Bridge Energy Control with energy meter

Powering Business Worldwide

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- For additional languages and information about xComfort, visit www.eaton.com/bridgeenergycontrol or use the QR-code.
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Content overview

1.ENERGY METER PACKAGE

Bridge Energy Control extends the possibilities of your xComfort Bridge installations beyond classic control of lights, shading, indoor climate and loads by introducing load control based on electricity tariffs and monitoring of your home's total energy consumption through energy meters and xComfort actuators.

What is in the box?

16 A heating actuator
CHAU-01/01-16E

Room Controller Touch, complete, White, CPAD-00/198

xComfort Bridge
CBCA-00/01

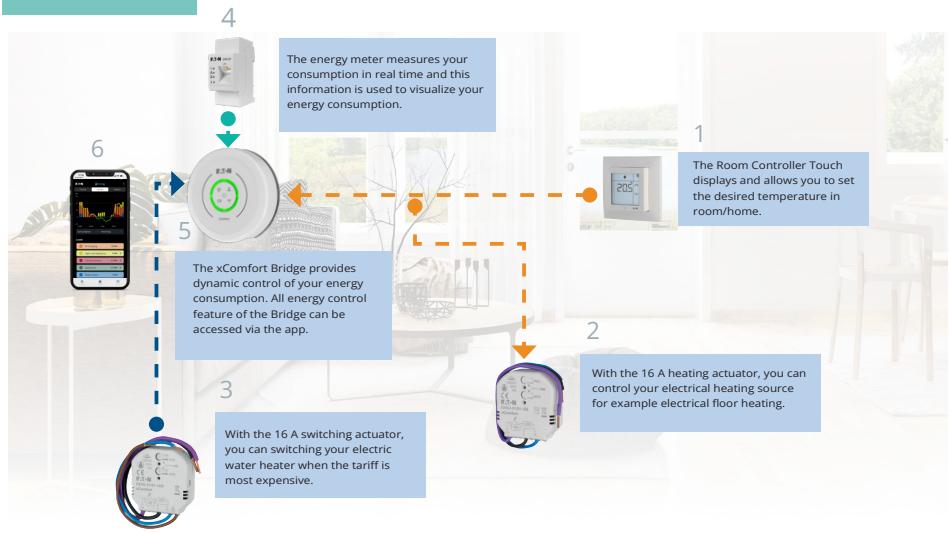
3-phase energy meter
EMD3P-CT63

16 A switching actuator
CSAU-01/01-16IE

Control the energy based on the tariffs by

- Montoring the grid and home energy consumption
- Controlling your electrical loads
- Controlling your heating
- Reading the tariffs

2.INSTALLATION



	Installation instructions	Used for
1. Room Controller Touch	For installation see IL	Controlling your heating
2. 16 A heating actuator	For installation see IL	Controlling your heating
3. 16 A switching actuator	For installation see IL	Switching your electrical loads
4. Energy Meter	For installation see IL and for used in IT network also Appendix A	Monitoring the grid energy consumption
5. xComfort Bridge	For installation see IL	Dynamic control of your energy consumption
6. Bridge App (iOS or Android)	To download app scan QR code	Visualization of your energy consumption

IOS

Android

3. ADDING DEVICES IN THE BRIDGE

To add devices 1, 2 and 3 to the Bridge follow these steps or scan QR code to watch video **How to connect the xComfort Actuators & Sensors to the xComfort Bridge?**

After adding a device, finalize its setup by performing the following actions:

Name the device: Give it a unique name for easy identification. (1, 2 and 3)

Assign a room: Specify the room where the device is located. (1, 2 and 3)

Configure the device type: The devices should be configured with any of the following usage type when used in energy control.

16 A Switching actuator CSAU-01/01-16IE (3)

- Water heater, vehicle charger or high load appliances depending on the application.
- Appliance when only energy monitoring is needed.

16 A Heating actuator CHAU-01/01-16E (2)

- Heating, cooling or heating and cooling and cooling device type depending on the application.
- Finalize settings: Adjust its settings according to its functionalities and save.

4. SETTING UP ENERGY MONITORING AND CONTROL IN THE BRIDGE

4.1 Setting up monitoring of the Grid

Once have installed your chosen metering device, it will need to be set up in the Bridge.

Step 1: Navigate to the "**Configure**" menu and select "**Energy Monitoring & Control**".
Step 2: In the **integration section** select "**Energy Meters**" then select "**Setup Energy Meter**" if your meter is on the same Local Area Network (LAN) as the Bridge, it should be automatically discovered.

4.2 Setting up monitoring of your home energy consumption

To monitor individual loads in your home, the following steps are required.

Step 1: Navigate to the "**Configure**" menu and select "**Energy Monitoring & Control**.
Step 2: Select the devices and rooms you want to monitor. This includes options such as climate function,water heating, vehicle charger, high-load appliance, appliance, and main meter.
Step 3: To customize the three elements **(Combined Electric Energy, Combined Active Power,** and **Combined Costs)** on the current page, navigate to "**Quick View Settings**" and select a defined time range (last hour, today, current week, month, or year)

4.3 Setting up your tariff

To control the energy use based on the tariff, the applicable tariffs needs to be configured

Step 1: Navigate to the "**Configure**" menu and select "**Energy Monitoring & Control**".
Step 2: Choose "**Tariff Settings**".

