

Rittal – The System.

Faster – better – everywhere.

VX25 Ri4Power

The switchgear and power distribution system for the VX25



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP





VX25.
**SYSTEM
PERFECTION.**

System perfection. Solutions from Rittal.

The future is shaped by innovative companies with the ability to supply smart solutions to their partners in industry, mechanical & plant engineering and IT. Rittal are global market and innovation leaders, and expert problem-solvers. Based on our performance promise "faster – better – everywhere", we provide our customers with comprehensive support along the entire value chain, to gain a crucial competitive edge.

Best proof: the VX25. A large enclosure built to Industry 4.0 standards for world-class, digitally networked technology. The perfect solution to accommodate demands for increased productivity and assembly speed, and further proof that our passion and inventiveness create sustainable solutions that take our customers to the cutting-edge of technology.

Now we have upped our innovation game once more, with a comprehensive overhaul of the entire VX25 Ri4Power modular system. Now more efficient, even faster and stronger than ever before, it is the ultimate future-proof solution.

VX25 Ri4Power – ready for your challenges.



VX25. SYSTEM PERFECTION.

VX25 Ri4Power



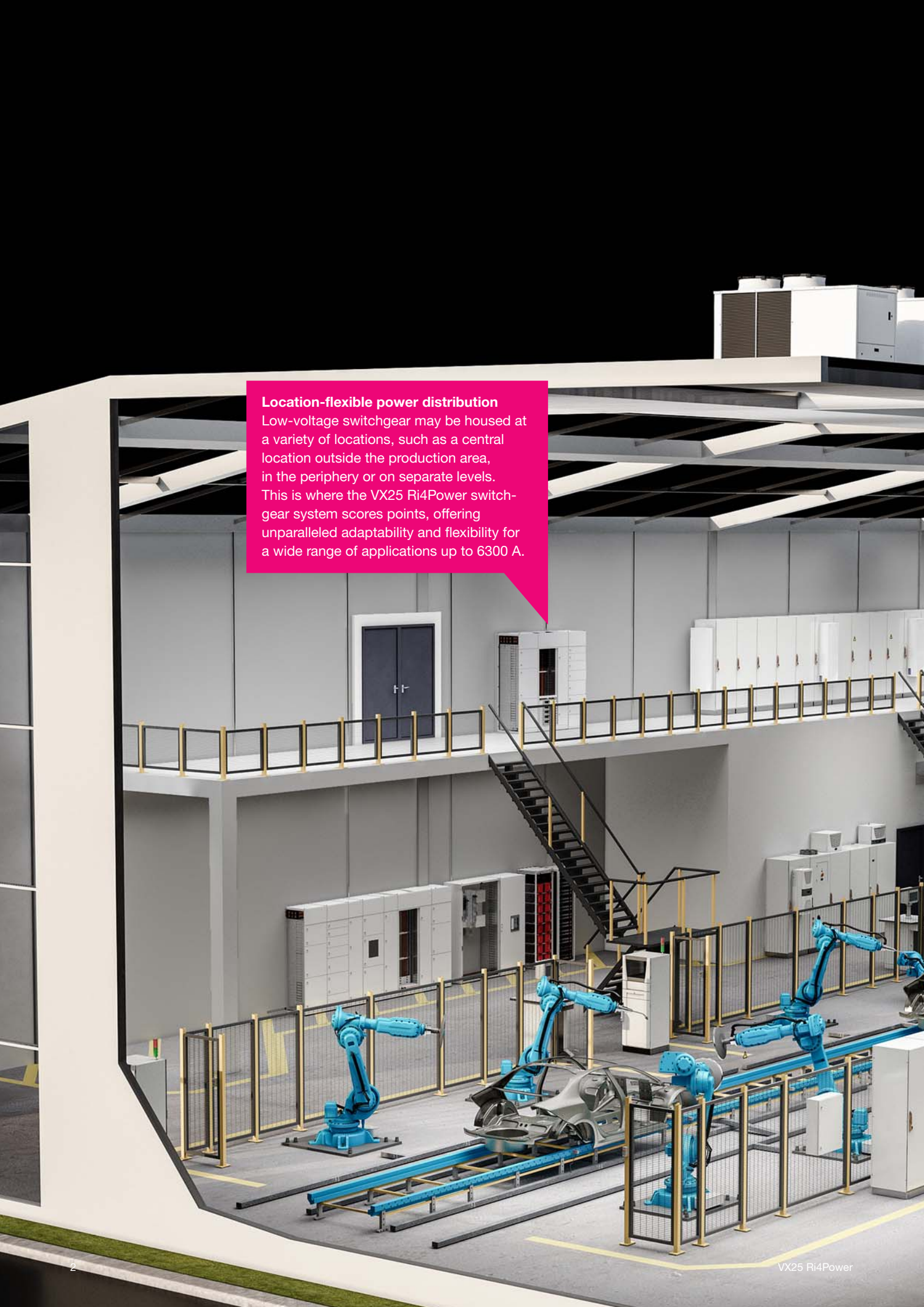
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Location-flexible power distribution

Low-voltage switchgear may be housed at a variety of locations, such as a central location outside the production area, in the periphery or on separate levels. This is where the VX25 Ri4Power switchgear system scores points, offering unparalleled adaptability and flexibility for a wide range of applications up to 6300 A.

THE COMPLETE SOLUTION

Enclosure and busbar system in one – The Rittal VX25 enclosure system and the Rittal VX25 Ri4Power switchgear system together form a complete solution for the assembly of type-tested low-voltage switchgear with internal form separation.

Faster, stronger, more efficient – VX25 Ri4Power is the perfect solution for applications up to 6300 A. Project planning is child's play with the user-friendly Power Engineering software. Fast assembly with up to 50% time savings. The optimised arrangement of busbars translates into impressive copper savings. That's Rittal system efficiency!

Switching and control under one roof

VX25 Ri4Power unites power distribution and control technology in a single enclosure. The continuous modular system allows each enclosure panel to be flexibly subdivided into individually configurable busbar compartments, functional units and connection areas to Form 2-4, for a time-saving solution.

ACB section

For the infeed and output of large currents into and from the switchgear. Air circuit-breakers are used to protect people and machines.

Cable chamber

For distributing cables and lines leading into or out of compartments, to provide cable management for outgoing sections. Cable entry is optionally from above or below.

Outgoing section

For the installation of circuits with switchgear, power supply outlets, controllers, switchgear units, fused outgoing feeders and much more, allowing circuits and controllers to be combined under one roof.

Fuse-switch disconnecter section

For compact, variable distribution of electric power with fused switchgear. Plug-type NH slimline fuse-switch disconnectors are used here, supported by vertical multi-terminal busbar systems.

THE SECTION TYPES

Modular section system

The VX25 Ri4Power allows you to create different sections within a switchgear or power distribution system to perform these tasks.



Energy storage section

The infrastructure solution for battery energy storage solutions (BESS): The modular system allows you to compile bespoke enclosures from Rittal standard components to suit the individual storage system.

Form 2b

As effective protection against accidental contact with the busbar. Designed as an internal sub-division of the busbar compartment into functional space and adjacent compartment.

Coupling section

For disconnecting or connecting busbar systems within low-voltage equipment. Also for maintaining machine and plant uptime, because individual sub-sections may be disconnected separately.

Tested safety

- The VX25 Ri4Power switchgear system is continuously type-tested to international standard IEC 61 439-1
- Tests with ASTA certification
- Protection category up to IP 54
- Tested accidental arcing protection to IEC 61 641
- Additional accidental arcing protection as a preventive measure

Complete partitioning

Compartment side panels matching the enclosure height instantly shield all the functional spaces below. This replaces individual vertical partitions from section to section and reduces the number of components and assembly time required.

Flexibility

The 25 mm enclosure section pitch pattern and side panel perforations allow fast, height-flexible assembly of the horizontal compartment dividers with minimal parts. They simply slide into position like a baking tray in an oven.

Adjustment

The pre-punched knock-outs in the compartment dividers may be removed without burrs, for flexible subdivision of the openings depending on the planned cable routing. This supports a continuous, direct power supply to the control and wiring sections.



Independence

The main busbars may optionally be routed in the roof section or central rear section for improved planning and space flexibility.



Continuity

Connecting PE or N conductors by directly screw-fastening the busbar supports to the frame section ensures an identical, consistent arrangement of bars in the rear or front enclosure area across all section types.



Straight lines

The pre-punched knock-outs in the compartment side panels allow PE and N conductors to be continued across sections, for straight-line routing through all section types.

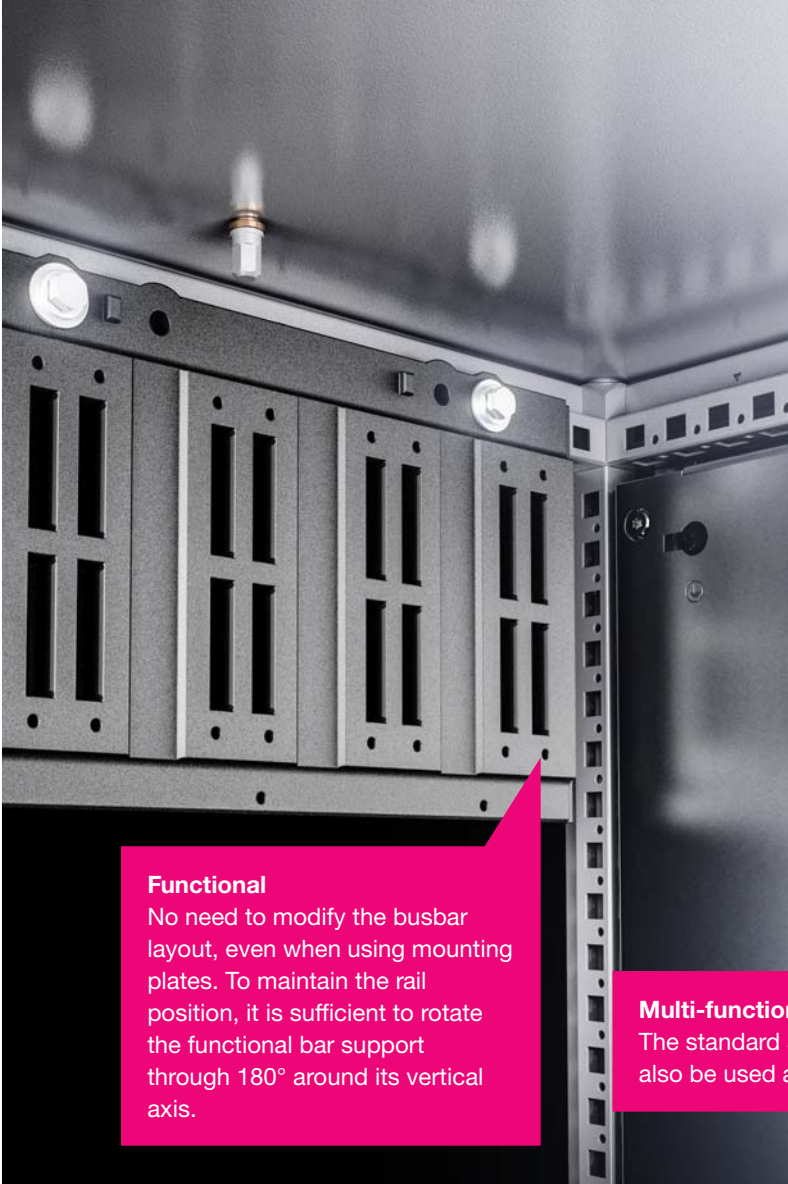


Reduced number of parts

The 25 mm pitch pattern allows top busbar supports to be mounted directly onto the enclosure section. Just three screws is all you need. No further components are required.

