SIEMENS

SIVACON – The Versatile Low-Voltage Switchboard

Type-Tested Power Distribution Board 8PT
The Obvious Solution
for Global Challenges – SIVACON

Type testing in low-voltage switchgear is increasingly becoming an issue of prime importance worldwide. In future, there will be no other solution. But how far does one really have to go to accomplish a type test? Often too far.

But that is now a thing of the past. With the “SIVACON Technology Partner” concept, Siemens is bringing the versatile and type-tested SIVACON low-voltage switchboard to your door.

To this end, Siemens has picked competent, local switchgear manufacturers and has appointed them SIVACON Technology Partners.

Your SIVACON Technology Partner you will receive the concentrated know-how of Siemens at terms and conditions that only a local vendor is able to offer. For you, this means: SIVACON including type testing – faster, more flexibly and at lower cost than ever before.
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Versatile with Safety –
Type-Tested Components for Power Distribution

The SIVACON low-voltage switchboard is the standard solution for building and industrial technology.

SIVACON is tailored to the needs of the world market, i.e. it takes into account the call for standard solutions from a single source on the one hand and on the other for local production and the resulting advantages in terms of financing and procurement close to the plant.

As a power distribution board, SIVACON is available throughout the world and can be used at all power levels up to 7400 A, as withdrawable as well as plug-in and fixed-mounted units.

Modular Technology

Every SIVACON is made exclusively from standardized and type-coded modules. All modules are of high quality and conform to Siemens design specifications.

The multiple possibilities of combining the components fulfill every requirement.

The exclusive use of high-quality Siemens switchgear ensures a long service endurance and reliable operation.

• Safety and proven quality for every system by type testing
• Siemens switchgear for reliable operation
• Worldwide presence with local production
• High flexibility for economical solutions
SIVACON Features

• Type-tested standard modules (TTA)
• Standardized busbar position at the top of the cubicle
• 3- and 4-pole busbar system up to 7400 A
• Rated peak withstand current $I_{pk}$ up to 375 kA
• Deep switchgear compartment for universal installation
• Modular structure of device compartments
• Single-front and back-to-back installation
• Cable lead-in from above or below
• Cable connection from the front or rear

The versatile SIVACON low-voltage switchboard
Always Flexible –
SIVACON Adapts to your Requirements

Modular technology makes it possible to adapt SIVACON optimally to all requirements.

- Standard horizontal busbar position at the top of the cubicle
- Any components can be installed in the device compartments regardless of the busbar position and cubicle depth
- Requirement-oriented compartmentalization of functional units (Form 1 to Form 4 according to IEC 60439-1)
- Deep device compartments

Optimum Adaptation to Space Conditions

- Wall-mounted or free-standing
- Cables and busbars may be connected optionally from above or below
- Cabling compartments front or rear located
- Good accessibility of busbars

<table>
<thead>
<tr>
<th>≤ 3200 A</th>
<th>≤ 4000 A</th>
<th>≤ 7400 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device compartment</td>
<td>Cross-wiring compartment (optional)</td>
<td>Horizontal busbar compartment</td>
</tr>
<tr>
<td>Cable connection compartment optionally at the side or bottom (depending on the technology used)</td>
<td>Cable compartment for cable connection rear or cables from above</td>
<td></td>
</tr>
</tbody>
</table>
SIVACON for All Applications in the Low-Voltage Network

**Power Center**
- $I_n$ to 7400 A
- $I_{cw}$ to 150 kA
- $I_{pk}$ to 375 kA

**Main distribution board**
- $I_n$ to 4000 A
- $I_{cw}$ to 100 kA
- $I_{pk}$ to 250 kA

**Subdistribution board**
- $I_n$ to 3200 A
- $I_{cw}$ to 80 kA
- $I_{pk}$ to 200 kA

**Loads**
Frame and Enclosure –
Dimensionally Accurate and Stable

The frame consists of rigid sheet steel sections that are linked to one another: SIVACON’s dimensionally accurate and sturdy frame is available in bolted or welded versions.

