

/ Perfect Welding / Solar Energy / Perfect Charging



MULTI FLOW TECHNOLOGY

INTELLIGENT MANAGEMENT
OF ENERGY FLOWS.

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Fronius wants to achieve more than simply storing raw solar energy for later use. Fronius Multi Flow Technology is an intelligent energy control system that efficiently combines the power from the PV system, battery and additional power sources for maximum self-consumption and optimal utilisation of the PV and energy storage system.

Multi Flow Technology is integrated into all Fronius hybrid inverters and represents the heart of our storage solutions.



Regular inverters only allow one energy flow into energy storage systems; simultaneous energy flows are not possible. The result: generated energy is not utilised in an optimal manner, self-consumption decreases and energy costs rise.

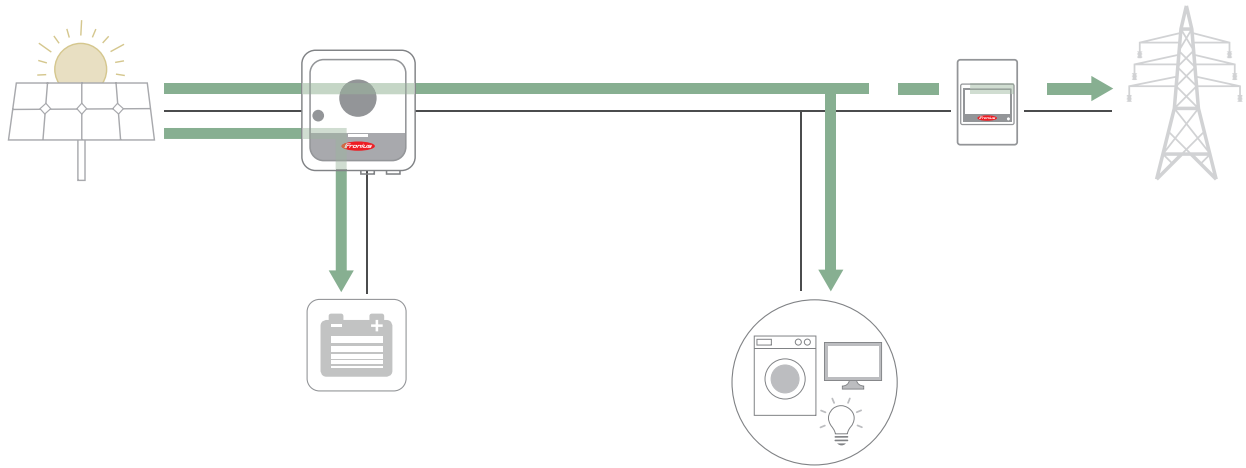
Fronius inverters with Multi Flow Technology can control the various energy flows in a photovoltaic system in parallel, and in all directions. This means that they can cover different applications such as load supply and battery charging, for example.

Simultaneous energy flows ensure optimal utilisation of the system and increase self-consumption.

The following application examples show how these simultaneous energy flows function in a photovoltaic system

High self-consumption through simultaneous energy flows

Maximum amount of self-consumption via intelligent management of the energy flows



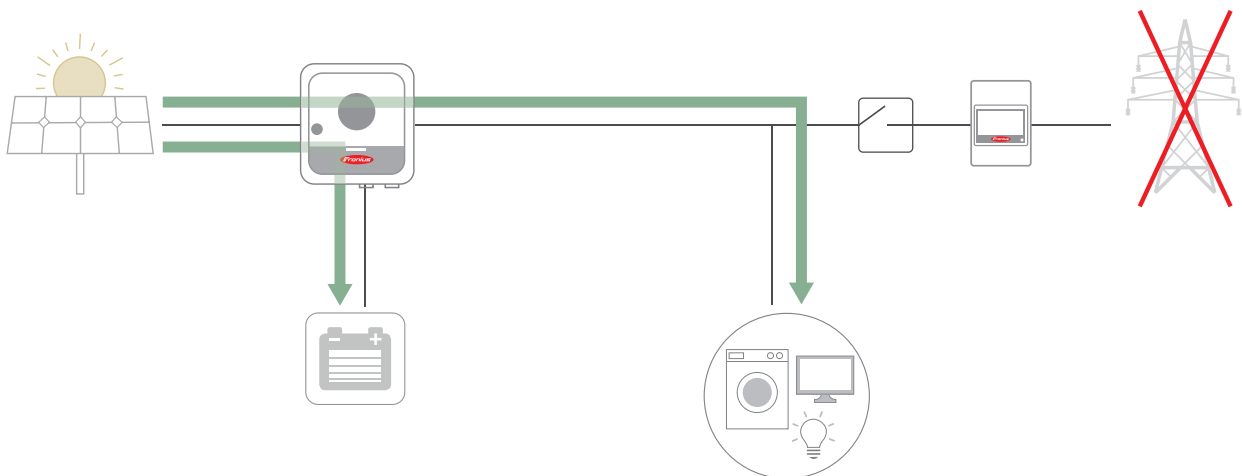
With a PV production of 6 kW, the Fronius Symo GEN24 6.0 Plus can, for example, supply a household with 3 kW and simultaneously charge the battery with the other 3 kWh using MFT.*

