



Fronius TS 100A-1 Smart Meter User Guide

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manuals.fronius.com/html/4204260350

Perfect Welding / Solar Energy / Perfect Charging



WARNING! Incorrect operation and incorrectly performed work can cause serious personal injury or material damage. The Fronius Smart Meter may only be installed and commissioned by trained personnel and only within the scope of the technical regulations. Before working with the device, read and understand all enclosed, printed and online documents! This document does not describe all of the possible system configurations.

FRONIUS INTERNATIONAL GMBH

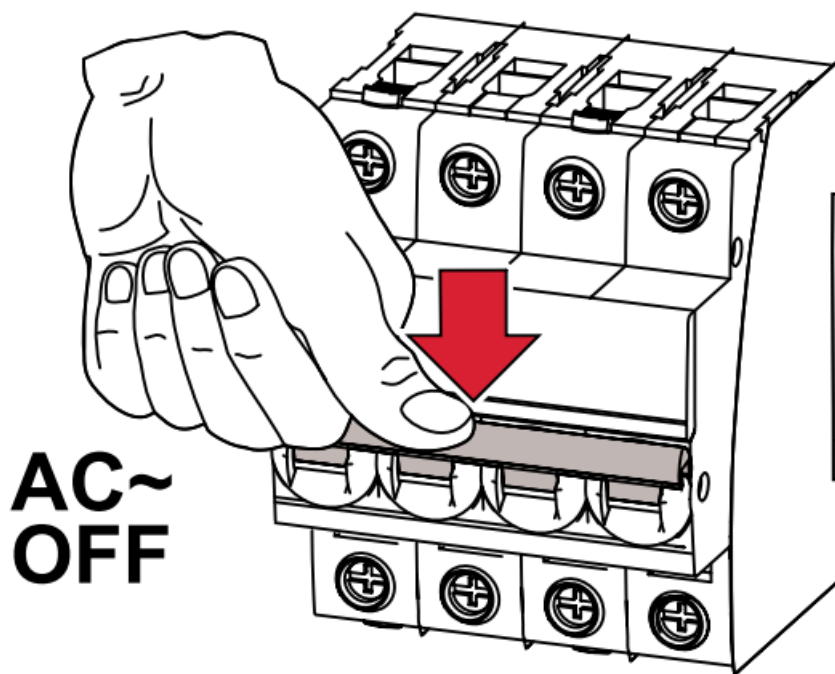
www.fronius.com

SOFTWARE REQUIREMENTS	
Fronius Data manager 2.0	≥ 3.16.1 version
Fronius Symo Hybrid	≥ 1.16.1 version
MEASURING INPUT	
Nominal voltage (1-phase) range	230 V (-30 % to +20 %)
Self-consumption – voltage path (max. voltage)	≤ 8 VA
Nominal frequencyTolerance	50 – 60 Hz45 – 65 Hz
Nominal current, I _b	5 A
Maximum current, I _{max}	100 A
Starting current	40 mA
Short-time overload(EN IEC 62053-21, EN IEC 62053-23)	30 I _{max} / 0.001 s
Self-consumption – current path (max. current)	≤ 1 W
Power factor Operating range(EN IEC 62053-21, EN IEC 62053-23)	cosφ 0.5 ind – 0.8 cap
Current distortion factor	In acc. with EN 62053-21
OUTPUTRS485 communication (Electrically isolated from measuring input)	
StandardAddresses	RS485 – 3 conductors1 – 255
Baud rate	9600, 19200 bit/s
Response time	≤ 200 ms

