



CMN-UMM-66VC is an advanced intelligent measuring module with an RS-485 interface and Modbus RTU protocol support. It is designed for monitoring of electrical network parameters in automation systems, BMS, EMS (Energy Management Systems), and energy infrastructure applications.



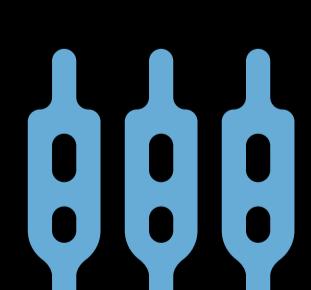
for distributed metering
systems and energy
efficiency



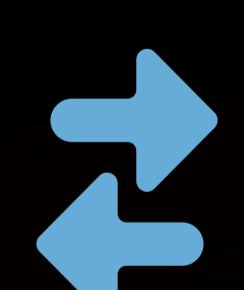
simultaneous control
of 6 power lines



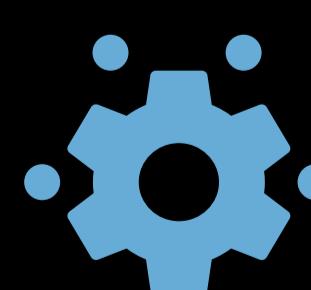
accurate and stable
measuring



support for external
current transformers
(CTs)



