



Help your customers maintain  
efficient and sustainable  
MV & LV power installations

Electrical downtime is the worst scenario that can occur in industry, Commercial or infrastructure buildings. The business is stopped, production and employees are idle.

Before to come to this fatality, there are measure that can be taken to avoid or minimize risks of failure.

This document will provide you with minimum information to make inventory of the electrical installation and provide short description of Services to offer your customers.

As recognized and trusted Partner from Schneider Electric in front of your Customer you will be able to make recommendation, propose or perform Services to keep its installation running at the optimum level of operation.



## As Schneider Electric Authorized Services Reseller, you are trained and qualified to buy & resell services

- Sell maintenance, contract, spare parts, modernization and digital services.
- Remain the first interlocutor to your customer, while services offers are executed by Schneider Electric's experts.

## In addition to buy & resell services as EcoXpert power Upgrade & EcoXpert Power Services you can perform Services from essential to advanced level

- Differentiate from competitors with relevant services offers
- Boost employee expertise with dedicated training
- Become the solution provider and trusted advisor for your customer needs.

# Benefit from Schneider Electric reputation and know-how

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Local support all over the world.  
There are always Schneider Electric people close to you:

**6 200**

services people in more than

**88**

countries

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**5%**

of sales devoted to R&D

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**Schneider Electric's policy has always been to provide you with very close support in your daily activities to enable you to achieve operational excellence.**

## **The experience of a world leader in electrical distribution**

Schneider Electric has been manufacturing LV and MV products for more than 50 years and have more than a million installed products and devices.

The Schneider Electric brand is known worldwide and recognized by the most demanding customers. You benefit from the experience and know-how in electric distribution, automation and power & control of a recognized global leader.

## **A long history of innovation for a global offer**

As world leader, Schneider Electric has developed a large and comprehensive range of innovative devices.

You take benefit of a global leader experience and know-how in electric distribution, automation and power & control.

All the devices included in this overview have been designed and manufactured to incorporate the benefits of this extensive experience.

## **Manufactured as original**

For services purpose, the life of the following equipment is extended by rebuilding them according to their original design.

**Schneider Electric, a brand you can trust!**

# Support your customers to face the challenges of running electrical distribution equipment

## As you are close to your customer and end-users

Becoming an expert in maintaining the availability and durability of electrical distribution installations with field and digital services, you can now maximize revenue with additional opportunities in Services.

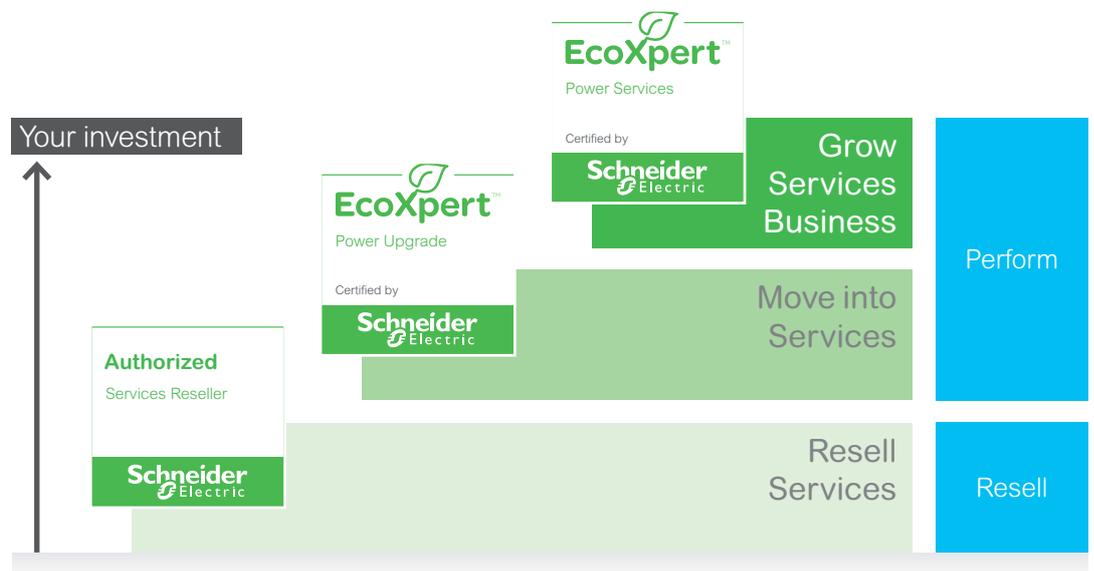
By choosing Schneider Electric as a partner, you can rely on trusted support, training on best-in-class operation & services, and certified recognition.

EcoXpert™ Power Services companies have some of the highest competencies in the industry and worldwide recognition in maintaining availability and sustainability of electrical installation and are at the edge of digital services.

## Grow your business portfolio

- Differentiate from competitors with relevant Services offers
- Boost employee expertise with dedicated training
- Be the solution provider and trusted advisor that your customer needs.

## 3 models to generate additional revenues in Services



Depending on your certification level, as a Service Provider partner, you get access to dedicated offer packages with Technical training, Tools and Remote Support.

Every year your company subscribes to the offer package to keep your skills up-to-date.

This yearly subscription allows you to be trained and certified each of the individuals in your Services team.

|  | Resell for Certified Services Partners  | Perform Services for all Services Partners qualified by Schneider Electric after technical training  |  |
|--|---|--|--|
|  | Authorized Services Reseller  | EcoXpert™ Power Upgrade  | EcoXpert™ Power Services   |
|  |    |   |   |
|  | Authorized  | Low Voltage  | Low & Medium Voltage   |
| Offer  |   |  |  |
| Partner Enablement <b>Onsite</b>               |   | <p><b>Essential</b></p> <ul style="list-style-type: none"> <li>• Training Maintenance &amp; spare replacement</li> <li>• Circuit-Breaker Advanced Testing feature in EcoStruxure Power Commission</li> <li>• Service Interface tool</li> <li>• Remote support from Schneider Electric technician</li> <li>• Training how to sell</li> </ul> <p><b>Benefits &amp; Competencies</b></p> <p>I can sell my own contract and I can do on-site services for <b>low voltage equipment</b>: Commissioning, Intermediate Maintenance, spare replacements.</p> | <p><b>Advanced</b></p> <ul style="list-style-type: none"> <li>• Training on <b>Certified Maintenance &amp; Critical Spares replacement</b></li> <li>• Circuit-Breaker Advanced Maintenance feature in EcoStruxure Power Commission</li> <li>• Service Interface tool</li> <li>• Remote support from Schneider Electric technician</li> <li>• Training how to sell</li> </ul> <p><b>Benefits &amp; Competencies</b></p> <p>I can sell my own contract and I can do on-site services for <b>low voltage &amp; medium voltage equipment</b>: Commissioning, Certified Maintenance, critical spare replacements.</p> |
| Partner Enablement <b>Digital</b>              |   | <p><b>Digital Commissioning</b></p> <ul style="list-style-type: none"> <li>• Training &amp; Exclusive Access to EcoFit™ Life Extension Essential kits</li> <li>• Training on Connectivity</li> <li>• Training on EcoStruxure Facility Expert - Digital Logbook</li> </ul> <p><b>Benefits &amp; Competencies</b></p> <p>I can digitally commission and install sensors and connect to local SCADA or cloud to monitor customer installation</p>   | <p><b>Schneider Electric Connected Services Hub</b></p> <ul style="list-style-type: none"> <li>• Access Schneider Electric cloud platform with advanced analytics and 24/7 remote and alarm monitoring</li> </ul> <p><b>Benefits &amp; Competencies</b></p> <p>I can sell my own monitoring solution leveraging Schneider cloud-platform, analytics and 24/7 experts</p>   |
| Partner Enablement <b>Onsite &amp; Digital</b> | <ul style="list-style-type: none"> <li>• Resell</li> <li>• Essential, Advanced</li> <li>• Digital Commissioning</li> <li>• Schneider Electric Connected Services Hub</li> </ul> |  |  |

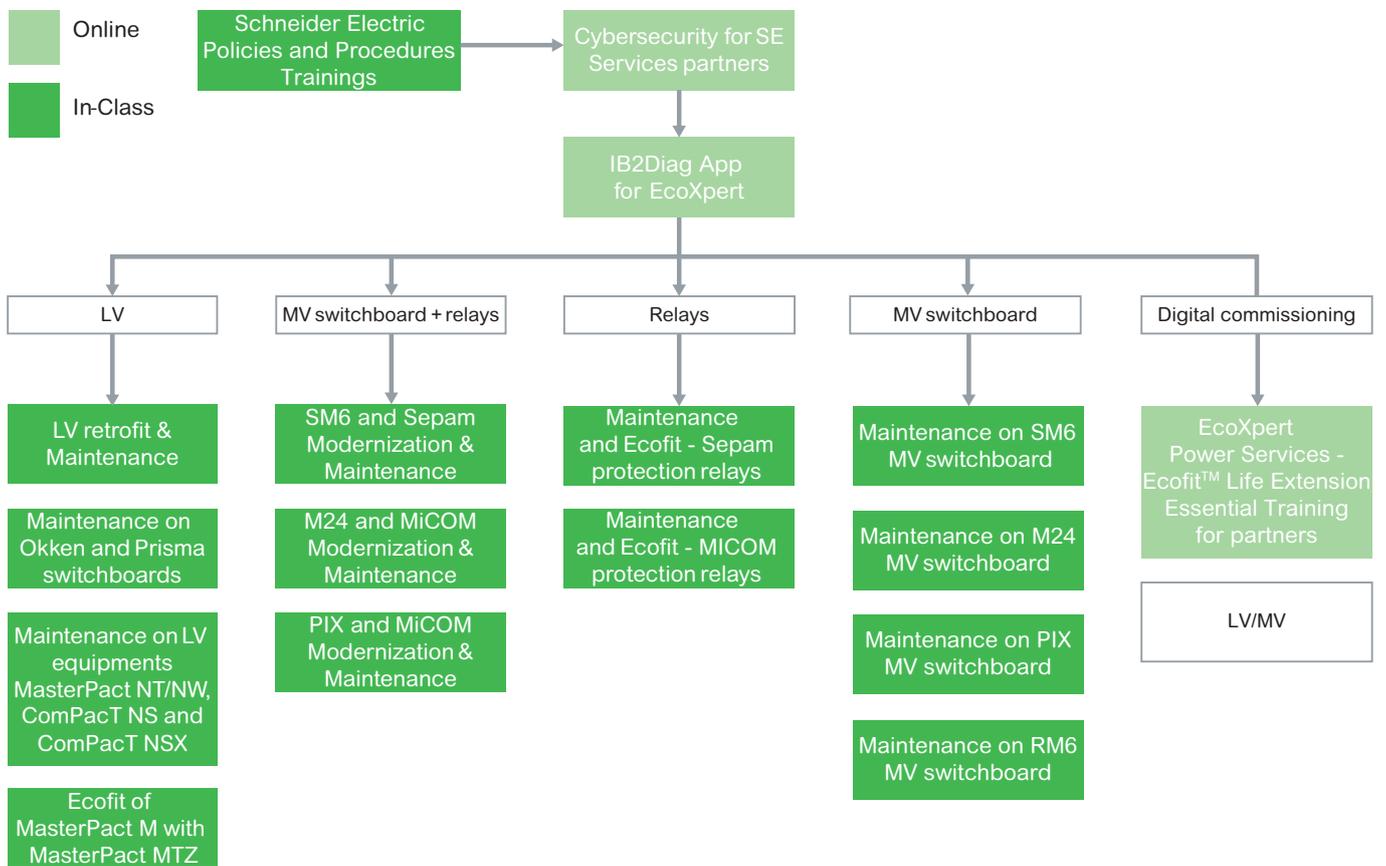
# Increase your Expertise, Extend your opportunities



Power Services

Get the basic and develop your knowledge and competencies according to the business you want to develop by following our training university courses.

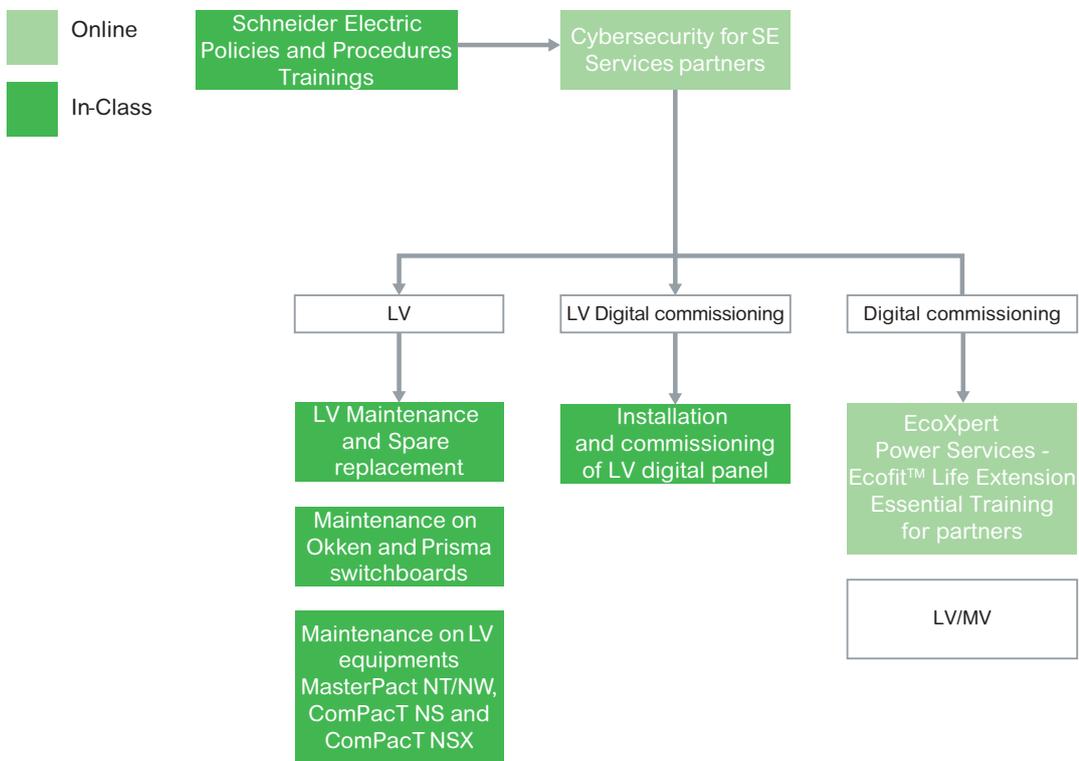
## Training path for EcoXpert Power Services





Power Upgrade

### Training path for EcoXpert Power Upgrade



# How to use this catalog

This catalog is a tool to help you identify quickly all services you can propose to your customers to help them improve their operational efficiency, maintain their power availability and while keeping their installation and people safe

## Identify the Equipment

- 1 Thanks to the picture and characteristics identify easily the product
- 2 Identify which offer you can Resell
- 3 Select the commercial References of the Service type you need or Perform
- 4 Build your chart using the price list provided by your local contact in Services

## Icons represent service types



**Authorized Partners**  
(Available to Resell)



**Power Upgrade** certified EcoXpert  
(Available to Resell and Perform)



**Power Services** certified EcoXpert  
(Available to Resell and Perform)

# Perform and resell Services

## General Contents

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# Maintenance plan



## More Safety

For both the equipment and for the people working around it. Equipment that is serviced and maintained is safer and less prone to failures.



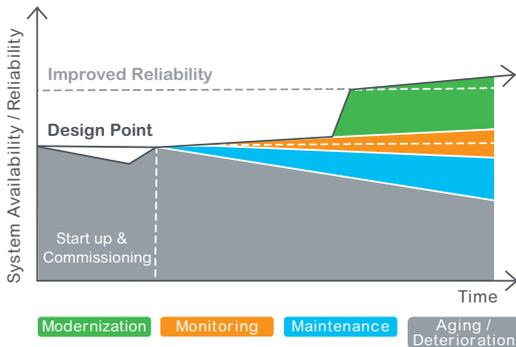
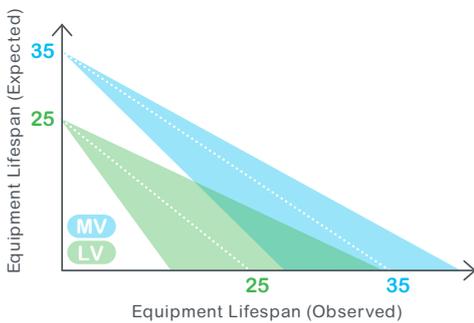
## More Reliability

Maintenance helps assess the condition of stressed assets. Issues can be detected early and can be fixed before they cause a major problem.



## Longevity

Equipment is kept at its most optimal through thorough and effective maintenance. Helping the system to operate as long as it can to get the most out of it.



## Impact of maintenance, from theory to reality

Equipment is designed for a theoretical lifespan duration (cf scheme). However, we observe that in real life if the equipment undergoes severe operating condition or is not well maintained the equipment Lifetime can be Drastically reduced.

### Environmental Conditions

- Extreme temperatures / cycles
- Pollution (corrosive, saline, dust)
- Ventilation.

### Process Conditions

- Vibrations (mechanical)
- Electrical stress (high rush currents).

### Asset Management

- Quality and frequency of proper maintenance.

## Maintenance is a critical component of power system management

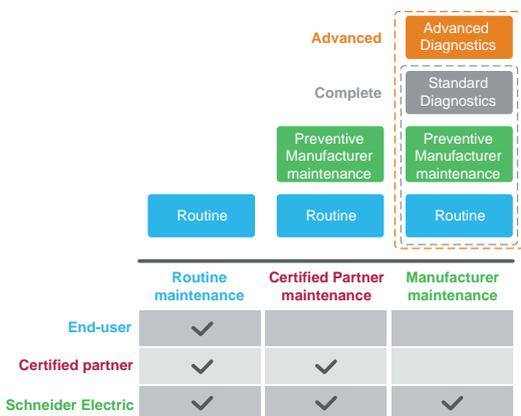
### Offer Structure

Schneider Electric's maintenance offer is broken down into two key levels: "Complete" maintenance and "Advanced" maintenance.

Certified Partner maintenance is an offer for EcoXpert certified partners, allowed and trained to sell or sell/execute preventive maintenance to increase accessible market.

"Routine" maintenance is also presented to the customer in the offer structure, but it is included to explain that it is a component of a maintenance plan – note that we generally are not going to be the provider of routine maintenance services.

Note that manufacturer preventive maintenance, by definition, is limited to Schneider Electric equipment only.



# Maintenance plan

## Identify your level of intervention

### Maintenance Services



Perform certified maintenance:  
• EcoXpert Certified



Certified Partner

Buy & Resell manufacture maintenance:  
• All partners



Manufacturer Complete

### Inspect

|                         | Exterior | Interior | Interior |
|-------------------------|----------|----------|----------|
| Visual inspection       |          |          |          |
| Mechanical inspection   | ●        | ○        | ●        |
| Device cleaning         | ●        | ○        | ●        |
| Device operational test | ●        | ○        | ●        |

### Checking & Repair

|   |  |   |   |
|---|--|---|---|
| Disassembly   |  | ○ | ● |
| Component operational tests                             |  | ○ | ● |
| Preventive replacement / Refitting (e.g. control units) |  | ○ | ● |
| Repairs   |  | ○ | ● |
| OEM Spare Parts   |  | ○ | ● |

### Diagnose

|  |  |   |
|--|--|---|
| Measurements (e.g. closing force)            |  | ● |
| ProDiag Fuse                                 |  | ● |
| ProDiag MV Relay                             |  | ● |
| ProDiag Trip Unit                            |  | ● |
| ProDiag Oil                                  |  | ● |
| ProDiag Breaker                              |  | ● |
| ProDiag Clusters                             |  | ● |
| ⚡ ProDiag Corona (performed while energized) |  | ● |

## Access Testing and Execution Schneider Electric suite of Proprietary Tools

|   |   |
|---|---|
|  <p>Evaluates the external condition of the fuse, its internal resistance, and the condition of the MV switchgear compartment</p> <p><b>ProDiag Fuse</b></p>         |  <p>Assesses kinematic and electrical parameters of a device related to opening, closing, and charging functions</p> <p><b>ProDiag Breaker</b></p>                     |
|  <p>Examines the MV protection chain between the relay tripping order and the opening of breaker main contacts</p> <p><b>ProDiag MV Relay</b></p>                    |  <p>Tests the draw-out connections on LV and MV equipment, thanks to a surface visual inspection and a contact pressure measurement</p> <p><b>ProDiag Clusters</b></p> |
|  <p>Analyzes the condition of the trip unit based on protection settings, discrimination, breaking capacity, and historical data</p> <p><b>ProDiag Trip Unit</b></p> |  <p>Assesses the condition of MV devices to detect partial discharge on insulating parts, both superficial and internal</p> <p><b>ProDiag Corona</b></p>               |
|  <p>Tests the transformer oil in a laboratory for signs oil degradation and a measure of overall oil health</p> <p><b>ProDiag Oil</b></p>                            |   |

# EcoConsult Audit

## Site assessment



Available to Resell



### Enhance electrical equipment safety and reliability

Business continuity rely on the health of your electrical and automation systems. You deserve the industry best experts for your safety, resiliency, efficiency and sustainability. Our Consultants are mapping your electrical and automation assets and systems with best-in-class Software and Digital Twin technologies to provide actionable insights and deliver on critical business outcomes ranging from:

- **Safety & Compliancy** for your people and resources
- **Efficiency OpEx** on electrical and automation assets management
- **Resiliency** to keep business uptime
- **Decarbonized, with Circularity**, thru obsolescence and modernization plan combined with CO<sub>2</sub> calculation and **Energy Efficiency** thru power quality studies.

Your trusted experts are delivering recommendations thru mySchneider, our collaborative platform for easy prioritization, follow up, design and implementation.

## Benefits of the EcoConsult Audit Essential assessment

### Our Offer: EcoConsult Audit

Non-intrusive audit of your installed base of electrical distribution equipment. The aim of the audit is to assess its:



#### Visual State

Inspect and document that the overall state of the equipment and its environment are within specified operating conditions including but not limited to room temperature, airflow, dust contamination, deterioration, etc.



#### Maintenance State

Inspect and document that the type and frequency of equipment maintenance operations are within specified operating conditions including but not limited to testing, cleaning, etc.



#### Obsolescence State

Inspect and document the equipment's life-cycle / duty cycle status as well as the associated marketing and spare part guarantee periods and modernization plan(s).



#### Regulatory Compliance

Inspect and document safety risks as well as verify and document that the electrical distribution equipment and its environment is in compliance with local, state, and/or federal electrical safety regulations where applicable.

# Install Based to Diagnostic Mobile App (IB2Diag) for EcoXpert with obsolescence report

## Site assessment



Available to Resell and Perform



### Perform site audit and generate business

Install Based to Diagnostic Mobile App for EcoXpert is an easy-to-use digital tool (mobile App) that supports the execution of sites assessment to provide:

- comprehensive service recommendations to customers
- generate service opportunities for EcoXpert partners.

Install Based to Diagnostic Mobile App tool allows you to identify opportunities based on customer assets captured and assessment you quickly perform at customer site.

IB2Diag tool allows you to identify opportunities based on customer assets captured and assessment you quickly perform at customer site.

- The Tool is available through mobile/tablet App
- Ergonomic and user-friendly interface
- Time-saving capture steps reduced to the essential
- The assets you capture via the App are identified as “managed by your company” meaning you are in charge of commercially managing the customers for the declared assets
- Generate obsolescence & recommendations report you can share with your customers
- Fuel Schneider Electric’s business intelligence tools (named “digital opportunity factory”) to receive qualified services business opportunities.

### Benefit in Action

As an EcoXpert partner, I would like:

- a dedicated tool for me; not the tool available for everyone on the Store
- to perform a light site assessment to bring value to my customer and generate opportunities
- to provide a preliminary report to my customer on the same day of the assessment
- to provide a full Schneider Electric branded report with all recommendations to my customer some days after the assessment
- On-line training to utilize the application (e-learning)
- to get a list of opportunities and follow up.

### Working principles

- On-line / Off-line EcoXpert App to collect asset data and perform site assessment
- Synchronization of data to Schneider Electric cloud to complete recommendations
- Automatic generation of business opportunities visible by EcoXpert partner through MySchneider Opportunity portal
- Generate Automatic Schneider Electric branded report after Synchronization to be delivered to end-user by EcoXpert partner.

### How to download the App

- The EcoXpert partner, once enrolled in the program, will receive a welcome email in order to promote/inform him about the launch of IB2Diag for EcoXpert.
- Promo video and tutorial linked will show to the partner how to access and use the App
- A Direct download link is included in the welcome mail
  - Android: search for "IB2Diag" in Play Store and download
  - iOS: Schneider Electric sends a specific link to download the App.

# EcoConsult Audit

## Site assessment



Available to Resell



| Labor time 1*               |  | Commercial reference |
|-----------------------------|--|----------------------|
| Remote MPS Walkthrough      | For 1 substation                                 | FSC31                |
|                             | Extension to 1 additional substation             | FSC32                |
| MPS Walkthrough Audit       | For 1 substation time 1                          | FSC11                |
|                             | 1 additional substation time 1                   | FSC12                |
|                             | For 1 substation time 1 (Distributor)            | FSCADT               |
|                             | For 1 additional substation time 1 (Distributor) | FSCADTADD            |
| Electrical Fire Risk        | Audit For 1 substation                           | FSC21                |
|                             | Assessment extension to 1 additional substation  | FSC22                |
| Remote Electrical Fire Risk | Audit for 1 substation                           | FSC41                |
|                             | Assessment extension to 1 additional substation  | FSC42                |



| Labor time 2*               |  | Commercial reference |
|-----------------------------|--|----------------------|
| Remote MPS Walkthrough      | For 1 substation                                 | FSC31                |
|                             | Extension to 1 additional substation             | FSC32                |
| MPS Walkthrough Audit       | For 1 substation time 2                          | FSC13                |
|                             | 1 additional substation time 2                   | FSC14                |
|                             | For 1 substation time 2 (Distributor)            | FSCADTEH1            |
|                             | For 1 additional substation time 2 (Distributor) | FSCADTADDEH1         |
| Electrical Fire Risk        | Audit for 1 substation                           | FSC21                |
|                             | Assessment extension to 1 additional substation  | FSC22                |
| Remote Electrical Fire Risk | Audit for 1 substation                           | FSC41                |
|                             | Assessment extension to 1 additional substation  | FSC42                |



| Labor time 3*               |  | Commercial reference |
|-----------------------------|--|----------------------|
| Remote MPS Walkthrough      | For 1 substation                                 | FSC31                |
|                             | Extension to 1 additional substation             | FSC32                |
| MPS Walkthrough Audit       | For 1 substation time 3                          | FSC15                |
|                             | 1 additional substation time 3                   | FSC16                |
|                             | For 1 substation time 3 (Distributor)            | FSCADTEH2            |
|                             | For 1 additional substation time 3 (Distributor) | FSCADTADDEH2         |
| Electrical Fire Risk        | Audit for 1 substation                           | FSC21                |
|                             | Assessment extension to 1 additional substation  | FSC22                |
| Remote Electrical Fire Risk | Audit for 1 substation                           | FSC41                |
|                             | Assessment extension to 1 additional substation  | FSC42                |

\* Labor time 1: standard working days.  
 Labor time 2: overtime.  
 Labor time 3: public holidays.

# Access Testing and Execution tools

## Manufacturer maintenance Diagnose



Available to Resell and Perform



Available to Resell and Perform



### Service Interface for MasterPacT NT/NW / ComPacT NS / PowerPacT P-, R-Frame

Service Interface is a portable test instrument designed for field testing. The Service Interface with part number LV485500 is used for testing and configuration of MicroLogic™ trip units mounted in the following low voltage circuit breakers:

- ComPacT NS 630b-1600 circuit breakers
- ComPacT NS 1600b-3200 circuit breakers
- PowerPacT P- and R- frame circuit breakers
- MasterPacT NT/NW circuit breakers.

The Service Interface replaces the test units such as Full Function Test Kit (FFTK) and Universal Test Adapter (UTA).

#### Technical data

Input Voltage up to 115 V to 230 V AC at 50, 60 Hz ( $\pm 10\%$ ) – With AC-DC adapter and 24 V DC (22.8 to 25.2 V DC) Directly.

- Single Connector Interface for multiple breaker modules
- Handheld formfactor
- Mini USB interface
- EPC as the local display
- 24 V at 120 mA Power output for external devices
- 12 kV+ safety isolation between user interface and Test port.

#### EcoStruxure™ Power Commission (EPC)

Is a global software with test functions features for testing the circuit breakers and communication accessories through the Service Interface.

## Service Interface Contract Offer

The Power Services and Power Upgrade EcoXpert partners can order the following rental contract, included in Partner Enablement Onsite memberships

- 1 Service Interface tool
- 1 Service feature subscription in EcoStruxure Power Commission.

| Description   | Commercial reference |
|---|----------------------|
| <b>Essential:</b><br>Annual fee for renting 1 Service Interface tool + 1 subscription to Circuit Breaker advanced maintenance feature in EcoStruxure Power Commission | FSM191               |
| <b>Advanced:</b><br>Annual fee for renting 1 Service Interface tool + 1 subscription to Circuit Breaker advanced maintenance feature in EcoStruxure Power Commission  | FSM193               |

# Field Services Execution tools

## Manufacturer maintenance Diagnose



Available to Resell

### OnSite ProDiag Breaker

Diagnostic of electro-kinematic condition in medium voltage circuit breakers and contactors, or low voltage circuit breakers, draw-out or fixed



### OnSite ProDiag Breaker

Protection of medium voltage or low voltage substations is commonly done by medium voltage circuit breakers and contactors or low voltage circuit breakers. A quick and more reliable opening is a strategic function to evaluate the full operating protection chain. Its fault detection capability and reaction speed, stops short-circuits development.

The aim of **OnSite ProDiag Breaker** diagnostic service is to mitigate the risk of medium voltage circuit breakers and contactors or low voltage circuit breakers electro-kinematic problems. It identifies the symptoms of degradation of the equipment before the issue happens avoiding unwanted effects like:

- premature wearing of internal moving parts
- overheating and/or internal fires
- circuit breaker and switchgear destruction
- electrical room complete destruction.

### OnSite ProDiag MV Relay

Diagnostic of medium voltage protection relays condition and configuration settings



### OnSite ProDiag MV Relay

Accurate tripping time operation in accordance with medium voltage relay protection function settings defined for an electrical installation has always been mandatory for evaluating its protection performance, along with the circuit breaker trip chain operation (wiring, coil, circuit breaker opening).

The aim of **OnSite ProDiag MV Relay** diagnostic service is to mitigate the risk of medium voltage protection relay electronics problems. It identifies the symptoms of an undetected degradation of the equipment (tripping time drifts, wrong configuration settings) before the fault happen with unwanted effects like:

- unexpected blackouts
- downstream industrial equipment inefficiencies.

# Field Services Execution tools

## Manufacturer maintenance Diagnose



Available to Resell

### OnSite ProDiag Trip Unit

Diagnostics of the circuit breaker tripping capability.



OnSite ProDiag Trip Unit diagnoses trip units on de-energized low voltage circuit breakers

### OnSite ProDiag Trip Unit

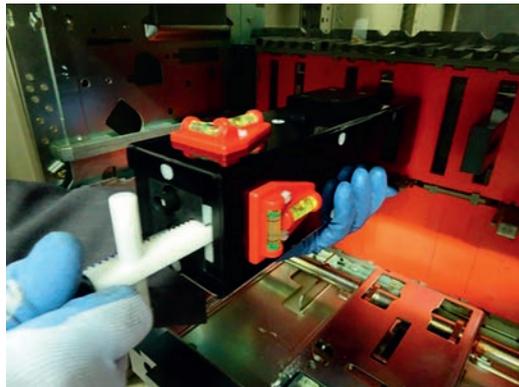
Accurate tripping time operation as per protection settings defined for an electrical installation is a strategic function for evaluating protection performance in network fault detection and tripping speed reaction.

