



### Quickstart

This is a **On/Off Power Switch** for **Europe**. To run this device please connect it to your mains power supply. To add this device to your network execute the following action:

Press the socket on/off button three times within 1.5 seconds will be included

### Important safety information

Please read this manual carefully. Failure to follow the recommendations in this manual may be dangerous or may violate the law. The manufacturer, importer, distributor and seller shall not be liable for any loss or damage resulting from failure to comply with the instructions in this manual or any other material. Use this equipment only for its intended purpose. Follow the disposal instructions. Do not dispose of electronic equipment or batteries in a fire or near open heat sources.

### What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section.

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to [www.z-wave.info](http://www.z-wave.info).



### Product Description

It is able to detect current wattage(5-3000W) and overload wattage(3010-3300W) of connected lights or appliances. When detecting overload state, the switch will be disabled and its on/off button will be lockout of which LED will flash quickly. However, unplug and re-connect the switch will reset its overload condition to normal status.

### Prepare for Installation / Reset

Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state**. Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

#### Reset to factory default

This device also allows to be reset without any involvement of a Z-Wave controller. This procedure should only be used when the primary controller is inoperable.

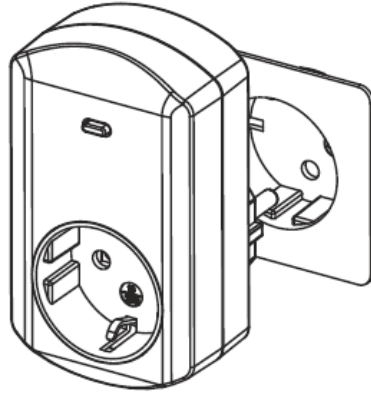
1. To reset, press the socket on/off button three times within 1.5 seconds
2. then the fourth time, press and hold for seconds until the socket LED is off
3. the socket reset successfully Use the "Reset" procedure only in the event that the network primary controller is missing or otherwise inoperable

#### Safety Warning for Mains Powered Devices

**ATTENTION:** only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

### Installation

Plug this On/OFF Switch into a wall outlet.



## Germany type TZ69G

### Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

#### Inclusion

Press the socket on/off button three times within 1.5 seconds will be included

#### Exclusion

Press the socket on/off button three times within 1.5 seconds will be excluded

### Product Usage

#### LED Indication

To distinguish what mode the switch is in, view from the LED for identification

State Type	LED Indication
Normal	Under normal operation, toggle On/Off button between On and Off. When pressing On, LED lights up, whereas Off, LED is off.
No node ID	Under normal operation, when the Switch has not been allocated a node ID, the LED flashes on and off alternately at 1-second intervals. By pressing On/Off button, it will stop flashing temporarily. However, after unplugging and reconnecting the Switch, the LED will flash on and off alternately at 1-second intervals.
Overload	When overload state occurs, the Switch is disabled of which LED flashes on and off alternately at 0.5 second intervals. Overload state can be cleared by unplugging and reconnecting the Switch to the wall outlet.

#### Choosing a Suitable Location

1. Do not locate the switch facing direct sunlight, humid or dusty place.
2. The suitable ambient temperature for the switch is 0-40°C
3. Do not locate the switch where exists combustible substances or any source of heat, e.g. fires, radiators, boiler ect.
4. After putting into use, the body of switch will become a little bit hot of which phenomenon is normal.

### Quick trouble shooting

Here are a few hints for network installation if things don't work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Don't poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

### Association - one device controls another device

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are always related to certain events (e.g. button pressed, sensor triggers, ...). In case the event happens all devices stored in the respective association group will receive the same wireless command wireless command, typically a 'Basic Set' Command.

#### Association Groups:

Group Number	Maximum Nodes	Description
1	5	Lifeline

## Configuration Parameters

Z-Wave products are supposed to work out of the box after inclusion, however certain configuration can adapt the function better to user needs or unlock further enhanced features.

**IMPORTANT:** Controllers may only allow configuring signed values. In order to set values in the range 128 ... 255 the value sent in the application shall be the desired value minus 256. For example: To set a parameter to 200 it may be needed to set a value of 200 minus 256 = minus 56. In case of a two byte value the same logic applies: Values greater than 32768 may needed to be given as negative values too.

### Parameter 1: Change the state of indicator light

Size: 1 Byte, Default Value: 0

Setting	Description
0	On -> LED ON
1	Off -> LED ON

### Parameter 2: Memory function

Size: 1 Byte, Default Value: 0

Setting	Description
0	Disable
1	Enable

### Parameter 3: Watt Meter Report Period

If the setting configured for 1 hour (set value = 720), the TZ69 will report its instant power consumption every 1 hour to Z-Wave Controller. The maximum interval to report its instand power consumption is 45 hours.

Size: 2 Byte, Default Value: 720

Setting	Description
1 - 32767	Time in 5 second steps

### Parameter 4: KWH Meter Report Period

If the setting configured for 1 hour (set value = 6), the TZ69 will report its accumulated power consumption every 1 hour to Z-Wave Controller. The maximum interval to report its instand power consumption is 227,55 Days.

Size: 2 Byte, Default Value: 6

Setting	Description
1 - 32767	Time in 10 minutes steps

### Parameter 5: Threshold of Watt for Load Caution

In the above form, when the value is 3000, if Relay 1 load by below 3000 watt turned into more than 3000 watt, will immediately send the instantaneous load w value to Group 1.

Size: 2 Byte, Default Value: 3000

Setting	Description
10 - 3000	Threshold Watt

### Parameter 6: Thresold of KWH for Load Caution

In the above form, when the value is 10000, if Relay 1 load by below 3000 watt, when the accumulation of Relay 1 consumed power more than 10000 KWH, will immediately send the accumulation of current consumed power to Group 1.

Size: 2 Byte, Default Value: 10000

Setting	Description
1 - 10000	Thresold in KWH

## Technical Data

<b>Hardware Platform</b>	ZM5202
<b>IP Class</b>	IP 20
<b>Voltage</b>	230V
<b>Load</b>	3000 W
<b>Device Type</b>	On/Off Power Switch
<b>Network Operation</b>	Always On Slave
<b>Firmware Version</b>	01
<b>Z-Wave Version</b>	6.51.06
<b>Certification ID</b>	ZC10-16010014
<b>Z-Wave Product Id</b>	0x0118.0x0004.0x0002
<b>Frequency</b>	Europe - 868,4 Mhz
<b>Maximum transmission power</b>	5 mW

## Supported Command Classes

- Switch All
- Association
- Association Group Information
- Basic
- Configuration
- Device Reset Locally
- Firmware Update Md V2
- Manufacturer Specific
- Meter
- Proprietary
- Switch Binary
- Version
- Zwaveplus Info

## Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.
- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of adding new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **WakeUp Notification** — is a special wireless message issued by a Z-Wave device to announces that is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.

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