NORELCO
Nordic Electric Company

NorPower 1250

Switchboard system



Customised power distribution and automation solutions for every need.

POWERING PEOPLE AND PLANET

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NorPower 1250 switchboard system

NorPower 1250 is Norelco's modern and versatile compartmentalised switchboard system, designed to deliver reliability and scalability for demanding electrical installations.

A versatile system for different building applications

The system is ideally suited for use as main switchboards, motor control centres, rising mains switchboards, and HVAC control panels – wherever high performance and safety are essential. NorPower 1250 NKO switchboards are wall-mounted enclosure systems equipped with tie bars and base supports. For larger installations, floor-standing NorPower 1250 NKO 1250 modules provide a flexible and scalable solution. All switchboards are manufactured in accordance with EN, IEC and SFS standards, with electrical safety as a primary consideration.

The structural components are manufactured from hot-dip galvanised steel sheet, ensuring excellent corrosion resistance, effective earthing, and a high-quality finish. Epoxy powder coating adds durability and a refined appearance. Hinged, gasket-sealed doors and the option of cable compartments make the system both practical and adaptable.

Tested and verified in accordance with the SFS-EN 61439 standard, NorPower 1250 delivers reliability and quality you can depend on. The standard colour scheme features a stylish white enclosure with grey plinth and fascia panels, while special colours are available on request to suit specific project requirements.

NorPower 1250 Compartmentalised Switchboard System Applications
- Main switchboards
- Motor control centres (MCCs)
- Rising mains and socket distribution boards
- HVAC control panels

NorPower 1250 Module Types

NorPower 1250 consists of two types of compartment modules:
- NKO 1250 compartment modules are always installed as free-standing units on their own plinths.
- NKO compartment modules are wall-mounted using tie bars and, for larger assemblies, additionally supported from the floor.

Reliable and Safe NorPower Switchboards

- Switchboards are manufactured in accordance with EN, IEC and SFS standards, with electrical safety as a key design principle.
- Particular attention has been paid to operational safety and user protection.
- Metal components are manufactured from corrosion-resistant hot-dip galvanised steel sheet. NKO compartment modules can also be supplied in stainless steel.
- Unpainted components are likewise manufactured from hot-dip galvanised steel sheet, ensuring excellent earthing properties and a uniform surface finish.

Easy to Install and Maintain

- Developed in close cooperation with customers, the switchboards are designed for straightforward installation.
- Spacious wiring areas are provided, including cable compartments.
- Electrical connections can be re-tightened from the front, simplifying maintenance procedures.

Versatile and Durable Construction

- All doors are hinged and sealed in accordance with the required enclosure protection rating.
- Robust frame construction based on a durable profile system.
- Fixed outgoing units are available.
- NorPower 1250 system field widths are 314 mm and 600 mm.
- NKO compartment modules are available in six different heights (330–1830 mm), with a standard depth of 220 mm.
- NKO 1250 compartment modules are supplied in a standard height of 2239 mm, with a depth of 360 mm, and are always fitted with a plinth.
- In addition to standard field widths, the system includes a cable field module that can be used as a cable compartment.

