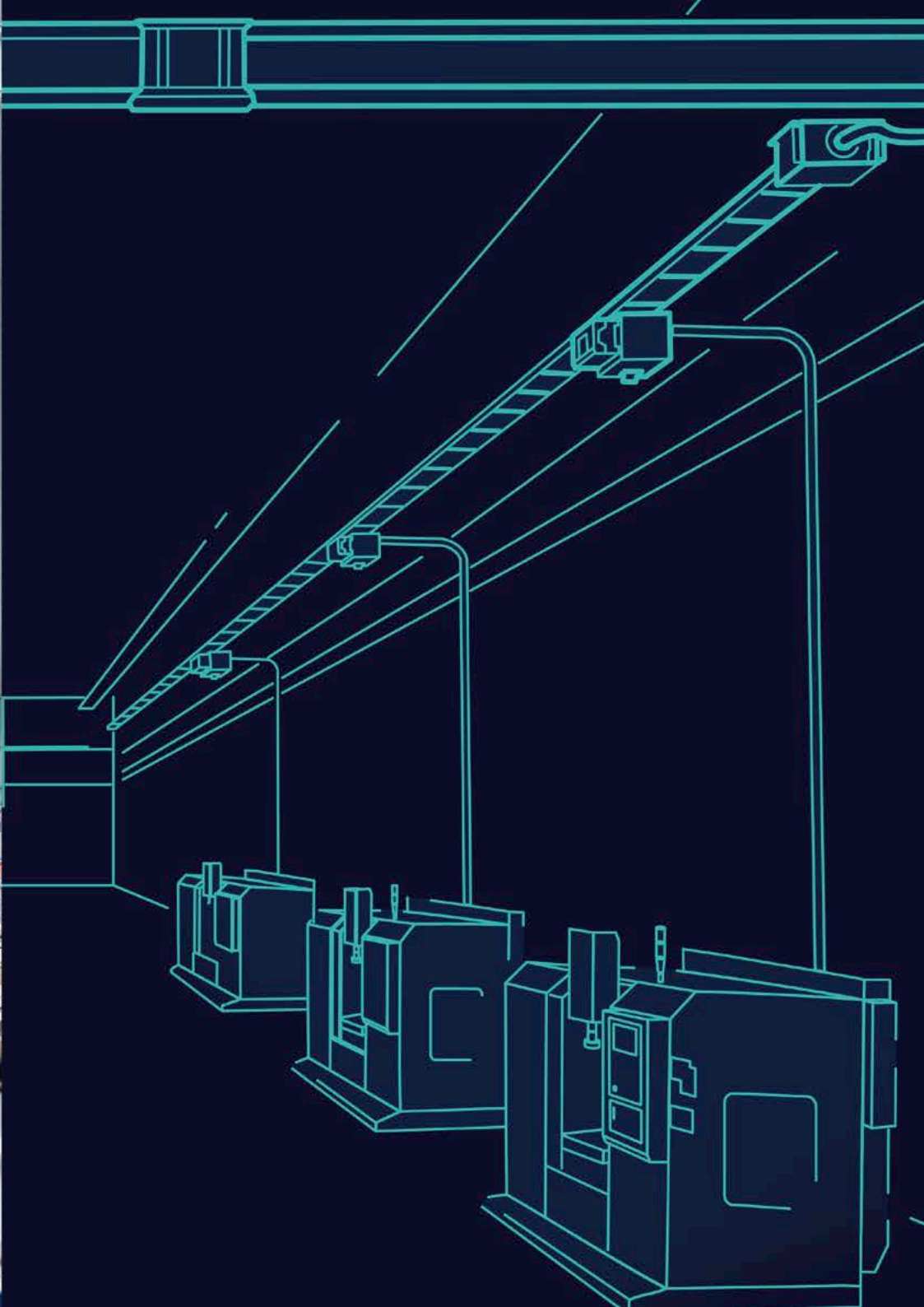


**SIEMENS**

**SIVACON 8PS BUSBAR TRUNKING SYSTEMS**

Energy  
and data  
**successfully  
put on track**



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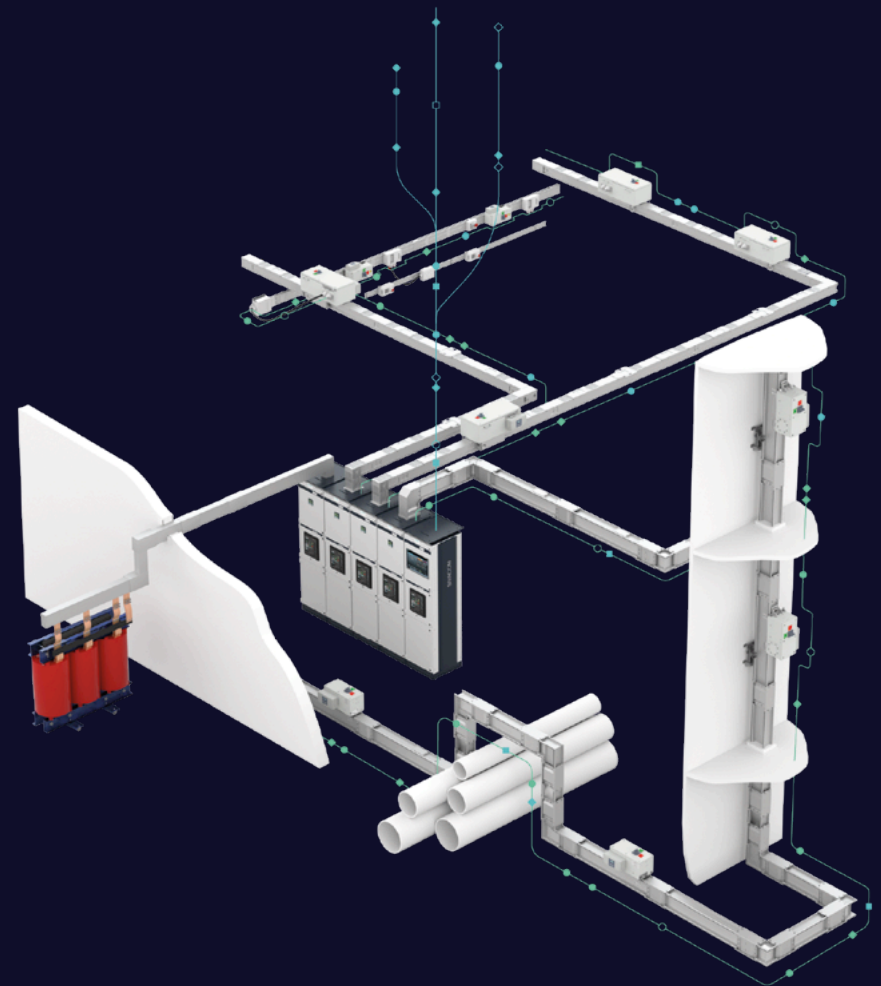
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# New paths to the future

Powerful, flexible, economical,  
sustainable – and ready for  
tomorrow's tasks today.

**SIVACON 8PS busbar trunking systems enable you to raise your power distribution to a new level of performance.**

## **Innovative**

Digital twin – BIM-compliant planning and installation thanks to coordinated planning tools and installation app

## **Sustainable**

Resource-saving, reusable, and easy to recycle

## **Smart**

Acquires energy data and directly transmits it via the busbar without cables or wireless networks

## **Flexibel**

Easy to adapt to new consumers and modified layouts

## **Consistent**

Solutions for all power transmission and distribution tasks: from building and industrial infrastructure to data centers and electromobility infrastructure, from AC and DC applications to system solutions with SIVACON switchboards

## **Proximity to market**

International presence and global manufacturing concept for sustainable processes and high system quality



### Highly available systems ex works

With SIVACON 8PS, you are already at the finish line, because your power distribution already fulfills the calculated values you want to achieve ex works – regardless of the installation, and with the triple advantage that installation is easier, faster, and more reliable compared to cables.

### SIVACON 8PS – high operational safety and availability

- Design verified busbar trunking systems and connections to SIVACON S8 switchboards in accordance with IEC 61439-1/-6
- Product features ensured ex works
- High short-circuit withstand strength
- Low fire load



### Distribute power more efficiently

Cost-efficiency means safe and reliable power distribution in every process step. With SIVACON 8PS, you will benefit from the coordinated interaction of all components and tools – for efficient processes, from planning through installation to operation and maintenance:

- SIMARIS sketch, the standalone solution, or SIMARIS busbarplan as Autodesk Revit® plug-in, ensure that planning complies with BIM (Building Information Modeling).
- The BusbarCheck app enables safe, targeted installation and easy data synchronization with the planning data to the “as-built” digital twin in SIMARIS busbarplan.
- powerline 2.0 technology makes smart communication incredibly easy for your energy data management system.

### SIVACON 8PS – higher efficiency ensured systematically

- Compact, space-saving design
- High system flexibility for planning and operation
- Transparent power flows facilitate process optimizations
- System data provides optimal support for maintenance work



### Extra sustainability in power distribution

With SIVACON 8PS, sustainability starts with the system’s long service life, as it saves valuable resources. The system family has many additional features:

- SIVACON 8PS systems are resource-saving, reusable, and easy to recycle.
- Custom solutions specifically for wind and PV plants are available.
- When server racks are used, the LData system for data centers reduces energy losses thanks to larger cross-sections – and electromagnetic radiation is minimized.
- Certificates such as Environmental Product Declarations (EPDs) document the systems’ environmental profile (like the carbon footprint and RoHS).

### SIVACON 8PS – environmentally friendly power distribution

- Optimized use of materials and durable components
- Helps reduce your carbon footprint
- Extremely low electromagnetic radiation



# You benefit during **planning,** **installation, and operation**

Planning and installation of a power distribution system requires the appropriate tools, today more than ever. Poorly coordinated tools need operator intervention, time, and money. Building and industrial infrastructures not only require a reliable power distribution, but also the transmission of energy data – for energy management and predictive maintenance of all relevant components.

## Optimal planning

Planning your power distribution with SIVACON 8PS offers many benefits, especially in three vital areas:

- 1. Time.** Time is a cost factor that you can reduce. Software tools from the SIMARIS Suite make your work much faster while also improving quality and safety. They not only contain your system data, they also provide all the relevant standards that need to be covered.
- 2. Transparency.** At the same time, using the SIMARIS software tools increases the transparency of your project. Even when things get extremely complex, everything stays under your control.
- 3. Future-proof design.** Thanks to integrated BIM data, your planning is ready for the future. For example, you can use SIMARIS busbarplan to design three-dimensional routing diagrams for the BD01, BD2, LD, LData, LI, and LR busbar trunking systems as digital twins.

## Planning tools in the SIMARIS Suite

Let's simplify your planning. With interacting software tools for future-proof creation of the digital twin of your busbar runs.

### SIMARIS design

Minimum input effort, maximum result: With SIMARIS design, you can calculate grids – including short-circuit current – based on real products.

### SIMARIS project

Thanks to SIMARIS project, you will know exactly how much space is required for electric power distribution in your building, and you can generate budget prices and tender specification texts.

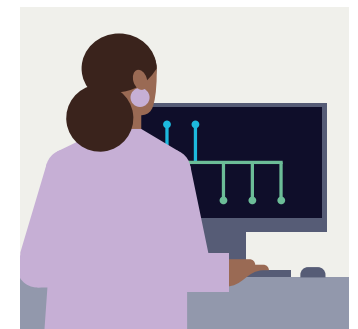
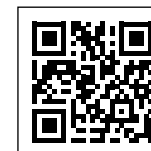
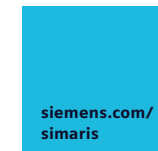
### SIMARIS sketch, the standalone solution

You need routing diagrams for the BD01, BD2, LD, LI, and LR busbar trunking systems in 3D, but you do not have CAD knowledge? No problem with SIMARIS sketch.

## SIMARIS busbarplan as Autodesk Revit® plug-in

The professional planning tool for designing the digital twin of your busbar run: Select the right busbar trunking system for your project and plan the busbar run in the building in 3D while complying with BIM – quickly and easily.

After the busbar runs have been installed using the BusbarCheck installation app, the planning data can be synchronized with the on-site data to create the “as-built” digital twin.

