

Smart load shedder

Cat. number : FC80GCS



Requires prior installation of a “with Netatmo” connected starter pack or a Gateway module and at least one connected power outlet, contactor and/or cable outlet in order to be able to use the offloading function.

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1. DESCRIPTION - USE

Use:

Enables you to measure the total electricity consumption of your home via the included closed current transformer, and to view it in the Home + Control smartphone app. The load shedder is thus able to detect when the subscribed power (or the maximum consumption threshold defined in the App) is about to be exceeded and to intelligently offload your connected loads (connected cable outlets, connected contactors, or connected power outlets) in accordance with predefined priorities which can be easily customized.

The user can thus reduce the value of his electrical contract and save money while maintaining his/her level of comfort by avoiding cutting the power supply of priority equipment.

This connected version offers the functions of:

- Real-time measurement: automatically reads the total electrical consumption of the home.
- History of electricity consumption available in the Home + Control app.
- Setting of the subscribed power / maximum consumption threshold (which act as a load shedding threshold) and customization of load shedding priorities between loads via the Home + Control app.
- Allows to individually offload the electrical appliances of the home (and not by circuit) for a very precise management of the load shedding function.

Technology:

. Single-phase current measurement, by field effect using a closed current transformer (delivered with the smart load shedder) and data transmission by radio frequency to the connected network.

2. RANGE

Width:

. 1 module. 17,7 mm wide.

Rated primary current:

. I_{pn} = 80A AC

Power consumption:

. 0.3W Max

1. DESCRIPTION – USE (continued)

Rated voltage:

. 100V to 240V AC

Rated frequency:

. 50Hz / 60Hz

Configuration and use:

Can be used with:

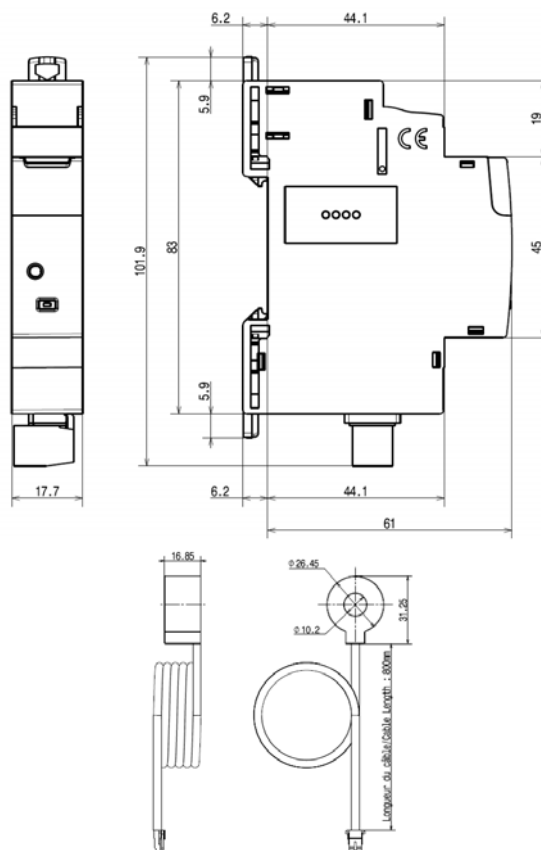
- Legrand smartphone app

« HOME + CONTROL »



. Available for free on Google Play or App Store

3. OVERALL DIMENSIONS



4. PREPARATION - CONNECTION

Mounting:

. On symmetrical rail EN / IEC 60715 or DIN 35.

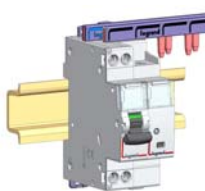
Operating position:

. Vertical, Horizontal, Flat.