* possible with BYD Battery-Box Premium HVS/HVM

Energy flows
Connection

Multi Flow Technology in a grid back-up situation

Secure power supply even in a power outage



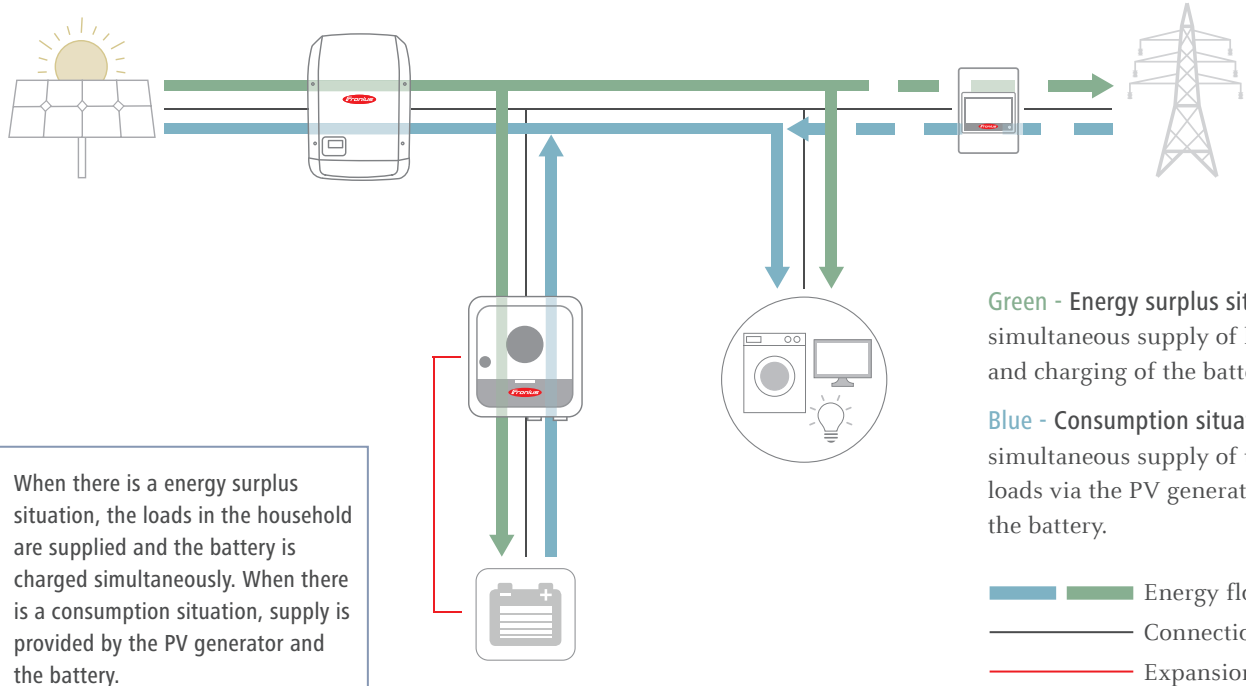
Dual power supply for consumption and battery charging is possible at the same time even in a grid back-up situation.*

