2019 Catalog



# EasyPact EXE

Vacuum circuit breaker up to 12 kV - India

Fixed and withdrawable versions

Medium Voltage Distribution





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# EasyPact EXE:

Enjoy more flexibility and deliver MV switchgear faster



# Your needs

# EasyPact EXE answers



**Designed for greater safety**, for both operator and end user applications.



**Simple to use**, with fast delivery, easy online ordering, and personalized technical support.



**Flexible**, with modular kits offering more options for later customization than other circuits breakers in its class.

# Overview

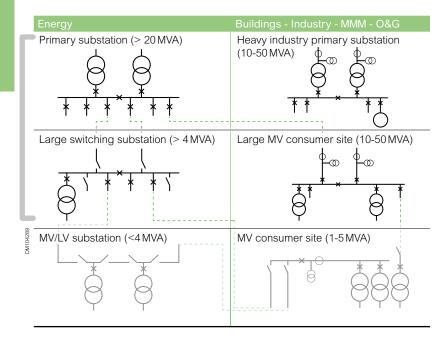
# Overview

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# Field of applications

EasyPact EXE is a range of vacuum circuit breakers designed to connect building infrastructure (heating, ventilation, lighting, etc.) and industrial plant processes (MV/LV substations, etc.) to the power grid, and to protect equipment.

# Description



EasyPact EXE is available in 2 versions: fixed and withdrawable.

### The fixed version comprises:

- 3 poles equipped with vacuum interrupters for medium voltage systems up to 12 kV / 31.5 kA / 2 500 A
- 6 Primary contacts for connection of the vacuum interrupters to the main circuit
- A spring-operated mechanism to give the device an opening and closing speed that is independent of the operator
- A set of terminal blocks to connect the circuit breaker auxiliaries to the switchgear control and protection circuit
- A front cover with pushbuttons, status indicators, and a lever to charge the closing spring in case of lack of auxiliary supply voltage

### The withdrawable version comprises:

- 6 arms mounted on the switching device to adapt the position of the primary contacts to engage the switchgear
- A racking trolley to move the circuit breaker from the disconnected position to the service position and vice versa, with the switchgear door closed via a removable crank handle on the front of the cubicle
- A removable LV plug to maintain the circuit breaker auxiliary circuits connected to the switchgear control and protection circuit in any circuit breaker position: disconnected or service





# Field of applications



# Applications

### Infrastructure

- Airports
- Hospitals

### Large commercial buildings

- · High rise buldings
- Malls
- Shopping centers
- · Office buildings



- Batch processes plants
- Cement plants
- Food and beverage plants

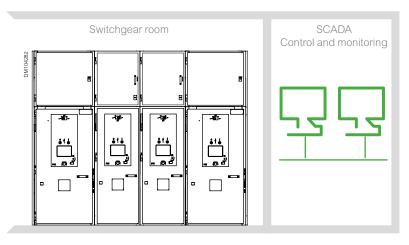


Distribution substations









EasyPact EXE circuit breaker enables the Panel Builder to design switchgear solutions with enhanced safety features designed in, from the operating mechanism, vacuum interrupters and interlocks.

# **Designed for greater safety**

#### The IEC (1) standard stipulates

"Select equipment that minimizes the risks to personnel from improper operation (for example, earthing switches with short-circuit making capacity on lines, motor actuators to allow remote operation)".

The right choice of components such as racking trolley, vacuum interrupter and operating mechanism, is crucial to fulfil this IFC recommendation

(1) IEC 62271-1 Ed. 2017 - Section 12.3



Operating mechanism

# Operating mechanism

The operating mechanism gives the device an opening and closing speed that is independent of the operator whether the order is electrical or manual. It carries out reclosing cycles and it is automatically recharged by a geared motor after each closing operation.

The mechanism ensures that the opening order always takes priority over the closing order. In the event of permanent and simultaneous opening and closing orders, it has to maintain the circuit breaker in the «open» position. Once the opening order has been canceled, the closing order has to be interrupted then reactivated to enable closing operation of the circuit breaker.

### The EasyPact EXE operating mechanism comprises:

- A mechanism that stores in the springs the energy required to open, close, and open the device
- A mechanical antipumping system to prevent reclosing after a close-open operation as long as the closing order is maintained
- A lever to manually charge the closing spring when the auxiliary power supply is not available
- Two pushbuttons on the front for manual opening and closing orders, that can be equipped with keylocking and padlocking accessories
- A mechanical spring condition indicator showing spring charged or discharged states
- A mechanical position indicator on the front to indicate whether the device is open or closed
- A gear motor (MCH) for automatically charging the closing spring.
   The gear motor is equipped as standard with an electrical contact to signal the "charged" position of the mechanism (springs charged)
- An electrical closing release for remote closing order (XF)
- An electrical opening release for remote opening order (MX1) and optional, a second electrical opening release that can be either shunt opening type (MX2) or undervoltage type (MN)
- A ready to close contact (PF) indicating that the circuit breaker fulfills the following conditions:
  - the circuit-breaker contacts are opened
  - the closing spring is charged
  - the opening push button is not activated by a keylock device or manually
  - the opening shunt release is not energized
  - the undervoltage release, if present, is energized
- One, two or three blocks of 4 auxiliary contacts for remote indication of the open or closed position of the circuit breaker
- A mechanical operation counter (CDM)

The materials used to manufacture operating mechanism sub-assemblies have been selected and designed to operate 10 000 cycles with preventive maintenance under the conditions defined by the IEC standard.

# **Designed for greater safety**



Vacuum interrupter

### Vacuum interrupter

The vacuum interrupter has to convey and break the rated normal current, and has to convey and break the rated short-circuit current a number of times, in line with the manufacturer's specification.

It consists of two electrical contacts, one fixed and the other mobile inside a sealed enclosure. The level of pressure inside the enclosure has to be very low (less than 10-1 Pa) to reach the value specified for the dielectric withstand between the open contacts. In order to maintain the pressure level inside the interrupter throughout its expected operating life, the enclosure has to be perfectly sealed, and the various components have to be fully degassed. This is achieved by:

- Choosing materials that are specifically selected for this application (metals and ceramics)
- Choosing an appropriate assembly process (vacuum, high temperature brazing)
- The use of a "getter" material to absorb the residual gas inside the enclosure.

EasyPact EXE vacuum interrupters are designed to operate 10 000 cycles, under the conditions defined by the IEC standard.



### Racking device

The racking device moves the circuit breaker from the disconnected position to the service position and vice versa. The racking operation can be done manually by rotating a crank shaft on the front of the switchgear with the door closed.

EasyPact EXE racking device has a robust interlocking system with the switchgear door, the LV plug and the circuit-breaker. It can be equipped with keylocks, padlocks and electomagnet locks.

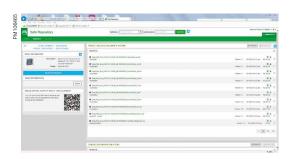
The materials used to manufacture EasyPact EXE racking trolley sub-assemblies have been selected and designed to operate 1 000 cycles under the conditions defined by the IEC standard.

# Simple to use

### Customer support

A QR code on the front of EasyPact EXE enables Specifier, Panelbuilders and End-Users to easily access to Information and support.









# EasyPact EXE on SE.com web page

Specifier, Panelbuilders and End-Users have access to:

- Catalogue and Brochure
- · Declaration of Conformity for each Basic Function
- 3D models
- User Guide, Receipt Guide
- Instruction sheet

# EasyPact EXE on Safe Repository

https://saferepository.schneider-electric.com/login

Using the Reference numbers and serial numbers, Panel builbders and End user owners of Easypact EXE devices have access to:

- Routine test
- · Nameplate information
- · Assembly sheet with the list of Kits assembled on the device
- · Certificate of dispatch of the device from Schneider Electric
- Maintenance information

### **Customer Care Center**

Specifiers, Panelbuilders and End-Users have access to online Customer Care Center to request EasyPact EXE information. Schneider Electric has set up call centers and e-mail contacts in more than 190 countries to provide a rapid response to customer inquiries.

Personnel in the country using EasyPact EXE are trained to provide qualified answers to customer questions.

# Technical and commercial support

Schneider Electric offers extensive technical and commercial support to Panel Builders, including expert advice on

- How to customize EasyPact EXE
- · How to integrate EasyPact EXE in switchgear
- · How to prepare switchgear for testing in the laboratory
- · How to analyze the results from type tests to improve switchgear design
- How to verify the technical performance of EasyPact EXE in assembled switchgear

Training documents and other support material can be provided to Panel Buiders.

Please contact your Schneider Electric sales representative for more information.

# Simple to use





Proven compliance with IEC standard



# Robust design controls

EasyPact EXE has been designed in accordance with rigorous verification checks that include:

- A product design quality system certified ISO 9001 compliant by AFNOR (an independent certification organization based in France)
- Recognized simulation software to verify the dielectric, thermal, and electrodynamic behavior of the circuit breaker components in various switchgear models
- Extensive type tests in laboratories accredited according to ISO/IEC standard 17025. Tests are conduct in International Laboratories or in Laboratories approved by Indian government

Every type of EasyPact EXE circuit breaker has been subjected to the following type tests, as defined by the IEC 62271-100 standard:

- · Dielectric tests
- · Measurement of the resistance of the main circuit
- · Temperature rise tests
- · Short-time withstand current and peak withstand current tests
- · Additional tests on auxiliary and control circuits
- Mechanical operating test at ambient temperature
- Short-circuit making and breaking tests
- Extended mechanical endurance tests for M2 class
- · Electrical endurance tests for E2 class
- Capacitive current switching tests:
- Line-charging current switching test
- Cable-charging current switching test
- Single capacitor bank switching tests
- Out-of-phase making and current switching tests

The Declaration of conformity indicates the following on the front page:

- The apparatus type defined as fixed or withdrawable and the phase distance
- The circuit breaker reference defined by the main rated characteristics: rated voltage, rated short-circuit breaking current, rated normal current
- The list of relevant type test reports used assess EasyPact EXE conformity with the IEC standard

# Simple to use





# Robust manufacturing controls

EasyPact EXE is manufactured in factories certified compliant to ISO 9001 for product quality by third party.

