ECOFIT™

Catalogue 2022
Medium & Low Voltage Distribution
Modernization of Switchboards

se.com/digmod

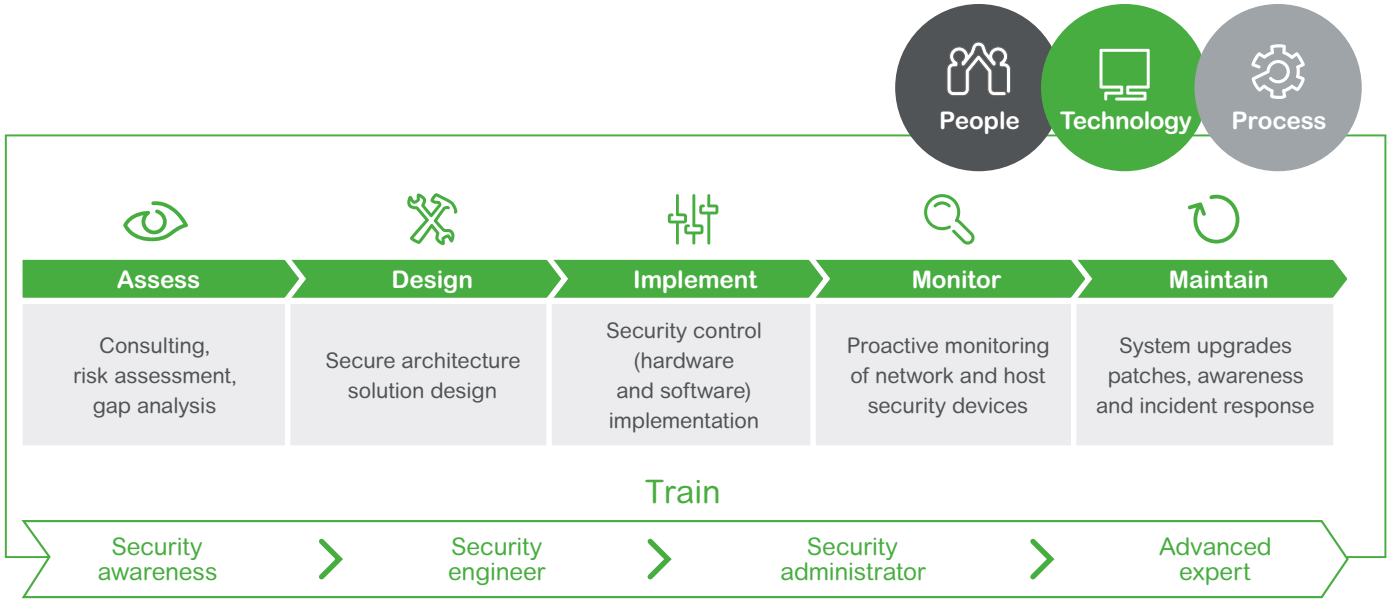
Life Is On Schneider Electric

Discover the ECOFIT™ web selector
https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

General Contents

ECOFIT™

Life Cycle Services



Schneider Electric specialists are available to provide assistance for your services need throughout your electrical installation life cycle:

- Electrical installation assessment
- Installation, testing, commissioning
- Customer training
- Maintenance
- Services contracts
- SF6 Recovery Services
- Modernization

Get the most from your aging swithgear with Schneider Electric's green & digital modernization solutions

Downtime can cost you millions of euros per hour so the reliable, safe, easily maintainable power network becomes crucial.

Modernizing and upgrading your low voltage and medium voltage switchgear equipment doesn't have to mean demolishing the existing infrastructure.
Schneider Electric retrofit modernization combined with proper switchgear maintenance can help you to improve the reliability of your installation.
You can choose to replace the existing electrical installation with new equipment or you can pinpoint where you will benefit from upgrades, retrofitting, or modernization, which generally are more cost- effective and less disruptive than buying new equipment.

How can you update your switchgear infrastructure and why would you want to?

- Safety: Electrical switchgear failure, more likely to happen with older equipment, can cause serious injuries and damage.
- Switchgear lifespan: These days switchgear lifespan can average from 10 to 30 years, however industry standards and technology offerings are evolving rapidly leaving the equipment behind. This challenges companies to modernize an aging system while ensuring reliability.
- Cost savings: Modernizing existing electrical switchgear, rather than replacing it, can save both physical equipment costs as well as time and labor.
- Maintenance costs: Maintenance costs and the potential for product failure rise as the product ages. You may be able to reduce maintenance costs by modernizing.
- Urgency of modernization: The criticality of the affected processes must be assessed and prioritized when determining what needs to be modernized.
- Improved reliability: Reliability is key for cost savings and preventing downtime.
- Technology and improved capabilities: New technology provides more capabilities, better performance, and reduced maintenance requirements.
- Workflow disruption: Consider the cost and inconvenience of downtime. It is possible for modernization to be performed with minimal downtime and production stoppage.
- Capital costs: Although long-term cost savings can be anticipated, it is also important to consider the sometimes substantial capital costs.
- Spare parts availability: The availability of spare parts must be examined. If spare parts are no longer readily available, it may be time to modernize.

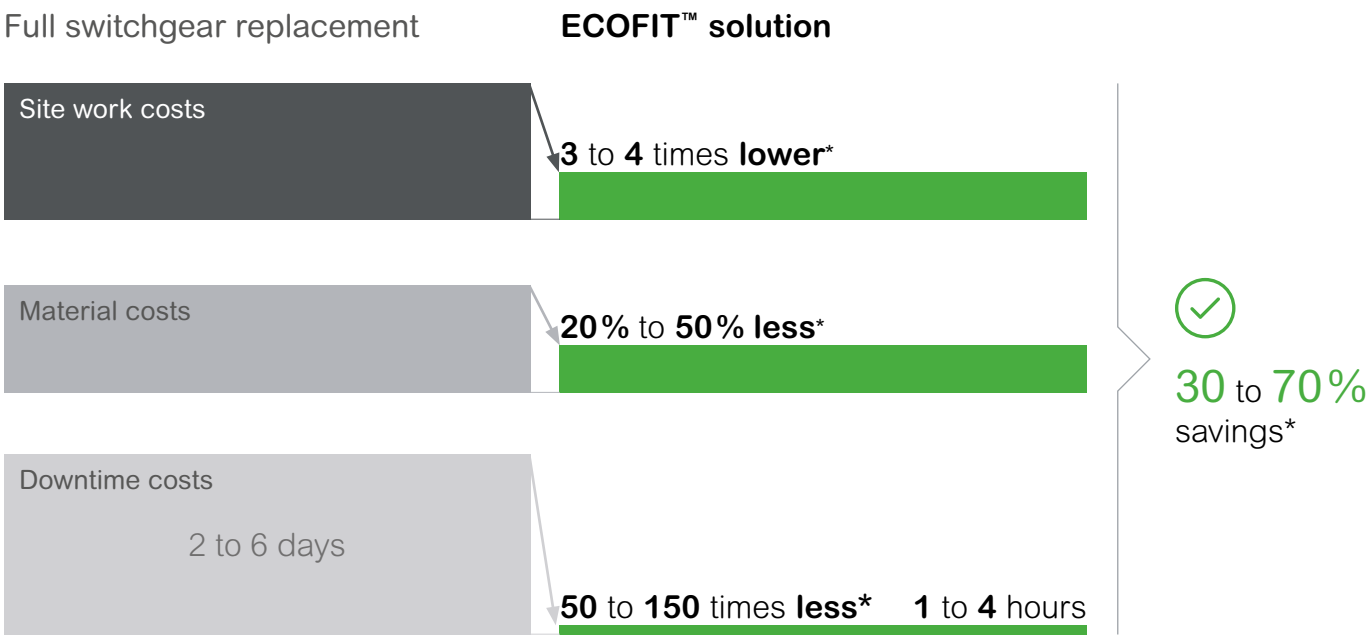
Upgrade or replace?
Let our tool help you determine
https://www.se.com/ww/en/work/services/field-services/electrical-distribution/renew/upgrade-or-replace.jsp

What are my options?

There are two main possibilities when considering modernization

The first one:
Completely replace existing electrical installation with new equipments. This solution might not be the most cost effective.

The second option:
Replace only active components, while leaving switchgear structure intact. Retrofit or retrofitting is the general term that is used to define this process. Several different retrofit solutions exist for adapting modern circuit breakers into existing switchgear.



* Based on previous data. Not a guarantee of future performance or performance in your particular circumstances.

- Enhances your process dependability.
- Optimizes your maintenance service costs & limits your investments.
- Maintains compliance with evolving industry standards and legislation.
- Ensures the safety of your personnel and surrounding equipment by using the latest technology.
- Access to energy management.

Modernization solutions

The main advantages of implementing a green & digital retrofit solution

Optimization of assets
The life of existing electrical equipment is extended by increasing the return on investment.

Reduced production stoppage
A retrofit full panel replacement will take around an hour to complete. When considering whether to maintain equipment or replace it, facility managers must take into account the initial capital cost, along with potential disruption to the facility's processes and workflow during the course of changing out the equipment. Unless process loads can be rerouted temporarily during the demolition of old equipment and installation of the new switchgear, the cost of lost production can be substantial.

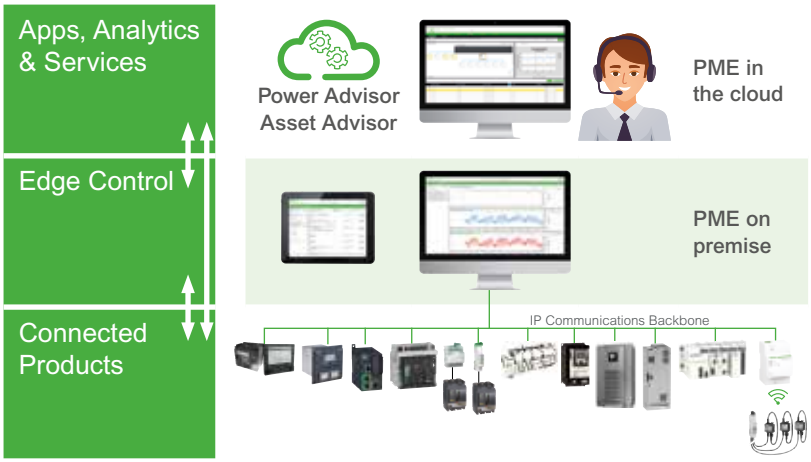
Improved cash flow
A full retrofit of an industrial site could spread over several years. Often when new equipment is purchased, the on-site physical plant also needs to be modified to accommodate the new equipment, which adds to the cost.

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

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

Electrical Distribution Digitization
Electrical Distribution Digitization enables you to get in a seamless and **remote** manner Schneider Electric **expertise** through **Digital Services** and bring more values, from down to top:

- Digitizing the electrical distribution installed base with **Power Meters (wired or wireless), protection relays and Sensors**
- Improving data visibility thanks to **EcoStruxure™ Power Monitoring Expert software** at substation level or in the Cloud
- Providing access to advanced analytics and recommendations through the Schneider Electric Connected Services Hubs and **EcoStruxure™ Advisors technology**.



Less environmental impact
Since a retrofit solution replaces only a portion of the existing electrical equipment, fewer waste materials need to be processed compared to a complete replacement.
At the same time, we propose a state-of-the-art end-of-life disposal solution for the obsolete SF6 equipment and other raw material.

Why digitization?

EcoStruxure™ Power ED Digitization program

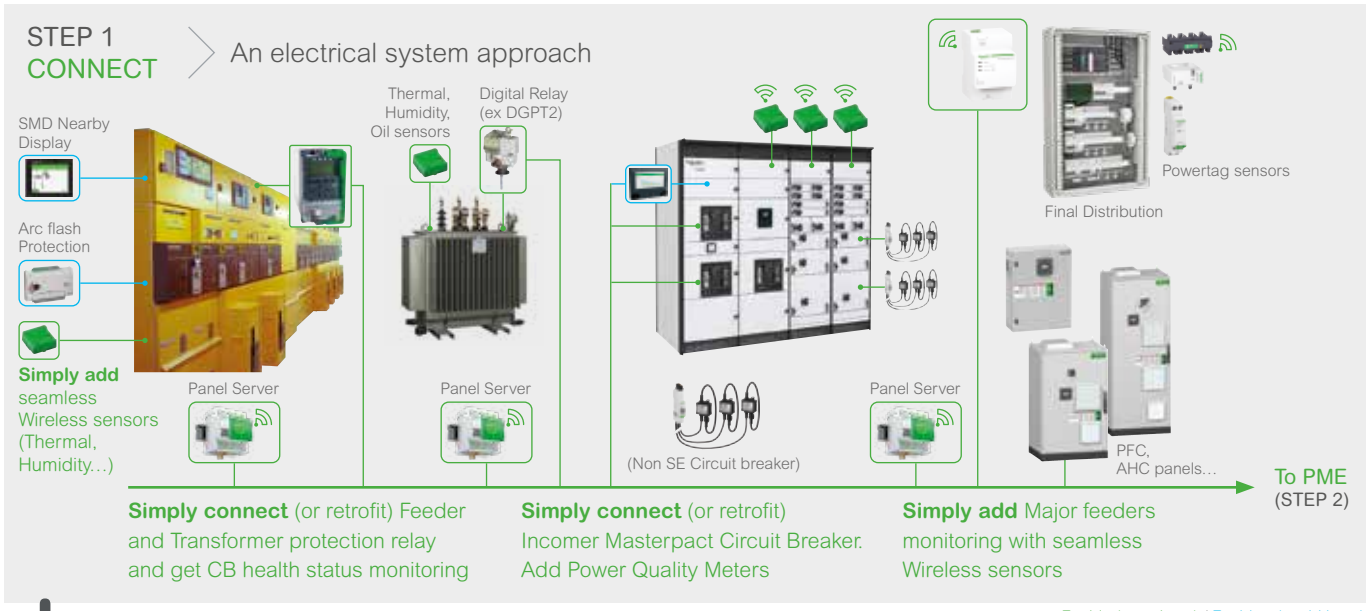
EcoStruxure Power ED Digitization program is the best way to provide an improved visibility on an existing Electrical Distribution.

Wireless smart humidity or temperature sensors as well as power meters or numerical protection devices, offer a fast, seamless and cost-effective way to digitize and monitor your LV and MV assets.
On premise or Cloud based centralized information with our EcoStruxure Power Monitoring Expert software provides strategic information relative to Power Reliability, Energy Efficiency and Asset Management of your system.

Associated with Power or Asset Advisors remote services, it enables the aggregation of critical operational data and the delivery of advanced and remote services, while optimizing your Total Cost of Ownership and reducing the risk and impact of unexpected downtime.

Advanced Advisors and analytics enable the move from periodic maintenance to condition based maintenance and open the door to preventive and predictive expertise.

ED Digitization in simply **4 elementary steps**:



Enable (must have) / Enable+ (could have)

STEP 2
COLLECT

PME on cloud or PME on premise

- Historian
- Trends & Dashboards
- Reporting
- Alarms

STEP 3
ANALYZE / NOTIFY / VISUALIZE

Power Advisor Report & Alert:
- Electrical network health report
- System health report
- Data Quality Issues report
- Power Quality reports...

Asset Advisor Predictive:
- Asset Schneider Electric Expert
- Predictive maintenance

Asset Advisor Preventive:
- Technical support level 1
- Remote monitoring
- Alarms priorization

STEP 4
ACT

By Schneider Electric or Facility Managers

- EcoStruxure Service Plan Power & Asset Management
- Power Advisor report presentation
- Corrective / Preventive actions presentation
- Maintenance plan optimization
- Remote Services
- Power Quality or Energy Management mitigation implementation…

Why modernize?

Electrical distribution equipment obsolescence and limited availability of spare parts

The only solution to extend electrical distribution (ED) equipment life cycle is by carrying out intense maintenance while planning a modernization with ECOFIT™.

There are three major phases in the product life cycle:

1 • Commercialization period:

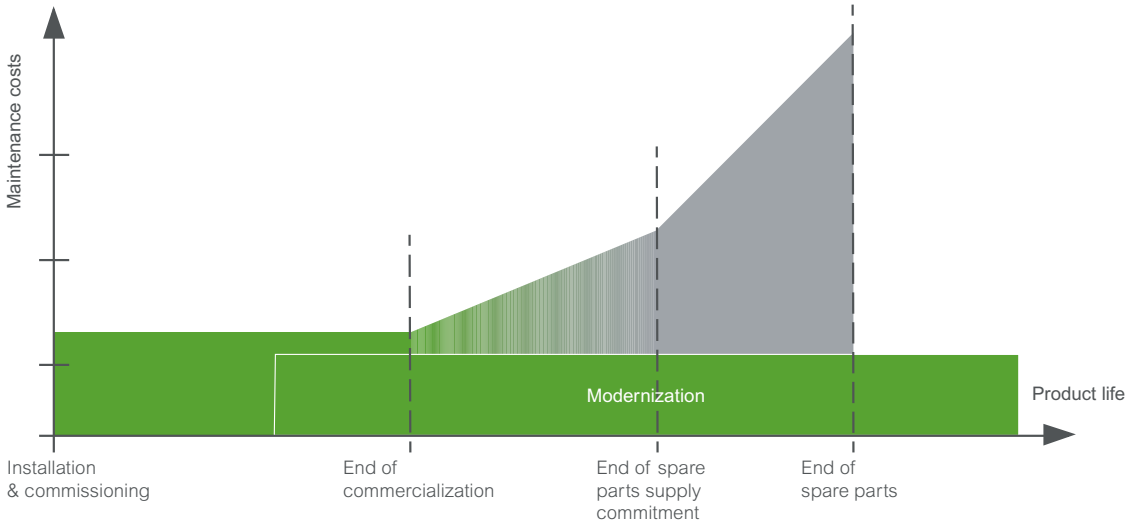
The product is launched onto the market and is included in the Schneider Electric catalogue.

2 • Full spare parts availability period:

The product is withdrawn from the market. Schneider Electric continues to supply spare parts for a certain period of time. Generally speaking, the average full spare part supply period after the end of commercialization is 10 years for Low and Medium Voltage equipment. When the end of full spare part supply date is reached, the product is considered as at the end of its life.

3 • Modernization period with ECOFIT™ solution:

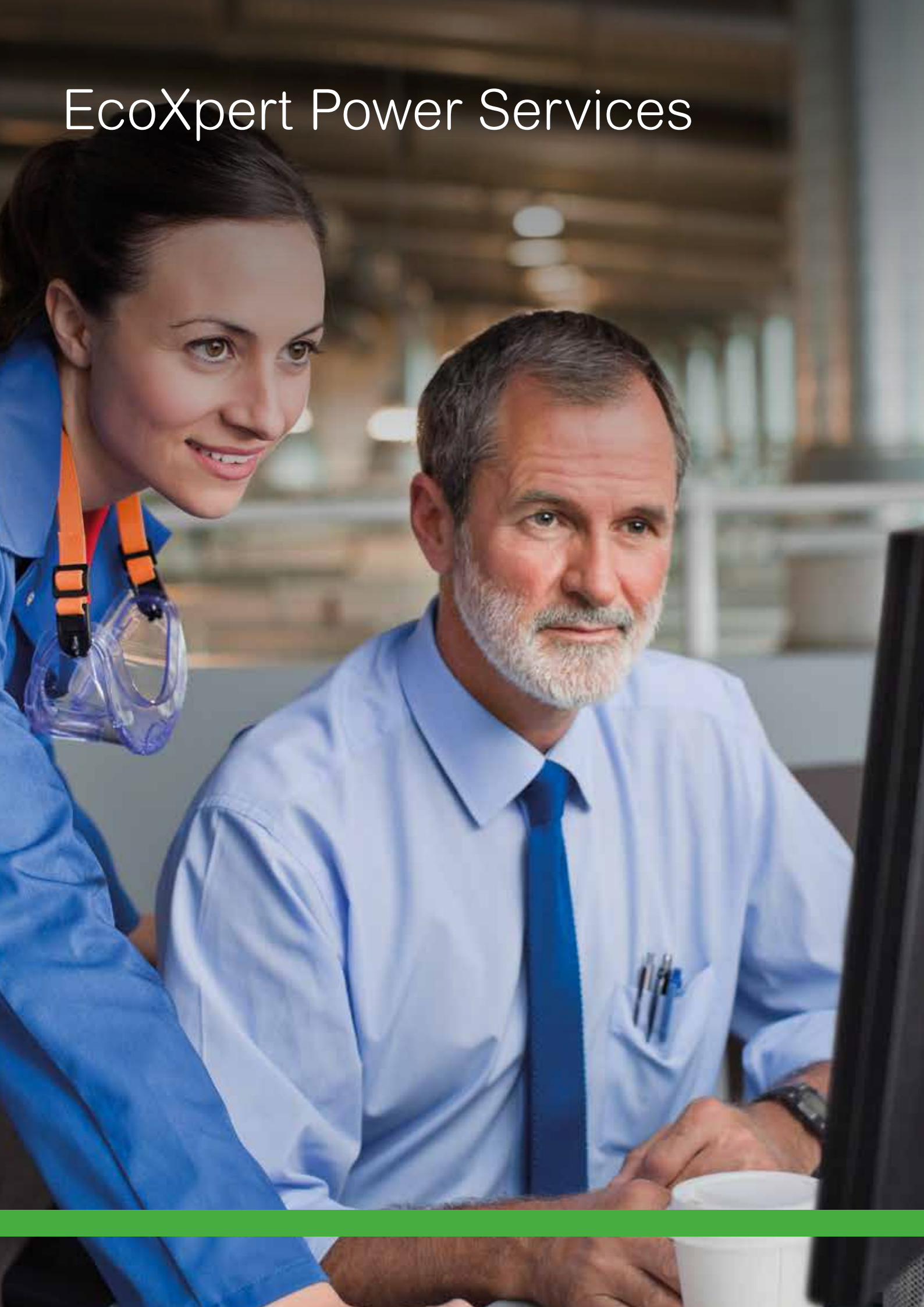
When spare parts are no longer readily available, the continuity of service and support is at risk. If a device breaks down, no parts may be available to fix it. At this stage, launching ECOFIT™ solution is recommended.



ECOFIT™ Modernization solutions

Before the end of full spare part supply date is reached, please consider product modernization.

EcoXpert Power Services



We have a wide network of certified Services Partners close to our end-users

With our certified Services Partners, we always better serve our end-users needs and expectations.

As **Trusted Partners**, they are trained by Schneider Electric Subject Matter Experts to provide best-in-class level of expertise all over the world.

They are **qualified** to use and promote our tools and procedures to perform optimized intervention minimizing time on-site and impact on the business.

Our **EcoXperts** make smart recommendations, offering solutions to support business continuity and help enhance the installation's lifetime. They modernize End Users installed base with connected assets and services, performed by Schneider Electric or certified EcoXperts.

As sought-after experts in their field, they transforms data from your electrical distribution into actionable insights and give you recommendation through cloud-enabled expertise and predictive analytics.

EcoXpert™
Power Services
Certified by
Schneider Electric

Service and Modernization Plan

Free up your investment and focus on business continuity

Your challange

You may be faced with old architecture without redundancy or back-up systems, assets that are no longer supported with spare parts and a lack of skilled people to maintain and repair older equipment.

Service and Modernization Plan

The Service and Modernization Plan, lasting between three and seven years, is a solution designed to enhance your investment capabilities, distributing over several years, while still modernizing your installation.

Maintenance and support

We will carry out preventive and corrective maintenance, to keep all your serviceable assets working. We offer preventative maintenance (plan & execution), troubleshooting & repair (labor & parts), 24/7 remote technical support, and emergency onsite intervention.

Modernization

Through the contract duration, we will replace your obsolete assets by new ranges with up to date Digital technology to enable you the use of advanced tools and the access to cloud advisor services. The plan is customized at the start of the contract, with substitution of obsolete assets by new ranges connected to manufacturer digital platform (labor & devices), at the end of the contract period.

Peace of Mind

We offer you:

- Manufacturer maintenance and expertise.
- Service Level Agreement: we commit on dispatching a Field Service Engineer to your site within a contractual response time to be agreed.
- Predictable expenses: your yearly budget will be fixed and scheduled from the contract starting.
- Agile Modernization: the scope and budget will be flexible further to your operational oncoming needs.

Benefits

- Ensure service continuity with 24/7 manufacturer support and expertise.
- Fully customizable modernization plan tailored to your needs.
- Extend obsolete assets lifetime.
- Digitize your installation by replacing obsolete assets with new connected ranges.
- Spread your modernization investment over several years.
- Have better control of your budget with an all inclusive service plan and predictable expenses.
- Feel reassured with access to our remote support services whenever you need them.

Schneider Electric know-how

Benefit from Schneider Electric reputation and know-how

Our common values
- Quality
- Safety
- Professionalism

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

6 200
services people in more than

88
countries

5%
of sales devoted to R&D

More than

115 000
ECOFIT™ in services/delivered in various business segments

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!

Standard & Customized solutions index

Standard & Customized solutions index

A

Standard & Customized solutions index

Medium voltage ECOFIT™ standard solutions

How to find an ECOFIT™ solution?

1 Select the "generic family". → 2 Select the "Panel type". → 3 Select the "Original device type".

Original Brand	1 MV CB or Contactor or Disconnector	MV Panel	MV Cradle to Cradle	2 Panel type	3 Original device type	New device type	Flyer N°	Page
Square D	✓			5-15 kV MC switchgear	VAD2-3	Magnum CB	SERED111036EN	B2
Siemens	✓			8BD1	3AC - H515	EasyPact EXE	SERED111200EN	B3
AEG, Alsthom, Alstom	✓			AHA	ECA	EvoPact HVX-O²	SERED111168EN	B4
Merlin Gerin	✓			Belledonne B200-B400	DSE22 to DSE78	Evolis - EvoPact LF2 - LF3 - SF1	SERED111009EN	B5
Merlin Gerin	✓			Belledonne B200G	DSE22K - DSE23K	Evolis - EvoPact LF1	SERED111010EN	B6
Merlin Gerin	✓			Belledonne B650	DIS	Evolis - EvoPact LF1 - TeSys R400 - R400D	SERED111007EN	B7
Merlin Gerin	✓			Belledonne B900	DIS	EvoPact SF1	SERED111008EN	B8
AEI, GEC, GEC-Alsthom, Alstom, AREVA	✓			BVP 17	BVP 17	VMX	SERED111060EN	B9
CEM	✓			Cemabloc CB	CB	EvoPact HVX	SERED111026EN	B10
CEM, Delle Alsthom, GEC-Alsthom	✓			Cemafluor C26.0 and Cemafluor C26.1	CS and CX	FPR	SERED111028EN	B11
CEM, Delle Alsthom, GEC-Alsthom	✓			Cemafluor C26.2	FPR	FPR	SERED111185EN	B43
CEM, Delle Alsthom, GEC-Alsthom	✓			DNF4-2E	FP - GFA	EvoPact HVX - EvoPact LF2 - TeSys CVX	SERED111187EN	B12
CEM, Delle Alsthom, GEC-Alsthom	✓			DNF4 MI&FI	FP	EvoPact HVX	SERED111196EN	B13
CEM, Delle Alsthom, GEC-Alsthom	✓			DNF5 - DNF5-2B	FP	EvoPact HVX	SERED111191EN	B14
CEM, Delle Alsthom, GEC-Alsthom	✓			DNF6	FP	EvoPact HVX	SERED111192EN	B15
CEM, Delle Alsthom, GEC-Alsthom, Alstom, AREVA, Schneider Electric	✓			DNF7	FP	EvoPact HVX-O²	SERED111190EN	B16
Nuova Magrini Galileo	✓			Epoclad	DHF & F	EvoPact LF1 - LF2 - LF3 - SF1	SERED111049EN	B17
Merlin Gerin	✓			Fluair F100 - F200	FG1 - FG2	EasyPact EXE - Evolis - EvoPact LF2 - LF3	SERED111012EN	B18
Merlin Gerin	✓			Fluair F100C	R400 - R400D	TeSys R400 - R400D	SERED111013EN	B44
Merlin Gerin	✓			Fluair F300	FG3	EvoPact SF1 - SF2	SERED111101EN	B19
Merlin Gerin	✓			Fluair F400C	FC4	EvoPact SF2	SERED111014EN	B20
Merlin Gerin	✓			Fluair F400G	FG4	EvoPact SF1 - SF2	SERED111015EN	B21
GEC, GEC-Alsthom, Alstom, AREVA	✓			HMC400 - HMC410	HMC 400 - HMC 410	HMC 400 - HMC 410	SERED111061EN	B45
GEC, GEC-Alsthom, Alstom, AREVA	✓			HMC1072	HMC1072	HMC1072	SERED111062EN	B46
GEC, GEC-Alsthom, Alstom, AREVA	✓			HMC1172	HMC1172	HMC1172	SERED111063EN	B47
Concordia Sprecher, Sprecher & Schuh, GEC-Alsthom, Alstom, AREVA	✓			HP	HP - W - TW - TM	EvoPact HVX - VA	SERED111078EN	B22
Schneider Electric, GEC, GEC-Alsthom, Alstom, AREVA	✓			HWX	HWX	HWX	SERED111166EN	B48
GEC-Alsthom, Alstom, AREVA, Schneider Electric	✓			HWX	HWX	EvoPact HVX	SERED21011EN	B49
GEC Alsthom, Alstom, AREVA, Schneider Electric	✓			HWX	HWX	HWX-HVX	SERED21012EN	B50
GOST standard	✓			K104	K104	Evolis - EvoPact LF	SERED111164EN	B23

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Standard & Customized solutions index

Medium voltage ECOFIT™ standard solutions

Original Brand	1 MV CB or Contactor or Disconnector	MV Panel	MV Cradle to Cradle	2 Panel type	3 Original device type	New device type	Flyer N°	Page
GEC, GEC-Alsthom, Alstom	✓			KAD	KAD	VMX-540	SERED111162EN	B24
GOST standard	✓			KRU	KRU 2-10	EasyPact EXE - Evolis - EvoPact LF1	SERED111165EN	B25
Federal Pioneer	✓			Metalclad switchgear	DST 2 & 5	DST 2V & 5V	SERED111067EN	B26
Merlin Gerin	✓			Motorstart P50D	C - CD	CTV1 - TeSys R400 - R400D	SERED111005EN	B27
Merlin Gerin	✓			Motorstart P500D	C1 - CD1	CTV1 - TeSys R400 - R400D	SERED111006EN	B28
Delle	✓			Normabloc N13xx	HL	EvoPact HVX - FPX	SERED111033EN	B29
GEC-Alsthom	✓			Normaclad PX12-24	FPX	FPX	SERED111124EN	B51
Alstom, AREVA, Schneider Electric	✓			PIX SF6	FPX	FPX	SERED111137EN	B52
AEG, Alstom	✓			R	VA - VAA	VA - VAA	SERED111188EN	B53
AEG, Alstom	✓			R	M - MC - IMC - E - AL - ALF - BAL - FAL - IFAL - TG	VA - VAA - Contactor	SERED111042EN	B30
GOST standard	✓			RSW	RSW	Evolis - EvoPact LF	SERED111163EN	B31
Ansaldo	✓			Siclad	MAG II	EvoPact LF1 - LF2	SERED111050EN	B32
Square D	✓			Solenarc DSE Metal-Clad switchgear	DSE	Magnum CB	SERED111037EN	B33
Nuova Magrini Galileo	✓			Venus	GI-GL	EvoPact LF1 - LF3	SERED111051EN	B34
GEC-Alsthom, Alstom, AREVA, Schneider Electric	✓			VISAX	BLV	BLV	SERED111140EN	B54
Merlin Gerin	✓			VM6 DM12	FB4	EvoPact SF1	SERED111018EN	B35
GEC-Alsthom, Alstom, AREVA	✓			VMX	VMX	VMX	SERED111154EN	B55
AEG, Alstom, AREVA	✓			WBA	VA - VAA	VA - VAA	SERED111189EN	B56
AEG, Alstom, AREVA	✓			WBA	ECA - BAL - AL	VA - VAA - Contactor	SERED111082EN	B36
AEG, Alstom, AREVA	✓			WBB	VA - VAA	VA - VAA	SERED111198EN	B57
AEG, Alstom, AREVA	✓			WBB	ECA - BAL - AL	VA - VAA - Contactor	SERED111084EN	B37
AEG, Alstom, AREVA, Schneider Electric	✓			WBD	VA - VAA	VA - VAA	SERED111195EN	B58
AEG, Alstom, AREVA, Schneider Electric	✓			WBD	HVX-C	VA - VAA	SERED111129EN	B38
AEG, Alstom, AREVA	✓			WK (A/B/C/D/E/F)	VA - VAA	VA - VAA	SERED111199EN	B59
AEG	✓			WK (A/B/C/D/E/F)	MC - AL - BAL - TG	VA - VAA - Contactor - LTRI	SERED111086EN	B39
Yorkshire Switchgear	✓			YSF6	YSF6	YSF6 Evolis	SERED111066EN	B40
AEG, Alstom, AREVA		✓		AHA	AHA panel	AHA panel	SERED111167EN	B60
CEM, Delle Alsthom, GEC-Alsthom		✓		DNF7	DNF7 panel	DNF7 panel	SERED111100EN	B61
Merlin Gerin		✓		Fluair F100 - F200 panel	F100 - F200 panel	F100 - F200 panel	SERED111071EN	B62
GEC-Alsthom		✓		Normaclad PX 12-24	PX 12-24 panel	PX 12-24 panel	SERED111091EN	B63
Alstom, AREVA, Schneider Electric		✓		PIX	PIX - SF6 panel	PIX - SF6 panel	SERED111157EN	B64
GEC-Alsthom, Alstom, AREVA, Schneider Electric		✓		VISAX	VISAX panel	VISAX panel	SERED111123EN	B65
GEC-Alsthom, Alstom, AREVA		✓		VMX	VMX panel	VMX panel	SERED111097EN	B66
AEG, Alstom, AREVA		✓		WBA	WBA panel	WBA panel	SERED111081EN	B67
AEG, Alstom, AREVA		✓		WBB	WBB panel	WBB panel	SERED111083EN	B68
AEG, Alstom, AREVA, Schneider Electric		✓		WBD	WBD panel	WBD panel	SERED111128EN	B69
AEG, Alstom, AREVA		✓		WK	WK panel	WK panel	SERED111085EN	B70
All brands			✓	Cradle to Cradle	All breaker types	Evolis MC Cassette	SERED111105EN	B41
All brands			✓	Cradle to Cradle	All breaker types	F400 Cassette	SERED111106EN	B42

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Standard & Customized solutions index

How to find an ECOFIT™ solution?

1 Select the "generic family". → 2 Select the "Panel type". → 3 Select the "Original device type".

Low voltage ECOFIT™ standard solutions

Original Brand	1 LV CB or Contactor	LV Drawer	Automatic compensation	2 Panel type	3 Original device type	New device type	Flyer N°	Page
General Electric	✓			NA	AK-(1-2-3-4-5) -15/25 Series	MasterPacT MTZ1	SERED111232EN	C2
General Electric	✓			NA	AK-(1A-2A-3A-4A-5A) - 15/25 Series	MasterPacT MTZ1	SERED111249EN	C3
General Electric	✓			NA	AK-(1-2-3-4-5) - 50 Series	MasterPacT MTZ2	SERED111250EN	C4
General Electric	✓			NA	AKR-30 Series	MasterPacT MTZ1	SERED111247EN	C5
General Electric	✓			NA	AKR-50 Series	MasterPacT MTZ2	SERED111248EN	C6
General Electric	✓			NA	AKRT-50 Series	MasterPacT MTZ2	SERED111246EN	C7
Nuova Magrini Galileo	✓			NA	B Control	MasterPacT MTZ1 - MTZ2	SERED111053EN	C8
Merlin Gerin	✓			NA	ComPacT C801-C1251	ComPacT NS800 - NS1250	SERED111022EN	C9
Merlin Gerin	✓			NA	DA	MasterPacT MTZ2 - MTZ3	SERED111019EN	C10
Cutler-Hammer, Westinghouse	✓			NA	DS-206, DS-206H, DS-206E Series	MasterPacT MTZ2	SERED111235EN	C11
Square D	✓			NA	DS-206, DS-206H, DS-206E Series	MasterPacT MTZ2	SERED111240EN	C12
Cutler-Hammer, Westinghouse	✓			NA	DS-416, DS-416S, DS-416H Series	MasterPacT MTZ2	SERED111234EN	C13
Square D	✓			NA	DS-416, DS-416S, DS-416H Series	MasterPacT MTZ2	SERED111241EN	C14
Cutler-Hammer, Westinghouse	✓			NA	DS-420 Series	MasterPacT MTZ2	SERED111233EN	C15
Square D	✓			NA	DS-420 Series	MasterPacT MTZ2	SERED111238EN	C16
Federal Pioneer	✓			NA	H series	MasterPacT MTZ	SERED111068EN	C17
ITE, ABB, BBC	✓			NA	K-225, K-600, K-800 Series	MasterPacT MTZ1	SERED111245EN	C18
ITE, ABB, BBC	✓			NA	K-1600 Series	MasterPacT MTZ2	SERED111244EN	C19
ITE, ABB, BBC	✓			NA	KDON-600, KDON-800, KDON-1600 Series	MasterPacT MTZ1	SERED111243EN	C20
ITE, ABB, BBC	✓			NA	KDON-1600 Series	MasterPacT MTZ2	SERED111242EN	C21
Allis-Chalmers	✓			NA	LA-600, LA-800 Series	MasterPacT MTZ1	SERED111239EN	C22
Allis-Chalmers	✓			NA	LA-1600 Series	MasterPacT MTZ2	SERED111237EN	C23
Allis-Chalmers	✓			NA	LAF-600, LAF-800 Series	MasterPacT MTZ1	SERED111236EN	C24
Merlin Gerin	✓			NA	MasterPacT M08 - M63	MasterPacT MTZ2 08 - MTZ3 63	SERED111181EN	C25
Square D, Westinghouse	✓			NA	SE	MasterPacT MTZ2	SERED111039EN	C26
Merlin Gerin	✓			NA	SelPact	MasterPacT MTZ2 - MTZ3	SERED111020EN	C27
Schneider Electric	✓			NA	MasterPacT NT-NW	MasterPacT MTZ		C28
Merlin Gerin	✓			NA	LV Circuit Breaker - Associated offers			C30
new Siemens / Allis - Chalmers	✓			RL	RL-800, RL-1600, RL-2000 Series	MasterPacT MTZ	SERED21001EN	C31
new Siemens / Allis - Chalmers	✓			RLE	RLE-800, RLE-1600 Series	MasterPacT MTZ2	SERED21002EN	C32
new Siemens / Allis - Chalmers	✓			RLX	RLX-800, RLX-1600 Series	MasterPacT MTZ2	SERED21003EN	C33
Merlin Gerin		✓		T140	T140 drawers	T140 drawers	SERED111094EN	C34
Merlin Gerin		✓		MB400	MB400 drawers	MB400 drawers	SERED111095EN	C35
Merlin Gerin	✓			NA	LV Drawers - Associated offers			C36

How to find an ECOFIT™ solution?

1 Select the "generic family". → 2 Select the "Original device type".

ASCO ATS and Load Banks

Original Brand	1 Automatic Transfer Switch (ATS)	Load Bank	2 Original device type	New device type	Flyer N°	Page
new ASCO	✓		ATS series 200/300 - Group-1	Group-G controller	SERED21004EN	D2
new ASCO	✓		ATS 940 / 962 series - Group-7/7A/9	Group-5 controller	SERED21005EN	D3
new ASCO	✓		Power Meter - 5220	Power Meter - 5210	SERED21006EN	D4
new ASCO	✓		Communication Module - 72E	72EE & 72EE2	SERED21007EN	D5
new ASCO	✓		ATS 940 / 962 Series	Series 7000	SERED21008EN	D6
new ASCO, Froment		✓	Sigma 1	Sigma 2	SERED21009EN	D7
new ASCO, Froment		✓	Sigma IHT3 Controller	Sigma Handheld	SERED21010EN	D8

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Standard & Customized solutions index

How to find an ECOFIT™ solution?

1 Select the "generic family". → 2 Select the "Panel type". → 3 Select the "Original device type".

Power and distribution transformers ECOFIT™ standard solutions

Original Brand	1 Dry	Oil		Original device type	New device type	Flyer N°	Page
All brands	✓			All	Trihal	SERED111218EN	E2
All brands		✓		All	Minera	SERED111219EN	E3

Protection relays ECOFIT™ standard solutions

Original Brand	1 Protection relay	2 Panel type	3 Original device type	New device type	Flyer SERED N°	Page
Alstom	✓	All	CDG	Easergy P1 / P3 / P5 or MiCOM P40	SERED111147EN	G3
ABB	✓	All	HCB / HCB1	MiCOM P521	SERED111133EN	G4
General Electric, Basler	✓	All	IAC, IFC, DIAC and BE1-50/51 B	ECOFIT 50/51	SERED111132EN	G5
AREVA	✓	All / draw out	M range - MCTI 39-40	MiCOM P821MF	SERED111103EN	G6
new Merlin Gerin, Schneider Electric	✓	All	Sepam series 20	Easergy P3	SERED20036EN	G7
new Merlin Gerin, Schneider Electric	✓	All	Sepam series 40	Easergy P3	SERED20037EN	G8
new Alstom, AREVA, Schneider Electric	✓	All	MiCOM Px20 (20TE)	Easergy P5	SERED111202EN	G9
new Alstom, AREVA, Schneider Electric	✓	All	MiCOM Px20 (30TE)	Easergy P5	SERED111286EN	G10
new Merlin Gerin, Schneider Electric	✓	All	Sepam series 20	Easergy P5	SERED111204EN	G11
new Merlin Gerin, Schneider Electric	✓	All	Sepam series 40	Easergy P5	SERED111285EN	G12
Merlin Gerin	✓	All	Sepam 2000	Sepam series 60 or series 80	SERED111087EN	G13

How to find an ECOFIT™ solution?

1 Select the "generic family". → 2 Select the "Original device type".

Substation automation ECOFIT™ standard solutions

Original Brand	1 Control System	2 Original device type	New device type	Flyer N°	Page
new Merlin Gerin, Schneider Electric	✓	Talus or Easergy T200 S or I, Easergy R200/ATS100, RCV420 or RNS11	Easergy T300	SERED20038EN	H2
new Merlin Gerin, Schneider Electric	✓	Talus or Easergy T200 E, P or I	Easergy T300	SERED20039EN	H4
Schneider Electric	✓	ADVC1	ADVC 3	SERED111220EN	H7
Schneider Electric	✓	ADVC 2	ADVC 3	SERED111205EN	H8
Schneider Electric	✓	ADVC Lite	ADVC 3	SERED111221EN	H9
Alstom, AREVA	✓	Bay Controller BM9x00	MiCOM C264	SERED111144EN	H10
Alstom, AREVA	✓	DCX	MiCOM C264	SERED111217EN	H11
General Electric	✓	GE FANUC	Quantum or M580 PLC & EcoSUI EWS	SERED111169EN	H12
AREVA	✓	PACIS OI V3.X up to V4.6	PACiS EcoSUI	NRJED113543EN	H13
AREVA	✓	PSCN3020 HMI	EcoStruxure Substation Operation user interface	NRJED113562EN	H14
Schneider Electric	✓	PTCC	ADVC 3	SERED111222EN	H15
Schneider Electric	✓	Seefox HMI	EcoStruxure Substation Operation user interface	SERED111143EN	H16

Digital Power ECOFIT™ standard solutions

Original Brand	1 Active Harmonic Filtering	Insulation monitoring	Power Factor Correction	Power Quality Meters	Power Monitoring Power SCADA	2 Original device type	New device type	Flyer N°	Page
Square D, Schneider Electric	✓					AccuSine PCS or PFV	AccuSine PCS+ or PFV+	SERED111346EN	I2
MGE, APC, Schneider Electric	✓					AccuSine SWP	AccuSine PCSn	SERED111347EN	I3
Merlin Gerin, Schneider Electric			✓			Varset	VarSet and VarSet Fast	SERED111287EN	I4
Merlin Gerin, Schneider Electric			✓			Varlogic	VarPlus Logic	SERED111348EN	I5
Schneider Electric, Square D				✓		PM, ME, iME, EN basic meters	New range	SERED111349EN	I6
Schneider Electric, Square D				✓		CM, DM, ION & PM meters	PMxxxx range & ION9000	SERED111350EN	I8
ION-E					✓	ION-E, SPM & PME software	PME 2021	SERED111351EN	I9
Schneider Electric					✓	Power Manager software	Energy Expert software	SERED111352EN	I10
Schneider Electric, Square D					✓	PLS & PSO software	EcoStruXure Power Operation EPO 2021	SERED111353EN	I11
Merlin Gerin, Schneider Electric		✓				XM, XL, XD, XLI, XTU	IMD - IFL	SERED111354EN	I12
new AREVA, then Schneider Electric MRxxx System		✓				MRxxx and MZxxx series	IMD-IM20 or IMD-IM400	SERED20040EN	I13
Schneider Electric, Square D				✓		Gateway	PowerTag Link xxx, Com'X range or Panel Server	SERED111355EN	I14

Standard & Customized solutions index

Medium voltage ECOFIT™ customized solutions

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Original Brand	Panel type	Original device type	Un (kV)	In (A)	Isc (kA)	New device type
ABB	AIS	E7512 / 10	10	1250	40	HWX
ABB	AIS	EKU5012 / 10	10	1250	50	HWX
ABB	AIS	EKU5016 / 10	10	1600	50	HWX
ABB	AIS	EKU5025 / 10	10	2500	50	HWX
ABB	AIS	GR256	12	630	13,1	HWX
ABB	AIS	HB12-12-40	24	1600	25	Evolis
ABB	VHE800	HKK12 / 1226	12	1250	26,3	HWX
ABB	VHE800	HKK12 / 1240	12	1250	40	HWX
ABB	VHE950	HKK12 / 3140	12	2500	40	HWX
ABB	AIS	JVE301	12	400	40	HWX
ABB	AIS	MS 2	12	1250	40	HWX
ABB	AIS	MS 3	12	1600	40	HWX
ABB	AIS	MT1	12	1250	26,3	HWX
ABB	AIS	MT2	12	1250	26,3	HWX
ABB	AIS	OD1M	12	400	26,3	HWX
ABB	AIS	S F ASG	12-16	1250 to 2500	26-40	HWX
ABB	Caloremag	OD3/OD4	7.2	1250	31,5	LF2
ABB	VHA-12S	VRC	7,2	400	25	LF
ABB	HA3zc	GCB	12	630 to 2500	40	LF
AEG	FKCM4 / 24-2	VA / VAA / LTRI / AL	24	up to 1250	up to 25	VA/VAA
AEG	FKCM5 / 12-2	VA / VAA / LTRI / AL	12	up to 1250	up to 25	VA/VAA
AEG	FKEM4 / 24 - 2 / 721	VA / VAA / LTRI / AL	24	up to 1250	up to 25	VA/VAA
AEG	FKEM4 / 24 - 2 / 723	VA / VAA / LTRI / AL	24	up to 1250	up to 25	VA/VAA
AEG, Alstom, AREVA	AHA	ECA	12	1200, 2500, 4000	31.5 / 50	HVX-O²
ALIND	AIS	HL430	12	1250	40	HWX
Allis-Chalmers & Siemens-Allis	AIS	FA	4,16	3000	41	Magnum
Allis-Chalmers & Siemens-Allis	AIS	MA	4,16	1200, 2000	40 & 50	Magnum
Allis-Chalmers & Siemens-Allis	AIS	FB	7,2 &13,8	1200, 2000	18	Magnum
Allis-Chalmers & Siemens-Allis	AIS	FC, MC	13,8	1200, 2000, 3000	18 - 28	Magnum
Allis-Chalmers & Siemens-Allis	AIS	FC	13,8	1200, 2000	37	Magnum
new ALSTHOM	FP	HVX	24	630	25	HVX
Alsthom	NORMABLOC-DNL4	HL	12	2500	40	FPX
Alsthom	WBS	VB6	24	1250A	25KA	HVX-O²
Alstom	GMA Version 1	GMA	12	2000	25	GMA Version 2
Alstom	NORMAFLUOR-DNF4	FP	17.5	2500	25	HVX
Alstom	AHA	ECA	up to 17.5	1250	31.5	HVX-O²
Alstom	Sachsenwerk	CB	12	630	16	SF1
new Alstom / AREVA / Schneider Electric	Fluokit-M9	VB x-xx/x L G3 (CRR1-2) (lateral)	up to 24	up to 1250	up to 25	Evolis (vacuum lateral) - SF1 (lateral)
new Alstom / AREVA / Schneider Electric	Fluokit-M9	DPI x-xx/x L G3 (CRR1-2) (lateral)	up to 24	up to 1250	up to 25	SFset (SF6 - lateral)
Alstom / AREVA / Schneider Electric	Fluokit-M9	VBL	12-17.5	630-1250	up to 25	Evolis or SF1
Alstom / AREVA / Schneider Electric	Fluokit-M9	DPIL	12-17.5	630-1250	up to 25	SFset
Alstom / AREVA / Schneider Electric	GIS	CBR	27.5	1250-2000	25	CBR
Alstom / AREVA / Schneider Electric	GIS	SDR	17-27.5	1250-1600	12.5	SDR
ARTECHE	AIS	HAF6142 - 4	24	1250	25	Evolis
ASEA	VHE-800	HKK	12	1600	40	Evolis
new ASEA	VHE	HCA 24 / 1225	24	1250	25	VAA 6312/24 P275 or 3AH5
new ASEA	VHE	HCA 24 / 2540	24	2500	25	VA 6325/24 P2753AH5 or 3A
new ASEA	VHE, VHD	HKK	12	up to 3150	up to 40	EVOLIS, LF1, LF2, HVX, VA
new ASEA	VHE, VHD	HKK	24	up to 2500	up to 25	HVX
new BBC, EIB	AIS	DB (frontal)	17	up to 1250	up to 25	HVX17 / SF1
CGL	AIS	SFG-40S	7,2	1250	31.5	Rollarc
Calor Emag	AIS	OD3	12	630 to 1250	31.5	Evolis
Calor Emag	AIS	OD4	12	630 to 1250	31.5	Evolis
CONCORDIA SPRECHER	PIC-106	HP	12-24	up to 1600	up to 25	HVX
CONCORDIA SPRECHER	PID 104 / 105 / 106	HP	12-24	up to 1600	up to 25	HVX
CONCORDIA SPRECHER	SC - SD 204 / 206	HVTW(z)	12-24	up to 1600	up to 25	HVX
CONCORDIA SPRECHER	SCC 204 / 206	HPCTW	12-24	up to 1600	up to 25	HVX
CONCORDIA SPRECHER	SCD 204	HPDTW	12-24	up to 1600	up to 25	HVX
DELLE ALSTHOM	MV cubicle	HP75-125 / 35KV	36	320	31,5	SF2-F400
DELLE	NORMABLOC - DN6S	HG	24	2500	25	FP
DELLE	NORMABLOC - DN6S	HL	24	1250	25	FP
DELLE	NORMABLOC - DNL4	HK & HL	12	2500	40	HVX
DELLE	NORMABLOC - DNTL	HL	12	1250	40	FPX
DELLE	NORMABLOC - DNTC	CHT	7,2	200	25	GFA
DELLE	NORMABLOC - DNTG	HL	7,2	3200	40	FP
DELLE	NORMABLOC - N142	RA	17.5	400	25	GFA or FP
DELLE	NORMABLOC - N143	HK	17.5	630	16	FP
DELLE	NORMABLOC - N340	FJ	23	400	12.5	FP
DELLE	NORMABLOC - N342	RA	23	200	12.5	FP
DELLE	NORMABLOC - N1147	HL	12	1250	40	FPX
DELLE	NORMABLOC - ND3	HG or HK or HL	7,2	1250	12.5	FP
DELLE	NORMABLOC - ND5	HG	17.5	1250	12.5	FP
DELLE	NORMASEPT - N740	HL	24	400	14.5	FP
DELLE	NORMASEPT - N1742	RA	24	200	16	FP
DELLE	FLUOMATIC - N962	SFC	7,2	400	12.5	GFA
Delta	H2000	LF1, LF2, LF3, EVOLIS	12 - 24	1250	25 - 40	LF1, LF2, LF3, EVOLIS
Delta	MSX	HVX, VA	12 - 24	2500 - 3150	25 - 40	HVX, VA
new EGEMAC	8BK	3AF6542-4	24	1250	25	VAA 6312/24 P275 or 3AH3
new EIB	AIS	A (frontal)	17	up to 1250	up to 25	HVX17 / SF1
EIB	Modulec CT 17.5	A	12 to 24	630 - 1250	up to 25	SF/HVX
new EIB, AEG, Alstom	Fluokit M9	VB x-xx/x L G2 (CRR1000) (lateral)	up to 24	up to 1250	up to 25	Evolis (vacuum lateral) - SF1 (SF6 lateral)
new EIB, AEG, Alstom	Fluokit M9	DPI x-xx/x L G2 (CRR1000) (lateral)	up to 24	up to 1250	up to 25	SFset (SF6 - lateral)
new EIB, AEG, Alstom, AREVA	Fluokit M9	VB x-xx/x F (CRR1000) (frontal)	up to 24	up to 1250	up to 25	HVX (vacuum - frontal) - SF1 (SF6 - frontal)
new EIB, AEG, Alstom, AREVA	Fluokit M9	DPI x-xx/x F (CRR1000) (frontal)	up to 24	up to 1250	up to 25	SFset (SF6 - frontal)

