

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.



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.



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.



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.

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.

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 and -2
- 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.



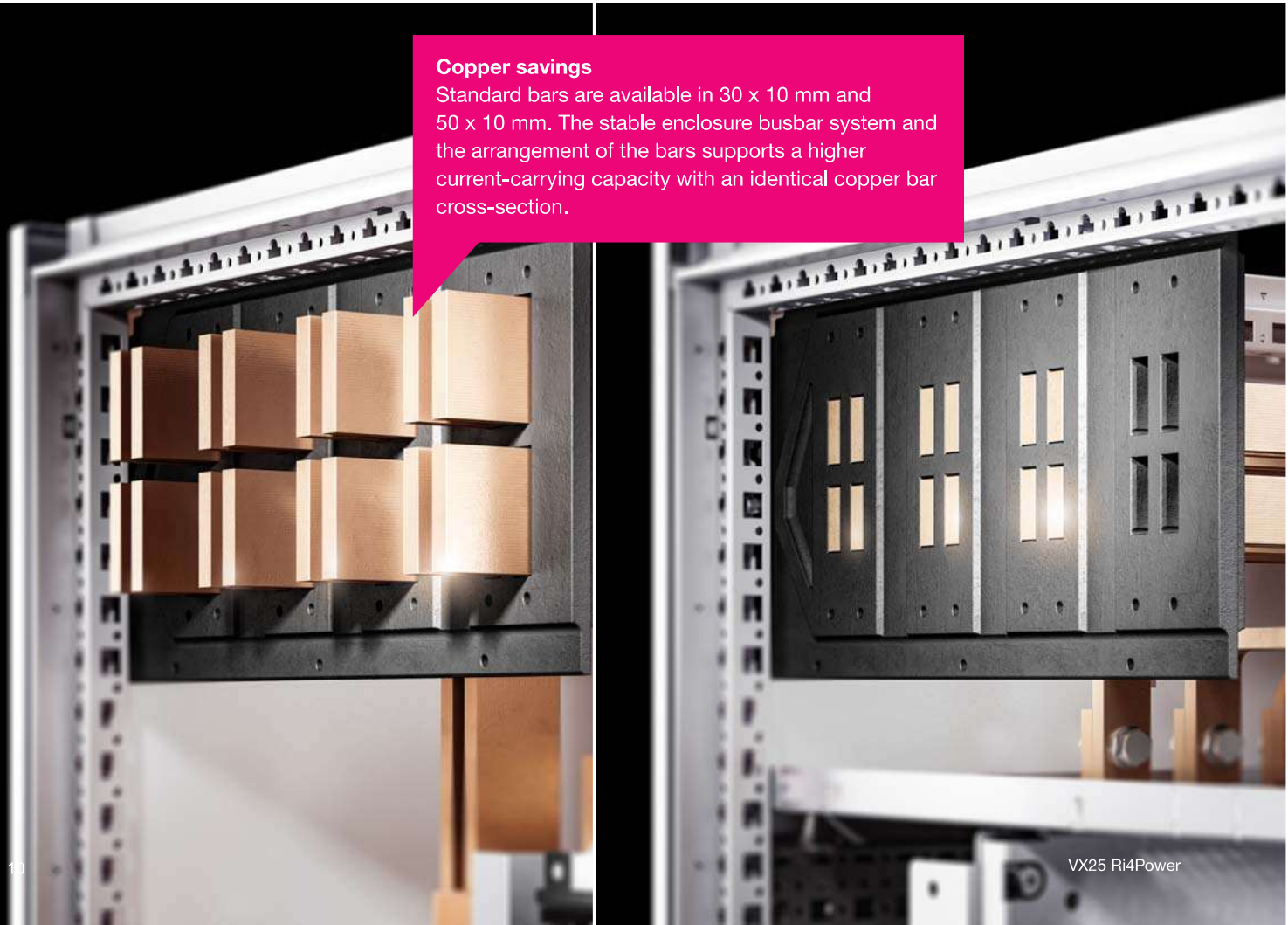


Reduced number of parts

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.