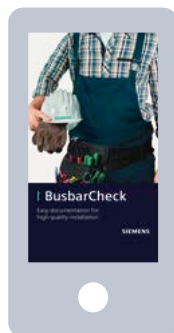
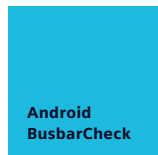
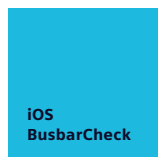


## Clever installation

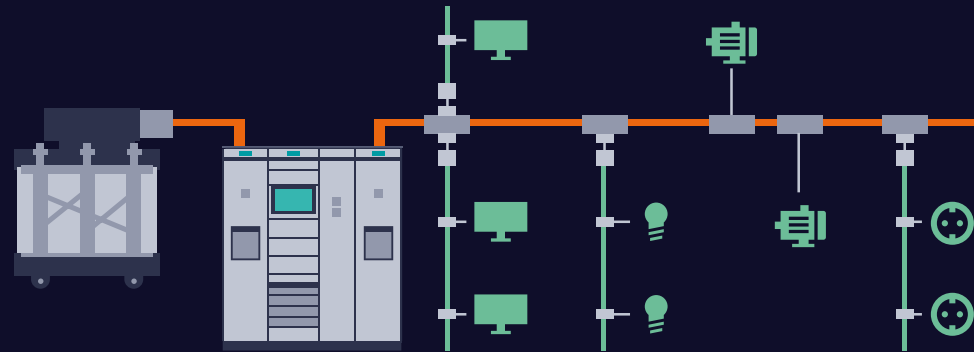
With SIVACON 8PS busbar trunking systems, you will enjoy the many benefits of smart power distribution compared with conventional cable installation. This is most apparent during installation: innovative and safe technology that is quick and easy to install using, among other things, the practical BusbarCheck installation app.

- Provides all the information necessary for installation (like installation instructions).
- Helps identify and visually document each connection point.
- At the push of a button, a digital protocol of all connection points is generated from this – to document the high-quality installation.
- The effect: It is the better and faster way to create an operational system.
- Data synchronization with the planning data to the “as-built” digital twin in SIMARIS busbarplan.

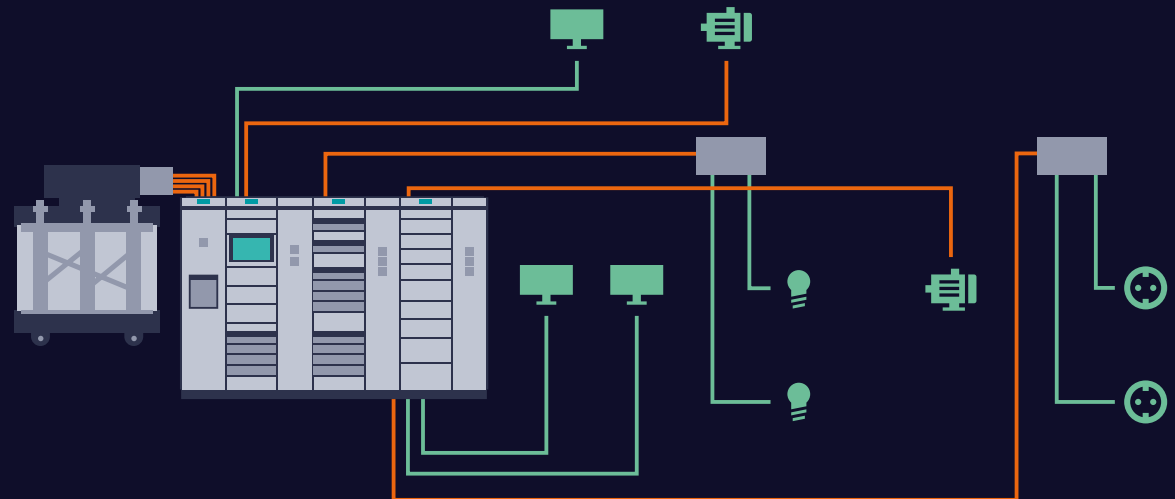
### Downloadable app:



## Decentralized power distribution with busbars



## Centralized power distribution with cables



## Transparent and efficient operation

Operational safety and system availability are top priorities in power distribution.

But what if usage requirements change?

Then, speed and flexibility in designing a future-oriented power distribution are essential.

The answer is SIVACON 8PS. It allows you to achieve more flexibility and an optimal assignment of switching and protection devices to the consumers. Any errors are also quickly corrected thanks to the boost in transparency:

- Optimal interaction of all components
- Freely selectable positioning of tap-off units
- System expansions or modifications can be easily planned and flexibly implemented



# Manage your energy data – systematically

The systems and components of low-voltage switchgear and controlgear offer you the technical possibilities for data acquisition, transmission, and transfer to higher-level evaluation and automation systems.

The powerline 2.0 technology enables rapid data transfer directly via the SIVACON 8PS busbar trunking systems, highly efficiently without additional wiring.

Take advantage of the benefits of powerline 2.0 technology for transparent and efficient operation in your industry or infrastructure, including electromobility infrastructure.

Busbar trunking systems are perfectly suited, for example, to design the electrical charging infrastructure for electromobility. With powerline 2.0 technology, communication between the wallboxes and the control center takes place using the OCPP transmission protocol, for example.

- Operation and energy data from your power distribution are acquired in a distributed way
- Smart data transmission via the conductors of the busbar trunking system to higher-level analysis systems or IoT applications.
- powerline modules are easy to retrofit

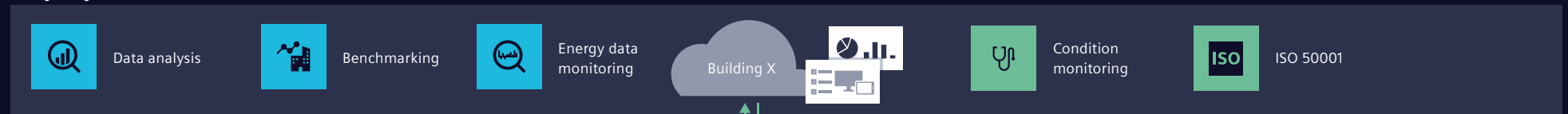
### Simply use the data potential:

- Overview of trends in the development of your system data
- Timely replacement of components, as possible failures are detected at an early stage
- Reliable estimation of the remaining service life of a system

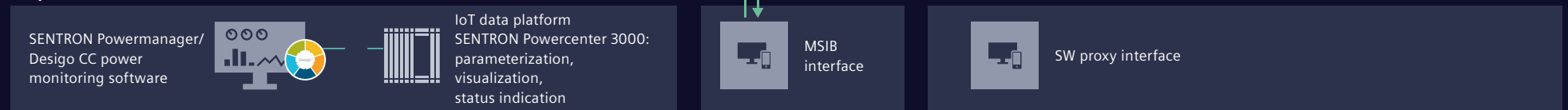
# Energy management on site or in the cloud

Use energy data – for infrastructure

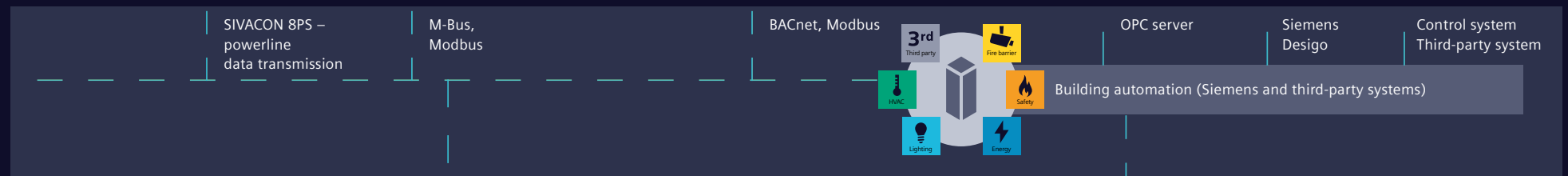
## Analysis system



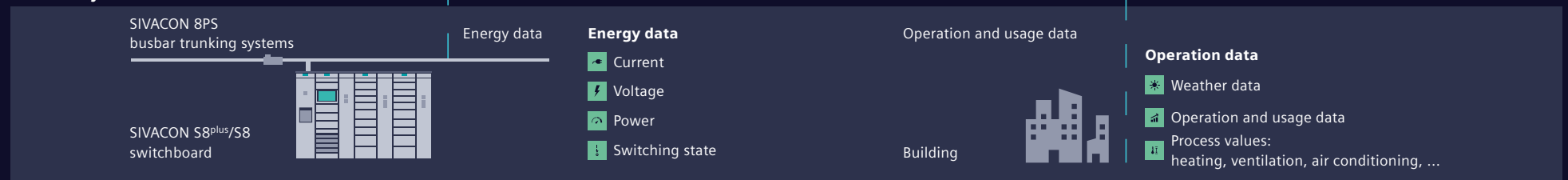
## On-premise



## Interfaces



## Field and system level



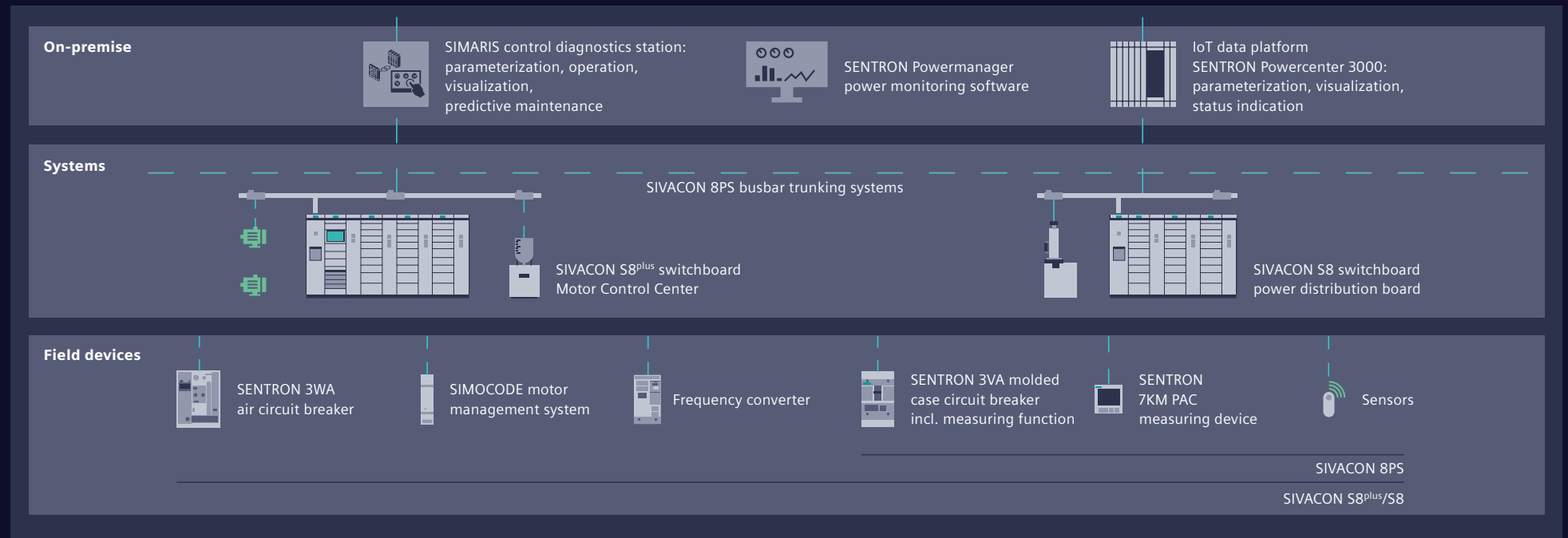
# Energy management on site or in the cloud

Use energy data – for industry

## Cloud-based analysis systems



## Power distribution



# Ready for DC applications

Energy transition and the transition to more sustainable energy sources are leading to a rethink towards direct current (DC) technology. DC offers advantages such as higher efficiency, lower losses, and better integration of renewable energy.

We bring and distribute it! Using so-called energy units with appropriate switching and protection devices, the direct current is simply tapped and led to the consumers using short cable routes. Tested and safe – as standard!

With our SIVACON 8PS busbar trunking system type BD2, you can transmit direct current up to 2,160 A. And with the LD system, you can transmit and even distribute up to 6,900 A.

