

A photograph of two men in a server room. The man on the left is older, with grey hair and glasses, wearing a blue button-down shirt. The man on the right is younger, wearing a grey cardigan over a white shirt. They are both smiling and looking at each other. The man on the right is holding a clipboard. In the background, there are rows of white server racks. A large green arrow graphic points from the top right towards the center, and a blue diamond graphic is positioned to its right.

SENTRON 3WA air circuit breakers

Made for makers. Simply reliable.

SIEMENS

Makers can achieve what they want with the SENTRON 3WA air circuit breakers. **Simply reliable.**

SENTRON 3WA air circuit breakers are a key element in power distribution systems and are the basis for your integrated energy system in the digital age.

They also continue the internationally recognized traditional role played by Siemens in the circuit breaker market. With improvements in important areas like mechanics and electronics, they offer features that respond to market trends and set new standards.



Trust the tried-and-tested

With the help of rock-solid SENTRON 3WA air circuit breakers, your power distribution system will benefit from the reliable protection you know and trust. Benefit from a comprehensive portfolio that meets every requirement and suits every application.

Extensive, modular accessories let you expand functions easily. A long service life and the low maintenance cost of all the components are your assurance of long-term reliability.

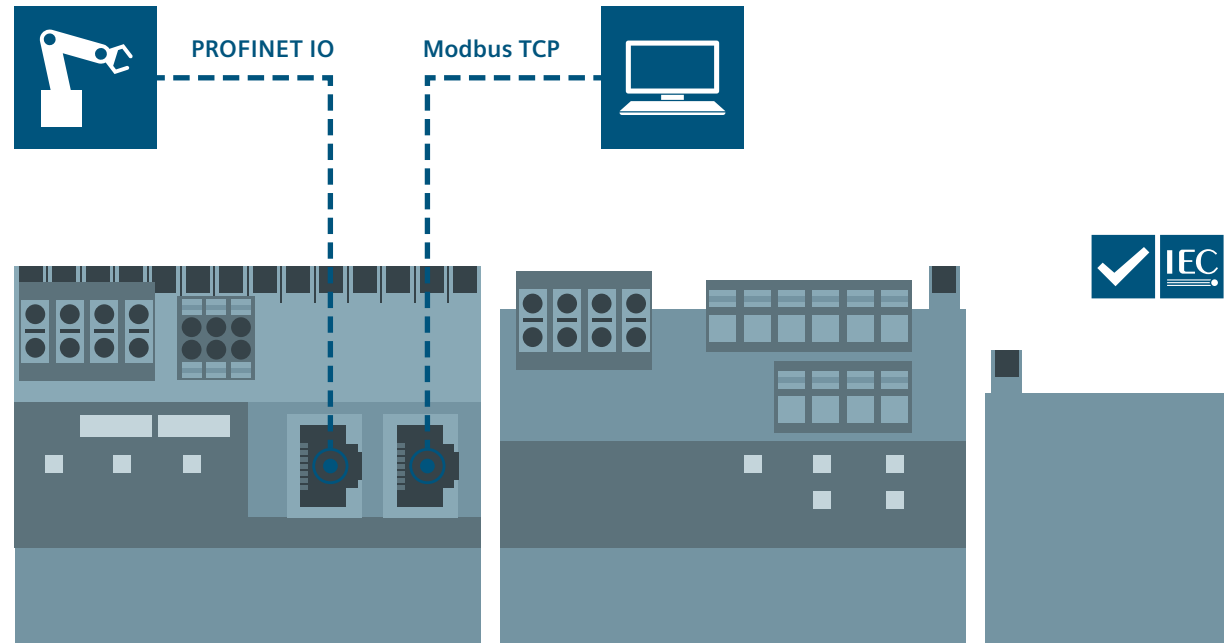
Consistent portfolio for the IEC market

- Consistent, end-to-end portfolio since 2001 thanks to the SENTRON 3WL and SENTRON 3WA air circuit breakers having the same dimensions and connection points
- Consistent, end-to-end circuit breaker portfolio up to 1,150 V AC
- Three sizes with rated currents of 630 A to 6,300 A for AC applications
- One frame size up to 4,000 A for DC applications
- High breaking capacity I_{cu} of 55 kA to 150 kA at 500 V AC
- Simple extension of functions, thanks to uniform accessories for all frame sizes
- One electronic trip unit platform that meets all requirements