Copper savings

Standard bars are available in 30 x 10 mm and 50 x 10 mm. The stable enclosure busbar system and the arrangement of the bars supports a higher current-carrying capacity with an identical copper bar cross-section.



Functional

No need to modify the busbar layout, even when using mounting plates. To maintain the rail position, it is sufficient to rotate the functional bar support through 180° around its vertical axis.

Immediate machining

The standard 50 x 10 mm copper bars are already pre-punched and cut to length, to match the enclosure widths. They may be fitted directly without machining.



Multi-functionality

The standard 50 x 10 mm copper bars may also be used as a neutral conductor.

Fast attachment

The open busbar support can additionally accommodate the quick-release fastener for simple, fast connection to the next section.



Bar termination

The solid bar support is used as a termination.



Health and safety at work

Rounded edges ensure optimum work safety standards when populating the enclosure.

Stability

The seamlessly laser-welded, rolled enclosure profile ensures optimum force transmission on installed equipment.

Making life easier

With one-person assembly, the positioning aid for the side and rear panels is an ideal, user-friendly preliminary fixing, leaving both hands free to screw-fasten the panels into position.

Stability

The corner piece with welded base frame makes it easier to secure to the floor and base and improves stability.



Installation options

The continuous pattern of square punchings supports the use of M6/M8 cage nuts to create more mounting options at all profile levels.



Making life easier

The new hinge allows doors to be fitted and removed incredibly easily without any tools, and separately locking and unlocking the hinge bolts is a thing of the past.

Clamping force

The baying connectors are screwed into place in the direction of baying to bring the enclosures safely into position.



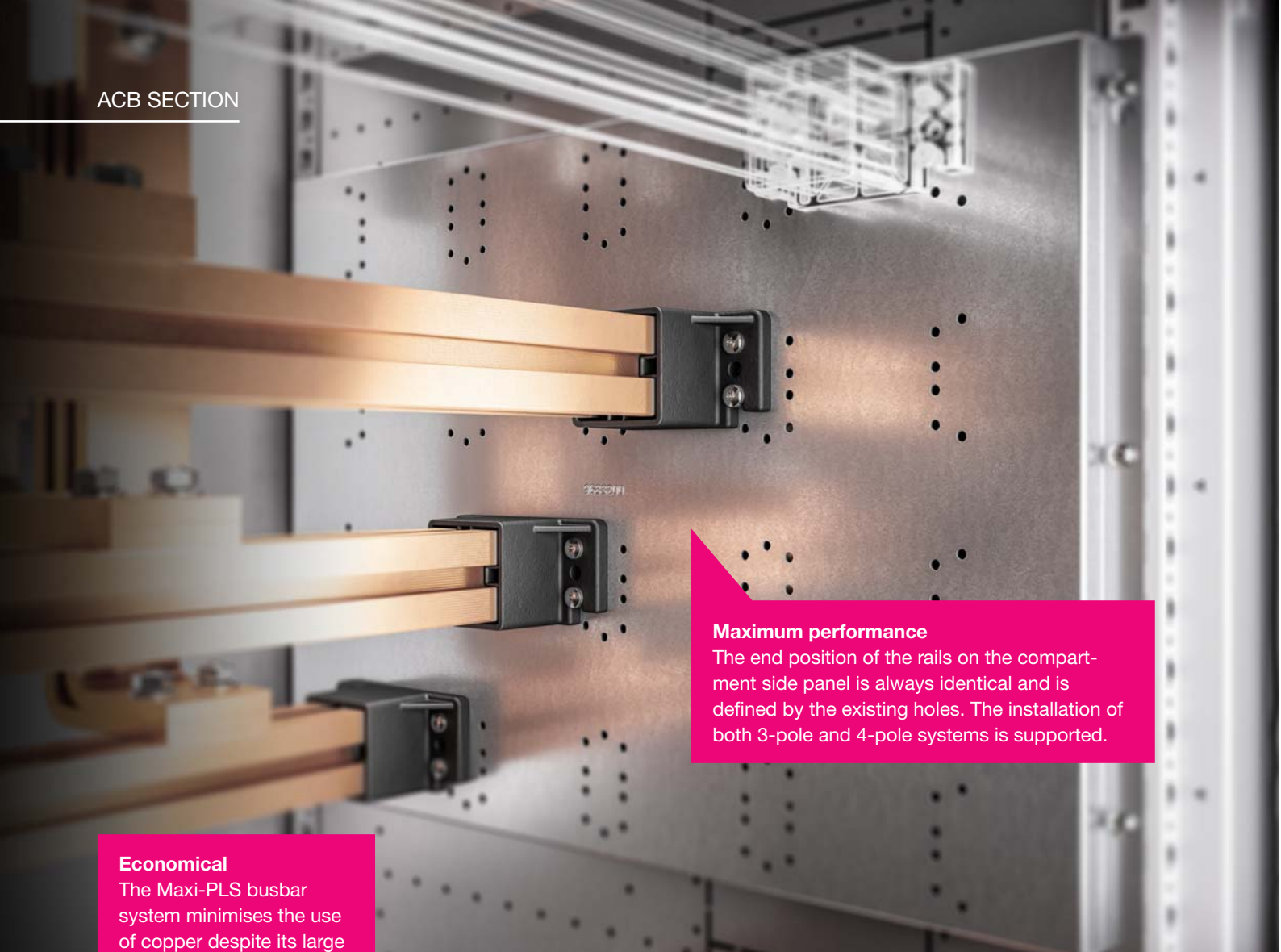


THE ACB SECTION

For protecting machinery and equipment

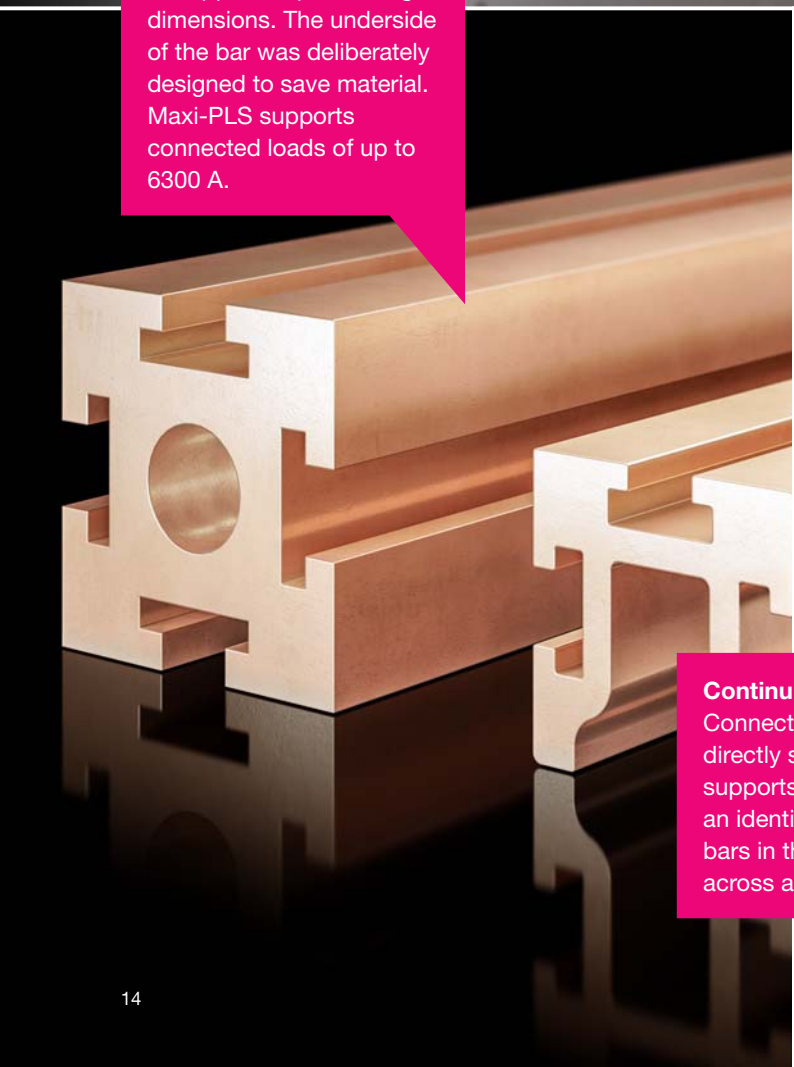
Air circuit-breakers protect machines, plant and people from damage and injury associated with short-circuits, earth faults and overloads.

- The VX25 Ri4Power is suitable for use with open and compact circuit-breakers from all well-known manufacturers, including ABB, Eaton, General Electric, Mitsubishi, Schneider Electric, Siemens, LSIS and Terasaki.
- Modular continuity and a high manufacturing quality guarantee exceptionally time-saving assembly.
- Up to 6300 A, the busbar systems are dimensioned to your specific requirements with standard copper bars and individually configured.
- All drawings of connector kits and connection brackets for connecting air circuit-breakers may be generated and printed with the Rittal Power Engineering software so that all copper parts can be prepared for installation early in the process.



Maximum performance

The end position of the rails on the compartment side panel is always identical and is defined by the existing holes. The installation of both 3-pole and 4-pole systems is supported.