## Power transmission

Trunking units without tap-off points and junction units are suitable for power transmission in both three-phase and DC applications. For use in DC applications, the appropriate DC feeding units must be used.

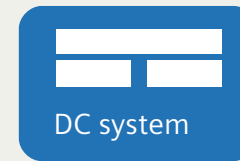
In case of short circuit, the power is limited either by the power supply unit, the thyristor, or the battery. These short-circuit currents are usually clearly below the three-phase short-circuit currents.

It has to be observed that a possible arcing short circuit cannot extinguish by itself, because DC currents do not have a zero crossing. In the SIVACON 8PS energy units, the switching and protection devices are selected accordingly.

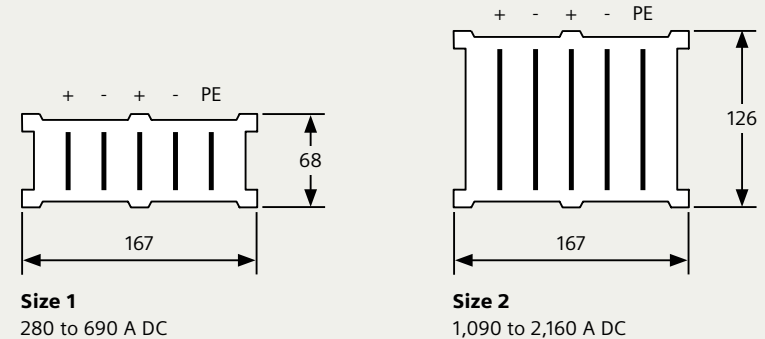
If used in DC applications, it is recommended to label the components. The separately orderable adhesive "DC label" serves this purpose, for example.

## Power distribution

The standard tap-off units are provided for use in three-phase applications. They are not suitable for use in DC applications. For power distribution in DC networks, special energy units with suitable components and interconnection have been developed.

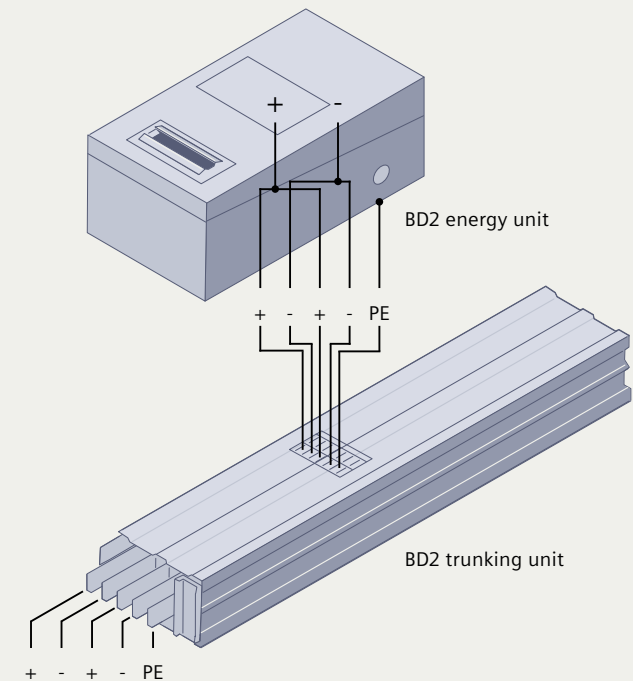


Adhesive label for the identification of DC systems









**Size 1**  
280 to 690 A DC

**Size 2**  
1,090 to 2,160 A DC



**Arrangement of conductors for DC applications of the BD2 busbar trunking system, and adhesive label for identification of DC systems (dimensions in mm)**

# Busbar versus cable: Benefits at a glance

	SIVACON 8PS busbar trunking systems	Cables
	<b>Conformity with standards</b> <ul style="list-style-type: none"> <li>• Design verified in accordance with IEC 61439-1/-6</li> <li>• High current-carrying capacity, operational safety, and short-circuit withstand strength</li> </ul>	<ul style="list-style-type: none"> <li>• Individual solution; compliance with standards much more difficult to prove (for example, consideration of derating factors)</li> </ul>
	<b>Sustainability</b> <ul style="list-style-type: none"> <li>• Custom-fit manufacturing</li> <li>• Resource-saving</li> <li>• Reusable</li> <li>• Easy to recycle</li> </ul>	<ul style="list-style-type: none"> <li>• Cable waste</li> <li>• Limited reuse</li> <li>• Costly and time-consuming to separate and recycle</li> </ul>
	<b>Fire barrier</b> <ul style="list-style-type: none"> <li>• Very low fire load</li> <li>• Halogen-free</li> </ul>	<ul style="list-style-type: none"> <li>• Very high fire load, dependent on cable type</li> </ul>
	<b>Flexibility in the event of modifications, expansions, or the relocation of load focal points</b> <ul style="list-style-type: none"> <li>• Very high flexibility thanks to variable tap-off units that can be modified, added, or replaced as required, even while energized<sup>1</sup></li> <li>• No total system downtimes</li> <li>• Adaptable power supply</li> </ul>	<ul style="list-style-type: none"> <li>• High effort: replacement of existing devices or expansion with additional outgoing feeders in the switchboard and the associated modifications in the cable installation</li> <li>• Long downtimes</li> <li>• Rigid power supply</li> </ul>
	<b>Space requirements</b> <ul style="list-style-type: none"> <li>• Very low thanks to compact design and installation with contours matching the building structure</li> <li>• Smaller installation surface thanks to reduced size of the central switchboard</li> </ul>	<ul style="list-style-type: none"> <li>• High due to bending radii, installation method, and accumulation</li> <li>• Larger installation surface of the central switchboard due to integrated switching and protection devices</li> </ul>
	<b>Weight</b> <ul style="list-style-type: none"> <li>• Lower weight when using busbar trunking systems with aluminum conductors</li> </ul>	<ul style="list-style-type: none"> <li>• Higher weight when using cables with copper conductors</li> </ul>

## SIVACON 8PS busbar trunking systems

## Cables



### Troubleshooting and error correction

- Easy thanks to clearly arranged installation, and switching and protection devices close to the consumer

- Time-consuming due to less clearly arranged installation, and switching and protection devices far away from the consumer



### Electromagnetic influence

- Low influence thanks to suitable arrangement of conductors

- Relatively high for standard cables
- No defined arrangement of conductors, dependent on the individual installation



### Installation time

- Short installation time thanks to prefabricated trunking elements

- Time-consuming due to many work operations on site



### System life cycle

- High level of safety and availability thanks to pre-configured and standardized tap-off units
- Planning: safety in quality and costs
- Installation: plug and work, easy configuration changes
- Operation: design verified standard/modular system for easy configuration changes, maintenance, and spare part management

- High effort for cable installation and centrally arranged switching and protection devices
- Planning: Detailed planning and budgeting are required in advance
- Installation: Changes on site or later during operation are complicated
- Operation: Configuration changes are only possible when the system or complete sections are shut down

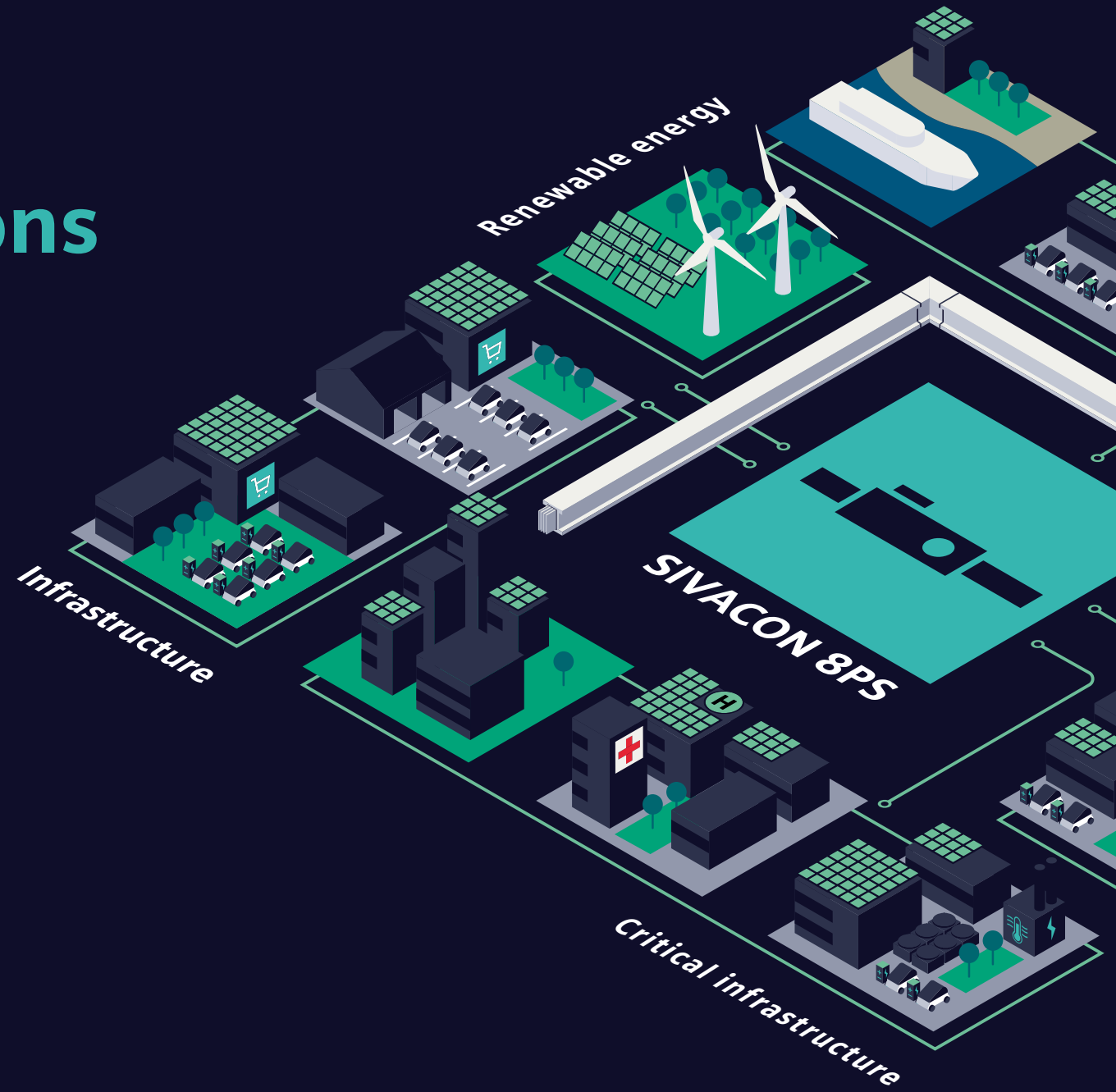


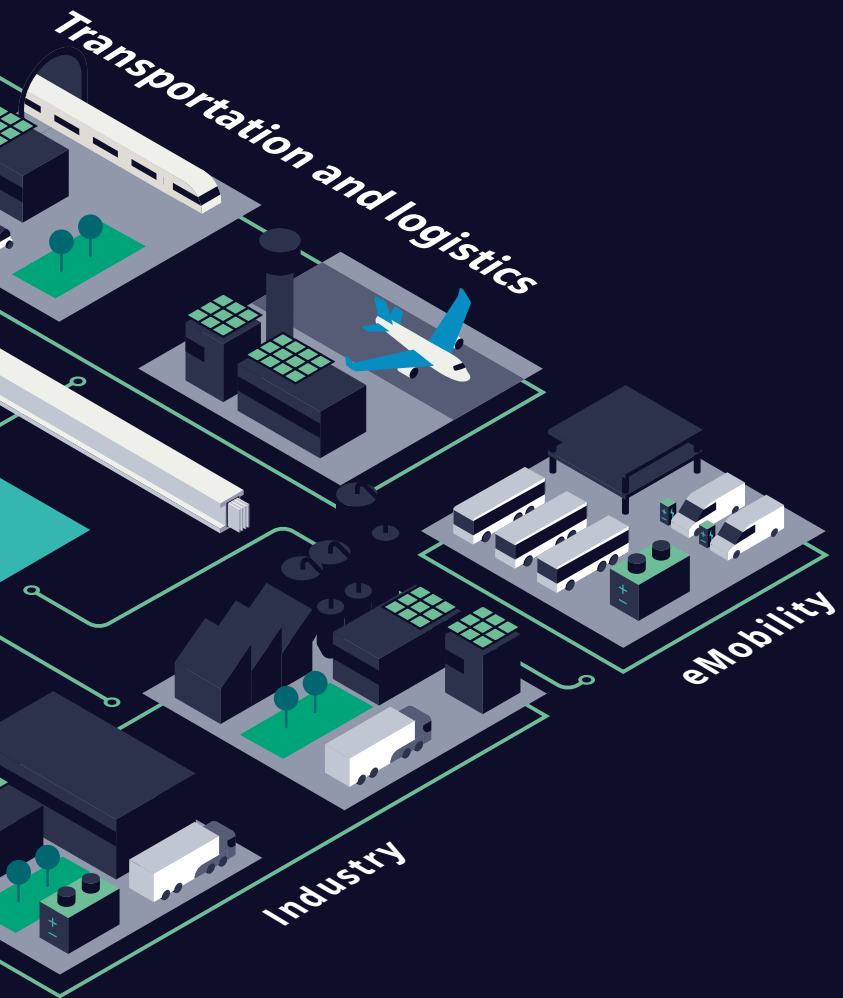
### Connection to automation and energy management systems as well as to the cloud (IoT)

- Simple and cost-efficient integration thanks to standardized and retrofittable powerline 2.0 technology
- Secure and reliable transmission of data with powerline 2.0 technology via the conductors of the busbar
- No additional communication cables
- For electromobility applications, communication between the wallboxes and the control center takes place using the OCPP transmission protocol, for example.