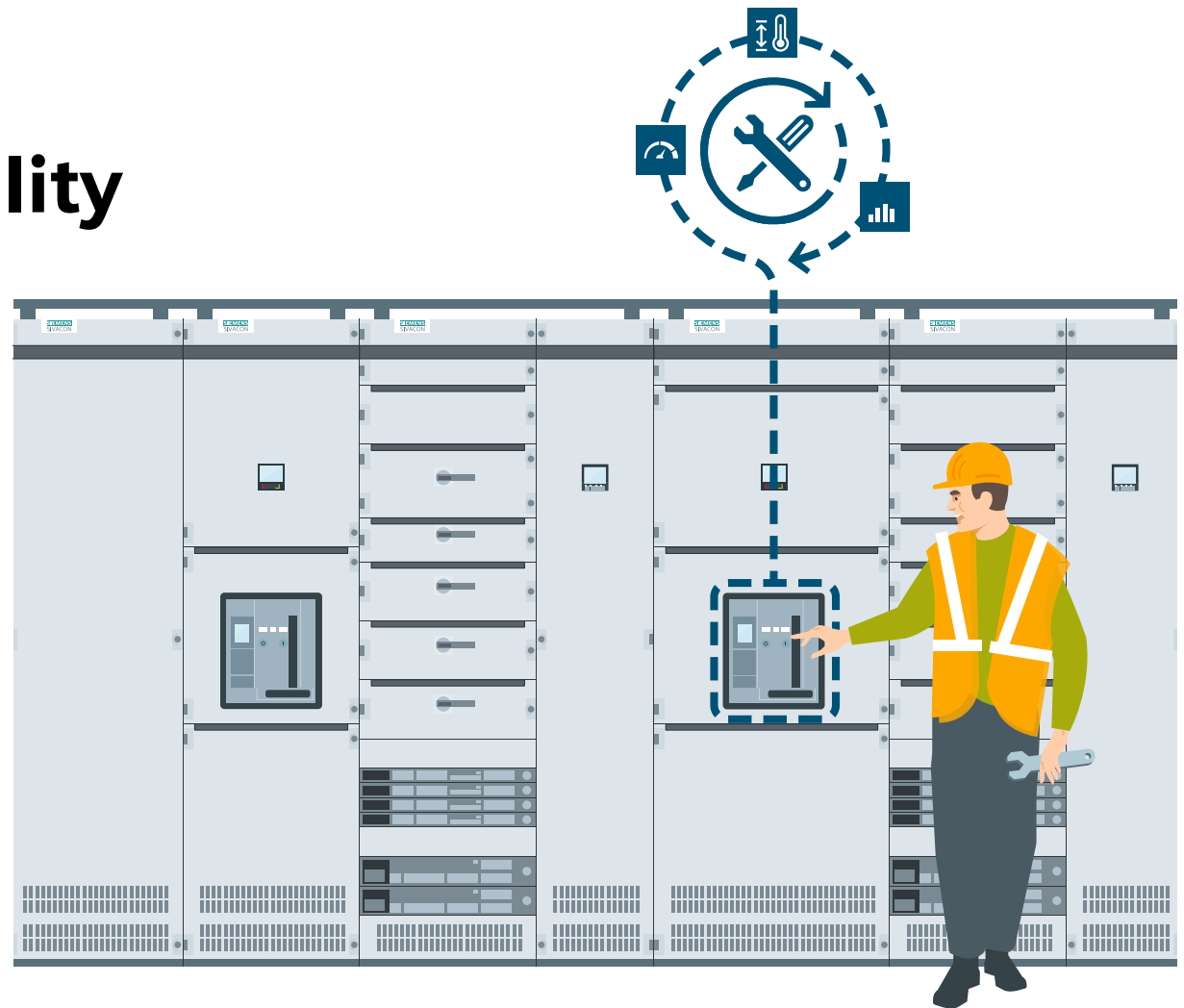
Simple extension of functions

- Accessories can also be retrofitted on site at any time
- ETU functions extendable by means of on-site upgrades (ETU600)
- COM190 PROFINET-IO / Modbus TCP module for connection to higher-level management systems; designed as a combination module to use multiple protocols simultaneously (Modbus TCP and PROFINET)
- Switched Ethernet functionality for optimized architecture, engineering, and redundancy while maintaining highest performance



