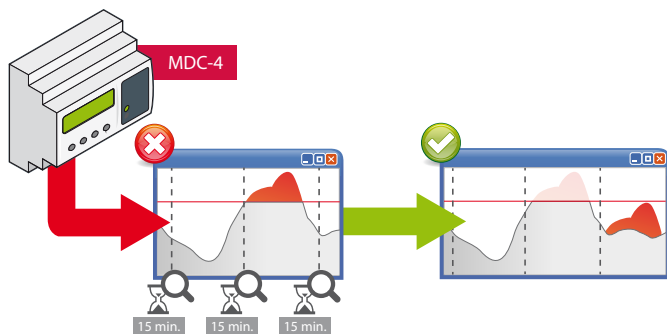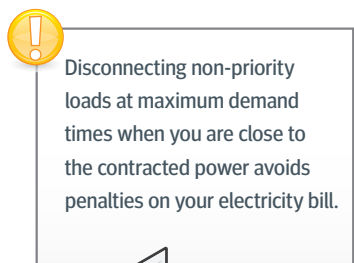# MDC-4
Basic option

**Analyzer to control the maximum demand for each level**

MDC-4 is designed to control the maximum demand of an installation for each level.

The unit performs analyzer functions and therefore also calculates the energy consumed.

Disconnecting non-priority loads at maximum demand times when you are close to the contracted power avoids penalties on your electricity bill.
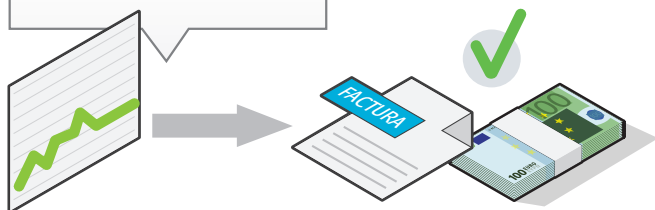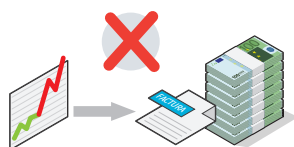
Main features

- Built-in power analyzer.
- Demand management that can control up to 4 local loads.
- Calculations on scrolling window.
- Measurement of electrical parameters of the installation.
- Activation by level above setpoint.
- Programming of the contracted power.
- Programming of 4 different alarm levels for the outputs.
- 100...240 Vac power supply.
- Information on load operating time.
- Current measurement with MC transformers.
- Window for displaying power control parameters.
- Compact dimensions.
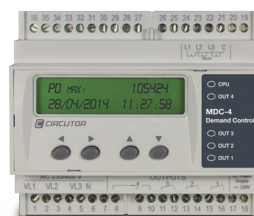
References

MDC Maximum Demand Controller

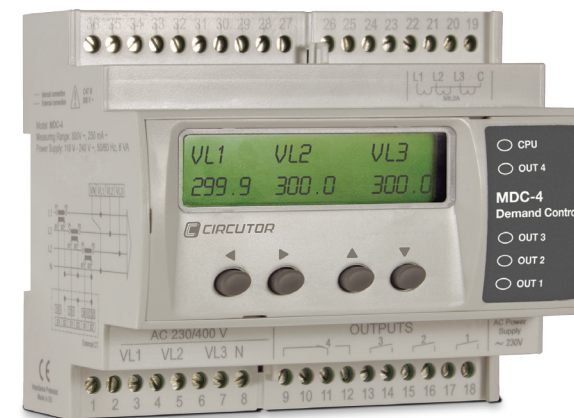| M61430	MDC 4

MDC 4
New Maximum Demand Control by level

Managing demand 365 days a year

CIRCUTOR
Technology for energy efficiency

Analyzer to control the maximum demand for each level

Level control optimises the installation because it allows the maximum number of loads to be used simultaneously, avoiding any power excesses which would normally result in high penalties.

MDC-4 calculates the maximum demand on the scrolling window, which means no sync pulse is needed.

The controller calculates the demand consumed in the scrolling window every second, using the internal clock.

The system prevents simultaneous loads, disconnecting non-priority loads if necessary.

Load connection or disconnection depends on the instantaneous level of maximum demand. This system proceeds to disconnect the loads in accordance with the maximum demand value measured.

Apart from controlling loads, this unit can be used to determine the maximum demand reached and therefore adjust the contract to the power needed.

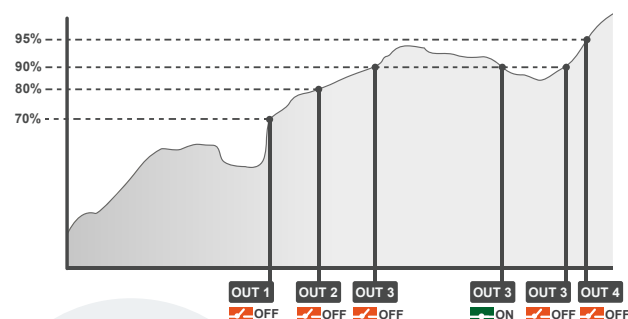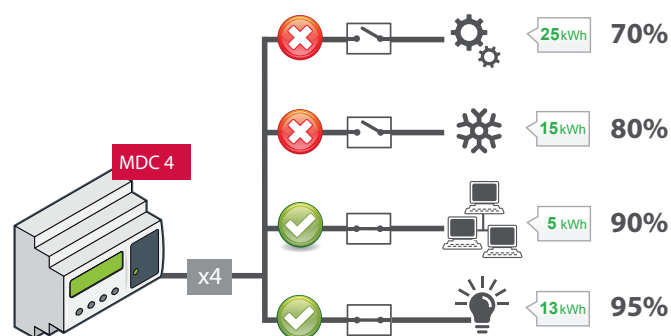The unit is equipped with 4 relay outputs for managing electric loads (or load groups)

The outputs are configured at different levels according to the required load disconnection order.

Load management

The unit controls the disconnection of up to 4 relays. Loads are disconnected by level. For example, if the unit configuration for each of the relays is as below, the unit's response will be as shown in the attached graphic.

- OUT 1:   70% of the configured power
- OUT 2:   80% of the configured power
- OUT 3:   90% of the configured power
- OUT 4:   95% of the configured power

MDC 4   *x4*

	25 kWh	**70%**
	15 kWh	**80%**
	5 kWh	**90%**
	13 kWh	**95%**

| OUT 1 | OUT 2 | OUT 3 | OUT 3 | OUT 3 | OUT 4 |
| OFF | OFF | OFF | ON | OFF | OFF |

* The unit's programming can be changed and adjusted to the needs of each user or installation.

Display

MDC-4 includes a 2-line display with 20 characters each, displaying the electrical variables measured and calculated by the unit.

Display

To show the specific information on the control being performed, the unit has specific Maximum Demand screens that show the maximum demand, the contracted power and the status of the unit's outputs.

```
PC:60000      PD:56687
01:1  02:1  03:1  04:0
```

The time that each output has been deactivated since the last calculation reset.

```
01%  02%  03%  04%
97   97   87   05
```

```
PD MAX:       105424
28/04/2014  11:27:58
```

The maximum value reached, with time and date The unit also displays some of the most important electrical parameters of the installation, such as voltage, current, power and accumulated energy.

```
VL1    VL2    VL3
299.9  300.0  300.0
```

```
A1     A2     A3
62.82  62.99  63.05
```

```
W1     W2     W3
18868  18893  18912
```

```
DATE          TIME
28/04/2014  14:08:54
```