- Complicated due to installation of parallel communication cables

Reliable power –  
**at all locations,  
in all applications**





### **SIVACON 8PS for perfect interaction**

For shopping malls, hospitals, factory floors, office buildings, and commercial buildings, or for connecting e-car charging stations: SIVACON 8PS ensures reliable and cost-efficient power distribution at all locations.

From planning through installation and operation to expanding your power supply, you will benefit from efficiency, convenience, high adaptability to new use concepts, and communication with higher-level systems or clouds.

## Infrastructure



### High-rise buildings

SIVACON 8PS busbar trunking systems supply power to high-rise buildings and large office buildings quickly, reliably, and cost-efficiently. In this case, the riser shaft is equipped with the LI system, while BD2 and BD01 systems serve the individual floors. Their low fire load ensures a high level of safety.



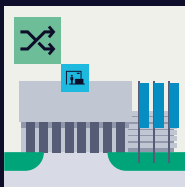
### Shopping malls and supermarkets

Shopping malls and supermarkets often change how they use space. In most cases, power also has to be transmitted across long distances or to multiple building levels – that is where the extreme flexibility of the LI, BD2, and BD01 systems proves its value.



### Home improvement centers

Home improvement centers also sell products that are easily ignitable. The LI, BD2, and BD01 busbar trunking systems are the best choice in this setting thanks to their high level of safety and low fire load.



### Exhibition halls

Spatial configurations in exhibition and event halls are always changing. Distributing power requires suitably flexible and robust systems. The LD, LI, BD2, and BD01 busbar trunking systems are the ideal solution.



### Workshops

Workshops and production facilities generally need smaller volumes of power as close as possible to the consumer load location – no problem for the BD2 and BD01 busbar trunking systems.

## Critical infrastructure



### Data centers

Power failures in data centers can have serious consequences. To ensure that data centers have a safe, reliable, and integrated power supply, the LI system provides transmission busbars while the BD01, BD2, and LData systems are used as distribution busbars. With a current rating of up to 2,500 A, the LData system can already meet your future needs today.



### Hospitals

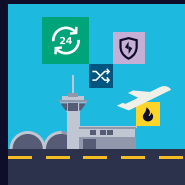
Highly sensitive, life-saving systems in hospitals must be protected from interruptions and faults in the power supply. The LD, LI, and BD2 systems provide especially safe and reliable protection.

## Transportation and logistics



### Ships

The LR, LD, BD2, and BD01 systems are certified for use on ships and ensure a reliable power supply even under harsh conditions like salty, highly humid air, swells at sea, and vibration. Their special ship bulkheads and low weight offer more advantages compared to cable installation.



### Airports

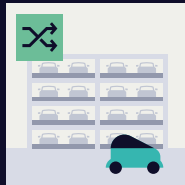
The number and requirements of consumers in airports are constantly changing. What does stay the same is the high demand for an extremely safe, reliable, and flexible power distribution. The LI system is designed for a comprehensive, end-to-end, and efficient infrastructure.



### Tunnels and underground

Smoke extraction fans and other power consumers in the underground require safe, secure, and reliable power transmission solutions. Key factors in these applications include a high level of personnel protection and prevention of vandalism – areas where the LR system is strongest.

## eMobility



### Multistory and underground parking garages

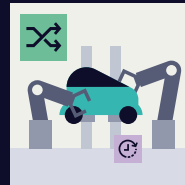
Charging infrastructures in the multistory and underground parking garages at high-rise buildings have tremendous potential for growth. The BD01 and BD2 systems are expandable and powerful, including the acquisition and transmission of energy data to higher-level systems without cables.



### e-bus depots

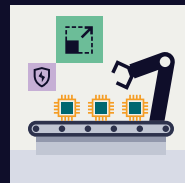
The LD system is perfectly designed for the requirements of large e-bus depots thanks to its high power density, short charging time, changing usage criteria, and extreme safety. It offers electromobility an innovative alternative to cables.

## Industry



### Automotive industry

As the automotive industry becomes increasingly flexible, power distribution at the production sites has to keep pace. No problem! The LD system handles large production lines, while the BD01 and BD2 systems supply power to the infrastructure systems.



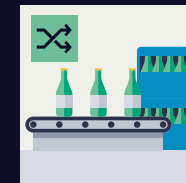
### Semiconductor production

With their compact design, high short-circuit withstand strength and low fire load, the LD and LI systems are ideal for the energy-intensive and highly complex processes in the semiconductor industry.



### Manufacturing industry

Production lines require reliable power distribution as well as integration in energy management. The LI, LD, BD2, and BD01 systems offer a high short-circuit withstand strength and mechanical safety – and the LI, LD, and BD2 systems also provide high-performance powerline technology.



### Food and beverage industry

SIVACON 8PS makes power distribution in the food and beverage industry flexible and reliable. The LD and LI systems supply power to consumers with high power loads while also feeding the smaller BD01 and BD2 systems. The result is high production quality and safety.

## Renewable energy



### Chemical industry

The high safety standards in chemical plants also apply to power distribution. The reliable, compact, and cost-efficient LR and LI busbar trunking systems comply with these standards thanks to design verified components, sophisticated connection technology, and a high degree of protection.



### Wind turbines

Wind turbines must be capable of transmitting the power they generate in a cost-efficient, reliable, and space-saving manner. The LD and LDM busbar trunking systems simplify planning, installation, commissioning, and removal.



### Photovoltaic and container stations

Custom-made for individual requirements, fast to install, with current ratings up to 7,000 A, and precisely configured to other products like inverters and transformers: The LDM-P system is ideal for highly efficient use in photovoltaic and container stations.

# One family – many possibilities

## Power distribution on a systematic basis

### BD01 system<sup>1, 5</sup>

### BD2 system<sup>1, 5</sup>

### LI system<sup>2, 3, 5</sup>



#### System description

The flexible power supply in workshops and production facilities of craft, trade, and commercial enterprises

The universal solution for maximum power in the smallest space, above all in office buildings and industrial transfer lines

An integrated and universal solution for safe and efficient power supply in infrastructure and industry for the global IEC market

#### Technical details

<b>Rated operational voltage <math>U_e</math></b>	400 V AC	690 V AC / DC	1,000 V AC
<b>Degree of protection</b>	IP54, IP55	IP54, IP55	IP55, IP66 <sup>2</sup>
<b>Design</b>	Air-insulated	Air-insulated	Sandwich design
<b>Rated current <math>I_{nA}</math></b>	40 A to 160 A	160 A to 1,250 A AC / to 2,160 A DC	800 A to 6,300 A
<b>Tap-off unit</b>	Up to 63 A	Up to 550 A	Up to 1,250 A
<b>powerline data transmission</b>	–	Optional	Optional
<b>Connection technology</b>	Connecting flanges with integrated expansion compensation	With integrated expansion compensation, single-bolt terminal	Hook and bolt connection with shear-off nut
<b>Conductor material</b>	Aluminum or copper	Aluminum or copper	Aluminum or copper
<b>Enclosure material (trunking unit)</b>	Galvanized and coated sheet steel	Galvanized and coated sheet steel	Coated aluminum



Data transmission with powerline technology

#### Marine classification societies:

1 DNV GL  
2 IP66 for mere power transmission runs without tap-offs

3 Seismic Qualification Certificate (seismic test)

4 ATEX 

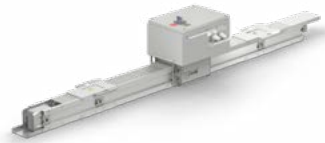
5 Product Environmental Profile (PEP), Environmental Product Declaration (EPD)

## LD system<sup>1, 5</sup>

## LDM system<sup>5</sup>

## LData system

## LR system<sup>1, 3, 4, 5</sup>



The long-time proven high-current busbar for industrial and special applications

The application-specific, air-insulated busbar for safe and efficient power transmission in wind turbines, photovoltaic stations, and container stations

Efficient and reliable power supply for data centers now and in the future

The reliable busbar for high protection in harsh ambient conditions, e.g., for outdoor networking of building sections, or for the supply of tunnels

1,000 V AC / DC

1,000 V AC

600 V AC

1,000 V AC

IP34, IP54

LDM: IP21 with salt mist and condensation test,  
LDM-P: IP00

Trunking units: IP21  
Tap-off units: IP21, IP41

IP68

Air-insulated

Air-insulated

Air-insulated

Solid-insulated

1,100 A to 5,000 A AC / to 6,900 A DC

800 A to 8,200 A

1,000 A to 2,500 A

400 A to 6,300 A

Up to 1600 A

–

Up to 250 A

On request

Optional

–

Optional

–

Single-bolt clamped connection with hook and bolt

Separate single-bolt joint block with hook system

Direct hook and bolt connection (LD technology)

Bolt joint block

Aluminum or copper

Aluminum

Aluminum

Aluminum or copper

Galvanized and coated sheet steel

LDM: galvanized sheet steel  
LDM-P: without enclosure

Galvanized and coated sheet steel

Epoxy resin



You will find more product line information in the LV70 catalog.

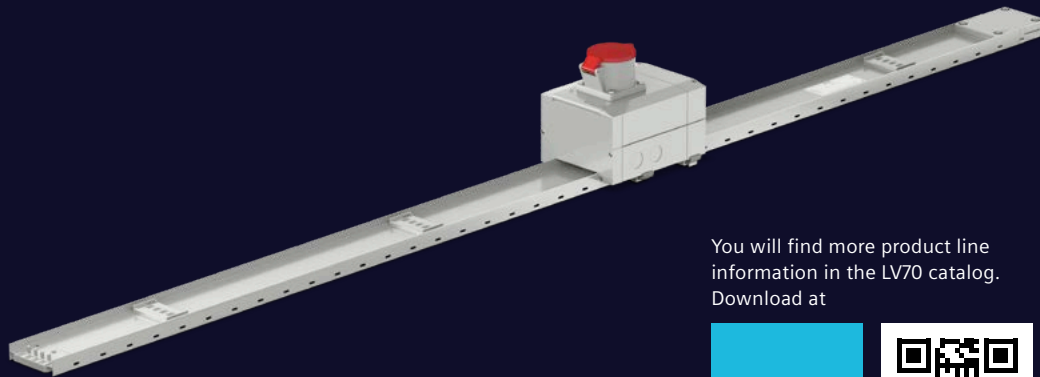


Technical documentation

# BD01 system – ideal for craft and industrial enterprises

## Safe power distribution for small consumers

In craft and industry, power has to be available at all times and everywhere, and it has to be accessible and controllable. With the BD01 busbar trunking system, everything is visible and under your control. It was developed to safely supply small consumers with power. You will benefit from an advanced and cost-efficient power supply.



