

Description

The load control unit is an SCS device that measures the power consumed by the electrical system and controls the status of the actuators of the Load Management System, to prevent the risk of disconnection of the electricity meter. The device can manage up to 63 actuators (electrical loads) per phase.

The control unit is also capable of processing and storing currents and voltages, to provide energy and power information:

- instantaneous power in W;
- total energy stored in Wh.

The device has an internal memory that allows to store:

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

This data is then made available on user interfaces and the Home + Control app, and displayed through instantaneous values, totalisers and charts.

In order for the central unit to store consumption information, there must be a device in the system capable of providing current date and time information (e.g. touch screen or server). In the absence of this information, the meter does not save any data but continues to calculate the values of the instantaneous variables (power).

The size of the device is 1 DIN module, with sockets for 6 configurators: A1, A2, A3, P, TOL, T↑.

NOTE: The Energy Meter & Load Control function is available and supported only by MyHOME F460, F461 and Classe300EOS servers.

In case of existing installations with the MHS1 server, it is possible to guarantee the system upgrade and functional extension through the backup & restore function directly from H+P, without having to reconfigure the system from scratch.

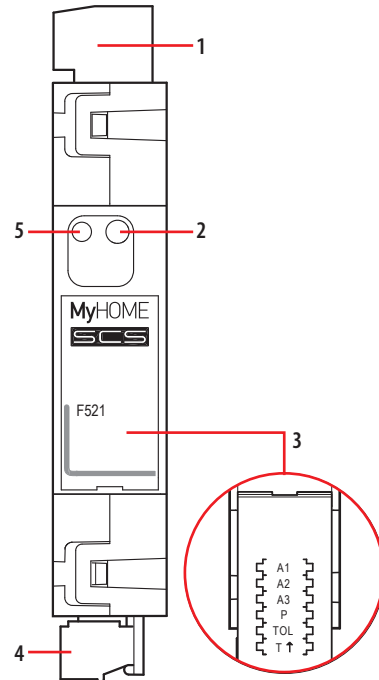
Technical data

Primary input / Voltage:	110 – 240 Vac
Operating frequency:	50 / 60 Hz
Operating power supply with SCS BUS:	18 – 27 Vdc
Absorption:	28 mA max
Operating temperature:	0 – 40 °C
Max measured current:	90 A
Rated current:	16 A

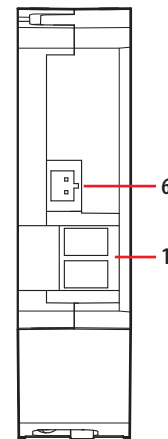
Dimensional data

Size: 1 DIN module.

Front view



Top view



Legend

1. Primary clamp
2. Multifunction pushbutton
 - Acquisition of load control actuators: press and hold until the red LED comes on
 - Erasing of cumulative energy data: press and hold the button until the orange LED starts flashing
 - Identification in Home+Project: press briefly when prompted by the App
3. Configurator socket
4. BUS SCS clamp
5. Notification LED
6. Toroid connector supplied

Configuration

When installed in a MyHOME system, the device can be configured directly from Home + Project following the App flow, making the process much more simple and immediate. For device configuration and installation and for any other information, refer to the App or documentation that can be downloaded from the website:



www.homesystems-legrandgroup.com

Download App



Home + Project

•ANDROID: it requires Android 5.0 or later with access to Google Play



•iOS: it requires an iPhone running iOS 12.0 or later



In addition, however, the following will continue to be guaranteed:

- The PHYSICAL CONFIGURATION, by connecting the configurators to the appropriate sockets (*).
- The configuration using the MyHOME_Suite software, which can be downloaded from the website www.homesystems-legrandgroup.com; this last type of configuration has the advantage of offering many more options when compared with the physical configuration (*).

For the list of modes and the corresponding meanings refer to the indications of this data sheet, and to the "Function description" section of the MyHOME_Suite software.

(*)

The central unit for load management has sockets for 6 configurators that define:

- A1/A2/A3 central unit address (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 (step 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 the MyHOME_Suite virtual configuration.

NOTE (*): The reference value for the load control thresholds is the contract power in kW. The Amperes value can be used as a rough indication to guide the installer in those cases when the service provider provides current indications.