The following quality controls are implemented to verify that each product delivered to Panel Builder has the same performance as the unit type tested:

- Regular inspection of critical components and processes using a coordinate measuring machine
- Regular measure of residual gas inside the vacuum interrupter by mass spectrometry
- · Regular mechanical tests on circuit breaker samples
- · Routine tests on all products:
  - Dielectric tests on the main circuit
  - Tests on auxiliary and control circuit
  - Measurement of the resistance of the main circuit
  - Design and visual checks
  - Mechanical operating tests
  - Tightness test of each individual vacuum interrupter



# **Flexible**

### EasyPact EXE is available as:

- Referenced offer with a single reference available on the shelf.
   Additional options may be added
- Kit offer allowing late customization
- Assemble offer with higher lead time and price

Arms & clusters

Schneider Electric delivers products with assembly instruction sheets available on website at www.schneider-electric.com.

The Panel Builder customizes the circuit breaker by following these instructions. This enables the Panel Builder to be very flexible when ordering products references.

### Simple online ordering

With MySE, the Schneider Electric online application, registered Panel Builders can place their orders easily and quickly and have access to logistics information (24/7).

This app provides the real-time price and lead time for any EasyPact EXE reference and offers additional benefits such as online ordering, delivery status follow-up, invoice reprinting, etc.

Registered Panel Builders can also access EcorealMV & the EasyPact EXE product selector.

This allows them to easily generate lists of product references required for a given switchgear configuration and to upload them into MySE and Panel Builder ERP.

# Customization flexibility



# On-the-shelf availability

EasyPact EXE benefits from Schneider Electric's well-established supply chain with local distribution centers that can deliver high demand products in few days.

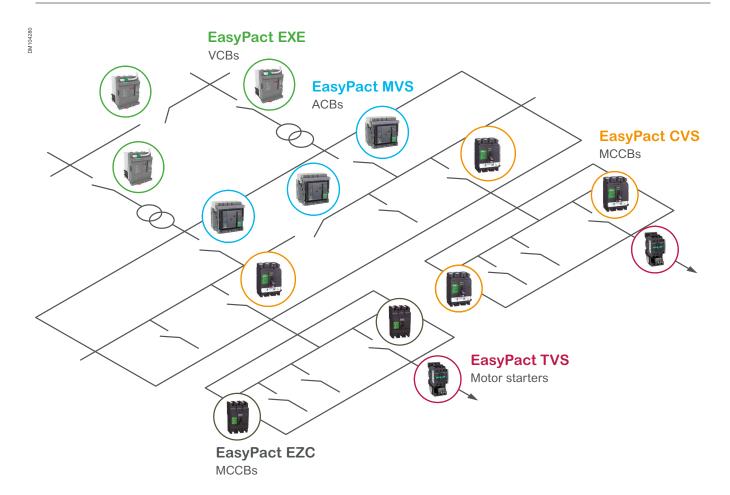
# Broad range of dimensions

The wide range of dimensions available in this catalog enables Panel Builders to build compact cubicles starting at 600 mm wide for ratings up to 1 250 A and 800 mm wide for ratings up to 2 500 A. In addition, the availability of versions with phase distances of 150 mm and 210 mm means that circuit breakers of various brands can be replaced in existing cubicles with minor modifications to the cubicle architecture.

# Cost saving

The features listed above help to reduce costs and give Panel Builders more time to do what really matters: Take care of customers.

The EasyPact family: Build your complete MV & LV distribution network



Medium voltage	
General specification	EasyPact EXE
Rated voltage (kV)	7,2 / 12
Rated lightning impulse withstand (kV)	60 / 75 - 95
Rated short circuit breaking current (kA)	20 - 25 - 26.3 - 31.5
Rated duration of short circuit (s)	3
Rated normal current (A)	800 - 1 250 2 000 - 2 500
Target application	Building, industry, and power grid







Low voltage				
General specification	EasyPact MVS	EasyPact CVS	EasyPact TVS	EasyPact EZC
Rated insulation voltage (V) Ui	1 000	690	690	690
Impulse withstand voltage (kV) Uimp	12	8	6	6
Rated operational voltage (V AC 50/60 Hz) Ue	690	440	690	550
Target application	Buildings and industry	Commercial and industrial buildings	Buildings and simple industry	Commercial and residential buildings

The EasyPact family: Build your complete MV & LV distribution network

# EasyPact MVS

### The easy choice for reliable performance

### **Application**

Power circuit breakers, ideal for the "head end" of electrical distribution panels in medium to large office buildings and factories.

#### Performance

Reliable performance for the entire range with a rating:

• Ics = Icu = Icw (1 s) = 50 and 65 kA at 440 V

### Flexibility

Covers a broader range of applications than competing offers:

- Suitable for applications up to 690 V
- Operates across a wide temperature range before requiring derating
- Compatible with copper and aluminium connections
- Includes a complete range of switch disconnectors



# EasyPact CVS

### The easy choice for quality and value

### **Application**

Moulded-case circuit breakers, an excellent choice for feeders and sub-feeders in small and medium-sized industrial and commercial buildings.

### Performance

Better reliability and safety than competing breakers:

- Ics = 100% Icu
- Suitable for reverse feeding applications
- Adjustable thermal protection
- Optional insulation fault protection
- IEC 60947-2 isolation and highly visible contact position ensures the downstream circuit is safe.

### Flexibility

- Compatible with copper and aluminium connections
- Includes a complete range of switch disconnectors

The EasyPact family: Build your complete MV & LV distribution network



# EasyPact EZC

### The easy choice for simplicity

### **Application**

Moulded-case circuit breakers, ideal for feeders and sub-feeders in residential, commercial, and marine applications.

#### Performance

Three sizes, fixed settings, and an attractive price point make this range well suited for simple protection in small and medium-sized buildings.

### Flexibility

Multiple connection options:

- Fixed front mounting, plug-in mounting, front connections, bare cables connected through cable lugs, screwed inside the breaker
- Unique "fish bone" connection, space saving especially for marine applications



# EasyPact TVS

### The easy choice for simplicity and flexibility

### **Application**

Motor starter solutions, ideal for HVAC, textile, material handling, and manufacturing environments.

### Performance

Optimized range of features, performance, and quality at their price point.

### Flexibility

Complete range of products covers wide range of applications:

- Basic motor protection circuit breaker
- Contactors
- Thermal overload relays
- · Control relays

Schneider Electric product portfolios include a wide choice of multi-function relays to be used together with EasyPact EXE, to build a consistent solution for protection, control, and monitoring.







# Protection and control relays

Complete new range of connected protection relays designed to modern IEC and other global standards, offering a wider scope of protection, while extending the limits of control and monitoring:

- · Improved safety and security of your electrical network
- More flexibility and ease of use at every step of the products' life-cycle with a single setting software across the range (Easergy Pro)
- Keeping a best-in class reliability, ensured with strengthen type tests and validation processes

### Easergy P1

Ultra-compact, single-function protection relay, that addresses simple applications such as overcurrent protection. Easergy P1 offers a new set of digital tools to gain efficiency from ordering to commissioning to maintenance time, while ensuring a best-in class quality level. It's ease of installation and commissioning will be a key asset for electrical panel-builders.

### Easergy P3

Multi-function protection relay range, addressing a wider scope of applications for building, industry and utility. Easergy P3 is natively connected with 9 communication protocols including IEC 61850 and brings new possibilities of protection, control and monitoring keeping a priority focus on efficiency and time-saving for all the project's stakeholders.

### Easergy P5

The latest innovative protection relay range, extending the boundaries of usability, maintainability and operational efficiency. Easergy P5 offers the core protection functions for mission ciritical applications, including Arc Flash protection and Cyber security that reduce the Mean Time to Repair (MTTR) to less than 10 minutes and significantly increase operational efficiency.

### PowerMeter and circuit monitors

The PowerLogic PowerMeter replaces a whole set of basic analogue meters.

This cost-effective, high-performance meter provides a full range of accurate truerms metering values.

The PowerLogic series 3000/4000 Circuit Monitor is designed for critical power users and large energy consumers, to provide the information needed to confidently enter the evolving world of deregulation.

It can be adapted to meter almost any time-of-use or real-time rate.

# VAMP arc fault protection relay

The VAMP arc protection unit detects an arc flash in an installation and trips the feeding breaker. The arc flash functionality improves the safety of the application using the long experience in a world wide leader of arc fault solutions.