Standard & Customized solutions index

Medium voltage ECOFIT™ customized solutions

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Original Brand	Panel type	Original device type	Un (kV)	In (A)	Isc (kA)	New device type
new EIB, AEG, Alstom, AREVA	AIS	DEC x-xx/x F (CRR1000) (frontal)	up to 40,5	up to 2500	up to 31,5 at 24kV; up to 25kA at 36/40,5kV	ISF2
Federal Pacific	AIS	DST - DST2	4,16	1200, 2000,3000	29-41	Magnum
Federal Pacific	AIS	DST - DST2	13,8	1200, 2000	18-28	Magnum
FUJI	HF	HF5150 - 10M	12	1250	40	Evolis
new FUJI	HF	HF5150 - 10M	12	2000	40	HVX IEC
FUJI	AIS	HF515	13,8	3000	26,2	3AH3
FUJI	HF55	OCB	7.2	600	25	Evolis
GEC	BVX	KAD	12	400 to 1250	up to 20	VMX
GEC Alstom	Fluokit M36	FP	36	630	29	CBX
General Electric	AIS	AM	4,16	400	Fused	Magnum
General Electric	AIS	AM	4,16	1200, 2000,3000	40	Magnum
General Electric	AIS	AM	7,2	1200, 2000, 3000	33	Magnum
General Electric	AIS	AM	13,8	1200, 2000	18 up to 37	Magnum
General Electric	AIS	AM - 7.2	7,2	1200, 2000, 3000	33	Magnum
General Electric	AIS	AM - 13.8 Tall-Boy	13,8	3000	37	Magnum
General Electric	AIS	AM - 4.16	4,16	600, 1200	20	Magnum
General Electric	AIS	AMH	4,76	1200, 2000	29	Magnum
General Electric	AIS	AMH - 4.76	4,76	1200, 2000	29	Magnum
Hitachi	MV cubicle	CVG - 15F - 25	7,2	630	25	Evolis
new Hitachi	HW	MGH 10L - 25	13,8	630	25	VA 8012/17 P210 or 3AH5
new Hitachi	HB	MGH 10L - 25	13,8	1250	25	VA 8012/17 P210 or 3AH5
new Hitachi	HB	MGH 10T - 25	13,8	1600	25	VA 8020/17 P210 or 3AH5
new Hitachi	HW	MGH 10V - 25	13,8	2000	25	VA 8020/17 P210 or 3AH5
Inoue	AIS	HVX	12	630 - 1600	31,5	HVX
ITE	AIS	5-HV	4,16	1200, 2000	29 to 40	Magnum
ITE / ABB	AIS	5-HK	4,16	1200, 2000, 3000	40 to 50	Magnum
ITE / ABB	AIS	7.5-HK	7,2	1200, 2000	33	Magnum
ITE / ABB	AIS	15-HK	13,8	1200, 2000, 3000	18 to 37	Magnum
JYOTI	AIS	MT2-1208-20	12	1250	25	Evolis
LG	AIS	GVB	7.2	630	31.5	Evolis
McGraw	AIS	PSD	13,8	1200, 2000	18	Magnum
McGraw	AIS	WSA	13,8	1200, 2000	18	Magnum
Merlin Gerin	V23-60	DIS23-D3	24	630	25	SF
new Merlin Gerin	F300	FG3 (750mm)	24	1250	25	EvoPact HVX-O²
Merlin Gerin / Lorenzetti Inebrasa	Flurin	FG1	17.5	1250	25	LF
Merlin Gerin / Lorenzetti Inebrasa	Lorin	FG1, FG2	17.5	1250	25	LF
Merlin Gerin / Lorenzetti Inebrasa	Flurin	FG2	17.5	1250	25	LF
Merlin Gerin / Lorenzetti Inebrasa	CCM III	VC TOYO	7.2	400	50	Rollarc
Merlin Gerin / Lorenzetti Inebrasa	CCM II	C1	7,2	400	50	Rollarc
Mitsubishi	AIS	VF / FM	12	1250	31.5	Evolis
Mitsubishi	AIS	6 DHE 32 M	4.76	1200 to 2000	29	LF
NGEF	AIS	E7512	12	1600	25	Evolis
NGEF	AIS	E7525	12	1250	40	Evolis
NGEF	AIS	EKU 5012	12	2500	40	Evolis
NGEF	AIS	EKU 5016	12	2500	40	Evolis
NGEF	AIS	EKU 5025	7,2	2500	40	Evolis
NGEF	AIS	EKU 5025	12	1250	40	Evolis
NGEF	AIS	EKU 5025 / 10	10	2500	50	Evolis
NGEF	AIS	EKU - GR256	12	1250	31.5	Evolis
NGEF	AIS	EKU 5012 / 10	6.6	1250	30.6	Evolis
NGEF	AIS	GR256	12	1250	31.5	Evolis
NISSIN	AIS	VSR	7.2	400A	4	CTV
NMG	AIS	10 MG 500	7.2	630A	25	LF
SACE	AIS	D6	17.5	1250	25	LF
SACE	DIARC	DR 17.5-50	17.5	800, 1250, 3150	20	HVX
SHINKO	MV cubicle	HL6-9	24	630	25	SF1
new SIEMENS	8AA20	3AH1	12	800	20	VA 5012/12 P210 or 3AH1
new SIEMENS	8BC	3AB - 10N / 4000	7,2	4000	73	3AH3
new SIEMENS	8BC	3AB - 10N / 2500	7,2	2500	40	3AH3
SIEMENS	8BD1	3AC	7.2	630 to 2000	25	Evolis
SIEMENS	8BD1	CB	7.2	630 to 2000	40	Evolis
SIEMENS	8BD1	3AC	7,2	630	40	Evolis
SIEMENS	8BD1	3AC	12	1250 to 2500	40	HWX
new SIEMENS	8BK20	3AH 1115 - 2	12	1250	31,5	VA 8025/12 P210 or 3AH5
SIEMENS	AIS	H512 / H515	12	1250	31.5	Evolis
SIEMENS	AIS	3TL / 1BF	7.2	450	6	CVX
new SIEMENS	GWS	H515	24	630	16	HVX 24-16-06F210 or VD4 2406-16
new SIEMENS	GWHS	3AH1	12	630	25	HVX 12-25-06F150 or VM1 12.06.25
SILIN	MV cubicle	B4SE0796011	36	1250	25	HVX-O² (EP)
Square D	AIS	DSE	4,16	1200	29	Magnum
Square D	AIS	DSE23	4,16	2000	29	Magnum
Square D	AIS	DSE25	4,16	3000	41	Magnum
Square D	AIS	DSE-65	13,8	1200	up to 28	Magnum

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Standard & Customized solutions index

Medium voltage ECOFIT™ customized solutions

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Original Brand	Panel type	Original device type	Un (kV)	In (A)	Isc (kA)	New device type
Square D	AIS	DSE-68	13,8	3000	37	Magnum
Square D	AIS	VAD2	4,16	1200	up to 41	Magnum
Square D	AIS	VAD2	13,8	1200, 3000	37	Magnum
Square D	AIS	VAD3	4,16	1200, 2000	up to 41	Magnum
Square D	AIS	VAD3	13,8	1200, 2000	up to 28	Magnum
new Toshiba	AIS	HVX	7,2	1250	40	HVX
VOIGHT HAEFFENER	MV cubicle	10 / 100 LAD - 6	10	1000	31,5	LF2 MCset
VOLTAS	AIS	BMTT	12	1250	26,3	HWX
VOLTAS	AIS	BE	12	1250	40	HWX
VOLTAS	AIS	BEC	12	1250	40	HWX
VOLTAS	AIS	BMTT	12	1250	40	HWX
VOLTAS	AIS	FB4	24	2000	25	Evolis
VOLTAS	AIS	FB4	36	1250	25	SF
VOLTAS	AIS	FB4 Kiosk	22	630	25	Evolis
VOLTAS	AIS	FG2	12	1250	40	Evolis or LF
VOLTAS	AIS	FG2	7,2	2000,2500,3150	40	Evolis or LF
VOLTAS	AIS	FG2	7,2	1250	31.5/ 40	Evolis or LF
VOLTAS	AIS	FG2	12	1250	40	Evolis or LF
VOLTAS	AIS	FG2	12	1250	40	HWX
VOLTAS	AIS	FP	12	1250	40	HWX
VOLTAS	AIS	GHM	12	1250	40	Evolis
VOLTAS	AIS	HF	12	1250	40	Evolis
VOLTAS	AIS	HKK	12	1250	40	HWX
VOLTAS	AIS	HKO	12	1250	40	HWX
VOLTAS	AIS	HL	12	1250	40	Evolis
Westinghouse	AIS	50 - DH	4,16	1200, 2000	29 / 41	Magnum
Westinghouse	AIS	75 - DH	7,2	1200, 2000	33	Magnum
Westinghouse	AIS	150 - DH	13,8	1200, 2000	18 / 28	Magnum
Westinghouse	AIS	150 - DH	13,8	1200, 2000, 3000	37	Magnum
Westinghouse	AIS	50 - DH	4,16	1200, 2000	29 / 41	Magnum
Westinghouse	AIS	50 - DHP	4,16	1200, 2000, 3000	41	Magnum
Westinghouse	AIS	75 - DHP	7,2	1200, 2000, 3000	33	Magnum
Westinghouse	AIS	75 - DHP	7,2	320	Fused	Magnum
Westinghouse	AIS	150 - DHP	13,8	1200, 2000	18 / 28	Magnum
Westinghouse	AIS	150 - DHP	13,8	3000	33	Magnum
Westinghouse	AIS	5WYB	4,16	1200, 2000, 3000	41	Magnum
Westinghouse	AIS	8WYB	7,2	1200, 2000, 3000	33	Magnum
Westinghouse	AIS	15WYB	13,8	1200, 2000	18 / 28	Magnum
Westinghouse	AIS	15WYB	13,8	3000	33	Magnum
Westinghouse	DHP	Air Circuit Breaker	5	1200	31.5	EVOLIS

Low voltage ECOFIT™ customized solutions

Original Brand	Panel type / Range	Original device type	Type In (A)	New device type
ABB	Novomax	NovomaxG2	1250 - 2000	MasterPacT NT/NW/MTZ
ABB	Novomax	NovomaxG3	1600 - 2000	MasterPacT NT/NW/MTZ
ABB	Novomax	NovomaxG5	4500	MasterPacT NT/NW/MTZ
ABB	Any	Emax E1	800 - 1600	MasterPacT NT/MTZ
ABB	Any	Emax E2	800 - 2000	MasterPacT NT/NW/MTZ
ABB	Any	Emax E3	800 - 3200	MasterPacT NW/MTZ
ABB	Any	Emax E4	3200 - 4000	MasterPacT NW/MTZ
ABB	Any	Emax E6	3200 - 6300	MasterPacT NW/MTZ
ABB	Any	Megamax E1	1250 - 2000	MasterPacT NT/NW/MTZ
ABB	Any	Megamax E2	2000 - 2500	MasterPacT NW/MTZ
ABB	Any	Megamax E3	2000 - 3000	MasterPacT NW/MTZ
ABB	Any	Megamax E4	3200	MasterPacT NW/MTZ
ABB	Any	Megamax E5	3200	MasterPacT NW/MTZ
ABB	Any	Megamax E6	6300	MasterPacT NW/MTZ
ABB	Any	Novomax G2	1250 - 3000	MasterPacT NT/NW/MTZ
ABB	Any	Novomax G3	1600 - 2500	MasterPacT NW/MTZ
ABB	Any	Novomax G30	800 - 1000	MasterPacT NT/MTZ
ABB	Any	Novomax G4	3200	MasterPacT NW/MTZ
ABB	Any	Novomax G5	4000 - 5000	MasterPacT NW/MTZ
ABB	Any	Otomax	2000	MasterPacT NW/ MTZ
ABB	Any	Otomax P1	800 - 3000	MasterPacT NT/NW/MTZ
ABB	Any	Otomax P2C	1000 - 4000	MasterPacT NT/NW/MTZ
ABB	Any	Otomax VTM	1250	MasterPacT NT/MTZ
AEG	Any	ALG	2000	MasterPacT NW/MTZ
AEG	Any	M	1000 - 3000	MasterPacT NT/NW/MTZ
AEG	Any	ME	400 - 6300	MasterPacT NT/NW/MTZ
ASEA	Any	ALG	1250 - 3200	MasterPacT NW/MTZ
ASEA/ABB	VMG	VMG	800	MasterPacT NT/NW/MTZ
ASEA/ABB	VMG	VMG	1250	MasterPacT NT/NW/MTZ
ASEA/ABB	VMG	VMG	1600	MasterPacT NT/NW/MTZ
ASEA/ABB	VMG	VMG	2000	MasterPacT NT/NW/MTZ
ASEA/ABB	VMG	VMG	2500	MasterPacT NT/NW/MTZ
ASEA/ABB	VMG	VMG	3200	MasterPacT NT/NW/MTZ
Federal Pacific	FM	FM - 600 Fused	600	MasterPacT NT/NW/MTZ
Federal Pacific	FM	FM - 1600 Fused	1600	MasterPacT NT/NW/MTZ
Federal Pacific	FP	FP - 25 / FPS - 25	800	MasterPacT NT/NW/MTZ
Federal Pacific	FP	FPS - 30	800	MasterPacT NT/NW/MTZ
Federal Pacific	FP	FP - 50	1600	MasterPacT NT/NW/MTZ
Federal Pacific	FP	FP - 50 - H3, 14" Frame (IEC)	800	MasterPacT NT/NW/MTZ
Federal Pacific	FP	FP - 50 - H3, 21" Frame (ANSI)	800	MasterPacT NT/NW/MTZ
Federal Pacific	FP	FP - 50 - H3, 21" Frame (IEC & ANSI)	2000	MasterPacT NT/NW/MTZ
Federal Pacific	FP	FP-75	3200	MasterPacT NT/NW/MTZ

Standard & Customized solutions index

Low voltage ECOFIT™ customized solutions

Those solutions have been manufactured and installed all over the world to answer specific customer request.
Schneider Electric can help you to identify the right solution to modernise your installation with a site visit if required.

Original Brand	Panel type / Range	Original device type	Type In (A)	New device type
Federal Pioneer	HL	25HL-2	800	MasterPacT NT/NW/MTZ
Federal Pioneer	HL	25HL-2	600	MasterPacT NT/NW/MTZ
Federal Pioneer	HL	35HL-2	800	MasterPacT NT/NW/MTZ
Federal Pioneer	HL	50HL-2	1600	MasterPacT NT/NW/MTZ
Federal Pioneer	HL	65HL-2	2000	MasterPacT NT/NW/MTZ
Federal Pioneer	HL	75HL-2	3000	MasterPacT NT/NW/MTZ
General Electric	AE-1B (M.O.)	AE - 1B (M.O.)	800	MasterPacT NT/NW/MTZ
General Electric	AK	AK - (2A/3A/4A/5A)-50	1600	MasterPacT NT/NW/MTZ
General Electric	AKR	AKR/AKRT - 30 (AKD-8 swgr)	800	MasterPacT NT/NW/MTZ
General Electric	AKR	AKR with Contactor	540	MasterPacT NT/NW/MTZ
General Electric	AKR	AKRU - 30 (1 Position)	800	MasterPacT NT/NW/MTZ
General Electric	AKR	AKRU - 50 (1 Position)	1600	MasterPacT NT/NW/MTZ
General Electric	AKR	AKR - 75 (3 Pos./Ver. Bus)	3200	MasterPacT NT/NW/MTZ
General Electric	AL	AL - 2-50 (M.O.)	1600	MasterPacT NT/NW/MTZ
General Electric	Any	M-Pact	800 - 4000	MasterPacT NW/ MTZ
General Electric	Any	Power Break	800 - 3000	MasterPacT NT/NW/MTZ
General Electric	Any	Power Break 2	800 - 2000	MasterPacT NT/NW/MTZ
General Electric	Any	Record	800 - 1600	MasterPacT NT/MTZ
Hundt & Weber	Any	HN / HE	800 - 3150	MasterPacT NT/NW/MTZ
Hundt & Weber	Any	LH	800 - 3150	MasterPacT NT/NW/MTZ
Hundt & Weber	Any	LS	800 - 1000	MasterPacT NT/MTZ
Holec	Any	Torsimat 72G/H/K/M/P	1250 - 4000	MasterPacT NT/NW/MTZ
Hyundai	Any	HAT	600 - 2500	MasterPacT NT/NW/MTZ
ITE / ABB / BBC	K-Line	K-600 / K-800 with MOC/TOC	800	MasterPacT NT/NW/MTZ
ITE / ABB / BBC	K-Line	K-2000 / K-2000S with TOC	2000	MasterPacT NT/NW/MTZ
ITE / ABB / BBC	K-Line	KB	600	MasterPacT NT/NW/MTZ
ITE / ABB / BBC	K-Line	KC	1600	MasterPacT NT/NW/MTZ
ITE / ABB / BBC	MB	MB-8 / MBE-8	800	MasterPacT NT/NW/MTZ
ITE / ABB / BBC	MB	MB-16 / MBE-16	1600	MasterPacT NT/NW/MTZ
ITE / ABB / BBC	K-Line	LKE-8	800	MasterPacT NT/NW/MTZ
KAFAK	KAFAK	SFBY	250	ComPacT NSX
KAFAK	KAFAK	SFBY	630	ComPacT NSX
Merlin Gerin	ComPacT CM	CM 1250 3P Fixed Front	1250	ComPacT NS
Merlin Gerin	ComPacT CM	CM 1600 4P HH Fixed	1600	MasterPacT NT/NW/MTZ
Merlin Gerin	InterPact	IN IN2500A 3P Fixed	2500	InterPact INS
Mitsubishi	Any	AE	630 - 5000	MasterPacT NT/NW/MTZ
Mitsubishi	Any	SS	1000 - 1600	MasterPacT NT/MTZ
Siemens	SBS	SBS 1200	1200	MasterPacT NT/NW/MTZ
Siemens	SBS	SBS 800	800	MasterPacT NT/NW/MTZ
Siemens	Any	3WE	1000 - 4000	MasterPacT NT/NW/MTZ
Siemens	Any	3WL	1000 - 5000	MasterPacT NT/NW/MTZ
Siemens	Any	3WN1	630 - 3200	MasterPacT NT/NW/MTZ
Siemens	Any	3WN6	630 - 3200	MasterPacT NT/NW/MTZ
Siemens	Any	SBS	1200 - 2000	MasterPacT NW/MTZ
Square D	Any	MP-08 / MP-16	800 - 1600	MasterPacT NT/NW/MTZ
Square D	Any	MP-20	2000	MasterPacT NT/NW/MTZ
Square D	Any	MP-25 / MP-30	2500 - 3000	MasterPacT NT/NW/MTZ
Square D	Any	SED	800 - 3000	MasterPacT NT/NW/MTZ
Square D	Any	SEM (SED-M)	800 - 2000	MasterPacT NT/NW/MTZ
Square D	DSII	DSII-308	800	MasterPacT NT/NW/MTZ
Square D	DSII	DSII-508	800	MasterPacT NT/NW/MTZ
Square D	DSII	DSII-608	800	MasterPacT NT/NW/MTZ
Square D	DSII	DSII-516	1600	MasterPacT NT/NW/MTZ
Square D	DSII	DSII-616	1600	MasterPacT NT/NW/MTZ
Square D	DSII	DSII-620	2000	MasterPacT NT/NW/MTZ
Terasaki	Any	AH	1000 - 3000	MasterPacT NT/NW/MTZ
Terasaki	Any	AT	630 - 3200	MasterPacT NT/NW/MTZ
Unelec	Any	CN2-CN3	800 - 4000	MasterPacT NT/NW/MTZ
Unelec	Any	CNP	1000 - 2500	MasterPacT NT/NW/MTZ
Unelec	Any	SP	1000 - 2500	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DB	DB - 15 Three Position (in DB-25 cell)	225	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DB	DB - 25 Three Position	800	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DB	DB - 25 Single Position	800	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DB	DBL - 25 Three Position	800	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DB	DB - 50 Single Position	1600	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DB	DB - 50 Three Position	1600	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DSII	DSII - 308	800	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DSII	DSII - 508	800	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DSII	DSII - 608	800	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DSII	DSII - 516	1600	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DSII	DSII - 616	1600	MasterPacT NT/NW/MTZ
Westinghouse / Cutler Hammer / Eaton	DSII	DSII - 620	2000	MasterPacT NT/NW/MTZ

Discover the ECOFIT™ web selector
https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Medium Voltage distribution

Medium Voltage distribution

Medium Voltage distribution retrofit

MV panels with MV CB or contactor or disconnector retrofit

MV Cradle to Cradle

Medium Voltage distribution manufactured as original

MV panels with MV CB or contactor or disconnector manufactured as original

MV panel manufactured as original

Circuit Breaker & Panel order form B70

Medium Voltage distribution

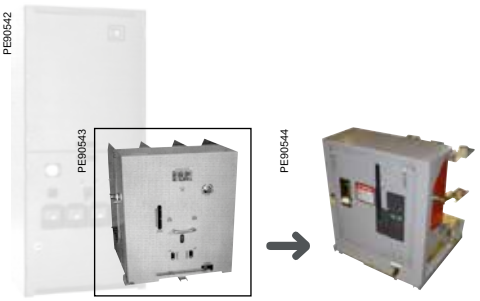
5-15 kV MC switchgear/VAD2-3 with MAGNUM

Original brand: Square D

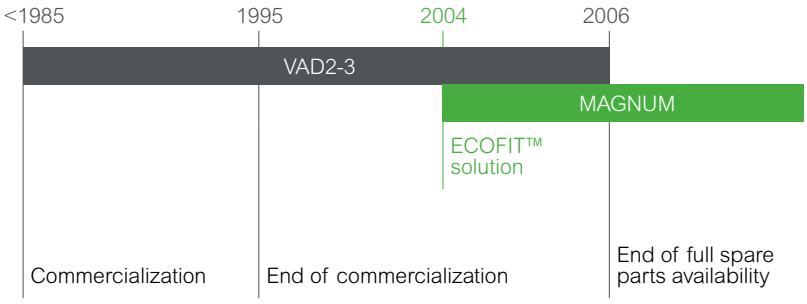
ECOFIT™ proposal

VAD2-3
Circuit Breaker

Magnum
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	VAD2	VAD3	VAD2	VAD3
Rated current (Ir)	1200-3000 A			
Short circuit current (Isc)	29 kA	41 kA	18-28 kA	37 kA
Rated voltage Un (50/60 Hz)	5 kV		15 kV	

	Magnum 5SSB	Magnum 15SSB
Technology	Vacuum	Vacuum
Rated voltage Ur (kV)	5	15
Surge withstand voltage Up (kV)	60	95
Nominal frequency (Hz)	60	60

	Magnum 5SSB	Magnum 15SSB
Rated current Ir (A)	1200-3000	1200-3000
Short circuit current Isc (kA)	29-41	18-28
Switching sequence	O-0.3 s-CO-15 s-CO	
Opening time (ms)	60	60

Magnum CB main characteristics

Built with totally new components and tested to ANSI standards, Magnum circuit breakers correctly interface with the existing breaker compartment components and maintain safety interlocks inherent in the original equipment design.

- New circuit breakers are installed in existing switchgear.
- Original footprint is left intact, saving time and money.
- Installation expense is a fraction of new equipment costs.

(Less down time for installation + Enhanced equipment reliability).

- Manufactured with new components.
- Undergoes complete factory testing.
- Backed by our standard equipment warranty.
- New, easy-to-maintain operating mechanism.
- No bulky arc chutes to handle and maintain.
- Reduced need for difficult to obtain spare parts.

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

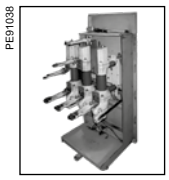
Medium Voltage distribution

8BD1/3AC-H515 with EasyPact EXE

Original brand: Siemens

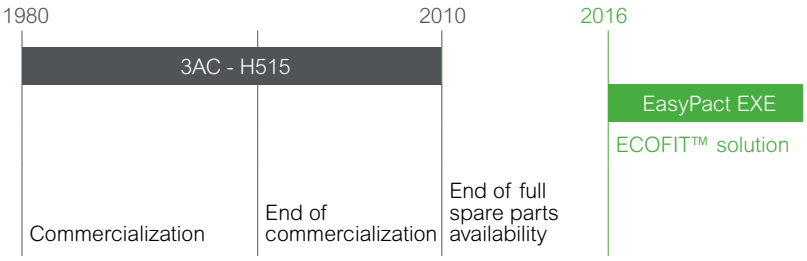
ECOFIT™ proposal

3AC, H515
Circuit Breaker



EasyPact EXE
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	3AC - H515
Rated current (Ir)	630 - 1250 - 2500 A
Short circuit current (Isc)	25 - 31.5 kA
Rated voltage Un (50/60 Hz)	12 kV

	EasyPact EXE
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50-60
Rated current Ir (A)	Up to 2300
Short circuit current Isc (kA)	31.5
Short circuit duration Tk (s)	3

	EasyPact EXE
Switching sequence	O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO O-3 min-CO-3 min-CO
Closing time (ms)	50
Opening time (ms)	
Number of switching operations	10 000
Service temperature (°C)	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

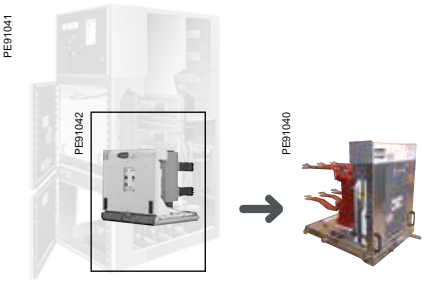
AHA/ECA with EvoPact HVX-O²

Original brand: AEG, Alstom, AREVA

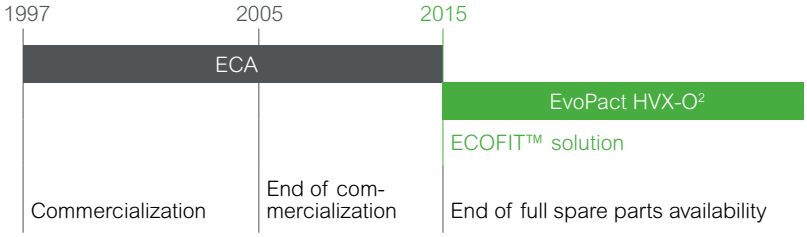
ECOFIT™ proposal

ECA
Circuit Breaker

HVX-O²
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	ECA
Rated current (Ir)	Up to 4000 A
Short circuit current (Isc)	25-31.5-40 kA
Rated voltage Un (50/60 Hz)	12 kV

	EvoPact HVX-O²
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	95
Nominal frequency (Hz)	50
Rated current Ir (A)	Up to 4000
Short circuit current Isc (kA)	Up to 40
Short circuit duration Tk (s)	3

	EvoPact HVX-O²
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	35
Opening time (ms)	53
Number of switching operations	10 000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

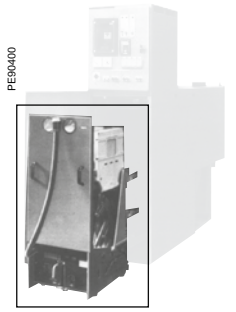
Medium Voltage distribution

Belledonne B200-B400/DSE22 to DSE78 with Evolis-EvoPact LF2 - EvoPact LF3 - EvoPact SF1

Original brand: Merlin Gerin

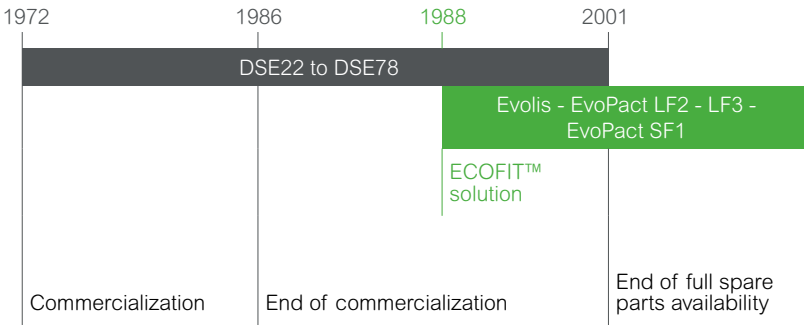
ECOFIT™ proposal

DSE22 to DSE78
Circuit Breaker



Evolis - EvoPact LF2 -
EvoPact LF3 - EvoPact SF1
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	DSE to DSE78			
Rated current (Ir)	630-3500 A	630-3150 A		
Short circuit current (Isc)	29-50 kA	24-48 kA	15-46 kA	10-29 kA
Rated voltage Un (50/60 Hz)	7.2 kV	12 kV	17.5 kV	24 kV

	EvoPactL F2/LF3	EvoPactL F2/LF3	EvoPact SF1	Evolis
Technology	SF6	SF6	SF6	Vacuum
Rated voltage Ur (kV)	7.2-12	17.5	24	7.2-12-17.5
Surge withstand voltage Up (kV)	60-75	95	125	60-75-95
Nominal frequency (Hz)	50-60	50-60	50-60	50-60
Rated current Ir (A)	630-3150	630-3150	630-1250	630-2500
Short circuit current Isc (kA)	29-50	29-40	10-25	40
Short circuit duration Tk (s)	3	3	3	4

	EvoPact LF2/LF3	EvoPact LF2/LF3	EvoPact SF1	Evolis
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO			
Closing time (ms)	< 72		< 65	< 65
Opening time (ms)	< 654		< 50	< 50
Number of switching operations	10000	10000	10000	10000*
Service temperature (°C)	-25/+40	-25/+40	-25/+40	-25/+40

* class MI: 2000 operations for Isc = 40 kA

Make the most of your equipment with available add-ons

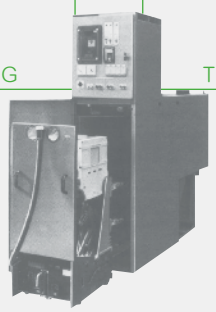
Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
ECOFIT Safety Remote Racking
See page F1

PROTECTION

Asset Connect
with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1



SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

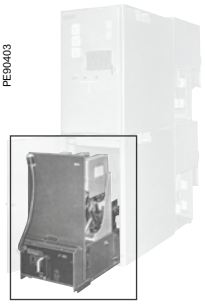
Medium Voltage distribution

Belledonne B200G/DSE22K-DSE23K with Evolis-EvoPact LF1

Original brand: Merlin Gerin

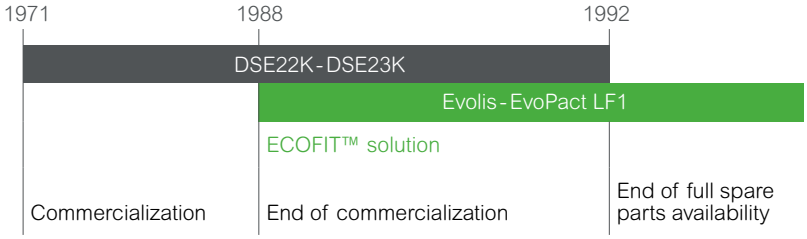
ECOFIT™ proposal

DSE22K-DSE23K Circuit Breaker



Evolis-EvoPact LF1 Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	DSE22K-DSE23K
Rated current (Ir)	630-1250 A
Short circuit current (Isc)	25-31.5 kA
Rated voltage Un (50/60 Hz)	7.2 kV

	EvoPact LF1	Evolis
Technology	SF6	Vacuum
Rated voltage Ur (kV)	7.2	7.2
Surge withstand voltage Up (kV)	60	60
Nominal frequency (Hz)	50-60	50-60
Rated current Ir (A)	630-1250	630-1250
Short circuit current Isc (kA)	25-31.5	25-31.5
Short circuit duration Tk (s)	3	3

	EvoPact LF1	Evolis
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO	
Closing time (ms)	< 72	< 65
Opening time (ms)	< 54	< 50
Number of switching operations	10 000	2000* - 10 000
Service temperature (°C)	-25/+40	-25/+40

* class MI: 2000 operations for Isc = 40 kA

Make the most of your equipment with available add-ons

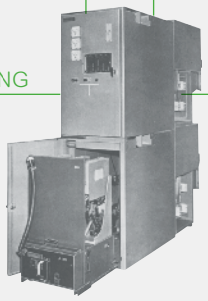
Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor Power Monitoring Expert
See pages 9 and F1



SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Belledonne B650/DIS with Evolis-EvoPact LF1-TeSys R400-TeSys R400D

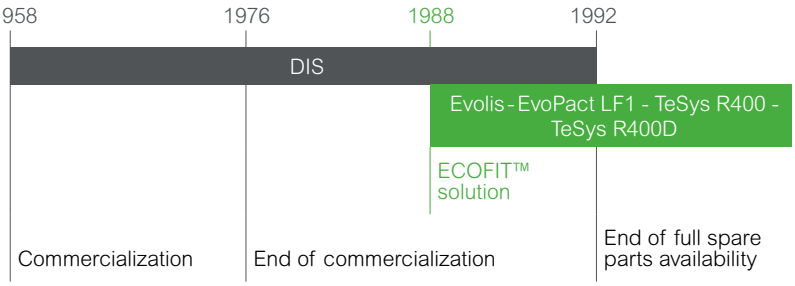
Original brand: Merlin Gerin

ECOFIT™ proposal

DIS
Circuit Breaker

Evolis-EvoPact LF1
Circuit Breaker
TeSys R400-TeSys R400D
Contactor

With ECOFIT™, a true extended life time



Main technical characteristics

	DIS
Rated current (Ir)	400-1250 A
Short circuit current (Isc)	25-31.5 kA
Rated voltage Un (50/60 Hz)	7.2 kV

	EvoPact LF1	TeSys R400	TeSys R400D	Evolis
Technology	SF6	SF6	SF6	Vacuum
Rated voltage Ur (kV)	7.2	7.2	7.2	7.2
Surge withstand voltage Up (kV)	60	60	60	60
Nominal frequency (Hz)	50-60	50-60	50-60	50-60
Rated current Ir (A)	630-1250	400	400	630-2500
Short circuit current Isc (kA)	31.5	10*	10*	25-31.5
Short circuit duration Tk (s)	3	3	3	3

* With fuses

	EvoPact LF1	TeSys R400	TeSys R400D	Evolis
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO			
Closing time (ms)	< 72	75-155	75-155	< 65
Opening time (ms)	< 54	20-50	20-50	< 50
Number of switching operations	10 000	30 0000	10 0000	10 000
Service temperature (°C)	-25/+40	-25/+40	-25/+40	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

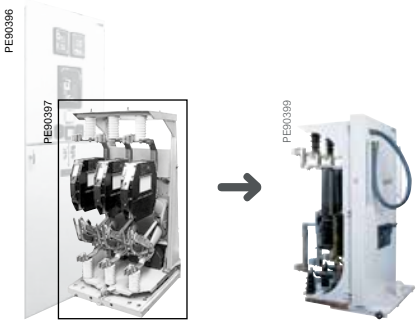
Belledonne B900/DIS with EvoPact SF1

Original brand: Merlin Gerin

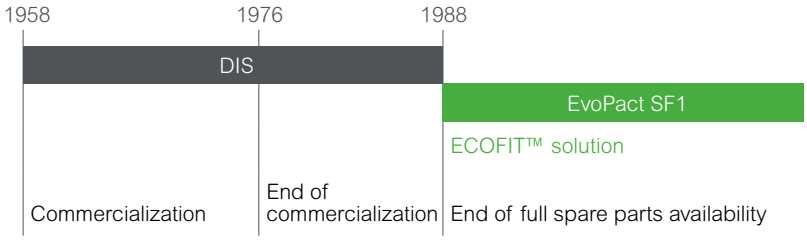
ECOFIT™ proposal

DIS
Circuit Breaker

SF1
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	DIS
Rated current (Ir)	400 - 1250 A
Short circuit current (Isc)	12.5 kA
Rated voltage Un (50/60 Hz)	23 kV

	EvoPact SF1
Technology	SF6
Rated voltage Ur (kV)	24
Surge withstand voltage Up (kV)	125
Nominal frequency (Hz)	50 - 60
Rated current Ir (A)	630 - 1250
Short circuit current Isc (kA)	25
Short circuit duration Tk (s)	3

	EvoPact SF1
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 65
Opening time (ms)	< 50
Number of switching operations	10 000
Service temperature (°C)	-25 / + 40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

Medium Voltage distribution

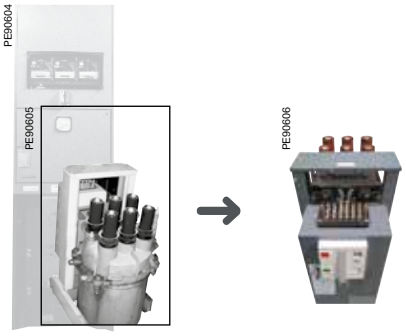
BVP 17 / BVP 17 with VMX

Original brand: AEI, GEC, GEC-Alsthom, Alstom, AREVA

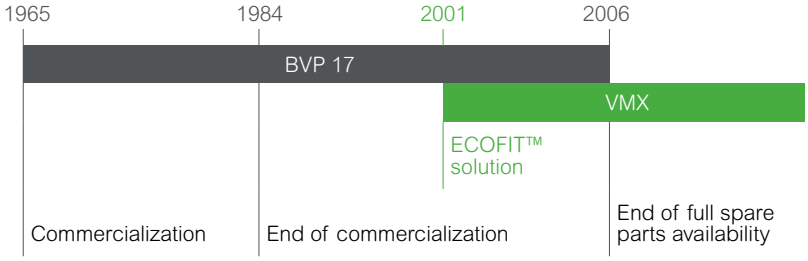
ECOFIT™ proposal

BVP 17
Circuit Breaker

VMX
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	BVP 17
Rated current (Ir)	400 - 1250 A
Short circuit current (Isc)	25 kA
Rated voltage Un (50/60 Hz)	11 kV

	VMX
Technology	Vacuum
Rated voltage Ur (kV)	11
Surge withstand voltage Up (kV)	Up to 75
Nominal frequency (Hz)	50 - 60
Rated current Ir (A)	400 - 1250
Short circuit current Isc (kA)	Up to 25
Short circuit duration Tk (s)	3

	VMX
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 52
Opening time (ms)	< 61
Number of switching operations	10 000
Service temperature (°C)	-25 / + 40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

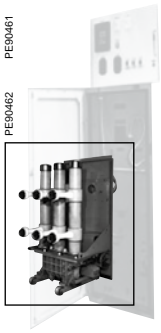
Medium Voltage distribution

Cemabloc CB with EvoPact HVX

Original brand: CEM

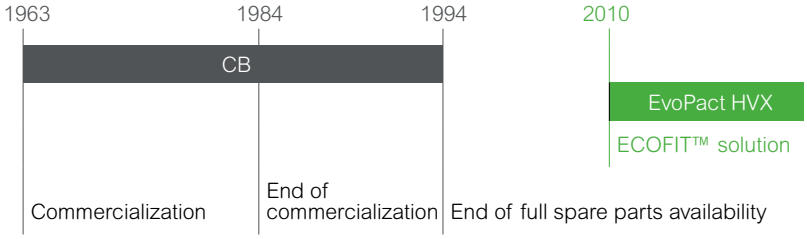
ECOFIT™ proposal

CB
Circuit Breaker



EvoPact HVX
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	CB
Rated current (Ir)	400-1250-2500 A
Short circuit current (Isc)	12.5-16/25-40 kA
Rated voltage Un (50/60 Hz)	Up to 23 kV

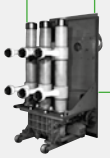
	EvoPact HVX
Technology	Vacuum
Rated voltage Ur (kV)	24
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-2500
Short circuit current Isc (kA)	25-40
Short circuit duration Tk (s)	3

	EvoPact HVX
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	35-53
Opening time (ms)	45-63
Number of switching operations	10 000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION



SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

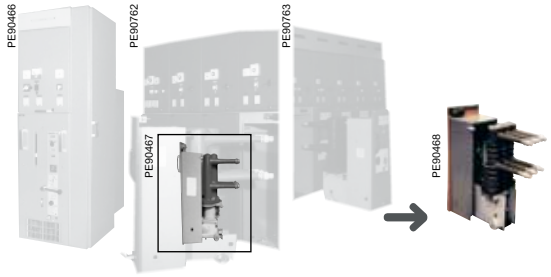
Cemafluor-C26.0/CS with FPR and Cemafluor-C26.1/CX with FPR

Original brand: CEM, Delle Alsthom, GEC-Alsthom

ECOFIT™ proposal

CS
Circuit Breaker

FPR
Circuit Breaker



With ECOFIT™, a true extended life time

Main technical characteristics

	CS-CX
Rated current (Ir)	400-1250 A
Short circuit current (Isc)	14.5 kA
Rated voltage Un (50/60 Hz)	24 kV

	FPR
Technology	SF6
Rated voltage Ur (kV)	24
Surge withstand voltage Up (kV)	125
Nominal frequency (Hz)	50-60
Rated current Ir (A)	400-1250
Short circuit current Isc (kA)	12.5
Short circuit duration Tk (s)	1

	FPR
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	50
Opening time (ms)	80
Number of switching operations	10000
Service temperature (°C)	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

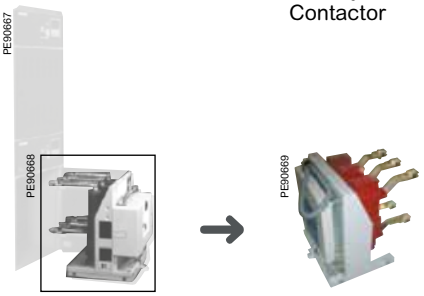
Medium Voltage distribution

DNF4-2E/FP-GFA
with EvoPact HVX-EvoPact LF2-TeSys CVX
Original brand: CEM, Delle Alsthom, GEC-Alsthom

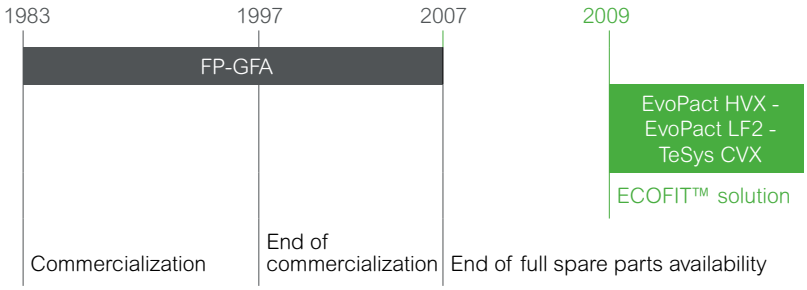
ECOFIT™ proposal

FP-GFA
Circuit Breaker
or Contactor

EvoPact HVX -
EvoPact LF2
Circuit Breaker
or TeSys CVX
Contactor



With ECOFIT™, a true extended life time



Main technical characteristics

	FP-GFA
Rated current (Ir)	400-2000 A
Short circuit current (Isc)	40 kA
Rated voltage Un (50/60 Hz)	12 kV

	EvoPact HVX	EvoPact LF2	TeSys CVX
Technology	Vacuum	SF6	Vacuum
Rated voltage Ur (kV)	12	12	12
Surge withstand voltage Up (kV)	75	75	75
Nominal frequency (Hz)	50-60	50-60	50-60
Rated current Ir (A)	630-3150	Up to 2000	400
Short circuit current Isc (kA)	16-50	12-50	4
Short circuit duration Tk (s)	3	3	1

	EvoPact HVX	EvoPact LF2	TeSys CVX
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO* CO-15s-CO O-0.3 s-CO-15 s-CO* O-0.3 s-CO-3min-CO**		C/O
Closing time (ms)	35-53	50	40-80
Opening time (ms)	45-63	70	100-200
Number of switching operations	10000	10000	300000 (mech.) 500000 (elec.)
Service temperature (°C)	-25/+40	-5/+40	-25/+40

* EvoPact HVX only - **FP only

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

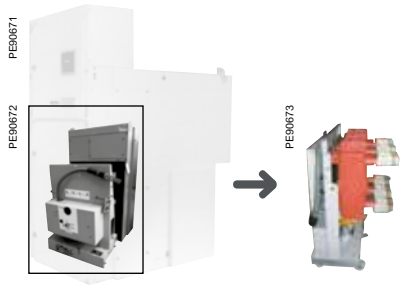
DNF4 MI & FI/FP with EvoPact HVX

Original brand: CEM, Delle Alsthom, GEC-Alsthom

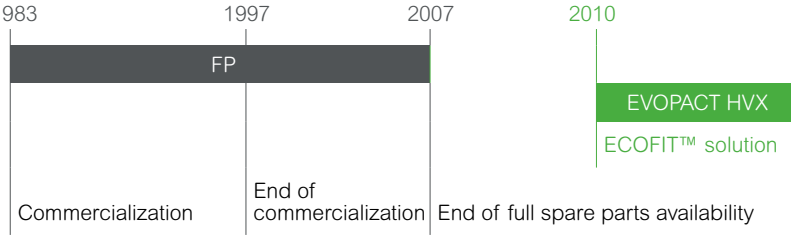
ECOFIT™ proposal

FP
Circuit Breaker

EvoPact HVX
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	FP
Rated current (Ir)	400-2000 A
Short circuit current (Isc)	40 kA
Rated voltage Un (50/60 Hz)	12 kV

	EvoPact HVX
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-3150
Short circuit current Isc (kA)	25-50
Short circuit duration Tk (s)	3

	EvoPact HVX
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO CO-15s-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	35-53
Opening time (ms)	45-63
Number of switching operations	10000
Service temperature (°C)	-5/+40

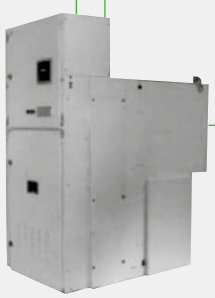
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

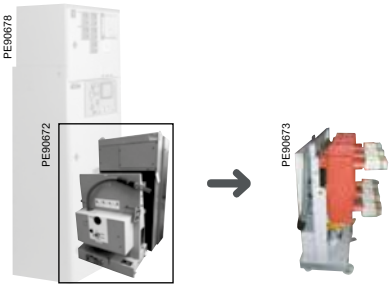
DNF5-DNF5-2B/FP with EvoPact HVX

Original brand: CEM, Delle Alsthom, GEC-Alsthom

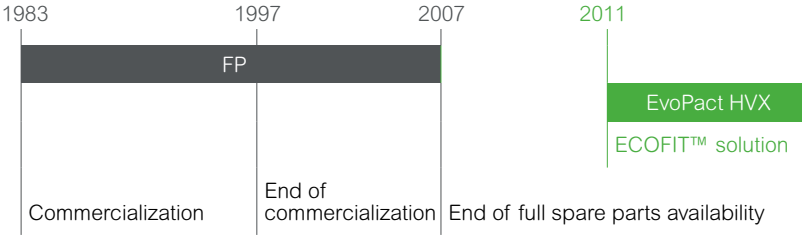
ECOFIT™ proposal

FP
Circuit Breaker

EvoPact HVX
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	FP
Rated current (Ir)	630-2000 A
Short circuit current (Isc)	40 kA
Rated voltage Un (50/60 Hz)	17.5 kV

	EvoPact HVX
Technology	Vacuum
Rated voltage Ur (kV)	17.5
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-3150
Short circuit current Isc (kA)	25-40
Short circuit duration Tk (s)	3

	EvoPact HVX
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO CO-15s-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	35-53
Opening time (ms)	45-63
Number of switching operations	10000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

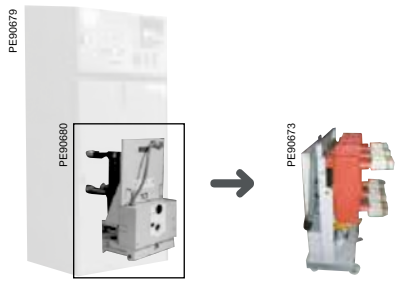
DNF6/FP
with EvoPact HVX

Original brand: CEM, Delle Alsthom, GEC-Alsthom

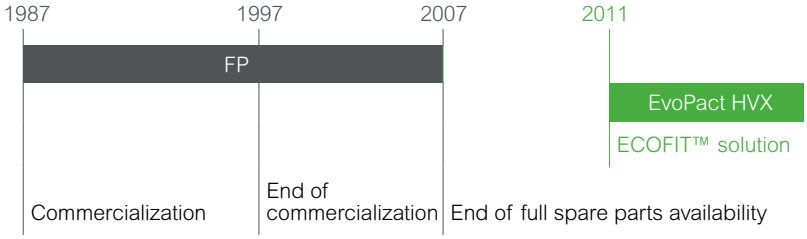
ECOFIT™ proposal

FP
Circuit Breaker

EvoPact HVX
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	FP
Rated current (Ir)	400-2000 A
Short circuit current (Isc)	31.5 kA
Rated voltage Un (50/60 Hz)	24 kV

	EvoPact HVX
Technology	Vacuum
Rated voltage Ur (kV)	24
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-2500
Short circuit current Isc (kA)	25-40
Short circuit duration Tk (s)	3

	EvoPact HVX
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO CO-15s-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	35-53
Opening time (ms)	45-63
Number of switching operations	10000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

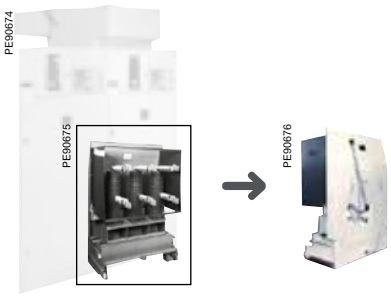
DNF7 / FP
with EvoPact HVX-O²

Original brand: CEM, Delle Alsthom, GEC-Alsthom, Alstom, AREVA, Schneider Electric

ECOFIT™ proposal

FP
Circuit Breaker

EvoPact HVX-O²
Circuit Breaker



With ECOFIT™, a true extended life time

Main technical characteristics

	FP
Rated current (Ir)	400 - 2000 A
Short circuit current (Isc)	31.5 kA
Rated voltage Un (50/60 Hz)	36 kV

	EvoPact HVX-O²
Technology	Vacuum
Rated voltage Ur (kV)	40.5
Surge withstand voltage Up (kV)	185
Nominal frequency (Hz)	50 - 60
Rated current Ir (A)	Up to 2500
Short circuit current Isc (kA)	31.5
Short circuit duration Tk (s)	3

	EvoPact HVX-O²
Switching sequence	O-0.3 s-CO-3 min-CO O-3 min-CO-3 min-CO O-0.3 s-CO-15s-CO CO-15 s-CO
Closing time (ms)	45 - 53
Opening time (ms)	45 - 63
Number of switching operations	10000
Service temperature (°C)	-5 / +40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

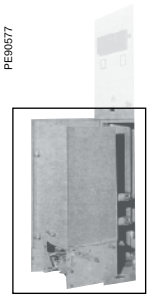
Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Epoclad / DHF & F
with EvoPact LF1 - EvoPact LF2 - EvoPact LF3 - EvoPact SF1
Original brand: Nuova Magrini Galileo, VEI

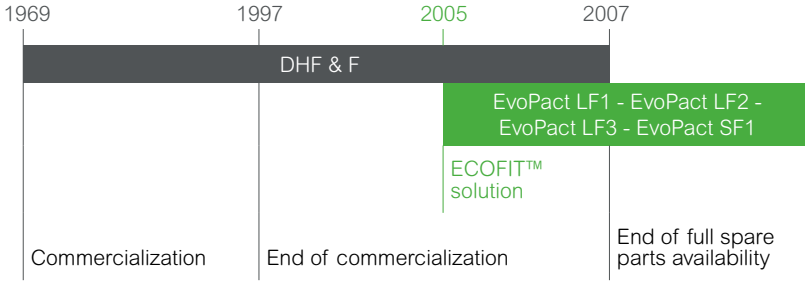
ECOFIT™ proposal

DHF-F
Circuit Breaker



EvoPact LF1 -
EvoPact LF2 -
EvoPact LF3 -
EvoPact SF1
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	DHF & F	DHF & F	DHF & F	DHF & F	DHF & F	DHF & F	DHF & F	DHF & F
	6DHF 6DHF/N 250-500	7F/N 250-350	10DHF 250-750	7F 350-750	15DHF 350-850	12F 12F/N 350-750	24DHF 350-500	20DHF 350-750 24F 500-750
Rated current (Ir)	630-3150 A	630-3150 A	630-3150 A	630-3150 A	630-1250 A	630-3150 A	630-3150 A	630-1250 A
Short circuit current (Isc)	20-48 kA	29-34 kA	12-43 kA	18-48 kA	13.5-32.5 kA	12.5-48 kA	9.2-14.5 kA	8-18 kA /20DHF 12.5-18 kA /24F
Rated voltage Un (50/60 Hz)	6 kV	7.2 kV	10 kV	12 kV	15 kV	17 kV	20 kV	24 kV

	EvoPact LF1	EvoPact LF2	EvoPact LF3*	EvoPact SF1
Technology	SF6	SF6	SF6	SF6
Rated voltage Ur (kV)	7.2	7.2-12	17.5	24
Surge withstand voltage Up (kV)	60	60-75	95	125
Nominal frequency (Hz)	50-60	50-60	50-60	50-60
Rated current Ir (A)	630-1250	Up to 2000	630-3150	630-1250
Short circuit current Isc (kA)	31.5	40-50	40	25
Short circuit duration Tk (s)	3	3	3	3

* Ur: 7.2 / 12 kV, A: 3150, kA: 50

	EvoPact LF1	EvoPact LF2	EvoPact LF3*	EvoPact SF1
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO			
Closing time (ms)	< 72	< 72	< 72	< 65
Opening time (ms)	< 54	< 54	< 54	< 50
Number of switching operations	10000	10000	10000	10000
Service temperature (°C)	-25/+40	-25/+40	-25/+40	-25/+40

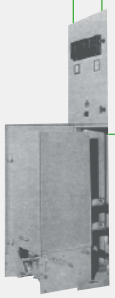
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

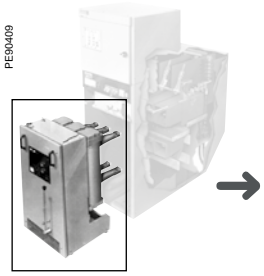
Medium Voltage distribution

Fluair F100-F200/FG1-FG2 with EasyPact EXE-Evolis-EvoPact LF2-EvoPact LF3

Original brand: Merlin Gerin

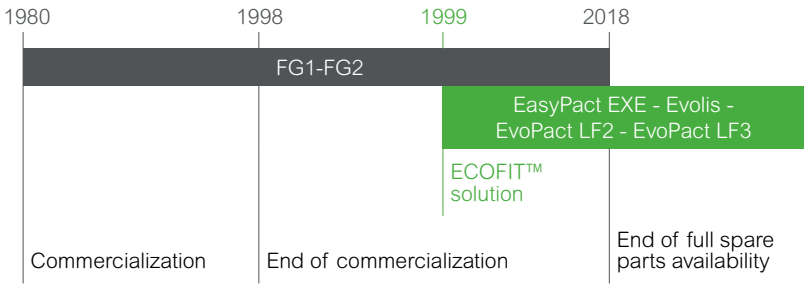
ECOFIT™ proposal

FG1 - FG2
Circuit Breaker



EasyPact EXE - Evolis -
EvoPact LF2 - EvoPact LF3
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	FG1 - FG2		
Rated current (Ir)	630-3150 A	630-3150 A	630-3150 A
Short circuit current (Isc)	25-50 kA	25-50 kA	25-31.5 kA
Rated voltage Un (50/60 Hz)	7.2 kV	12 kV	17.5 kV

