

INNOVATION

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Management System Allows More Control of Turbines

Greenbyte AB in Gothenburg, Sweden, introduces Control, the newest section in Breeze. Control allows users of Breeze to start and stop wind turbines in real-time and from anywhere.

Breeze is a modern user-friendly wind-farm management system. With more than 360 wind farms in 20 countries, Breeze brings state-of-the-art, cloud-based software to the wind industry to increase energy production.

“When we launched Breeze, we did so to improve some of the most fundamental parts in the operation and management of wind farms,” said Mikael Baros, director of Technology with Greenbyte. “Soon after, our customers requested the possibility to do more with the collected data. Since then, the service has quickly grown in scope and capability to an indispensable daily tool for managing large-scale wind-power portfolios. Today, we are on the verge of another leap with the announcement of Control.”

Control’s features include:

- It allows users with permissions to start and stop wind turbines in real-time without additional hardware on-site.
- It can control wind turbines remotely from anywhere through Breeze, and it uses the same procedure in Breeze to start and stop wind turbines, regardless of type and manufacturer.
- It stores control credentials for all wind turbines safely in Breeze.
- It can control wind turbines in



Control is a first step toward more intelligent control of wind farms in Breeze. (Courtesy: Greenbyte)

Breeze using two-factor authentication for the highest security.

Control is a first step toward more intelligent control of wind farms in Breeze. Using insights from data, customers can operate wind farms more efficiently and better manage challenges such as grid curtailment, unplanned

downtime, and dynamic power prices.

Control is now available for select turbines in the Breeze wind-farm management system. ↵

Source: Greenbyte

For more information, go to www.greenbyte.in



LED tower lighting system. (Courtesy: Phoenix Contact)

Phoenix Contact Offers Low-Maintenance LED Solutions for Wind-Turbine Towers

Phoenix Contact's new LED tower lighting system for wind turbines makes lighting installation nearly maintenance-free. The complete solution ensures optimal lighting of work surfaces and escape routes.

The LEDs have a long life, eliminating frequent bulb replacements. Thanks to the lower temperature operation, they also eliminate fixture heaters. The system features Phoenix Contact's QPD connection system for quick and easy installation.

A central, uninterrupted power supply ensures lighting in case of power failures and eliminates the need for batteries in fixtures. Service technicians can conveniently read the UPS' charge level and the battery's expected service life.

The tower lighting system is suitable for both OEM and retrofit applications. ↴

Source: Phoenix Contact

For more information, go to www.phoenixcontact.com

“ The LEDs have a long life, eliminating frequent bulb replacements. ”

Siemens Introduces Sinamics V20 Smart Access Server Module

Siemens recently launched its Sinamics V20 Smart Access web server module, designed to mount directly onto the drive, transforming a mobile device or laptop into a virtual operator panel for drive control.

By providing a Wi-Fi hot spot, the wireless connection on this module facilitates setup, programming, commissioning, production monitoring, and maintenance on a variety of machines and production equipment.

A simple, embedded graphical user interface (GUI) enables easy use of the Sinamics V20 in every phase of operation. No separate app is required, nor is a written operator manual needed, making operation of this new server module and subsequent drive control highly intuitive and easy-to-learn.

Smart Access provides convenient access to the Sinamics V20, up to 100 meters away, even when the drive is in difficult-to-access installations. Using WPA2 security, the web server module offers full flexibility with both iOS and Android operating systems, along with commonly used HTML5-capable web browsers such as Chrome, Safari, Internet Explorer, and others.

A built-in, multi-color LED provides quick communication status readout. Security features can enable, limit, or restrict operator access and control functionality.

In use, the Sinamics V20 Smart Access module requires only a few steps to set up, and no installation or download of additional software is needed. The onboard Quick Setup Wizard provides users a fast

and easy commissioning procedure, enabling all the following: Motor data can be entered and checked; connection macros for digital inputs/outputs can be activated; application macros can be selected and activated for pumps, fans, compressors, and other devices; plus the common and frequently used parameters on the drive can be set for motor start, acceleration, deceleration, min./max. speed, etc.