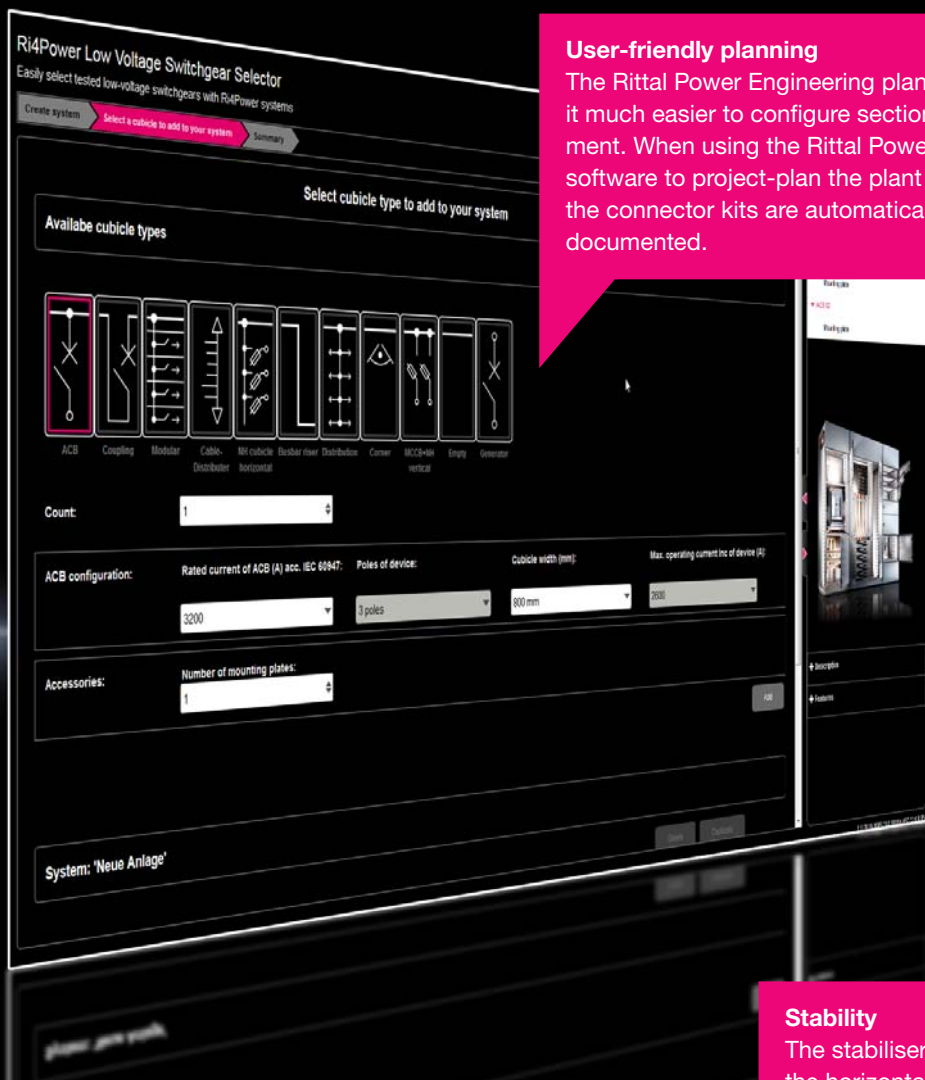
Economical

The Maxi-PLS busbar system minimises the use of copper despite its large dimensions. The underside of the bar was deliberately designed to save material. Maxi-PLS supports connected loads of up to 6300 A.



Continuity

Connecting PE or N conductors by directly screw-fastening the bar supports to the frame section ensures an identical, consistent arrangement of bars in the rear or front enclosure area across all section types.



User-friendly planning

The Rittal Power Engineering planning software makes it much easier to configure section types and equipment. When using the Rittal Power Engineering software to project-plan the plant (design verification), the connector kits are automatically generated and documented.

Stability

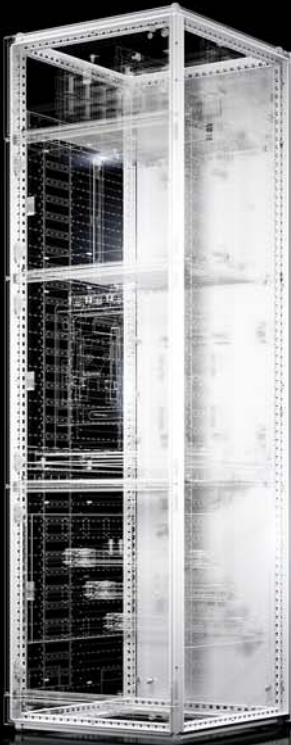
The stabilisers mounted between the horizontal rails of the air circuit-breaker significantly improve short-circuit resistance.

Fast connection

The connection brackets, which are planned using Rittal software for a precise fit, enable circuit-breakers to be connected to the main busbar system.

Fast assembly

The mounting bracket for the air circuit-breaker support rail is attached directly to the enclosure frame section. A fast, simple and stable solution which is very easy to assemble.



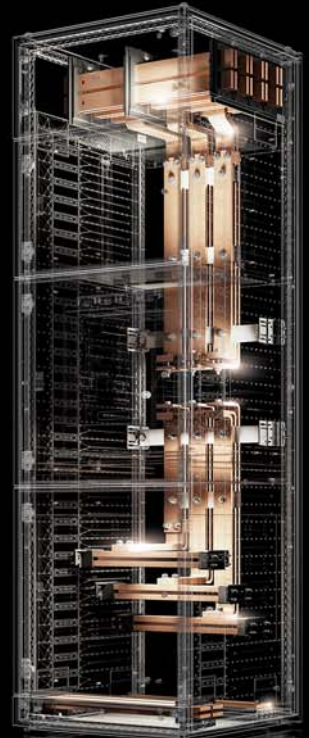
Basic framework

- Modular enclosure 2000 or 2200 mm high, from the VX25 baying enclosure system
- Base/plinth, 100 or 200 mm high, from the VX base/plinth system
- Base/plinth trim panel, side
- Side panel(s)
- Baying with bracket, block or connector
- Partial doors and front trim panels for modular front design
- Door lock(s) from the fastener system
- Roof plate depending on the protection category and function
- Pressure stoppers for accidental arc protection requirements
- Cable entries



Compartment

- Compartment side panel
- Compartment dividers
- Partial mounting plates and accessories (depending on the type of form separation)
- Air circuit-breaker mounting bracket and support rail



Busbar system

- Flat copper busbars (Flat-PLS) for main busbar system and N/PE conductors
- Busbar supports for busbar system in roof or rear area, for busbar entry or baying
- End cover Flat-PLS
- Longitudinal connector for Flat-PLS
- Connection system for Flat-PLS
- Connection components for air circuit-breakers on bar systems or infeeds
- Infeed designed as compact infeed for Maxi-PLS
- Connection system for Maxi-PLS for cable connection on the infeed
- Accessories for busbar system, such as stabiliser, angle bracket, screws
- Busbar support, N conductor
- PE/PEN angle bracket
- Perforated cover plate with mounting bracket







THE OUTGOING SECTION

To combine switching and control functions

In the outgoing section, many different components may be connected under one roof, such as power distributors with control units. To achieve this, individual compartments, shielded from one another, are created within the section.

- Each compartment is configured to suit your requirements with VX25 Ri4Power system components and then individually populated e.g. with switchgear, power supply outgoing feeders or control units.
- The busbar distribution system may be positioned adjacent to or behind the compartments and is easily and safely connected to the main busbar systems using system components.
- The fully modular busbar system can be used across all sections and compartments and is exceptionally straightforward to plan and install. It also offers extensive individualisation options with uncompromising consistency.

Utilisation of the section

The modular partial door concept is quickly achieved. Compartment side panels matching the enclosure height simultaneously shield multiple compartments. The 25 mm pitch pattern of the frame section supports variable compartment heights to maximise use of the section.



Multi-functional

The compartment divider will fit any section type. Benefits: Fewer components, plus a high level of efficiency. The air-permeable grille supports thermal convection across the entire section, ensuring improved pressure equalisation throughout the compartment.

Flexibility

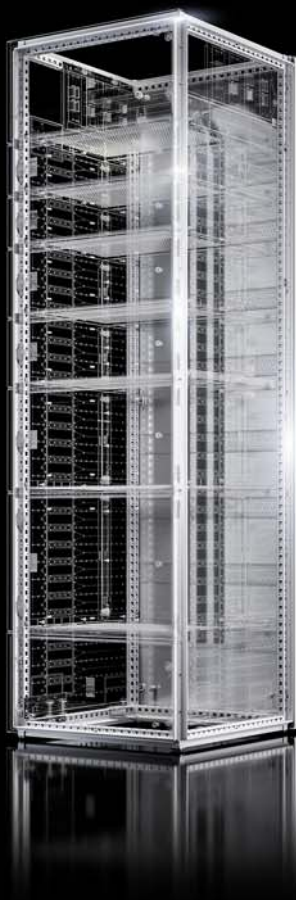
The pre-punched knock-outs in the compartment dividers may be removed without burrs, for flexible division of the openings depending on the planned cable routing and for a consistent, direct power supply to the control and wiring sections.

Continuity

Connecting PE or N conductors by directly screw-fastening the busbar supports to the frame section ensures an identical, consistent arrangement of bars in the rear or front enclosure area across all section types.

Fewer parts

The compartment divider is screw-fastened directly to the side wall and the enclosure section to save time.



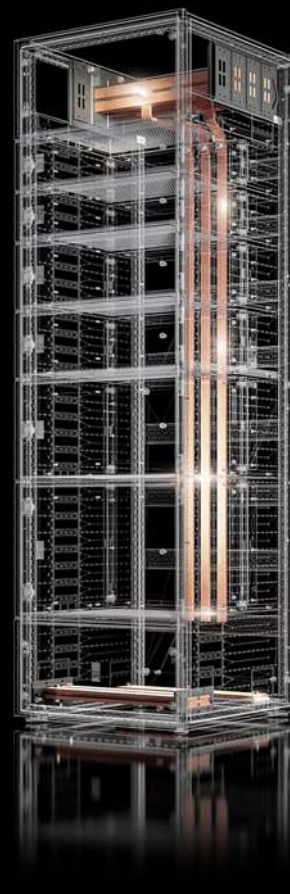
Basic framework

- Modular enclosure 2000 or 2200 mm high, from the VX25 baying enclosure system
- Base/plinth, 100 or 200 mm high, from the VX base/plinth system
- Base/plinth trim panel, side
- Side panel(s)
- Baying with bracket, block or connector
- Partial doors and front trim panels for modular front design
- Door lock(s) from the fastener system
- Roof plate depending on the protection category and function
- Pressure stoppers for accidental arc protection requirements



Compartment

- Compartment side panel
- Compartment dividers
- Partial mounting plates and accessories (depending on the type of form separation)
- Plastic gland plates
- Terminal box for Form 4b (depending on the type of Form separation)



Busbar system

- Flat copper busbars (Flat-PLS) for main and distributor busbar system and N/PE conductors
- Busbar supports for busbar system in the roof area, for busbar entry or baying
- End cover Flat-PLS
- Longitudinal connector for Flat-PLS
- Connection system for Flat-PLS
- Busbar supports for distribution busbar system
- Connection components for the T-connection
- Accessories for busbar system, such as stabiliser, mounting bracket, screws
- Busbar support, N conductor
- PE/PEN angle bracket
- Perforated cover plate with mounting bracket







FORM 2B

To ensure optimum contact hazard protection

The Form 2b designed as internal separation shields the busbar compartment from the functional space and the connection space.

- All active parts are safe from finger-contact in line with IP 2X.
- When working in the functional space or connection space, the modular, width-flexible cover provides effective protection from contact with the busbars.
- Shielding to Form 2b also protects the equipment, by preventing the unwanted ingress of foreign bodies into the busbar compartment.
- Convenient plug-in and clip-in technology enables simple assembly of all components with no drilling required.



