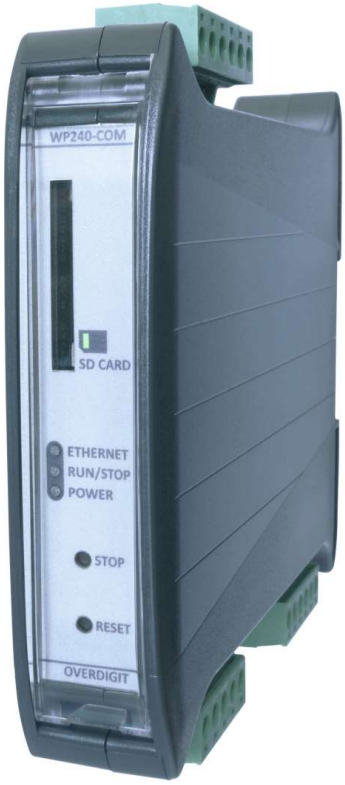
ENcombi



ECgrid

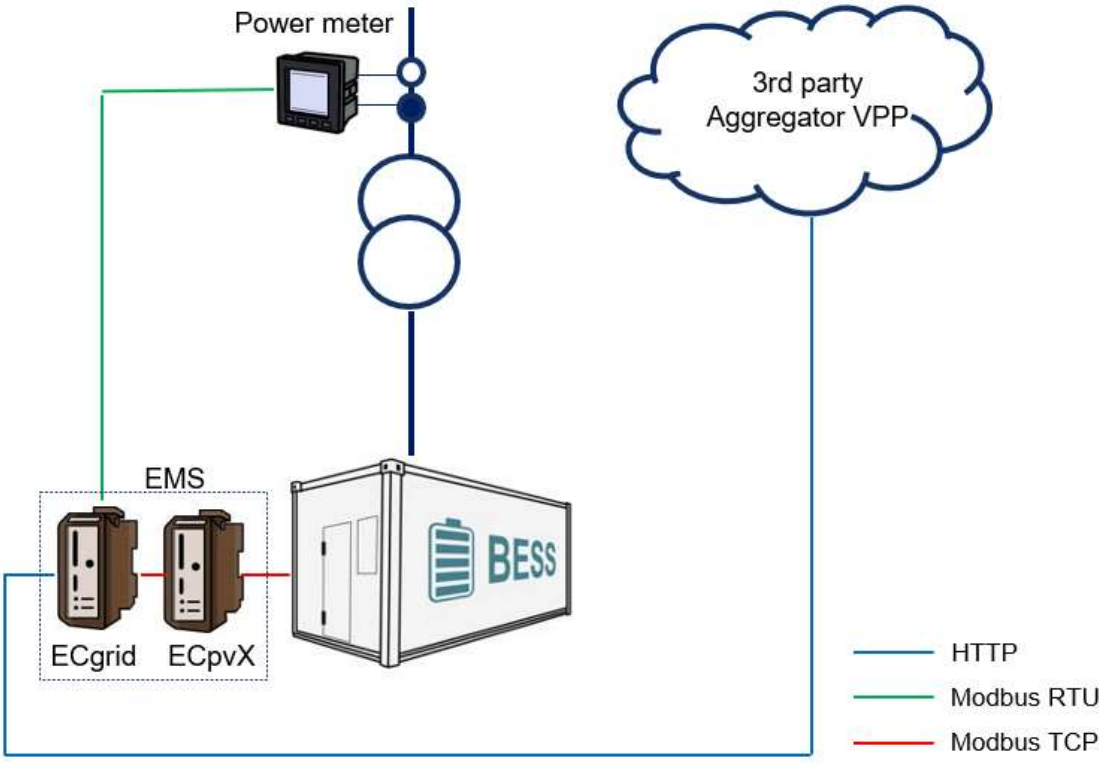
Datasheet

Overview

The ECgrid from **EN**combi is capable, in conjunction with an ECpvX, to perform the frequency ancillary services FFR, FCR-N and FCR-D for the nordic synchronous area and FCR for the central europe synchronous area.

The market biddings are handled in a 3rd party market VPP (Virtual Power Plant) and are not in the scope of the ECgrid. The ECgrid will have an online interaction with the 3rd party aggregator's VPP and get the won bids from there. This way, with the ECgrid, you are not limited to using a specific aggregator.
Consult the ECgrid product page on ENcombi website for detailed information about which aggregators that are supported. If the aggregator of your choice is not already on the list then contact us for the possibility of getting it added.
http://www.encombi.com/products/ECgrid/

Below schematic is an example of how the ECgrid are fitted into and interconnected to its surrounding environment.



ECgrid will measure the grid frequency using a power meter to which it will have a Modbus communication link. Based on the frequency reading, it will conduct the ancillary services and pass forward the associated power power commands to the ECpvX controller.

ECpvX is the device actually controlling the power in and out of the battery. ECpvX controls both the active and reactive power via Modbus. It has a wide range of control functions herunder zero-export, spot-price arbitrage etc. The ECpvX receives the control references from the ECgrid and instructs the battery accordingly. The ECpvX performs under laying control functions like LFSM-O/LFSM-U etc. to meet various grid interconnection requirements. Consult the ECpvX User Manual for more information on the ECpvX.

HW Specifications

The hardware is a high quality, fast and extremely compact and DIN rail mounted unit allowing you to fit it into almost any electrical cabinet at your site or as a part of our ECcube offering.

Ethernet	1 x RJ45 - 10/100Mbs
RS485	2 x isolated fieldbus (master/slave)
Memory	8GB Industrial grade SD card included
Power supply	24Vdc ±15% / 250mA max
Operating Temperature	-20°C to +70°C
Mounting	DIN rail
Dimension	107 x 22.5 x 119 mm (H x W x D)
Weight	About 200g

For more information visit:

www.encombi.com