

POWERFUL AND FUTURE-ORIENTED

Smart power distribution with **SIVACON S1**

The expansion of charging infrastructures for electromobility is dynamically moving forward. Fast charging poles with a charging power of up to 400 kW are always in great demand where shortest charging cycles are required – such as in gas stations, on highways, or for company fleets. Powerful charging poles such as SICHARGE D are optimally complemented by a smart and future-oriented power distribution system. Compact transformer substations with a SIVACON S1 distribution board supply energy to the charging technology reliably and safely for all ratings. Connected to the cloud through the SIMARIS control software, they enable a dynamic load management and transparent asset management.

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Powerful and safe

The intelligent distribution board SIVACON S1 supplies electrical energy to charging points with charging power ratings from 11 kW to 400 kW in the low-voltage network. At the same time, it can distribute infeed power ratings from 800 kVA to 2000 kVA in a safe and cost-efficient way. SIVACON S1 is the link between the medium-voltage ring of a local network and the charging stations, charging poles, or wallboxes of the charging infrastructure for the electromobility.



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Modular and compact

SIVACON S1 has been conceived for installation in concrete compact substations without control aisle. If enclosure parts are provided, it can optionally be installed in a transformer substation with control aisle. Scalable in power and size, and thanks to its modular design, it offers ideal preconditions for an efficient setup of compact substations for a wide range of applications. It can be integrated in both TN-C and TN-C-S systems and provides 3- and 4-pole switching technology.

Reliable power supply for your charging infrastructure

As a distribution board, SIVACON S1 takes on two tasks: Distributing electric power to multiple consumer loads in the low-voltage network. Protecting the supply cables to these consumers from the effects of overload and short-circuits.

Smart power distribution

With its intelligent equipment, SIVACON S1 offers operators manifold analysis and control options. Communication with suitable applications in the cloud is cable-connected or wireless via mobile network. SIVACON S1 can acquire multiple electrical and non-electrical values and parameters and make them available to a backend (for example, SICAM Navigator).

With the help of freely programmable algorithms, the digital data model of the SIVACON S1 distribution board allows you to assess and evaluate measuring data in our SIMARIS control software. With application-specific control commands for the distribution board, SIMARIS control can also implement an active load management among the connected consumers – for example, in accordance with the specifications of the system operator – (depending on the equipment).

Technical features

- Infeed for full rated transformer currents at transformer ratings from 800 kVA to 2000 kVA
- Variable number of feeders (maximum 23 feeders possible)
- Feeder currents possible up to a rated current of 800 A

- Supply of charging poles up to 400 kW
- Feeders in non-fused and fused technology
- Retrofitting of feeders possible up to maximum equipment
- Voltage indication as standard
- Overvoltage protection as standard
- Short-circuit and earthing facility as standard
- Optional: battery-based communication periphery
- Optional: temperature monitoring at all customer connections of the power cables, as well as air temperature in the compact substation

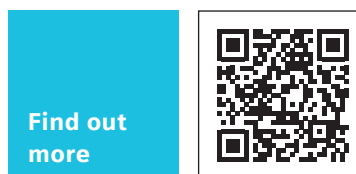
Operation and environment

- Front access to all control and read-out devices
- Maintenance-free busbar joints and low-maintenance devices
- Practice-oriented covers of live parts
- Optional: complete remote diagnostics and remote control
- Resource-saving use of material, complete recycling possibility
- Space-saving design and optimized dimensions for installation in compact substations

Software (option)

- SIMARIS control as a digital twin, data concentrator, communication interface – for control, operation, and observation
- Interface for cloud connection
- Dynamic load management of connected charging poles
- Digital distribution board documentation on site
- Menu-driven maintenance support
- Digital inspection and maintenance documentation

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