- All-round perforation rows with a 25 mm hole grid for individual installation
- Flexible door system for all requirements
- Door opening angle up to 180°
- Spring-loaded locks reliably prevent doors from opening unintentionally
- Pressure-relief top covers

Surface Treatment:
Optionally powder-coated, wet painted or sendzimir galvanized

Material:
Frame and enclosure are manufactured from sheet steel in the following thicknesses:
Frame: 2.5 mm
Enclosure: 2.0 mm

Degrees of Protection to IEC 60529
IP30, IP40, IP42 naturally ventilated
IP40, IP54 unventilated

Cubicle Dimensions (Without Enclosure)

<table>
<thead>
<tr>
<th>Frame</th>
<th>Rear panel 2 mm</th>
<th>Cubicle height (mm)</th>
<th>Cubicle width (mm)</th>
<th>Cubicle depth (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2200</td>
<td>600, 800, 1000, 1200</td>
<td>600, 800, 1000, 1200</td>
</tr>
<tr>
<td>Partition sheet (inside) 2 mm</td>
<td></td>
<td>2600</td>
<td>600, 800, 1000, 1200</td>
<td>800, 1000, 1200</td>
</tr>
</tbody>
</table>

Top view
Variable Busbar System –

The Answer to Diverse Requirements

Differing requirements for the busbar system call for individual options.

SIVACON offers modules for economical setup and high level of safety.

- Busbar position at top
- Busbar system for rated currents up to 7400 A
- User-oriented gradation of rated currents
- Rated peak withstand current $I_{pk}$ up to 375 kA
- Separation of the busbar compartment from the device compartment
- Transport unit joints easily accessible from above

### Busbar System

<table>
<thead>
<tr>
<th>Phase conductors</th>
<th>Unventilated</th>
<th>Naturally ventilated</th>
<th>$I_{pk}/I_{cw}$</th>
<th>Cubicle height</th>
<th>Cubicle depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>(L1, L2, L3)</td>
<td>2400</td>
<td>3200</td>
<td>200/80 250/100</td>
<td>2200</td>
<td>600, 800, 1000</td>
</tr>
<tr>
<td>2 x 100 x 10</td>
<td>2950</td>
<td>4000</td>
<td>2200</td>
<td>800, 1000, 1200</td>
<td></td>
</tr>
<tr>
<td>3 x 100 x 10</td>
<td>5400</td>
<td>7400</td>
<td>375/150</td>
<td>2600</td>
<td>800, 1000, 1200</td>
</tr>
<tr>
<td>3 x 100 x 10+</td>
<td>2200</td>
<td>2200</td>
<td>2200</td>
<td>800, 1000, 1200</td>
<td></td>
</tr>
<tr>
<td>3 x 100 x 10</td>
<td>2950</td>
<td>4000</td>
<td>2200</td>
<td>800, 1000, 1200</td>
<td></td>
</tr>
</tbody>
</table>

Rated Currents at 35 °C Ambient Temperature
Circuit-Breaker Design –
Compact, Reliable and User-Friendly

The supply, feeder and coupling cubicles of the circuit-breaker design are equipped with withdrawable or fixed-mounted 3WN circuit breakers.

As a large number of loads are generally connected to these cubicles, particular importance is attached to them in terms of the long-term operating reliability and personal safety of the switchboard.

SIVACON meets these requirements with circuit-breaker design components.

