

60060

(EN) 3-output universal load controller

Operating principle

The 60060 load controller optimises your electrical service. It manages excesses of subscribed power, thereby helping you to keep your electrical usage to a minimum.

It limits the power used by disrupting non-priority circuits and prevents the branch circuit breaker from being triggered. The 60060 is a universal load controller.

It is suitable for all installations:

- single-phase and three-phase installations equipped with an electronic counter
- single-phase installations equipped with an electromechanical counter

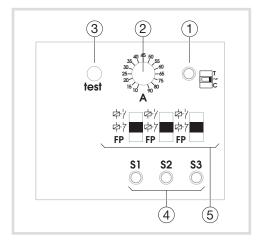
It is adapted to circuit load-shedding via:

closing switches

and/or - opening switches

and/or - pilot wire.

About the product



- (1) Counter indicator light:
 - lit = counter connection correct
 - flashing = no connection to counter
 - off = no power.
- (2) Load-shedding threshold setting (for installations fitted with an electromechanical counter).
- (4) Indicator lights for outputs 1, 2 and 3
 - lit = the corresponding output is offloaded
 - flashing = output error
 - (see What do I do if ... ?) section.
- (5) Selection switch for output type installation with closing switch
 - installation with opening switch
 - installation with pilot wire.

Installation fitted with an electronic counter

A 2-wire connection, the tele-information, connects the load controller to the electronic counter. The tele-information informs the load controller of any exceedance of subscribed power in order to trigger a load shedding cycle. This connection is not polarized (max. distance = 100 m). Use a 6/10 twisted pair cable.

Installation fitted with an electromechanical counter

For this type of installation, the current transformer that comes with the product (part number 60005) must be connected to the load controller.

This current transformer must be installed on the phase that begins from the branch circuit breaker. It informs the load controller of the total power consumed by the installation.

When this consumption exceeds the limit set on the load shedding threshold potentiometer, a load shedding cycle is triggered.

Load shedding

The load controller is informed by the electronic counter of the exceedance of subscribed power. It will manage this excess as follows: all of the channels are offloaded. It then relays the channels in the following order of priority:

- 1. the outputs in "contact" mode or the pilot wire outputs that are set to "comfort"
- 2. the pilot wire outputs that are set to "reduced"
- 3. the pilot wire outputs that are set to "frost protection".

It will perform a rotating load shed between the outputs that have the same priority level. The load shedding cycle is 6 minutes.

Configuring the output type

The switches 5 define the type of output.



• outputs in "closing switch" mode. To be used when the outputs control a closing switch (C or NO). In this mode:

- Load shedding = Off = 0 V



 outputs in "opening switch" mode. To be used when the outputs control an opening switch (O or NC).

In this mode:

- Load shedding = Off = 230 V
- On = 0 V



- outputs in "pilot wire" mode. To be used when the outputs control pilot wire input devices. In this mode:
- Load shedding = "off" signal.
- 6 compatible pilot wire sequences.

Test button

Pressing this button launches a load shedding test. This test consists of gradually offloading outputs 1, 2 and 3 over 30 seconds.

The LEDs flash 5 times to indicate that test mode is now in progress, then the LED corresponding to the offloaded channel lights up.

At the end of the test, all of the LEDs switch off. In pilot wire mode, load shedding is taken to be the sending of a "stop" signal, which is understood by all of the devices equipped with a pilot wire input.

The outputs are compatible with 6 pilot wire sequences.

Frost protection input (terminal 1)

This input allows you to force the pilot wire outputs in frost protection mode. You can connect a switch, the output of your telephone

This input only operates in "pilot wire" mode.

Programming inputs (terminals 2 and 3)

Input E1 (terminal 2) controls output S1 (terminal 4). Input E2 (terminal 3) controls outputs \$2 and \$3 (terminals 5 and 6).

- In pilot wire mode: using these inputs, you can connect a heating timer via the pilot wire. Whatever the timer instructions, the load shedding sequence takes priority.
 In contactor mode: these inputs
- allow you to force OFF

Input	Position of switch (5)	Outputs 1.2 and 3
230 V	Closing switch	Off = 0 V
	Opening switch	Off = 230 V
0 V	Closing switch	On = 230 V
	Opening switch	On = 0 V

What to do if...?

- One or more "output" indicator lights are flashing:
 - there is a short circuit on the output (pilot wire/phase inversion in a convector, for example).
 - There is overconsumption on this output: check how many devices are connected to this output and their consumption. Call your electrician.
- The counter indicator light is flashing:
- the tele-information link is not active, check the connection or call your power company. Installation fitted with an electromechanical counter: this operation is normal.

Technical features

Connection capacity:

230 V~ +10/-15% 50 Hz Power supply: Power consumption: < 10 W Break capacity:

1 A/230 V~ upon cáll - in contact mode:

so, for example, 10 x 25 A contactors (2 modules) for 3 outputs.

- in pilot wire mode: 60 mA/230 V~ per output. Load shedding cycle: 6 minutes 0°C to +50°C Operating temperature: -20 °C to +60 °C Storage temperature: Protection rating: **IP 20**

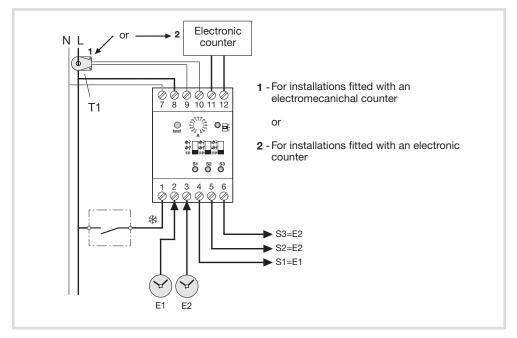
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flexible: 1 to 6 mm²

rigid: 1.5 to 10 mm²

Electrical connection

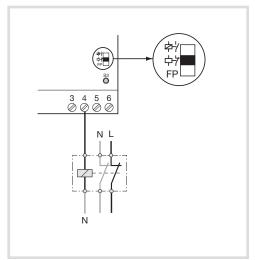
Outline schematic



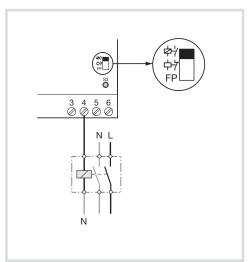
Output configured to pilot wire

Pilot wire

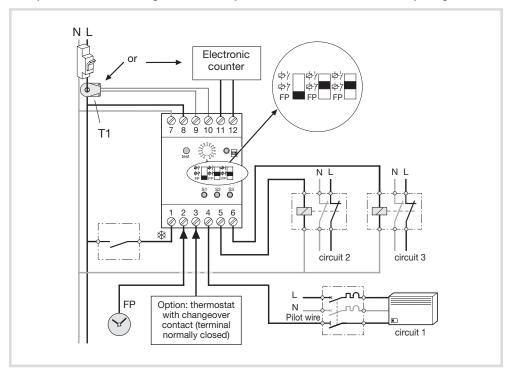
Output configured to opening switch



Output configured to closing switch



Example: control of a heating circuit via the pilot wire and two circuits via the opening switch





Correct Disposal of This product (Waste Electrical & Electronic Equipment).

(Applicable in the European Union and other European countries with separate collection systems).

This marking shown on the product or its literature indicates that it should not be disposed with other household wasted at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes of disposal.



Hager Controls hereby declares that the device complies with the essential requirements and other relevant provisions of Directive 2014/53/EU.

> The CE declaration is available on the: www.hagergroup.com