

SIEMENS

SIVACON

SIVACON

The power distribution board that sets new standards

SIVACON S4 – safe, cost-efficient and flexible

Answers for infrastructure.



Contents

We support you with system	04 – 05
Maximum safety is our top priority	06 – 07
Take advantage of all saving potentials	08 – 09
Universal use, thanks to flexibility	10 – 11
SIVACON S4 – Complete system	12 – 13
Technical data	14
Comprehensive support	15



Intelligent power distribution

The SIVACON S4 sets new standards as a power distribution board for industrial applications or in infrastructure up to 4,000 A. The design-verified power distribution board for the simple and consistent distribution of power guarantees maximum personal and system safety. Thanks to its optimal design, it offers a wide range of possible uses.



Mastering your power distribution requirements

Power is the driver of progress, because without power, everything comes to a standstill. Whether in industrial applications or infrastructure, a safe and reliable power supply is vital for modern buildings. Even at the planning stage, the key focus is therefore on safety, cost-efficiency and flexibility. Our intelligent low-voltage power distribution products and systems are the perfect match for all three of these requirements. Our high-performance, integrated range is the key to success: It helps to noticeably reduce investment costs and risks and guarantees you maximum convenience and system availability throughout its entire service life.

We support you with system

Safety perfectly defined

The SIVACON S4 power distribution board: safety in its perfect form. Whether industrial applications or infrastructure, SIVACON S4 offers safe, consistent and simple power distribution up to 4,000 A. The power distribution board is a design-tested power distribution board and controlgear assembly, with a design verification by verification test. Features, such as the high-performance locking system or the modular, retrofittable internal separation, offer maximum safety for human beings and plants.

Maximum cost-efficiency

The high-quality technology and proven standards of the SIVACON S4 offer maximum cost-efficiency in every detail. A variety of installation systems and variable busbar positions can be optimally adapted to the changing requirements of power distribution. The cost-efficiency of the power distribution board is further guaranteed by improved efficiency factors and simplified maintenance, thanks to the well thought-out ventilation system.

The benefits of a fully flexible system

The power distribution board system offers detailed and extensive flexibility. Thanks to the modular technology, the power distribution board can be optimally adapted to every requirement when designing the complete system. The elaborate design of the system allows it to be integrated perfectly into a modern room concept.

A common basis

The perfectly coordinated modular system sets new standards in terms of safety, cost-efficiency and flexibility. The extensive package includes the selection catalog, configuration software, installation instructions, operating instructions and technical support. This results in a wide range of valuable benefits that pay off.

Highlights

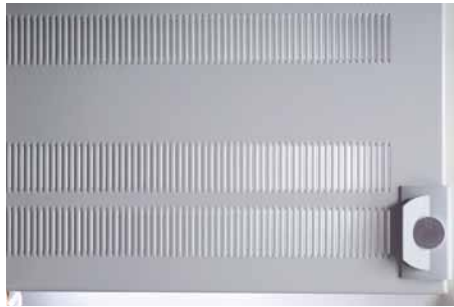
- Safety for human beings and plants by design verification by verification tests in accordance with IEC 61439-1/-2
- Cost-efficient industrial design that can be integrated perfectly into modern room concepts
- High level of flexibility thanks to the innovative modular system



Whether in industrial applications or infrastructure – our integrated portfolio of products and systems offers safe, cost-efficient and flexible application options for low-voltage power distribution and electrical installation technology.

Maximum safety is our top priority

During operation, an efficient ventilation system prevents heat accumulation and hot spots, thereby ensuring permanent system availability.



The central locking system guarantees a high level of safety, since all fixed points of the doors are securely locked.



All the benefits of integrated protection

As a design-tested power distribution board system, SIVACON S4 stands for maximum reliability and excellent safety potential. High-quality, perfectly coordinated switching devices can be integrated easily into building control, thanks to the built-in intelligence of our systems. The ventilation system ensures improved efficiency factors and simplified maintenance. Quick and easy access to devices for the purposes of making adjustments is guaranteed, thanks to doors with central locking, hinged masking frames and quick-release fasteners. Thanks to the extremely high-performance locking system, maximum personal safety is provided, even in the event of a fault.





