



# PLUG

Plug-in system for high-current applications

# PLUG

## High-current connections fitted simply and securely

Electrical machines and power units as well as systems for power distribution and transport are increasingly using plug-in solutions in the voltage range to 4.4 kV. The advantages are obvious: short installation times, a touch-proof design and reduced construction space compared with conventional connections. PFISTERER combines these advantages with its more than 100 years of contact technology experience. The outcome: reliable, durable electric contacts. This is just one reason why the PLUG system is firmly established in wind power plants and trains.

### Reliable contact throughout the entire service life

Premium contact materials and PFISTERER's proven line contact technology with multiple connections guarantee consistently high quality power transmission. A wrapping spring ensures a constant high contact force over lifetime. At the same time, the high short-circuit strength means power reserves are available in the event of a fault.

### Simple, quick, and secure installation

The PLUG system reduces your generator, converter, and transformer connections to a single plug-in solution. The electrical contact system is protected against environmental influences and contamination, resulting in durable points of contact regardless of the installer.

The PLUG system also shortens the time for initial installation – an essential factor in cutting-edge mass-scale production. During later operation, individual system components can be replaced efficiently in minimal time. In the need of service, expensive downtime or idle time can be avoided – across the lifetime of the equipment.

### System solutions from the experts

PFISTERER supports customers throughout the process of the technical implementation of electrical connector solutions. Our experts advise on components selection, work out technical solutions and integration options and provide design-in support. In cable assembly, we take over the installation and testing and supply ready-to-install cables on time for production. In addition, PFISTERER offers training courses and assembly trainings.



### PLUG saves space and installation time

The PLUG system invariably saves valuable construction space: The typical terminal box is no longer needed and you can achieve a more compact overall design. And that's not all: The test and system interface which is created when you install the PLUG socket is quick and easy to connect – for even bigger time and money economies.