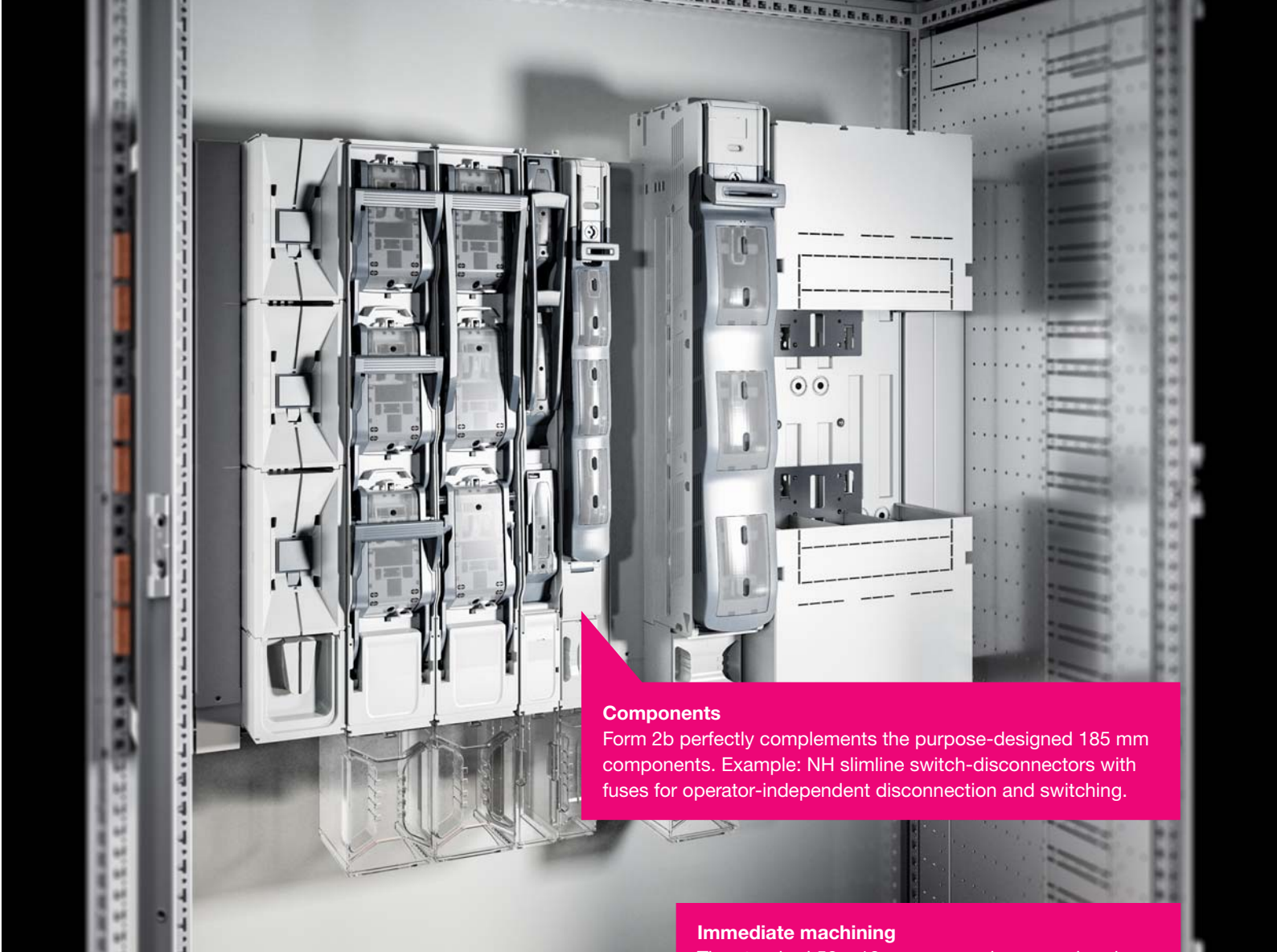
Fast assembly

Component installation and finger-proof shielding is achieved by simply screw-fastening; no drilling required.



Modular benefits

The width of the contact hazard protection cover is easily adjusted thanks to its 50 mm subdivision and is always flush with the compartment side panel, in line with the Rittal system dimensions.



Components

Form 2b perfectly complements the purpose-designed 185 mm components. Example: NH slimline switch-disconnectors with fuses for operator-independent disconnection and switching.

Immediate machining

The standard 50 x 10 mm copper bars are already pre-punched and cut to the required length to match the enclosure widths. They may be fitted directly without machining.



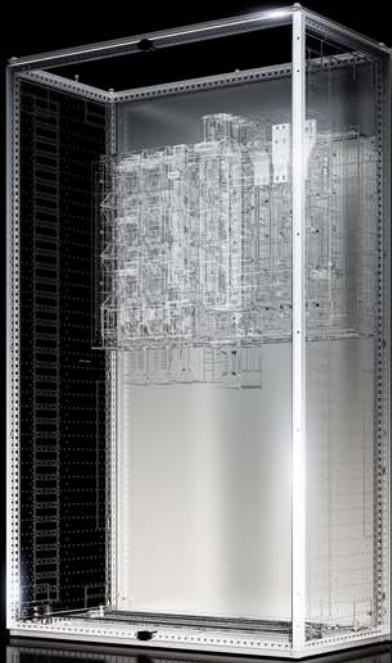
Fast attachment

The busbar support is secured to the enclosure section using just two screws. A pre-punched knock-out is provided so that a matching cut-out can be made quickly in the compartment side panel.



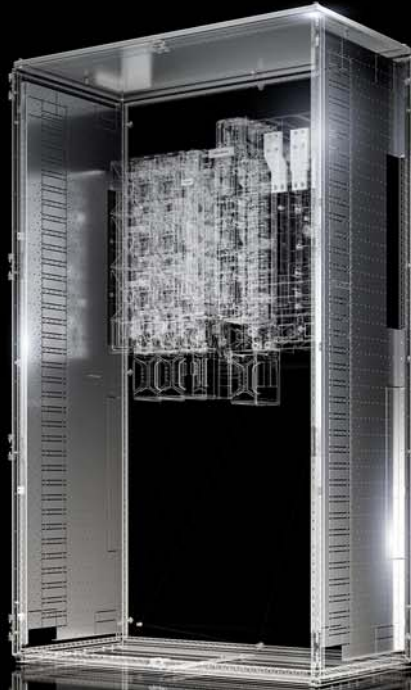
Continuity

Connecting PE or N conductors by directly screw-fastening the busbar supports to the frame section ensures an identical, consistent arrangement of bars in the rear or front enclosure area across all section types.



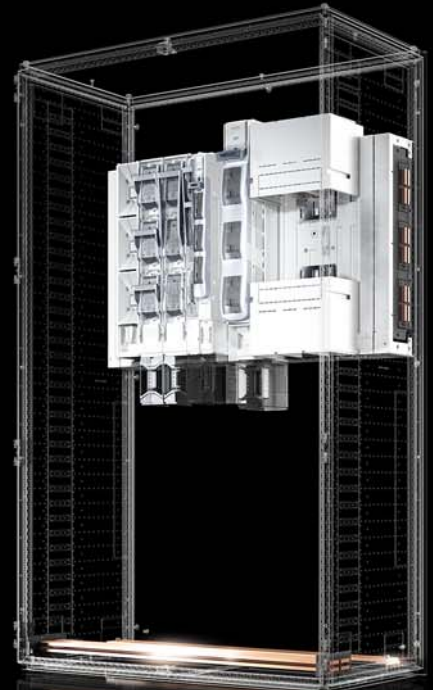
Basic framework

- Modular enclosure, 2000 or 2200 mm high, from the VX25 baying enclosure system
- Base/plinth, 100 or 200 mm high, from the VX base/plinth system
- Base/plinth trim panel, side
- Side panel(s)
- Baying with bracket, block or connector
- Partial doors and front trim panels for modular front design
- Door lock(s) from the fastener system
- Roof plate depending on the protection category and function
- Pressure stoppers for accidental arc protection requirements



Compartment

- Compartment side panel
- Contact hazard protection cover for Form 2b
- Blanking cover for contact hazard protection cover



Busbar system

- Flat copper busbars (Flat-PLS) for main busbar system and N/PE conductors
- Busbar supports for busbar system in the rear section, for busbar entry or baying
- End cover Flat-PLS
- Longitudinal connector for Flat-PLS
- Accessories for busbar system, such as stabiliser, mounting bracket, screws
- Busbar support, N conductor
- PE/PEN angle bracket
- Perforated cover plate with mounting bracket







THE COUPLING SECTION

For maintaining fail-safe operation

The coupling section is a combination of an air circuit-breaker section with a busbar riser positioned optionally on the left or right.

- This allows individual busbar sections to be de-energised without switching off the entire system. This avoids total system failures during malfunctions or maintenance work, and maintains system availability, especially for systems with multiple power supplies.
- With the VX25 Ri4Power, comprehensive, stable partitioning allows busbar sections to be safely disconnected. The high safety standards of the coupling section permit less stringent requirements for overall short-circuit resistance.
- The parts, accessories and required work steps are largely the same as when assembling the circuit-breaker section. The system synergies mean that assembly time is significantly reduced, while also offering major cost-saving potential.

COUPLING SECTION

Independence

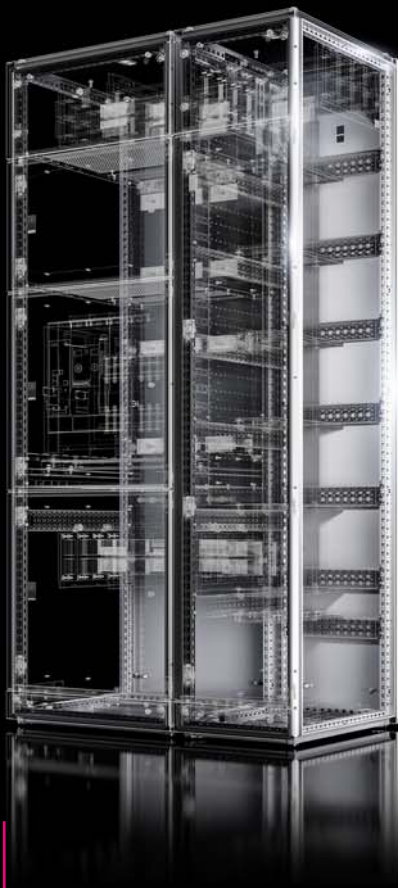
The main busbars may optionally be routed in the roof section or central rear section.

Modular benefits

The coupling section power infeed towards the roof section is always based on the same side riser. It is always identical, regardless of whether it is integrated into a coupling section or accommodated in another enclosure as a separate section.

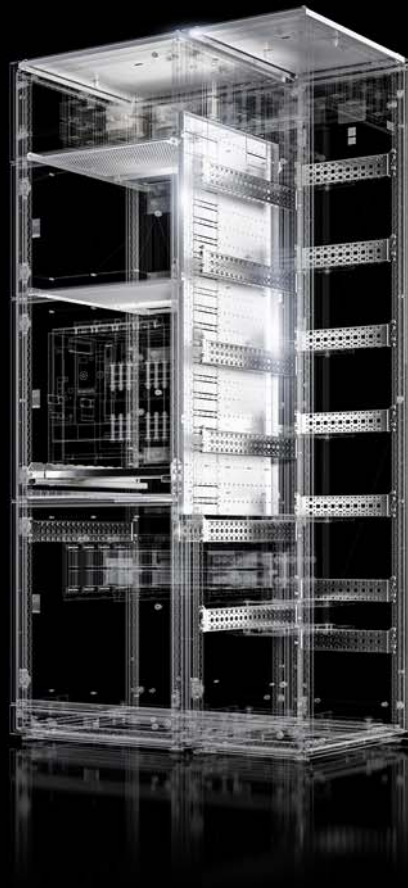
Continuity

Connecting PE or N conductors by directly screw-fastening the busbar supports to the frame section ensures an identical, consistent arrangement of bars in the rear or front enclosure area across all section types.



