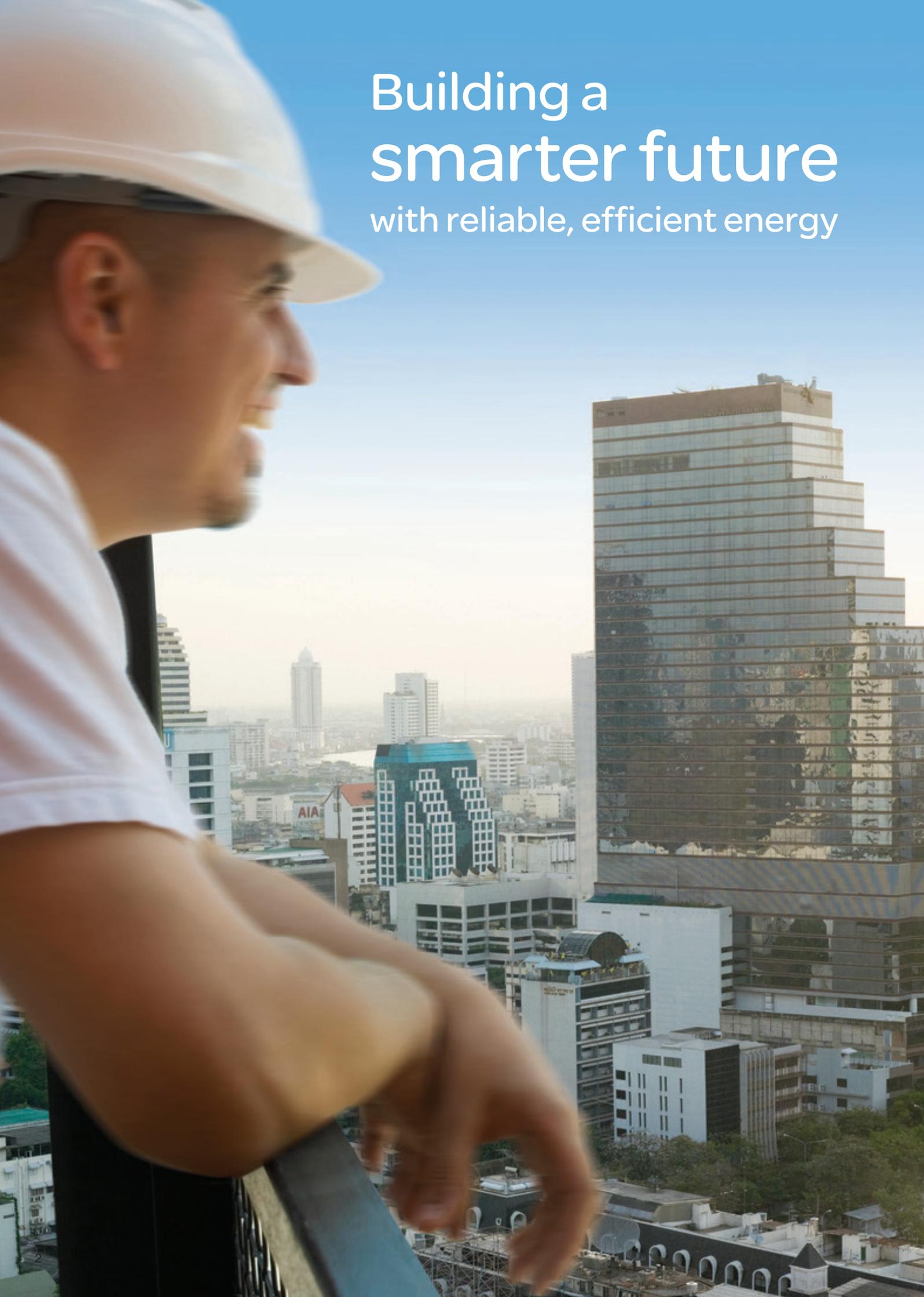


Innovation for MV distribution

Introducing Premset switchgear, a new way to design, install, and operate MV networks



A construction worker wearing a white hard hat and a white t-shirt is shown in profile, looking out over a city skyline. The worker is leaning on a dark railing. The city below is filled with various buildings, including a prominent tall glass skyscraper on the right. The sky is a clear, bright blue, suggesting a clear day. The overall scene conveys a sense of progress and forward-looking vision.

