

**SIEMENS**  
*Ingenuity for life*

SIVACON

## SIVACON S4 and ALPHA UNIVERSAL distribution systems

Comprehensive portfolio  
for infrastructure applications

[siemens.com/distributionsystems](https://www.siemens.com/distributionsystems)

Published by  
Siemens AG 2018

Energy Management Division  
Siemensstrasse 10  
93055 Regensburg  
Germany

Article No. EMLP-B10189-00-7600  
Printed in Germany  
Dispo 25600  
TH 477-180457 BR 1118

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# Ensuring safe and efficient power distribution



## Highlights

- One-stop portfolio for safe power distribution up to 4,000 A
- Well-designed modular platform architecture
- Coordinated portfolio of SIVACON and ALPHA distribution systems and SENTRON protection, switching, measuring, and monitoring devices
- Enhanced productivity thanks to proven, reliable SIMARIS configuration software and extensive CAx data support

## Increasing challenges for panel builders throughout the entire project cycle

Electric power distribution in infrastructure applications is changing. The growing number of electrical consumers, varying load conditions, and the increasing level of automation present new challenges for panel builders. The availability, safety, and efficiency of power distribution are becoming increasingly important. This is reflected in detailed standards and regulations, as well as requirements placed on operational energy management solutions.

The planning and operation of electric power distribution is becoming increasingly complex, and the systems and products at their core are subject to ever more demanding technical requirements – especially in terms of flexibility, communication, and integration capabilities.

## Systems, components, and configuration software – the perfect match

SIVACON S4 and ALPHA UNIVERSAL distribution systems are designed to meet these enhanced requirements and cover all infrastructure applications up to 4,000 A.

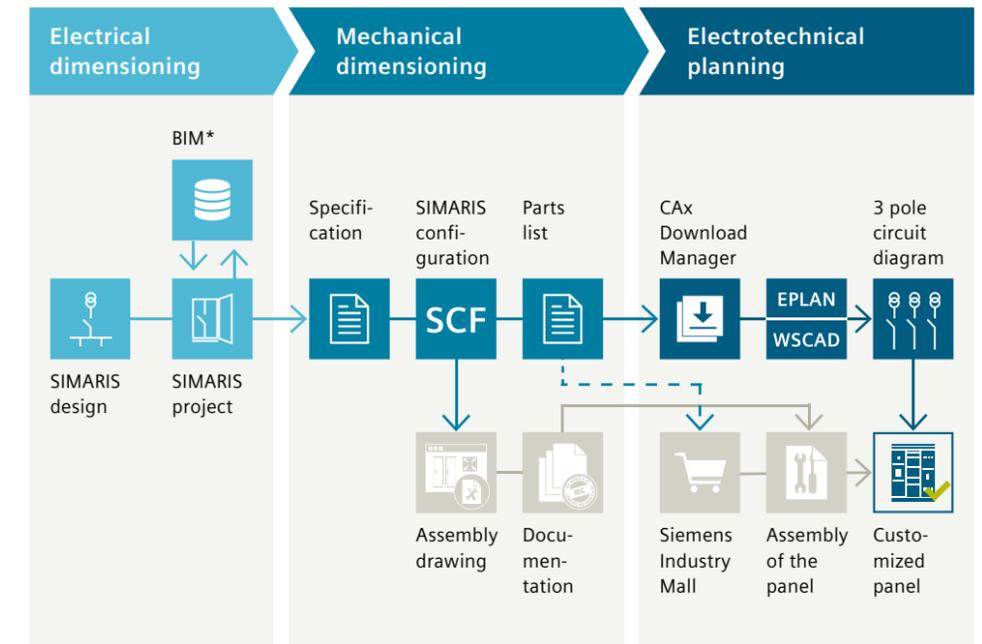
The modular and flexible SIVACON S4 power distribution board is a system for creating design verified solutions according to IEC 61439. The cost-efficient platform structure of the ALPHA UNIVERSAL distribution boards facilitates configuration and assembly.