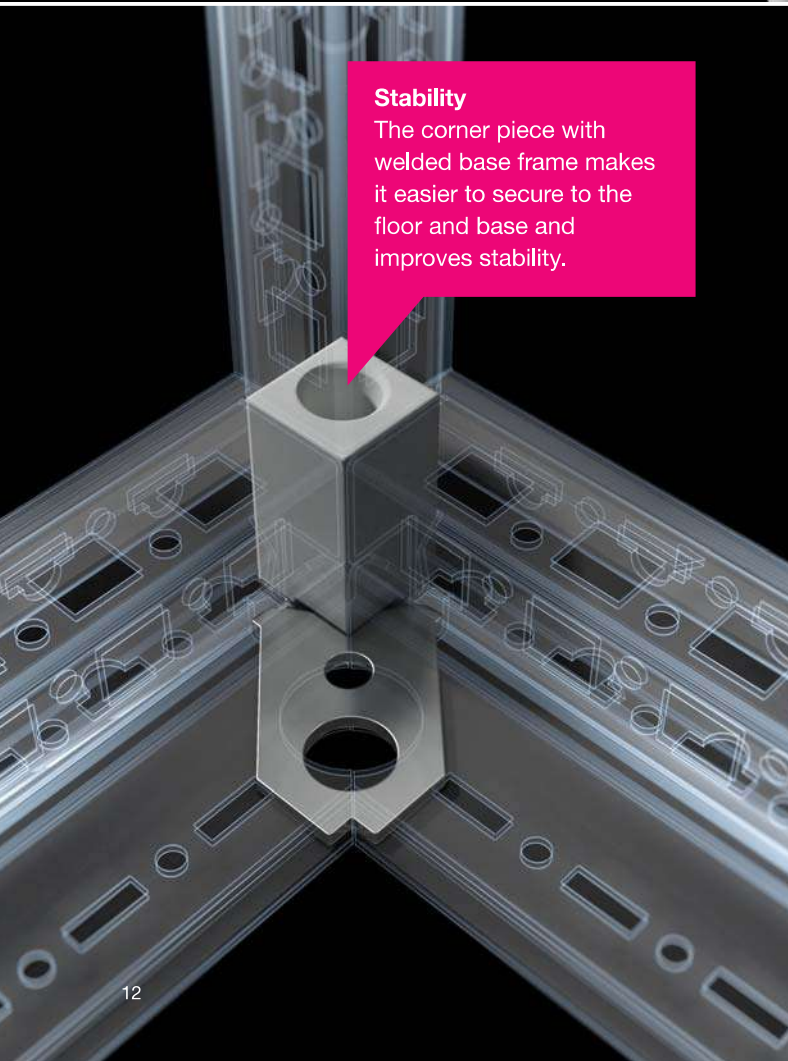
Health and safety at work

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.



Stability

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

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.





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.

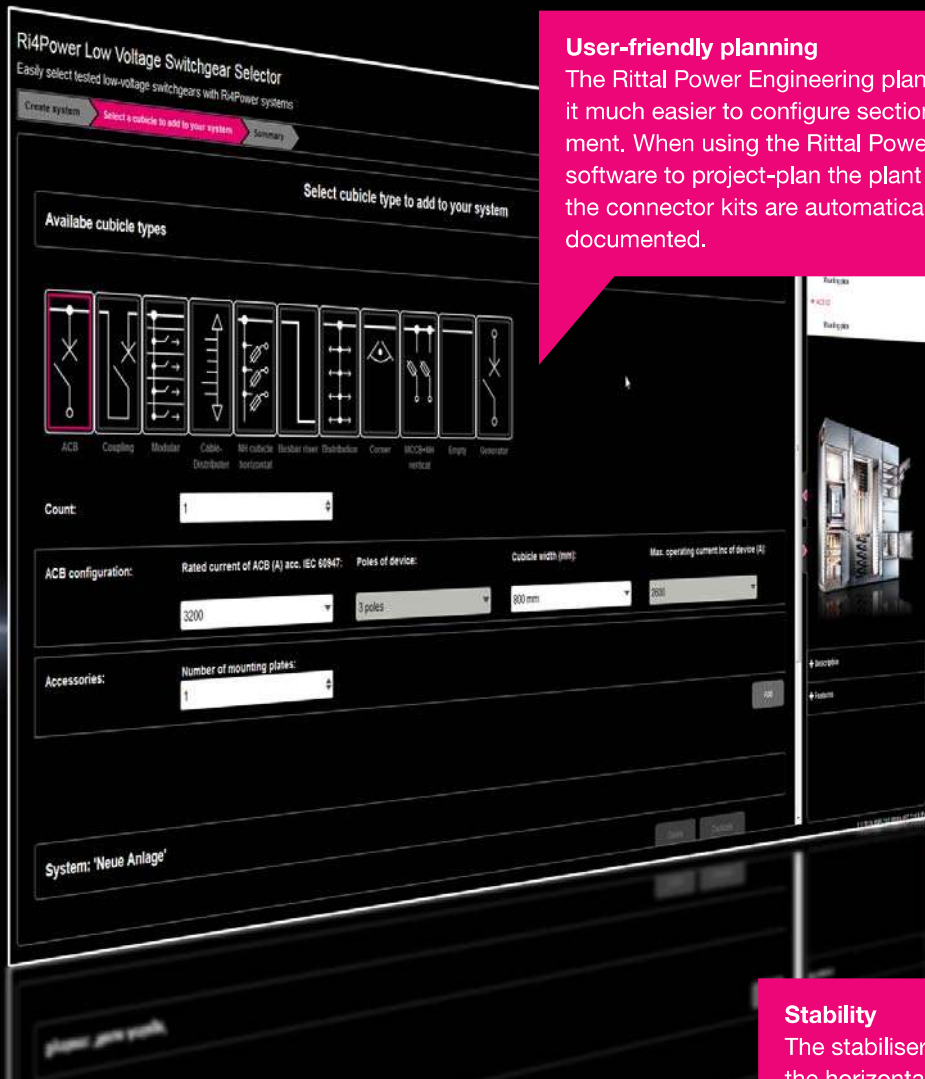


Making life easier

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.



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.

VX25 POWER ENGINEERING

The ultimate in user-friendly planning

Our Power Engineering planning tool heralds a new era. Just like the underlying VX25, our VX25 Power Engineering planning software sets new standards when planning low-voltage switchgear. The Web-based tool guides users quickly and efficiently through the entire planning process in simple, logical steps.

The benefits to you:

- The Web-based application ensures up-to-the-minute planning data
- System configuration in either a simplified or detailed version
- Parts list and assembly based on a specific set of rules
- Automatic calculation and documentation of the copper busbars
- Generation of a design verification to IEC 61 439
- System documentation including assembly instructions
- Order immediately via a direct link to the online webshop
- Technical service support, including free assistance with project planning and quote preparation
- All planning data stored locally on your computer



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