#### Benefits

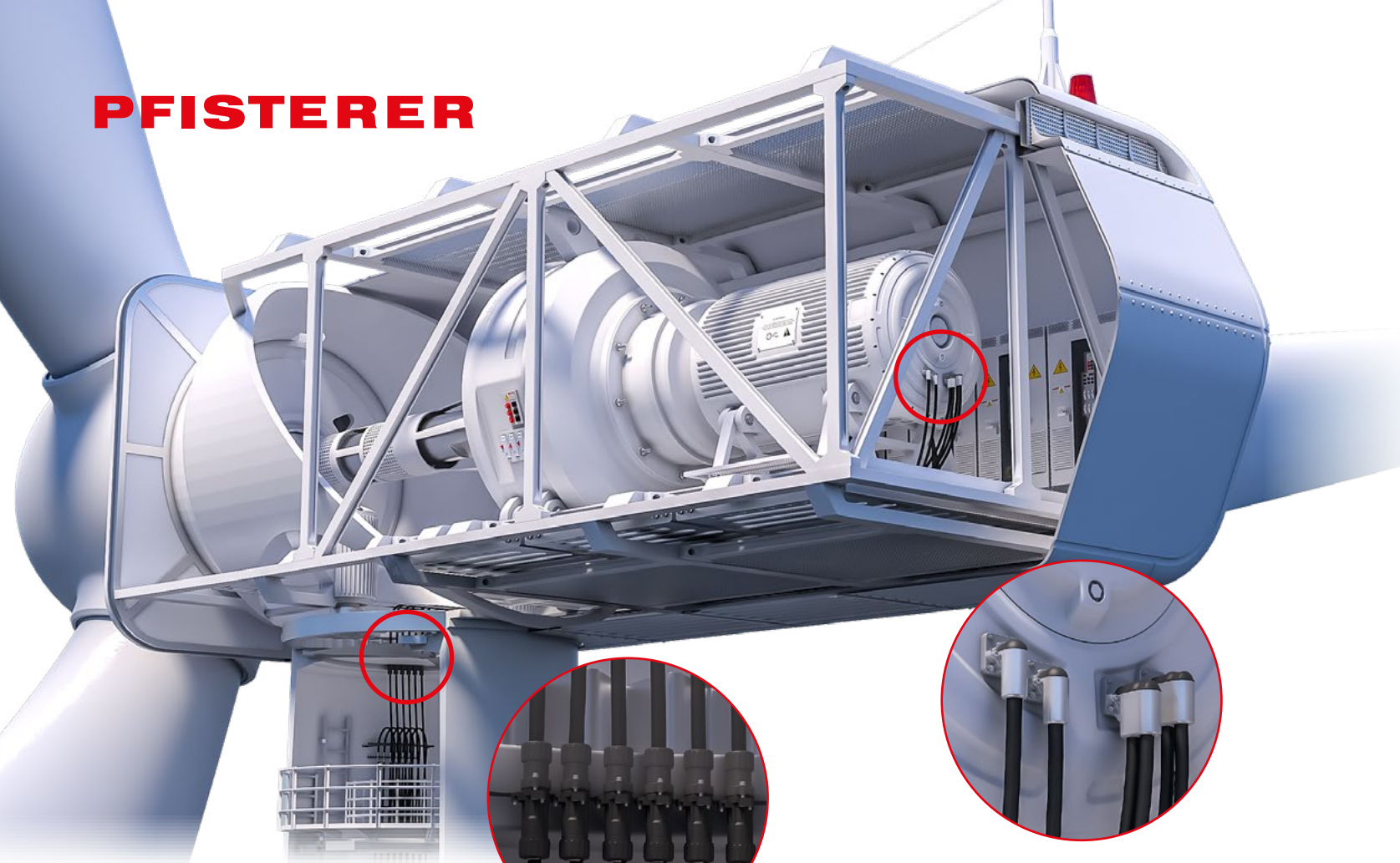
- Simple, quick installation
- No need for a terminal box
- Short testing and downtimes
- Enables cutting-edge mass-scale production
- Constant high contact quality
- High short-circuit strength
- Coding prevents connection errors
- Wide range of accessories for shielding and grounding connections

#### PLUG in numbers

- Voltage: 1 to 4.4 kV AC
- Current: 400 A to 1250 A
- Conductor material: copper, aluminum
- Conductor cross-section: 35 to 300 mm<sup>2</sup> (class 2)  
25 to 240 mm<sup>2</sup> (class 5)







# PLUG product composition

## Earthing set

Shield currents are transmitted safely to the device using the PLUG earthing set for shielded cables. It is suitable for shielded wires and braids. The earthing set can be used for all standard cable types; solutions for special cables are available.

- Very flexible as regards the cable type
- For shielded wires and braids
- Safe transmission of shield currents

## Screen set

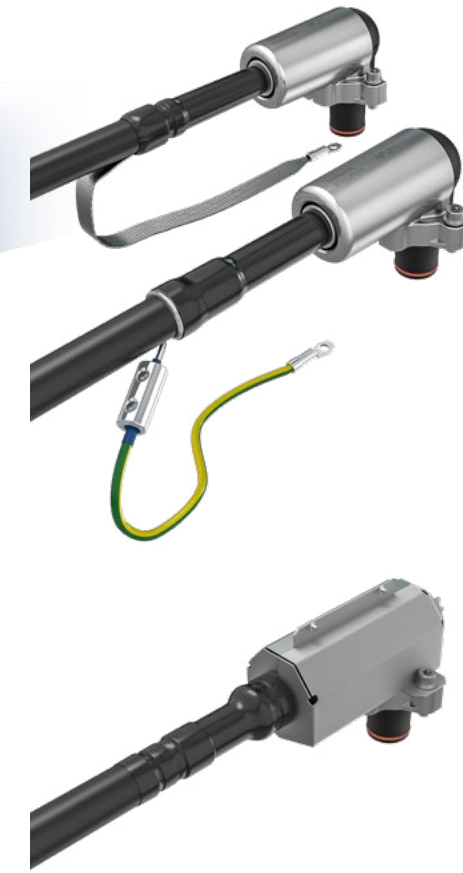
The PLUG shielding set improves EMC behaviour. The EMC requirements of a complete system can thus be more easily fulfilled. In addition, the shielding set offers high shock protection and better protection against the environment.