**Compact and Reliable**
- High degree of safety due to type-tested standard modules (TTA)
- Test and disconnected positions with door closed
- Circuit breakers integrated in separate compartments, each equipped with a separate door
- Optimum connection conditions for every rated current range
- Cable connection from above or below

**User-Friendly with 3WN**
Siemens 3WN fixed-mounted and withdrawable circuit breakers are used for the rated current range from 630 to 6300 A. This means:
- Free choice of the supply direction without any restrictions in terms of technical data
- High short-time current-carrying capacity for time-graded short-circuit protection up to 500 ms assures reliable operation of sections of the switchboard not affected by a short-circuit
- Short-circuit protection with short-time grading control (ZSS) for very brief delay times (50 ms), irrespective of the grading level
- LCD operating current indication in the control console (without ammeters and current transformers)
- Indication and operation when the door is closed

**Cubicle Dimensions/Cubicle Structure**

<table>
<thead>
<tr>
<th>Circuit Breaker 3WN from:</th>
<th>630 A - 3200 A</th>
<th>630 A - 6300 A</th>
<th>2000 A - 2500 A</th>
<th>630 A - 1600 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>630 A - 3200 A</td>
<td>cable connection</td>
<td>cable connection</td>
<td>cable connection</td>
<td>cable connection</td>
</tr>
<tr>
<td>front</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rear</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal busbar system</td>
<td>≤ 3200 A</td>
<td>≤ 4000 A and ≤ 7400 A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Switching Device Compartment

- Reliable travel of the circuit breaker while the door is closed
- A maintenance position allows direct local inspection without removal of the circuit breaker

Cable or Busbar Connection Compartment

- Cable or busbar connection optionally from above or below
- A rated current-dependent connection compartment offers optimum termination conditions for cables and busbars
- Assembly times are shortened by optimum connection compartments
Fixed-Mounted Design – Economical, Reliable and Variable

The cubicles for cable feeders in fixed-mounted execution are equipped with moulded case circuit breakers or fuse-switch-disconnectors (conventional or in-line), depending on requirements.

These cubicles are used for applications in which replacement under operating conditions is not necessary or where short downtimes are acceptable.

In this case, the SIVACON fixed-mounted design offers excellent economy, safety and variability.

- High degree of safety due to type-tested standard modules (TTA)
- Any combination of modular cable feeders
- Swift conversion due to lateral universal distribution busbar
- Easy replacement of cable feeders after deenergizing the switchboard

Modular Cable Feeders

The modular cable feeders enable efficient installation, above all whenever operation-specific changes or adaptations are necessary.

- Moulded case circuit breakers or fuse-switch-disconnectors can be fitted as required
- Free combination of cable feeders within one cubicle
- Continuously adjustable mounting plates for a standard front plane
- Cable feeders with and without current measurement

Cubicle Dimensions/Cubicle Structure

| 3RV../3VF../Sentron MCCBs up to 630 A and 3NP fuse-switch-disconnectors up to 630 A |
| Cable connection rear | Cable connection rear | Cable connection right-hand side |
| 600 | 1200 | 800/1000 |
| Up to 160 A/feeder | Up to 160 A/feeder | Up to 630 A/feeder |
Various connection possibilities

Vertical Distribution Bus
The vertical distribution busbars offer various possibilities for connecting cables and busbars:

• 3- and 4-pole execution
• Devices are connected without the need for drilling or punching, and precisely at the location they are needed
• Easily accessible connections for quick modification and expansion
• Connections are visible and can be checked from the front
Switchable In-Line Fuse-Switch-Disconnectors

The in-line fuse-switch-disconnectors make for optimum packing density thanks to their compact design and their modular structure.

- Cable feeders up to 630 A with/without current metering
- 25 feeders can be installed in each cubicle
- Dead-state fuse replacement

### Cubicle Dimensions/Cubicle Structure

<table>
<thead>
<tr>
<th>3NJ4 in-line fuse-switch-disconnectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable connection right-hand side</td>
</tr>
<tr>
<td>800</td>
</tr>
<tr>
<td>Up to 160 A/feeder</td>
</tr>
</tbody>
</table>

In-line fuse-switch-disconnectors 3NJ4
Reactive Power Compensation –
Lower Costs with Enhanced Safety

The cubicles for central reactive power compensation ease the load on transformers and cables, reduce transmission losses and save current costs. Depending on the load structure, they are equipped with chokeless or choked capacitor modules.