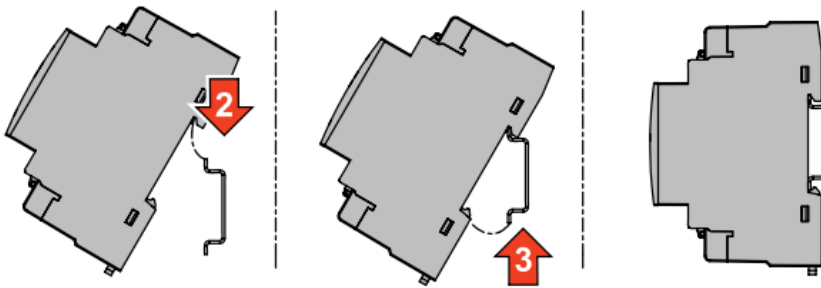
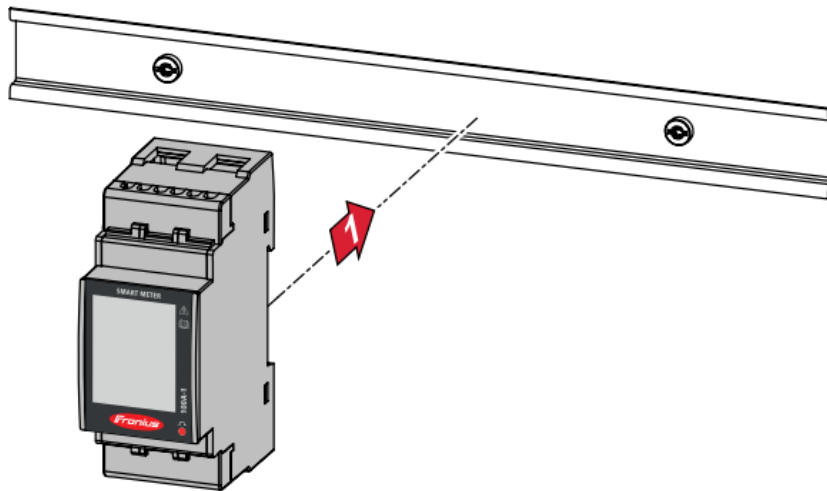
INSULATION (EN IEC 62052-11, EN IEC 62053-21)	
Installation category	III
Degree of pollution	2
Insulation voltage	4000 VAC RMS (1 min)
ELECTROMAGNETIC COMPATIBILITY	
Emission test	In acc. with EN IEC 62052-11, EN 50470-3
Immunity test	In acc. with EN IEC 62052-11, EN 50470-3
OPERATING CONDITIONS	
Reference temperature	25 °C (± 5 °C)
Operating range	-25 to +65 °C
Temperature limit for storage and transport	-30 to +80 °C
Mechanical environment Electromechanical environment	M2E2
HOUSING	
Housing	2 modules according to DIN 43880
Sealable housing/terminal cover	
Connection	Screw connection
Mounting	Can be snapped onto 35 mm DIN rail
Housing material	Noryl, self-extinguishing
Degree of protection (EN 60529)	IP51 housing, IP20 connections
Weight	160 grams
TERMINALS – MEASURING INPUT	
Wire	max. 25 mm ²
Recommended torque	max. 2.8 Nm
TERMINALS – DATA OUTPUT	
Wire	min 0.05 mm ²
Recommended torque	max. 0.4 Nm

Detailed, country-specific warranty terms are available on: www.fronius.com/solar/warranty

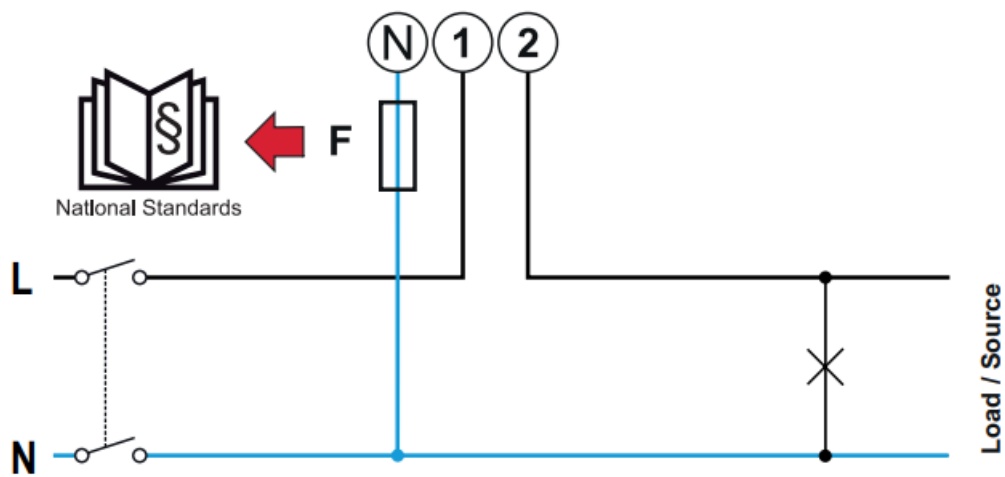
1. SWITCH OFF THE CIRCUIT BREAKER (**Step: 1**)