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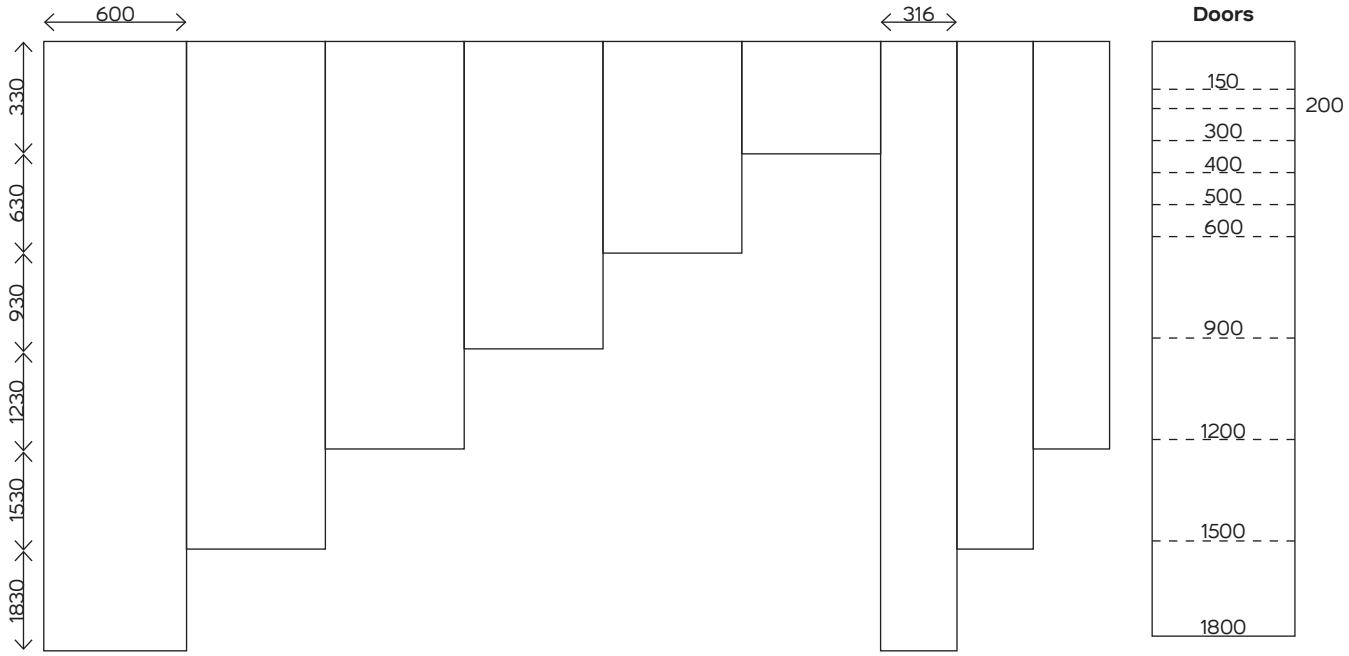
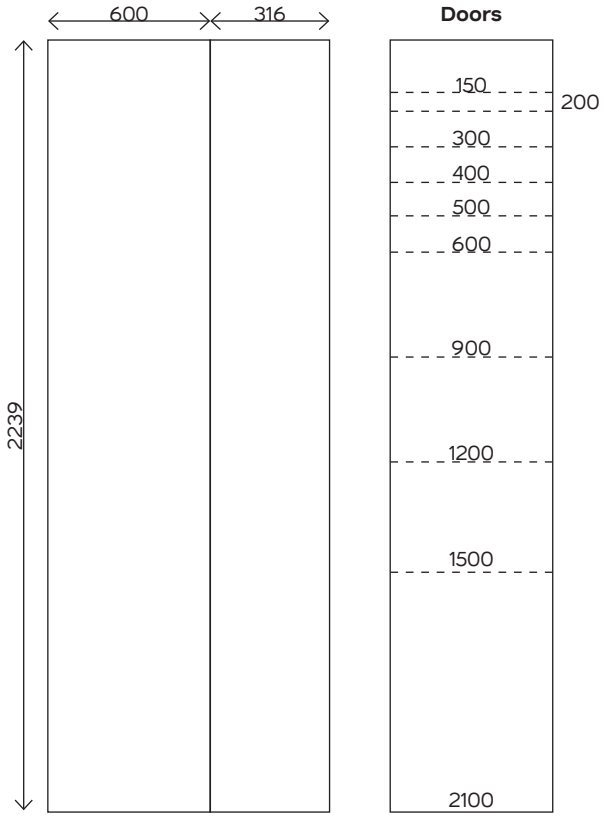
Technical information

