



The DHC-96 CPM 1500 is a panel mounted DC power meter that can measure up to 1500Vdc. It is ideally suited to measure PV systems as well as electric vehicle charging stations. With its backlit LCD display local reading of data is possible. It also provides control functionality through its built-in analog output as well as digital inputs and outputs. Remote access to the data is possible using its RS-485 Modbus RTU communications interface.

It measures and displays Voltage, Current, Power and Energy. Consumed and Generated amp-hours (Ah) are also available.

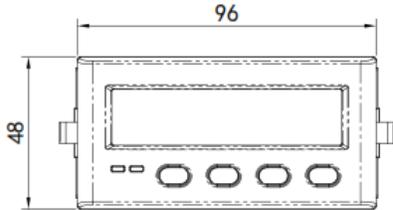
## Features

- Measures up to 1500Vdc
- Weatherproof (NEMA 12) front panel
- 1 configurable mA analog output, 10Vdc option
- RS-485 Modbus RTU communications
- Shunt current measurement, Hall effect option
- 2 configurable relay outputs
- 2 configurable digital / status inputs
- Wide range AC or DC auxiliary power options

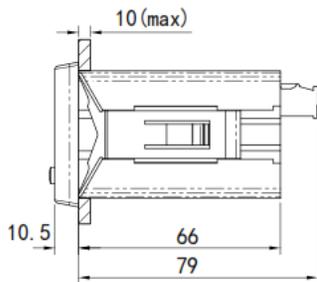
## Applications

- PV installations
- Remote cellular / mobile sites
- Building Energy Monitoring
- Electric Vehicle charging systems
- Industrial Applications
- Process Controls

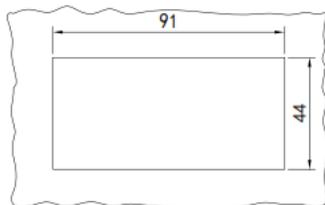
## Mechanical Dimensions (mm) \*



Front panel dimensions

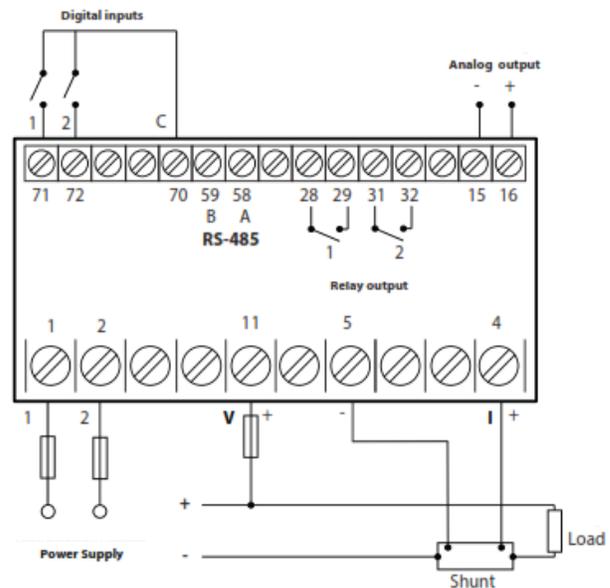


depth dimensions & max. panel thickness



Panel cut-out dimensions

## Connection Diagram (shunt model) \*





# DHC-96 CPM 1500 DC Panel Meter

## Technical Specifications \*

### DC Voltage Input

Rated Voltage (Un)	±150Vdc / ±300Vdc / ±600Vdc / ±1000Vdc / ±1500Vdc	Overload Impedance	1.2x continuous ( <b>Max: 1500Vdc</b> )
Consumption	< 1VA		> 1MΩ
Installation category	CAT III 1500V		

### DC Current Input

Rated Current In (Shunt input)	50 / 60 / 75 / 100 / 150 / 200 / 250 / 300 / 400 / 600 mV	Overload Impedance	1.2 x continuous
Consumption	< 1VA		< 20mΩ
Installation category	CAT III 1500V		

### Accuracy

Voltage and Current Measurements	Class 0.5	Power and Energy Measurements	Class 1.0
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### Auxiliary power Supply (AC)

Rated Voltage	100 – 270Vac	Frequency	50 / 60 Hz
Consumption	6..18 VA	Installation category	CAT III 300V

### Auxiliary power Supply (DC)

Rated Voltage	100 – 270Vdc (HV option)	Rated Voltage	20 – 60Vdc (LV option)
Consumption	< 5VA	Installation category	CAT III 300V

### Relay Outputs

Quantity	2	Contact Rating (resistive)	2.5A 250Vac or 2.5A 30Vdc
Maximum Current / power	2.5A / 625 VA	Electrical switching life	1 x 10 <sup>5</sup>

### Digital Inputs

Quantity	2	Type	Potential free contact
Insulation	4000Vac	Maximum short circuit current	3.3mA dc
Maximum open circuit voltage	17Vdc		

### Analog Output

Quantity	1	Nominal Output range	0-20 mA, 4-20, mA, 4-12-20 mA dc
Linearity	0.5%	Maximum burden	350Ω
Maximum internal voltage	17Vdc		

### RS-485 Communications

Protocol	Modbus RTU	Baud Rates	2400, 4800, 9600, 19200 bps
Data bits	8	Stop bits	1 - 2
Parity	None, Even, Odd		

### User Interface

Display	5-digit backlit LCD	Keyboard	4 keys
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### Environmental Features

Operating Temperature	-25°C to +55°C	Storage Temperature	-25°C to +70°C
Relative Humidity	≤ 93%	Maximum Altitude	2000m
Protection level	IP54 / Nema 12 – front IP20 / Nema 1 – rear housing	Pollution level	2

### Mechanical Features

Power Supply and Measurement	Terminals 1,2,4,5,11,14	Maximum wire diameter	18 AWG, 1.5mm <sup>2</sup>
IO and Communications	Terminals 15,16, 28,29,31,32, 58,59,70,71,72	Maximum wire diameter	12AWG, 2.5mm <sup>2</sup>
Maximum screwdriver torque	0.5 Nm	Dimensions	96 x 48 x 76.5 mm
Weight	240 g	Enclosure	PC & ABS

### Standards

IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11

## Ordering Examples

Model Number	Voltage / Current Inputs	Analog output	Auxiliary Power
<b>DHC-96 CPM 1500</b>	1500Vdc, shunt	20mA	100 – 270Vac or Vdc
<b>DHC-96 CPM 1500 DC</b>	1500Vdc, shunt	20mA	20 – 60 Vdc

\* Specifications subject to change without notice