



Fronius Smart Meter.

Designed to monitor.

First measure, then optimise: Fronius Smart Meter

- 01 Data with added value
- 02 Savings as standard
- 03 Ready for anything

Visualise, control and optimise energy flows: efficient energy management is only possible if the right data is available. And this is exactly what the Smart Meter – our bidirectional and intelligent electricity meter for photovoltaic systems – quickly, reliably and accurately provides.

Fronius Smart Meter. Designed to monitor.

General product strengths

01 Data with added value

The basis for photovoltaic system optimisation: our bidirectional Smart Meters measure all energy flows that come from the grid or flow into the grid, allowing them to gather valuable information quickly, reliably and precisely. If used properly, the data has the real added value of saving photovoltaic system owners money.

02 Savings as standard

Save money and energy over the long term: this is made possible by our Smart Meters as essential accessories in combination with the inverter and our monitoring tool Fronius Solar.web. Energy flows can be visualised, controlled and therefore also optimised. This is how efficient energy management based on data works.

03 Ready for anything

Something for everyone: our variety of Smart Meter products covers the entire range of applications – whether for private households or commercial use.



Fronius Smart Meter IP*

The intelligent electricity meter with LAN and WLAN connection.

| Fronius Smart Meter | | | IP |
|---------------------|---|-----------------|--|
| Technical data | Nominal voltage | V | 100 - 240 (3 x 208 - 480) |
| | Operating voltage range | % | -10 to +10 |
| | Nominal frequency | Hz | 50 - 60 |
| | Maximum current | A | 5000 |
| | grid type | | 1PN, 2PN, 3PN |
| | Power line cross section | mm ² | 1.5 - 4 |
| | Neutral line cross section | mm ² | 1.5 - 4 |
| | CT's & Communication line cross section | mm ² | 0.25 - 2.5 |
| | Self-consumption | W | 2 |
| | Starting current | mA | 20 (max. 30) |
| | Accuracy class | | 1 |
| | Active energy accuracy | | Class 1 (EN 62053-21) / Class B (EN 50470-3) |
| | Reactive energy accuracy | | Class 2 (EN 62053-23) |
| | Short-time overcurrent | | 3 x I _{max} / 20 s |
| | Mounting | | Indoors (DIN rail) |
| | Housing | | 3 modules DIN 43880 |
| | Degree of protection | | IP20 (front frame), IP30 (terminals) |
| | Ambient temperature range | °C | -25 to +55 |
| | Dimensions (height x width x depth) | mm | 90 x 53 x 58 |
| | Weight | g | 132 |
| | Interface to inverter | | Modbus RTU (RS485), Modbus TCP (WiFi, LAN) |
| | Current transformers | | Primary: 1 - 5000 A / secondary: use only CTs with voltage output 333 mV |

* depending on country-specific availability and certification



Fronius Smart Meter*

The intelligent electricity meter for private and commercial use.

| | | | Fronius Smart Meter | | |
|----------------|---|-----------------|--|-------------------------------|-------------------------------|
| | | | 63A-3 | 50kA-3 | 63A-1 |
| Technical data | Nominal voltage | V | 230 - 400 | 400 - 415 | 230 - 240 |
| | Operating voltage range | % | -15 to +15 | -9 to +14 | -10 to +10 |
| | Nominal frequency | Hz | 50 - 60 | 50 - 60 | 50 - 60 |
| | Maximum current | A | 3 x 63 | 3 x 50,000 | 1 x 63 |
| | grid type | | 3PN | 1PN, 3P, 3PN | 1PN |
| | Power line cross section | mm ² | 1 - 16 | 0.05 - 4 | 1 - 16 |
| | Neutral line cross section | mm ² | 1 - 16 | 0.05 - 4 | 1 - 16 |
| | CT's & Communication line cross section | mm ² | 0.05 - 4 | 0.05 - 4 | 0.05 - 4 |
| | Self-consumption | W | 1.5 | 2.5 | 1.5 |
| | Starting current | mA | | 40 | |
| | Accuracy class | | 1 | 1 | 1 |
| | Active energy accuracy | | Class B (EN50470) | | |
| | Reactive energy accuracy | | Class 2 (EN/IEC 62053-23) | | |
| | Short-time overcurrent | | 30 x I _{max} / 0.5 s | 30 x I _{max} / 0.5 s | 30 x I _{max} / 0.5 s |
| | Mounting | | Indoors (DIN rail) | | |
| | Housing | | 4 modules DIN 43880 | 4 modules DIN 43880 | 2 modules DIN 43880 |
| | Degree of protection | | IP 51 (front frame), IP 20 (terminals) | | |
| | Ambient temperature range | °C | -25 to +55 | -5 to +55 | -25 to +55 |
| | Dimensions (height x width x depth) | mm | 89.0 x 71.2 x 65.6 | 89.0 x 71.2 x 65.6 | 89.0 x 35.0 x 65.6 |
| | Weight | g | 260 | 260 | 250 |
| | | | Modbus RTU (RS485) | | |
| | | | 8-digit LCD | 8-digit LCD | 6-digit LCD |
| | | | Primary: 1 - 50,000 A / secondary: use only CT with current output 5 A | | |