# Schneider Electric Services

# Greater peace of mind throughout your installation lifecycle

# How can you cut costs and improve performance at the same time?

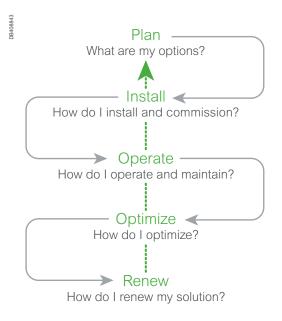
When it comes to your electrical distribution infrastructure, the answer is straightforward: get professional expertise.

### Plan

Schneider Electric helps you plan the full design and execution of your solution, looking at how to make your process more dependable and optimize time:

- Technical feasibility studies: Design solution in your environment
- Preliminary design: Accelerate turnaround time to reach a final solution design

### Life Cycle Services



### Install

Schneider Electric will help you to install more efficient, more reliable and safer solutions based on your plans.

- Project management: Complete your projects on time and within budget
- Commissioning: Ensure your actual performance versus design, through onsite testing and commissioning, and tools and procedures

# Operate

Schneider Electric helps you maximize your installation uptime and control your capital expenditures through its services offering.

- Asset operation solutions: Provide the information you need to increase safety, enhance installation performance, and optimize asset maintenance and investment
- Advantage service plans: Customize service plans that include preventive, predictive and corrective maintenance
- On-site maintenance services: Deliver extensive knowledge and experience in electrical distribution maintenance
- **Spare parts management:** Ensure spare parts availability and optimized maintenance budget of your spare parts
- **Technical training:** Build necessary skills and competencies to properly and safely operate your installations

# **Optimize**

Schneider Electric proposes recommendations for improved safety, availability, reliability and quality.

MP4 electrical assessment: Define an improvement and risk management program

# Schneider Electric Services

# Greater peace of mind throughout your installation lifecycle

# When it comes to your electrical distribution installation, we can help you:

- Increase productivity, reliability, and safety
- Mitigate risk and limit downtime
- Keep equipment up to date and extend lifespan
- Cut cost and increase savings
- Improve your return on investment

### **CONTACT US!**

https://www.schneider-electric.co in/en/work/services/

# The Electrical-Room ENVIRONMENTAL conditions (favorable, normal, severe) are

following recommendations of Manufacturer's services.

**Equipment Criticality** is the combination of device stress level and its impact on the reliability of the installation; the level of criticality are: minor, major and critical.

For more details about how to categorize your Electrical-Room Environment conditions and Equipment Criticality contact your Sales representative.

### Renew

Schneider Electric's solutions extend the original life of your system, while providing upgrades.

We offer responsibility for end-of-life processing of old electrical equipment.

- **ECOFIT™:** Keep up to date and improve performances of your electrical installations (LV, MV, protection relays, etc.)
- MV product end of life: Recycle and recover outdated equipment with end-oflife services

### Frequency of maintenance intervention

Schneider Electric recommends implementing a schedule for maintenance activities to extend electrical distribution equipment performance over time.

Frequencies under normal/healthy operation (minor equipment criticality and optimal environmental conditions) can be generally defined as described in the table below:

Maintenance	Min. freq.(1)		Who	
		Manufacturer	Certified Partner	
Exclusive	every 5 years	•		
Advanced	every 2 years	•	•	
Light	every 1 year	•	•	•

<sup>(1)</sup> Recommended minimum frequency under normal operating conditions (minor equipment criticality and favourable environmental conditions).

For Exclusive Maintenance, frequency is recommended to be reduced according to environmental conditions and critical nature of applications, as described in the table below:

Electrical-Room	Equipment CRITICALITY			
ENVIRONMENTAL conditions	Minor	Major	Critical	
Favourable	5	5	4	
Normal	5	4	3	
Severe	4	3	2	
	Recommended FREQUENCY in YEARS			

### Spare parts

Under Schneider Electric's spare parts management policy, spare parts are planned for 10 years after end of commercialization of the product.

#### **Services Contract**

A service contract for the switchgear room can be offered by the local Schneider Electric service team with packages such as predictive maintenance, preventive maintenance, 24/7 hotline, emergency on-site intervention, and emergency spare part delivery. The availability of the service plan offers varies in different countries.

# Schneider Electric Services

The main advantages of modernization solutions using EasyPact EXE



# Asset optimization

The life of existing electrical equipment can be extended, thereby increasing the return on investment.

# Reduce operational downtime

A retrofit full panel replacement can take anywhere from only a few minutes up to an hour. When considering whether to maintain equipment or replace it, facility managers must take into account the initial capital cost, along with potential disruption to the facility's processes and workflow during the course of changing out the equipment. If operations cannot be re-routed during decommissioning and installation of new equipment, the cost of lost production or operations can be substantial.

# Improved cash flow

A full retrofit of an industrial site could be spread over several years. Often, when new equipment is purchased, the on-site physical plant also needs to be modified to accommodate the new equipment, which adds to the cost.

### Reduced risk

Installing new switchgear involves more cabling (which requires that existing cabling above and below the equipment be moved). In some cases, cabling may need to be replaced or spliced, which introduces a higher element of risk.

# Greater peace of mind

Pre-tested solutions from established manufacturers provide a high degree confidence in a retrofit solution. Schneider Electric have managed thousands of switchgear retrofit projects and have an extensive library of lessons learned. Qualified personnel and up-to-date tools reduce the risk of accidents and delays. Accompanying safety improvements and updated warranties also contribute to overall power network peace of mind.

# Digitization

Retrofit solutions also open the door to enhanced equipment connectivity. Connectivity can allow more specific and tailored energy management such as improved protection monitoring and control.

# Lower environmental impact

Since a retrofit solution replaces only a portion of the existing electrical equipment, fewer waste materials need to be processed than if a complete replacement were to occur.

# **Quality - Environment**



# 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
   But above all, its strict application has allowed us to obtain the recognition of
   AFNOR certification, an independant organisation 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 EasyPact EXE, 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.



Green Premium is the only label that allows you to effectively develop and promote an environmental policy whilst preserving your business efficiency.

This ecolabel guarantees compliance with up-to-date environmental regulations, but it does more than this.

Over 75% of Schneider Electric manufactured products have been awarded the Green Premium ecolabel



Discover what we mean by green ....

Check your products!

Schneider Electric's Green Premium ecolabel is committed to offering transparency, by disclosing extensive and reliable information related to the environmental impact of its products:

#### RoHS

Schneider Electric products are subject to RoHS requirements at a worldwide level, even for the many products that are not required to comply with the terms of the regulation. Compliance certificates are available for products that fulfil the criteria of this European initiative, which aims to eliminate hazardous substances.

#### REACH

Schneider Electric applies the strict REACh regulation on its products at a worldwide level, and discloses extensive information concerning the presence of SVHC (Substances of Very High Concern) in all of these products.

### **PEP: Product Environmental Profile**

Schneider Electric publishes complete set of environmental data, including carbon footprint and energy consumption data for each of the lifecycle phases on all of its products, in compliance with the ISO 14025 PEP ecopassport program. PEP is especially useful for monitoring, controlling, saving energy, and/or reducing carbon emissions.

### **EoLI: End of Life Instructions**

Available at the click of a button, these instructions provide:

- Recyclability rates for Schneider Electric products.
- Guidance to mitigate personnel hazards during the dismantling of products and before recycling operations.
- Parts identification for recycling or for selective treatment, to mitigate environmental hazards/ incompatibility with standard recycling processes.

# EasyPact EXE range

# EasyPact EXE range

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# Fixed Circuit Breaker (CB) - India

### Main characteristics

# According to IEC 62271-100





Designation	Dimer	nsions	and electric	cal characte	eristics	
Phase distance (mm)				150	150	210
Rated voltage	Ur	kV	12	•	•	•
Rated frequency	fr	Hz	50/60	•	•	•
Rated short duration power frequency	Ud	kV	28	•	•	•
withstand voltage			38	•	•	•
Rated lightning impulse withstand	Up	kV	75	•	•	•
voltage			95		•	•
Rated short-circuit breaking current	Isc	kA	20	•		
			25		•	•
			26,3		•	•
			31,5		•	•
Rated duration of short circuit	tk	S	3	•	•	•
Rated normal current	Ir	Α	800	•	•	
			1 250	•	•	
			2 000			•
			2 500			•

Additional characteristics according to IEC 62271-100 are listed in the common characteristics section.

The EasyPact EXE fixed version is equipped with threaded copper connection terminals on the upper and lower rear side of the circuit breaker.

The shape and dimensions of conductors must be determined by the Panel Builder according to the dielectric withstand and temperature rise characteristics of the whole connection system.

Field deflectors on lower connections up to 1250A may be required to achieve 95 kV BIL dielectric withstand depending on the switchgear architecture.

Please contact your sales representative to receive EasyPact EXE integration guide for more information.