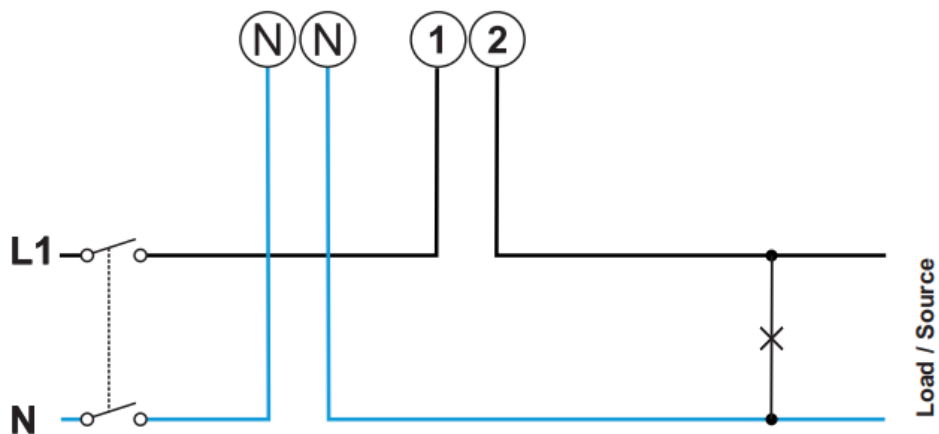
2. MOUNT THE SMART METER (Step: 2)



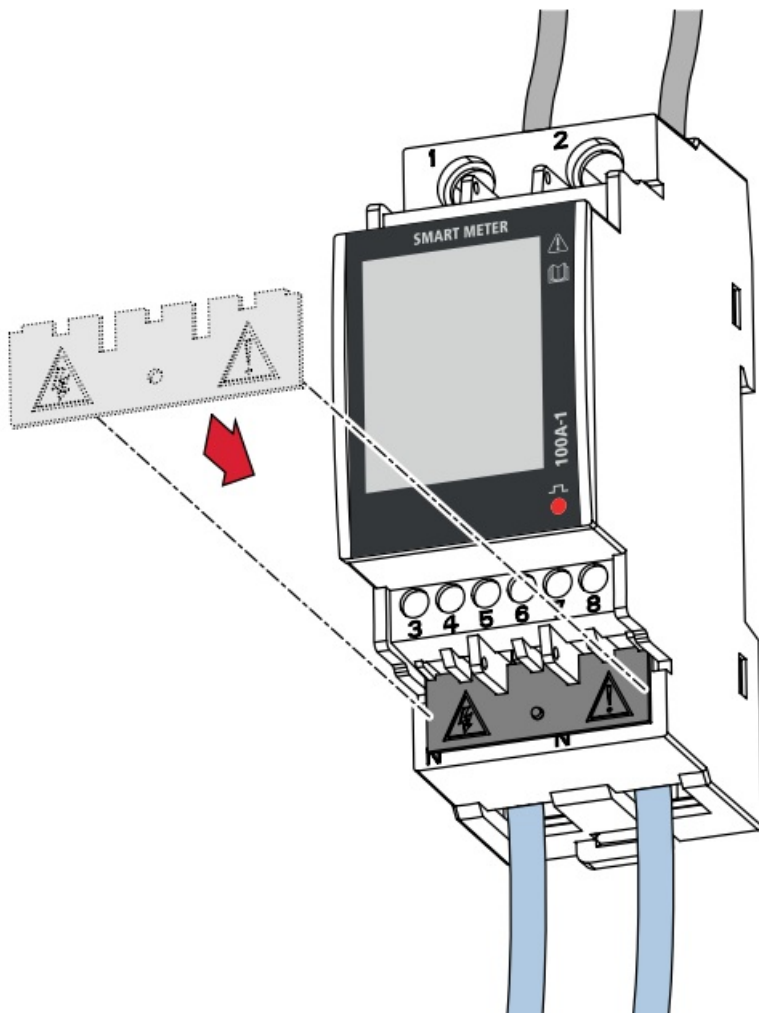
3. a 1 PHASE, 2 WIRES (Step: 3a)