Designed by Schneider Electric, **OnSite ProDiag Trip Unit** diagnostic offering mitigates the possibility of poor low voltage circuit breaker trip unit performance through:

- detection of tripping time drifts
- verification of low voltage circuit breaker and trip unit features according to electrical network characteristics (breaking capacity, discrimination)
- analysis of the history of alarms and events.

### OnSite ProDiag Cluster

Diagnostic of draw-out equipment connections.



OnSite ProDiag Clusters diagnoses the condition of clusters on de-energized draw-out equipment

### OnSite ProDiag Clusters

Accurate condition assessment of clusters connecting your draw-out low voltage and medium voltage equipment on your electrical distribution installation is a strategic function.

**OnSite ProDiag Clusters** allows maintenance managers to assess the last meter of power connections which are out of scope of thermography studies. This is needed when evaluating the condition of power distribution connections and the potential overheating (energy inefficiency) and thermal runaway inherent risks, specially in low voltage networks.

Electrical power connections on draw-out devices need special care because of the aging process caused by the regular maintenance works (draw in/draw out) and the stress related to site exploitation conditions. Connection clusters that are regularly assessed help to enhance power connection reliability and long-life to help to ensure the service continuity of your operations.

# Field Services Execution tools

## Manufacturer maintenance Diagnose



Available to Resell

### OnSite ProDiag Fuse

Diagnostic of electrical condition in medium voltage fuses through early detection of its aging



### OnSite ProDiag Fuse

Electrical power installations equipped with medium voltage switchgear with fuse protection shall be regularly checked (correct assembly, fuses electrical parameters, etc.) to confirm that their characteristics and performance comply with the original equipment and system specification.

The aim of **OnSite ProDiag Fuse** diagnostic service is to mitigate the possibility of process shutdown when operating under severe exploitation conditions because of premature aging of medium voltage fuse (destruction of fuse elements, thermal striker problems, etc.). Consequently, regular fuse diagnostic detects features outside of original technical specifications, as possible cause of effects like:

- thermal runaway (energy inefficiency)
- medium voltage fuse internal fire
- medium voltage fuse, switchgear, and/or electrical room destruction.

### OnSite ProDiag MV Oil

Dielectric fluid diagnostic for:

- distribution transformers
- power transformers.



### OnSite ProDiag Oil

Any industrial power infrastructure is equipped with distribution transformers and / or power transformers. Its mission is to transform power within medium voltage, or from medium voltage to low voltage under the most diverse operating conditions with maximum availability.

A transformer plays a critical role within any electrical distribution installation to improve maximum productivity.

**OnSite ProDiag Oil** diagnostic service identifies the symptoms of an undetected issue or dielectric degradation of the transformer to mitigate unwanted effects like:

- energy inefficiency (overheating)
- internal electrical arcing or fires
- transformer destruction.



# Upgrade MV/LV installations by adding digital communication capabilities

## EcoFit™ Life Extension Essential



Available to Resell



Available to Resell and Perform



Available to Resell and Perform



Discover EcoFit™ Life Extension Essential kit offer in our Buy & Resell catalog

Unleash the power of connectivity with smart sensors, sub-assemblies and software updates. Upgrade your non-communicating equipment into connected assets to monitor and capture information on the health of your installation. Repair and fix your equipment to extend its life.

EcoFit™ Life Extension Essential helps you to upgrade your existing installation with smart sensors, transforming non communicating equipment into connected assets.

- Prevent fire and corrosion risks
- Monitor environment condition and switching
- devices health
- Program periodic maintenance
- Maximize continuity of service
- Safety and compliance with evolving industry standards and legislation

**Resell:** Partner can resell the offer thru transactional references in following pages. Commercial references will include the sensors and Field Sales Representative (FSR) from Schneider Electric Intervention.

**Perform:** Partner execute the installation of the sensors by selecting the commercial references in the following pages.



### PowerLogic TH110

- Self-powered wireless sensors
- Installed in MV or LV junctions and customer cable connections
- Temperature measurements of one connection per PowerLogic TH110 on 24/7



### PowerLogic CL110

- Wireless sensor battery powered (15 years)
- Installed inside electrical room, MV switchgears compartments or critical LVdrawers
- Temperature and ambient measurement 24/7
- Installed in pair to determine dew point



### PowerLogic HeatTag

- Wireless sensor
- 230 V power supply
- Detects abnormal hot connections thru gas emissions (alert on material invisible transformation)
- Early warning before any irreversible damage
- Only one device per column: easy and flexible to install
- 24/7 monitoring
- Easy to maintain and 10 year life duration without recalibration



### PT100 (Trihal)

- Digital thermal protection relay with PT100 probes
- Protects your transformer
- Provides real time monitoring of LV windings health
- Controls cooling fans operations

# EcoFit™ Life Extension Essential: cross selection

1

## SELECT SENSORS ACCORDING TO THE EQUIPMENT

| Equipment   |   |   |   |   |
|---|---|---|---|---|
| MV switchboard  | MV/LV transformers  |   | LV switchboards   |   |
|  |  |  |  |   |
| SM6   | Trihal  | Minera  | PrismaSet, Okken, BlokSeT   |   |
| Type of sensor  |   |   |   |   |
| PowerLogic TH110  | ✓   | ✓   | ✓   | ✓ |
| PowerLogic TH110  | ✓   |   | ✓   | ✓ |
| PowerLogic HeatTag  |   |   |   | ✓ |
| PT100   |   | ✓   |   |   |

2

## SELECT THE LEVEL OF SERVICES

1

### Nearby

Nearby App for Periodic Inspections (NFC + ETC App)  
Easergy Thermal Connect App monitors the sensors.



2

### Local Substation Monitoring Display / SCADA

Local condition monitoring / thermal monitoring (SMD / SCADA) System commissioned with sensors.



3

### EcoStruxure™ Service Plan

Remote condition and thermal monitoring, EcoStruxure™ Service Plan, System commissioned with sensors.



# Upgrade MV/LV installations by adding digital communication capabilities

From local to remote: Define your level of service

We have a scalable monitoring offer for Low Voltage, Medium Voltage and Transformers, starting from local thermal App connection to monitor your installation up to local SCADA connection, Web Advisors & web Portal solutions



| Equipment               | Digital components       | Under monitoring  | Problem detected                                   | Thermal connect Apps   |
|-------------------------|--------------------------|---|--|--|
|                         |                          |   |  | Mobile phone (Android)   |
| LV Panel and CBs        | PowerLogic TH110         | CB connection temperatures                              | Loose of CB connection                             | Instantaneous values pre-alarm & alarm threshold on demand (PDF) report generation |
|                         |                          | Main incomes connection temperature                     | Loose of Main incomer connection                   |  |
|                         |                          | Main Load Connection temperature                        | Loose of Main Load connection                      |  |
|                         | PowerLogic CL110         | Humidity  | Condensation period                                |  |
|                         |                          | Drawers temperatures monitoring                         | Drawers connection overheating                     |  |
|                         | HeatTag                  | Wires exhausted gas                                     | Cables overheating                                 |  |
|                         | Micrologic               | CB health status  | CB mechanical or electrical issue and aging        |  |
| Power Meters            | Power quality            | Poor power factor, frequency lag, voltage variation,... |  |  |
| Arc Flash               | Arc detection            | Limit arc energy emitted                                |  |  |
| MV Switchgear           | PowerLogic TH110         | Arm, busbar, cable connection temperature               | Loose of connection                                | Instantaneous values pre-alarm & alarm threshold on demand (PDF) report generation |
|                         | PowerLogic CL110         | Humidity  | Condensation period                                |  |
|                         | Protection relay         | CB health status  | CB mechanical or electrical issue                  |  |
|                         | HeatTag (LV compartment) | Wires exhausted gas                                     | Cables overheating                                 |  |
|                         | PDbox (2023)             | Partial discharges                                      | Partial discharge events                           |  |
|                         | Arc Flash                | Arc detection   | Limit arc energy emitted                           |  |
| Dry Transformers Trihal | PowerLogic TH110         | Connection temperatures                                 | Loose of connection                                | Instantaneous values pre-alarm & alarm threshold on demand (PDF) report generation |
|                         | Protection relay + PT100 | Windings temperature                                    | Windings overheating protection<br>Equipment aging |  |
| Oil Transformers Minera | PowerLogic TH110         | Connection temperatures                                 | Loose of connection                                | Instantaneous values pre-alarm & alarm threshold on demand (PDF) report generation |
|                         | PowerLogic CL110         | Humidity  | Condensation period                                |  |
|                         |                          | Tank temperature  | Oil overheating                                    |  |
|                         | eDMCR                    | Oil level, pressure, temperature                        | Oil leakage, overheating, overpressure...          |  |
|                         | DGA                      | Hydrogen and moisture in oil monitoring                 | Lack of insulation                                 |  |
| Busway                  | PowerLogic CL110         | Junction box temperature                                | Loose of connection                                |  |



| Substation Monitoring Device   | EcoStruxure Power Monitoring Expert   | SCADA & Cloud connection  | Electrical fire prevention   |
|--|---|---|--|
| Front panel screen (Magelis)<br>- Instantaneous values<br>- Pre-alarm & alarm threshold                        | PME in BOX or local scada<br>- Instantaneous values<br>- Real time monitoring and alarming<br>- Power event analysis<br>- Historical data analysis and trending<br>- Continue thermal monitoring<br>- Power quality monitoring<br>- Utility build verification<br>- Energy benchmarking<br>- Power quality compliance<br>- Energy efficiency compliance | Web apps & web portal<br>- Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical and Chart<br>- Periodical reports/analysis from Schneider Electric Expert<br>- Electrical fire risk index<br>- Maintenance index<br>- Health index | Web apps & web portal<br>- 24/7 support Schneider Electric service hub<br>- Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical<br>- On demand periodical reports and analysis<br>- Automatic recommendations<br>- Electrical fire risk index<br>- Maintenance index |
| - Instantaneous values<br>- Pre-alarm & alarm threshold<br>- CB nearby control<br>- Periodic maintenance alarm | - Instantaneous values<br>- Real time monitoring and alarming<br>- Power event analysis<br>- Historical data analysis and trending<br>- Continue thermal monitoring<br>- Power quality monitoring<br>- Utility build verification<br>- Energy benchmarking<br>- Power quality compliance<br>- Energy efficiency compliance                              | - Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical and Chart<br>- Periodical reports/analysis from Schneider Electric Expert<br>- Electrical fire risk index<br>- Maintenance index<br>- Health index                          | - 24/7 support Schneider Electric service hub<br>- Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical<br>- On demand periodical reports and analysis<br>- Automatic recommendations<br>- Electrical fire risk index<br>- Maintenance index                          |
| - Instantaneous values<br>- Pre-alarm & alarm threshold  | - Instantaneous values<br>- Real time monitoring and alarming<br>- Power event analysis<br>- Historical data analysis and trending<br>- Continue thermal monitoring<br>- Arc flash protection   | - Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical and Chart<br>- Periodical reports/analysis from Schneider Electric Expert<br>- Health index   | - 24/7 support Schneider Electric service hub<br>- Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical<br>- On demand periodical reports and analysis<br>- Automatic recommendations<br>- Electrical fire risk index<br>- Maintenance index                          |
| - Instantaneous values<br>- Pre-alarm & alarm threshold  | - Instantaneous values<br>- Real time monitoring and alarming<br>- Power event analysis<br>- Historical data analysis and trending<br>- Continue thermal monitoring<br>- Arc flash protection   | - Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical and Chart<br>- Periodical reports/analysis from Schneider Electric Expert<br>- Maintenance index<br>- Health index  | - 24/7 support Schneider Electric service hub<br>- Instantaneous values<br>- Pre-alarm & alarm threshold<br>- Historical<br>- On demand periodical reports and analysis<br>- Automatic recommendations<br>- Electrical fire risk index<br>- Maintenance index                          |
|  | - Instantaneous values<br>- Real time monitoring and alarming<br>- Power event analysis<br>- Historical data analysis and trending<br>- Continue thermal monitoring   |   |  |
|  | +   | +   | +  |
|  | <b>EcoStruxure Power Advisor</b><br>- Check PME data quality<br>- Increase Schneider Electric alarms reliability  | <b>EcoStruxure Facility Expert</b>  | <b>Ecostruxure Schneider Electric Service Plan</b><br>- Maintenance contract   |

# EcoFit™ Life Extension Essential

## Local SCADA and Cloud connection



Available to Resell



Available to Resell and Perform



Available to Resell and Perform



EcoFit™ Life Extension Essential Generic kit  
3 PowerLogic TH110 sensors + PTL (FSR43334)



Gateways Com'X

Schneider Electric will deliver the sensors and boxes already paired and configured, ready to be installed to upgrade the installation (according to the Schneider Electric training you will have received).

- Medium Voltage switchgear (SM6-24 for example) can be upgraded with 3 PowerLogic TH110 temperature sensors (FSR43342, FSR43333, FSR43334).
- Low Voltage switchgear can be upgraded with PowerLogic TH110 sensors (FSR43335, FSR43336, FSR43337, FSR43339 depending on the composition of the columns) and HeatTag sensor for Fire Prevention purposes (FSR43317).
- Dry (Trihal) and Oil Transformers (Minera) can be upgraded with:
  - PowerLogic TH110 for connection temperature (FSR43338 for Trihal, FSR43341 for Minera)
  - PowerLogic CL110 for Oil Thermal Sensors Minera transformer (included in the reference FSR43341).

| Description                                 |                  | Commercial reference |
|---|------------------|----------------------|
| SM6 dedicated Kit                           |                  |                      |
| SM6-QM-PM (SM6 kit for QM cubicle)          |                  | FSR43342             |
| SM6-IM-SM-NSM-IMC (kit for SM6 before 1999) |                  | FSR43333             |
| Generic kit for LV MV Transformer offer     |                  |                      |
| Generic Kit for ED                          | 3 TH110 sensors  | FSR43334             |
|   | 6 TH110 sensors  | FSR43335             |
|   | 9 TH110 sensors  | FSR43336             |
|   | 12 TH110 sensors | FSR43337             |
|   | 15 TH110 sensors | FSR43338             |
|   | 18 TH110 sensors | FSR43339             |
|   | 21 TH110 sensors | FSR43340             |
| Generic Kit for Oil Transformer             | 33 TH110 sensors | FSR43343             |
|   |                  | FSR43341             |
| Accessories and Gateways                    |                  |                      |
| Ferromagnetic Ribbon                        |                  | EMS59441             |
| Configured Gateway (LAN)                    |                  | FSR43330             |
| Configured Gateway & 4G/5G modem            |                  | FSR43331             |
| Fire prevention HeatTag                     |                  | FSR43317             |

## Architecture of the EcoFit™ Life Extension Essential



# EcoFit™ Life Extension Advanced

## Modernization



Available to Resell



Available to Resell  
and Perform



Available to Resell  
and Perform



EcoFit™ selector:  
[ecofit.schneider-electric.com](https://ecofit.schneider-electric.com)

Try now our EcoFit environmental  
savings calculator



### The principle

- Modernizations with EcoFit™ solutions consist of replacing only active constituents, such as protective relays, circuit breakers or contactors that have a shorter service life than the structure of electrical panels MV or LV.
- The renovation is carried out with a new range of devices allowing to benefit from new products of the latest generation. Thus, the renovation of the electrical apparatus in expiry or in definitive cancellation makes it possible to find the optimal conditions of safety and availability.
- EcoFit™ solutions are developed and industrialized by our teams to ensure both compliance with standards, the performance of the equipment in which they are inserted, the speed of implementation and the security of the Operators.

### Examples of the equipment concerned

- Circuit breakers and LV switches:
  - MasterPacT M, DA, Selpact, Visu M by MasterPacT MTZ
  - ComPacT C801 to C1251 fixed or withdrawable by ComPacT NS.
- MV switchgears, circuit breakers and MV contactors
  - Merlin Gerin VM6
  - Circuit breaker FB4 by SF1
  - Areva Fluokit M24+
  - Areva PIX RoF by PIX Easy.
- Protection relays
  - Sepam 20 and 40 by Easergy P5
  - Sepam 2000 by Sepam 60 or 80
  - Areva MiCOM Px20 by Easergy P5.

# Spare part kits

## Spare part



Available to Resell  
and Perform



Available to Resell  
and Perform



### Why invest in kits?

Electronic board failures, due to aging, are usually sudden. This can lead to unplanned shutdowns which will significantly impact your operations.

### Spare parts kits

The Lifecare kit is a spare-parts kit tailored to the specific technical parameters of your equipment. Each Lifecare kit contains various components depending on your equipment:

- replacement circuit boards (PCBA)
- replacement control board
- closing release PCBA
- opening release PCBA
- antipumping relays
- auxiliary relays.

Other accessories available on request.

### Installation

Some Lifecare kits contain components that can only be replaced by authorized personnel. Please contact your Schneider Electric representative to organize tailoring and installation of the Lifecare kit.

### Unique features

Electronic components used in low voltage and medium voltage switchgear are subject to the same breakdown risks due to aging as any other high-end electronic components for industrial applications.

To reduce the risk of unplanned shutdowns we recommend replacing the electronic parts in your switchgear within 10 years of installation for critical power applications and 15 years for all other applications.



# EcoFit™ Circularity & Repairability Services

Maximizing your resiliency, efficiency and safety while minimizing waste for the Planet

## Step into a new low-carbon, digital reality.

A reality in which Circularity approaches help ensure our resources don't end up as waste.

A reality in which Repairability principles allow you to extend the lifespan of your existing equipment by avoiding manufacturing new complete products, saving water, raw materials and CO<sub>2</sub>.

A reality that helps unlock untapped opportunities for a safer, more efficient and responsible business environment.

That means using your products longer, caring for them, repairing them with new or second life spare parts, and when the time comes, recycling them.

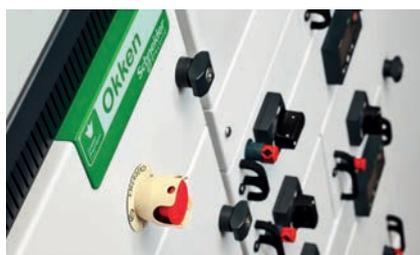
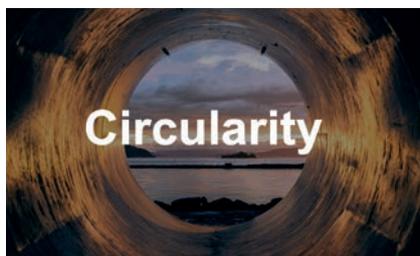
That's why we designed EcoFit™ – to let your business do the right thing while prospering in the new reality.

Our Services Expert's approach for circularity & reparability is to provide a solution that minimize waste and maximize resiliency, efficiency and safety to make your business ready for the future.

## EcoFit Life Extension and Replacement services

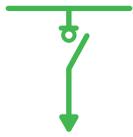
For your equipment are systematically combined with digital capabilities and take back solutions:

- Sensors and Connectivity are allowing innovative services plans to extend the life of your assets
- Our take back solutions allowing us to recover from greenhouse gas like SF<sub>6</sub>, and to re-use, re-build and re-sell second life solutions.





# Medium Voltage Switchgear



## Medium Voltage Switchgear

|                             |      |
|-----------------------------|------|
| PIX Standard.....           | A-30 |
| PIX MV .....                | A-34 |
| PIX Roll on the Floor ..... | A-37 |
| SM6 .....                   | A-39 |
| FLUOKIT .....               | A-52 |
| RM6 .....                   | A-60 |



## MV/LV Transformers

|                            |      |
|----------------------------|------|
| Minera – Oil immersed..... | B-72 |
| Trihal – Cast resin.....   | B-72 |



## Low Voltage Switchboards

|               |      |
|---------------|------|
| Okken .....   | C-76 |
| Prisma .....  | C-77 |
| BlokSeT ..... | C-78 |



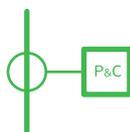
## Circuit Breaker

|   |      |
|---|------|
| HWX Medium Voltage vacuum circuit breaker .....         | D-82 |
| EVOLIS Medium Voltage vacuum circuit breaker .....      | D-88 |
| SF MV SF6 circuit breaker .....                         | D-90 |
| MasterPacT NT NW Low voltage circuit breaker .....      | D-91 |
| ComPacT C801 ComPacT NS Low voltage circuit breaker ... | D-97 |



## Components

|   |       |
|---|-------|
| Medium Voltage Instrument Transformer ..... | E-102 |
| Medium Voltage Fuses .....                  | E-109 |



## Protection and Control

|                               |       |
|-------------------------------|-------|
| Sepam Protection Relays ..... | F-112 |
| MiCOM Protection Relays ..... | F-112 |

# PIX Standard

Air insulated switchboard up to 24 kV

Part of Set Series

A



PIX is an indoor switchgear assembly that provides maximum user safety, simplicity and reliability during installation, operation and maintenance. It meets all electrical distribution needs up to 24 kV and incorporates a set of innovative solutions.

B

| Rated voltage                                    | Ur                      | kV | 12       | 17.5     | 24         |
|--|-------------------------|----|----------|----------|------------|
| Rated power frequency withstand voltage - 1 min  | Ud <sup>(1)</sup>       | kV | 28       | 38       | 50         |
| Rated lightning impulse withstand voltage - peak | Up                      | kV | 75       | 95       | 125        |
| Rated frequency                                  | f                       | Hz | 50/60    | 50/60    | 50/60      |
| Rated short circuit breaking current             | Isc                     | kA | up to 40 | up to 40 | up to 31.5 |
| Rated short time withstand circuit               | I <sub>p</sub> at 50 Hz | kA | 100      | 100      | 80         |
|  | I <sub>p</sub> at 60 Hz | kA | 104      | 104      | 82         |

(1) Ratings above IEC on request

C

## Associated Services by badge level

| PIX Standard                     |                      | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|----------------------------------|----------------------|------------------------------|----------------------------|---------|----------------|---------|
|                                  |                      |                              | Power Upgrade              |         | Power Services |         |
| Service category                 | Service type         | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance                      | Certified            |                              |                            |         |                | ✓       |
|                                  | Manufacturer         | ✓                            |                            |         | ✓              |         |
| EcoFit™ Life extension Advanced  | Protection relays    | ✓                            |                            |         |                | ✓       |
| Spare part                       | Spare part list      | ✓                            |                            |         |                | ✓       |
| EcoFit™ Life Extension Essential | Sensors TH110, CL110 | ✓                            |                            |         | ✓              | ✓       |

D

E

F

## Associated devices



EvoPact HVX circuit breaker



Protection relays MiCOM



Instrument Transformers CT VT



Download the catalog  
PIX Standard





PowerLogic TH 110 sensors  
(refer to EcoFit™ Life Extension Essential buy & resell catalog)



Prepared EcoFit™ Life Extension Essential



Available to Resell



## PIX Standard Manufacturer Maintenance Execution tools

| Description              |   | Commercial reference |
|--------------------------|---|----------------------|
| Standard working hours   |   |                      |
| Manufacturer Maintenance | PIX Circuit-Breaker                               | FSM20911             |
|                          | PIX Fuse-Switch                                   | FSM20931             |
|                          | PIX Bus-Sectioning                                | FSM20971             |
|                          | PIX Bus-Earthing                                  | FSM20981             |
| ProDiag MV Relay         | Up to 2 functions performed during a maintenance  | FSM201211            |
|                          | Up to 10 functions performed during a maintenance | FSM201221            |
|                          | Up to 2 functions performed out of a maintenance  | FSM201251            |
|                          | Up to 10 functions performed out of a maintenance | FSM201261            |
| ProDiag Fuse             | Performed during a maintenance                    | FSM201311            |
| ProDiag Corona           | Performed during a maintenance                    | FSM201611            |
|                          | Performed out of a maintenance                    | FSM201651            |

| Maintenance scheduling upgrade out of working hours |  | Commercial reference |
|---|--|----------------------|
| PM Upgrade Time 2                                   |  | FSM20032             |
| PM Upgrade Time 3                                   |  | FSM20033             |
| PM Upgrade Time 4                                   |  | FSM20034             |

Example of ordering ProDiag Fuse during maintenance in a public holidays: FSM201311 + FSM20034.  
For Pro-Diag applicable ranges please refer to Schneider Electric representative.



# PIX Standard

## Modernization Protection relay

### EcoFit™ Life Extension Advanced MiCOM P20 with Easergy P5

A



Available to Resell and Perform

#### Product reference to order for the product exchange only



| Description                              | Commercial reference |
|--|----------------------|
| EcoFit™ MiCOM P120/1/2/3 with Easergy P5 | FSRECOMIC120WP5      |
| P125/7 with Easergy P5                   | FSRECOMIC125WP5      |
| P126 with Easergy P5                     | FSRECOMIC126WP5      |
| P220/225 with Easergy P5                 | FSRECOMIC220WP5      |
| P921/2/3 with Easergy P5                 | FSRECOMIC92XWP5      |

B

C

D



Available to Resell

#### Product reference to order for the product plus the labor associated for the substitution



| Description                                    | Commercial reference |
|--|----------------------|
| EcoFit™ MiCOM P120/1/2/3 with Easergy P5       | FSRECOMIC120WP5      |
| P125/7 with Easergy P5                         | FSRECOMIC125WP5      |
| P126 with Easergy P5                           | FSRECOMIC126WP5      |
| P220/225 with Easergy P5                       | FSRECOMIC220WP5      |
| P921/2/3 with Easergy P5                       | FSRECOMIC92XWP5      |
| Px20 with Easergy P5 installation Labor time 1 | FSRECOMI20WP5INST    |
| Px20 with Easergy P5 installation Labor time 2 | FSRECOMI20WP5INS1    |
| Px20 with Easergy P5 installation Labor time 3 | FSRECOMI20WP5INS2    |
| Px20 with Easergy P5 installation Labor        | FSRECOMI20WP5INST    |

E

F

Labor time 1: standard working days.  
 Labor time 2: overtime.  
 Labor time 3: public holidays.

To configure products that are not showed in the reference list please use the EcoFit™ configurator:

[Myecofit configurator](#)



Available to Resell



Available to Resell and Perform



| Description  | Commercial reference |
|--|----------------------|
| <b>Extra Hours Standard</b>                            |                      |
| PIX upgrade with 3 TH110                               | FSRACOPIXTH110       |
| Busway junction box upgrade with 2 CL110               | FSRACOBUSWAYCL110    |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR) | FSRACOSMDBOX         |
| Satellite Modbus Serial receiver (MAT + LABOR)         | FSRACOSATMODSERIAL   |
| Satellite Modbus TCP receiver (MAT + LABOR)            | FSRACOSATMODTCP      |
| Digital box including COMX for EAA (MAT + LABOR)       | FSRACODIGITALBOX     |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)    | FSRACOSMDCOMXBOX     |
| COMX setup and commissioning (LABOR)                   | FSRACOCOMXSTEUP      |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)      | FSRACO3G4GMODEM      |
| Existing SLD update and inst report delivery (LABOR)   | FSRACOSLDUPDATE      |



|  |                    |
|--|--------------------|
| <b>Extra Hours 1</b>                                   |                    |
| PIX upgrade with 3 TH110                               | FSRACOPIXTH1101    |
| Busway junction box upgrade with 2 CL110               | FSRACOBUSWAYCL1101 |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR) | FSRACOSMDBOX1      |
| Satellite Modbus Serial receiver (MAT + LABOR)         | FSRACOSATMODSERIA1 |
| Satellite Modbus TCP receiver (MAT + LABOR)            | FSRACOSATMODTCP1   |
| Digital box including COMX for EAA (MAT + LABOR)       | FSRACODIGITALBOX1  |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)    | FSRACOSMDCOMXBOX1  |
| COMX setup and commissioning (LABOR)                   | FSRACOCOMXSTEUP1   |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)      | FSRACO3G4GMODEM1   |
| Existing SLD update and inst report delivery (LABOR)   | FSRACOSLDUPDATE1   |



|  |                    |
|--|--------------------|
| <b>Extra Hours 2</b>                                   |                    |
| PIX upgrade with 3 TH110                               | FSRACOPIXTH1102    |
| Busway junction box upgrade with 2 CL110               | FSRACOBUSWAYCL1102 |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR) | FSRACOSMDBOX2      |
| Satellite Modbus Serial receiver (MAT + LABOR)         | FSRACOSATMODSERIA2 |
| Satellite Modbus TCP receiver (MAT + LABOR)            | FSRACOSATMODTCP2   |
| Digital box including COMX for EAA (MAT + LABOR)       | FSRACODIGITALBOX2  |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)    | FSRACOSMDCOMXBOX2  |
| COMX setup and commissioning (LABOR)                   | FSRACOCOMXSTEUP2   |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)      | FSRACO3G4GMODEM2   |
| Existing SLD update and inst report delivery (LABOR)   | FSRACOSLDUPDATE2   |



Prepared EcoFit™ Life Extension Essential

| Description                                    | Commercial reference |          |
|--|----------------------|----------|
| <b>Generic kit for LV/MV Transformer offer</b> |                      |          |
| Generic Kit for ED                             | 3 TH110 sensors      | FSR43334 |
|  | 6 TH110 sensors      | FSR43335 |
|  | 9 TH110 sensors      | FSR43336 |
|  | 12 TH110 sensors     | FSR43337 |
|  | 15 TH110 sensors     | FSR43338 |
|  | 18 TH110 sensors     | FSR43339 |
|  | 21 TH110 sensors     | FSR43340 |
|  | 33 TH110 sensors     | FSR43343 |
| <b>Accessories</b>                             |                      |          |
| Ferromagnetic Ribbon                           | EMS59441             |          |



# Medium Voltage Switchgear

## PIX MV

### Air insulated switchboard

#### Part of Set Series

A



PIX-MV is equipped with a Vacuum Circuit Breaker. The fully metal clad design makes this product robust for all applications. It offers space saving and complies to IEC standards. This version has been optimized for the primary distribution range at 12 kV 25 kA 2000 A. PIX-MV is a cost-effective solution which is reliable, safe and easy to use.

B

| Switchgear panel                                | [kV]         | 12         |
|---|--------------|------------|
| Rated voltage $U_r$                             | [kV]         | 12         |
| Rated lightning impulse withstand voltage $U_p$ | [kV]         | 75         |
| Rated normal current $I_r$                      | Busbar       | ≤ 2000     |
|   | Feeder panel |            |
| Rated peak withstand current $I_p$              | [A]          | ≤ 66       |
| Rated short-time current $I_k^{(1)}$            | [kA]         | 26.3 (3 s) |
| Rated frequency $f_r$                           | [Hz]         | 50         |

C

(1) The short-circuit capability of the current transformers must be considered separately.