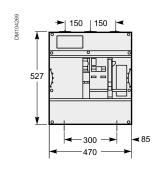


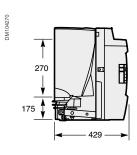
# Fixed Circuit Breaker (CB) - India

# **Dimensions**

### Phase distance 150 mm

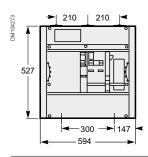
Up to 12 kV / 31.5 kA / 1 250 A

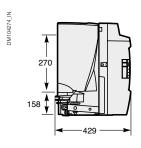




### Phase distance 210 mm

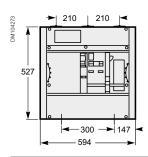
12 kV / 31.5 kA / 2000 A

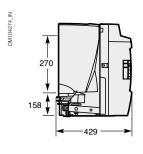




### Phase distance 210 mm

12 kV / 31.5 kA / 2500 A







The full set of 3D models is available at:

https://www.schneider-electric.co.in/en/product-range-download/63374-easypact-exe#tabs-top

# Withdrawable Circuit Breaker (CB) - India

Main characteristics

# According to IEC 62271-100

Designation	Dimen	sions	and electric	cal characte	eristics	
Phase distance (mm)				150	150	210
Rated voltage	Ur	kV	12	•	•	•
Rated frequency	fr	Hz	50/60	•	•	•
Rated short duration power frequency	Ud	kV	28	•	•	•
withstand voltage			38		(1)	(1)
Rated lightning impulse withstand	Up	kV	75	•	•	•
voltage			95		(1)	(1)
Rated short-circuit breaking current	Isc	kA	20	•		
			25		•	•
			26,3		•	•
			31,5		•	•
Rated duration of short circuit	tk	S	3	•	•	•
Rated normal current	Ir	А	800	•	•	
			1 250	•	•	
			2 000			•
			2 500			(1)

Additional characteristics according to IEC 62271-100 are listed in the common characteristics section. (1) Contact your Schneider Electric sales representative for more information.





# norizontal-type Flat-type



# Flat horizontal-type and Tulip-type contacts

The shape of EasyPact EXE contacts are flat horizontal type up to 2 000 A or tuliptype for 2 500 A . The size of contacts depends on the rated current, the contacts are designed to provide a maximum of contact area to optimise heat dispersion and withstand electrodynamic forces. The Panel Builder must provide fixed contacts with the correct shape, tolerance, and material characteristics compatible with the EasyPact EXE contacts.

### Arms

The shape and size of EasyPact EXE arms depend on the rated lightning impulse voltage, the rated normal current, and the racking trolley stroke.

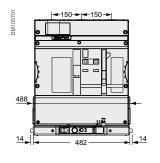
# Racking device

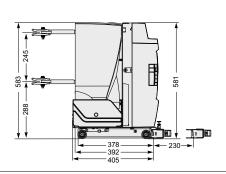
EasyPact EXE racking device enables Panel Builder to design switchgear solutions with enhanced safety features. It has a robust interlocking system with the switchgear door, the removable LV plug and the circuit-breaker. It can be equipped with keylocks, padlocks and electomagnet locks.

# Withdrawable Circuit Breaker (CB) - India

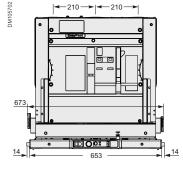
# **Dimensions**

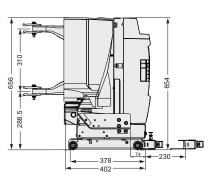
### Up to 12 kV / 31.5 kA / 1 250 A





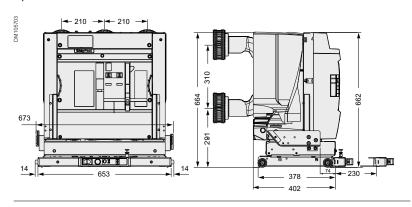
### Up to 12 kV / 31.5 kA / 2000 A





### Phase distance 210 mm

### Up to 12 kV / 31.5 kA / 2500 A





The full set of 3D models is available at:

https://www.schneider-electric.co.in/en/product-rangedownload/63374-easypact-exe#tabs-top

# **General characteristics**

# Service and storage conditions

### Normal service conditions

According to IEC 62271-1

EasyPact EXE has bee	en designed to operate in the following
Ambient air temperature	<ul> <li>Minimum value: -25°C</li> <li>Maximum value: 40°C</li> <li>Average measured over 24 hours period ≤35°C</li> </ul>
Altitude	Less than or equal to 1 000 m above sea level (derating coefficient to be applied for altitudes higher than 1 000 m)
Atmosphere	No dust, smoke, salt, corrosive or flammable gas or vapor
Humidity	<ul> <li>Average relative humidity over 24 hours ≤ 95%</li> <li>Average relative humidity over 1 month ≤ 90%</li> <li>Average vapor pressure over 24 hours ≤ 2.2 kPa</li> <li>Average vapor pressure over 1 month ≤ 1.8 kPa</li> </ul>

### 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.

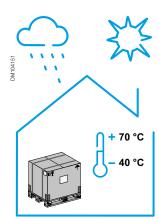
# Storage

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 ensure a correct device operation
- Beyond 12 month: Contact your Schneider Electric Service local representative for device check-up.



# **General characteristics**

# Electrical characteristics (CB)



# According to IEC 62271-100

EasyPact EXE installed in normal service condition and with preventive maintenance program is designed up to :

Common characteristic	12 kV	12 kV	
Rated short duration power frequency withstand voltage	kV	28	38
Rated lighting impulse withstand voltage	kV	75	95
Rated short-time withstand current (Ik/tk)	kA/3s (50/60 Hz)	=Isc	=lsc
Rated operating sequence	O-3 min - CO-3 min - CO	•	•
	O-0.3 s - CO-3 min - CO	•	•
	O-0.3 s - CO-15 s - CO	•	•
Operating times	Opening	< 50 ms	< 50 ms
	Breaking	< 66 ms	< 66 ms
	Closing	< 71 ms	< 77 ms
Electrical endurance		E2	E2
Rated line-charging breaking current		10-C2	10-C1
Rated cable-charging breaking current		25-C2	31.5-C1
Rated single capacitor bank	A-class at 1 250 A 25 kA	400-C2	400-C1 (1)
breaking current	A-class at 1 250 A 31,5 kA	400-C1	400-C1 (1)

 $<sup>(1) \</sup> Contact \ your \ Schneider \ Electric \ sales \ representative \ for \ more \ information.$ 

Mechanical endurance	
Circuit breaker	M2 (IEC 62271-100) 10 000 operating cycles
Racking trolley	M1 (IEC 62271-102) 1 000 operating cycles
(disconnecting functions)	
MCH motor	10 000 charging operations
MX/XF, MN releases	10 000 operations

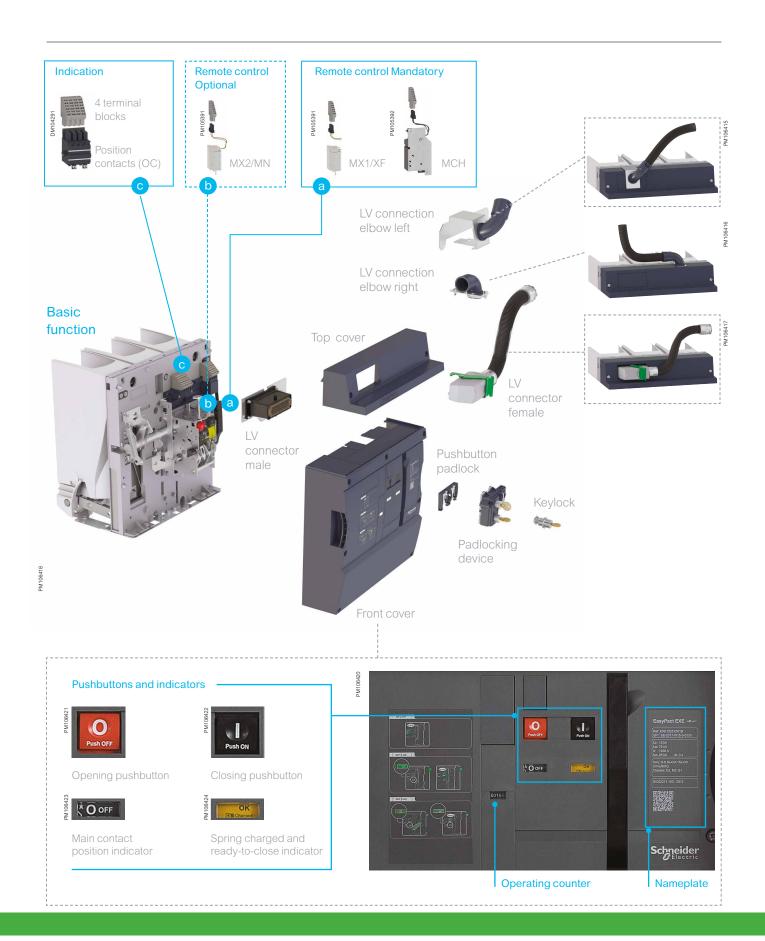
# Functions and characteristics

# Functions and characteristics

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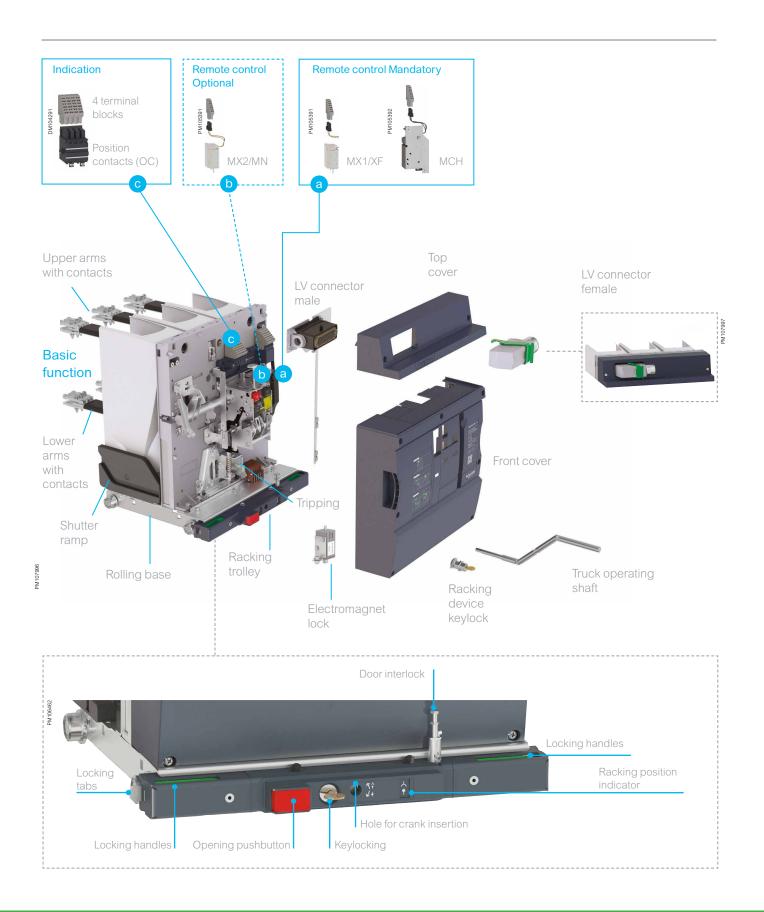
# **Overview**

