NEW

- **Multifunction meters** - for monitoring network parameters
  - True RMS suitable for EMS, SCADA, ERP applications

- Site programmable for CT/VT ratio
- Site programmable for network selection
- 33 built-in types of configurable alarms with user-selected priorities
- User configurable multi-tariff and datalogging
- External I/O expansion modules available:
  2DI+ 4RO
- RS-485 Modbus RTU and Ethernet communication
- up to 41 harmonic THD%
- Recognitions, certifications, directives: RoHS, CE

Input circuit

Type of measurement networks		3P4W, 3P3W, 1P2W (L-N), 1P2W (L-L)
Measurement method		True RMS see Table 1
Measurement accuracy		Class 0.2S as per IEC 62053-22
Auxiliary input		40...300 V AC/DC
Power consumption		< 6 VA
Frequency range		45...65 Hz

Output/measuring circuit ❶

Measurement input		20...277 V AC (L-N) 35...480 V AC (L-L) Cat. III 20...347 V AC (L-N) 35...600 V AC (L-L) Cat. II
Voltage transformer VT	• primary • secondary	100...999 kV (programmable) 100,110,115,120 V (programmable)
Measurement method		True RMS
Input voltage (Budren)		< 0,2 VA at 300 V AC
Input current (Budren)		0,5 VA at 5A
Input current	• rated • min., max.	5 A AC 5 mA, 6 A
Current transformer CT	• primary • secondary	1 A / 5...32767 A (programmable) 1 A / 5 A (programmable)

General data

Material	polycarbonate
Mounting type	panel mount
Dimensions (L x W x H)	96 x 96 x 46 mm
Panel cutout	92 x 92 mm
Weight	350 g
Cover protection category	front: IP 65 back: IP 20
Accessories	panel mount clamp, terminal cover

❶ Common measure with CT and VT - look at data sheet.

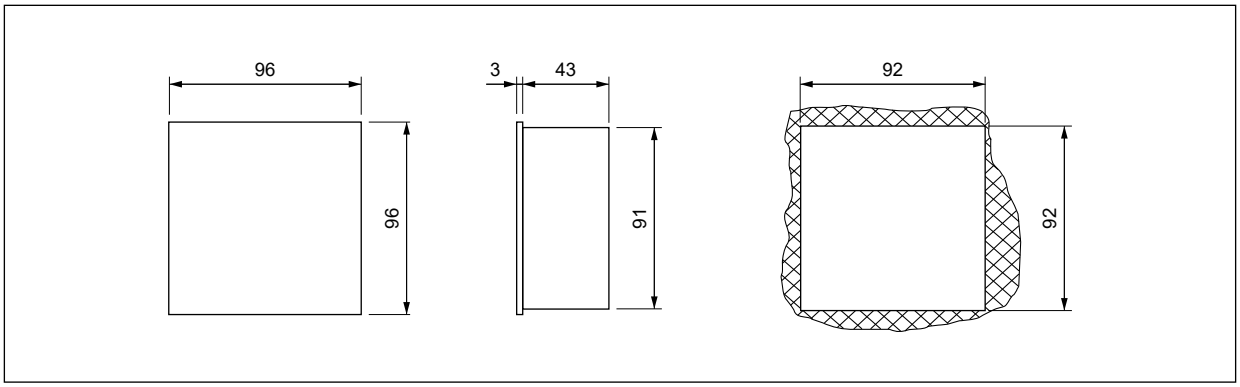
Measurements accuracy Table 1

Measurement type	Compliance with the standard	Measurement error
Accuracy	Class as per IEC 61557-12 (In = 5 A, rated CT)	0,2%
Active energy	Class 0.2S as per IEC 62053-22 (In = 5 A, rated CT)	±0,2%
Reactive energy	Class 1 as per IEC 620253-24 (In = 5 A, rated CT)	±1%
Apparent energy	Class 0.5S (In = 5 A, rated CT)	±0,5%
Active power	± 0,2%	
Reactive power	±1%	
Apparent power	± 0,5%	
Current	± 0,2%	
Voltage (L-N), (L-L)	± 0,2%	
Frequency	± 0,005%	