Controller Module with Electronic Power Factor Controller for Flush Door Mounting
- Multifunction display
- Self-adaption of the C/k value
- Adjustable nominal cos phi from 0.8 ind to 0.98 cap
- Manual/automatic operation

Capacitor Module up to 100 kvar
- Fuse-switch disconnectors
- Capacitor contactors
- MKK power capacitors
- Discharging units
- Filter circuit chokes

Cubicle Dimensions/Cubicle Structure

Capacitor module, 100 kvar (chokeless)
In-Line Plug-in Design 3NJ6 – Plugged in Swiftly, Always Safe

The in-line plug-in design outgoing feeders represent a low-priced alternative to the withdrawable unit design. By virtue of the supply-side plug-in contact and their compact design, the modules provide the facility for easy and quick interchangeability without switchboard shutdown. With the in-line plug-in design, SIVACON offers good cost-effectiveness, safety and flexibility.

- High level of safety by virtue of type-tested standard modules (TTA)
- Supply-side plug-in contacts enable quick replacement
- In-line type switching devices for cable feeders up to 630 A available in the following designs:
  - Fuse module with fuses
  - Fuse-switch-disconnectors (single-break)
  - Fuse-switch-disconnectors (double-break)
  - Switch-disconnectors
- High packing density (up to 34 feeders per cubicle)
- Dead-state fuse replacement
- Protection against electric shock from plug-in bus system
- 400- and 600 mm-wide cable connection compartment
- Degree of protection up to IP40
- Possibility of replacing a feeder without having to shut down the system

Cubicle Dimensions/Cubicle Structure

<table>
<thead>
<tr>
<th>Plug-in switch-disconnectors 3NJ6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable connection right-hand side</td>
</tr>
</tbody>
</table>

3NJ6 plug-in switch-disconnector with 250 A fuses featuring supply-side plug-in contacts

Up to 630 A/feeder
Various installation components are available for customized solutions, e.g. for open and closed-loop control tasks.

- 3- and 4-pole vertical distribution busbars
- Rated currents up to 1200 A
- Rated short-time withstand current up to $I_{cw}$ 65 kA
- Cubicle-length doors or compartment doors
- Compartmentalization
- Various installation components

### Cubicle Dimensions/Cubicle Structure

Cubicle for customized solutions up to 1200 A
SIVACON is a type-tested switchgear and controlgear assembly (TTA) whose physical characteristics were designed in the test laboratory both for normal operating conditions and for fault situations. Conclusive type tests assure a maximum of reliability and personal safety. SIVACON has passed the following verification tests as detailed in IEC 60439-1, DIN EN 60439-1 (VDE 0660 Part 500):

**Type Testing**
- Verification of temperature rise limits by test
- Verification of dielectric properties by test
- Verification of the short-circuit withstand strength by test
- Verification of the effective connection between the exposed conductive parts of the assembly and the protective circuit by inspection or resistance measurement
- Verification of the short-circuit withstand strength of the protective circuit by test
- Verification of clearances and creepage distances
- Verification of mechanical operation
- Verification of the degree of protection

**Every SIVACON Switchboard Undergoes Routine Testing Before Delivery:**
- Inspection of the assembly including wiring and, if necessary, electrical operation test
- Dielectric test
- Checking of protective measures and of the electrical continuity of the protective circuits

**These Safety Requirements are Supported by a Series of Details in SIVACON, for Example:**
- With the withdrawable circuit-breaker design, operating errors are ruled out by exactly shaped mechanical guides and interlocks
- Only a few, exclusively high-quality insulating materials are used (e.g. for busbar supports, reinforcements etc.)
- Use of high-quality Siemens switchgear ensures long lifetime and minimized downtimes
- Reliable disconnection after 70 to 100 ms, even at long-time delays by 3WN circuit breakers with short-time grading control (ZSS)
- Computer-assisted configuring ensures error-free selection and arrangement of items
- Arcing fault-tested
- Effective quality management
## Technical Data – At a Glance