The entire portfolio of SIVACON and ALPHA UNIVERSAL distribution boards perfectly accommodates the innovative SENTRON protection, switching, measuring, and monitoring devices.

The SIMARIS configuration software supports in configuration, calculation, and documentation of the distribution systems.

Certified distribution systems and innovative components ensure high system availability as well as safety for personnel and equipment. Panel builders profit from productivity increase thanks to data-based engineering.

# Increased productivity with data-based engineering



\* Building Information Modeling

For enhanced productivity, Siemens supports panel builders throughout the entire engineering process – from an early planning phase to the final assembly of the power distribution board.

## Electrical dimensioning

- SIMARIS design safely and reliably dimensions a system solution in compliance with all the relevant standards. Suitable components are selected automatically. In addition the software calculates the short-circuit current, load flow, voltage drop and the energy balance.
- The SIMARIS project software provides a quick overview of the space requirements of the electrical distribution systems and corresponding devices. The budget can be determined quickly and the technical specification can be created automatically.
- In addition, project-specific BIM (Building Information Modeling) data can be exported from the SIMARIS project software. BIM data enable the cross-system planning of infrastructure projects (including gas, water, power distribution).

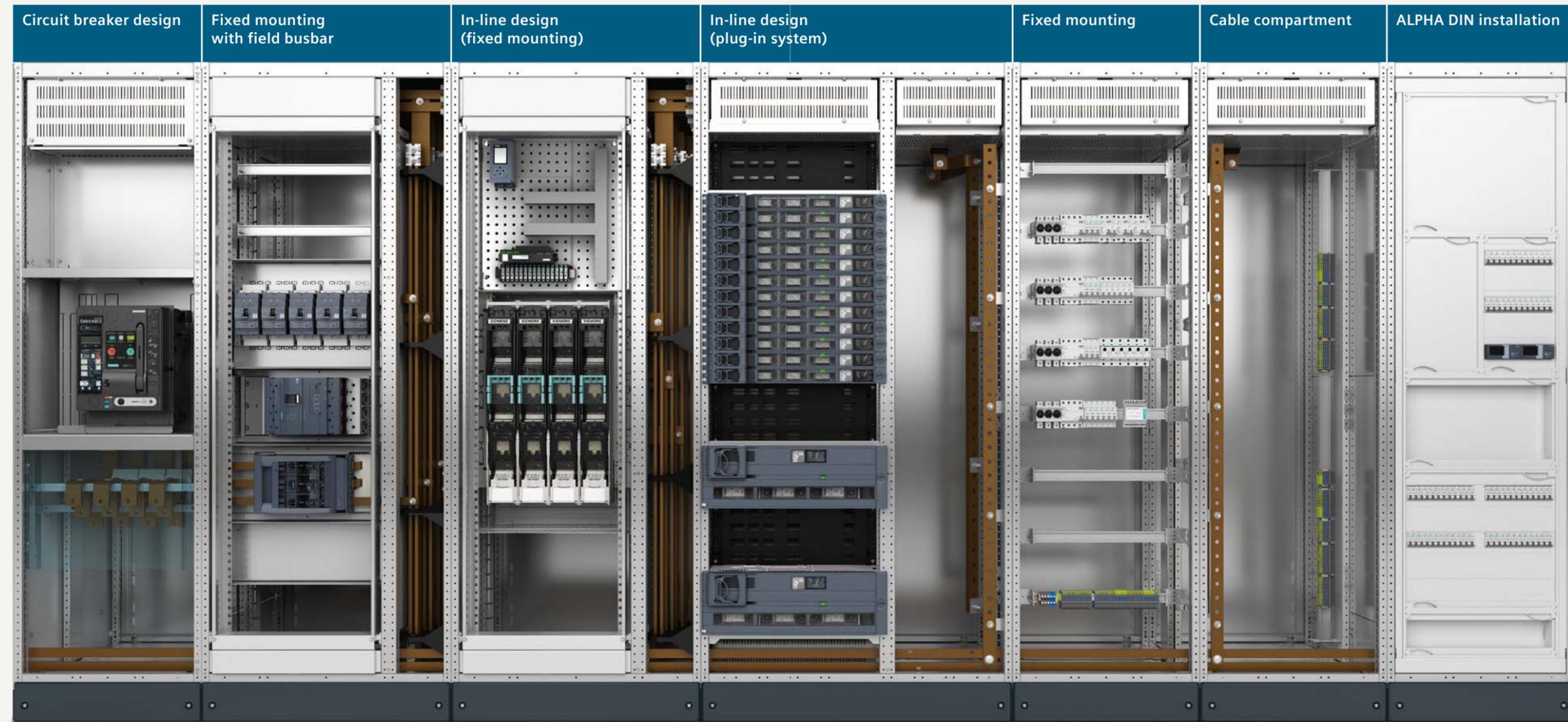
## Mechanical dimensioning

- The SIMARIS configuration software supports the entire engineering process – from project planning, calculation, and bid preparation all the way to system documentation in accordance with IEC 61439. This enables a quick, easy and failsafe planning and configuration of distribution systems. In addition, a parts list provided in SIMARIS configuration facilitates CAx data download and order placement in the Siemens Industry Mall.

## Electrotechnical planning

- The CAx Download Manager offers free download of comprehensive CAx data, e.g. commercial and technical product data. This makes further processing in CAD/CAE systems such as EPLAN or WSCAD considerably faster and easier.