Building a
smarter future
with reliable, efficient energy

Premset architecture: Innovation to meet your needs

The experience of a leader in MV distribution



A global
partner
you can
trust

4 000 000

functions installed worldwide through
our existing ranges

A global player with local capabilities

Schneider Electric™ has 150 000 people in more than 100 countries dedicated to delivering reliable products and solutions. It's this global reach that helps us ensure high quality and local project and service capabilities, no matter your location.

Combining technologies for breakthrough innovation

Combining our expertise in both air-insulated switchgear (AIS) and gas-insulated switchgear (GIS), we're breaking new ground with the extremely reliable **Shielded Solid Insulation System (2SIS)**.

Network management making you smart grid-ready

Add to this our familiarity with all aspects of MV network management and you have a partner who knows what the smart grid will mean for your business, and how best to keep you at the forefront of technology.

A new generation of switchgear technology

Premset™ architecture represents the future of MV distribution, embracing the smart grid's functionality and changing the way our industry views the design, installation, and operation of MV distribution installations.



A technological breakthrough, opening the way to
unprecedented safety, efficiency, and ease of use:

> Safe and reliable in any environment.

Insulation and screening of all live parts ensure a trouble-free service life, while innovative technology enhances peace of mind.

> Flexible, simple, modular, and functional.

Easy to install and easy to use, with operator-friendly switchgear and no servicing of main units thanks to **2SIS**.

> Smart grid-ready, distributed intelligence.

Advanced protection, control and monitoring, fully integrated for higher dependability and energy efficiency.

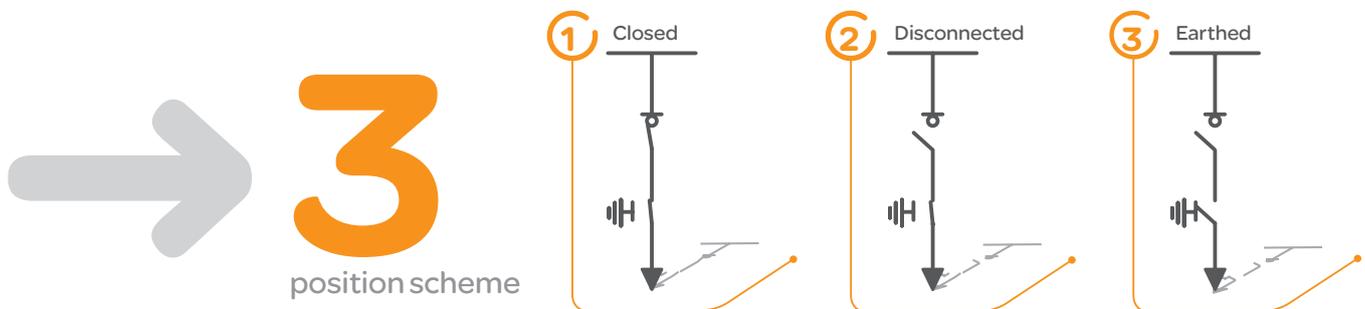


Safety

An intuitive 3-in-1 architecture for breaking, disconnection, and earthing

With its 3-in-1 switchgear design, the Premset system's breaking, disconnection, and earthing functions are all integrated into a single disconnecting switch or disconnecting circuit breaker.

There are also only three possible operating positions: closed, open and disconnected, and earthed.



Simple and user-friendly operation

The Premset 3-in-1 system has proven itself to be the most reliable and end-user friendly, providing:

- > Earthing in a single operation
- > Intuitive mimic diagram and operation
- > Direct downstream cable earthing
- > Positively driven built-in interlocks
- > Easy front access to cable test injection points.