	Evolis & EasyPact EXE	EvoPact LF2	EvoPact LF3
Technology	Vacuum	SF6	SF6
Rated voltage Ur (kV)	Up to 17.5	7.2-12	17.5
Surge withstand voltage Up (kV)	Up to 95	60-75	95
Nominal frequency (Hz)	50-60	50-60	50-60
Rated current Ir (A)	630-2500	630-2000	630-3150
Short circuit current Isc (kA)	40 (Evolis) 31.5 (EasyPact EXE)	25-50	31.5-40
Short circuit duration Tk (s)	3	3	3

	Evolis & EasyPact EXE	EvoPact LF2	EvoPact LF3
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO		
Closing time (ms)	< 65	< 72	< 72
Opening time (ms)	< 50	< 54	< 54
Number of switching operations	2000 (Isc = 40 kA/ M1 class) - 10000	10000	10000
Service temperature (°C)	-25/+40	-25/+40	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom,
Arc Flash
ECOFIT Safety Remote Racking
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset
& Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require
overvoltage protections
See pages B74 and B76

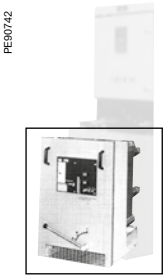
Medium Voltage distribution

Fluair F300/FG3 with EvoPact SF1-EvoPact SF2

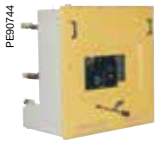
Original brand: Merlin Gerin

ECOFIT™ proposal

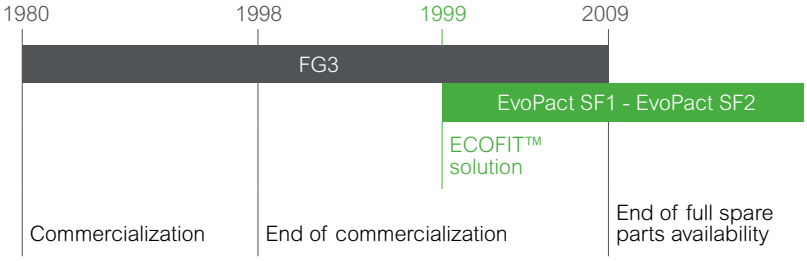
FG3
Circuit Breaker



EvoPact SF1 -
EvoPact SF2
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	FG3
Rated current (Ir)	630-2500 A
Short circuit current (Isc)	25-31.5 kA
Rated voltage Un (50/60 Hz)	24 kV

	EvoPact SF1	EvoPact SF2
Technology	SF6	SF6
Rated voltage Ur (kV)	24	24
Surge withstand voltage Up (kV)	125	125
Nominal frequency (Hz)	50-60	50-60
Rated current Ir (A)	630-1250	1250-2500
Short circuit current Isc (kA)	12.5	12.5
Short circuit duration Tk (s)	3	3

	EvoPact SF1	EvoPact SF2
Switching sequence	O-0.3 s-CO-3 min-CO O-3 min-CO-3 min-CO O-0.3 s-CO-15s-CO CO-15 s-CO	
Closing time (ms)	< 65	< 65
Opening time (ms)	< 50	< 50
Number of switching operations	10000	10000
Service temperature (°C)	-25/+40	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

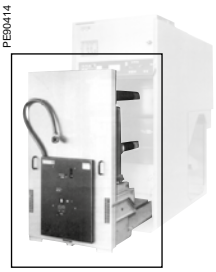
Medium Voltage distribution

Fluair F400C / FC4 with EvoPact SF2

Original brand: Merlin Gerin

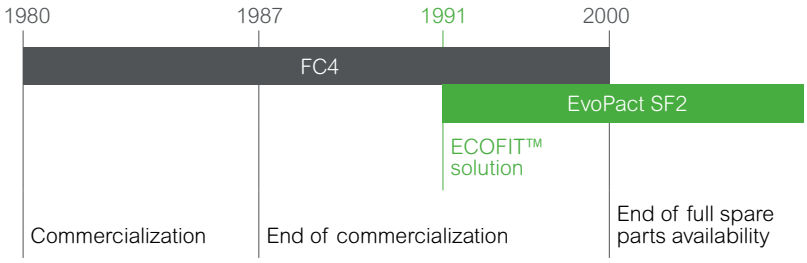
ECOFIT™ proposal

FC4
Circuit Breaker



EvoPact SF2
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	FC4
Rated current (Ir)	1250 - 2500 A
Short circuit current (Isc)	31.5 - 40 kA
Rated voltage Un (50/60 Hz)	36 kV

	EvoPact SF2
Technology	SF6
Rated voltage Ur (kV)	36
Surge withstand voltage Up (kV)	170
Nominal frequency (Hz)	50 - 60
Rated current Ir (A)	1250 - 2500
Short circuit current Isc (kA)	31.5 - 40
Short circuit duration Tk (s)	3

	EvoPact SF2
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 65
Opening time (ms)	< 50
Number of switching operations	10 000
Service temperature (°C)	-25 / + 40

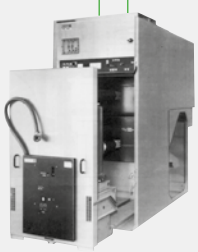
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



Medium Voltage distribution

Fluair F400G/FG4 with EvoPact SF1-EvoPact SF2

Original brand: Merlin Gerin

ECOFIT™ proposal

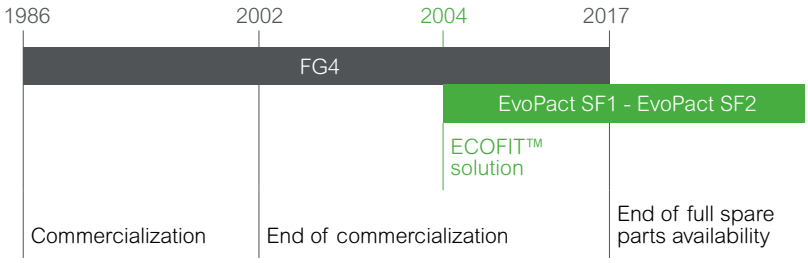
FG4
Circuit Breaker

PE90417

EvoPact SF1 -
EvoPact SF2
Circuit Breaker

PE90450

With ECOFIT™, a true extended life time



Main technical characteristics

	FG4	
Rated current (Ir)	1250-2500 A	1250-2500 A
Short circuit current (Isc)	40 kA	25-40 kA
Rated voltage Un (50/60 Hz)	24 kV	36 kV

	EvoPact SF1 - EvoPact SF2
Technology	SF6
Rated voltage Ur (kV)	24-36
Surge withstand voltage Up (kV)	125-170
Nominal frequency (Hz)	50-60
Rated current Ir (A)	1250-2500
Short circuit current Isc (kA)	25-40
Short circuit duration Tk (s)	3

	EvoPact SF1 - EvoPact SF2
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 65
Opening time (ms)	< 50
Number of switching operations	10000
Service temperature (°C)	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

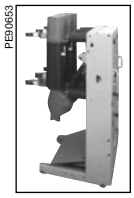
Medium Voltage distribution

HP/HP-W-TW-TM with EvoPact HVX-VA

Original brand: Concordia Sprecher, Sprecher & Schuh, GEC-Alsthom, Alstom, AREVA

ECOFIT™ proposal

HP - W - TW - TM
Circuit Breaker



EvoPact HVX - VA
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	HP-W-TW-TM
Rated current (Ir)	600-800-1250-2500-3150 A
Short circuit current (Isc)	8.4-12.5-21.7-31.5-40 kA
Rated voltage Un (50/60 Hz)	7.2-12-24 kV

	EvoPact HVX	VA
Technology	Vacuum	Vacuum
Rated voltage Ur (kV)	6-24	12-24
Surge withstand voltage Up (kV)	75-125	75-125
Nominal frequency (Hz)	50-60	50-60
Rated current Ir (A)	630-3150	630-3550
Short circuit current Isc (kA)	16-40	16-50
Short circuit duration Tk (s)	3	3

	EvoPact HVX	VA
Switching sequence	O-0.3 s-CO-3 min-CO	
Closing time (ms)	45-63	20
Opening time (ms)	35-53	20-50
Number of switching operations	10000	10000
Service temperature (°C)	-5/+40	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

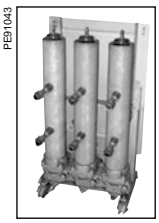
Medium Voltage distribution

K104/K104 with Evolis-EvoPact LF

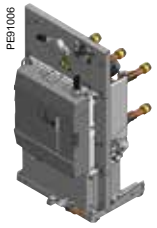
Original brand: GOST standard

ECOFIT™ proposal

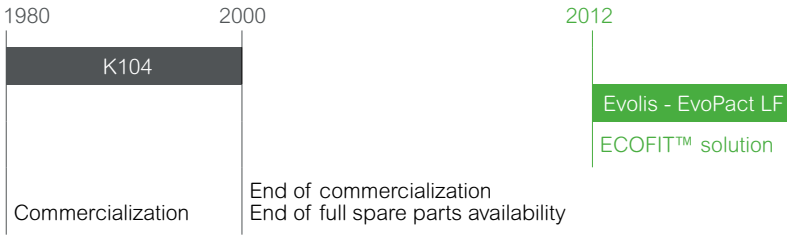
K104
Circuit Breaker



Evolis - EvoPact LF
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	K104
Rated current (Ir)	630-1000-1600 A
Short circuit current (Isc)	25-31.5 kA
Rated voltage Un (50/60 Hz)	6-10 kV

	Evolis	EvoPact LF
Technology	Vacuum	SF6
Rated voltage Ur (kV)	6-17.5	6-10
Surge withstand voltage Up (kV)	60-75	60-75
Nominal frequency (Hz)	50	50
Rated current Ir (A)	630-1250-1600	630-1250-2000
Short circuit current Isc (kA)	25-31.5	25-31.5
Short circuit duration Tk (s)	3	3

	Evolis	EvoPact LF
Switching sequence	O-0.3 c-C/O-15 c-C/O 3 min	
Closing time (ms)	< 65	< 65
Opening time (ms)	< 50	< 50
Number of switching operations	20 000	10 000
Service temperature (°C)	-25/+40	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

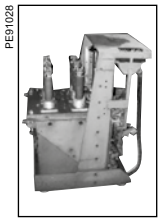
Medium Voltage distribution

KAD / KAD with VMX-540

Original brand: GEC, GEC-Alsthom, Alstom

ECOFIT™ proposal

KAD
Circuit Breaker



VMX-540
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	KAD
Rated current (Ir)	800 A
Short circuit current (Isc)	25 kA
Rated voltage Un (50/60 Hz)	12 kV

	VMX-540
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50
Rated current Ir (A)	1250
Short circuit current Isc (kA)	25
Short circuit duration Tk (s)	3

	VMX-540
Switching sequence	O-3 min-CO-3 min-CO
Closing time (ms)	≤ 60
Opening time (ms)	≤ 60
Number of switching operations	
Service temperature (°C)	-5/+40

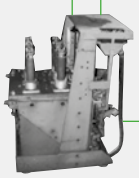
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

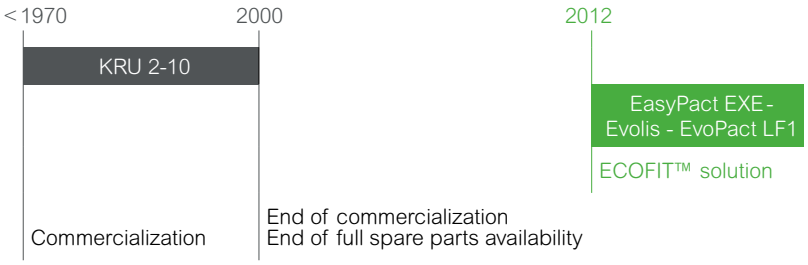
KRU / KRU 2-10
with EasyPact EXE - Evolis - EvoPact LF1
Original brand: GOST standard

ECOFIT™ proposal

KRU 2-10
Circuit Breaker

EasyPact EXE -
Evolis - EvoPact LF1
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	KRU 2-10
Rated current (Ir)	630 - 1000 - 1600 A
Short circuit current (Isc)	25 - 31.5 kA
Rated voltage Un (50/60 Hz)	6 - 10 kV

	EasyPact EXE	Evolis	EvoPact LF1
Technology	Vacuum	Vacuum	SF6
Rated voltage Ur (kV)	12	6 - 10	6 - 17.5
Surge withstand voltage Up (kV)	75	60 - 75	60 - 75
Nominal frequency (Hz)	50-60	50	50
Rated current Ir (A)	Up to 2300	630 - 1250 - 1600	630 - 1250 - 2000
Short circuit current Isc (kA)	31.5	25 - 40	40 - 50 (6 kV) - 40 (10 kV)
Short circuit duration Tk (s)	3	3	3

	EasyPact EXE	Evolis	EvoPact LF1
Switching sequence	O-0.3 c-C/O-15 c-C/O 3 min		
Closing time (ms)	50		< 65
Opening time (ms)		< 50	< 50
Number of switching operations	10 000	20 000	10 000
Service temperature (°C)		-25 / + 40	-25 / + 40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

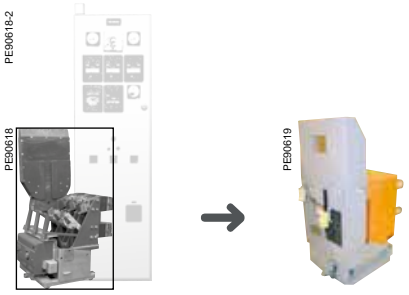
Metalclad switchgear / DST2 & 5 with DST2V & 5V

Original brand: Federal Pioneer

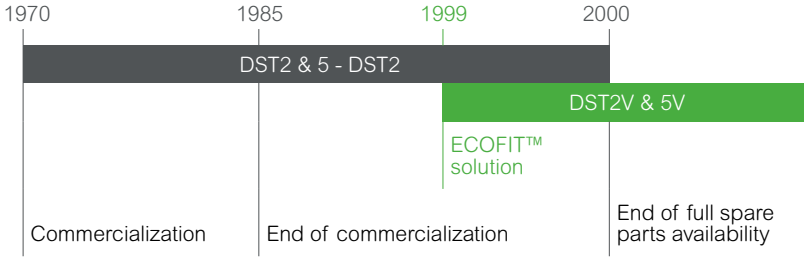
ECOFIT™ proposal

DST2 & 5
Circuit Breaker

DST2V & 5V
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	DST2 & 5	DST2
Rated current (Ir)	1200 - 3000 A	1200 - 3000 A
Short circuit current (Isc)	250 - 350 MVA	500 - 750 MVA
Rated voltage Un (50/60 Hz)	5 kV	15 kV

	DST2V	DST5V
Technology	Vacuum	Vacuum
Rated voltage Ur (kV)	5	15
Surge withstand voltage Up (kV)	60	95

	DST2V	DST5V
Rated current Ir (A)	1200 - 3000	1200 - 3000
3-phase rating (MVA)	350	500 - 750

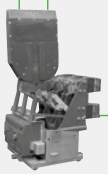
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Additional offer

Magnum circuit breakers correctly interface with the existing breaker compartment components and maintain safety interlocks inherent in the original equipment design.
- New circuit breakers are installed in existing switchgear.
- Original footprint is left intact, saving time and money.
- Installation expense is a fraction of new equipment costs.
- Less down time for installation.
- Enhanced equipment reliability.
- Manufactured with new components.
- Undergoes complete factory testing.
- Backed by our standard equipment warranty.
- New, easy-to-maintain operating mechanism.
- No bulky arc chutes to handle and maintain.
- Reduced need for difficult to obtain spare parts.

Optional capabilities
- Increased fault current interruption rating.
- Relay upgrade, improved accuracy and repeatability, and performance.
- Power metering, monitoring and communication.
- Ground and test devices available for various types of switchgear.

Closed Door Electric Racking Mechanism
- Arc flash hazard reduced with remote operation.
- Maintenance shutdown time is significantly reduced.
- No storage space is required for the electrical racking system.
- Require just a common 120 V AC, 15 A outlet for power up.

Medium Voltage distribution

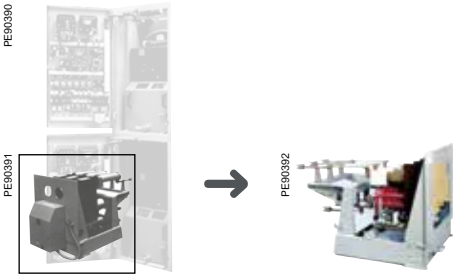
Motorstart P50D/C-CD with CTV1-TeSys R400-TeSys R400D

Original brand: Merlin Gerin

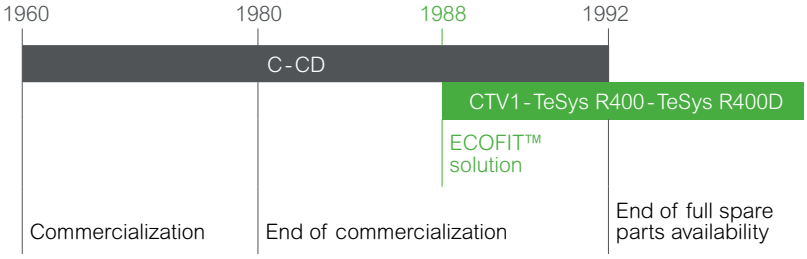
ECOFIT™ proposal

C-CD
Contactor

CTV1-R400-R400D
Contactor



With ECOFIT™, a true extended life time



Main technical characteristics

	C-CD
Rated current (Ir)	80-200 A
Short circuit current (Isc)	50 kA (with fuses)
Rated voltage Un (50/60 Hz)	7.2 kV

	CTV1	TeSys R400	TeSys R400D
Technology	Vacuum	SF6	SF6
Rated voltage Ur (kV)	7.2	7.2	7.2
Surge withstand voltage Up (kV)	60	60	60
Nominal frequency (Hz)	50-60	50-60	50-60
Rated current Ir (A)	80-250	80-250	80-250
Short circuit current Isc (kA)	50 (with fuses)	50 (with fuses)	50 (with fuses)
Short circuit duration Tk (s)	3	3	3

	CTV1	TeSys R400	TeSys R400D
Switching sequence			
Closing time (ms)	60-80	75-155	75-155
Opening time (ms)	20-30	20-50	20-50
Number of switching operations	200 000	300 000	100 000
Service temperature (°C)	-25/+40	-25/+40	-25/+40

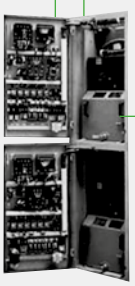
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Motorstart P500D/C1-CD1 with CTV1-TeSys R400-TeSys R400D

Original brand: Merlin Gerin

ECOFIT™ proposal

C1-CD1
Contactor

CTV1-TeSys R400-
TeSys R400D
Contactor

With ECOFIT™, a true extended life time

Main technical characteristics

	C1-CD1
Rated current (Ir)	80-250 A
Short circuit current (Isc)	50 kA (with fuses)
Rated voltage Un (50/60 Hz)	7.2 kV

	CTV1	TeSys R400	TeSys R400D
Technology	Vacuum	SF6	SF6
Rated voltage Ur (kV)	7.2	7.2	7.2
Surge withstand voltage Up (kV)	60	60	60
Nominal frequency (Hz)	50-60	50-60	50-60
Rated current Ir (A)	80-250	80-250	80-250
Short circuit current Isc (kA)	50 (with fuses)	50 (with fuses)	50 (with fuses)
Short circuit duration Tk (s)	3	3	3

	CTV1	TeSys R400	TeSys R400D
Switching sequence			
Closing time (ms)	60-80	75-155	75-155
Opening time (ms)	20-30	20-50	20-50
Number of switching operations	200 000	300 000	100 000
Service temperature (°C)	-25/+40	-25/+40	-25/+40

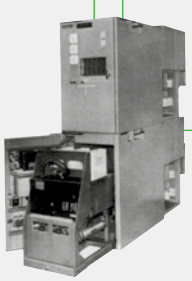
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

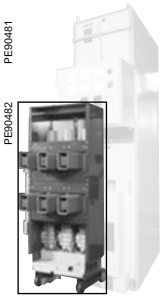
Normabloc N13xx/HL with EvoPact HVX-FPX

Original brand: Delle

ECOFIT™ proposal

HL
Circuit Breaker

EvoPact HVX - FPX
Circuit Breaker



With ECOFIT™, a true extended life time

Main technical characteristics

	HL
Rated current (Ir)	630-1250 A
Short circuit current (Isc)	25 & 40 kA
Rated voltage Un (50/60 Hz)	17.5 kV

	EvoPact HVX	FPX
Technology	Vacuum	SF6
Rated voltage Ur (kV)	17.5	17.5
Surge withstand voltage Up (kV)	95	95
Nominal frequency (Hz)	50-60	50-60
Rated current Ir (A)	630-1250	630-1250
Short circuit current Isc (kA)	16-40	12.5-40
Short circuit duration Tk (s)	3	3

	EvoPact HVX	FPX
Switching sequence	O-3min-CO-3min-CO O-0.3s-CO-3min-CO O-15s-CO O-0.3s-CO-15s-CO	O-3min-CO-3min-CO O-0.3s-CO-3min-CO O-0.3s-CO-15s-CO
Closing time (ms)	35-53	50
Opening time (ms)	45-63	50
Number of switching operations	10000	10000
Service temperature (°C)	-25/+40	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

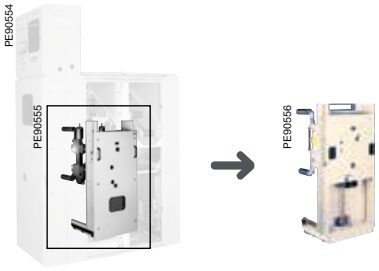
Medium Voltage distribution

R/M-MC-IMC-E-AL-ALF-BAL-FAL-IFAL-TG with VA-VAA-Contactor

Original brand: AEG, Alstom

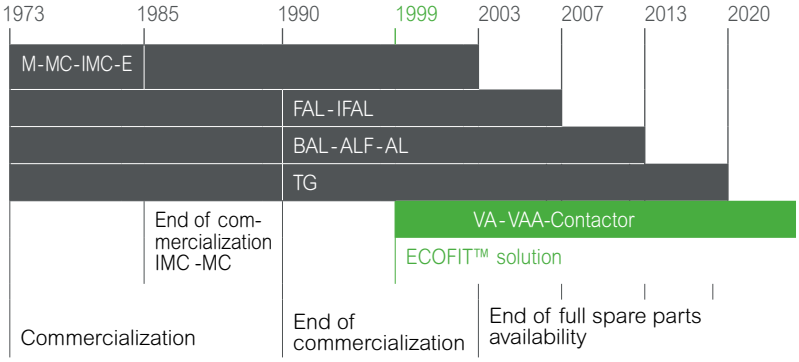
ECOFIT™ proposal

M-MC-IMC-E-AL-ALF-BAL-FAL-IFAL-TG
Switch device



VA-VAA-Contactor

With ECOFIT™, a true extended life time



Main technical characteristics

	M-MC-IMC-E-AL-ALF-BAL-FAL-IFAL-TG
Rated current (Ir)	1250-4000 A
Short circuit current (Isc)	16-50 kA
Rated voltage Un (50/60 Hz)	12-36 kV

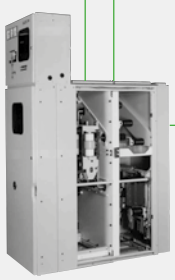
	VA-VAA-Contactor
Technology	Vacuum
Rated voltage Ur (kV)	12-24
Surge withstand voltage Up (kV)	75-125
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-3550
Short circuit current Isc (kA)	16-50
Short circuit duration Tk (s)	3

	VA-VAA-Contactor
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10 000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom
Arc Flash
Remote racking
See page F1

PROTECTION



SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

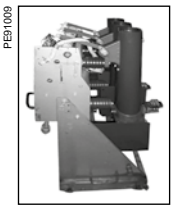
TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution
RSW / RSW with Evolis - EvoPact LF
Original brand: GOST standard

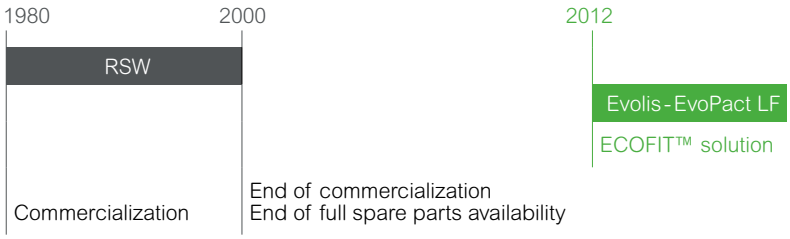
ECOFIT™ proposal

RSW
Circuit Breaker



Evolis - EvoPact LF
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	RSW
Rated current (Ir)	630 - 1250 A
Short circuit current (Isc)	25 - 31.5 kA
Rated voltage Un (50/60 Hz)	6 - 10 kV

	Evolis	EvoPact LF
Technology	Vacuum	SF6
Rated voltage Ur (kV)	6 - 10	6 - 17.5
Surge withstand voltage Up (kV)	60 - 75	60 - 75
Nominal frequency (Hz)	50	50
Rated current Ir (A)	630 - 1250	630 - 1250
Short circuit current Isc (kA)	25 - 31.5	25 - 31.5
Short circuit duration Tk (s)	3	3

	Evolis	EvoPact LF
Switching sequence	O-0.3 c-C/O-15 c-C/O 3 min	O-0.3 c-C/O-15 c-C/O 3 min
Closing time (ms)	< 65	< 65
Opening time (ms)	< 50	< 50
Number of switching operations	20 000	10 000
Service temperature (°C)	-25/+40	-25/+40

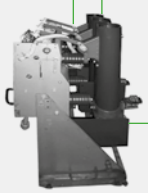
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Siclad / MAG II with EvoPact LF1 - EvoPact LF2

Original brand: Ansaldo, VEI

ECOFIT™ proposal

MAG II
Circuit Breaker

EvoPact LF1 - EvoPact LF2
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	MAG II - 6 - 250/400	MAG II - 10 - 500	MAG II - 15 - 6 - 300/350
Rated current (Ir)	630 - 1250 - 2000 A	630 - 1250 - 2000 A	630 - 1250 - 2000 A
Short circuit current (Isc)	20 - 48 kA	20 - 28 kA	12 - 30 kA
Rated voltage Un (50/60 Hz)	6 kV	10 kV	15 kV

	EvoPact LF1	EvoPact LF2*
Technology	SF6	SF6
Rated voltage Ur (kV)	7.2 - 12	7.2 - 12 - 17.5
Surge withstand voltage Up (kV)	60 - 75	60 - 75 - 95
Nominal frequency (Hz)	50 - 60	50 - 60
Rated current Ir (A)	630 - 1250	2000
Short circuit current Isc (kA)	31.5	40
Short circuit duration Tk (s)	3	3

* For Siclad panels 630 mm & 850 mm wide

	EvoPact LF1	EvoPact LF2*
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO	
Closing time (ms)	< 72	< 72
Opening time (ms)	< 54	< 54
Number of switching operations	10 000	10 000
Service temperature (°C)	-25 / + 40	-25 / + 40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

Medium Voltage distribution

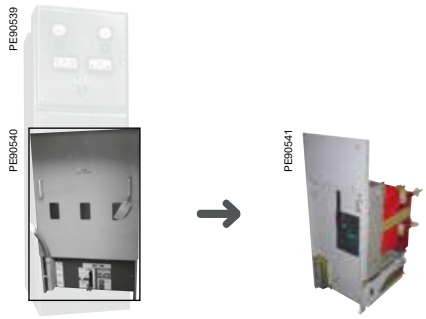
Solenarc DSE Metal-Clad switchgear / DSE with Magnum CB

Original brand: Square D

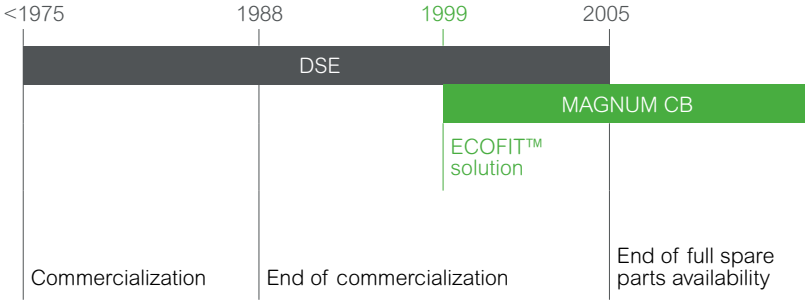
ECOFIT™ proposal

DSE
Circuit Breaker

Magnum
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	DSE	
Rated current (Ir)	1200 - 3000 A	1200 - 3000 A
Short circuit current (Isc)	250 MVA	250 - 1000 MVA
Rated voltage Un (50/60 Hz)	5 kV	15 kV

	5MGSB	15MGSB
Technology	Vacuum	Vacuum
Rated voltage Ur (kV)	5	15
Surge withstand voltage Up (kV)	60	95

	5MGSB	15MGSB
Rated current Ir (A)	1200	1200 - 3000
3-phase rating (MVA)	250	250 - 1000
Interruping time (ms)	100	60

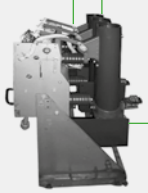
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



TECHNOLOGY

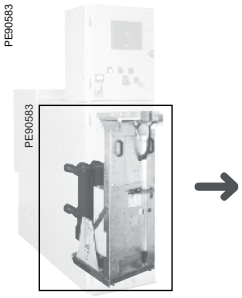
Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Venus / GI - GL
with EvoPact LF1 - EvoPact LF3
Original brand: Nuova Magrini Galileo, VEI

ECOFIT™ proposal

GI-GL
Circuit Breaker



EvoPact LF1 -
EvoPact LF3
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	GI		GL			
Rated current (Ir)	630 - 1250 A	630 - 1250 A	1600 - 3150 A	1600 - 3150 A	1600 - 3150 A	1600 - 3150 A
Short circuit current (Isc)	12.5 - 31.5 kA	12 - 25 kA	50 kA	20 - 40 kA	20 - 40 kA	20 - 31.5 kA
Rated voltage Un (50/60 Hz)	7 - 12 kV	17 - 24 - 36 kV	7 kV	12 kV	24 kV	36 kV

	EvoPact LF1	EvoPact LF3
Technology	SF6	SF6
Panel width (mm)	600	900
Rated voltage Ur (kV)	12	17.5
Surge withstand voltage Up (kV)	75	125
Nominal frequency (Hz)	50 - 60	50 - 60
Rated current Ir (A)	630 - 1250	1250 - 1600
Short circuit current Isc (kA)	31.5	50
Short circuit duration Tk (s)	3	3

	EvoPact LF1	EvoPact LF3
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO	
Closing time (ms)	< 72	< 72
Opening time (ms)	< 54	< 54
Number of switching operations	10 000	10 000
Service temperature (°C)	-25 / + 40	-25 / + 40

Make the most of your equipment with available add-ons

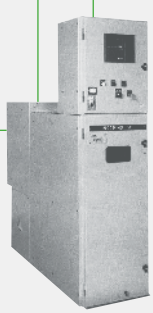
Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1



SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

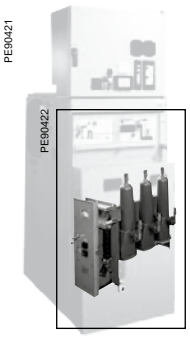
Medium Voltage distribution

VM6 DM12/FB4 with EvoPact SF1

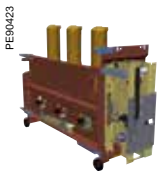
Original brand: Merlin Gerin

ECOFIT™ proposal

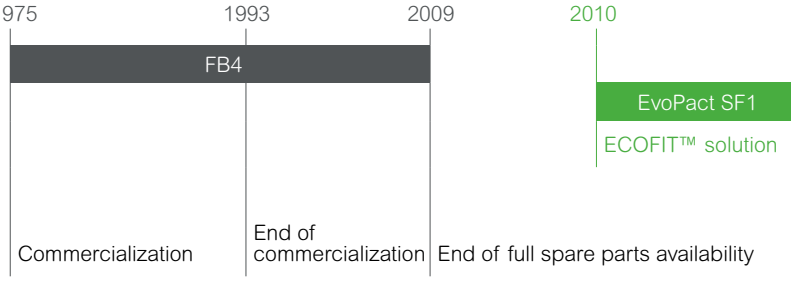
FB4
Circuit Breaker



EvoPact SF1
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	FB4			
Rated current (Ir)	400-1250 A	400-1250 A	400-1250 A	400-1250 A
Short circuit current (Isc)	12.5-31.5 kA	12.5-25 kA	12.5-20 kA	12.5-20 kA
Rated voltage Un (50/60 Hz)	7.2 kV	12 kV	17.5 kV	24 kV

	EvoPact SF1
Technology	SF6
Rated voltage Ur (kV)	Up to 24
Surge withstand voltage Up (kV)	Up to 125
Nominal frequency (Hz)	50-60
Rated current Ir (A)	400-1250
Short circuit current Isc (kA)	12.5-25
Short circuit duration Tk (s)	3

	EvoPact SF1
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 65
Opening time (ms)	< 50
Number of switching operations	10000
Service temperature (°C)	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

Medium Voltage distribution

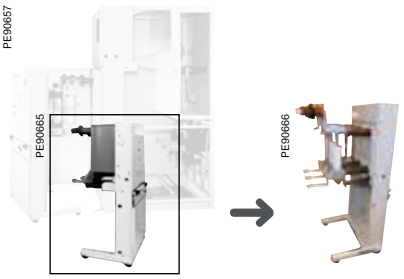
WBA/ECA-BAL-AL with VA-VAA-Contactor

Original brand: AEG, Alstom, AREVA

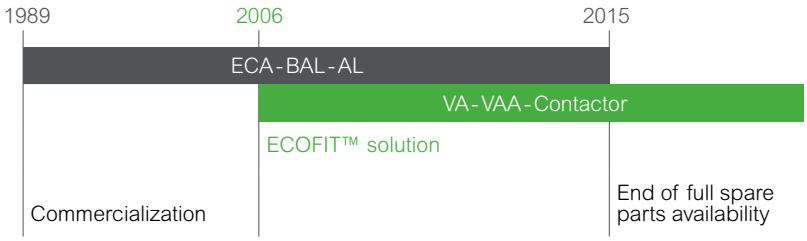
ECOFIT™ proposal

ECA-BAL-AL Circuit Breaker

VA-VAA Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	BAL-AL	ECA
Rated current (Ir)	250 A	630-2500 A
Short circuit current (Isc)	20 kA	20-50 kA
Rated voltage Un (50/60 Hz)	3.6-12 kV	12-24 kV

	VA-VAA-Contactor
Technology	Vacuum
Rated voltage Ur (kV)	12-24
Surge withstand voltage Up (kV)	75-125
Nominal frequency (Hz)	50-60
Rated current Ir (A)	600-2500
Short circuit current Isc (kA)	25-31.5
Short circuit duration Tk (s)	3

	VA-VAA-Contactor
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
Remote racking
See page F1

PROTECTION

Asset Connect with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

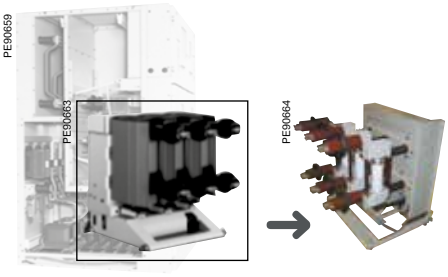
WBB/ECA-BAL-AL with VA-VAA-Contactor

Original brand: AEG, Alstom, AREVA

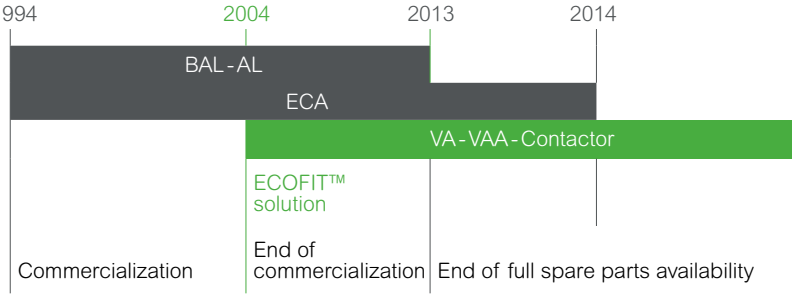
ECOFIT™ proposal

ECA-BAL-AL Circuit Breaker

VA-VAA Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	BAL-AL	ECA
Rated current (Ir)	250-630 A	630 - 2500 A
Short circuit current (Isc)	20 kA	20 - 50 kA
Rated voltage Un (50/60 Hz)	3.6 - 12 kV	12 kV

	VA-VAA-Contactor
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	75 - 95
Nominal frequency (Hz)	50 - 60
Rated current Ir (A)	630 - 2500
Short circuit current Isc (kA)	25 - 31.5
Short circuit duration Tk (s)	3

	VA-VAA-Contactor
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10 000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
Remote racking
See page F1

PROTECTION

Asset Connect with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
Oil, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

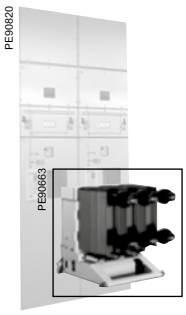
Medium Voltage distribution

WBD / HVX-C with VA-VAA

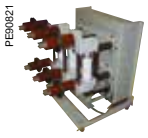
Original brand: AEG, Alstom, AREVA, Schneider Electric

ECOFIT™ proposal

HVX-C
Circuit Breaker



VA-VAA
Circuit Breaker



With ECOFIT™, a true extended life time

Main technical characteristics

	HVX-C
Rated current (Ir)	630-2500 A
Short circuit current (Isc)	25-31.5 kA
Rated voltage Un (50/60 Hz)	12 kV

	VA-VAA
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	80
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-3150
Short circuit current Isc (kA)	25-31.5
Short circuit duration Tk (s)	3

	VA-VAA
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
Remote racking
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

Medium Voltage distribution

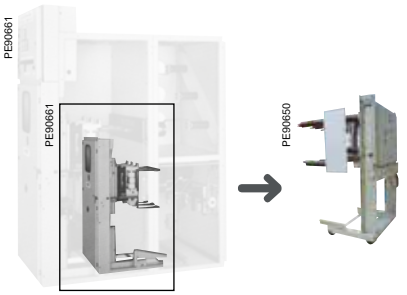
WK(A/B/C/D/E/F)/MC-AL-BAL-TG with VA-VAA-Contactor-LTRI

Original brand: AEG

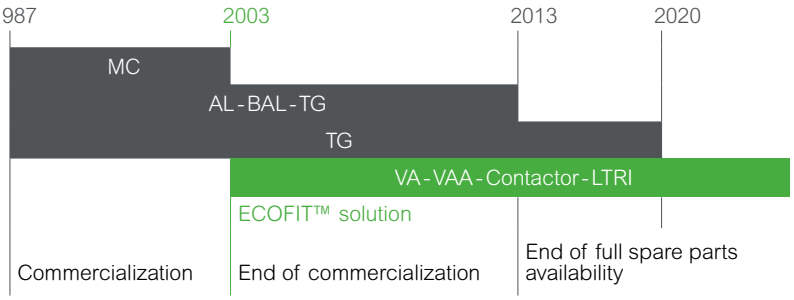
ECOFIT™ proposal

MC-AL-BAL-TG
Circuit Breaker

VA-VAA-LTRI-FPX-
Contactor



With ECOFIT™, a true extended life time



Main technical characteristics

	MC-AL-BAL-TG
Rated current (Ir)	630-3150 A
Short circuit current (Isc)	31.5-50 kA
Rated voltage Un (50/60 Hz)	Up to 36 kV

	VA-VAA-Contactor-(LTRI)
Technology	Vacuum
Rated voltage Ur (kV)	3.6-12-24-36
Surge withstand voltage Up (kV)	60-110
Nominal frequency (Hz)	50-60
Rated current Ir (A)	400-4000
Short circuit current Isc (kA)	10-50
Short circuit duration Tk (s)	3

	VA-VAA-Contactor-(LTRI)
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10 000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
Remote racking
See page F1

PROTECTION

Asset Connect
with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

YSF6 / YSF6 with YSF6 Evolis

Original brand: Yorkshire Switchgear

ECOFIT™ proposal

YSF6
Circuit Breaker

YSF6 Evolis
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	YSF6
Rated current (Ir)	630 - 1250 A
Short circuit current (Isc)	Up to 25 kA
Rated voltage Un (50/60 Hz)	12 kV

	YSF6 Evolis
Technology	Vacuum
Rated voltage Ur (kV)	11
Surge withstand voltage Up (kV)	75 - (95 for Australia)
Nominal frequency (Hz)	50 - 60
Rated current Ir (A)	630 - 1250
Short circuit current Isc (kA)	25
Short circuit duration Tk (s)	3

	YSF6 Evolis
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 50
Opening time (ms)	< 65
Number of switching operations	10 000
Service temperature (°C)	-25 / + 40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
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SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Cradle to Cradle / All breaker types Withdrawable CB with Evolis MC cassette

Original brand: all brands

ECOFIT™ proposal

All breaker types
Compatible with
all open Air
Insulated
Switchgear legacy
and no legacy
cubicles
with minimum inside
panel width
≥ 560 mm

Evolis
Circuit Breaker

With ECOFIT™, a true extended life time

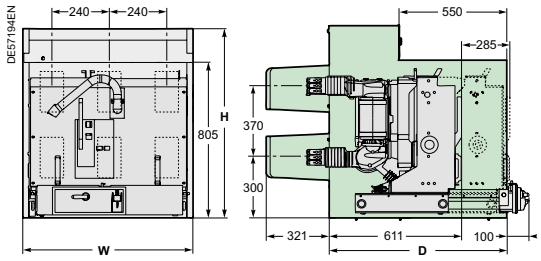
This solution consists in fitting a cradle inside an existing panel:

- It is particularly adapted for non Schneider Installed Base.
- ECOFIT™ solution with shutters and mechanical interlocks embedded.
- Only the fixed connections (between the cradle and existing busbar) are customized.
- No age condition of the existing equipment.
- Only the width of the existing panel has to be considered.

Main technical characteristics

	All types	
Rated current (Ir)	630-1250 A	630-2500 A
Short circuit current (Isc)	Up to 31.5 kA	Up to 40 kA
Rated voltage Un (50/60 Hz)	7.2-12 kV	7.2-12-17.5 kV

	MC1	MC2	MC3
Technology	Vacuum	Vacuum	Vacuum
Rated voltage Ur (kV)	7.2-12	7.2-12-17.5	7.2-12-17.5
Surge withstand voltage Up (kV)	60-75	60-75-95	60-75-95
Nominal frequency (Hz)	50-60	50-60	50-60
Rated current Ir (A)	630-1250	630-1250	630-2500
Short circuit current Isc (kA)	Up to 31.5	Up to 40	Up to 40
Short circuit duration Tk (s)	3	3	1



	MC1	MC2	MC3
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO		
Closing time (ms)	< 65	< 65	< 65
Opening time (ms)	< 50	< 50	< 50
Number of switching operations	2.000 (for Isc= 40 kA class M1) - 10 000		
Service temperature (°C)	-25/+40	-25/+40	-25/+40

Cassette		MC1	MC2	MC3
Phase to phase (mm)	E	145	185	240
Dimensions (mm)	W	556	686	886
	H	980	980	980
	D	1223	1223	1223
Weight (kg)		222	255	326

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom,
Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require
overvoltage protections
See pages B74 and B76

Medium Voltage distribution

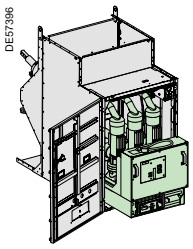
Cradle to Cradle / All breaker types Withdrawable CB with F400 cassette

Original brand: all brands

ECOFIT™ proposal

All breaker types
Compatible with all open Air Insulated Switchgear legacy and no legacy cubicles with minimum inside panel width ≥ 1105 mm

Evolis
Circuit Breaker



With ECOFIT™, a true extended life time

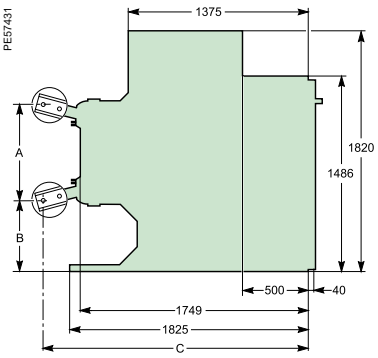
This solution consists in fitting a cradle inside an existing panel:

- It is particularly adapted for non Schneider Installed Base.
- ECOFIT™ solution with shutters and mechanical interlocks embedded.
- Only the fixed connections (between the cradle and existing busbar) are customized.
- No age condition of the existing equipment.
- Only the width of the existing panel has to be considered.

Main technical characteristics

	All types	
Rated current (Ir)	1250 - 2500 A	1250 A
Short circuit current (Isc)	Up to 40 kA	Up to 31.5 kA
Rated voltage Un (50/60 Hz)	24 - 36 kV	40.5 kV

	F400 - EvoPact SF	F400 cassette
Technology	SF6	SF6
Rated voltage Ur (kV)	24 - 36	40.5
Surge withstand voltage Up (kV)	125 - 170	185
Nominal frequency (Hz)	50 - 60	50 - 60
Rated current Ir (A)	1250 - 2500	630 - 1250
Short circuit current Isc (kA)	25 - 40	31.5
Short circuit duration Tk (s)	3	3



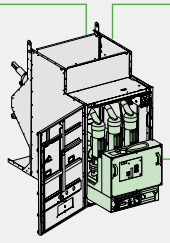
	MC1	MC2
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO	
Closing time (ms)	< 65	< 65
Opening time (ms)	< 50	< 50
Number of switching operations	10 000	10 000
Service temperature (°C)	-25 / + 40	-25 / + 40

Cassette		1250 A	2500 A - 3000 A
Dimensions (mm)	A	748	752
	B	540	533
	C	2030	2030
Weight (kg)		750	850

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom
Arc Flash
See page F1

PROTECTION



SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

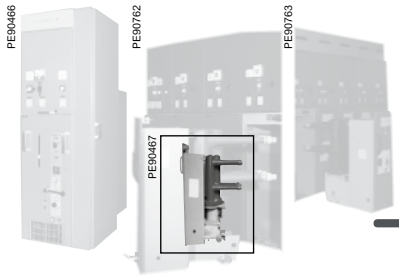
Medium Voltage distribution

Cemafluor-C26.2/FPR with FPR

Original brand: CEM, Delle Alsthom, GEC-Alsthom

ECOFIT™ proposal

FPR
Circuit Breaker



FPR
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	FPR
Rated current (Ir)	400-1250 A
Short circuit current (Isc)	12.5 kA
Rated voltage Un (50/60 Hz)	24 kV

	FPR
Technology	SF6
Rated voltage Ur (kV)	24
Surge withstand voltage Up (kV)	125
Nominal frequency (Hz)	50-60
Rated current Ir (A)	400-1250
Short circuit current Isc (kA)	12.5
Short circuit duration Tk (s)	1

	FPR
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	50
Opening time (ms)	80
Number of switching operations	10 000
Service temperature (°C)	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

Medium Voltage distribution

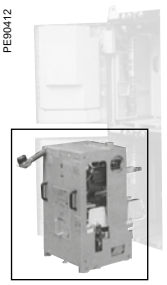
Fluair F100C / R400 - R400D with R400 - R400D

Original brand: Merlin Gerin

ECOFIT™ proposal

R400 - R400D Contactor

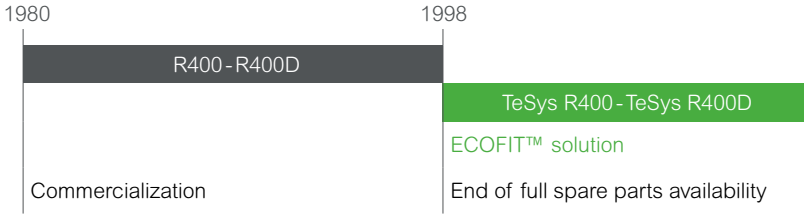
PE90412



TeSys R400 - TeSys R400D Contactor

PE90413

With ECOFIT™, a true extended life time



Main technical characteristics

	R400 – R400D		
Rated current (Ir)	80 - 250 A	Closing time (ms)	Current 75-155
Short circuit current (Isc)	50 kA (with fuses)	Opening time (ms)	20 - 50
Rated voltage Un (50/60 Hz)	7.2 kV	Number of operations	300000 - 100000

	TeSys R400	TeSys R400D
Technology	SF6	SF6
Rated voltage Ur (kV)	7.2	7.2
Surge withstand voltage Up (kV)	60	60
Nominal frequency (Hz)	50 - 60	50 - 60
Rated current Ir (A)	80 - 250	80 - 250
Short circuit current Isc (kA)	50 (with fuses)	50 (with fuses)
Short circuit duration Tk (s)	3	3

	TeSys R400	TeSys R400D
Closing time (ms)	75 - 155	75 - 155
Opening time (ms)	20 - 50	20 - 50
Number of switching operations	300 000	100 000
Service temperature (°C)	- 25 / + 40	- 25 / + 40

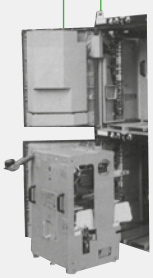
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1



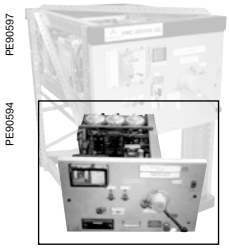
Medium Voltage distribution

HMC400-HMC410/HMC400-HMC410 with HMC400-HMC410

Original brand: GEC, GEC-Alsthom, Alstom, AREVA

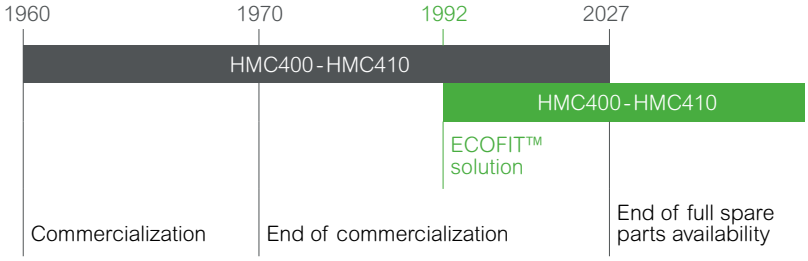
ECOFIT™ proposal

HMC400-HMC410
Circuit Breaker



HMC400-HMC410
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	HMC400-HMC410	
Rated current (Ir)	400 A	400 A
Short circuit current (Isc)	43.8 kA	26.3 kA
Rated voltage Un (50/60 Hz)	3.3 kV	6.6 kV

	HMC400-HMC410
Technology	Vacuum
Rated voltage Ur (kV)	Up to 6.6
Surge withstand voltage Up (kV)	Up to 75
Nominal frequency (Hz)	50-60
Rated current Ir (A)	400
Short circuit current Isc (kA)	26.3-43.8
Short circuit duration Tk (s)	3

	HMC400-HMC410
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 52
Opening time (ms)	< 61
Number of switching operations	10 000
Service temperature (°C)	-25/+40

Refurbishment
In-house refurbishment, including vacuum contactors and control scheme, using Gemstart unit, on-site maintenance.