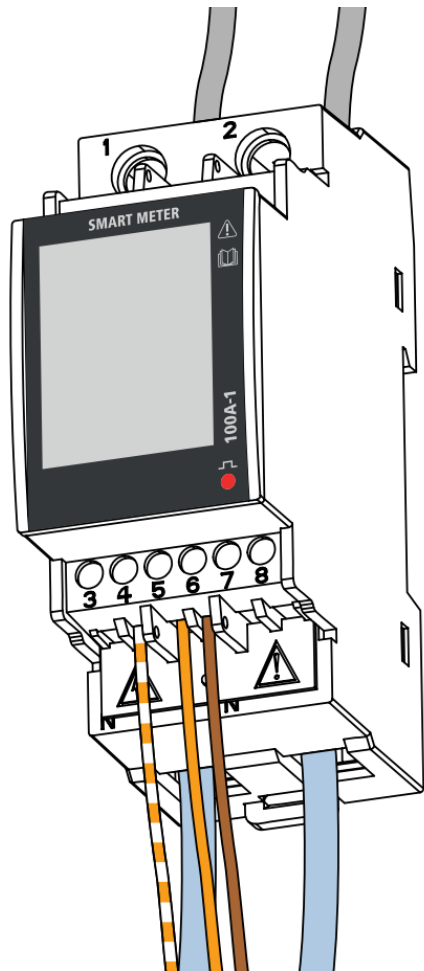
1. b 1 PHASE, 2 WIRES (Step: 3b)