Intuitive operation reduces worker risk

With only two operations from line to earth – one to open and disconnect, and one to earth – the Premset range ensures optimized operating safety, keeping all aspects as simple as possible. Additionally, standard built-in safety interlocking between the main and earthing functions is keyless and positively driven, which contributes to making every interaction with the unit safe and easy.

The safest MV switchgear in its class

This three-position scheme provides an integrated cable test feature, implemented by dedicated earthed rods, accessible from the front, without needing to enter the cable box or unmount cable terminations.



Efficiency

Smart grid and advanced digital management solutions across your network

The electricity market is changing. Every day, end-users' expectations increase and suppliers worldwide gain a greater awareness of energy's environmental impact. Meanwhile, overall consumption is steadily growing. But as this reliance on electricity grows globally, the ways in which we produce, distribute, and use energy must also evolve. The solution will involve not only smarter demand, but also smarter supply and a smarter grid.

Intelligent, smart grid-ready solutions

To meet these challenges, we need to enhance our electrical distribution networks with intelligent, smart grid-ready solutions that bring a new level of efficiency through advanced monitoring and control.

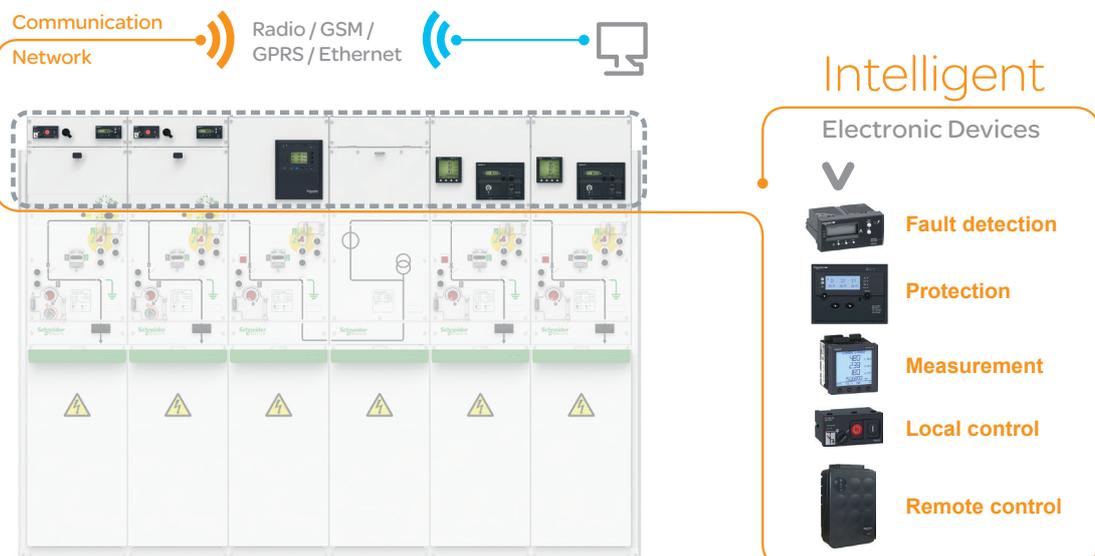
This is precisely what Premset architecture is designed to do, enhancing your installation with such features as:

- > **Feeder automation**, with switchgear including built-in communication and local intelligence
- > **Load management**, with integrated smart metering
- > **Asset management**, with advanced switchgear and transformer monitoring
- > **Automatic Transfer System**, with integrated source transfer solution to reduce power supply interruption.

Architecture with distributed intelligence

The intelligent electronic devices used in Premset solutions allow easy integration, based on a standard communications protocol, with a plug-and-play scanning system for easy configuration.

All this adds up to a flexible system with integrated Web technology, pre-engineered and pre-tested, which you can easily upgrade as necessary. With Premset architecture, you can easily build a smarter MV distribution system.

