EcoStruxure™
Innovation At Every Level

PacT Series

EvoPacT™ HVX

Medium Voltage Distribution

Catalog 2024 (IEC)

Vacuum Circuit Breaker 24 kV
The next generation of HVX digital MV Circuit Breaker

se.com/evopact hvx

Life Is On | Schneider Electric

General contents

EvoPacT HVX

PM110583

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More resilient and sustainable power availability

Designed to put your mind at ease

EvoPacT HVX MV circuit breakers bring infrastructure, large industrial or commercial buildings, electro-intensive processes, or cloud and service providers into the future with IoT-enabled features that meet the needs of our All Digital, All Electric world.

Longer Service Life

• Designed with more than 45 years of medium-voltage experience, we use best-in-class components and embedded condition monitoring for longer operational life.

More Uptime

• By shifting to condition based maintenance using embedded IoT-enabled health sensors, you can help keep your business running with maximum uptime.

Manage Risks

• With innovative digital features, EvoPacT HVX helps to change working practices and mitigate risks for facilities and the people who work in them.

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Built-in sustainability

EvoPacT HVX digital circuit breakers are designed and built to be more sustainable and part of our commitment to deliver sustainable performance for our customers.

- Green Premium certified
- Cradle to Cradle certified
- Modular with easy upgrades
- Digital integrations to save time
- Longer operational life
- Only Air-based (Vacuum) switching

Green Premium™

PM110115

CERTIFIED cradletocradle

PM105396

afaq ISO 9001 Qualité AFNOR CERTIFICATION

PM105397

afaq ISO 14001 Environnement AFNOR CERTIFICATION

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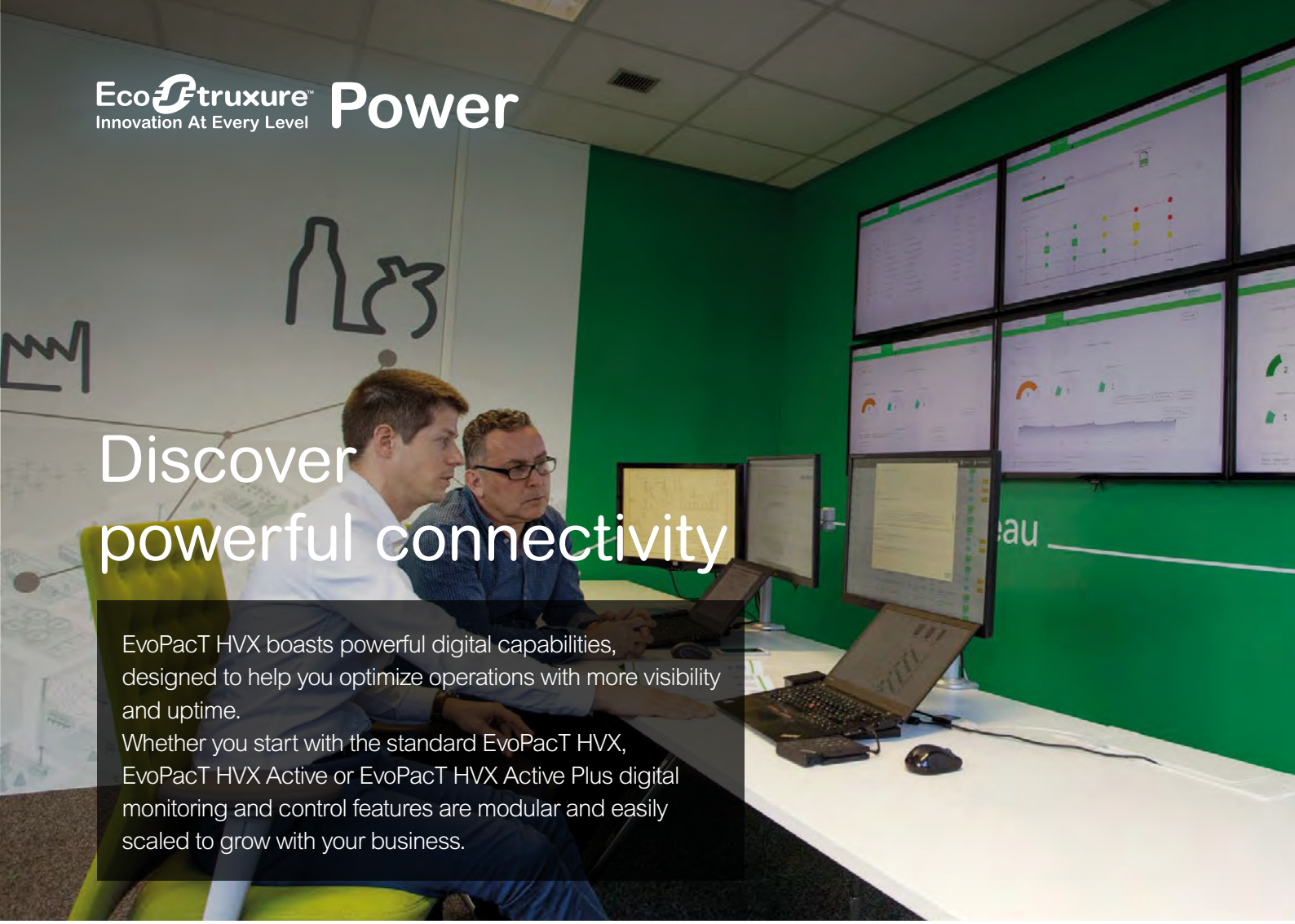


EcoStruxure Innovation At Every Level **Power**

Discover powerful connectivity

EvoPacT HVX boasts powerful digital capabilities, designed to help you optimize operations with more visibility and uptime.
Whether you start with the standard EvoPacT HVX, EvoPacT HVX Active or EvoPacT HVX Active Plus digital monitoring and control features are modular and easily scaled to grow with your business.

PM110769

PM110781

PM110782

EvoPacT HVX

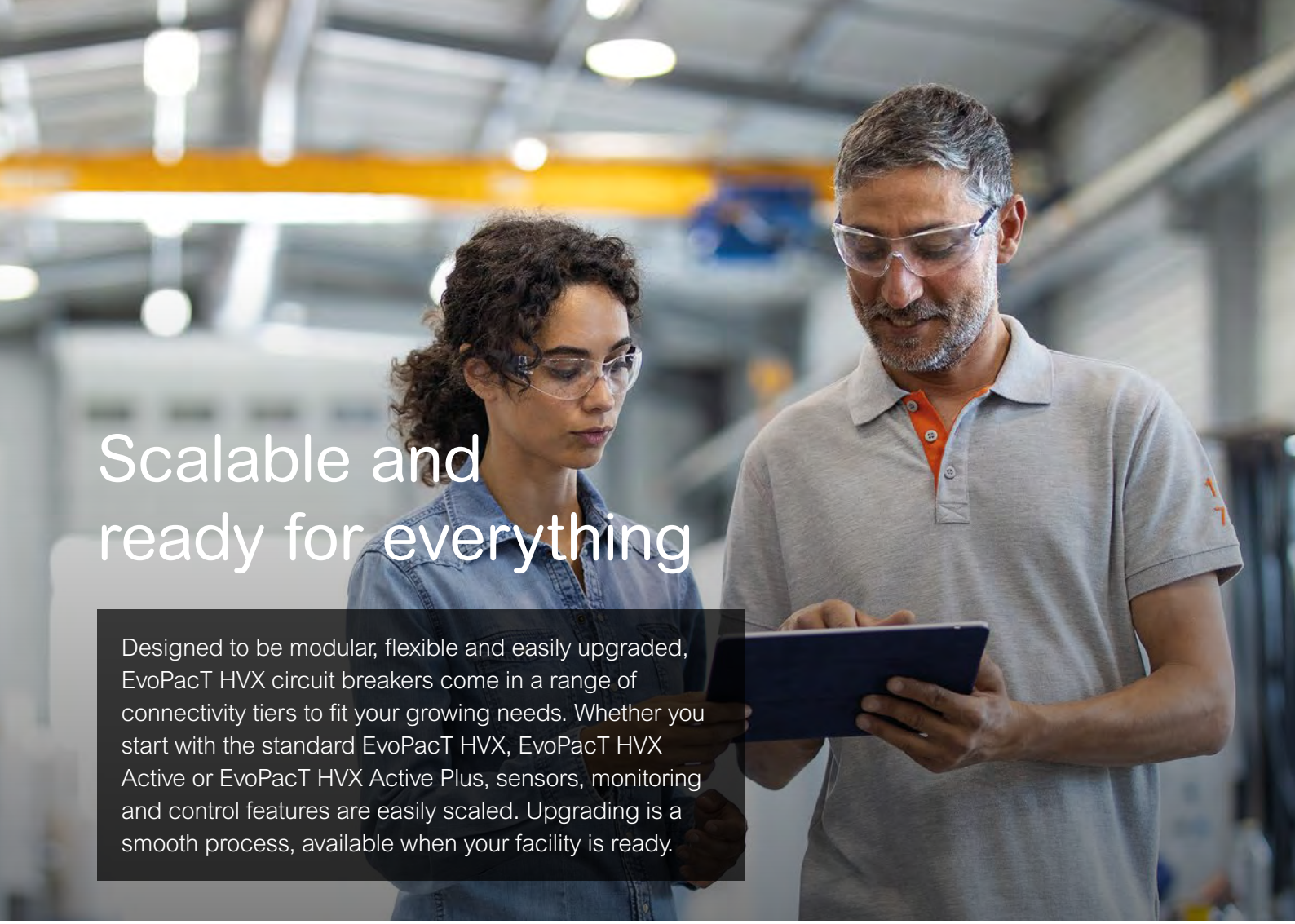
The next generation of digital circuit breaker, with future-ready compatibility and fast access to documentation (using the Digital Logbook) via QR code on your mobile device.

EvoPacT HVX Active

React faster to help prevent unplanned downtime with 24/7 condition monitoring using scable health sensors from essential thermal monitoring to critical components such as operating coils, vacuum interrupters, motors and mechanisms.

EvoPacT HVX Active Plus

Comprehensive set of sensors that monitor the complete circuit breaker, plus digital CB Controls and truck operations. EvoPacT HVX Active Plus gives the best insights into the overall health of your circuit breaker with alerts through a dedicated monitoring platform on your connected smart device.



Scalable and ready for everything

Designed to be modular, flexible and easily upgraded, EvoPacT HVX circuit breakers come in a range of connectivity tiers to fit your growing needs. Whether you start with the standard EvoPacT HVX, EvoPacT HVX Active or EvoPacT HVX Active Plus, sensors, monitoring and control features are easily scaled. Upgrading is a smooth process, available when your facility is ready.

Thermal monitoring (TH110)

Wireless thermal sensors help detect temperature anomalies, prompting diagnosis of potential faults, reducing downtime and fire risks.

Vacuum Interrupter monitoring (VI110)

Vacuum interrupter wear is traditionally measured regularly, so monitoring its condition naturally forms an essential part of CB health.

Circuit breaker monitoring (BM100)

With many sensors connected, BM100 plays a crucial role in consolidating condition monitoring data to report overall wear and tear.

Operation mechanism monitoring (MC100)

The operating mechanism features a dedicated sensor which monitors the operating speed and the impact of mechanical wear, an essential indicator.

Circuit breaker alignement (TS100)

With remote or nearby racking features, aligning the CB is important to ensure optimum engagement with cradles and power connections.

Motor control and monitoring (MCM100)

This device manages the monitoring and control of all motorized functions to ensure that remote operation performs as intended.