D

### Associated Services by badge level

| PIX MV           |                 | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|------------------|-----------------|------------------------------|----------------------------|---------|----------------|---------|
|                  |                 |                              | Power Upgrade              |         | Power Services |         |
| Service category | Service type    | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance      | Certified       |                              |                            |         |                | ✓       |
|                  | Manufacturer    | ✓                            |                            |         | ✓              |         |
| Spare part       | Spare part list |                              |                            |         |                | ✓       |

E

F

### Associated devices



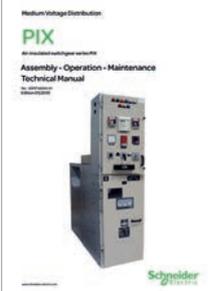
HVX circuit breaker



Protection relays MICOM



Instrument Transformers CT VT



Download PIX MV maintenance catalog





Available to Resell  
and Perform

## Medium Voltage Switchgear Spare parts PIX MV

| Description   | Commercial reference |
|---|----------------------|
| <b>Isolating Contact Flat type</b>                      |                      |
| 800/1250 A Isolating Contact 630 A x12                  | MVIG00134-01         |
| 1600 A-2000 A Isolating Contact - - x24                 | MVIG00134-02         |
| <b>Complete Vacuum Interrupter</b>                      |                      |
| VG2 x3  | DRCVG2002-01         |
| VG3 x3  | VSLVG3002-01         |
| <b>Breaker Housing</b>                                  |                      |
| HVX-LR Insulating Encloser Triple-pole x1               | DRC006260-01         |
| HVX-HR Insulating Encloser - - x1                       | DRC006259-01         |
| Insulating ROD x3                                       | DRCN03177-01         |
| <b>VCB Operating Mechanism</b>                          |                      |
| W/O Coil & Motor HVX-LR 25 KA SPMX M2 Type Mechanism x1 | VDRE00001-05-LR      |
| <b>Closing Coil</b>                                     |                      |
| 24 V DC x1  | MVIE00233-01         |
| 30 V DC x1  | ECO27SN117700FN      |
| 48/50 V DC x1   | ECO27SN117800FN      |
| 110 V DC x1   | ECO27SN117900FN      |
| 220 V DC for 11 kV Breaker x1                           | ECO27SN118000FN      |
| <b>Tripping Coil</b>                                    |                      |
| 24 V DC x1  | MVIE00242-01         |
| 30 V DC x1  | ECO27SOG83600FN      |
| 48/50 V DC x1   | ECO27SOG83700FN      |
| 110 V DC x1   | ECO27SOG83800FN      |
| 220 V DC for 11 kV Breaker x1                           | ECO27SOG83900FN      |
| <b>Spring Charging Motor</b>                            |                      |
| DC Motor 110 V x1                                       | VDRE00100-01         |
| Motor x1  | VDRE00100-02         |
| <b>Breaker Auxiliary Switch</b>                         |                      |
| 6NO + 6NC Auxiliary Switch x1                           | MVIE00114-01         |
| Motor Cut-off Switch, Auxiliary Switch x1               | EVU27S0307600NA      |
| Main Drive Shaft Assembly, Drive Linkage Assembly x1    | MVIE00062-01         |
| Trip Fork Linkage Assembly, Drive Linkage Assembly x1   | MVIE00072-01         |
| Ratchet Wheel Assly x1                                  | MVIE00151-01_S       |
| Pin For Ratchet x1                                      | MVIE00079-01         |
| Handle Block Assembly x1                                | MVIE00137-01         |
| Closing Coil Box Assembly (without Coil) x1             | MVIE00082-01         |
| Trip Coil Box Assembly (without Coil) x1                | MVIE00231-01         |
| Motor Cut Off Lever Assembly x1                         | MVIE00173-01         |
| Trip Prop Support Assembly x1                           | MVIE00023-01         |
| Release Lever x1  | MVIE00123-02         |
| Pin For Release Lever PIN x1                            | MVIE00136-01         |
| Auxiliary Switch Drive Assembly, Drive Linkage x1       | MVIE00034-01         |
| Buffer For Spring Shock Absorber x1                     | MVIE00060-01         |
| Over Ride Stop Spacer x1                                | MVIE00013-09         |
| Over Ride Stop Pin Pin x1                               | MVIE00232-01         |
| <b>Secondary Plug &amp; Socket Components</b>           |                      |
| 24 Pin Plug & Socket Assembly                           | MHU39S0019000FN      |

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# Medium Voltage Switchgear

## Spare parts PIX MV



Available to Resell  
and Perform

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| Description   |   | Commercial reference |               |
|---|---|----------------------|---------------|
| Busbar and Cable Chamber Arrangement (Mention Panel Serial No.) |   |                      |               |
| 800 A   | Busbar Spout x1                                     | R Phase              | MVIF00072-02  |
|   |   | Y Phase              | MVIF00070-02  |
|   |   | B Phase              | MVIF00066-02  |
|   | Circuit Spout x3                                    |                      | MVIF00073-02  |
| 1250 A  | Busbar Spout x1                                     | R Phase              | MVIF00072-01  |
|   |   | Y Phase              | MVIF00070-01  |
|   |   | B Phase              | MVIF00066-01  |
|   | Circuit Spout x3                                    |                      | MVIF00073-01  |
| 2000 A  | Busbar Spout -<br>Circuit Spout x6                  | R, Y, B Phase        | VDRF00100-01  |
|   | Busbar Spout Connection -<br>Cassete Type Panel x1  | R Phase              | VDRF00182-01  |
|   |   | Y Phase              | VDRF00181-01  |
|   |   | B Phase              | VDRF00180-01  |
|   | Circuit Spout Connection -<br>Cassete Type Panel x3 |                      | VDRF00183-01  |
|   | Busbar Spout Connection -<br>ROF Type Panel x1      | R Phase              | VDRF00182-04  |
|   |   | Y Phase              | VDRF00181-05  |
|   |   | B Phase              | VDRF00180-05  |
|   | Circuit Spout Connection -<br>ROF Type Panel x3     |                      | VDRF00183-02  |
|   | Racking, Shutter and Earthing Arrangement           |                      |               |
| Rack - In/Rack - Out Handle                                     | ROF Panel x1  |                      | VDRG00157-01  |
|   | Cassete Type Panel x1                               |                      | ST424-801-021 |
| Spring Charging Handle x1                                       |   |                      | MVIF00142-01  |
| Limit Switch Assembly x1  |   |                      | MVIF00372-01  |



A high performance and a high-quality Air Insulated Switchgear with a floor rolling Vacuum Circuit Breaker up to 17.5 kV, 31.5 kA and 2500 A.

Benefiting from the design of PIX range of switchgears.

| Rated Voltage                                   | 12 kV          | 17.5 kV        |
|---|----------------|----------------|
| Rated power frequency withstand voltage         | 28 kV          | 38 kV          |
| Rated lightning impulse withstand voltage (BIL) | 75 kV          | 95 kV          |
| Rated frequency                                 | 50/60 Hz       | 50/60 Hz       |
| Rated current                                   | 2 500 A        | 2 500 A        |
| Rated peak current                              | 82 kA          | 82 kA          |
| Rated short time current (3 s)                  | 31.5 kA        | 31.5 kA        |
| Internal Arc Fault (1 s), AFLR                  | 31.5 kA        | 31.5 kA        |
| Degree of Protection                            | IP4X (41 op)   | IP4X (41 op)   |
| Partition Class                                 | PM             | PM             |
| Loss of service continuity                      | LSC2B          | LSC2B          |
| Ambient Temperature (°C)                        | 40/45 (option) | 40/45 (option) |

### Associated Services by badge level

| PIX Roll         |                 | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|------------------|-----------------|------------------------------|----------------------------|---------|----------------|---------|
|                  |                 |                              | Power Upgrade              |         | Power Services |         |
| Service category | Service type    | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance      | Certified       |                              |                            |         |                | ✓       |
|                  | Manufacturer    | ✓                            |                            |         | ✓              |         |
| Spare part       | Spare part list |                              |                            |         |                | ✓       |

### Associated devices



Circuit Breakers  
HVX RoF



Easergy Sepam range



Instrument Transformers  
CT VT

# Medium Voltage Switchgear

## Spare parts PIX Roll on the Floor



Available to Resell  
and Perform

A

| Description                                 |                                     | Commercial reference |               |
|---|-------------------------------------|----------------------|---------------|
| Front Door - Accessories                    |                                     |                      |               |
| Front Door Pulling Handle x1                |                                     | VDRB05950-03_S       |               |
| Shutter                                     |                                     |                      |               |
| Shutter Plate Assembly                      | 600 mm x1                           | VDRI08000-03         |               |
|   | 800 mm x1                           | VDRI08000-04         |               |
| Rollers in SPEED x1                         |                                     | VDRI08000-05         |               |
| Coil for Solenoid Interlocking              |                                     |                      |               |
| SPEED is Blocking Coil<br>Pushbutton ON/OFF | 24 V AC/DC                          | Term Box x1          | ST436-101-230 |
|   | 30 V AC/DC                          | Term Box x1          | ST436-101-234 |
|   | 48 V AC/DC                          | Term Box x1          | ST436-101-238 |
|   | 60 V AC/DC                          | Term Box x1          | ST436-101-241 |
|   | 110 V AC/DC                         | Term Box x1          | ST436-101-241 |
|   | 125 V AC/DC                         | Term Box x1          | ST436-101-251 |
|   | 230 V AC in SPEED                   | Term Box x1          | ST436-101-359 |
| Spout Assembly                              |                                     |                      |               |
| Busbar Spout Assembly                       | I ≤ 800 A SPOUT 800 A x1            | VDRI08000-06         |               |
|   | 800 A < I ≤ 1250 A SPOUT 800 A x1   | VDRI08000-07         |               |
| Busbar/Circuit Spout Assembly               | 1250 A < I ≤ 2000 A SPOUT 2000 A x3 | VDRI08000-08         |               |
|   | 2000 A < I ≤ 2500 A SPOUT 2500 A x3 | VDRI08000-09         |               |
| Busbar Spout Assembly                       | 2500 A < I ≤ 3150 A SPOUT 3150 A x3 | VDRI08000-10         |               |
| Busbar/Circuit Spout Assembly               | 2500 A < I ≤ 3150 A x3              | VDRI08000-11         |               |
| Insulator                                   |                                     |                      |               |
| Insulator for Voltage Indication            | V ≤ 3.3 kV x1                       | VDRI00170-03         |               |
|   | 3.6 kV < V ≤ 6.6 kV x1              | VDRI00170-04         |               |
|   | 6.6 kV < V ≤ 12 kV x1               | VDRI00170-05         |               |
|   | 12 kV < V ≤ 17.5 kV x1              | VDRI00170-01         |               |
| Accessories                                 |                                     |                      |               |
| Earthing Switch Lever Handle x1             |                                     | VDRI00925-03         |               |
| Bar for Open-close Operation with Stick x1  |                                     | AGSH35446-01         |               |
| Hand Crank for Charging the Mechanism x1    |                                     | AGSH30498-01         |               |
| Breaker Rack - In/ Rack Out Handle x1       |                                     | VDRG00157-02         |               |
| Ramp for Circuit Breaker                    | For 600 mm width x1                 | VDRI00760-01         |               |
|   | For 800 mm width x1                 | VDRI00760-02         |               |

Note: Please consult us for minimum order quantity.

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# SM6

## Air-insulated modular Switchboard up to 36 kV

Original brand: Schneider Electric



A high performance and a high-quality Air Insulated Switchgear with a floor rolling Vacuum Circuit Breaker up to 17.5 kV, 31.5 kA and 2500 A.

Benefiting from the design of PIX range of switchgears.

| Rated voltage        | Ur | kV | 7.2              | 12 | 17.5 | 24 | 36       |
|----------------------|----|----|------------------|----|------|----|----------|
| Breaking capacity    |    |    |                  |    |      |    |          |
| Transformer off load |    | A  | 16               |    |      |    |          |
| Cables off load      |    | A  | 31.5             |    |      |    | 50       |
| Rated current        | Ir | A  | 400 - 630 - 1250 |    |      |    | 630-1250 |

### Associated Services by badge level

| SM6                              |                      | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|----------------------------------|----------------------|------------------------------|----------------------------|---------|----------------|---------|
|                                  |                      |                              | Power Upgrade              |         | Power Services |         |
| Service category                 | Service type         | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance                      | Certified            |                              |                            |         |                | ✓       |
|                                  | Manufacturer         | ✓                            |                            |         | ✓              |         |
| EcoFit™ Life extension Advanced  | Protection relays    | ✓                            |                            |         |                | ✓       |
| Spare part                       | Spare part list      |                              |                            |         |                | ✓       |
| EcoFit™ Life Extension Essential | Sensors TH110, CL110 | ✓                            |                            |         | ✓              | ✓       |

### Associated devices

### Associated catalog



Evolis air circuit breaker



Sepam or MICOM Protection Relays



SF SF6 circuit breaker



Instrument Transformers CT VT



PowerLogic TH 110 sensors (refer to EcoFit™ Life Extension Essential buy & resell catalog)



Prepared EcoFit™ Life Extension Essential



Download SM6 catalog



## SM6

### Manufacturer Maintenance - Execution tools



Available to Resell

A



B

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| Description                  |   | Commercial reference |
|------------------------------|---|----------------------|
| Standard working hours       |   |                      |
| Manufacturer Maintenance SM6 | Circuit-Breaker   | FSM20411             |
|                              | Fuse-Switch   | FSM20431             |
|                              | Fuse-Contactor  | FSM20441             |
|                              | Others  | FSM20491             |
| ProDiag MV Relay             | Up to 2 functions performed during a maintenance            | FSM201211            |
|                              | Up to 10 functions performed during a maintenance           | FSM201221            |
| ProDiag Fuse                 | Performed during a maintenance                              | FSM201311            |
| ProDiag Corona               | Performed during a maintenance                              | FSM201611            |
| ProDiag diagnostic Fuse      |   | FSMFUSE              |
| Annual fee for renting       | Micrologic testing tool to EcoXpert Power Services partners | FSMRENMTT            |
|                              | Performer Plug tester to EcoXpert Power Services partners   | FSMRENPTT            |

| Maintenance scheduling upgrade out of working hours |  | Commercial reference |
|---|--|----------------------|
| PM Upgrade Time 2                                   |  | FSM20032             |
| PM Upgrade Time 3                                   |  | FSM20033             |
| PM Upgrade Time 4                                   |  | FSM20034             |

Example of ordering ProDiag Fuse during maintenance in a public holidays: FSM201311 + FSM20034.  
For Pro-Diag applicable ranges please refer to Schneider Electric representative.



# SM6 - Modernization Protection relay

## EcoFit™ Life Extension Essential

### Sepam 20 and 40 with Easergy P5

A



Available to Resell and Perform

B



#### Product reference to order for the product exchange only

| Description             |                 | Commercial reference        |                   |
|-------------------------|-----------------|-----------------------------|-------------------|
| EcoFit™ Sepam 20 series | With Easergy P5 | For busbar application      | FSRECOSEP20WP5BUS |
|                         |                 | For motor application       | FSRECOSEP20WP5MOT |
|                         |                 | For substation application  | FSRECOSEP20WP5SUB |
|                         |                 | For transformer application | FSRECOSEP20WP5TRA |
| EcoFit™ Sepam 40 series | With Easergy P5 | For motor application       | FSRECOSEP40WP5MOT |
|                         |                 | For substation application  | FSRECOSEP40WP5SUB |
|                         |                 | For transformer application | FSRECOSEP40WP5TRA |

C

D



Available to Resell

#### Product reference to order for the product plus the labor associated for the substitution



| Description                 |                      | Commercial reference        |                    |
|-----------------------------|----------------------|-----------------------------|--------------------|
| EcoFit™ Sepam 20 series     | With P5 installation | Labor time 1                | FSRECOSEP20WP5INST |
|                             |                      | Labor time 2                | FSRECOSEP20WP5INS1 |
|                             |                      | Labor time 3                | FSRECOSEP20WP5INS2 |
|                             | With Easergy P5      | For busbar application      | FSRECOSEP20WP5BUS  |
|                             |                      | For motor application       | FSRECOSEP20WP5MOT  |
|                             |                      | For substation application  | FSRECOSEP20WP5SUB  |
| EcoFit™ Sepam 40 series     | With P5 installation | For transformer application | FSRECOSEP20WP5TRA  |
|                             |                      | Labor time 1                | FSRECOSEP40WP5INST |
|                             |                      | Labor time 2                | FSRECOSEP40WP5INS1 |
|                             | With Easergy P5      | Labor time 3                | FSRECOSEP40WP5INS2 |
|                             |                      | For motor application       | FSRECOSEP40WP5MOT  |
|                             |                      | For substation application  | FSRECOSEP40WP5SUB  |
| For transformer application | FSRECOSEP40WP5TRA    |                             |                    |

E

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Labor time 1: standard working days.  
 Labor time 2: overtime.  
 Labor time 3: public holidays.

To configure products that are not showed in the reference list please use the EcoFit™ configurator:

[Myecofit configurator](#)

# SM6 - Modernization Protection relay

## EcoFit™ Life Extension Essential

### Sepam 2000 with Sepam 60/80



Available to Resell and Perform



FSRERESEPBBS80A

### Perform EcoFit™ Sepam 2000 with Sepam 60/80

| Description                    |        | Commercial reference         |
|--------------------------------|--------|------------------------------|
| ECOFITSEPAM Appli Bus Bar      | To S80 | Advanced<br>FSRERESEPBBS80A  |
|                                |        | Basic<br>FSRERESEPBBS80B     |
|                                |        | Medium<br>FSRERESEPBBS80M    |
| ECOFITSEPAM Appli Capacitor    | To C86 | Advanced<br>FSRERESEPCAPC86A |
|                                |        | Basic<br>FSRERESEPCAPC86B    |
|                                |        | Medium<br>FSRERESEPCAPC86M   |
| ECOFITSEPAM Appli Differential | To T8X | Advanced<br>FSRERESEPDIFT8XA |
|                                |        | Basic<br>FSRERESEPDIFT8XB    |
|                                |        | Medium<br>FSRERESEPDIFT8XM   |
| ECOFITSEPAM Appli Generator    | To G8X | Advanced<br>FSRERESEPGENG8XA |
|                                |        | Basic<br>FSRERESEPGENG8XB    |
|                                |        | Medium<br>FSRERESEPGENG8XM   |
| ECOFITSEPAM Appli Motor        | To M8X | Advanced<br>FSRERESEPMOTM8XA |
|                                |        | Basic<br>FSRERESEPMOTM8XB    |
|                                |        | Medium<br>FSRERESEPMOTM8XM   |
| ECOFITSEPAM Appli SubSatation  | To S8X | Advanced<br>FSRERESEPSUBS8XA |
|                                |        | Basic<br>FSRERESEPSUBS8XB    |
|                                |        | Medium<br>FSRERESEPSUBS8XM   |
| ECOFITSEPAM Appli Transformer  | To T8X | Advanced<br>FSRERESEPTX8XA   |
|                                |        | Basic<br>FSRERESEPTX8XB      |
|                                |        | Medium<br>FSRERESEPTX8XM     |



Available to Resell

### Resell EcoFit™ Sepam 2000 with Sepam 60/80

FSROSITESURVEY



| Description                                      |                | Commercial reference |
|--|----------------|----------------------|
| ECOFIT site survey                               | Standard Hours | FSROSITESURVEY       |
|  | Extra Hours 1  | FSROSITESURVEYEH1    |
|  | Extra Hours 2  | FSROSITESURVEYEH2    |
| ECOFITSEPAM 2000 Install, Test and Commissioning | Standard Hours | FSRERESEPINSTALL     |
|  | Extra Hours 1  | FSRERESEPINSTEH1     |
|  | Extra Hours 2  | FSRERESEPINSTEH2     |
| ECOFITSEPAM software migration service           |                | FSRERELAYLOGIPAM     |

# SM6 - Modernization Protection relay

## EcoFit™ Life Extension Advanced

Sepam 2000 with Sepam 60/80 order form

A

End customer:

Customer ID code: Country:

Order n°: Contact email:

Person to contact:

Fax: Phone:

Shipping address: Expected delivery date:

B

**Original application** Confirmation of the original reference<sup>(1)</sup>

Motor application

|                    |  |
|--------------------|--|
| M06                |  |
| M07, M08, M14      |  |
| M02, M03, M04, M15 |  |
| M05, M09, M11, M16 |  |
| M20, M21, M22, M23 |  |

Substation application

|                         |  |
|-------------------------|--|
| S02, S07                |  |
| S06                     |  |
| S03, S08, N14 (UK only) |  |
| S09                     |  |
| S01                     |  |
| S04, S05                |  |
| SX1, SX2                |  |

Busbar application

|          |  |
|----------|--|
| B02, B04 |  |
| B07      |  |
| B12      |  |
| B01, B03 |  |

Transformer application without temperature sensor

|                         |  |
|-------------------------|--|
| T07, T12, T13           |  |
| T01, T09, T14, T17, T19 |  |
| T03, T06, T15, T18      |  |
| T02, T10                |  |
| T04, T11                |  |
| T05, T16                |  |

Transformer application with temperature sensor

|                         |  |
|-------------------------|--|
| T27, T32, T33           |  |
| T21, T29, T34, T37, T39 |  |
| T23, T33, T35, T38      |  |
| T22, T30                |  |
| T24, T31                |  |
| T25, T36                |  |

Generator application

|               |  |
|---------------|--|
| G01, G05, G07 |  |
| G02, G06, G08 |  |
| G12, G13      |  |
| G03           |  |
| G04           |  |
| G17           |  |
| G18           |  |
| G15           |  |
| G16           |  |

Capacitor bank application

|               |  |
|---------------|--|
| C02, C04, C06 |  |
| C08           |  |
| C01, C03      |  |

Transformer and generator bloc group application

|                            |  |
|----------------------------|--|
| D02, D22 (former D01, D21) |  |
|----------------------------|--|

Line application

|     |  |
|-----|--|
| L66 |  |
|-----|--|

Other specific application not covered

|                      |       |
|----------------------|-------|
| Please, confirm here | Other |
|----------------------|-------|

C

**Options (S60/S80)** Choice confirmation

|   |  |
|---|--|
| Number of Identical ECOFIT                                  |  |
| Sepam 2000 case type  | S25/S26<br>S35/S36                     |
| Man Machine Interface Type                                  | Advanced<br>Mimic based                |
| Communication protocol<br>(TCP/IP firmware always provided) | IEC61850 or Modbus TCP<br>Modbus RS485 |
| Communication media (if Ethernet)                           | RJ45<br>FO                             |

**Other options from S2000** Choice

|  |   |
|--|---|
| With customised Logipam (Y / N) <sup>(2)</sup>     | Yes<br>No   |
| Required HMI language if different<br>from EN / FR | EN (UK)<br>FR<br>ES<br>BR<br>CN<br>DE<br>IT<br>RO<br>CH (German)<br>TR<br>TH<br>UA (Russian)<br>UA<br>EN (US) |

D

Number of connected ESTOR boards

|   |                    |
|---|--------------------|
| Required polarity for logical. Inputs,<br>when non standard:<br>(G=220/250 VDC ; H=110/125 VDC) | Standard<br>H<br>G |
|---|--------------------|

|                           |   |
|---------------------------|---|
| VT connection arrangement | 3 VTs<br>2 VTs<br>1 VT<br>1 V0<br>Other |
|---------------------------|---|

|                                 |  |
|---------------------------------|--|
| Sepam 2000 Power Supply voltage | 24 VDC<br>48 VDC<br>110/125 VDC<br>220/250 VDC<br>220/250 VAC<br>Unknown |
|---------------------------------|--|

|  |           |
|--|-----------|
| 24 VDC Power Supply delivery<br>for the ACE949-2 Modbus module | Yes<br>No |
|--|-----------|

|  |   |
|--|---|
| Confirm if you want a specific<br>application (only if different from the<br>proposed one) | S81<br>S82<br>S84<br>M81<br>M87<br>M88<br>T82<br>T87<br>G87<br>G88<br>B83 |
|--|---|

E

F

(1) Write a "X" in front of the original Sepam 2000 application in case of unique name, or the name of the original application if multiple choices are proposed (This selection will define the new Sepam type within the series 60 or 80, its hardware configuration and its application). The name of the original application is repeated on the EcoFit™ name plate reference.

(2) If a choice is possible between Sepam Serie 60 or 80, the Yes (Y) choice will force the delivery of a Sepam Serie 80. This will be the case if the original control logic provided with the Sepam 2000 has been customised or if the Sepam 2000 is connected to a supervision using different addresses for remote controls (TS/TC), than those configured in factory.

# SM6 - Modernization Protection relay

## EcoFit™ Life Extension Advanced

### Sepam 2000 with Sepam 60/80

| Complementary questions for engineering quotation   |   | Choice   |
|---|---|--|
| Do you have the ability to migrate the Logipam from Sepam 2000 source to Sepam 80 serie?<br>(If "Yes", engineering will not be quoted, as an option)  | Yes<br>No                                       | <input type="checkbox"/><br><input type="checkbox"/>   |
| If No, can you get the Logic files (*.srl) and setting file (*.par) as soft copy or only pdf form?  | *.sri files<br>pdf / paper<br>Nothing available | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>                             |
| Can we consider that all selected Sepam 2000 relays (if more than 1) have similar logic files?  | Yes<br>No<br>Unknown                            | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>                             |
| If No, how many kind of different logics do you have within the list of Sepam relays?   |   |  |
| Complementary Questions for Technical Design only (from Site Survey or Electrical drawings)   |   | Choice   |
| Can you confirm if existing Sepam 2000 is using Clock synchronisation logical input   | Yes<br>No<br>Unknown                            | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>                             |
| If Yes, on which ESTOR board is connected this synchronisation input  | ESTOR 1<br>ESTOR 2<br>Not used                  | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>                             |
| Tripping Logic with O1 contact.<br>Confirm if existing Sepam 2000 relay is using a Normally Open (O1_NO) tripping Contact ONLY or Normally closed (O1_NC) trip contact or a Normally Open (O1_NO) for tripping logic + (O1_NC) for interlocks.<br>If NC, an auxiliary relay will be provided and mounted to inverse the tripping logic. | NO<br>NC<br>NO & NC<br>Unknown                  | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |
| Are the above Sepam 2000 connected to a remote station using Modbus protocol?   | Yes<br>No<br>Unknown                            | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>                             |

To request for a quote, please send an email to your sale representative.



## SM6

### Spare Parts SM6 24 kV



Available to Resell  
and Perform

A



| Description                                   |                                  | Commercial reference |             |
|---|----------------------------------|----------------------|-------------|
| Voltage Presence Indicator (Onsite)           |                                  |                      |             |
| MUA Voltage Presence                          | VPIS VO                          | 7.4                  | SPKVPI62413 |
|   |                                  | 10.7                 | SPKVPI62414 |
|   |                                  | 32.5                 | SPKVPI62417 |
|   |                                  | 47.2                 | SPKVPI62418 |
|   | VPIS                             | 7.4                  | SPKVPI62403 |
|   |                                  | 10.7                 | SPKVPI62404 |
|   |                                  | 32.5                 | SPKVPI62407 |
|   | 47.2                             | SPKVPI62408          |             |
| Tripping releases and charging motor (Onsite) |                                  |                      |             |
| Release                                       | 24 V DC                          |                      | SPK0008SM6  |
|   | 48 V DC                          |                      | SPK0009SM6  |
|   | 127 V AC                         |                      | SPK0010SM6  |
|   | 110 V DC, 137 V DC, 220-230 V AC |                      | SPK0011SM6  |
|   | 220 V DC, 380 V AC               |                      | SPK0012SM6  |
| Undervoltage Release<br>O.M. B1               | 24 V DC                          |                      | SPK889772AB |
|   | 48 V DC                          |                      | SPK889772AE |
|   | 110 V DC                         |                      | SPK889772AH |
|   | 125 V DC                         |                      | SPK889772AJ |
|   | 220 V DC                         |                      | SPK889772AM |
| Kit Motor and Relay                           | 24 V DC                          |                      | SPK3730318B |
|   | 48 V DC                          |                      | SPK3730319B |
|   | 110 V DC                         |                      | SPK3730320A |
|   | 125 V DC                         |                      | SPK3730321A |
|   | 127 V AC 50 Hz                   |                      | SPK3730322A |
|   | 220 V AC (for CL1 and CL2)       |                      | SPK3730323A |
|   | 127 V AC 60 Hz                   |                      | SPK3730324A |
|   | 220 V AC                         |                      | SPK3730325A |
|   | 220 V AC CIT                     |                      | SPK3730329A |
|   | 220 V AC 60 HZ CIT               |                      | SPK3730331A |
|   | 110 V DC CIT                     |                      | SPK3730326A |
| 220 V DC CIT                                  |                                  | SPK3730365A          |             |
| Operating accessories                         |                                  |                      |             |
| Operating lever                               |                                  |                      | SPK0017SM6  |

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Available to Resell  
and Perform



# Medium Voltage Switchgear

## SM6

### Spare parts SM6 24 kV

| Description                   |              | Commercial reference |               |             |
|-------------------------------|--------------|----------------------|---------------|-------------|
| Relay Kit (Lifecare)          |              |                      |               |             |
| Relay Kit                     | 127 V AC     | SPKRXM4AB1F7         |               |             |
|                               | 220 V AC     | SPKRXM4AB1P7         |               |             |
|                               | 24-32 V DC   | SPKRXM4AB1BD         |               |             |
|                               | 48-60 V DC   | SPKRXM4AB1ED         |               |             |
|                               | 110-127 V DC | SPKRXM4AB1FD         |               |             |
|                               | 220 V DC     | SPKRXM4AB1MD         |               |             |
| PCBA Relaying Plate SM6/RM6   |              | SPK51238606F0        |               |             |
| Printed Circuit C11 IM C      |              | 51238633F0           |               |             |
| PCBA Plug                     |              | SPK3729211           |               |             |
| Medium Voltage Fuses (Onsite) |              |                      |               |             |
| Fusarc CF IND / OUT           | 7.2 kV       | 6.3 A                | SPK51100049MB |             |
|                               |              | 16 A                 | SPK51100049MD |             |
|                               |              | 40 A                 | SPK51100049MH |             |
|                               |              | 63 A                 | SPK51100049MK |             |
|                               |              | 80 A                 | SPK51100049ML |             |
|                               | 12 kV        | 6.3 A                | SPK51006511M0 |             |
|                               |              | 16 A                 | SPK51006513M0 |             |
|                               |              | 40 A                 | SPK51006517M0 |             |
|                               |              | 63 A                 | SPK51006519M0 |             |
|                               |              | 80 A                 | SPK51006520M0 |             |
|                               | 24 kV        | 6.3 A                | SPK51006538M0 |             |
|                               |              | 16 A                 | SPK51006540M0 |             |
|                               |              | 40 A                 | SPK51006544M0 |             |
|                               |              | 63 A                 | SPK51006546M0 |             |
|                               |              | 80 A                 | SPK51006547M0 |             |
|                               | Solefuse     | 5.5 kV               | 6.3 A         | SPK757328BC |
|                               |              |                      | 16 A          | SPK757328BE |
|                               |              | 7.2 kV               | 63 A          | SPK757328BK |
| 80 A                          |              |                      | SPK757328DL   |             |
| 17.5 kV                       |              | 6.3 A                | SPK757328EC   |             |
|                               |              | 16 A                 | SPK757328EE   |             |
|                               |              | 43 A                 | SPK757328EJ   |             |
| 24 kV                         | 63 A         | SPK757328EK          |               |             |



## SM6

### Spare Parts SF for SM6 24 kV



Available to Resell  
and Perform

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| Description                     |                                       | Commercial reference |
|---------------------------------|---------------------------------------|----------------------|
| Closing Release                 | 24 V DC                               | SPK889705AM          |
|                                 | 24 V DC, 110 V 50 Hz, 120 V           | SPK889705AL          |
|                                 | 48 V DC 50 Hz                         | SPK889705AP          |
|                                 | 48 V DC, 220 V 50 Hz, 240 V           | SPK889705AH          |
|                                 | 220 V DC                              | SPK889705AC          |
| O C Release                     | 110 V DC T2                           | SPK887191HF          |
|                                 | 120...125 V DC T2                     | SPK887191HE          |
| Opening Release<br>1 Coil shunt | 220 V AC, 240 V                       | SPK889705BH          |
|                                 | 48 V DC                               | SPK889705BJ          |
|                                 | 110 V DC                              | SPK889705BE          |
| Opening Trip Coil 30 CVV        | 110 V AC                              | SPK889705BL          |
| Release                         | 24...32 V DC, 110 V AC 50 Hz          | SPK0039SF1           |
|                                 | 24...32 V DC, 110...120 V AC 50/60 Hz | SPK0003SFS           |
|                                 | 30...32 V DC, 110...120 V AC 50/60 Hz | SPK887191HK          |
|                                 | 48 V DC, 220...240 V AC 50/60 Hz      | SPK0028SF1           |
|                                 | 48 V DC, 230 V AC 60 Hz               | SPK0002SFS           |
|                                 | 48...60 V DC, 220...240 V AC 50/60 Hz | SPK0001SFS           |
|                                 | 60 V DC, 220...240 V AC 50/60 Hz      | SPK0007SM6           |
| Release A1 B1 C1 T1             | 110 V DC                              | SPK0026SF1           |
|                                 | 110 V DC, 125 V DC                    | SPK0034SF1           |
|                                 | 120...125 V DC                        | SPK0025SF1           |
|                                 | 220 V DC                              | SPK0032SF1           |
| Release A1 B1 C1 T2             | 24 V DC, 48 V DC                      | SPK887191HM          |
|                                 | 220 V DC                              | SPK887191HC          |
| Release A1 B1 C1 T1 T2          | 48 V AC 110 to 10 V AC 50 Hz          | SPK887191HN          |
|                                 | 110...125 V DC                        | SPK887191HD          |
|                                 | 220 V DC                              | SPK887191HA          |
| Release B1                      | 48 V AC 50 Hz                         | SPK0041SF1           |



