

GP 40

Universal energy manager, 3 outputs

- Order of conventional - or pilot wire - convectors
- Compatible for installations using standard meters (single-phase) or electronic meters (single-phase or three-phase)
- 3-output load shedding
- 2 inputs for the programmer
- Absence input (TYPHONE 2, TYPHONE 3 SV telephone remote control, etc.)

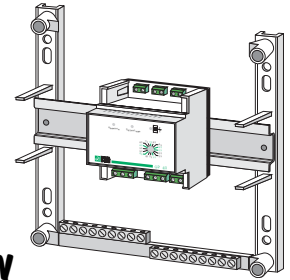


1 TECHNICAL CHARACTERISTICS

- 230 V, 50 Hz power supply, $\pm 10\%$
- Class II insulation
- Power consumption: 2 VA
- 3 rest contact outputs, 2 A 230 V
- 2 inputs for programmers (clocks, programming control unit, etc.)
- 1 absence input (telephone remote control)
- Pilot wire-type heating selection input
- 1 remote information connection input (output from the electronic meter)
- Link with the single-phase or three-phase electronic meter: 1 6/10 single twisted pair cable with continuity wire, max. length 100 m
- Display of the state of the dialogue with the electronic meter
- Cascadocyclique® load-shedding on 3 outputs
- Circuit-breaker caliber selector knob (15 A to 90 A)
- GP 40 is compatible with three-phase installations (electronic meter only)
- Dimensions: 4 modules, h = 53 mm
- CT characteristics (ref. 2330004):
 - Internal \varnothing : max. 10 mm
 - Rated operating current: 2 to 90 A, $\text{Cos } \varphi = 0.8$ to 1

2 LOCATION

The GP 40 is mounted on a DIN rail in the electrical cabinet.



3 CALIBER SELECTION

If your installation is equipped with a conventional meter, select one of the calibers (from 15 A to 90 A) available depending on your specific EDF (French Electricity Board) subscription. For load-shedding, it is necessary to link a current transformer (CT) via a cable to measure the consumption.

This measure, as compared to the caliber selected on the unit, allows you to determine excess power demands.



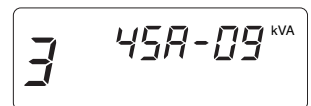
CT reference: 2330004 (1 CT kit)

- The CT wire length can be extended by up to 1.5 m (for wire type H03VV-F or H05V-K).
- The CT does not have a connection polarity.
- It is possible to pass several conductors from the same phase through a single CT (maximum interior \varnothing 10 mm).

4 METER INDICATOR LIGHT

LED status	With electromechanical meter	With electronic meter
On		Normal operation
Flashing	Normal operation	Faulty connection with meter - check the connection with the electronic meter - obtain confirmation from your electricity supplier that the remote information connection has been released
Off	There is no power supply. Check your circuit breaker	There is no power supply. Check your circuit breaker

If your installation is equipped with an electronic meter, the caliber which is used is directly programmed on the meter. The position of the caliber adjustment knob is not taken into account. E.g. Subscribed power (in amperes or in kVA)



For load-shedding, the excess demand orders are directly sent by the electronic meter.

5 OPERATION

5.1 Load shedding excluded

The O1a, O1b and O2 outputs reproduce the state of their respective inputs (I1 or I2).

The absence input (telephone remote control) can set the pilot wire convectors to frost protection mode or switch off conventional convectors.

5.2 Load Shedding

Load shedding is used to reduce the contractual demand of the mains supply and to avoid tripping in the event of strong current draws.

Load shedding starts as soon as the total current draw attempts to exceed the subscribed value. This means that one or more heating outputs are switched off (standard) or put into frost protection mode (if the pilot wire input has been selected) for a few minutes until the peak in power consumption has passed.

For a single-phase system, the load shedding can be of two types:

- cascade: The unit sheds the load of each output in turn according to the amount of excess demand, or both simultaneously if the excess demand is too high.
- cascadocyclique®: The unit automatically balances load-shedding times by shedding loads in turn, then in cascade if excess demand requires.