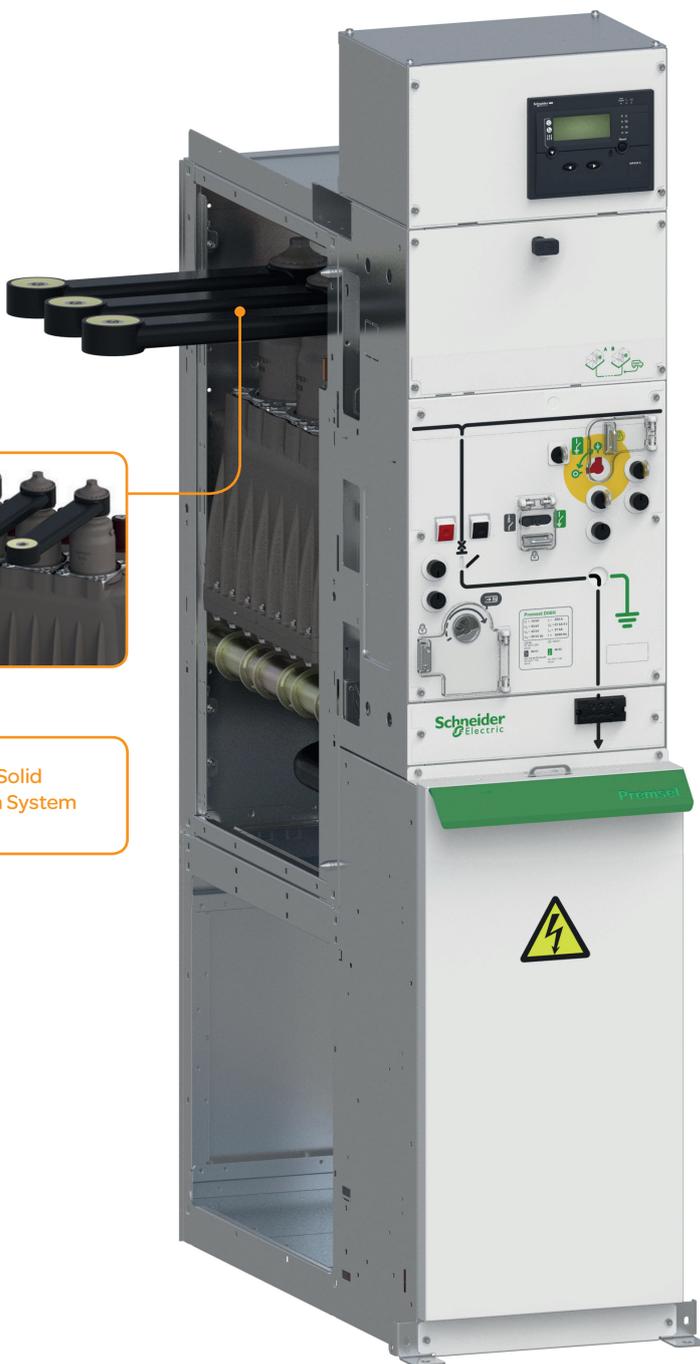




Reliability

Long-lasting performance with the Shielded Solid Insulation System (2SIS)

In addition to its impressive ability to maintain optimal performance in any environment, the Shielded Solid Insulation System is also the combination of robustness with a flexible and modular design, allowing its functional blocks to be used in any combination.



+ Shielded Solid Insulation System (2SIS)

Extending protection to the entire switchgear

While insulation has previously been used, Premset switchgear is the first global product using solid and shielded insulation.

The system is applicable for all network functions, including:

- > Load break switches or circuit breakers
- > Integrated metering unit
- > Current and voltage transformers.