Available to Resell  
and Perform



# Medium Voltage Switchgear

## SM6

### Spare Parts SF for SM6 24 kV

| Description                             |                         | Commercial reference |
|---|-------------------------|----------------------|
| Anti Pumping Relay (Onsite or Lifecare) |                         |                      |
| Overcurrent Coil                        | 2 A                     | SPK887191HP          |
| Anti-pumping Relay                      | 48 V AC 50 Hz           | SPKMV261215          |
|   | 110...120 V AC 50/60 Hz | SPKMV261216          |
|   | 125 V AC 50 Hz          | SPKMV261217          |
|   | 220-240 V AC 50-60 Hz   | SPKMV261218          |
|   | 24 V DC                 | SPKMV261207          |
|   | 30 V DC                 | SPKMV261208          |
|   | 48 V DC                 | SPKMV261209          |
|   | 60 V DC                 | SPKMV261210          |
|   | 110 V DC                | SPKMV261211          |
|   | 125 V DC                | SPKMV261212          |
| 220 V DC                                | SPKMV261213             |                      |
| Zelio Relay aAdaptation kit for RI      |                         | SPKMV261246          |
| Spring Charging Motor (Onsite)          |                         |                      |
| Gear Motor                              | 24 V                    | 51072122A1           |
|   | 48 V                    | 51072122B1           |
|   | 110 V                   | 51072122C1           |
|   | 220 V                   | 51072122D1           |



# SM6

## EcoFit™ Life Extension Essential



Available to Resell

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| Description   | Commercial reference |
|---|----------------------|
| <b>Labor time 1</b>   |                      |
| SM6 upgrade with 3 TH110 (MAT + LABOR)                          | FSRACOSM6TH110       |
| SM6 QM upgrade with 3 TH110 + Adaptation kit (MAT + LABOR)      | FSRACOSM6TH110QM     |
| SM6 IM<1999 upgrade with 3 TH110 +                              | FSRACOSM6TH110IM     |
| SM6 upgrade with 2 CL110 (install + MAT + LABOR)                | FSRACOSM6CL110       |
| Busway jonction box upgrade with 2 CL110                        | FSRACOBUSWAYCL110    |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR)          | FSRACOSMDBOX         |
| Satellite Modbus Serial receiver (MAT + LABOR)                  | FSRACOSATMODSERIAL   |
| Satellite Modbus TCP receiver (MAT + LABOR)                     | FSRACOSATMODTCP      |
| Digital box including COMX for EAA (MAT + LABOR)                | FSRACODIGITALBOX     |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)             | FSRACOSMDCOMXBOX     |
| COMX setup and commissioning (LABOR)                            | FSRACOCOMXSTEUP      |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)               | FSRACO3G4GMODEM      |
| Existing SLD update and inst report delivery (LABOR)            | FSRACOSLDUPDATE      |
| <b>Labor time 2</b>   |                      |
| SM6 upgrade with 3 TH110 (MAT + LABOR)                          | FSRACOSM6TH1101      |
| SM6 QM upgrade with 3 TH110 + Adaptation kit (MAT + LABOR)      | FSRACOSM6TH110QM1    |
| SM6 IM<1999 upgrade with 3 TH110 + adaptation kit (MAT + LABOR) | FSRACOSM6TH110IM1    |
| SM6 upgrade with 2 CL110 (install + MAT + LABOR)                | FSRACOSM6CL1101      |
| Busway jonction box upgrade with 2 CL110                        | FSRACOBUSWAYCL1101   |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR)          | FSRACOSMDBOX1        |
| Satellite Modbus Serial receiver (MAT + LABOR)                  | FSRACOSATMODSERIA1   |
| Satellite Modbus TCP receiver (MAT + LABOR)                     | FSRACOSATMODTCP1     |
| Digital box including COMX for EAA (MAT + LABOR)                | FSRACODIGITALBOX1    |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)             | FSRACOSMDCOMXBOX1    |
| COMX setup and commissioning (LABOR)                            | FSRACOCOMXSTEUP1     |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)               | FSRACO3G4GMODEM1     |
| Existing SLD update and inst report delivery (LABOR)            | FSRACOSLDUPDATE1     |
| <b>Labor time 3</b>   |                      |
| SM6 upgrade with 3 TH110 (MAT + LABOR)                          | FSRACOSM6TH1102      |
| SM6 QM upgrade with 3 TH110 + Adaptation kit (MAT + LABOR)      | FSRACOSM6TH110QM2    |
| SM6 IM<1999 upgrade with 3 TH110 + adaptation kit (MAT + LABOR) | FSRACOSM6TH110IM2    |
| SM6 upgrade with 2 CL110 (install + MAT + LABOR)                | FSRACOSM6CL1102      |
| Busway jonction box upgrade with 2 CL110                        | FSRACOBUSWAYCL1102   |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR)          | FSRACOSMDBOX2        |
| Satellite Modbus Serial receiver (MAT + LABOR)                  | FSRACOSATMODSERIA2   |
| Satellite Modbus TCP receiver (MAT + LABOR)                     | FSRACOSATMODTCP2     |
| Digital box including COMX for EAA (MAT + LABOR)                | FSRACODIGITALBOX2    |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)             | FSRACOSMDCOMXBOX2    |
| COMX setup and commissioning (LABOR)                            | FSRACOCOMXSTEUP2     |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)               | FSRACO3G4GMODEM2     |
| Existing SLD update and inst report delivery (LABOR)            | FSRACOSLDUPDATE2     |

Labor time 1: standard working days.  
 Labor time 2: overtime.  
 Labor time 3: public holidays.



Available to Resell  
and Perform



Prepared EcoFit™ Life  
Extension Essential

| Description   | Commercial reference      |
|---|---------------------------|
| Configurated Digital box for 7 cubicles max   | FSR42111                  |
| Configurated Digital box from 8 to 14 cubicles max  | FSR42112                  |
| Set of 3 temperature sensors for SM6 - QM   | FSR42301                  |
| Set of 3 temperature sensors for SM6 - IM before 1999   | FSR42302                  |
| Set of 3 temperature sensors for SM6 - IM after 1999  | FSR42303                  |
| Set of 2 humidity sensors for SM6   | FSR42304                  |
| Configurated SMD MV Box   | FSR43303                  |
| Configurated Satellite Modbus Serial Box  | FSR43304                  |
| Adaptation kit for ArcFlash probe installation  | FSR43329                  |
| Configurated Gateway (LAN)  | FSR43330                  |
| Configurated Gateway & 4G/5G Modem (LAN)  | FSR43331                  |
| Dew Point Kit for SMD (without CL110)   | FSR43332                  |
| Material: SMD + SMS Modem - Labor: configuration  | FSR43305                  |
| Material: Digital box configurated to be connected to LAN - Labor: configuration                                    | FSR43306                  |
| Material: Digital box + 4G Modem configurated - Labor: configuration  | FSR43307                  |
| Material: NFC tag paired - Labor: configuration, green NFC  | FSR43308                  |
| Material: NFC tag paired - Labor: configuration, white NFC  | FSR43309                  |
| Material: SMD box (version 1) - Labor: repairing of sensors to Zigbee receiver + SMD configuration / per substation | FSR43310                  |
| Material: SMD box V2 - Labor: pairing + configuration, per substation (SMS)   | FSR43311                  |
| Material: SMD box V3 - Labor: pairing + configuration, per substation (LAN)   | FSR43312                  |
| Material: Digital box - Labor: pairing + configuration, per substation (LAN)  | FSR43313                  |
| Material: Digital box - Labor: pairing + configuration, per substation (4G)   | FSR43314                  |
| Material: Gateway - Labor: install and configure Gateway in SMD box   | FSR43315                  |
| Material: Gateway + 4G/5G Modem - Labor: install and configure Gateway & 4G/5G Modem in SMD box                     | FSR43316                  |
| Material: HeatTag - Labor: Pairing to Zigbee receiver   | FSR43317                  |
| Configurated Satellite Modbus TCP Box   | FSR43318                  |
| Material: NFC tag paired - Labor: config & Install, green NFC   | FSR43319                  |
| Material: NFC tag paired - Labor: config & Install, white NFC   | FSR43320                  |
| Material: SMD box (version 1) - Labor: repairing of sensors to Zigbee receiver + SMD configuration / per substation | FSR43321                  |
| Material: SMD box V2 - Labor: pairing, config & inst. / per substation (SMS)  | FSR43322                  |
| Material: SMD box V3 - Labor: pairing, config & inst. / per substation (LAN)  | FSR43323                  |
| Material: Digital box - Labor: pairing, config & inst. / per substation (LAN)                                       | FSR43324                  |
| Material: Digital box - Labor: pairing, config & inst. / per substation (4G)  | FSR43325                  |
| Material: Gateway - Labor: install and configure Gateway in SMD box / per substation                                | FSR43326                  |
| Material: Gateway + 4G/5G Modem - Labor: install and configure Gateway & 4G/5G Modem in SMD box / per substation    | FSR43327                  |
| Material: HeatTag - Labor: pairing to Zigbee receiver   | FSR43328                  |
| <b>SM6 dedicated Kit</b>  |                           |
| SM6-QM-PM   | FSR43342                  |
| SM6-IM-SM-NSM-IMC   | FSR43333                  |
| <b>Generic kit for LV MV Transformer offer</b>  |                           |
| Generic Kit for ED  | 3 TH110 sensors FSR43334  |
|   | 6 TH110 sensors FSR43335  |
|   | 9 TH110 sensors FSR43336  |
|   | 12 TH110 sensors FSR43337 |
|   | 15 TH110 sensors FSR43338 |
|   | 18 TH110 sensors FSR43339 |
|   | 21 TH110 sensors FSR43340 |
|   | 33 TH110 sensors FSR43343 |
| <b>Accessories</b>  |                           |
| Ferromagnetic Ribbon  | EMS59441                  |



# FLUOKIT M24 / M24+

Air-insulated modular Switchboard up to 24 kV

Original brand: AREVA - Schneider Electric

A



FLUOKIT M24

Medium Voltage air-Insulated modular switchboard for underground secondary distribution up to 24kV. Containing fixed or withdrawable circuit breaker, using SF6 breaking technology, switch-disconnector and contactor.

| Rated voltage (kV)                              |                               | 7.2 | 12 | 17.5 | 24  |
|---|-------------------------------|-----|----|------|-----|
| Rated withstand voltage                         |                               |     |    |      |     |
| Rated lightning impulse withstand voltage (kVc) | Directly earthed              | 60  | 75 | 95   | 125 |
|   | On the sectionalized distance | 70  | 85 | 110  | 145 |
| 50 Hz 1 min. (kVrms)                            | Isolation                     | 20  | 28 | 38   | 50  |
|   | Disconnection                 | 23  | 32 | 45   | 60  |

B



FLUOKIT M24+

### Associated Services by badge level

| FLUOKIT                          |                      | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|----------------------------------|----------------------|------------------------------|----------------------------|---------|----------------|---------|
|                                  |                      |                              | Power Upgrade              |         | Power Services |         |
| Service category                 | Service type         | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance                      | Certified            |                              |                            |         |                | ✓       |
|                                  | Manufacturer         | ✓                            |                            |         | ✓              |         |
| EcoFit™ Life extension Advanced  | Protection relays    | ✓                            |                            |         |                | ✓       |
| Spare part                       | Spare part list      | ✓                            |                            |         |                | ✓       |
| EcoFit™ Life Extension Essential | Sensors TH110, CL110 | ✓                            |                            |         | ✓              | ✓       |

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### Associated devices



FP circuit breaker

Protection relays MiCOM

Flair fault passage indicators

VIP Voltage Presence Indicator



Available to Resell



## Medium Voltage Switchgear

# FLUOKIT M24 / M24+

## Manufacturer Maintenance - Execution tools

| Description              |  | Commercial reference |
|--------------------------|--|----------------------|
| Standard working hours   |  |                      |
| Manufacturer Maintenance | FluoKit Circuit-Breaker                              | FSM21411             |
|                          | FluoKit Fuse-Switch                                  | FSM21431             |
|                          | FluoKit Others                                       | FSM21491             |
|                          | FluoKit Switchgear Time 1                            | FSM21401             |
|                          | FluoKit Switch IS LST NS DD Time 1                   | FSM21421             |
|                          | FluoKit Metering TM Time 1                           | FSM21461             |
| ProDiag MV Relay         | Up to 2 functions performed during a maintenance T1  | FSM201211            |
|                          | Up to 10 functions performed during a maintenance T1 | FSM201221            |
| ProDiag Fuse             | Performed during a maintenance                       | FSM201311            |
| ProDiag Corona           | Performed during a maintenance                       | FSM201611            |

| Maintenance scheduling upgrade out of working hours |  | Commercial reference |
|---|--|----------------------|
| PM Upgrade Time 2                                   |  | FSM20032             |
| PM Upgrade Time 3                                   |  | FSM20033             |
| PM Upgrade Time 4                                   |  | FSM20034             |

Example of ordering ProDiag Fuse during maintenance in a public holidays: FSM201311 + FSM20034.  
For Pro-Diag applicable ranges please refer to Schneider Electric representative.

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# FLUOKIT M24 / M24+

## Modernization Protection relay EcoFit™ Life Extension Advanced MiCOM P20 with Easergy P5

A



Available to Resell and Perform

### Product reference to order for the product exchange only

B



| Description  |                 | Commercial reference |                 |
|--------------|-----------------|----------------------|-----------------|
| ECOFIT MiCOM | With Easergy P5 | P120/1/2/3           | FSRECOMIC120WP5 |
|              |                 | P125/7               | FSRECOMIC125WP5 |
|              |                 | P126                 | FSRECOMIC126WP5 |
|              |                 | P220/225             | FSRECOMIC220WP5 |
|              |                 | P921/2/3             | FSRECOMIC92XWP5 |

C



Available to Resell

D



| Description  |                      | Commercial reference |                   |
|--------------|----------------------|----------------------|-------------------|
| ECOFIT MiCOM | With Easergy P5      | P120/1/2/3           | FSRECOMIC120WP5   |
|              |                      | P125/7               | FSRECOMIC125WP5   |
|              |                      | P126                 | FSRECOMIC126WP5   |
|              |                      | P220/225             | FSRECOMIC220WP5   |
|              |                      | P921/2/3             | FSRECOMIC92XWP5   |
|              | With P5 installation | Px20 Labor time 2    | FSRECOMI20WP5INS1 |
|              |                      | Px20 Labor time 3    | FSRECOMI20WP5INS2 |
|              |                      | Px20 Labor time 1    | FSRECOMI20WP5INST |
|              |                      | Px20 Labor           | FSRECOMI20WP5INST |

E

Labor time 1: standard working days.  
Labor time 2: overtime.  
Labor time 3: public holidays.

F

To configure products that are not showed in the reference list please use the EcoFit™ configurator:

[Myecofit configurator](#)



Available to Resell

# Medium Voltage Switchgear

## FLUOKIT M24 / M24+

### Spare part list

#### Additional functions and transformations

- Examples of possible operations for Fluokit M24, M24+ switchboards:
  - heating resistance,
  - current transformer...
- Contact your usual Schneider Electric contact.

| LV Compartment  | Commercial reference                                 |                |
|---|--|----------------|
| Power supply  | 230 V AC / 24 V DC 7 Ah ICH 5 A - IDC 1.4 A P 30 W   | 372879-001     |
|   | 230 V AC / 48 V DC 14 Ah ICH 5 A - IDC 2.8 A D 120 W | 372879-002     |
| Presence light upstream / downstream voltage Ø 4 mm               |  | 416920-101     |
| Voltage test box  |  | 391438         |
| Current test housing  |  | 819677-001     |
| Polarity test housing   |  | 823497-001     |
| Printed circuit board /<br>Schneider relay                        | After 2009 timed                                     | RUW101MW       |
|   | After 2009 temporized V AC 120 V AC                  | RPM41F7        |
|   | After 2009 temporized V AC 230 V AC                  | RPM41P7        |
| Circuit board /<br>Schneider relay                                | After 2009 temporized V DC 24 V DC                   | RPM41BD        |
|   | After 2009 temporized 48 V DC                        | RPM41ED        |
| Schneider relay PCB   | After 2009 temporized 110 V DC                       | RPM41FD        |
| Printed circuit board /<br>Schneider sensing relay <sup>(1)</sup> | After 2006 November 2007                             | ST442-020-006  |
| D4X Directional Fault Detector Protection Relay                   |  | <sup>(1)</sup> |
| DAX voltage detector  |  | <sup>(1)</sup> |
| DPX protection relay -1   |  | <sup>(1)</sup> |
| DMX complete enclosure  |  | <sup>(1)</sup> |
| DAX-I   |  | <sup>(1)</sup> |
| Relay finder <sup>(1)</sup>                                       | After 2008 temporized 120 V AC                       | ST435-070-350  |
|   | After 2008 temporized 230 V AC                       | ST435-070-359  |
|   | After 2008 temporized 12 to 240 V DC / V AC          | ST435-070-002  |
|   | After 2008 temporized 24 V DC                        | ST435-070-230  |
|   | After 2008 temporized 48 V DC                        | ST435-070-238  |
|   | After 2008 temporized 110 V DC                       | ST435-070-248  |
|   | After 2008 temporized 125 V DC                       | ST435-070-251  |
|   | After 2008 temporized 220 V DC                       | ST435-070-258  |
| Relay finder - header <sup>(1)</sup>                              | After 2008   | ST435-070-001  |
| TEC relay   | Base 1804  | 2735549        |
|   | Base 1804 120 V AC                                   | 2735271        |
|   | Base 1804 230 V AC                                   | 2735269        |
|   | Base 1804 24 V DC                                    | 2735268        |
|   | Base 1804 48 V DC                                    | 822740-001     |
|   | Base 1804 110 V DC                                   | 822740-003     |
|   | Base 1804 125 V DC                                   | 822740-002     |
| Time delayed GAT-ET relay   | 24 V DC 0.2 to 2.5 s or 2 to 20 s                    | 2735532        |
|   | 24 V DC 15 to 180 s or 120 to 1500 s                 | 2735531        |
| Others rpt relays   | 24 V DC to 125 V DC                                  | 823406-001     |
| Others relay RPTI   | 48 V DC  | 823443-003     |
| Others relay IPT <sup>(1)</sup>                                   | 48 V DC  | ST442-020-006  |
| Others relay circuit board<br>(EDF 48 V DC)                       | Before 2009  | M10589-001     |
| Visible switch for secondary<br>VT breaking                       | After 2004   | 642226-020     |
| Rotary Switch   |  | ST443-011-250  |
| Neutralization connection<br>Rotary Switch                        | After 2011   | AMT150933-01   |
| Neutralization for<br>Rotary Switch <sup>(1)</sup>                | After 2004   | ST443-011-090  |

(1) Consult your sales representative.

References can be ordered by sending an email to your sales representative.

References in red are critical parts whose replacement operation poses a safety risk.  
They cannot be ordered directly and require a consultation for a quote from Schneider Electric.

# Medium Voltage Switchgear

## FLUOKIT M24 / M24+

### Spare part list



Available to Resell



Available to Resell  
and Perform

A

| CT compartment                      |                             |               | Commercial reference         |
|-------------------------------------|-----------------------------|---------------|------------------------------|
| Current transformer                 | Before 1993                 |               | (1)                          |
|                                     | After 1993                  |               | (1)                          |
| Other current transformer           |                             |               | (1)                          |
| Current transformer<br>RKF24 7.5 VA | Class 0.2S Fs < 10 lth 1 s  | 12.5 kA 5 VA  | 10P10 50-100/5-1 823475-018  |
|                                     |                             |               | 10P10 100-200/5-1 823475-019 |
|                                     |                             |               | 10P30 50-100/5-1 823475-020  |
|                                     |                             |               | 10P30 100-200/5-1 823475-021 |
| Current transformer<br>SW45 7.5 VA  | Class 0.2S Fs < 10 lth 1 s  | 12.5 kA 5 VA  | 10P30 50-100/5-1 357304-012  |
|                                     |                             |               | 10P30 100-200/5-1 357304-013 |
|                                     |                             |               | 10P30 200-400/5-1 357304-014 |
| Current transformer                 | After 1993 others           |               | (1)                          |
| Current transformer<br>ring BTF     | 100 R primary rated current | 25 A 25 / 1 A | 438866-103                   |
|                                     | 200 R primary rated current | 25 A 25 / 1 A | BTF-200R                     |
|                                     | Others                      |               | (1)                          |
| Connection                          |                             |               | (1)                          |

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| VT compartment                          |                                    |  | Commercial reference         |            |
|---|------------------------------------|--|------------------------------|------------|
| Voltage transformer<br>Y24MB (ex Y24MR) | Class 0.5 - 1.9 Un / 8 h           | 15-20 kV√3 100/√3 100/3 50 VA          | 357885-003                   |            |
|   |                                    | 20 kV/3 2 x100/√3 2 x 15 VA            | 357885-006                   |            |
|   |                                    | 20 kV/3 2 x100/√3 2 x 30 VA            | 357885-005                   |            |
| Voltage transformer<br>Y24PB (ex Y24PR) | Class 0.5 - 1.9 Un / 8 h           | 15-20 kV√3 100/√3 100/3 20-30 VA       | 357860-001                   |            |
| Voltage transformer<br>Y24MB (ex Y24MR) | Class 0.5 - 1.9 Un / 8 h           | 20 kV√3 100/√3 100/3 15 VA             | 357860-004                   |            |
|   |                                    | 20 kV√3 100/√3 100/3 30 VA             | 357860-002                   |            |
| Voltage transformer<br>UKP 24/3         | Class 1 - 1.9 Un / 8 h             | 15-20 kV√3 100/√3 100/3 50 VA          | 357860-003                   |            |
|   |                                    | Class 0.5 150-200 VA -<br>1.9 Un / 8 h | 15-20 kV√3 100/√3 - 20-30 VA | 823392-001 |
|   |                                    |  | 15-20 kV√3 100/√3 - 15 VA    | 823392-005 |
| Voltage transformer<br>UKM 24/3         | Class 0.5 200 VA -<br>1.9 Un / 8 h | 20 kV√3 100/√3 - 30 VA                 | 823392-002                   |            |
|   |                                    | 15-20 kV√3 100/√3 - 30 VA              | 823391-002                   |            |
| Voltage transformer<br>UKM 24/3         | Class 0.5 - 1.9 Un / 8 h           | 15-20 kV√3 2 x100/√3 - 2 X 30 VA       | 823391-003                   |            |
|   |                                    | Other VTs                              | (1)                          |            |
| VT Fuses                                |                                    | 12 kV FT4                              | 455604-016                   |            |
| Insulator                               |                                    |  | (1)                          |            |
| Resistance kit RSVB                     | 40 x 370 mm                        |  | 642241-020                   |            |

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(1) Consult your sales representative.

References can be ordered by sending an email to your sales representative.

References in red are critical parts whose replacement operation poses a safety risk.  
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Available to Resell

# Medium Voltage Switchgear

## FLUOKIT M24 / M24+

### Spare part list

| Cable compartment                                      |   | Commercial reference |            |
|--|---|----------------------|------------|
| Braid connection                                       | ST 80 mm                                  | 642234-020           |            |
| Downstream ISR/ST link braid connection                | A TC PGC                                  | 642234-021           |            |
| ISR/ST downstream                                      | A TC link braid connection with PGC tores | 642234-024           |            |
| ISR link braid / circuit breaker connection            |   | 642234-022           |            |
| Connection connection link trolley with ground circuit |   | 642234-023           |            |
| Fixing cables / cells kit clamping cables              | For 1 cables                              | 625682-001           |            |
| Fixing cables / cells clamping kit                     | 2 cables per phase                        | 625683-001           |            |
| Porthole   |   | 642240-020           |            |
| Capacitive Insulator (PF-PFA functions)                | FD fuse                                   | 642221-030           |            |
|  | FN fuse                                   | 642221-031           |            |
| Capacitive Insulator                                   | FD L512 PFA with CT                       | 642221-034           |            |
|  | For L362 PFA fuse with CT                 | 642221-035           |            |
|  | IS-PGC                                    | 642231-020           |            |
|  | In case of False CT                       | 642231-021           |            |
| Heating resistance kit heating resistance              | 110 V DC                                  | 642233-020           |            |
|  | 220 V DC                                  | 642233-021           |            |
| Tolerie & Accessories grip                             |   | 642240-021           |            |
| Busbar compartment                                     |   |                      |            |
| Busbar deflector 400-630 A                             |   | 642222-001           |            |
| Busbar ends deflector 1250 A                           |   | 642222-002           |            |
| Fuse equipment   |   |                      |            |
| Fixation (collar, clamp)                               | Contact Set with blown fuse lever         | Fuse FN              | 642221-028 |
|  |   | Fuse FD              | 642221-029 |
|  | Downstream tulip                          | Fuse FN              | 642221-032 |
|  |   | Fuse FD              | 642221-033 |
|  | Capacitive insulator kit                  | FD Fuse L512         | 642221-034 |
| FD Fuse L362   |   | 642221-035           |            |
| Blown fuse   | Blown fuse kit for 3 cables               | 642238-001           |            |
|  | Blown fuse indicator                      | 642239-001           |            |

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# Medium Voltage Switchgear

## FLUOKIT M24 / M24+

### Spare part list



Available to Resell

A

B

C

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| Switch                        | Commercial reference   |
|-------------------------------|--|
| Medium Voltage fuses (Onsite) |  |
| Mechanism                     | C410 (LIGHT) right side 642223-028   |
|                               | C410 S PGC right side 642223-026   |
|                               | C410 PGB-PGC left side 642223-020  |
|                               | C410 XS (LST) 642223-027   |
|                               | C410M without electrical equipment 642223-021                                |
|                               | C430 642223-022  |
|                               | C430M without electrical equipment 642223-023                                |
|                               | C440 642223-024  |
|                               | C440M without electrical equipment 642223-025                                |
|                               | Replacement of C410 by C410M <b>642086-002</b>                               |
| Auxiliary contacts kit        | LV auxiliary contact with runner <b>642235-020</b>                           |
|                               | Kit 2 LV auxiliary contact with simulated runner + support <b>642235-021</b> |
|                               | LV auxiliary contact <b>642235-022</b>                                       |
| Closing or tripping coil      | 120 V AC 642224-026  |
|                               | 230 V AC 642224-027  |
|                               | 24 V DC 642224-021   |
|                               | 48 V DC 642224-022   |
|                               | 110 V DC 642224-023  |
|                               | 125 V DC 642224-024  |
|                               | 220 V DC 642224-025  |
| Undervoltage tripping coil    | 110 V DC-120 V AC <b>642225-023</b>  |
|                               | 220 V DC-230 V AC <b>642225-024</b>  |
|                               | 24 V DC <b>642225-020</b>  |
|                               | 48 V DC <b>642225-021</b>  |
|                               | 125 V DC <b>642225-022</b>   |
|                               | Undervoltage tripping coil support <b>642225-026</b>                         |
| C410 Motor                    | 110-125 V AC / V DC 642236-022   |
|                               | 220-230 V AC / V DC 642236-023   |
|                               | 24 V DC 642236-020   |
|                               | 48 V DC 642236-021   |
| C430/C440 Motor               | 110-125 V AC / V DC 642236-026   |
|                               | 220-230 V AC / V DC 642236-027   |
|                               | 24 V DC 642236-024   |
|                               | 48 V DC 642236-025   |
| Maintenance and Tools         |  |
| Tooling phase concordance box | 5 kV ≤ Us ≤ 7.2 kV AMT150384-01  |
|                               | 10 kV ≤ Us ≤ 24 kV AMT150384-02  |

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Available to Resell

# Medium Voltage Switchgear

## FLUOKIT M24 / M24+

### Spare part list

| Control panel            |                   | Commercial reference |
|--------------------------|-------------------|----------------------|
| Disarming lever C440     |                   | AMT100510-01         |
| C4xx operating handle    |                   | AMTF25493-02         |
| Voltage indicator box    |                   | 642232-020           |
| Voltage detection system | 3 kV ≤ U < 5 kV   | 642232-021           |
|                          | 5 kV ≤ U ≤ 7.2 kV | 642232-022           |
|                          | 10 kV ≤ U ≤ 24 kV | 642232-023           |

| Moving part |  | Commercial reference |
|-------------|--|----------------------|
| Wheel       |  | DRCW00024-01         |
| Lever       |  | 468133-001           |
| Breastplate |  | (1)                  |

| Earth disconnecter   |  | Commercial reference |
|--|--|----------------------|
| Mechanism disconnecter kit cross member + roll bar downstream earth disconnecter |  | 642221-036           |
| Contact set (jaw + contact + shell)  | IS lcc 16 kA 3S/24 kV - 20 kA/17.5 kV        | 642221-020           |
|  | IS lcc 16 kA - 2CS/phase                     | 642221-021           |
|  | PGB/PGC lcc 16 kA with TC                    | 642221-022           |
|  | IS/PGC lcc 25 kA 1 s/17.5 kV - 20 kA / 24 kV | 642221-023           |
| Contact set (jaw & contact + shell)  | lcc 25 kA - 2CS/phase IS                     | 642221-024           |
|  | lcc 25 kA with CT IS                         | 642221-025           |
| Contact set (jaw & contact + fuse shell) + melting fuse lever                    | Blown fuse lever FN                          | 642221-028           |
|  | Blown fuse lever FD                          | 642221-029           |

| Locking             |  | Commercial reference |
|---------------------|--|----------------------|
| Lock / key          |  | (1)                  |
| Locking accessories |  | (1)                  |

(1) Consult your sales representative.

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# RM6

## Medium Voltage Ring Main Units up to 24kV

Original brand: Schneider Electric

A



The RM6 is a compact and very reliable Gas Insulated ring main unit combining all MV functional Units to enable the connection, supply and protection of transformers or feeders on an open ring or radial network. Together with Easergy T300 RTUs, it is smarter and meets the needs of utilities, infrastructure, buildings & industries.

B

| Rated voltage                        |                           | Ur (kV)      | 12       | 17.5      | 24  |
|--------------------------------------|---------------------------|--------------|----------|-----------|-----|
| Frequency                            |                           | f (Hz)       | 50 or 60 |           |     |
| Insulation level                     |                           |              |          |           |     |
| Industrial frequency<br>50 Hz 1 min. | Insulation <sup>(1)</sup> | Ud (kV rms)  | 28       | 38        | 50  |
|                                      | Insulation <sup>(2)</sup> | Ud (kV rms)  | 32       | 45        | 60  |
| Impulse 1.2/50 μs                    | Insulation <sup>(1)</sup> | Up (kV peak) | 75       | 95        | 125 |
|                                      | Insulation <sup>(2)</sup> | Up (kV peak) | 85       | 110       | 145 |
| Tank internal arc withstand          |                           |              |          | 20 kA 1 s |     |

(1) Phase-to-phase, phase-to-earth.  
(2) Across the isolating distance.

C

### Associated Services by badge level

| RM6                             |                   | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|---------------------------------|-------------------|------------------------------|----------------------------|---------|----------------|---------|
|                                 |                   |                              | Power Upgrade              |         | Power Services |         |
| Service category                | Service type      | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance                     | Certified         |                              |                            |         |                | ✓       |
|                                 | Manufacturer      | ✓                            |                            |         | ✓              |         |
| EcoFit™ Life Extension Advanced | Protection relays | ✓                            |                            |         |                | ✓       |
| Spare part                      | Spare part list   |                              |                            |         |                | ✓       |

D

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F

### Associated devices

Screened voltage transformer

Ring current transformer

Download RM6 technical catalog

Prepared EcoFit™ Life Extension Essential

PowerLogic TH 110 sensors (refer to EcoFit™ Life Extension Essential buy & resell catalog)

Manufacturer Maintenance - Execution tools



Available to Resell



| Description              |   | Commercial reference |
|--------------------------|---|----------------------|
| Standard working hours   |   |                      |
| Manufacturer Maintenance | RM6 Circuit-Breaker   | FSM20711             |
|                          | RM6 Switch  | FSM20721             |
|                          | RM6 Fuse-Switch   | FSM20731             |
|                          | RM6 Double-disconnector Circuit Breaker                     | FSM20751             |
|                          | RM6 Voltage Transformer                                     | FSM20761             |
|                          | RM6 Others  | FSM20791             |
| ProDiag MV Relay         | Up to 2 functions performed during a maintenance T1         | FSM201211            |
|                          | Up to 10 functions performed during a maintenance T1        | FSM201221            |
| ProDiag Fuse             | Performed during a maintenance                              | FSM201311            |
| ProDiag Corona           | Performed during a maintenance                              | FSM201611            |
| Annual fee for renting   | Micrologic testing tool to EcoXpert Power Services partners | FSMRENMTT            |
|                          | Performer Plug tester to EcoXpert Power Services partners   | FSMRENPTT            |

| Maintenance scheduling upgrade out of working hours |  | Commercial reference |
|---|--|----------------------|
| PM Upgrade Time 2                                   |  | FSM20032             |
| PM Upgrade Time 3                                   |  | FSM20033             |
| PM Upgrade Time 4                                   |  | FSM20034             |

Example of ordering ProDiag Fuse during maintenance in a public holidays: FSM201311 + FSM20034.  
For Pro-Diag applicable ranges please refer to Schneider Electric representative.