4. MOUNT THE PROTECTIVE COVER (Step: 4)



5. CONNECT THE DATA CABLES (Step: 5)



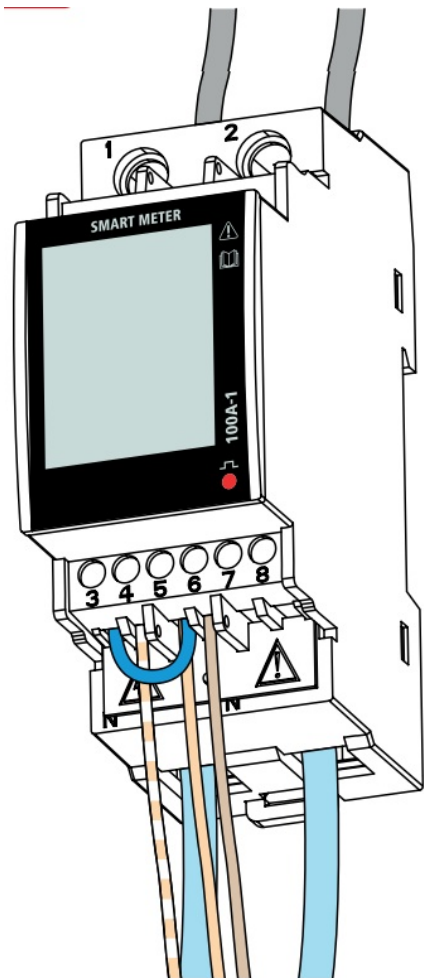
CU Wire
(min CAT 5)
≥0,05 mm²

0,4 Nm

SnapInverter		
	Smart Meter	Modbus
	4	D+
	5	D-
	6	-

GEN24		
	Smart Meter	Modbus
	4	M1+
	5	M1-
	6	GND

6. SET UP THE TERMINATING RESISTOR (Steps: 6-7)



CU Wire
≥0,05 mm²

0,4 Nm

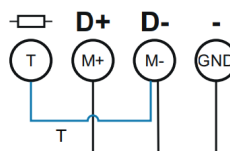
Bypass (cable)		
	T	M-
	3	5



Manufacturer manual



Manufacturer manual



e. g. Ohmpilot, Battery



Inverter



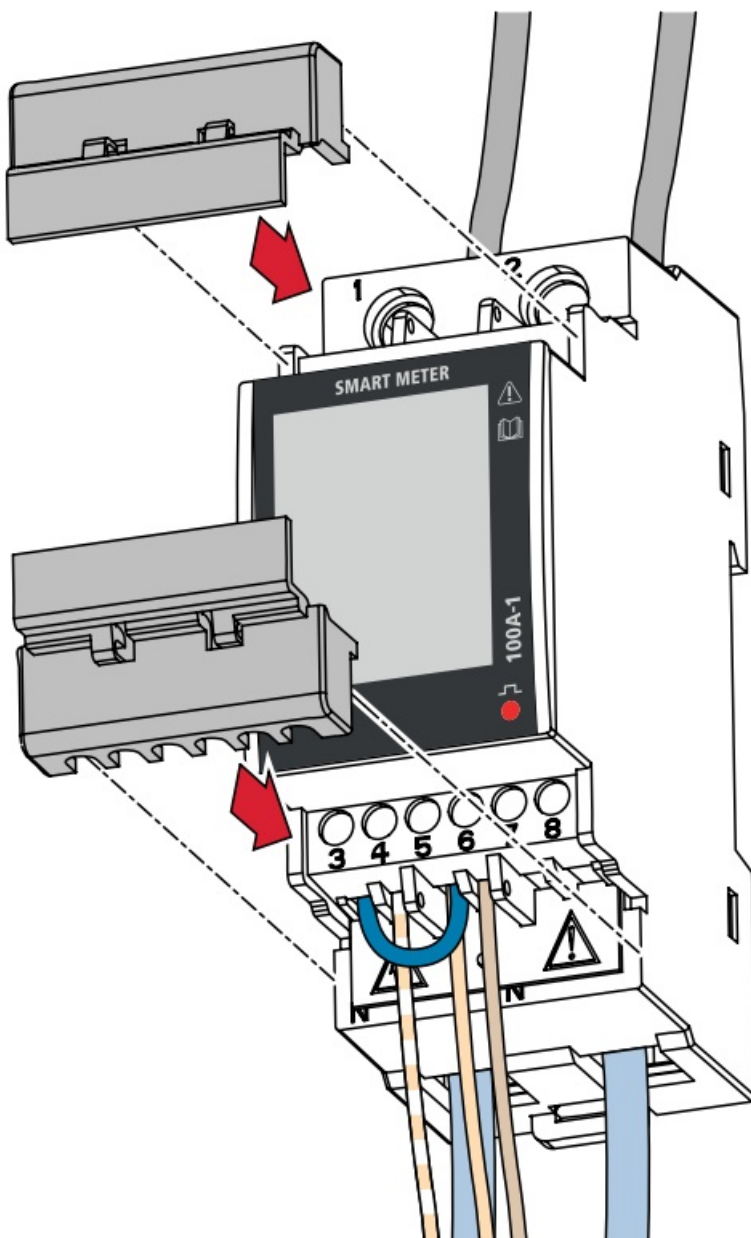
Smart Meter



7.

