

FRONIUS ENERGY MANAGEMENT SOLUTION

with Fronius inverter and Smart Meter

With the inverter-integrated energy management from Fronius, energy-intensive loads in the household can be directly controlled with surplus PV energy. Thanks to the open interfaces, a variety of third-party components can be integrated in the PV system.

4 DIGITAL ENERGY MANAGEMENT OUTPUTS

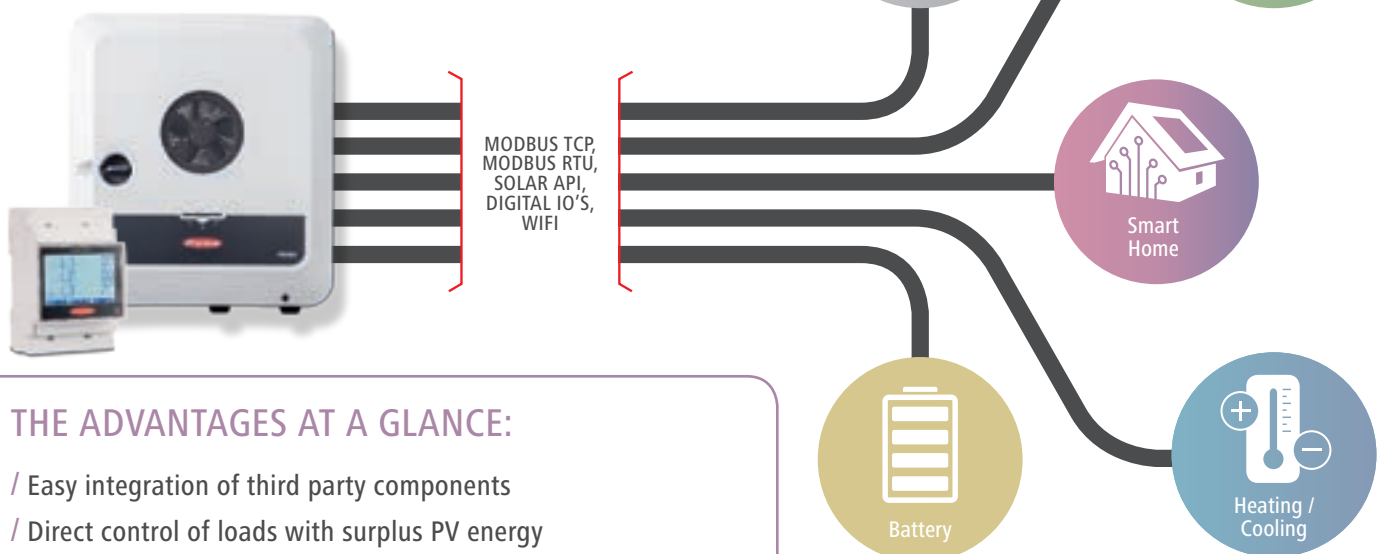
With the digital energy management outputs, an external relay can be controlled by the inverter. This relay switches on the load as soon as the defined surplus energy threshold is reached. Furthermore, it is possible to define a minimum load runtime or set a load prioritisation.

OTHER OPEN INTERFACES

With the open interfaces Modbus RTU, Modbus TCP SunSpec, LAN/Wifi and Fronius Solar API (JSON), third-party components such as a wallbox or a home automation system can be intelligently controlled with surplus PV energy.

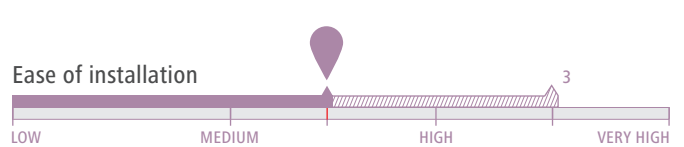
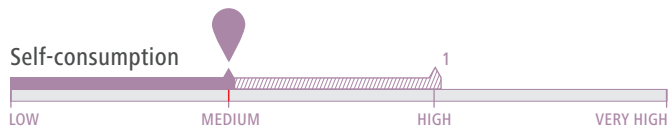


- 1 Fronius GEN24 / GEN24 Plus or
- 2 Fronius SnapINverter
- 3 Fronius Smart Meter