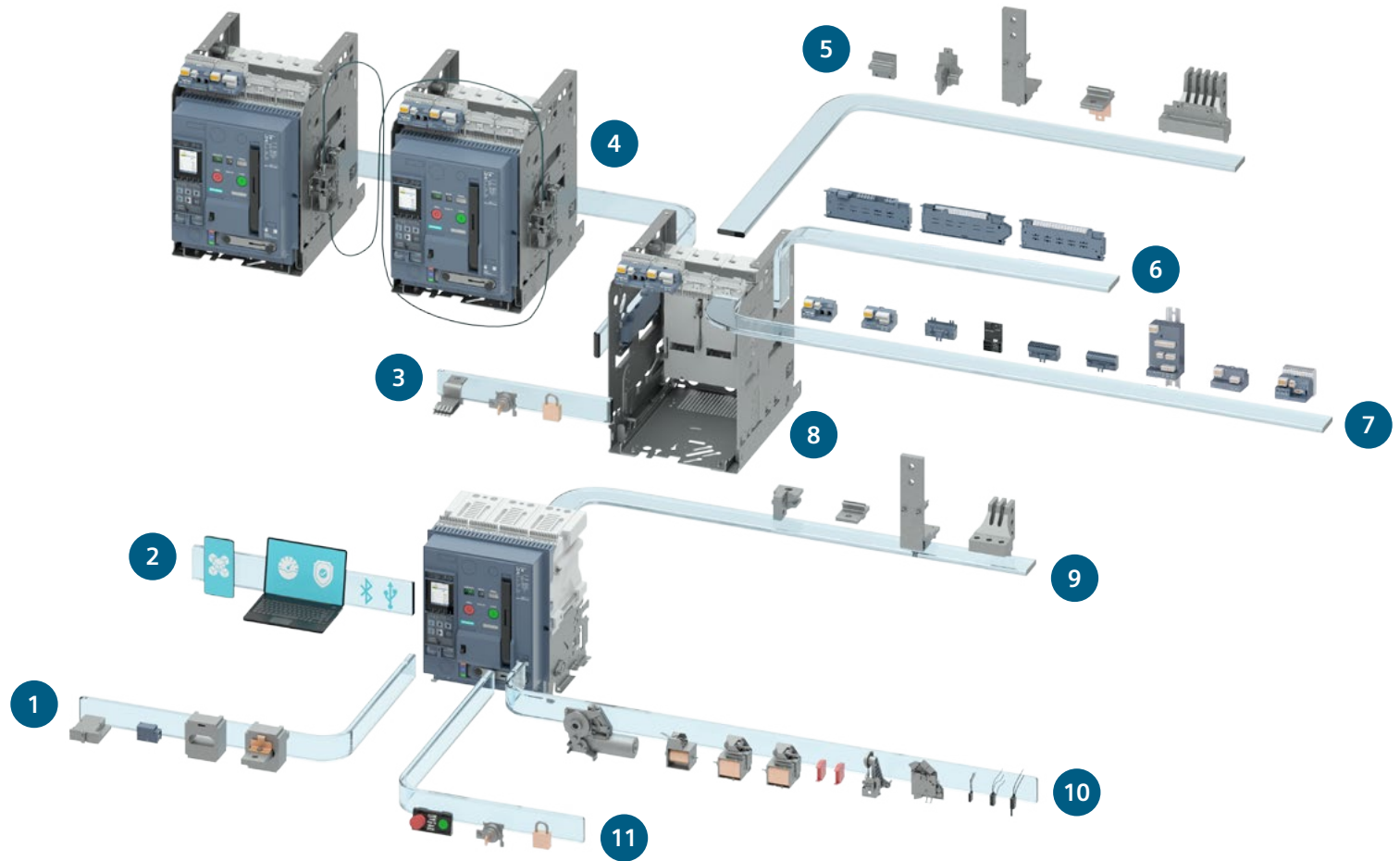
Long-term reliability

- You can carry out a simple annual inspection by yourself
- Replacement of wear parts can be performed as needed by the customer alone (no Siemens personnel required)
- Under particular environmental conditions, inspections are required only once every four years
- Automatic self-monitoring of functioning of the SENTRON 3WA air circuit breaker
- Cybersecurity functions for secure communication



System overview

- 1 Accessories for the ETU600 electronic trip unit
- 2 Activatable digital function packages for ETU600
- 3 Guide frame accessories
- 4 Interlocking system
- 5 Connection system guide frame
- 6 Position signaling switch (PSS) for guide frame
- 7 Communication and connections
- 8 Guide frame with shutter
- 9 Connection technology – fixed and mounted
- 10 Internal accessories
- 11 Locking device