Fronius Smart Meter WR*

The intelligent electricity meter with current transformer control.

| | | | Fronius Smart Meter | |
|----------------|---|-----------------|---|--|
| | | | WR 100-600 V-3 | |
| Technical data | Nominal voltage | V | 120 - 600 | |
| | Operating voltage range | % | -15 to +15 | |
| | Nominal frequency | Hz | 45 - 65 | |
| | Maximum current | A | 3 x 6000 | |
| | grid type | | 1PN, 2P, 2PN, 3P, 3PN | |
| | Power line cross section | mm ² | up to 2.5 | |
| | Neutral line cross section | mm ² | up to 2.5 | |
| | CT's & Communication line cross section | mm ² | up to 2.5 | |
| | Self-consumption | W | 1.75 | |
| | Starting current | mA | 40 | |
| | Accuracy class | | 0.5 | |
| | Active energy accuracy | | ANSI C12.20 class 0.5 and ANSI C12.1 accuracy | |
| | Mounting | | Indoor: wall-mounted; Outdoor: if mounted inside an electrical enclosure that is rated NEMA 3R or 4 / IP 66 | |
| | Degree of protection | | IP40 | |
| | Ambient temperature range | °C | -40 to +80 | |
| | Dimensions (height x width x depth) | mm | 153 x 85.1 x 38.0 (6.02 in x 3.35 in x 1.50 in) | |
| | Weight | g | 233 | |
| | | | Modbus RTU (RS485) | |
| | | | Primary: 1 – 6000 A / secondary: use only CTs with voltage output 333 mV | |

* depending on country-specific availability and certification

Current transformers for Fronius Smart Meters

Flexible measurements

Optimisation of photovoltaics without risk: in large photovoltaic systems, high output current can no longer be recorded with Smart Meters that measure directly. The Fronius Smart Meter CT current transformer transforms the measured current into a signal that is reliably measured and converted. Installing the Fronius Smart Meter CT is especially convenient — thanks to the split-core technology, the current transformer can be placed around the conductor without having to disconnect the cable for installation.



| | | | Fronius Smart Meter CT A | | | | |
|---------------------------|-------------------------------------|----|--|---------|---------|---------|------------------|
| | | | 100A/5A | 150A/5A | 200A/5A | 250A/5A | 400A/5A |
| Technical data | Compatible Fronius Smart Meters | | Fronius Smart Meter TS 5kA-3 Fronius Smart Meter 50kA-3 | | | | |
| | Accuracy | | 1 ¹ | | | | |
| | Type of installation | | Split-core | | | | |
| | Dimensions (height x width x depth) | mm | 66.5 x 45 x 34.4 | | | | 81.5 x 57 x 38.4 |
| | Diameter | mm | 24 | | | | 36 |
| | Cable length | m | 1 | | | | |
| | Temperature range | °C | -40 to +65 | | | | |
| Apparent ohmic resistance | | | | | | | |
| | Class 1 | VA | 0.3 | 1 | 1 | 2.5 | 5 |

¹ Depending on the apparent ohmic resistance



| | | | Fronius Smart Meter CT V | | |
|----------------|-------------------------------------|----|--|------------------|------------------|
| | | | 100A/333mV | 250A/333mV | 400A/333mV |
| Technical data | Compatible Fronius Smart Meters | | Fronius Smart Meter WR 100-600 V-3 Fronius Smart Meter IP | | |
| | Accuracy | | 1 | | |
| | Type of installation | | Split-core | | |
| | Dimensions (height x width x depth) | mm | 46 x 31.5 x 31.5 | 66.5 x 45 x 34.4 | 81.5 x 57 x 38.4 |
| | Diameter | mm | 16 | 24 | 36 |
| | Cable length | m | 1 | | |
| | Temperature range | °C | -40 to +65 | | |

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