

## 2



### New Dual Channel Universal Power-line Carrier

Pulsar has introduced the 4RU option for their industry leading UPLC. The new 4RU Dual UPLC offers two PLC channels in just one package. The new design reduces your panel space with only 4RU of panel space instead of the standard 6RU that you get with two separate packages. This UPLC also includes internal combining hybrids. One directional comparison blocking and a single channel direct transfer trip or dual channel direct transfer trip or any combination of the applications can be used. Expect all the same features that the 3RU UPLC offered - browser programmability, sequence of events recording, flexible setting and much more

## 3

## Volt/VAr Control Enters New Era

### M-6200 Digital Voltage Regulator Control

**Beckwith Electric** recently announced a regulator controls that goes significantly beyond the norm for conventional controls. The M-6200 boasts nuances such as; adaptive or conventional algorithms, high-speed USB or optional Bluetooth local customer interface, SD Card for upload programming or for data logging, oscillographic, and

SOE download, as well as IEC 61850, DNP3.0, and MODBUS onboard protocols. Next release will offer IEEE 519 CBEMA Curve excursion

annunciation for levels 1 and 2 as well as regulation to level 3.



## 4

## GARD 8000 Communications and Relaying System



**The new GARD 8000** Communications and Relaying System from RFL Electronics, Inc. received the UTC Telecom Product Award for best Telecom Equipment of 2007.

The GARD 8000 is an innovative product that combines high performance line protective relays (current differential and/or distance protection) with teleprotection interfaces (digital, audio, Power Line Carrier) in one chassis.

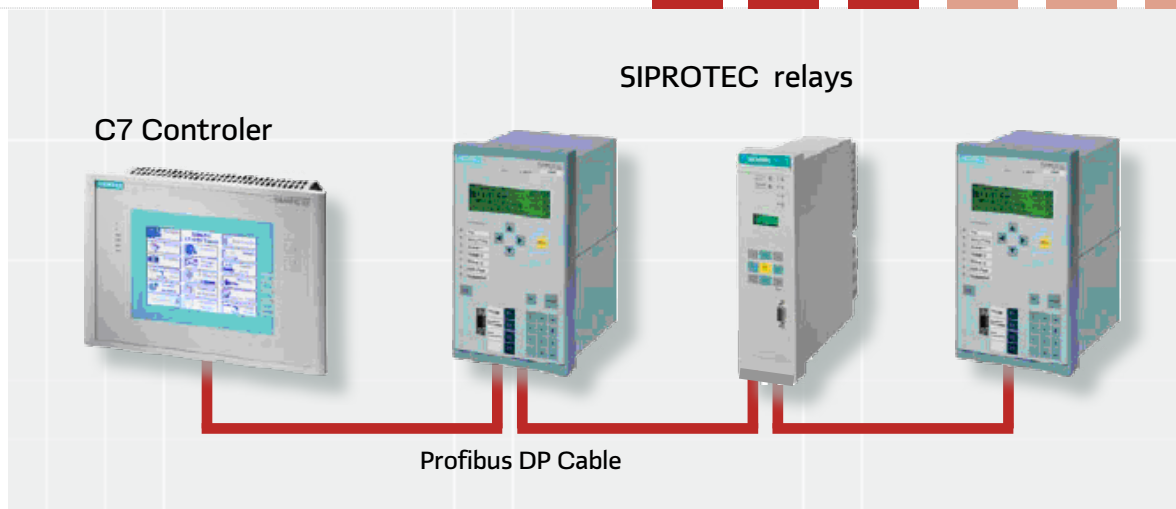
The GARD 8000 System is built up of functional modules, making it easy

to adapt it to the actual application. All types of communications are supported, including an Ethernet Teleprotection System module (IEC 61850 compliant).

The flexible GARD 8000 System can also be configured for System Integrity Protection Schemes (SIPS) applications, providing metering and telemetry data transport.

Customized programmable logic for specific applications saves commissioning time.

Optional built-in GPS receiver provides accurate time tags.



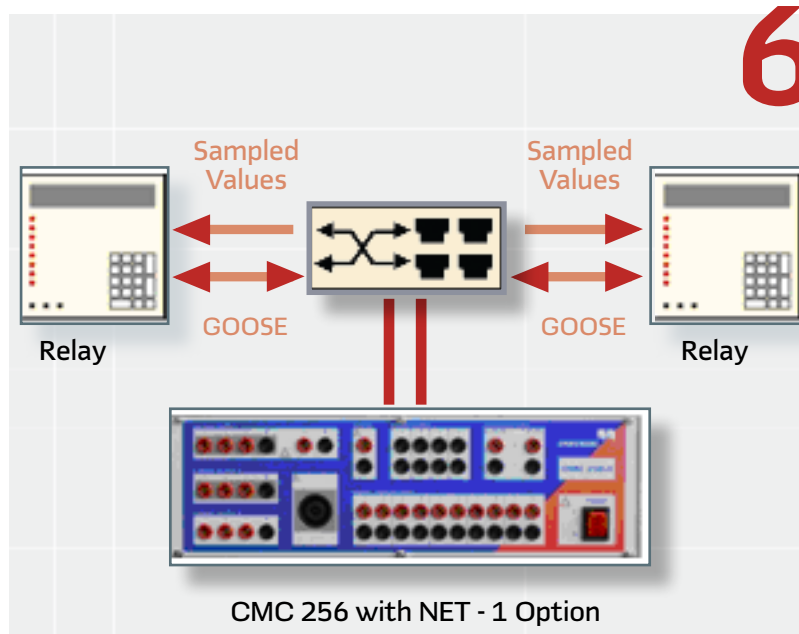
## Circuit Breaker Controller - with Arc Flash Mitigation

# 5

Siemens Power Transmission & Distribution introduces the SIPROTEC Circuit Breaker Controller, a unique and low cost solution for remote circuit breaker control and monitoring. All the customer needs to provide is the existing or new settings.