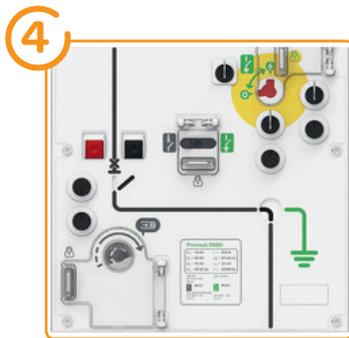
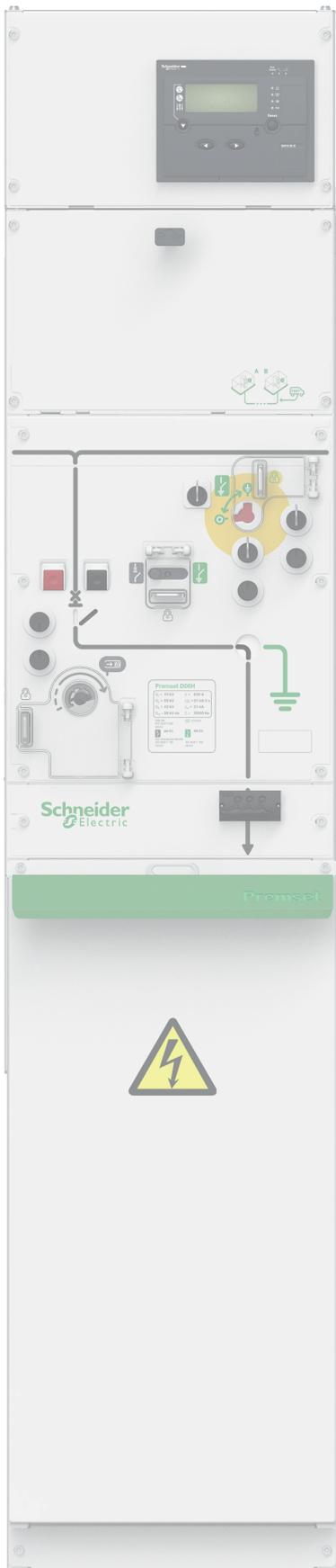
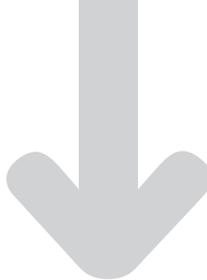
Enhanced safety, reduced internal arcing risk

The earth shielded system helps to extend the equipment service life, resulting a lower total cost of ownership (TCO).

And, with no part of the main circuit exposed to free air, you'll also:

- > Reduce risk of internal arcing
- > Optimize maintenance operations
- > Improve the safety of people and assets.

+ 2SIS is applicable for any switching function such as load break switches or circuit breakers, new compact metering functions, or current and voltage transformers.



+ Same design for every configuration

High modularity with total insulation

Premset system architecture is based on type-tested assemblies of functional blocks which are designed to work together in every combination. This simplifies the design and use of your MV switchgear. In addition, the plug and play design of accessories and auxiliaries makes even last minute or field modifications possible.

Mix-and-match control, monitoring, MV functions, field upgradeability, and servicing ensure the most cost-effective configurations.

These modular options also:

- > **Improve** cost savings
- > **Optimize** delivery times
- > **Facilitate** modifications.

The offer also includes a consistent range of compact, reliable circuit breakers, from the simplest MV/LV transformer circuit breakers to the heavy-duty line protection functions. These have all been optimized with a highly competitive market in mind, guaranteed to deliver the best performance at optimized cost.

- ① LV cabinet
- ② Cable test
- ③ Top connection
- ④ Core unit
- ⑤ Bottom connection
- ⑥ Bottom compartment



Flexibility

A compact and modular design for all functions

Premset range is a functional switchgear, with the added advantage of being both simplified and modular. The end result is a system that is easy to choose, easy to use, cost effective, and facilitates both simple installation and modification.