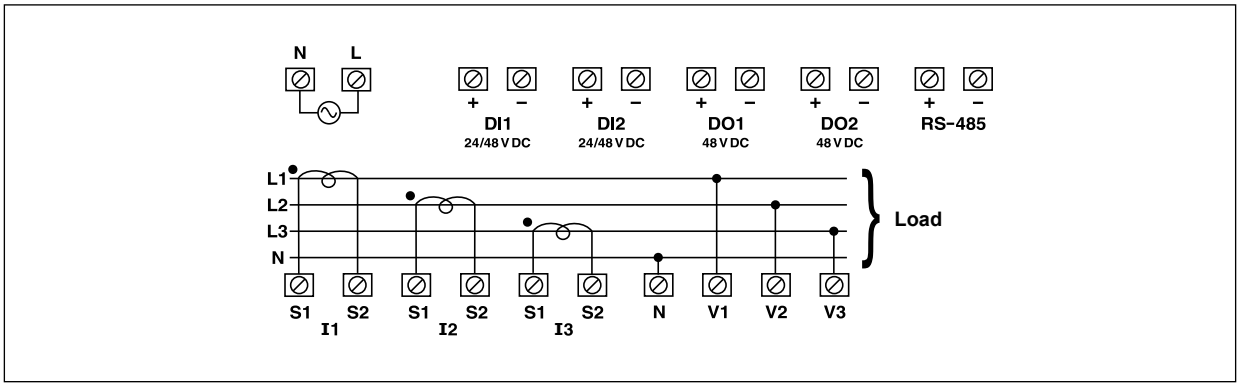
Description

Features of meters **RMM-683-02**:
- power factor sign convention (IEC/IEEE standards),
- four quadrant measurements of power factor & power,
- supports data logging up to 30 user-selectable parameters from a total of 105, with a retention period of 90 days at a 5-minute sampling interval,
- 3-phase import, export, import + export, import - export (active, reactive, apparent) energies,
- demand parameters with various methods (peak, present, last, predictive),
- time-stamping for the occurrence of peak demand, min./max. parameter values (voltage, current, power factor, power, frequency) and reset of energies and tariff parameters,
- measurements of true, displacement and distortion power factor,
- digital input (DI1) for dual energy measurement - mains and DG,
- configurable Digital Input(DI2) of 24/48V for external input and demand sync application.

Dimensions, opening on panel mounting



Connection diagram



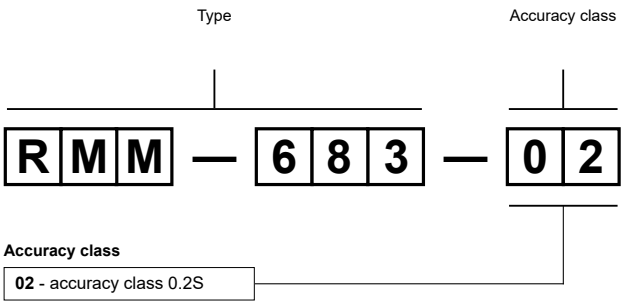
Mounting

Meters **RMM-683-02** are designed for direct mounting on panel. Operational position - vertical. **Connections:** max. cross section of the cables (at 75 °C): 0,2...0,75 mm^2 (24...18 AWG), max. tightening moment for the terminal: 0,68...0,79 Nm.

Expansion modules

For meters **RMM-683-02** are available external I/O expansion modules which shall be ordered as a separate product:
- 2DI+4RO: 2 digital inputs + 4 relay outputs,

Ordering codes



Example of ordering codes:

RMM-683-02 meter **RMM-683-02**, on panel mounting, multifunction (electric parameters measurement in network AC), accuracy class 0.2S

PRECAUTIONS:
1. Ensure that the parameters of the product described in its specification provide a safety margin for the appropriate operation of the device or system and never use the product in circumstances which exceed the parameters of the product. **2.** Never touch any live parts of the device. **3.** Ensure that the product has been connected correctly. An incorrect connection may cause malfunction, excessive heating or risk of fire. **4.** In case of any risk of any serious material loss or death or injuries of humans or animals, the devices or systems shall be designed so to equip them with double safety system to guarantee their reliable operation.