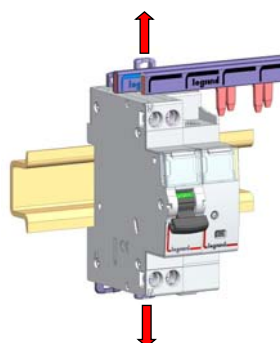
Row positioning:

. The product shape and the positioning of the terminals allow the passage of single-line, three-lines and plug-in supply busbars in the upper part of the product. Then, it is possible to freely choose the position of the Smart load shedder in the row and to connect by supply busbar the other devices put on the same DIN rail.

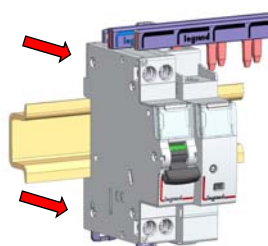


Module maintenance:

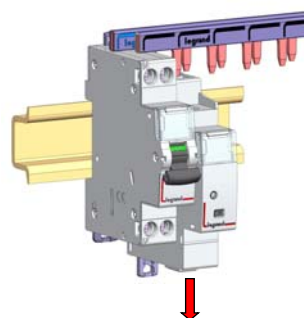
. It is possible to switch a Smart load shedder in the middle of a row supplied with an upstream busbar without disconnecting the other devices on the same DIN rail.



1. Unclip the clamps to put it in open position



2. Pull the device forward in order to release it from the DIN rail

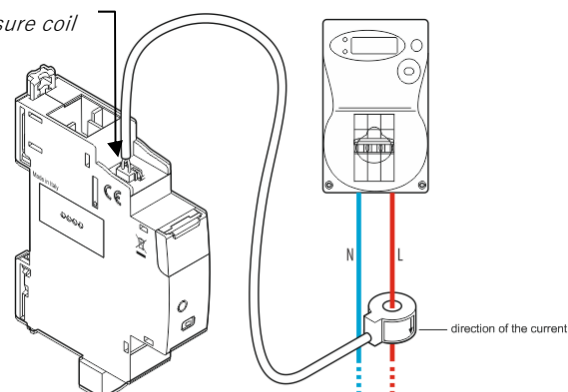


3. Pull the device downward in order to completely release it from the prongs of the busbar

4. PREPARATION - CONNECTION (continued)

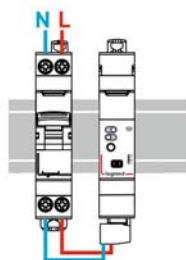
Connector :

Measure coil



Connector: Power cabling Line (V1) and Neutral (N)

Wire the Smart load shedder after a circuit breaker. The connection between the smart shedder and the current transformer is made via a locking connector.



Recommended tools:

. For the terminals:
Screwdriver flat-blade 3.5 mm
. For clamping:
Screwdriver flat-blade (5,5 mm or less).

Connection:

. Power screw terminals:
- Terminal type: cage
- Depth: 9 mm
- Stripping length recommended: 8 mm
- Screw head: slotted 3.5 mm
- Type of screw: M3
- Tightening torque: 0.5 Nm

Conductor type:

. Copper cables

	Without ferrule	With ferrule
Rigid cable	1x (1 to 2.5mm ²) 2 x (1 to 1.5mm ²)	-
Flexible cable	1x (1 to 2.5mm ²) 2 x (1 to 1.5mm ²)	1 x (1 to 1.5mm ²)

4. PREPARATION - CONNECTION *(continued)*

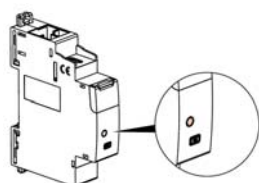
Real-time and historical data visualization:




. Via smartphone with the Home+Control app.



Visualization of the setup of the device:

. Via the LED on the front face



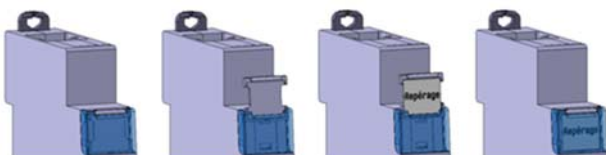
Color	Status	Signification
 Red	Fixed	Temporary status. Device not connected to the radio network
 Green	Fixed	Temporary status. Device correctly paired to the radio network (when the radio network is still open)
 OFF	OFF	Normal status. Device paired to the radio network (when the radio network is closed)

Other configurations & actions

. All other features and settings such as ; scenarios etc... are directly explained step by step in the Home + Control app.