Extensive, consistent, and modular accessories
let you expand functions easily



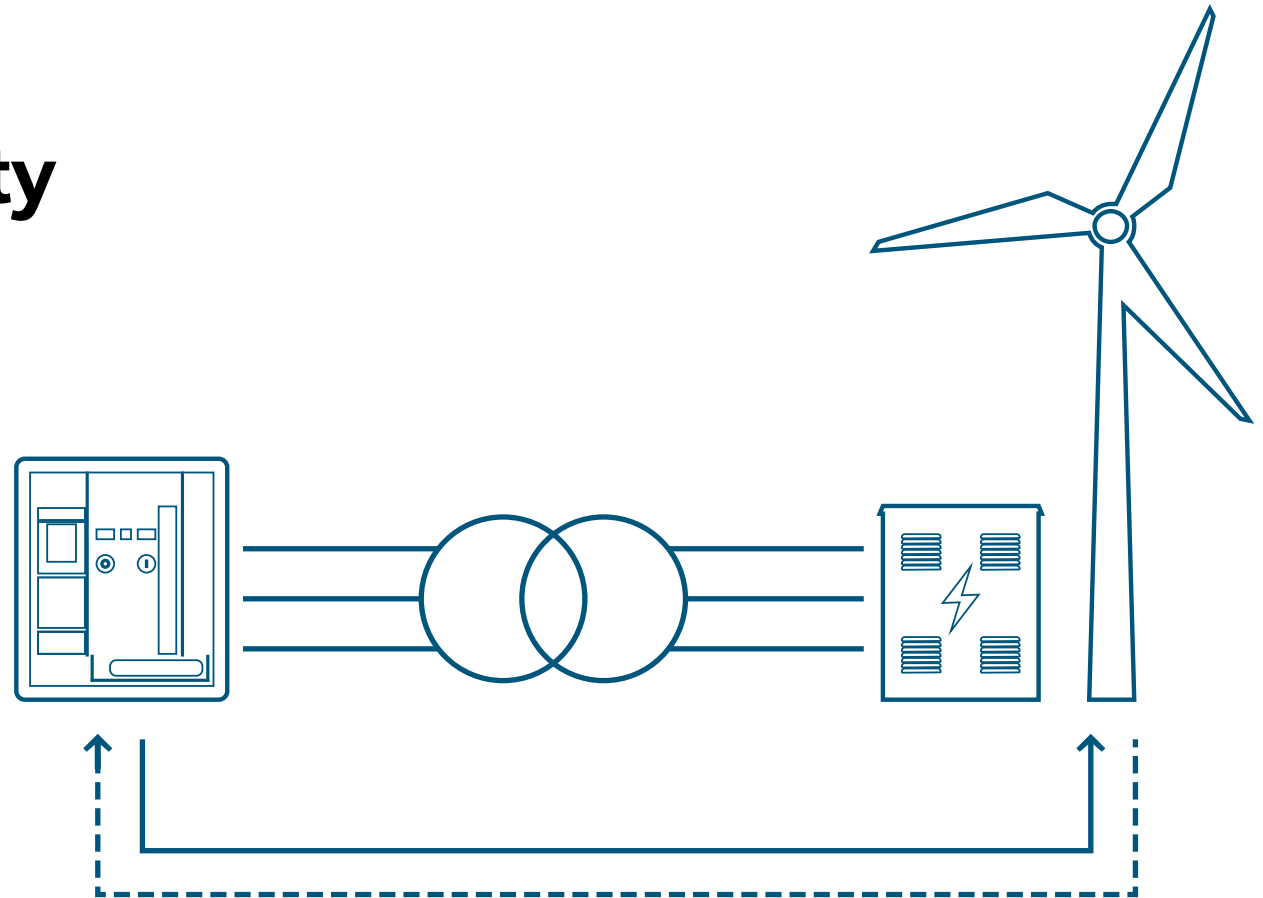
Benefit from efficiency

SENTRON 3WA air circuit breakers provide expanded protective functions and increased selectivity to ensure maximum system availability. Their robust mechanics and best product quality

are highly effective in demanding heavy-duty applications. With a SENTRON 3WA air circuit breaker in your switchgear, you can efficiently retrofit a SENTRON 3WL air circuit breaker, saving time and money.

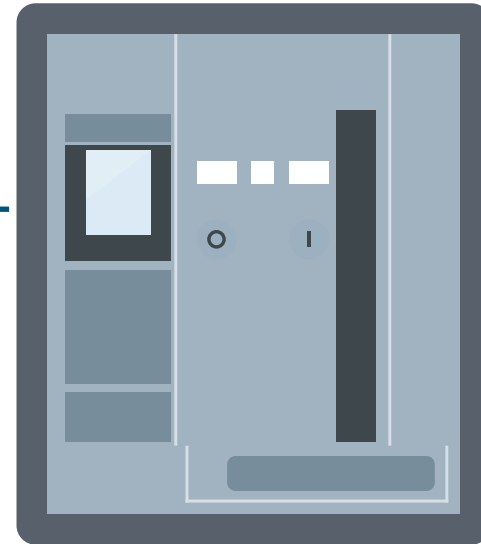
Optimal selectivity

- Perfectly coordinated selectivity values and protective functions for SENTRON air circuit breakers and downstream protective devices like SENTRON molded case circuit breakers assure total selectivity in cases of both overload and short circuit (the system component directly affected is safely shut down)
- Enhanced protective function: better protection of equipment (e.g. transformer) thanks to the detection of short-circuits when the direction of energy flow changes
- Dangerous discharge currents are recognized thanks to optimized ground-fault protection functions



