Control Systems and Distribution Boards

Pls contact Stahl@unitconcept.com for more details and pricing

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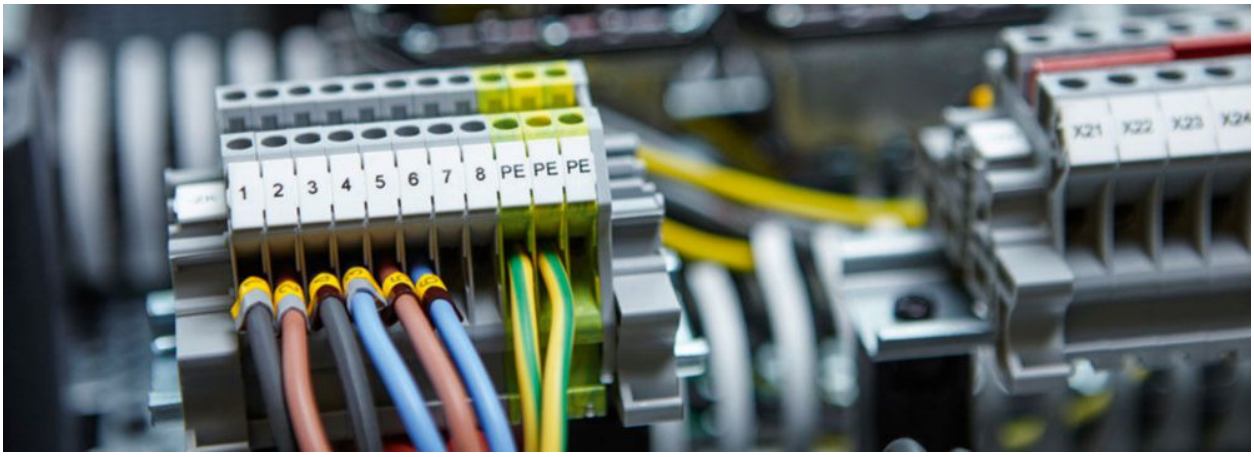
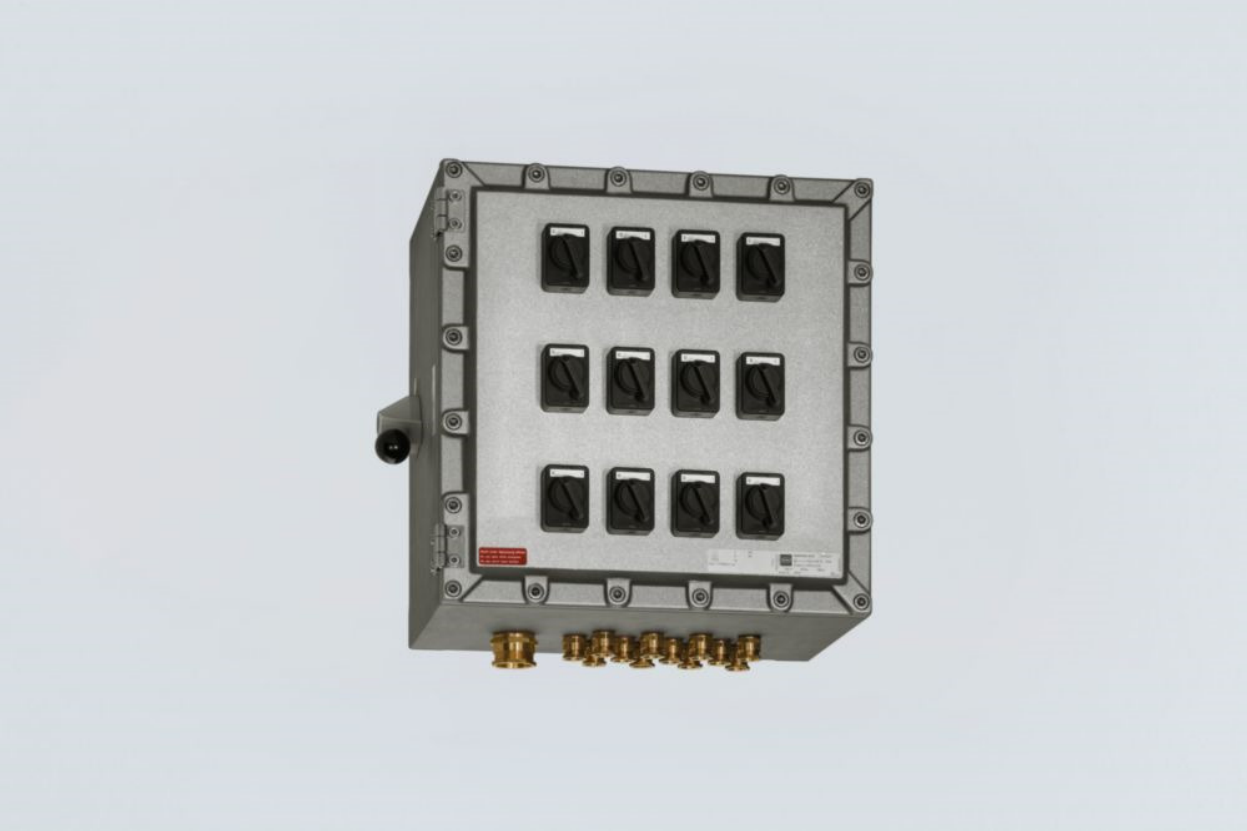