Shunt release monitoring (MX/XF/MN)

Shunt or coil health visibility is essential for safe and reliable operation when using electrical or remote controls.

EcoStruxure Panel Server (PAS600)

Wireless thermal sensors help detect temperature anomalies, prompting diagnosis of potential faults, reducing downtime and fire risks.

Digital Logbook (QR code)

Quickly connect by QR code to access a dedicated digital logbook, manuals, support and more, designed to save operational time and effort.

EcoCare Membership(1)

Take the best benefits from a digital CB with a data-driven maintenance and support plan, designed to save operational costs and time.

(1) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.

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Overview

Overview

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Evo**PacT** HVX field of applications

Evo**PacT** HVX is a range of Vacuum Circuit Breakers (VCB), addressing 24 kV networks, with up to 31.5 kA short circuit capacities and ranging from 630 A to 2500 A.

It is designed for use in Medium Voltage switchgear to connect primary power distribution consumers to the power grid, helping protect people and equipment in:

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Infrastructure

Industrial buildings

- Manufacturing facilities
- Large warehouses

PM110790

Commercial buildings

- Shopping malls
- Large office buildings
- High rise condominiums

PM110791

Transportation

- Airports
- Railways

PM110792

Critical Sites

- Data Centers (Co-location and Cloud)
- Hospitals

PM110793

Electro Intensive Applications

- Mining, Minerals and Metals (MMM)
- Oil and Gas (O&G)
- Water and waste water

Longer service life

PM110786

EvoPacT HVX is designed for life

EvoPacT HVX digital circuit breakers are designed with more than 45 years of medium-voltage experience and manufactured using in-house, best-in-class components for a longer operational life

- Proven to last three times longer than the industry standard for MV circuit breakers, making it unmatched in durability
- Built to withstand up to 30,000 mechanical and electrical operations(1)
- Tested against all major international standards, including IEC, ANSI/ IEEE and GB/T

30,000x

Mechnical and electrical operations

The long life expectancy of EvoPacT HVX is further enhanced by combining conditionbased maintenance plans using EcoCare membership(2).
When maintenance is scheduled based on real-life health monitoring of all major components, costs are optimized and operational life is extended even further, allowing a move to more predictive maintenance.

(1) Operations at normal rated current.
(2) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.

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More uptime for your business

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EvoPacT HVX helps keep your business running

By shifting to condition based maintenance based on health data, EvoPacT HVX circuit breakers help keep your business running with maximum uptime.

State-of-the-art, IoT-enabled sensors continuously monitor the health of the entire EvoPacT HVX circuit breaker in real time. From wear of vacuum interrupters, to operating coils and mechanism speed, the dedicated sensors alert you to abnormalities or health issues as soon as they happen.

A data-driven condition-based maintenance strategy helps avoid unplanned downtime:

- Detect potential issues early
- Investigate trends using wireless communication with regular updates
- Plan further actions at the best possible time to avoid loss of business
- Get recommendations and support from MV experts with EcoCare membership(1)

EvoPacT HVX's comprehensive monitoring and control platform is accessible through a local or remote display or connected smart device.
Whether you're on-site or in the cloud, you can make decisions as soon as you get an alert. With EcoCare membership(1) and condition based maintenance you can save up to 40%(2) in maintenance costs and time.

40%

reduction in maintenance costs and time

(1) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.
(2) Unplanned downtime and maintenance costs reduced when combined with EcoCare membership.

Reduce operational risks

PM110787

EvoPacT HVX helps you operate outside of the arc flash zone

With innovative features, EvoPacT HVX uses digital features to help mitigate risks for facilities and the people who work in them.

Get

24x7

Alerts

Digital tools enable new working practices

- Operation can be automated or time-delayed to allow users time to move out of the arc flash zone.
- To aid arc flash prevention, receive 24/7 alerts for fire risk, health recommendations or circuit breaker alignment.
- Remain at a greater distance while operating live equipment, with digital monitoring and control through a connected smart device or local HMI.

Detect incidents and get recommendations

In addition to a robust interlocking systems that can be equipped with padlocks and keylocks, EvoPacT HVX's embedded sensors help you detect health or abnormal conditions before they escalate. Working together with innovative features, to provide guidance, support and recommendations for operators to help minimize risks.

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Sustainability

Green Premium™ program

PM108239

An industry leading portfolio of offers delivering sustainable value

Green Premium™

More than 75% of our product sales offer superior transparency on the material content, regulatory information and environmental impact of our products:

- RoHS compliance
- REACh substance information
- Industry leading # of PEP's*
- Circularity instructions

DM107341

Discover what we mean by green
Check your products!

The Green Premium program stands for our commitment to deliver customer valued sustainable performance. It has been upgraded with recognized environmental claims and extended to cover all offers including Products, Services and Solutions.

CO_2 and P&L impact through… Resource Performance

Green Premium brings improved resource efficiency throughout an asset's lifecycle. This includes efficient use of energy and natural resources, along with the minimization of CO_2 emissions.

Cost of ownership optimization through… Circular Performance

We're helping our customers optimize the total cost of ownership of their assets. To do this, we provide IoT-enabled solutions, as well as upgrade, repair, retrofit, and remanufacture services.

Peace of mind through… Well-being Performance

Green Premium products are RoHS and REACh compliant. We're going beyond regulatory compliance with step-by-step substitution of certain materials and substances from our products.

Improved sales through… Differentiation

Green Premium delivers strong value propositions through third-party labels and services. By collaborating with third-party organizations we can support our customers in meeting their sustainability goals such as green building certifications.

*PEP: Product Environmental Profile (i.e. Environmental Product Declaration)

Sustainability

Environmental & quality performance

PM108293

Long-term sustainability

Further to our Green Premium and Cradle to Cradle certifications, EvoPacT HVX brings much more to help strengthen sustainability and reduce the impact on the planet

Operational lifespan

x2

means less replacement, less materials, less waste

Upgradeability

With a modular design, EvoPacT HVX can be upgraded easily, whether you need additional monitoring and control components or replacement coils due to heavy usage, your circuit breaker can quickly and easily evolve with your business.

Durability

EvoPacT HVX's durable design is tested in real-life conditions (not simulated) to 30,000 operations, electrically and mechanically. That means double (x2) the operational lifespan of the previous generation of VCBs, so you replace your breaker less often, lowering environmental impact while reducing overall maintenance and costs.

Green & Digital

Our latest portfolio uses innovative digital features that save you time and costs, together with air-based breaking techniques as key foundations. Following this methodology, EvoPacT HVX uses only lower air-based Vacuum breaking technology with no gas to perform our best ever VCB ratings and to enhance safety while avoiding environmental pollutants.

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Sustainability

Environmental & quality performance

PM110115

Cradle to Cradle - A concept for the circular economy

Inspired by nature

Cradle to Cradle is a design concept inspired by nature, in which products are created according to the principles of an ideal circular economy. This means that all parts of a product can be reused at the end of their life cycle and there is no waste. Particular attention is paid to the health of the material, which helps to ensure that no toxic substances are used.

Cradle to Cradle certification

When developing our products, we have been careful to develop environmentally friendly products and solutions for years. As the first company in the electrical industry, Schneider Electric has received the internationally recognized Cradle to Cradle certification in **silver** for its **EvoPacT HVX range of digital medium voltage vacuum circuit breakers** and has confirmed a recyclable product design. A holistic approach to the evaluation of product, process and company in 5 categories is pursued during certification. In addition to material health and the material cycle, the factors renewable energy, social responsibility and water management are also considered.

No waste, development for endless reuse

- Material Health: Selecting safer and healthier materials and chemicals
- Material cycle: No waste generation, development for endless reuse
- Renewable energy: Production energy from clean and renewable energy
- Social Responsibility: People and ecosystems are treated with respect
- Water management: Water is preserved as a precious resource

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Quality assurance

Schneider Electric incorporates a functional organization into each of its business units and manufacturing plants, the purpose of which is to provide a means of checking quality and monitoring compliance with standards. This procedure is:

- Uniform throughout all departments
- Recognized by many customers and approved organizations

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But above all, its strict application has allowed us to obtain the recognition of AFNOR certification, an independant organization delivering AFAQ quality mark.

The quality system for the design and manufacture of circuit breakers has been certified in conformity with the requirements of the ISO 9001:2015 quality assurance model.

Environmental performance

Schneider Electric is committed to a long-term environmental approach.

All necessary measures have been taken in conjunction with our services, suppliers, and subcontractors so that the materials used in the composition of the equipment comply with acceptable content levels of regulated substances as defined by regulations and directives. The production site is certified to ISO 14001.

In addition, the materials used in EvoPacT HVX, insulators and conductors, are identified and can easily be separated and recycled, as detailed in the "Product Environment Profile" file. An end-of-service-life manual details procedures for dismantling and processing components.

What is EcoStruxure?

Introduction

500 000

EcoStruxure™ has been deployed in almost 500 000 sites with the support of 20 000+ developers, 650 000 service providers and partners, 3 000 utilities, and connects over 2 million assets under management.

EcoStruxure™ ready

Efficient asset management

Boost your efficiency and reduce downtime using predictive maintenance tools

+

24/7 connectivity

Make better informed decisions with real-time data that is available everywhere, anytime

+

Enhanced safety

Advanced features designed-in and based on well-known designs, experience and technology.

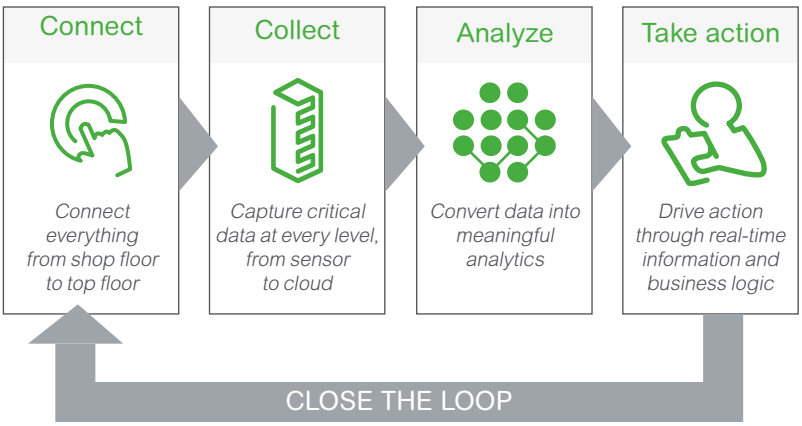
EcoStruxure™ is our open, interoperable, IoT-enabled system architecture and platform. EcoStruxure delivers enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers. EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level. This includes Connected Products, Edge Control, and Apps, Analytics & Services which are supported by Customer Lifecycle Software.

Turn data into action

EcoStruxure™ architecture lets customers maximize the value of data.