You will find more product line information in the LV70 catalog. Download at

[siemens.com/  
LV70](https://www.siemens.com/LV70)



Tap-off unit, a variety of versions, for example, with CEE socket outlets



Feeding unit, attachable to any connection point

## Smart features ...

- Ideal for applications from 40 A to 160 A
- One size is available with five current ratings
- Tap-off units up to 63 A that can be plugged on/off while energized<sup>1</sup>
- Finger-proof mounting by automatic opening and closing of the tap-off-point
- Easy handling using connecting flanges with integrated expansion compensation
- Reliable mechanical and electrical connection technology for error-free installation thanks to the asymmetry of the connection point
- Optionally available with tested fire barrier

## ... that benefit you

- Simple planning, modification, and expansion of power distribution
- Tap-off units available pre-wired or for individual equipping
- Flexible adaptation to every building structure by means of 3D junction units

<sup>1</sup> In accordance with EN 50110-1 (VDE 0105-1); please always observe national regulations/standards.

## Technical data

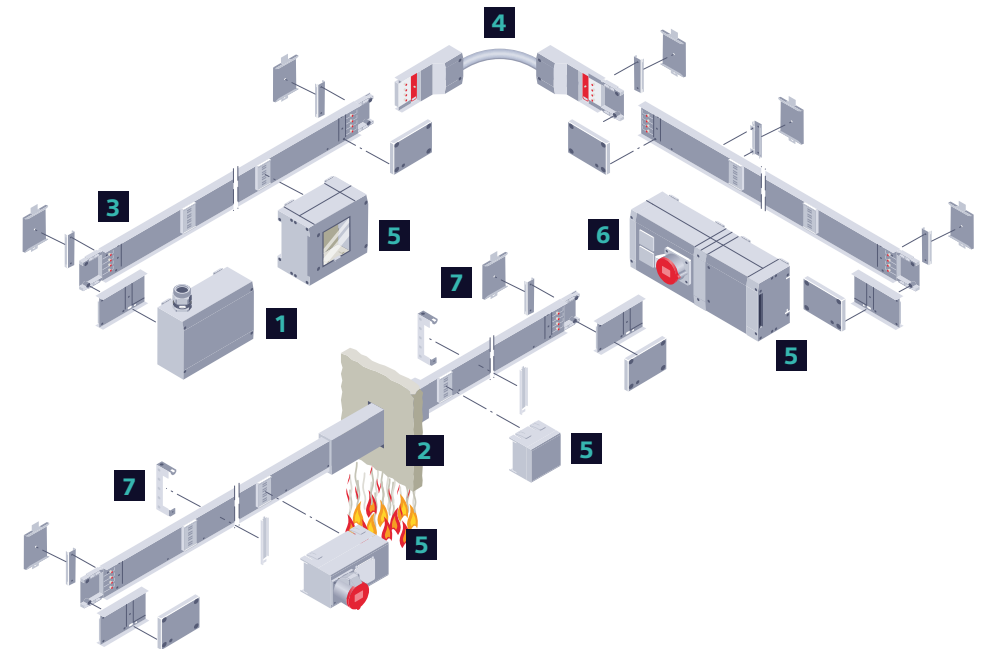
Rated insulation voltage $U_i$	400 V AC
Rated operational voltage $U_e$	400 V AC
Degree of protection	IP54, IP55
Rated current $I_{nA}$	40 A to 160 A
Rated peak withstand current $I_{pk}$	Up to 15.3 kA
Rated short-time withstand current $I_{cw}$ (1 s)	Up to 2.5 kA
Number of conductors	5 conductors (PE = enclosure)
Fire load	Max. 0.76 kWh/m
Tap-off point	Either 0.5 m or 1 m on one side
Tap-off unit	Up to 63 A
Connection technology	Connecting flanges with integrated expansion compensation
Conductor material	Aluminum or copper
Enclosure material (trunking unit)	Galvanized and coated sheet steel
Standards	IEC 61439-1/-6

Technical documentation

[siemens.com/  
lowvoltage/  
product-  
support/8PS/  
BD01](https://www.siemens.com/lowvoltage/product-support/8PS/BD01)



## BD01 system

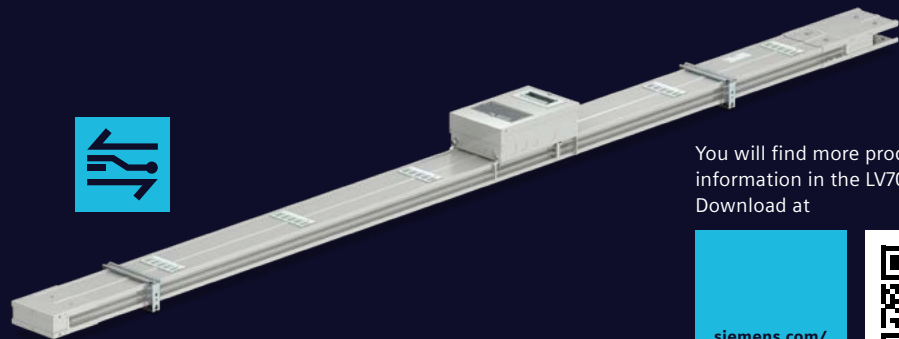


- 1 Feeding unit
- 2 Fire barrier
- 3 Trunking unit
- 4 Junction unit
- 5 Tap-off unit
- 6 Ancillary equipment unit
- 7 Additional equipment

# BD2 system – maximum power in the smallest space

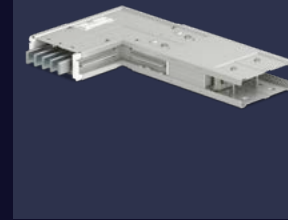
## High performance, tested fire barrier

With its tested fire barrier and functional endurance in case of fire, the BD2 system ensures safety even in an emergency. Thanks to its compact design, it requires surprisingly little space and ensures safety not just during system operation but also during installation: The anti-rotation feature and guided installation make it fast and easy to install. Because the busbar trunking system is communication-capable, you will benefit from fully transparent operation with the advantage of a high level of system availability. The BD2 system is not only appropriate for AC applications, it also transmits direct currents up to 2,160 A.



You will find more product line information in the LV70 catalog. Download at

[siemens.com/  
LV70](https://www.siemens.com/LV70)



Junction unit for optimum adaptation to building structures



Individually equipped tap-off units up to 550 A can be plugged on/off while energized<sup>1</sup>



Tap-off unit with powerline technology

## Smart features ...

- Ideal for applications from 160 A to 1,250 A
- Two sizes up to 1,250 A in seven current ratings with aluminum or copper conductors
- Large selection of tap-off units with different protection and measuring devices
- Integrated expansion compensation
- Consumption recording and remote monitoring
- Can also be used to feed the smaller BD01 system
- Optionally available with tested fire barrier

## ... that benefit you

- Universal solution with low space requirements
- Easy and quick installation
- Protection from unauthorized access thanks to sealable tap-off points
- Flexible adaptation to every building structure by means of 3D junction units up to 800 A
- Increased transparency of operation thanks to communication capability
- Smart data transmission thanks to powerline technology

<sup>1</sup> In accordance with EN 50110-1 (VDE 0105-1); please always observe national regulations/standards.

## Technical data

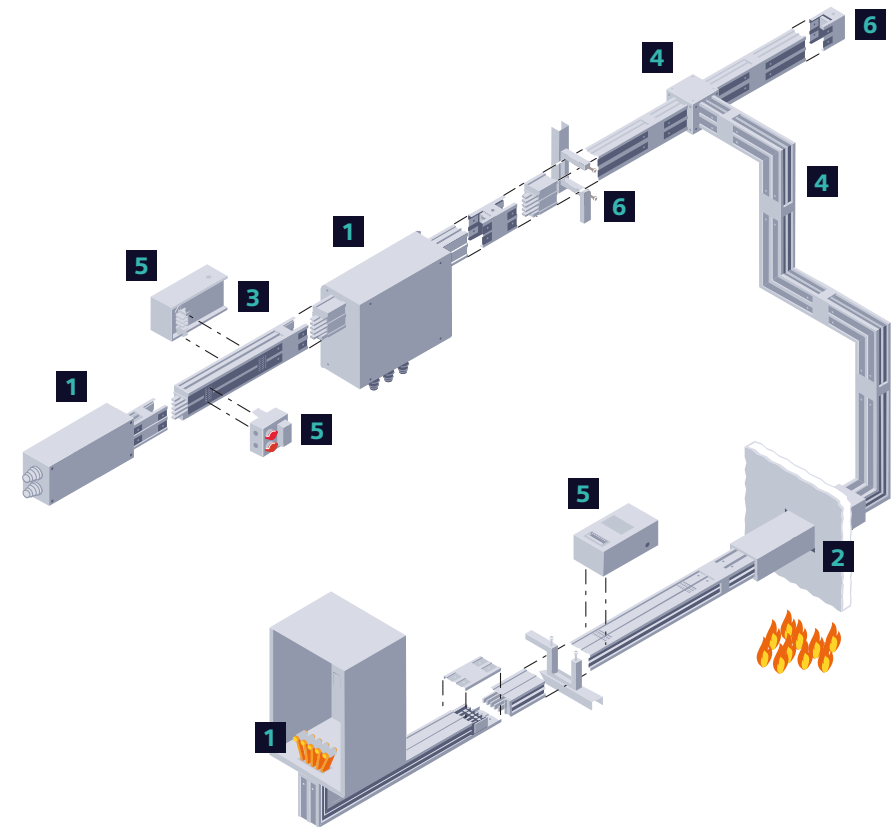
Rated insulation voltage $U_i$	690 V AC / 800 V DC
Rated operational voltage $U_e$	690 V AC / 800 V DC
Degree of protection	IP54, IP55
Rated current $I_{nA}$	160 A to 1,250 A AC / to 2,160 A DC
Rated peak withstand current $I_{pk}$	Up to 90 kA
Rated short-time withstand current $I_{cw}$ (1 s)	Up to 34 kA
Number of conductors	5 conductors
Fire load	Max. 2.0 kWh/m
Tap-off point	Every 0.5 m on one side, offset on both sides every 0.25 m
Tap-off unit	Up to 550 A
Data transmission	powerline or conventionally wired
Connection technology	With integrated expansion compensation, single-bolt terminal
Conductor material	Aluminum or copper
Enclosure material (trunking unit)	Galvanized and coated sheet steel
Standards	IEC 61439-1/-6

Technical documentation

[siemens.com/  
lowvoltage/  
product-  
support/8PS/  
BD2](https://www.siemens.com/lowvoltage/product-support/8PS/BD2)



## BD2 system

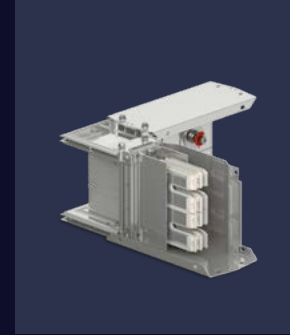
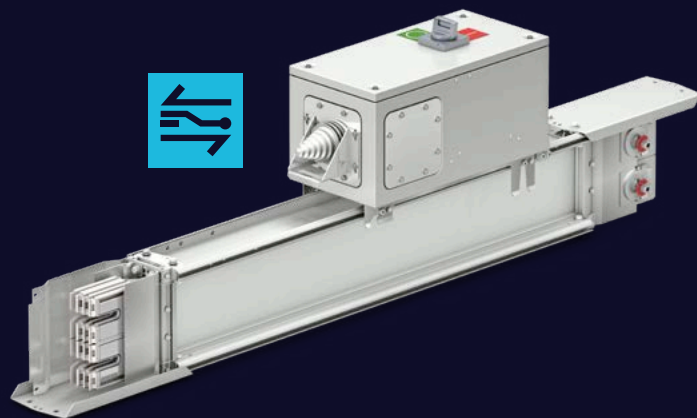


- 1** Feeding unit
- 2** Fire barrier
- 3** Trunking unit
- 4** Junction unit
- 5** Tap-off unit
- 6** Additional equipment

# LI system – high-current busbar in sandwich design

## Reliability and high performance on all levels

Do you need to distribute power over long distances? Horizontally as well as vertically? In multistory buildings or industrial plants? This is exactly what the LI system was designed to do. It handles large amounts of power up to 6,300 A on all levels. Thanks to its special sandwich design, it allows power transmission with a low voltage drop. It can also run at a full load at high temperatures<sup>1</sup> without derating.



