#### **SIEMENS**

## Press

Hanover, April 23, 2018

#### Siemens at the Hannover Messe 2018

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### Engineering framework with practice-oriented functions for end-to-end work processes

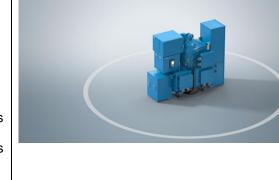
With TIA Portal V15.1 (Totally Integrated Automation Portal) Siemens is enhancing its engineering framework with new practice-oriented functions for all phases, from planning to engineering to commissioning. Key topics in TIA Portal V15.1 include new simulation and virtual commissioning options which enable even better digital design of integrated work processes, as well as the expanded application focus with Simatic S7-1500R/H controllers, Sinamics S210 drive integration, Multiuser Engineering, software units and OPC UA functions.

www.siemens.com/press/PR2018040249DFEN



#### Wind farm places the first SF6-free Siemens highvoltage switchgear into operation

Siemens supplied four panels of the 8VM1 gas-insulated SF6-free high-voltage switchgear – which has a capacity of 72.5 kilovolts (kV) - to Siemens Gamesa Renewable Energy. The systems were deployed in the Nissum Bredning Vind wind farm in Denmark. The switchgear protect the wind turbines from overloads and short circuits and thereby ensure an uninterruptible power supply. The metal-encapsulated 8VM1 from the blue GIS portfolio was developed specifically for use in offshore wind turbines. They work with the proven vacuum circuit-breaker technology and with clean air as the insulating medium instead of sulfur hexafluoride (SF6). The wind farm operators, Nissum Bredning Vindmøllelaug and Jysk Energ, are relying on a new cable and turbine concept at a voltage of 66 kV to connect the four seven-megawatt (MW) wind turbines from Siemens to the grid. Compared with the usual 33-kV grid connection, this new concept increases transmission capacity and lowers the cost of laying cables. The wind farm has been supplying electricity since March.



www.siemens.com/press/PR2018040246EMEN

#### Siemens develops SF6-free gas-insulated mediumvoltage switchgear

At this year's Hannover Messe. Siemens will present another medium-voltage switchgear that doesn't require sulfur hexafluoride (SF6) as the insulating gas: the 8DAB 12. The system uses clean air consisting only of the natural constituents of ambient air as the insulating gas. The switchgear is a new addition to the 8DA and 8DB product family and also works with the proven vacuum switching technology. A vacuum-interrupter unit handles switching and arc extinguishing, while the natural gas insulates the current-carrying conductors inside the housing of the metal-encapsulated gas-insulated switchgear (GIS). This type-tested system is used to switch high currents at the primary distribution level. The single-pole encapsulated 8DAB 12 is a SF6-free mediumvoltage switchgear in the Siemens blue GIS portfolio. Switches and switchgear that use SF6 as the insulating, switching, and extinguishing gas remain an important part of the Siemens portfolio.

www.siemens.com/press/PR2018040245EMEN



### Siemens extends performance spectrum of synchronous reluctance drive system

Siemens is extending its portfolio of Simotics synchronous reluctance motors to include the two new shaft heights, AH90 and AH225. With these new additions, the company is addressing calls from renowned manufacturers of pumps, fans, compressors and machine builders in general for different shaft heights. The motors are available in a power range of 0.55 to 45 kilowatts (kW), and now also with rated speeds of 1500 and 3000 revolutions per min-1. In conjunction with the recently launched Sinamics Reluctance Control License, precise encoderless closed-loop torque control is possible down to a standstill. The license enables field-oriented (vector) closed-loop control even when at a standstill – reliably eliminating the possibility of the synchronous motor "stalling" at any time even if the load inertia is not known.





