

### Sales and delivery release of new functionality for VAMP 200 series

**VAMP 200 series protection relays** can be used as the main protection in a variety of MV applications such as feeder, motor, generators (1 to 100 MW), transformers and as back-up protection in HV applications thanks to the comprehensive range of protection functions it supports.

We have now introduced new functionality in these products available from firmware release 10.45 onwards as follows.

- VAMP 210 Generator Protection Relay
- VAMP 230 Feeder/Motor Protection Relay
- VAMP 245 Feeder/Motor Protection Relay
- VAMP 255 Feeder/Motor Protection Relay
- VAMP 260 Power Monitoring Unit
- VAMP 265 Differential Protection Relay

#### IEC 61850 (option)

In modern power plants and utility substation the usage of Ethernet technologies in relay communication and information systems is strongly increasing and becoming standard solution in new projects. IEC 61850 is the latest global substation communication standard which objectives are to become "best in class" when it comes to system interoperability among different vendors and openness for future communication applications in mind. The long-term advantages of IEC 61850 are to provide means for

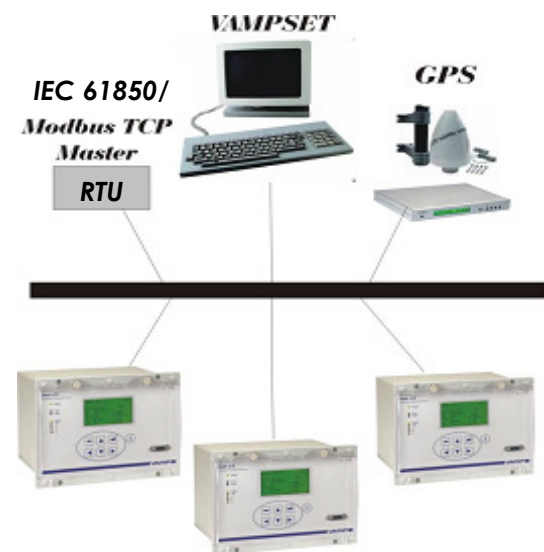
reduced system engineering and to define one protocol for the entire substation, which ultimately saves both time and cost.

VAMP 200 series supports now an integrated option with "native" IEC61850.

In this "native" implementation the following features are available:

- GOOSE communication
- dynamic data set support
- ICD file creation using Vampset

At present the interface is RJ-45 and 10 Mbps communication speed. See ordering code for details.



*Figure 1. Three parallel services connected to the relays via LAN network. (1) Interface to an automation system (PLC/RTU) with Modbus TCP protocol or IEC61850. (2) Parameter setting and disturbance recorder reading with VAMPSET. (3) SNTP time synchronization from time server.*

## New features

These new features are added to the new version made possible by a more powerful CPU.

### Improved event and fault recordings:

- Event buffer for a configurable amount of latest events in the range of 50...1000 events. Default settings is 200 events.
- Fault value, alarm led display, event buffer, blackout data and disturbance recording storage in non volatile memory

### External RTD unit support

External analog inputs (e.g. RTD) Ax can be added to VAMP relays via external VIO 12AA, AB, AC and AD modules to extend the motor protection functionality. VIO 12 Ax modules can be connected to the 200 series relay's EXTENSION port via VSE001 module (fiber connection) or VSE003 module (RS485 connection). VIO 12 Ax modules support Pt100, Ni100, Ni120 and Cu10 type of temperature sensors directly. For different type of thermo elements the scaling of the RTD:s can be made freely.

## New communication protocols

In order to continuously improve the system connectivity the VAMP 200 series relays now also support:

### • DeviceNet

DeviceNet is a communication protocol used in the automation industry to interconnect control devices for data exchange. A DeviceNet network is an open, low-cost industrial network used to connect industrial devices such as limit switches, protection relays, motor starters, drives, and operator displays to PLCs and PCs. DeviceNet is available on VAMP 200 series relays with an optional VSE009 DeviceNet module, which is attached to the REMOTE port D-connector at the back of the relay.

### • EtherNet/IP

Ethernet/IP protocol is basically "DeviceNet over Ethernet" which is available on VAMP 200 series relays with an optional embedded Ethernet card.