<table>
<thead>
<tr>
<th>Standards and specifications</th>
<th>Type-tested low-voltage switchgear and control gear assembly (TTA) Testing of response to internal faults (arching faults)</th>
<th>IEC 60439-1, DIN EN 60439-1 (VDE 0660 Part 500) IEC 61641, VDE 0660 Part 500, Supplement 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creepage distances and clearances</td>
<td>Rated impulse withstand voltage ($U_{imp}$) 8 kV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overvoltage category</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Rated insulation voltage ($U_i$)</td>
<td>1000 V</td>
<td></td>
</tr>
<tr>
<td>Rated operational voltage ($U_e$)</td>
<td>690 V</td>
<td></td>
</tr>
<tr>
<td>Rated currents ($I_n$)</td>
<td>Main horizontal busbars</td>
<td>\begin{align*} \text{Rated current} &amp; \quad \text{up to} &amp; \quad 7400 \text{ A} \ \text{Rated peak withstand current ($I_{pk}$)} &amp; \quad \text{up to} &amp; \quad 375 \text{ kA} \ \text{Rated short-time withstand current ($I_{cw}$)} &amp; \quad \text{up to} &amp; \quad 150 \text{ kA, 1s} \ &amp; \quad \text{up to} &amp; \quad 120 \text{ kA, 3s} \end{align*}</td>
</tr>
<tr>
<td>Busbars (3-pole and 4-pole)</td>
<td>Vertical busbars for circuit-breakers</td>
<td>\begin{align*} \text{Rated current} &amp; \quad \text{up to} &amp; \quad 6300 \text{ A} \ \text{Rated peak withstand current ($I_{pk}$)} &amp; \quad \text{up to} &amp; \quad 250 \text{ kA} \ \text{Rated short-time withstand current ($I_{cw}$)} &amp; \quad \text{up to} &amp; \quad 100 \text{ kA, 1s} \ &amp; \quad \text{up to} &amp; \quad 80 \text{ kA, 3s} \end{align*}</td>
</tr>
<tr>
<td></td>
<td>Vertical busbars for fixed-mounted design</td>
<td>\begin{align*} \text{Rated current} &amp; \quad \text{up to} &amp; \quad 1400 \text{ A} \ \text{Rated peak withstand current ($I_{pk}$)} &amp; \quad \text{up to} &amp; \quad 163 \text{ kA} \ \text{Rated short-time withstand current ($I_{cw}$)} &amp; \quad \text{up to} &amp; \quad 65 \text{ kA, 1s} \ &amp; \quad \text{up to} &amp; \quad 50 \text{ kA, 3s} \end{align*}</td>
</tr>
<tr>
<td></td>
<td>Vertical busbars for in-line plug-in design</td>
<td>\begin{align*} \text{Rated current} &amp; \quad \text{up to} &amp; \quad 2100 \text{ A} \ \text{Rated peak withstand current ($I_{pk}$)} &amp; \quad \text{up to} &amp; \quad 163 \text{ kA} \ \text{Rated short-time withstand current ($I_{cw}$)} &amp; \quad \text{up to} &amp; \quad 65 \text{ kA, 1s} \ &amp; \quad \text{up to} &amp; \quad 50 \text{ kA, 3s} \end{align*}</td>
</tr>
<tr>
<td>Switchgear rated currents</td>
<td>Circuit-breakers</td>
<td>\begin{align*} \text{Outgoing feeders} &amp; \quad \text{up to} &amp; \quad 6300 \text{ A} \ &amp; \quad \text{up to} &amp; \quad 630 \text{ A} \end{align*}</td>
</tr>
<tr>
<td>Internal separation</td>
<td>Form 1 to Form 4</td>
<td>IEC 60439-1, Section 7.7, DIN EN 60439-1</td>
</tr>
<tr>
<td>Surface treatment</td>
<td>Frame parts</td>
<td>Galvanized/powder-coated/wet painted</td>
</tr>
<tr>
<td></td>
<td>Enclosure</td>
<td>Galvanized/powder-coated/wet painted</td>
</tr>
<tr>
<td></td>
<td>Doors</td>
<td>Powder-coated/wet painted</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>To IEC 60529, EN 60529</td>
<td>IP 30 to IP 54</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Height: 2200, 2600 mm (with busbar top unit)</td>
<td>Width: 600, 800, 1000, 1200 mm</td>
</tr>
</tbody>
</table>
| | Depth: 600, 800, 1000, 1200 mm | *