- Improved EMC behaviour
- Very good shock protection
- Protection against environmental impacts

## Assembly

PFISTERER supplies ready-to-install cables to suit individual customer requirements. We advise on cable choice and the design-in, and take over the engineering and installation.

- Trained professional fitters at PFISTERER
- Test certificate if required
- Delivery on time



## Voltage-proof cover

These covers close PLUG sockets voltage-proof and according to IP67. By closing sockets or plugs, devices can be partially put into operation during testing or maintenance work. In addition, the voltage-proof covers allow electrical devices to be stored for longer in outdoor environmental conditions.

- Protection against corrosion
- Contact protection
- Storage outside in difficult environmental conditions

## Wide portfolio

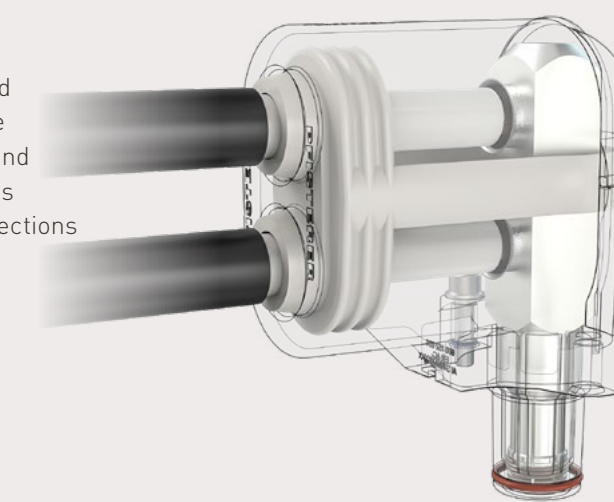
The PLUG system offers a wide range of components for device and cable connections that allow all sorts of different connection solutions.



## Two-core connector

With its 2-in-1 connection technology, two cables can be routed to one high-performance contact. This allows a doubling of the conductor cross-section without increasing the laying forces and without enlarging the bending radii. In this way, higher currents can be transmitted in a small space. The number of plug connections can be reduced, thus saving space and costs. Alternatively, the 2-to-1 connection technology can be used to loop through the power line.

- Maximum current in minimum space
- Power distribution without junction box
- Reduces the number of plug connections