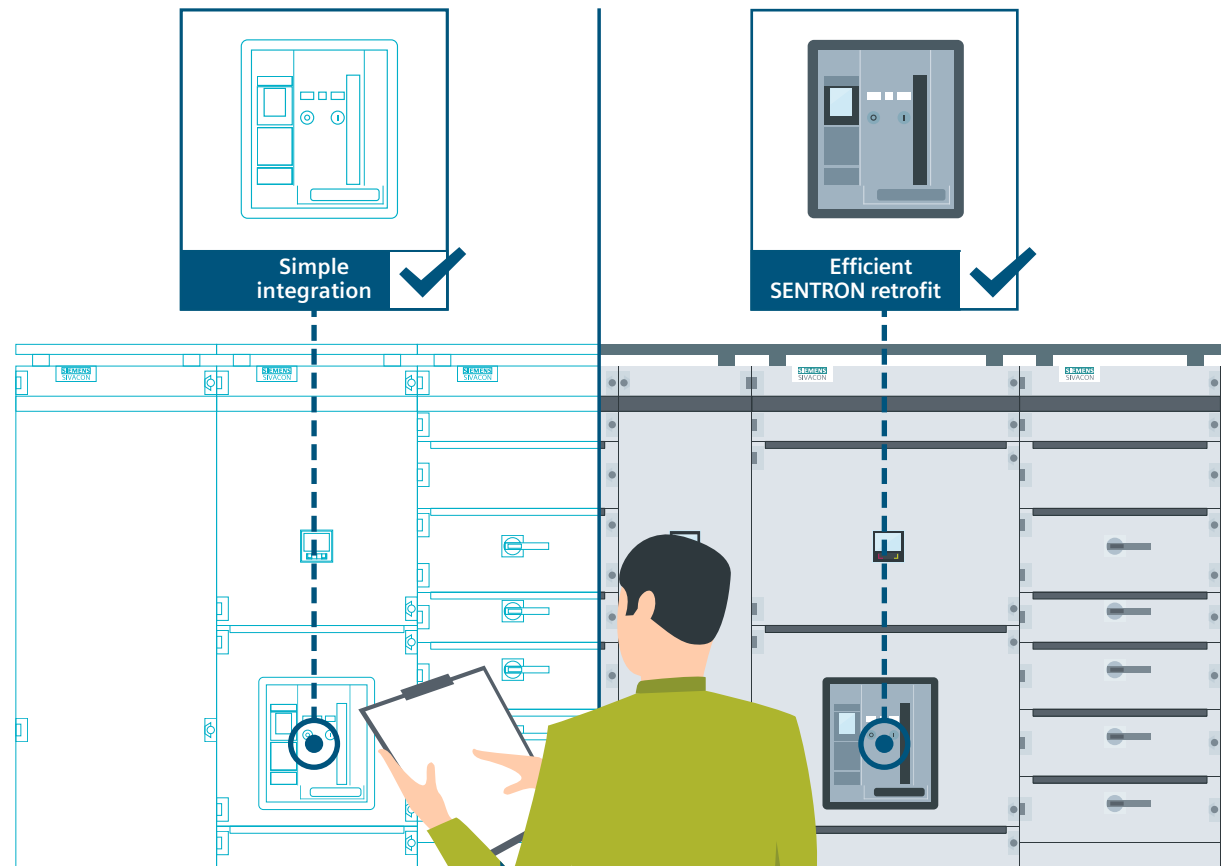
Highest product quality

- Further development of the proven, extremely robust design of the previous model, the SENTRON 3WL air circuit breaker
- New special versions (high short-circuit breaking capacity at high voltages): up to 125 kA at 1,000 V
- Maximum load capacity of circuit breaker thanks to long-lasting short-circuit breaking capacity at I_{CW} (3 s)
- Accessories designed for the maximum service life of the air circuit breaker
- The SENTRON 3WA air circuit breaker is developed and manufactured in accordance with a certified quality management system complying with DIN EN ISO 9001:2008
- User-friendly operation of electronic trip unit ETU600 via rotary switch, display, or remote parameterization



