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	mm²	1.5 - 4
	Neutral line cross section	mm²	1.5 - 4
	CT's & Communication line cross section	mm²	0.25 - 2.5
	Power 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 TS*

The intelligent electricity meter
with touchscreen operation.

			Fronius Smart Meter		
			TS 100A-1	TS 65A-3	TS 5kA-3
Technical data	Nominal voltage	V	230	208 - 400	400 - 480
	Operating voltage range	%	-30 to +20	-20 to +20	-20 to +15
	Nominal frequency	Hz	45 - 65	45 - 65	45 - 65
	Maximum current	A	1 x 100	3 x 65	3 x 5000
	grid type		1PN	2PN, 3P, 3PN	1PN, 2PN, 3P, 3PN
	Power line cross section	mm²	1 - 25	1 - 16	1 - 4
	Neutral line cross section	mm²	1 - 25	1 - 16	1 - 4
	CT's & Communication line cross section	mm²	0.05 - 1.5	0.05 - 1.5	0.05 - 1.5
	Power consumption	W	<=1	<=1	<=1
	Starting current	mA	40	20	10
	Accuracy class		1	1	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		3000 A / 10 ms	1950 A / 10 ms	30 A / 500 ms
	Mounting		Indoors (DIN rail)		
	Housing		2 modules DIN 43880	3 modules DIN 43880	3 modules DIN 43880
	Degree of protection		IP 51 (front frame), IP 20 (terminals)		
	Ambient temperature range	°C	-25 to +65		
	Dimensions (height x width x depth)	mm	91.5 x 35.8 x 63.0	91.5 x 53.8 x 63.0	91.5 x 53.8 x 63.0
	Weight	g	160	240	240
	Interface to inverter		Modbus RTU (RS485)		
	Display		3 x 8 digit / touchscreen		
	Current transformers				Primary: 1 - 5000 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	mm²	up to 2.5
	Neutral line cross section	mm²	up to 2.5
	CT's & Communication line cross section	mm²	up to 2.5
	Power 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
	Interface to inverter		Modbus RTU (RS485)
	Current transformers		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		

Fronius UK Limited
Maidstone Road, Kingston
Milton Keynes, MK10 0BD
United Kingdom
pv-sales-uk@fronius.com
www.fronius.co.uk

Fronius International GmbH
Froniusplatz 1
4600 Wels
Austria
pv-sales@fronius.com
www.fronius.com

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