#### Preview of Siemens' MindSphere on Microsoft Azure now available

Siemens today announced that a preview of MindSphere, the company's cloud-based, open Internet of Things (IoT) operating system, is available beginning in April on Microsoft Azure. Joining the MindSphere solution family through the Microsoft Azure cloud platform provides the ability for our joint customers and partners to begin developing and implementing Industrial IoT solutions very quickly, thereby helping accelerate their ability to derive value and create innovative solutions.

www.plm.automation.siemens.com/en/about\_us/news room/press/press\_release.cfm?Component=260739& ComponentTemplate=822

#### High performance along the entire value chain with Simotics SD Pro

Simotics SD Pro completes the next generation of lowvoltage Simotics SD motors from Siemens. The new variant is equally suited for mains-fed operation or for use with a converter for voltages up to 690 volts (V). There is generally no need to use special filters at the converter output. The Simotics SD Pro motors reliably fulfill the requirements for compliance with efficiency class IE3, irrespective of whether they are operated at 50 or 60 hertz (Hz). Used in conjunction with a comprehensive range of industry-specific and country-specific certificates. they can be used in all the world's most important regions and markets, and also in wide-ranging different plant configurations. The Simotics SD Pro offers the bonus of multi-voltage capability, making it ideal for series production by OEMs. The motors can be stably operated with all power supplies in common use around the world, and fulfill the requirements for compliance with the respective efficiency class at all operating points. This motor variant operates with the utmost reliability and efficiency under even the toughest environmental conditions such as those prevailing in the oil and gas industry. Typical applications for the low-voltage motors include pumps, compressors, fans, cranes and hoists, conveyors, chippers, coilers, grinders, shears and rolling stands.



www.siemens.com/press/PR2018040236PDEN

### Siemens heightens industrial cyber security by detecting anomalies

Siemens will present a solution for detecting anomalies in industrial networks at the Hannover Messe 2018.

"Industrial Anomaly Detection" enables security-related incidents, such as unauthorized intrusions and malware, to be identified and countermeasures to be taken. The software is pre-installed on an industrial PC (IPC), and easily integrated into industrial environments.

Alternatively, it will be enabled to run on network components from Siemens, such as the multiservice platform Ruggedcom RX1500 with Ruggedcom APE. The solution is especially suitable for companies in the automobile production, aerospace, chemical, pharmaceutical, food and beverage, and water/waste water industries.

www.siemens.com/press/PR2018040235DFEN



#### Increased productivity for machine tools and Motion Control drive systems with MindApps

Siemens is launching a new app for drive systems in the field of Motion Control called Analyze MyDrives, and has also introduced Manage MyMachines/Remote, a new plug-in to upgrade its tried and tested Manage MyMachines MindApp for machine tools with the addition of a smart remote feature. Analyze MyDrives and Manage MyMachines/Remote are special MindApps designed specifically for MindSphere, the open IoT operating system from Siemens, which allow users to utilize the benefits of cloud-based services and create added value with machine operation. Digitalizing drive systems or machine tools enables extensive data generated by the drive or machine to be analyzed and put to use. By connecting to MindSphere, this process can be carried out simply by the machine manufacturer or user, significantly improving the efficiency of drive systems and machines and boosting productivity across the production network. In this way, these MindApps provide the starting point for totally new applications for drives or machine tools which enable innovative digital services such as predictive maintenance, energy data management or resource optimization.

www.siemens.com/press/PR2018040232DFEN

# Greater availability and extended flexibility for modular drive system

Siemens has adapted the electrical and mechanical design of the Sinamics S120 Chassis-2 to meet today's and tomorrows market requirements. The new frequency converters are designed to meet the very highest demands with state-of-the-art components, an innovated cooling concept with speed controlled fan and is like always type and system tested to ensure the very highest reliability and availability.

Added to these benefits the derating is minimized, for example more than halfed at low output frequencies. Overall the electrical design was adapted to allow simple Engineering with minimal derating while increasing the life time even under worst case conditions. Supported with additional functions such as Condition Monitoring to ensure longest possible operation time with the ability to plan maintenance based on the real requirement of the application.

www.siemens.com/press/PR2018040231PDEN



### New redundancy controllers for mid-sized and large automation applications

Siemens is expanding its Simatic S7-1500 Advanced Controller range with three new CPUs for redundant automation applications. The CPU1513R and CPU1515R are used for small to medium-sized projects with a focus on CPU redundancy. If one CPU fails, the back-up CPU automatically takes control of the process with no data loss and the process continues very quickly. As with the standard CPUs, the engineering of the redundancy CPUs is especially easy for users. The TIA Portal engineering framework and the redundant CPUs synchronize programs and data without the user having to intervene. The CPU1517H is used for larger applications and higher performance requirements. Here, dedicated synchronization modules enable faster, smooth switchover.



www.siemens.com/press/PR2018040228DFEN

#### Converter handling simplified by new module for wireless commissioning

Siemens has extended its Sinamics G120 converter series portfolio to include an option for wireless commissioning, diagnostics and servicing. The new Sinamics G120 Smart Access Module enables the wireless connection of mobile devices such as tablets, smartphones or laptops over WiFi to the Sinamics G120, Sinamics G120C and Sinamics G120P converter series, making for considerably simpler converter handling. The module is set up in a few simple steps using a conventional web browser and any standard operating system. The web server functionality eliminates the need to download any additional software. With its intuitively structured user interface and menu guidance, the module offers outstanding user convenience.

