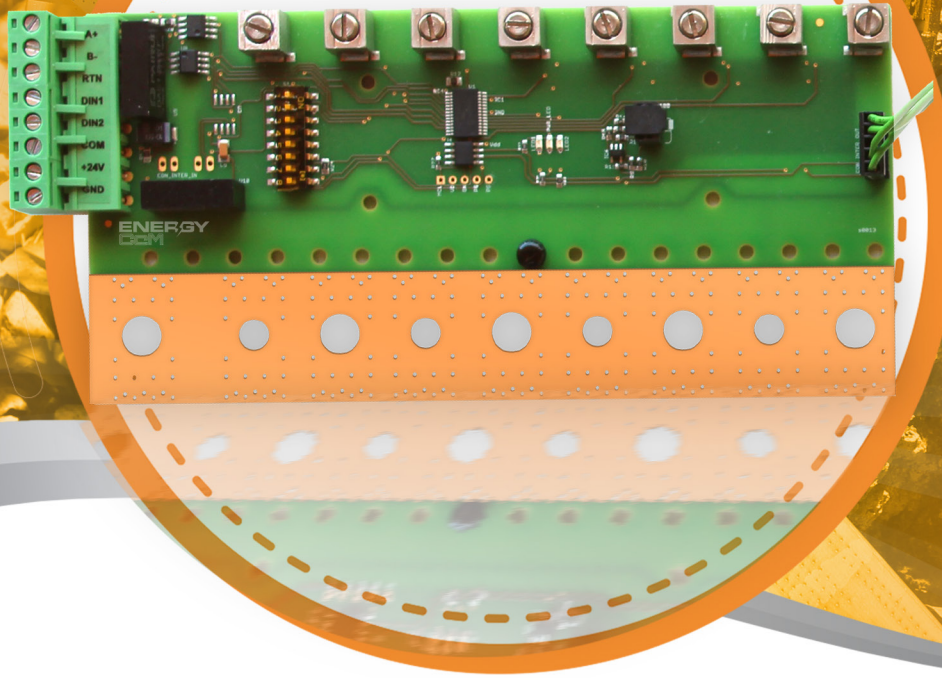
DATA SHEET
CcM 1500HALL
STRING MONITOR

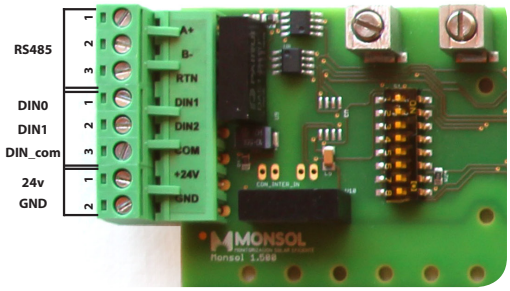
ENERGY CcM



CcM 1000/1500 HALL (Photovoltaic string current monitor)	
Number of channels	Up to 32 channels
Number of strings	Up to 64 strings
Max. current per channel	35 A DC (2 strings parallel)
Current measurement range	±20 A (on request 50 A)
Pole max. measurement voltage	Up to 1,500 V
Current measurement error	±1 % (FS)
Communication	Modbus RTU over RS-485
Number of digital inputs	2
Number of analogue inputs	1 (pt 100)
Max. elevation	3500 m AMSL
Operating temperature range	Min. -40° C, max. 80° C
Supply voltage	24 V DC ± 10 %
DIMENSIONS	
Length x Thickness x Width	170x20x82mm
EXTRAS	
CcM 1500_Volt Extension	
Max. voltage; measurement error	1500Vdc; error ± 1% (FS)

CURRENT MONITOR FOR PV PANEL STRINGS

Established in 2005, CcM specializes in the design, development and manufacturing of software and hardware for the monitoring of PV installations. We are now broadening our range of individual string monitoring devices to achieve the highest possible measurement accuracy, avoid obstructions to the flow of current, simplify the installation and guarantee a better performance of the installation. Thanks to its groundbreaking new connection concept and the innovative measuring and manufacturing technology, this new device reduces both, space and installation costs. (C.E./U.L. Certification)