For more information refer to the Bridge help in the app.
By doing this, you can ensure that your defined loads are switched off when the tariffs are at their highest, thus using energy only when it's most affordable. Do not forget to save your settings after each step.

For more information on your tariff markup, please contact your energy provider.

4.4 Setting up control of your electrical loads

You can control various electrical loads such as your water heater/boiler, electric vehicle charger, and other high-load appliances. By selecting these options, you can ensure that these loads respond dynamically to changes in the tariff, helping you to save energy and reduce costs.

Step 1: Open the "**Configure**" menu.
Step 2: Choose "**Energy Monitoring & Control**".
Step 3: In the "**Controlled Loads**" section, select the loads you wish to control.

4.5 Setting up control of your heating

You can control your home's heating based on predefined setpoints for heating modes. When the tariff is high, the heating switches to eco mode. Conversely, when the tariff is low, it switches to comfort mode for optimal warmth. This allows you to manage your energy costs without compromising comfort.

Step 1: Open the "**Configure**" menu and select "**Climate function**".
Step 2: Choose the room you wish to control.
Step 3: Adjust the setpoints according to your preference.
Step 4: Return to the "**Configure**" menu and choose "**Energy Monitoring & Control**".
Step 5: Under the "**Controlled Loads**" section, select the rooms for control.

4.6 Setting up push notifications for maximum power consumption (kWh)

To get notified when your consumption exceeds a threshold, use the smart scene feature.

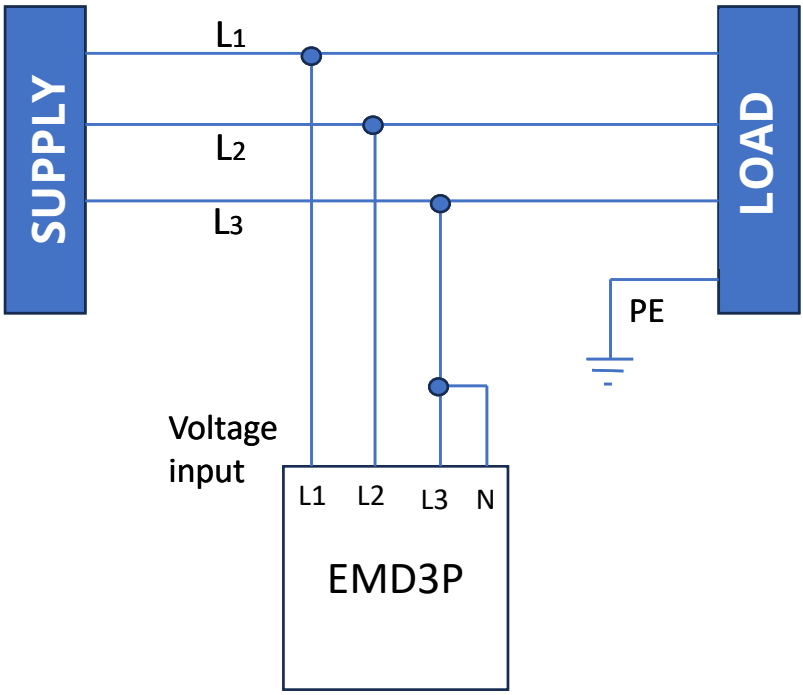
Step 1: Open the "**Configure**" menu and select "**Scenes**".
Step 2: Select the "**+**" to create a new scene.
Step 3: Name the scene and select "**Is a smart scene**"
Step 4: For condition type, select "**Power value**" and then choose "**main meter**" under Device / Energy meter.
Step 5: Set the operation condition to "**Greater Than**", **Device / Energy Meter to "Fixed**", and power value usage to "**Power consumption**"
Step 6: Enter the desired value, e.g., 10000 W, and save. (It's advisable to set this 10% lower than your desired maximum and a minimum time of 1 minute to avoid frequent push notifications.)
Step 7: In Triggered Devices and Actions, select the "**+**" to add a new action, choose "**Push notification**" from the list, edit it, change the type to "**Custom Push Note**," and define the title and text.

APPENDIX

Correct voltage input wiring of EMD3P in an IT network

- Power supply of the EMD3P is done via L1/N
- UL1L2 =UL2L3=UL3L1= 230 V / 240 V
- Ptotal = UL1L3 x IL1+ UL2L3 x IL2
- The total power over all phases is measured correctly
- All displayed voltages are phase-phase-voltages*
- Voltage & Current at L3 are always 0*
- Loss/drop of voltage at L3 can cause L1/L2 voltage to fall below thresholds. Then all voltages/ currents/power values are displayed to be 0
- The measured power values per phase are not the “real” power values*
- As L3 voltage is not measured the measured values are only correct if there are no leakage currents (IL1+IL2=IL3=0)

Note: *) not relevant for the Energy display in the xComfort



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