Labelling:

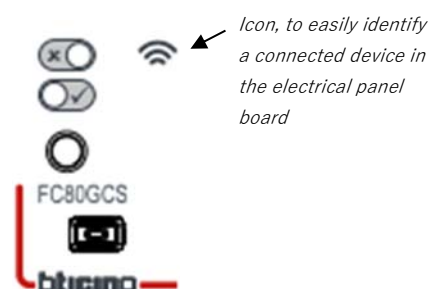
. Circuit identification thanks to a label inserted in the label holder situated on the front face of the product.



5. GENERAL CHARACTERISTICS

Marking of the Smart Load Shedder:

Markings of the front side:



Icon, to easily identify a connected device in the electrical panel board

Connectors markings:

up

down

COIL



V1 N

Lateral markings

100-240V~ 50/60 Hz
Pmax = 0,3 W

ZLM01



V1 N

bticino
Made in Italy



BTICINO SpA
Viale Borsi, 231
21100 Varese
ITALY

5. GENERAL CHARACTERISTICS *(continued)*

Characteristics of the measure coil:

Maxi measured primary current:

. 80A AC

Transformation ratio:

1000 :1

Rated short-time thermal current:

. $I_{th} = 3kA \text{ rms} / 1s$

Rated dynamic current:

. $I_{dyn} = 9kA$

Rated insulation level:

. 3KV rms 50Hz/1min

Class of insulation:

Class A following IEC61869-1 et IEC61869-2

Rated Accuracy class:

Class 1 following IEC61869-1 +/-1% at I_{pn} 63A

Rated impulse withstand voltage (Uimp):

4kv

Overvoltage category:

. II

Degree of pollution:

. 2

Influence of altitude:

. No influence up to 2 000 m

Rated frequency :

. 50 / 60Hz

Rated voltage of use (Ue):

. $U_e = 100 \text{ to } 240 \text{ V} \sim$

Recommendations:

. For the device protection against short circuits according to the conditional current, it is recommended to use a circuit breaker or fuse gG.

Characteristics of the radio interface:

. Standard IEEE 802.15.4

. Frequencies 2,4 à 2,4835Ghz

. Transmitter output power <100mW

Protection degree:

. Protection index of terminals against direct contacts: IP2X.

. Protection index of the front face against direct contacts: IP3XD (IEC/EN 60529)

. Class II, front panel with faceplate.

. Class of protection against mechanical impacts IK04 (IEC/EN 62262)

Plastic material:

. Self-extinguishing polycarbonate.

. Classification UL 94: V0

Ambient operating temperature:

. Min. = + 5 ° C Max. = + 45 ° C.

Ambient storage temperature:

. Min. = - 40 ° C Max. = + 70 ° C.

5. GENERAL CHARACTERISTICS *(continued)*

Average weight:

. 91g

Volume when packed:

. 0,62 dm³.

6. COMPLIANCE AND APPROVALS

Compliance to standards:

EN 61869-1:

EN 61869-2

EN 61010-1

Environment respect – Compliance with European Union Directives:

. Compliance with Directive 2002/95/EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of dangerous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1st July 2006

. Compliance with the Directive 91/338/EEC of 18/06/91 and decree 94-647 of 27/07/04

. Compliant with regulation REACH

Plastic materials:

. Halogen-free plastics.

. Marking of parts according to ISO 11469 and ISO 1043.

. ISO 7000: 2004, Graphical symbols to be used on equipment - Index and synopsis

Packaging:

. Design and manufacture of packaging in accordance with Decree 98-638 of 20/07/98 and Directive 94/62 / EC.