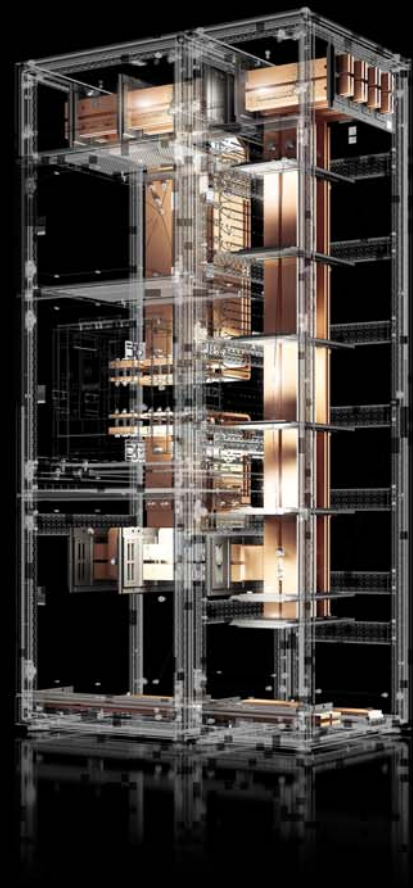
Basic framework

- Modular enclosure 2000 or 2200 mm high, from the VX25 baying enclosure system (for coupling section and additional riser section)
- Base/plinth, 100 or 200 mm high, from the VX base/plinth system
- Base/plinth trim panel, side
- Side panel(s)
- Baying with bracket, block or connector
- Partial doors and front trim panels for modular front design
- Door lock(s) from the fastener system
- Roof plate depending on the protection category and function
- Pressure stoppers where there are accidental arcing protection requirements
- Cable entries



Compartment

- Compartment side panel
- Compartment dividers
- Partial mounting plates and accessories (depending on the Form separation type)
- Air circuit-breaker mounting bracket and support rail

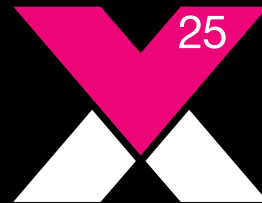


Busbar system

- Flat copper busbars (Flat-PLS) for main and riser busbar system and N/PE conductors
- Busbar supports for busbar system in roof or rear area, or for busbar extension
- Punched section without mounting flange for busbar supports in the riser section
- End cover Flat-PLS
- Longitudinal connector for Flat-PLS
- Connection system for Flat-PLS
- Connection components for air circuit-breakers on the busbar system or for T-connection
- Accessories for busbar system, e.g. stabiliser, mounting bracket, screws
- Busbar support, N conductor
- PE/PEN angle bracket
- Perforated cover plate with mounting bracket







THE FUSE-SWITCH DISCONNECTOR SECTION

For a reliable power supply

Distributing electrical energy as compactly as possible with maximum variability using fused switchgear – that is the task of the fuse-switch disconnecter section.

- The VX25 Ri4Power modular switchgear system is fully prepared for fast, safe installation of fuse-switch disconnectors, sizes 00 to 3, from Jean Müller or ABB/Siemens.
- The distribution busbars are economically dimensioned to meet the individual requirements. The main and distribution busbar systems can be configured for a short-circuit rating of up to 100 kA for 1 sec.
- Form 1 to Form 4b internal sub-division in the fuse-switch disconnecter section, depending on customer requirements, is achieved via the optional selection of components.

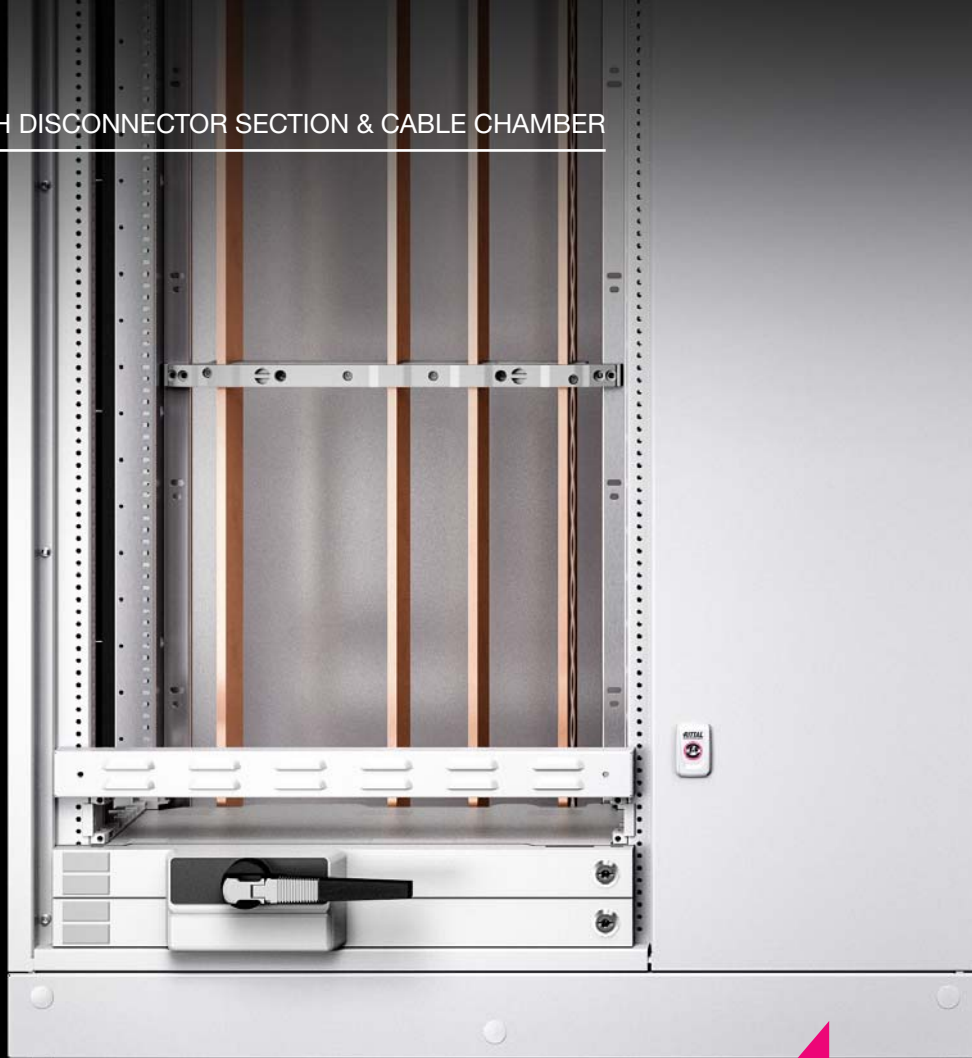
THE CABLE CHAMBER

For distributing cables and lines

The cable chamber is used for routing cables and lines to the compartments.

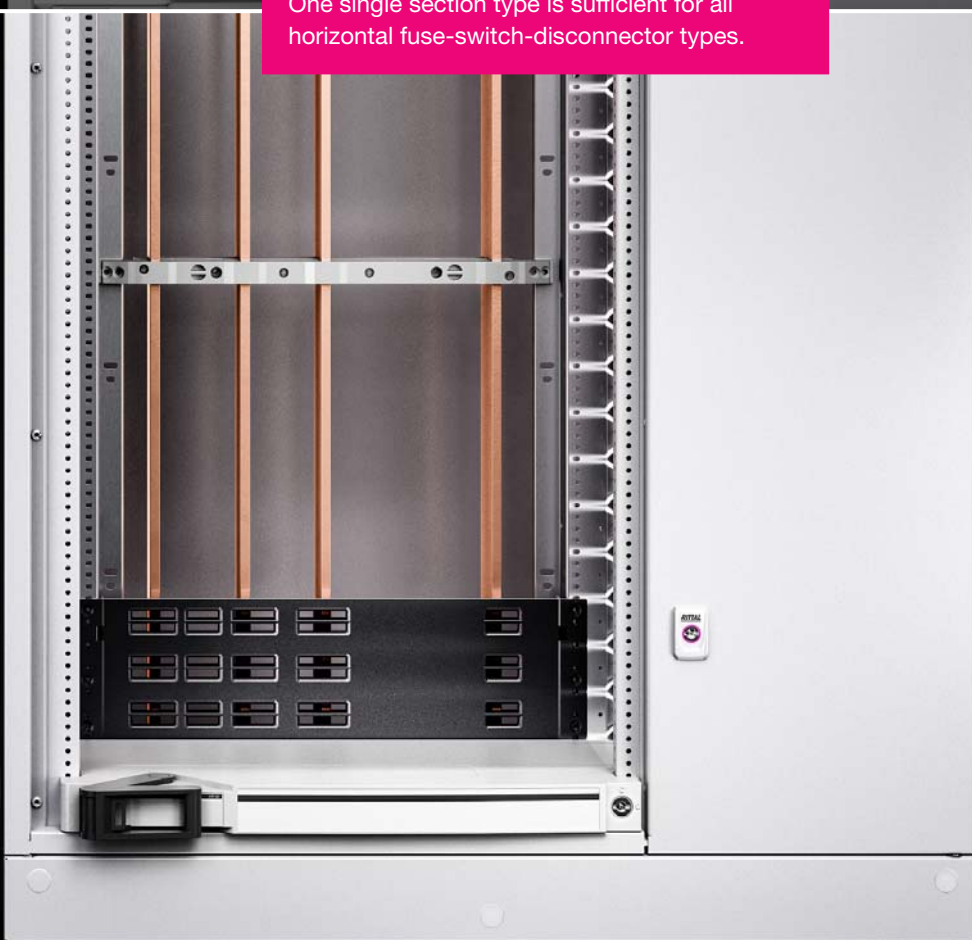
- The extensive range of VX25 Ri4Power system accessories ensures exceptionally time-saving and flexible configuration.
- Depending on the main busbar system chosen, cable entry may be either from below, above, or below and above.
- Choose from a range of cable entry glands for the roof plate.

FUSE-SWITCH DISCONNECTOR SECTION & CABLE CHAMBER



Universal benefit

One single section type is sufficient for all horizontal fuse-switch-disconnector types.





