

Data sheet

## OMNIGRID Connect

- Designed for secondary substation monitoring and providing of power quality information
- Full integration with OMNIA® system
- RS-485 MODBUS interface to other data sources, like external power meters
- 2 x digital inputs and 1 x analogue input
- Communication via GPRS – 2G or 4G with Last Gasp
- Transfer of push alarms based on specific data patterns
- Transfer of data on request from the network operator
- Support of meter data from OMNIPOWER® meters
- Reduced expenses through remote access and update
- Reduced expenses on power grid maintenance
- Power Intelligence is utilizing and presenting more OGC data for a more complete and valuebased Low Voltage Grid surveillance system



## Application

---

OMNIGRID Connect is an OMNIA® Suite product concept designed for monitoring of secondary substations and providing insight into the low voltage grid. OMNIGRID Connect is a versatile and flexible product that gives focus on both power quality, grid maintenance and the condition of the substation. The OMNIGRID Connect module is the gateway in the secondary substation to enable the OMNIGRID feature.

## Purpose and usage

---

The OMNIGRID Connect module collects, logs and analyses data from various sources. OMNIGRID Connect is a modularised concept with OMNIPower® CT meter and OMNIGRID Connect as the basic blocks. Other building blocks in the solution can be added such as power meters. All blocks communicate with OMNIGRID Connect via RS-485 MODBUS and I/O extension (Programmable Logic Controller) for adding multiple sensors. OMNIGRID Connect is developed for integration with both the OMNICON® 2G and 4G with Last Gasp function for efficient utilisation of the communication infrastructure.

## Installation and technical data

---

The OMNIGRID Connect module is hosted by the OMNIPower® meter and is supplied with power by the OMNIPower® meter.

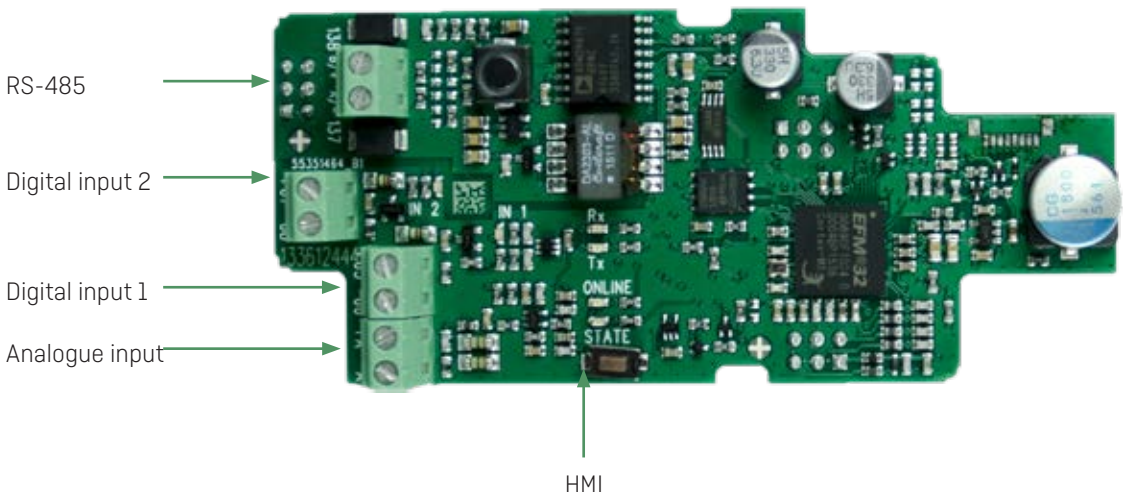
Access to the OMNIA® system network is gained through the OMNICON® 2G modem or the OMNICON® 4G modem.

Pulse In on the 2G modem is not supported when using OMNIGRID Connect.

OMNIGRID Connect data is collected and exposed through OMNIA® CIM Interface..

OMNIGRID Connect can be managed in OMNISoft® Network Manager.

- |                           |  |
|---------------------------|--|
| RS-485 connection         | Screw terminals to A/- and B/+ galvanic isolated |
| Digital input connection  | Screw terminals to 65/+ and 66/-, 67/+ and 68/-. |
| Analogue input connection | Screw terminals to A/+ and A/-.                  |



## Electrical data

---

Supply	From the electricity meter
Power consumption – idle	0.1 W

## Built-in interfaces

---

### Communication interface

RS-485 interface	
Bus cable	Twisted pair
Cable length	< 5m
Transmissoin	Half duplex
Transmission speed	19.200 bit/sec
2 x digital input	
1 x analogue input	Dedicated to earth fault detection. Fitted for summation transformer 0-2A.
Cable length	< 8m

### HMI (Human Machine Interface)

for simple troubleshooting and maintenance at the substation.

## Memory on the board

---

Internal RAM 128 KB  
 Internal flash 1024 KB  
 External flash 64 MB

## Mechanical data

---

Dimension (wxhxd mm)	41x20x97
Temperature, storage	-40 °C ... +85 °C
Temperature, operation	-40 °C ... +85 °C
Relative humidity	< 95 %, non-condensing
Mounting	In the module area of the electricity meter
Density	IP51 when mounted in the electricity meter
Technical lifetime	Minimum 15 years at an ambient temperature of 21 °C

## Marking/approvals

---

CE Marking

EMC Directive

2004/108/EC

### Standards

EN61000-6-2:2005

EMC immunity for industrial environments

EN61000-6-3:2007

EMC emission for residential, commercial and light industrial environments

EN50470-1:2007

Electricity meter equipment

EN60950-1:2006

Information technology equipment safety

RoHS II

Restriction of Hazardous Substances 2011/65/EU

## Ordering

---

### Description

Single OMNIGRID Connect module

### Type no.

6845009

OMNIGRID Connect module with OMNICON® 2G modem

681E00000000.1

OMNICON® 4G modem with Last Gasp

681H00000000

---

### Kamstrup A/S

Industrivej 28, Stilling

DK-8660 Skanderborg

T: +45 89 93 10 00

F: +45 89 93 10 01

info@kamstrup.com

kamstrup.com