Specifically, it helps them:

- Translate data into actionable intelligence and better business decisions
- Take informed decisions to help secure uptime and operational efficiency thanks to real-time control platforms
- Gain visibility to their electrical distribution by measuring, collecting, aggregating, and communicating data



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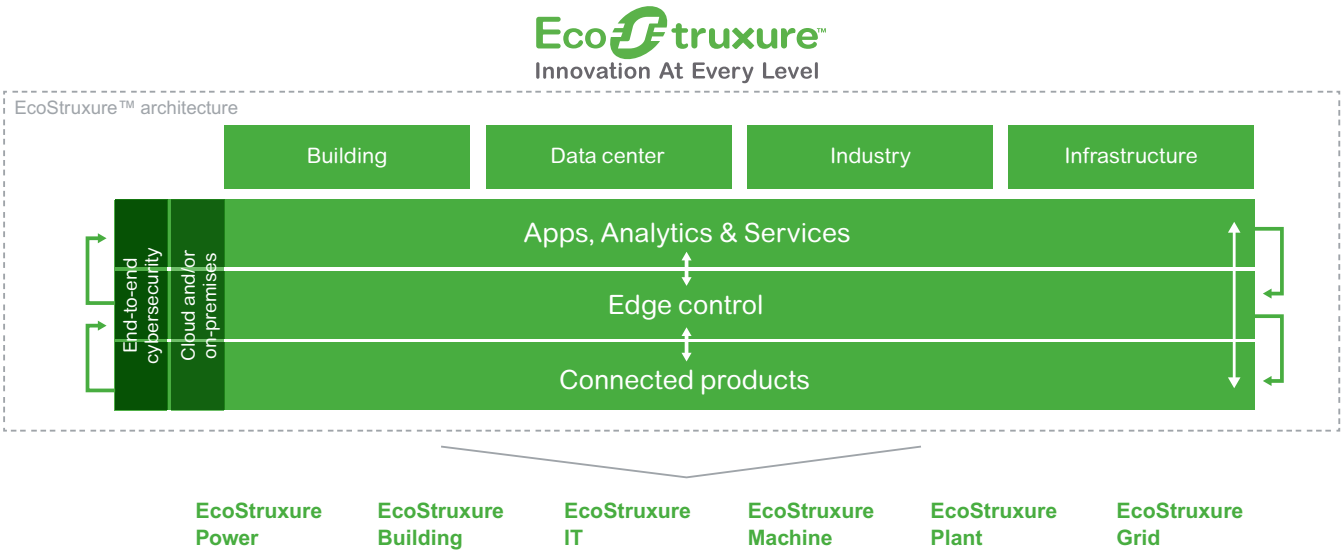

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What is EcoStruxure?

EvoPacT HVX Active and EvoPacT HVX Active Plus

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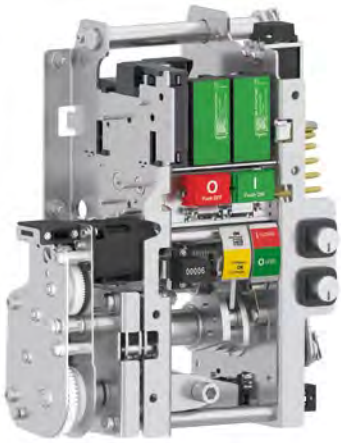


Future ready by default

Digitization provides an opportunity to take real benefits of data, cloud and analytics with power system equipment. Schneider electric offers extensive digital benefits and future ready configurations by default in the standard product.

- EvoPacT HVX has been designed with embedded IoT sensors that monitor all critical components and connections needed to assess the complete circuit breaker health.
- Essential data can be easily shared via on-premises or on-cloud architectures, connected to various applications to help users benefit from data.
- Nearby or remote connectivity allows users to monitor or control power system equipment from a safer distance, without even visiting the substation
- 24/7 data helps maintenance teams greatly improve efficiency and reliability. Respond to problems faster, and be better prepared for site visits.

Not only connected by default, IoT data enables optional EcoStruxure digital solutions and services such as EcoCare membership / EcoStruxure Service Plans(2).

Find more information Here

Through digital functionalities, EvoPacT HVX brings new opportunities and visibility based on data. We provide 3 scalable tiers of connected features that are easily upgraded to meet your evolving needs.

EvoPacT HVX Active

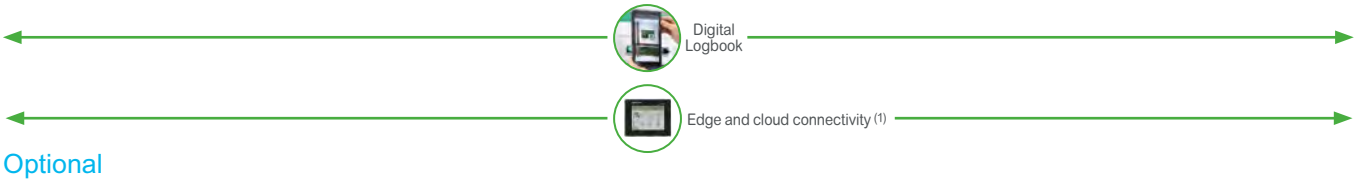
React faster to help prevent unplanned downtime with a 24/7 connected circuit breaker.
Essential condition monitoring provides scalable features and smart alerts.

Essential condition monitoring:
Thermal + Auxiliary circuit + Breaker alignment + Operating mechanism + VI
Optional: EcoCare membership(2)

EvoPacT HVX Active Plus

Comprehensive monitoring and control enables a fully connected breaker with health diagnosis and alerts from anywhere, as well as operation and racking through your local HMI or connected device.

Comprehensive monitoring & control:
Thermal + Auxiliary circuit + Breaker alignment + Operating mechanism + VI
CB Motorized truck & Earthing switch control
Optional: EcoCare membership(2)



Optional

(1) Edge and cloud connectivity comprise the optional software offers:
- EcoStruxure Power Monitoring Expert
- EcoStruxure Power SCADA
(2) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.

What is EcoStruxure?

EvoPacT HVX Active and EvoPacT HVX Active Plus

Selection list		Active				Active Plus(1)	
	Feature & Function	1	2	3	4	1	2
		On demand	Continuous	Continuous	Continuous		Continuous
Condition monitoring							
Thermal	CB power connections arms thermal monitoring	✓	✓	✓	✓		✓
	Ambient temperature and relative humidity monitoring	○	○	○	○		○
	Busbar and cables connections thermal monitoring	○	○	○	○		○
	Temperature rise alarm according to temperature and current measuring		○	○	○		○
Auxiliary circuit	Shunt release condition monitoring			✓	✓		✓
	Spring charging motor condition monitoring			✓	✓		✓
	Closing/Opening shunt releases current curve			✓	✓		✓
Circuit breaker alignment	Circuit breaker power connection arms alignment monitoring			✓	✓		✓
Operating mechanism	Circuit breaker Closing/Opening time				✓		✓
	Circuit breaker bouncing time on closing(1)				✓		✓
	Circuit breaker rebounding distance on opening				✓		✓
	Circuit breaker closing/opening speed				✓		✓
	Vacuum Interrupter contacts travel curve				✓		✓
	Vacuum Interrupter contacts gap monitoring				✓		✓
Vacuum Interrupter	Vacuum Interrupter contacts condition monitoring				✓		✓
	Poles closing/opening synchronization(1)				✓		✓
	Contact spring travel monitoring				✓		✓
	Vacuum Interrupter contacts pressure monitoring				✓		✓
Circuit Breaker endurance monitoring	Electrical endurance assessment		○	○	○		○
Monitoring and control							
CB motorized functions	Motorized CB truck and earthing switch control and protection					✓	✓
	Motorized CB Truck and earthing switch motors condition monitoring					✓	✓
Other							
Digital Logbook	Stay connected with all project documentation and records	✓	✓	✓	✓	✓	✓
EcoCare membership(2)	Data-driven maintenance and support plan		○	○	○	○	○

✓ As standard ○ Optional

(1) Please contact Schneider Electric for availability.
(2) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.

Control
Mechanism and VI monitoring
Auxiliary circuit monitoring
Thermal monitoring

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EcoCare Membership(1)

EvoPacT HVX Active or EvoPacT HVX Active Plus

We help you optimize your electrical asset management. How?

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1. **On-board & Set-up**
   Activate your mySchneider account and meet with your Customer Success Management team to explore your membership and set required features.
2. **Collect**
   Data from sensors and communicating devices are collected and uploaded on the Schneider Electric Cloud.
3. **Monitor and visualize**
   The environmental and health status of the assets are continuously monitored.
4. **Analyze**
   Our experts from Schneider Electric's Connected Services Hub analyze the data and analytics computed by our EcoStruxure digital platform.
5. **Notify**
   If our experts detect abnormal behavior, they'll notify you and propose a mitigation plan.
6. **Maintain**
   If the issue is critical, a Services Representative will be dispatched whenever needed with faster response time.
7. **Advise**
   You'll get insights and recommendations during a consultative meeting with our experts.
8. **Support**
   You'll get access to Premium Support with our knowledgeable experts.
9. **Empower**
   You'll have access to specialized training, online or on-site, to empower your team and develop their skills.

Understanding the EcoCare Membership features and benefits

		EcoCare(1)		EcoCare+(1)
Features		**Essential**	**Advanced**	**Advanced**
Support to operations	• mySchneider portal • Premium support • Emergency support • Customer Success Management	✓	✓	✓
Workforce empowerment	Access to online training courses	✓	✓	✓
Exclusive Benefits	Members rates on other services: On-site intervention, advanced trainings, Spare parts and more*	✓	✓	✓
Monitor & Optimize	24/7 Monitoring and alarming	✓	✓	✓
	Consultancy by our experts and quarterly reports	-	✓	✓
	Partial discharge monitoring for Medium Voltage switchgear	-	○	○
	Condition-based monitoring for Oil Transformers	-	○	○
On-site maintenance	Calendar-based Preventive maintenance visits with exclusive asset diagnostic and tools	○	○	-
	Condition-based maintenance	-	-	✓
Workforce empowerment	Access to online training courses	○	○	○

(1) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.

✓ Warranty ○ Optional

Why become a member?

- **Simplified operations** with online asset condition monitoring and alarming.
- **Help prevent fires** with continuous thermal monitoring.
- **Increased asset uptime** with predictive analytics, remote, and on-site manufacturer expertise.
- **Faster issue resolution** with 24/7 remote technical assistance.
- **Optimized operational budget** with a condition-based maintenance strategy.
- **Improved asset's lifetime**, helping to reduce CO_2 footprint.

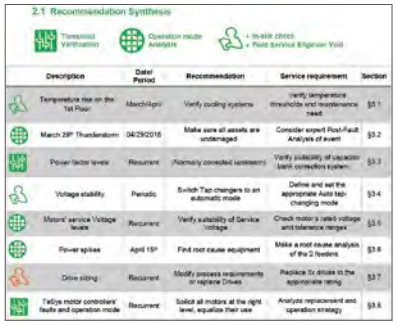
EcoCare Membership(1)

EvoPacT HVX Active or EvoPacT HVX Active Plus

EcoCare Membership can help you reduce electrical failure risk and unplanned downtime by up to 75%(2), on-site maintenance and planned downtime costs by up to 40%(2), and also extend your assets' lifespan to optimize costs of carbon emissions

Site risk level and health matrix

Circuit breaker monitoring



Predictive insights and customized report

Asset & Switchgear Health Management
- Site risk level and health matrix
- Thermal monitoring of connection points
- Partial Discharge Monitoring
- Environmental monitoring of electrical room and cubicles
- Circuit breaker monitoring (electrical & mechanical wear, opening time status, health index, notification index)

Support
- Remote technical support
- Video assistance
- On-Site emergency prioritization
- Dedicated phone number

Smart Alarming
- Web PC interface & mobile app
- 24/7 smart alerts and alarms
- Automatic monthly summary reports

Predictive maintenance recommendations (Predict & Prime only)
- Electrical health and power quality consultancy
- Automated asset management report
- Advanced asset management consultancy report
- Dynamic asset maintenance plan recommendation

Cybersecurity
- Developed according to the IEC 62443-4-1 standard and compliant with the GDPR
- Encryption of data in transit and at rest
- Only outbound connections allowed
- Two segregated network interfaces, permits the blocking of remote control from one side to the other
- Using MS Azure security features
- Rigorous registration and authentication procedure

Key Products and Services

Connected products	Description
EvoPacT HVX	The next generation of HVX digital MV circuit breaker
Apps, analytics & services	**Subscription type**
EcoCare Membership(1)	• Annual/multi-year service plan subscription • Combining expertise (remote and on-site) with 24/7 remote monitoring and alarming powered by advanced analytics • Helps reduce downtime, improve costs, reputation, standards compliance and safety

Contact your sales representative for more information on these solutions

(1) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.
(2) Unplanned downtime and maintenance costs reduced when combined with EcoCare membership.