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

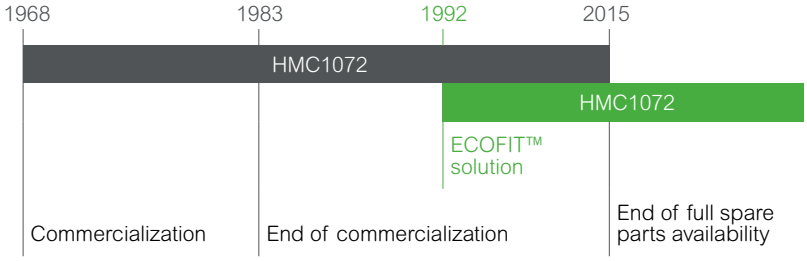
HMC1072/HMC1072 with HMC1072

Original brand: GEC, GEC-Alsthom, Alstom, AREVA

ECOFIT™ proposal

HMC1072 Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	HMC1072
Rated current (Ir)	400 A
Short circuit current (Isc)	63 kA rms/1 s - 50 kA rms/3 s
Rated voltage Un (50/60 Hz)	7.2 kV

	HMC1072
Technology	Vacuum
Rated voltage Ur (kV)	7.2
Surge withstand voltage Up (kV)	Up to 75
Nominal frequency (Hz)	50 - 60
Rated current Ir (A)	400
Short circuit current Isc (kA)	50 - 63
Short circuit duration Tk (s)	3 to 1

	HMC1072
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 52
Opening time (ms)	< 61
Number of switching operations	10 000
Service temperature (°C)	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

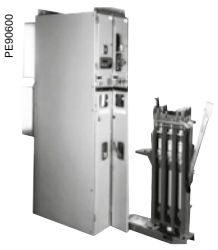
Medium Voltage distribution

HMC1172/HMC1172 with HMC1172

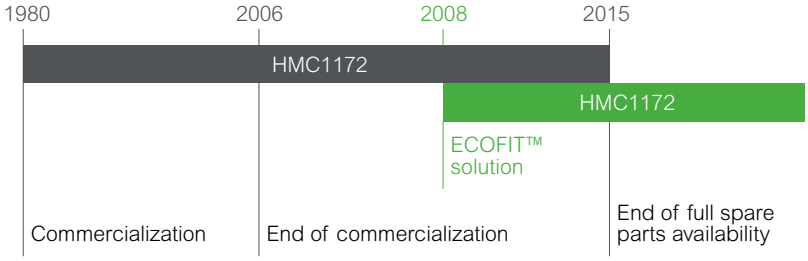
Original brand: GEC, GEC-Alsthom, Alstom, AREVA

ECOFIT™ proposal

HMC1172 Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	HMC1172
Rated current (Ir)	400 A
Short circuit current (Isc)	63 kA rms/1 s - 50 kA rms/3 s
Rated voltage Un (50/60 Hz)	7.2 kV

	HMC1172	HMC1172 contactor
Technology	Vacuum	Vacuum
Rated voltage Ur (kV)	7.2	7.2
Surge withstand voltage Up (kV)	60	63
Nominal frequency (Hz)	50-60	50-60
Rated current Ir (A)	1000-2000	400
Short circuit current Isc (kA)	25-31.5	9
Short circuit duration Tk (s)	3	1

	HMC1172	HMC1172 contactor
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO	O/C
Closing time (ms)	90-120	90-120
Opening time (ms)	< 61	< 61
Number of switching operations	10 000	1.000 000
Service temperature (°C)	-25/+40	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
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SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

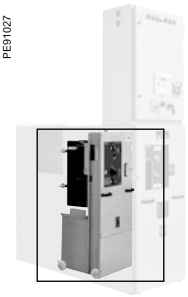
Medium Voltage distribution

HWX/HWX with HWX

Original brand: Schneider Electric, GEC, GEC-Alsthom, Alstom, AREVA

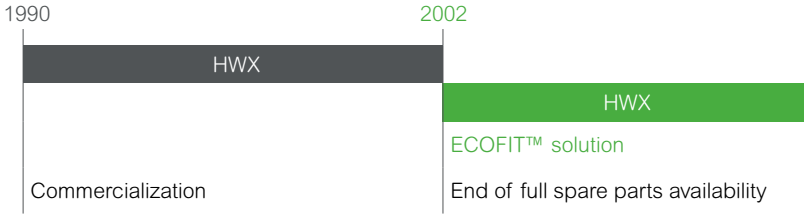
ECOFIT™ proposal

HWX
Circuit Breaker



HWX
Circuit Breaker

With ECOFIT™, a true extended life time



EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	HWX
Rated current (Ir)	3150 A
Short circuit current (Isc)	50 kA
Rated voltage Un (50/60 Hz)	12 kV

	HWX
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50
Rated current Ir (A)	3150
Short circuit current Isc (kA)	50
Short circuit duration Tk (s)	3

	HWX
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	≤ 60
Opening time (ms)	≤ 60
Number of switching operations	
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

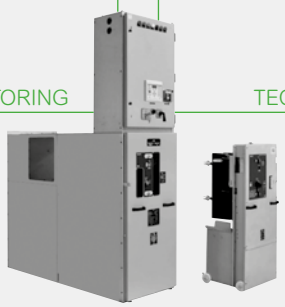
Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1



SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

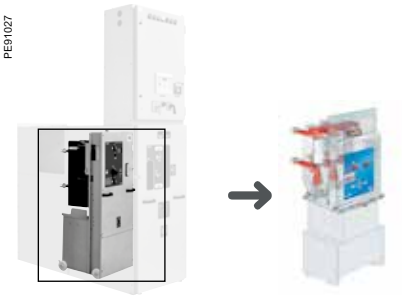
HWX
with EvoPact HVX

Original brand: GEC-Alsthom, Alstom, AREVA, Schneider Electric

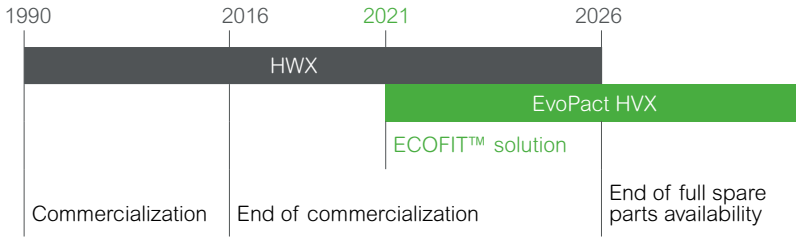
ECOFIT™ proposal

HWX
Circuit Breaker

EvoPact HVX
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	HWX
Rated Voltage Un (50/60Hz)	up to 12 kV
Rated current (Ir)	upto 3150 A
Short Circuit Current (Isc)	up to 50 kA

	EvoPact HVX
Breaking Technology	Vacuum
Rated Voltage Ur (kV)	upto 12
Surge withstand voltage Up (kV)	75
Nominal frequency (Hz)	50
Rated current Ir (A)	upto 3150
Short circuit current Isc (kA)	upto 40
Short circuit duration Tk (s)	3

	EvoPact HVX
Switching sequence	O - 0.3 s - CO - 3 mn - CO
Closing time (ms)	40
Opening time (ms)	25-45
Number of switching operations	10000
Ambient temperature (°C)	-25 / +40

Make the most of your equipment with available add-ons

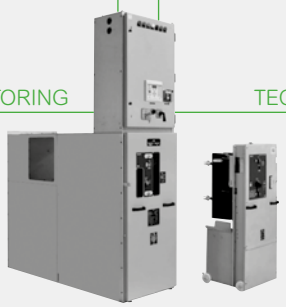
Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1



SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6
Vacuum solutions may require overvoltage protections
See pages B74 and B76

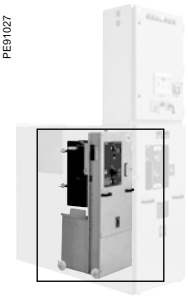
Medium Voltage distribution

HWX
with HWX-HVX

Original brand: GEC Alsthom, Alstom, AREVA, Schneider Electric

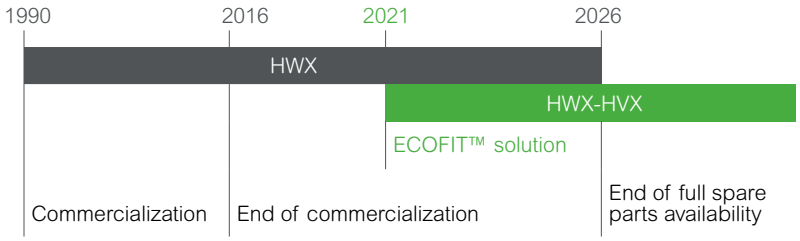
ECOFIT™ proposal

HWX
Circuit Breaker



HWX-HVX
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	HWX
Rated Voltage Un (50/60Hz)	12 kV
Rated current (Ir)	up to 5000 A
Short Circuit Current (Isc)	up to 50 kA

	HWX-HVX
Insulation / Breaking Technology	AIS / Vacuum
Rated Insulation level (kV)	12
Rated power frequency whistand voltage / 1mn (kVrms)	28
Lighting impluse wistand voltage (peak value) (kVp)	75
Overall dimensions (W x H x D in mm)	up to 860 x 2400 x 1800

	HWX-HVX
Rated current of busbar (A)	up to 3150
Rated short time whistand current (3s) (kA)	up to 40
Internal Arc classification (1s) (AFLR) (kA)	40
Ingress Protection degree	IP4x

Make the most of your equipment with available add-ons

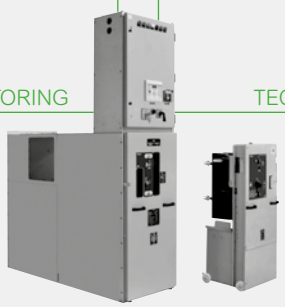
Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1



SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6
Vacuum solutions may require overvoltage protections
See pages B74 and B76

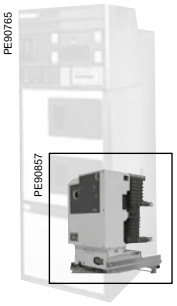
Medium Voltage distribution

Normaclad PX12-24/FPX with FPX

Original brand: GEC-Alsthom

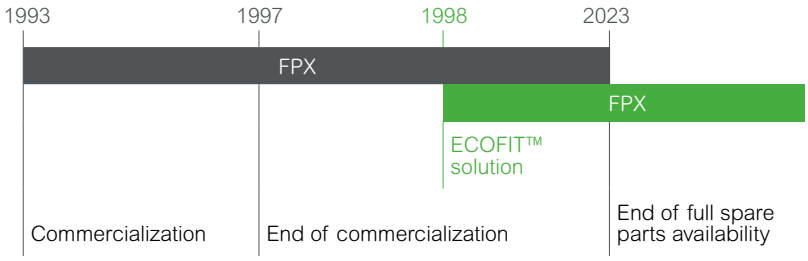
ECOFIT™ proposal

FPX
Circuit Breaker



FPX
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	FPX	
Rated current (Ir)	Up to 3150 A	Up to 2500 A
Short circuit current (Isc)	40 kA	31.5 kA/3s
Rated voltage Un (50/60 Hz)	12 kV	24 kV

	FPX		
Technology	SF6	SF6	SF6
Rated voltage Ur (kV)	12	17.5	24
Surge withstand voltage Up (kV)	100	80	80
Nominal frequency (Hz)	50-60	50-60	50-60
Rated current Ir (A)	3150	2500	2500
Short circuit current Isc (kA)	40	31.5	31.5
Short circuit duration Tk (s)	3	3	3

	FPX		
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO		
Closing time (ms)	50	50	50
Opening time (ms)	50	50	50
Number of switching operations	10000	10000	10000
Service temperature (°C)	-5/+40	-5/+40	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

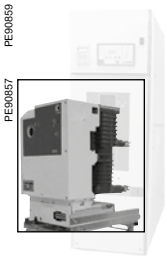
Medium Voltage distribution

PIX SF6-FPX with FPX

Original brand: Alstom, AREVA, Schneider Electric

ECOFIT™ proposal

FPX Circuit Breaker



FPX Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	FPX		
Rated current (Ir)	Up to 3150 A	Up to 2500 A	Up to 2500 A
Short circuit current (Isc)	40 kA	31.5 kA	31.5 kA
Rated voltage Un (50/60 Hz)	12 kV	17.5 kV	24 kV

	FPX		
Technology	SF6	SF6	SF6
Rated voltage Ur (kV)	12	17.5	24
Surge withstand voltage Up (kV)	75	95	125
Nominal frequency (Hz)	50-60	50-60	50-60
Rated current Ir (A)	Up to 3150	Up to 2500	Up to 2500
Short circuit current Isc (kA)	Up to 40	Up to 31.5	Up to 31.5
Short circuit duration Tk (s)	3	3	3

	FPX
Switching sequence	O-3 mn-CO-3 mn-CO CO-0.3 s-CO-15 s-CO O-0.3 s-CO-3 mn-CO
Closing time (ms)	50
Opening time (ms)	50
Number of switching operations	10 000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

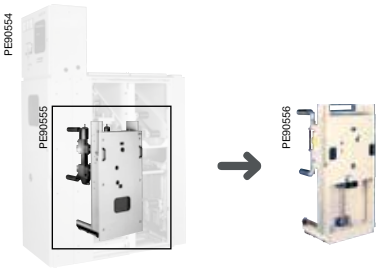
SF6 Recovery Services
SF6, raw material recovery
See page I1

Medium Voltage distribution
R/VA-VAA
with VA-VAA
Original brand: AEG, Alstom

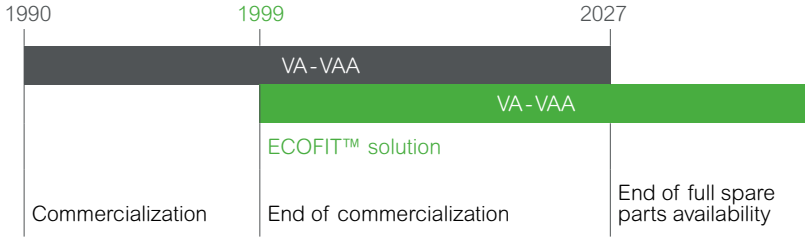
ECOFIT™ proposal

VA-VAA
Circuit Breaker

VA-VAA
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	VA-VAA
Rated current (Ir)	1250-4000 A
Short circuit current (Isc)	16-50 kA
Rated voltage Un (50/60 Hz)	12-36 kV

	VA-VAA
Technology	Vacuum
Rated voltage Ur (kV)	12-24-36
Surge withstand voltage Up (kV)	75-125
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-3550
Short circuit current Isc (kA)	16-50
Short circuit duration Tk (s)	3

	VA-VAA
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10 000
Service temperature (°C)	-5/+40

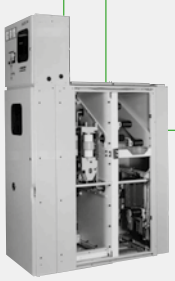
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1



TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

VISAX/BLV with BLV

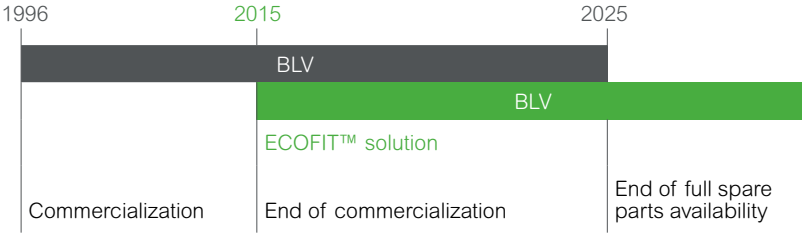
Original brand: GEC-Alsthom, Alstom, AREVA, Schneider Electric

ECOFIT™ proposal

BLV
Circuit Breaker

BLV
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	BLV			
Rated current (Ir)	400-1250 A	400-1250 A	400-1250 A	400-1250 A
Short circuit current (Isc)	16-40 kA	16-40 kA	16-40 kA	16-31.5 kA
Rated voltage Un (50/60 Hz)	7.2 kV	12 kV	17.5 kV	24 kV

	BLV			
Technology	Vacuum	Vacuum	Vacuum	Vacuum
Rated voltage Ur (kV)	7.2	12	17.5	24
Surge withstand voltage Up (kV)	125	125	125	125
Nominal frequency (Hz)	50-60	50-60	50-60	50-60
Rated current Ir (A)	400-2500	400-2500	400-2500	400-2500
Short circuit current Isc (kA)	16-40	16-40	16-40	16-31.5
Short circuit duration Tk (s)	3	3	3	3

	BLV
Switching sequence	O-3 mn-CO-3 mn-CO O-0.3 s-CO-3 mn-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	50
Opening time (ms)	40
Number of switching operations	10000
Service temperature (°C)	-5/+40, -25 on demand

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

Medium Voltage distribution

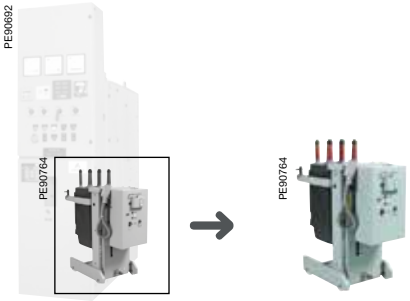
VMX/VMX with VMX

Original brand: GEC-Alsthom, Alstom, AREVA

ECOFIT™ proposal

VMX
Circuit Breaker

VMX
Circuit Breaker



With ECOFIT™, a true extended life time

Main technical characteristics

	VMX
Rated current (Ir)	630-2000 A
Short circuit current (Isc)	Up to 25 kA/3 s
Rated voltage Un (50/60 Hz)	11 kV

	VMX
Technology	Vacuum
Rated voltage Ur (kV)	11
Surge withstand voltage Up (kV)	95
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-1250
Short circuit current Isc (kA)	25
Short circuit duration Tk (s)	3

	VMX
Switching sequence	O-3 min-CO-3 min-CO O-0.3 s-CO-3 min-CO O-0.3 s-CO-15 s-CO
Closing time (ms)	< 52
Opening time (ms)	< 61
Number of switching operations	10000
Service temperature (°C)	-25/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

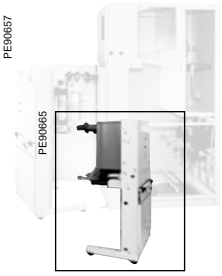
Medium Voltage distribution

WBA/VA-VAA with VA-VAA

Original brand: AEG, Alstom, AREVA

ECOFIT™ proposal

VA-VAA
Circuit Breaker



VA-VAA
Circuit Breaker

With ECOFIT™, a true extended life time

EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	VA	VAA
Rated current (Ir)	630-2500 A	630-1250 A
Short circuit current (Isc)	20-50 kA	16-25 kA
Rated voltage Un (50/60 Hz)	12-24 kV	12-24 kV

	VA-VAA
Technology	Vacuum
Rated voltage Ur (kV)	12-24
Surge withstand voltage Up (kV)	75-125
Nominal frequency (Hz)	50-60
Rated current Ir (A)	600-2500
Short circuit current Isc (kA)	25-31.5
Short circuit duration Tk (s)	3

	VA-VAA
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

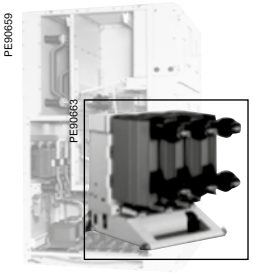
Medium Voltage distribution

WBB/VA-VAA with VA-VAA

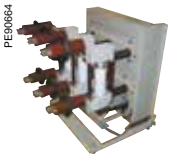
Original brand: AEG, Alstom, AREVA

ECOFIT™ proposal

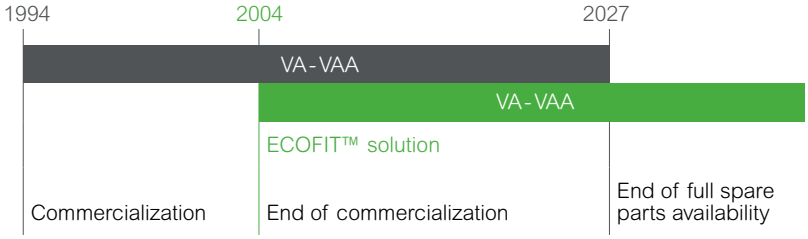
VA-VAA
Circuit Breaker



VA-VAA
Circuit Breaker



With ECOFIT™, a true extended life time



EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	VA	VAA
Rated current (Ir)	630-2500 A	630-1250 A
Short circuit current (Isc)	20-50 kA	16-25 kA
Rated voltage Un (50/60 Hz)	12 kV	12 kV

	VA-VAA
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	75-95
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-2500
Short circuit current Isc (kA)	16-31.5
Short circuit duration Tk (s)	3

	VA-VAA
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect
T°, Humidity, CB health status
See page E1

MONITORING

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

Medium Voltage distribution

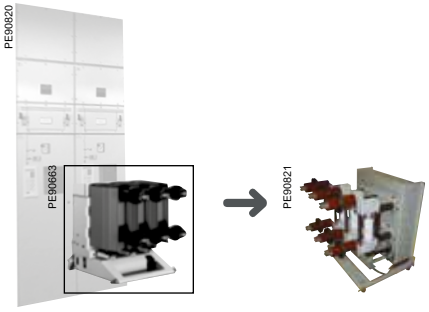
WBD/VA-VAA with VA-VAA

Original brand: AEG, Alstom, AREVA, Schneider Electric

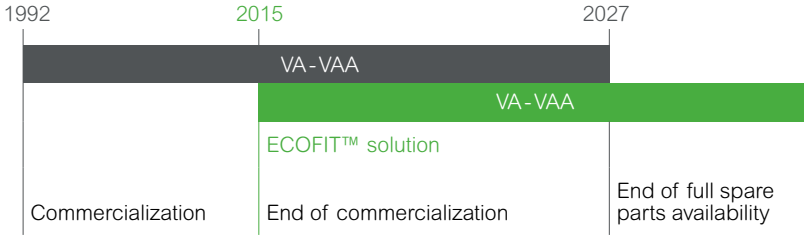
ECOFIT™ proposal

VA-VAA
Circuit Breaker

VA-VAA
Circuit Breaker



With ECOFIT™, a true extended life time



EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	VA-VAA
Rated current (Ir)	630-2500 A
Short circuit current (Isc)	25-31.5 kA
Rated voltage Un (50/60 Hz)	12 kV

	VA-VAA
Technology	Vacuum
Rated voltage Ur (kV)	12
Surge withstand voltage Up (kV)	80
Nominal frequency (Hz)	50-60
Rated current Ir (A)	630-3150
Short circuit current Isc (kA)	25-31.5
Short circuit duration Tk (s)	3

	VA-VAA
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10000
Service temperature (°C)	-5/+40

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

Medium Voltage distribution

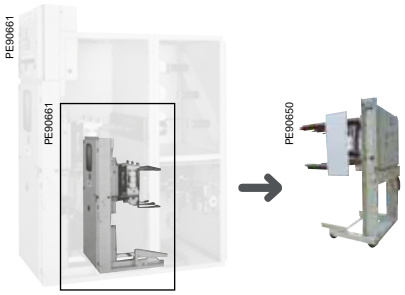
WK(A/B/C/D/E/F)/VA-VAA with VA-VAA

Original brand: AEG, Alstom, AREVA

ECOFIT™ proposal

VA-VAA
Circuit Breaker

VA-VAA
Circuit Breaker



With ECOFIT™, a true extended life time

EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	VA-VAA
Rated current (Ir)	630-2500 A
Short circuit current (Isc)	31.5-50 kA
Rated voltage Un (50/60 Hz)	Up to 36 kV

	VA-VAA
Technology	Vacuum
Rated voltage Ur (kV)	12-36
Surge withstand voltage Up (kV)	60-110
Nominal frequency (Hz)	50-60
Rated current Ir (A)	400-4000
Short circuit current Isc (kA)	10-50
Short circuit duration Tk (s)	3

	VA-VAA
Switching sequence	O-0.3 s-CO-3 min-CO
Closing time (ms)	20
Opening time (ms)	20-50
Number of switching operations	10 000
Service temperature (°C)	-5/+40

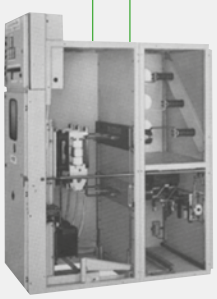
Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

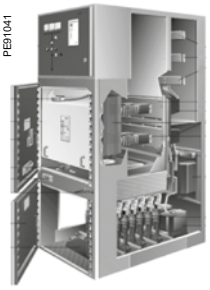


Medium Voltage distribution

AHA panel
with AHA panel
Original brand: AEG, Alstom, AREVA

ECOFIT™ proposal for panel extension or replacement

AHA



With ECOFIT™, a true extended life time

Main technical characteristics

	AHA
Rated current (Ir)	Up to 4000 A
Short circuit current (Isc)	Up to 40 kA
Rated voltage Un (50/60 Hz)	12 kV

	AHA
Rated insulation level (kV)	12
Rated power frequency withstand voltage/1mn (kVrms)	38
Lightning impulse withstand voltage (peak value) (kVp)	95
Overall dimensions (w x h x d) (mm)	700 x 2330 x 1450 900 x 2330 x 1450

	AHA
Rated current of busbar (A)	Up to 4000
Rated short time withstand current (4s) (kA)	Up to 40
Internal Arc Classification (1s) (AFLR)	31.5
Ingress Protection degree (IP)	Enclosure IP42 - Compartment IP2X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash, Remote racking
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

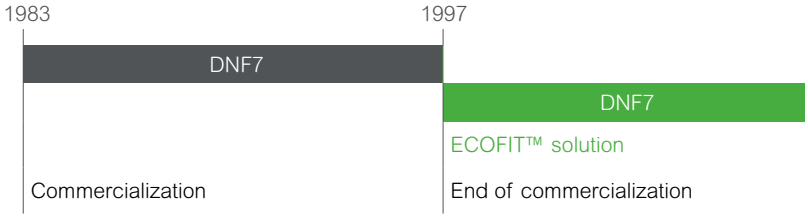
Medium Voltage distribution

DNF7 panel
with DNF7 panel
Original brand: CEM, Delle Alsthom, GEC-Alsthom

ECOFIT™ proposal for panel extension or replacement

DNF7

With ECOFIT™, a true extended life time



Main technical characteristics

	DNF7
Rated current (Ir)	400-2000 A
Short circuit current (Isc)	31.5 kA
Rated voltage Un (50/60 Hz)	36 kV

	DNF7
Rated insulation level (kV)	36
Rated power frequency withstand voltage/1mn (kVrms)	70
Lightning impulse withstand voltage (peak value) (kVp)	170
Overall dimensions (w x h x d) (mm)	1300 x 2250* x 2300**

	DNF7
Rated current of busbar (A)	400-1250 (2500***)
Rated short time withstand current (4s) (kA)	16-31.5
Internal Arc Classification (1s) (AFLR)	25 kA
Ingress Protection degree (IP)	Enclosure IP3X

* 2900 mm with busbar compartment - ** 2500 mm with internal arc withstand, 2750 mm with cables voltage compartment - *** With forced cooling (on request)

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

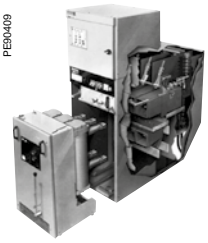
Medium Voltage distribution

Fluair F100-F200 panel with Fluair F100-F200 panel

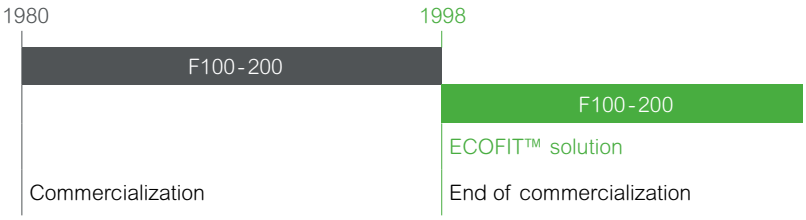
Original brand: Merlin Gerin

ECOFIT™ proposal for panel extension or replacement

F100-200



With ECOFIT™, a true extended life time



Main technical characteristics

	F100	F200
Rated current (Ir)	630-3150 A	630-3150 A
Short circuit current (Isc)	25-50 kA	25-50 kA
Rated voltage Un (50/60 Hz)	7.2 kV	12-17.5 kV

	F100-F200
Rated insulation level (kV)	7.2-12-17.5
Rated power frequency withstand voltage/1mn (kVrms)	20-28-38
Lightning impulse withstand voltage (peak value) (kVp)	60-75-95
Overall dimensions (w x h x d) (mm)	≤ 1250 A: 650 x 2100 x 1455/1700 2500-3150 A: 900 x 2100 x 1700

	F100-F200
Rated current of busbar (A)	Up to 3150
Rated short time withstand current (3s) (kA)	Up to 50
Internal Arc Classification (1s) (AFLR)	
Ingress Protection degree (IP)	Enclosure IP3X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

Asset Connect with EvoPact LF circuit breaker
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
SF6, Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Normaclad PX12-24 panel with Normaclad PX12-24 panel

Original brand: GEC-Alsthom

ECOFIT™ proposal for panel extension or replacement

PX12-24

With ECOFIT™, a true extended life time

Main technical characteristics

	PX12	PX24
Rated current (Ir)	400-3150 A	400-2500 A
Short circuit current (Isc)	25-40 kA	16-25-31.5 kA
Rated voltage Un (50/60 Hz)	12 kV	24 kV

	PX12	PX24
Rated insulation level (kV)	12	24
Rated power frequency withstand voltage/1mn (kVrms)	28	50
Lightning impulse withstand voltage (peak value) (kVp)	75	125
Overall dimensions (wxhxd) (mm)	<1250 A: 650x2135x1320 ≤2000 A: 750x2135x1320 >2000 A: 900x2135x1320	≤2000 A: 750x2135x1320 >2000 A: 900x2335x1570

	PX12	PX24
Rated current of busbar (A)	630-3150	630-2500
Rated short time withstand current (4s) (kA)	25-40	25-31.5
Internal Arc Classification (1s) (AFLR)	25	25
Ingress Protection degree (IP)	Enclosure IP3X	Enclosure IP3X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

PIX-SF6 panel with PIX-SF6 panel

Original brand: Alstom, AREVA, Schneider Electric

ECOFIT™ proposal for panel extension or replacement

PIX-SF6

With ECOFIT™, a true extended life time

Main technical characteristics

	PIX-SF6		
Rated current (Ir)	Up to 3150 A	Up to 2500 A	Up to 2500 A
Short circuit current (Isc)	40 kA / 3 s	31.5 kA / 3 s	31.5 kA / 3 s
Rated voltage Un (50/60 Hz)	12 kV	17.5 kV	24 kV

	PIX-SF6		
Rated insulation level (kV)	12	17.5	24
Rated power frequency withstand voltage/1mn (kVrms)	28	38	50
Lightning impulse withstand voltage (peak value) (kVp)	75	95	125
Overall dimensions (w x h x d) (mm)	1000x2130x1405 - 1000x2330x1605 - 1000x2330x1605		

	PIX-SF6		
Rated current of busbar (A)	Up to 3150	Up to 2500	Up to 2500
Rated short time withstand current (4s) (kA)	40	31.5	31.5
Internal Arc Classification (1s) (AFLR)	40	40	40
Ingress Protection degree (IP)	IP3X	IP3X	IP3X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

VISAX panel with VISAX panel

Original brand: GEC-Alsthom, Alstom, AREVA, Schneider Electric

ECOFIT™ proposal for panel extension or replacement

VISAX

With ECOFIT™, a true extended life time

Main technical characteristics

	VISAX		
Rated current (Ir)	Up to 2500 A	Up to 2500 A	Up to 2500 A
Short circuit current (Isc)	25 kA/3 s	25 kA/3 s	25 kA/3 s
Rated voltage Un (50/60 Hz)	12 kV	17.5 kV	24 kV

	VISAX		
Rated insulation level (kV)	12	17.5	24
Rated power frequency withstand voltage/1 mn (kVrms)	28	38	50
Lightning impulse withstand voltage (peak value) (kVp)	75	95	125
Overall dimensions (w x h x d) (mm)	800-1100 x 2150-2650 x 1250-1540		

	VISAX
Rated current of busbar (A)	Up to 2500
Rated short time withstand current (4 s) (kA)	25
Internal Arc Classification (1 s) (AFLR)	25
Ingress Protection degree (IP)	IP3X-IP4X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

Medium Voltage distribution

VMX panel
with VMX panel
Original brand: GEC-Alsthom, Alstom, AREVA

ECOFIT™ proposal for panel extension or replacement

VMX

With ECOFIT™, a true extended life time

Main technical characteristics

	VMX
Rated current (Ir)	630 - 2000 A
Short circuit current (Isc)	Up to 25 kA / 3 s
Rated voltage Un (50/60 Hz)	11 kV

	VMX
Rated insulation level (kV)	12
Rated power frequency withstand voltage/1 mn (kVrms)	28 - 35
Lightning impulse withstand voltage (peak value) (kVp)	75
Overall dimensions (w x h x d) (mm)	606 - 540 x 2000 - 2000 x 1867 - 1360

	VMX
Rated current of busbar (A)	Up to 2000
Rated short time withstand current (4 s) (kA)	Up to 26.3
Internal Arc Classification (1 s) (AFLR)	25
Ingress Protection degree (IP)	IP3X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
SF6, raw material recovery
See page I1

Medium Voltage distribution

WBA panel
with WBA panel
Original brand: AEG, Alstom, AREVA

ECOFIT™ proposal for panel extension or replacement

WBA

With ECOFIT™, a true extended life time

Main technical characteristics

	WBA	
Rated current (Ir)	630-2500 A	630-2500 A
Short circuit current (Isc)	16-25 kA & 20-50 kA	20-50 kA
Rated voltage Un (50/60 Hz)	12-24 kV	12-38 kV

	WBA
Rated insulation level (kV)	12-24
Rated power frequency withstand voltage/1 mn (kVrms)	28-50
Lightning impulse withstand voltage (peak value) (kVp)	75-125
Overall dimensions (w x h x d) (mm)	600/800/1000 x 2330 x 1250/1300

	WBA
Rated current of busbar (A)	630-2500
Rated short time withstand current (4 s) (kA)	63-80
Internal Arc Classification (1 s) (AFLR)	PEHLA 31.5 kA
Ingress Protection degree (IP)	Standard IP2X On request IP3X, IP4X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash, Remote racking
See page F1

PROTECTION

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

MONITORING

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

WBB panel with WBB panel

Original brand: AEG, Alstom, AREVA

ECOFIT™ proposal for panel extension or replacement

WBB

With ECOFIT™, a true extended life time

Main technical characteristics

	WBB
Rated current (Ir)	630 - 2500 A
Short circuit current (Isc)	20 - 50 kA
Rated voltage Un (50/60 Hz)	12 - 24 kV

	WBB
Rated insulation level (kV)	12 - 24
Rated power frequency withstand voltage/1 mn (kVrms)	28 - 38
Lightning impulse withstand voltage (peak value) (kVp)	75 - 95
Overall dimensions (w x h x d) (mm)	600, 800, 1000 x 2330 x 1250, 1500

	WBB
Rated current of busbar (A)	630 - 2500
Rated short time withstand current (4 s) (kA)	63 - 80
Internal Arc Classification (1 s) (AFLR)	PEHLA 31.5 kA
Ingress Protection degree (IP)	Standard IP2X On request IP3X, IP4X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash, Remote racking
See page F1

PROTECTION

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

MONITORING

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

WBD panel
with WBD panel
Original brand: AEG, Alstom, AREVA, Schneider Electric

ECOFIT™ proposal for panel extension or replacement

WBD

With ECOFIT™, a true extended life time

Main technical characteristics

	WBD
Rated current (Ir)	630-3150 A
Short circuit current (Isc)	80 kA
Rated voltage Un (50/60 Hz)	12 kV

	WBD
Rated insulation level (kV)	12
Rated power frequency withstand voltage/1 mn (kVrms)	28
Lightning impulse withstand voltage (peak value) (kVp)	80
Overall dimensions (w x h x d) (mm)	600, 800 x 3000 x 1750

	WBD
Rated current of busbar (A)	630-3150*
Rated short time withstand current (4 s) (kA)	80
Internal Arc Classification (1 s) (AFLR)	PEHLA 31.5 kA
Ingress Protection degree (IP)	IP2X even for open door and modul in disconnecting position, IP3X to the busbar, outside IP52 possible

* With forced cooling (on request)

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash, Remote racking
See page F1

PROTECTION

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

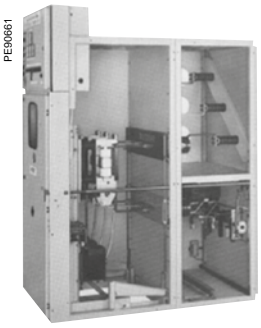
Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

WK panel
with WK panel
Original brand: AEG, Alstom, AREVA

ECOFIT™ proposal for panel extension or replacement

WK



With ECOFIT™, a true extended life time

Main technical characteristics

	WK
Rated current (Ir)	630-3150 A
Short circuit current (Isc)	20-50 kA/3 s
Rated voltage Un (50/60 Hz)	12-24-38 kV

	WK
Rated insulation level (kV)	12-36
Rated power frequency withstand voltage/1 mn (kVrms)	28-38
Lightning impulse withstand voltage (peak value) (kVp)	110
Overall dimensions (w x h x d) (mm)	600/1060 x 2330 x 1700/2100

	WK
Rated current of busbar (A)	630-4000
Rated short time withstand current (4 s) (kA)	63-80
Internal Arc Classification (1 s) (AFLR)	PEHLA 31.5 kA
Ingress Protection degree (IP)	Standard IP2X On request IP3X, IP4X

Make the most of your equipment with available add-ons

Protection relays
Easergy Px, Sepam, MiCom, Arc Flash, Remote racking
See page F1

PROTECTION

Asset Connect (only WKC)
T°, Humidity, CB health status
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

SF6 Recovery Services
Raw material recovery
See page I1

TECHNOLOGY

Vacuum vs SF6, Oil, Air
Vacuum solutions may require overvoltage protections
See pages B74 and B76

Medium Voltage distribution

Medium Voltage distribution

Circuit Breaker & Panel Order Form

First Name	Last Name
Country	Phone
Email ID	Quantity

Serial number of existing CB	
Brand	Type
Range	Type of new CB
Rated Current (A)	Rated Voltage (kV)
Short circuit current (kA/sec)	Isolating technology for new CB
Frequency	Standard
Opening coil (YO1)	Opening coil (YO2)
Under voltage coil (YM)	Closing coil (YF)

Phase to phase distance for MCset	Diagram Number (optional)
JE Number	Year of Installation
Pressure switch for EvoPact SF2	Moisture Heater resistor
Mechanical Interlocking	
Comments/Message	

To request for a quote, please use the ECOFIT™ web selector: https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Medium Voltage distribution
Circuit Breaker & Panel Order Form

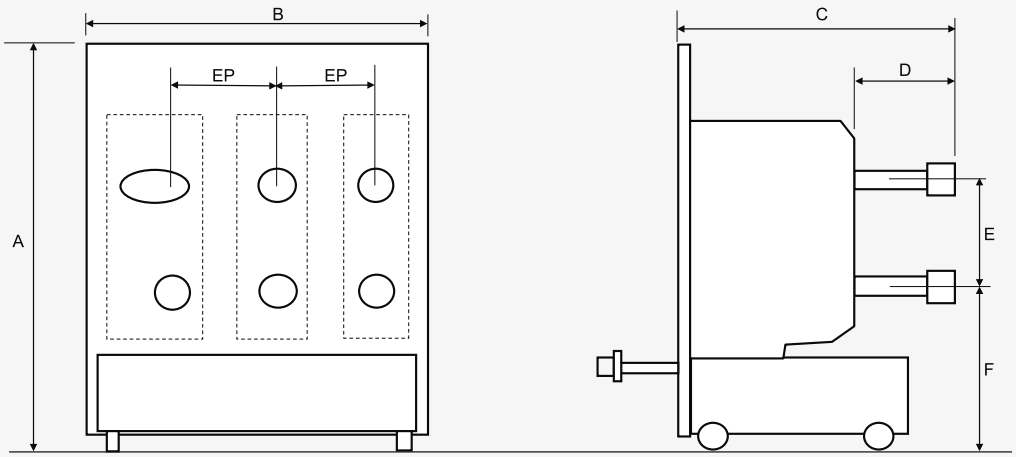
Mechanical characteristics to ensure feasibility

Dimensional plan supplied by customer?

YES ☐

NO ☐ ➡ Fill in required dimensions in the table below:

EP:		A:		B:		C:	
D:		(arm length)		E:		F:	



Established feasibility

Is it possible to send existing equipment to us to verify dimensions?

YES	☐
NO	☐

Additional options requested (availability depends on range type)

Digitization

Temperature	☐
Humidity	☐
Arc Flash	☐
Circuit breaker health status (requires digital protection relay)	☐

Protection

Relay modernization	☐
Remote racking	☐

Sustainability

SF6 Recovery Service	☐

Medium Voltage distribution

SF6 to vacuum recommendations for motor applications

Recommendations when retrofitting with vacuum technology MV synchronous or asynchronous motor with Direct On Line (DOL) starting

The MV motor is a sensitive device in the electrical network.

In fact, the standard defining the insulation levels for MV motors (IEC60034-15) gives rated lightning-impulse voltage withstand levels well below the withstand levels of other equipment of the same voltage level, such as transformers for example.

For example, for an 11 kV network, the rated lightning-impulse voltage withstand is only 49 kV for a motor compared to 75 kV for a transformer.

It is therefore important to

- identify and quantify the overvoltages to which motors may be subjected and
- consider the criticality of the motor 1

in order to determine whether the replacement of an old generation CB by a vacuum CB can be carried out without special precautions.

Most of the closing or opening operations of a vacuum CB controlling an MV motor do not cause overvoltages that could stress the motor beyond its standard withstand.

The closing operations of the circuit breaker, thus starting the motor, do not generate overvoltages (only an overcurrent, the starting current of the motor).

Most of the opening operations of the vacuum CB controlling an MV motor can generate overvoltages, but these remain well below the standard withstand of the motor and therefore do not require any additional motor protection precautions. These include :

- Opening the circuit breaker to clear an insulation fault or short circuit in the motor or its associated load.
- Opening the circuit breaker when the motor is in operation (regardless of the load).

On the other hand, opening the vacuum CB during the motor starting period is a switching that can generate significant overvoltages that exceed the motor withstand capacity and therefore requires special precautions to avoid this type of switching or to install suitable additional protection.

This opening during the start-up period can be the consequence of :

- incorrect setting of the protections 2: it is essential to have an up-to-date selectivity study applied
- an opening request from the process 3: this opening request from the process can be wired on the protection relay or be in the form of a remote control
- voluntary manoeuvre. For this last point, the customer should be made aware that this type of operation (opening during the motor starting period) can lead to motor failure.

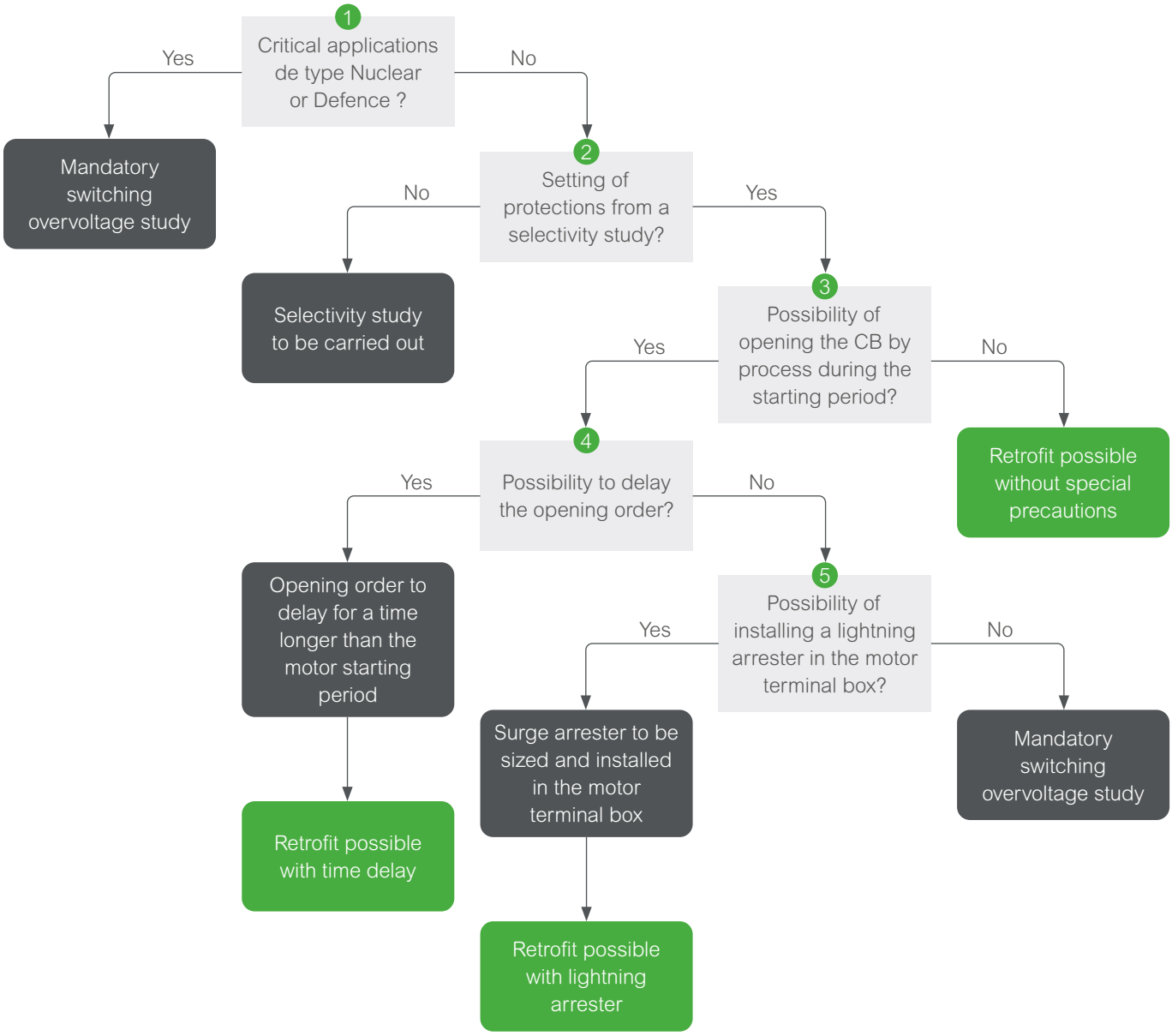
In the case of a possible opening request from the process during the motor start-up period 3, it is important to check if this request can be delayed 4 in order to let the motor finish its starting period. If this is the case, significant overvoltages will be avoided and no additional motor protection precautions need to be considered. This solution should be preferred if it is acceptable by the process.

Otherwise, an effective protection consists in installing surge arresters 5 as close as possible to the motor, i.e. in the motor terminal box.
The proximity of the motor to the surge arrester and the installation of the surge arrester with the shortest possible connection lengths are the two key points for effective protection of the motor against these switching overvoltages.

Medium Voltage distribution

SF6 to vacuum recommendations for motor applications

Retrofit of an old generation MV CB by a vacuum CB for motor applications



Medium Voltage distribution

SF6 to vacuum recommendations for transformer applications

Recommendations when retrofitting CBs with vacuum technology MV/LV or HV/MV transformers

The HV/MV or MV/LV transformer is an essential and critical device in the electrical network.

Indeed, the main power supply of an installation is usually made through one or several transformers, which becomes a critical element (single point of failure).
It is therefore a device to be protected from the risks of overvoltages, whatever their origin.

So, it is important to:

- identify and quantify the overvoltages to which transformers may be subjected and
- consider the criticality of the transformer 1 in order to determine whether the replacement of an old generation CB by a vacuum CB can be carried out without special precautions.

Recommendations when retrofitting CBs with vacuum technology MV/LV or HV/MV transformers

Most of the closing or opening operations of a vacuum circuit-breaker controlling a HV/MV or MV/LV transformer do not cause overvoltages that could stress the transformer beyond its normalized withstand , given in the IEC60071-1 standard.

The closing operations of the circuit breaker, which therefore cause the transformer to be switched on (energisation), do not generate any significant overvoltages (only an overcurrent, inrush current of the transformer). However, they do generate severe mechanical stresses.

A clarification must be made on the number of possible energisation of a transformer without any particular specification 2: the IEC60076-1 standard recalls that a number of energisation greater than 24 times per year is a matter of unusual (abnormal) service conditions and must therefore be agreed between supplier and purchaser. In this case, it is useful to carry out a switching overvoltage study in order to calculate the overvoltage level and to check that their repetitiveness is acceptable to the transformer.

Most of the opening operations of the vacuum CB controlling a transformer can generate overvoltages, but these remain well below the standard withstand of the transformer and therefore do not require any additional transformer protection precautions.

These include :

- Opening the circuit breaker to clear an insulation fault or short circuit.
- Opening the circuit breaker when the transformer is in no-load condition, i.e. with no load connected at the secondary side. Good practice recommends that, whenever possible, the loads of the transformer should be disconnected first, and then, once these loads are disconnected (transformer in no-load condition), the circuit breaker on the primary side of the transformer should be opened. In this case, no significant overvoltage occurs and no additional protection is required.

On the other hand, two situations can lead to significant overvoltages that exceed the withstand voltage level of the transformers:

- opening the vacuum circuit breaker during the transformer's inrush period (energisation),
- opening the vacuum circuit breaker while the transformer is still supplying a load connected to the secondary side of the transformer.

Opening during the transformer's inrush period may be the result of :

- incorrect setting of the protections 3: it is essential to have an up-to-date and applied selectivity study
- voluntary manoeuvre. For this last point, the customer should be made aware that this type of operation (opening during the transformer energisation period) can lead to transformer failure.

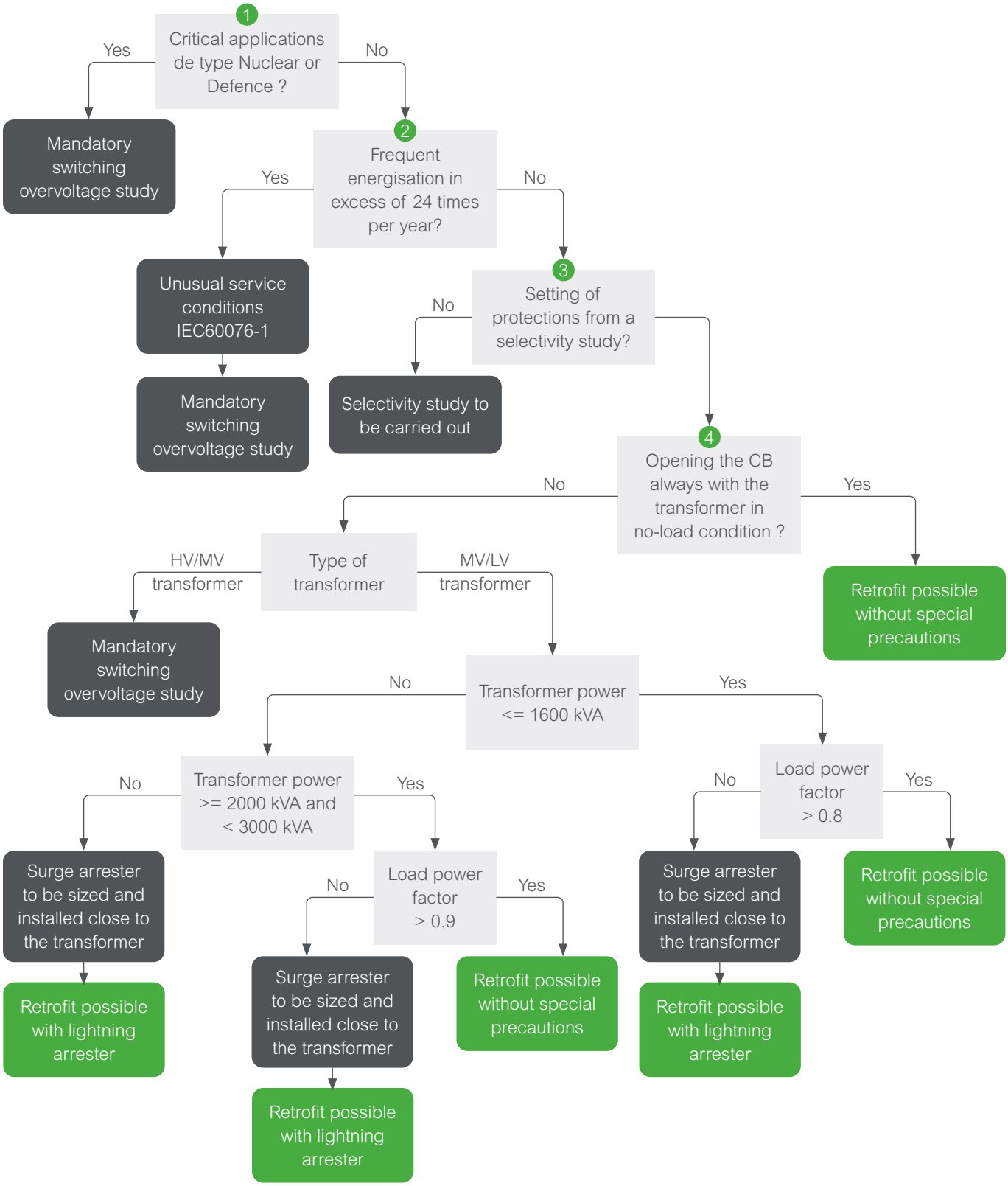
Large overvoltages (greater than the transformer withstand voltage level) can also occur when the vacuum circuit breaker is voluntarily opened when the transformer is not in no-load condition (secondary load still connected). The magnitude of these overvoltages depends on the power of the transformer and the power factor of the load connected on the secondary side 4.

Otherwise, an effective protection consists in installing surge arresters as close as possible to the transformer. The proximity of the transformer to the surge arrester and the installation of the surge arrester with the shortest possible connection lengths are the two key points for effective protection of the transformer against these switching overvoltages.