NKO Module Sizes and Unit Dimensions





System Components

Rated Voltage	400 V, 690 V
Rated Current	NKO: 25–800 A, NKO 1250: 125–1250 A
Standards and Regulations	IEC/SFS-EN 61439-1, IEC/SFS-EN 61439-2, IEC/SFS-EN 61439-3 SFS 6000
AC Test Voltage	2,000 V
Short-Circuit Withstand Capability	NKO: Rated short-time withstand current Icw (1 s) max. 20 kA Rated peak withstand current Ipk max. 40 kA NKO 1250: Rated short-time withstand current Icw (1 s) max. 30 kA Rated peak withstand current Ipk max. 63 kA
Degree of Protection	NKO: Typically IP34, IP54 available on request NKO 1250: IP20–IP54
Surface Finish	Multi-stage pre-treatment and epoxy powder coating cured at 220°C
Standard Colour	NKO: Norelco White (RAL 9016), other colours available on request NKO 1250: Doors in Norelco White (RAL 9016), hot-dip galvanised plinth
Protection Class	Class I

Busbar System

The busbar system is manufactured from aluminium flat bars as standard, with copper flat bars available as an option. The busbars can be tightened from the front, allowing for easy re-tightening during maintenance. Both 4-wire and 5-wire busbar systems can be used.
In NKO 1250 switchboards, the main busbar system consists of horizontal busbars and vertical distribution busbars used to connect the functional units. The cable compartments are equipped with a PE busbar to which the protective earth terminals of the outgoing feeders are connected.

Other Components

Inter-field cable openings are fitted with plastic cable glands, ensuring that cable insulation does not come into contact with the metal framework.
Between the units (vertically), comb-shaped drop protection barriers made of PVC are used. These enhance operational safety without restricting installation or wiring work.

The switchboards are equipped with unit-specific hinged doors, sealed where required to meet the specified enclosure protection rating. Reliable Norelco die-cast hinges are used throughout. NKO 1250 compartment modules are supplied with a plinth as standard.

Vertical Supports and Tie Bars
Vertical supports are used in all switchboards built with NKO compartment modules that are at least two sections wide and 1530 mm high. In switchboards comprising four sections or more, additional vertical supports are also installed in the centre of the assembly. Tie bars are included in all multi-section switchboards.

Vertical supports increase the overall depth by 40 mm. Either 500 mm or 800 mm high support legs can be installed beneath the supports, raising the bottom edge of the switchboard by the corresponding height above floor level.
Single-section high switchboards are equipped with keyhole mounting brackets or tie bars to facilitate installation. Two-section switchboards with a height of less than 1530 mm are fitted with tie bars.

Transport and Storage

Switchboard Transportation
Switchboards are always packaged in the lowest practical transport configuration to make handling on site as easy as possible. For installations with restricted access, components such as support legs may be supplied separately to minimise the height clearance required along transport routes. Compartmentalised switchboard systems are typically delivered in multiple transport sections when the overall switchboard length exceeds 2.5 metres. When planning transportation and site access, sufficient space must also be allowed for external protruding components, such as operating handles and mechanisms.

Switchboard Storage on Site
If the switchboard is not commissioned immediately upon delivery, it should be stored in its protective packaging. For extended storage periods, small openings should be made in the lower part of the packaging film to allow any accumulated moisture to escape. This helps prevent indoor-rated switchboards from being exposed to condensation and moisture during storage, thereby maintaining their condition prior to installation.

Installation and Maintenance

Switchboards are always manufactured based on customer-supplied specifications, including the required IP rating, as well as the number and type of incoming and outgoing cables. The switchboards are equipped with cable entry membranes and cable terminations according to these requirements. Installation spaces are always dimensioned with the cable type in mind, ensuring sufficient space even for aluminium cables. Cable entry can be arranged from either the top or the bottom through the roof plate or base plate, providing flexibility for different installation environments.

For ease of installation and maintenance, NorPower 1250 switchboards can also be supplied with fixed outgoing units and cable compartments. The cable compartment is equipped with C-rails, allowing cables to be easily secured using arch clamps or Niedax clamps. Cables can be routed directly to the terminals through the cable compartment with ease. The switchboards are always fitted with comb-type finger-safe guards made of PVC plastic, enhancing safety even when maintenance work must be carried out on an energised switchboard. When dimensioning the installation space, space savings can be achieved thanks to the wide door opening angle.

Multiple Installation Methods

The installation method of the NorPower 1250 switchboard depends on the installation location, the size of the switchboard and the cell type (NKO/NKO 1250). Possible installation methods include mounting directly onto a wall surface using the standard mounting brackets supplied as standard equipment, mounting onto a wall surface using vertical and base beams with tie rails, mounting onto a pole using pole mounting brackets, or installation on a plinth on the floor.