*Rated conditional short-circuit current $I_{cc}$ up to 100 kA
SIVACON – The Versatile Low-Voltage Switchboard

Type-Tested Motor-Control-Center 8PT in Withdrawable-Unit Design
Highly Available with Safety:
Type-Tested Components for
Motor-Control-Center in Withdrawable-Unit Design

The SIVACON low-voltage switchboard featuring withdrawable-unit design is a highly available standard solution for motor-control-centers. This version offers the required degree of power supply flexibility and is particularly suitable for the frequently changing requirements of the process industry. What’s more, it was conceived on the basis of ergonomic criteria.

- Easy and safe handling
- Rapid replacement without interrupting the operation
- High availability

As a motor-control-center, SIVACON is available throughout the world and can be used at all power levels up to 7400 A.

SIVACON Features

- Type-tested standard modules (TTA)
- Standardized busbar position at the top of the cubicle
- 3- and 4-pole busbar system up to 7400 A
- Rated peak withstand current $I_{pk}$ up to 375 kA
- Deep switchgear compartment for universal installation
- Modular structure of device compartments
- Single-front and back-to-back installation
- Cable lead-in from above and below
- Cable connection from the front or rear
SIVACON for all applications in the low-voltage network

**Power Center**
- $I_n$ up to 7400 A
- $I_{cw}$ up to 150 kA
- $I_{pk}$ up to 375 kA

**Main Distribution Board**
- $I_n$ up to 4000 A
- $I_{cw}$ up to 100 kA
- $I_{pk}$ up to 250 kA

**Subdistribution Board**
- $I_n$ up to 3200 A
- $I_{cw}$ up to 80 kA
- $I_{pk}$ up to 200 kA

**Motor-Control-Center**
- $I_n$ up to 3200 A
- $I_{cw}$ up to 80 kA
- $I_{pk}$ up to 200 kA

**Loads**
Withdrawable-Unit Design:
Highly Available, Always Safe

Cubicles for motor and cable feeders in withdrawable-unit design offer highest operating comfort with optimum safety and availability. By virtue of the guiding withdrawable principle easy and rapid changes or adaptations are possible. Thus individual modules can be e.g. supplemented or exchanged. Even compartments may be converted during operation. The withdrawable-unit design of SIVACON for highest possible availability.

- High degree of safety by virtue of type-tested standard modules
- Outgoing feeders up to 250 kW
- Non-fused and fused protection
- Test and disconnected position with protection degree IP 30
- Standard operator interface for all withdrawable-units
- Isolating gaps on the supply and feeder sides
- Space-saving sizes of withdrawable-units from 100 mm minimum module height
- Cable connection compartment at front or rear
- Easy adaptation to changing operating conditions without shutdown of switchboard

Cubicle Dimensions/Cubicle Structure

<table>
<thead>
<tr>
<th>Withdrawable units up to 630 A/feeders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable connection right-hand side</td>
</tr>
<tr>
<td>Cable connection rear</td>
</tr>
</tbody>
</table>

600/800 1000 1000/1200 600
SIVACON withdrawable-units offer operating and handling safety

- Standardized design in eight module heights (100, 150, 200, 300, 400, 500, 600, 700 mm)
- Clearly visible withdrawable-unit positions (connected, test and disconnected position)
- Integrated maloperation protection in all withdrawable-units
- Control plugs up to 40-pole and additional bus contacts (optional)
- Hinged front panel of withdrawable-units for adjustments (≥ module height 200 mm)
- Insertion support for easy moving of the withdrawable-units > 250 A
- Plenty of space for auxiliary equipment by possibility of fitting components at the rear
- Lockable disconnected position for safe working at the consumer
**Plug-on bus system**

The plug-on bus system is located at the rear of the cubicle. It offers safe-to-touch protection without additional shutters to live parts.

