

16A Switch & Power Meter LoRaWAN®

Mounting instructions

User and safety guide

MClimate 16A Switch & Power Meter LoRaWAN

SKU: MC-LW-16ASPM-01

Safety information

For safe and proper use, read this guide, and any other documents accompanying this product. Keep them for future reference. Failure to follow the installation procedures can lead to malfunction, danger to health and life, violation of law, and/or refusal of legal and commercial guarantees (if any). MClimate Jsc is not responsible for any loss or damage in case of incorrect installation or improper operation of this device due to failure to follow the user, safety and mounting instructions in this guide.



WARNING! Risk of electric shock. Installation of the device to the power grid must be performed carefully by a qualified electrician.



WARNING! Before installing the device, turn the circuit breakers off. Use suitable test device to make sure there is no voltage on the wires you want to connect. When you are sure that there is no voltage, proceed to the installation.



WARNING! Before making any changes on the connections, ensure there is no voltage present at the device terminals.



CAUTION! Connect the device only to a power grid and appliances that comply with all applicable regulations. A short circuit in the power grid or any appliance connected to the device can cause fire, property damage or electric shock.



CAUTION! The device may be connected to and control only electric circuits that comply with the applicable standards and safety norms.



WARNING! Do not connect the device to appliances that exceed the specified maximum electric load.



CAUTION! Connect the device only in the way shown in these instructions. Any other method could cause damage and/or injury.



CAUTION! The device and the appliance connected to it must be secured with a cable protection switch in accordance with EN60898-1 (tripping characteristics B or C, max 16A rated current, min. 6kA interrupting rating, energy limiting class 3).



CAUTION! Do not use the device if it shows any signs of damage or defect.



CAUTION! Do not attempt to repair the device yourself.



CAUTION! The device is intended for indoor use only.



CAUTION! Keep the device away from dirt and moisture.

Installation instructions

1



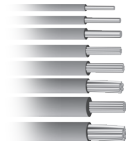
Make sure circuit breaker(s) are OFF and there is no voltage at the wires.

2



To connect the device, we recommend using solid single-core wires or stranded wires with ferrules. The wires should have insulation with increased heat resistance, not less than PVC T105°C (221 °F)

3



When connecting wires to the device terminals, consider the specified conductor cross-section and stripped length. Selection of the cross-section should be done in compliance with the local laws and requirements based on the load you want to control.

4



Do not connect multiple wires to into a single terminal!

5

If you are using 110-240VAC power supply:

a.

Connect the load circuit to the Lout terminal of the device.



b.

Connect the Live wire to the L terminal of the device.



c.

Connect the Neutral wire to an N terminal of the device and the Neutral wire of the load circuit to another N terminal of the device.



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LoRaWAN EUB68 Class C
868-870MHz, 14dBm (25mW)
Manufacturer: MClimate Jsc
T. Shose 111,
Sofia 1784, Bulgaria

Once the device is supplied with power, it'll show a LED state described in the Installation Manual, page 5.

Useful information

1. If the conductors are solid-core wires:

1. First bend the cables and choose a position of the device. Then mount the wires to the terminals.
2. Do not try to bend the cables once wired to the device, as this may damage the terminals.

2. Using 2.5mm² solid-core or stranded wires with ferrules at 16A, with ambient temperature of below 85 degrees C, the device should report a working temperature close to 85 degrees C.

3. The device has an overheating protection at 95 degrees. During normal condition and with appropriate and well-done wiring, it shouldn't exceed this temperature unless the ambient temperature exceeds 40 degrees. If this protection is activated, we highly recommend you to review the wiring and make sure the connections are secure.

Technical information

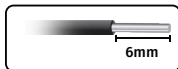
1. Conductor cross-section:

1. Solid Wire Section (AWG): 12 to 30 (AWG)
2. Solid Wire Section (Metric): 0.5 to 4 mm²
3. Stranded Wire Section (AWG): 12 to 30 (AWG)
4. Stranded Wire Section (Metric): 0.5 to 2.5mm²

2. Terminal screw max tightening force:

1. VDE: 0.4N-m
2. UL: 3.5lb-in

3. Wire Strip Length: 6mm



Recommended conductor properties:

1. The following properties are recommendations only and if local laws require higher conductor properties, the recommendations should not be considered.
2. At 110-240VAC

Max. current of the appliance	Wire type	Wire cross-section
11A - 16A	Solid-Core wires 2.5mm	min 2.5mm ²
7A - 10A	Stranded with ferrules or solid-core	min 1.5mm ²
5A - 6A	Stranded with ferrules or solid-core	min 1.0mm ²
Below 4A	Stranded with ferrules or solid-core	min 0.5mm ²



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