## Connector mismatch protection

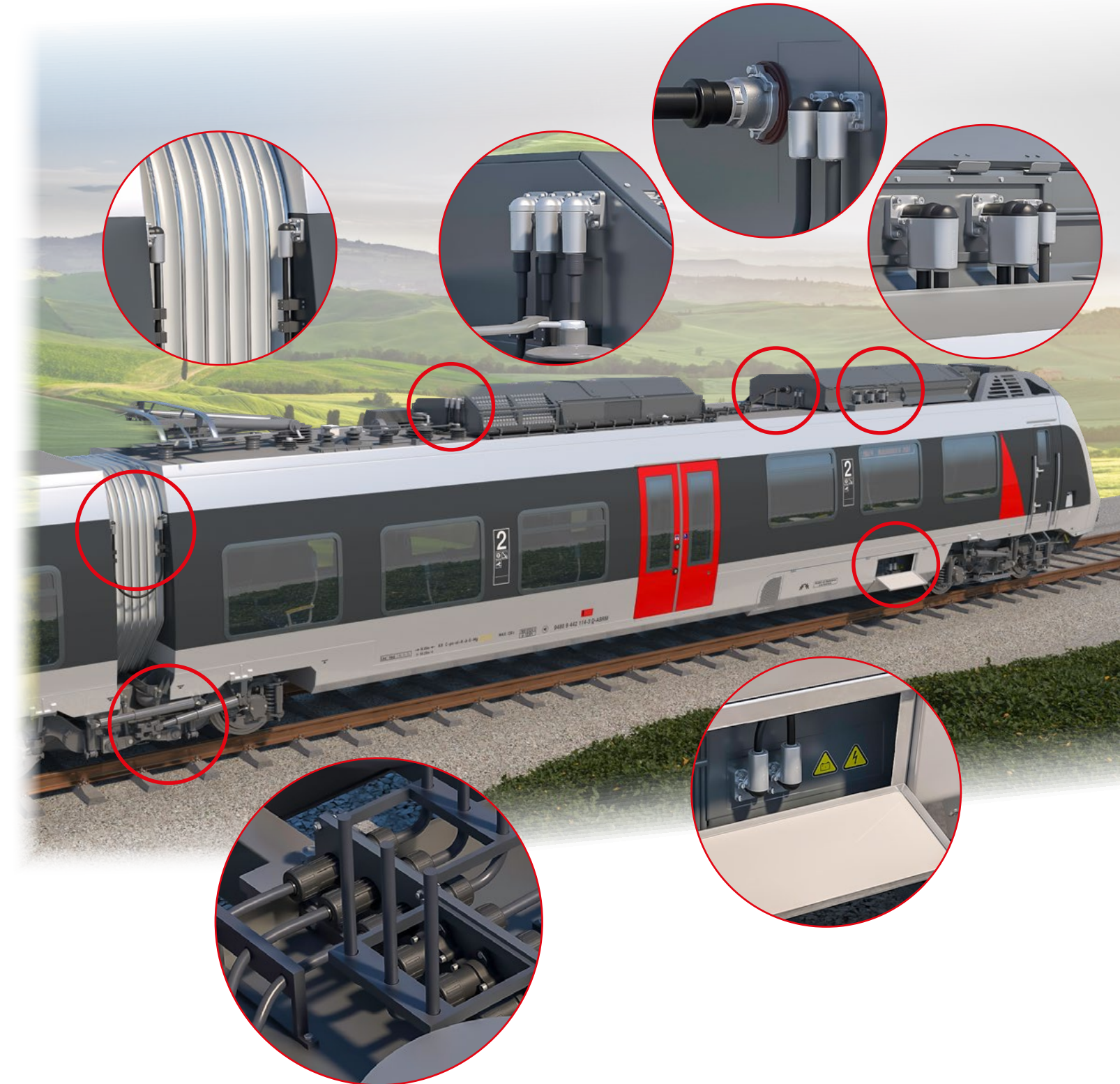
Connection errors due to phase inversion are prevented by the coding of the plug-in connections. Every connector can only be installed in the appropriate socket. This means that all connections are guaranteed to be correctly connected in all installation and assembly work.