# Fixed Circuit Breaker



# **Overview**

# Withdrawable Circuit Breaker



# Functions and characteristics

# Remote control auxiliaries

# Mandatory auxiliaries

Shunt opening release MX1

Shunt closing release XF

Electric motor MCH







The remote control auxiliaries comprises an electric motor (MCH) a shunt closing release (XF), and a shunt opening release (MX1)

# Electric motor (MCH)

The electric motor operates to charge the closing spring as soon as it is connected to the auxiliary power supply. This allows the circuit breaker to close after opening according to the rated operating sequence.

A lever is located on the front of the circuit breaker that enables the closing spring to be charged manually if the auxiliary power supply is unavailable.

The electric motor is equipped with an electrical contact to indicate the «spring charged» status of the mechanism.

The electric motor includes a gear reducer.

Characteristics	
Power supply	• DC: 24-30 V, 48-60 V, 110-130 V, 200-250 V
	• AC (50 Hz/60 Hz): 48-60 V, 100-130 V, 200-240 V
Operating range	0.85 to 1.1 Ua
Consumption (VA or W)	180
Motor overcurrent	2 to 3 In for 0.1 s
Charging time	≤7 s
CH contact	10 A/240 V

# Shunt closing release (XF)

A shunt closing release operates to close the circuit breaker when the voltage at the terminals of the release is between 85% and 110% of its rated voltage. The closing release is designed to withstand permanent power supply.

The closing release operates with universal voltage (AC and DC).

Characteristics			
Power supply	• DC: 24-30 V, 48-60 V, 100-130 V, 200-250 V		
	• AC (50Hz/60Hz): 24 V, 48 V, 100-130 V, 200-250 V		
Operating range		0.85 to 1.1 Ua	
Consumption (VA or W)	Triggering	200 (for 200 ms)	
	Latched	4.5	

# Shunt opening release (MX1)

A shunt opening release operates to 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 opening release is designed to withstand permanent power supply and to lock the circuit breaker in the «open» position as long as the voltage is maintained at its terminals.

The opening release operates with universal voltage (AC and DC).

Characteristics			
Power supply	• DC: 24-30 V, 48-60 V, 100-130 V, 200-250 V		
	• AC (50 Hz/60 Hz): 24	V, 48 V, 100-130 V, 200-250 V	
Operating range	• DC: 0.7 to 1.1 Ua		
	<ul> <li>AC: 0.85 to 1.1 Ua</li> </ul>		
Consumption (VA or W)	Triggering	200 (for 200 ms)	
	Latched	4.5	

### Remote control auxiliaries

### Optional auxiliaries

EasyPact EXE can be equipped with a second opening release that can be either a shunt opening release or an undervoltage release.



Shunt opening release MX2 or Under voltage release MN



Shunt opening release MX2



Undervoltage release MN

### Second shunt opening release (MX2)

The second shunt opening release operates to 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 opening release is designed to withstand permanent power supply and to lock the circuit breaker in the "open" position as long as the voltage is maintained at its terminals.

The second opening release operates with universal voltage (AC and DC).

Characteristics				
Power supply	• DC: 24-30 V, 48-60V, 100-130 V, 200-250 V			
	• AC (50Hz/60Hz): 24 V, 48 V, 100-130 V, 200-250 V			
Operating range	DC: 0.7 to 1.1 Ua			
	• AC: 0.85 to 1.1 Ua			
Consumption (VA or W)	Triggering	200 (for 200 ms)		
	Latched	4.5		

### 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, and the undervoltage release might operate to open the circuit breaker.

The closing of the circuit breaker is possible when the voltage at the terminals of the release is equal to or exceeds 85% of its rated voltage. On the other hand, the closing of the circuit breaker is impossible as long as the voltage at the terminals is below 35% of the rated supply voltage.

The undervoltage release operates with universal voltage (AC and DC).

Characteristics				
Power supply • DC: 24-30 V, 48-60 V, 100-130 V, 200-250 V				
	• AC (50Hz/60Hz): 24 V, 48 V, 100-130 V, 200-25			
Operating range	Opening	0.35 to 0.7 Ua		
	Closing	0.85 Ua		
Consumption (VA or W)	Triggering	200 (for 200 ms)		
	Latched	4.5		

### Release combination table

MCH	•	•	•
XF	•	•	•
MX1	•	•	•
MX2		•	
MN			•

### Functions and characteristics

### Remote control auxiliaries

### Indication



Rotary type contacts (OC)

"Ready to close"

PF contact

Position contacts (OC)

EasyPact EXE is equipped with one block of four position contacts as standard, and the Panel Builder may add one or two additional blocks of four contacts. The maximum number of position contacts is twelve.

Characteristics						
Standard delivery	1 (1 block of 4 c	ontacts)				
Maximum quantity	3 (3 blocks of 4	3 (3 blocks of 4 contacts)				
Breaking capacity (A)	Standard		Min. load: 100 mA/24 V			
Cos φ: 0.3	V AC	120/240	10			
	V DC	24/48	10/6 *			
		125	10/6			
		250	5			

<sup>\*</sup> standard contacts: 10A; optional contacts: 6A (temperature derating)

### «Ready to close» contact (PF)

A «ready to close» contact (PF) indicates that the circuit breaker is ready to close in the following conditions:

- The circuit breaker contacts are open
- The operating mechanism closing spring is charged
- The opening pushbutton is not activated (by a keylock or manually)
- The opening shunt release is not energized
- The undervoltage release, if present, is energized

EasyPact EXE is equipped with 1 «ready to close» contact (PF) as standard, for remote control.

Characteristics				
Standard delivery	1			
Maximum quantity	1			
Breaking capacity (A)	Standard			Min. load: 100 mA/24 V
Cos φ: 0.3		V AC	240/380	5
		V DC	24/48	3
			125	0.3
			250	0.15

## Operation counter (CDM)

### Operation counter (CDM)

An operation counter counts the number of operating cycles (close-open) that the device has carried out.

EasyPact EXE is delivered with an operation counter as standard, showing the number of close-open cycles that have been performed for the factory routine test (usually 50).

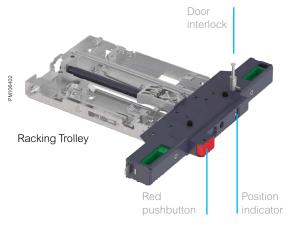
### **Racking Device**

The EasyPact EXE withdrawable version requires a racking device, arms, and tulip contacts or flat contacts for connection to the switchgear power circuit, and a removable LV plug to connect auxiliary circuits.

### EasyPact EXE racking function

EasyPact EXE racking device enables Panel Builder to design switchgear solutions with enhanced features such as robust interlocking system with the switchgear door, the removable LV plug and the circuit-breaker.

It can be equipped with keylocks, padlocks and electomagnet locks.

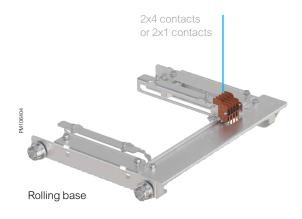


### The Racking Device is composed of 4 elements:

- Racking Trolley
- Rolling Base
- Shutter Ramp
- Tripping



- A rolling base equipped with 4 wheels for moving on the rails located at the bottom of the circuit breaker compartment, and with shutter ramps to operate the shutter mechanism according to the racking trolley position
- A system to attach the racking trolley to the switchgear frame
- A racking trolley with a threaded shaft that rotates to move the circuit breaker inside the circuit breaker compartment
- A red pushbutton that simultaneously trips the circuit breaker, opens access
  for the racking shaft to connect to the drive system, and maintains the circuit
  breaker tripped until it reaches the final position, either service or disconnected
- A mechanical position indicator on the front showing the circuit breaker disconnected, intermediate, and in service status
- 2 sets of 4 contacts or 2 sets of 1 contacts to indicate electrically if the circuit breaker is in service position, intermediate position or in disconnected position
- A set of mechanical parts, called Tripping fixed on the mechanical support, to interlock the racking trolley with the following equipment:
  - LV connector
  - Circuit breaker compartment door
  - Circuit breaker
- Optional keylock and/or padlock :
  - A keylock system to lock the racking trolley in the disconnected position
  - A padlock system to prevent any unwanted operation of the red pushbutton
  - An electromagnet lock system to prevent any rack in or rack out





Shutter ramps in Metal or in Plastic

## Locking

### Fixed Circuit Breaker

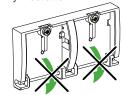
Easypact EXE can be equipped with locking in permanent position either by padlock or by keylock and with pushbutton padlock.