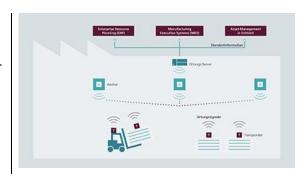




#### Siemens acquires technology leader in Real-Time Locating System solutions

With effect from March 29, 2018, Siemens has taken over ownership of the company Agilion GmbH based in Chemnitz. Agilion is a leading supplier of industrial Real-Time Locating Systems (RTLS) focusing on applications in production, logistics and maintenance. The company is recognized as a pioneer in the field of RTLS in the Ultra Wide Band (UWB) frequency spectrum. This technology enables highly precise localization within a range of just a few centimeters, tracking of a large number of different assets, and exceptionally easy commissioning. The precise real-time localization of assets such as tools or vehicles will enable manufacturers to optimize their production and logistics processes and so improve their quality, productivity and flexibility.

www.siemens.com/press/PR2018040214PDEN



#### Siemens industrial communication relies on Time-Sensitive Networking (TSN)

At Hannover Messe 2018, Siemens will be showcasing a trade fair model to demonstrate the advantages of Time-Sensitive Networking (TSN): TSN enables even more robust and reliable Ethernet communication between machines and plants even under high network load conditions. The model uses OPC UA PubSub (Publisher/Subscriber) together with TSN for machine-to-machine (M2M) communication. The reliability of TSN provides significant advantages for automation applications in industries such as automotive, mechanical engineering and food&beverage. The first Siemens products are expected to be available towards the end of 2018: network components, communication processors, software and network management with TSN functionality.

www.siemens.com/press/PR2018040189PDEN



### Technology CPUs with expanded handling functions for motion control tasks

Siemens has expanded its Simatic S7-1500 Advanced Controller portfolio for challenging automation applications to include two new technology CPUs that combine standard, safety and motion control functionalities in a single device. The 1515SP PC2 T CPU and fail-safe 1515SP PC2 TF CPU complement the range of Open Controllers. They are suitable for motion control tasks such as gearing and camming, or the control of kinematics with up to four axes – for example for handling applications, such as Pick & Place, Cartesian Portal, Delta Picker and Scara robots. Even challenging motion control tasks can be easily handled in combination with the Sinamics V90 PN, S210 and S120 servo drive systems.



www.siemens.com/press/PR2018040179DFEN

### Extended energy management and app for the mobile recording of consumption data

Siemens has expanded its ISO 50001 certified energy management portfolio to include Simatic Energy Manager Basic V7.1. Designed for entry-level energy management, Simatic Energy Manager Basic offers the user energy transparency quickly created by web-based engineering and data connection. The customized design of dashboards and reports enables initial efficiency measures to be derived quickly. If the requirements increase, for example in the direction of batch or materialrelated analyses, baseline management or energy consumption forecast, the user upgrades to energy management with Simatic Energy Manager PRO V7.1 simply with a license key. Simatic Energy Manager PRO V7.1 now offers not only extended analytical possibilities, but also additional interfaces, such as that to the Simatic S7 Energy Efficiency Monitor for assessing the efficiency of machines and plants. This is a step toward the energy labeling of industrial plants and machines. Also new is the connectivity to the MindSphere, the cloud-based, open IoT operating system, for further analyses.

www.siemens.com/press/PR2018040165DFEN



### Simotics XP integrated platform concept cuts life cycle costs

With its new generation of Simotics XP motors, Siemens is providing a technologically integrated platform concept encompassing all explosion-proof low-voltage motors. Based on the proven modular Simotics system, this future-proof platform covers all types of protection making it ideally suited for use in potentially explosive atmospheres in the process industries. The use of standardized selection and engineering tools as well as uniform documentation which can be flexibly adjusted to individual requirements makes for simpler and faster project processing. Together with short delivery times, this can substantially cut project run times. The motor design has been optimized for the process industries, and is available across all protection types in efficiency class IE3. Life cycle costs are reduced despite improved motor availability and better maintenance conditions. By digitally mapping the real plant together with all its components to create a digital twin, Simotics XP becomes a part of the digital enterprise. The knowledge gained as a result can be used across the entire life cycle, permitting further optimization during the planning, engineering and commissioning phase, and also facilitating aftersales services and the stocking of spare parts. Typical applications for the new Simotics XP generation include pumps, fans, compressors, extruders, mixers and agitators.