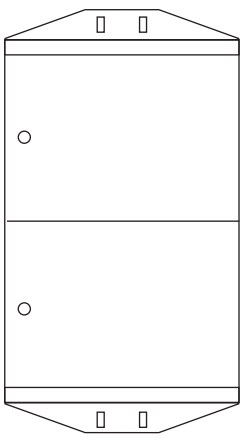
Floor mounting is carried out using external mounting brackets located outside the switchboard enclosure. This provides an easy method of securing the switchboard to the floor. Circuit breaker settings are adjusted to the minimum level at the factory for safety reasons. Before commissioning, the settings must be checked and adjusted to the correct values.

Transport Section Connection Principle

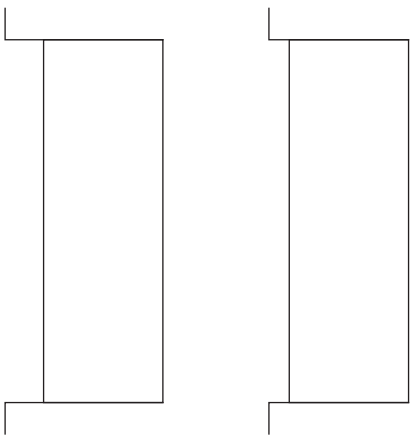
The connection of transport modules is carried out on site. To ensure successful assembly of the transport section connection, the floor must be sufficiently level (tolerance ±1 mm/m). Making the connection is straightforward, but to avoid problems, the separate connection instructions should be followed.

The transport modules are mechanically joined together at the top using a transport section connection piece and at the bottom using floor fixing brackets. Busbar extension is carried out within the busbar compartment. The transport modules are positioned opposite each other so that the ends of the busbars are aligned at the same level. The busbar ends are connected using the supplied joint pieces, connectors and bolt sets.