### Screen for pushbutton padlocking

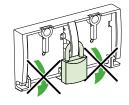
An optional transparent screen can prevent access to the opening and/or closing pushbuttons on the circuit breaker.

Locking is achieved by means of one of the following:

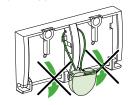
By 2 screws

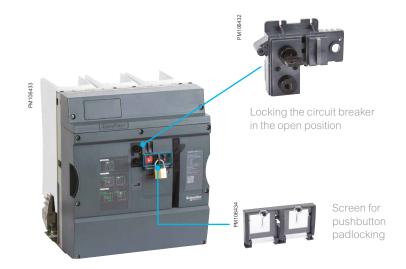


 By 3 padlocks (not supplied with the circuit breaker)



 By a lead seal (not supplied with the circuit breaker)





### Locking in permanent open position by padlock



The circuit breaker is locked in the "open" position by maintaining the opening pushbutton in the engaged position with a padlock holder for 1 to 3 padlocks (not supplied).

### Locking in permanent open position by keylock

The circuit breaker is locked in the "open" position by maintaining the opening pushbutton in the engaged position with a keylock device with the following options:

- 1 single keylock supplied with 2 identical keys
- 1 single keylock for the circuit breaker supplied with 1 key, plus 1 identical keylock delivered separately to be mounted on the device to be interlocked with the circuit breaker, using the key supplied for the circuit breaker.



Keylocking of the circuit breaker in the "open" position





t kev Cylindrical key

The key is free after locking. The key can be used to operate or give access to remote devices (Earthing switch, Transformer ...).

## Locking

### Withdrawable Circuit Breaker



### Locking the Racking Device

### Locking the racking device red pushbutton

The racking device can be locked in service or disconnected positions by using a padlock.

When the padlock is locked, the electrical control of the device is still possible.

This locking prevents any unwanted opening of the device or any manual racking-in / racking-out movement.



### Locking the racking device in disconnected/test position

The racking device can be locked in disconnected/test position by using a key lock.

When locked, the mechanical and electrical control of the racking device is impossible.

The key is free after locking. The key can be used to operate or give access to remote devices (Earthing switch, Transformer ...).



## Locking the racking device in disconnected/test position and service position

This function is achieved using a electromagnet lock which blocks rack-in and rackout operation when not energised.

When energised it allows rack-in or rack-out operation of the racking device.

The locking with eelctromagnet can be done remotely.

This system is available in several versions according to the supply voltage: 24 VDC/VAC - 48 VDC/VAC - 110 VDC/VAC - 220 VDC/VAC

## Functions and characteristics

### LV connection

### Fixed Circuit Breaker



Elbow on the right



Elbow on the left



LV terminal



64 pin male connector

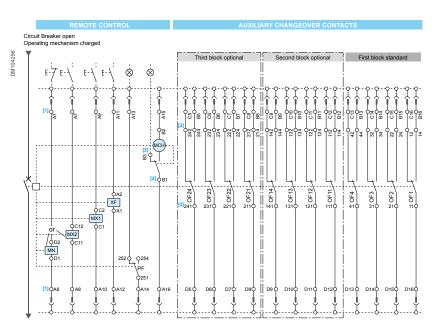
EasyPact EXE is equipped with a set of terminal blocks to connect LV wiring to the circuit breaker auxiliary circuit. An elbow enables the wiring to pass through the circuit breaker front cover on either the right or the left side.

### An optional LV connector enables connection of the circuit breaker

auxiliary circuits to the switchgear control cabinet in any circuit breaker positions: disconnected or service. It consists of a 64-pin or 24-pin male connector mounted on the frame of the circuit breaker and a removable 64-pin or respectively 24-pin female connector. Mounted on a flexible duct, the LV female connector is attached to the switchgear frame to be connected to the LV cabinet.

### Fixed version wiring diagram example

with 64-pin LV connector [3]



- [1] LV plug pin number (if applicable)
- 2] Contact number of circuit breaker terminal blocks
- [3] Please contact your Schneider Electric sales representatives for more information regarding 24-pin connector

### LV connection

### Withdrawable Circuit Breaker

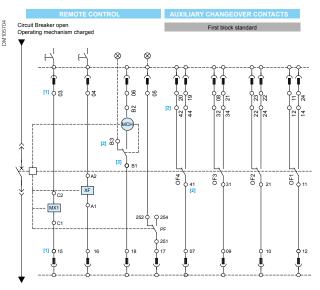
The LV connector collects electrical orders and status information from the circuit breaker terminal blocks and from the racking trolley terminal blocks. The number of pins in the LV connector (64 pins or 24 pins) may limit the number of available position contacts for the switchgear LV cabinet

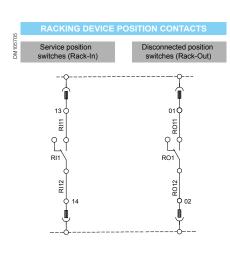
For the withdrawable version, the LV connector is interlocked mechanically with the racking trolley and the operating mechanism to prevent any manual closing order without the LV connector latched onto the circuit breaker frame.

# OR1/0/189

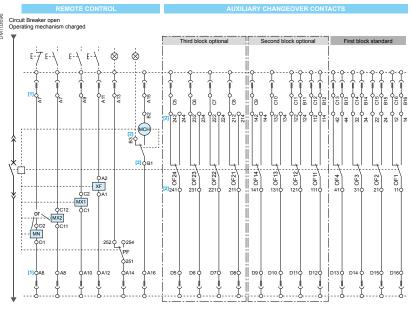
## Withdrawable version wiring diagram example

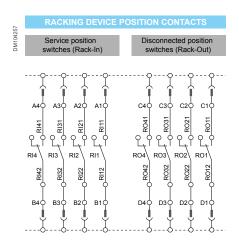
### With 24-pin LV connector





### With 64-pin LV connector





- [1] LV plug pin number (if applicable)
- [2] Contact number of circuit breaker terminal blocks

## **Racking Device interlocking**

The following table describes the interlocking functions available on the withdrawable version of EasyPact EXE.

### 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 is extracted from the switchgear
- Disconnected/test: 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

	Withdrawable circuit breaker positions				
	N_TRANSPAR	Racking-in  Racking-out	NI_088891NI	N. BESSOUND	
Parts	Service	Intermediate	Disconnected/test	Removed	
Locking tabs	Locked	Locked	Locked / Unlocked		
LV connection plug	Connected	Connected	Connected / Disconnected	Disconnected	
Compartment door	Closed and Locked	Closed and Locked	Locked / Unlocked	Unlocked	
Circuit Breaker main contacts position	OPEN / CLOSED	OPEN	OPEN / CLOSED	OPEN / CLOSED	
Racking device keylocking	Key removal impossible	Key removal impossible	Key removal possible to allow consignment	Key removal possible to allow consignment	
Shutters	OPEN	OPERATING	CLOSED	CLOSED	

## Product references

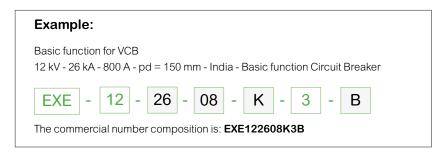
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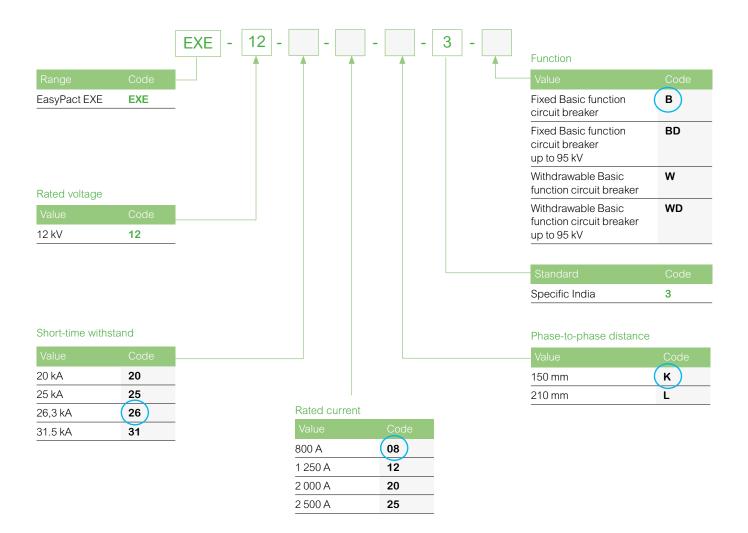
## Commercial reference numbering system

### Commercial number composition

For circuit breaker.



Please contact us for other versions such as IEC, etc.