Time and cost savings when integrating into switchgear

- Easy integration of the SENTRON 3WA air circuit breaker in switchgear with no need for additional testing if the SENTRON 3WL air circuit breaker is already integrated in the switchgear design
- Easy to replace in existing switchgear: the SENTRON 3WL air circuit breaker can be replaced by the SENTRON 3WA with no need for additional testing as per IEC 61439 if the new circuit breaker is operated under the same technical conditions as the previous version
- Type testing as per IEC 61439 required only if new technical opportunities offered by the SENTRON 3WA version are used (e.g. higher breaking capacities)
- Possibility of installing the SENTRON 3WA air circuit breaker in an existing SENTRON 3WL guide frame





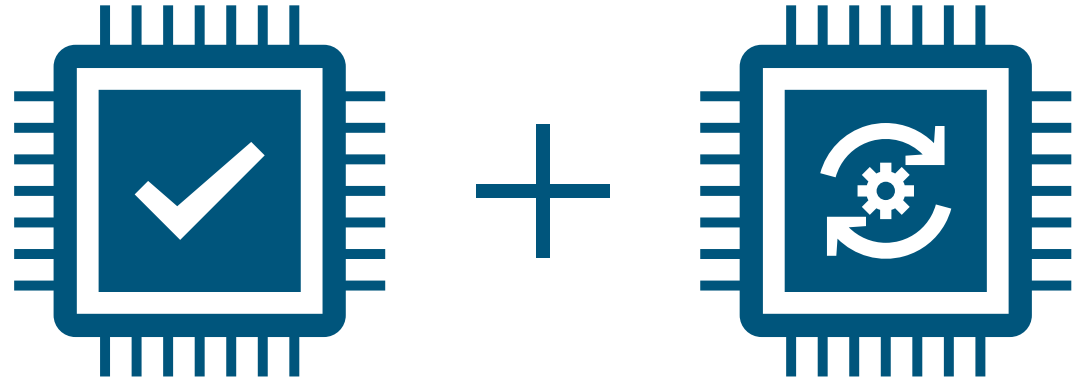
Create solutions with potential

SENTRON 3WA air circuit breakers offer selectable and upgradable functionalities, giving you flexibility – both now and in the future. Power data recording guarantees maximum transparency during system operation.

Sophisticated, powerful communication characteristics ensure secure data transmission – a must in the age of digitalization. And because they are easy to select, plan, and order, you can enjoy efficient workflows.

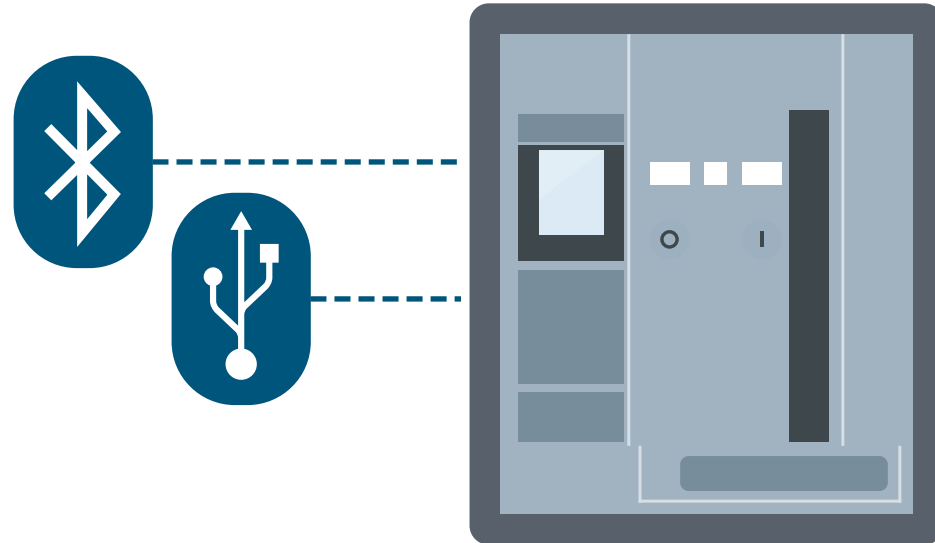
Long-term flexibility

- Intelligent dual-processor solution provides future-proofing and high levels of flexibility, together with strong security: Unmodifiable protection processor for basic protective functions and upgradable application processor for metering functions and expanded protective functions
- Easy to install functions and upgrades using the SENTRON powerconfig configuration software
- Optimal transparency for energy efficiency according to IEC 60364-8-1 thanks to a predefined metering function level (PMF level)
- Adaptation to new standards and modified standards possible at any time via upgrades