Fast, stress-free installation, upgrading, and maintenance

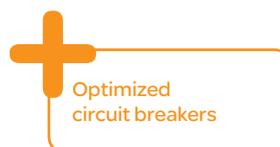
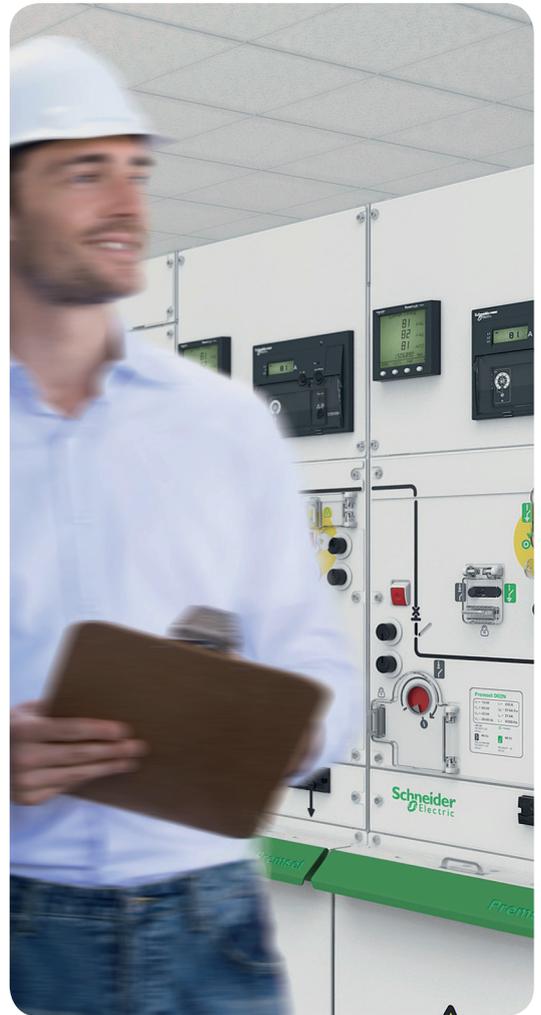
Because the range uses the same design for every configuration, customizing the switchgear to your needs is easier than ever before. And with its standardized dimensions, reduced footprint, and simple front power connections, time and money spent installing Premset switchgear is greatly reduced.

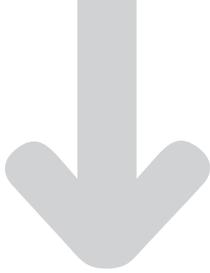
Every aspect of the system is designed with the intention of making installation and adaptations as seamless as possible, including:

- > **Straightforward** assembly because identical busbar and cable connections are used for the entire range
- > **Easy-to-install** patented universal flat power connection system
- > **Easy cabling** since all cables connections are at a height of 700 mm
- > **Optimized** maintenance and servicing requirements

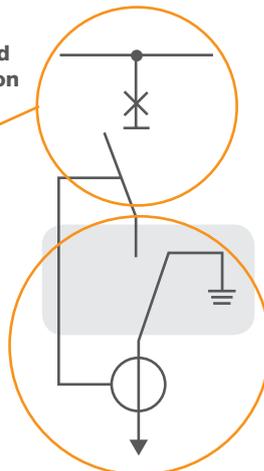
Upgrading is easy, with the same auxiliaries, accessories and monitoring devices being used for the entire range. In fact, this 'plug and play' design also allows on-site additions that do not require any special training, tools, or adjustments.

Lastly, end-of-life management is easier, because the innovative design means there are far fewer labour and administrative considerations.



