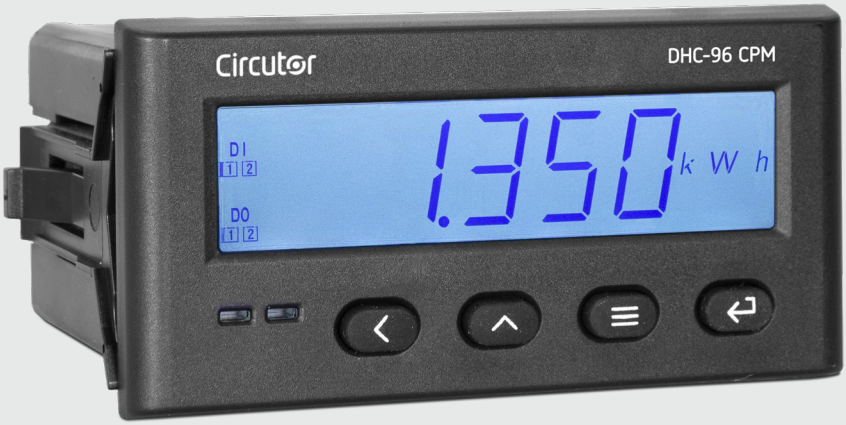


MEASUREMENT AND CONTROL

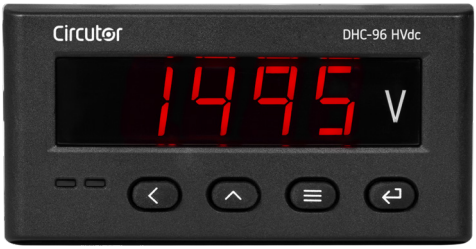
DHC

Digital panel instruments

Circutor

DHC

Digital panel instruments, which, according to the model, display the value of a measured electrical variable or proportional value of a process signal. Devices designed for supervision, regulation and control, using built-in analogue outputs and relays.

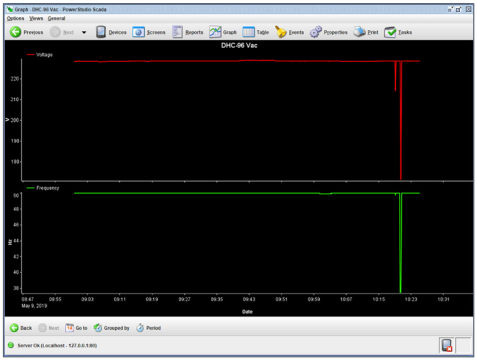


The DHC series , in terms of scales, transformation ratio, alarm signals, communications, etc., is fully configurable. In AC systems, the device displays electrical parameters such as voltage, current or frequency. In DC systems, the device displays on-screen voltage, current and other industry-related variables. Alternating current models carry out true root mean square (TRMS) measurement.

- 2 configurable relay outputs (alarm)
- 1 configurable analogue output
- 2 digital inputs (status)
- Modbus / RS-485 Communications

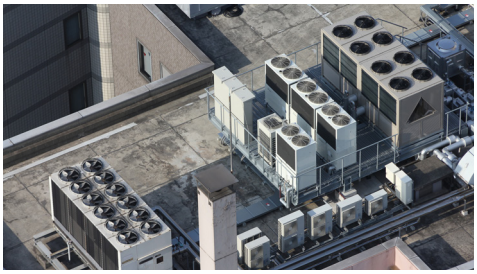
Applications

The DHC include a *driver* developed for Circutor's power management software, Power Studio SCADA, which allows the user to interface with the device almost automatically. Via the *software,* the user can modify device configuration remotely, activate relay outputs, record measured values, generate graphs or tables showing recorded values and use the data to compare it with other variables or calculate efficiency ratios in a simple way.



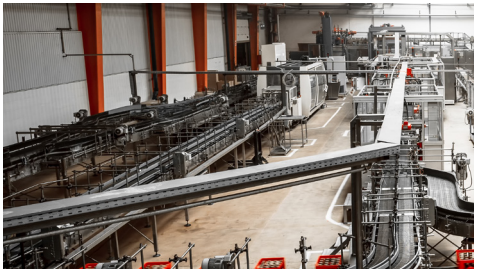
Industrial Applications

Air Conditioning



Photovoltaic Solar Plants

Process Control



Models

Digital panel indicators are not only used to measure and control electrical parameters but also external variables (normally transmitted via an analogue signal of 0/4...20 mA or 0/2...10 V) needed to calculate efficiency ratios.