The protocol can be used to read / write data from the relay using request / response communication and via cyclic IO messages transporting data assigned to assemblies (sets of data). VAMP relay with the EtherNet/IP protocol selected on the Ethernet port serves as an adapter which means that it is not able to initiate communication with other devices in the network

## User's manual

The functionality introduced above is described in following user documentation

VM210.EN009 English

VM260.EN008 English

VM265.EN009 English

VM255.EN022 English

The above documentation will be found at [www.vamp.fi](http://www.vamp.fi) latest on 31st March 2010.

## VAMPSET files

In order to get above mentioned features available correctly on the VAMPSET views a firmware of v. 2.2.38 or greater is required. The latest VAMPSET firmware is downloadable at [www.vamp.fi](http://www.vamp.fi). The compressed .zip archive contains example files of selected VAMP 200 series relays.

Old VAMPSET programs are not possible to be reused with the new firmware. Settings files from previous versions of the VAMP 200 series relays can be used together with the latest version of Vampset.

## Enhanced language support

Unicode (UTF-8) support has been enabled to the Vamp 200 series, which means that more flexible means to translate the relay HMI menu and Vampset views.

English (and Finnish) is a standard menu language in the VAMP 200 series relays. On request the following language are available also.

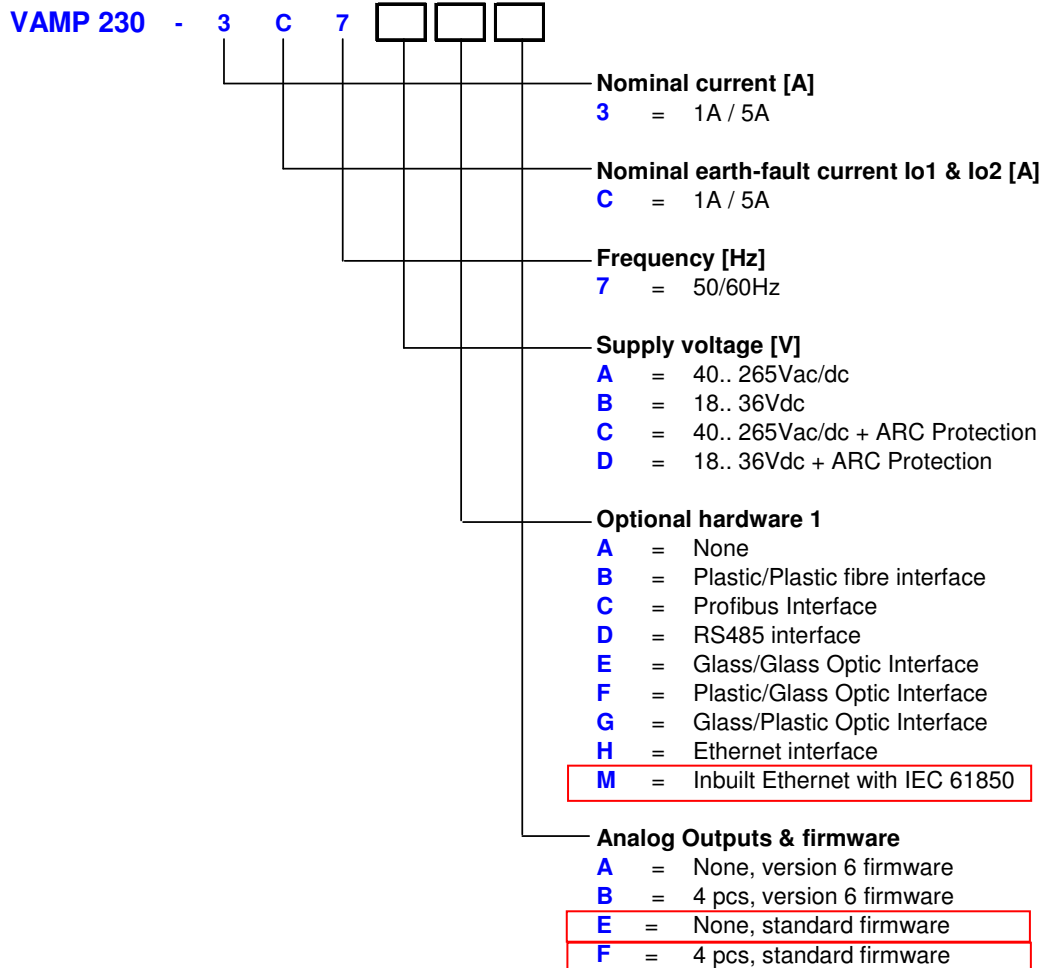
- Russian

Other languages can be translated on demand. Chinese language will be available soon (Q2/2010). Please consult your Vamp contact for more information.