### Fixed CB 12 kV

## Basic function Circuit Breaker (CB) - India



An EasyPact EXE Basic function Circuit Breaker (CB) consists of:

- · The basic function circuit breaker
- 1 ready to close contact PF with 1 terminal block
- 1 block of 4 auxiliary contacts with 4 terminal blocks
- 4 additional terminal blocks
- 1 operating counter
- 1 receipt guide

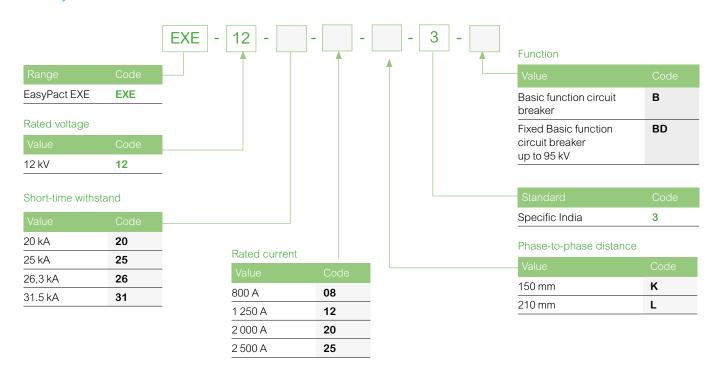
Additional options may be added, using the catalog product references.

Basic Function		20 kA	25 kA		26.3 kA		31.5 kA	
Phase distance (mm)		150	150	210	150	210	150	210
	800 A	EXE122008K3B	EXE122508K3B		EXE122608K3B		EXE123108K3B	
12 kV / 28 kV /	1 250 A	EXE122012K3B	EXE122512K3B		EXE122612K3B		EXE123112K3B	
75 kV	2 000 A			EXE122520L3B		EXE122620L3B		EXE123120L3B
	2 500 A			EXE122525L3B		EXE122625L3B		EXE123125L3B
	800 A		EXE122508K3BD		EXE122608K3BD		EXE123108K3BD	
12 kV / 38 kV /	1 250 A		EXE122512K3BD		EXE122612K3BD		EXE123112K3BD	
38 KV / 95 kV	2 000 A			EXE122520L3BD		EXE122620L3BD		EXE123120L3BD
	2 500 A			EXE122525L3BD		EXE122625L3BD		EXE123125L3BD

#### Notes:

- The 12 kV basic function may be used for 7,2 kV rated voltage
- Please contact your Schneider Electric sales representatives for more information

### Check your commercial number:



### Fixed CB 12 kV

## Referenced Circuit Breaker (CB) - India



An EasyPact EXE Referenced Fixed Circuit Breaker (CB) consists of :

- · The Basic function circuit breaker
- 1 ready to close contact PF with 1 terminal block
- 1 block of 4 auxiliary contacts with 4 terminal blocks
- 1 additional terminal block
- · 1 operating counter
- 1 MCH with 1 terminal block
- 1 opening release MX with 1 terminal block
- 1 closing release XF with 1 terminal block
- 1 receipt guide

Additional options may be added, using the catalog product references.

Equipped with:
Electric motor MCH
200-240 VAC (50/60 Hz)
<ul> <li>Opening release MX &amp; closing</li> </ul>
release XF
24-30V DC/24 VAC (50/60 Hz)
Code 611

Basic Function:		20 kA	25 kA	26.3 kA
Phase distance (mm)		150	150	150
12 kV /	800 A	EXE122008K3B611	EXE122508K3B611	EXE122608K3B611
28 kV / 75 kV	1 250 A	EXE122012K3B611	EXE122512K3B611	EXE122612K3B611
12 kV / 38 kV /	800 A		EXE122508K3BD611	EXE122608K3BD611
38 KV / 95 kV	1 250 A		EXE122512K3BD611	EXE122612K3BD611

E	quipped	with:
	منسد ما ت	

- Electric motor MCH 200-240 VAC (50/60 Hz),
- Opening release MX & closing release XF 100-130 VDC/100-130VAC (50/60 Hz)

Code 633

Basic Function:		20 kA	25 kA	26.3 kA
Phase distance (mm)		150	150	150
12 kV /	800 A	EXE122008K3B633	EXE122508K3B633	EXE122608K3B633
28 kV / 12	1 250 A	EXE122012K3B633	EXE122512K3B633	EXE122612K3B633
12 kV /	800 A		EXE122508K3BD633	EXE122608K3BD633
38 kV / 95 kV	1 250 A		EXE122512K3BD633	EXE122612K3BD633

lotes: • The 12 kV basic function may be used for 7,2 kV rated voltage

• Please contact your Schneider Electric sales representatives for more information

#### Check your commercial number: Equipped 611 633 **Function** EasyPact EXE **EXE** Rated voltage Fixed Basic function R circuit breaker 12 kV Fixed Basic function BD circuit breaker up to 95 kV Short-time withstand 20 kA 20 Rated current Specific India 3 25 kA 25 26,3 kA 26 Phase-to-phase distance 800 A 80 1 250 A 12 150 mm

## Withdrawable CB 12 kV

### Referenced Circuit Breaker (CB) - India



An EasyPact EXE Referenced Withdrawable Circuit Breaker (CB) consists of :

- · The Basic function circuit breaker
- 1 ready to close contact PF with 1 terminal block
- 1 block of 4 auxiliary contacts with 4 terminal blocks
- 1 additional terminal block
- 1 operating counter
- 1 racking device with 1 rack in/out contacts
- 6 arms with cluster
- 1 MCH with 1 terminal block
- 1 opening release MX with 1 terminal block
- 1 closing release XF with 1 terminal block
- 1 LV plug-24 pins (with male and female connector)
- 1 receipt guide

Additional options may be added, using the catalog product references.

### Equipped with:

- Electric motor MCH 200-240 VAC (50/60 Hz)
- Opening release MX & closing release XF 24-30V DC/24 VAC (50/60 Hz)

Code 611

Basic Function:		20 kA	25 kA	26.3 kA
Phase distance (mm)		150	150	150
12 kV /	800 A	EXE122008K3W611	EXE122508K3W611	EXE122608K3W611
28 kV / 75 kV	1 250 A	EXE122012K3W611	EXE122512K3W611	EXE122612K3W611
12 kV /	800 A		EXE122508K3WD611 (1)	EXE122608K3WD611 (1)
38 kV / 95 kV	1 250 A		EXE122512K3WD611 (1)	EXE122612K3WD611 (1)

### **Equipped with:**

- Electric motor MCH 200-240 VAC (50/60 Hz),
- Opening release MX & closing release XF 100-130 VDC/100-130VAC (50/60 Hz)

Code 633

Basic Fun	ction:	20 kA	25 kA	26.3 kA
Phase dista	ance (mm)	150	150	150
12 kV / 28 kV /	800 A	EXE122008K3W633	EXE122508K3W633	EXE122608K3W633
75 kV	1 250 A	EXE122012K3W633	EXE122512K3W633	EXE122612K3W633
12 kV / 38 kV /	800 A		EXE122508K3WD633 (1)	EXE122608K3WD633 (1)
38 kV / 95 kV	1 250 A		EXE122512K3WD633 (1)	EXE122612K3WD633 (1)

<sup>(1)</sup> Contact your Schneider Electric sales representatives for Withdrawable Circuit Breaker at 95 kV

Notes: • The 12 kV basic function may be used for 7,2 kV rated voltage

#### Check your commercial number: Equipped 611 **Function** 633 EasyPact EXE **EXE** Rated voltage Withdrawable Basic W function circuit breaker Withdrawable Basic 12 kV 12 WD function circuit breaker up to 95 kV Short-time withstand 20 kA 20 Rated current Specific India 3 25 kA 25 26,3 kA 26 Phase-to-phase distance 08 800 A 1 250 A 12 150 mm K

Please contact your Schneider Electric sales representatives for more information

## MV connection

Below references are applicable for configurated circuit breaker. (not applicable for referenced CB).

Arms for 75 kVp	Phase	distance	Caption : Only identical colour shapes can be associated.		
Upper Arms	150	210	Description	References	
Set of	-		MV Arms 800 A Upper for Up = 75 kV Aluminium with flat horizontal cluster	EXEARM08C7KYU	
3 Arms	•		MV Arms 1 250 A Upper for Up = 75 kV With flat horizontal cluster	EXEARM12C7KXU	
Set of		<b>*</b>	MV Arms 2 000 A Upper With flat horizontal cluster	EXEARM20C7LXU	
1 Arm Education			MV Arms 2 500 A With tulip cluster	EXEARM25C9LX	
Lower Arms	150	210	Description	References	
Set of	•		MV Arms 800 A Lower for Up = 75 kV Aluminium with flat horizontal cluster	EXEARM08C7KYL	
3 Arms	•		MV Arms 1 250 A Lower for Up = 75 kV With flat horizontal cluster	EXEARM12C7KXL	
Set of		<b>*</b>	MV Arms 2 000 A Lower With flat horizontal cluster	EXEARM20C7LXL	
1 Arm Bushing			MV Arms 2 500 A With tulip cluster	EXEARM25C9LX	

## MV connection

Below references are applicable for configurated circuit breaker. (not applicable for referenced CB).