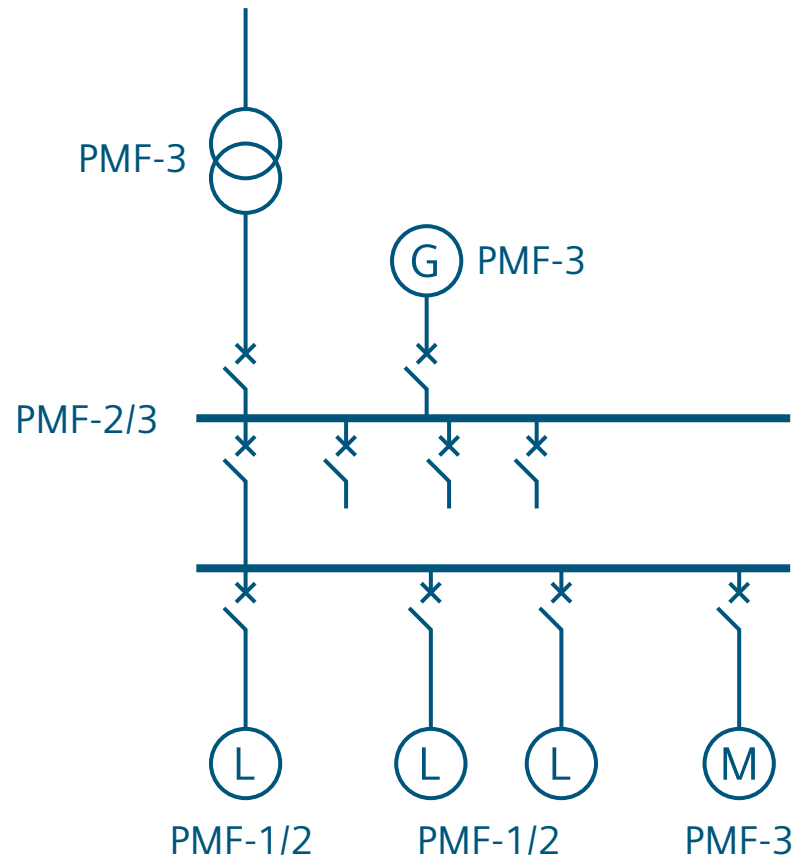
Future-proof communication solutions

- PROFINET-IO, for example for very demanding industrial communications, and Modbus TCP, e. g. for power monitoring
- PROFINET-IO redundancy and compliance with the highest PROFINET-IO standards (real-time capability)
- Modbus RTU for plant expansion
- Standard interfaces like USB-C and Bluetooth available in every air circuit breaker
- Possibility of using two communication modules simultaneously



High system transparency

- Simple integration in energy management systems according to ISO 50001 with selection of metering functions based on the energy efficiency guidelines of IEC 60364-8-1
- ETU600 electronic trip unit with advanced monitoring and reporting concept
- SENTRON 3WA air circuit breaker monitored remotely via the SENTRON powerconfig mobile app



Secure communication

- Communication via Bluetooth:
Off by default and through secure pairing
protected with a one-time pin
- Comprehensive cybersecurity solutions, such as
 - lockable communication module
 - lockable USB-C interface
- Communication via USB: setting parameters,
testing, and switching using the SENTRON
powerconfig configuration software



Selection, planning, and ordering

- Reduced complexity, bundling of functions, and rapid selection of device configuration
- Visual and interactive online configurator with interface to comprehensive CAX data support
- Direct conversion of SENTRON 3WL air circuit breaker article numbers to SENTRON 3WA air circuit breaker article numbers available
- Quick and easy switchgear documentation, thanks to switch-specific EPLAN macros
- After configuration, the SENTRON 3WA air circuit breaker and guide frame can be ordered separately