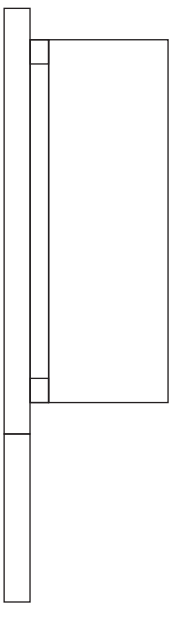
POLE MOUNTING



MOUNTING BRACKETS



BASE BEAMS



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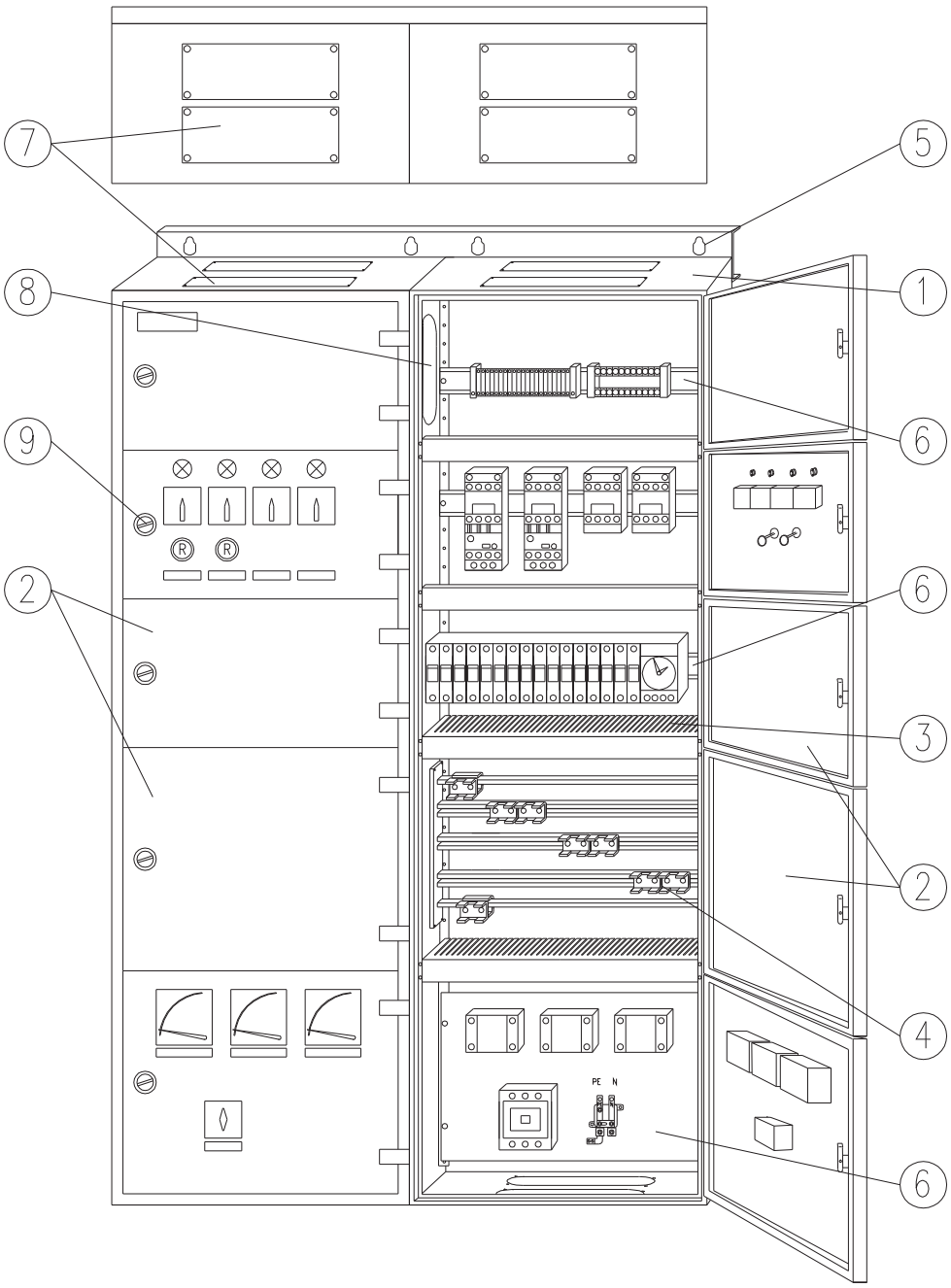
Compartment-Type Switchboard Basic Structure



This illustration shows an NKO-type compartment switchboard consisting of two identical sections.

1. The frame is constructed from modular metal parts joined together with bolted connections. Hot-dip galvanised steel sheet is used as the material.