support for Modbus
industrial protocol



easy integration with
BMS and SCADA

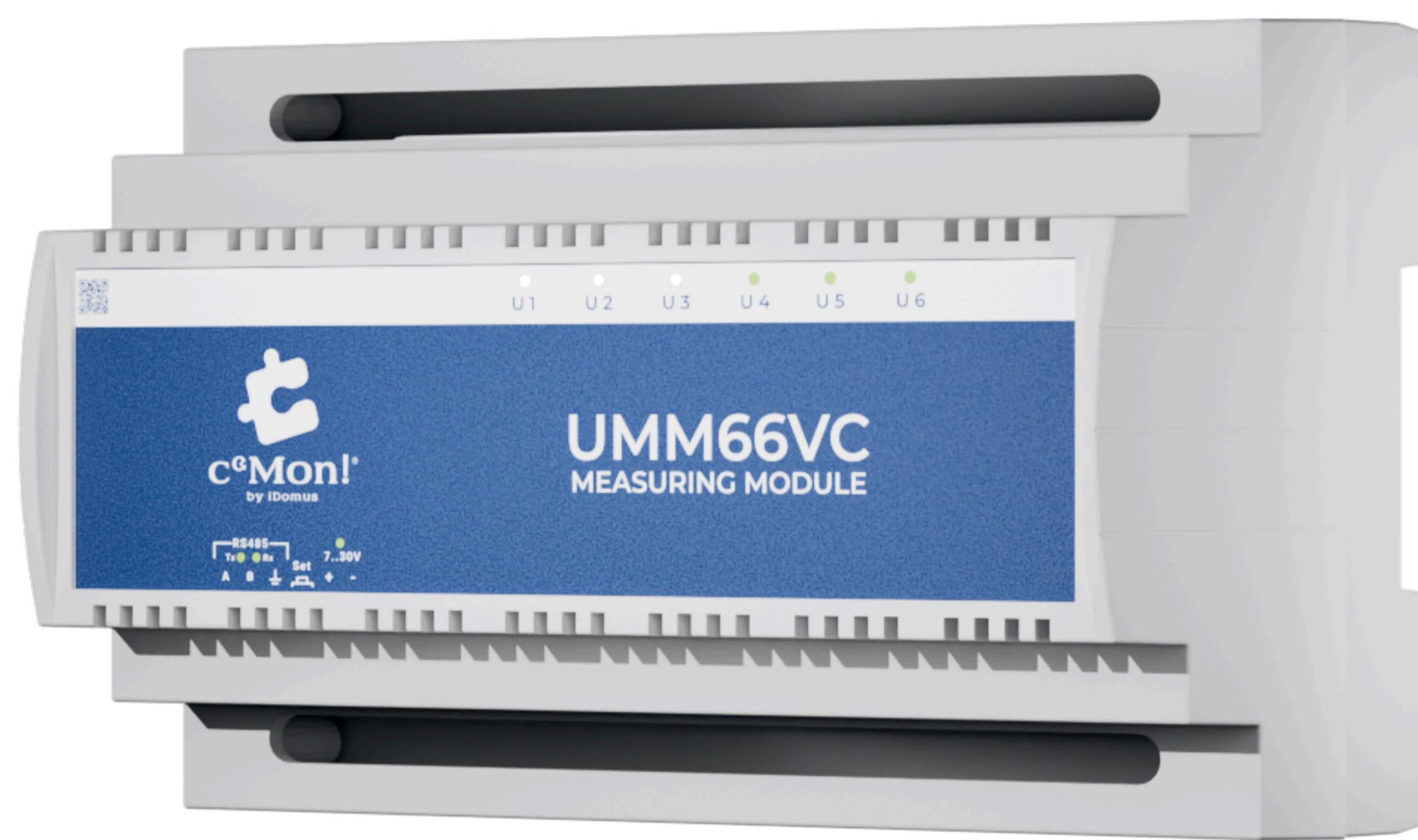
FEATURES

6x6 Module is equipped with six 220 V AC voltage measurement inputs and six current measurement inputs using external current transformers (CTs). This configuration ensures accurate monitoring of energy consumption, line conditions, and load status within distributed power supply systems.

The module supports remote polling and transmission of measured data via Modbus RTU, providing high measurement accuracy, reliable operation in industrial environments, and seamless integration into electrical energy metering systems and energy efficiency management solutions.

AREAS OF APPLICATION

- ✓ Electricity metering and monitoring systems
- ✓ BMS and EMS
- ✓ Energy infrastructure and electrical distribution panels
- ✓ Street and industrial lighting networks
- ✓ Industrial and commercial facilities
- ✓ SCADA and dispatch systems
- ✓ Energy-efficient management systems