## RM6 EcoFit™ Life Extension Essential



Available to Resell

A



| Description  | Commercial reference |
|--|----------------------|
| <b>Labor time 1</b>                                    |                      |
| RM6 upgrade with 9 TH110 (MAT + LABOR)                 | FSRACORM6TH110       |
| RM6 upgrade with 2 CL110 (MAT + LABOR)                 | FSRACORM6CL110       |
| Busway jonction box upgrade with 2 CL110               | FSRACOBUSWAYCL110    |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR) | FSRACOSMDBOX         |
| Satellite Modbus Serial receiver (MAT + LABOR)         | FSRACOSATMODSERIAL   |
| Satellite Modbus TCP receiver (MAT + LABOR)            | FSRACOSATMODTCP      |
| Digital box including COMX for EAA (MAT + LABOR)       | FSRACODIGITALBOX     |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)    | FSRACOSMDCOMXBOX     |
| COMX setup and commissioning (LABOR)                   | FSRACOCOMXSTEUP      |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)      | FSRACO3G4GMODEM      |
| Existing SLD update and inst report delivery (LABOR)   | FSRACOSLDUPDATE      |

B

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|  |                    |
|--|--------------------|
| <b>Labor time 2</b>                                    |                    |
| RM6 upgrade with 9 TH110 (MAT + LABOR)                 | FSRACORM6TH1101    |
| RM6 upgrade with 2 CL110 (MAT + LABOR)                 | FSRACORM6CL1101    |
| Busway jonction box upgrade with 2 CL110               | FSRACOBUSWAYCL1101 |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR) | FSRACOSMDBOX1      |
| Satellite Modbus Serial receiver (MAT + LABOR)         | FSRACOSATMODSERIA1 |
| Satellite Modbus TCP receiver (MAT + LABOR)            | FSRACOSATMODTCP1   |
| Digital box including COMX for EAA (MAT + LABOR)       | FSRACODIGITALBOX1  |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)    | FSRACOSMDCOMXBOX1  |
| COMX setup and commissioning (LABOR)                   | FSRACOCOMXSTEUP1   |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)      | FSRACO3G4GMODEM1   |
| Existing SLD update and inst report delivery (LABOR)   | FSRACOSLDUPDATE1   |

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|  |                    |
|--|--------------------|
| <b>Labor time 3</b>                                    |                    |
| RM6 upgrade with 9 TH110 (MAT + LABOR)                 | FSRACORM6TH1102    |
| RM6 upgrade with 2 CL110 (MAT + LABOR)                 | FSRACORM6CL1102    |
| Busway jonction box upgrade with 2 CL110               | FSRACOBUSWAYCL1102 |
| SMD Box (without COMX) up to 16 cubicles (MAT + LABOR) | FSRACOSMDBOX2      |
| Satellite Modbus Serial receiver (MAT + LABOR)         | FSRACOSATMODSERIA2 |
| Satellite Modbus TCP receiver (MAT + LABOR)            | FSRACOSATMODTCP2   |
| Digital box including COMX for EAA (MAT + LABOR)       | FSRACODIGITALBOX2  |
| SMD Box (with COMX) up to 16 cubicles (MAT + LABOR)    | FSRACOSMDCOMXBOX2  |
| COMX setup and commissioning (LABOR)                   | FSRACOCOMXSTEUP2   |
| 3G/4G MODEM setup to EAA connection (MAT + LABOR)      | FSRACO3G4GMODEM2   |
| Existing SLD update and inst report delivery (LABOR)   | FSRACOSLDUPDATE2   |

F

Labor time 1: standard working days.  
Labor time 2: overtime.  
Labor time 3: public holidays.



Prepared EcoFit™ Life Extension Essential

| Description                                    | Commercial reference |
|--|----------------------|
| <b>Generic kit for LV MV Transformer offer</b> |                      |
| Generic Kit for ED                             |                      |
| 3 TH110 sensors                                | FSR43334             |
| 6 TH110 sensors                                | FSR43335             |
| 9 TH110 sensors                                | FSR43336             |
| 12 TH110 sensors                               | FSR43337             |
| 15 TH110 sensors                               | FSR43338             |
| 18 TH110 sensors                               | FSR43339             |
| 21 TH110 sensors                               | FSR43340             |
| 33 TH110 sensors                               | FSR43343             |
| <b>Accessories</b>                             |                      |
| Ferromagnetic Ribbon                           | EMS59441             |



Available to Resell

# Medium Voltage Switchgear

## RM6

### Spare parts list

| Cable box   |                           | Commercial reference |
|---|---------------------------|----------------------|
| Connection  |                           |                      |
| LPVT and accessories  |                           | 03816498N0           |
| LPVT installation kit including LPVT-free communication kit and accessories |                           | NVE40487             |
| Accessories (hub)   |                           | EMS59573             |
| Single-pole cable guide   |                           | 851878               |
| Motor Fuses   |                           |                      |
| Time delayed fuses  | 120-127 V AC 50-60 Hz     | HUA29453             |
|   | 220-230 V AC 50-60 Hz     | HUA29454             |
|   | 24 V DC                   | HUA18915             |
|   | 48-60 V DC                | HUA29452             |
|   | 110-125 V DC              | HUA29453             |
|   | 220 V DC                  | HUA29454             |
| No time delay   | 24 V DC                   | 29743211EE           |
|   | ≥ 48 V DC                 | 29743211DH           |
| Mechanical mechanism  |                           |                      |
| Mechanism   | Switch mechanism          | 51193845FA           |
|   | Circuit Breaker mechanism | 51193845FC           |
|   | Q mechanism               | 51193845FD           |
| Position Contact  |                           |                      |
| Changeover Micro-switch   |                           | 1CDE008764           |
| No close on fault Micro-switch  |                           | 51009573FA           |
| Micro-switch  | NO                        | 51238613F0           |
|   | NC - before July 2015     | 51238614F0           |
|   | NC - after July 2015      | NHA52934             |
| Closing and Opening Coil  |                           |                      |
| Function B / D / Q  | 127 V AC 50-60 Hz         | SPK0010SM6           |
|   | 220 V AC 50-60 Hz         | SPK0011SM6           |
|   | 380 V AC 50-60 Hz         | SPK0012SM6           |
|   | 24 V DC                   | SPK0008SM6           |
|   | 48 V DC                   | SPK0009SM6           |
|   | 110 V DC                  | SPK0011SM6           |
|   | 220 V DC                  | SPK0012SM6           |
|   | Undervoltage coil         |                      |
| Function B / D  | 120 V AC 50-60 Hz         | AAV29676             |
|   | 220 V AC 50-60 Hz         | AAV29678             |
|   | 24 V DC                   | AAV29672             |
|   | 48-60 V DC                | AAV29673             |
|   | 110-125 V DC              | AAV29676             |
|   | 220 V DC                  | AAV29678             |
| Function Q  | 120 V AC 50-60 Hz         | AAV29670             |
|   | 220 V AC 50-60 Hz         | AAV29671             |
|   | 24 V DC                   | AAV29668             |
|   | 48-60 V DC                | AAV29669             |



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# RM6

## Spare parts list



Available to Resell

A

| CT box                |             | Commercial reference |
|-----------------------|-------------|----------------------|
| Coil multi voltage    |             | (1)                  |
| Relay support         | Before 2010 | BBV35323             |
| Operating lever       |             |                      |
| L                     | 134 mm      | 1796452              |
|                       | 240 mm      | 3724510K             |
|                       | 433 mm      | 51194152F0           |
| MITOP Kit D mechanism |             | 51193845FE           |

B

| Mechanism                                  |                       | Commercial reference                            |            |            |
|--|-----------------------|---|------------|------------|
| Motor Kit                                  |                       |   |            |            |
| Function B / D                             | 24 V DC               | 51193931FA                                      |            |            |
|  | 48-60 V DC            | 51193931FB                                      |            |            |
|  | 110-127 V DC          | 51193931FC                                      |            |            |
|  | 220-230 V DC          | 51193931FE                                      |            |            |
| Function I / P / Q                         | 24 V DC               | 51071816A1                                      |            |            |
|  | 48-60 V DC            | SPK0060RM2                                      |            |            |
|  | 110-127 V DC          | 51071816C1                                      |            |            |
| Motor (only)<br>function B / D / I / P / Q | 220-230 V AC 50/60 Hz | 997935  |            |            |
|  | 220 V DC              | 997935  |            |            |
| Relay Kit                                  |                       |   |            |            |
| Before 2 april 2004                        | Function D            | Kit support + relay                             | 24-32 V DC | 51259933A1 |
|  |                       |   | 48-60 V DC | 51259933B1 |
|  |                       |   | 110 V DC   | 51259933D1 |
|  | Function I            | Kit support + relay                             | 48 V DC    | 51259932B1 |
|  |                       | Voltage relay kit RV 10                         |            | 3725573    |
| After 2 april 2004                         | Function D            | Support only<br>(for relay TYCO, REPOL & ZELIO) |            | 51238606F0 |
|  | Function I            | Voltage relay kit RV 10                         |            | 3725573    |



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(1) Consult your sales representative.

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Available to Resell



# Medium Voltage Switchgear

## RM6

### Spare parts list

| Mechanism (continued)                    | Commercial reference |
|--|----------------------|
| <b>Relay</b>                             |                      |
| 24-32 V DC                               | 1REM008617           |
| 48-60 V DC                               | 1REM008618           |
| 60 V DC                                  | 1REM008619           |
| 110 V DC                                 | SPK0014SM6           |
| 120-137 V DC                             | 1REM008621           |
| 220 V DC                                 | 1REM008622           |
| 127 V AC 50-60 Hz                        | 1REM008624           |
| 220 V AC 50-60 Hz                        | 1REM008625           |
| <b>Motorized mechanism</b>               |                      |
| Gear motor                               | 982250               |
| Motorization Kit (for references below)  | (1)                  |
| <b>Function B / D</b>                    |                      |
| 24 V DC                                  | 51009476FA           |
| 48 V DC                                  | 51009477FA           |
| 60 V DC                                  | 51009478FA           |
| 110 V DC                                 | 51009479FA           |
| 125 V DC                                 | 51009480FA           |
| 220 V DC                                 | 51009485FA           |
| 110-127 V AC 50 Hz                       | 51009481FA           |
| 220-230 V AC 50 Hz                       | 51009482FA           |
| 60 Hz                                    | 51009483FA           |
|  | 51009484FA           |
| <b>Function I</b>                        |                      |
| 24 V DC                                  | 51008240FA           |
| 48 V DC                                  | 51008241FA           |
| 60 V DC                                  | 51008242FA           |
| 110 V DC                                 | 51008243FA           |
| 125 V DC                                 | 51008244FA           |
| 220 V DC                                 | 51008249FA           |
| 110-127 V AC 50 Hz                       | 51008245FA           |
| 220-230 V AC 50 Hz                       | 51008246FA           |
| 60 Hz                                    | 51008247FA           |
|  | 51008248FA           |
| <b>Function Q after 28 february 2010</b> |                      |
| 24 V DC                                  | BBV26484             |
| 110-127 V AC 50 Hz                       | BBV26490             |
| 220-230 V AC 50 Hz                       | BBV26491             |
| 60 Hz                                    | BBV26492             |
|  | BBV26493             |

| Motorization Kit  | Commercial reference |
|---|----------------------|
| 48 V DC   | BBV26485             |
| 60 V DC   | BBV26486             |
| 110 V DC  | BBV26487             |
| 125 V DC  | BBV26488             |
| 220 V DC  | BBV26489             |
| <b>Heating resistor</b>                                       |                      |
| Switch mechanism  | 51191956FA           |
| Circuit Breaker mechanism                                     | 51191956FC           |
| <b>Fault Trip indication kit</b>                              |                      |
| Trip indication kit for D Function                            | 51009574FA           |
| Trip indication kit for Q function with w/o motorization bloc | 51008257FA           |
| With motorization block                                       | BBV26749             |

(1) Consult your sales representative.

References in red are critical parts whose replacement operation poses a safety risk.

They cannot be ordered directly and require a consultation for a quote from Schneider Electric.

RM6

Spare parts list



Available to Resell

A



| Front face  |  | Commercial reference           |
|---|--|--------------------------------|
| Voltage indicator box   |  |                                |
| Before 5 june 2000  | 3 / 7.2 kV                                     | 51008130F0                     |
|   | 10 / 24 kV                                     | 51008131F0                     |
| After 5 june 2000   | VPIS function D / I 3 / 7.2 kV                 | 51193044FA                     |
|   | VPIS function P / Q 3 / 7.2 kV                 | 51193044FC                     |
|   | 10 / 24 kV                                     | 51193044FD                     |
| Overcurrent relay   |  |                                |
| Alpha E (sensor cable)  |  | 51008195F0                     |
| Alpha M (sensor cable)  |  | 51008196F0                     |
| Gas pressure indicator  |  |                                |
| Before 2011   |  | (1)                            |
| From 2011 to 2015   | 0.2 bar  | SPK0063RM2                     |
|   | 0.3 bar  | SPK0064RM2                     |
| After 2015  | 0.2 bar  | HRB76257                       |
|   | 0.3 bar  | HRB76531                       |
| Front panel   |  |                                |
| Full  |  |                                |
| Internal arc Door   | Width 340 mm interphase 107 mm                 | 51007972FE                     |
|   | Width 442 mm interphase 145 mm                 | 51007972FF                     |
|   | Width 542 mm                                   | 51007972FH                     |
| Surge arrester Door   | Width 343 mm interphase 107 mm                 | 51007972FJ                     |
|   | Width 442 mm interphase 145 mm                 | 51007972FK                     |
| Surge arrester version DE-I                                       |  | 51007972FQ                     |
| Surge arrester Door width   | 542 mm   | 51007972FR                     |
|   | 343 mm interphase 107 mm                       | 51007972FA                     |
| Standard Door width   |  | 442 mm interphase 145 mm       |
| Standard Door   |  | Width 542 mm                   |
| Standard Door   |  | Width 542 mm                   |
| Standard Door   |  | Width 542 mm                   |
| With window   |  |                                |
| Free combination  |  | (1)                            |
| Standard Door   |  | Width 343 mm interphase 107 mm |
| Door  |  | Width 442 mm interphase 145 mm |
| Synoptic front panel before 1 <sup>st</sup> august 2005           |  |                                |
| Motorized D/B circuit breaker                                     |  |                                |
| Extendable to the right   | 3 functions RE I-D/B-I extendable to the right | 51192981FB                     |
| Extendable to the right and left                                  | 1 function DE D/B                              | 51192981FJ                     |
| Non-extendable  | 1 function NE D/B                              | 51192981FH                     |
| 3 functions NE I-D/B-I not extendable                             |  | 51192981FA                     |
| 4 functions NE I-I-D/B-I not extendable                           |  | 51192981FC                     |
| Between 1 <sup>st</sup> august 2005 and 1 <sup>st</sup> nov. 2011 |  |                                |
| For motorized inter-fuse handset                                  |  |                                |
| Extendable to the right   | 3 functions RE I-Q-I                           | BBV26497                       |
|   | 4 functions RE I-I-Q-I                         | BBV26500                       |
|   | RE Q-I-Q-I                                     | BBV26503                       |
| Extendable to the right and left                                  | 1 function DE Q                                | BBV26494                       |
|   | 3 functions DE I-Q-I                           | BBV26498                       |
| Expandable right and left   |  | 4 functions DE I-I-Q-I         |
| Non extendable  | 3 functions NE I-Q-I                           | BBV26496                       |
|   | 4 functions NE I-I-Q-I                         | BBV26499                       |
|   | NE Q-I-Q-I                                     | BBV26502                       |

(1) consult your local sales.

References in red are critical parts whose replacement operation poses a safety risk. They cannot be ordered directly and require a consultation for a quote from Schneider Electric.

B

C

D

E

F



Available to Resell

# Medium Voltage Switchgear

## RM6

### Spare parts list



| Front face (continued)   |                                   | Commercial reference |
|--|-----------------------------------|----------------------|
| For motorized D/B circuit breaker                                    |                                   |                      |
| Extendable to the right  | 3 functions RE I-D/B-I            | 51194950FB           |
|  | 4 functions RE D/B-I-D/B-I        | 51194950FF           |
|  | RE I-I-D/B-I                      | 51194950FD           |
| Extendable to the right and to the left                              | 1 function DE D/B                 | 51194950FJ           |
| Non extendable   | 1 function NE D/B                 | 51194950FH           |
|  | 2 functions NE D/B-I              | 51194950FG           |
|  | 3 functions NE I-D/B-I            | 51194950FA           |
|  | 4 functions NE D/B-I-D/B-I        | 51194950FE           |
|  | 4 functions NE I-I-D/B-I          | 51194950FC           |
| After nov. the 1 <sup>st</sup> 2011 for motorized inter-fuse handset |                                   |                      |
| Extendable to the right  | 1 function Motorized Q            | S1A57088             |
|  | 2/3 function Motorized Q          | S1A57089             |
| Extendable to the left   | 1 function Motorized Q            | S1A57087             |
|  | 2/3 functions Motorized Q         | S1A57090             |
| Extendable to the right and to the left                              | 1 function Motorized Q            | S1A57088             |
|  | 2/3 functions Motorized Q         | S1A57090             |
|  | 3 functions Motorized Q           | S1A57091             |
| Non extendable   | 1 function Motorized Q            | S1A57087             |
|  | 2/3 functions Motorized Q         | S1A57089             |
| For motorized D/B circuit breaker                                    |                                   |                      |
| Extendable to the right  | 1 function RE/DE Motorized D/B    | S1A57069             |
|  | 2/3 functions NE/RE Motorized D/B | S1A57070             |
| Extendable to the left   | 1 function NE/LE Motorized D/B    | S1A57068             |
|  | 2/3 functions LE/DE Motorized D/B | S1A57071             |
| Extendable to the right and to the left                              | 1 function RE/DE Motorized D/B    | S1A57069             |
|  | 2/3 functions LE/DE Motorized D/B | S1A57071             |
|  | 3 functions Motorized D/B         | S1A57072             |
| Non extendable   | 1 function NE/LE Motorized D/B    | S1A57068             |
|  | 2/3 functions NE/RE Motorized D/B | S1A57070             |
| Pressure switch  |                                   |                      |
| Digital Pressure switch kit 0.2 bar                                  |                                   | (1)                  |

| Fuse equipment             |                  | Commercial reference |            |
|----------------------------|------------------|----------------------|------------|
| Cap                        |                  |                      |            |
| Fuse                       |                  |                      |            |
| Substitution Q             | Cap function kit | With striker         | 51191957FE |
|                            |                  | Without striker      | 51191957FF |
| Solefuse Q                 | Fuse function    | With striker         | 51191957FH |
|                            |                  |                      | 51191957FG |
| Lower contact cap          |                  | 1796877F             |            |
| Fuse socket                |                  |                      |            |
| Fusarc fuse with striker   | 292 mm           | Pluggable socket     | 51192898FE |
|                            |                  | Unpluggable socket   | 51192898FG |
|                            | 442 mm           | Pluggable socket     | 51192898FD |
|                            |                  | Unpluggable socket   | 51192898FF |
| Solefuse fuse with striker | 442 mm           | Pluggable socket     | 51192898FB |
|                            |                  | Unpluggable socket   | 51192898FC |
| Solefuse fuse w/o striker  | 442 mm           | Pluggable socket     | 51192898FA |
|                            |                  | Unpluggable socket   | 51192898FH |

(1) consult your local sales.

References in red are critical parts whose replacement operation poses a safety risk. They cannot be ordered directly and require a consultation for a quote from Schneider Electric.

# RM6

## Spare parts list

A

| Top of the cubicle  |         | Commercial reference |
|---------------------|---------|----------------------|
| Hood                |         |                      |
| 1 function length   | 464 mm  | BBV12207             |
|                     | 564 mm  | BBV12210             |
| 2 functions length  | 821 mm  | BBV12212             |
| 2+ functions length | 1046 mm | AAV81666             |
| 3 functions length  | 1178 mm | BBV12214             |
| 3+ functions length | 1526 mm | AAV81494             |
| 4 functions length  | 1611 mm | BBV12215             |

B

| Maintenance & tools             |  | Commercial reference |
|---------------------------------|--|----------------------|
| Voltage presence indicator VPIS |  |                      |
| V1-V1                           |  | 51191954FA           |
| V1-V2 (15 -20 kV ERDF)          |  | EMS58431             |
| V1-V2 (8.8 - 23 kV)             |  | EMS58438             |
| V2-V2 / V3-V3                   |  | VPI62421             |



C

| Earth disconnecter                              |  | Commercial reference |
|---|--|----------------------|
| Earth finger injection finger for cable testing |  | 51191957FB           |

D

References can be ordered by sending an email to your sales representative.

E

F

# Medium Voltage Switchgear

## RM6

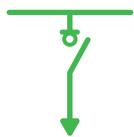
### Spare parts list

| Locking                               |              | Commercial reference |
|---------------------------------------|--------------|----------------------|
| <b>R1 Type Locking</b>                |              |                      |
| Function                              | I RONIS      | 51008258FA           |
|                                       | I PROFALUX   | 51008259FA           |
| Manual function                       | B RONIS      | 51192729FA           |
|                                       | B PROFALUX   | 51192730FA           |
| Motorized function                    | B RONIS      | 51193017FA           |
|                                       | B PROFALUX   | 51193018FA           |
| <b>R1 T Type Locking</b>              |              |                      |
| Function D RM6+ /<br>function B/D RM6 | 2 RONIS      | 51194144FA           |
|                                       | 2 PROFALUX   | 51194145FA           |
| Motorized function                    | B/D RONIS    | 51194146FA           |
|                                       | B/D PROFALUX | 51194147FA           |
| <b>R2 Type Locking</b>                |              |                      |
| Function                              | I RONIS      | 51008260FA           |
|                                       | I PROFALUX   | 51008261FA           |
| Manual function                       | B RONIS      | 51192731FA           |
|                                       | B PROFALUX   | 51192732FA           |
| Motorized function                    | B RONIS      | 51193019FA           |
|                                       | B PROFALUX   | 51193020FA           |
| <b>R6 Type Locking</b>                |              |                      |
| Function                              | P/Q RONIS    | 51008262FA           |
|                                       | P/Q PROFALUX | 51008263FA           |
| Manual function                       | D RONIS      | 51192733FA           |
|                                       | D PROFALUX   | 51192734FA           |
| Motorized function                    | D RONIS      | 51193021FA           |
|                                       | D PROFALUX   | 51193022FA           |
| <b>R7 Type Locking</b>                |              |                      |
| Function                              | P/Q RONIS    | 51008264FA           |
|                                       | P/Q PROFALUX | 51008265FA           |
| Manual function                       | D RONIS      | 51192735FA           |
|                                       | D PROFALUX   | 51192736FA           |
| Motorized function                    | D RONIS      | 51193023FA           |
|                                       | D PROFALUX   | 51193024FA           |
| <b>R8 Type Locking</b>                |              |                      |
| Function                              | P/Q RONIS    | 51008266FA           |
|                                       | P/Q PROFALUX | 51008267FA           |
| Manual function                       | D RONIS      | 51192737FA           |
|                                       | D PROFALUX   | 51192738FA           |
| Motorized function                    | D RONIS      | 51193025FA           |
|                                       | D PROFALUX   | 51193026FA           |

References can be ordered by sending an email to your sales representative.



# Medium Voltage / Low Voltage Transformer



## Medium Voltage Switchgear

|                             |      |
|-----------------------------|------|
| PIX Standard.....           | A-30 |
| PIX MV .....                | A-34 |
| PIX Roll on the floor ..... | A-37 |
| SM6 .....                   | A-39 |
| FLUOKIT .....               | A-52 |
| RM6 .....                   | A-60 |



## MV/LV Transformers

|                            |      |
|----------------------------|------|
| Minera – Oil immersed..... | B-72 |
| Trihal – Cast resin.....   | B-72 |



## Low Voltage Switchboards

|               |      |
|---------------|------|
| Okken .....   | C-76 |
| Prisma .....  | C-77 |
| BlokSeT ..... | C-78 |



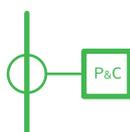
## Circuit Breaker

|   |      |
|---|------|
| HWX Medium Voltage vacuum circuit breaker .....         | D-82 |
| EVOLIS Medium Voltage vacuum circuit breaker .....      | D-88 |
| SF MV SF6 circuit breaker .....                         | D-90 |
| MasterPacT NT NW Low voltage circuit breaker .....      | D-91 |
| ComPacT C801 ComPacT NS Low voltage circuit breaker ... | D-97 |



## Components

|   |       |
|---|-------|
| Medium Voltage Instrument Transformer ..... | E-102 |
| Medium Voltage Fuses .....                  | E-109 |



## Protection and Control

|                               |       |
|-------------------------------|-------|
| Sepam Protection Relays ..... | F-112 |
| MiCOM Protection Relays ..... | F-112 |



# Minera & Trihal

Oil-Immersed Transformer up to 3.15 MVA - 36 kV

Resin cast transformer up to 15 MVA - 36 kV

Part of **SeT** Series

A



Ground-mounted oil-immersed or dry transformer. Three-phase units for underground distribution networks.

B

| Main technical characteristics |                                |   |
|--------------------------------|--------------------------------|---|
|                                | Oil transformer                | Minera  |
| Rated power                    | 50 kVA to 3.15 MVA             | 50 kVA to 3.15 MVA  |
| Rated insulation level         | Up to 36 kV<                   | Up to 36 kV   |
| Rated frequency                | 50 Hz or 60 Hz                 | 50 Hz or 60 Hz  |
| Type of cooling                | ONAN, ONAF or KNAN             | ONAN, ONAF or KNAN  |
| Voltage regulation             | Off-circuit tap changer (DETC) | Off-circuit tap changer (DETC)  |
| High Efficiency Transformer    | Conventional losses            | High efficiency ranges  |
| Ecodesign                      | Not applicable                 | EN 50588-1  |
| Location                       | Indoor / outdoor               | Indoor / outdoor  |
| Options                        | Not available                  | - Compact design (Slimtrim range)<br>- Breathing or sealed type<br>- Standard or low noise levels<br>- Biodegradable vegetable oil<br>- A wide variety of accessories |
| Digitalization                 | Not available                  | - DGPT<br>- DMCR (Detection, Measurement, Control Relay)  |

C



|                        | Dry transformer                      | Trihal  |
|------------------------|--------------------------------------|---|
| Rated power            | 100 kVA to 15 MVA                    | 100 kVA to 15 MVA   |
| Rated insulation level | Up to 36 kV                          | Up to 36 kV   |
| Rated Frequency        | 50 Hz or 60 Hz                       | 50 Hz or 60 Hz  |
| MV windings            | Not available                        | Encapsulated in cast resin  |
| Thermal insulation     | Not available                        | Class F   |
| Safety and reliability | Not available                        | - IEC 60076-11 and IEC 60076-16<br>- E3 Environment test<br>- C2 or C3 Climate Test<br>- F1 Fire Behaviour<br>- ≤ 5pC Special test for partial discharge<br>- Silicone free |
| Cooling                | Naturally cooled or air forced       | Naturally cooled or air forced  |
| Location               | Indoor / outdoor                     | Indoor  |
| IP                     | Up to 44                             | Up to 44  |
| Hazard proof           | Not available                        | Self extinguishing  |
| Ecodesign              | Not available                        | EU 548-2014 - EN 50588-1  |
| Digitalization         | Without or analogic basic protection | - Digital asset management enabler<br>- Alarming<br>- Diagnosis<br>- Modbus RS communication  |

D

E

F

## Associated Services by badge level

| Transformers                     |                      | Authorized Services reseller | Certified EcoXpert partner |               |                |        |
|----------------------------------|----------------------|------------------------------|----------------------------|---------------|----------------|--------|
| Service category                 | Service type         |                              | Resell                     | Power Upgrade | Power Services | Resell |
| Maintenance                      | Manufacturer         | ✓                            |                            |               | ✓              |        |
| EcoFit™ Life Extension Essential | Sensors TH110, CL110 | ✓                            |                            |               | ✓              | ✓      |

## Associated devices

PowerLogic TH 110 sensors  
(refer to EcoFit™ Life Extension Essential buy & resell catalog)

Prepared EcoFit™ Life Extension Essential

# Medium Voltage / Low Voltage Transformers Manufacturer maintenance



Available to Resell



Available to Resell and Perform



| Description              |                   | Commercial reference |
|--------------------------|-------------------|----------------------|
| Standard working hours   |                   |                      |
| Manufacturer Maintenance | Minera            | FSM2061              |
|                          | Trihal Time 1     | FSM2191              |
| Prodiag Oil              | Distribution      | FSM201411            |
|                          | Power Transformer | FSM201421            |

| Maintenance scheduling upgrade out of working hours | Commercial reference |
|---|----------------------|
| PM Upgrade Time 2                                   | FSM20032             |
| PM Upgrade Time 3                                   | FSM20033             |
| PM Upgrade Time 4                                   | FSM20034             |

Example of ordering ProDiag Fuse during maintenance in a public holidays: FSM201311 + FSM20034.  
For Pro-Diag applicable ranges please refer to Schneider Electric representative.

| Description                             |                  | Commercial reference |
|---|------------------|----------------------|
| Generic kit for LV MV Transformer offer |                  |                      |
| Generic Kit for ED                      | 3 TH110 sensors  | FSR43334             |
|   | 6 TH110 sensors  | FSR43335             |
|   | 9 TH110 sensors  | FSR43336             |
|   | 12 TH110 sensors | FSR43337             |
|   | 15 TH110 sensors | FSR43338             |
|   | 18 TH110 sensors | FSR43339             |
|   | 21 TH110 sensors | FSR43340             |
| 33 TH110 sensors                        | FSR43343         |                      |
| Accessories                             |                  |                      |
| Ferromagnetic Ribbon                    |                  | EMS59441             |

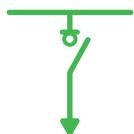


Prepared EcoFit™ Life Extension Essential





# Low Voltage Switchboards



## Medium Voltage Switchgear

|                             |      |
|-----------------------------|------|
| PIX Standard.....           | A-30 |
| PIX MV .....                | A-34 |
| PIX Roll on the floor ..... | A-37 |
| SM6 .....                   | A-39 |
| FLUOKIT .....               | A-52 |
| RM6 .....                   | A-60 |



## MV/LV Transformers

|                            |      |
|----------------------------|------|
| Minera – Oil immersed..... | B-72 |
| Trihal – Cast resin.....   | B-72 |



## Low Voltage Switchboards

|              |      |
|--------------|------|
| Okken .....  | C-76 |
| Prisma ..... | C-77 |
| BlokSeT..... | C-78 |



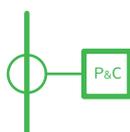
## Circuit Breaker

|   |      |
|---|------|
| HWX Medium Voltage vacuum circuit breaker .....         | D-82 |
| EVOLIS Medium Voltage vacuum circuit breaker .....      | D-88 |
| SF MV SF6 circuit breaker .....                         | D-90 |
| MasterPacT NT NW Low voltage circuit breaker .....      | D-91 |
| ComPacT C801 ComPacT NS Low voltage circuit breaker ... | D-97 |



## Components

|   |       |
|---|-------|
| Medium Voltage Instrument Transformer ..... | E-102 |
| Medium Voltage Fuses .....                  | E-109 |



## Protection and Control

|                               |       |
|-------------------------------|-------|
| Sepam Protection Relays ..... | F-112 |
| MiCOM Protection Relays ..... | F-112 |



# Okken

Original brand: Schneider Electric  
Part of **SeT** Series

A



ComPacT and powerful Okken switchboards answer the needs of the most demanding motor control and power distribution applications.