It is a new cost effective product solution that will address Arc Flash Mitigation as required by NFPA 70E by minimizing the risk of personal injury

by removing the operator from the front of a circuit breaker, changing to an alternative, more sensitive Arc Flash settings group before entering a switchgear room and remote control Electrical Rack-In / Rack-Out of the breaker for enhanced operator safety. The CB Controller combines modern microprocessor relay information and control technology and can be applied in industrial and utility substation systems.



# 6

## Sampled Values Generated by CMC 256

OMICRON HAS MADE ANOTHER STEP in complementing its testing tools for IEC 61850. The CMC 256 with NET-1 Option does now also generate sampled values. Together with the GOOSE features, the vision of "fully networked" protection testing has been realized. The sampled values are generated according to the "Implementation Guideline for Digital Interface to Instrument Transformers using IEC 61850 9 2", which is published by the UCA International Users Group. The CMC 256 generates sampled values at a rate of 80 samples per cycle as intended for protection and metering applications. Setting parameters can be imported from standardized SCL (Substation Configuration Language) files.

## 7 Toshiba launches IEC 61850 compliant IEDs

Toshiba announces the availability of its Bay Control Unit GBU100 (photo) and Transformer Protection relay GRT100 in compliance with the IEC 61850 standard for substation communications.

GRT100 and GBU100 were certified IEC 61850 compliant at the first attempt by KEMA in June 2007 and August 2007 respectively.

This is additional to the GRZ100 distance protection which had already been certified compliant in 2006, and the rest of Toshiba's range of protection and substation automation products will follow in the near future.



## 8 Economical Transmission Protection

**AREVAT&D announces** a major evolution, with the MiCOM P547 Phase comparison protection now incorporating the proven technology of the sub-cycle distance MiCROMho P443, merged as one single device. This relay can be the standard in all HV, EHV line protection applications, duplicated where dual redundant main protection is demanded. Features include:

- Phase segregated phase comparison protection tripping.
- Protection of plain two ended and three-ended circuits, with in-zone transformers or tapped loads.
- Charging current compensation available at all times.
- Corona discharge compensation.

The combination of phase comparison protection, five zone distance protection and a phase segregated aided directional earth fault protection provides a complete solution for any type of fault on the power system.

## 9 Rugged Wireless Ethernet

**RuggedCom's** new RuggedWireless(tm) family of products is a line of substation hardened Ethernet switches integrating IEEE 802.11b/g wireless access points with fully managed wired 8-Port Ethernet switches providing six Fast Ethernet copper

only ports and two optional copper or fiber ports. All wireless communications are protected by the very latest "robust security networks" based on IEEE 802.11i which features strong encryption protocols, AES support, and IEEE 802.1X Radius user authentication.



These products can be used to convert serial and/or wired Ethernet to wireless Ethernet, which in turn reduces installation and cabling costs. Multiple wired Ethernet and serial port options exist to allow great flexibility in network architecture design.

REG 670



REB 670 relays

# 10

## ANSI 670 Series Relays

ABB Substation Automation launches a complete range of Protection and Control IEDs supporting IEC 61850 and DNP 3.0.

The 670 Series is designed for both ANSI and IEC applications providing protection, control and monitoring of overhead lines, cables, transformers, reactors, bus and circuit breakers as well as bay control.

A powerful yet simple Windows® Explorer "look and feel" setting tool

"PCM600 IED Manager" provides easy IED parameterization and "PCM600 IED Engineering" provides advanced programmable logic flexibility enabling tailor made applications.

The new REG 670 protection IED has advanced features that cover applications where generator/transformer block, transformer and overall block protection is the key requirement in both new and retrofit installations.



# 11

## Guarujá 2 is energized

SCHWEITZER ENGINEERING Laboratories, Inc. (SEL) has completed the modernization and energization of Guarujá 2, a substation integrated with the IEC 61850 protocol, belonging to Elektro Eletricidade e Serviços S.A., a large electric distribution utility in Brazil. This is the first of 30 substations SEL will modernize for Elektro by creating new HMIs and updating all SCADA systems, substation automation, and old electromechanical protection relay panels. SEL automated the control of 12 circuit breakers, 7 new motorized disconnect switches, and 2 parallel 30 MVA power transformers with load tap changer controls. SEL integrated both IEC 61850 MMS and DNP3 LAN/WAN to exchange control data between relays, programmable automation controllers, load tap changer controls, and rugged computers.

SEL Family Photo