Easy adaptation to building structures by means of junction units



Various transformer connections for safe power transmission



Tap-off unit with powerline technology

## Smart features ...

- Current ratings from 800 A to 6,300 A
- Compact sandwich design
- Design verified trunking units and tap-off units (IEC 61439-1/-6)
- Tap-off units with communication-capable measuring and switching devices
- High degree of protection IP55, IP66 for power transmission
- Optionally available with tested fire barrier
- Optionally available with tested functional endurance 180 min in accordance with the IEC 60331 cable standard

## ... that benefit you

- High level of safety for personnel and equipment
- Meets high demands for energy efficiency
- Low space requirements
- Flexible design of your power supply thanks to a variety of conductor configurations, modular tap-off units, and junction units
- Reliable installation thanks to durable hook and bolt connection
- Cost-efficient data transmission with powerline technology

<sup>1</sup> System-specific sizes of the LI system can run at full load up to 40 °C in the 24-h mean without derating

## Technical data

Rated insulation voltage $U_i$	1,000 V AC
Rated operational voltage $U_e$	1,000 V AC
Degree of protection	IP55, IP66 <sup>2</sup>
Rated current $I_{nA}$	800 A to 6,00 A
Rated peak withstand current $I_{pk}$	Up to 330 kA
Rated short-time withstand current $I_{cw}$ (1 s)	Up to 150 kA
Number of conductors	4 to 6 conductors (incl. 200% N or add. Clean Earth)
Fire load	2.13 – 15.54 kWh/m
Fire load (per tap-off point)	0.98 kWh
Tap-off point	Up to 3 per 3 m length (per side)
Tap-off unit	Up to 1,250 A
Data transmission	powerline or conventionally wired
Connection technology	Hook and bolt connection with shear-off nut
Conductor material	Aluminum or copper
Enclosure material (trunking unit)	Coated aluminum
Standards	IEC 61439-1/-6

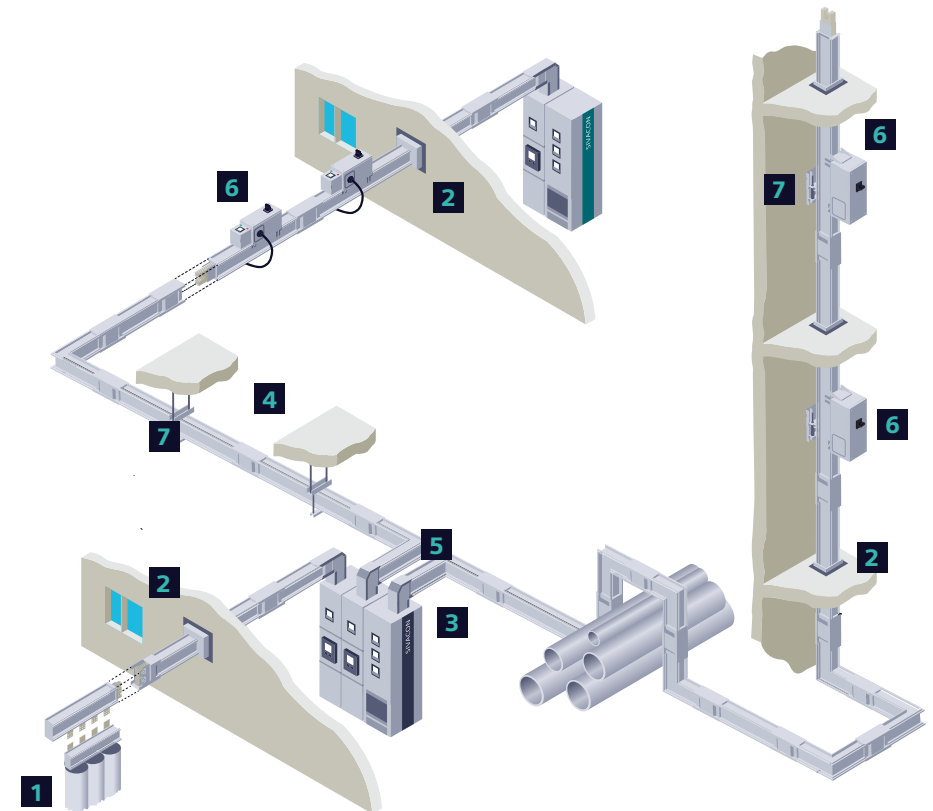
Technical documentation

[siemens.com/  
lowvoltage/  
product-  
support/  
8PS/LI](https://www.siemens.com/lowvoltage/product-support/8PS/LI)



<sup>2</sup> IP66 for mere power transmission runs  
without tap-offs

## LI system



- 1** Transformer connection/feeding unit
- 2** Fire barrier
- 3** Distribution board connection for SIVACON S8
- 4** Trunking unit
- 5** Junction unit
- 6** Tap-off unit
- 7** Additional equipment

# LD system – handles even enormous power requirements

## Safe power distribution and data transmission

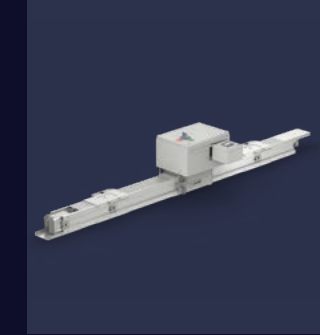
For five decades, the LD system has been proving its worth worldwide. Thanks to its ongoing development, it is extremely reliable and user-friendly. Its specialty is the transmission and distribution of power between the transformer, main power distribution board, and sub-distribution boards on production sites with high power requirements, for example, for welding lines in the automotive industry. The high short-circuit withstand strength and compact design open up many fields of application, while powerline technology enables efficient data transmission. The LD system is perfect for high energy transparency and advanced energy management in accordance with ISO 50001. The LD system is not only appropriate for AC applications, it also transmits direct currents up to 6,900 A.



Feeding units to supply current from the transformer to the LD system



Basic tap-off unit



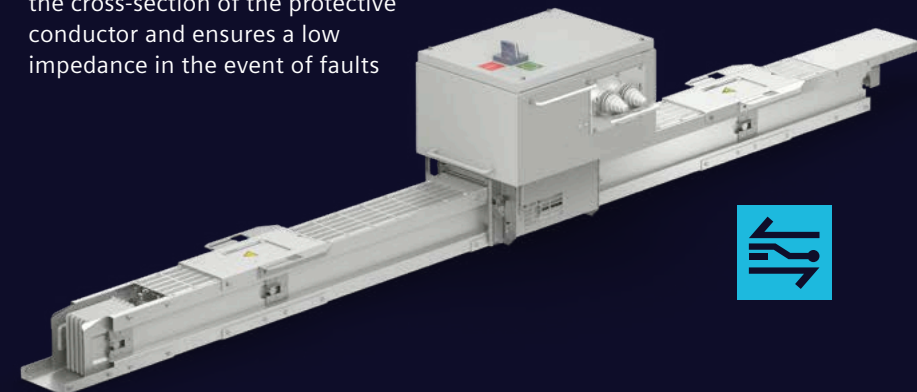
LD system with powerline technology

## Smart features ...

- Ideal for high power requirements; tap-off units up to 1,600 A
- Robust and compact design with only two sizes from 1,100 A to 5,000 A
- Reliable installation thanks to durable hook and bolt connection
- Appropriate water protection (epoxy coating, sprinkler-suitable) and carbon dust tested
- Optionally available with tested fire barrier
- Scalable tap-off units: available as basic, premium, or empty unit version
- An internal PE conductor increases the cross-section of the protective conductor and ensures a low impedance in the event of faults

## ... that benefit you

- Highly reliable and user-friendly
- Numerous fields of application thanks to its high short-circuit withstand strength
- Smart planning thanks to safe connection to SIVACON S8 switchboards and transformers
- Efficient infrastructure thanks to compact design
- Cost-efficient data transmission with powerline technology



## Technical data

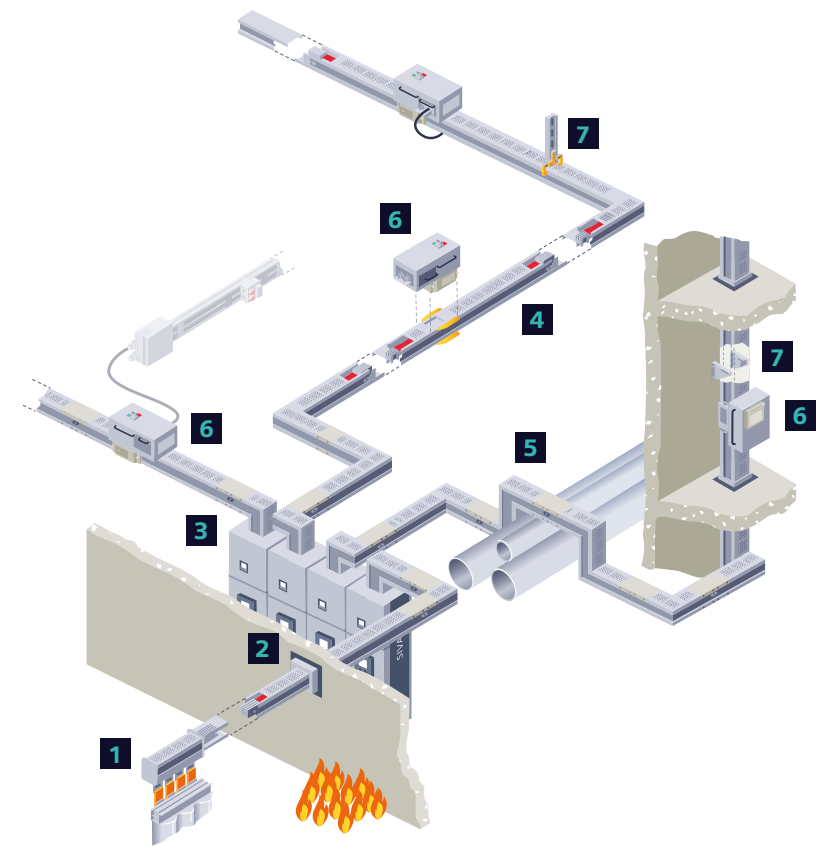
Rated insulation voltage $U_i$	1,000 V AC / DC
Rated operational voltage $U_e$	1,000 V AC / DC
Degree of protection	IP34, IP54
Rated current $I_{nA}$	1,100 A to 5,000 A AC / to 6,900 A DC
Rated peak withstand current $I_{pk}$	Up to 286 kA
Rated short-time withstand current $I_{cw}$ (1 s)	Up to 116 kA
Number of conductors	4 or 5 conductors
Fire load	Max. 11.99 kWh/m
Fire load (per tap-off point)	Max. 12.96 kWh
Tap-off point	Every 1 m on one side
Tap-off unit	Up to 1,600 A
Data transmission	powerline or conventionally wired
Connection technology	Single-bolt clamped connection
Conductor material	Aluminum or copper
Enclosure material (trunking unit)	Galvanized and coated sheet steel
Standards	IEC 61439-1/-6

Technical documentation

[siemens.com/  
lowvoltage/  
product-  
support/  
8PS/LD](https://www.siemens.com/lowvoltage/product-support/8PS/LD)



## LD system

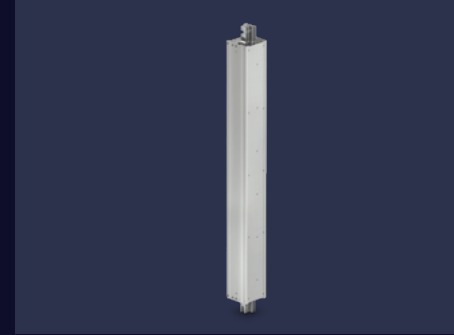


- 1 Transformer connection/feeding unit
- 2 Fire barrier
- 3 Distribution board connection for SIVACON S8
- 4 Trunking unit
- 5 Junction unit
- 6 Tap-off unit
- 7 Additional equipment

# LDM system – power distribution meets sustainability

## Power distribution for renewable energy sources

How can highest currents be transmitted even in cramped nacelles of wind turbines? How can high power densities in photovoltaic stations be controlled in small installation spaces? For renewable energy sources, power distribution requirements are highly specific, but safe, reliable, and cost-efficient power transmission is always among them. We have developed special busbar trunking systems for this purpose: the LDM system for wind turbines and the LDM-P system for photovoltaic (PV) plants. Take advantage of our experience and the systems' modularity, and let us work with you to design a customized solution.