* possible with BYD Battery-Box Premium HVS/HVM

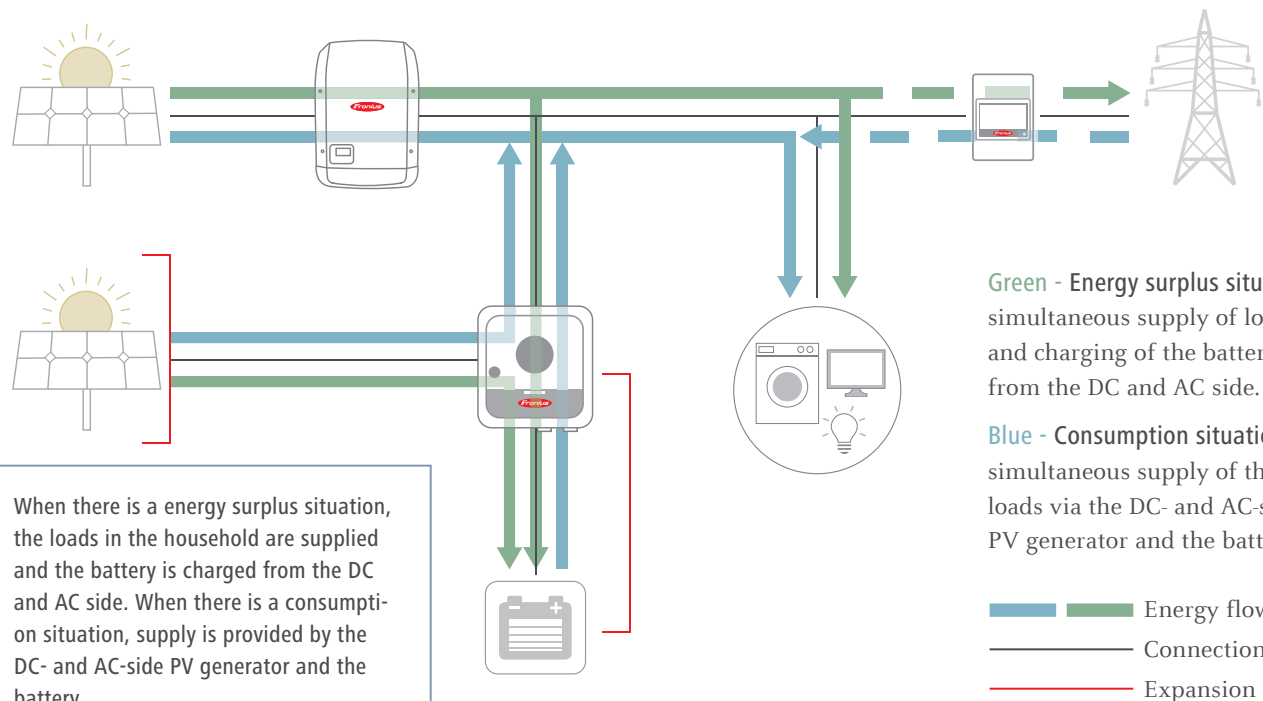
Energy flows
Connection

System expansion: flexibility for system planning

Expanding the original photovoltaic system: with additional storage + hybrid inverter



Expanding the original photovoltaic system: by enlarging the photovoltaic system





MULTI FLOW TECHNOLOGY AT A GLANCE

/ HIGHEST EFFICIENCY FOR DC-COUPLED BATTERIES

Multi Flow Technology enables simultaneous energy flows in all directions. As a result, household appliances can be supplied by the PV generator and the battery charged at the same time. In addition, the simultaneous supply of household appliances from the battery and PV generator is also possible. Multi Flow Technology means less electricity sourced from the grid and less being fed into the grid – in other words, lower costs and more yield.

/ DC AND AC COUPLING: INTEGRATION INTO AN EXISTING PV SYSTEM

Along with DC coupling, Multi Flow Technology also enables AC coupling of the storage system. This makes it possible to integrate the storage solution into existing PV systems. Even small wind generators or cogeneration units can be easily integrated into the storage system. Thus the battery can then also be charged from the AC side, for example, with wind energy.

/ SECURE POWER SUPPLY EVEN IN CASE OF A GRID OUTAGE

Even when there is a grid outage, the surplus can be used to charge the battery simultaneously along with the supply of household appliances.

/ MANAGEMENT OF BATTERY CHARGING/UTILISATION

If insufficient energy is being produced by the particular PV system, the battery can also be charged from the grid at off-peak times (if allowed) and the energy from the battery can then be used at high-peak times.



MULTI FLOW TECHNOLOGY IN A NUTSHELL

Fronius inverters with Multi Flow Technology can control an extremely wide range of energy flows at the same time - and in all directions. Consequently, the Fronius storage solution is setting new standards in the solar market and taking another huge step towards 24 hours of sun.

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 4,760 employees worldwide and 1,253 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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