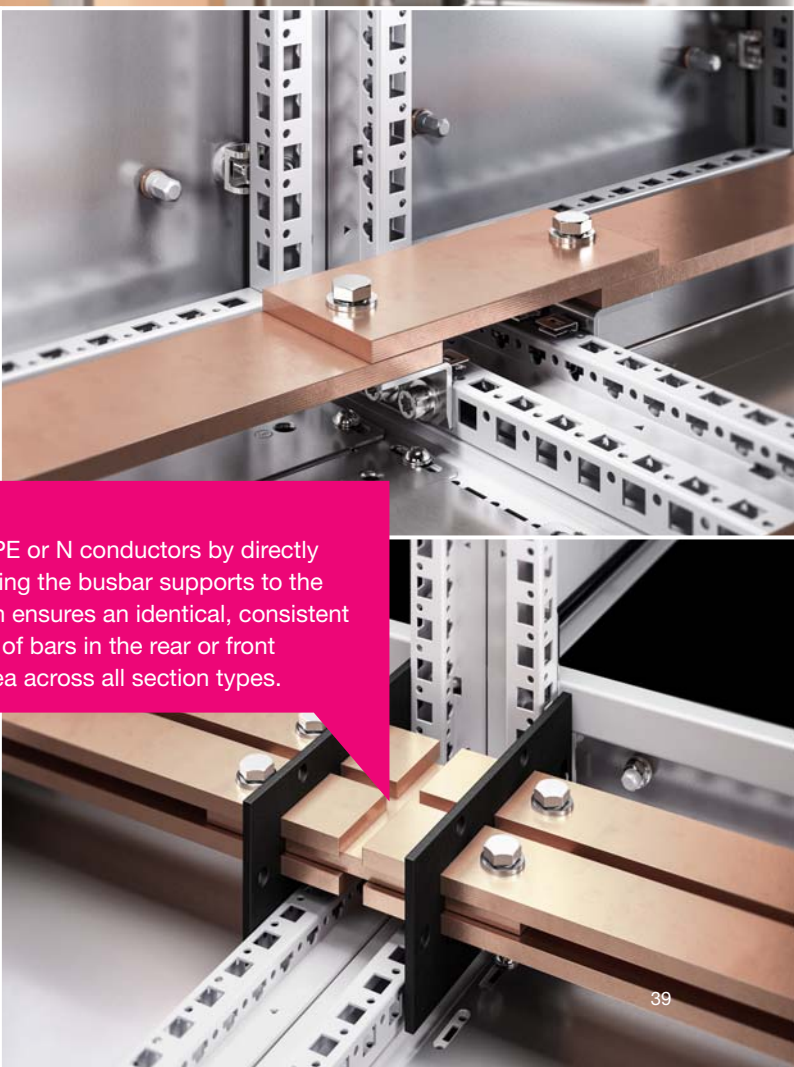
Planning confidence

The positioning of the vertical section is identical for all fuse-switch-disconnector types. This means the system is fully planned and implemented independently of the fuse-switch-disconnector manufacturer that is subsequently chosen.



Combination benefits

The fuse-switch disconnector section is available with integral cable chamber, fully pre-configured, including partitioning. No additional accessories are required. Benefits: Space-efficient and time-saving.



Continuity

Connecting PE or N conductors by directly screw-fastening the busbar supports to the frame section ensures an identical, consistent arrangement of bars in the rear or front enclosure area across all section types.



Basic framework

- Fuse-switch-disconnector enclosure 2000 or 2200 mm high, from the VX25 baying enclosure system
- Base/plinth, 100 or 200 mm high, from the VX base/plinth system
- Base/plinth trim panel, side
- Side panel(s)
- Baying with bracket, block or connector
- Door lock(s) from the fastener system
- Cable entries



Compartment

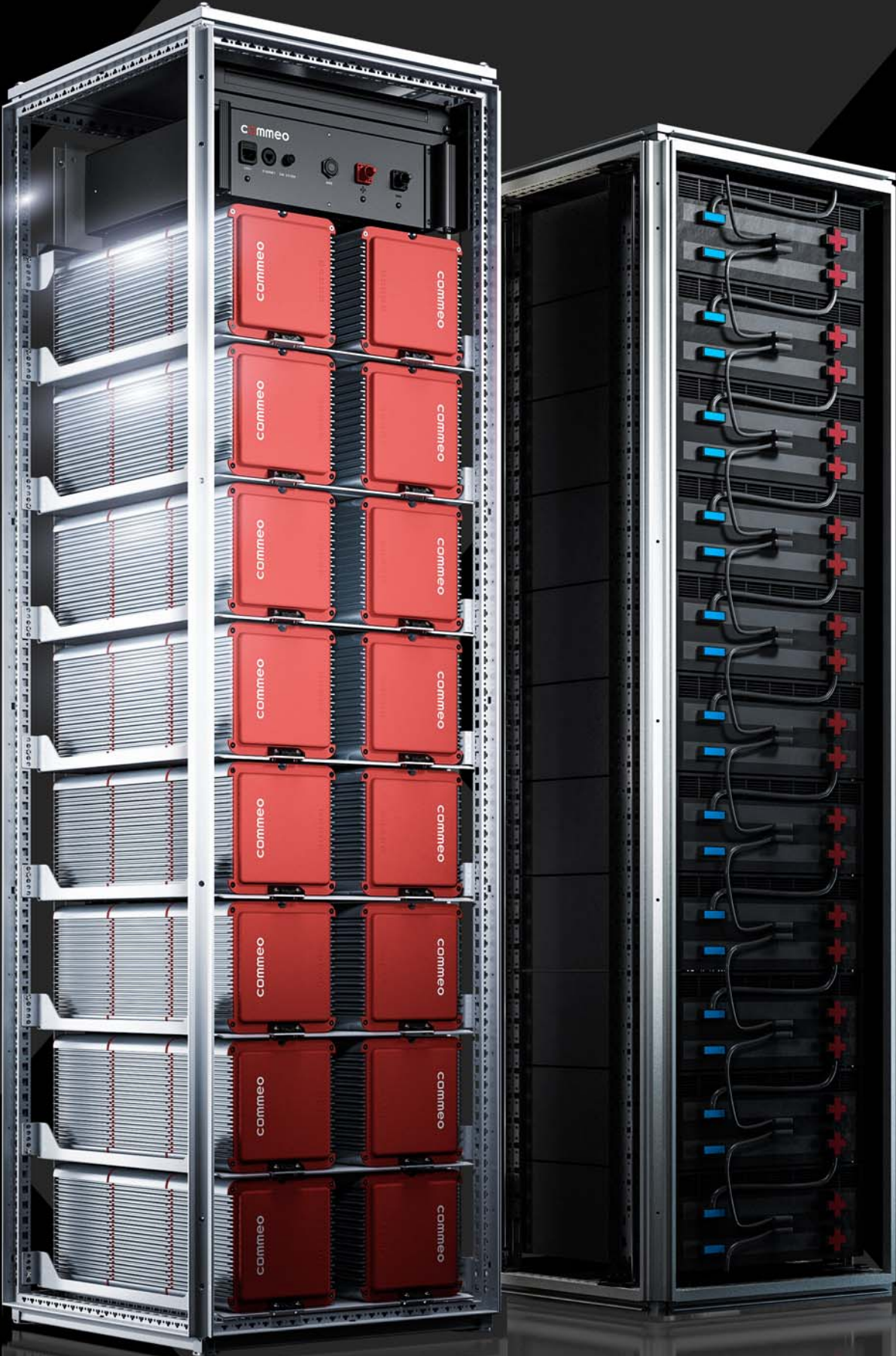
- Supplied already populated



Busbar system

- Flat copper busbars (Flat-PLS) for main and distributor busbar system and N/PE conductors
- Busbar supports for busbar system in roof or rear section
- Busbar support, end bracket and cover for fuse-switch disconnector section
- End cover Flat-PLS
- Longitudinal connector for Flat-PLS
- Connection components for T-connector
- Busbar support, N conductor
- PE/PEN angle bracket
- Perforated cover plate with mounting bracket







THE ENERGY STORAGE SYSTEM ESS

For the supply of power reserves

ESS is a modular infrastructure solution for battery energy storage solutions (BESS).

- Together, Rittal standard components form a modular system which is used to configure bespoke enclosures tailored to your requirements.
- Depending on the manufacturer and design of the storage modules, the enclosure layout may be flexibly modified, for example with individual connection options.
- This very assembly-friendly solution allows easier rack scaling, power distribution, cooling and system configuration, thus helping to safeguard system availability.
- ESS is easily bayed and incorporated into existing systems.
- For seamless monitoring of performance and potential failures, ESS may be combined with CMC and RiZone for the monitoring system.
- Web connectivity is provided via the Rittal IoT module.



Modular

The battery rack with heavy-duty shelves can support a load of 100 kg per shelf, up to a maximum overall load of 1,500 kg. The design allows the flexible integration of different battery types into the rack. They may be contacted directly onto the busbar system. There is plenty of space in the roof section for battery management. Baying is straightforward and achievable at any time, for scalable storage capacity.



482.6 mm (19") enclosure

The battery rack with 482.6 mm (19") installation likewise supports loads of up to 1,500 kg. Depending on the rack height, up to 42 U are available for the use of 482.6 mm (19") modules. They may be contacted directly onto the busbar system. There is plenty of space in the roof section for battery management. Bypassing is straightforward and achievable at any time, for scalable storage capacity.

Rittal – The System.

Faster – better – everywhere.



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

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VX25. SYSTEM PERFECTION.



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Baying enclosure system VX25



System accessories Page 52 **Modular front design** Page 55 **Compartment configuration** Page 80

Material and surface finish:

- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

Colour:

- RAL 7035

Basis of test:

- IEC 61 439-1/-2
- IEC 61 641

Protection category IP to IEC 60 529:

- Up to IP 54, depending on the panels

Supply includes:

- Enclosure frame
- Rear panel
- Gland plates

Height 2000 mm, modular enclosure

Width mm	Packs of	400	600	800	400	600	800	Page
Height mm		2000	2000	2000	2000	2000	2000	
Depth mm		600	600	600	800	800	800	
Model No.	1 pc(s).	9680.406	9680.606	9680.806	9680.408	9680.608	9680.808	
Accessories								
Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.001	8620.002	8620.003	8620.001	8620.002	8620.003	52
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.033	8620.033	8620.033	–	8620.034	8620.034	53
Base/plinth corner piece with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.021	8620.022	8620.023	8620.021	8620.022	8620.023	52
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.043	8620.043	8620.043	–	8620.044	8620.044	53
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.245	8106.245	8106.245	–	8108.245	8108.245	53
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	8617.500	54
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	8617.501	54
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	8617.502	54
Partial door		see page	see page	see page	see page	see page	see page	55
Front trim panel, top, solid		see page	see page	see page	see page	see page	see page	57
Front trim panel, bottom, vented	1 pc(s).	9682.354	9682.356	9682.358	9682.354	9682.356	9682.358	58
Front trim panel, bottom, solid		see page	see page	see page	see page	see page	see page	57
Roof plate IP 55, solid	1 pc(s).	9681.646	9681.666	9681.686	9681.648	9681.668	9681.688	62
Roof plate IP 2X with ventilation hole	1 pc(s).	9681.846	9681.866	9681.886	9681.848	9681.868	9681.888	62
Roof plate for cable entry glands	1 pc(s).	9681.546	9681.566	9681.586	9681.548	9681.568	9681.588	62