- Integrated protection against electric shock
- 3- and 4-pole versions
- Safe-to-touch (IP 20 B)
- Tap openings in a modular grid of 25 mm

**Versatility and reliability with adaption to changing requirements**

- Simple conversion of withdrawable-unit compartments without shutdown of switchboard
- No connection work necessary inside withdrawable-unit compartment
- Connections for power and control cables in a separated cable connection compartment
- Cable connection compartment optionally 400 mm wide (front) or 600 mm wide (rear)
## Technical Data:

### At a Glance

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</tr>
<tr>
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</tr>
<tr>
<td>Rated insulation voltage (U_i)</td>
<td>1000 V</td>
<td></td>
</tr>
<tr>
<td>Rated operational voltage (U_e)</td>
<td>690 V</td>
<td></td>
</tr>
<tr>
<td>Rated currents (I_n) Busbars (3-pole and 4-pole)</td>
<td>Main horizontal busbars</td>
<td>Rated current up to 7400 A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated peak withstand current (I_{pk}) up to 375 kA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated short-time withstand current (I_{cw}) up to 150 kA, 1s up to 120 kA, 3s</td>
</tr>
<tr>
<td></td>
<td>Vertical busbars for circuit breakers</td>
<td>Rated current up to 6300 A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated peak withstand current (I_{pk}) up to 250 kA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated short-time withstand current (I_{cw}) up to 100 kA, 1s up to 80 kA, 3s</td>
</tr>
<tr>
<td></td>
<td>Vertical busbars for fixed-mounted design</td>
<td>Rated current up to 1400 A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated peak withstand current (I_{pk}) up to 163 kA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated short-time withstand current (I_{cw}) up to 65 kA*, 1s up to 50 kA, 3s</td>
</tr>
<tr>
<td>Vertical busbars for in-line plug-in design (3NJ6)</td>
<td>Rated current up to 2100 A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated peak withstand current (I_{pk}) up to 163 kA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated short-time withstand current (I_{cw}) up to 65 kA*, 1s up to 50 kA, 3s</td>
</tr>
<tr>
<td>Vertical busbars for withdrawable-unit design</td>
<td>Rated current up to 1200 A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated peak withstand current (I_{pk}) up to 163 kA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rated short-time withstand current (I_{cw}) up to 65 kA*, 1s up to 50 kA, 3s</td>
</tr>
<tr>
<td>Switchgear rated currents</td>
<td>Circuit breakers</td>
<td>up to 6300 A</td>
</tr>
<tr>
<td></td>
<td>Outgoing feeders</td>
<td>up to 630 A</td>
</tr>
<tr>
<td>Internal separation</td>
<td>Form 1 to Form 4</td>
<td>IEC 60439-1, section 7.7, DIN EN 60439-1</td>
</tr>
<tr>
<td>Surface treatment</td>
<td>Frame parts</td>
<td>galvanised/powder-coated/wet painted</td>
</tr>
<tr>
<td></td>
<td>Enclosure</td>
<td>galvanised/powder-coated/wet painted</td>
</tr>
<tr>
<td></td>
<td>Doors</td>
<td>powder-coated/wet painted</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>to IEC 60529, EN 60529</td>
<td>IP 30 to IP 54</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Height: 2200, 2600 mm (with busbar top unit)</td>
<td>Width: 600, 800, 1000, 1200 mm</td>
</tr>
<tr>
<td></td>
<td>Width: 600, 800, 1000, 1200 mm</td>
<td></td>
</tr>
</tbody>
</table>

* Rated conditional short-circuit current I_{CC} up to 100 kA