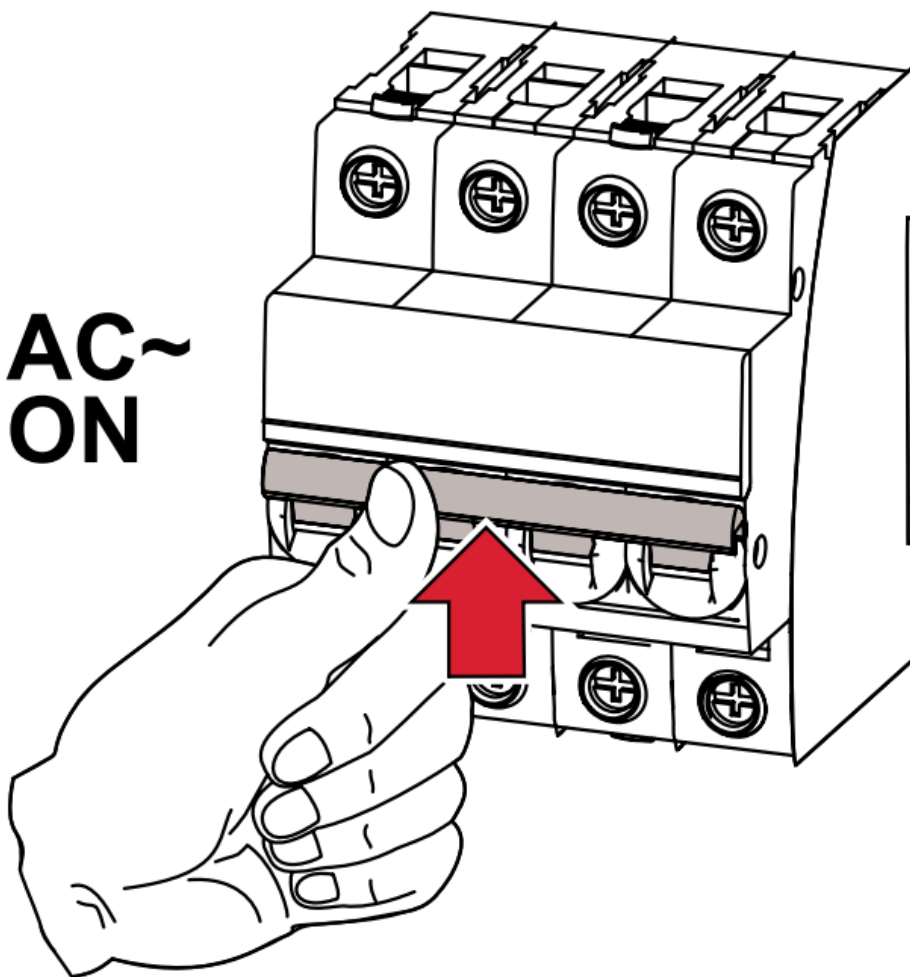
max. 300 m

8. MOUNT THE CONNECTOR COVERS (Step: 8)



9. SWITCH ON THE CIRCUIT BREAKER (Step: 9)

**AC~
ON**



10. NAVIGATE IN THE SETTINGS (**Step: 10**)



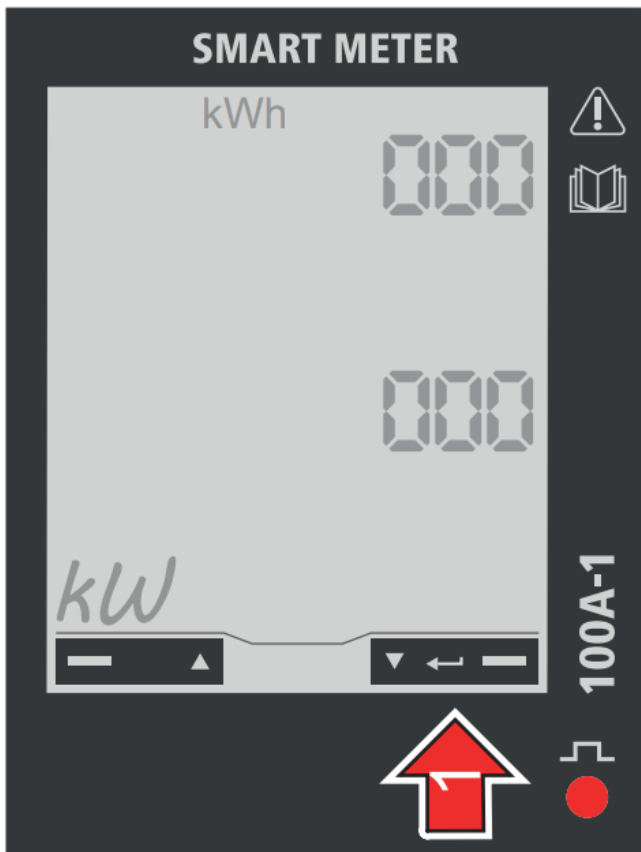
1 x page up / value up



1 x page down / value down

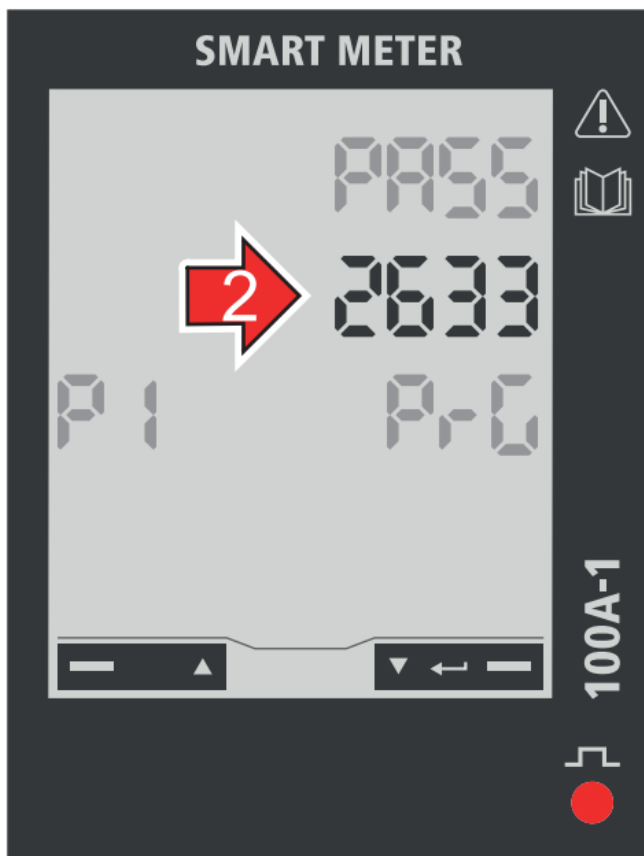
2 sec. adjust / confirm

11. ENTER THE SETTINGS (**Step: 11**)



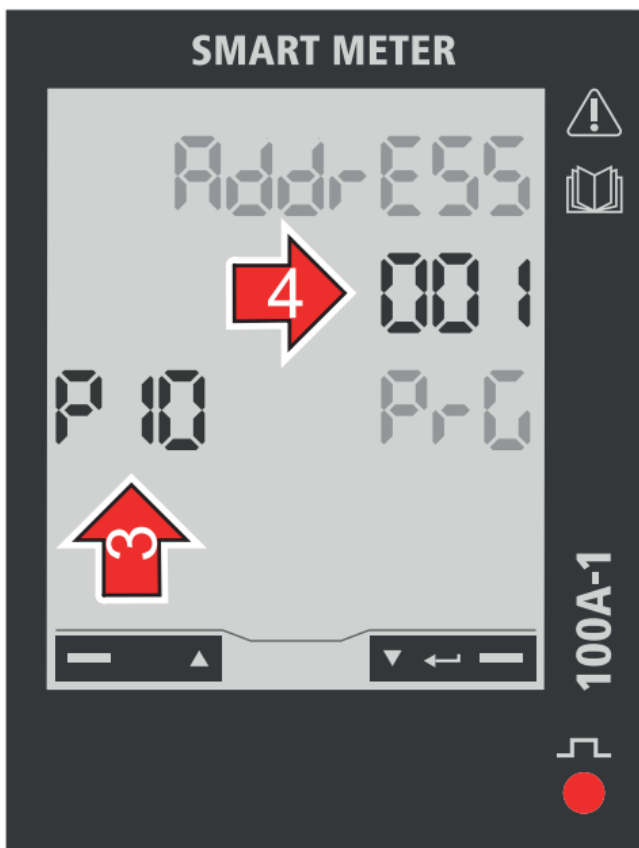