Baying enclosure system VX25

Height 2200 mm, modular enclosure

Width mm	Packs of	400	600	800	400	600	800	Page
Height mm		2200	2200	2200	2200	2200	2200	
Depth mm		600	600	600	800	800	800	
Model No.	1 pc(s).	9680.426	9680.626	9680.826	9680.428	9680.628	9680.828	
Accessories								
Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.001	8620.002	8620.003	8620.001	8620.002	8620.003	52
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.033	8620.033	8620.033	8620.034	8620.034	8620.034	53
Base/plinth corner piece with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.021	8620.022	8620.023	8620.021	8620.022	8620.023	52
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.043	8620.043	8620.043	8620.044	8620.044	8620.044	53
Side panels, screw-fastened, sheet steel	2 pc(s).	8126.245	8126.245	8126.245	8128.245	8128.245	8128.245	53
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	8617.500	54
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	8617.501	54
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	8617.502	54
Partial door		see page	see page	see page	see page	see page	see page	55
Front trim panel, top, solid		see page	see page	see page	see page	see page	see page	57
Front trim panel, bottom, vented	1 pc(s).	9682.354	9682.356	9682.358	9682.354	9682.356	9682.358	58
Front trim panel, bottom, solid		see page	see page	see page	see page	see page	see page	57
Roof plate IP 55, solid	1 pc(s).	9681.646	9681.666	9681.686	9681.648	9681.668	9681.688	62
Roof plate IP 2X with ventilation hole	1 pc(s).	9681.846	9681.866	9681.886	9681.848	9681.868	9681.888	62
Roof plate for cable entry glands	1 pc(s).	9681.546	9681.566	9681.586	9681.548	9681.568	9681.588	62

New



VX25 Power Engineering

See page 104

Baying enclosure system VX25



System accessories Page 52 **Compartment configuration** Page 80 **Fuse-switch disconnecter section** Page 85

Material and surface finish:

- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plate: Sheet steel, 1.5 mm, zinc-plated

- Front trim panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Compartment side panel: Sheet steel, 1.5 mm, zinc-plated

Colour:

- RAL 7035

Basis of test:

- IEC 61 439-1/-2
- IEC 61 641

Protection category IP to IEC 60 529:

- Up to IP 3X, depending on the panels

Supply includes:

- Enclosure frame
- Door
- Roof plate
- Rear panel
- Gland plates
- Front trim panels
- Lock: 3 mm double-bit
- Compartment side panels
- Locating frame for disconnectors with fuses (brands ABB SlimLine/Jean Müller SASIL)

Height 2000 – 2200 mm, fuse-switch-disconnector enclosure

Width mm	Packs of	1000	1200	1000	1200	Page
Height mm		2000	2000	2200	2200	
Depth mm		600	800	600	800	
Model No.	1 pc(s).	9680.005	9680.207	9680.025	9680.227	
Accessories						
Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.005	8620.007	8620.005	8620.007	52
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.033	8620.034	8620.033	8620.034	53
Base/plinth corner piece with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.024	8620.025	8620.024	8620.025	52
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.043	8620.044	8620.043	8620.044	53
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.245	8108.245	8126.245	8128.245	53
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	54
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	54
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	54
Roof plate IP 2X with ventilation hole	1 pc(s).	9681.806	9681.828	9681.806	9681.828	62

System accessories VX

Base/plinth system VX

Modular base/plinth diversity

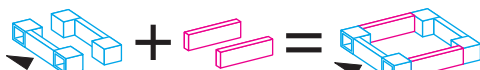
The new, innovative base/plinth system VX offers an unprecedented diversity of functions and applications. It combines all existing base/plinth functions in a single solution, as well as opening up many new applications. As if that weren't enough, it is also backward-compatible with existing enclosure solutions TS, TS IT, SE, PC and IW. In short, it is a base/plinth system.

The base/plinth system VX comprises the following components:

- Base/plinth corner pieces with base/plinth trim panels, front and rear
- Base/plinth trim panels, sides

Thanks to fully symmetrical corner pieces, and by using the same base/plinth trim panels in the width and depth, the system opens up many new applications. For example, the vented trim panels and trim panels with brush strips available as accessories may now optionally be attached at the sides, or exchanged for the front/rear trim panels.

All trim panels may optionally be clipped into the corner piece, or screw-fastened. Depending on the application, for example, users can dispense with the trim panels between bayed enclosure suites, or a 100 mm high trim panel may be used to stabilise the base/plinth corner pieces. In combination with its extensive range of accessories, and thanks to its compatibility with enclosure accessories, the base/plinth system VX offers almost infinite possibilities in terms of siting, transportation, cable routing, cable attachment and base/plinth configuration.



One Model No. for the **base/plinth corner pieces with base/plinth trim panels**, front and rear

One Model No. for the **base/plinth trim panels**, sides

One complete **base/plinth VX**

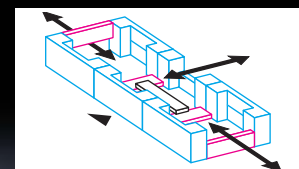
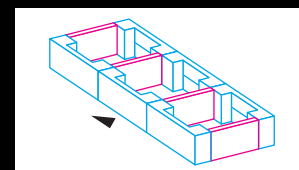
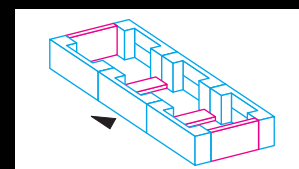
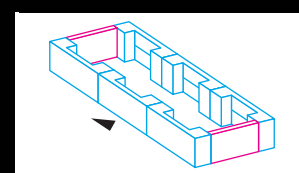
Base/ plinth	Basic form	Cable entry options				Stabilisation of bayed base/ plinths	
100 mm							
200 mm							

Configuration examples

Order includes	Functional benefits
3 packs Base/plinth corner pieces with base/plinth trim panels 1 pack Base/plinth trim panels, sides, 200 mm high	Continuous cable chamber
3 packs Base/plinth corner pieces with base/plinth trim panels 1 pack Base/plinth trim panels, sides, 200 mm high 1 pack Base/plinth trim panels, sides, 100 mm high 1 pack Baying brackets, internal (8617.500, packs of 6) 4 pc(s). are required for this solution	Additional stability during transportation with base/plinth trim panels rotated through 90°
3 packs Base/plinth corner pieces with base/plinth trim panels 2 packs Base/plinth trim panels, sides, 200 mm high	Shielding of the base/plinths from one another

Other options:

- Cable entry at the side by fitting a 100 mm base/plinth trim panel with brush strip
- Cable entry from the rear by dismantling one or more trim panels from the base/plinth corner pieces and replacing them with trim panels with brush strips
- Cable routing in the base/plinth by using punched sections with mounting flanges on the base/plinth trim panels



System accessories VX

Base/plinth / side panels



Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm

for VX, TS, TS IT, SE, CM, TP, PC, IW, TE

High-load capacity base/plinth corner pieces with moulded self-positioning to the baying enclosure system, may be used with or without trim panels depending on the application. Large openings in the corner piece for optimum access to the screw-fastening point, may be concealed with a corner and baying cover.

Material:

- Base/plinth corner piece: Sheet steel
- Base/plinth trim panel front/rear: Sheet steel
- Corner and baying cover: Plastic

Colour:

- RAL 9005

Supply includes:

- 4 base/plinth corner pieces, 100 mm high
- 4 corner covers
- 1 baying cover
- 2 base/plinth trim panels, front/rear, 100 mm high
- Assembly parts

Note:

- Base/plinth trim panels, sides to finish off a unit, for additional stabilisation between base/plinths, or for interior configuration

Height mm	For enclosure width mm	Packs of	Model No.
100	400	2 pc(s).	8620.001
100	600	2 pc(s).	8620.002
100	800	2 pc(s).	8620.003
100	1000	2 pc(s).	8620.005
100	1200	2 pc(s).	8620.007



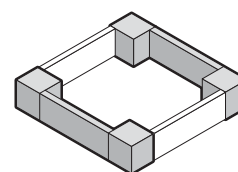
Also required:

- Base/plinth trim panels, side, 100 mm, see page 53



Accessories:

- Baying bracket, internal, see page 54



Base/plinth corner piece with base/plinth trim panels, front and rear, 200 mm

for VX, TS, TS IT, SE, CM, TP, PC, IW, TE

High-load capacity base/plinth corner pieces with moulded self-positioning to the baying enclosure system, may be used with or without trim panels depending on the application. Large openings in the corner piece for optimum access to the screw-fastening point, may be concealed with a corner and baying cover.

Material:

- Base/plinth corner piece: Sheet steel
- Base/plinth trim panel front/rear: Sheet steel
- Corner and baying cover: Plastic

Colour:

- RAL 9005

Supply includes:

- 4 base/plinth corner pieces, 200 mm high
- 4 corner covers
- 1 baying cover
- 1 base/plinth trim panel, front/rear, 200 mm high
- 2 base/plinth trim panels, front/rear, 100 mm high
- Assembly parts

Note:

- Base/plinth trim panels, sides to finish off a unit, for additional stabilisation between base/plinths, or for interior configuration

Height mm	For enclosure width mm	Packs of	Model No.
200	400	2 pc(s).	8620.021
200	600	2 pc(s).	8620.022
200	800	2 pc(s).	8620.023
200	1000	2 pc(s).	8620.024
200	1200	2 pc(s).	8620.025



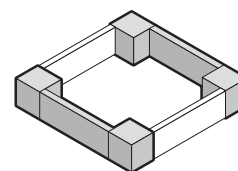
Also required:

- Base/plinth trim panels, side, 200 mm, see page 53



Accessories:

- Baying bracket, internal, see page 54



System accessories VX

Base/plinth / side panels

Base/plinth trim panels, side, 100 mm

for base/plinth system VX, sheet steel

To finish off a base/plinth unit at the sides and for additional stabilisation or for the interior configuration of bayed base/plinths. One 200 mm high or two 100 mm high trim panels may optionally be fitted on 200 mm high base/plinths.

Material:

- Sheet steel

Colour:

- RAL 9005

Supply includes:

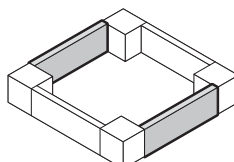
- Assembly parts

Height mm	For enclosure depth mm	Packs of	Model No.
100	600	2 pc(s).	8620.033
100	800	2 pc(s).	8620.034



Possible alternative:

- Base/plinth trim panels, vented, see VX25 brochure, page 87
- Base/plinth trim panels with brush strip, see VX25 brochure, page 86



Base/plinth trim panels, side, 200 mm

for base/plinth system VX, sheet steel

To finish off a base/plinth unit at the sides and for additional stabilisation or for the interior configuration of bayed base/plinths. One 200 mm high or two 100 mm high trim panels may optionally be fitted on 200 mm high base/plinths.