Combining continuity of supply and performant operational services.

B

### Main technical characteristics

|  | MasterPacT NT-NW | MasterPacT MTZ |
|--|------------------|----------------|
| Rated operational voltage (V AC 50/60 Hz) Ue                   | 690 V            | 690 V          |
| Rated current (A) In 40° C                                     | 600-6300 A       | 600-6300 A     |
| Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu | 42-150 kA        | 42-150 kA      |

C

### Associated Services by badge level

| Okken                            |                      | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|----------------------------------|----------------------|------------------------------|----------------------------|---------|----------------|---------|
|                                  |                      |                              | Power Upgrade              |         | Power Services |         |
| Service category                 | Service type         | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance                      | Manufacturer         | ✓                            | ✓                          |         | ✓              |         |
| EcoFit™ Life Extension Advanced  | MasterPacT           | ✓                            | ✓                          | ✓       | ✓              | ✓       |
| EcoFit™ Life Extension Essential | Sensors TH110, CL110 | ✓                            | ✓                          | ✓       | ✓              | ✓       |

D

### Associated devices



Power circuit protection and control MasterPacT MTZ-NW-NT, ComPacT NS-NSX-NSXm



Coupler control Sepam™



ComPacT NS800 NA switch-disconnector 800 A



Prepared EcoFit™ Life Extension Essential



HeatTag Power Logic



PowerLogic TH110 sensors (refer to EcoFit™ Life Extension Essential buy & resell catalog )

E

F

# Prisma P

Panel building system for floor-standing switchboards,  
up to 4000 A supplied

Part of **SeT** Series



Prisma P functional system, in conformity with IEC 61439-1&2 standards, can be used for all types of low voltage electrical switchboards up to 4000 A. It integrates Schneider Electric offerings, ensuring electrical, mechanical and communication features.

### Electrical characteristics

Complying with standards IEC 62208 and EN 62208

|  |                        |
|--|------------------------|
| Rated insulation level of main busbars             | 1000 V                 |
| InA  | 4000 A                 |
| Rated peak withstand current I <sub>pk</sub>       | 220 kA                 |
| Rated short-time withstand current I <sub>sw</sub> | 100 kA rms / 1 second  |
| Frequency  | 50/60 Hz               |
| Voltage U <sub>e</sub>                             | 690 V under conditions |

### Associated Services by badge level

| Prisma P                         |                      | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|----------------------------------|----------------------|------------------------------|----------------------------|---------|----------------|---------|
| Service category                 | Service type         |                              | Power Upgrade              |         | Power Services |         |
|                                  |                      | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance                      | Manufacturer         | ✓                            | ✓                          |         | ✓              |         |
| EcoFit™ Life Extension Advanced  | MasterPacT           | ✓                            | ✓                          | ✓       | ✓              | ✓       |
| EcoFit™ Life Extension Essential | Sensors TH110, CL110 | ✓                            | ✓                          | ✓       | ✓              | ✓       |

### Associated devices



Power circuit protection and control  
MasterPacT MTZ-NW-NT,  
ComPacT NS-NSX-NSXm



ComPacT NS800 NA  
switch disconnecter 800 A



Prepared EcoFit™ Life  
Extension Essential



HeatTag Power Logic



PowerLogic TH110 sensors  
(refer to EcoFit™ Life Extension Essential buy & resell catalog )

# Low Voltage Switchboards

## BlokSeT

Low voltage switchboards for power distribution and motor control up to 7000 A

Part of **SeT** Series



**BlokSeT** is low voltage switchboard for power distribution and motor control up to 7000 A, manufactured by Schneider Electric or our licensed partners, with great safety, reliability, dependability, and intelligence.

### Associated Services by badge level

| BlokSeT                          |                      | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|----------------------------------|----------------------|------------------------------|----------------------------|---------|----------------|---------|
| Service category                 | Service type         | Resell                       | Power Upgrade              |         | Power Services |         |
|                                  |                      |                              | Resell                     | Perform | Resell         | Perform |
| Maintenance                      | Manufacturer         | ✓                            | ✓                          |         | ✓              |         |
| EcoFit™ Life Extension Advanced  | MasterPacT           | ✓                            | ✓                          | ✓       | ✓              | ✓       |
| EcoFit™ Life Extension Essential | Sensors TH110, CL110 | ✓                            | ✓                          | ✓       | ✓              | ✓       |

### Associated devices



Power circuit protection and control MasterPacT MTZ-NW-NT, ComPacT NS-NSX-NSXm



ComPacT NS800 NA switch disconnecter 800 A



BlokSeT Thermal Monitoring monitors temperature and environment at critical points, including:

- Main busbars (fishplates)
- Busbar customer connections (incomer zone)
- Power circuit breaker busbar connections
- Inside drawers (Ambient Temperature and humidity)



Prepared EcoFit Life Extension Essential



HeatTag Power Logic



PowerLogic TH110 sensors (refer to EcoFit™ Life Extension Essential buy & resell catalog)

A

B

C

D

E

F



Available to Resell

# Low Voltage Switchboards

## Okken, Primsa, BlokSeT

### Manufacturer maintenance

Part of **SeT** Series

| Description   | Commercial reference |
|---|----------------------|
| Manufacturer Maintenance LV switchboard Okken, BlokSeT, Prisma P Time 1 | FSM21501             |

| Maintenance scheduling upgrade out of working hours | Commercial reference |
|---|----------------------|
| PM Upgrade Time 2                                   | FSM20032             |
| PM Upgrade Time 3                                   | FSM20033             |
| PM Upgrade Time 4                                   | FSM20034             |

Example of ordering Manufacturer Maintenance LV switchboard Okken, BlokSeT, Prisma P Time 1, During public holidays: FSM21501 + FSM20034.  
For Pro-Diag applicable ranges please refer to Schneider Electric representative.

### For EcoFit™ MasterPacT NT NW Low voltage circuit breaker and ComPacT C801 ComPacT NS Low voltage circuit breaker

- Please refer to the pages dedicated to Circuit Breaker and Switches

## Okken, Prisma BlokSeT

### EcoFit™ Life Extension Essential

| Description  | Commercial reference |
|--|----------------------|
| Generic kit for Low Voltage Switchboards offer               |                      |
| Generic Kit for ED   |                      |
| 3 TH110 sensors  | FSR43334             |
| 6 TH110 sensors  | FSR43335             |
| 9 TH110 sensors  | FSR43336             |
| 12 TH110 sensors   | FSR43337             |
| 15 TH110 sensors   | FSR43338             |
| 18 TH110 sensors   | FSR43339             |
| 21 TH110 sensors   | FSR43340             |
| 33 TH110 sensors   | FSR43343             |
| Accessories  |                      |
| Ferromagnetic Ribbon   | EMS59441             |
| PowerLogic HeatTag smart sensor, cable overheating detection | SMT10020             |

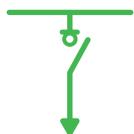


Prepared EcoFit™ Life Extension Essential





# Circuit Breaker



## Medium Voltage Switchgear

|                             |      |
|-----------------------------|------|
| PIX Standard.....           | A-30 |
| PIX MV .....                | A-34 |
| PIX Roll on the floor ..... | A-37 |
| SM6 .....                   | A-39 |
| FLUOKIT .....               | A-52 |
| RM6 .....                   | A-60 |



## MV/LV Transformers

|                            |      |
|----------------------------|------|
| Minera – Oil immersed..... | B-72 |
| Trihal – Cast resin.....   | B-72 |



## Low Voltage Switchboards

|               |      |
|---------------|------|
| Okken .....   | C-76 |
| Prisma .....  | C-77 |
| BlokSeT ..... | C-78 |



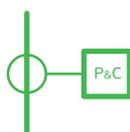
## Circuit Breaker

|  |      |
|--|------|
| HWX Medium Voltage vacuum circuit breaker .....            | D-82 |
| EVOLIS Medium Voltage vacuum circuit breaker .....         | D-88 |
| SF MV SF6 circuit breaker .....                            | D-90 |
| Master <b>PacT</b> NT NW Low voltage circuit breaker ..... | D-91 |
| ComPacT C801 ComPacT NS Low voltage circuit breaker .....  | D-97 |



## Components

|   |       |
|---|-------|
| Medium Voltage Instrument Transformer ..... | E-102 |
| Medium Voltage Fuses .....                  | E-109 |



## Protection and Control

|                               |       |
|-------------------------------|-------|
| Sepam Protection Relays ..... | F-112 |
| MiCOM Protection Relays ..... | F-112 |



## Circuit Breaker

# HWX switchgear, replace HWX Circuit Breaker with HVX Medium Voltage Vacuum circuit breaker up to 12 kV 3150 A

A

HVX Rof (2000, 2500 &amp; 3150 Amps)



HVX Rof (800 &amp; 1250 Amps)



B

C

| Rated voltage                                   | 12 kV                                  | 17.5 kV                                |
|---|--|--|
| Rated power frequency withstand voltage         | 28 kV                                  | 38 kV                                  |
| Rated lightning impulse withstand voltage (BIL) | 75 kV                                  | 95 kV                                  |
| Rated frequency                                 | 50/60 Hz                               | 50/60 Hz                               |
| Rated current                                   | Up to 2 500 A                          | Up to 2 500 A                          |
| Rated short time current (3 s)                  | Up to 31.5 kA                          | Up to 31.5 kA                          |
| Making current                                  | Up to 82 kA                            | Up to 82 kA                            |
| Breaking current (Isc)                          | Up to 31.5 kA                          | Up to 31.5 kA                          |
| Classification                                  | E2 M2                                  | E2 M2                                  |
| Operating sequence                              | O-0.3 s-CO - 3 min-COC2                | O-0.3 s-CO - 3 min-COC2                |
| Capacitive switching class                      | Cable charging & single capacitor bank | Cable charging & single capacitor bank |
| N°. of switching operations at Isc              | 100                                    | 100                                    |

D

E

F

# HWX switchgear, replace HWX Circuit Breaker with HVX Medium Voltage Vacuum circuit breaker up to 12 kV 3150 A

HWX



HWX-C



HWX-S



| Breaking Technology                        | Vacuum                |                       |                       |
|--|-----------------------|-----------------------|-----------------------|
| Rated Voltage Ur (kV)                      | Up to 12              | Up to 12              | Up to 12              |
| Surge withstand voltage Up (kV)            | 75                    | 75                    | 75                    |
| Nominal frequency (Hz)                     | 50                    | 50                    | 50                    |
| Rated current Ir (A)                       | Up to 3150            | Up to 3150            | Up to 3150            |
| Short circuit current I <sub>sc</sub> (kA) | Up to 40              | Up to 40              | Up to 40              |
| Short circuit duration T <sub>k</sub> (s)  | 3                     | 3                     | 3                     |
| Switching sequence                         | O-0.3 s-CO - 3 min-CO | O-0.3 s-CO - 3 min-CO | O-0.3 s-CO - 3 min-CO |
| Closing time (ms)                          | 40                    | 40                    | 40                    |
| Openin time (ms)                           | 25-45                 | 25-45                 | 25-45                 |
| Number of switching operations             | 10000                 | 10000                 | 10000                 |
| Ambient temperature (°C)                   | -25 / +40             | -25 / +40             | -25 / +40             |

- A
- B
- C
- D**
- E
- F

# HVX Rof 2000, 2500 & 3150 A

## Spare parts



Available to Resell

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| Description                        |   | Commercial reference |
|------------------------------------|---|----------------------|
| <b>Isolating Contact</b>           |   |                      |
| Finger Type                        | 2000 A Isolating Contact 2000 A x24                       | VDRK00031-03         |
| Tulip Type                         | (48 fingers) 2500 A Tulip 2500 A x6                       | ST451-010-255        |
|                                    | (82 fingers) 3150 A Tulip A61202000R1300 6 VDR<br>IN58 x6 | A61202000R1300       |
| <b>Equipped Arms Assembly</b>      |   |                      |
| Stem Top                           | 2000 A x3   | VDRK00030-01         |
| Stem Bottom                        | 2000 A x3   | VDRK00029-01         |
| Stem Top and Bottom                | 2500 A x6   | DRCN02550-02         |
|                                    | 3150 A x6   | DRCN02551-03         |
| <b>Vacuum Interrupter Assembly</b> |   |                      |
| Vacuum bottle sub Assembly         | 12 kV-40 kA-2000 A x3                                     | VDRK00011-02         |
|                                    | 12 kV-40 kA-2500 A x3                                     | VDRK00011-03         |
|                                    | 12 kV-40 kA-3150 A x3                                     | VDRK00011-04         |
| <b>Floor Rolling Trolley</b>       |   |                      |
| Breaker floor Rolling Wheel x4     |   | MVIK00025-01         |
| Axle for Wheel axle x4             |   | MVIK00066-01         |
| Scrap Earthing Assembly Earthing   |   | MVIG00143-01         |
| <b>Racking Trolley Arrangement</b> |   |                      |
| Racking Trolley Assembly           |   | VDRG00199-01         |
| <b>Mechanism</b>                   |   |                      |
| Primary Shaft                      |   | AGSH36730-12         |
| Bearing Block                      |   | AGSH30411-02_S       |
| Spur Gear                          |   | VDRP00020-01_S       |
| Operation Counter                  |   | VDRP00021-01         |
| Ramphook                           |   | VDRP00022-01         |
| Glide                              |   | AGSH30469-01         |
| Main Gear                          |   | AGSH30270-02         |
| Cam Disc                           | (Right) x3  | AGSH30276-01         |
|                                    | (Left) x2   | AGSH30277-01         |
| Cam Washer                         |   | AGSH30305-01         |
| <b>Closing/Tripping Coil</b>       |   |                      |
| 24-30 V DC x2                      |   | AGSH31484-01         |
| 48 V DC x2                         |   | AGSH31483-01         |
| 110 V DC x2                        |   | AGSH31482-01         |
| 220 V DC x2                        |   | AGSH31481-01         |
| <b>Undervoltage Coil</b>           |   |                      |
| Magnet Installation                | 24 V DC   | AGSH34286-01L        |
|                                    | 48 V DC   | AGSH34286-02L        |
|                                    | 60 V DC   | AGSH34286-03L        |
|                                    | 110 V DC  | AGSH34286-04L        |
|                                    | 125 V DC / 100-110 V AC                                   | AGSH34286-05L        |
|                                    | 220 V DC / 230 V AC                                       | AGSH34286-06L        |
| <b>Spring Charging Motor</b>       |   |                      |
| Motor                              | 110 V AC/DC   | AGSH33019-01         |
| Motor KPL                          | 220 V AC/DC   | AGSH33020-01         |
| <b>Insulator Assembly</b>          |   |                      |
| Drive Insulator x3                 |   | VDRK00037-01         |
| Housing 12 kV Insulating           |   | DRCN06259-01         |
| Limit Switch Assembly              |   | DRCN03377-01_S       |
| Shutter Actuating Cam x2           |   | VDRK00084-02         |
| IP Sheet Assembly Equiped          |   | (1)                  |
| <b>Auxiliary Switch</b>            |   |                      |
| S11                                |   | AGSH32000-05         |
| S12                                |   | AGSH32000-01         |

(1) Consult your sale representative.

A

B

C

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E

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# Circuit Breaker

## HVX Rof 800 & 1250 A

### Spare parts

| Description                                   |                  | Commercial reference |
|---|------------------|----------------------|
| Busbar  |                  |                      |
| Finger Type                                   | Up to 1250 A x12 | VDRK00327-01         |
| Busbar  | 60 x 10 mm       | For Top Stem x3      |
|   |                  | For Bottom Stem x3   |
|   | 60 x 15 mm       | For Top Stem x3      |
|   |                  | For Bottom Stem x3   |
| Insulating Hood for Bottom                    | Arm x3           | DRC007667-01         |
| Vacuum Interrupter Assembly                   |                  |                      |
| 12 kV-40 kA - 800 A & 12 kV-40 kA - 1250 A x3 |                  | VDRK00011-01         |
| Floor Rolling Trolley                         |                  |                      |
| Breaker floor Rolling Wheel x4                |                  | MVIA00054-01         |
| Axle For Wheel x4                             |                  | MVIK00066-01         |
| Scrap Earthing Assembly                       |                  | MVIG00143-01         |
| Racking Trolley Arrangement                   |                  |                      |
| Racking Trolley Assembly 600 mm               |                  | VDRG00199-01         |
| Mechanism                                     |                  |                      |
| Primary Shaft                                 |                  | AGSH36730-12         |
| Bearing Block                                 |                  | AGSH30411-02_S       |
| Spur Gear                                     |                  | VDRP00020-01_S       |
| Operation Counter                             |                  | VDRP00021-01         |
| Ramphook                                      |                  | VDRP00022-01         |
| Glide   |                  | AGSH30469-01         |
| Main Gear                                     |                  | AGSH30270-02         |
| Cam Disc                                      | (Right) x3       | AGSH30276-01         |
|   | (Left) x2        | AGSH30277-01         |
| Cam Washer                                    |                  | AGSH30305-01         |
| Closing/Tripping Coil                         |                  |                      |
| 24-30 V DC x2                                 |                  | AGSH31484-01         |
| 48 V DC x2                                    |                  | AGSH31483-01         |
| Magnet x2                                     | 110 V DC         | AGSH31482-01         |
|   | 220 V DC         | AGSH31481-01         |
| Undervoltage Coil                             |                  |                      |
| 24 V DC                                       |                  | AGSH34286-01L        |
| 48 V DC                                       |                  | AGSH34286-02L        |
| 60 V DC                                       |                  | AGSH34286-03L        |
| 110 V DC                                      |                  | AGSH34286-04L        |
| 125 V DC / 100-110 V AC                       |                  | AGSH34286-05L        |
| 220 V DC / 230 V AC                           |                  | AGSH34286-06L        |
| Spring Charging Motor                         |                  |                      |
| 110 V AC/DC                                   |                  | AGSH33019-01         |
| 220 V AC/DC KPL                               |                  | AGSH33020-01         |
| Insulator Assembly                            |                  |                      |
| Drive Insulator x3                            |                  | VDRK00037-01         |
| Housing 12 kV                                 |                  | DRC006260-01         |
| Limit Switch Assembly                         |                  | DRCN03377-01_S       |
| Shutter Actuating Cam x2                      |                  | VDRK00072-01         |
| IP Sheet Assembly                             |                  | (1)                  |
| Auxiliary Switch                              |                  |                      |
| S11   |                  | AGSH32000-05         |
| S12   |                  | AGSH32000-01         |

(1) Consult your sale representative.

# Circuit Breaker

## HWX O, C & S

### Spare parts



Available to Resell



Available to Resell  
and Perform

A

B

C

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| Description  |                        | Commercial reference |
|--|------------------------|----------------------|
| Vacuum Contactor Unit  |                        |                      |
| Magnet Core x2   |                        | MST37S4010100PL      |
| Magnet Core Shim x2  |                        | MBC37S4011900BL      |
| Push On Spring x2  |                        | MSP37S4010400PL      |
| Spring Seat x2   |                        | MST37S4011600PL      |
| Spring Support Post x2   |                        | MST37S4015700PL      |
| Spring Adjuster x2   |                        | MST37S4015800PL      |
| Special Lock Nut x2  |                        | MST37S4015900PL      |
| Coil "O" Ring x2   |                        | MPL37S4011500FN      |
| Coil Washer x2   |                        | MSH37S4011300PL      |
| Location Disc  | Upper x3               | MPL37S4016400FN      |
|  | Lower x3               | MPL37S4016500FN      |
| Hinge Unibal x3  |                        | MBR37S4016300FN      |
| Unibal Clamp Plate x6  |                        | MSH37S4011100PL      |
| Hinge Unibal Bearing x2  |                        | MST37S4016200FN      |
| Stop Screw Assembly  |                        | MST37S4011000PL      |
| Armature Stop Pad  |                        | MPL37S4011200FN      |
| Armature Moulding  |                        | MSM37S1000300FN      |
| Insert x2  |                        | MBC37S4041900MC      |
| Tapped Plate x2  |                        | MST37S4016000PL      |
| Terminal Board Moulding  |                        | MSM37S2000100FN      |
| Mounting Tray  |                        | MSH37S3010100PL      |
| Main Frame Moulding  |                        | MSM37S1000200FN      |
| Armature Plate   |                        | MST37S3010300PL      |
| TQ Auxiliary Switch  | L/H-4NO + 4NC          | MOC37S2000200FN      |
|  | R/H-4NO + 4NC          | MOC37S2000300FN      |
|  | L/H-6NO + 6NC          | SLWI00090-04         |
|  | R/H-6NO + 6NC          | SLWI00090-03         |
| Operating Coil   | 24-35 V DC x2          | ECU37S6730200FN      |
|  | 110 V DC               | ECU37S4040600FN      |
|  | 220 V DC               | ECU37S4040700FN      |
| GP6 Resistor Type  | GP6/15-24-35 V DC      | ECU37SGP6-1500FN     |
|  | GP6/30-110 V DC        | ECU37S4040200FN      |
|  | GP6/35-220 V DC        | ECU37S4046600FN      |
| Latch-In-Mechanism   | With 110 V DC coil     | DRCN01586-02         |
|  | With 220 V DC coil     | DRCN01586-01         |
|  | Coil 110 V DC/220 V DC | MV262420             |
| Vacuum Interrupter Type C6B Assembly With Stud, Flex & Contact Block |                        | SPR37SASS0000FN_S    |
| Flex Connection 400 A x3   |                        | MCU37S0105M00PL      |
| Adaptor Block x3   |                        | MCU37S0106M00PL      |
| Connection Block - Lower x3  |                        | MCU37S0153M00PL      |
| HT Brass Stud x3   |                        | MBC37S4075200MC      |
| Rear Connection x9   |                        | SLWI00021-01         |
| Kit and Carriage Assembly  |                        |                      |
| Isolating Contact  | 800 A - Finger Type x6 | MHU39S0523600FN      |
|  | 800 A - Flat Type x9   | MVIK00190-01         |
| Lower Terminal Moulding (Suitable For 1 Pair Finger Contact)         |                        | SLWD00029-01 *       |
| Fuse Trip Mechanism  | For HWX-Old            | MVU25S3550800SA      |
| Assembly (W/o Limit Switch)  | For HWX-S              | MVIK00671-01         |
| Top Guide Roller   |                        | MVIB00455-01         |
| Breaker Wheel - Nylon x4   |                        | MVIA00054-01         |
| Shutter for Racking Shaft with                                       | For HWC-S              | MVIJ00016-01         |
| Tripping link (with latch)   | For HWC-C              | MVIJ00016-01         |
| Interlock Handle   |                        | MVIJ00028-01         |
| Push to Trip Knob (RED) Assembly- With Spring & Housing              |                        | SPR39SASS0001FN_S    |
| On-Off Indicator   |                        | MVIK00293-01         |

(\*) Refer note sheet for Minimum Order Quantity.



Available to Resell

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# Circuit Breaker HWX O, C & S Spare parts

| Description   |  | Commercial reference |
|---|--|----------------------|
| Secondary Plug & Socket Components                        |  |                      |
| Plug & Socket Assembly                                    | 32 Pin                                 | MHU39S0042400FN      |
|   | 64 Pin                                 | MHU39S00196200FN     |
| Interlock Assembly Components for Secondary Plug & Socket |  | MKT39S0001000CM      |
| HT Chamber Arrangement (mention panel serial no.)         |  |                      |
| 3-Phase   | Busbar Spout for HWC-Old               | MEP-39-38627 *       |
| 1-Phase   | Circuit Spout for HWC-Old x3           | MEP-25-35555 *       |
|   | Circuit Spout for R/Y/B Phase-HWC-S x3 | MEP-39-A0227201 *    |
|   | Busbar Spout for R/B Phase-HWC-S x2    | MEP-39-A0227001 *    |
|   | Busbar Spout for Y Phase-HWC-S         | MEP-39-A0227101 *    |
| Busbar Support Insulator                                  | 25 KA                                  | MEP-27-30370B *      |
|   | 40 KA                                  | MEP-39-A0147901      |
| Racking, Shutter and Earthing Arrangement *               |  |                      |
| Racking Screw   | For HWC-Old                            | MVIK00064-01         |
|   | For HWC-S                              | MVIK00367-02         |
| Racking Arrangement Assly                                 | For HWX-C (660 W)                      | MVIK00296-01         |
|   | For HWX-C (860 W)                      | MVIK00296-02         |
| Racking Nut -   | 20 mm DIA Racking                      | MBC-39-32417         |
|   | 30 dia                                 | MNM-39-A0115701      |
| Earthing Socket   |  | MVIK00139-01         |
| Earthing Nut PLUG   |  | MVIK00023-01         |
| Electronic Card   | 24 V-60 V DC (Imported)                | DRC003817-01 *       |
|   | 110 V-220 V DC (Imported)              | DRC003817-02         |
| Wiring Harness  | For CBX for PIX- ROF Application       | VDRK00260-01         |
|   | For CBX for HWC Application            | VDRK00258-0          |
| Other   |  |                      |
| Limit Switch-1NO+1NC - Service/Test Position              |  | ESW-B-AAA00-001      |
| Rectifier Monoblock                                       |  | ERC-A-A00CC-001      |
| Thermostat For Space Heater                               |  | ETH-E-B0000-001      |
| Space Heater  |  | EHT-A-AA000-001      |

(\*) Refer note sheet for Minimum Order Quantity.

# Evolis and EvoPact HVX Assembled Pole

## Medium Voltage Vacuum Circuit Breaker up to 24 kV

Part of **Pact** Series

A



Medium Voltage vacuum circuit-breaker for fixed or withdrawable in cradle applications

| Phase to phase                |       |                     |                     | 145 mm |      |    |      |
|-------------------------------|-------|---------------------|---------------------|--------|------|----|------|
| Rated voltage                 | Ur    | kV 50/60 Hz         |                     | 7.2    |      | 12 |      |
| Insulation level              | Ud    | kV 50 Hz 1 min. (1) |                     | 20     |      | 28 |      |
| - power frequency withstand   | Up    | kV peak             |                     | 60     |      | 75 |      |
| - lightning impulse withstand |       |                     |                     |        |      |    |      |
| Rated current                 | Ir    | A                   | 630                 | ■      | ■    | ■  | ■    |
|                               |       |                     | 1250                | ■      | ■    | ■  | ■    |
|                               |       |                     | 1600 <sup>(2)</sup> | -      | -    | -  | -    |
|                               |       |                     | 2500 <sup>(2)</sup> | -      | -    | -  | -    |
| Short circuit current         | Isc   | kA                  |                     | 25     | 31.5 | 25 | 31.5 |
| Short time withstand current  | Ik/tk | kA/3 s              |                     | 25     | 31.5 | 25 | 31.5 |
| Short-circuit making current  | Ip    | kA peak             | 50 Hz               | 63     | 79   | 63 | 79   |
|                               |       |                     | 60 Hz               | 65     | 82   | 65 | 82   |

B

C



The EvoPact HVX fixed type is equipped with drilled and threaded copper connection terminals at the top and bottom

Main electrical characteristics according to IEC 62271-100: 2012-09

| Common characteristics  |     |    |                         |                   |                     |  |
|---|-----|----|-------------------------|-------------------|---------------------|--|
| Rated voltage   | Ur  | kV | 12                      | 17                | 24                  |  |
| Rated power frequency withstand voltage                                 | Ud  | kV | 28 <sup>(1)</sup>       | 38                | 50                  |  |
| Rated lightning impulse withstand voltage                               | Up  | kV | 75                      | 95                | 125                 |  |
| Rated frequency   | f   | Hz | 50/60                   | 50/60             | 50/60               |  |
| Rated short circuit breaking current                                    | Isc | kA | 25-31.5-40-50           | 25-31.5-40-50     | 25-31.5             |  |
| Rated short circuit making current @ 50 Hz                              | Ip  | kA | 2.5 Isc                 | 2.5 Isc           | 2.5 Isc             |  |
| Rated short circuit making current @ 60 Hz                              | Ip  | kA | 2.6 Isc                 | 2.6 Isc           | 2.6 Isc             |  |
| Rated duration of short circuit   | tk  | s  | 3                       | 3                 | 3                   |  |
| Operating sequence  |     |    | O-0.3 s-CO - 3 min-CO   |                   |                     |  |
|   |     |    | O-0.3 min-CO - 3 min-CO |                   |                     |  |
|   |     |    | O-0.3 s-CO - 15 s-CO    |                   |                     |  |
| Opening time  |     | ms | 30-60                   | 30/60             | 30/60               |  |
| Arcing time   |     | ms | ≤ 15                    | ≤ 15              | ≤ 15                |  |
| Closing time  |     | ms | 40-70                   | 40-70             | 40-70               |  |
| Service temperature   |     | °C | -25 to +40              | -25 to +40        | -25 to +40          |  |
| Mechanical endurance  |     |    | M2                      | M2                | M2                  |  |
| Electrical endurance  |     |    | E2                      | E2 <sup>(2)</sup> | E2 <sup>(2)</sup>   |  |
| Line charging breaking current  | A   |    | 10                      | 10                | 10 <sup>(3)</sup>   |  |
|   |     |    | C2                      | C2                | C2                  |  |
| Cable charging breaking current   | A   |    | 25                      | 31.5              | 31.5 <sup>(3)</sup> |  |
|   |     |    | C2                      | C2                | C2                  |  |
| Single capacitor bank and back-to-back capacitor bank breaking capacity |     |    | <sup>(2)</sup>          | <sup>(2)</sup>    | <sup>(2)</sup>      |  |

- (1) Please contact Schneider Electric for GOST performance.
- (2) Please contact Schneider Electric.
- (3) Only applicable for 25 kA 630 A / 1250 A.

D

E

F

### Associated Services by badge level

| Evolis and EvoPact HVX |                 | Authorized Services reseller | Certified EcoXpert partner |               |                |        |
|------------------------|-----------------|------------------------------|----------------------------|---------------|----------------|--------|
| Service category       | Service type    |                              | Resell                     | Power Upgrade | Power Services | Resell |
| Maintenance            | Certified       |                              |                            |               |                | ✓      |
|                        | Manufacturer    | ✓                            |                            |               | ✓              |        |
| Spare part             | Spare part list |                              |                            |               |                | ✓      |

### Associated devices



Download EvoPact HVX catalog



# VA and VAA Assembled Pole Medium Voltage Vacuum Circuit Breaker up to 24 kV



VA and VAA vacuum circuit breakers are front-mounted switches for application in medium-voltage indoor switchgear. They can be fixed installations in switchgear or can be mounted on a switchgear truck, a drawing-unit truck or a drawing unit.

### Rated voltage, Insulating level, specifications

| Voltage designation and insulating ability within the |    | Rated voltage | Rated lightning impulse withstand voltage | Rated power frequency withstand voltage |
|---|----|---------------|---|---|
| Type designation                                      |    | kV            | kV  | kV                                      |
| VA  | 12 | 4.76          | 60  | 19                                      |
|   |    | 7.2           | 60  | 20                                      |
|   |    | 12            | 75  | 28                                      |
|   |    | 13.8          | 95  | 38                                      |
|   | 17 | 15            | 95  | 38                                      |
|   |    | 17.5          | 95  | 38                                      |
| VAA   | 24 | 15.4          | 110                                       | 50                                      |

### Associated Services by badge level

| Evolis and EvoPact HVX |                 | Authorized Services reseller | Certified EcoXpert partner |                |        |         |
|------------------------|-----------------|------------------------------|----------------------------|----------------|--------|---------|
| Service category       | Service type    |                              | Power Upgrade              | Power Services |        |         |
|                        |                 | Resell                       | Resell                     | Perform        | Resell | Perform |
| Maintenance            | Certified       |                              |                            |                |        | ✓       |
|                        | Manufacturer    | ✓                            |                            |                | ✓      |         |
| Spare part             | Spare part list |                              |                            |                |        | ✓       |

### Associated devices

Evolis air circuit breaker

Medium voltage distribution

**Vacuum circuit-breaker**

Type VA, VAA, VAA, VAA, VAE, VAC

Selection List

**Schneider**  
Electric

Download Vacuum circuit-breaker catalog

\* Spare part are in consultation mode. A selector is available, please consult your sales representative.

