



DHC-96 CPM, digital multimeter 96 x 48, 2 output relays

Code: M223A8. DESCATALOGADO

> Protocol: Modbus/RTU

> IP: 54

> Communications: RS-485

> N° relays: 2 > Digital inputs: 2

> Analog output: 1 (20 mA) > System: DC (Shunt)

> Measurement Range (V): ± 150 / 300 /600 Vdc

> Measurement Range (A): 50 / 60 / 75 / 100 / 150 / 200 / 250 / 300 / 400 / 600 mV

> Paramètre: V/A/kW/kWh dc

> Mounting: Pannel > Modules: 96 x 48

### Description

Panel-mounted digital instruments that display the value of an electrical variable measured or proportional value of a process signal on its screen (depending on the model). Designed to supervise, regulate and control units with the use of relay outputs that are built in the unit.

The DHC-96 series displays the value of an electrical variable measured or proportional value of a process signal on its screen (depending on the model). The unit displays the electrical parameters of a single-phase installation, depending on the model, such as the voltage, current, etc. In DC systems, the unit can measure the voltage, current, frequency and other variables associated with industrial processes. The AC models take the measurements in true RMS (TRMS).

All models in this range have the following features:

- Universal power supply at 80...270 V<sub>ac/dr</sub> (DHC-96-CPM: 100...270 Vac/dc) and optional power supply at 16 ... 36 V<sub>dc</sub> (DHC-96-CPM: 20...60 Vdc)
- o IP 54 protection degree on the front panel
- High measurement accuracy
- o Programmable measuring input
- o Alarm delays and interlockings
- o Galvanic insulation between external circuits
- o Self-configurable decimal point
- o Installed on 96 x 49 mm panels

#### **Application**

These digital instruments have many different applications and can be used in:

- o Industrial applications
- Air conditioning units
- Solar photovoltaic energy installations
- o Industrial process control systems







Digital instruments: Programmabled DC measurement Central

Code: M223A8.

### Specifications

AC power supply					
Installation category	CAT III 300V				
Consumption	6 18 VA				
Frequency	50/60 Hz				
Nominal voltage	100270 V ~				
DC power supply					
Installation category	CAT III 300 V				
Consumption	1.3 2 W				
Nominal voltage	100270 Vdc				
Mechanical characteristics					
Size (mm) width x height x depth	96 x 49 x 107.8 (mm)				
Weight (kg)	0,056				
Environmental characteristics					
Protection class	Front: IP54, Rear case: IP20				
Relative humidity (without condensation)	≤ 93 %				
Storage temperature	-25 +70 °C				
Working temperature	-25 +55 °C				
Current measurement circuit					
Installation category	CAT III 600 V				
Consumption	<1VA				
Nominal current (In)	Shunt: 50 / 60 /75 / 100 / 150 / 200 / 250 / 300 / 400 / 600 mV				
Allowable overload	1.2 In continuous				
Voltage measurement circuit					
Installation category	CAT III 600 V				
Consumption	<1VA				
Input impedance	> 1 MΩ				
Nominal voltage	± 150 / 300 / 600 Vdc				
Maximum permanent measurement voltage	1.2 Un continuous				
Standards					
Electrical safety, Maximum height (m)	2000				
Electrical safety, Installation category	CAT III 300 V				
Standards	IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IE 61000-4-8, IEC 61000-4-11				







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#### User interface

Keyboard	4 keys
Display type	LCD 5 digits

#### Digital inputs

Input/output insulation	2000 V ~		
Quantity	2		
Туре	Potential-free contact		
Maximum short-circuit current	3.3 mA dc		
Maximum open circuit voltage	17 V dc		

#### Analogue outputs

Quantity	1
Linearity	0.5 %
Current mode, nominal range	0 20 mA, 4 20 mA, 4-12-20 mA
Current mode: maximum load resistance	350 Ω
Maximum internal voltage	17 V dc

### Digital relay outputs

Quantity	2
Maximum current	2.5 A
Electrical life	1 x 10 <sup>5</sup>
Maximum switching capacity	625 VA

#### Measurement accuracy

Phase current measurement	Class 0.5
Active energy measurement (kWh)	Class 1
Active power measurement (kW)	Class 1
Phase voltage measurement	Class 0.5

### Serial communication

Protocol	ModBus RTU
Technology / Type	RS-485

### DHC-96 CPM

Digital instruments: Programmabled DC measurement Central

CODE	TYPE	Protocol	Communications	N° relays	Analog output	System	Measurement Range (V)	Measurement Range (A)	Paramètre	Modules
Multimeter										
M223C8.	DHC-96 CPM 1500	Modbus/RTU	RS-485	2	1 (20 mA)	DC (Shunt)	± 150 / 300 /600 / 1000 / 1500 Vdc	50 / 60 / 75 / 100 / 150 / 200 / 250 / 300 / 400 / 600 mV	V/A/kW/kWh dc	96 x 48







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Option of 0/2... 10 VDC outputs on demand







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#### **Dimensions** Connections