R. STAHL's system solutions allow electrical energy to be safely distributed and controlled in hazardous areas. A reliable power distribution board increases both system availability and the safety of man and machine. Thanks to our modular system, the right solution for any application is just waiting to be put together.

With our in-depth expertise and many years of experience, R. STAHL is the perfect partner for explosion-protected power distribution in any instrumentation and control engineering, battery monitoring, open-loop control or process engineering systems. Cooperating closely with our customers, we use our modular system to develop tailor-made solutions that supply power, ensure high system availability, and of course, make zero compromises when it comes to the safety of both man and machine.

- Reliable power supply thanks to modular system solutions
- Improved system availability
- Enhanced safety for both man and machine

Lighting and Heating Circuit Distribution Board



Many different variants of R. STAHL's lighting and heating circuit distribution systems are available; coupled with the customer-specific options on offer, these systems are incredibly versatile. Practical details enhance the safety and user-friendliness of the fuse panels, and short delivery times mean that you can have these systems up and running in next to no time.

The power distribution boards for lighting circuits and heat tracing systems produced by R. STAHL allow equipment to be safely operated in hazardous areas. The circuit breakers are impressively user-friendly and provide assured safety: In no time at all, they can be installed behind a hinged inspection glass; they can be actuated from outside, even when live, and the switching position is always visible. The standard variants have up to 36 outgoing lines and are designed for rated operational currents of up to 160 A. On request, we can also produce customer-specific variants.

- Power distribution board for lighting circuits and heat tracing systems
- Nominal current of 6-40 A, rated tripping current of 30 mA, switching capacity of 10 kA
- Featuring a miniature circuit breaker (tripping characteristic C) or a residual current circuit breaker and an overcurrent release (tripping characteristic C)

Load Disconnect Switch

R. STAHL's robust load and motor switches can be used as mains connection switches for power distribution systems and motor circuits in hazardous areas. They have a switching capacity of AC-3 or AC-23 for switching motors. The standard variants are designed for rated operational currents of up to 80 A; versions with rated operational currents of up to 630 A are available on request.

R. STAHL's load and motor switches are housed in a robust enclosure, which can be made from either glass-fibre-reinforced polyester resin or sheet steel. They comply with the requirements of IP66. The practical rotary actuator, which comes in a choice of either black or red and yellow, can be padlocked as an additional safety net. It can be used to switch power distribution systems and, with AC-3, AC-23, DC-1 and DC-13 switching capacity, motor circuits too. The load disconnect switches also has isolation functions in accordance with IEC/EN 60947-3. The standard variants are suitable for rated operational currents of up to 80 A; rated operational currents of 16-630 A are available on request.

- Large, padlock-able rotary actuator in black or yellow/red for enhanced safety
- Robust enclosures made from glass-fibre-reinforced polyester resin or sheet steel, IP66
- Isolating functions (IEC/EN 60947-3), AC-3, AC-23, DC-1 and DC-13 switching capacity (DIN VDE 0660, Part 107, IEC/EN 60947-3)

Motor Protection Circuit Breakers

R. STAHL's moulded case motor protection circuit breakers offer reliable protection for Ex e and Ex d motors against short-circuiting and overloading in hazardous areas. They are available with a choice of different release types and, optionally, with an ammeter or auxiliary contacts. And thanks to their robust, polyester resin enclosure, they can be used in Zones 1, 2, 21 and 22.