Segment connector for easy connection of the pre-assembled trunking elements in the wind tower



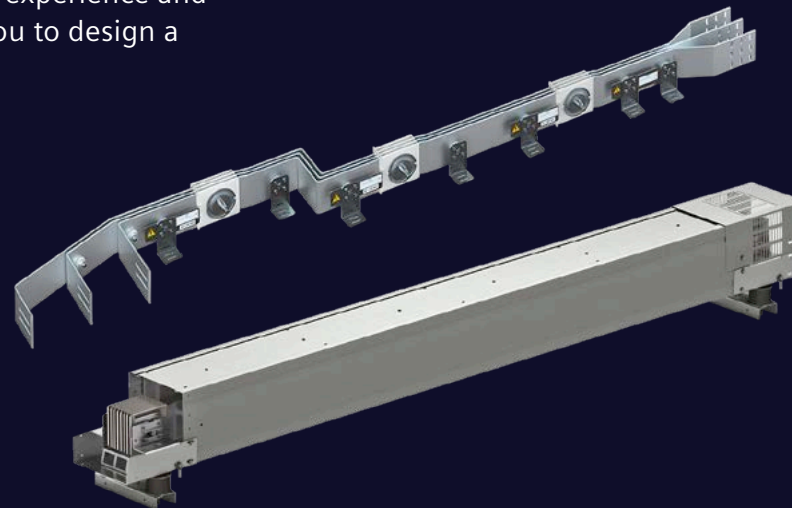
Feeding unit for cable connection at the tower base and nacelle

### Smart features ...

- LDM conducts current ratings up to 8,200 A
- Design verified, halogen-free, reliable, and safe (IEC 61439-1/-6)
- Compact, maintenance-free busbar trunking systems
- Pre-assembled trunking units
- Defined impedances and technical features
- Optimized use of materials and reusability

### ... that benefit you

- Can be modified to meet individual requirements
- Especially cost-efficient in terms of planning, installation, commissioning, and removal
- High availability and operational safety
- Space-saving thanks to a very compact design
- Low-loss connection technology
- Low fire load



### Range of application:

This Siemens EcoTech Profile is valid for all LDM busbars.

Siemens  
EcoTech



## Technical data

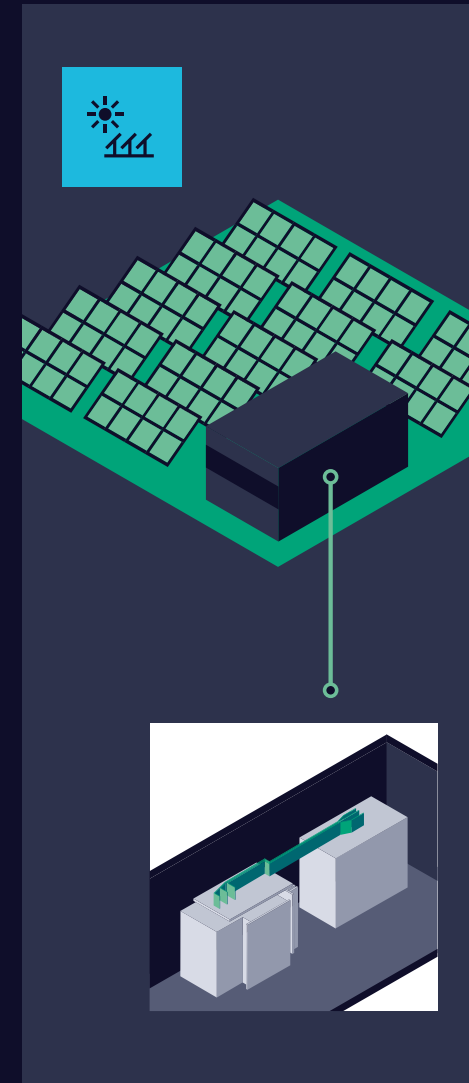
<b>Rated insulation voltage <math>U_i</math></b>	1,000 V AC
<b>Rated operational voltage <math>U_e</math></b>	1,000 V AC
<b>Degree of protection</b>	LDM: IP21 with salt mist and condensation test LDM-P: IP00
<b>Rated current <math>I_{nA}</math></b>	800 A to 8,200 A
<b>Rated peak withstand current <math>I_{pk}</math></b>	Up to 255 kA
<b>Rated peak withstand current <math>I_{cw}</math> (1 s)</b>	Up to 116 kA
<b>Number of conductors</b>	3 to 10 conductors per trunking unit (application-specific, multiple circuits possible)
<b>Connection technology</b>	Separate single-bolt joint block with hook system
<b>Conductor material</b>	Aluminum
<b>Enclosure material (trunking unit)</b>	LDM: galvanized sheet steel (optionally coated in RAL color) LDM-P: without enclosure
<b>Standards</b>	IEC 61439-1/-6

Technical documentation

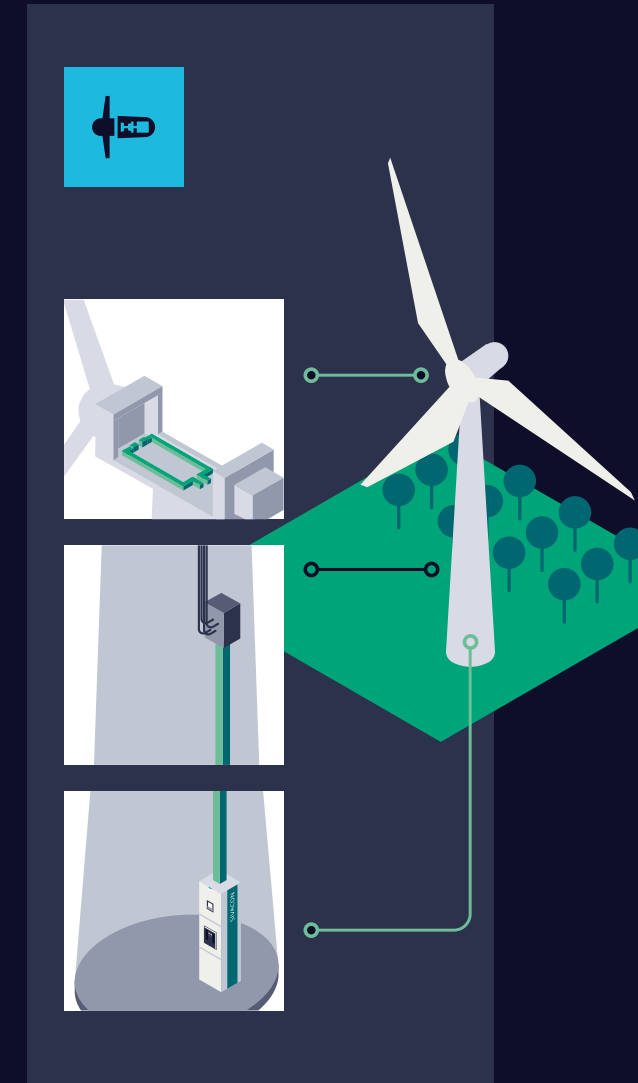
[siemens.com/  
lowvoltage/  
product-  
support/  
8PS/LDM](https://www.siemens.com/lowvoltage/product-support/8PS/LDM)



## LDM-P system



## LDM system



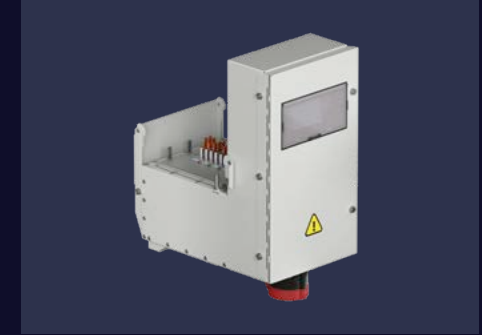
# LData system – for data centers now and in the future

## Rely on your power supply

A reliable, continuous power supply is a substantial cost factor for data centers that continues beyond the procurement stage. High energy densities are particularly necessary for AI applications. It should be possible to retrofit and upgrade power distribution without interrupting operations – and that is the case with the LData system, which also supports easy planning and rapid installation. Current ratings up to 2,500 A, compact and modular tap-off units, and powerline technology for energy transparency are just some of the many significant benefits of the smart system. Sustainability is also one of its strengths. It lets you decide whether the system will only offer the admissible power loss values in accordance with the standard or if losses will be capped well below these values to protect the environment and significantly reduce power consumption.



Cubic tap-off unit



L-shaped tap-off unit

## Smart features ...

- Current ratings up to 2,500 A
- Application: high-performance data centers with high power density
- Compact, modular tap-off units for plugging exactly as needed
- Easily adaptable to other SIVACON 8PS systems
- Larger cross-sections reduce power losses

## ... that benefit you

- Flexible and cost-efficient even as power requirements continue to increase
- Future-proof thanks to powerline technology and integration in higher-level or cloud-based solutions
- Cost-efficient thanks to space-saving, modular design
- Fast and easy installation and expansion
- Excellent support with comprehensive solutions that save money

## Technical data

### LData system

<b>Rated operational voltage <math>U_e</math></b>		600 V AC						
<b>Rated frequency</b>		50 Hz						
<b>Ambient temperature</b> min./max./24-h mean	[°C]	-5/+40/+35						
<b>Standards and regulations</b>		IEC 61439-1/-6						
<b>Degree of protection</b>		IP21						
<b>Rated current <math>I_{nA}</math> horizontal</b>	[A]	1,000	1,250	1,600	2,000	2,250	2,500	
<b>Rated peak withstand current <math>I_{pk}</math></b>	[kA]	84	84	84	84	84	*	
<b>Rated short-time withstand current <math>I_{cw}</math> (1 s)</b>	[kA]	40	40	40	40	40	*	
<b>Fire load</b>	[kWh/m]	3.65	3.60	3.79	4.12	4.38	*	
<b>Maximum fixing distances</b>	[m]	3	3	3	3	3	*	
<b>Conductor material</b>		Aluminum						
<b>Conductor cross-section (phases, N, PE)</b>	[mm <sup>2</sup> ]	524	524	698	1,014	1,203	*	
<b>Enclosure dimensions H x W</b>	[mm]	180x220	220x220	220x220	220x220	220x220	*	
<b>Weight</b>	[kg/m]	20	20	23	27	31	*	

Technical documentation



### Tap-off units

	Cubic	L-shaped
<b>Rated current <math>I_{nc}</math></b>	Up to 250 A	Up to 250 A
<b>Rated operational voltage <math>U_e</math></b>	415 V	415 V
<b>Miniature circuit breaker</b>		
<b>Operational current up to 32 A</b>	•	•
<b>Switched poles</b> single-/three-/four-pole	•	•
<b>Molded case circuit breaker</b>		
<b>Switched poles</b> three-/four-pole	•	•
<b>Operational current</b>		
16 A ... 125 A	•	•
160 A ... 250 A	•	
<b>Rated short-time withstand current <math>I_{cw}</math> (1 s)</b>		
25 kA/36 kA/55 kA	•	•
<b>Customer connection</b>		
Direct connection	•	•
CEE socket outlet	•	•
Cable + CEE coupling	•	•
<b>Data transmission</b>		
powerline technology	•	•
Conventionally wired	•	•

\* On request

# LR system – robust and flexible

## For the harshest ambient conditions

Whether it is high humidity, corrosive or salty atmospheres, or outdoor applications, the LR system is well equipped to handle the harshest conditions. Thanks to its epoxy cast-resin enclosure designed with a high degree of protection IP68 and its extraordinary short-circuit withstand strength, it ensures reliable power transmission – even in flat, edgewise, vertical, and horizontal configurations. With only minimum space requirements, it can be optimally adjusted to the construction conditions with elbow, knee, Z-, and T-elements for change of direction. And of course, it can also be quickly installed and combined with other systems like LI and LD.