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EvoPacT HVX Connectivity Active Architectures

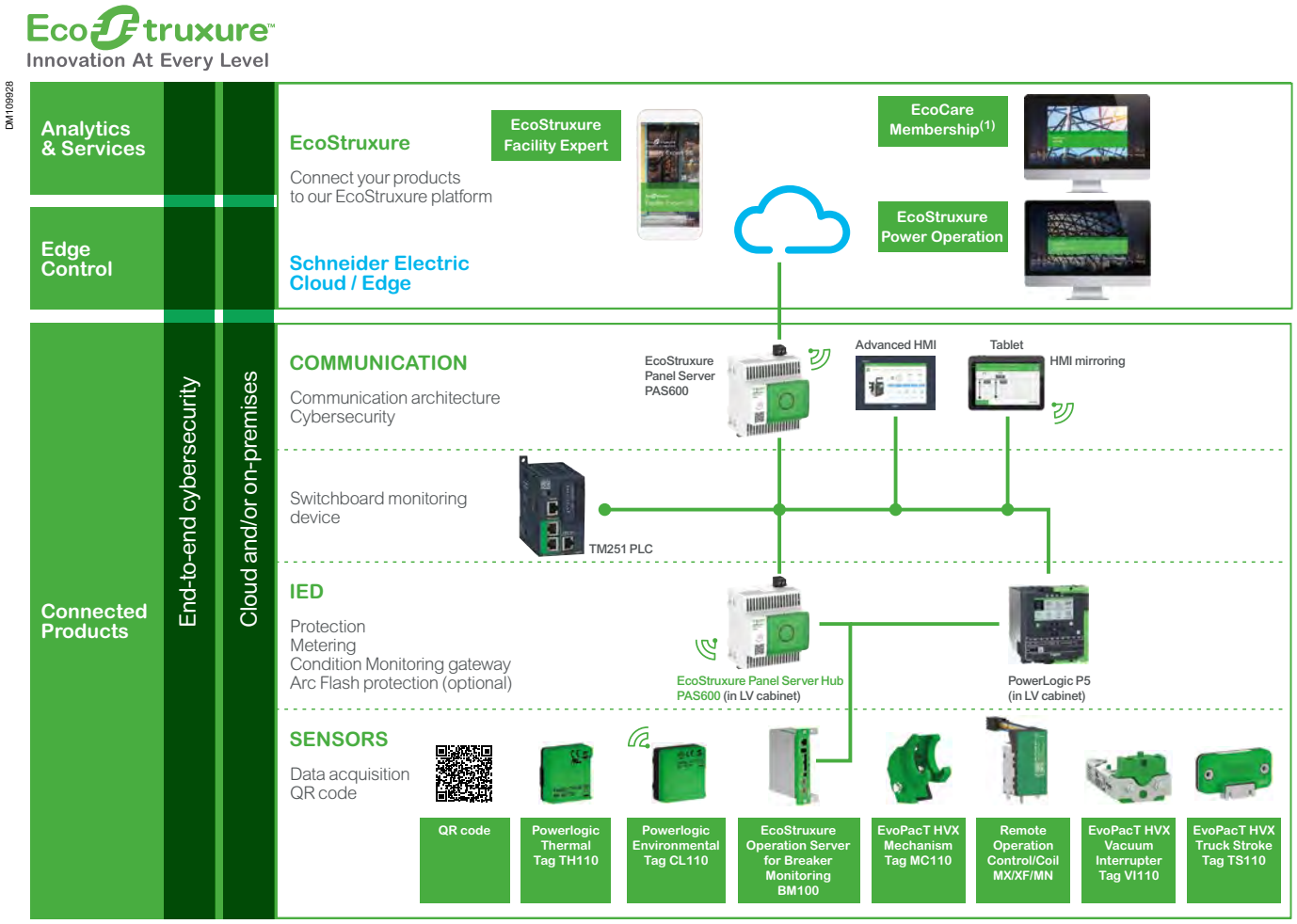
Digitally native with essential monitoring

- **24/7 connectivity**
  Real-time remote data for effective decision making, anywhere, anytime.
- **Efficient asset management**
  Increase uptime while also reducing maintenance costs and risks.

Active features

The Active tier features EvoPacT HVX with various levels of circuit breaker health monitoring which can be accessible at the switchgear, Edge or Cloud levels, connected 24/7. It provides:

- Thermal monitoring
- Environmental monitoring
- Circuit breaker monitoring
- QR Code access to a Digital Logbook and product information via EcoStruxure Facility Expert
- Optional services:
- Connectivity gateway to SE Cloud
- EcoCare Membership(1)



(1) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.

EvoPacT HVX Connectivity Active Plus Architectures

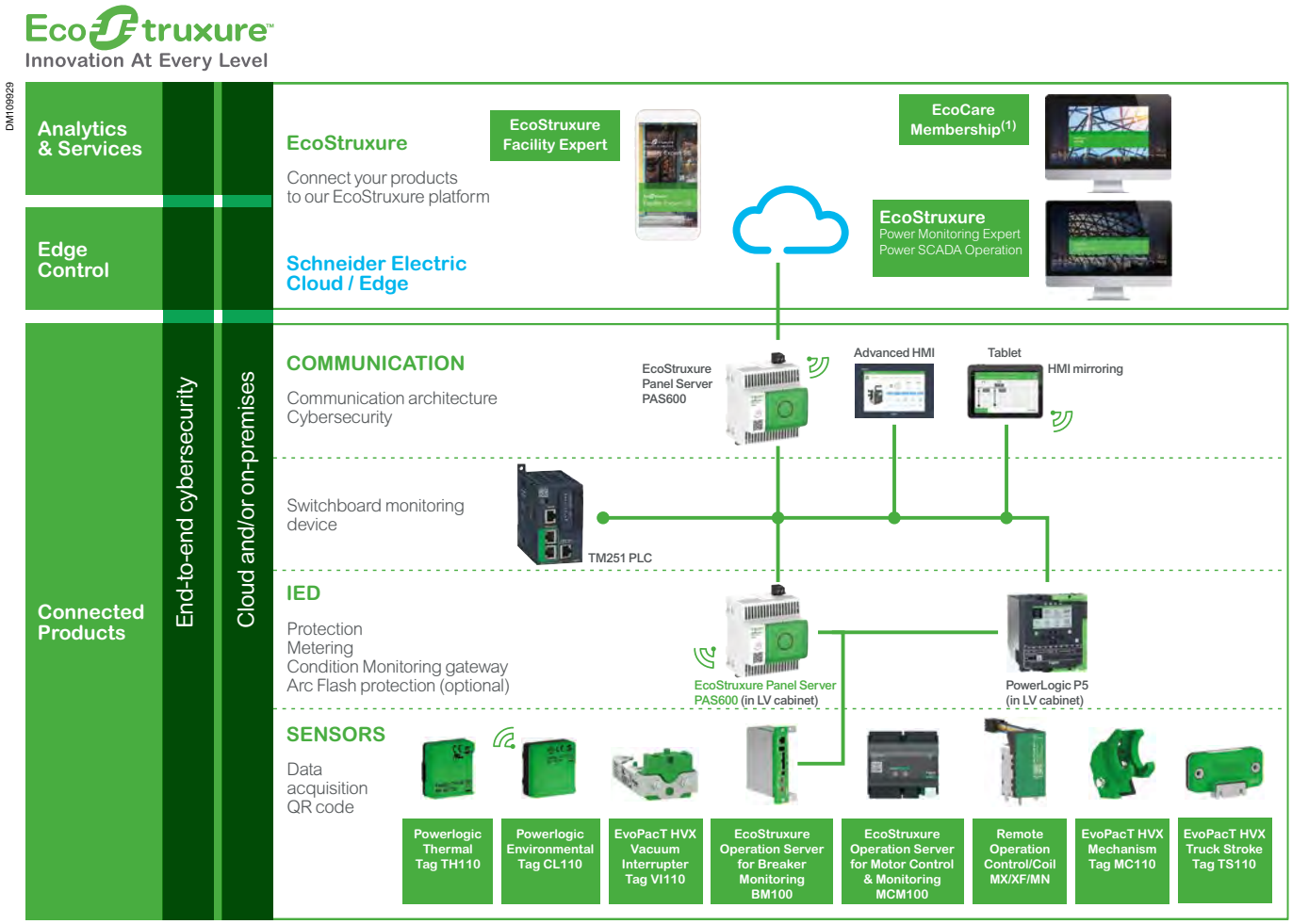
Comprehensive monitoring & control

- **Helping enhance safety**
  For both operator and equipment by featuring nearby operations.
- **24/7 connectivity**
  Real-time remote data for effective decision making, anywhere, anytime.
- **Efficient asset management**
  Increase uptime while also reducing maintenance costs and risks.
- **Open Intelligence Edge Layer**
  Decision and Control capabilities from Edge layer for all devices.

Active Plus features

In addition to Active, the Active Plus tier features control capabilities that enable nearby operation and also guide users to enhance efficiency and safety.

- Nearby operations
- Thermal monitoring
- Circuit breaker monitoring
- Connectivity gateway to SE Cloud
- QR Code access to a Digital Logbook and product information via EcoStruxure Facility Expert
- Optional services:
  EcoCare Membership(1)
  Local edge monitoring & control:
  EcoStruxure Power Monitoring Expert
  EcoStruxure Power Operation



(1) Please contact your local Schneider Electric representative to verify the availability of EcoCare / EcoStruxure Service Plan in your region.

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EcoStruxure Connected product
Offer structure

PM19826

BM100

PM110768

MCM100

PM109836

MC110

PM110013

VI110

PM109838

TS110

EcoStruxure Operation Server BM100

This intelligent electronic device monitors the health status & proper function of the circuit breaker by measuring several critical parameters during its lifetime. It receives information from various internal components then analyses those measurements to identify meaningful information of circuit breaker health for the following parameters:

- Health of circuit breaker mechanism
- Health of vacuum interrupter
- Health of shunt opening/closing release
- Health of charging motor
- Proper engagement of racking device

In the event of abnormality, it provides alarms for users to take the necessary actions to help prevent unwanted shutdowns.

EcoStruxure Operation Server MCM100

Main features:

- Optimized Motor Control (2 to 4 Motors)
- CB Open/Close Control
- Interlocking Motor/CB - GIS or AIS
- Motor Protection
- Motor Aging Monitoring
- Alarm local signalization (DO NO/NC)
- CE, ULR, NB T42044-2014

EvoPacT Mechanism Tag MC110

This sensor is mounted on the mechanism shaft to measure the speed of the mechanism rebound, used to calculate mechanism wear and health.

EvoPacT Vacuum Interrupter Tag VI110

This sensor measures the primary contacts mechanical wear and synchronization of phase to provide known indication of vacuum interrupter health.

EvoPacT Racking truck sensor TS110

This sensor, mounted on the front frame of the circuit breaker, monitors the CB position to indicate good connection and alignment between the circuit breaker arms and cubicle bus bars.