1.3 Tolerance on the contractual power

Virtual configuration (MyHOME_Suite)		Physical configuration	
Function	Parameter / setting	TOL	Tolerance
Tolerance on the contractual power	From -20% to +20% (step 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

Acquisition of load control actuators

Once the installation stage has been completed, it is necessary for the control unit to acquire the actuators present on the bus; until this is done, the device signals a lack of information (orange LED on steady), and no load control function is performed.

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

1. Press and hold the button; after about 10 seconds, the red LED comes on; release the button.
2. The red LED flashes quickly and the control unit interrogates the system to recognise the installed actuators.
3. If no actuators are detected, at the end of the procedure the non-acquisition signal remains (orange LED on steady), otherwise the LED turns green and the control unit operates correctly.

Cumulative data erasing procedure

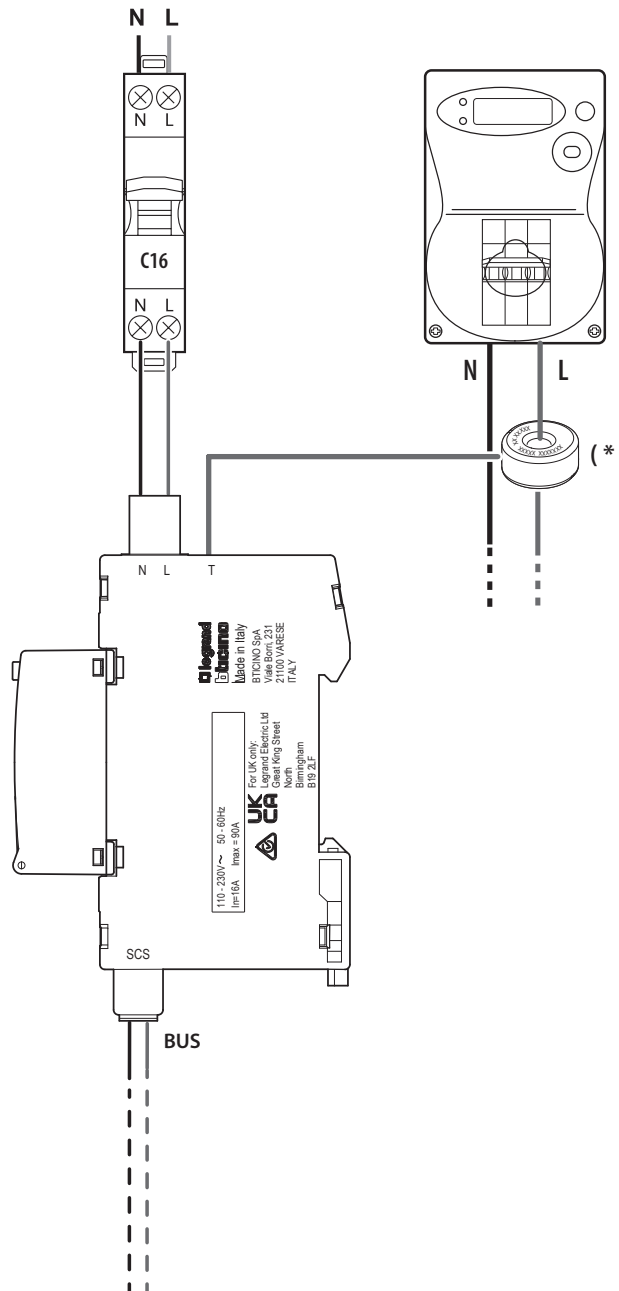
1. Press and hold the button; after about 10 seconds, the red LED comes on; press and hold down the button.
2. After a further 10 seconds, the orange LED flashes quickly; release the button.
3. All cumulative energy data are erased.

LED notifications based on the status of the central unit for load management

Device status	LED
Normal operation (below threshold with all loads enabled)	GREEN
Threshold being exceeded	RED
System not acquired	ORANGE
System being acquired	RED flashing 100 ms/100 ms
BUS error (insufficient BUS voltage or voltage drop detected)	GREEN flashing 500 ms/500 ms
Installation error (no primary voltage)	RED flashing 100 ms/900 ms
Configuration error	ORANGE irregular on GREEN
Not configured	ORANGE flashing 128 ms/128 ms on GREEN

Wiring diagrams

Connection of the meter to the bus, line and toroid



(*) NOTE: the pad-printed side of the toroid must face the meter



Protect with ≤ 16 A thermal magnetic circuit breaker