

Description

The central unit for load management is an SCS device that measures the power consumed by the electric system and controls the state of the Load Management system actuators, to prevent the risk of the electric meter tripping. The device can manage up to 63 actuators (electric loads) per phase.

The central unit is also capable of processing and saving currents and voltages, to provide information on energy and power:

- instantaneous power in W;
- total accumulated energy in Wh;

The device has an internal memory that can store:

- cumulative energy on an hourly basis for the last 12 months;
- cumulative energy on a daily basis for the past 2 years;
- cumulative energy on a monthly basis for the last 12 years.

This information is then made available on the user interfaces, and is displayed through instantaneous values, totalizers and graphs.

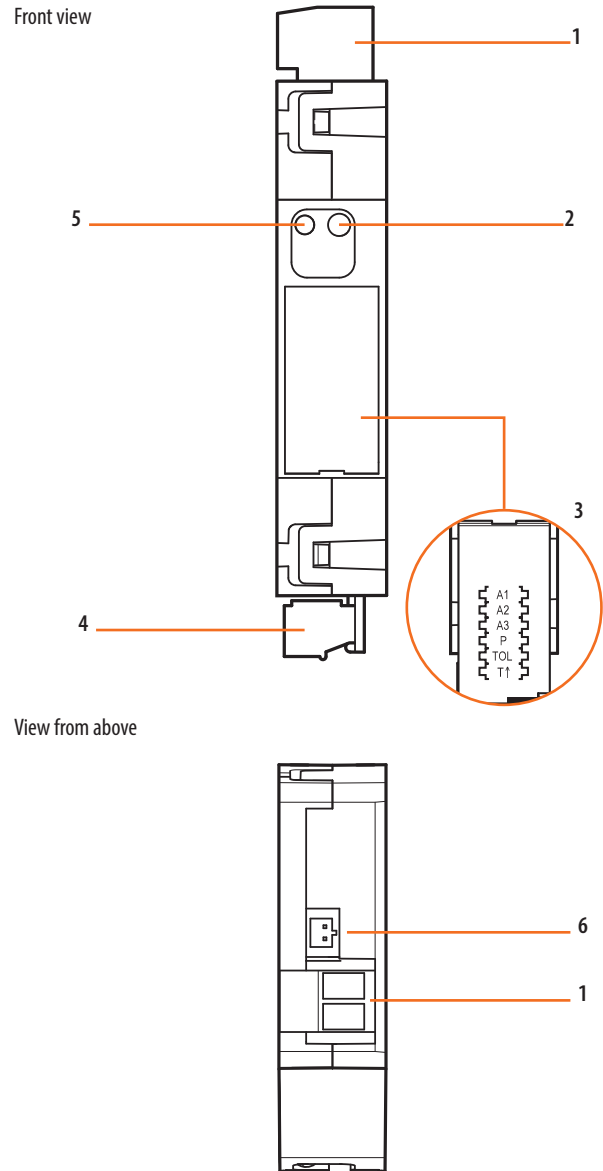
In order to allow the central unit to archive consumption information, the system must be fitted with a device capable of supplying current date and time information (e.g. Touch Screen). If this information is not available, the meter will be unable to archive the data, and will continue calculating the values of the instantaneous variables (power). The device has a footprint of 1 DIN module and has a housing for 6 configurators: A1, A2, A3, P, TOL, T ↑.

Technical data

Operating power supply with SCS BUS:	18 – 27 Vdc
Current draw:	28 mA max
Rated current:	16 A
Maximum current:	90 A
Operating temperature:	0 – 40°C

Dimensions

1 DIN module



Legend

1. 230 Vac connection
2. Pushbutton for the start procedure and deletion of cumulative energy data
3. Configurator socket door
4. SCS/BUS connection
5. User interface LED, SEE TABLE
6. Toroid connection, Art.3523

Configuration

If the device is installed in a MyHOME system it can be configured in two ways:
 - PHYSICAL CONFIGURATION, inserting the configurators in position.
 - Configuration via MyHOME_Suite software package, downloadable from www.homesystems-legrandgroup.com; this mode has the advantage of offering many more options than the physical configuration.
 For a list of the procedures and their meanings, please refer to the instructions in this sheet and to the "Function Descriptions" help section in the MyHOME_Suite software package.

The load control central unit has a bay for 6 configurators, which define:
 - A1/A2/A3 address of the central unit (A1 for hundreds, A2 for tens, A3 for units); The maximum number of addresses is 127.
 - P contractual power (Pnom)
 - TOL Tolerance on the contractual power
 - T ↑ Direction of the toroid

1.1 Addressing

	Virtual configuration (MyHOME_Suite)	Physical configuration
Address	0-127	A1, A2, A3: 1-127

1.2 Contractual power

Function	Virtual configuration (MyHOME_Suite) Parameter / setting	Physical configuration		
		P	Contractual power P _{NOM} (kW)	Approximate value in Amperes at 230 Vac ^{*)}
Contractual power (Pnom)	100 W - 25500 W (steps of 100)	0	3	13
		1	1.5	6.5
		2	4.5	20
		3	6	26
		4	9	40
		5	10.5	46.5
		6	12	52
		7	14	61
		8	15	65
		9	18	78

To configure the measured phase, use MyHOME_Suite virtual configuration

NOTE (*): The reference value for the load control thresholds is that of the contractual power in kW. The Ampere value can be used as a general indication to help the installer in those cases when the service provider supplies the current information.