Safe connection to LI or LD systems via adapters



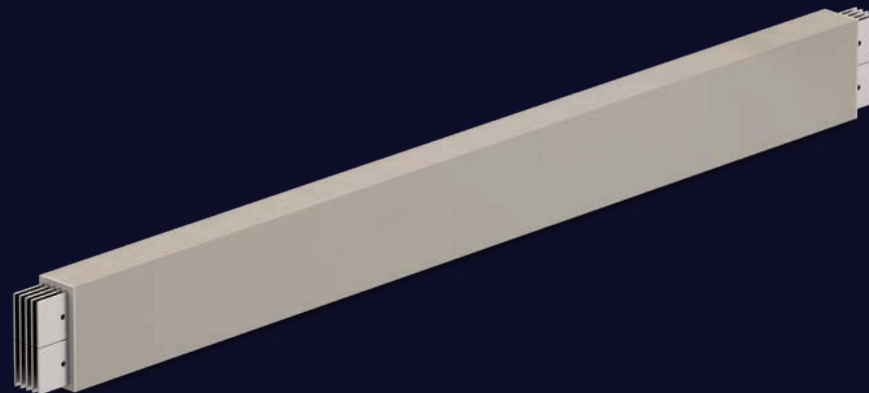
Numerous transformer connections for safe power transmission

## Smart features ...

- Current ratings from 400 A to 6,300 A
- Optionally available with tested fire barrier
- Optionally available with tested functional endurance
- Available with copper or aluminum conductors
- Can be combined with LI and LD systems

## ... that benefit you

- Flexible power transmission for both indoor and outdoor applications
- Robust with strong resistance to chemical substances, and high short-circuit withstand strength
- Suitable for outdoor applications thanks to high degree of protection IP68
- High flexibility and reliability with minimal space requirements
- Fast and easy to install



## Technical data

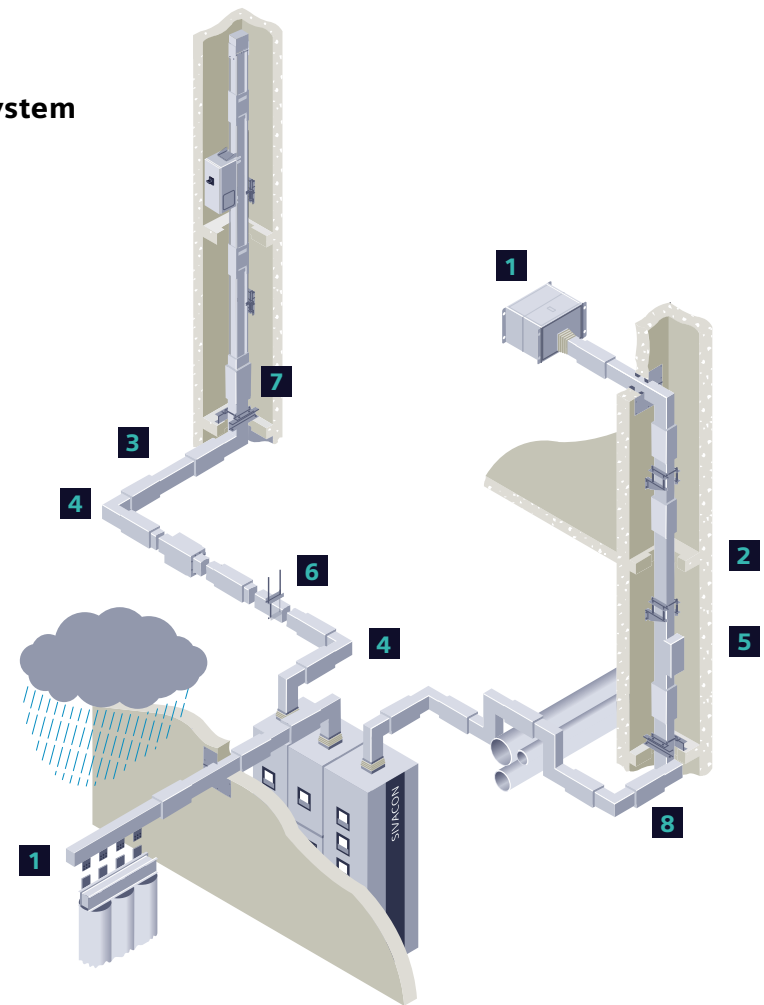
Rated insulation voltage $U_i$	1,000 V AC
Rated operational voltage $U_e$	1,000 V AC
Degree of protection	IP68
Rated current $I_{nA}$	400 A to 6,300 A
Rated peak withstand current $I_{pk}$	Up to 275 kA
Rated short-time withstand current $I_{cw}$ (1 s)	Up to 125 kA
Number of conductors	4 conductors, 5 conductors
Fire load	Max. 87 kWh/m
Tap-off point	Every 1 m on one side
Tap-off unit	On request
Connection technology	Bolt joint block
Conductor material	Aluminum or copper
Enclosure material	Epoxy resin
Standards	IEC 61439-1/-6

Technical documentation

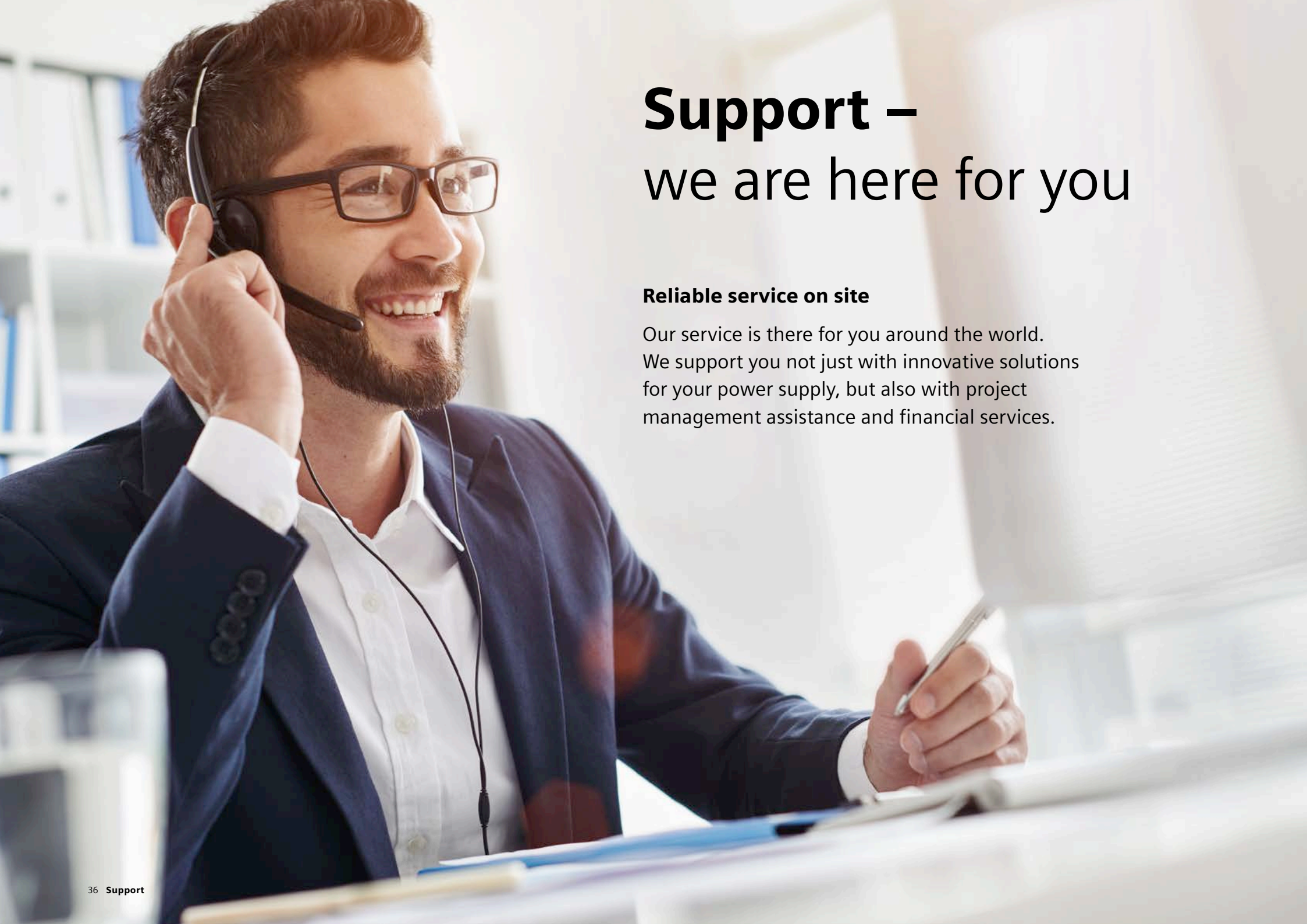
[siemens.com/  
lowvoltage/  
product-  
support/  
8PS/LR](https://www.siemens.com/lowvoltage/product-support/8PS/LR)



## LR system



- 1 Feeding unit
- 2 Fire barrier
- 3 Trunking element
- 4 Junction unit
- 5 Tap-off point
- 6 Additional equipment
- 7 Adapter to the LI system
- 8 Encapsulated joint element



# Support – we are here for you

## **Reliable service on site**

Our service is there for you around the world. We support you not just with innovative solutions for your power supply, but also with project management assistance and financial services.

## TIP Consultant Support

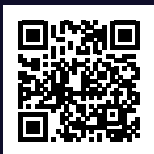
Our team for planning and designing your electric power distribution systems.



[siemens.com/tip-cs](https://www.siemens.com/tip-cs)

## Your local contact partners

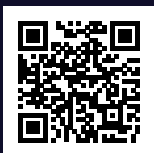
You will find your local SIVACON 8PS contact partners or services here.



[siemens.com/sivacon8PS-contact](https://www.siemens.com/sivacon8PS-contact)

## SIVACON 8PS – website

All the information you need plus helpful tools for the SIVACON 8PS busbar trunking systems.



[siemens.com/sivacon-8PS](https://www.siemens.com/sivacon-8PS)

## SIVACON 8PS insights for electrical planners and operators

As an electrical planner, project manager, or operator, gain further insights into our busbar trunking systems with our videos and documents.



[siemens.com/busbars-insights](https://www.siemens.com/busbars-insights)

## SIVACON 8PS – videos

Discover SIVACON 8PS and its advantages on our YouTube channel.



Power distribution – SIVACON

## **Straightforward planning, efficient installation, and more**

Planning electric power distribution for industrial plants, infrastructure, and buildings is becoming more and more complex.

Discover our innovative SIMARIS software tools for a successful planning process. Use our other media when planning your projects, and use the BusbarCheck installation app to support the “as-built” digital twin.

## **SIMARIS design**

Dimension smart electrical networks and automatically select components.

## **SIMARIS project**

Conveniently determine space requirements and budget for your power distribution.

## **SIMARIS sketch, the standalone solution**

Easily design routing diagrams in 3D for the BD01, BD2, LD, LI, and LR busbar trunking systems.

## **SIMARIS busbarplan, as Autodesk Revit® plug-in**

Select the right busbar trunking system and plan the busbar run – quickly, easily, in 3D, and in compliance with BIM.



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

## BIM data for boosting efficiency

Ensure quality while saving time and money. With BIM, you will benefit from easy exchange of all relevant building data, from planning to facility management.



[siemens.com/  
bim-eplanning](https://www.siemens.com/bim-eplanning)

## Technical documentation

Access technical documentation for the SIVACON 8PS busbar trunking systems with a single click.



[siemens.com/lowvoltage/  
product-support/8PS](https://www.siemens.com/lowvoltage/product-support/8PS)

## Tender specification texts

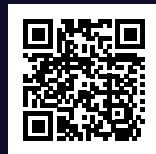
We support you with numerous tender specification texts.



[siemens.com/  
specifications/8PS](https://www.siemens.com/specifications/8PS)

## Build on a sound basis

Our courses offer you solid foundations for your business success. Our technical experts provide you with the necessary theoretical and practical information relating to our SIVACON 8PS busbar trunking systems.



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poweracademy](https://www.siemens.com/poweracademy)

## BusbarCheck – easy installation and documentation via an app

The installation and commissioning app for the SIVACON 8PS busbar trunking systems enables smart installation and comprehensive documentation. Easy data synchronization with the planning data to the “as-built” digital twin in SIMARIS busbarplan.



**iOS BusbarCheck**



**Android BusbarCheck**

## Catalog LV70

You will find comprehensive product line information on the BD01 and BD2 systems in the LV70 catalog.



[siemens.com/LV70](https://www.siemens.com/LV70)



[siemens.com/sivacon-8PS](https://www.siemens.com/sivacon-8PS)

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