For three-phase systems, proceed as follows:

- at the O1a output, convectors powered by phase 1,
- at the O1b output, convectors powered by phase 2,
- at the O2 output, convectors powered by phase 3.

Load shedding is Cascadocyclique® on the O1a and O2 outputs. The O1b output is shed only if overload makes it necessary.

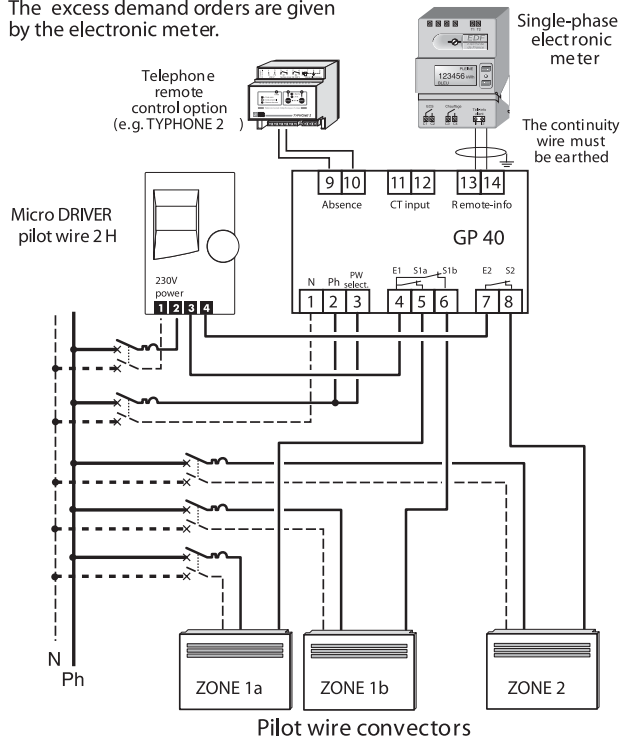
Connection diagrams
overleaf



6 CONNECTIONS

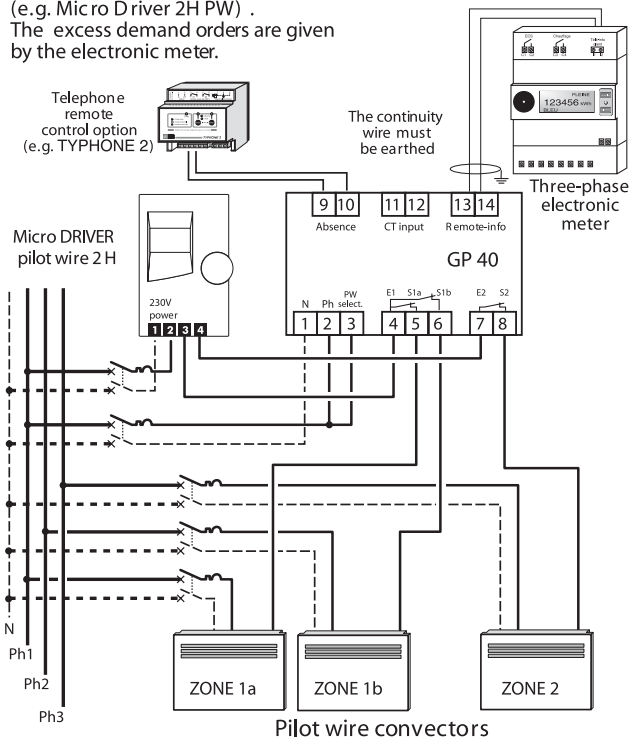
Application examples

Installation with single-phase electromechanical meter
 GP 40 is associated with a 2- zone pilot wire programmer (e.g. Micro Driver 2H PW) .
 The excess demand orders are given by the electronic meter.