The DHC **, apart from measuring and displaying the values, allow them to be recorded by the user via** *energy management software, thanks to the Modbus communication protocol.*

Compact and Precise

Ammeter Series
This range of AC ammeters measures and displays single-phase current and frequency. They have 2 programmable current scales of /1 Aac and /5 Aac. They carry out true root mean square (TRMS) measurement. The DC ammeters allow direct measurement of 1 or 5 amps.

Voltmeter Series
The AC voltmeters measure and display single-phase voltage and frequency. They have 6 programmable voltage scales of 63.5, 100, 110, 230, 380 and 480 V with true root mean square (TRMS) measurement. The DC voltmeters allow voltage measurement of up to 1500 Vdc.

Universal Power Supply

High degree of IP protection

Process Indicator Series

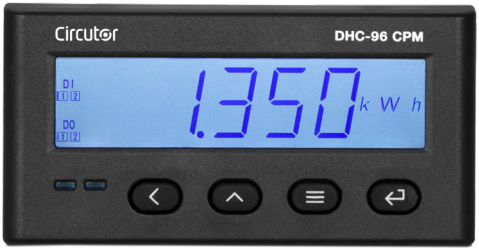
The current input (mA) indicators measure 0/4...20 mA signals and display the set proportional value. They have 3 programmable current scales of ±20 mA, 0...20 mA and 4...20 mA. A programmable, 3-scale DC current range is also available. It includes versions with a voltage measurement range of ±10 V.

DC Voltmeter (shunt)

The DC Voltmeter with shunt input (mV) measures mV signals and displays the value proportional to the set primary. It has 10 programmable voltage scales of 50, 60, 75, 100, 150, 200, 250, 300, 400 and 600 mV.

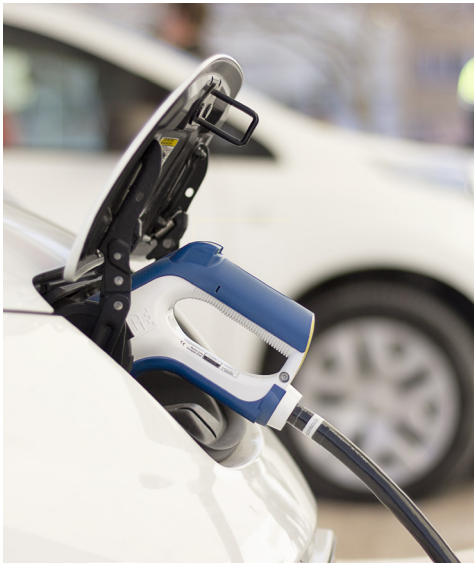
DHC CPM

Digital panel multimeter for DC measurement to supervise photovoltaic installations or charge electric vehicles, as well as enabling simultaneous control and supervision of the installation via the device's built-in analogue output and relays.



The **DHC CPM** , in terms of voltage scale base, shunt primary ratio, alarm signals, communications, etc., is fully configurable. The device measures and displays parameters such as voltage, current, power, energy and amperes consumed or generated per hour (Ah).

The **DCH-96 CPM 1500** has a direct connection for up to 1500 VDC, especially designed for photovoltaic installations. and electric vehicle charging applications.



- 2 configurable relay outputs (alarm)
- 1 configurable analogue output
- 2 configurable digital inputs (status)
- Modbus / RS-485 Communications

Outstanding features

Characteristics	Description
Power Supply	80...270 VAC / 80...270 VDC (18...36 VDC Optional) for DHC-96/DCP-96 100...270 VAC / 80...270 VDC (20...60 VDC Optional) for DHC-96 CPM
2 relay outputs	AC: 5 A / 250 Vac DC: 5 A/30 Vdc
1 analogue output	0...20 mA, 4...20 mA, 4...12...20 mA Programmable
2 digital inputs	Potential free contact
	RS-485 Modbus/RTU Communications
Isolation between circuits	Double Isolation
Degree of protection	Front IP 54 / Back IP 20
Dimensions	96 x 49 x 76,5 mm
Standards	**EN 61000-6-2, EN 61000-6-4**

Code	Type	Description
M22318.	**DHC-96 Vac**	AC voltmeter
M22338.	**DHC-96 HVdc**	DC voltmeter
M22358.	**DHC-96 Aac**	AC ammeter
M22378.	**DHC-96 Adc**	DC ammeter
M22348.	**DHC-96 mVdc**	DC voltmeter (shunt)
M22328.	**DHC-96 LVdc**	Process indicator
M22368.	**DHC-96 mAdc**	Process indicator
M223A8.	**DHC-96 CPM**	DC multimeter (shunt)
M223C8.	**DHC-96 CPM 1500**	DC multimeter (shunt)
M22388.	**DHC-96 CPM-HS**	DC multimeter (Hall effect)

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