Medium Voltage distribution

SF6 to vacuum recommendations for transformer applications

Retrofit of an old generation MV CB by a vacuum CB for transformer applications



Low Voltage distribution

Low Voltage distribution

C

Low Voltage distribution

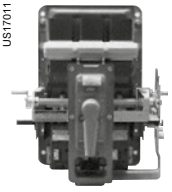
AK-(1-2-3-4-5)-15/25 Series with MasterPacT MTZ1

Original brand: General Electric

ECOFIT™ proposal

AK Series
Circuit Breaker

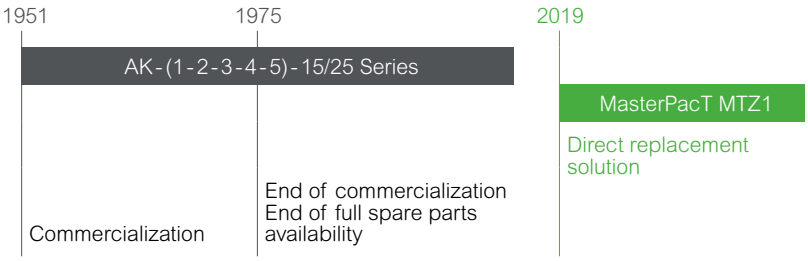
US17011



MasterPacT MTZ1
Circuit Breaker

US17012

With ECOFIT™, a true extended life time



Main technical characteristics

	AK-(1-2-3-4-5)-15/25 Series	MasterPacT MTZ1
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	800 A	800 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	42-30-22 kA	42 kA

US17012

AK Series direct replacement solution

The direct replacement AK Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

PROTECTION

SUSTAINABILITY

Resources, circular and well-being performances
See page I1

Green Premium™

Asset Connect
T°, Humidity,
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

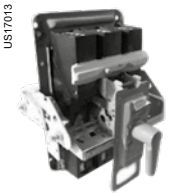
Low Voltage distribution

AK-(1A-2A-3A-4A-5A)-15/25 Series with MasterPacT MTZ1

Original brand: General Electric

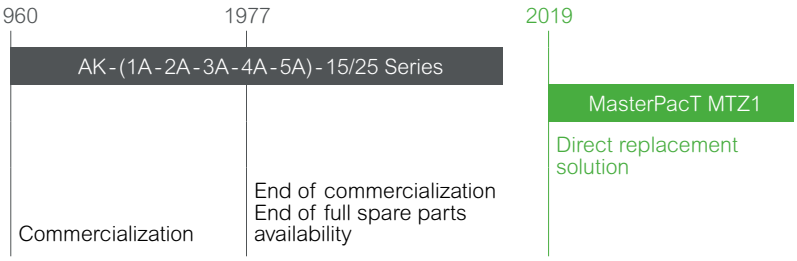
ECOFIT™ proposal

AK Series
Circuit Breaker



MasterPacT MTZ1
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	AK-(1A-2A-3A-4A-5A)-15/25 Series	MasterPacT MTZ1
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	800 A	800 A
Ultimate breaking capacity (kA rms, 240-480-600 V AC 50/60 Hz) Icu	42-30-22 kA	42 kA

AK Series direct replacement solution

The direct replacement AK Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

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See page I1

Green Premium™

Low Voltage distribution

AK-(1-2-3-4-5)-50 Series with MasterPacT MTZ2

Original brand: General Electric

ECOFIT™ proposal

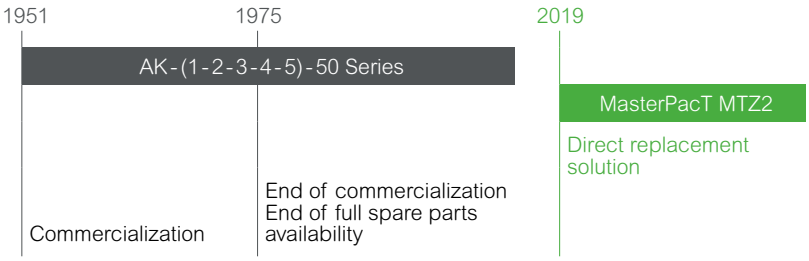
AK Series
Circuit Breaker

US17015

MasterPacT MTZ2
Circuit Breaker

US17016

With ECOFIT™, a true extended life time



Main technical characteristics

	AK-(1-2-3-4-5)-50 Series	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 240-480-600 V AC 50/60 Hz) Icu	65-50-42 kA	65 kA

US17016

AK Series direct replacement solution

The direct replacement AK Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

PROTECTION

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Green Premium™

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Low Voltage distribution
AKR-30 Series with MasterPacT MTZ1
Original brand: General Electric

ECOFIT™ proposal

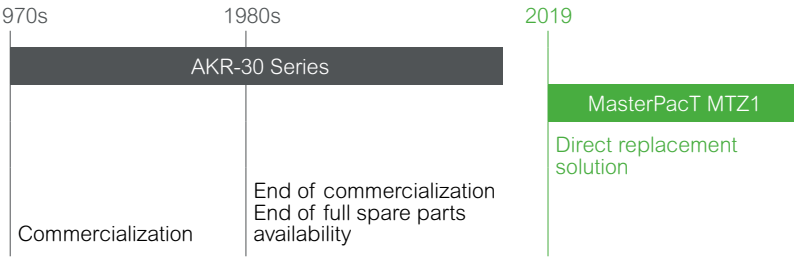
AKR Series
Circuit Breaker

US17017-3

MasterPacT MTZ1
Circuit Breaker

US17018

With ECOFIT™, a true extended life time



Main technical characteristics

	AKR-30 Series	MasterPacT MTZ1
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	800 A	800 A
Ultimate breaking capacity (kA rms, 240-480-600 V AC 50/60 Hz) Icu	42-30-30 kA	42 kA

US17018

AKR Series direct replacement solution

The direct replacement AKR Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

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SUSTAINABILITY

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See page I1

Green Premium™

Low Voltage distribution

AKR-50 Series with MasterPacT MTZ2

Original brand: General Electric

ECOFIT™ proposal

AKR Series
Circuit Breaker

MasterPacT MTZ2
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	AKR-50 Series	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 240-480-600 V AC 50/60 Hz) Icu	65-50-42 kA	65 kA

AKR Series direct replacement solution

The direct replacement AKR Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

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Low Voltage distribution

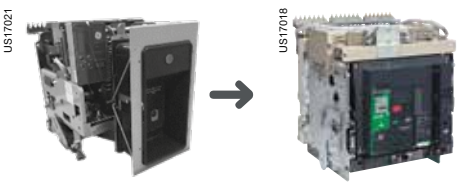
AKRT-50 Series with MasterPacT MTZ2

Original brand: General Electric

ECOFIT™ proposal

AKRT Series Circuit Breaker

MasterPacT MTZ2 Circuit Breaker



With ECOFIT™, a true extended life time

Main technical characteristics

	AKRT-50 Series	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40° C	2000 A	2000 A
Ultimate breaking capacity (kA rms, 240-480-600 V AC 50/60 Hz) Icu	65-65-50 kA	65 kA

AKRT Series direct replacement solution

The direct replacement AKRT Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Asset Connect
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Low Voltage distribution

B Control
with MasterPacT MTZ1-MTZ2
Original brand: Nuova Magrini Galileo

ECOFIT™ proposal

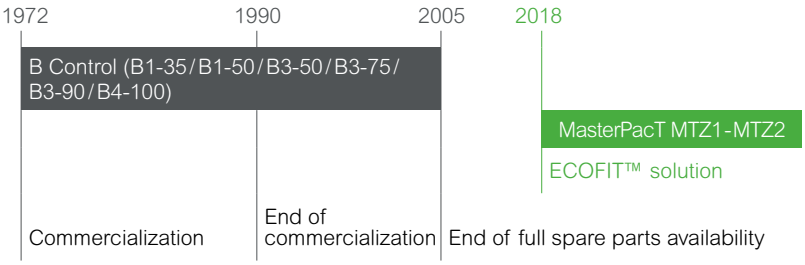
B Control
Circuit Breaker

PE90573

MasterPacT MTZ
Circuit Breaker

PE90426

With ECOFIT™, a true extended life time



Main technical characteristics

	B Control (B1-35/B1-50/B3-50/B3-75/ B3-90/B4-100)	MasterPacT MTZ1-MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	660 V	690 V
Rated current (A) In 40°C	800-4000 A	800-4000 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	32-100 kA	42-150 kA

PE90426

B Control ECOFIT™ solution

The ECOFIT™ B Control solutions fixed or draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ1 or MTZ2 circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Low Voltage distribution

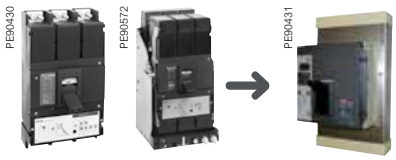
ComPacT C801 - C1251 with ComPacT NS800 - NS1250

Original brand: Merlin Gerin

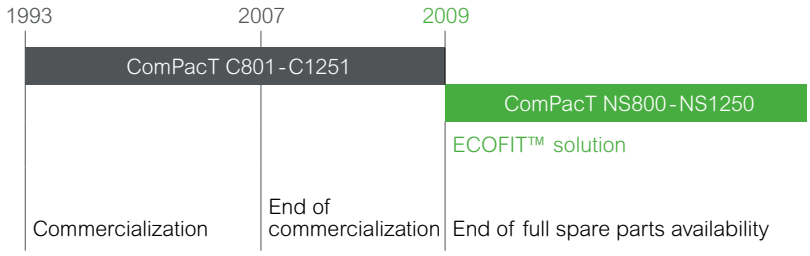
ECOFIT™ proposal

C801-C1251
Circuit Breaker

NS800-NS1250
Circuit Breaker



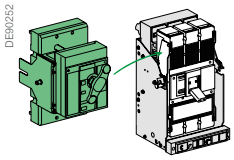
With ECOFIT™, a true extended life time



EcoXpert™
This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

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



ComPacT C801 - C1251 ECOFIT™ solution

Plug & Play

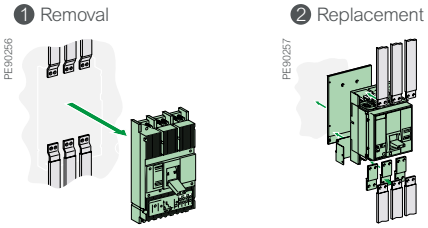
The ECOFIT™ ComPacT Plug & Play solution lets you retrofit the latest generation of ComPacT NS circuit breakers in the existing ComPacT C chassis with very short onsite servicing times.

Solution available for withdrawable type only, 3P & 4P, 800 A to 1250 A.

ComPacTkit

The ECOFIT™ ComPacTkit solution enables to benefit from all the enhanced features of ComPacT NS circuit breakers and accessories. It requires total shutdown of the installation to access the busbars.

Solution available for fixed type, 3P & 4P, 800 A to 1250 A.



Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Power Monitoring Expert
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Low Voltage distribution

DA (DSA1-DNA1-DSA2-DNA2-DRA-DNAH) with MasterPacT MTZ2-MTZ3

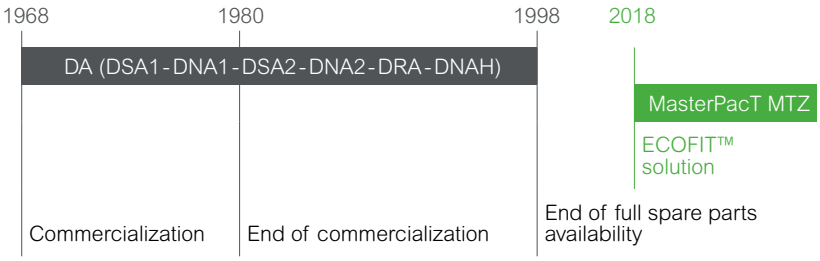
Original brand: Merlin Gerin

ECOFIT™ proposal

DA
Circuit Breaker

MasterPacT MTZ
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	DA	MasterPacT MTZ2-MTZ3
Rated operational voltage (V AC 50/60 Hz) Ue	660 V	690 V
Rated current (A) In 40°C	630-6300 A	800-6300 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	42-100 kA	42-150 kA

DA ECOFIT™ solution

The ECOFIT™ DA solution enables to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.
It requires total shutdown of the installation to access the busbars. The kit solution (including circuit breaker) is available for fixed and withdrawable types, 3P & 4P, 630 to 6300 A.

Make the most of your equipment with available add-ons

Protection relays
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Green Premium™

Low Voltage distribution

DS-206, DS-206H, DS-206E Series with MasterPacT MTZ2

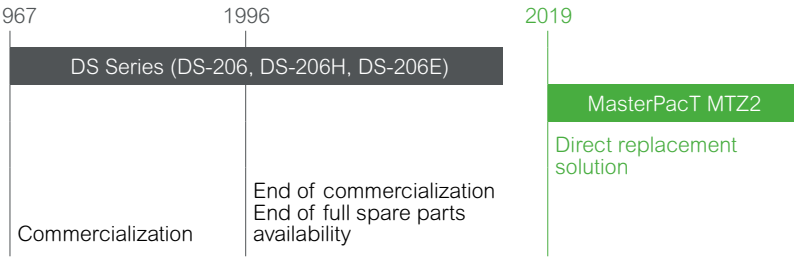
Original brand: Cutler-Hammer, Westinghouse

ECOFIT™ proposal

DS Series
Circuit Breaker

MasterPacT MTZ2
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	DS Series (DS-206, DS-206H, DS-206E)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 - 635 V	254 - 508 - 635 V
Rated current (A) In 40°C	800 A	800 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	50 - 42 - 42 kA	65 kA

DS Series direct replacement solution

The direct replacement DS Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Low Voltage distribution

DS-206, DS-206H, DS-206E Series with MasterPacT MTZ2

Original brand: Square D

ECOFIT™ proposal

DS Series
Circuit Breaker

MasterPacT MTZ2
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	DS Series (DS-206, DS-206H, DS-206E)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	800 A	800 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	50-42-42 kA	65 kA

DS Series direct replacement solution

The direct replacement DS Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
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Low Voltage distribution

DS-416, DS-416S, DS-416H Series with MasterPacT MTZ2

Original brand: Cutler-Hammer, Westinghouse

ECOFIT™ proposal

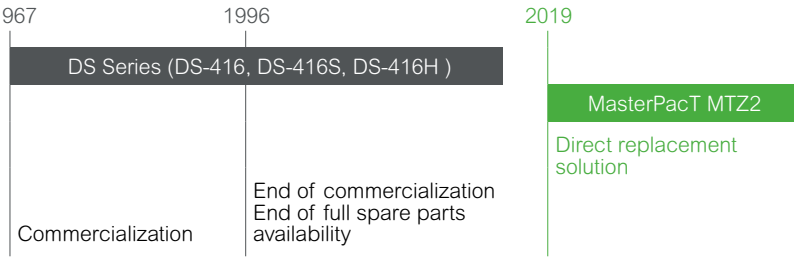
DS Series
Circuit Breaker

MasterPacT MTZ2
Circuit Breaker

US17027

US17025

With ECOFIT™, a true extended life time



Main technical characteristics

	DS Series (DS-416, DS-416S, DS-416H)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	65-65-50 kA	65 kA

US17025

DS Series direct replacement solution

The direct replacement DS Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
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Green Premium™

Low Voltage distribution

DS-416, DS-416S, DS-416H Series with MasterPacT MTZ2

Original brand: Square D

ECOFIT™ proposal

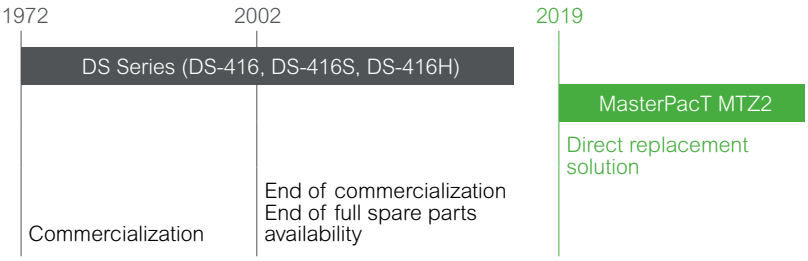
DS Series
Circuit Breaker

US17026-1

MasterPacT MTZ2
Circuit Breaker

US17025

With ECOFIT™, a true extended life time



Main technical characteristics

	DS Series (DS-416, DS-416S, DS-416H)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	65-65-50 kA	65 kA

US17025

DS Series direct replacement solution

The direct replacement DS Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
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See page I1

Green Premium™

Low Voltage distribution

DS-420 Series with MasterPacT MTZ2

Original brand: Cutler-Hammer, Westinghouse

ECOFIT™ proposal

DS Series
Circuit Breaker

US17027-2

MasterPacT MTZ2
Circuit Breaker

US17025

With ECOFIT™, a true extended life time

Main technical characteristics

	DS Series (DS-420)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 - 635 V	254 - 508 - 635 V
Rated current (A) In 40°C	2000 A	2000 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	65 - 65 - 50 kA	65 kA

US17025

DS Series direct replacement solution

The direct replacement DS Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

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Green Premium™

Low Voltage distribution

DS-420 Series with MasterPacT MTZ2

Original brand: Square D

ECOFIT™ proposal

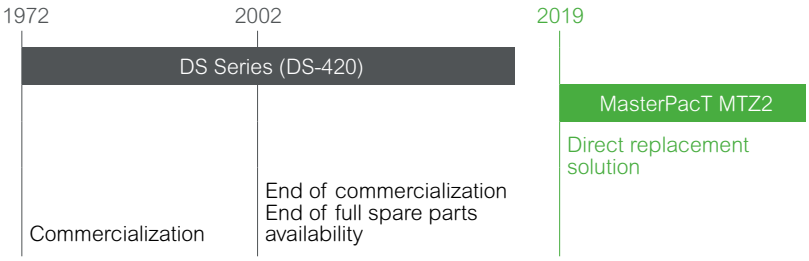
DS Series
Circuit Breaker

US17026-1

MasterPacT MTZ2
Circuit Breaker

US17025

With ECOFIT™, a true extended life time



Main technical characteristics

	DS Series (DS-420)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	2000 A	2000 A
Ultimate breaking capacity (kA rms, 240-480-600 V AC 50/60 Hz) Icu	65-65-50 kA	65 kA

US17025

DS Series direct replacement solution

The direct replacement DS Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Green Premium™

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Low Voltage distribution

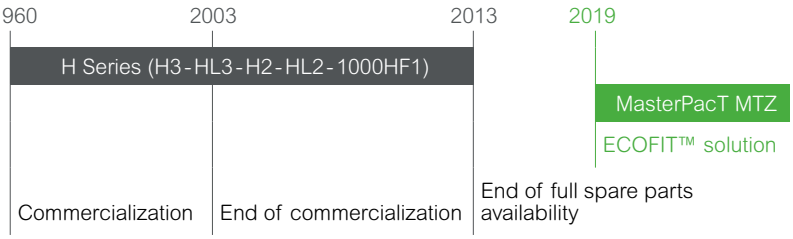
H Series
with MasterPacT MTZ
Original brand: Federal Pioneer

ECOFIT™ proposal

H Series
Circuit Breaker

MasterPacT MTZ
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	H Series	MasterPacT MTZ1-MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	600 V	600 V
Rated current (A) In 40°C	600 - 4000 A	800 - 6000 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	30 - 200* kA	30 - 200* kA

* with fuse

H Series direct replacement solution

The direct replacement H Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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SUSTAINABILITY

Resources, circular and well-being performances
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Green Premium™

Low Voltage distribution

K-225, K-600, K-800 Series with MasterPacT MTZ1

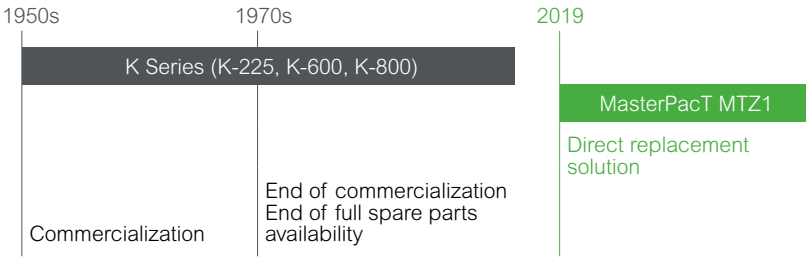
Original brand: ITE, ABB, BBC

ECOFIT™ proposal

K Series
Circuit Breaker

MasterPacT MTZ1
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	K Series (K-225, K-600, K-800)	MasterPacT MTZ1
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 V	254 - 508 V
Rated current (A) In 40°C	225, 600 - 800 A	225, 600 - 800 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	25 - 42 kA	42 kA

K Series direct replacement solution

The direct replacement K Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Green Premium™

Low Voltage distribution

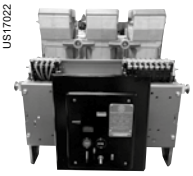
K-1600 Series with MasterPacT MTZ2

Original brand: ITE, ABB, BBC

ECOFIT™ proposal

K Series
Circuit Breaker

US17022



MasterPacT MTZ2
Circuit Breaker

US17008

With ECOFIT™, a true extended life time

Main technical characteristics

	K Series (K-1600)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 - 635 V	254 - 508 - 635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	65 - 50 - 42 kA	65 kA

US17008

K Series direct replacement solution

The direct replacement K Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

PROTECTION

Asset Connect
T°, Humidity,
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset & Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

Resources, circular and well-being performances
See page I1

Green Premium™

Low Voltage distribution

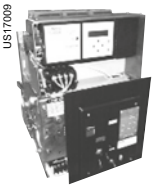
KDON-600, KDON-800, KDON-1600 Series with MasterPacT MTZ1

Original brand: ITE, ABB, BBC

ECOFIT™ proposal

KDON Series
Circuit Breaker

US17009



MasterPacT MTZ1
Circuit Breaker

US17010

With ECOFIT™, a true extended life time

Main technical characteristics

	KDON Series (KDON-600, KDON-800, KDON-1600)	MasterPacT MTZ1
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	600-800, 1600 A	600-800, 1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	200 kA*	200 kA*

* with fuses

US17010

KDON Series direct replacement solution

The direct replacement KDON Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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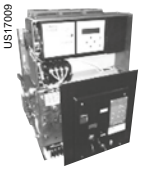
Low Voltage distribution

KDON-1600 Series with MasterPacT MTZ2

Original brand: ITE, ABB, BBC

ECOFIT™ proposal

KDON Series
Circuit Breaker



MasterPacT MTZ2
Circuit Breaker

With ECOFIT™, a true extended life time

Main technical characteristics

	KDON Series (KDON-1600)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 - 635 V	254 - 508 - 635 V
Rated current (A) In 40° C	600 - 800, 1600 A	600 - 800, 1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	200 kA*	200 kA*

* with fuses

KDON Series direct replacement solution

The direct replacement KDON Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
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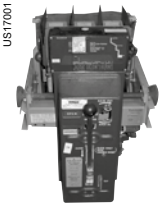
Low Voltage distribution

LA-600, LA-800 Series with MasterPacT MTZ1

Original brand: Allis-Chalmers

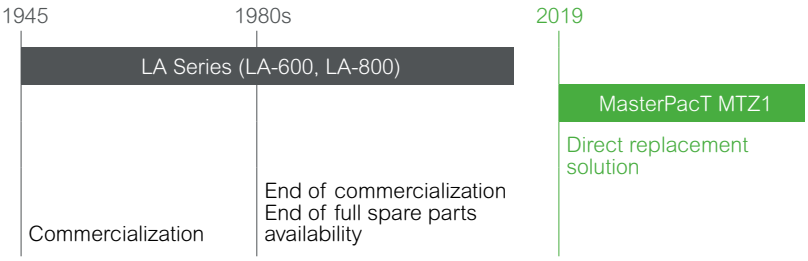
ECOFIT™ proposal

LA Series
Circuit Breaker



MasterPacT MTZ1
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	LA Series (LA-600, LA-800)	MasterPacT MTZ1
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	600-800 A	600-800 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	25-42 kA	42 kA

LA Series direct replacement solution

The direct replacement LA Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Green Premium™

Low Voltage distribution

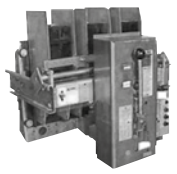
LA-1600 Series with MasterPacT MTZ2

Original brand: Allis-Chalmers

ECOFIT™ proposal

LA Series
Circuit Breaker

US17005



MasterPacT MTZ2
Circuit Breaker

US17006

With ECOFIT™, a true extended life time

Main technical characteristics

	LA Series (LA-1600)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	65 kA	65 kA

US17006

LA Series direct replacement solution

The direct replacement LA Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

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Green Premium™

Low Voltage distribution

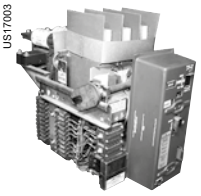
LAF-600, LAF-800 Series with MasterPacT MTZ1

Original brand: Allis-Chalmers

ECOFIT™ proposal

LA Series
Circuit Breaker

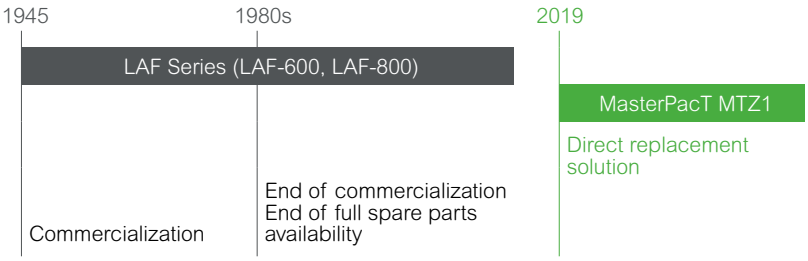
US17003



MasterPacT MTZ1
Circuit Breaker

US17002

With ECOFIT™, a true extended life time



Main technical characteristics

	LAF Series (LAF-600, LAF-800)	MasterPacT MTZ1
Rated operational voltage (V AC 50/60 Hz) Ue	254-508-635 V	254-508-635 V
Rated current (A) In 40°C	600-800 A	600-800 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	200 kA*	200 kA*

* with fuses

US17002

LAF Series direct replacement solution

The direct replacement LAF Series solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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See page I1

Green Premium™

Low Voltage distribution

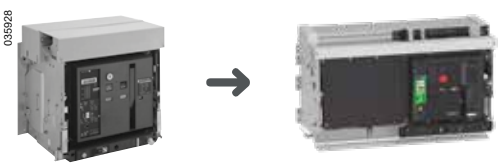
MasterPacT M08-M63 with MasterPacT MTZ2 08-MTZ3 63

Original brand: Merlin Gerin

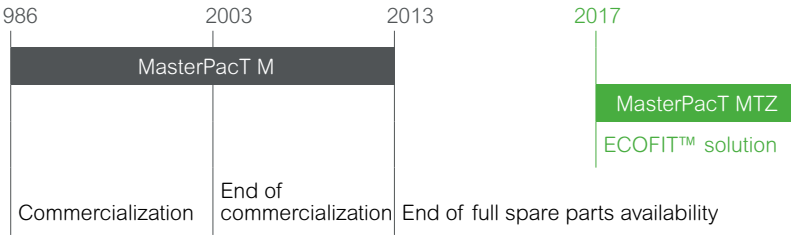
ECOFIT™ proposal

MasterPacT M
Circuit Breaker

MasterPacT MTZ2
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	MasterPacT M08-M63	MasterPacT MTZ
Rated operational voltage (V AC 50/60 Hz) Ue	690 V	690 V
Rated current (A) In 40°C	800-6300 A	800-6300 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	40-150 kA	42-150 kA

1 Removal

2 Replacement

MasterPacT M ECOFIT™ solution

Plug & Play

The ECOFIT™ MasterPacT Plug & Play solution allows you to retrofit the latest generation of MasterPacT MTZ circuit breakers in the existing MasterPacT M chassis.

Solution available for withdrawable type only, 3P & 4P, 800 A to 3200 A.

Masterkit

The ECOFIT™ Masterkit solution enables to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories without modifying the busbars. It requires total shutdown of the installation to access the busbars.

Solution available for fixed and withdrawable types, 3P & 4P, 800 A to 6300 A.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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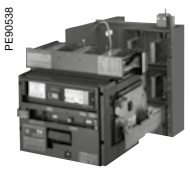
Low Voltage distribution
SE
with MasterPacT MTZ2
Original brand: Square D, Westinghouse

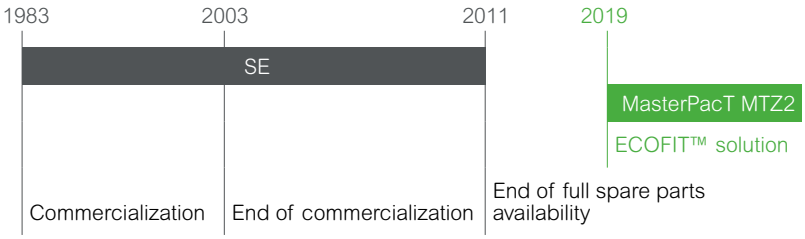
ECOFIT™ proposal

SE
Circuit Breaker



MasterPacT MTZ2
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	SE	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	600 V	600 V
Rated current (A) In 40°C	1250 - 3000 A	1250 - 3000 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	100 kA	85 kA

SE direct replacement solution

The direct replacement SE solutions draw-out types enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
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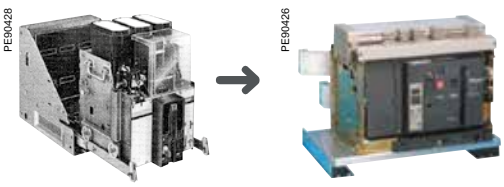
Low Voltage distribution

SelPact
with MasterPacT MTZ2-MTZ3
Original brand: Merlin Gerin

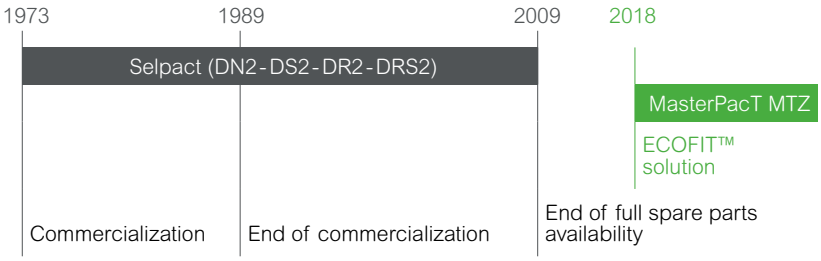
ECOFIT™ proposal

Selpact
Circuit Breaker

MasterPacT MTZ
Circuit Breaker



With ECOFIT™, a true extended life time



Main technical characteristics

	Selpact	MasterPacT MTZ
Rated operational voltage (V AC 50/60 Hz) Ue	660 V	690 V
Rated current (A) In 40°C	630-3200 A	800-3200 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	42-100 kA	42-150 kA

Selpact ECOFIT™ solution

The ECOFIT™ Selpact solutions enable to benefit from all the enhanced features of MasterPacT MTZ circuit breakers and accessories.

Plug & Play

The Plug&Play solution is available for withdrawable type only, 3P & 4P, 630 to 1600 A.

Kit

The kit solution (including circuit breaker) is available for fixed and withdrawable types, 3P & 4P, 630 to 3200 A.

Make the most of your equipment with available add-ons

Protection relays
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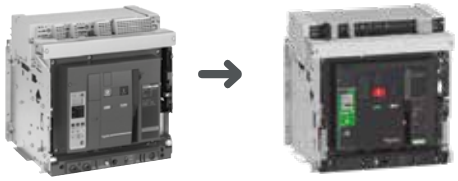
Low Voltage distribution

MasterPacT NT-NW with MasterPacT MTZ

Original brand: Schneider Electric

MasterPacT NT/NW Circuit Breaker

MasterPacT MTZ Circuit Breaker

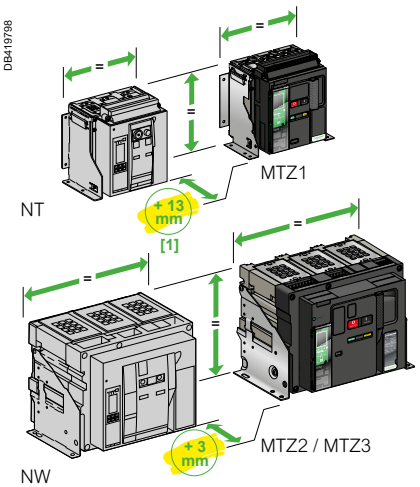


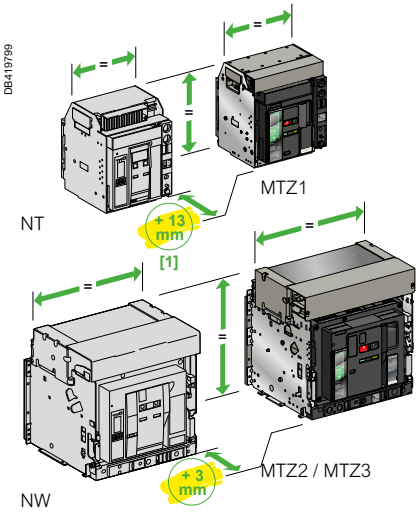
EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

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





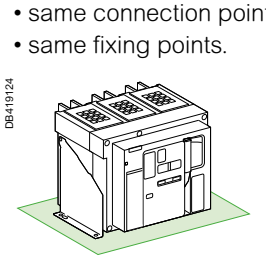
Dimensions and mounting

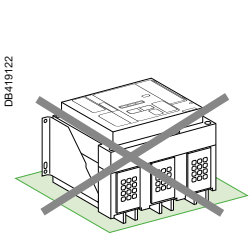
Fixed version

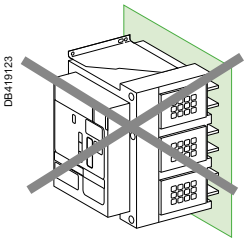
Two identical frame sizes using the same mounting system as the MasterPacT NT/NW range.

Replacement/extension in an existing switchboard:

- MasterPacT NT/NW replaced by a MasterPacT MTZ identical in size
- same connection points
- same fixing points.





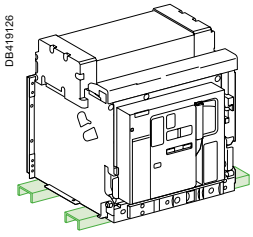


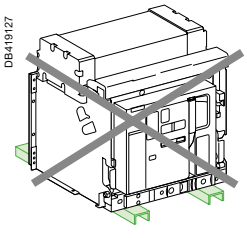
Drawout version

Two identical frame sizes using the same mounting system as the MasterPacT NT/NW range.

Replacement/extension in an existing switchboard:

- MasterPacT NT/NW replaced by a MasterPacT MTZ identical in size
- same connection points
- same fixing points.

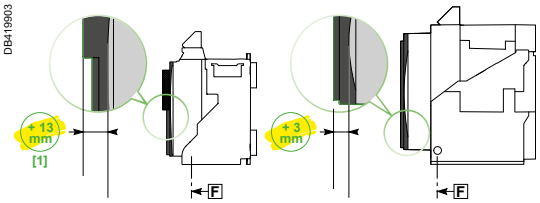




Low Voltage distribution

MasterPacT NT-NW with MasterPacT MTZ

Original brand: Schneider Electric



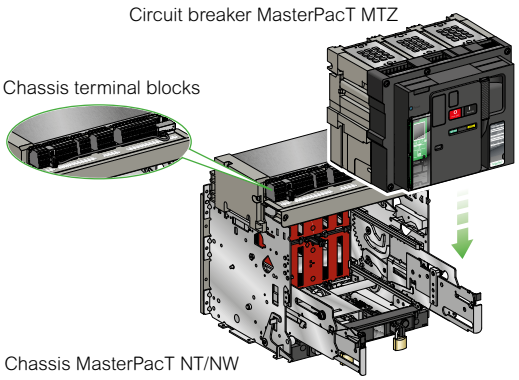
MasterPacT MTZ1 MasterPacT MTZ2 / MTZ3

[1] the size of MasterPacT MTZ1 is 13 mm, including spring charging handle deeper than MasterPacT NT due to the bigger size of the new front cover. For MasterPacT MTZ2/3 the difference is only 3 mm.

Dimensions and mounting

Fixed and drawout version

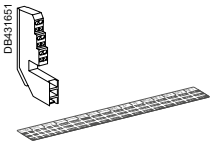
The size of MasterPacT MTZ1 is 13 mm deeper than MasterPacT NT due to the bigger size of the new front cover.
For MasterPacT MTZ2/3 the difference is only 3 mm.
Integration of MasterPacT MTZ in Prisma, Blokset or Okken cubicles does not require design or parts modifications.



Compatibility from MasterPacT NT/NW to MasterPacT MTZ

- MasterPacT NT/NW chassis can be used with MasterPacT MTZ, with wiring modification on the chassis terminal blocks. Auxiliary circuits wiring on the chassis terminals blocks has to be modified according to MasterPacT MTZ drawout instruction sheet (ref. NVE35470-00) or MasterPacT MTZ2/3 and MasterPacT MTZ1 user guides (ref. DOCA0101EN-00).
- MasterPacT MTZ chassis can not be used with MasterPacT NT/NW.

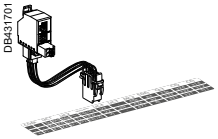
Specific attention of the MasterPacT NT/NW chassis condition is required prior to procced with breaker replacement.



NT chassis retrofit

NT chassis retrofit to MTZ1

Kit for retrofitting an NW chassis for MTZ1 moving part: réf. LV850066SP.



NW chassis retrofit

NW chassis retrofit to MTZ2/MTZ3

Kit for retrofitting an NW chassis for MTZ2/3 moving part: réf. LV850065SP.

For more information refer to the MasterPacT MTZ Substitution and technical guide reference LVPED516027EN.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
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Green Premium™

Low Voltage distribution

LV Circuit Breaker - Associated offers

Source-changeover systems

Available for DA, Selpact and MasterPacT M ECOFIT™ solutions using MasterPacT NT/NW

Mechanical interlocking (2 types)	Automatic controllers	
Using connecting rods or using cables	IVE: Electrical interlocking	BA or UA automatic controllers



Measurements - Diagnostics & Maintenance - Protections - Communication

Available for ECOFIT™ solutions using MasterPacT MTZ

Micrologic	2.0X	5.0X	6.0X	7.0X
Functions	Long time + instantaneous	Long time + short time + instantaneous	Long time + short time + instantaneous + earth fault	Long time + short time + instantaneous + earth leakage up to 3200 A

Measurement: Energy management is the challenge of present & future generations.
To meet this requirement Micrologic X incorporates all the measuring functions of a power meter including Energy Class 1 accuracy 3rd party certified.

Diagnostics & Maintenance: Optimal continuity of services as well as extended life of equipment is one of customers main concerns.
For that purpose Micrologic X integrates new extended diagnosis and assistance to maintenance.

Protection: Improvement of the reliability of Micrologic X, dual settings and additional facilities increase the performance and the flexibility of low voltage systems of protection.

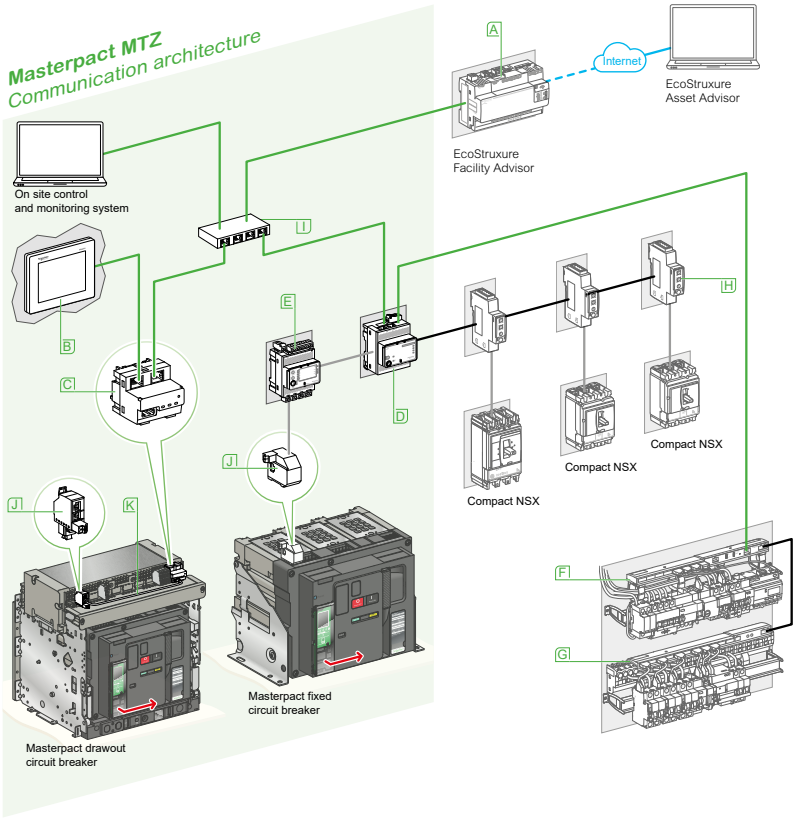
Communication: It is now usual to make available most of the information processed by a Protection Control Unit, locally for network operation and maintenance, and remotely for higher functions of control, monitoring, energy efficiency and assets management.
To comply with this requirement Micrologic X, incorporates several channels of communication, including Ethernet and wireless communication facilities.

Smartpanel integration, architecture and systems

Available for ECOFIT™ solutions using MasterPacT MTZ

Smart Panels digitized by Enerlin'X

example of digitized switchboard architecture



- Ethernet
- Modbus SL
- ULP
- Wireless proprietary connectivity
- Internet

ULP is a fast communication link dedicated to circuit breaker monitoring and control.

- A Com'X
- B FDM128
- C EIFE
- D IFE
- E I/O
- F Acti9 Smartlink Ethernet
- G Acti9 Smartlink Modbus
- H IFM
- I Switch
- J ULP port
- K ULP cord

Low Voltage distribution

RL-800, RL-1600, RL-2000 Series with MasterPacT MTZ

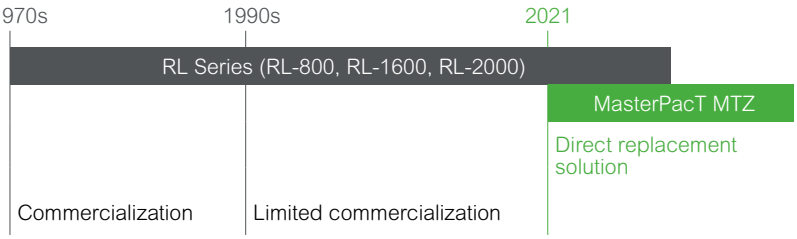
Original brand: Siemens / Allis - Chalmers

ECOFIT™ proposal

RL Series
Circuit Breaker

MasterPacT MTZ
Circuit Breaker

With ECOFIT™, a true extended life time

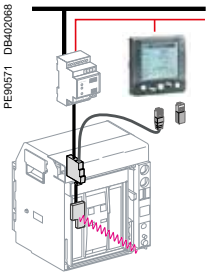


Main technical characteristics

	RL Series (RL-800, RL-1600, RL-2000)	MasterPacT MTZ
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 - 635 V	254 - 508 - 635 V
Rated current (A) In 40°C	800 A, 1600 A, 2000 A	2000 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	42/42/42 kA (Inst 800 A), 65/65/65 kA (Inst)	65 kA (Inst)

RL Series direct replacement solution

The direct replacement RL Series solutions draw-out types enable to benefit from all the enhanced features of MasterPact MTZ circuit breakers and accessories.



Active Energy Management™ program that includes an energy metering system

- Identify the device
- Indicate status conditions
- Control the device (with communication auxiliaries)
- Setting of the protection and alarm functions

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

PROTECTION

SUSTAINABILITY

Resources, circular and well-being performances
See page I1

Green Premium™

Asset Connect
T°, Humidity,
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset
& Power Advisor
Power Monitoring Expert
See pages 9 and F1

Low Voltage distribution

RLE-800, RLE-1600 Series with MasterPacT MTZ2

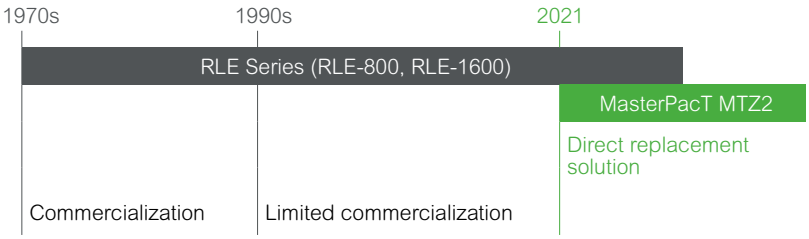
Original brand: Siemens / Allis - Chalmers

ECOFIT™ proposal

RLE Series
Circuit Breaker

MasterPacT MTZ2
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	RLE Series (RLE-800, RLE-1600)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 - 635 V	254 - 508 - 635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	65 kA (Inst)	65 kA (Inst)

RLE Series direct replacement solution

The direct replacement RLE Series solutions draw-out types enable to benefit from all the enhanced features of MasterPact MTZ2 circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

PROTECTION

Asset Connect
T°, Humidity,
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset
& Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

Resources, circular and well-being performances
See page I1

Green Premium™

Low Voltage distribution

RLX-800, RLX-1600 Series with MasterPacT MTZ2

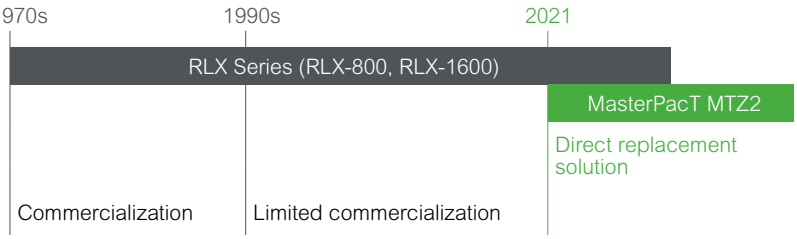
Original brand: Siemens / Allis - Chalmers

ECOFIT™ proposal

RL Series
Circuit Breaker

MasterPacT MTZ2
Circuit Breaker

With ECOFIT™, a true extended life time



Main technical characteristics

	RLX Series (RLX-800, RLX-1600)	MasterPacT MTZ2
Rated operational voltage (V AC 50/60 Hz) Ue	254 - 508 - 635 V	254 - 508 - 635 V
Rated current (A) In 40°C	1600 A	1600 A
Ultimate breaking capacity (kA rms, 600 V AC 50/60 Hz) Icu	65 kA (Inst)	65 kA (Inst)

RLX Series direct replacement solution

The direct replacement RLX Series solutions draw-out types enable to benefit from all the enhanced features of MasterPact MTZ2 circuit breakers and accessories.

Make the most of your equipment with available add-ons

Protection relays
Micrologic, Arc flash
See page F1

PROTECTION

Asset Connect
T°, Humidity,
See page E1

MONITORING

Software and Expertise
EcoStruxure™ Asset
& Power Advisor
Power Monitoring Expert
See pages 9 and F1

SUSTAINABILITY

Resources, circular and well-being performances
See page I1

Green Premium™

Low Voltage distribution

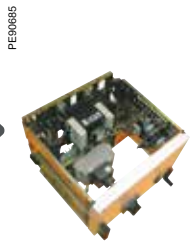
T140 drawers with T140 drawers

Original brand: Merlin Gerin

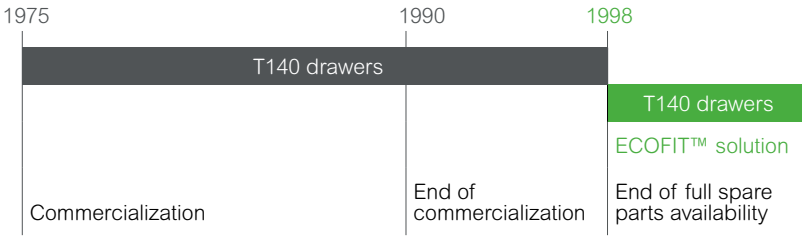
ECOFIT™ proposal

T140 drawers

T140 drawers

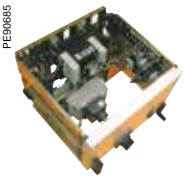


With ECOFIT™, a true extended life time



Main technical characteristics

	T140 drawers	T140 drawers
Rated operational voltage (V AC 50/60 Hz) Ue	440 V	440 V
Rated current (A) In 40°C	125 - 625 A	125 - 625 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	1 to 6	1 to 6



T140 drawers ECOFIT™ solution

The ECOFIT™ T140 drawer solution enables to benefit from all the enhanced features of latest technology devices.

The drawer solutions are suitable for manual or electrical operations.

T140 drawers ECOFIT™ solution - Drawer components

• Electrical distribution - Functional units (NSX range with Micrologic)

• Motor control command and protections - Functional units.

• Control command auxiliaries for all types of drawers.

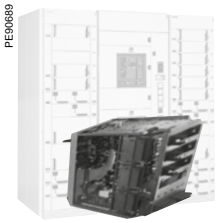
Low Voltage distribution

MB400 drawers with MB400 drawers

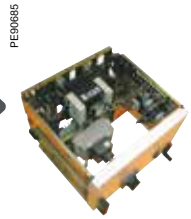
Original brand: Merlin Gerin

ECOFIT™ proposal

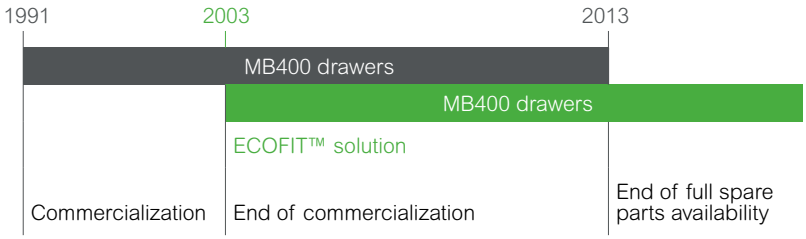
MB400 drawers



MB400 drawers

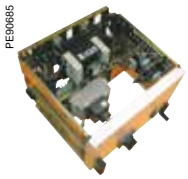


With ECOFIT™, a true extended life time



Main technical characteristics

	MB400 drawers	MB400 drawers
Rated operational voltage (V AC 50/60 Hz) Ue	440 V	440 V
Rated current (A) In 40°C	125 - 625 A	125 - 625 A
Ultimate breaking capacity (kA rms, 220/415 V AC 50/60 Hz) Icu	1 to 6	1 to 6



MB400 drawers ECOFIT™ solution

The ECOFIT™ MB400 drawer solution enables to benefit from all the enhanced features of latest technology devices.

The drawer solutions are suitable for manual or electrical operations.

MB400 drawers ECOFIT™ solution - Drawer components

- Electrical distribution - Functional units (NSX range with Micrologic)

- Motor control command and protections - Functional units.

- Control command auxiliaries for all types of drawers.

Low Voltage distribution
LV Drawers - Associated offers

Drawer components: Electrical distribution - Functional units (NSX range)

Available for ECOFIT™ solutions using MasterPacT NT/NW and ComPacT NS

Micrologic	2.2 or 2.3	5.2 or 5.3	6.2 or 6.3
Type		A - E	A - E
Functions	LSI protection	LSI protection Ammeter Energy meter	LSI protection Ammeter Energy meter

A: Current measurements, fault indications, display and current maximeter.
Specificities: 6.0 provides earth fault protection (residual or Source Ground Return); 7.0 provides earth leakage protection.
E: A + Instantaneous measurement of power and energy without earth leakage protection.

Drawer components: Motor control command and protections - Functional units

Available for ECOFIT™ solutions using MasterPacT NT/NW and ComPacT NS

1 component motor feeder	2 components motor feeder	3 components motor feeder
		
Circuit breaker - Contactor combination	Thermomagnetic circuit breaker + Contactor	Thermomagnetic circuit breaker or switch-disconnector fuse + Contactor + Thermal protection

Drawer components: Control command auxiliaries for all types of drawers

Available for ECOFIT™ solutions using MasterPacT NT/NW and ComPacT NS

Miniature circuit-breaker Protection auxiliary circuit	Auxiliary relays
	

Ground fault protection	Push buttons and lights
	

Specific spare parts: for any spare parts request for the fixe part, please contact your local correspondant.

Low Voltage distribution

Low Voltage distribution

ComPacT Plug & Play - Order Form

GCR_PP_NS_CB or GCR_PP_NS_SD

Order N°

Delivery address

Customer's name

To indicate your choices, check the applicable square boxes and enter the appropriate information in the rectangles

Circuit breaker or switch-disconnector

NS800 to NS1250

Rating	**A**	
Circuit breaker	**N, H**	
Switch-disconnector	**NA**	
Number of poles	**3 or 4**	
Device	**Fixed**	**X**

Micrologic control unit

Basic protection	2.0		5.0		6.0*			
A - Ammeter	2.0		5.0		6.0*		7.0*	
E - Energy	2.0		5.0		6.0*			
P - Power			5.0		6.0*		7.0*	

* For residual or source ground return earth fault protection with Micrologic 6 and earth leakage protection with Micrologic 7, please contact your Country Account Manager

AD - External power-supply module V

LR - Long-time rating plug

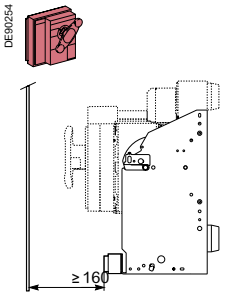
- Standard 0.4 to 1 Ir
- Low setting 0.4 to 0.8 Ir
- High setting 0.8 to 1 Ir
- LT off

Communication

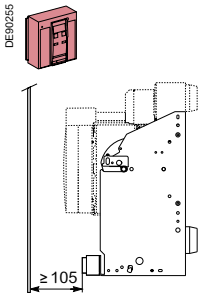
COM module: contact your country Account manager

Micrologic control unit functions:

- 2.0: basic protection (long time+ inst.)
- 5.0: selective protection (long time + short time + inst.)
- 6.0: selective + earth-fault protection (long time + short time + inst. + earth-fault)
- 7.0: selective + earth-leakage protection (long time + short time + inst. + earth-leakage)



If ≤ 160: door adaptation necessary



If ≤ 105: door adaptation necessary

Plug & Play solution

Kit Plug & Play C801/1251 Qty

Options

Door option kit for electric mechanism or direct manual mechanism (include transparent cover ref 33859) Qty

Door option kit for prolongated manual mechanism Qty

Indication contacts

NS800 to NS1250

SD trip indication (maximum 1) (only for manually operated devices)
6 A-240 V AC Qty Low level Qty

SDE "fault-trip" indication (maximum 1)
(SDE integrated in electrically operated devices)
6 A-240 V AC Qty Low level Qty

OF ON/OFF indication contacts (maximum 3)
6 A-240 V AC Qty Low level Qty

Remote operation

Electrical operation	Standard				
	Power supply	AC	DC	V	
Voltage releases	MX	AC	DC	V	
	MN	AC	DC	V	
	MN delay unit		Adjustable	Non-adjustable	

Rotary handles for NS800/1250 fixed device

Direct	Black		Red on yellow front
			CNOMO conversion access
Extended	Black		Red on yellow front

Locking (compulsory information)

Locking delivered and mounting on ECOFIT: 2 identical locks + 1 key for tripping withdrawal - specify Ronis or Profalux

Rotary handle using a keylock: Ronis Profalux

For electrically operated devices:
VBP - ON/OFF pushbutton locking (by transparent cover + padlocks)
OFF position locking. **VSPO** - by keylocks:
2 identical keylocks, 1 key Profalux Ronis

Accessories

CDM - mechanical operation counter (not compatible with rotary handle)

Test kits Mini test kit

Spare parts for C801/C1251 chassis

2 clusters	Ref. EF533706	Qty
Set of 5 fixed female connector	Ref. EF533707	Qty
Lockable bolt on fixed chassis	Ref. EF533708	Qty

Note:

- Pre-tripping with keylock locking (included as standard).
- If NS electrically operated: only SDE available/SD not available.
- Discrimination & cascading: refer to http://hto.power.schneider-electric.com/
- Solution not applicable for communication.
- Solution not applicable for control type toggle.
- CTs ComPacT C not compatible with ComPacT NS.
- ComPacT Plug & Play equipped with C4 type lock (MV/LV/transformer interlocking.
- ComPacT Plug & Play can not be used for ComPacT C801/1251 drawout breaker on cradle (with RED operating handle)
- If ComPacT C behind door, pay attention to minimal distance between door and CB.
  - In case of manual ComPacT NS, the door kit is compulsory for X < 160 mm.
  - In case of motorized ComPacT NS, the door kit is compulsory for X < 105 mm.