# SF

## Medium Voltage SF6 Circuit Breakers up to 40.5 kV

Part of **Pact** Series

A



Range of circuit-breakers fixed switchgear, left or right MV connection, side or front operating mechanism MV circuit-breakers up to 40.5 kV

B

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### SF 1

|  |       |                |       |      |      |      |      |      |      |    |      |      |      |    |      |
|--|-------|----------------|-------|------|------|------|------|------|------|----|------|------|------|----|------|
| Rated voltage  | Ur    | kV 50/60 Hz    | 12    | 17.5 | 24   | 36   |      |      |      |    |      |      |      |    |      |
| Insulation level   | Ud    | kV 50 Hz 1 min | 28    | 38   | 50   | 70   |      |      |      |    |      |      |      |    |      |
| - power frequency withstand<br>- lightning impulse withstand | Up    | kV peak        | 75    | 95   | 75   | 170  |      |      |      |    |      |      |      |    |      |
| Rated current  | Ir    | A              | 400   | -    | -    | ■    | -    | ■    | ■    | -  | -    | ■    |      |    |      |
|  |       |                | 630   | ■    | ■    | ■    | ■    | ■    | ■    | ■  | ■    | ■    | ■    |    |      |
|  |       |                | 1250  | -    | ■    | ■    | ■    | ■    | ■    | ■  | ■    | ■    | ■    |    |      |
| Short circuit current  | Isc   | kA             | 25    | 12.5 | 20   | 25   | 12.5 | 16   | 20   | 25 | 12.5 | 16   | 20   | 25 |      |
| Short time withstand current                                 | Ik/tk | kA/3 s         | 25    | 12.5 | 20   | 25   | 12.5 | 16   | 20   | 25 | 12.5 | 16   | 20   | 25 |      |
| Short-circuit making current                                 | Ip    | kA peak        | 50 Hz | 62.5 | 31.3 | 62.5 | 62.5 | 31.3 | 40   | 50 | 62.5 | 31.3 | 40   | 50 | 62.5 |
|  |       |                | 60 Hz | 65   | 32.5 | 65   | 65   | 32.5 | 41.6 | 52 | 65   | 32.5 | 41.6 | 52 | 65   |

### SF Set

|  |       |                |       |      |      |    |      |      |      |    |      |
|--|-------|----------------|-------|------|------|----|------|------|------|----|------|
| Rated voltage  | Ur    | kV 50/60 Hz    | 12    | 17.5 | 24   |    |      |      |      |    |      |
| Insulation level   | Ud    | kV 50 Hz 1 min | 28    | 38   | 50   |    |      |      |      |    |      |
| - power frequency withstand<br>- lightning impulse withstand | Up    | kV peak        | 75    | 95   | 125  |    |      |      |      |    |      |
| Rated current  | Ir    | A              | 400   | -    | -    | ■  | -    | ■    | ■    | -  | -    |
|  |       |                | 630   | ■    | ■    | ■  | ■    | ■    | ■    | ■  | ■    |
|  |       |                | 1250  | -    | -    | -  | -    | -    | -    | -  | -    |
| Short circuit current  | Isc   | kA             | 25    | 12.5 | 20   | 25 | 12.5 | 16   | 20   | 25 |      |
| Short time withstand current                                 | Ik/tk | kA/3 s         | 25    | 12.5 | 20   | 25 | 12.5 | 16   | 20   | 25 |      |
| Short-circuit making current                                 | Ip    | kA peak        | 50 Hz | 62.5 | 31.3 | 50 | 62.5 | 31.3 | 40   | 50 | 62.5 |
|  |       |                | 60 Hz | 65   | 32.5 | 52 | 65   | 32.5 | 41.6 | 52 | 65   |

### SF 2

|  |       |                |       |      |      |    |     |      |    |      |      |
|--|-------|----------------|-------|------|------|----|-----|------|----|------|------|
| Rated voltage  | Ur    | kV 50/60 Hz    | 24    | 36   | 40.5 |    |     |      |    |      |      |
| Insulation level   | Ud    | kV 50 Hz 1 min | 50    | 70   | 85   |    |     |      |    |      |      |
| - power frequency withstand<br>- lightning impulse withstand | Up    | kV peak        | 125   | 170  | 185  |    |     |      |    |      |      |
| Rated current  | Ir    | A              | 630   | -    | -    | ■  | ■   | -    | ■  | ■    | -    |
|  |       |                | 1250  | -    | -    | ■  | ■   | -    | ■  | ■    | -    |
|  |       |                | 2500  | ■    | ■    | ■  | ■   | ■    | ■  | ■    | ■    |
|  |       |                | 3150  | -    | -    | -  | ■   | -    | -  | ■    | -    |
| Short circuit current  | Isc   | kA             | 12.5  | 25   | 31.5 | 40 | 25  | 31.5 | 40 | 31.5 |      |
| Short time withstand current                                 | Ik/tk | kA/3 s         | 12.5  | 25   | 31.5 | 40 | 25  | 31.5 | 40 | 31.5 |      |
| Short-circuit making current                                 | Ip    | kA peak        | 50 Hz | 31.3 | 63   | 79 | 100 | 62.5 | 79 | 100  | 78.8 |
|  |       |                | 60 Hz | 32.5 | 65   | 82 | 104 | 65   | 82 | 104  | 81.9 |

### Associated Services by badge level

| SF               |                 | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|------------------|-----------------|------------------------------|----------------------------|---------|----------------|---------|
|                  |                 |                              | Power Upgrade              |         | Power Services |         |
| Service category | Service type    | Resell                       | Resell                     | Perform | Resell         | Perform |
| Maintenance      | Certified       |                              |                            |         |                | ✓       |
|                  | Manufacturer    | ✓                            |                            |         | ✓              |         |
| Spare part       | Spare part list |                              |                            |         |                | ✓       |

# MasterPacT NT-NW with MasterPacT MTZ

## Modernization EcoFit™ Life Extension Advanced - Low Voltage

Part of **Pact** Series



MasterPacT™ NT/NW Universal Power Circuit Breakers are designed to protect electrical systems from damage caused by overloads, short circuits and equipment ground faults.

All MasterPacT circuit breakers are designed to open and close a circuit manually, and to open the circuit automatically at a predetermined overcurrent setting.

| Main technical characteristics                                 |                  |                |
|--|------------------|----------------|
|  | MasterPacT NT-NW | MasterPacT MTZ |
| Rated operational voltage (V AC 50/60 Hz) Ue                   | 690 V            | 690 V          |
| Rated current (A) In 40°C                                      | 600-6300 A       | 600-6300 A     |
| Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu | 42-150 kA        | 42-150 kA      |

### Associated Services by badge level

| MasterPacT MTZ                     |               | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|------------------------------------|---------------|------------------------------|----------------------------|---------|----------------|---------|
| Service category                   | Service type  | Resell                       | Power Upgrade              |         | Power Services |         |
|                                    |               |                              | Resell                     | Perform | Resell         | Perform |
| Maintenance                        | Manufacturer  | ✓                            | ✓                          |         | ✓              |         |
| EcoFit™ Life extension Advanced LV | MasterPacT    | ✓                            | ✓                          | ✓       | ✓              | ✓       |
| Spare part                         | Life care kit | ✓                            | ✓                          | ✓       | ✓              | ✓       |

### Associated devices

Spare parts life care kit Micrologic

Service Interface for MasterPacT NT/NW, ComPacT NS, and PowerPac P, R-Frame Circuit Breakers

Download MasterPacT NT and NW catalog



# MasterPacT NT-NW

Manufacturer maintenance

MasterPacT NT-NW Execution tools



Available to Resell

A



| Description  |              | Commercial reference |           |
|--|--------------|----------------------|-----------|
| Standard working hours                                     |              |                      |           |
| Maintenance & ProDiag Trip Unit MasterPacT Circuit-Breaker | Withdrawable | 08-32 T1             | FSM202111 |
|  |              | 40-63 T1             | FSM202121 |
| MasterPacT Switch  | Fixed        | 08-32                | FSM202151 |
|  |              | 40-63                | FSM202161 |
| Maintenance & ProDiag Trip Unit MasterPacT Switch          | Withdrawable | 08-32                | FSM202211 |
|  |              | 40-63                | FSM202221 |
| Prodiag Breaker  | Fixed        | 08-32                | FSM202251 |
|  |              | 40-63                | FSM202261 |
| Prodiag Cluster  |              | FSM201711            |           |

B

C

| Maintenance scheduling upgrade out of working hours |  | Commercial reference |  |
|---|--|----------------------|--|
| PM Upgrade Time 2                                   |  | FSM20032             |  |
| PM Upgrade Time 3                                   |  | FSM20033             |  |
| PM Upgrade Time 4                                   |  | FSM20034             |  |

Example of ordering Maintenance & ProDiag Trip Unit MasterPacT Switch Fixed 40-63 FSM202261 During public holidays:  
 FSM202261 + FSM20034  
 For Pro-Diag applicable ranges please refer to Schneider Electric representative.

D

E

F



Available to Resell



# MasterPacT NT-NW

Modernization EcoFit™ Life Extension Advanced  
MasterPacT M with MasterPacT NW

| Description                                  |           |    | Commercial reference |                 |
|--|-----------|----|----------------------|-----------------|
| ECOFIT MasterPacT NW<br>Masterkit withdrawal | 800 A H1  | 3P | Advanced             | FSREMKNW08H13PA |
|  |           |    | Basic                | FSREMKNW08H13PB |
|  |           | 4P | Advanced             | FSREMKNW08H14PA |
|  |           |    | Basic                | FSREMKNW08H14PB |
|  | 800 A H2  | 3P | Advanced             | FSREMKNW08H23PA |
|  |           |    | Basic                | FSREMKNW08H23PB |
|  |           | 4P | Advanced             | FSREMKNW08H24PA |
|  |           |    | Basic                | FSREMKNW08H24PB |
|  | 1000 A H1 | 3P | Advanced             | FSREMKNW10H13PA |
|  |           |    | Basic                | FSREMKNW10H13PB |
|  |           | 4P | Advanced             | FSREMKNW10H14PA |
|  |           |    | Basic                | FSREMKNW10H14PB |
|  | 1000 A H2 | 3P | Advanced             | FSREMKNW10H23PA |
|  |           |    | Basic                | FSREMKNW10H23PB |
|  |           | 4P | Advanced             | FSREMKNW10H24PA |
|  |           |    | Basic                | FSREMKNW10H24PB |
|  | 1250 A H1 | 3P | Advanced             | FSREMKNW12H13PA |
|  |           |    | Basic                | FSREMKNW12H13PB |
|  |           | 4P | Advanced             | FSREMKNW12H14PA |
|  |           |    | Basic                | FSREMKNW12H14PB |
|  | 1250 A H2 | 3P | Advanced             | FSREMKNW12H23PA |
|  |           |    | Basic                | FSREMKNW12H23PB |
|  |           | 4P | Advanced             | FSREMKNW12H24PA |
|  |           |    | Basic                | FSREMKNW12H24PB |
|  | 1600 A H1 | 3P | Advanced             | FSREMKNW16H13PA |
|  |           |    | Basic                | FSREMKNW16H13PB |
|  |           | 4P | Advanced             | FSREMKNW16H14PA |
|  |           |    | Basic                | FSREMKNW16H14PB |
|  | 1600 A H2 | 3P | Advanced             | FSREMKNW16H23PA |
|  |           |    | Basic                | FSREMKNW16H23PB |
|  |           | 4P | Advanced             | FSREMKNW16H24PA |
|  |           |    | Basic                | FSREMKNW16H24PB |
|  | 2000 A H1 | 3P | Advanced             | FSREMKNW20H13PA |
|  |           |    | Basic                | FSREMKNW20H13PB |
|  |           | 4P | Advanced             | FSREMKNW20H14PA |
|  |           |    | Basic                | FSREMKNW20H14PB |
|  | 2000 A H2 | 3P | Advanced             | FSREMKNW20H23PA |
|  |           |    | Basic                | FSREMKNW20H23PB |
|  |           | 4P | Advanced             | FSREMKNW20H24PA |
|  |           |    | Basic                | FSREMKNW20H24PB |
|  | 2500 A H1 | 3P | Advanced             | FSREMKNW25H13PA |
|  |           |    | Basic                | FSREMKNW25H13PB |
|  |           | 4P | Advanced             | FSREMKNW25H14PA |
|  |           |    | Basic                | FSREMKNW25H14PB |
|  | 2500 A H2 | 3P | Advanced             | FSREMKNW25H23PA |
|  |           |    | Basic                | FSREMKNW25H23PB |
|  |           | 4P | Advanced             | FSREMKNW25H24PA |
|  |           |    | Basic                | FSREMKNW25H24PB |
|  | 3200 A H1 | 3P | Advanced             | FSREMKNW32H13PA |
|  |           |    | Basic                | FSREMKNW32H13PB |
|  |           | 4P | Advanced             | FSREMKNW32H14PA |
|  |           |    | Basic                | FSREMKNW32H14PB |
|  | 3200 A H2 | 3P | Advanced             | FSREMKNW32H23PA |
|  |           |    | Basic                | FSREMKNW32H23PB |



# MasterPacT NT-NW

Modernization EcoFit™ Life Extension Advanced  
MasterPacT M with MasterPacT NW



Available to Resell and Perform

A



B

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D

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| Description                                   |           |          |                 | Commercial reference |
|---|-----------|----------|-----------------|----------------------|
| ECOFIT MasterPacT NW Masterkit withdrawal     | 3200 A H2 | 4P       | Advanced        | FSREMKNW32H24PA      |
|   |           |          | Basic           | FSREMKNW32H24PB      |
| ECOFIT MasterPacT NW plug and play withdrawal | 800 A H1  | 3P       | Advanced        | FSREPPNW08H13PA      |
|   |           |          | Basic           | FSREPPNW08H13PB      |
|   | 4P        | Advanced | FSREPPNW08H14PA |                      |
|   |           | Basic    | FSREPPNW08H14PB |                      |
|   |           | Advanced | FSREPPNW08H23PA |                      |
|   |           | Basic    | FSREPPNW08H23PB |                      |
| 800 A H2                                      | 3P        | Advanced | FSREPPNW08H23PA |                      |
|   |           | Basic    | FSREPPNW08H23PB |                      |
|   | 4P        | Advanced | FSREPPNW08H24PA |                      |
|   |           | Basic    | FSREPPNW08H24PB |                      |
| 1000 A H1                                     | 3P        | Advanced | FSREPPNW10H13PA |                      |
|   |           | Basic    | FSREPPNW10H13PB |                      |
|   | 4P        | Advanced | FSREPPNW10H14PA |                      |
|   |           | Basic    | FSREPPNW10H14PB |                      |
|   |           | Advanced | FSREPPNW10H23PA |                      |
|   |           | Basic    | FSREPPNW10H23PB |                      |
| 1000 A H2                                     | 3P        | Advanced | FSREPPNW10H23PA |                      |
|   |           | Basic    | FSREPPNW10H23PB |                      |
|   | 4P        | Advanced | FSREPPNW10H24PA |                      |
|   |           | Basic    | FSREPPNW10H24PB |                      |
|   |           | Advanced | FSREPPNW12H13PA |                      |
|   |           | Basic    | FSREPPNW12H13PB |                      |
| 1250 A H1                                     | 3P        | Advanced | FSREPPNW12H13PA |                      |
|   |           | Basic    | FSREPPNW12H13PB |                      |
|   | 4P        | Advanced | FSREPPNW12H14PA |                      |
|   |           | Basic    | FSREPPNW12H14PB |                      |
|   |           | Advanced | FSREPPNW12H23PA |                      |
|   |           | Basic    | FSREPPNW12H23PB |                      |
| 1250 A H2                                     | 3P        | Advanced | FSREPPNW12H23PA |                      |
|   |           | Basic    | FSREPPNW12H23PB |                      |
|   | 4P        | Advanced | FSREPPNW12H24PA |                      |
|   |           | Basic    | FSREPPNW12H24PB |                      |
|   |           | Advanced | FSREPPNW16H13PA |                      |
|   |           | Basic    | FSREPPNW16H13PB |                      |
| 1600 A H1                                     | 3P        | Advanced | FSREPPNW16H13PA |                      |
|   |           | Basic    | FSREPPNW16H13PB |                      |
|   | 4P        | Advanced | FSREPPNW16H14PA |                      |
|   |           | Basic    | FSREPPNW16H14PB |                      |
|   |           | Advanced | FSREPPNW16H23PA |                      |
|   |           | Basic    | FSREPPNW16H23PB |                      |
| 1600 A H2                                     | 3P        | Advanced | FSREPPNW16H23PA |                      |
|   |           | Basic    | FSREPPNW16H23PB |                      |
|   | 4P        | Advanced | FSREPPNW16H24PA |                      |
|   |           | Basic    | FSREPPNW16H24PB |                      |
|   |           | Advanced | FSREPPNW20H13PA |                      |
|   |           | Basic    | FSREPPNW20H13PB |                      |
| 2000 A H1                                     | 3P        | Advanced | FSREPPNW20H13PA |                      |
|   |           | Basic    | FSREPPNW20H13PB |                      |
|   | 4P        | Advanced | FSREPPNW20H14PA |                      |
|   |           | Basic    | FSREPPNW20H14PB |                      |
|   |           | Advanced | FSREPPNW20H23PA |                      |
|   |           | Basic    | FSREPPNW20H23PB |                      |
| 2000 A H2                                     | 3P        | Advanced | FSREPPNW20H23PA |                      |
|   |           | Basic    | FSREPPNW20H23PB |                      |
|   | 4P        | Advanced | FSREPPNW20H24PA |                      |
|   |           | Basic    | FSREPPNW20H24PB |                      |
|   |           | Advanced | FSREPPNW25H13PA |                      |
|   |           | Basic    | FSREPPNW25H13PB |                      |
| 2500 A H1                                     | 3P        | Advanced | FSREPPNW25H13PA |                      |
|   |           | Basic    | FSREPPNW25H13PB |                      |
|   | 4P        | Advanced | FSREPPNW25H14PA |                      |
|   |           | Basic    | FSREPPNW25H14PB |                      |
|   |           | Advanced | FSREPPNW25H23PA |                      |
|   |           | Basic    | FSREPPNW25H23PB |                      |
| 2500 A H2                                     | 3P        | Advanced | FSREPPNW25H23PA |                      |
|   |           | Basic    | FSREPPNW25H23PB |                      |
|   | 4P        | Advanced | FSREPPNW25H24PA |                      |
|   |           | Basic    | FSREPPNW25H24PB |                      |
|   |           | Advanced | FSREPPNW32H13PA |                      |
|   |           | Basic    | FSREPPNW32H13PB |                      |
| 3200 A H1                                     | 3P        | Advanced | FSREPPNW32H13PA |                      |
|   |           | Basic    | FSREPPNW32H13PB |                      |
|   | 4P        | Advanced | FSREPPNW32H14PA |                      |
|   |           | Basic    | FSREPPNW32H14PB |                      |
|   |           | Advanced | FSREPPNW32H23PA |                      |
|   |           | Basic    | FSREPPNW32H23PB |                      |
| 3200 A H2                                     | 3P        | Advanced | FSREPPNW32H23PA |                      |
|   |           | Basic    | FSREPPNW32H23PB |                      |
|   | 4P        | Advanced | FSREPPNW32H24PA |                      |
|   |           | Basic    | FSREPPNW32H24PB |                      |



Available to Resell and Perform

# Circuit Breaker

## MasterPacT NT-NW

### Spare Parts

Micrologic unit MasterPacT NT-NW



| Description               |                       |                | Commercial reference |
|---------------------------|-----------------------|----------------|----------------------|
| Spare parts life care kit |                       |                |                      |
| MasterPacT NT10H1         | ML2A 04..1Ir-StdMX/XF | 130 V AC       | SPKNTLC2AB2SXD       |
|                           |                       | 240 V AC       | SPKNTLC2AB2SXA       |
|                           | ML2E 04..1Ir-StdMX/XF | 130 V AC       | SPKNTLC2EB2SXD       |
|                           |                       | 240 V AC       | SPKNTLC2EB2SXA       |
|                           | ML5A 04..1Ir-StdMX/XF | 130 V AC       | SPKNTLC5AB2SXD       |
|                           |                       | 240 V AC       | SPKNTLC5AB2SXA       |
| MasterPacT NT12H1         | ML2A 04..1Ir-StdMX/XF | 130 V AC       | SPKNTLC2AC2SXD       |
|                           |                       | 240 V AC       | SPKNTLC2AC2SXA       |
|                           | ML2E 04..1Ir-StdMX/XF | 130 V AC       | SPKNTLC2EC2SXD       |
|                           |                       | 240 V AC       | SPKNTLC2EC2SXA       |
|                           | ML5A 04..1Ir-StdMX/XF | 130 V AC       | SPKNTLC5AC2SXD       |
|                           |                       | 240 V AC       | SPKNTLC5AC2SXA       |
| ML5E 04..1Ir-StdMX/XF     | 130 V AC              | SPKNTLC5EC2SXD |                      |
|                           | 240 V AC              | SPKNTLC5EC2SXA |                      |

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# MasterPacT NT-NW

## Spare Parts

### Micrologic Unit MasterPacT NT-NW



Available to Resell and Perform

A

B

C

D

E

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| Description               |                       | Commercial reference |                |
|---------------------------|-----------------------|----------------------|----------------|
| Spare parts life care kit |                       |                      |                |
| MasterPacT NW10N1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AB1SXD |
|                           |                       | 240 V AC             | SPKNWLC2AB1SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2EB1SXD |
|                           |                       | 240 V AC             | SPKNWLC2EB1SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AB1SXD |
|                           |                       | 240 V AC             | SPKNWLC5AB1SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5EB1SXD |
|                           |                       | 240 V AC             | SPKNWLC5EB1SXA |
| MasterPacT NW10H1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AB2SXD |
|                           |                       | 240 V AC             | SPKNWLC2AB2SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2EB2SXD |
|                           |                       | 240 V AC             | SPKNWLC2EB2SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AB2SXD |
|                           |                       | 240 V AC             | SPKNWLC5AB2SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5EB2SXD |
|                           |                       | 240 V AC             | SPKNWLC5EB2SXA |
| MasterPacT NW12N1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AC1SXD |
|                           |                       | 240 V AC             | SPKNWLC2AC1SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2EC1SXD |
|                           |                       | 240 V AC             | SPKNWLC2EC1SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AC1SXD |
|                           |                       | 240 V AC             | SPKNWLC5AC1SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5EC1SXD |
|                           |                       | 240 V AC             | SPKNWLC5EC1SXA |
| MasterPacT NW12H1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AC2SXD |
|                           |                       | 240 V AC             | SPKNWLC2AC2SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2EC2SXD |
|                           |                       | 240 V AC             | SPKNWLC2EC2SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AC2SXD |
|                           |                       | 240 V AC             | SPKNWLC5AC2SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5EC2SXD |
|                           |                       | 240 V AC             | SPKNWLC5EC2SXA |
| MasterPacT NW16N1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AD1SXD |
|                           |                       | 240 V AC             | SPKNWLC2AD1SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2ED1SXD |
|                           |                       | 240 V AC             | SPKNWLC2ED1SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AD1SXD |
|                           |                       | 240 V AC             | SPKNWLC5AD1SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5ED1SXD |
|                           |                       | 240 V AC             | SPKNWLC5ED1SXA |
| MasterPacT NW16H1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AD2SXD |
|                           |                       | 240 V AC             | SPKNWLC2AD2SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2ED2SXD |
|                           |                       | 240 V AC             | SPKNWLC2ED2SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AD2SXD |
|                           |                       | 240 V AC             | SPKNWLC5AD2SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5ED2SXD |
|                           |                       | 240 V AC             | SPKNWLC5ED2SXA |
| MasterPacT NW20N1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AE1SXD |
|                           |                       | 240 V AC             | SPKNWLC2AE1SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2EE1SXD |
|                           |                       | 240 V AC             | SPKNWLC2EE1SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AE1SXD |
|                           |                       | 240 V AC             | SPKNWLC5AE1SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5EE1SXD |
|                           |                       | 240 V AC             | SPKNWLC5EE1SXA |
| MasterPacT NW20H1         | ML2A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2AE2SXD |
|                           |                       | 240 V AC             | SPKNWLC2AE2SXA |
|                           | ML2E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC2EE2SXD |
|                           |                       | 240 V AC             | SPKNWLC2EE2SXA |
|                           | ML5A 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5AE2SXD |
|                           |                       | 240 V AC             | SPKNWLC5AE2SXA |
|                           | ML5E 04..1lr-StdMX/XF | 130 V AC             | SPKNWLC5EE2SXD |
|                           |                       | 240 V AC             | SPKNWLC5EE2SXA |

# ComPacT C801 - C1251 with ComPacT NS800 - NS1250

## Modernization EcoFit™ Life Extension Advanced - Low Voltage

Part of PacT Series



The ComPacT NS NA switch disconnecter provides high performance in a convenient size. It is suitable both as an incomer or as a feeder for manual or remote electrical installation operation.

| Main technical characteristics                                 |                      |                        |
|--|----------------------|------------------------|
|  | ComPacT C801 - C1251 | ComPacT NS800 - NS1250 |
| Rated operational voltage (V AC 50/60Hz) Ue                    | 690 V                | 690 V                  |
| Rated current (A) In 40°C                                      | 800-61250 A          | 800-1250 A             |
| Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu | 50-150 kA            | 50-150 kA              |

### Associated Services by badge level

| ComPacT                            |               | Authorized Services reseller | Certified EcoXpert partner |               |        |                |
|------------------------------------|---------------|------------------------------|----------------------------|---------------|--------|----------------|
| Service category                   | Service type  |                              | Resell                     | Power Upgrade |        | Power Services |
|                                    |               |                              | Resell                     | Perform       | Resell | Perform        |
| Maintenance                        | Manufacturer  | ✓                            | ✓                          |               | ✓      |                |
| EcoFit™ Life extension Advanced LV | ComPacT       | ✓                            | ✓                          | ✓             | ✓      | ✓              |
| Spare part                         | Life care kit | ✓                            | ✓                          | ✓             | ✓      | ✓              |

### Associated services



Service Interface for MasterPacT NT/NW, ComPacT NS, and PowerPacT P-, R-Frame Circuit Breakers

### Associated catalog



Download Green Flexible Digital catalog



# ComPacT C801

## Manufacturer maintenance - Execution tools



Available to Resell

A



| Description                        |                                     | Commercial reference |           |
|------------------------------------|-------------------------------------|----------------------|-----------|
| Standard working hours             |                                     |                      |           |
| Manufacturer Maintenance & ProDiag | Trip Unit Compact superior to 630 A | Withdrawable         | FSM203111 |
|                                    |                                     | Fixed Time 1         | FSM203151 |

B

| Maintenance scheduling upgrade out of working hours |  | Commercial reference |
|---|--|----------------------|
| PM Upgrade Time 2                                   |  | FSM20032             |
| PM Upgrade Time 3                                   |  | FSM20033             |
| PM Upgrade Time 4                                   |  | FSM20034             |

Example of ordering Manufacturer Maintenance & ProDiag Trip Unit Compact Superior to 630 Fixed Time 1 During public holydays: FSM203151 + FSM20034.  
For Pro-Diag applicable ranges please refer to Schneider Electric representative.

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Available to Resell and Perform

# ComPacT C801 - C1251 with ComPacT NS800 - NS1250

## EcoFit™ Life Extension Advanced - Modernization

Co-PERFORM modernization with a Specialized technician from Schneider Electric



| Description  |                  | Commercial reference   |
|--|------------------|------------------------|
| Co-performance with certified partner for ECOFIT Compact | P&P 3P           | (*)                    |
|  |                  | Labor time 1 and 3 (*) |
|  |                  | Labor time 3 (*)       |
| P&P 4P   |                  | (*)                    |
|  |                  | Labor time 2 (*)       |
|  |                  | Labor time 3 (*)       |
| Kit 3P   |                  | (*)                    |
|  |                  | Labor time 2 (*)       |
|  |                  | Labor time 3 (*)       |
| Kit 4P   |                  | (*)                    |
|  |                  | Labor time 2 (*)       |
|  |                  | Labor time 3 (*)       |
| P&P 3P   |                  | Labor time 1 (*)       |
|  |                  | Labor time 2 (*)       |
|  |                  | Labor time 3 (*)       |
| P&P 4P   |                  | Labor time 1 (*)       |
|  |                  | Labor time 2 (*)       |
|  |                  | Labor time 3 (*)       |
| Kit 3P   | Labor time 1 (*) |                        |
| Kit 4P   | Labor time 1 (*) |                        |

Labor time 1: standard working days.  
 Labor time 2: overtime.  
 Labor time 3: public holidays.

(\*) For ordering consult us.



# ComPacT C801 - C1251 with ComPacT NS800 - NS1250 EcoFit™ Life Extension Advanced Modernization



Available to Resell



Available to Resell and Perform



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| Description              |           | Commercial reference |                               |
|--------------------------|-----------|----------------------|-------------------------------|
| Standard Hours           |           |                      |                               |
| ECOFIT ComPacT Kit fixed | 800 A N1  | 3P                   | FSRECKNS800N13PA              |
|                          |           | 4P                   | FSRECKNS800N14PA              |
|                          | 1000 A N1 | 3P                   | FSRECKNS1000N13PA             |
|                          |           | 4P                   | FSRECKNS1000N14PA             |
|                          | 1250 A N1 | 3P                   | FSRECKNS1200N13PA             |
|                          |           | 4P                   | FSRECKNS1200N14PA             |
| ECOFIT ComPacT PP WD     | 800 A N1  | 3P                   | Advanced<br>FSREPPNS800N13PA  |
|                          |           |                      | Basic<br>FSREPPNS800N13PB     |
|                          |           | 4P                   | Advanced<br>FSREPPNS800N14PA  |
|                          |           |                      | Basic<br>FSREPPNS800N14PB     |
|                          | 1000 A N1 | 3P                   | Advanced<br>FSREPPNS1000N13PA |
|                          |           |                      | Basic<br>FSREPPNS1000N13PB    |
|                          |           | 4P                   | Advanced<br>FSREPPNS1000N14PA |
|                          |           |                      | Basic<br>FSREPPNS1000N14PB    |
|                          | 1250 A N1 | 3P                   | Advanced<br>FSREPPNS1200N13PA |
|                          |           |                      | Basic<br>FSREPPNS1200N13PB    |
|                          |           | 4P                   | Advanced<br>FSREPPNS1200N14PA |
|                          |           |                      | Basic<br>FSREPPNS1200N14PB    |

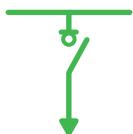
| Labor time 1                                      |    |                   |
|---|----|-------------------|
| Installation Tests Commissioning (Standard Hours) |    |                   |
| ECOFIT ComPacT Kit fixed                          | 3P | FSRECKITINSTALL3P |
|   | 4P | FSRECKITINSTALL4P |
| ECOFIT ComPacT PP WD                              | 3P | FSRECCINSTALL3P   |
|   | 4P | FSRECCINSTALL4P   |

| Labor time 2                                     |    |                   |
|--|----|-------------------|
| Installation Tests Commissioning (Extra Hours 1) |    |                   |
| ECOFIT ComPacT Kit fixed                         | 3P | FSRECKITINST3PEH1 |
|  | 4P | FSRECKITINST4PEH1 |
| ECOFIT ComPacT PP WD                             | 3P | FSRECCINST3PEH1   |
|  | 4P | FSRECCINST4PEH1   |

| Labor time 3                                     |    |                   |
|--|----|-------------------|
| Installation Tests Commissioning (Extra Hours 2) |    |                   |
| ECOFIT ComPacT Kit fixed                         | 3P | FSRECKITINST3PEH2 |
|  | 4P | FSRECKITINST4PEH2 |
| ECOFIT ComPacT PP WD                             | 3P | FSRECCINST3PEH2   |
|  | 4P | FSRECCINST4PEH2   |

Labor time 1: standard working days.  
Labor time 2: overtime.  
Labor time 3: public holidays.

