



The DHC-96 CPM is a panel mounted DC power meter. 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.

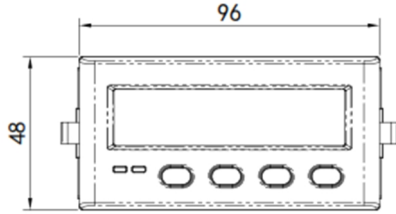
Features

- Measures up to 600Vdc
- 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

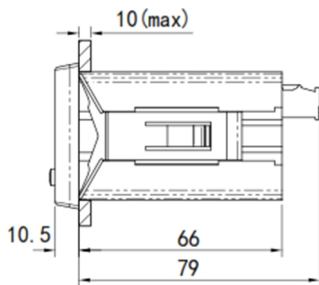
Applications

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

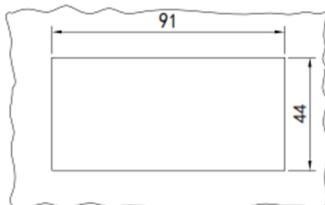
Mechanical Dimensions (mm) *



Front panel dimensions

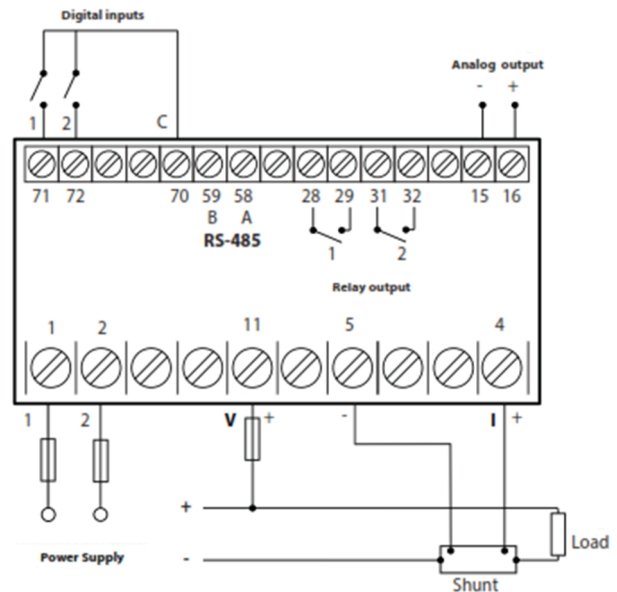


depth dimensions & max. panel thickness



Panel cut-out dimensions

Connection Diagram (shunt model) *



Technical Specifications *

DC Voltage Input

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

DC Current Input

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

Accuracy

Voltage and Current Measurements	Class 0.5	Power and Energy Measurements	Class 1.0
----------------------------------	-----------	-------------------------------	-----------

Auxiliary power Supply (AC)

Rated Voltage	100 – 270Vac	Frequency	50 / 60 Hz
Consumption	< 5 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 ⁵

Digital Inputs

Quantity	2	Type	Potential free contact
Insulation	2000Vac	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
---------	---------------------	----------	--------

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 ²
IO and Communications	Terminals 15,16, 28,29,31,32, 58,59,70,71,72	Maximum wire diameter	12AWG, 2.5mm ²
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
DHC-96 CPM	600Vdc, shunt	20mA	100 – 270Vac or Vdc
DHC-96 CPM-DC	600Vdc, shunt	20mA	20 – 60 Vdc