In hospitals, an uninterrupted power supply and maximum system safety are essential in order to ensure that patients receive the treatment they need at any time.

Electromagnetic compatibility also plays an important role. The power distribution board must have communication capability in order to ensure that control and monitoring tasks can be performed via a central building control.

Optimal protection, even during changes

The well thought-out internal separation concept of the SIVACON S4 offers genuine added value: Safety can be precisely targeted to the user's specific needs. Possible system failures, such as those caused by inadvertent contact with live parts, are prevented.

Comprehensively tested, safely distributed

The SIVACON S4 power distribution board is a power switchgear and controlgear assembly which has been design-tested in accordance with IEC/EN 61439-1/-2 and which therefore offers maximum personal and system safety.

The design test provides evidence relating to:

1. Strength of materials and parts
2. Degree of protection of enclosures
3. Clearances in air and creepage distances
4. Protection against electric shock and integrity of protective circuits
5. Incorporation of switching devices and components
6. Internal electric circuits and connection
7. Terminal for external conductors
8. Insulation properties
9. Temperature-rise limits
10. Short-circuit withstand strength
11. Mechanical operation

Highlights

- Safety for human beings and plants by design verification by verification tests in accordance with IEC 61439-1/-2
- Maximum personal safety thanks to the high-performance locking system
- Central locking system guarantees a high level of safety thanks to locked fixed points of the doors



Take advantage of all saving potentials

Cost-efficient system

As the number of loads rises, so too does the complexity of the processes: In order to meet the daily power distribution requirements in functional and industrial buildings, cost-efficient solutions are becoming increasingly important. In order to achieve this, we provide panel builders with support in planning, configuration and implementation.

Suitable for all requirements

The SIVACON S4 power distribution board can be adapted to the available space, easily and cost-efficiently, thanks to room-optimised installation kits, such as for the molded-case circuit breakers 3VL. The form of internal separation can also be optimally adapted using standard components. The variable busbar systems and the option of combining various installation systems in one section also support a cost-efficient layout. The SIVACON S4 can therefore be easily adapted to a wide range of requirements.

The SIMARIS CFB configuration tool supports you from the configuration to the calculation and right through to mounting and documentation. Further information and download: www.siemens.com/simariscfb





Large shopping malls have high power supply requirements.

Power must be distributed safely. It must also be possible to make changes necessitated by new stores efficiently and cost-effectively.

Short reaction time to changes

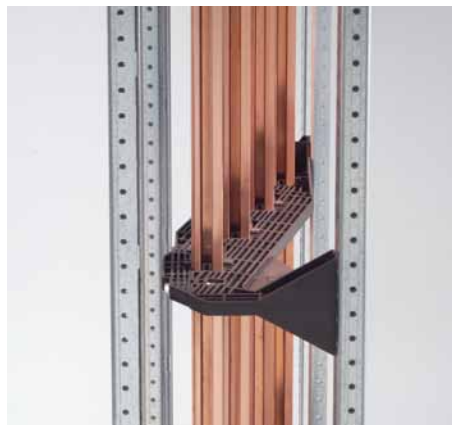
Thanks to device holders with an adjustable depth, there is a wide range of possible uses, e.g. the choice of drive and the switching device installation type, with a low variation of modules. This level of flexibility ensures a short reaction time to a short-term change.

Copper connection modules with pre-fabricated connecting bars offer a level of safety that only a design-tested low-voltage power distribution board can provide.

Highlights

- Cost-efficient design thanks to the combination of various installation systems
- SIMARIS CFB configuration tool for consistent support
- Variable busbar systems in order to meet a wide range of requirements

The section busbar system offers perfect frontal access to the connections of all four conductors by its graduated design. The tested staggering of the number of busbar supports in the section enables cost-efficient adaptation to the different requirements made on the short-circuit current capability.