R. STAHL's moulded case motor protection circuit breakers can be used to prevent Ex e and Ex d motors from being overloaded, especially when there are particularly high short-circuit currents. They are housed in a robust enclosure made from glass-fibre-reinforced polyester resin. The standard models are available with a choice of different releases, such as an electromagnetic tripping mechanism or an adjustable, phase-sensitive thermal overcurrent release. Undervoltage releases and shunt trips are also options, as are ammeters and auxiliary contacts. These circuit breakers offer reliable protection for your motors, electric lines and systems in hazardous areas.

- Protection for Ex e and Ex d motors
- Motor, electric line and system contactors
- Release types: Thermal overcurrent releases, electromagnetic tripping mechanisms and, optionally, undervoltage releases or shunt trips

DOL Motor Starters, Star Delta Starters, Soft Starters

R. STAHL's motor control systems provide reliable explosion protection for motor circuits when switching them on and off. They are installed in Ex d enclosures and are available for a variety of motor currents. They can also be supplied with a main switch, transformers, circuit breakers, etc.

A number of different standard variants of R. STAHL's motor control systems are available: You can order a direct-on-line (DOL) motor starter, a YD star delta contactor combination or a reversing contactor combination. You can order your motor control system in the form of an explosion-protected DOL starter, for example. They are housed in Ex d enclosures and are available with or without Ex e connection chamber enclosures. If you wish, we can also equip your motor control systems with main switches, control transformers, main and control breakers or control devices in line with your exact requirements. Whichever variant you order, you will benefit from our short delivery times.

- Housed in Ex d enclosures, with or without Ex e connection chamber enclosures
- Standard motor control systems in the form of direct-on-line (DOL) motor starters, YD star delta contactor combinations or reversing contactor combinations
- Short delivery times

Safety Switches

R. STAHL's safety switches make cleaning and repair work in hazardous areas easier, as no preparation work that can only be carried out by qualified electricians is required. They are extremely resistant to corrosion, boast practical safety features and are available for a wide range of different currents.

In order to clean and repair electrical systems, the energy supply to machinery and system components must be disconnected. Normally, this would require qualified electricians – but with R. STAHL's safety switches, there is no need. These switches cause the main contacts to be positively opened, and are available with or without a load-shedding contact. They have isolating functions (IEC/EN 60947-1/-3) and AC-3 and AC-23 motor switching capacity. They have a number of practical features, including the easy-to-identify switching position of the rotary actuator, the option to padlock the switch in the "Off" position, and the conspicuous orange "Safety switch" warning sign. In addition, corrosion-resistant external components make the switches incredibly robust.

Features:

- Safety: Conspicuous orange "Safety switch" warning sign, rotary actuator with easy-to-identify switching position
- Wide variety: 3- and 6-pole safety switches for 10, 12/16, 20, 25, 40, 63/80, 125/160 or 180 A
- AC-3 and AC-23 motor switching capacity, isolating functions

Uninterruptible Power Supply (UPS)

Where maximum system availability is required in hazardous areas, R. STAHL's modular UPS system allows bespoke solutions to be devised in order to guarantee the uninterrupted supply of power to the system. This protects machinery and systems, prevents costly production losses and allows for the controlled shutdown of systems following prolonged interruptions to the power supply.

R. STAHL's uninterrupted power supplies (UPS) prevent your company from incurring the high financial losses than can result from voltage drops and power failures. They balance out brief fluctuations and, in the event of extended power outages, ensure that your systems are shut down in a safe, controlled manner. Our modular system allows us to devise solutions that are tailored to your exact requirements and, because the individual

modules can be combined with one another in any way you can think of, it is easy to create cost-effective redundancies to maximise your system availability.

- Tailored UPSs assembled from a modular system
- Reliable prevention of costly system damage, downtime and production losses
- Controlled system shutdown, smooth system restart

Variable Frequency Drive

- Preconfigured powerful 7.5 kW with the smallest possible enclosure size
- Other power ratings on request
- Extreme ambient temperatures up to 55°C possible without derating
- PLC functionality
- Technical mature solutions from single supplier
- Reduces the installation expenditure for equipment modernization
- Easy retrofit of existing systems
- Maximum availability as a result of optimum heat dissipation
- Various communication modules available
- Ready for installation next to the motor

Battery Boxes

The R. STAHL Series 8316 battery box also provides a reliable back-up power supply in hazardous areas in continuous operation. It can be handled cleanly and safely since the gases generated during charging are recombined to form water in the closed battery system. Thanks to low self-discharge and protection against total discharge features, the battery has a stable cycle, is maintenance-free and has a long service life.

- Safe: Extremely low gas emissions, electrolyte-tight, leak-proof, no acid surface coating
- Buffer for irregular charging
- Reliable continuous current output and maintenance-free