Low Voltage distribution

ComPacTkit - Order Form

MPA5099C or MPA5118C

Order N°	
Delivery address	
Customer's name	

To indicate your choices, check the applicable square boxes and enter the appropriate information in the rectangles ☐

Circuit breaker or switch-disconnector

NS800 to NS1250

Rating	**A**	
Circuit breaker	**N, H**	
Switch-disconnector	**NA**	
Number of poles	**3 or 4**	
Device	**Fixed**	**X**

Micrologic control unit

Basic protection	2.0	☐	5.0	☐	6.0*	☐		
A - Ammeter	2.0	☐	5.0	☐	6.0*	☐	7.0*	☐
E - Energy	2.0	☐	5.0	☐	6.0*	☐		
P - Power			5.0	☐	6.0*	☐	7.0*	☐

* For residual or source ground return earth fault protection with Micrologic 6 and earth leakage protection with Micrologic 7, please contact your Country Account Manager

AD - External power-supply module V ☐

LR - Long-time rating plug

Standard 0.4 to 1 Ir	☐
Low setting 0.4 to 0.8 Ir	☐
High setting 0.8 to 1 Ir	☐
LT off	☐

Communication

COM module: contact your country Account manager

Micrologic control unit functions:

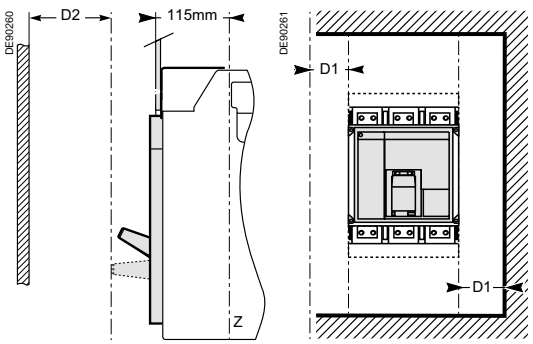
- 2.0: basic protection (long time+ inst.)
- 5.0: selective protection (long time + short time + inst.)
- 6.0: selective + earth-fault protection (long time + short time + inst. + earth-fault)
- 7.0: selective + earth-leakage protection (long time + short time + inst. + earth-leakage)

NS800/1250 connection

Front connections	Top & Bottom	☐
Horizontal rear connections	Top & Bottom	☐
Vertical rear connections	Top & Bottom	☐

Note:

Check dimensions according to the below table, i.e. dimensions are the necessary space to be added to the existing C801/1251 to allow installation of the ComPacT kit solutions.



Axis Z is the back plane of the ComPacT C 3-pole device.

C801/1251 ComPacTkit solution (references not adapted, supplied as loose components)

Front connection (Top & Bottom)	3P ref. EF593816	Qty ☐	4P ref. EF593819	Qty ☐
Rear horizontal connection (Top & Bottom)	3P ref. EF593817	Qty ☐	4P ref. EF593820	Qty ☐
Rear vertical connection (Top & Bottom)	3P ref. EF593818	Qty ☐	4P ref. EF593821	Qty ☐

Indication contacts

NS800 to NS1250

SD trip indication (maximum 1) (only for manually operated devices)
6A-240VAC Qty ☐ Low level Qty ☐

SDE "fault-trip" indication (maximum 1) (SDE integrated in electrically operated devices)
6A-240VAC Qty ☐ Low level Qty ☐

OF ON/OFF indication contacts (maximum 3)
6A-240VAC Qty ☐ Low level Qty ☐

Remote operation

Electrical operation	Standard	☐				
	Power supply	AC ☐	DC ☐	V ☐		
Voltage releases	MX	AC ☐	DC ☐	V ☐		
	MN	AC ☐	DC ☐	V ☐		
	MN delay unit		Adjustable ☐		Non-adjustable ☐	

Rotary handles for NS800/1250 fixed device

Direct Black ☐ Red on yellow front ☐

Locking

Toggle (1 to 3 padlocks) Removable system ☐ Fixed system ☐

Rotary handle using a keylock: OFF position ☐; Ronis 1351B.500 ☐; Profalux KS5 B24 D4Z ☐; Keylock kit (without keylock) ☐

For electrically operated devices:
VBP - ON/OFF pushbutton locking (by transparent cover + padlocks) ☐
OFF position locking:
VCPO - by padlocks ☐
VSPO - by keylocks:
Keylock kit (w/o keylock) Profalux ☐ Ronis ☐
1 keylock Profalux ☐ Ronis ☐
2 identical keylocks, 1 key Profalux ☐ Ronis ☐

Accessories

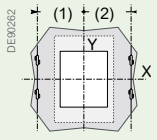
CDM - mechanical operation counter

Test kits Mini test kit ☐

C801/1251 ComPacTkit solution - Door option kits (operation through door)(1)

Front connection electrical operation	3P ref. EF593822	Qty ☐	4P ref. EF593826	Qty ☐
Rear connection electrical operation	3P ref. EF593823	Qty ☐	4P ref. EF593827	Qty ☐
Front connection toggle or direct rotary handle	3P ref. EF593824	Qty ☐	4P ref. EF593828	Qty ☐
Rear connection toggle or direct rotary handle	3P ref. EF593825	Qty ☐	4P ref. EF593829	Qty ☐

(1) Restriction in case of operation through door



Axis X &Y are the symmetry planes of the ComPacT C 3-pole device. If door opens to the left: not suitable for rotary handle operation.
Axis Z is the back plane of the ComPacT C 3-pole device.
Distance between axis Z and door is 115mm.
(1) 194 mini (3P) - 264 mini (4P) / (2) 194 mini

		Manual. by direct rotary handle	Manual. by short toogle	Manual. by long toogle	Electrically by Type T	Electrically by Type TS
Fixed front connection	**D1**	+ 0mm	+ 0mm	+ 0mm	+ 0mm	+ 0mm
	D2	+ 0mm	+ 45mm	+ 15mm	+ 0mm	+ 30mm
Fixed horizontal rear connection	**D1**	+ 15mm	+ 15mm	+ 15mm	+ 15mm	+ 15mm
	D2	+ 70mm	+ 110mm	+ 80mm	+ 50mm	+ 95mm
Fixed vertical rear connection	**D1**	+ 15mm	+ 15mm	+ 15mm	+ 15mm	+ 15mm
	D2	+ 70mm	+ 110mm	+ 80mm	+ 50mm	+ 95mm

Low Voltage distribution

MasterPacT M Plug & Play - Order Form

GCR_PP_MTZ2_CB

To indicate your choices, check the applicable square boxes and enter the appropriate information in the rectangles

Quantity

Number of Devices

* The quantity specified here will not affect the quantity of spare parts.

Basic Configuration

MasterPacT type						P&P MTZ2	
Rating (3200 A max)						A	
Sensor rating						A	
Circuit breaker						N1, H1, H2	
Switch-disconnector	Not available with MasterPacT MTZ, use P&P with MasterPacT NW						
Micrologic X	2.0		5.0		6.0	7.0	
Number of poles			3			4(1)	

(1) 4P = neutral on left. For neutral on right side, consult France Grenoble ECOFIT Center

Type of equipment: Drawout without chassis (moving part only)

Communication

Consult Schneider Electric specialist to support and upgrade current installation with latest communicating solution

Operation Efficiency - Signaling

OF - ON/OFF indication contacts
4 OF 6 A - 240 V AC (10 A - 240 V AC and low level for NW) is supplied as standard
Note: MasterPacT Plug&Play is not suitable in case MasterPacT M chassis is equipped with a test position switch (CT)

Additional: 1 block of 4 OF for MTZ2 — Qty
Max. 2 Blocks

SDE - "fault-trip" indication contact
1 SDE 6 A - 240 V AC is supplied as standard

Additional: 1 SDE 6 A - 240 V AC | 1 SDE low level

Programmable contacts: 2 M2C contacts

PF - "ready to close" contact: 6 A - 240 V AC | Low level

CDM - mechanical operation counter MTZ2

Commomnly used spare parts

If you would like to order some spare parts, kindly indicate here. Please note that spare parts will be delivered spaperately.

Mobile powerpact by APC	Qty
USB CABLE	Qty
Transparent cover for micrologic	Qty
Mini test kit	Qty

Operation Efficiency - Controlling

Remote control	MCH - gear motor	V	
	XF - closing voltage release	V	
	MX - opening voltage release	V	
	MN - undervoltage release	V	
	R - delay unit (non-adjustable)	V	
	Rr - adjustable delay unit	V	
	2nd MX - opening voltage release	V	
	2nd MN - undervoltage release	V	
	R - delay unit (non-adjustable) for 2nd MN		
	Rr - adjustable delay unit for 2nd MN		
Remote reset after tripping	RES - electrical reset option	V	
	RAR - automatic reset option		
Electrical Closing	BPFE - electrical closing pushbutton		

People and property safety - Locking and interlocking

VBP - ON/OFF pushbutton no access (by transparent cover + padlocks)

OFF position locking:

VCPO - by padlocks

VSPO - by keylocks

Keylock kit (without keylock)	Profalux		Ronis	
	Kirk		Castell	
1 keylock	Profalux		Ronis	
2 identical keylocks, 1 key	Profalux		Ronis	
2 keylocks, different keys (MTZ2/3)	Profalux		Ronis	

Mechanical interlock (source-changeover systems)

Interlocking axle and installation kit (ref: EF548613, one per P&P)

Mismatch protection (ref EF547056)

People and property safety - Circuit protection

TCE - external sensor (CT) for neutral

Single sensor & Single wire (MTZ 1/2/3)

Rectangular sensor - for earth-leakage protection: MTZ2/3 (470 x 160 mm)

Power availability and realiability

VPS - voltage power supply

AD - external power-supply module: V

Digital Module

Energy per phase		Wave form capture	
Circuit Breaker restoration		Circuit Breaker reclosing	

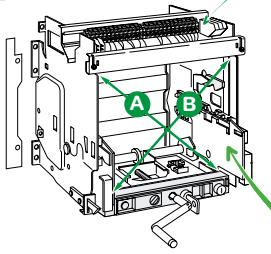
ECOFIT™ Plug & Play solution requires MasterPacT M chassis in full working order

If the chassis is bent or damaged, a Plug & Play solution is not possible and the Masterkit solution must be used.
Note: Refer to MasterPacT Plug & Play user manual for more information.

Before ordering a Plug & Play solution, check the condition of the chassis as indicated below

(! Danger: electrical equipment should be installed, operated, services and maintained only by qualified personel)

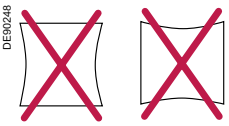
DE90248



Auxiliary wiring connector plate

- Measure the diagonals to make sure the chassis is not distorted or warped. Squareness chassis ± 3 mm (A = B).

DE90248



- Check visually for any deformed parts (e.g. inward or outward bulges).

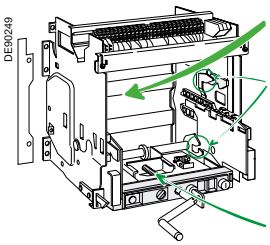
Note: Make sure there are no visible cracks on the chassis.

PE90614

Check for any bent or distorted parts that could hinder insertion of the MasterPacT circuit breaker.

Carry out a racking test (in and out) 3 times without the circuit breaker and check the movement of the safety shutters, the auxiliary wiring connector plate and the drawer site plates.

DE90249



- Check the contact clusters. If they are in good condition, clean and lubricate them. If not, replace them.
- Check that all moving parts (pawls, cams) work properly.
- Check cradle warm screw:
  - Disconnected position without the breaker
  - Note abutment rear (x2)
  - Connect until the return of the hook
  - to remain; one turn + 1/4 maximum
  - Note abutment intermediayte (x2)
  - Il not OK ► make adjustment with Annex 1

Low Voltage distribution

Masterkit - Order Form

GCR_MASTERKIT_MTZ2 or GCR_MASTERKIT_MTZ3 or GCR_MKT_MTZ2SD or GCR_MKT_MTZ3SD GCR_MKT_MTZCHASSIS

To indicate your choices, check the applicable square boxes and enter the appropriate information in the rectangles

Quantity

Number of devices

The quantity specified here will not affect the quantity of spare parts.

Basic Configuration

MasterPacT type	MTZ2				MTZ3		
Rating (Masterkit 4000 A only with MTZ2)					A		
Sensor rating					A		
Circuit breaker	N1, H1, H2, L1 (L1: only for M08 to M20 drawout type)						
Switch-disconnector	NA, HA						
Micrologic X	2.0		5.0		6.0	7.0	
Number of poles		3				4	
Option: neutral on right side (MTZ2 only up to 3200 A)							
Type of equipment	Fixed						
	Drawout with chassis						
	Drawout without chassis						
	Chassis alone						
	Chassis alone with contacts						
Connection (rear only)	Top	Horizontal			Vertical		
	Bottom	Horizontal			Vertical		

For M40 4P fixed type, no possible mix between horizontal and vertical connections
For M63 drawout horizontal connection, consult us

Communication(1)

- Modbus interface
- Ethernet interface for 1 breaker
- Ethernet interface + Gateway
- ULP port module
- I/O Module

(1) Consult Schneider Electric specialist to support and upgrade current installation with latest communicating solution

Design and installation simplification

Interphase barriers	MTZ2 fixed, drawable	
Only up to MTZ 2 25	Upstream & Downstream	

Operation Efficiency - Signaling

OF - ON/OFF indication contacts
4 OF 6 A - 240 V AC (10 A - 240 V AC and low level for NW) is supplied as standard

Additional	1 block of 4 OF Max. 2 blocks	Qty	

EF - combined "connected/closed" contacts
EF is only for MTZ2/3. Total number of EF cannot exceed the number of additional OF

1 EF standard (6A-240VAC)	Qty	
1 EF low level	Qty	

SDE - "fault-trip" indication contact
1 SDE 6A-240VAC is supplied as standard

Additional	1 SDE 6A-240VAC		1 SDE low level	
Programmable contacts		2 M2C contacts		

Carriage switches - Please refer to the catalogue for the maximum number of each carriage switch

CE - "con." position	6A-240VAC qty		Low level qty	
CD - "discon." position	6A-240VAC qty		Low level qty	
CT - "test" position	6A-240VAC qty		Low level qty	
PF - "ready to close" contact	6A-240VAC		Low level	

- CDM - mechanical operation counter MTZ2/3

Commomnly used spare parts

If you would like to order some spare parts, kindly indicate here. Please note that spare parts will be delivered spaperately.

- Mobile PowerPact by APC
- USB CABLE
- Transparent cover for micrologic
- Display for micrologic
- Test kits — Mini test kit
- FDM128
- Mounting accessories for FDM kits

Operation Efficiency - Controlling

Remote control	MCH - gear motor	V	
	XF - closing voltage release	V	
	XF COM - closing voltage release	V	
	MX - opening voltage release	V	
	MX COM - opening voltage release	V	
	MN - undervoltage release	V	
	MN COM - undervoltage release	V	
	R - delay unit (non-adjustable)		
	Rr - adjustable delay unit		
	2nd MX - opening voltage release	V	
	2nd MX COM - opening voltage release	V	
	2nd MN - undervoltage release	V	
	2nd MN COM - undervoltage release	V	
	R - delay unit (non-adjustable) for 2nd MN		
	Rr - adjustable delay unit for 2nd MN		
Remote reset after tripping	RES - electrical reset option	V	
	RAR - automatic reset option		
Electrical closing	BPFE - electrical closing pushbutton		

People and property safety - Locking and interlocking

- VBP - ON/OFF pushbutton no access (by transparent cover + padlocks)
- OFF position locking:
- VCPO - by padlocks

VSPO - by keylocks	Keylock kit (without keylock)	Profalux		Ronis	
		Kirk		Castell	
	1 keylock	Profalux		Ronis	
	2 identical keylocks, 1 key	Profalux		Ronis	
	2 keylocks, different keys (MTZ2/3)	Profalux		Ronis	

- Chassis locking in "disconnected" position:

VSPD - by keylocks	Keylock kit (without keylock)	Profalux		Ronis	
		Kirk		Castell	
	1 keylock	Profalux		Ronis	
	2 identical keylocks, 1 key	Profalux		Ronis	
	2 keylocks, different keys	Profalux		Ronis	
	Optional connected / disconnected / test position locking				

VPEC - door interlock	On right-hand side of chassis	
	On left-hand side of chassis	
VPOC - racking interlock		
IPA - cable-type door interlock		
VDC - mismatch protection		
VIVC - shutter position indication and locking for MTZ2/3		
IBPO - racking interlock between crank and OFF pushbutton for MTZ2/3		

People and property safety - Circuit protection

TCE - external sensor (CT)	For neutral	
	Single sensor & Single wire (MTZ 2/3)	
	Double sensor & double wire (MTZ3)	
TCW - external sensor for SGR protection		
Rectangular sensor for earth-leakage protection	MTZ2/3 (470 x 160 mm)	
PTE - external voltage connector		

People and property safety - Mechanical protection

- CDP - escutcheon MTZ2/3
- CP - transparent cover for escutcheon MTZ2/3
- OP - blanking plate for escutcheon MTZ2/3
- CB - auxiliary terminal shield for chassis MTZ2/3

People and property safety - Operation protection

- KMT - grounding kit MTZ2/3
- Earthing switch kit for chassis
- DAE - automatic spring discharge before breaker removal for MTZ2/3

Power availability and realiability

VPS - voltage power supply		
AD - external power-supply module	V	

Digital Module

Energy per phase		Wave form capture	
Circuit Breaker restoration		Circuit Breaker reclosing	

ASCO Automatic Transfer Switch (ATS) and Load Banks Modernization

ASCO ATS and Load Banks Modernization

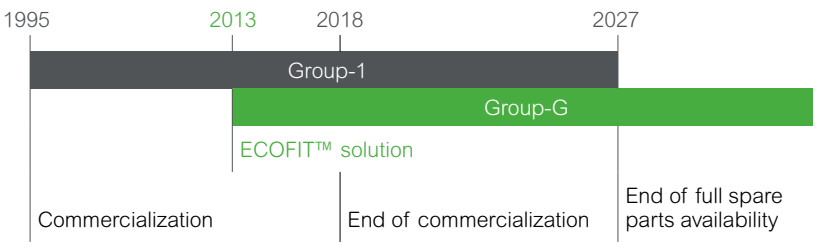
ASCO ATS Controller Upgrade

ATS series 200/300 - Group-1 with Group-G Controller

Original brand: ASCO

Group-1 Controller

Group-G Controller



Main Technical Characteristics Comparison

	Group-1	Group-G
Nominal Units	Via Dip Switch	Via Dip Switch
Phase Selection, Frequency	1 Ø or 3 Ø, 50 or 60 Hz	1 Ø or 3 Ø, 50 or 60 Hz
Voltage and Frequency Settings Setting Adjustments	Via Dip Switch	Via built-in Membrane Controls
Time Delay Settings Setting Adjustments	Via Dip Switch (DS)/Potentiometer (P)	Via built-in Membrane Controls
Indication and Controls - Control Type	Via Separate Membrane Controls	Via Built-in Membrane Controls
Event Log	N/A	Optional (with Acc. 11BE)
128*64 Graphical LCD Display multiple - language capability	N/A	Yes
System Status	N/A	Yes (Via LCD Display)
Self Diagnostics	N/A	Yes (Via LCD Display)
Communications Interface		
RS-485	Yes (If with option 72A/72E Module)	Yes (with option 11BE or 72EE Module)
Ethernet	Yes (If with option 72E Module)	Yes (If with option 72EE Module)
Communications Protocol	ASCO Bus	ASCO Bus, Modbus RTU, Modbus TCP/IP
Back-up Power Supply for the controller	N/A	Yes - (3 Min Back-up power with optional ACC 1UP)

Controller direct replacement solution

Group-1 To Group-G Retrofit Kit

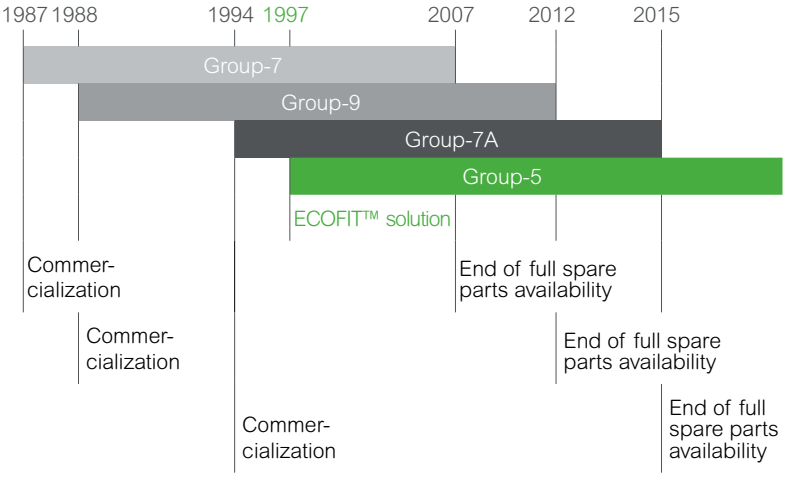
- Group-1 Retrofit Will Accommodate Legacy
- Group-1 Retrofit Interfaces With Controller
- Conversion Kit Includes:
  - Group-G Controller
  - Transfer switch dual harness adapter
  - Door controls to fit into existing Series 300 door opening (display and ribbon cable)
  - Group-G Controller user guide 381333-400
  - Group-1 To G Retro fit Kit Instructions 381339-313
- Kit Part Number:
  - 955717 For 115~120V
  - 955717-001 For 208~480V
  - 955717-002 For 550~600V

Upgrade the Performance of your ASCO SERIES 200/300 Power Transfer Switches.
The Group-G upgrade kit will accommodate legacy products and incorporate a user interface and display similar to that of the Group-G Controller.
No mechanical or electrical impact on your installation. Implementation and site test within a very limited time.
Advanced HMI for local control functions.

ASCO ATS Controller Upgrade

ATS 940 / 962 series - Group-7/7A/9 with Group-5 Controller

Original brand: ASCO



Main Technical Characteristics Comparison

	Group-7	Group-9	Group-7A	Group-5
Nominal Units	Via Dip Switch	Via Dip Switch	Via Dip Switch	Via Dip Switch
Phase Selection, Frequency	1 Ø or 3 Ø, 50 or 60 Hz	1 Ø or 3 Ø, 50 or 60 Hz	1 Ø or 3 Ø, 50 or 60 Hz	1 Ø or 3 Ø, 50 or 60 Hz
Voltage Rating	Different controllers for 120V, 208V, 220V, 240V, 380V, 415V, 440V, 480V & 600V	Different controllers for 120V, 208V, 220V, 240V, 380V, 415V, 440V, 480V & 600V	Different controllers for 120V, 208V, 220V, 240V, 380V, 415V, 440V, 480V & 600V	One controller programmable for 120V - 600V
Time Delay Settings Setting Adjustments	Via Dip Switch	Via Dip Switch	Via Dip Switch	Via built-in Membrane Controls
Indication and Controls - Control Type	Lamp Type/Toggle Switch	Lamp Type/Toggle Switch	Lamp Type/Toggle Switch	Lamp Type/Toggle Switch
Event Log	N/A	N/A	N/A	Yes-99 Events
4 x 20 Character Backlit LCD Display	N/A	N/A	N/A	Yes
System Status	N/A	N/A	N/A	Yes (Via LCD Display)
Self Diagnostics	N/A	N/A	N/A	Yes (Via LCD Display)
Communications Interface				
RS-485	N/A	N/A	Yes (with option 72A Module)	Yes (with option 72EE2 Module)
Ethernet	N/A	N/A	N/A	Yes (with option 72EE2 Module)
Communications Protocol	ASCO Bus	ASCO Bus	ASCO Bus	ASCO Bus, Modbus RTU, Modbus TCP/IP
Product Series:	940/962	940/962	940/962	7000/4000

Determine which controllers are on your equipment by using the chart on this page. (Product Nameplate sample)

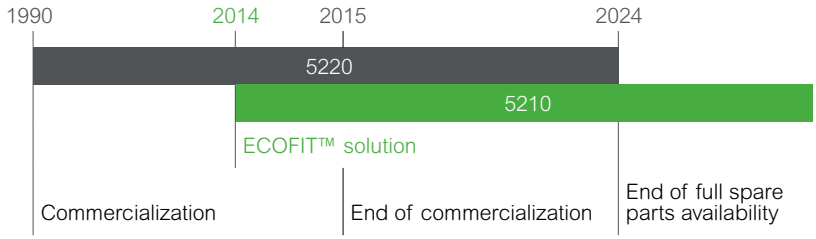
- ASCO Group 7/7A/9 to Group-5 Controller Retrofit: Kit#707710-001
- For Non-Bypass, ATS (Open Transition Transfer) only
- For other configuration/modernization information, please contact CustomerCare@ascopower.com

The most reliable and field-proven transfer switch controller in the industry.
ASCO Group-5 Power Transfer Switch controllers are accurate, faster and offer broader functionality than previous models.
ASCO Group-5 controllers can provide access to data, such as power source, voltage and frequency, contact position, time delays and diagnostics.
ASCO Controllers also can be integrated into a connectivity network that enables both on-site and remote monitoring and control.

ASCO ATS Accessories Upgrade

Power Meter - 5220 with 5210

Original brand: ASCO



Main Technical Characteristics Comparison

	5220	5210
Input/Output Sensing	3 Voltage + 4 Current Input	3 Voltage + 4 Current Input
Input/Output Discrete Status	N/A	Transfer Switch Position input
Languages	Multilanguage 2	Multilanguage 9
I/O and Protection	Yes	N/A
Communication	RS485, TTL, Ethernet	RS485, TTL, CAN2.0, Ethernet
Protocol	ASCO Bus	ASCO Bus, Modbus

The data given by the meter provides the information needed to make key decisions on-site regarding energy management, optimization, utilization, load planning, or even for general reference.
All the monitored data is available over Modbus via the onboard serial connection or via the optional Ethernet module which includes a remote and mobile friendly webpage.
Incremental Improvements:
- Increased accuracy (Revenue accurate per ANSI standard)*
- Multi-Language Display
- Total Harmonic Distortion (THD%)
- Min/Max Historic Values
- Monthly Load Demand

5210 Digital Power Meter: Kit#966071

* Not applicable on G-Frame Bypass TS

ASCO ATS Accessories Upgrade

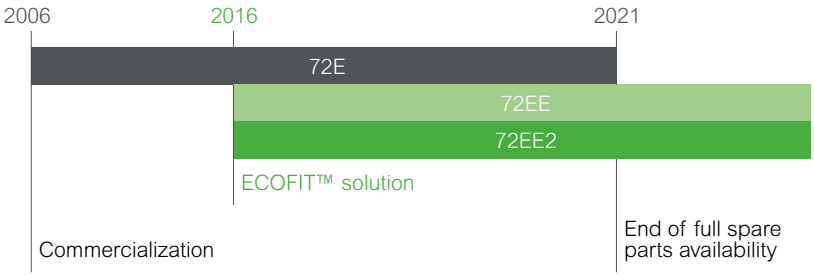
Communication Module - 72E with 72EE & 72EE2

Original brand: ASCO

72E

72EE

72EE2



Main Technical Characteristics Comparison

	5150 (72E)	5140 (72EE)	5170 (72EE2)
Product Series	200/300/4000/7000	200/300	4000/7000
Controller	Group-1, Group-5	Group-G	Group-5
Embedded Webpages	With Control	Yes	Yes
Mobile Support	No	Yes	Yes
Modbus	Yes	Yes	Yes
SNMP	Limited	Yes	Yes
Email Notification	No	Yes	Yes
Ethernet	One Port	Four Ports	Four Ports
RS485	Yes	No	Yes

The 5140/5170 Communication Module is an easy-to-deploy solution for connecting, monitoring, controlling, and securing transfer switches in critical power systems.
Sends real-time notices of power system events and alarms.
Enables remote testing of transfer switches and generators.
Provides power information to web application and monitoring systems.

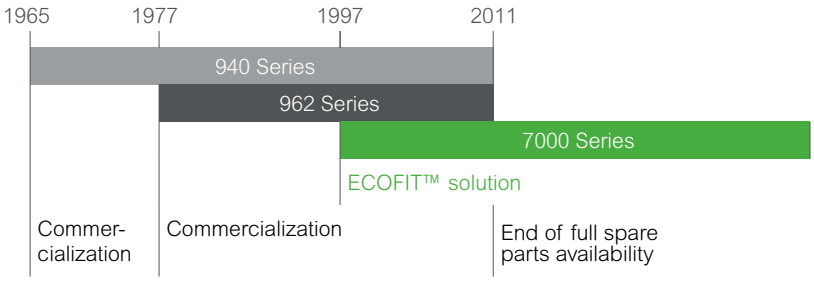
72EE-5140 Quad-Ethernet (Field mod kit): 948551
72EE2-5170 4000/7000Series (Field mod kit): K1106217

ASCO ATS Replacement

Modernization - ATS 940 / 962 Series with Series 7000

Original brand: ASCO

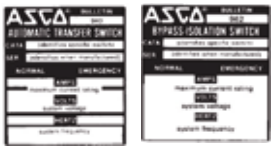
Series 940:
1965 - 2001, Power Transfer Switch
Series 962:
1977 - 2001, Power Transfer Switch with Bypass Switch
Series7000:
1997 - Current
Ampere Rating from 30A ~ 4000A
Voltage Rating from 120V ~ 600V



Transfer Switch Design Letter (_Design) Chart

	940 Series	962 Series	7000 Series
30-230A	B,C	E	D
260-400A	B,C,D,E	E	E,J
600-800A	B,C,D,E,F	E,F	H
1000-1200A	B,D,E,G	D,E,G	H
1600-2000A	B,D,E,G	D,E,G	G
3000-4000A	B,D,E,G	Back-to-Back, Side-by-Side, G	G

Refer to the product nameplate (can be found on product, example attached) to determine which controller/design of your equipment.
Options:
- Controller upgrade: All controllers can be upgraded to Group 5 Controller, please order Kit#707710-001
- Entire switch replacement: please contact CustomerCare@ascopower.com for more information
- Upgrade with accessories



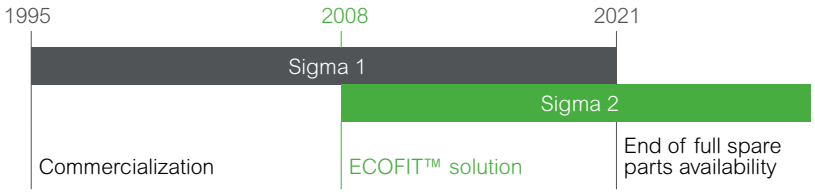
ASCO Load Bank Controller Upgrade

Load Bank Controller - Sigma 1 with Sigma 2

Original brand: Froment

Sigma 1 control system

Sigma 2



Main Technical Characteristics

	Sigma 1	Sigma 2
Power supplies	Module power 20V AC	Module power 24V DC I/O 24V DC
Inputs and Outputs	12 Inputs, 32* Outputs	32 Inputs, 56 Outputs
Instrumentation	2 channel multiplexed Max. 25* readings per second at 50Hz *V and Hz L1-L2 phase only	8 channels continuous DMA sampling and processing Max. 50* readings per second at 50Hz *all readings on all three phases
Communications	RS485 (opto-isolated) to Sigma Handheld/PC RS232 for diagnostics	RS485 (opto-isolated) to Sigma Handheld/PC RS232 (opto-isolated) for control and monitoring through Modbus protocol and diagnostics
Status indicator	Heartbeat LED	7 segment LED for operatign status, warning and error codes
Cooling	Cooling fan required	Passive
Updates	By changine EPROM	Flash file through Sigma Diagnostics software
Compatibility	MS12, MS24, MS44, MS66, MS103, MS110, MS164, MS220, MC110, MC1C, MC2C. Please consult Schneider Electric.	

Offer extension

TCP/IP Modbus over Ethernet for load bank control and monitoring

Internal only : bFO support request
Should you require more upgrade information, please contact Load Bank.fieldservice@ascopower.com

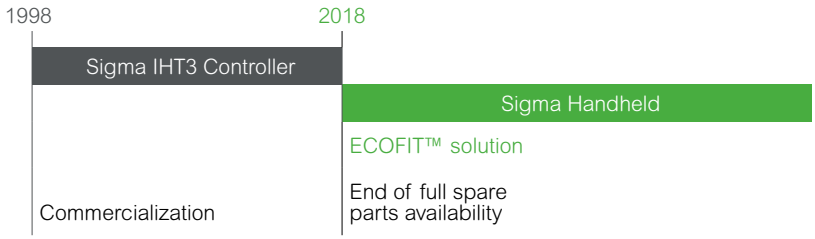
ASCO Load Bank Controller Upgrade

Load Bank Controller - Sigma IHT3 Controller with Sigma Handheld

Original brand: Froment

Sigma IHT

Sigma Handheld



Main Technical Characteristics

	Sigma IHT3	Sigma Handheld
Power supplies	24V DC	24V DC
Screen	Black and white dot matrix	4.3" Colour TFT Screen
Communications	RS485	RS485 Backward compatibility with all Sigma 2 load banks
Updates	By changing EPROM	Micro USB port for easy firmware updates
Compatibility	All Sigma controlled load banks	

Power and distribution transformers

Power and distribution transformers

Power and Distribution Transformers

Dry transformer with Trihal

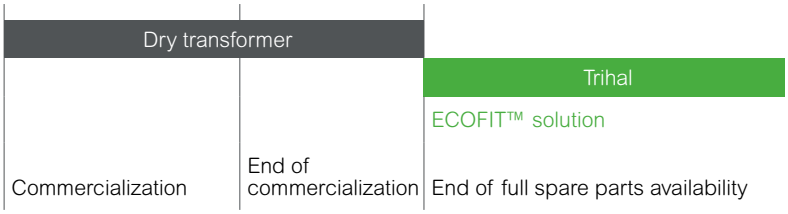
Original brand: All brands

ECOFIT™ proposal

Old transformer

Trihal transformer

With ECOFIT™, a true extended life time



EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	Dry transformer	Trihal
Rated power	100 kVA to 15 MVA	100 kVA to 20 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 or Class H
Safety and reliability	Not available	IEC 60076-11 and IEC 60076-16 • E4 as per IEC 76-11: 2018 • C4 as per IEC 76-11: 2018 Climate Test • F1 Fire Behaviour • ≤ 5pC Special test for partial discharge 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 • Alarming • Diagnosis • Modbus RS communication

Additional offer

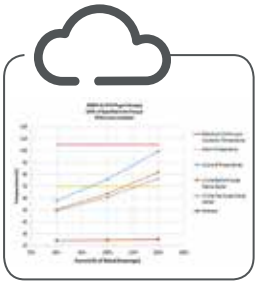
Asset management services

- Implementation of digital protection relay (NT935)
- Upgrade with smart sensors for health status monitoring
- Health status monitoring, alarms and report
- Ageing and HOT SPOT information
- Cloud connection to EcoStruxure Asset Advisor

EcoStruxure™ Innovation At Every Level

- Real-time condition monitoring to optimize assets availability and reduce unscheduled down-time
- Reduced Total Cost of Ownership thanks to optimized maintenance
- Increased operator and equipment safety
- 24/7 connectivity, with remote alarming and real-time data supporting fast decision making
- Consistent monitoring solution across our MV portfolio, for both new and modernization projects
- Access to Schneider Electric cloud based digital services (EcoStruxure Asset Advisor)

EcoStruxure Asset Advisor



Power and Distribution Transformers

Oil transformer with Minera

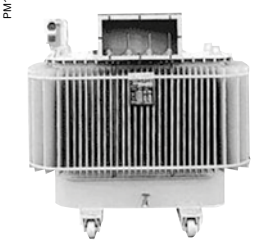
Original brand: All brands

ECOFIT™ proposal

Oil transformer

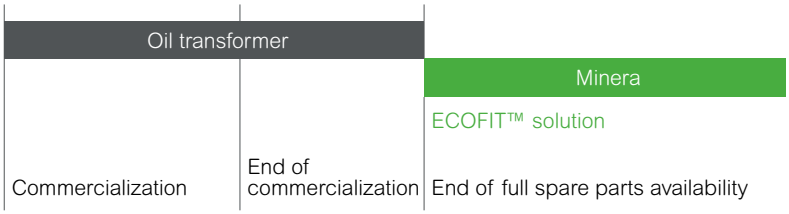
Minera transformer

PM10604



PE90841

With ECOFIT™, a true extended life time



EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

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 also Smart Grid Solution EcoTAP
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) • Breathing or sealed type • Standard or low noise levels • Biodegradable vegetable oil • A wide variety of accessories
Digitalization	Not available	• DGPT • DMCR (Detection, Measurement, Control Relay) • H2 Sensor • H20 Sensor

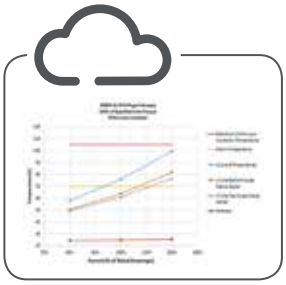
Additional offer

Asset management services

- Implementation of digital protection relay (eDMCR)
- Upgrade with smart sensors for health status monitoring
- Health status monitoring, alarms and report
- Cloud connection to EcoStruxure Asset Advisor

EcoStruxure™ Innovation At Every Level

EcoStruxure Asset Advisor



Upgrade with Asset Connect

Asset Connect

Digitize and monitor your equipment with smart sensors

Financial impact of one hour of downtime
(Source: Contingency Planning Research)

Application	Loss(1) in €
Health establishment	Human lives....
Stock market transactions	6,500,000
Credit card sales	2,600,000
Petrochemical	100,000
Plane ticket booking system	90,000
Mobile phone network	40,000
Automobile	30,000
Pharmaceutical	30,000
Food processing	20,000
Cement	15,000

(1) Direct and indirect costs of non availability

How we can help you?

When the time comes to modernization, upgrade your equipment to:

- Prevent unscheduled downtimes (cf. Table 1)
- Increase safety (operators and installations)
- Allow condition based maintenance
- Maximize service continuity, anticipate possible disruptions
- Protect the investment, maximizing the equipment lifetime.

What if the equipment could communicate?

Easergy TH110 - Monitor connections temperature

Loose low or medium voltage products power connections are one of the most sensitive concern for electrical substations

- MV cable connections
- MV busbars connections or LV busways
- Withdrawable CB connections.

Defective connections cause an increase of resistance in the contact points that could lead to thermal runaway, connections complete destruction… and potential fire hazard.

Preventive maintenance can be complicated due to limited accessibility and visibility of the contacts.

Continuous thermal monitoring is an effective way to detect loose connections earlier.

Easergy CL110 - Monitor ambient humidity and temperature

Humidity monitoring in the substation contributes to the efficient ventilation and guarantee proper operating condition.

Humidity monitoring helps ventilation failure detection leading to moisture, ozone, partial discharge in the substation.

Arc Flash sensors - Detect arc and reduce damage on equipment and human injuries

An arc flash is an electrical accident that creates a high-temperature explosion. It can vaporize surrounding metal, set fires, and result in severe burns. Although rare, arc flashes can have grave consequences so you need to ensure your people and site are always protected. An arc flash can happen during abnormal use due to a corruption of isolation, or in circumstances involving animals, flooding, vibrations, or corrosion. Yet, it can also occur during commissioning or maintenance, rendering equipment unusable and forcing costly downtime with serious economic consequences. Prevent accidents and protect your site with our arc flash protection solutions for both safety and productivity.

What do you get?

- HMI display
- Alarm through SMS
- SCADA connection
- Preventive asset performance management
- Predictive asset performance management.

EcoStruxure Facility Advisor

EcoStruxure Asset Advisor

Apps and analytics Cloud services level

EcoStruxure Innovation At Every Level

EcoStruxure Power Scada Expert

EcoStruxure Power Monitoring Expert

Edge control Facility level

EcoStruxure Innovation At Every Level

HMI (Substation monitoring device)

Connect products Equipment level

EcoStruxure Innovation At Every Level

Asset Connect

Digitize and monitor your equipment with smart sensors

EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Condition monitoring package

To get visibility of switchgear's health in real time & reduce unplanned downtime

Thermal monitoring
Easergy TH110 wireless self-powered sensors to monitor the quality of power connections in medium voltage cables.

Environmental monitoring
Easergy CL110 wireless battery powered sensors to monitor the condensation within the switchgear.

Circuit breaker monitoring
Real-time circuit breaker monitoring
- Mechanical aging
- Operating time performance
- MV contact aging
- Motor spring charging performance

To take people's and equipment's safety to the next level

Ultra fast Internal arc detection
VAMP125 or Easergy P3 or P5 relays which helps to reduce up to 40% internal arc fault clearance time vs conventional relay.

Nearby control
Operate and monitor equipment features (temperature, environment, circuit breaker, transformer, etc.) from a local smart device.

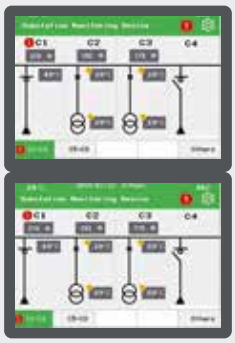
Asset Connect

Digitize and monitor your equipment with smart sensors

EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Local



Local & Nearby HMI (SMD)
A local touch HMI, with single line diagram allow users to browse the full substation condition. When equipped with Wifi, HMI can be replicated on a nearby smartphone.

Thermal Apps
Read the thermal status of complete switchgear up to 10m with a smart device through “Thermal connect” a simple & cost effective App.

Remote

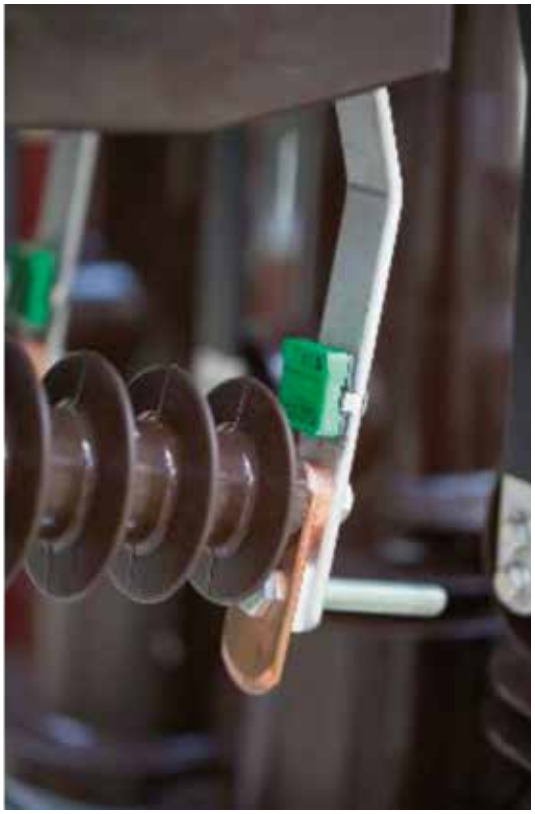
Cloud service platforms – Asset Advisor
Condition monitoring data is embedded with analytics for Predictive maintenance. Allows to schedule the right maintenance activity at the right time, preventing equipment failure.

Power monitor / SCADA integration
Health data can be easily integrated within Power Scada Operations or Power Monitoring Expert or even in a third party.

SMS alerts
Instant SMS alert notifications if any of the health parameters (Thermal, Environment, Circuit breaker) exceeds predefined thresholds.

Asset Connect

Field service upgrade your equipment with latest sensors technology



Asset Connect helps you to upgrade your installation with smart sensors, transforming non-communicating equipment into connected assets.
These upgrades open your electrical installation to a full spectrum of advanced capabilities, such as preventive or predictive asset performance management services.

Asset Connect helps you to upgrade your installation with smart sensors, transforming non-communicating equipment into connected assets.

These upgrades open your electrical installation to a full spectrum of advanced capabilities, such as preventive or predictive asset performance management services.

Commercialized ranges

		Connection temperature monitoring	Ambiant humidity and temperature	Arc flash detection
Medium Volatge	SM6 36kV	✓	✓	(1)
	SM6 24kV	✓	✓	(1)
	RM6	✓	✓	(1)
	PIX + PIX H	✓	✓	✓
	GMA	✓	✓	(1)
	GHA	✓	✓	(1)
	F400	✓	✓	✓
	Flusarc	✓	✓	(1)
	CBGS0/1/2/3	✓	✓	(1)
	DVCAS	✓	✓	(1)
	Motorpact	✓	✓	(1)
	Masterclad 15kV	✓	✓	(1)
	Pix ROF	✓	✓	✓
	McSET 1,2,3,4	✓		✓
	HWX	✓		(1)
	Masterclad 27kV	✓	✓	(1)
	Nex	✓	✓	(1)
	HVL	✓		(1)
	Premset	✓		(1)
Tfos	Dry Transformer Trihal < 36kV	including windings	na	(1)
	Oil Transformer Minera	✓	na	(1)
Low Volatge	Busway - KT	✓	✓	(1)
	Busway – I-line	✓	✓	(1)
	Prisma, Prisma P	✓	na	(1)
	Okken - Blokset	(1)	na	(1)
	ASCO 7000	✓	✓	na

Legacy ranges and ECOFIT™

		Connection temperature monitoring	Ambiant humidity and temperature	Arc flash detection
Medium Volatge	Fluair 100-200	✓	(1)	(1)
	HMC	✓	(1)	(1)
	YSF6	✓	(1)	(1)
	Venus	✓	(1)	(1)
	WBA	✓	(1)	(1)
	WBB	✓	(1)	(1)
	VAD2	✓	(1)	(1)
	VAD3	✓	(1)	(1)
	B200	✓	(1)	(1)
	YSF6	✓	(1)	(1)
	WKC	mid 2022	(1)	(1)
	GE	mid 2022	(1)	(1)
	B200	✓	(1)	(1)
	B400	mid 2022	(1)	(1)
LV	LV Circuit Breaker and Panels	(1)	(1)	✓

(1) Ask your Field Services Representative for availability

Asset Connect

Different receivers possibilities to meet your needs

EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Substation Monitoring Device BOX(1)

Features			
Version	V1	V2	V3
Free Digital input	up to 68		
Free Digital output	1 (3 digital outputs used for the 3 alarming lights)		
Analogue inputs (PT100)	4 x B (up to 8)		
Zigbee concentrator management	1, 2 or 3. Only 1 Zigbee concentrator available in the SMD box. Maximum of 2 additional Zigbee concentrator(2) installed in satellite Modbus serial box		
Zigbee sensors (TH110 or CL110) management	Up to 60 sensors per Zigbee concentrator (up to 180 sensors per SMD)		
Ethernet Port	1 dedicated to local HMI 1 dedicated to communication with customer SCADA/ COMX Free port: 1 + 2 for Ethernet communication with devices		
Cubicle management	Up to 16 cubicles		
SMS	No	Yes	No
Communication to the cloud	No	No	Yes

(1) Not compatible with LV protection relay and busway
(2) Please use Satellite Modbus Serial Box

Satellite Modbus Serial Box

Features	
Zigbee concentrator	1
Zigbee sensors (TH110 or CL110) management	Up to 60 sensors per Zigbee concentrator (up to 180 sensors with 3 units of ZBRN32)
Communication	2 ports Serial Modbus RS485 RJ45

Digital Box

Features	
Free Digital input	COMX: 6 inputs
Free Digital output	COMX: 0 output
Analogue inputs (PT100)	COMX: 2 inputs
Zigbee concentrator management	Up to 10 ZBRN32 in daisy chain Only one Zigbee concentrator available in the Digital box Additional Zigbee concentrator installed in satellite Modbus TCP box
Zigbee sensors (TH110 or CL110) management	Up to 60 sensors per Zigbee concentrator (up to 180 sensors)
Free Ethernet switches	1 dedicated to the communication with the LAN or used by the 3G modem 1 or 4 for Ethernet communication with devices, 4 with the Ethernet switch option
Network communication	Modbus Serial RS485 RJ45 Modbus TCP/IP Ethernet
SMS	No
Communication to the cloud	Yes

Satellite Modbus TCP Box

Features	
Zigbee concentrator	1, 2 or 3
Zigbee sensors (TH110 or CL110) management	Up to 60 sensors per Zigbee concentrator (up to 180 sensors per Satellite Modbus TCP box)
Communication	TCP Modbus RJ45 port

Protection relays

Protection relays

Protection relays

Order forms

G

Protection relays

Protection upgrade benefits

Improve the performance of your system with the latest technology in micro-processor based integrated relays.

Why protection upgrade?

By replacing solid state relays, older type electromechanical protection relays or legacy relays with technologically advanced multi-function microprocessor-based digital relays, the performance accuracy and longevity of your system can be significantly improved.
With a number of different protection functions Schneider Electric's range of relays can provide a range of options to include metering; communication, cyber security, event capture, monitoring and control. Units are self-diagnostic to provide enhanced reliability. It is normally possible to use the existing current and potential transformers and auxiliary digital relay inputs.
Schneider Electric's application based approach makes it easy to select the appropriate relay for your needs.

What are the benefits?

Accurate	System protection at the current level reduces unnecessary outages and minimise stresses to equipment.
	Increased accuracy of measurement assists in cost allocation and understanding power demand requirements.
	High reliability from advanced self supervision systems.
Flexible	The integrated functions of the relay allow for communications and control of the equipment either as a stand-alone unit or as part of networked systems.
	All components in the protection chain are referenced and interface rapidly.
	No constraints for integration in cubicles due to the compact size of the base unit and mechanical adaptation socket for some models.
Safer and secure	Enhance operator's safety and be better protected against cyber attacks.
Reliable and sustainable	Extend products usability and maintainability in a longer term.
Ease of use	Setting conversion tool for Easergy P3 or Easergy P5. Settings and adjustments are entered via the device's keypad or via user friendly setting software and visually displayed.
Reduced costs	The amalgamation of functions into one self-diagnosing device reduces expenditure and saves on space.

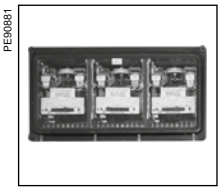
Protection relays

CDG
with Easergy P1 / P3 / P5 or MiCOM P40
Original brand: Alstom

ECOFIT™ proposal

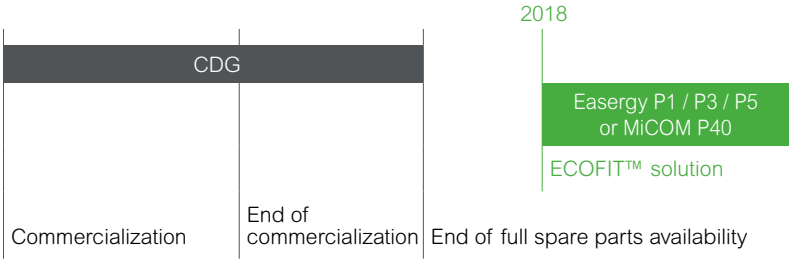
CDG
Protection relay

PE90881



Easergy P1 / P3 / P5
or MiCOM P40
Protection relay

With ECOFIT™, a true extended life time



Main technical characteristics

	CDG	Easergy P1 / P3 / P5 or MiCOM P40
Case	Based on 1 or 3 independent units	20TE, 30TE or 40TE fix or withdrawal case, mounted as plug and play solution into the existing DGC /CAG/CTM range case
Replacement type	-	1 relay for 3 individual units
Type	Electromechanical & induction disk relay type	Numerical
Functionality	Selective earth & phase fault overcurrent	3 phase & earth overcurrent
Frequency range	Calibrated for 50 Hz or 60 Hz only	50 to 60 Hz +/- 20 %
Communication	-	IEC 61850 Ed.1 & Ed.2 IEC 60870-5-103 & 101 IEC 60870-5-101 Ethernet DNP3 Ethernet DNP3 serial Modbus Ethernet Modbus serial EtherNet/IP

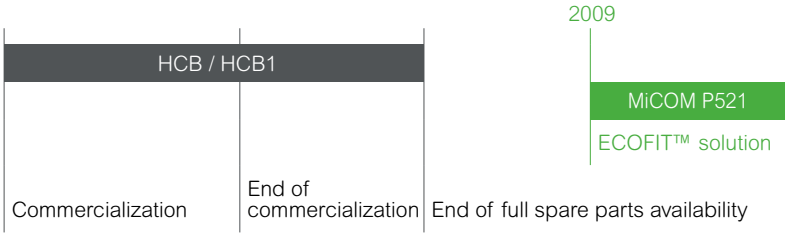
Protection relays
HCB / HCB1 with MiCOM P521
Original brand: ABB

ECOFIT™ proposal

HCB / HCB1
Protection relay

MiCOM P521
Protection relay

With ECOFIT™, a true extended life time



Main technical characteristics

	HCB / HCB1	MiCOM P521
Case	FT-42	Fit existing cutout
Replacement Type	-	1 for 1 with minimal rewiring
Type	Electromechanical	Digital
Functionality	3 phases differential	3 phases differential
Power supply	-	24 VDC - 250 VDC
Communication	-	IEC 60870-5-103, Modbus RTU

*1 ECOFIT™ P521 - IAC solution could replace 3 single phase IAC units.

Protection relays

IAC, IFC, DIAC and BE1-50/51 B with ECOFIT 50/51

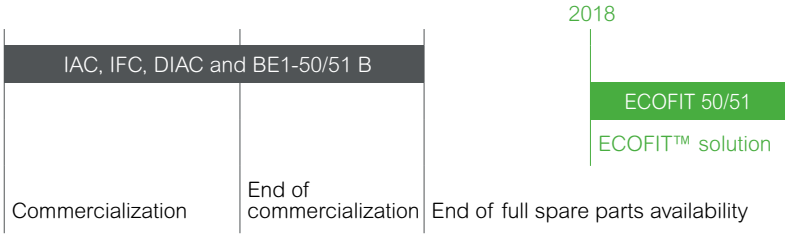
Original brand: General Electric, Basler

ECOFIT™ proposal

IAC, IFC, DIAC and BE1-50/51 B Protection relay

ECOFIT 50/51 Protection relay

With ECOFIT™, a true extended life time



Main technical characteristics

	IAC, IFC, DIAC and BE1-50/51 B	ECOFIT 50/51
Case	S1 (IAC) - C1 (IFC)	The legacy relay case is reused in Plug and Protect
Type	Electromechanical or digital	Numerical
Functionality	Single phase overcurrent	Single phase overcurrent
Power supply	Self powered	Self powered

The Schneider Electric ECOFIT 50/51 single phase or ground time overcurrent relays are direct plug and protect replacements for many GE IAC or GE IFC electromechanical, GE DIAC and Basler BE1-50/51B replacements for GE IAC relays. The relays are selfpowered from 50 or 60 Hz systems and are designed to be one to one replacements for existing electromechanical or digital relays.
The relays are equipped with 31 built-in protection curves.
ECOFIT 50/51 provides information that was not available in the E/M relays:
- Twenty (20) overcurrent fault records time-tagged to the millisecond
- 200 events records time stamped to the millisecond
- Ten (10) Disturbance records up to 4 seconds per record at a sample rate of 32 samples per cycle.