Universal use, thanks to flexibility

Highlights

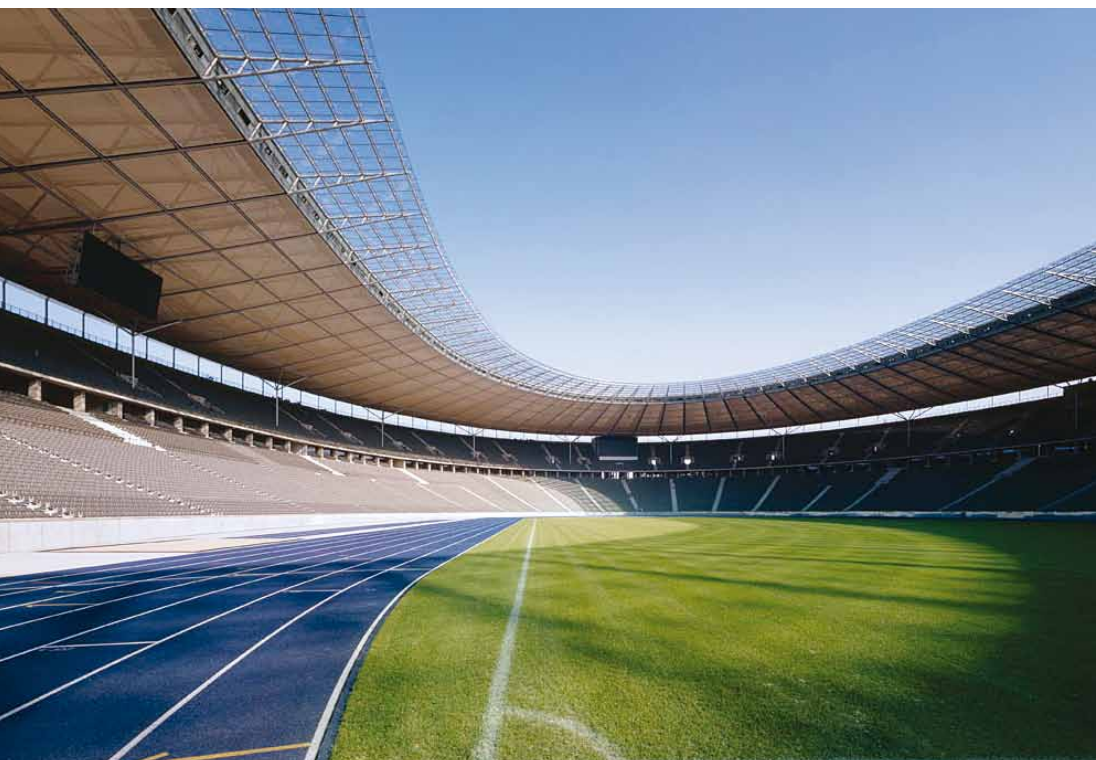
- Highest flexibility due to a modular system with a low components variance
- Easy change of door side through universal hinges
- Adaptions to customer-specific needs even in case of small order quantities

Individually designed, changed with ease

A wide range of applications and individually changing requirements make a high level of flexibility in power distribution essential. The solution: the SIVACON S4 power distribution board with its modular system and low component variance. The optimal solution to each customer-specific low-voltage power distribution requirement can be provided, thanks to the use of standardized, mass-produced assembly kits, which have been designed with customers' needs in mind, as well as the very flexible combination options available.

Subsequent changes to the system can also be made easily thanks to the universal door hinges, which allow for the hinge side to be changed. This enables the escape route plan to be changed particularly quickly and effectively.

Individual modules can be adapted for the customer, even in the case of small order quantities, with the result that the SIVACON S4 is available e.g. in special paintings - in all colors of the rainbow – as well as in the standard color, RAL7035.