PM110582

EcoStruxure™ ready solutions
EcoStruxure™ Facility expert

PM110119

Asset Management

> Improve efficiencies and expand your offerings

> Stay connected to maximize your operations

Energy Management

> Enhance your energy efficiency services

Introducing EcoStruxure Facility Expert

Use your digital logbook to create QR codes and track your assets for long-term maintenance schedules and task reminders. In one scan, you can not only log and access asset history, documentation, and collaborative information, but also generate inspection and activity reports.

Collect information from your connected panels and receive alerts with actionable data directly onto your mobile device allowing you to monitor energy consumption and equipment of one or more buildings.

Designed to be a highly secure, robust and resilient managed service which is distributed across data centers in multiple locations. Schneider Electric is continuously monitoring the changing security landscape of cryptography and cybersecurity to help ensure that we offer the best available protection to our customers and their sensitive data.

Introducing the Digital Logbook

The digital logbook is an easy to use collaborative tool that keeps record of important documentation and maintenance schedules.

With EcoStruxure Power from Schneider Electric you can offer your customers the cutting-edge, end-to-end digital solutions they are looking for to make their buildings more efficient and reliable. And now, with the addition of the Digital Logbook, EcoStruxure Power is an even stronger asset in all phases of a building's lifecycle – from design and installation to operation and maintenance.

The digital logbook can be initiated by a panel builder using EcoStruxure Power Commission during switchboard construction. Then during the project handover, this "digital twin" can be shared to the contractor or the Facility Manager on EcoStruxure Facility Expert. The "Digital Twin" allows people to keep record of important construction documentations, user guide and maintenance schedules, collaborating better and delivering with greater insights and cost savings. And once a building is operational, facility managers or service providers have easy access to key information and maintenance plan which is critical for electrical facility upkeep.

- **Enjoy convenient digital access** to user manuals, single-line drawings, photos, factory and site acceptance tests, spare parts lists, and more
- **Share information** with your professional partners
- **Get things organized** and achieve a common goal
- **Create clear and consistent** documentation
- **Identify key responsibilities** and points of contact at different project stages
- **Help eliminate conflicting** or missing information

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Range description

Range description

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Vacuum interrupters	29
Fixed Circuit Breaker dimensions	30
Withdrawable Circuit Breaker dimensions	31

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General characteristics

According to IEC 62271-100:2021
Main electrical characteristics:

Common characteristics							
Rated voltage		U_r	kV	24			
Rated frequency		fr	Hz	50/60			
Rated short-duration power frequency withstand voltage (1 min)		U_d	kV	50			
Rated Lightning impulse withstand voltage		U_p	kV	125			
Rated operating sequence				O - 0.3 s - CO - 15 s - CO			
Phase distance			mm	210		275	
Rated short circuit breaking current		I_{sc}	kA	25	31.5	25	31.5
Rated normal current (1)		I_r	630 A	•	•		
			1250 A	•	•		
			1600 A	•	•	•	•
			2000 A	•	•	•	•
			2500 A			•	•
Rated short-time withstand current		Ik	kA	25	31.5	25	31.5
Rated duration of short circuit		t_k	s	3	3	3	3
Rated peak withstand current		I_p	kA	65	82	65	82
Percentage d.c. component				52%			
Time constant		t	ms	45			
Opening time			ms	22 to 40 ms			
Break time		t	ms	≤15			
Closing time			ms	36-60 ms			
Rated cable-charging breaking current		I_c	A	31.5			
Rated line-charging breaking current		I_l	A	10			
Rated back-to-back capacitor bank breaking current		I_{bb}	A	400 (25 kA) 400 & 1000 (25 & 31.5 kA)			
Rated back-to-back capacitor bank inrush making current		I_{bi}	kA	20 (4250 Hz)			
Mechanical endurance			cycles	30 000			
Electrical endurance	Number of operation cycles at Ir		cycles	30 000			
	Number of operation cycles at Isc		cycles	50			
Classification				C2-E2-M2			

Operating conditions

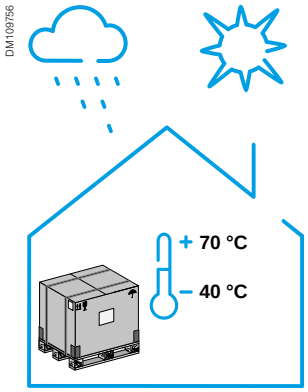
According to IEC 62271-100:2021
Main electrical characteristics:

Operating conditions		
Ambient air temperature	Minimum value	-25 °C
	Maximum value	+40 °C
Altitude (maximum without derating)	Stand alone circuit breaker	1 000 m
Environment	No dust, smoke, salt corrosive or flammable gas or vapor	
Humidity	Average relative humidity over 1 month	≤ 90%

Other service conditions

If operated beyond the normal service conditions, the circuit breaker is submitted to accelerated aging.

The circuit breaker may only be used under conditions other than the normal service conditions with express written permission from Schneider Electric.



Storage

In order to preserve all of the device's characteristics when stored for prolonged periods, we recommend to store the device in its original packaging, in dry conditions and sheltered from the sun and rain at a temperature between -40 °C and +70 °C.

The maximum storage period is 12 months.

If the device was stored:

- Between 6 and 12 months: perform basic preventive maintenance to help ensure correct device operation
- Beyond 12 months: contact your Schneider Electric Service local representative for device check-up.

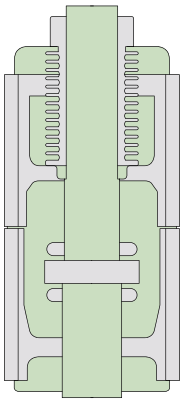
Life Is On Schneider Electric

Vacuum interrupters

PM110058

New Schneider Electric Vacuum Interrupter Bottles

DM107955



Vacuum interrupters inside principle

DM107956

Specific contacts shapes inside vacuum interrupters

The heart of the circuit breaker

Vacuum interrupters are the heart of a medium voltage circuit breaker: its electrical performance highly depend upon the vacuum interrupter characteristics and quality. They must convey and break the rated normal current as well as the rated short circuit current for the number of times specified by the manufacturer.

Brand new design

Schneider Electric has been designing and producing its own Vacuum Interrupters (VI) for 45 years and carries a unique know-how in this field.

Using a development process called Model based system engineering, we created a brand new range of vacuum interrupters. The process allowed innovative solutions to be implemented that improve the durability and lifespan of the VI including shape, contact shape, radial magnetic field petal shape and specific barriers to help protect the ceramics used in the VI body.

Designed to serve high performance and energy continuity

The result is a range of vacuum interrupters with high electrical performance, long life expectancy and high endurance in a compact volume.

Addressing needs of up to 2500 A nominal current and 31.5 kA short circuit breaking, the endurance is exceptional: up to 30,000 (nominal current) and up to 50 short circuit breaking operations.

The capacitive switching is also enhanced with C2 class for back to back capacitor installation.

The compact volume of the new VI allows an increased insulation distance within the circuit breaker, enhancing safety and smooth operation.

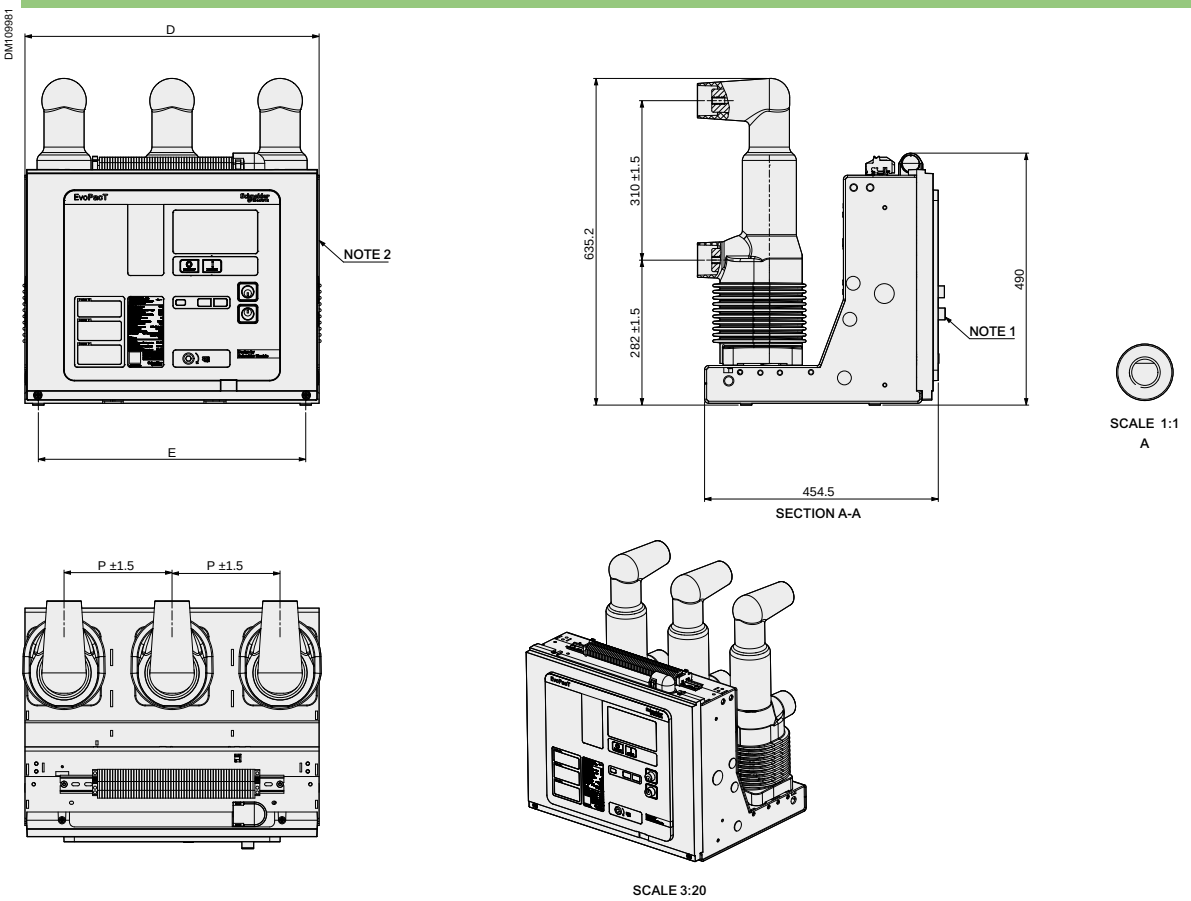
Strict quality controls

The manufacturing process uses best in class processes designed for a total vacuum inside the VI bottle. It uses techniques such as high temperature brazing and "getter materials" to absorb residual gas within a high quality sealed enclosure.

The "anti-twist" feature allows mounting of the vacuum interrupter inside the pole of the circuit breaker in an easy way to ensure high performance of the VI.
This new range of VI is therefore above fully compliant with all the main circuit breaker standards such as GB/T 1984-2014, DL/T 402-2016, IEC62271-100, IEEE C37.04-1999 and C37.06-2009.

Fixed Circuit Breaker dimensions

24 kV, ≤ 1 250 A, ≤ 31.5 kA



Note 1: Keylock is optional.
Note 2: Refer to the Outline drawing PKR2098102 for complete dimensions.