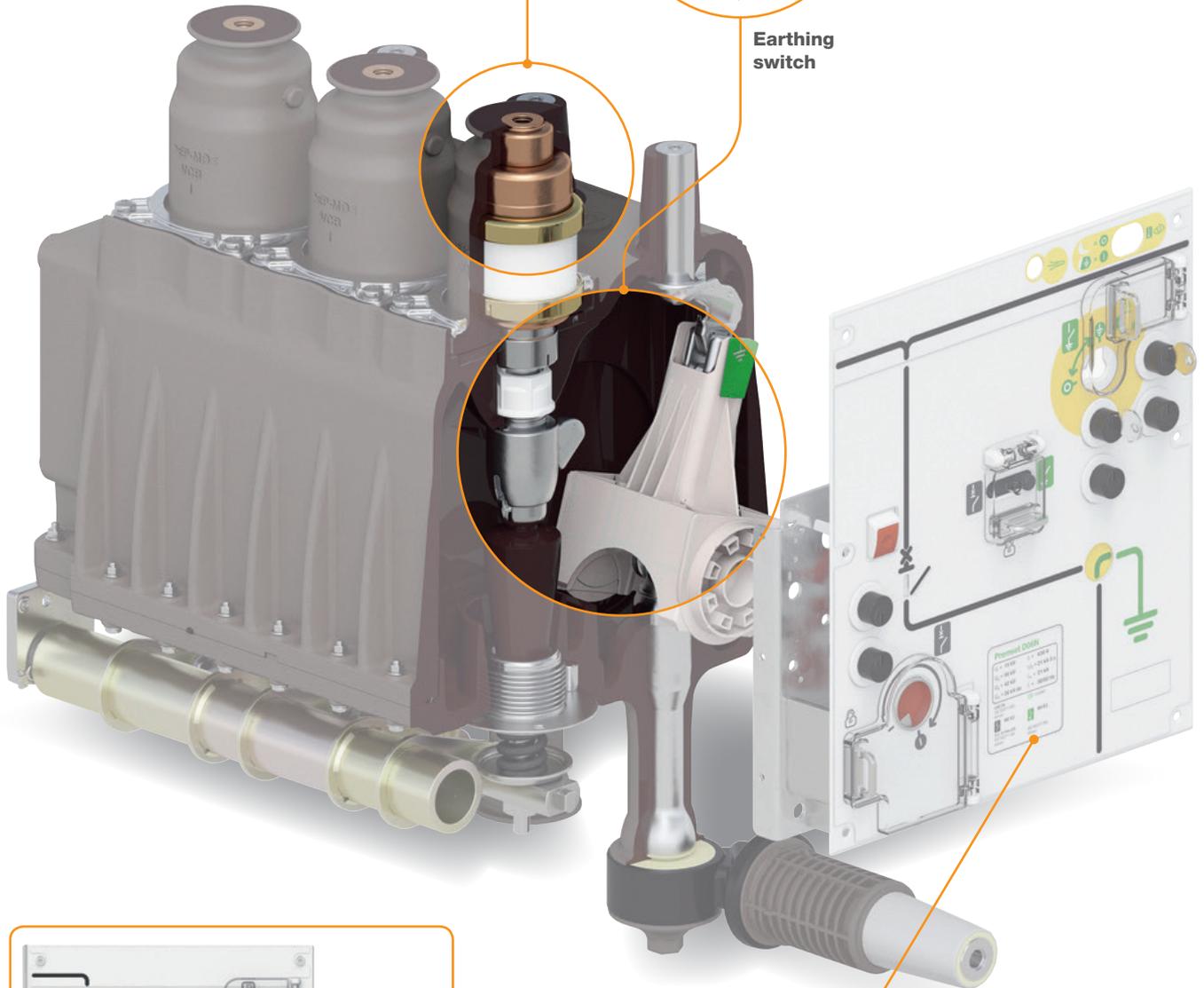


Breaking and disconnection



+ 3-in-1 architecture

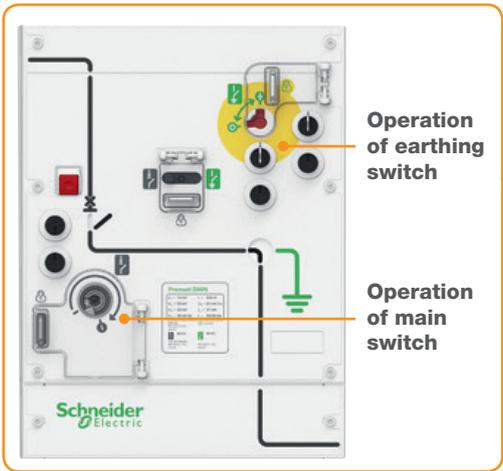
Earthing switch



Operation of earthing switch

Operation of main switch

+ Clear and easy to operate





Premset

Standards and technical characteristics

Premset
17.5 kV
Compact modular vacuum switchgear

Premset units meet all the following recommendations, standards, and specifications:

Technical characteristics

Rated voltage	7,2 kV	12 kV	17.5 kV
Rated current	up to 1250 A		
Maximum short-time withstand	20 kA 4s	21 kA 3s	25 kA 3s
Rated BIL withstand voltage	95/110 kV		
Rated PF withstand voltage	42/48 kV 1 mn		
Dimensions W x H x D	375* x 1550 x 1135		
Internal arc withstand	A-FLR 21 kA 1s or 25 kA 1s		

* 750: 1250A switch or circuit breaker
 ** Please consult us for availability

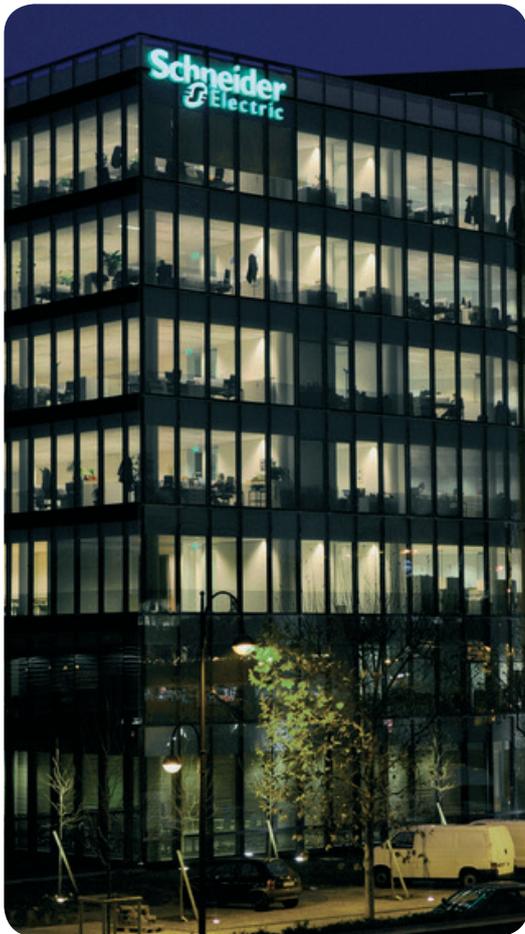
Standards information

Premset units meet all the following recommendations:

Standards	Specifications
IEC 62271-1	Common specifications for high voltage switchgear and controlgear
IEC 62271-200	AC metal-enclosed switchgear and controlgear for rated voltage above 1 kV and up to and including 52 kV
IEC 62271-103	Switches for rated voltages above 1 kV and less than 52 kV (replaces IEC 60265-1)
IEC 62271-100	High-voltage alternating current circuit breakers
IEC 62271-102	High-voltage alternating current disconnectors and earthing switches
IEC 62271-206	High-voltage prefabricated switchgear and controlgear assemblies – Voltage presence indicating systems
IEC 60529	Degrees of protection provided by enclosures (IP Code)
IEC 61869	Current and Voltage transformers
IEC 60255	Electrical relays



Schneider Electric: A partner you can trust



Delivering innovative products, services, and solutions worldwide

With more than 235 service centres in 72 countries and millions of MV units installed worldwide, Schneider Electric is the ideal partner to optimize your installation's efficiency throughout its life cycle.

Peace of mind is critical when overseeing operations, and our Premset architecture, as well as our solutions and services, are all designed to bring safe, reliable energy to any environment while minimizing maintenance and ensuring the easiest end-of-life treatment.

We pride ourselves on consistently bringing both reliability and innovation to the table, devoting 4 to 5 per cent of sales annually to R&D. It's this history of investment that has proactively made us smart grid-ready, with products and solutions that support all your MV needs.

Our vision isn't just to connect our customers to the smart grid, but also to connect them with each other, facilitating smarter interactions and leading to increased energy management capabilities.

In moving toward this goal, we're confident our greatest achievements are still ahead of us.

150 000

people in
100+ countries

5%

of sales devoted
to R&D

Visit www.schneider-electric.com/premset

Make the most of your energySM

Schneider Electric Industries SAS

Head Office

35 rue Joseph Monier
92500 Rueil Malmaison Cedex- France
Tel.: +33 (0)1 41 29 70 00
www.schneider-electric.com