The technical requirements relating to equipment in modern soccer stadiums are complex and are generally associated with a high power supply requirement. Floodlights, for example, consume a lot of power. Additionally, there are power requirements for the air conditioning of buildings, lighting, catering, pitch heating and media supplies. Any delay or cancellation of an event due to a power failure is unacceptable – a fail-safe power supply is mandatory.

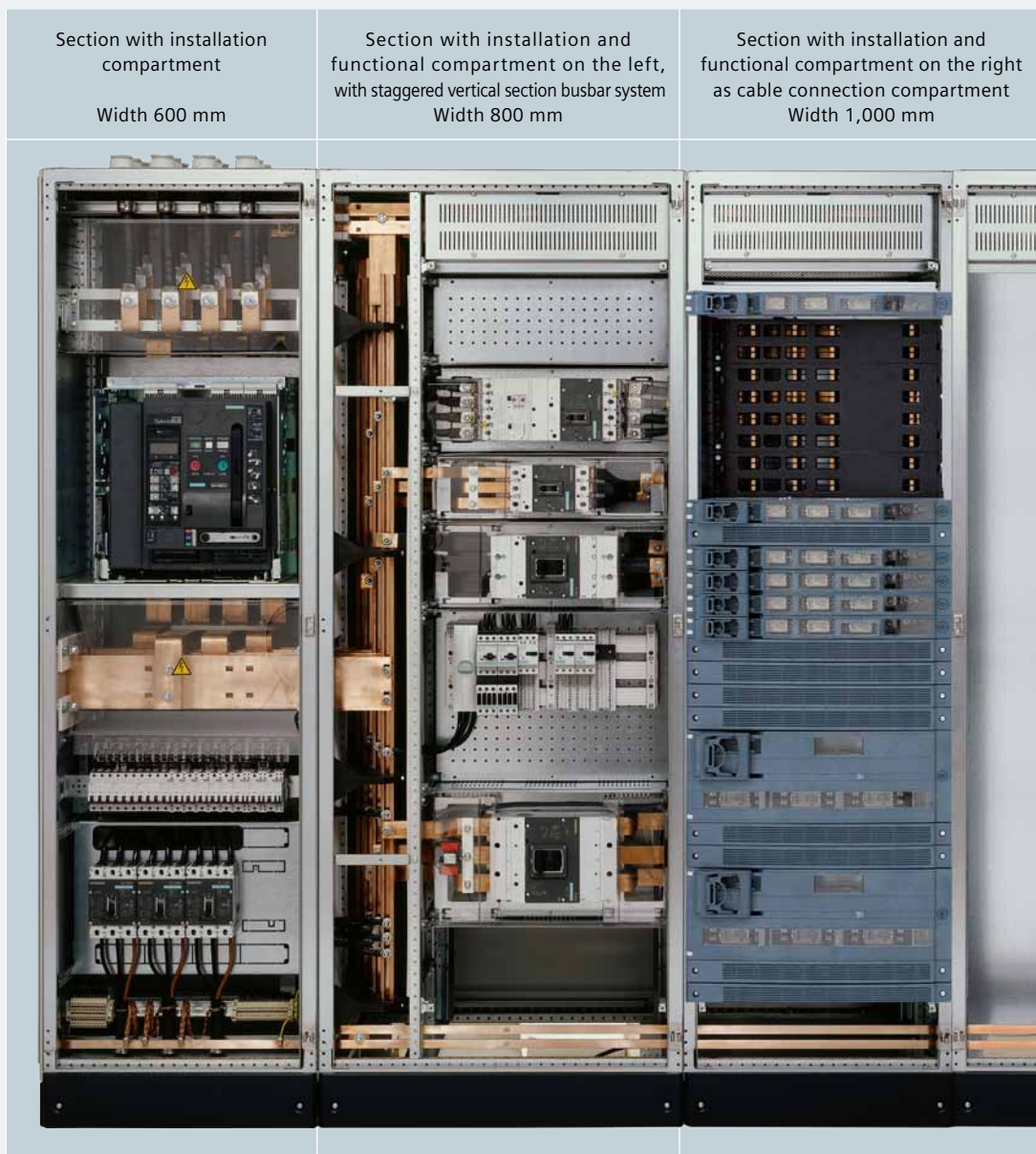
Section design



- ① Frame
- ② Base edges with front covers
- ③ Lateral base covers
- ④ Supporting Structure
- ⑤ Top plate
- ⑥ Side panel with design part
- ⑦ Glass door in Giugiaro Design
- ⑧ Cover frame
- ⑨ Cover in front of 200 mm wide functional compartment
- ⑩ Covers for assembly kits
- ⑪ Partition for main busbar system
- ⑫ Partition for vertical distribution busbars
- ⑬ Horizontal busbars
- ⑭ Vertical distribution busbars, non-cascaded
- ⑮ Rear panel
- ⑯ Mounting plate for switching devices
- ⑰ Bottom plate
- ⑱ PE busbars

SIVACON S4 – The cost-efficient

SIVACON S4 power distribution board and SENTRON protection, switching, measuring and monitoring devices