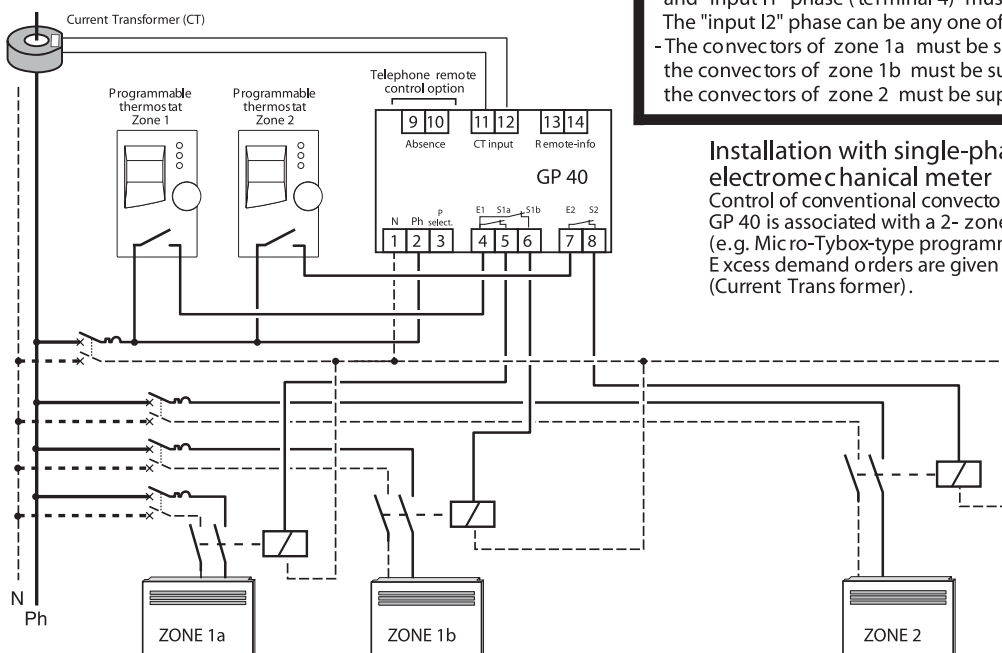
The diagrams provided are simplified for greater clarity.
 The protective devices and other accessories required by the standards are not illustrated.
 - Standard UTE C15-100 and good practice must be complied with.
 - Connected or nearby equipment must not generate excessive interference (directive 89/336/EEC).

Installation with three-phase electronic meter
 GP 40 is associated with a 2- zone pilot wire programmer (e.g. Micro Driver 2H PW) .
 The excess demand orders are given by the electronic meter.



Important :

- The supply phase (terminal 2), the "PW select." phase (terminal 3) and "input I1" phase (terminal 4) must be the same (e.g. Ph1). The "input I2" phase can be any one of Ph1, Ph2, or Ph3.
- The converters of zone 1a must be supplied by phase 1 the converters of zone 1b must be supplied by phase 2 the converters of zone 2 must be supplied by phase 3 .



Installation with single-phase electromechanical meter

Control of conventional converters.
 GP 40 is associated with a 2- zone programming (e.g. Micro-Tybox-type programmable thermostats) .
 Excess demand orders are given by the CT measurement (Current Transformer).

7 GUARANTEE

This energy manager is guaranteed for 2 years from its delivery date.
 This guarantee is applied under the conditions of article 1641 and the following articles of the civil code (France only).

To benefit from the guarantee, you must enclose proof of purchase, bearing the date of acquisition, when you return your faulty energy manager.
 It covers the replacement of faulty parts, labour and return carriage to the customer.

Excluded from the guarantee:

- Pieces of equipment whose serial number has been damaged, modified or deleted.
- Units that were not connected or used in accordance with the instructions given on the unit or in the guide.
- Units modified without prior permission from the manufacturer.
- Units damaged as a result of impacts.



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Device complying with the requirements of the directives: 89/336/EEC (electromagnetic compatibility) and 73/23/EEC amended 93/68/EEC (low voltage safety).

Because of changes in standards and equipment, the characteristics given in the text and the illustrations of this document are not binding unless confirmed by Delta Dore.