### Ordering codes

See below the product ordering codes and pay especially attention to the

new IEC61850 option and software option selections that are highlighted. "Standard firmware" is the latest firmware available, which is recommended to be used in new orders. Furthermore it is still possible to order the previous firmware version for VAMP 210, VAMP 230, VAMP 260 and VAMP 265 if especially required.



VAMP 210 -



**Nominal current [A]**

- 1** = 1A
- 5** = 5A

**Nominal earth-fault currents I01 & I02 [A]**

- A** = 5A & 5A
- B** = 5A & 1A
- C** = 1A & 5A
- D** = 1A & 1A

**Frequency [Hz]**

- 7** = 50/60Hz

**Supply voltage [V]**

- A** = 40.. 265Vac/dc
- B** = 18.. 36Vdc
- C** = 40.. 265Vac/dc + ARC Protection
- D** = 18.. 36Vdc + ARC Protection
- E** = 40.. 265Vac/dc + DI19, DI20 Optional
- F** = 18.. 36Vdc + DI19, DI20 Optional

**Optional hardware**

- A** = None
- B** = Plastic/Plastic fibre interface
- C** = Profibus interface
- D** = RS 485 interface
- E** = Glass/Glass Optic Interface
- F** = Plastic Rx/Glass Tx Optic Interface
- G** = Glass Rx/Plastic Tx Optic Interface
- H** = Ethernet interface
- M** = Inbuilt Ethernet with IEC 61850

**Analog Outputs & firmware**

- A** = None, version 3 firmware
- C** = None, version 6 firmware
- D** = 4 pcs, version 6 firmware
- E** = None, standard firmware
- F** = 4 pcs, standard firmware

VAMP 265 -



**Nominal current, HV & LV side [A]**

- 1** = 1A & 1A
- 3** = 1A & 5A
- 4** = 5A & 1A
- 5** = 5A & 5A

**Nominal earth-fault currents I<sub>o</sub> & I<sub>o'</sub> [A]**

- A** = 5A & 5A
- B** = 5A & 1A
- C** = 1A & 5A
- D** = 1A & 1A

**Frequency [Hz]**

- 7** = 50/60Hz

**Supply voltage [V]**

- A** = 40.. 265Vac/dc
- B** = 18.. 36Vdc
- C** = 40.. 265Vac/dc + ARC Protection
- D** = 18.. 36Vdc + ARC Protection

**Optional hardware**

- A** = None
- B** = Plastic/Plastic fibre interface
- C** = Profibus Interface
- D** = RS485 Interface
- E** = Glass/Glass Optic Interface
- F** = Plastic/Glass Optic Interface
- G** = Glass/Plastic Optic Interface
- H** = Ethernet interface
- M** = Inbuilt Ethernet with IEC 61850

**Optional software**

- A** = Version 2 firmware
- C** = Version 6 firmware
- E** = Standard firmware

VAMP 260 -



**Nominal current [A]**

- 1** = 1A
- 5** = 5A

**Nominal Voltage [V]**

- C** = 100.. 240

**Frequency [Hz]**

- 7** = 50/60Hz

**Supply Voltage [V]**

- A** = 40.. 265Vac/dc
- B** = 18.. 36Vdc

**Optional Hardware**

- A** = None
- B** = Plastic/Plastic Optic Interface
- C** = Profibus Interface
- D** = RS 485 interface
- E** = Glass/Glass Optic Interface
- F** = Rx Plastic/ Tx Glass Optic Interface
- G** = Rx Glass/ Tx Plastic Optic Interface
- H** = Ethernet interface
- M** = Inbuilt Ethernet with IEC 61850

**Analog Outputs & firmware**

- A** = 4 pcs, version 5 firmware
- B** = None, version 5 firmware
- C** = 4 pcs, version 6 firmware
- D** = None, version 6 firmware
- E** = None, standard firmware
- F** = 4 pcs, standard firmware

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