Measuring devices 7KM PAC



Air circuit breakers 3WL



Molded-case circuit breakers 3VL



Switch disconnector 3KA/3KE

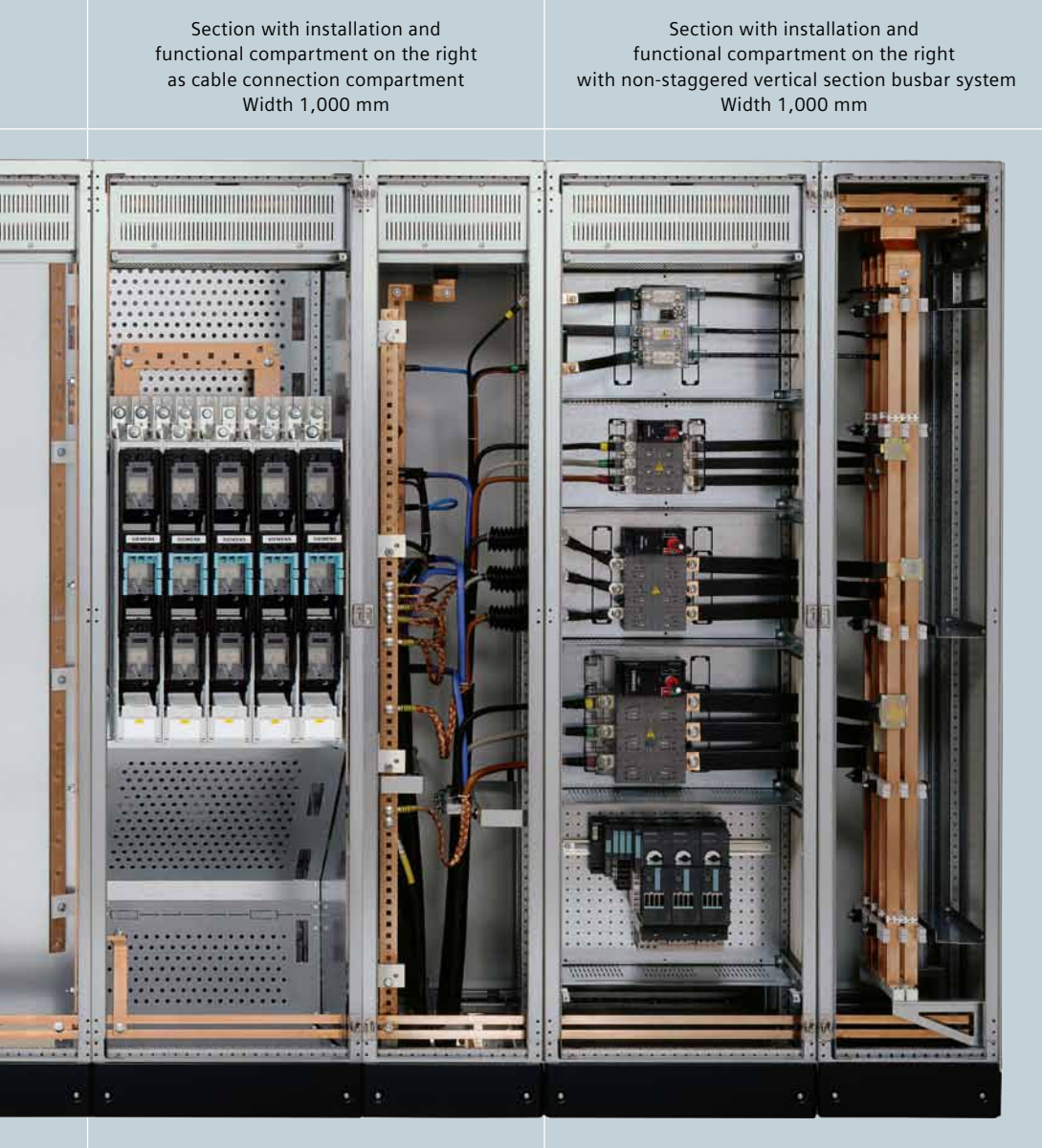


Switch disconnector with LV HRC fuses 3KL/3KM



In-line switch disconnector with LV HRC fuses 3NJ6

complete system at a glance



Section with installation and functional compartment on the right as cable connection compartment
Width 1,000 mm

Section with installation and functional compartment on the right with non-staggered vertical section busbar system
Width 1,000 mm



Residual current circuit breaker 5SM3



Miniature circuit breaker 5SY



Main and EMERGENCY-STOP switches 3LD



In-line LV HRC fuse switch disconnectors 3NJ4



LV HRC fuse switch disconnectors 3NP1



Switch disconnectors 3VT2

Technical data

SIVACON S4 power distribution board		
Standards and regulations		
Power switchgear and controlgear assembly	IEC 61439-1/-2, DIN EN 61439-1/-2 (VDE 0660 Part 600-1/-2)	
Clearances and creepage distances		
Rated impulse withstand voltage (U _{imp})	12 kV	
Overvoltage category	IV	
Pollution degree	3	
Type of internal separation	1, 2b, 3b, 4a, 4b	
Rated insulation voltage (U _i)	1,000 V	
Rated operational voltage (U _e)	Up to 690 V	
Rated frequency	50/60 Hz	