Operating temperature -40 to +80° C

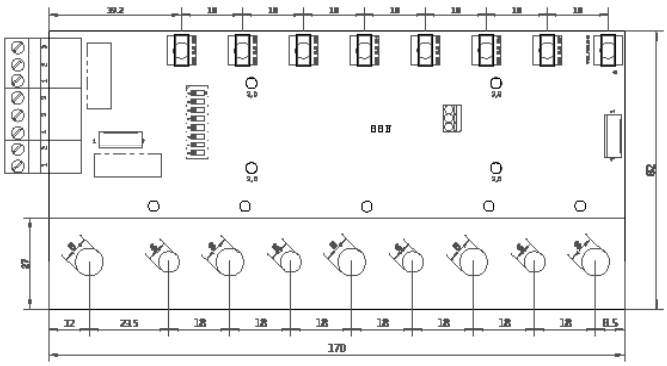
Up to 1500 V / 35 A

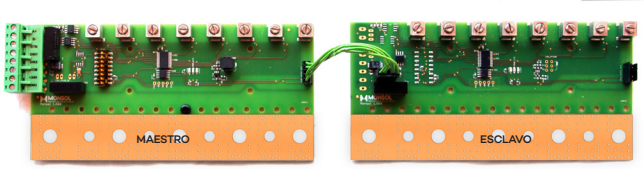
Enhanced safety

TECHNICAL PARAMETERS

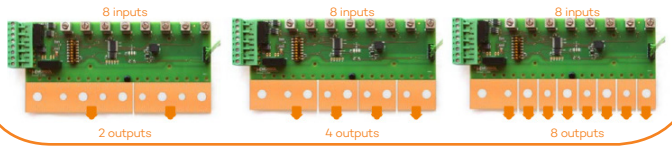
- Up to 32 channels per device (1 master +3 slaves)
- 35 A per channel
- Non-intrusive current monitoring by Hall system
- Reading precision error ±1 % (FS) (14 bits)
- Compatible with 1000V and 1500V strings
- Up to 60 readings per minute
- 2 closed/open type isolated digital inputs
- 1 input for PT100 sensors
- RS485 port
  - Standard Modbus RTU protocol
  - 3kV isolation
  - Surge protection
  - Transient voltage protected
- Selection of Modbus address by microswitch
- Industrial operating temperature range -40°C to +80°
- LEDs indicating power supply and data flow
- Power supply of 24 V DC ± 10% with 3kV isolation
  - Surge protection
  - Transient voltage protected
  - Polarity reversal protection
- PCB thickness of 2 mm suited for industrial handling
- Innovative manufacturing technology for high current
- Current busbar of up to 240 A without an additional busbar (copper plate)
- Electroless nickel immersion gold finish for maximum conductivity
- Auto-detection of extension modules
- 2 years warranty
- Epoxi resin overmolding and tropicalized PCB
- Extras:
  - CcM 1500 Volt® extension module monitoring voltage of up to 1500 V DC

CcM 1000/1500 Hall® is a measuring device designed to monitor current flowing from the first or second level combiner boxes all the way to the inverter. Its design replaces a multi-phase electric distribution busbar. We recommend that it should be installed during the assembly of the first level combiner box.

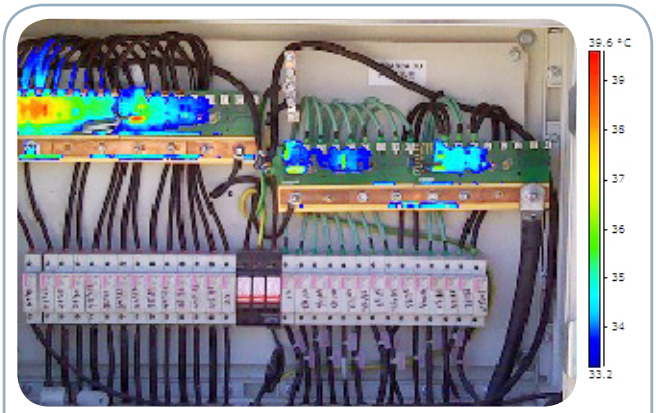




IMPORTANT: On request, it is possible to personalize the configuration of the output busbar. On default, there are 8 inputs and one single busbar output. The new design allows the division of the single PCB busbar to offer different output configurations such as: 8 separate inputs and 2 outputs, each joining 4 inputs; or 4 outputs, each joining 2 input strings; or 8 separate outputs, one for each input, etc..



Extension module CcM 1500 Volt® has been designed to measure the individual voltage of each box and observe the voltage drop by comparing the voltage of the string box with that of the inverter input. Reading precision error of this device is ±1%(FS) and it is compatible with both poles.



Maximum increase: 10 degrees above ambient temperature

Monitoring up to 32 current inputs

HOMOLOGATION:

Temperature testing
EN 60068-1-1:2007
EN 60068-2-1:2007
UL 61010 (PENDING)