

## ENERGY TECHNOLOGY

# VITOLINK®

### What is the Vitolink® power line modem

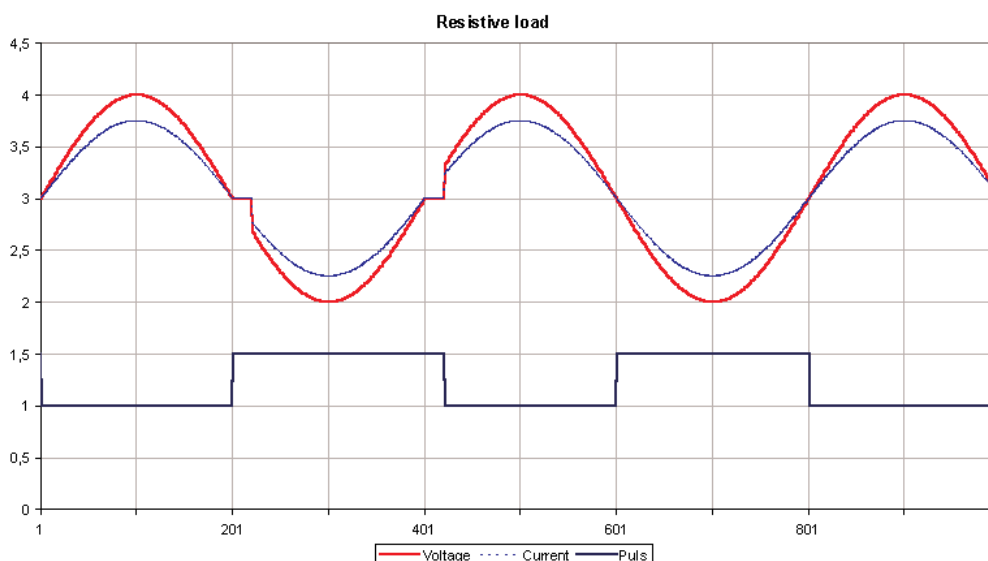
Vitolink® is a system for communication over power lines with compact, reliable and low stand-by power hard- and software. This eliminates the need for additional wiring and can use the existing AC power lines as control lines. The Vitolink system is intended for use in a mini electrical grid with defined loads, mainly lighting. The controllers are installed between the main electric supply connection and the loads. Vitolink systems are compatible between manufacturers and controlled for compatibility by VITO.

Vitolink® is a patent pending method, the main benefits are:

- » uses the existing power lines for control signals;
- » economic compact, reliable and easy to implement;
- » compliant with all international standards;
- » high immunity to network noise;
- » long distances without repeaters;
- » low stand by power and power supply requirements in the load;
- » works excellent with capacitive loads like electronic ballasts.

### How does it work

- » When the AC voltage crosses zero, very small interrupts are created in the line voltage, see curve below. When a control signal has to be sent, a series of small interrupts in the line voltage are forming a digital control signal. It is also possible to send back information, e.g. about the status, by a small increase in line current in response to a specific control signal.
- » The interrupts are so small that the harmonic current stays within the limits of the international standards. The patent pending detection circuit works excellent with slightly capacitive loads, e.g. electronic ballast for lighting. The detection circuit is very simple and doesn't need much power. It consists mainly of one IC and very simple external hardware, only a few diodes and resistors.



*Principle for VitoLink® power line modem operation*

## Applications

- » Remote control of street lighting.
- » Software set up of electric equipment without DIP switch settings, e.g. in lamp ballasts.
- » Control of indoor lighting and emergency lighting.
- » Dimmable compact fluorescent lamps.
- » Remote control of doors and louvers.



*Vitolink receiver with 1-10 V dimming interface*

### For references, contract terms and additional information, please contact:

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TN-EET-008-E/0903