Rear busbar		
Rated current	Up to 1,600 A	
Rated peak withstand current (I _{pk})	Up to 120 kA	
Rated short-time withstand current (I _{cw})	Up to 55 kA, 1s	
Top busbar		
Rated current	Up to 4,000 A	
Rated peak withstand current (I _{pk})	Up to 220 kA	
Rated short-time withstand current (I _{cw})	Up to 100 kA, 1s	
Surface treatment		
Frame parts, expansion parts	Zinc-plated	
Powder-coated enclosure parts	RAL 7035, light gray	
Powder-coated design parts	Blue Green Basic	
Protection class		
in accordance with IEC/EN 61140	I	
Degree of protection		
In accordance with IEC/EN 60529	IP30, IP31, IP40, IP41, IP55	
Operating conditions		
Ambient temperature ¹⁾	35 °C	
Installation altitudes	≤ 2,000 m	
Framework components		
2.5 mm sheet steel, with 25 mm hole matrix in accordance with DIN 43660		
Dimensions		
Outside framework dimensions	Height	2,000 mm
	Width	350 · 400 · 600 · 800 · 850 · 1,000 · 1,200 mm
	Depth	400 · 600 · 800 mm
Equipping dimensions	Equipping height	1,800 mm
	Modules	36 modules of 50 mm each
Base	Height	100 · 200 mm

¹⁾ Observe the correction factors with deviating operating conditions and installation altitudes

Any questions? One click – well-informed

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