



# CMN-UMM-33VC

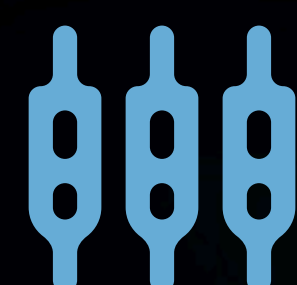
Compact Universal Measurement Module  
RS-485 / Modbus RTU



CMN-UMM-33VC is a compact universal measuring module with an RS-485 interface and Modbus RTU protocol support. It is designed for precise monitoring of electrical network parameters in automation systems, BMS, EMS (Energy Management Systems), and energy infrastructure applications.



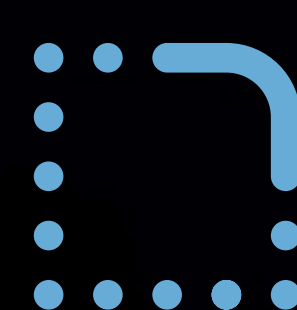
supports single-phase  
and three-phase  
configurations



support for external  
current transformers  
(CTs)



high accuracy  
measuring



compact solution for  
measuring network  
parameters



support for Modbus  
industrial protocol



easy integration with  
BMS and SCADA



# FEATURES

3x3 Module is equipped with three 220 V AC voltage measurement inputs and tree current measurement inputs using external current transformers (CTs). This configuration ensures accurate monitoring of three-phase networks and individual single-phase lines.

The module supports remote polling and transmission of measured data via Modbus RTU, featuring high measurement accuracy, compact size and seamless integration into electrical energy metering and load control systems.

## AREAS OF APPLICATION

- ✓ Electricity metering and monitoring systems
- ✓ BMS and EMS
- ✓ Electrical distribution panels and automation units
- ✓ Phase and load control
- ✓ Industrial and commercial facilities
- ✓ Industrial and municipal systems
- ✓ SCADA and dispatch systems

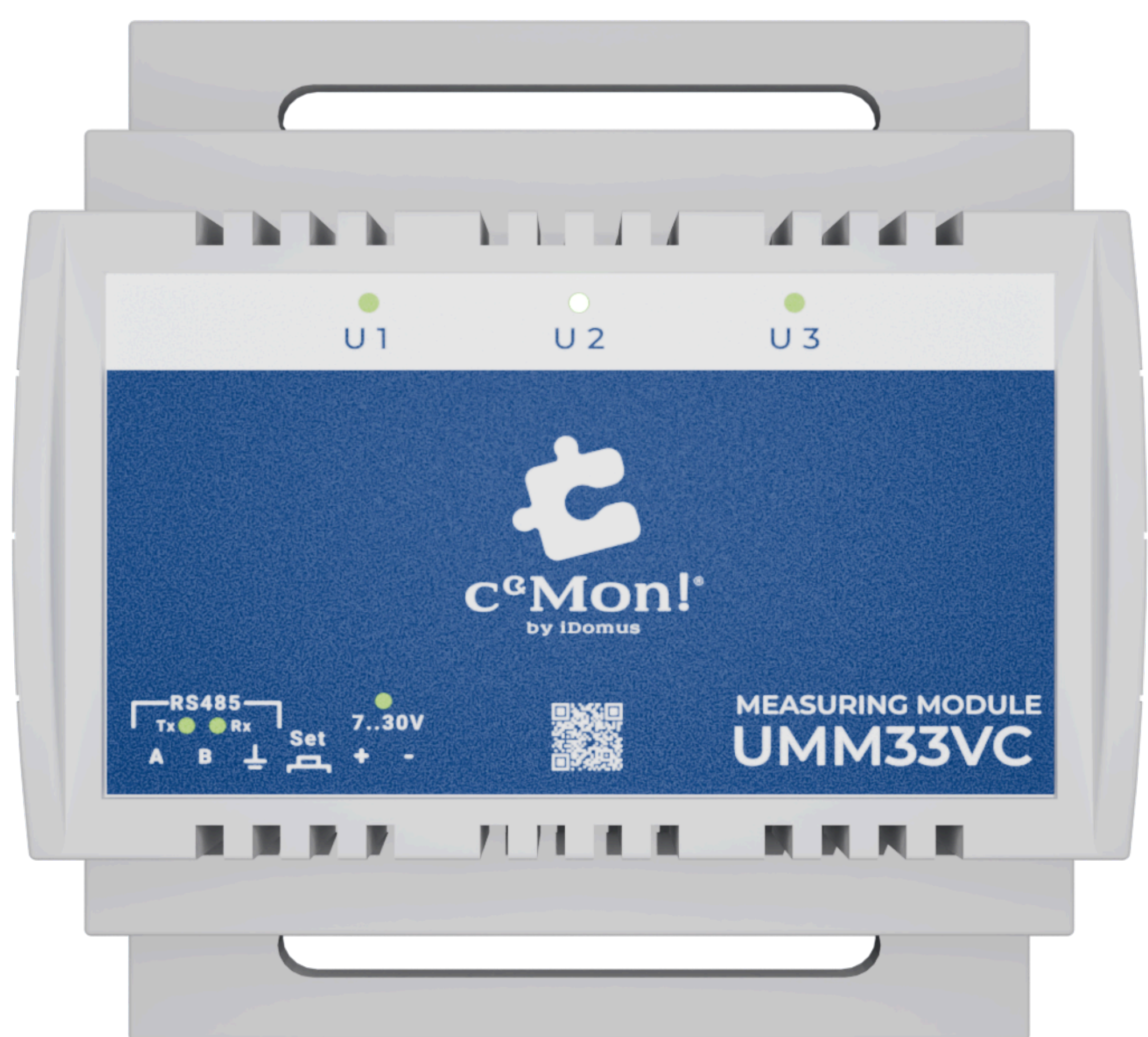


## FUNCTIONAL CHARACTERISTICS

Voltage measurement channels	3
Rated voltage	220 V AC
Current measurement channels	3
Current sensor type	external current transformers (CT)
Network type	1-phase / 3-phase

## DIMENSIONS

Width	~70 mm
Height	~90 mm
Depth	~67 mm
Weight	120 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 MΩ
- 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

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...+60 °C
- Storage temperature: –40...+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 φ)

Model designation CMN-UMM-66VC

UMM	Universal Measurement Module
6×6	6 voltage channels / 6 current channels
V	voltage measurement
C	current measurement





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## CONTACTS

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