Material:

- Sheet steel

Colour:

- RAL 9005

Supply includes:

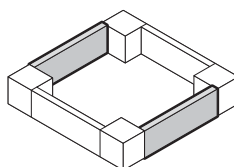
- Assembly parts

Height mm	For enclosure depth mm	Packs of	Model No.
200	600	2 pc(s).	8620.043
200	800	2 pc(s).	8620.044



Possible alternative:

- Base/plinth trim panels, vented, see VX25 brochure, page 87
- Base/plinth trim panels with brush strip, see VX25 brochure, page 86



Side panels, screw-fastened, sheet steel

for VX

Benefits:

- Time-saving assembly thanks to clip-in side panel holder
- Automatic potential equalisation and higher EMC protection, thanks to enclosure panel holders with earthing inserts located on the inside
- Easy positioning in the height and depth with the location aid
- One-person assembly
- Earthing bolts with large, paint-free contact surface for optimum contact

Material:

- Sheet steel, 1.5 mm

Surface finish:

- Dipcoat-primed, powder-coated on the outside

Colour:

- RAL 7035

Protection category IP to IEC 60 529:

- IP 55

Supply includes:

- Assembly parts

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
2000	600	2 pc(s).	8106.245
2000	800	2 pc(s).	8108.245
2200	600	2 pc(s).	8126.245
2200	800	2 pc(s).	8128.245



System accessories VX

Baying



Baying bracket, internal for VX

Benefits:

- Fast, secure installation either from the front or from the side
- For all-round installation on the baying joint
- May be flexibly positioned to avoid collisions with installed equipment
- Also suitable for baying base/plinth components

Material:

- Sheet steel

Surface finish:

- Zinc-plated

Supply includes:

- Baying bracket, internal
- Baying seal
- Assembly parts

Note:

- 1 pack is sufficient for one baying joint

Packs of	Model No.
6 pc(s).	8617.500

Possible alternative:

- Baying block, internal, see page 54
- Baying connector, external, see page 54

Baying block, internal for VX

Benefits:

- Side mounting creates a flush surface to the extrusion, suitable for top mounting, thus avoiding collisions with installed equipment
- For all-round installation on the baying joint

Material:

- Die-cast zinc

Supply includes:

- Baying block, internal
- Baying seal
- Assembly parts

Note:

- 1 pack is sufficient for one baying joint

Packs of	Model No.
6 pc(s).	8617.501

Possible alternative:

- Baying bracket, internal, see page 54
- Baying connector, external, see page 54

Baying connector, external for VX

For mounting on the vertical enclosure sections from the outside.

Supply includes:

- Baying connector, external
- Baying seal
- Assembly parts

Note:

- 1 pack is sufficient for one baying joint

Material	Packs of	Model No.
Sheet steel, zinc-plated	6 pc(s).	8617.502
Stainless steel 1.4301 (AISI 304)	6 pc(s).	8617.503

Possible alternative:

- Baying bracket, internal, see page 54
- Baying block, internal, see page 54

System accessories VX

Modular front design

Partial door

for VX

Suitable for VX enclosures instead of a door or rear panel. The partial doors may be combined with one another as required. A trim panel is required at the top and bottom in each case. Door may be optionally hinged on the right or left. In the case of doors without viewing panel (height 600 – 1000 mm), monitor frame 2305.000 may be installed. Standard double-bit lock insert may be exchanged for lock inserts, type A.

Material:

- Sheet steel, 2 mm

Surface finish:

- Textured paint

Colour:

- RAL 7035

Supply includes:

- Partial door
- Cross member
- Hinges
- Lock components
- Assembly parts

Note:

- Opening angle of partial doors max. 130°



Also required:

- Front trim panel, bottom, vented, see page 58
- Front trim panel, top, solid, see page 57
- Front trim panel, bottom, solid, see page 57



Accessories:

- Perforated mounting strip, see page 56
- Trim panel, hinged at the top, see page 58
- Monitor frame, see page 59
- Mini-comfort handle AX, see page 60
- Lock insert, see page 60



For enclosure width 400 mm

Height mm	Protection category IP to IEC 60 529	Viewing window: Single-pane safety glass, 3 mm	Packs of	Model No.
200	IP 54	–	1 pc(s).	9682.142
300	IP 54	–	1 pc(s).	9682.143
400	IP 54	–	1 pc(s).	9682.144
600	IP 54	–	1 pc(s).	9682.146
800	IP 54	–	1 pc(s).	9682.148
1000	IP 54	–	1 pc(s).	9682.140
1200	IP 54	–	1 pc(s).	9682.152
1400	IP 54	–	1 pc(s).	9682.154
1600	IP 54	–	1 pc(s).	9682.156
1800	IP 54	–	1 pc(s).	9682.158
2000	IP 54	–	1 pc(s).	9682.150

For enclosure width 600 mm

Height mm	Protection category IP to IEC 60 529	Viewing window: Single-pane safety glass, 3 mm	Packs of	Model No.
150	IP 54	–	1 pc(s).	9682.161
200	IP 54	–	1 pc(s).	9682.162
300	IP 54	–	1 pc(s).	9682.163
400	IP 54	–	1 pc(s).	9682.164
600	IP 54	–	1 pc(s).	9682.166
600	IP 54	■	1 pc(s).	9682.167
800	IP 54	–	1 pc(s).	9682.168
800	IP 54	■	1 pc(s).	9682.169
1000	IP 54	–	1 pc(s).	9682.160
1200	IP 54	–	1 pc(s).	9682.172
1400	IP 54	–	1 pc(s).	9682.174
1600	IP 54	–	1 pc(s).	9682.176
1800	IP 54	–	1 pc(s).	9682.178
2000	IP 54	–	1 pc(s).	9682.170

System accessories VX

Modular front design



For enclosure width 800 mm

Height mm	Protection category IP to IEC 60 529	Viewing window: Single-pane safety glass, 3 mm	Packs of	Model No.
150	IP 54	–	1 pc(s).	9682.181
200	IP 54	–	1 pc(s).	9682.182
300	IP 54	–	1 pc(s).	9682.183
400	IP 54	–	1 pc(s).	9682.184
600	IP 54	–	1 pc(s).	9682.186
600	IP 54	■	1 pc(s).	9682.187
800	IP 54	–	1 pc(s).	9682.188
1000	IP 54	–	1 pc(s).	9682.180
1200	IP 54	–	1 pc(s).	9682.192
1400	IP 54	–	1 pc(s).	9682.194
1600	IP 54	–	1 pc(s).	9682.196
1800	IP 54	–	1 pc(s).	9682.198
2000	IP 54	–	1 pc(s).	9682.190

For enclosure width 1000 mm

Height mm	Protection category IP to IEC 60 529	Viewing window: Single-pane safety glass, 3 mm	Packs of	Model No.
400	–	–	1 pc(s).	9682.104
600	–	–	1 pc(s).	9682.106
800	–	–	1 pc(s).	9682.108

For enclosure width 1200 mm

Height mm	Protection category IP to IEC 60 529	Viewing window: Single-pane safety glass, 3 mm	Packs of	Model No.
400	–	–	1 pc(s).	9682.124
600	–	–	1 pc(s).	9682.126
800	–	–	1 pc(s).	9682.128



Perforated mounting strip

for partial door

For retrospective external mounting on partial doors. The perforated mounting strips have a 25 mm pitch pattern of holes and may be used for mounting individual accessories such as cable ducts, cable conduit holders etc. on the rear of the door. Hole diameter of perforated mounting strip: 4.5 mm.

Material:

- Sheet steel, 1 mm

Surface finish:

- Zinc-plated

Supply includes:

- Assembly parts

For enclosure width mm	Length mm	For partial door height mm	Packs of	Model No.
400	198	200 - 800	10 pc(s).	9681.204
600	398	150 - 800	10 pc(s).	9681.206
800	598	150 - 800	10 pc(s).	9681.208



Assembly instruction:

- For 1000 mm enclosure width: 1 x 9681.204 and 1 x 9681.206
- For 1200 mm enclosure width: 2 x 9681.206

System accessories VX

Modular front design

Front trim panel, top, solid

for VX

To finish off the modular front design at the top when using partial doors. The front trim panels may be removed from the outside by unscrewing. The cross member required for mounting is included with the supply of the mounted partial doors.

Design:

- Solid

Material:

- Sheet steel, 1.5 mm

Surface finish:

- Textured paint

Colour:

- RAL 7035

Protection category IP to IEC 60 529:

- IP 54

Supply includes:

- Assembly parts

Height mm	For enclosure width mm	Packs of	Model No.
100	400	1 pc(s).	9682.314
300	400	1 pc(s).	9682.324
100	600	1 pc(s).	9682.316
300	600	1 pc(s).	9682.326
100	800	1 pc(s).	9682.318
300	800	1 pc(s).	9682.328
300	1000	1 pc(s).	9682.320
300	1200	1 pc(s).	9682.322



Front trim panel, bottom, solid

for VX

To finish off the modular front design at the bottom when using partial doors. The front trim panels may be removed from the outside by unscrewing.

Design:

- Solid

Material:

- Sheet steel, 1.5 mm

Surface finish:

- Textured paint

Colour:

- RAL 7035

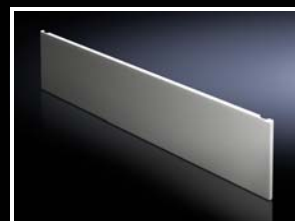
Protection category IP to IEC 60 529:

- IP 54

Supply includes:

- Front trim panel
- Cross member
- Assembly parts

Height mm	For enclosure width mm	Packs of	Model No.
100	400	1 pc(s).	9682.334
300	400	1 pc(s).	9682.344
100	600	1 pc(s).	9682.336
300	600	1 pc(s).	9682.346
100	800	1 pc(s).	9682.338
300	800	1 pc(s).	9682.348
100	1000	1 pc(s).	9682.330
300	1000	1 pc(s).	9682.340
100	1200	1 pc(s).	9682.332
300	1200	1 pc(s).	9682.342



System accessories VX

Modular front design



Front trim panel, bottom, vented

for VX

To finish off the modular front design at the bottom when using partial doors. The front trim panels may be removed from the outside by unscrewing.

Design:

- With louvres

Material:

- Sheet steel, 1.5 mm

Surface finish:

- Textured paint

Colour:

- RAL 7035

Protection category IP to IEC 60 529:

- IP 2X

Supply includes:

- Front trim panel
- Cross member
- Assembly parts

Note:

- When using front trim panels IP 2X, select a roof plate with protection category IP 2X for the top ventilation.

Height mm	For enclosure width mm	Packs of	Model No.
300	400	1 pc(s).	9682.354
300	600	1 pc(s).	9682.356
300	800	1 pc(s).	9682.358
300	1000	1 pc(s).	9682.350
300	1200	1 pc(s).	9682.352



Also required:

- Roof plate IP 2X with ventilation hole, see page 62



Trim panel, hinged at the top

for VX

For the installation of control and display components, in conjunction with modular front design and protective bar.

Material:

- Sheet steel, 2 mm

Surface finish:

- Textured paint

Colour:

- RAL 7035

Protection category IP to IEC 60 529:

- IP 54

Supply includes:

- Trim panel
- Hinges
- Cam lock with 3 mm double-bit insert
- Assembly parts

Height mm	For enclosure width mm	Packs of	Model No.
300	600	1 pc(s).	8620.500
300	800	1 pc(s).	8620.501
300	1200	1 pc(s).	8620.502



Accessories:

- Stay, see page 58
- Lock insert, see page 60



Stay

for trim panel, hinged at the top

5 pitch pattern positions up to a maximum opening of approx. 85°.

Material:

- Sheet steel

Surface finish:

- Zinc-plated

Packs of	Model No.
2 pc(s).	8801.260