2. Unit-specific doors are always fitted with hinges and seals and can optionally be equipped with inspection windows.

3. Comb-shaped PVC finger-safe covers facilitate cabling and enhance user safety.

4. Busbar systems are manufactured from aluminium or copper flat bars without busbar perforations.

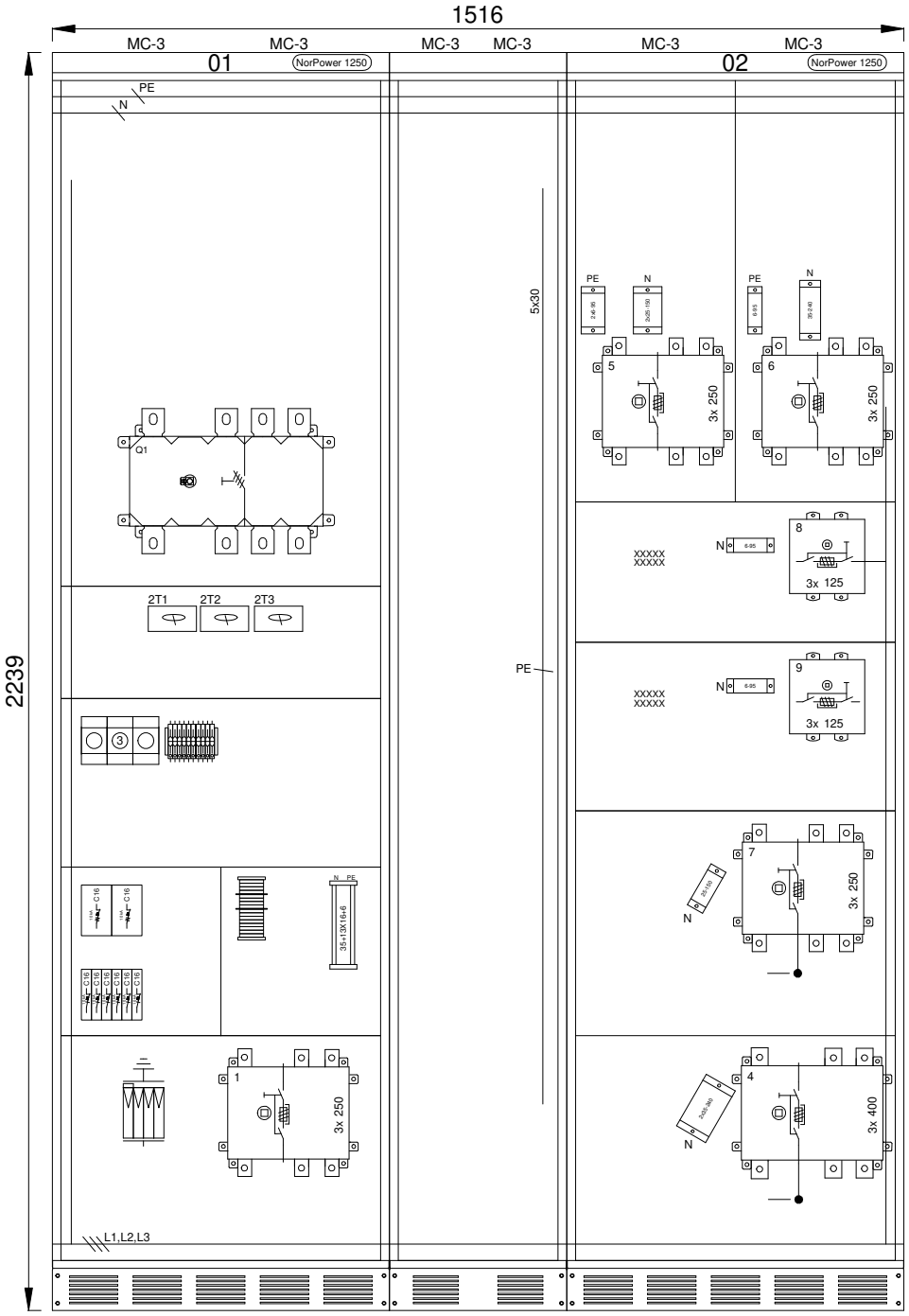
5. Tie bars provide structural support and enable wall mounting.

6. Suitable for both DIN rail components and components mounted on installation plates.

7. Cable gland plates installed in C-openings are used for incoming and outgoing cables, with a maximum of two plates per section, mounted either at the top, bottom, or both.

8. Inter-section cabling is carried out using plastic NEC flanges.

9. Quarter-turn latch, triangular latch, tool-operated latch, or key-lockable latch.


1516
MC-3
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01
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02
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2239
PE
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PE
Q1
2T1
2T2
2T3
PE
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5
3x 250
6
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XXXXX
XXXXX
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8
3x 125
XXXXX
XXXXX
N
9
3x 125
N
7
3x 250
N
4
3x 400
1
3x 250
L1,L2,L3

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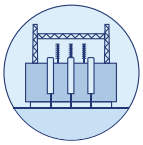
High-quality power distribution and automation systems for every project

We offer a comprehensive range of products and lifecycle services across all areas of power distribution. With professional expertise, we serve all our customer segments and help build, develop and maintain reliable systems. From a single trusted partner, you receive efficient power distribution systems and fully programmed automation solutions.



Construction

An extensive product range and expert services for building electrification.



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Power distribution and automation systems optimised for demanding environments.



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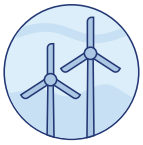
We deliver sustainable and smart power distribution for society's critical needs.



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Industrial power distribution and automation systems for process control.



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High-quality control and automation systems.

Products and services throughout the entire lifecycle.

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