# Components



## Medium Voltage Switchgear

|                             |      |
|-----------------------------|------|
| PIX Standard.....           | A-30 |
| PIX MV .....                | A-34 |
| PIX Roll on the floor ..... | A-37 |
| SM6 .....                   | A-39 |
| FLUOKIT .....               | A-52 |
| RM6 .....                   | A-60 |



## MV/LV Transformers

|                            |      |
|----------------------------|------|
| Minera – Oil immersed..... | B-72 |
| Trihal – Cast resin.....   | B-72 |



## Low Voltage Switchboards

|               |      |
|---------------|------|
| Okken .....   | C-76 |
| Prisma .....  | C-77 |
| BlokSeT ..... | C-78 |



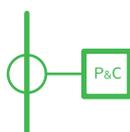
## Circuit Breaker

|   |      |
|---|------|
| HWX Medium Voltage vacuum circuit breaker .....         | D-82 |
| EVOLIS Medium Voltage vacuum circuit breaker .....      | D-88 |
| SF MV SF6 circuit breaker .....                         | D-90 |
| MasterPacT NT NW Low voltage circuit breaker .....      | D-91 |
| ComPacT C801 ComPacT NS Low voltage circuit breaker ... | D-97 |



## Components

|   |       |
|---|-------|
| Medium Voltage Instrument Transformer ..... | E-102 |
| Medium Voltage Fuses .....                  | E-109 |



## Protection and Control

|                               |       |
|-------------------------------|-------|
| Sepam Protection Relays ..... | F-112 |
| MiCOM Protection Relays ..... | F-112 |



# Indoor instrument transformers up to 40.5 kV for SM6 24 & 36 Medium Voltage

A

Comprehensive ranges of Current transformers and Voltage transformers designed for voltages from 0.72 kV to 36 kV and rated currents from 5 A to 4000 A.

## Synthesis table by unit

|    |                | Units |     |       |                         |       |     |                |        |                |     |                |                |                |                |
|----|----------------|-------|-----|-------|-------------------------|-------|-----|----------------|--------|----------------|-----|----------------|----------------|----------------|----------------|
|    |                | QMC   | CVM | DM1-A | DM1-D<br>DMVL-D<br>DM1M | DM1-W | DM2 | GBC-A<br>GBC-B | DMVL-A | DMV-A<br>DMV-D | IMC | DM1-A<br>DM1-D | DM1-W<br>DM1-Z | GBC-A<br>GBC-B | DMV-A<br>DMV-D |
|    |                | 630 A |     |       |                         |       |     |                | 1250 A |                |     |                |                |                |                |
| CT | Type 1         | ■     | ■   | -     | -                       | -     | -   | -              | -      | -              | -   | -              | -              | -              | -              |
|    | Type 2         | -     | -   | -     | -                       | -     | -   | -              | -      | ■              | ■   | -              | -              | -              | -              |
|    | Type 3         | -     | -   | -     | -                       | -     | -   | -              | -      | -              | -   | ■              | ■              | ■              | ■              |
|    | Type 4         | -     | -   | ■     | ■                       | ■     | ■   | ■              | ■      | -              | -   | -              | -              | -              | -              |
|    | Type 5         | -     | -   | (*)   | -                       | -     | -   | (*)            | -      | -              | -   | -              | -              | -              | -              |
|    | LPCT<br>Type 1 | -     | ■   | ■     | -                       | ■     | -   | -              | -      | -              | -   | -              | -              | -              | -              |
|    | LPCT<br>type 3 | -     | -   | -     | ■                       | -     | -   | -              | -      | -              | -   | -              | -              | -              | -              |

(\*) Please, consult us.

B

C

D



### Current Transformer type 1

- Characteristics according to IEC standard 61869-2
- Single primary winding
- Double secondary winding for measurement and protection

|                            |     | Short-time withstand current I <sub>th</sub> (kA) |     |     |    |    |     |     |     |
|----------------------------|-----|---|-----|-----|----|----|-----|-----|-----|
| I <sub>1n</sub> (A)        |     | 10  | 20  | 30  | 50 | 75 | 100 | 150 | 200 |
| I <sub>th</sub> (kA)       |     | 1.2   | 2.4 | 3.6 | 6  | 10 | 10  | 10  | 10  |
| t (s)                      |     | 1   |     |     |    |    |     |     |     |
| Measurement and protection | 5 A | 15 VA - class 0.5<br>2.5 VA - 5P20                |     |     |    |    |     |     |     |

E

F



### Current Transformer type 2

- Characteristics according to IEC standard 61869-2
- Single primary winding
- Double secondary winding for measurement and protection

|                            |     | Short-time withstand current I <sub>th</sub> (kA) |                                    |                                  |                                  |                                    |
|----------------------------|-----|---|------------------------------------|----------------------------------|----------------------------------|------------------------------------|
| I <sub>1n</sub> (A)        |     | 50  | 100                                | 200                              | 400                              | 600                                |
| I <sub>th</sub> (kA)       |     | 25  |                                    |                                  |                                  |                                    |
| t (s)                      |     | 1   |                                    |                                  |                                  |                                    |
| Measurement and protection | 5 A | 10 VA - class 0.5<br>2.5 VA - 5P20                | 15 VA - class 0.5<br>2.5 VA - 5P20 | 15 VA - class 0.5<br>5 VA - 5P20 | 15 VA - class 0.5<br>5 VA - 5P20 | 15 VA - class 0.5<br>7.5 VA - 5P20 |

# Indoor instrument transformers up to 40.5 kV for SM6 24 & 36 Medium Voltage



## Current Transformer type 3

- Characteristics according to IEC standard 61869-2
- Single primary winding
- Double secondary winding for measurement and protection

### Short-time withstand current $I_{th}$ (kA)

|                            |     |                   |      |
|----------------------------|-----|-------------------|------|
| $I_n$ (A)                  |     | 1000              | 1250 |
| $I_{th}$ (kA)              |     | 25                |      |
| $t$ (s)                    |     | 1                 |      |
| Measurement and protection | 1 A | 30 VA - class 0.5 |      |
|                            |     | 10 VA - 5P20      |      |
|                            | 5 A | 30 VA - class 0.5 |      |
|                            |     | 10 VA - 5P20      |      |



## Current Transformer type 4

- Characteristics according to IEC standard 61869-2
- Single primary winding
- Double secondary winding for measurement and protection

### Short-time withstand current $I_{th}$ (kA)

|                            |     |                   |       |          |             |          |         |
|----------------------------|-----|-------------------|-------|----------|-------------|----------|---------|
| $I_n$ (A)                  |     | 10/20             | 20/40 | 50/100   | 100/200     | 200/400  | 300/600 |
| $I_{th}$ (kA)              |     | 5                 | 12.5  | 12.5/21* | 12.5/25*    | 12.5/25* | 25      |
| $t$ (s)                    |     | 1                 | 0.8   | 1        |             |          |         |
| Measurement and protection | 1 A | 1 VA - 10P30      |       |          |             |          |         |
|                            |     | 5 VA - 5P10       |       |          |             |          |         |
|                            | 5 A | 15 VA - class 0.5 |       |          | 5 VA - 5P15 |          |         |
|                            |     |                   |       |          |             |          |         |

(\*) For 5 A protection.



## Current Transformer type 5

- Characteristics according to IEC standard 61869-2
- Single or double primary winding
- Up to 3 secondary windings (for measure and/or for protection)
- Rated highest voltage 7.2 - 12 - 17.5 - 24 kV
- Rated primary current up to 630 A (for SM6 cubicles)
- Secondary currents 5 A or 1 A
- Version with one secondary winding
- Version with two secondary windings
- Version with three secondary windings

### Short-time withstand current $I_{th}$ (kA)

|                            |     |                   |         |               |          |         |
|----------------------------|-----|-------------------|---------|---------------|----------|---------|
| $I_n$ (A)                  |     | 50/100            | 100/200 | 200/400       | 100/200  | 300/600 |
| $I_{th}$ (kA)              |     | 14.5              | 25      | 25            | 12.5/25* | 25      |
| $t$ (s)                    |     | 1                 |         |               |          |         |
| Measurement and protection | 5 A | 30 VA - class 0.5 |         |               |          |         |
|                            |     | 5 VA - 5P15       |         | 7.5 VA - 5P15 |          |         |
|                            |     | 7.5 VA - 5P10     |         | 15 VA - 5P10  |          |         |
|                            |     |                   |         |               |          |         |

## Components

# Indoor instrument transformers up to 40.5 kV for SM6 24 & 36

## Medium Voltage

A



### Low Power Current Transformer LPCT type 1

- Characteristics according to IEC standard 60044-8
- Large primary current range
- Direct output voltage for measurement and protection
- RJ45-8 pts secondary connector
- Insulation level 0.72 kV
- Internal diameter 130 mm

|                                  |           |
|----------------------------------|-----------|
| Minimum rated primary current    | 5 A       |
| Rated nominal primary current    | 100 A     |
| Rated extended primary current   | 1250 A    |
| Rated nominal secondary output   | 22.5 mV   |
| Accuracy class for measurement   | 0.5       |
| Accuracy class for protection    | 5P        |
| Accuracy limit factor            | 250       |
| Rated short time thermal current | 25 kA 1 s |
| Highest voltage (Um)             | 0.72 kV   |
| Rated power-frequency withstand  | 3 kV      |

B

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D



### Low Power Current Transformer LPCT type 3

- Characteristics according to IEC standard 60044-8
- Large primary current range
- Direct output voltage for measurement and protection
- RJ45-8 pts secondary connector
- Insulation level 24 kV

|                                  |           |
|----------------------------------|-----------|
| Minimum rated primary current    | 5 A       |
| Rated nominal primary current    | 100 A     |
| Rated extended primary current   | 1250 A    |
| Rated nominal secondary output   | 22.5 mV   |
| Accuracy class for measurement   | 0.5       |
| Accuracy class for protection    | 5P        |
| Accuracy limit factor            | 400       |
| Rated short time thermal current | 40 kA 1 s |
| Highest voltage (Um)             | 24 kV     |
| Rated power-frequency withstand  | 50 kV     |

E

F

# Indoor instrument transformers up to 40.5 kV for SM6 24 & 36 Medium Voltage



## Current Transformer for DM1-A, DM1-D, DM2, IMC, GBC-A, and GBC-B units

- Characteristics according to IEC standard 61869-2
- Single primary winding
- Double secondary winding for measurement and protection

| Short-time withstand current I <sub>th</sub> (kA) |     |                            |        |         |         |         |         |                   |
|---|-----|----------------------------|--------|---------|---------|---------|---------|-------------------|
| I <sub>n</sub> (A)                                |     | 50/100                     | 75/150 | 100/200 | 150/300 | 200/400 | 300/600 | 1000/1250         |
| I <sub>th</sub> (kA)                              |     | 16/20                      |        |         |         |         |         | 25                |
| t (s)   |     | 1                          |        |         |         |         |         | 1                 |
| Measurement and protection                        | 5 A | 7.5 VA - 15 VA - class 0.5 |        |         |         |         |         | 30 VA - class 0.5 |
|   |     | 2.5 VA - 5 VA - 5P20       |        |         |         |         |         | 10 VA - 5P20      |



## Current Transformer for DM1-A, DM1-D, and DM2 units

- Characteristics according to IEC standard 61869-2
- Single primary winding
- Double secondary winding for measurement and protection

| Short-time withstand current I <sub>th</sub> (kA) |     |   |
|---|-----|---|
| I <sub>n</sub> (A)                                |     | 1000/1250                               |
| I <sub>th</sub> (kA)                              |     | 40                                      |
| t (s)   |     | 1                                       |
| Measurement and protection                        | 5 A | 30 VA - class 0.5 - F <sub>s</sub> < 10 |
|   |     | 10 VA - 5P20                            |



## Low Power Current Transformer (LPCT) for DM1-A units, SM6-36

- Characteristics according to IEC standard 60044-8
- Large primary current range
- Direct output voltage for measurement and protection
- RJ45-8 pts secondary connector
- Insulation level 0.72 kV
- Internal diameter 130 or 190 mm
- In SM6-36, LPCT Type 1 can be used for 630 A, LPCT Type 2 can be used up to 1250 A

|                                   | LPCT Type 1     | LPCT Type 2     |
|-----------------------------------|-----------------|-----------------|
| Minimum rated primary current     | 5 A             | 5 A             |
| Rated extended primary current    | 1250 A          | 2500 A          |
| Secondary output                  | 22.5 mV - 100 A | 22.5 mV - 100 A |
| Accuracy class for measurement    | 0.5             | 0.5             |
| Accuracy class for protection     | 5P              | 5P              |
| Accuracy limit factor             | 250             | 400             |
| Rated short time thermal current  | 25 kA 1 s       | 40 kA 1 s       |
| Highest voltage (U <sub>m</sub> ) | 0.72 kV         | 0.72 kV         |
| Rated power-frequency withstand   | 3 kV            | 3 kV            |

# Indoor instrument transformers up to 40.5 kV for SM6 24 & 36 Medium Voltage

A

## Synthesis table by unit

|    |                            | Units |     |       |                 |       |     |               |       |        |       |       |     |    |
|----|----------------------------|-------|-----|-------|-----------------|-------|-----|---------------|-------|--------|-------|-------|-----|----|
|    |                            | CM    | CVM | DM1-A | DM1-D<br>DMVL-D | DM1-W | DM2 | GBC-A<br>DM1M | GBC-B | DMVL-A | DMV-A | DMV-D | CM2 | TM |
|    |                            | 630 A |     |       |                 |       |     | 1250 A        |       |        |       |       |     |    |
| VT | Type 1                     | ■     | -   | ■     | ■               | ■     | ■   | ■             | ■     | ■      | -     | -     | -   | -  |
|    | Type 2                     | -     | ■   | -     | -               | -     | -   | -             | -     | -      | ■     | ■     | -   | -  |
|    | Type 3                     | -     | -   | -     | -               | -     | -   | ■             | ■     | -      | -     | -     | ■   | -  |
|    | phase-earth fuse protected | -     | -   | -     | -               | -     | -   | ■             | ■     | -      | -     | -     | -   | -  |
|    | phase-phase                | -     | -   | -     | -               | -     | -   | -             | -     | -      | -     | -     | -   | ■  |

B

C



### Type 1 Voltage Transformer (phase-to-earth) 50 or 60 Hz

- Characteristics according to IEC standard 61869-3.

|  |                |               |                  |               |
|--|----------------|---------------|------------------|---------------|
| Rated voltage (kV)                           | 24             |               |                  |               |
| Primary voltage (kV)                         | $10/\sqrt{3}$  | $15/\sqrt{3}$ | $15-20/\sqrt{3}$ | $20/\sqrt{3}$ |
| Secondary voltage (V)                        | $100/\sqrt{3}$ |               |                  |               |
| Thermal power (VA)                           | 250            |               |                  |               |
| Accuracy class                               | 0.5            |               |                  |               |
| Rated output for single primary winding (VA) | 30             | 30            |                  | 30            |
| Rated output for double primary winding (VA) |                |               | 30-50            |               |

D

E

### Type 2 Voltage Transformer (phase-to-earth) 50 or 60 Hz

- Characteristics according to IEC standard 61869-3.

|  |                |               |  |
|--|----------------|---------------|--|
| Rated voltage (kV)                           | 17.5           |               |  |
| Primary voltage (kV)                         | $10/\sqrt{3}$  | $15/\sqrt{3}$ |  |
| Secondary voltage (V)                        | $100/\sqrt{3}$ |               |  |
| Thermal power (VA)                           | 250            |               |  |
| Accuracy class                               | 0.5            |               |  |
| Rated output for single primary winding (VA) | 30             | 30            |  |

F



### Type 3 Voltage Transformer (phase-to-phase) 50 or 60 Hz

- Characteristics according to IEC standard 61869-3.

|  |     |    |    |
|--|-----|----|----|
| Rated voltage (kV)                           | 24  |    |    |
| Primary voltage (kV)                         | 10  | 15 | 20 |
| Secondary voltage (V)                        | 100 |    |    |
| Thermal power (VA)                           | 500 |    |    |
| Accuracy class                               | 0.5 |    |    |
| Rated output for single primary winding (VA) | 50  |    |    |

# Indoor instrument transformers up to 40.5 kV for RM6 Medium Voltage

## Metering Components

### Phase-to-earth screened voltage transformer, placed behind the cables.

Fully protected in harsh environments, it does not require any fuse protection.  
A flexible connection to the front T-type cable plugs can be easily disconnected for commissioning tests.



| Standard                        | IEC 61869-3    |                |                |                |                |                |                 |                |                |                |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|
| Voltage (kV)                    | 7.2 - 20 - 60  |                | 7.2 - 32 - 60  |                | 12 - 2B - 75   |                | 12 - 42 - 75    |                | 17.5 - 38 - 95 |                |
| Primary (kV)                    | $6/\sqrt{3}$   | $6.6/\sqrt{3}$ | $6/\sqrt{3}$   | $10/\sqrt{3}$  | $11/\sqrt{3}$  | $10/\sqrt{3}$  | $13.8/\sqrt{3}$ | $15/\sqrt{3}$  |                |                |
| 1 <sup>st</sup> secondary (V)   | $100/\sqrt{3}$ | $110/\sqrt{3}$ | $100/\sqrt{3}$ | $100/\sqrt{3}$ | $110/\sqrt{3}$ | $100/\sqrt{3}$ | $110/\sqrt{3}$  | $100/\sqrt{3}$ | $110/\sqrt{3}$ | $100/\sqrt{3}$ |
| Rated output and accuracy class | 10 VA d 0.2    |                |                |                |                |                |                 |                |                |                |
| 2 <sup>nd</sup> secondary (V)   | 100/3          | 110/3          | 100/3          | 100/3          | 110/3          | 100/3          | 110/3           | 100/3          | 110/3          | 100/3          |
| Rated output and accuracy class | 30 VA 3P       |                |                |                |                |                |                 |                |                |                |

### Ring-type current transformer used in a core unit.

- Compact dimensions for easy installation
- Cost-effective compared to standard MV block CTs.



|   |            |       |       |       |
|---|------------|-------|-------|-------|
| Rated & Insulation Voltage (kV)           | 0.72/3     |       |       |       |
| Thermal withstand                         | 25 kA x 2s |       |       |       |
| Transformation ratio                      | 100/5      | 200/5 | 400/5 | 600/5 |
| Rated output with class 0.2S<br>Fs 5 (VA) | 5          |       |       |       |

A

B

C

D

E

F

## Components

# Indoor instrument transformers selection table for PIX Roll on the Floor Medium Voltage

A



Wound (Block) type CT

B



Window type CT

C

Line VT with Fuse  
(on rear side)

D

E

F

| Panel width | Current Rating   | CTs per phase | CT type       | Line VT on rear side | Line VT on CB truck | Earthing switch | N° of cables per phase | Panel depth |
|-------------|------------------|---------------|---------------|----------------------|---------------------|-----------------|------------------------|-------------|
| (mm)        |                  |               |               |                      |                     |                 | (max.)                 | (mm)        |
| 600         | 800 A<br>1250 A  | 1             | Wound (Block) | Yes                  | No                  | Yes             | 2                      | 2150        |
| 600         | 800 A<br>1250 A  | 1             | Wound (Block) | No                   | Yes                 | No              | 2                      | 1650        |
| 600         | 800 A<br>1250 A  | 2             | Wound (Block) | Yes                  | No                  | Yes             | 3                      | 2150        |
| 600         | 800 A<br>1250 A  | 2             | Wound (Block) | No                   | Yes                 | No              | 3                      | 2150        |
| 800         | 2000 A<br>2500 A | 1             | Window        | Yes                  | No                  | Yes             | 3                      | 2150        |
| 800         | 2000 A<br>2500 A | 1             | Window        | No                   | Yes                 | No              | 3                      | 1650        |
| 800         | 2000 A<br>2500 A | 2             | Window        | Yes                  | No                  | Yes             | 6                      | 2650        |
| 800         | 2000 A<br>2500 A | 2             | Window        | No                   | Yes                 | No              | 6                      | 2150        |

# Fuses Transformer protection

## Medium Voltage



Fuse ratings for SM6 protection units such as PM, QM, QMB and QMC depend, among other things, on the following criteria:

- Service voltage
- Transformer rating
- Fuse technology (manufacturer).

Different types of fuses with medium loaded striker may be installed:

- Solefuse fuses as per standard UTE NCF 64.210
- Fusarc CF fuses as per IEC 60.282.1 recommendation and dimensions are related to DIN 43.625 standard.

For fuse-switch combination unit type QM, QMB, QMC, refer only to the selection table and reference list of fuses. For all other type of fuses, consult us.

Example: for the protection of a 400 kVA transformer at 10 kV, select either Solefuse fuses rated 43 A or Fusarc CF fuses rated 50 A.

### Fuse selection table

The color code is linked to the rated voltage of the fuse

- Rating in A - no overload at  $-5^{\circ}\text{C} < t < 40^{\circ}\text{C}$ ,  $\leq 1000$  m altitude.

| Type of fuse  | Service voltage (kV) | Transformer rating (kVA) |     |      |      |      |      |      |      |      |      |         |         |         |         | Rated voltage (kV) |         |         |  |      |
|---|----------------------|--------------------------|-----|------|------|------|------|------|------|------|------|---------|---------|---------|---------|--------------------|---------|---------|--|------|
|   |                      | 25                       | 50  | 100  | 125  | 160  | 200  | 250  | 315  | 400  | 500  | 630     | 800     | 1000    | 1250    | 1600               | 2000    | 2500    |  |      |
| <b>Solefuse (UTE NFC standards 13.100. 64.210)</b>  |                      |                          |     |      |      |      |      |      |      |      |      |         |         |         |         |                    |         |         |  |      |
|   | 5.5                  | 6.3                      | 16  | 31.5 | 31.5 | 63   | 63   | 63   | 63   | 63   |      |         |         |         |         |                    |         |         |  | 7.2  |
|   | 10                   | 6.3                      | 6.3 | 16   | 16   | 31.5 | 31.5 | 31.5 | 63   | 63   | 63   | 63      |         |         |         |                    |         |         |  | 24   |
|   | 15                   | 6.3                      | 6.3 | 16   | 16   | 16   | 16   | 16   | 43   | 43   | 43   | 43      | 43      | 63      |         |                    |         |         |  |      |
|   | 20                   | 6.3                      | 6.3 | 6.3  | 6.3  | 16   | 16   | 16   | 16   | 43   | 43   | 43      | 43      | 43      | 63      |                    |         |         |  |      |
| <b>Solefuse (general case, UTE NFC standard 13.200)</b>   |                      |                          |     |      |      |      |      |      |      |      |      |         |         |         |         |                    |         |         |  |      |
|   | 3.3                  | 16                       | 16  | 31.5 | 31.5 | 31.5 | 63   | 63   | 100  | 100  |      |         |         |         |         |                    |         |         |  | 7.2  |
|   | 5.5                  | 6.3                      | 16  | 16   | 31.5 | 31.5 | 63   | 63   | 63   | 80   | 80   | 100     | 125     |         |         |                    |         |         |  | 12   |
|   | 6.6                  | 6.3                      | 16  | 16   | 16   | 31.5 | 31.5 | 43   | 43   | 63   | 80   | 100     | 125     | 125     |         |                    |         |         |  | 17.5 |
|   | 10                   | 6.3                      | 6.3 | 16   | 16   | 16   | 31.5 | 31.5 | 31.5 | 43   | 43   | 63      | 80      | 80      | 100     |                    |         |         |  | 24   |
|   | 13.8                 | 6.3                      | 6.3 | 6.3  | 16   | 16   | 16   | 16   | 31.5 | 31.5 | 31.5 | 43      | 63      | 63      | 80      |                    |         |         |  |      |
|   | 15                   | 6.3                      | 6.3 | 16   | 16   | 16   | 16   | 16   | 16   | 31.5 | 31.5 | 31.5    | 43      | 43      | 63      | 80                 |         |         |  |      |
|   | 20                   | 6.3                      | 6.3 | 6.3  | 6.3  | 16   | 16   | 16   | 16   | 31.5 | 31.5 | 31.5    | 43      | 43      | 63      |                    |         |         |  |      |
|   | 22                   | 6.3                      | 6.3 | 6.3  | 6.3  | 16   | 16   | 16   | 16   | 16   | 31.5 | 31.5    | 31.5    | 43      | 43      | 63                 |         |         |  |      |
| <b>Fusarc CF and SIBA (1) (general case for QM, QMB and QMC cubicle according to IEC 62271-105)</b> |                      |                          |     |      |      |      |      |      |      |      |      |         |         |         |         |                    |         |         |  |      |
|   | 3.3                  | 16                       | 25  | 40   | 50   | 50   | 80   | 80   | 100  | 125  | 125  | 160 (1) | 200 (1) |         |         |                    |         |         |  | 7.2  |
|   | 5                    | 10                       | 16  | 31.5 | 40   | 40   | 50   | 63   | 80   | 80   | 125  | 125     | 160 (1) | 160 (1) |         |                    |         |         |  | 12   |
|   | 5.5                  | 10                       | 16  | 31.5 | 31.5 | 40   | 50   | 50   | 63   | 80   | 100  | 125     | 125     | 160 (1) | 160 (1) |                    |         |         |  | 17.5 |
|   | 6                    | 10                       | 16  | 25   | 31.5 | 40   | 50   | 50   | 63   | 80   | 80   | 125     | 125     | 160 (1) | 160 (1) |                    |         |         |  | 24   |
|   | 6.6                  | 10                       | 16  | 25   | 31.5 | 40   | 50   | 50   | 63   | 80   | 80   | 100     | 125     | 125     | 160 (1) |                    |         |         |  |      |
|   | 10                   | 6.3                      | 10  | 16   | 20   | 25   | 31.5 | 40   | 50   | 50   | 63   | 80      | 80      | 100     | 100     | 125 (1)            | 200 (1) |         |  |      |
|   | 11                   | 6.3                      | 10  | 16   | 20   | 25   | 25   | 31.5 | 40   | 50   | 50   | 63      | 80      | 100     | 100     | 125 (1)            | 160 (1) |         |  |      |
|   | 13.8                 | 6.3                      | 10  | 16   | 16   | 20   | 25   | 31.5 | 31.5 | 40   | 50   | 50      | 63      | 80      | 80      | 100 (1)            | 125 (1) | 125 (1) |  |      |
|   | 15                   | 6.3                      | 10  | 10   | 16   | 16   | 20   | 25   | 31.5 | 40   | 50   | 50      | 63      | 80      | 80      | 100 (1)            | 125 (1) | 125 (1) |  |      |
|   | 20                   | 6.3                      | 6.3 | 10   | 10   | 16   | 16   | 25   | 25   | 31.5 | 40   | 40      | 50      | 50      | 63      | 80                 | 100 (1) | 125 (1) |  |      |
|   | 22                   | 6.3                      | 6.3 | 10   | 10   | 10   | 16   | 20   | 25   | 25   | 31.5 | 40      | 40      | 50      | 50      | 80                 | 80      | 100 (1) |  |      |
| <b>Fusarc CF for dry type transformers (2)</b>  |                      |                          |     |      |      |      |      |      |      |      |      |         |         |         |         |                    |         |         |  |      |
|   | 30                   |                          |     |      |      | 10   |      |      | 10   | 16   | 20   | 25      | 31.5    | 31.5    | 50      | 50                 | 63      | 63      |  | 36   |
|   | 31.5                 |                          |     |      |      | 10   |      |      | 10   | 16   | 20   | 25      | 25      | 31.5    | 50      | 50                 | 63      | 63      |  |      |
|   | 33                   |                          |     |      |      | 6.3  |      |      | 10   | 16   | 20   | 25      | 25      | 31.5    | 40      | 50                 | 50      | 63      |  |      |
|   | 34.5                 |                          |     |      |      | 6.3  |      |      | 10   | 16   | 20   | 25      | 25      | 31.5    | 40      | 50                 | 50      | 63      |  |      |
| <b>Fusarc CF oil immersed type transformers (2)</b>   |                      |                          |     |      |      |      |      |      |      |      |      |         |         |         |         |                    |         |         |  |      |
|   | 30                   |                          |     |      |      | 10   |      |      | 10   | 16   | 20   | 25      | 31.5    | 31.5    | 40      | 40                 | 50      | 63      |  | 36   |
|   | 31.5                 |                          |     |      |      | 10   |      |      | 10   | 16   | 20   | 25      | 31.5    | 31.5    | 40      | 40                 | 50      | 63      |  |      |
|   | 33                   |                          |     |      |      | 10   |      |      | 10   | 16   | 20   | 25      | 25      | 31.5    | 31.5    | 40                 | 40      | 50      |  |      |
|   | 34.5                 |                          |     |      |      | 10   |      |      | 10   | 16   | 20   | 25      | 25      | 31.5    | 31.5    | 40                 | 40      | 50      |  |      |

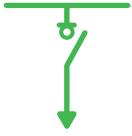
(1) SIBA fuses.

(2) This selection table has been prepared according to the technical characteristics of France Transfo. The characteristics of transformers and fuses may change according to manufactures and standards.

**⚠ Please consult us for overloads and operation over 40°C for France Transfo oil immersed type transformers.**



# Protection and Control



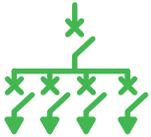
## Medium Voltage Switchgear

|                             |      |
|-----------------------------|------|
| PIX Standard.....           | A-30 |
| PIX MV .....                | A-34 |
| PIX Roll on the floor ..... | A-37 |
| SM6 .....                   | A-39 |
| FLUOKIT .....               | A-52 |
| RM6 .....                   | A-60 |



## MV/LV Transformers

|                            |      |
|----------------------------|------|
| Minera – Oil immersed..... | B-72 |
| Trihal – Cast resin.....   | B-72 |



## Low Voltage Switchboards

|               |      |
|---------------|------|
| Okken .....   | C-76 |
| Prisma .....  | C-77 |
| BlokSeT ..... | C-78 |



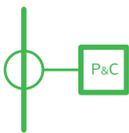
## Circuit Breaker

|   |      |
|---|------|
| HWX Medium Voltage vacuum circuit breaker .....         | D-82 |
| EVOLIS Medium Voltage vacuum circuit breaker .....      | D-88 |
| SF MV SF6 circuit breaker .....                         | D-90 |
| MasterPacT NT NW Low voltage circuit breaker .....      | D-91 |
| ComPacT C801 ComPacT NS Low voltage circuit breaker ... | D-97 |



## Components

|   |       |
|---|-------|
| Medium Voltage Instrument Transformer ..... | E-102 |
| Medium Voltage Fuses .....                  | E-109 |



## Protection and Control

|                               |       |
|-------------------------------|-------|
| Sepam Protection Relays ..... | F-112 |
| MiCOM Protection Relays ..... | F-112 |



Protection and Control

# Sepam, MiCOM - Protection Relays for standard and usual applications or complex Distribution Systems Medium Voltage

A



**Part of PowerLogic**

Sepam series offers digital current or voltage protection for standard to complex distribution systems, each one dedicated to a single application.

B



**Part of PowerLogic**

A trusted name in protection relays worldwide; our Easergy MiCOM series contains all the applications you need for MV, HV and EHV protection. High-performance protection functions, Ethernet communication and Cyber security makes this range ready for modern challenges.

C

**Associated Services by badge level**

| Sepam, MiCOM                    |                   | Authorized Services reseller | Certified EcoXpert partner |         |                |         |
|---------------------------------|-------------------|------------------------------|----------------------------|---------|----------------|---------|
|                                 |                   |                              | Power Upgrade              |         | Power Services |         |
| Service category                | Service type      | Resell                       | Resell                     | Perform | Resell         | Perform |
| EcoFit™ Life extension Advanced | Protection relays | ☑                            |                            |         | ☑              | ☑       |

D

E

F

- A
- B
- C
- D
- E
- F

A

B

C

D

E

F





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