# SIVACON S4 power distribution boards, modular and flexible



3WL air circuit breakers



High performance and proven quality

3VA molded case circuit breakers



Modular, highly variable system

3NP1 fuse switch disconnectors



Increased safety for operating personnel

3NJ6/3NJ4 in-line fuse switch disconnectors



Space-saving thanks to compact size and easy assembly

SEM3 multichannel current measuring system



Metering of up to 45 branches of the main distribution

3KD switch disconnectors



Connecting and disconnecting under load

8WH terminal blocks



Fast connection and flexible conductors

7KM PAC measuring devices



Comprehensive portfolio for power monitoring from entry-level to specialized expert solutions

# ALPHA UNIVERSAL distribution boards, safe and reliable



# Comprehensive portfolio of low-voltage distribution systems



SIVACON S4

ALPHA UNIVERSAL 800    ALPHA UNIVERSAL 630    ALPHA UNIVERSAL 125

SIMARIS configuration:

**SCF** [Project data](#) | [Configuration](#) | [Calculation](#) | [Documentation](#)

Technical data		ALPHA UNIVERSAL	SIVACON S4
<b>Standards and regulations</b>	System for creating design verified solutions	IEC 61439-1/2/3 EN 61439-1/2/3	IEC 61439-1/2 EN 61439-1/2
<b>Electrical figures main busbar</b>	Rated operational voltage $U_e$	V AC	690
	Rated frequency	Hz	50 / 60
	Rated impulse withstand voltage $U_{imp}$	kV	Up to 6
	Rated current $I_n$	A	Up to 800
	Rated peak withstand current $I_{pk}$	kA	Up to 53
	Rated short-time withstand current $I_{cw}$	kA, 1s	Up to 25
<b>Degree of protection</b>		Up to IP55	Up to IP55
<b>Form of internal separation</b>		Form 1	Form 1 – 4b
<b>Surface</b>	Standard parts	RAL 7035	RAL 7035
<b>Depth</b>		mm	140, 250, 400
			400, 600, 800

**7KT PAC 1200 multi channel current measuring system**

Cost-effective measuring of up to 96 outgoing feeders

**5SV3 residual current operated circuit breakers**

Reliable protection for people by preventing electrical accidents

**5SL miniature circuit breakers**

Short-circuit and overload protection due to safe switch-off

**5SM6 AFD units**

Preventive, proven fire protection against electrical fires