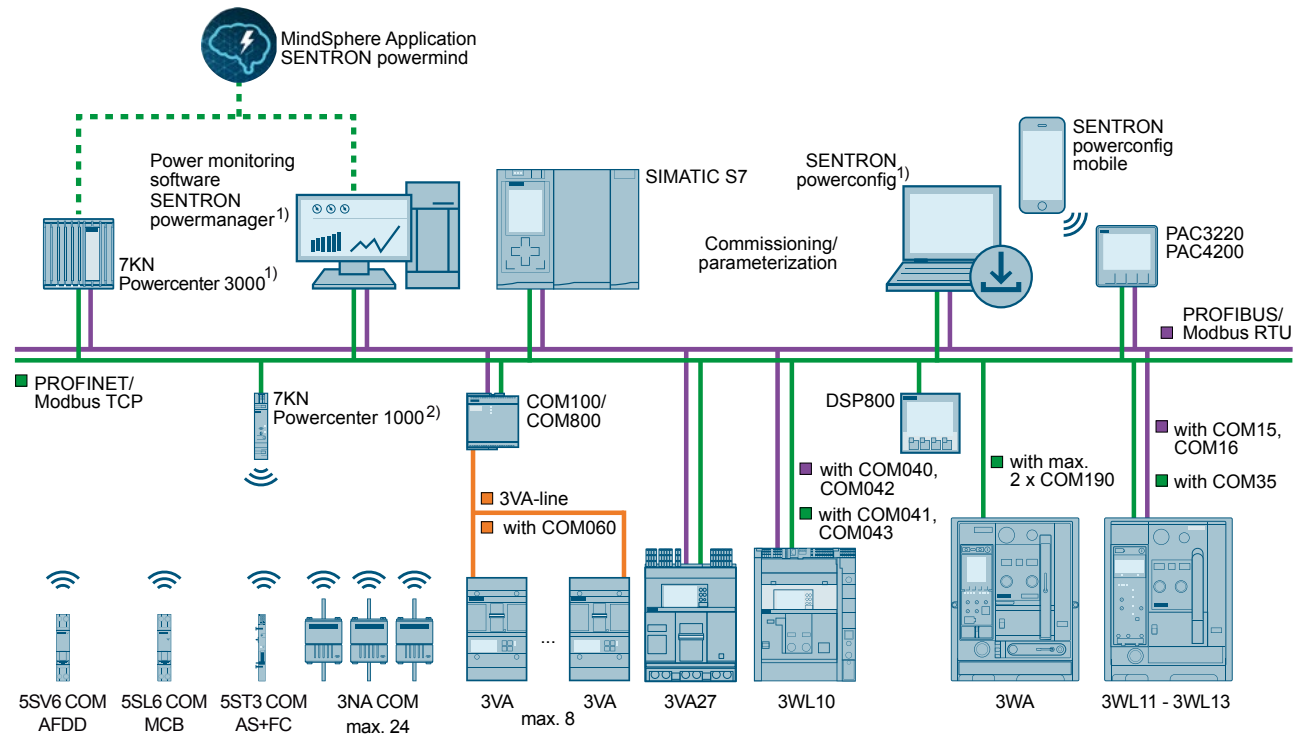
Enjoy seamless consistency

SENTRON 3WA air circuit breakers allow all low-voltage components to communicate seamlessly, ensuring you can use standard tools and benefit from data consistency.

An extensive tool landscape and access to all the engineering data you need ensure maximum convenience for planning and configuration.

Consistent tool landscape

- Uniform communication landscape for all low-voltage components
- SENTRON powerconfig configuration software for all low-voltage components
- Data transparency achieved through monitoring and analysis of all low-voltage components using the power monitoring software SENTRON powermanager allows improvements to be made
- Remote status check of all low-voltage components via the SENTRON powerconfig mobile app
- Easy planning of all low-voltage components using SIMARIS software tools



1) Direct connection to Modbus TCP; Modbus RTU via gateway; PROFINET and PROFIBUS are not supported.
 2) Direct connection to Modbus TCP; PROFINET is not supported.

Convenient planning and configuration

- Data-based engineering: save effort with extensive CAx data and by creating a digital twin
- Easy, fast planning with SIMARIS software tools, e. g. to verify selectivity and for easy calculation of short-circuits across the entire power distribution system
- Generating individual EPLAN macros to integrate data (2D, 3D) easily and quickly and configure the circuit diagram
- SIOS portal: access documents with all product-relevant information – globally available 24/7



Portfolio for the UL market: Made for global makers

- Comprehensive portfolio for the UL market thanks to SENTRON 3WA air circuit breakers and SENTRON 3VA molded case circuit breakers.
- The entire SENTRON 3WA air circuit breaker portfolio (3WA1, 3WA2, 3WA3) is based on a consistent system.
- The SENTRON 3WA UL series 3WA3 can be used worldwide. They meet the requirements of UL 1066 and IEC 60947-2. This is particularly advantageous for switchgear manufacturers / OEMs producing systems for both standardization areas.
- The new SENTRON 3WA2 series is designed exclusively for the UL 489 market.





The advantages: How makers benefit

- Transparent power data can improve energy efficiency by up to 30 %
- Lower penalty payments for grid operators in the event of electricity outages
- Robust air circuit breakers can withstand voltage fluctuations, minimizing the risk of system faults
- Whereas wiring design used take up to seven hours, it can now be done at the push of a button, resulting in huge time savings
- System tests confirm a combination of robust mechanics, automated diagnostics, and webbased upgrades increase the real service life of the circuit breaker, if properly maintained, to potentially as long as 30 years – which represents a huge reduction in system life-cycle costs
- SENTRON 3WA air circuit breaker can be easily and inexpensively integrated into switchgear if the SENTRON 3WL air circuit breaker is already integrated

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