#### Siemens offers flexible protection of industrial plants supported by Palo Alto Networks

Siemens today announces its adoption of Palo Alto Networks® next-generation firewalls (NGFWs) to enhance the protection of industrial organizations in manufacturing and process industries against cyberattacks. The Palo Alto Networks NGFW aims to put in place a high level of protection to secure the increasingly complex interfaces between office and automation networks, as customers continuously seek to benefit from the advantages of digitalization. The NGFWs allow Siemens customers to select from a variety of security levels and adjust them in-line with their own specific needs. The additional firewall will complement Siemens' Scalance S Industrial Security Appliances which protect devices and network segments.

http://www.siemens.com/press/PR2018040156DFEN



### Simplified handling of Sinamics V-converters with new frame size and Profinet connectivity

Siemens is extending its Sinamics frequency converter portfolio for standard applications Sinamics V20 to include a new frame size, the FSAC in the voltage range 1AC (Alternating Current) 200 V to 240 V 1.1 kW to 1.5 kW. FSAC is replacing the previous FSB frame (1AC 200V). 40% more compact than its predecessor, the new frame size offers even more flexible and exceptionally spacesaving application possibilities.

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## Optimum machine safety using Extended Safety Integrated functions

Siemens extends the Sinamics S210 servo drive system to include the Extended Safety Integrated functions. The existing basic functions such as Safe Torque Off (STO), Safe Stop 1 (SS1) and Safe Brake Control (SBC) are now complemented by extended functions provided by the new firmware versions V5.1 SP1: Safe Stop 2 (SS2), Safe Operating Stop (SOS), Safely-Limited Speed (SLS), Safe Speed Monitor (SSM), Safe Direction (SDI), and Safe Brake Test (SBT). All of these functions ensure machine functions are provided with comprehensive protection. Also the encoders of the Simotics S-1FK2 motors have been updated, to support the new Extended Safety functions and provide an encoder resolution of 22 bits. The motors fitted with the new encoders can be used as replacement parts for previous models. Typical uses for the new drive system include in particular packaging machines, handling applications such as Pick & Place, wood and ceramic processing as well as digital printing.

www.siemens.com/press/PR2018030203DFEN



#### Digital assistant for maintenance personnel

With its new Comos Mobile Operations App, Siemens is providing plant maintenance personnel working in the process industries with a handy support tool for their maintenance work and to help them manage occurring events as they happen in the field. Its intuitive, easy-to-operate user-friendly graphical interface is clearly divided into two manageable areas: Maintenance and Events. The app's redlining function allows maintenance personnel to work on documents directly by editing and adding information on the go – making for faster response times. The app is linked to the Comos Asset Information Management System, affording the user access to any required plant data at any time. Information imported using the app is then synchronized back again with Comos.



www.siemens.com/press/PR2018020180PDEN

#### Siemens optimizes drive system performance with digital platform

With Sidrive IQ, Siemens is offering a new digital platform for the evaluation and utilization of drive data based on MindSphere, the cloud-based open IoT operating system in use across wide-ranging industries. Users of networked drive systems are afforded direct access to new functionalities designed to support industrial production and maintenance tasks. The result: increased productivity, reliability and serviceability for complete drive systems over their entire life cycle. Sidrive IQ can be used to support an array of applications in different industries.