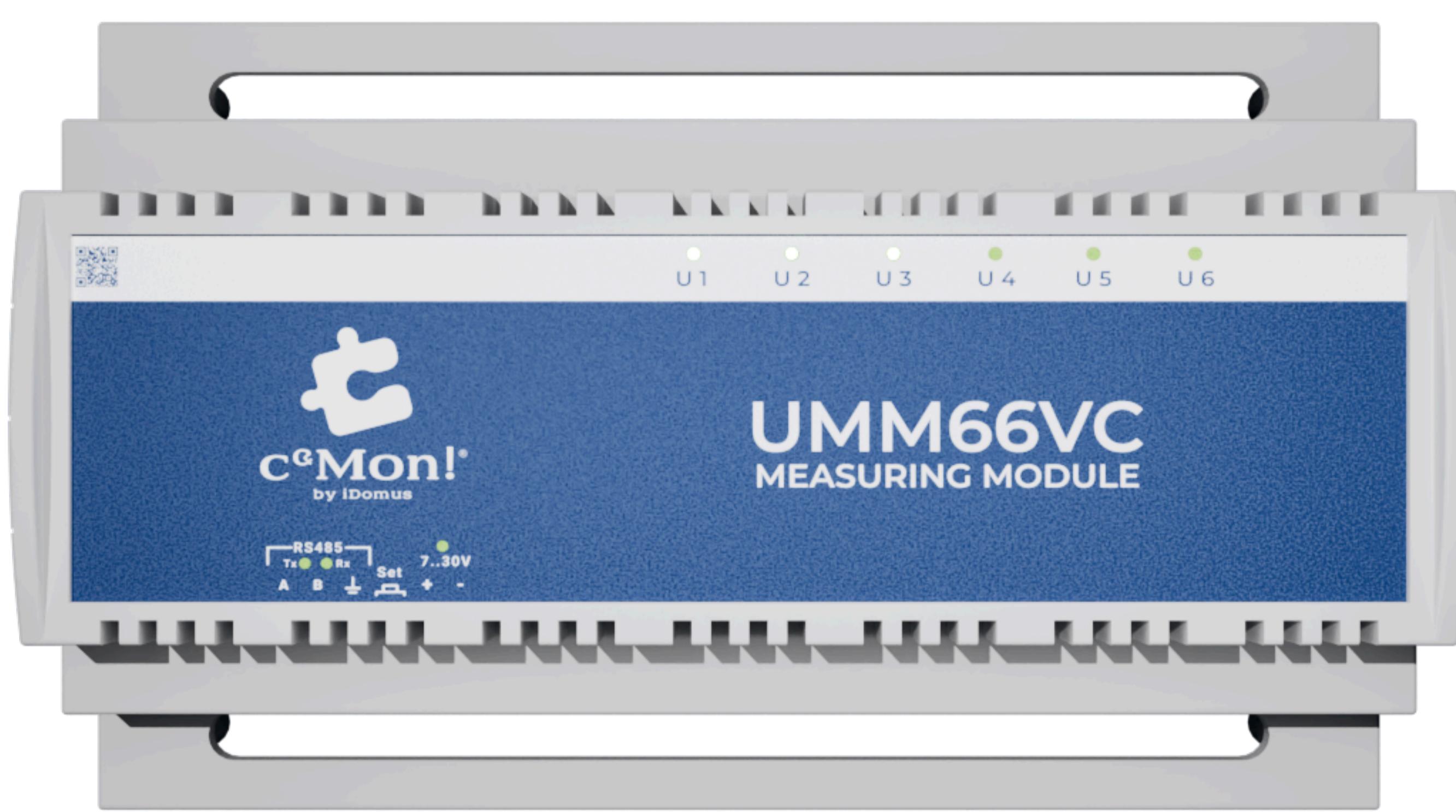


FUNCTIONAL CHARACTERISTICS

| | |
|------------------------------|--|
| Voltage measurement channels | 6 |
| Rated voltage | 220 V AC |
| Current measurement channels | 6 |
| Current sensor type | external current transformers (CT) |
| Number of monitored lines | up to 6 |

DIMENSIONS

| | |
|--------|---------|
| Width | ~140 mm |
| Height | ~90 mm |
| Depth | ~67 mm |
| Weight | 210 g |



POWER SUPPLY

- Nominal supply voltage: 12–24 V DC
- Power consumption: ≤ 4 W

VOLTAGE MEASUREMENT INPUTS

- Rated voltage: 50–300 V AC
- Frequency: 50 / 60 Hz
- Input impedance: ≥ 1 M Ω
- Galvanic isolation: built-in

CURRENT MEASUREMENT INPUTS

- Input type: external current transformers (CTs)
- Rated secondary current (CT): 1–20 mA
- Measurement range: determined by the CT type
- Overload capacity: up to 120% (short-term)

MEASURING ACCURACY

- Voltage: ± 1 %
- Current: ± 1 %
- Power and energy: Class 1.0

PACKAGE CONTENTS

- CMN-UMM-66VC Measurement module
- Datasheet / user manual
- Packaging

INDICATION

- Power LED
- RS-485 activity LED

Model designation CMN-UMM-66VC

UMM Universal Measurement Module

6x6

6 voltage channels /
6 current channels

V

voltage measurement

C

current measurement

COMMUNICATION INTERFACE

- Interface: RS-485
- Protocol: Modbus RTU
- Transmission speed: 9 600 - 115 200 bps
- Device address: 1-250
- Line protection: built-in (TVS / ESD)
- Network topology: daisy chain

MODBUS FUNCTIONS

- Reading measured parameters
- Reading diagnostic data
- Configuring measurement settings
- Resetting and controlling energy meters

Supported Modbus Functions

- 03 – Read Holding Registers
- 04 – Read Input Registers
- 06 – Write Single Register
- 16 – Write Multiple Registers