Smart Access allows monitoring of the drive status including speed, current, voltage, temperature, and power, as well as drive servicing, with an overview of alarms, faults, and individual values. Fault codes can be transferred via email to a local service provider, while the immediate status of all digital and analog inputs and outputs can be checked at a glance. Parameter adjustment, motor test functions,



The Sinamics V20 Smart Access web server module. (Courtesy: Siemens)

and full data back-up, storage, and sharing with fast firmware downloads can all be accomplished via the web server. ↵

Source: Siemens

For more information, go to www.usa.siemens.com

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Plug-In Cards Measure and Monitor Three-Phase Electrical Networks

Bachmann's plug-in cards of the fully updated GMP232 series represent the latest concept in measuring and monitoring three-phase electrical networks.

The solution combines plant control and grid technology in a modular unit. This produces many synergies, such as the correlation of grid data with the operational control data or the joint use of infrastructure, thus simplifying the reduction of the initial costs and life cycle costs as well as the handling.

Interfaces are available for the GMP232 module, both for a direct 690 V connection as well as for operation with voltage transformers up to a rating of 120 V. Current measuring is implemented

with 1A or 5A rated transformers. Extended measuring ranges of up to 340 percent of the rated voltage or 400 percent the rated current, as well as even greater overload ranges make the module ideal for applications directly on the generator units or in high-voltage levels.

As well as providing all relevant measured values such as current, voltage, power, or frequency, the module also provides configurable monitoring functions for grid and system protection.

Thanks to the new calculation procedures, currents, voltages, and power values are broken down into “symmetrical components” (zero, positive, and negative phase sequence) — a requirement of existing standards such as IEC 61400-21 and an indispensable basis for the future-oriented control of generating plants.

The GMP232 modules also boast extremely short reaction times. This not only means reduced latency but also high-speed moving r.m.s. value and power calculations (moving window). This consequently reduces dead times in the grid control.

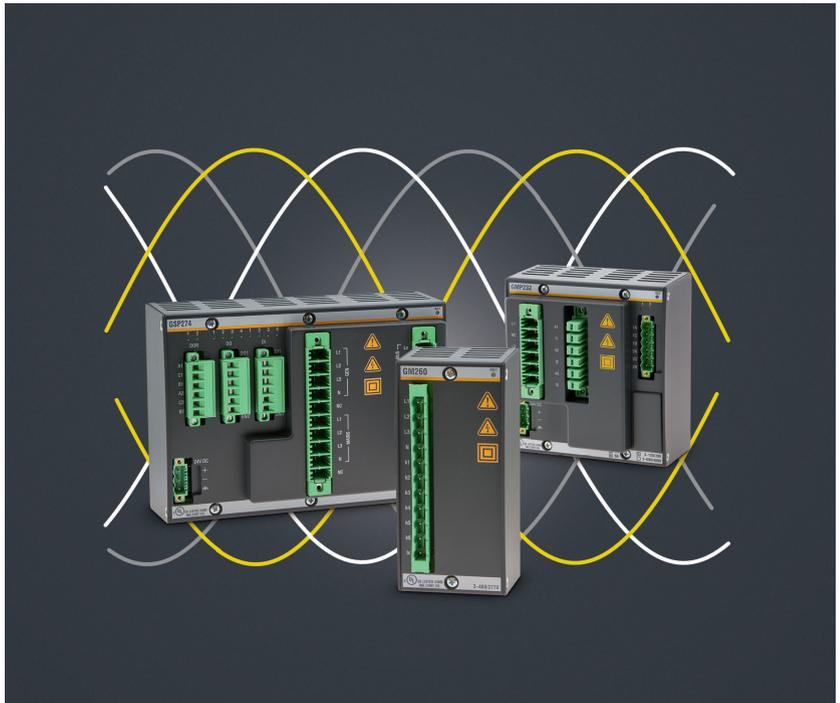
The relay outputs integrated in the module enable the direct switching of two tripping circuits independently of the remaining control system.

An integrated real-time data recorder supplies highly resolved time plots in Comtrade format in the event of a trip and saves an event log with synchronized time stamps.

The GMP232 is designed as a PLC-integrated solution; however, it can also be used in combination with a small M1-CPU as an autonomous grid measuring product. ↵

Source: Bachmann

For more information, go to www.bachman.info



The new generation of GMP232 grid measuring and monitoring from Bachmann features a PLC-integrated state-of-the-art solution for grid measuring, protection, and current quality in voltage generation networks and power supply grids. (Courtesy: Bachmann electronic)



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