www.siemens.com/press/PR2018020176PDEN

#### Siemens presents industry-specific implementation of the Digital Enterprise

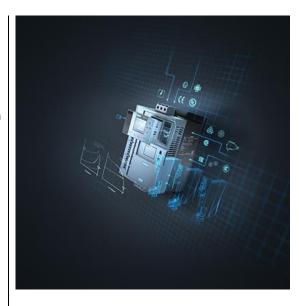
At the Hannover Messe 2018, Siemens will be showcasing a comprehensive series of examples which demonstrate how users can harness the potential of Industrie 4.0 by implementing Digital Enterprise solutions. The focus of the 3,500-square meter booth in Hall 9 is on industry-specific implementation of Digital Enterprise solutions over the whole life cycle. Examples from aerospace, automotive, food and beverage, electronics and machine building as well as the chemical, fiber and oil and gas industries illustrate how companies of any size and from any industry can increase their competitiveness with individual digital solutions – through greater flexibility, efficiency and quality as well as shorter times to market. MindSphere Version 3, concrete use cases and references from Siemens and partners such as OEMs as well as the new global user organization MindSphere World will all be presented in the 700-square meter MindSphere Lounge. Siemens will also be demonstrating how producers can already benefit now from industrialized additive manufacturing, and showcasing Sidrive IQ, the new digital platform for the MindSpherebased evaluation of drive data. Also featured on the Siemens booth will be integrated solutions for industrial enterprises and infrastructure projects in the power utility sector, with the focus on smart energy management using MindApps.

www.siemens.com/press/PR2018020169COEN

## New generation of soft starters for simple to demanding drive requirements

With its Sirius 3RW5 range, Siemens is launching a new generation of soft starters for simple to demanding drive requirements. This comprehensive range of devices for the soft starting of three-phase asynchronous motors from 5.5 to 1,200 kW enables efficient and future-proof machine concepts to be implemented easily and cost-effectively. The new Sirius 3RW5 soft starters are suitable for any drive, they can be easily integrated into the automation system, and they supply data right up to MindSphere, the cloud-based, open IoT operating system of Siemens. Practice-related functions such as automatic parameterization with changing startup characteristics, and integrated properties such as electrical ruggedness in the case of fluctuating line voltages, support smooth operation in a host of applications.

www.siemens.com/press/PR2018020154DFEN



#### Upgraded power supply system now protects against hour-long power failures

Siemens has upgraded its Sitop PSU8600 power supply system with the addition of new supplementary modules to transform it into an uninterruptible direct current (DC) power supply. To achieve this, the new DC UPS module UPS8600 uses the energy stored in BAT8600 battery modules to keep the system up and running in the event of a power failure, and it extends the previous bridging times enabled by the buffer modules from just minutes to hours. The PSU8600 has up to 36 outputs capable of being adjusted between 4 and 28 volts, and all of these can be buffered in the event of a power failure. To maximize buffering time for important loads, it is also possible to selectively shut down certain outputs. The Sitop PSU8600 is particularly suitable for use in applications which place stringent demands on reliability and simple integration, such as the automotive, food or pharmaceutical industries, and in the field of plant and special-purpose machinery building. The enhanced availability with the new UPS8600 makes the power supply ideally suited also for process applications such as in the chemical, oil or gas industry.



www.siemens.com/press/PR2018020151PDEN

#### Apps for cloud-based services in automation

Siemens is launching a number of new apps concerning automation with Simatic systems. The new Simatic MindApps Machine Monitor, Notifier and Performance Monitor are special applications for MindSphere, the open IoT operating system from Siemens. These apps will enable users to make easy use of the advantages of cloud-based services and generate added value. The Simatic MindApps read out relevant data for analysis purposes, for example, from production machines or systems, then process them to create meaningful information, display them on dashboards, or use them for intelligent alerting and messaging.

www.siemens.com/press/PR2018020148DFEN



#### **Siemens Media Service March – Industry News**

#### Siemens Media Service - March 2018

The March issue of the MediaService 2018 focuses on the upcoming Hannover Messe, bringing you a wealth of information on new products you may expect to see at the fair from the world of drives and automation. We learn how Siemens is extending its portfolio of compact power supplies to include a new DC power supply for smaller cable cross-sections. Also featured is a new block library for the TIA Portal automation platform designed to efficiently solve a range of automation tasks, significantly reducing engineering input and project costs as well as project run times. Siemens is also expanding its switch portfolio with more flexible authorization management for its ID key-operated switches. And finally, we learn about two new firmware versions for communication processors: One for S7-1200 communication processors to enable simple. secured remote access, and the other to permit secured remote access to distributed controllers for ET 200SP communication processors.

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Industriethemen von Siemens in Social Media MediaService Industries Blog:

www.blogs.siemens.com/en/mediaservice-industries-de.html