FORM FACTOR

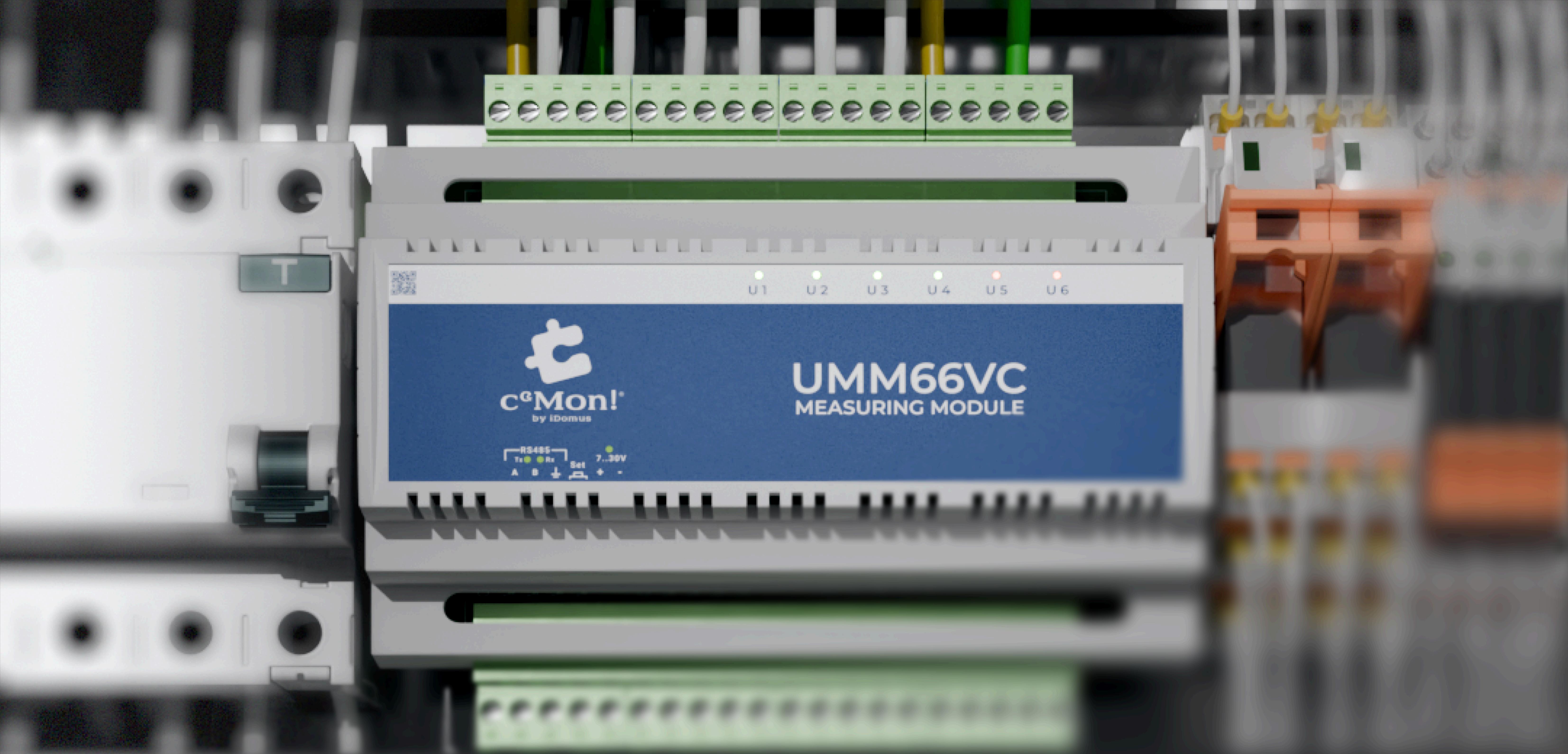
- Enclosure: PC/ABS self-extinguishing
- Mounting: 35 mm DIN rail
- Terminals: screw-type (power and command)
- Protection rating: IP20

OPERATIONAL CONDITIONS

- Operating temperature: $-20\dots+60$ °C
- Storage temperature: $-40\dots+85$ °C
- Humidity: up to 92%, without condensation

MEASURED PARAMETERS

- Phase voltage (V)
- Phase current (A)
- Active power (P)
- Reactive power (Q)
- Apparent power (S)
- Power factor ($\cos \varphi$)



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