1.3 Contractual power tolerance

Function	Virtual configuration (MyHOME_Suite) Parameter / setting	Physical configuration	
		TOL	Tolerance
Contractual power tolerance	From -20% to +20% (steps of 1%)	0	0
		1	-5%
		2	-10%
		3	-15%
		4	-20%
		5	5%
		6	10%
		7	15%
		8	20%

1.4 Direction of the toroid

	Virtual configuration (MyHOME_Suite)	Physical configuration
Direction of the toroid	0 – Power and energy measurement independent of the toroid mounting direction	0
	1 – Mono-directional power and energy measurement depending on the toroid mounting direction. Refer to the mounting diagrams for the various applications	1

Load control actuators acquisition

Once the installation stage has been completed, the central unit must acquire the actuators on the bus; unless this operation is carried out, the device will continue signalling lack of information (steady orange LED), and no load control function will be carried out.

The procedure for the acquisition of the actuators on the BUS is as follows:

1. Press and hold down the button; after about 10 seconds, the red LED will light up; release the button.
2. The red LED flashes quickly and the central unit interrogates the system to identify the actuators installed.
3. Once the procedure has been completed, if no actuators have been found the acquisition failed notification remains active (orange LED on steady), otherwise the LED

turns green, and the central unit starts operating correctly.

The procedure for the acquisition is inhibited if the central unit is not installed correctly (voltage on the bus too low, or no 230V), or if an overload is present; it is therefore only possible to complete the acquisition procedure if the LED is steady orange (installation correct but no actuator acquired), or steady green (system already configured and actuators acquired).

If the supply voltage is insufficient (below approximately 21V), the central unit will cause the green LED to flash to signal the installation error: the device will work properly, but will not guarantee correct saving and recovery of data in case of BUS failure.

Procedure for the deletion of the cumulative energy data:

1. Press and hold down the button; after about 10 seconds, the red LED will light up; keep on holding down the button.

2. After another 10 seconds, the orange LED will flash quickly; release the button.

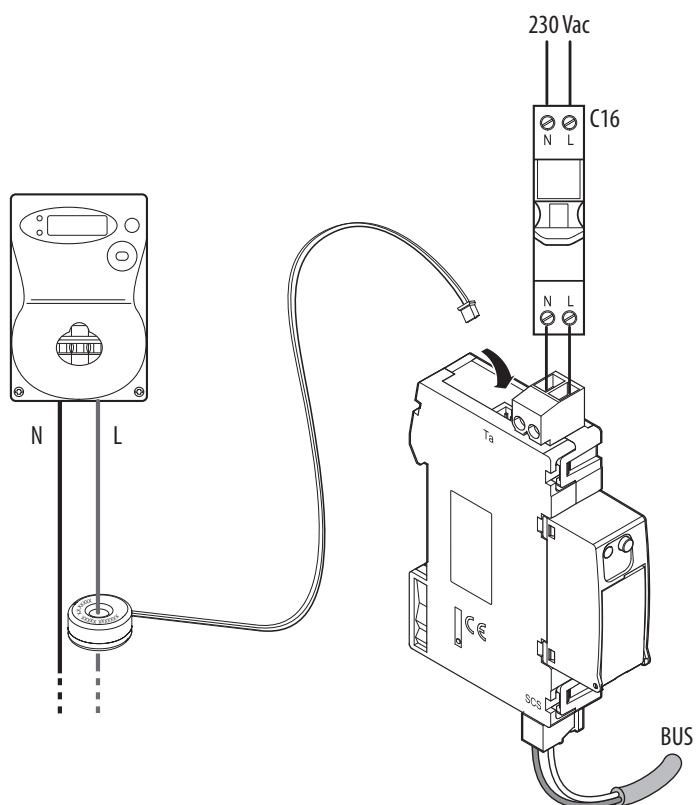
3. All the cumulative energy data are reset.

LED signals according to the status of the load control central unit:

Device status	LED
Normal operation (below threshold with all loads enabled)	GREEN
Current threshold exceeded	RED
System not acquired	ORANGE
Current system acquisition	Flashing RED 100 ms/100 ms
BUS problem (BUS voltage insufficient, or voltage drop detected)	Flashing GREEN 500 ms/500 ms
Installation error (230 Vac not detected)	Flashing RED 100 ms/900 ms
Configuration error	ORANGE flashing irregularly on GREEN
Not configured	ORANGE flashing 128 ms/128 ms on GREEN

Wiring diagrams

Load control central unit connection



NOTE: The toroid must be installed with the pad-printed part with the product code facing the counter.