- Prevents connection errors
- Allows installation by non-specialist staff



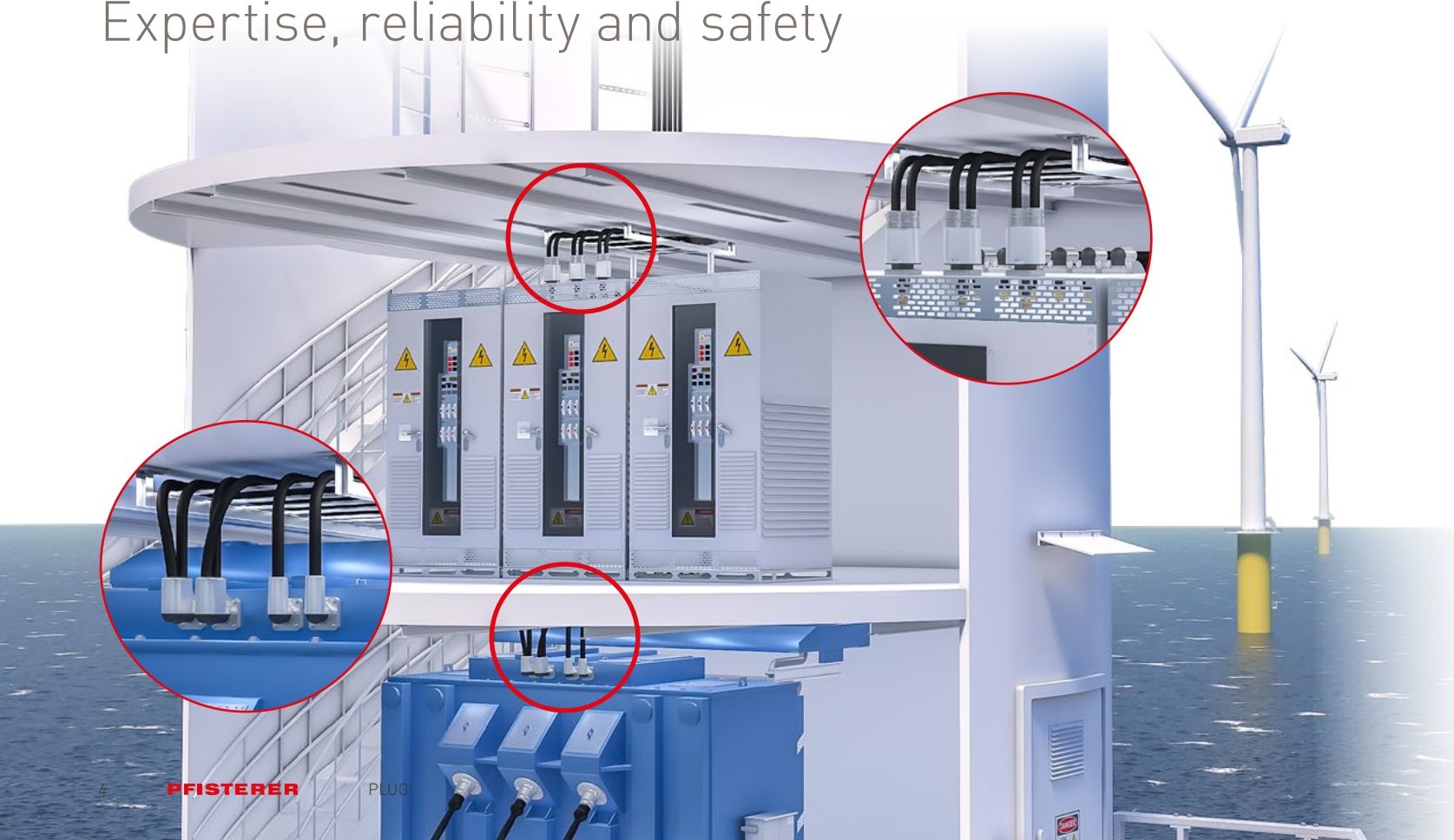
# Rail applications

Safe, reliable and maintenance-free over its entire service life



# Wind energy applications

Expertise, reliability and safety





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SINCE 1921

In 1921, Karl Pfisterer founded his factory in Stuttgart for special electrical products with the aim of improving the world of power transmission. The PFISTERER Group has pursued this goal of quality and technological leadership for more than 100 years. Today, PFISTERER is one of the world's leading specialists and system suppliers for energy infrastructure – with a complete range of cable accessories, overhead line technology and components along the entire transmission chain from power generation to consumption. With state-of-the-art manufacturing processes and 1,200 employees at 18 international locations, PFISTERER not only connects the power grids of today and tomorrow, but also makes an important contribution to a sustainable and secure energy supply.