Rated current (A)	Rated short-circuit breaking current (kA)	P (mm)	D (mm)	E (mm)
630/1250	25/31.5	210	646	653
		275	836	853

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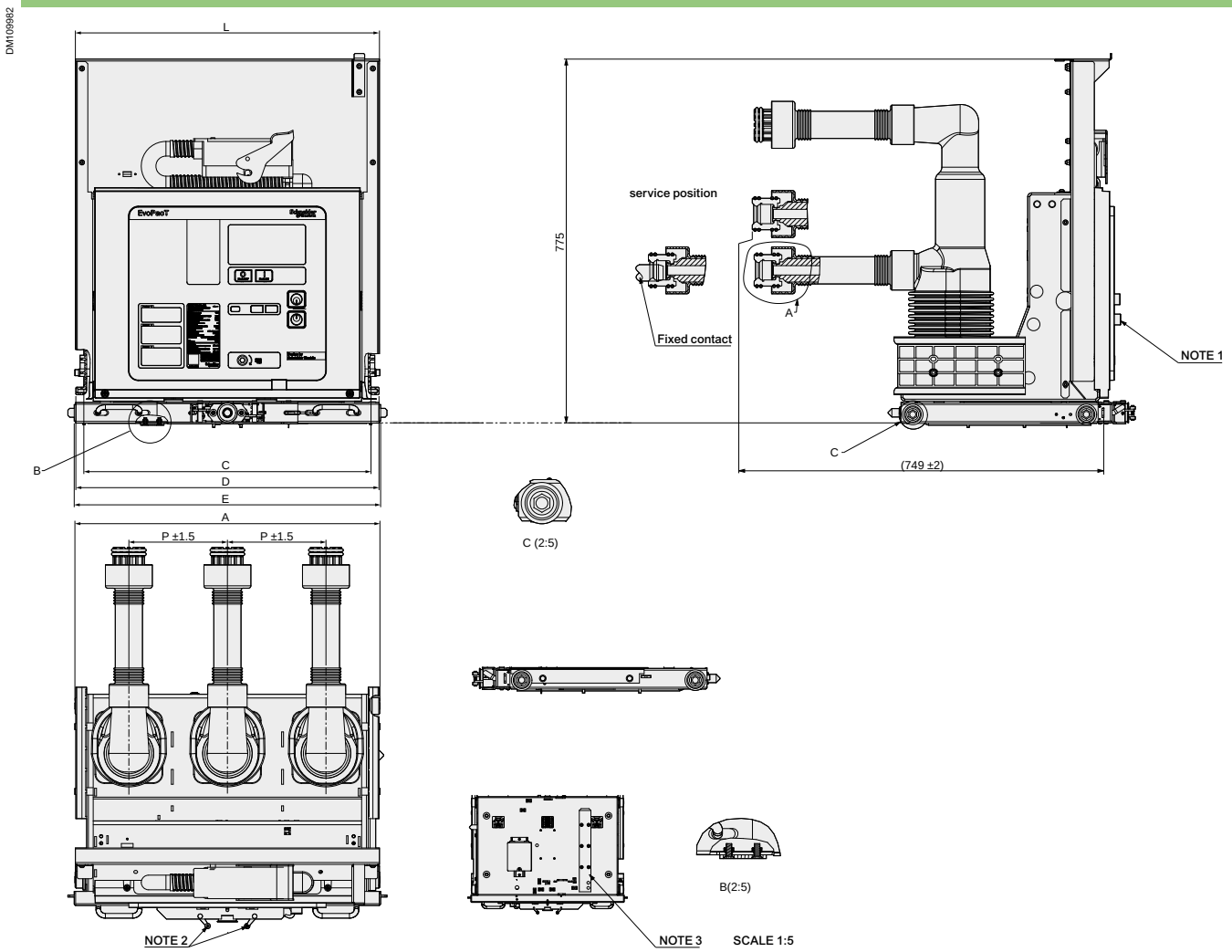
Withdrawable Circuit Breaker dimensions

24 kV, ≤ 1 250 A, ≤ 31.5 kA



NOTE 1: Keylock is optional
NOTE 2: Door interlock is optional
NOTE 3: Truck earthing busbar is optional

Rated current (A)	Rated short-circuit breaking current (kA)	P (mm)	D (mm)	E (mm)
630/1250	25/31.5	210	572	520
		275	748	700

Function and module descriptions

Life Is On | Schneider Electric

Function and module descriptions

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Overview

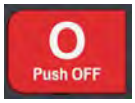
Fixed Circuit Breaker

PM110663

PM110664

Pushbuttons and indicators

PM110120



Opening pushbutton

PM110585

Closing pushbutton

PM110122

Main contact position indicator

PM110123

Spring charged and ready-to-close indicator

PM110124

Operating counter

Life Is On Schneider Electric

Overview

Withdrawable Circuit Breaker

PM110582

Green sensors for health monitoring are optional

PM110585

Pushbuttons and indicators

PM110120

Opening pushbutton

PM110585

Closing pushbutton

PM110122

Main contact
position indicator

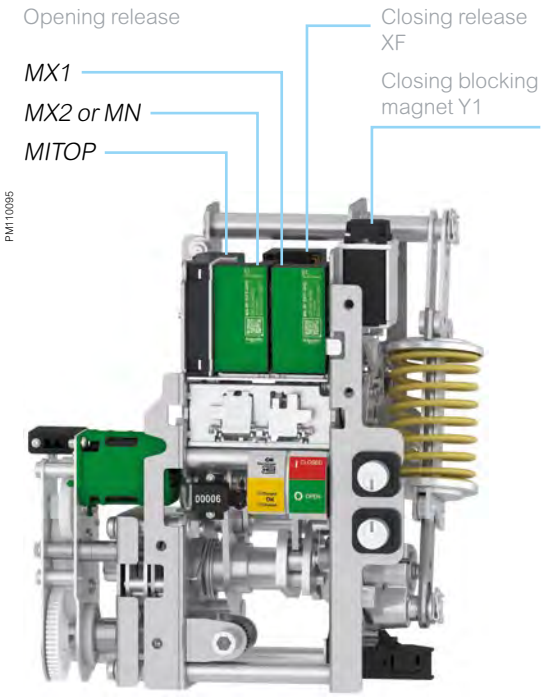
PM110123

Spring charged and
ready-to-close indicator

PM110124

Operating counter

Opening and closing functions



Operating mechanism

Shunt opening release MX

The MX shunt releases are used to open the circuit breaker. One shunt release is delivered natively wth the circuit breaker. A second optional one can be selected as a back-up. The shunt releases are actuated by the auxiliary power supply.
They open the circuit breaker when the voltage at the terminals of the release is between 70% and 110% (in the case of direct current) or between 85% and 110% (in the case of alternative current) of its rated voltage
The coil is designed for short operation only; it is therefore routed via an auxiliary switch contact controlled by the circuit breaker shaft, and upon release it interrupts the current circuit.

Characteristics		
Power supply	V AC	110/120/220/230
	V DC	24/48/60/110/125/220
Operating range	V AC	0.85 to 1.1 Ua
	V DC	0.7 to 1.1 Ua
Consumption	V AC	220 VA
	V DC	220 W

Shunt closing release XF

The XF release is used to close the circuit breaker. The release coil is actuated by the auxiliary power supply when the voltage at the terminals of the release is between 85% and 110% of its rated voltage.
The coil is designed for short operation only; it is therefore routed via an auxiliary switch contact controlled by the circuit breaker shaft, and upon release it interrupts the current circuit.

Characteristics		
Power supply	V AC	110/120/220/230
	V DC	24/48/60/110/125/220
Operating range	V AC	0.85 to 1.1 Ua
	V DC	0.85 to 1.1 Ua
Consumption	V AC	220 VA
	V DC	220 W

PM110110

Electronic release for
MX1/MX2 and XF

Operation counter

The operation counter installed on the operating mechanism records the number of opening/closing cycles.

PM110008

Operation counter

Blocking magnets

Blocking magnet on closing Y1

If the controlling power supply to operate this magnet is lost, the circuit breaker cannot perform the normal closing operation (including manual closing).

Characteristics		
Power supply Ua	V AC	110/120/220
	V DC	24/48/60/110/125/220
Operating range	V AC	0.85 to 1.1 Ua
	V DC	0.85 to 1.1 Ua
Consumption	V AC	12±1 VA
	V DC	12±1 W

PM110093

Blocking magnet on closing Y1

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Opening and closing functions

PM110087

Undervoltage release
MN

Undervoltage release MN

The undervoltage release operates to open the circuit breaker when the voltage at the terminals of the release falls below 35% of its rated voltage, even if the fall is slow and gradual.
The undervoltage release does not operate the circuit breaker when the voltage at its terminals exceeds 70% of its rated supply voltage.
The area between 35% and 70% is uncertain, care should be taken that the undervoltage release might operate to open the circuit breaker at these voltages.
For closing of the circuit breaker, the undervoltage release requirements (measured at terminals) are:

- >85% rated voltage to close
- <35% rated voltage closing is blocked

Characteristics						
Power supply	V AC	110/120				220/230
	V DC	24-30	48-60		110-125	220-250
Operating range	Opening	0.35 to 0 Ua				
Starting consumption (W)	V AC	-				
	V DC	288	329	400		
Holding consumption (W)	V AC	-				
	V DC	4	7	6		

PM110020

Low energy release
MITOP

Low energy release (MITOP)

This release includes a low consumption unit and is specifically used with the Micom P115 self-powered unit ("REFLEX MODULE"), or the VIP relay.
Any tripping due to the Mitop release unit is momentarily indicated by an SDE type changeover contact, provided with the Mitop.
This release also includes a coil (reset) enabling remote SDE contact reset.

Comment:
Use of the Mitop low energy release requires adjustment of the protection relay time delay in order to ensure that the circuit breaker trips between 45-50 ms.

This specific coil actuates the opening mechanism of the poles to trip the circuit breaker.

Characteristics	
Power supply	9 V
Consumption (W/V AC)	1

Charging functions

Circuit breaker charging motor and auxiliary contacts

PM110007

Charging motor M1

Operating mechanism

Charging motor M1

The electric motor charges the spring of the operating mechanism automatically as soon as it is discharged. This allows the circuit breaker to switch the second close-open-cycle within the rated operating sequence.

Characteristics		
Power supply	V AC	110/120/220/230
	V DC	24/48/60/110/125/220
Operating range	V AC	0.85 to 1.1 Ua
	V DC	0.85 to 1.1 Ua
Consumption	V AC	approx. 180 VA
	V DC	approx. 180 W

Operating time of motor	
Motor charging time	≤12 s

"Open/closed" auxiliary contacts

The number of contacts available depends on the options chosen for the operating mechanism.
In the basic configuration, the circuit breaker's operating mechanism comprises a total of:

- 9NO/9NC, including 5NO/5NC free for customer application

PM110023

Auxiliary switch in switching position S11

Circuit breaker On/Off status auxiliary switch S11

The auxiliary contacts in switching position indicate the ON/OFF status of the circuit breaker. They are actuated directly by the main shaft of the circuit breaker via a mechanical link. The position of the main shaft corresponds to the position of the auxiliary switches and indicates whether the circuit breaker is in ON or OFF.

Characteristics									
Rated operational voltage (Ua)	V AC/ DC	230							
Rated operational current (Ic)	A	10							
Rated short-time withstand current (Icw)	A	250 (during 3 s)							
Rated breaking capacity with inductive charge		L/R=10 ms						L/R=20 ms	
Voltage	V DC	24	48	60	110	125	220	110	220
Charging current	A	10	8	6	4	3	2	10	5
Max capacity (W)		440							

PM110089

Auxiliary switch in charging position S2-A

Spring charging status auxiliary switch S2-A S2-B

The auxiliary switch is used to control the charging motor and to indicate the charging status.
When contact S2 is closed, the motor charges the spring of the operating mechanism automatically. When charging is complete, it breaks the electrical charging circuit.