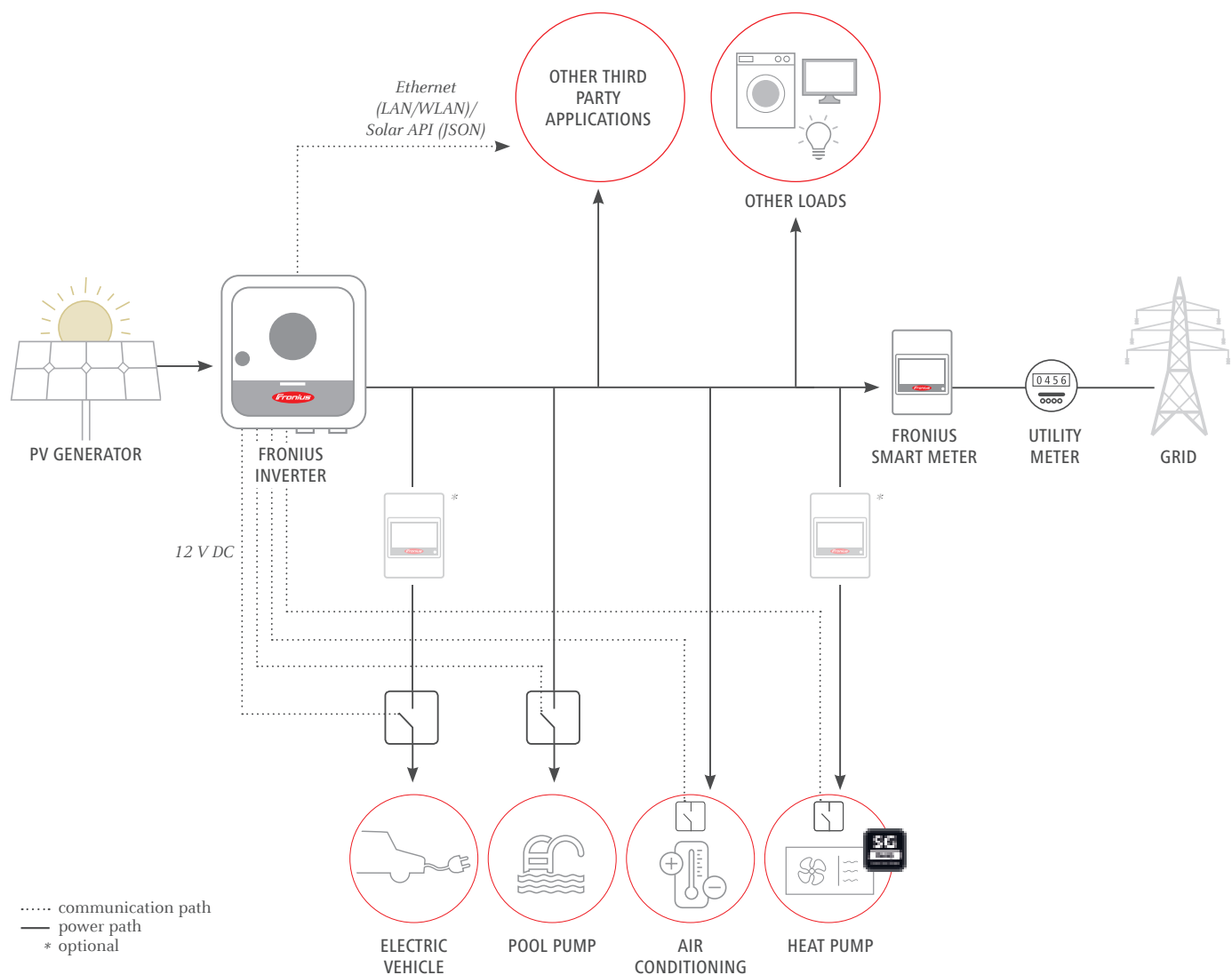
THE ADVANTAGES AT A GLANCE:

- / Easy integration of third party components
- / Direct control of loads with surplus PV energy
- / Increased self-consumption rate
- / Less energy from the grid and therefore faster profitability



- 1) depending on type and power of the electrical load
- 2) depending on the heat generation in the household
- 3) depending on the loads to be integrated

CONFIGURATION SCHEME



WHAT IS NEEDED TO IMPLEMENT THE ENERGY MANAGEMENT SOLUTION?

DEVICE	TYPE	NOTE
INVERTER	<p>Fronius Primo or Symo GEN24 / GEN24 Plus and all SnapINverters from Datamanager 2.0 onwards</p> <p>As well as all older Fronius inverters and external inverters with the Datamanager Box 2.0</p>	
FRONIUS SMART METER	<p>63A-1; 63A-3; 50KA-3</p> <p>240V-3 UL; 480V-3 UL; 600V-3 UL</p> <p>TS 100A-1; TS 65A-3; TS 5KA-3</p>	<p>/ Suitable for single-phase and three-phase grids</p> <p>/ Measures energy consumption and energy from the grid</p>
CABLING OF THE DIGITAL ENERGY MANAGEMENT OUTPUTS	<p>A data communication cable (CAT 5 or higher) is required for cabling the digital outputs. This is used to control an external 12V relay.</p> <p>Please take the maximum switching capacity of the data communication unit into account when selecting the 12V relay:</p> <p>SnapINverter series (Datamanager): 3,2 W</p> <p>GEN24 & GEN24 Plus: 6 W</p> <p>We recommend, for example, a FINDER relay of type 39.11.0.012.0060</p> <p>The detailed load management settings on the Inverter Web Interface (surplus thresholds, minimum runtimes, load prioritisation) can be found in the whitepaper „Energy flow management using the four digital outputs“:</p>	
COMMUNICATION INVERTER WITH FRONIUS SMART METER	Cable connection (CAT5 or higher) via Modbus RTU (RS485)	



Take a look at our references to see how energy management can be implemented in the best possible way:



THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 5,660 employees worldwide and 1,321 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

PERFECT WELDING

Our mission is Perfect Welding; a task we have approached with passion and skill for decades in order that our customers can join materials with the perfect weld seam. With our outstanding technologies and services and together with our customer's applications, not only do we solve their specific welding technology problems, but we also make a substantial contribution to increasing their productivity.

SOLAR ENERGY

Our mission is to achieve 24 hours of sun. Day after day we are hard at work turning this vision of a future in which 100% of the world's energy needs are covered by renewable sources into a reality. We are therefore concentrating on solutions to intelligently, efficiently and economically generate, store, distribute and consume solar energy.

PERFECT CHARGING

As know-how leaders in the world of battery charging, we deliver exceptional solutions to create the maximum benefit for our customers. For the intralogistics sector, we are committed to energy flow optimisation for electric forklift trucks and are constantly striving for the next innovation. Our powerful charging systems for vehicle workshops guarantee safe and reliable processes.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

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