Arms for 95 kVp	Phase	distance	l					
Upper Arms	150	210	Description	References				
Set of	•		MV Arms 800 A Upper for Up = 95 kV Aluminium with flat horizontal cluster	EXEARM08C9KXU				
3 Arms	•		MV Arms 1 250 A Upper for Up = 95 kV With flat horizontal cluster	EXEARM12C9KXU				
Set of		•	MV Arms 2 000 A Upper With flat horizontal cluster	EXEARM20C7LXU				
1 Arm			MV Arms 2 500 A With tulip cluster	EXEARM25C9LX				
Lower Arms 150 210 Description References								

Lowe	Lower Arms		150 210		10	Description	References
Set of	DM105716					MV Arms 800 A Lower for Up = 95 kV Aluminium with flat horizontal cluster	EXEARM08C9KXL
3 Arms	DM105713		•			MV Arms 1 250 A Lower for Up = 95 kV With flat horizontal cluster	EXEARM12C9KXL
Set of 1 Arm	DM105712			<b>*</b>		MV Arms 2 000 A Lower With flat horizontal cluster	EXEARM20C7LXL
	DMINGTOR					MV Arms 2 500 A With tulip cluster	EXEARM25C9LX

Field deflector	Phase o	listance	Caption : Only identical colour shapes can be associated.		
Set of 3 field deflectors	150	210	Description	References	
DM100751	•		Field deflector up to 1 250 A	EXEFLDF	

## Racking Device

Below references are applicable for configurated circuit breaker. (not applicable for referenced CB).

Rolling base	Phase	distance	Caption : Only identical colour shapes can be associated.		
For 200 mm stroke	150	210	Description	References	
With 4 RI/RO			Rolling Base 150 mm Stroke 230 mm CD 245 mm Beam 482 mm	EXETRBJC1	
4 WIOS717		<b>*</b>	Rolling Base 210 mm with Plinth (Plinth 72) Stroke 230 mm CD 310 mm Beam 653 mm	EXETRBLC2	
			Rolling Base 210 mm with Plinth (Plinth 80) Stroke 230 mm CD 310 mm Beam 653 mm	EXETRBLC3	
With 1 RI/RO			Rolling Base 150 mm Stroke 230 mm CD 245 mm Beam 482 mm	EXETRBJD1	
M105718		<b>*</b>	Rolling Base 210 mm with Plinth (Plinth 72) Stroke 230 mm CD 310 mm Beam 653 mm	EXETRBLD2	
			Rolling Base 210 mm with Plinth (Plinth 80) Stroke 230 mm CD 310 mm Beam 653 mm	EXETRBLD3	

Manual Racking Trolley		ase d	istar	се	Caption : Only identical colour shapes can be associated.		
For 230 mm stroke	150 210		0	Description	References		
		•			Manual Racking Trolley 150 mm Stroke 230 mm Beam 482 mm	EXETRKJD	
DMIO4182			<b>♦</b>		Manual Racking Trolley 210 mm Stroke 230 mm Beam 653 mm	EXETRKLD	

Shutter Ramp		ase d	listar	ice	Caption : Only identical colour shapes can be associated.		
		50	210		Description	References	
					Shutter Ramp Thermo Plastic CD 245 mm	EXESHRP3	
DM1057			<b>♦</b>		Shutter Ramp Metallic CD 310 mm	EXESHRP4	

Tripping Interlock		Phase distance			Caption : Only identical colour shapes can be associated.		
Tripping chain for Withdrawable VCB	15	50	210		Description	References	
W106522		•			Truck Tripping Component	EXETRIP1	
			<b>♦</b>		Truck Tripping Component for Plinth (plinth 72)	EXETRIP2	
EXETRIP1 EXETRIP2					Truck Tripping Component for Plinth (plinth 80)	EXETRIP4	

## **Remote control Auxiliaires**

Mandatory auxiliaries		Voltage		References	
			24-30 V	EXECH02D	
			48-60 V	EXECH04	
	Electric motor MCH	DC	100-125 V	EXECH10D	
			200-250 V	EXECH20D	
			48-60 V	EXECH04	
	Electric motor MCH	AC 50/60 Hz	100-130 V	EXECH10A	
			200-240 V	EXECH20A	
			24-30 VDC/24 VAC (1 part)	2x <b>59284</b>	
	Opening release MX &	DC / AC	48-60 VDC/48 VAC (1 part)	2x <b>59285</b>	
	closing release XF	(50/60 Hz)	100-130 VDC/100-130 VAC (1 part)	2x <b>59286</b>	
			200-250 VDC/200-250 VAC (1 part)	2x <b>59287</b>	
Optional auxiliaries		Voltage		References	
			24-30 VDC/24 VAC	59284	
	Opening release MX (2nd)	DC / AC (50/60 Hz)	48-60 VDC/48 VAC	59285	
			100-130 VDC/100-130 VAC	59286	
The second			200-250 VDC/200-250 VAC	59287	
		DC / AC (50/60 Hz)	24-30 VDC / 24 VAC	59288	
	Undervoltage release MN		48-60 VDC / 48 VAC	59289	
			110-130 VDC / 100-130 VAC	59290	
			200-250 VDC / 200-250 VAC	59291	
ndication		Description		References	
	Additional position contacts OC	4 NO/NC auxil	EXE47887		
0	(1 or 2 blocks of 4 NO/NC maximum)	Terminal block	4x EXE47074		
	Rackin /	Rolling Base 4	Rolling Base 4 Rackin Rackout Contact		
	Rackout Contact	Rolling Base 1	Rackin Rackout Contact	EXERIRO1	

## LV connection

## Fixed type LV connection

LV 64 pins connecto	or (M&F)	Description	References
OM105659		LV 64 pins connector (Male & Female) for fixed device without interlocking	EXEPLF
	For fixed VCB	LV 24 pins connector (Male & Female) for fixed device without interlocking	EXEPLF24
Elbow for LV connec	ction		
DM103785		LV connection elbow right	EXEELR
	Elbow	LV connection elbow left	EXEELL

## Withdrawable type LV connection

LV 64 pins connector (M&F)		(M&F)	Description	References
080901 MG			LV 64-pins connector (male & female) for withdrawable device	EXEPLX
For withdrawable VCB	LV 24 pins connector (Male & Female) for withdrawable device	EXEPLX24		

## Locking

Locking accessories for Fixed type			Description		References
DM103753		Padlocking device	Locking of the circuit breaker in the open position by padlock (Padlock or key locks not supplied)		EXE48541
- 52	15			1 key lock + 2 flat keys	EXE41940
DM103775		Locking of the circuit breaker in the open position by keylocks	Flat key	2 key locks + 1 flat key <sup>(1)</sup>	EXE41950
777	Da-			1 key lock + 2 cylindrical keys	EXE42888
DM103777	Locking of the circuit breaker in the open position by keylocks	•	Cylindrical key	2 key locks + 1 cylindrical key (1)	EXE42878
DM103755		Push button padlock	Disabling of C (padlock not s	0/C circuit breaker pushbutton upplied)	EXE48536

<sup>(1)</sup> One keylock mounted on the breaker, + one identical keylock supplied separately for interlocking with another device.

L	Locking accessories for Withdrawable type		Description		References
DM104192	90g	Keylock	Cam for Rackir	ng Device Keylock	EXECAMW
37.75			Flation	1 key lock + 2 flat keys	EXE41940
DM10377E		For CB: Locked in disconnected position	Flat key	2 key locks + 1 flat key (2)	EXE41950
777801MC		For CB:		1 key lock + 2 cylindrical keys	EXE42888
DM10	W/ / (prl _	Locked in disconnected position	Cylindrical key	2 key locks + 1 cylindrical key (2)	EXE42878

<sup>(2)</sup> One keylock mounted on the racking device, + one identical keylock supplied separately for interlocking with another device.

Electromagnetic Lo	cking for Withdrawable	type Description	References
-	Locking Magnet	Racking Device Locking Magnet 24 VDC-VAC	EXETRLKMA02
W105661		Racking Device Locking Magnet 48 VDC-VAC	EXETRLKMA04
		Racking Device Locking Magnet 110 VDC-VAC	EXETRLKMA10
		Racking Device Locking Magnet 220 VDC-VAC	EXETRLKMA20

## **Accessories and Spares**

### Accessories

Rack-in / rack-out cra	nk	Description	References
DMIGGEGZ		Truck operating shaft	EXESHFT
MV connections		Description	References
DM10375-1	Set of 3 Field Deflectors	Field deflector up to 1 250 A at 95 kV	EXEFLDF

## Spares

- Only End Users (level 2) are allowed to replace the components listed below. These kit components must only be assembled, installed, used, tested, repaired or maintained by qualified personnel
- To order spare parts, please contact your Schneider Electric representative or your equipment manufacturer
- · For any modification or upgrade of the circuit breaker, contact your equipment manufacturer or Schneider Electric

Device covers		Description	References	
DM103788	Removable top cover	Removable top cover with screw	EXECOTO	
DMIGSUMO	Main front cover for CB	Circuit Breaker main front cover with screw.  Please contact Schneider Electric sales representative for more information to obtain nameplate of the Device.	EXECOFRCB	

Racking trolley front cover		Description	References
DOMINGO S	Racking Trolley front cover	Racking Trolley front cover including screw, label, indicator, red push button	EXECOTR

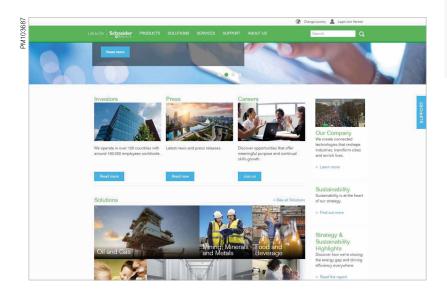


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Training allows you to acquire the expertise (installation design, work with power on, etc.) to increase efficiency and improve customer service.

The training catalog includes beginner's courses in electrical distribution, knowledge of MV and LV switchgear, operation and maintenance of installations, and design of LV installations to give a few examples.

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