Micro switch for charging	5 A / 250 V DC	16 A / 250 V AC
Micro switch for control	16 A / 250 V AC	

PM110090

Auxiliary switch in charging position S2-B

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Low voltage connection

Withdrawable type

An optional flexible LV (Low Voltage) plug and socket system enables connection of the circuit breaker auxiliary circuits to the switchgear control cabinet. It consists of an elbow-type connector mounted on the frame of the circuit breaker and a removable connector with 58 male pins mounted on a 525 mm flexible duct. This LV connector is to be connected to the LV cabinet of the cubicle.

The counter part connector equipped with the female contacts is assembled in the low voltage cabinet of the switchgear.

The LV plug connect electrical commands and status information from the circuit breaker terminal blocks and from the racking truck terminal blocks. The number of pins in the LV plug (maximum 58) may limit the number of available position contacts for the switchgear LV cabinet.

The EvoPacT HVX LV connector can only be removed when the circuit breaker is in the test position.

Fixed type

The circuit breaker is equipped with either a set of terminal blocks or a LV plug to connect the circuit breaker auxiliary circuit with the LV wiring from the LV cabinet.

Fixed and withdrawable type VCB wiring diagram

List of wiring diagrams available in the "documents" section of country Schneider Electric website:

List of wiring diagrams	
PKR73840_01_EvoPacT HVX	Fixed circuit breaker (5NO-5NC, MITOP, E-Coil)
JYT34513_01_EvoPacT HVX	Withdrawable circuit breaker (5NO-5NC, Digital, E-Coil)
PKR73838_01_EvoPacT HVX	Withdrawable circuit breaker (5NO-5NC, E-Coil
PKR73839_01_EvoPacT HVX	Withdrawable circuit breaker (5NO-5NC, MITOP, E-Coil)

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Racking truck

PM110025

Racking **truck**

Withdrawable type

In the withdrawable type the EvoPacT HVX is mounted on a racking truck to move the circuit breaker between test position and service position .

The EvoPacT HVX racking truck comprises:

- A frame with 4 wheels for moving the circuit breaker
- A drive system with a rotating shaft to move the circuit breaker inside the switchgear compartment
- An optional motor drive for electrical operation. A motor controller is provided and attached to the circuit breaker and is mandatory for the truck motorization function.
- A set of auxiliary contacts (3NC+3NO available for customer use), to indicate the service or test position of the circuit breaker
- A set of mechanical levers to interlock the truck with the operating mechanism and the earthing switch operation if assembled in the switchboard
- A system to latch the racking truck to the switchgear frame to withstand the mechanical forces of the short circuit
- An interlock between the racking truck and the door of the panel

The circuit breaker is equipped with devices to operate the shutter mechanism.

PM110026

Racking truck motor M2

Characteristics		
Power supply	V AC	110/220/230
	V DC	24/48/110/220
Operating range	V AC	0.85 to 1.1 Ua
	V DC	0.85 to 1.1 Ua
Consumption	V AC	90 VA
	V DC	90 W

PM108896

Underneath earthing

PM110765

Side earthing

Earthing (optional)

The racking truck is earthed using underneath copper bars located under the racking truck.

This can also be equipped with earthing sliding contacts on both sides of the racking truck.

PM110018

Blocking magnet on racking truck Y0

Blocking magnets

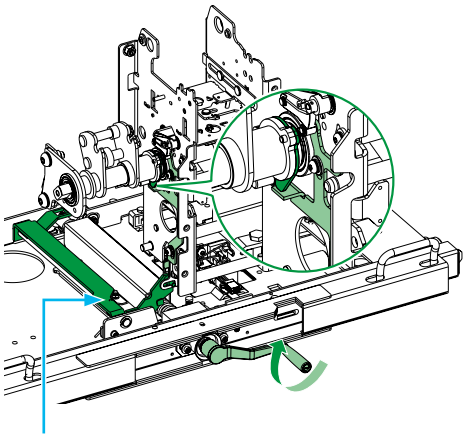
Blocking magnet on racking truck Y0

If the secondary controlling power supply is lost, the truck cannot be racked in or out (either manually or by motorization).

Characteristics		
Power supply Ua	V AC	110/120/220/230
	V DC	24/48/60/110/125/220
Operating range	V AC	0.85 to 1.1 Ua
	V DC	0.85 to 1.1 Ua
Consumption	V AC	3.6 VA
	V DC	3.6 W

Interlock functions

DM109768



EvoPacT HVX withdrawable type interlocking

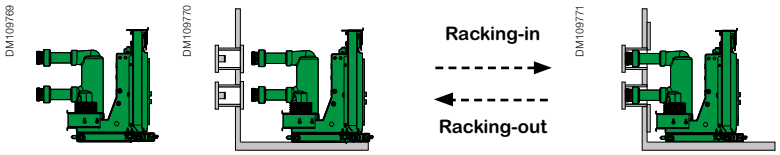
The following table describes the interlocking functions available on the withdrawable type of EvoPacT HVX.

How to use the table

Each box describes the possible status of parts interlocked with the circuit breaker at a given status.

- **Removed**: The circuit breaker with the racking truck is extracted from the switchgear with the racking truck
- **Disconnected**: The circuit breaker is inside the switchgear compartment; its power connections are separated from the switchgear contacts by shutters and the LV auxiliary circuits are connected
- **Intermediate**: The circuit breaker is moving from the disconnected position to the service position or vice versa
- **Service**: The circuit breaker power connections are connected to the switchgear contacts, the LV auxiliary circuits are connected, and the switchgear door is closed and locked

Circuit breaker status



Parts		Removed	Disconnected	Intermediate	Service
Compartment shutters	Open	**Prohibited**	Not possible	Operating	Mandatory
	Closed	Mandatory	Mandatory		Not possible
Switchgear door	Open	Possible	Possible (1)	**Prohibited**	**Prohibited**
	Closed	Possible	Preferred	Mandatory (2)	Mandatory
Door handle		Unlocked	Unlocked	Locked (2)	Locked (2)
LV connector	Disconnected	Mandatory	Possible (1)	**Prohibited**	Prohibited
	Connected	Not possible	Preferred	Mandatory (3)	Mandatory (3)
CB main contacts position	Open	Possible	Preferred	Mandatory	Possible
	Closed	Possible	Possible	**Prohibited** (4)	Possible (5)
Earthing switch position	Open	Possible	Possible	Mandatory	Mandatory
	Closed	Possible	Possible (1)	**Prohibited**	**Prohibited**

(1) Impossible to rack-in
(2) Impossible to access the CB compartment
(3) Impossible to access the LV plug
(4) Impossible to activate the “close” command
(5) Impossible to rack-out

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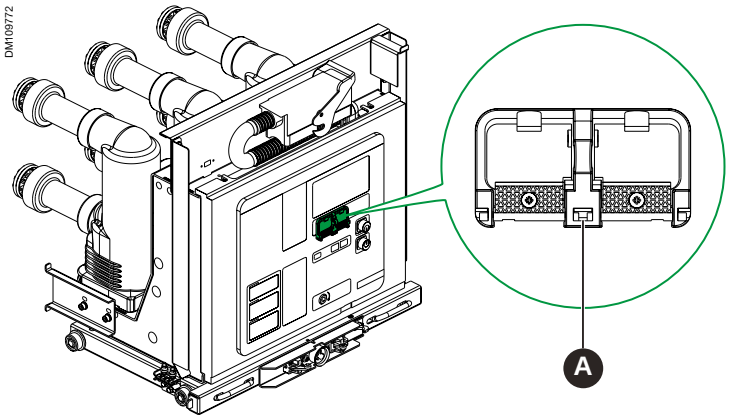
Key locking functions

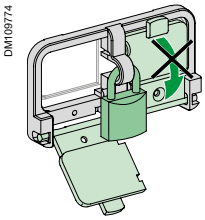
Locking the Push-buttons

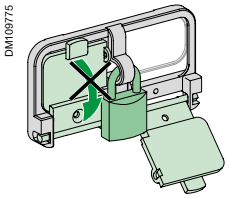
The push-button locking cover (A) is an optional accessory that can be installed on the circuit breaker to enable the push-buttons to be locked.

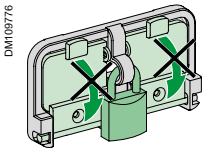


Locking by padlock

- 1 padlocks:
  Ø 5 to 8 mm,
  not supplied.

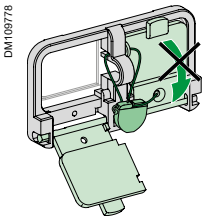


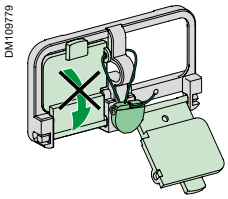


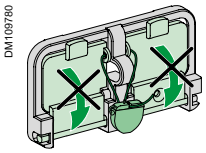


Locking by lead sealing

- Lead sealing system
  (ref. LV429375),
  not supplied.

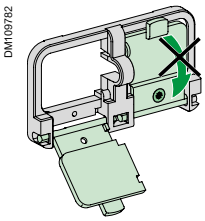


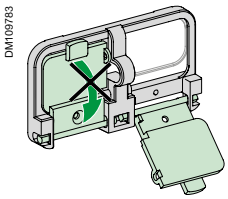


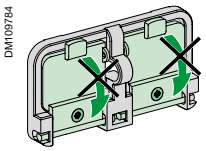


Locking by screw

- Two M3 x 7 Cross
  countersunk head
  screws, supplied.







Key locking functions

Locking the Device in the Open Position

The circuit breader is locked in the open position by locking the closing push button with 1 or 2 keylocks.

The locking system is an optional accessory that can be installed on the circuit breaker to enable the device to be locked in the OPEN position.

Consignment and locking procedures must be defined by the end user.

A Key 1
B Key 2

Product references

Product references

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Ordering the EvoPacT HVX

Product Selector

To simplify and expedite the ordering of EvoPacT HVX, two new tools are available:

- **Product Selector**: An online software tool embedded in the website to help users to select the correct product and accessories
- **Product Code**: An alphanumeric code representing the selection of a EvoPacT HVX circuit breaker. It simplifies communication of the selected circuit breaker during ordering, sharing information and remote assistance.

Product Selector

Product Selector aims at providing a fast, more secure and smarter way of selecting products. It includes the selection of the base unit, control unit, accessories and Digital Modules. Compared with the traditional way of filling up order forms or specifying customer functions, it brings the following benefits:

- Easy access: no login, direct access on Schneider website or on distributor's website
- High reliability: compatibility between core product and accessories are constantly tested. Plus always up-to-date product ordering information
- Wide coverage: more than 130 ranges from Schneider are available (EvoPacT HVX, MasterPact, ComPact, TeSys, PowerLogic…).

