

MDC-20

Maximum Demand predictive Control



Description

The **MDC-20** is a unit designed to predictive control the maximum demand of an installation. It means that the unit connects and disconnects the installation's electrical loads (non-priority loads) to ensure that the maximum power contracted is not exceeded. Management of the loads is done in accordance with the power rating of the loads, the maximum configured power, and the current energy measured. This system optimises the consumption of energy in the installation because it allows the maximum number of loads to be used simultaneously but does not exceed the contracted power, which would result in high penalties.

The unit is equipped with relay outputs that enable the management of up to 6* electric loads without expanding.

*It is possible to use the output for some alarms conditions. In this case, the number of free relays to control local loads is 4).

- Peripheral communications fault alarm
- Insufficient loads for the power control
- It is possible to expand the number of controlled loads by the **MDC-20** with up to 12 **LM4I/4O** operated by RS-485 communications.

Its main features are:

- Demand management by disconnecting up to 6 non-priority local loads.
- Expandable until 54 loads with 12 **LM4I/4O** units through the RS-485 port.
- Instantaneous energy value reading through Modbus/RTU communications or the impulse input.
- Synchronising impulse input.
- Ethernet connection to centralize it in other applications or communicating with remote peripherals on the ethernet network.
- Feedback load status control through the logic status of the inputs
- Centralising consumptions by impulses.
- Disabling load management according to schedule.
- Simulation tool for verifying system behaviour.

Technical features

Power Supply	Single-phase	85 ... 264 Vc.a. / 120 ... 374 Vc.c.
	Frequency	47 ... 63 Hz
	Maximum consumption	5 ... 8 VA
Output features	Type	Relay
	Maximum operating power	740 VA
	Maximum operating voltage	250 Vc.a.
	Maximum current commutation	5 A with resistive load
	Electrical working life (250 Va.c. / 5 A)	3 x 10 ⁴ maneuvers
	Mechanical working life	2 x 10 ⁷ maneuvers
Input features	Type	Free-voltage opto isolated
	Max. current activation	50 mA
	Isolation	1500 V
Display	LCD with backlight, 2 lines	
Mechanical features	Box material	UL94 V0 Self-extinguishing plastic
	Dimensions	105 x 70 x 90 mm (6 modules)
	Weight (Kg)	280 g
Network interface	Type	Ethernet 10BaseTX
	Connector	RJ-45
	Network protocol	HTTP / Modbus/RTU
	Bus	RS-485
Serial Interface	Type	Three-wire RS-485 (A/B/S)
	Transmission speed	4800, 9600, 19.200, 34.800, 57.600, 115.200 bps
	Data bits	8
	Parity	Without parity
	Stop Bit	1
Safety	Category	CAT III 300/520 Vc.a. according to EN 61010
	Insulation type	Class II double insulation against electric shock
Standards	IEC 60664, VDE 0110, UL 94, EN 61010-1, EN 55011, EN 61000-4-3, EN 61000-4-11, EN 61000-6-4, EN61000-6-2, EN 61000-6-1, EN 61000-6-3, EN 61000-4-5	

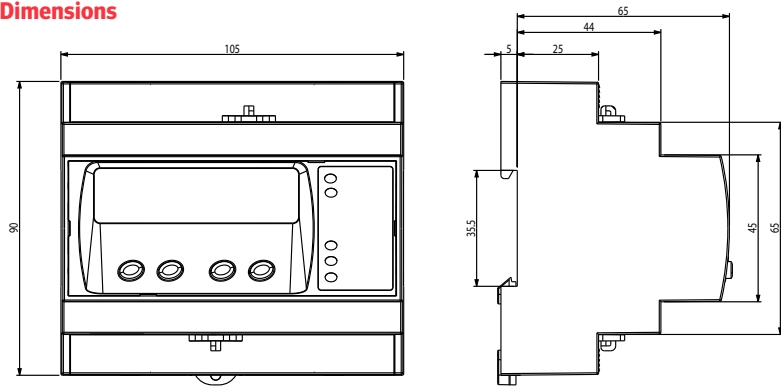
MDC-20

Maximum Demand predictive Control

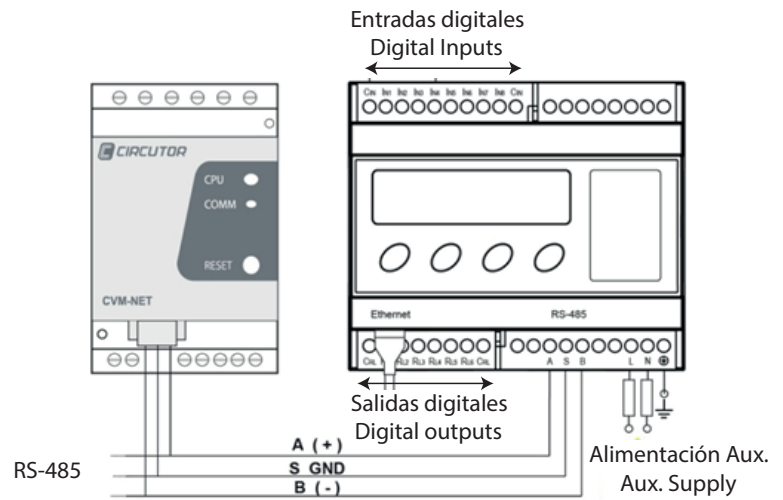
References

Description	Type	Code
Maximum Demand predictive Control	MDC-20	M61410

Dimensions



Connections



More connections, see manual.