Plug and Protect reduces costs in installation time because it saves existing wiring and reduces engineering costs over other options.

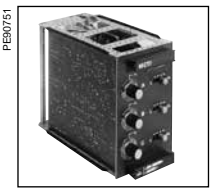
Protection relays

M range - MCTI 39-40 with MiCOM P821MF

Original brand: AREVA

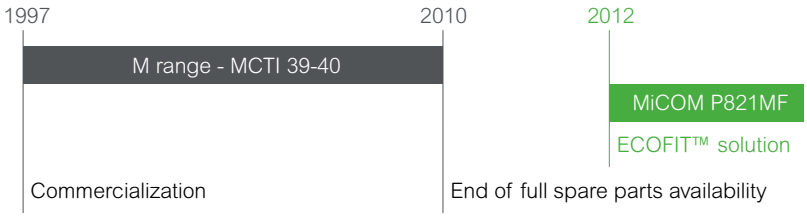
ECOFIT™ proposal

MCTI 39-40
Protection relay



MiCOM P821MF
Protection relay

With ECOFIT™, a true extended life time



Main technical characteristics

	M range relay - MCTI 39-40	MiCOM P821MF
Case	20TE size flush mounting	20TE size flush mounting
Installation	Withdrawable case	Withdrawable case
Language	English	Multilanguage
Communication	Kbus / Courier	Kbus / Courier, DNP3, IEC60870-5-103
Power supply	24/125 VDC - 48/250 VDC	24/250 VDC - 48/240 VDC
Digital input supply	48 VDC only	According to Power Supply (above)

Protection relays

Sepam series 20 with Easergy P3

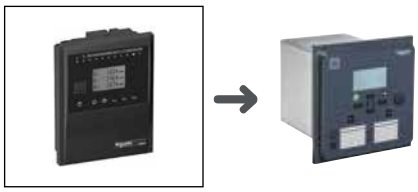
Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

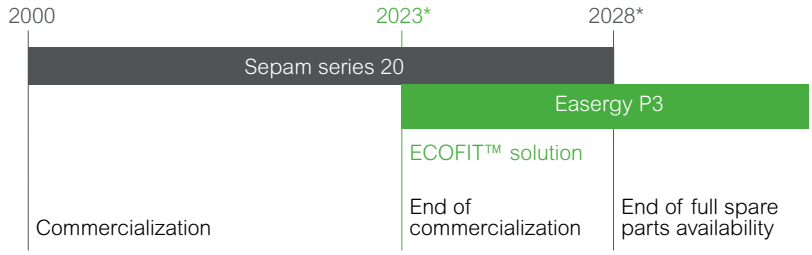
Sepam series 20
Protection relay

Easergy P3
Protection relay

PE88030



With ECOFIT™, a true extended life time

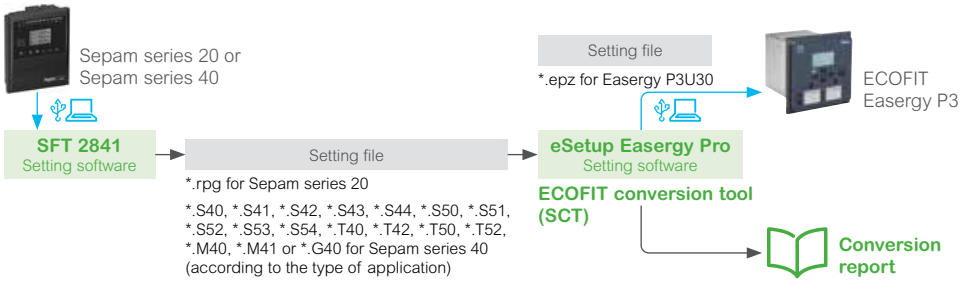


* Please consult Schneider Electric

Main technical characteristics

	Sepam series 20	Easergy P3
Case	Flush mounting	Flush mounting with 2 depths positions
Installation	Fix case	Fix case + mechanical adaptation socket
Language	Multilanguage	Multilanguage
Communication	Modbus serial IEC60870-5-103 DNP3	IEC 61850 Ed.1 & Ed.2 IEC 60870-5-103 & 101 IEC 60870-5-101 Ethernet DNP3 Ethernet DNP3 serial Modbus Ethernet Modbus serial EtherNet/IP SPAbus Profibus Device net
Power supply	24 - 250 VDC; 48V - 240 VAC	24 VDC; 48 - 230 VAC/VDC
Control LED	11 leds	12 LEDs
Single line diagram (Mimic)	No	Yes
Programmable function key	No	2
Cyber security	No	Yes
Compatibility	Sepam series 20 models compatibles with the ECOFIT™ Easergy P3: S20 / S23 / S24 / T20 / T23 / T24 /B20 / B21 / B22 / M20 For Sepam + MSA141 (analog ouptup module) and/or ACE990 (Core balance CT interface) and/or DSM303 (Remote advance UMI display) and/or MET148/MET148-2 (temperature sensor module): Please consult Schneider Electric	

Settings conversion with ECOFIT Easergy P3



Mechanical adaptation socket

ECOFIT Sepam series 20 or series 40 with Easergy P3

2 possible positions depth mounting

Flush mounting

Offset mounting

To request for a quote, please use the ECOFIT™ web selector:

https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Protection relays

Sepam series 40 with Easergy P3

Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

Sepam series 40
Protection relay

Easergy P3
Protection relay

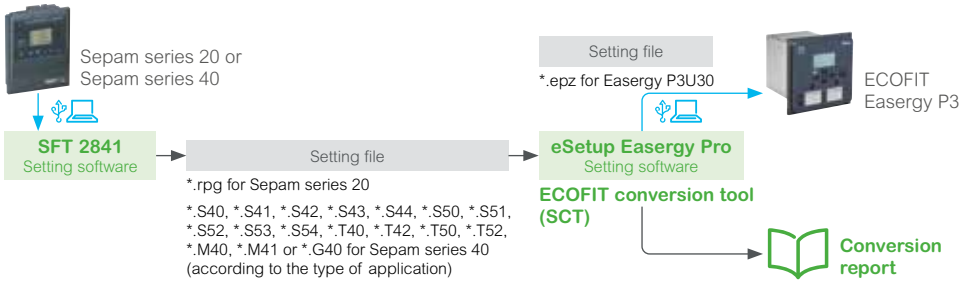
With ECOFIT™, a true extended life time

* Please consult Schneider Electric

Main technical characteristics

	Sepam series 40	Easergy P5
Case	Flush mounting	Flush mounting with 2 depths positions
Installation	Fix case	Fix case + mechanical adaptation socket
Language	Multilanguage	Multilanguage
Communication	Modbus serial Modbus Ethernet IEC61850 Ed1 & Ed2 IEC60870-5-103 DNP3	IEC 61850 Ed.1 & Ed.2 IEC 60870-5-103 & 101 IEC 60870-5-101 Ethernet DNP3 Ethernet DNP3 serial Modbus Ethernet Modbus serial EtherNet/IP SPAbus Profibus Device net
Power supply	24 - 250 VDC; 48V - 240 VAC	24 VDC; 48 - 230 VAC/VDC
Control LED	11 leds	12 LEDs
Single line diagram (Mimic)	No	Yes
Programmable function key	No	2
Cyber security	No	Yes
Compatibility	Sepam series 40 models compatibles with the ECOFIT™ Easergy P3 (30TE): S40 / S41 / S42 / S43 / S44 / S50 / S51 / S52 / S53 / S54 / T40 / T42 / T50 / T52 / M40 / M41 / G40 For Sepam + MSA141 (analog ouptup module) and/or ACE990 (Core balance CT interface) and/or DSM303 (Remote advance UMI display) and/or MET148/MET148-2 (temperature sensor module): Please consult Schneider Electric	

Settings conversion with ECOFIT Easergy P3



Mechanical adaptation socket

ECOFIT Sepam series 20 or series 40 with Easergy P3

2 possible positions depth mounting

Flush mounting | Offset mounting

To request for a quote, please use the ECOFIT™ web selector:

https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Protection relays

MiCOM Px20 (20TE) with Easergy P5

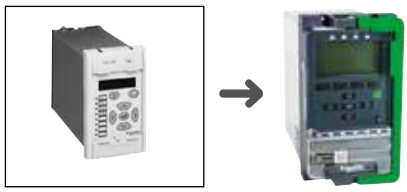
Original brand: Alstom, AREVA, Schneider Electric

ECOFIT™ proposal

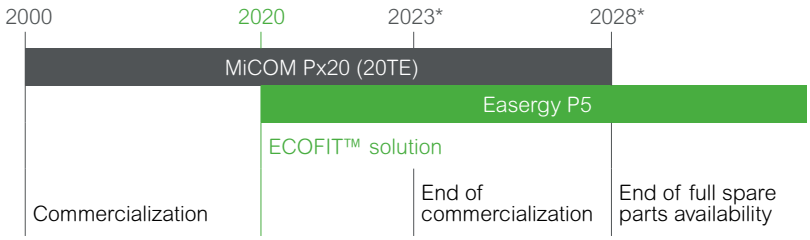
MiCOM Px20 (20TE)
Protection relay

Easergy P5
Protection relay

PE90635



With ECOFIT™, a true extended life time



* Please consult Schneider Electric

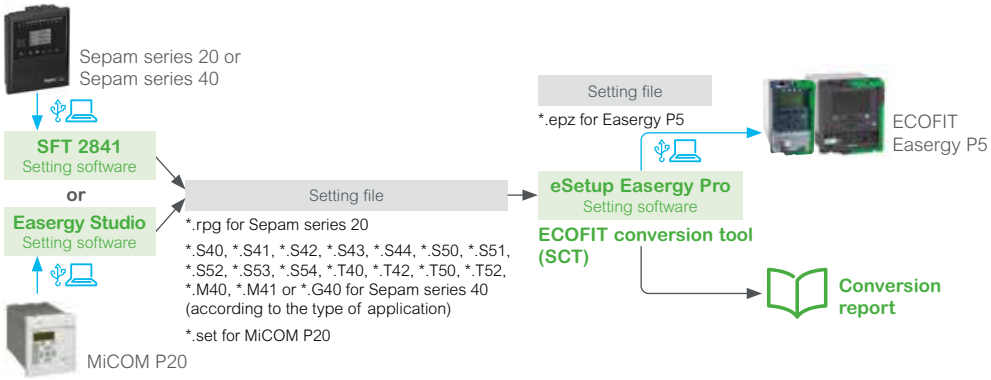
EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	MiCOM Px20 (20TE)	Easergy P5
Case	20TE size flush mounting	20TE size flush mounting
Installation	Withdrawable case	Withdrawable case
Language	Multilanguage	Multilanguage
Communication	Modbus serial Kbus / Courier IEC60870-5-103 DNP3	IEC 61850 Ed.1 & Ed.2 IEC 60870-5-103 & 101 IEC 60870-5-101 Ethernet DNP3 Ethernet DNP3 serial Modbus Ethernet Modbus serial EtherNet/IP
Power supply	24 - 250 VDC; 48V - 240 VAC	24 - 250 VDC; 100 - 230 VAC
Control LED	8 leds	10 LEDs
Single line diagram (Mimic)	No	Yes
Programmable function key	No	1
Cyber security	No	Yes
Back-up memory	No	Yes
Compatibility	MiCOM Px20 (20TE) models compatible with the ECOFIT™ Easergy P5 (20TE): P120 / P121/ P122 / P123 / P920 / P921 / P922 / P923 (only type A) For MiCOM P123 / P920 / P922 / P923 with 8 outputs connected: Please consult Schneider Electric	

Settings conversion with ECOFIT Easergy P5



To request for a quote, please use the ECOFIT™ web selector:

https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Protection relays

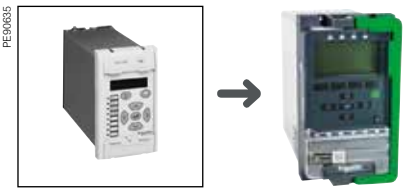
MiCOM Px20 (30TE) with Easergy P5 (30TE)

Original brand: Alstom, AREVA, Schneider Electric

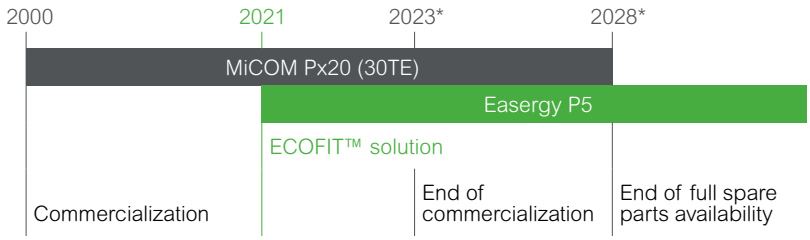
ECOFIT™ proposal

MiCOM Px20 (30TE)
Protection relay

Easergy P5
Protection relay



With ECOFIT™, a true extended life time



* Please consult Schneider Electric

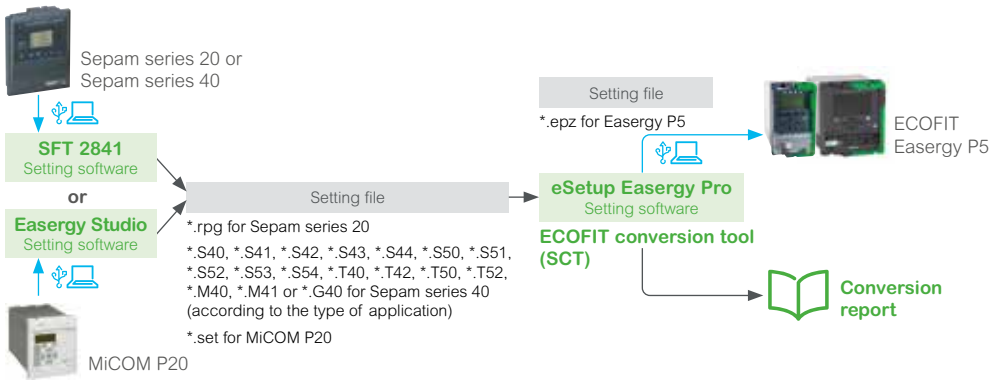
EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	MiCOM Px20 (30TE)	Easergy P5
Case	30TE size flush mounting	30TE size flush mounting
Installation	Withdrawable case	Withdrawable case
Language	Multilanguage	Multilanguage
Communication	Modbus serial Kbus / Courier IEC60870-5-103 DNP3	IEC 61850 Ed.1 & Ed.2 IEC 60870-5-103 & 101 IEC 60870-5-101 Ethernet DNP3 Ethernet DNP3 serial Modbus Ethernet Modbus serial EtherNet/IP
Power supply	24-250 VDC; 48V-240 VAC	24-48 VDC or 48-250 VDC; 100-230 VAC
Control LED	8 leds	14 LEDs
Single line diagram (Mimic)	No	Yes
Programmable function key	No	7
Cyber security	No	Yes
Arc flash	No	0 to 6 sensors
Back-up memory	No	Yes
Compatibility	MiCOM Px20 (30TE) models compatible the ECOFIT™ Easergy P5 (30TE): P126 / P127 / P220 / P225	

Settings conversion with ECOFIT Easergy P5



To request for a quote, please use the ECOFIT™ web selector:

https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Protection relays

Sepam series 20 with Easergy P5

Original brand: Merlin Gerin, Schneider Electric

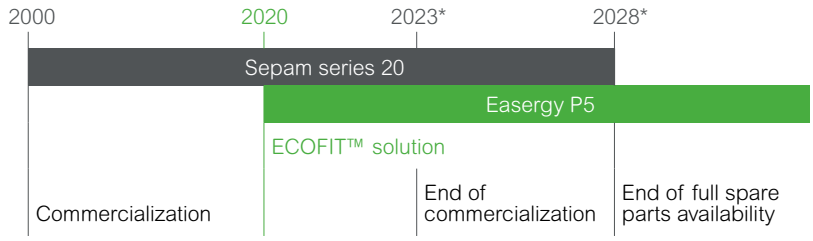
ECOFIT™ proposal

Sepam series 20
Protection relay

Easergy P5
Protection relay

PE88030

With ECOFIT™, a true extended life time



* Please consult Schneider Electric

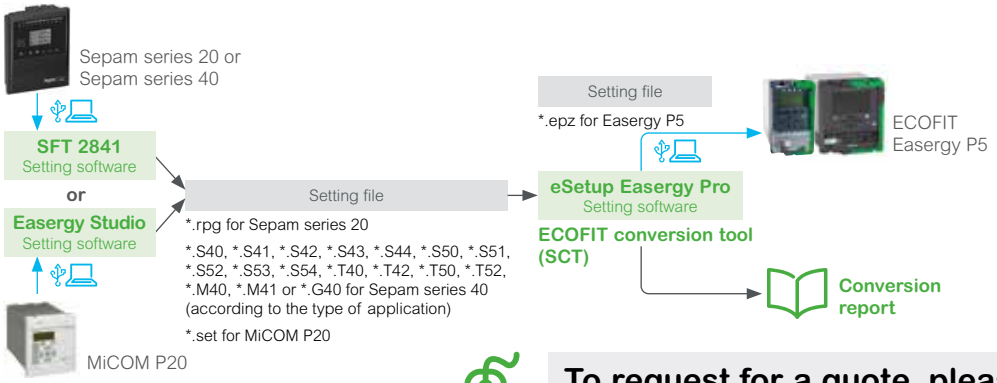
EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	Sepam series 20	Easergy P5
Case	Flush mounting	20TE size mounting with 2 depths positions
Installation	Fix case	Withdrawable case + mechanical adaptation socket
Language	Multilanguage	Multilanguage
Communication	Modbus serial IEC60870-5-103 DNP3	IEC 61850 Ed.1 & Ed.2 IEC 60870-5-103 & 101 IEC 60870-5-101 Ethernet DNP3 Ethernet DNP3 serial Modbus Ethernet Modbus serial EtherNet/IP
Power supply	24-250 VDC; 48V-240 VAC	24-250 VDC; 100-230 VAC
Control LED	11 leds	10 LEDs
Single line diagram (Mimic)	No	Yes
Programmable function key	No	1
Cyber security	No	Yes
Back-up memory	No	Yes
Compatibility	Sepam series 20 models compatibles with the ECOFIT™ Easergy P5 (20TE): S20 / S23 / S24 / T20 / T23 / T24 /B20 / B21 / B22 / M20 For Sepam + MSA141 (analog ouptup module) and/or ACE990 (Core balance CT interface) and/or DSM303 (Remote advance UMI display): Please consult Schneider Electric	

Settings conversion with ECOFIT Easergy P5



Mechanical adaptation socket

ECOFIT Sepam series 20 or series 40 with Easergy P5

2 possible positions depth mounting

Flush mounting

Offset mounting

To request for a quote, please use the ECOFIT™ web selector:

https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Protection relays

Sepam series 40 with Easergy P5

Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

Sepam series 40
Protection relay

Easergy P5
Protection relay

With ECOFIT™, a true extended life time

* Please consult Schneider Electric

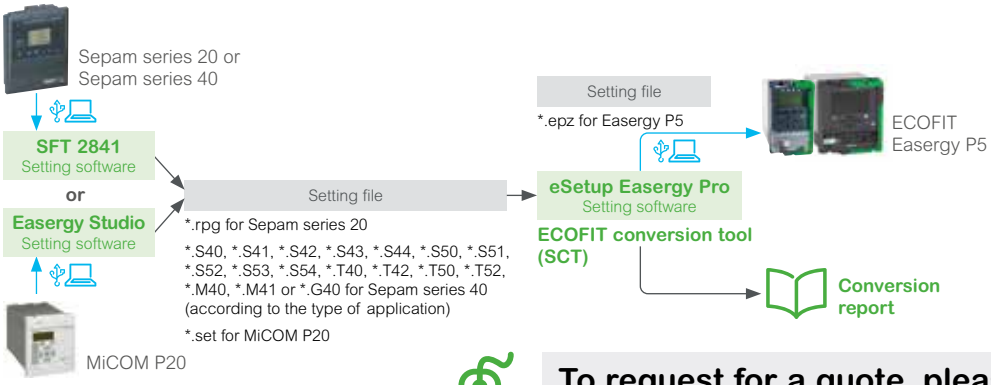
EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	Sepam series 40	Easergy P5
Case	Flush mounting	30TE size mounting with 2 depths positions
Installation	Fix case	Withdrawable case + mechanical adaptation socket
Language	Multilanguage	Multilanguage
Communication	Modbus serial Modbus Ethernet IEC61850 Ed1 & Ed2 IEC60870-5-103 DNP3	IEC 61850 Ed.1 & Ed.2 IEC 60870-5-103 & 101 IEC 60870-5-101 Ethernet DNP3 Ethernet DNP3 serial Modbus Ethernet Modbus serial EtherNet/IP
Power supply	24-250 VDC; 48V-240 VAC	24-48 VDC or 48-250 VDC; 100-230 VAC
Control LED	11 leds	14 LEDs
Single line diagram (Mimic)	No	Yes
Programmable function key	No	7
Cyber security	No	Yes
Arc flash	No	0 to 6 sensors
Back-up memory	No	Yes
Compatibility	Sepam series 40 models compatibles with the ECOFIT™ Easergy P5 (30TE): S40 / S41 / S42 / S43 / S44 / S50 / S51 / S52 / S53 / S54 / T40 / T42 / T50 / T52 / M40 / M41 / G40 For Sepam + MSA141 (analog ouptup module) and/or ACE990 (Core balance CT interface) and/or DSM303 (Remote advance UMI display): Please consult Schneider Electric	

Settings conversion with ECOFIT Easergy P5



Mechanical adaptation socket

ECOFIT Sepam series 20 or series 40 with Easergy P5

2 possible positions depth mounting

Flush mounting | Offset mounting

To request for a quote, please use the ECOFIT™ web selector:

https://www.se.com/ww/en/ecofit-selector/#/ww/en/tools/ecofit-selector

Protection relays

Sepam 2000
with Sepam series 60 or series 80
Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

Sepam 2000
Protection relay

PE90638

Sepam series 60
or series 80
Protection relay

PE90639

With ECOFIT™, a true extended life time

EcoXpert™

This type of service can be also provided by a Power Services EcoXpert

Main technical characteristics

	Sepam 2000	Sepam series 80	Sepam series 60*
Motor Application	M06, M07, M08, M14	X	
	M02 to M05, M09, M11, M15, M16, M20 to M23		X
Sub-station Application	S02, S03, S06 to S09	X	
	S01, S04, S05		X
Bus Bar Application	B02, B04, B07, B12	X	
	B01, B03		X
Transformer Application without temp. measurement	T01 to T03, T06, T07, T09, T10, T12 to T15, T17 to T19	X	
	T04, T05, T11, T16		X
Transformer Application with temp. measurement	T21, T22, T23, T26, T27, T29, T30, T32 to T35, T37 to T39	X	
	T24, T25, T31, T36		X
Generator Application	G01 to G08, G12, G13, G15 to G18	X	
Capacitor bank Application	C02, C04, C06, C08	X	
	C01, C03		X
Transformer Diff. Application	D02, D22	X	

* Sepam serie 80 will be proposed in case of customised Logipam on the original Sepam 2000

ECOFIT™ Sepam 2000 upgrades: diagnosis + implementation/installation of a fully industrialised solution

Improve the performance of your system with the latest technology in micro-processor based integrated relays.

1 • Disconnection of existing terminal blocks

PE90637

2 • Presentation of new ECOFIT™ S2000

PE90637

No mechanical or electrical impact on your installation.
Implementation and site test within a very limited time.

New features enabled:

- Advanced HMI for local control functions.
- Standard communication protocols (Modbus serial, Modbus Ethernet, IEC60870-5-103, DNP3, IEC61850).
- Monitoring & Automation facilities.

Protection relays

ECOFIT™ S2000 - Order Form

Summary of data to collect and provide

End customer:	
Customer ID code:	**Country:**
Order n°:	**Contact email:**
Person to contact:	
Fax:	**Phone:**
Shipping adress:	**Expected delivery date:**

Original application	Confirmation of the original reference(1)
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

Options (S60/S80)	Choice confirmation	
Number of Identical ECOFIT		
Sepam 2000 case type	S25/S26	
	S35/S36	
Man Machine Interface Type	Advanced	
	Mimic based	
Communication protocol (TCP/IP firmware always provided)	IEC61850 or Modbus TCP	
	Modbus RS485	
Communication media (if Ethernet)	RJ45	
	FO	
Other options from S2000	**Choice**	
With customised Logipam (Y / N)(2)	Yes	
	No	
Required HMI language if different from EN / FR	EN (UK)	
	FR	
	ES	
	BR	
	CN	
	DE	
	IT	
	RO	
	CH (German)	
	TR	
	TH	
	UA (Russian)	
	UA	
	EN (US)	
Number of connected ESTOR boards		
Required polarity for logical. Inputs, when non standard: (G=220/250 VDC ; H=110/125 VDC)	Standard	
	H	
	G	
VT connection arrangement	3 VTs	
	2 VTs	
	1 VT	
	1 V0	
	other	
Sepam 2000 Power Supply voltage	24 VDC	
	48 VDC	
	110/125 VDC	
	220/250 VDC	
	220/250 VAC	
	Unknown	
24 VDC Power Supply delivery for the ACE949-2 Modbus module	Yes	
	No	
Confirm if you want a specific application (only if different from the proposed one)	S81	
	S82	
	S84	
	M81	
	M87	
	M88	
	T82	
	T87	
	G87	
	G88	
	B83	

(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 betwen 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.

Protection relays

ECOFIT™ S2000 - Order Form

Summary of data to collect and provide

Complementary questions for engineering quotation	Choice	
Do you have the ability to migrate the Logipam from SEPAM 2000 source to Sepam 80 serie? (If "Yes", engineering will not be quoted, as an option)	Yes No	
If No, can you get the Logic files (*.srl) and setting file (*.par) as soft copy or only pdf form?	*.sri files pdf / paper Nothing available	
Can we consider that all selected SEPAM 2000 relays (if more than 1) have similar logic files?	Yes No Unknown	
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 No Unknown	
If Yes, on which ESTOR board is connected this synchronisation input	ESTOR 1 ESTOR 2 Not used	
Tripping Logic with O1 contact. 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. If NC, an auxiliary relay will be provided and mounted to inverse the tripping logic.	NO NC NO & NC Unknown	
Are the above Sepam 2000 connected to a remote station using Modbus protocol?	Yes No Unknown	

To request for a quote, please use the ECOFIT™ web selector: http://ecofit.schneider-electric.com/

Protection relays

Other protection relays ECOFIT™ - Order Form

Summary of data to collect and provide

Date:	
Requestor:	**Contact name:**
Contact number:	**Contact email:**
Location:	
End user name:	**End user location:**
Expected date of answer:	

Required items	Check list	Comments / Additional Information
Old Relay Pictures	☐	
Old Panel Front View Pictures	☐	
Old Panel Rear View Pictures	☐	
Existing arrangment of relays	☐	
Draw out or Non-draw out type ☐ Yes ☐ No	☐	
Existing external wiring drawing	☐	
Existing Single line diagram	☐	
Complete model number of old relay	☐	
Protection functions used in old relay	☐	
Communication Protocol used in old relay	☐	
Number of Inputs / Outputs used	☐	
Legacy relay sample available ☐ Yes ☐ No	☐	

Requestor signature	Date	Schneider Electric representative	Date

All of these informations are mandatory and have to be filled.
Please send all supportive documents with this completed request form to avoid any unnecessary delays.
To request for a quote, please use the ECOFIT™ web selector: http://ecofit.schneider-electric.com/

Protection relays

Distribution Automation and Substation Automation

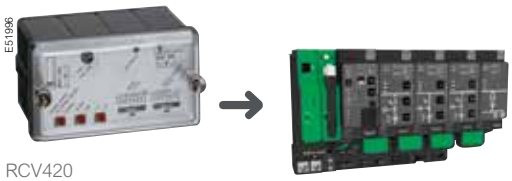
Distribution Automation and Substation Automation

Distribution Automation and Substation Automation

Talus or Easergy T200 S or I, Easergy R200/ATS100, RCV420 or RNS11 with Easergy T300

Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal



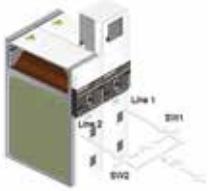
RCV420

Easergy T300

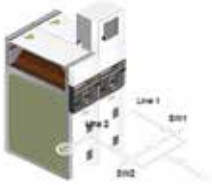
RNS11

Easergy R200/ATS100

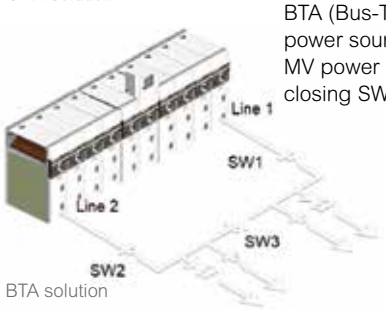
EcoStruxure Automatic Transfer System architectures



ACO solution



GEN solution



BTA solution

ACO - Automatic transfer between 2 MV lines

Standard ACO (Auto Change Over) transfers the power source to the alternate supply if the preferred source is lost. It may be set to automatically return to the preferred source when restored.

GEN - Automatic transfer with a standby generator

GEN (automatic transfer to a GENset) starts the standby generator upon loss of the distribution utility MV power source outage. An option is to combine two separate MV sources coming from the distribution utility, and one standby generator.

BTA - Automatic transfer and coupling

BTA (Bus-Tie Automatic transfer) isolates the faulty MV power source and switches both loads to the healthy MV power source, by opening SW1 (or SW2) and closing SW3 (busbar coupling).

Main technical characteristics

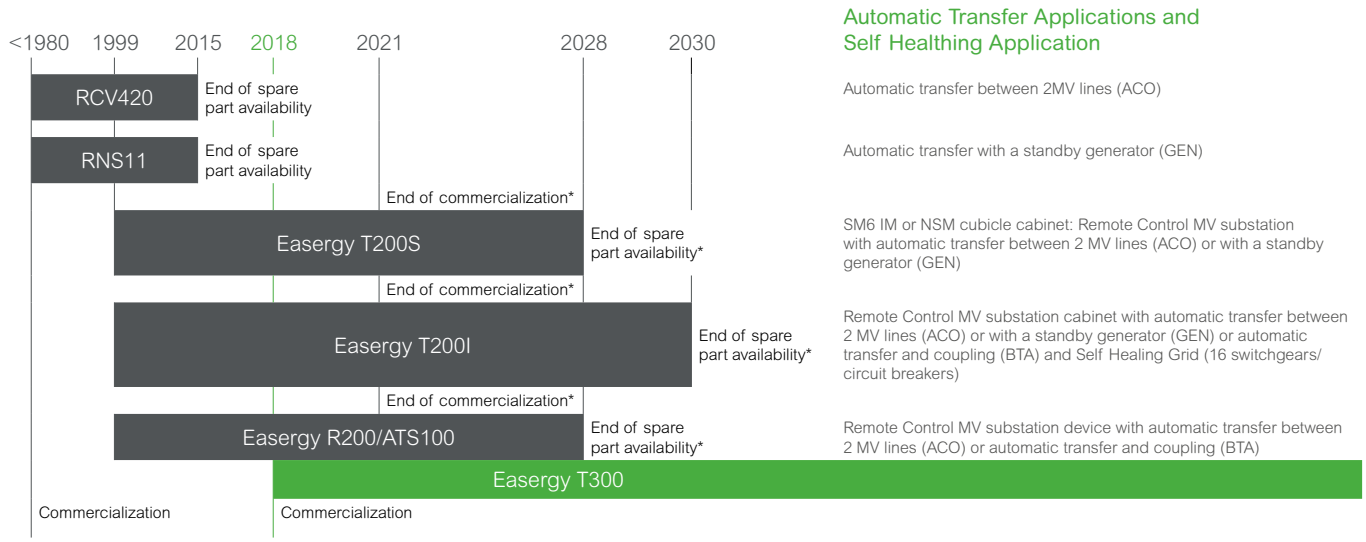
	RCV420	RNS11	Easergy T200 I	Easergy T200S	Easergy R200/ ATS100	Easergy T300
Case / Installation	Flush mounting	Flush mounting	Cabinet	SM6 cubicle cabinet (IM or NSM)	Flush mounting	Modular for Din rail installation or cabinet
Swithgear/circuit breaker management	2	2	1 to 16	2	24 / 2 to 3	1 to 24
Uninterruptible power supply	No	No	24 or 48 VDC	24 or 48 VDC	24 or 48 VDC	24 or 48 VDC
Fault passage indicator	No	No	Yes	Yes	Yes	Yes
MV network reconfiguration automation functions	No	No	Yes	Yes	Yes	Yes
Local display and control	No	No	Yes	Yes	Yes	Yes
Communication protocols	No	No	IEC 870-5-101 and 104, DNP3/ DNP3 IP, Modbus/ ModbusTCP	IEC 870-5-101 and 104, DNP3/ DNP3 IP, Modbus/ ModbusTCP	IEC 870-5-101 and 104, DNP3/ DNP3 IP, Modbus/ ModbusTCP	Master and slave protocols: IEC 60870-5-101/ 104, DNP3, Modbus, IEC 61850 Multi-protocol and redundancy management
Web server for local and remote configuration and monitoring	No	No	Yes	Yes	Yes	Yes Embedded web server compatible with PCs, smartphones and tablet computers
IEC61131 soft PLC	No	No	Yes	No	No	Yes Sectionalizer; Auto transfer source; Self-healing and dedicated, based on IEC 61131-3 PLC
Cybersecurity management	No	No	No	No	No	Yes

Distribution Automation and Substation Automation

Talus or Easergy T200 S or I, Easergy R200/ATS100, RCV420 or RNS11 with Easergy T300

Original brand: Merlin Gerin, Schneider Electric

With ECOFIT™, a true extended life time



Automatic Transfer Applications and Self Healthing Application

- Automatic transfer between 2MV lines (ACO)
- Automatic transfer with a standby generator (GEN)
- SM6 IM or NSM cubicle cabinet: Remote Control MV substation with automatic transfer between 2 MV lines (ACO) or with a standby generator (GEN) or automatic transfer and coupling (BTA) and Self Healing Grid (16 switchgears/ circuit breakers)
- Remote Control MV substation cabinet with automatic transfer between 2 MV lines (ACO) or with a standby generator (GEN) or automatic transfer and coupling (BTA)
- Remote Control MV substation device with automatic transfer between 2 MV lines (ACO) or automatic transfer and coupling (BTA)

* Please consult Schneider Electric

Automatic Transfer System

	RCV420	RNS11	Easergy T200 I	Easergy T200S	Easergy ATS100	Easergy T300 (ACO)	Easergy T300 (GEN)	Easergy T300 (BTA)
Using customizable IEC 61131-3 program	No	No	No	No	No	No	Yes	Yes
Back to normal source configurable/settable (self return mode)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fast transfer < 300 ms	No	No	No	Yes	No	Yes	No	No
Block transfer to one source configurable (no return mode)	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Transfer with close transition configurable (parallel coupling mode)	No	No	Yes	Yes	Yes	No	Yes	Yes
Time slot to back to normal source	No	Yes	Yes	Yes	Yes	No	Yes	Yes
Load shedding capability	No	No	No	No	No	No	Yes	Yes
GENset test function (temporally start genset)	No	Yes	Yes	Yes	No	No	Yes	No
Transfert lock on downsteam current fault detection	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Push buttons (ATS ON/ OFF, Remote/Local, source forcing...)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interlock on digital inputs	0	0	1	1	0	2	2	3

Distribution Automation and Substation Automation

Talus or Easergy T200 E, P or I with Easergy T300

Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

Easergy T200 cabinet

Easergy T300 cabinet

Easergy T300

Main technical characteristics

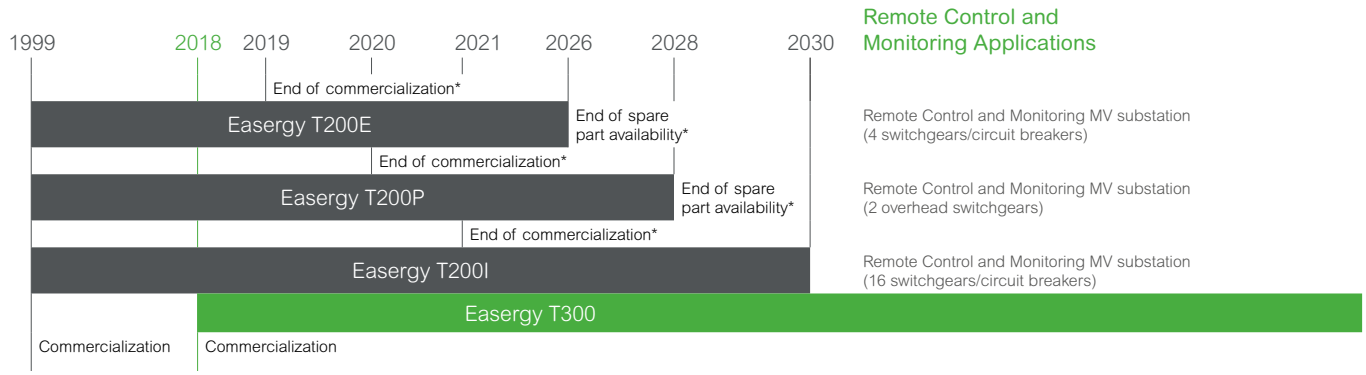
	Easergy T200 E	Easergy T200 I	Easergy T200P	Easergy T300
Case / Installation	Cabinet	Cabinet	Cabinet	Modular for Din rail intallation or cabinet
Swithgear/circuit breaker management	1 to 4	1 to 16	1 to 2 (overhead)	1 to 24
Uninterruptible power supply	24 or 48 VDC	24 or 48 VDC	24 or 48 VDC	24 or 48 VDC
Fault passage indicator	Yes	Yes	Yes	Yes
Current measurements	Yes	Yes	Yes	Yes
Voltage measurements	No	No	Yes	Yes
Voltage monitoring + Sensor				
MV and LV Power measurement	No	No	No	Yes according to IEC 61557-12
MV and LV Power quality	No	No	No	Yes according to IEC 61000-4-30 Class S
Protection	No	No	No	Advanced non-directional and directional fault current detection for all neutral systems MV broken conductor detection based on voltage LV broken conducteur detection (fuse detection)
MV network reconfiguration automation functions	Yes	Yes	Yes	Yes
Local display and control	Yes	Yes	Yes	Yes
Communication protocols	IEC 870-5-101 and 104, DNP3/DNP3 IP, Modbus/ ModbusTCP	IEC 870-5-101 and 104, DNP3/DNP3 IP, Modbus/ ModbusTCP	IEC 870-5-101 and 104, DNP3/DNP3 IP, Modbus/ ModbusTCP	Master and slave protocols: IEC 60870-5-101/104, DNP3, Modbus, IEC 61850 Multi-protocol and redundancy management
Transmission system	Ethernet, RS232, Radio, PSTN, GSM/GPRS, 3G, private line	Ethernet, RS232, Radio, PSTN, GSM/GPRS, 3G, private line	Ethernet, RS232, Radio, PSTN, GSM/GPRS, 3G, private line	Flexible communication media: Ethernet, USB, 2G, 3G, 4G, RS232/485 Wi-Fi connectivity for local operation
Peer to peer communication	Yes	Yes	Yes	Yes
Calculation formulas for basic customer defined logic	Yes	Yes	Yes	Yes
IEC61131 soft PLC	No	Yes	Yes	Yes Sectionalizer; Auto transfer source; Self-healing and dedicated, based on IEC 61131-3 PLC
Web server for local and remote configuration and monitoring	Yes	Yes	Yes	Yes Embedded web server compatible with PCs, smartphones and tablet computers
Firmware and remote/local database update security	No	No	No	Yes

Distribution Automation and Substation Automation

Talus or Easergy T200 E, P or I with Easergy T300

Original brand: Merlin Gerin, Schneider Electric

With ECOFIT™, a true extended life time



* Please consult Schneider Electric

Cybersecurity management

	Easergy T200 E	Easergy T200 I	Easergy T200P	Easergy T300
Compliant with IEC 62351 and IEEE P1686	No	No	No	Yes
SCADA communication security (IEC 62351-5)	No	No	No	Yes
Local and remote access security based on RBAC (IEC 62351-8)	No	No	No	Yes
Connection security for maintenance (local and remote): HTTPS, SSH	No	No	No	Yes
Protocol security for file transfer: SFTP	No	No	No	Yes
Authentication by centralized Radius client	No	No	No	Yes

Distribution Automation and Substation Automation

Control System upgrade benefits

Improve the performance of your automation control system with the latest technology offered by EcoStruxure Substation Operation offer and components.

Why Control Systems upgrade?

Upgrade solutions intend to improve the performance of your control system with the latest technology in computers. This is also the opportunity to benefit from computer and OS upgrading to Windows® 10 to get enhances performances and advanced features for the new HMI.

Considering the large variety of legacy control systems still in operation with limited extension and maintenance facilities, these ECOFIT solutions provide an opportunity to benefit of a unique HMI software and standard communication protocol based on IEC 61850.

It also provides the opportunity to upgrade the legacy protection relays, bay controllers or PLCs at downstream level by up to date hardware or software versions and standard communication protocols.

What are the benefits?

Ready for future extensions	Enables smooth and consistent legacy Control System solutions modernization.
	Open, flexible and scalable architecture facilitating aggregation of several systems at substation level.
	Easiness for future extensions.
Ease of use	Fast implementing without substation shut down, original control systems can remain in operation in most of cases.
	No modification of existing communication network protocol (Modbus TCP or IEC 61850, as well as protective relays communication protocol). This could be done step by step in further stages.
Enhance graphical features	Realtime trends of analog values as tooltip.
	Zoom in / Zoom out.
	Monitoring facilities by color bar graph status easy implementation.
Costs reduction	Cost effective solution providing advanced graphical interface features and enhanced performances.
	Secured migration managed by the manufacturer, thanks to an automatic migration tool and the use of a standard protocol.

Distribution Automation and Substation Automation

ADVC 1
with ADVC 3

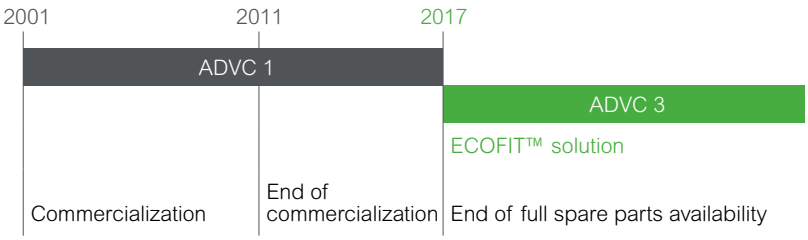
Original brand: Schneider Electric

ECOFIT™ proposal

ADVC 1
Protection relay

ADVC 3
Protection relay

With ECOFIT™, a true extended life time



Main technical characteristics

	ADVC 2	ADVC 3
Design Element		
Memory	16 MB	512 MB
Storage	32 MB	1 GB
CPU Frequency	40 MHz	800 MHz
Ethernet	10 Base-T	100 Base-T
USB	N/A	USB 2.0
Communication Ports		
Ethernet	1 x 10 Base-T	2 x 100 Base-T
RS-232	4	2
RS-485	1	N/A
V23	1	N/A
USB Type B	N/A	1 x USB 2.0
USB Type A	N/A	3 x USB 2.0

Distribution Automation and Substation Automation

ADVC 2
with ADVC 3
Original brand: Schneider Electric

ECOFIT™ proposal

ADVC 2
Protection relay

ADVC 3
Protection relay

With ECOFIT™, a true extended life time

Main technical characteristics

	ADVC 2	ADVC 3
Design Element		
Memory	32 MB	512 MB
Storage	64 MB	1 GB
CPU Frequency	48 MHz	800 MHz
Ethernet	10 Base-T	100 Base-T
USB	Serial	USB 2.0
Communication Ports		
Ethernet	1 x 10 Base-T	2 x 100 Base-T
RS-232	4	2
RS-485	1	N/A
V23	1	N/A
USB Type B	1 x UART Based USB	1 x USB 2.0
USB Type A	N/A	3 x USB 2.0

Distribution Automation and Substation Automation

ADVC Lite with ADVC 3

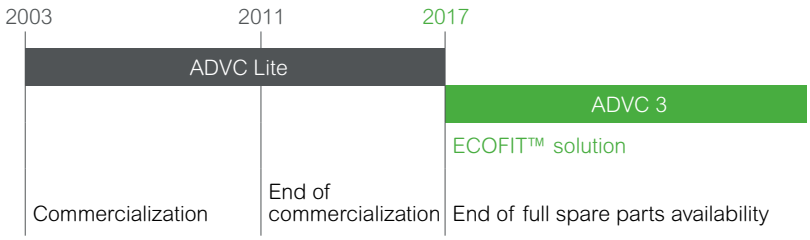
Original brand: Schneider Electric

ECOFIT™ proposal

ADVC Lite
Protection relay

ADVC 3
Protection relay

With ECOFIT™, a true extended life time



Main technical characteristics

	ADVC Lite	ADVC 3
Design Element		
Memory	512 kB	512 MB
Storage	2 MB	1 GB
CPU Frequency	22.5 MHz	800 MHz
Ethernet	N/A	100 Base-T
USB	Serial	USB 2.0
Communication Ports		
Ethernet	N/A	2 x 100 Base-T
RS-232	1	2
RS-485	N/A	N/A
V23	N/A	N/A
USB Type B	1 x UART Based USB	1 x USB 2.0
USB Type A	N/A	3 x USB 2.0

Distribution Automation and Substation Automation

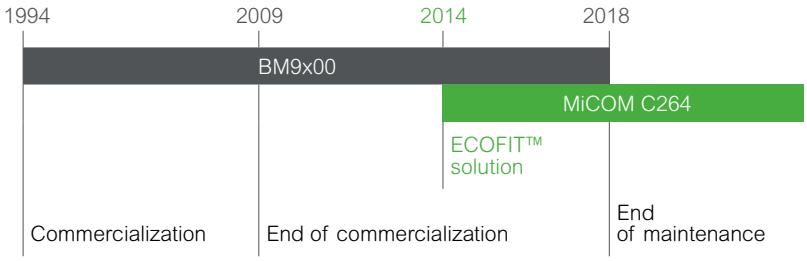
Bay controller BM9x00 with MiCOM C264

Original brand: Alstom, AREVA

ECOFIT™ proposal

MiCOM C264 with interface connectors

With ECOFIT™, a true extended life time



Main technical characteristics

BM9x00
Communication through legacy EFIP protocol with the SCADA level
Connection with Modbus, IEC 103 or Kbus communication with protection relays
No front side communication available for setting files management

MiCOM C264
Standard communication through IEC 61850 protocol to SCADA level
Conection with Modbus, IEC 870-5-103, IEC 870-5-101, Kbus (through K101CVT converter) and IEC 61850 protocol for downstream relays
Rugged to match substation cyber security requirements

Distribution Automation and Substation Automation

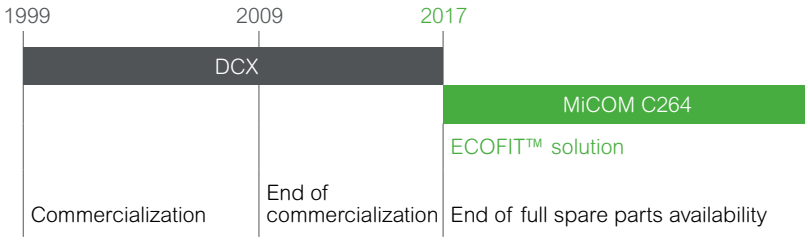
DCX
with MiCOM C264
Original brand: Alstom, AREVA

ECOFIT™ proposal

DCX
switchgear controller

MiCOM C264
switchgear controller

With ECOFIT™, a true extended life time



Main technical characteristics

	DCX	MiCOM C264
Installation		Plug'n play adapters original 40TE case
HMI - equipment mimic	Yes, hardware dependent	Yes, user friendly mimic configuration
Power supply	24, 48/60, 10/127, 220 V DC	24, 48/60, 10/127, 220 V DC
Digital inputs voltage	24, 48/60, 10/127, 220 V DC	24, 48/60, 10/127, 220 V DC
Communication	Modbus RTU Fixed Modbus mapping	Modbus RTU and TCP, IEC 61850 User configurated Modbus mapping

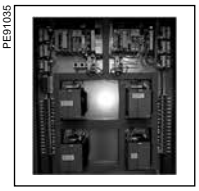
Distribution Automation and Substation Automation

GE FANUC
with Quantum or M580 PLC & EcoSUI EWS
Original brand: General Electric

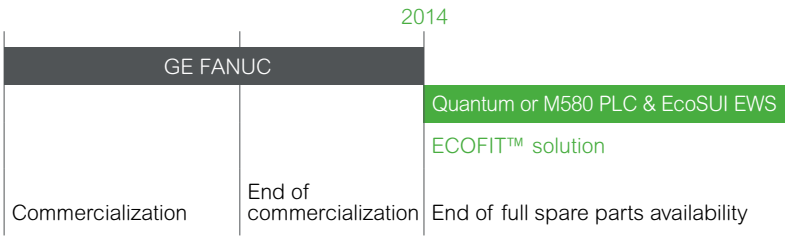
ECOFIT™ proposal

GE FANUC

Quantum PLC
& EcoSUI EWS



With ECOFIT™, a true extended life time



Main technical characteristics

	GE FANUC	Quantum or M580 PLC	EcoSUI EWS
IEC 61850 ready	No	No	Yes
Hot-stand by or hot-hot solution	No	Yes	N/A
Built-In bus bar color animation	No	N/A	Yes
Real time trends	No	N/A	Yes
Monitoring / Asset management and maintenance display	N/A	N/A	Yes
Language	UnityPRO	UnityPRO	N/A

Distribution Automation and Substation Automation

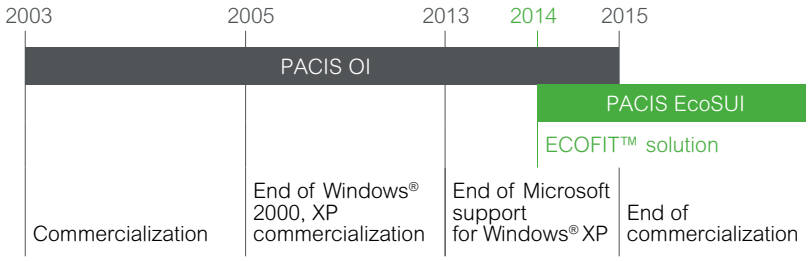
PACIS OI V3.X up to V4.6 with PACIS EcoStruxure Substation Operation user interface

Original brand: AREVA

ECOFIT™ proposal

PACIS OI V3.X up to V4.6

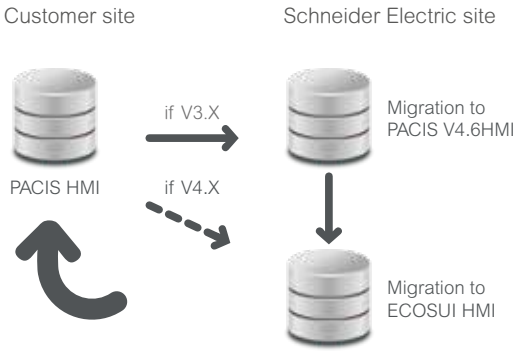
With ECOFIT™, a true extended life time



Main technical characteristics and performances

PACiS OI	PACIS EcoStruxure Substation Operation user interface
Windows® 2000 or XP	Windows® 10 (32/64 bits)
One Ethernet network management Multi-LAN through IEC/IEC Gateways	Multiple IEC 61850 client access points Direct IEC 61850 configuration by import of SCD file
Off-line modification & Time delayed deployment of database after recompilation	Immediate deployment of database modification
Redundancy switch over within 1 mn	Hot redundancy seamless switchover
Maximum handled dataflow 100 Measured Values archived/sec/server	Handled dataflow up to 3000 MV archived/sec/server

Typical HMI migration steps



What are the benefits?

- No impact on existing ethernet network, bay controllers, gateways & IEDs, as well as electrical drawings or process wiring
- Fast implementing without substation shutdown
- Secure migration managed by the manufacturer
- Cost effective solution providing advanced graphical interface features, enhanced performances
- Easiness for future extensions
- Cyber security inforcement solution
- Open to Schneider Electric asset performance and monitoring system

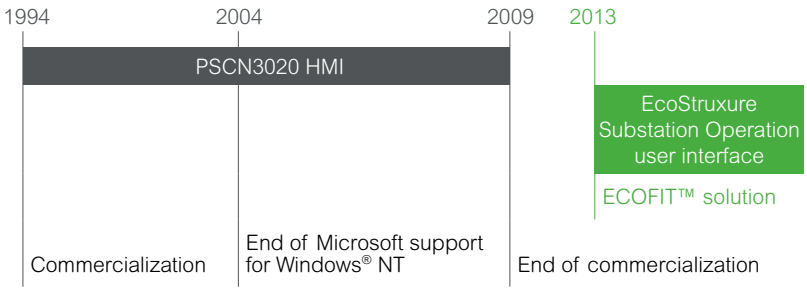
Distribution Automation and Substation Automation

PSCN3020 HMI
with EcoStruxure Substation Operation user interface
Original brand: AREVA

ECOFIT™ proposal

PSCN3020

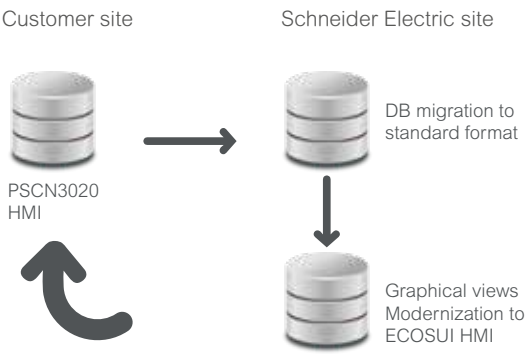
With ECOFIT™, a true extended life time



Main technical characteristics

PSCN3020 HMI	EcoStruxure Substation Operation user interface
Windows® NT4 OS / 2	Windows® 10
One EFIP network management	Open to Ethernet IEC 61850 for all future extension and step by step replacement of bay controllers
Configuration & database generation using proprietary & obsolete software	Direct IEC 61850 configuration by import of SCD file for all new extensions
Redundancy switch over within 1 mn	Hot redundancy seamless switchover
Handled dataflow limited by EFIP protocol	Handled dataflow up to 3000 MV archived / sec / server, once fully migrated to IEC 61850

Typical HMI migration steps by the manufacturer



What are the benefits?