PM110126

PM110127

Commercial reference numbering system

Product code composition

Example:

Base function for VCB
24 kV - 31.5 kA - 1250 A - fixed - pd = 210 mm digital - Basic function circuit breaker

EAT - K - 24 - 31 - 12 - F - 210 - D

The product code composition is: **EAT K 24 31 12 F 210 D**

EAT - K - 24 - ___ - ___ - F - ___ - ___

Range	Code
EvoPacT HVX	**EAT**

Cubicle type

Value	Code
KYN	**K**

Rated voltage

Value	Code
24 kV	**24**

Rated short-circuit breaking current

Value	Code
25 kA	**25**
31.5 kA	**31**

Rated normal current

Value	Code
630 A	**06**
1 250 A	**12**
1 600 A	**16**
2 000 A	**20**
2 500 A	**25**

Digital	Code
Digital	**D**
Digital-Ready	**R**

Phase-to-phase distance

Value	Code
210 mm	**210**
275 mm	**275**

Installation	Code
Fixed	**F**
Withdrawable - Manual Truck	**E**
Withdrawable - Motorized Truck	**M**

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Spare parts

Shunt Release MX-XF		Description	References
	Electronic release	MX-XF Release 24-30 V DC	SPKELRMXF024DS
		MX-XF Release 48-60 V DC	SPKELRMXF048DS
		MX-XF Release 110-125 V AC/DC	SPKELRMXF110VS
		MX-XF Release 220-230 V AC/DC	SPKELRMXF220VS
	Low energy release MITOP	MITOP	SPKMITS
	Undervoltage release MN	MN Release 24-30 V DC	SPKMNU2024DS
		MN Release 48-60 V DC	SPKMNU2048DS
		MN Release 110-125 V AC/DC	SPKMNU2110VS
		MN Release 220-230 V AC/DC	SPKMNU2220VS

Spring charging motor M1	Description	References
M1	Motorization 24-30 V DC	SPKMCH024S
	Motorization 48-60 V DC	SPKMCH048S
	Motorization 110-125 V DC	SPKMCH110S
	Motorization 220-250 V DC	SPKMCH220S
Spring charging handle	Motorization 48-60 V AC	SPK39661
	Motorization 110-130 V AC 50/60 Hz	SPK50267
	Motorization 220-240 V AC 50/60 Hz	SPK39664
	Spring charging handle	SPK03405140F0

Auxiliary contacts	Description	References
RTC	Ready to close (1 micro switch)	SPK81357
	Micro switch of motor charging S2-A	SPK81341
	Micro switch of motor charging S2-B	SPK51765
S2-A contact S2-B contact		

Spare parts

Keylocks & Interlocks	Description	References
	1 Key	SPKLCKL1K1FS
	2 Keys	SPKLCKL2K2FS

Push Buttons	Description	References
	Padlock O/C push button padlocking	SPKLCKPLS

LV Plug and accessories		Description	References
Withdrawable type wiring	LV wiring	Withdrawable type future ready wiring	SPKLVC58WEWNDS
		Withdrawable type digital wiring	SPKLVC58WEWDS
Fixed type wiring		Fixed type future ready wiring	SPKLVC58WEFNDS
		Fixed type digital wiring	SPKLVC58WEFDS
	Wirings accessories	LV plug connector kit on cubicle side	SPKLVC58FE

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Spare parts

Arms	Description	References
Arm	Kit 1 arm: 630 A/≤ 31.5 kA	SPKMVA24310611S
	Kit 1 arm: 1250 A/≤ 31.5 kA	SPKMVA24311211S
	Kit 1 arm:1600 A/≤ 31.5 kA	Coming soon
	Kit 1 arm: 2000 A/≤ 31.5 kA	Coming soon
	Kit 1 arm: 2500 A/≤ 31.5 kA	Coming soon
Digital arm	Kit 1 arm: 630 A/≤ 31.5 kA	SPKMVA24310611THS
	Kit 1 arm: 1250 A/≤ 31.5 kA	SPKMVA243112KYTHS
	Kit 1 arm:1600 A/≤ 31.5 kA	Coming soon
	Kit 1 arm: 2000 A/≤ 31.5 kA	Coming soon
	Kit 1 arm: 2500 A/≤ 31.5 kA	Coming soon

Clusters	Description	References
	Kit 1 cluster: 630 A/≤ 25 kA	SPKMVC122506KYS
	Kit 1 cluster: 630 A/31.5 kA	SPKMVC123106KYS
	Kit 1 cluster: 1250 A/≤ 31.5 kA	SPKMVC123112KYS
	Kit 1 cluster: 1600 A/≤ 31.5 kA	Coming soon
	Kit 1 cluster: 2000 A/≤ 31.5 kA	Coming soon
	Kit 1 cluster: 2500 A/≤ 31.5 kA	Coming soon

Closing locking magnet with micro switch (Y1)	Description	References
Basic kit Y1	24 V DC	SPKLCKLM024DCS
	48 V DC	SPKLCKLM048DCS
	60 V DC	SPKLCKLM060DCS
	110 V DC	SPKLCKLM110DCS
	220 V DC	SPKLCKLM220DCS
	110 V AC	SPKLCKLM110ACS
	220 V AC	SPKLCKLM220ACS

Spare parts

Trucks	Description	References
Manual truck	Complete KYN type truck with interlock connector for PD210 mm, ≤ 31.5 kA	SPKRDM200L31S
	Complete KYN type truck with interlock connector for PD275 mm	SPKRDM200MS
Motorization Truck	Complete KYN type truck with interlock connector for PD210 mm,≤ 31.5 kA for 220 V AC/DC	SPKRDE200L31220S
	Complete KYN type truck with interlock connector for PD275 mm for 220 V AC/DC	SPKRDE200M220S
	Complete KYN type truck with interlock connector for PD210 mm,≤ 31.5 kA for 110 V AC/DC	SPKRDE200L31110S
	Complete KYN type truck with interlock connector for PD275 mm for 110 V AC/DC	SPKRDE200M110S
	Complete KYN type truck with interlock connector for PD210 mm,≤ 31.5 kA for 48 V DC	SPKRDE200L31048S
	Complete KYN type truck with interlock connector for PD275 mm for 48 V DC	SPKRDE200M048S
	Complete KYN type truck with interlock connector for PD210 mm,≤ 31.5 kA for 24 V DC	SPKRDE200L31024S
	Complete KYN type truck with interlock connector for PD275 mm for 24 V DC	SPKRDE200M024S

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Spare parts

Trucks		Description	References
Underneath earthing Side earthing Without earthing Door interlock Truck handle	Truck Components	Both side earthing	SPKRDEBSES
		Left side earthing	SPKRDELSES
		Right side earthing	SPKRDERSES
		Underneath earthing PD210	SPKRDEBOES
		Underneath earthing PD275	SPKRDEBOEMS
		Without earthing	SPKRDENOES
		Door interlock	SPKLCKDLS
		Truck handle	CHD8000092R0114
	Shutter ramp	Shutter ramp CD 205 mm PD 210 mm	SPKSHUDRIVK6S
		Shutter ramp CD 310 mm PD 275 mm	SPKSHUDRIVMS
	Blocking magnet on racking truck (Y0)	24 V DC	SPKLCKLM024DRS
		48 V DC	SPKLCKLM048DRS
		60 V DC	SPKLCKLM060DRS
		110 V DC	SPKLCKLM110DRS
		125 V DC	SPKLCKLM125DRS
		220 V DC	SPKLCKLM220DRS
		250 V DC	SPKLCKLM250DRS
		110 V AC	SPKLCKLM110ARS
		220 V AC	SPKLCKLM220ARS
		230 V DC	SPKLCKLM230ARS

Spare parts

Digital		Description	References
	Digital Brick	EcoStruxure Operation Server BM100	SPKDIGBM100S
	Sensors	EvoPacT HVX Vacuum Interrupter Tag VI110	SPKDIGVI110S
		EvoPacT HVX Mechanism Tag (MC 110)	SPKDIGMC110S
		EvoPacT HVX Truck Stroke Tag TS110	
		Powerlogic Thermal Tag TH110	EMS59440
		Powerlogic Environmental Tag CL110	EMS59443
		EcoStruxure Operation Server for Motor control & Monitoring MCM100	SPKDiGMCMM1
		EcoStruxure Panel Server Hub	PAS600L
		PMB Easy - Cubicle HMI	HMIGXU3512
		PMB Easy - Switchboard HMI	HMIPSOH552D1801

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EvoPacT HVX order form

Basic equipment

- To fill in the form, please check the boxes ☑ that match your choices.
- Below accessories must be ordered separately:
  - Crank for manual circuit breaker racking in/out
  - Crank for charging the operating mechanism
  - 58 pins connector with female pins, loose component for use in low voltage cabinet

Basic equipment	Product range: EvoPacT HVX ∼ 24 kV ☐					Quantity ☐
Version type	Withdrawable (E) ☐				Fixed (F) ☐	
Standard	IEC 62271-100:2021 ☐					
Rated voltage	24 kV ☐					
Rated current	630 A ☐		1,250 A ☐			
Rated short-circuit current	20 kA ☐		25 kA ☐		31.5 kA ☐	
Phase distance (P)	210 mm ☐		275 mm ☐			
Opening release MX1	24-30 Vdc ☐	48-60 Vdc ☐	110-120 Vac ☐	220-240 Vac ☐		
	110-125 Vdc ☐	220-250 Vdc ☐				
Closing release XF	24-30 Vdc ☐	48-60 Vdc ☐	110-120 Vac ☐	220-240 Vac ☐		
	110-125 Vdc ☐	220-250 Vdc ☐				
Charging motor (M1)	24-30 Vdc ☐	48-60 Vdc ☐	110-130 Vac ☐	220-240 Vac ☐		
	110-125 Vdc ☐	220-250 Vdc ☐				
Dimension drawing	Standard ☐	Non-standard ☐				
Wiring diagram	9NO/9NC ☐	Non-standard ☐				
Type of earthing (withdrawable type only)	Underneath earthing ☐		Side earthing ☐		Other ☐	
Low voltage plug type			58-pin plug-in connector ☐		Wiring by terminal block ☐	
Documentation language			English ☐		Other language ☐	
Type of rack-in	Manual operating mechanism ☐				Motor operating mechanism ☐	
Motor drive for racking truck	220 Vdc ☐	110 Vdc ☐	48 Vdc ☐	24 Vdc ☐	220 Vac ☐	110 Vac ☐
					Available for all variant rating and phase distance.	
Operating sequence	O-0.3 s-CO-3 min-CO Standard ☐		O-3 min-CO-3 min-CO ☐		O-0.3 s-CO-15 s-CO ☐	

EvoPacT HVX order form

Options and accessories

Optional equipment 2					
Blocking magnet on closing (Y1)					
220 Vdc ☐	110 Vdc ☐	60 Vdc ☐	220 Vac ☐	110 Vac ☐	Without ☐
48 Vdc ☐	24 Vdc ☐				
Blocking magnet on racking truck (Y0)					
48 Vdc ☐	60 Vdc ☐	110 Vdc ☐	110 Vac ☐	220 Vac ☐	Without ☐
220 Vdc ☐					
Second opening release MX2					
24-30 Vdc ☐	48-60 Vdc ☐	110-125 Vdc ☐	110-120 Vac ☐	220-240 Vac ☐	Without ☐
220-250 Vdc ☐					
Undervoltage release MN					
24-30 Vdc ☐	48-60 Vdc ☐	110-125 Vdc/ac ☐	110-125 Vdc/ac ☐	220-250 Vdc/ac ☐	Without ☐
220-250 Vdc/ac ☐					
Low energy release (MITOP)		With ☐			Without ☐
Interlock with door		With ☐			Without ☐
Optional - Digital bundles					
Active 1:				On-demand thermal monitoring	☐
Active 2:				Continuous thermal monitoring	☐
Active 3:				Continuous thermal monitoring + Auxiliary circuit & racking comparability monitoring	☐
Active 4:				Continuous thermal monitoring + Auxiliary circuit & racking comparability monitoring + Mechanism & VI monitoring	☐

Special conditions (please contact Schneider Electric Application Engineer)

1 .....

2 .....

Accessories	Drawing	Quantity
Accessories for EvoPacT HVX withdrawable type		
Circuit breaker racking handle	CHD8000092R0114	
Circuit breaker spring charging handle	EATSCH	
58 pins female LV plug (switchgear side) with Ethernet connection	EATLVC58FE	
Accessories for EvoPacT HVX fixed type		
Circuit breaker spring charging handle	EATSCH	
58 pins female LV plug (switchgear side) with Ethernet connection	EATLVC58FE	

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35, rue Joseph Monier - CS 30323
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