

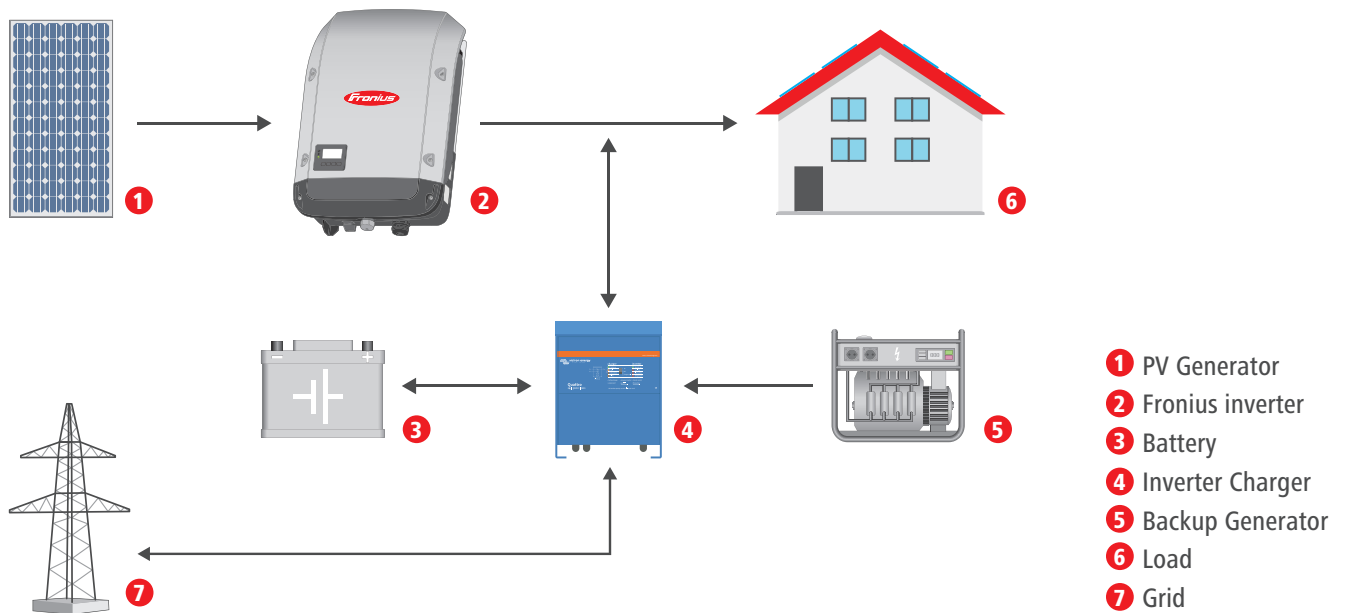
FRONIUS MICROGRID SOLUTION

PV in combination with an Inverter-Charger

MicroGrids in remote areas are often powered by Inverter-Chargers. These are inverters with batteries able to operate a MicroGrid. PV Systems with Fronius inverters can be easily integrated into such MicroGrids.

For this reason Fronius inverters have a special MicroGrid Setup that includes several functions which support a stable operation of the MicroGrid. All functions required to ensure that the PV and inverter charger work together optimally are pre-set in the MicroGrid setup.

MICROGRID SYSTEM WITH PV



/ The Fronius inverter provides as much PV energy as possible to the MicroGrid. Automatic PV power reduction is necessary in times where the load is lower than the possible PV production and the batteries are full (or when the charging power of the Inverter-Charger is too small).

/ Typically the power of the inverter is controlled without any communication. In this case the frequency droop of the Inverter-Charger and the frequency droop of the Fronius inverter cause optimal power setpoints.

/ In addition to the frequency droop, a function for voltage dependent power reduction to prevent from over voltage caused tripping, and several reactive power control functions, can be activated and fully configured.

/ In addition, joint system monitoring can be established using the Victron Color Control Display (CCGX). All that's needed is to ensure that the Victron Color Control Display and the Fronius Datamanager are in the same network. Once operational, the live values are shown directly on the display.

/ Not only can PV system owners monitor their system through the Victron Monitoring Portal, which shows the live values, but also through the Fronius Solar.web online portal, which provides a comprehensive range of display and analysis functions for PV system data.

/ Furthermore, the protection settings in the MicroGrid Setup are configurable. Whether the same settings for the MicroGrid are also applicable for systems which are sometimes connected to the utility grid, depends on local connection rules.

FRONIUS INVERTERS WITH MICROGRID FUNCTION:

/ All Fronius SnapINverter inverters¹⁾

INVERTER-CHARGER PRODUCTS TESTED BY FRONIUS:²⁾

/ Victron MultiPlus
/ Victron Quattro

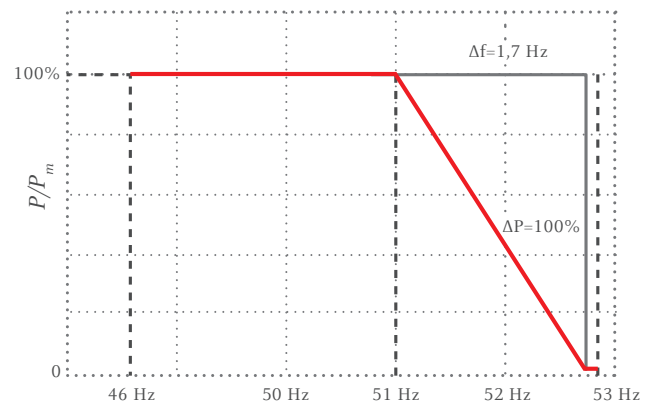
To use with other inverter chargers that carry out frequency-conversion, please contact Fronius Technical Support.

¹⁾ Except the Fronius Symo Hybrid.

²⁾ With these products the Fronius MicroGrid Setup can be used without further configuration effort at the Fronius inverter. The standard settings work in correctly sized systems (The Inverter-Charger has to be configured according to its manuals).



Victron Color Control Display



Frequency droop function of Fronius inverters with MicroGrid setup. Fully adjustable to harmonise perfectly with the Inverter-Charger.

/ Perfect Welding / Solar Energy / Perfect Charging

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 4,550 employees worldwide and 1,241 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.

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

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