12. SETUP THE PASSWORD (Step: 12)

Factory default: 2633

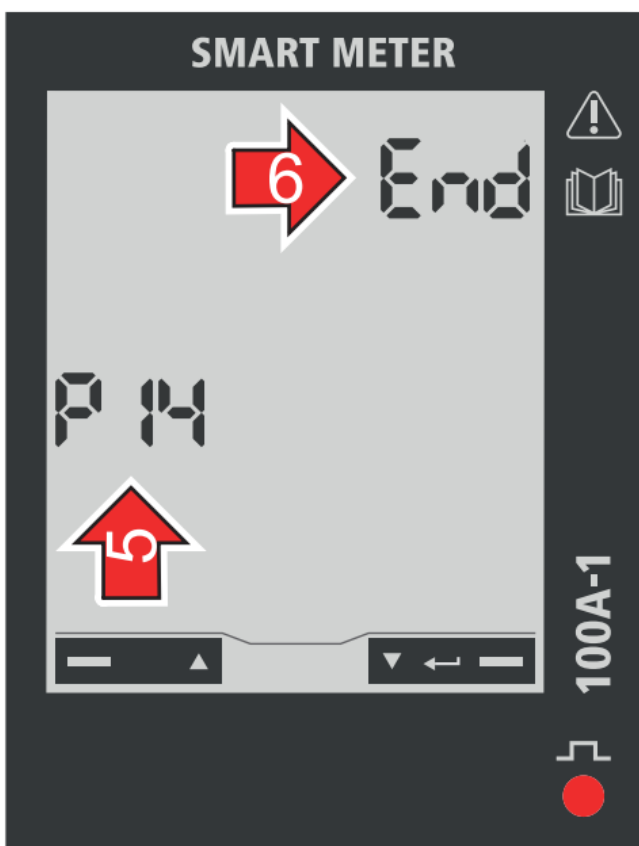


13. SETUP THE ADDRESS (Step: 13)

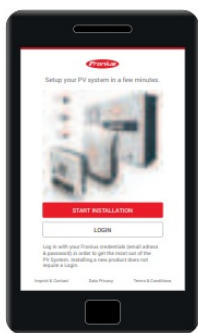
Factory default: Modbus Address 001



14. EXIT THE SETTINGS (Step: 14)



15. START UP THE SMART METER (Step: 15)



Fronius Solar. start



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TS 100A-1 Smart Meter, TS 100A-1, Smart Meter, Meter