- No impact on existing ethernet network, bay controllers, gateways & IEDs, as well as electrical drawings or process wiring
- Fast implementing without substation shutdown
- Original HMI can remain in operation
- Secure migration managed by the manufacturer
- Cost effective solution providing advanced graphical interface features, enhanced performances
- System ready for step by step retrofit of bay controllers, gateways and IEDs
- Open to future extensions on IEC 61850 network

Distribution Automation and Substation Automation

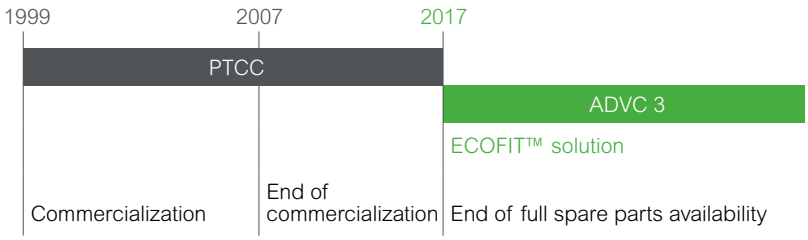
PTCC
with ADVC 3
Original brand: Schneider Electric

ECOFIT™ proposal

PTCC
Protection relay

ADVC 3
Protection relay

With ECOFIT™, a true extended life time



	PTCC	ADVC 3
Design Element		
Memory	512 kB	512 MB
Storage	2 MB	1 GB
CPU Frequency	22.5 MHz	800 MHz
Ethernet	N/A	100 Base-T
USB	N/A	USB 2.0
Communication Ports		
Ethernet	N/A	2 x 100 Base-T
RS-232	3	2
RS-485	N/A	N/A
V23	1	N/A
USB Type B	N/A	1 x USB 2.0
USB Type A	N/A	3 x USB 2.0

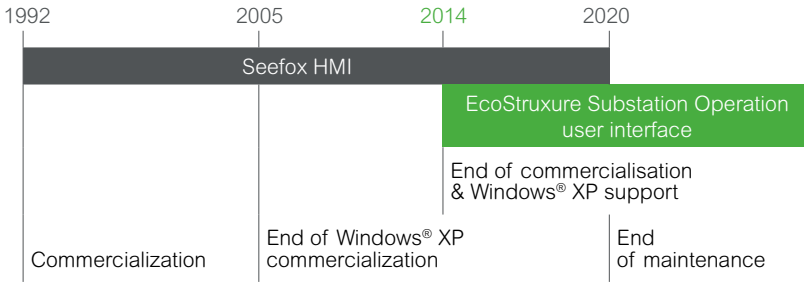
Distribution Automation and Substation Automation

Seefox HMI
with EcoStruxure Substation Operation user interface
Original brand: Schneider Electric

ECOFIT™ proposal

EcoStruxure Substation Operation user interface

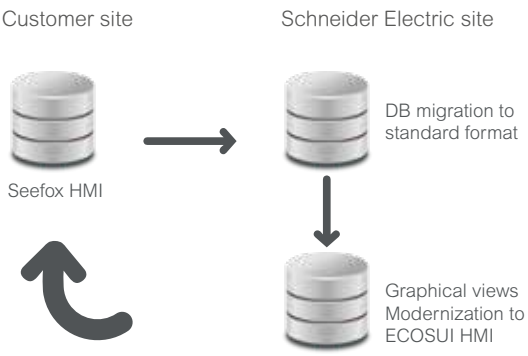
With ECOFIT™, a true extended life time



Seefox HMI
Windows® XP or older
Based on third party HMI limited to Modbus TCP or Modbus + communication protocol
Configuration tools no more supported or with limited upgrade facilities

EcoStruxure Substation Operation user interface
Full Schneider Electric HMI and tools design operating on Windows® 10
IEC 61850 native in modeling configuration and communication
Ready for all standard substation extension using IEC 61850 standard
Compliant with substation cyber security requirements

Typical HMI migration steps by the manufacturer



What selecting an ECOFIT solution?

- Fast implementing without substation shutdown
- Original HMI can remain in operation
- Cost effective solution providing advanced graphical interface features, enhanced performances
- Open to future extensions on IEC 61850 network
- Worldwide support for software, spare parts, substation extensions and maintenance contracts

Distribution Automation and Substation Automation

Digital Power solutions

Substation Automation

REMEMBER

Full Support

- Technical investigation and assistance for customer issues, including creation of critical and cybersecurity hotfixes where deemed necessary by the factory

Limited Support

- Answering questions
- When possible, providing workarounds and fixes that are available for known problems but no new hotfixes or cybersecurity hotfixes for new issues
- Provide information on migration to a newer product release that has Full Support

Digital Power solutions

AccuSine PCS or PFV with AccuSine PCS+ or PFV+

Active Harmonic Filtering
Original brand: Square D, Schneider Electric

ECOFIT™ proposal

AccuSine PCS or PFV
LV Active Power Factor correction

AccuSine PCS+ or PFV+
LV Active Power Factor correction

Product Release	Release date	Lifecycle phase	End of Sales date	End of Services date	New recommended solution
AccuSine PCS (3ph)	1999	Obsolete	12/2015	12/2023	AccuSine PCS+
AccuSine PFV (3ph)	1999	Obsolete	12/2015	12/2023	AccuSine PFV+
AccuSine PCS+	2015	Commercialized			
AccuSine PFV+	2015	Commercialized			

- **Upgradation process:** Panel or wall mounted case replacement
- **Recommended engineering:** PQ audit or local measurement from point of control recommended
- **Limitation scope**
  - Units with a Digital Interface Module (DIM) are not serviceable, Shipped before Oct 2008 (WO0810xxxx).
    Units with this Keypad / Display module, must be replaced with AccuSine PCS+
  - All other models with SN prior to October 2010 (WO1010xxxx), are not serviceable and should be replaced

Main technical characteristics

	AccuSine PCS or PFV	AccuSine PCS+ or PFV+
Performances	- Filtering degree: TDD ≤ 5% - Harmonic attenuation factor: 10:1 - Faster dynamic VAR support @ ½ cycle	Vastly improved - Filtering degree: THDi ≤ 3% - Harmonic attenuation factor: 20:1 - Faster dynamic VAR support @ ¼ cycle
Heat losses (300A unit)	- 400V: 8.3kW - 480V: 10kW	- 400V: 5.9kW - 480V: 7kW
Operational capability	Target PF	Target THDi or THDv setpoint Target PF Optimized PF
Footprint & Modes of Installation	Wall mounted & Floor standing	Reduced footprint from 17% to 41% Chassis, wall mounted Floor standing
Redundancy	Load share only	Multi-master/multi-slave Master-Slave Load share and make up capacity
Connectivity to monitoring systems		EcoStruxure Power ready. Native device driver PME, PQ Advisor, Com'X510 Modbus RTU or TCP/IP
Serviceability	Modbus TCP/IP	Diagnostics via laptop USB to Control Board
User Interface	Key pad interface	Larger screen with more information provided Easier to read with excellent color graphics
Compatibility with AccuSine PCS/PFV		AccuSine PCS+ is 100% compatible with AccuSine PCS for parallel operations

Digital Power solutions

AccuSine SWP with AccuSine PCSn

Active Harmonic Filtering
Original brand: MGE, APC, Schneider Electric

ECOFIT™ proposal

AccuSine SWP
LV Active Power Factor correction

AccuSine PCSn
LV Active Power Factor correction

Product Release	Release date	Lifecycle phase	End of Sales date	End of Services date	New recommended solution
AccuSine SWP / SineWave APC (3ph+Ground)	1998	Obsolete	09/2019	12/2029	AccuSine PCSn
AccuSine PCSn	2018	Commercialized			

- **Upgradation process:** Panel or wall mounted case replacement
- **Recommended engineering:** PQ audit or local measurement from point of control recommended

Product evolution

- SineWave APC
- PF target 1.0 cap/ind
- Thermal improvment
- 35°C operating temperature

- SWP+ project: AccuSine PCSn
- Integrated in AccuSine+ family
- Latest UVP in the market
- Building bricks from AccuSine+
- Withdrawal of SWP

- SineWave MGE
- Primarly used coupled with UPS
- 2nd to 25th harmonic spectrum
- 25°C operating temperature

- Refresh project
- SinWave ⇨ AccuSine SWP
- 2nd to 50th harmonic spectrum
- EMC perf. & 3ph3w enhancements
- Modbus capable
- Magelis HMI (2015:17)

Main technical characteristics

	AccuSine SWP	AccuSine PCSn
Performance	THDi ≤ 5%	THDi ≤ 3%
Lower losses	2-level IGBT ≤ 2400W (60A)	3-level IGBT ≤ 1500W (60A)
Operational modes	Harmonic + PF mitigation	Harmonic + PF + load balancing
Smaller footprint (60A wall mount)	780 x 590 x 325 mm	960 x 440 x 265 mm, wall mount
Installation type	Wall mount	Wall mount, Chassis, rack mount
Operator display	Keypad	Magelis HMI touchscreen
Operator menu	None	Built on AccuSine+ platform
Parallel operation	Up to 4 units, same rating	Up to 12 units, any rating
Inter-operability with AccuSine PCS+	None	Can work in parallel with AccuSine PCS+, integratd into EcostruXure Power

Digital Power solutions

Varset
with VarSet and VarSet Fast

Power Factor Correction controller
Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

Varset
wall mounted or panel versions

VarSet, VarSet Fast
wall mounted or panel versions

Product Release	Release date	Lifecycle phase	End of Sales date	End of Services date	Replacement Solution & Modernization process
Rectimat² (SD,H,SAH)		Obsolete	09/2006	09/2016	VarSet & re-engineering due to load change condition...
VarplusM (previous version of Varplus2)		Obsolete	12/2006	12/2016	VarPlus Can & Re-engineering
Rectibloc (version "fixed" of Rectimat)		Obsolete	09/2006	09/2016	Re-engineering
Thyrimat (previous version of Varsetfast)		Obsolete	03/2007	03/2017	VarSet Fast or AccuSine & re-engineering
Varplus2 (stand alone condensator)		Obsolete	12/2012	12/2020	VarPlus Can
Varset direct (fixed)	2006	Obsolete	04/2013	04/2021	VarSet; refer to substitution guide
Varset fast	2006	Obsolete	04/2013	04/2021	VarSet Fast or AccuSine; refer to substitution guide
Varset classic (not polluted)	2006	Obsolete	04/2013	04/2021	VarSet "no polluted"
Varset comfort (low polluted)	2006	Obsolete	04/2013	04/2021	VarSet "low polluted"
Varset harmony (poluted)	2006	Obsolete	04/2013	04/2021	VarSet "polluted"
Varpact (classic, comfort, harmony)	2006	Obsolete	04/2013	04/2021	Varpact R stand alone module (condo, contactor, fuse or CB)
Reactivar (NEMA Market)		Commercialized	07/2022		PowerLogic PFC Capacitor Bank

- **Upgradation process:** Refer to substitution guides. Replacement of stand alone components may be also possible depending on obsolescence date.
- **Recommended Engineering:**
  PQ audit or local measurement from point of connection is recommended due to load change condition from first installation.
- **Life time reduction factors:** 7 years without maintenance on condensator or operation out of normal operating ranges.
- **Selection Guide:**

Load variation	Compensation to choose	Network harmonic pollution level	Replacement Solution
Variable or unstable load	Automatic	No polluted (Gh/Sn ≤ 15%, Thdu ≤ 3%; Thdi ≤ 5%)	VarSet Easy for "no polluted network".
		Low polluted (Gh/Sn ≤ 25%, Thdu ≤ 4%; Thdi ≤ 10%)	VarSet for "low polluted network".
		Polluted (Gh/Sn ≤ 50%, Thdu ≤ 7%; Thdi ≤ 20%)	VarSet for "polluted network".
Stable load	Fixed	Low polluted (Gh/Sn ≤ 25%, Thdu ≤ 4%; Thdi ≤ 10%)	VarSet for "low polluted network".
		Polluted (Gh/Sn ≤ 50%, Thdu ≤ 7%; Thdi ≤ 20%)	VarSet for "polluted network".

Main technical characteristics

	VarSet, VarSet Fast
Performance	More Safety, Reliability & Performance. Enclosure system improvement. 100% Schneider Electric inside
Operational modes	Harmonic + PF + load balancing
Security	Long-life performance Capacitors with extra-overcurrent performance: - EasyCan: 1,5 x In - VarplusCan: 1,8 x In Thermal probe to protect against overtemperature and harmonic overload
Operator display	Front panel display & Integrated communication
Advanced measurement & monitoring	Real time monitoring of capacitors (remaining power available and variation, number of switches,...): - Harmonic control up to the 19th harmonic - 4 quadrant operations - Overload assessment through harmonics

Digital Power solutions

Varlogic
with VarPlus Logic

Power Factor Correction controller
Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

Varlogic

Varlogic RT series

or

VarPlus Logic VPL series

Product Release	Release date	Lifecycle phase	End of Sales and Full spare parts date	Replacement Solution & Modernization process
R6	2005	Obsolete	2009	Replaced with Varlogic Series
R12	2005	Obsolete	2009	Replaced with Varlogic Series
RC12	2005	Obsolete	2009	Replaced with Varlogic Series
Varlogic NR6	2009	Obsolete	2016	Replaced with VarPlus Logic Series
Varlogic NR12	2009	Obsolete	2016	Replaced with VarPlus Logic Series
Varlogic NRC12	2009	Obsolete	2016	Replaced with VarPlus Logic Series
Varlogic RT6, RT8, RT12, Medium offer	2009	Commercialized		
VarPlus Logic VL6, VL12, Optimum offer	2014	Commercialized		

Main technical characteristics

	VarPlus Logic series
Capacitor bank step monitoring	Monitoring of all the connected capacitor steps. Real time power in "kvar" for the connected steps. Remaining step capacity per step as a % of the original power since installation. Derating since installation. Number of switching operations of every connected step.
System Measurement and monitoring	THD(u) and THD(i) Spectrum 3rd to 19th – Measurement, Display and Alarm. Measurement of DQ – "kvar" required to achieve target cos phi. Present cabinet temperature and maximum recorded temperature. System parameters – Voltage, Current, Active, reactive and apparent power. Large LCD display to monitor real step status and other parameters.
Easy Commissioning	Automatic Initialization and automatic step detection to do a auto commissioning. Automatic wiring correction - voltage and current input wiring correction. 1 A or 5 A CT secondary compatible.
Flexibility to the panel builder and retrofitting	No step sequence restriction like in the traditional relays. Any step sequences with auto detect. No programming needed. Easy to retrofit the faulty capacitor with different power. Quick and simple mounting and wiring. Connect to the digitized Schindler solutions through RS485 communication in Modbus protocol. Seamless connection to the Schneider software and gateways.
Do more with VarPlus Logic	Programmable alarms with last 5 alarms log. Suitable for medium voltage applications. Suitable for 4 quadrant operations. Dual cos phi control through digital inputs or export power detection. Dedicated alarm and fan control relays. Advance expert programming Menu to configure the controller the way you need. Control algorithm designed to reduce the number of switching operations and quickly attain the targeted power fact.
Alarms	Faulty Step. Configurable alarm for step derating. THDu Limit alarm. Temperature alarm. Self correction by switching off the steps at the event of THDu alarm, temperature alarm and overload limit alarm. Under compensation alarm. Under/Over Voltage Alarm. Low/High Current Alarm. Overload limit alarm. Hunting alarm. Maximum operational limits - Time and number of switching.

Digital Power solutions

PM, ME, iME, EN basic meters with new range

DIN rail Power Meters

Original brand: Schneider Electric, Square D

ECOFIT™ proposal

Legacy Product					Replacement solution		
Product range	**Description**	**Com. Ref.**	**Lifecycle Phase**	**End of Sales and Full spare parts date**	**Product range**	**Description**	**Com. Ref.**
PM9	DIN RAIL, 230 VAC Aux. Power	15199	Obsolete	09/2012	PM3200	Power Meter	METSEPM3200
PM9P	DIN RAIL, 1 Pulse Output, 230 VAC Aux. Power	15197	Obsolete	09/2012	PM3210	Power Meter, Pulse	METSEPM3210
PM9C	DIN RAIL, MODBUS Com, 230 VAC Aux. Power	15198	Obsolete	09/2012	PM3250	Power Meter, Modbus	METSEPM3250
ME3	3ph Modular Energy Meter, 400 V, 0 to 63 A	17075	Obsolete	09/2012	iEM3100	3ph. Energy Merter, kWh, 63A	A9MEM3100
ME3zr	3ph Modular Energy Meter, 400 V, 0 to 63 A	17076	Obsolete	09/2012	iEM3110	3ph. Energy Merter, kWh, 63A pulse MID	A9MEM3110
ME4	3ph+N Modular Energy Meter, 400 V, 0 to 63 A	17070	Obsolete	09/2012	iEM3100	3ph. Energy Merter, kWh, 63A	A9MEM3100
ME4zr	3ph+N Modular Energy Meter, 400 V, 0 to 63 A	17071	Obsolete	09/2012	iEM3110	3ph. Energy Merter, kWh, 63A pulse MID	A9MEM3110
ME4zrt	3ph+N Modular Energy Meter, 400 V, 40 to 6000 A	17072	Obsolete	09/2012	iEM3210	Compteur kWh triphasé TC pulse MID	A9MEM3210
Acti9, iME3	3ph Modular Energy Meter, 400 V, 0 to 63 A	A9M17075	Obsolete	09/2012	iEM3100	3ph. Energy Merter, kWh, 63A	A9MEM3100
Acti9, iME3zr	3ph Modular Energy Meter, 400 V, 0 to 63 A	A9M17076	Obsolete	09/2012	iEM3110	3ph. Energy Merter, kWh, 63A pulse MID	A9MEM3110
Acti9, iME4	3ph+N Modular Energy Meter, 400 V, 0 to 63 A	A9M17070	Obsolete	09/2012	iEM3100	3ph. Energy Merter, kWh, 63A	A9MEM3100
Acti9, iME4zr	3ph+N Modular Energy Meter, 400 V, 0 to 63 A	A9M17071	Obsolete	09/2012	iEM3110	3ph. Energy Merter, kWh, 63A pulse MID	A9MEM3110
Acti9, iME4zrt	3ph+N Modular Energy Meter, 400 V, 40 to 6000 A	A9M17072	Obsolete	09/2012	iEM3210	3ph. Energy Merter, kWh, CT pulse MID	A9MEM3210
EN40	Energy meter 40 A	15238	Obsolete	09/2009	iEM2000	Energy meter 40A	A9MEM2000
EN40P	Energy meter 40 A, pulse output	15239	Obsolete	09/2009	IEM2010	Energy meter 40A, pulse output	A9MEM2010

Digital Power solutions

PM, ME, iME, EN basic meters with new range

DIN rail Power Meters

Original brand: Schneider Electric, Square D

Product Release	Release date	Lifecycle phase	End of Sales and Full spare parts date	Replacement solution	Modernization process
PM200 & PM200Px & PM210		Obsolete	12/2016	- PM2210 or PM2220 (for countries where PM2200 range is launched) - PM5100 or PM5110 (for all other countries)	Type C for PM2000 range Type B for PM5000 range
PM810		Obsolete	01/2016	PM5500	Type B
PM1000, PM1200		Obsolete	12/2016	- PM21xx (for countries where PM2200 range is launched) - PM5100 or PM5110 (for all other countries)	Type C for PM2000 range Type B for PM5000 range
PM2000, PM2200	2016	Commercialized	no plan		
PM32xx (xx=00,10, 50, 55)	June, 2012	Commercialized	no plan		
PM5100, PM5300, PM5500 serie	March, 2013	Commercialized	no plan		
DM2000 (Chinese market only)		Commercialized	no plan		
DM6000, DM6200		Obsolete	06/2018	DM6000H & DM6200H	
DM6100, DM6300		Commercialized	no plan		
iEM 2xxx (worldwide launch)	2011	Commercialized	no plan		
iEM 3xxx (worldwide launch)	2011	Commercialized	no plan		
EM1000 / EM1200 (Conzerv products)		Commercialized	no plan		
EM64xx serie (Conzerv products)		Obsolete	12/2019	EM64xxH series	
EM6400NG (Conzerv products)	Dec. 2015	Commercialized	no plan		
EM64xxH serie (Conzerv products)	Jan. 2017	Commercialized	no plan		
EM3500 serie (Veris products)		Commercialized	no plan		
EM4000, EM4200 (Veris Products)	2017	Commercialized	no plan	Refer to commercialized references	
EM 4300, WT4200 wireless energy meter	2015	Obsolete	12/2019	PowerTag Rope starting June 2020	
EM4800, EM4900		Commercialized	no plan		
ION6200		Services	12/2020	- Essential replacement: METSEPM5110 - LVDC power supply: METSEPM5580 - LED Display: METSEPM2130 - Remote Display: METSEPM5563RD - ION framework support: METSEPM8210 (ION meter with 24 VDC power supply)	
ION7300		Obsolete	12/2016	PM5500	

Note: Products (PM200, PM2000 and PM5000) are 96 mm x 96 mm flush mount meters with varying depths

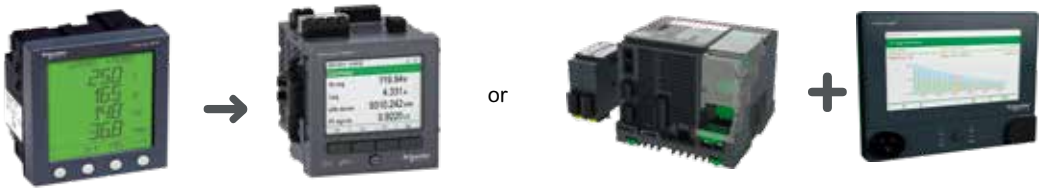
Upgradation process: Type A: Different form factor, need to be rewired, different Modbus mapping. Type B: Same form factor, need to be rewired, different Modbus mapping. Type C: Same form factor, same wiring, different Modbus mapping

Digital Power solutions

CM, DM, ION, PM meters with PMxxxx range & ION9000

Power and Power Quality Meters
Original brand: Schneider Electric, Square D

ECOFIT™ proposal



Product Release	Release date	Lifecycle phase	End of Sales and Full spare parts date	Replacement solution	Modernization process
CM4250		Obsolete	12/2010	ION9000	Type A
CM4000T		Obsolete	12/2019 (see note 3)	ION9000T (Fast Transient Voltages version)	Type A
ION7550 & 7650 Phase 1 (see note 1)		Services	09/2019 (see note 4)	ION9000	
ION7550 & 7650 Phase 2 (see note 1)		Services	03/2021 (see note 4)	ION9000	
PM500	2006	Obsolete	06/2007	PM5100	Type B
PM700, PM700P and PM710		Obsolete	04/2015	PM5100	Type B
PM750		Obsolete	04/2015	PM5300	Type B
PM820		Obsolete	01/2016	PM5500	Type B
PM850 and PM870		Obsolete	01/2016	PM8000	Type B
PM8000	03/2015	Commercialized	no plan		
ION9000	10/2018	Commercialized	no plan		
ION 7330 & ION7350		Obsolete	2016	PM8000	
ION7400 Utility Meter	10/2016	Commercialized	no plan		
ION8650 Utility Meter	06/2011	Commercialized	no plan		
ION8800 Utility Meter	07/2006	Commercialized	no plan		

- **Upgradation process:** Type A: Different form factor, need to be rewired, different Modbus mapping. Type B: Same form factor, need to be rewired, different Modbus mapping. Type C: Same form factor, same wiring, different Modbus mapping
- **Note 1:** ION7550 & 7650 concerned by Phase 1 are those which do not use these features. All Power Meters using one of these features will be on phase 2
  - Current options F and G (current probes / LVCT inputs)
  - Power supply option C (LVDC)
  - Communication options D7 and F1 (Ethernet fiber)
  - Security options 3 and 4 (RMICAN)
  - RTU option N9
  - I/O options H and P
- **Note 2:** Products (PM200, PM2000 and PM5000) are 96mm x 96mm flush mount meters with varying depths
- **Note 3:** CM4000T, stock available (contact us)
- **Note 4:** ION7550 & 7650, can be repaired, up to Sept. 2024 (phase 1 models) and March 2026 (phase 2 models)

Main technical characteristics

	PMx000, ION9000
Compliance with standards	Complying with most demanding international metering standards
Security	96 mm (3.5") color display: Simple installation with a 30 mm pushbutton hole (reduces arc flash exposure)
Modular architecture	Multiple mounting and communication options: Adaptable to meet the needs of rapidly changing, IoT-enabled electrical networks
IoT connectivity	Compatible with meter insights application

Digital Power solutions

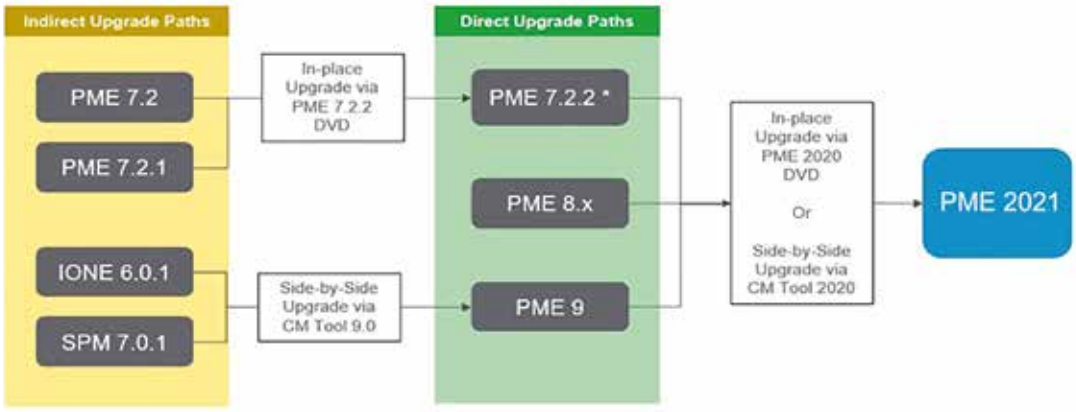
ION-E, SPM & PME software versions with PME 2021

Power Monitoring Expert
Original brand: ION-E

ECOFIT™ proposal

Product Release	Release date	Lifecycle phase	End of Sales date	End of full support up to	Limited support up to	Modernization Solution version
ION-E 6.0	06/2009	Obsolete	03/2012	06/2013	06/2015	PME 2021
SPM 7.0	03/2012	Obsolete	09/2013	06/2015	12/2017	PME 2021
PME 7.2	09/2013	Obsolete	06/2015	12/2016	12/2018	PME 2021
PME 8.0	06/2015	Obsolete	04/2016	12/2018	12/2020	PME 2021
PME 8.1	04/2016	Obsolete	04/2017	12/2019	12/2021	PME 2021
PME 8.2	04/2017	Limited Service	09/2018	12/2020	12/2022	PME 2021
PME 9.0	09/2018	Limited Service	12/2019	12/2021	12/2023	PME 2021
PME 2020	11/2019	Full Service	04/2021	12/2022	12/2024	PME 2021
PME 2021	05/2021	Commercialized		12/2023	12/2025	

- **Upgradation process:**
  - Existing database (configuration file) can be extracted directly from the server and communicated to the Technical Support.
  - Upgrade tools existing. As the system is usually not redundant, shut down of the current version is recommended.
  - Commissioning can be done by Local Field & Services team depending on training level.
- **Recommended Engineering:**
  - Upgradation must be done by Application Centers or Technical Support teams or EcoXpert.
  - Workload (engineering work) could be affected in case of customized reports
- **Limitation scope:** In case the Server is not replaced, the existing computer must support Windows® 10
- **Application case with PSO:** Application case of PSO delivered with Advanced Monitoring option (PME): same process but both software need to be upgaded
- **New release advantages:**
  - Windows® 10 compatibility
  - Enhance performances and new features
- **PME 2021 upgrade Paths:**



PME 2021 software support matrix

Windows Operation Systems	Windows 10 Professional/Enterprise Windows Server 2012 Standard or 2012 R2 Standard/Enterprise Windows Server 2016, 2019 Standard
SQL Server Versions	SQL Server 2012 Express/Standard/Enterprise/Business Intel. SP2 SQL Server 2014, 2016, 2017 Express/Standard/Enterprise/Business Intel.
Browser	Firefox, Chrome, Safari, Opera
Office	Excel 2013, 2016 and 365

Digital Power solutions

Power Manager or Energy Expert software versions with EcoStruxure Power Monitoring Expert

EcoBuilding (eBO) applications
Original brand: Schneider Electric

ECOFIT™ proposal

Power Manager software or Energy Expert software → EcoStruxure Power Monitoring Expert

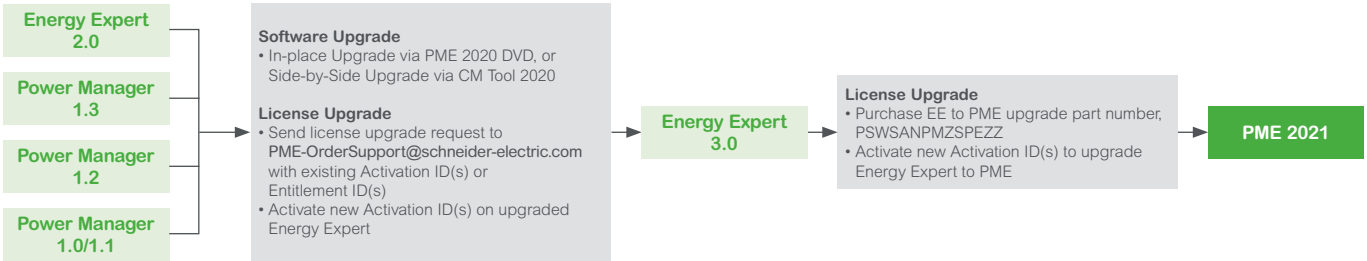
Product Release	Release date	Lifecycle phase	End of Sales date	End of full support up to	Limited support up to	Modernization Solution version
Power Manager 1.0	02/2015	Obsolete	12/2015	12/2018	12/2020	PME 2021 or latest
Power Manager 1.1	12/2015	Obsolete	04/2016	12/2018	12/2020	PME 2021 or latest
Power Manager 1.2	04/2016	Obsolete	04/2017	12/2019	12/2021	PME 2021 or latest
Power Manager 1.3	04/2017	Limited Service	08/2018	12/2020	12/2022	PME 2021 or latest
Energy Expert 2.0	08/2018	Limited Service	12/2020	12/2021	12/2023	PME 2021 or latest
Energy Expert 3.0	11/2019	Full Service	12/2020	12/2022	12/2024	PME 2021 or latest

- **Upgradation process:**
  - Existing database (configuration file) can be extracted directly from the server and communicated to the Technical Support,
  - Upgrade tools existing. As the system is usually not redundant, shut down of the current version is recommended. Commissioning can be done by Local Field & Services team depending on training level.
- **Recommended Engineering:**
  - Upgradation must be done by Application Centers or Technical Support teams or EcoXpert.
  - Workload (engineering work) could be affected in case of customized reports
- **Limitation scope:** In case the Server is not replaced, the existing computer must support Windows® 10
- **New release advantages:**
  - Windows® 10 compatibility
  - Enhance performances and new features

Energy Expert software support matrix

Windows Operation Systems	Windows 10 Professionnal/Enterprise Windows Server 2012 Standard or 2012 R2 Standard/Enterprise Windows Server 2016, 2019 Standard
SQL Server Versions	SQL Server 2012 Express/Standard/Enterprise/Business Intel. SP2 SQL Server 2014, 2016, 2017 Express/Standard/Enterprise/Business Intel.
Browser	Firefox, Chrome, Safari, Opera
Office	Excel 2013, 2016 and 365

Possible upgrade paths: PME license upgrade is done by purchasing software assurance.
Please, refer to your technical support for more details



Digital Power solutions

PLS & PSO software versions with EcoStruXure Power Operation EPO 2021

Power SCADA Operation

Original brand: Schneider Electric, Square D

ECOFIT™ proposal

Product Release	Release date	Lifecycle phase	End of Sales date	End of full support up to	Limited support up to	Modernization Solution version
PLS 7.20	08/2011	Obsolete	02/2013	12/2015	12/2015	EPO 2021
PSE 7.30	02/2013	Obsolete	03/2014	12/2015	12/2020	EPO 2021
PSE 7.40	03/2014	Obsolete	04/2015	12/2016	12/2020	EPO 2021
PSE 8.0	04/2015	Obsolete	04/2016	12/2018	12/2020	EPO 2021
PSE 8.1	04/2016	Obsolete	04/2017	12/2018	12/2021	EPO 2021
PSE 8.2	04/2017	Limited Service	09/2018	12/2019	12/2022	EPO 2021
PSO 9.0	09/2018	Limited Service	01/2020	12/2021	12/2023	EPO 2021
PSO 2020	01/2020	Full Service	08/2021	12/2022	12/2024	EPO 2021
EPO 2021	08/2021	Commercialized		12/2023	12/2025	

- **Upgradation process:**
  - Existing database (configuration file) can be extracted directly from the server and communicated to the Technical Support.
  - Upgrade tools existing.
  - Commissioning can be done by Local Field & Services team depending on training level.
  - Redundant HMI is migrated first and refreshed, therefore, no Shutdown is required.

  Additional details around upgrades can be found on Extranet Exchange.
- **Recommended Engineering:**
  System upgrade should be done by Application Centers or Technical Support teams or EcoXperts.
- **Limitation scope:** In case the Server is not replaced, the existing computer must support following Operating Systems.
- **Application case with Advanced Monitoring views:**

Application case of PSO delivered with advanced monitoring (PME): same process but both software need to be upgraded.

- **New release advantages:**
  For complete details on reasons to upgrade, please contact us
- **Possible upgrade paths:** Please, refer to your technical support for more details at the following link :
  Upgrading to Power Operation 2021 (se.com).

Digital Power solutions

XM, XL, XML, XD, XLI, XTU with IMD and IFL

Insulation Monitoring - VigilOhm System
Original brand: Merlin Gerin, Schneider Electric

ECOFIT™ proposal

XM, XL, XML, XD, XLI, XTU
Insulation meters solutions

IMD and IFL
IMD (Insulation Monitoring Device), associated to IFL (Insulation Fault Locator)

Commercial name		Part number	Lifecycle phase	End of sales date	End of services date (See note (2))	Replacement solution by another EoL device (See notes (1) & (2))	Modernization process	Replacement solution by a commercialized device	Modernization process
XD301	110V	50506	Service	12/2018	12/2018	XD301	Not applicable	IMDIFL12	A type
	230V	50507							
	380V	50508							
XD308C	110V	50723 (3)	Service	12/2018	2026	XL316	A type	IMDIFL12C	A type
	230V	50724							
	380V	50725							
XD312	110V	50535	Obsolete	12/2018	12/2018	None	Not applicable	IMDIFL12	A type
	230V	50536							
	380V	50537							
XD312-H		50536-H	Obsolete	12/2018	12/2018	None	Not applicable	IMDIFL12H	A type
XL308	110V	50606	Obsolete	12/2018	12/2018	XL316	C type	IMDIFL12MC	A type
	230V	50607							
	380V	50608							
XL316	110V	50615	Service	12/2018	2026	XL316	C type	2x IMDIFL12MC	A type
	230V	50616							
	380V	50617							
XM300C	110V	50540	Service	12/2018	2026	XM300C	C type	IMD-IM400	A type
	230V	50541							
	380V	50542							
XML308	110V	50490	Obsolete	12/2018	12/2018	XML316	C type	IMD-IM400 + IMDIFL12MC	A type
	230V	50491							
	380V	50492							
XML316	110V	50322	Service	12/2018	2026	XML316	C type	IMD-IM400 + 2x IMDIFL12MC	A type
	230V	50323							
	380V	50324							
XLI300	115V	50515	Service	12/2018	2026	XLI300	C type	No replacement as 2 cases will exist: - if installation remains with XM, XML, XL, the XLI (resp. XTU) device must remain (to keep Fault locator & comm. in Operation) - if installation is already upgraded with IM400 & IFS, the XLI (resp. XTU) device becomes of no use	Not applicable
	230V	50516							
	380V	50517							
XTU300	110V	50545 (3)	Service	12/2018	2026	XTU300	C type		Not applicable
	230V	50546							
	380V	50547							

- **Upgradation process:**
  - Type A: Different form factor, need to be rewired, different register mapping
  - Type B: Same form factor, need to be rewired, different register mapping
  - Type C: Same form factor, need to be rewired, same register mapping.
- **Note 1:** For all EoL references, no repair is possible. A stock of devices has been constituted to replace on-field defective products. No extension nor new projects are possible with products from the EoL stock.
- **Note 2:** Schneider Electric has managed to have a security stock of manufactured products. Please, check with your local Field & Services representative or through SPEED application the real time available stock.
- **Note 3:** These Power Supply values are no more available as spare parts. Select the 230V model, associated with an interface transformer.
- **Main technical characteristics:** Refer to VigilOhm catalogue 2019.

Digital Power solutions

AREVA MRxxx Insulation meters with VigilOhm solution

Electronic Insulation Monitoring Relay
Original brand: AREVA, then Schneider Electric MRxxx System

ECOFIT™ proposal

MR6xx range

IMDFL and IFL insulation meters solutions
IMD (Insulation Monitoring Device), associated to IFL (Insulation Fault Locator)

Commercial name	Part Number	Lifecycle Phase	End of Sales date	End of Services date	Replacement solution	Modernization process	Description of original device	Description of replacement device
MR 621 Monitoring unit	772-000-00-1 MR621	Obsolete	06/2021	Not confirmed yet	IMD-IM20	Retrofit		
MR 623 Monitoring unit	773-000-00-1 MR623	Obsolete	06/2021	Not confirmed yet	IMD-IM20	Retrofit		
MR 625 Monitoring unit	774-000-00-1 MR625	Obsolete	06/2021	Not confirmed yet	IMD-IM20	Retrofit		
MR 627A Microprocessor	775-000-10-010 MR627	Obsolete	06/2021	Not confirmed yet	IMD-IM400	Retrofit		
MR 627B Microprocessor	775-000-10-020 MR627	Obsolete	06/2021	Not confirmed yet	IMD-IM400	Retrofit		
MR 627C Microprocessor	775-000-20-010 MR627	Obsolete	06/2021	Not confirmed yet	IMD-IM400	Retrofit		
MR 627D Microprocessor	775-000-20-020 MR627	Obsolete	06/2021	Not confirmed yet	IMD-IM400	Retrofit		
MZ 611A Adapter	781-000-00-010 MZ611	Obsolete	06/2021	Not confirmed yet	Associated to IM20: IMD-IM20-1700 Associated to IM400: • Either IMD-IM400-1700 • Or PHT1000, ref 50248 for use with Ins Fault locator, IFL range	/		
MZ 611B Adapter	781-000-00-020 MZ611	Obsolete	06/2021	Not confirmed yet				
MI 611 Convertor		Obsolete	06/2021	Not confirmed yet	No replacement	/		

- **Upgradation process:** These substitution products may have 1 or more functionalities which differ from the MRxxx range, especially on the Communication Bus. Refer to the MR and VigilOhm catalogue for more information.
- **Note 1:**
  - For all EoL references, no repair is possible. The stock availability of legacy devices is subjected to verification prior any ordering process, and is not guaranteed. No extension nor new projects are possible with products from the EoL stock
  - Please, check with you local Field & Services representative or through SPEED application the real time available stock.

Main technical characteristics

	OLD	NEW
Compliance with standards	Refer to Publication: REF-catalogue-2012-GB (printed in Poland)	Refer to the current VigilOhm catalogue, available on SE.com
Security	Refer to Publication: REF-catalogue-2012-GB (printed in Poland)	
Modular architecture	Refer to Publication: REF-catalogue-2012-GB (printed in Poland)	
User Interface and communication facilities	Refer to Publication: REF-catalogue-2012-GB (printed in Poland)	
IoT connectivity	Refer to Publication: REF-catalogue-2012-GB (printed in Poland)	

Digital Power solutions

Gateway
with PowerTag Link xxx, Com'X range or Panel Server

Power and Power Quality Solutions
Original brand: Schneider Electric, Square D

ECOFIT™ proposal

EGX Serie

Link 150

or

Com'X serie

Smartlink / PowerTag Link Serie

EcoStruxure Panel Server

Product Release	Release Date	Lifecycle Phase	End of Sales date	End of Services date	Replacement solution	Modernization process
EGX100	2005	Obsolete	12/2016	12/2020 (see Note 2)	EGX150 (Link 150)	Type A: Different form factor, need to be rewired
EGX300	2009	Obsolete	12/2016	06/2020	Com'X 510 (EBX510)	Type A: Different form factor, need to be rewired
Com'X 200		Obsolete	01/2017	01/2021 (see Note 2)	Com'X210 (EBX210)	Type B: Same form factor, need to be rewired & set again + commissioning (See Note 1)
G3200 (RoW)		Service	01/2021	02/2023 (see Note 2)	HU250, from Easergy T300 range	Type A: Different form factor, need to be rewired
G3200 (Europe)		Service	06/2019	02/2023 (see Note 2)	HU250, from Easergy T300 range	Type A: Different form factor, need to be rewired
Smartlink SID		Obsolete	04/2020	04/2020	PowerTagLink Ref A9XMWD20	Type C: Same form factor, same wiring, but set again + commissioning
Acti9 Smartlink ELB		Obsolete	02/2020	03/2021	Power Tag Link C	Type A: Different form factor, need to be rewired
Acti9 Smartlink SIB	2014-2019	Commercialized	06/2023 (Note 3)	06/2025 (Note 2)	EcoStruxure Panel Server Universal	Type A: Different form factor, need to be rewired
Link 150	2015	Commercialized	12/2022 (Note 3)	12/2024 (Note 2)	EcoStruxure Panel Server Universal	Type B: Same form factor, need to be rewired & set again + commissioning
Com'X 210	2013	Commercialized	06/2022	06/2024 (Note 2)	EcoStruxure Panel Server Universal	Type A: Different form factor, need to be rewired
Com'X 510	2013	Commercialized	06/2022	06/2024 (Note 2)	EcoStruxure Panel Server Advanced	Type A: Different form factor, need to be rewired
PowerTagLink	2019	Commercialized	06/2023	06/2025 (Note 2)	EcoStruxure Panel Server Entry	Type B: Same form factor, need to be rewired & set again + commissioning
PowerTagLink HD	2019	Commercialized	06/2023	06/2025 (Note 2)	EcoStruxure Panel Server Universal	Type A: Different form factor, need to be rewired
PowerTag Link C		Commercialized	06/2023	06/2025 (Note 2)	EcoStruxure Panel Server Entry	Type B: Same form factor, need to be rewired & set again + commissioning
GPRS Module - Ref EBXA-GPRS		Obsolete	/	/	Obsolete and no more available as spare part	COM'X accessory
WIFI Module - Ref EBXA-USB-WIFI		Obsolete	/	/	Obsolete and no more available as spare part	COM'X accessory
ZigBee Module - Ref EBXA-USB-ZigBee		Service	12/2020	12/2022	Obsolete and no more available as spare part after 12/2022	COM'X accessory

- **Upgradation process:**
  - Type A: Different form factor, need to be rewired
  - Type B: Same form factor, need to be rewired & set again + commissioning
  - Type C: Same form factor, same wiring, but set again + commissioning.
- **Note 1:** Need to add 24 VDC power supply if netwrok is 230 VAC.
- **Note 2:** End of Services date is 2 years after end of sales date.
  Limited Support:
  - answering questions
  - when possible, providing workarounds and fixes that are available for known problems but no new hotfixes or cybersecurity hotfixes for new issues
  - Provide information on migration to a newer product release that has Full Support.
- **Note 3:** Date subjected to change, depending on EcoStruxure Panel Server launch date. Please, refer to the latest information from your local Schneider Electric contact.

Digital Power solutions

Achieve higher sustainable performance with ECOFIT™ - a Green Premium™ service

Sustainability offers

ECOFIT™, a Green Premium service

MasterPacT MTZ, a Green Premium product used for ECOFIT™ service.

Easergy P5, a Green Premium product used for ECOFIT™ service.

Green Premium stands for our commitment to deliver customer valued sustainable performance. It provides our customers with healthier products and superior transparency on material content, regulatory information and the environmental transparency on material content, regulatory information and the environmental impact of our products.

It has been upgraded with recognized environmental claims and extended to cover all offers including Products, Services and Solutions. Green Premium brings improved resource efficiency throughout an asset's lifecycle. This includes efficient use of energy and natural resources, along with the minimization of CO_2 emissions.

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

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

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

Green Premium™ for ECOFIT™

We're helping our customers to implement cost effective and environmentally friendly services to retrofit their existing electrical equipment with minimal impact to their day-to-day production.

Resource performance

Our retrofit service is helping you to reduce your energy and carbon footprint. Through the modernization of active components in the electrical installation to connected products, it enables our customers to monitor and manage their energy usage. With retrofit we provide take-back services to ensure appropriate recycling of your obsolete equipment.

Circular performance

Our retrofit service is giving you an option with less environmental impact when modernizing your electrical equipment. Replacing only the active components while leaving intact the structure of the existing equipment is an efficient use of natural resources. By retrofitting you are extending the lifetime of your equipment thus optimizing the total cost of ownership of your assets.

Well-being performance

Our upgraded equipment is made with less toxic materials helping you to best protect your people from environmental risks. Our Green Premium products are RoHS and REACH compliant.

Experience the difference today at
schneider-electric.com/green-premium

SF6 Recovery Services, the sustainability offer

Sustainability offers

Complementing ECOFIT™, SF6 Recovery Services is our environmental treatment package

98%

of a medium voltage cubicle can be recycled

Get help

with SF6 gas disposal thanks to SF6 Recovery Services Offer

Recycling of all medium voltage equipment, including SF6 gas.

SF6 Recovery Services 4 steps

1 > Collection of medium voltage equipment from your site.

2 > Dismantling of the equipment. The different materials (copper, aluminium, etc.) are separated and sent to specialised recycling centres.

3 > The SF6 gas is evacuated until the residual pressure is less than 20 mbar, in accordance with IEC 62271-4, using adequate engineered tools. The gas is stored in bottles before being sent for recycling.

4 > A certificate of destruction is sent as proof, necessary for your environmental policies, and can contributes to your companies green image.

Maximize your electrical system uptime and performance

Complementary Services
Consulting Services

Schneider Electric Services:

Your partner for electrical system operation and workplace safety.

Our subject-matter experts on electrical distribution can offer you comprehensive, cost-effective solutions to help you optimize the reliability and safety of your power system.

€10 billion
annual industrial losses due to power disruptions in Europe

100+
consulting experts worlwide

3 000+
assessments delivered worldwide with consistent expertise tools, and deliverables

Your electrical system is one of the most important parts of your operation.

MPS Consulting Services

MPS stands for Modernization, Performance, and Safety. Those three goals are at the heart of what we deliver for your electrical system. Our consulting portfolio is designed to offer you the right level of depth and analysis for your site so that you can focus on your core mission.

We help you prevent unplanned outages and minimize safety risks by understanding the life-cycle and operating conditions of your critical electrical assets, employing effective maintenance & management practices, and intelligently modernizing equipment where necessary.

A good first step before a modernization project is to assess the safety, lifecycle and operation of your electrical installation.

Training your team part of the answer...

Complementary Services
Training

90% of unexpected events in a network, such as power outages, accidents, and near misses, are caused by human error!

61+
training locations worldwide

350+
expert trainers in technical & educational fields

1 400+
equipment and process specific courses to choose from

44 000+
active e-Learners

Grow your staff's electrical safety, operation & maintenance competencies to:

- Enable your team members to make the right decision in their daily operations and in case of unexpected events
- Protect your people
- Mitigate risks of accident
- Avoid downtime and damages
- Enhance on-site technical skills and safety level
- Save time and costs
- Manage Capex

Thanks to

Online competency assessment and e-Learning offer: optimize your teams technical skills and safety installation performance with our e-Learning offer. Available in 19 languages and at whatever time works for you to allow fast, worldwide and multisite deployment.

Customized training courses: propose to your team some dedicated training paths and technical certification, co-built with you.

Digital electrical installation simulators: Duplicate your own electrical installation so that your people can experience many virtual working situations and practice the correct response so that they are able to make the right decision automatically, by duplicating your own electrical installation with them.

Certified trainers: **benefit from technical specialists as well as experienced educators; hands-on training with full size equipment.**

Modernizated equipment + Updated skills = Operational excellence

Discover our full training offer:
https://www.schneider-electric.com/en/work/services/training/technical-training.jsp

Legacy range/brand from Schneider Electric

Legacy range brand

Legacy range brand

Obsolete legacy ranges without any...

Brand	Range	Description
AEG	AHB	MV Switchboard AIS (1997-1998)
AEG	WAK	MV Switchboard AIS
AEG, Alstom	D-12, D-24	MV Switchboard AIS
AEG, Alstom	H (GERMANY)	MV Switchboard AIS (1970-1980)
AEG, Alstom, AREVA, GEC-Alsthom	AS Series	MV Switchboard AIS (19xx-1990)
AEG, Alstom, AREVA, GEC-Alsthom	L	MV Switchboard AIS (19xx-1993)
AEI, GEC, GEC-Alsthom, Alstom	BVP22	MV Vacuum Circuit Breakers (1965-1984)
Alstom	GMB	MV Switchboard AIS (2003-2005)
ALSTOM	OPN6000/7000, OPN9000	MV Switchgears Protection (1989-2002,1992-2003)
Alstom, AREVA	DAX-I	MV Switchgears Protection (2000-2015)
Alstom, AREVA	FLUOPACK	MV Switchboard GIS (1998-2006)
Alstom, AREVA	MIDOS MOPN01, MOPN02, MWTU14	MV Switchgears Protection (1989-2002)
Alstom, AREVA	MIDOS MRSU05	MV Switchgears Protection (1989-2004)
Alstom, AREVA	PSEL, PSET	MV Switchgears Protection (1985-2006)
Alstom, AREVA	TROPIC	MV Switchgears Protection (1975-1999)
ALSTOM,AREVA	GEMSTART2/3, GEMSTART4.2	MV Switchgears Protection (1995-2003)
CEM	AMB	MV Switchboard AIS (1958-1965)
CEM	AV	MV Air Circuit breaker (1950-1960)
CEM	CHT	MV Air Contactor (1960-1976)
CEM	DNG6	MV Switchboard AIS (1969-1980)
CEM	FJ	MV Oil Circuit Breaker (1953-1973)
CEM	FLUOMATIC F500, F900, NF500	MV Switchboard AIS (-, 1978-1987,1975-1987)
CEM	FR	MV SF6 Circuit Breaker (1970-1985)
CEM	FRAD	MV SF6 Circuit Breaker (1961-1980)
CEM	FRUR620, 640	MV SF6 Circuit Breaker (1972-1985)
CEM	HF	MV SF6 Circuit Breaker (1980-1984)
CEM	KIT 23, 25, 26, 27, 28, 36	MV Switchboard AIS (1965-1969,1969-1978,1981-1987,1981-1987,1981-1984, 1981-1987)
CEM	MAGNETOR	MV Air Circuit breaker (1950-1965)
CEM	NDB7	MV Switchboard AIS (1964-1980)
CEM	NDS1/NDS2	MV Switchboard AIS (1964-1980)
CEM	NORMABLOC DN, DNL, DNT	MV Switchboard AIS (1964-1972,1969-1980,1964-1972)
CEM	NORMABLOC DNV4, 5, 5/2B	MV Switchboard AIS (1986-19xx,1992-19xx, 1987-19xx)
CEM	NORMABLOC N10, N100, N1100,N160, N300, N964	MV Switchboard AIS (1950-1958,1958-1971, 1969-1973, 1958-1971)
CEM	NORMABLOC NC3T	MV Switchboard AIS (1964-1972)
CEM	NORMABLOC ND	MV Switchboard AIS (1957-1965)
CEM	NORMADIS SERIE C, D	MV Switchboard AIS (1970-1973,1969-1973)
CEM	NORMADIS SERIE N 500	MV Switchboard AIS (1967-1970)
CEM	NORMAFLUOR DNF23, 24, 35, 370, 430,500	MV Switchboard AIS(1971-1972,1972-1981,1977-1982,1965-1968,1968-1971, 1977-1985)
CEM	NORMASEPT N700,N1700	MV Switchboard AIS (-,1970-1978)
CEM	SERIE 2F	MV Switchboard AIS (1982-1984)
CEM	SFC	MV SF6 Contactors(1976-1987)
CEM	VC TOYO	MV VacuumContactors(1974-1981)
CEM, Delle Alsthom	GF, GF2	MV SF6 Contactor (1980-1988,1962-1970)
CEM, Delle Alsthom, GEC-Alsthom	FI	MV Oil Circuit Breaker (1984-1990)
CEM, Delle Alsthom, GEC-Alsthom, Alstom	FBA	MV Switchboard GIS (1987-2003)
CEM, Delle Alsthom, GEC-Alsthom, Alstom	FLUOKIT C24	MV Switchboard GIS (1987-2002)
Concordia Sprecher, Alstom	PG-100	MV Switchboard GIS (19xx-2001)
Concordia Sprecher, Sprecher & Schuh Alstom	HV, HVEW, HVW, HVTW	MV Vacuum Circuit Breaker (1993-2001)
Delle Alsthom	Fluomatic F943	MV Switchboard AIS
Delle Alsthom	MESURISOL MC4, MESURISOL PL2	MV Switchgears Protection (1975-1999)
Delle Alsthom	VB, VC, VD	MV VacuumContactors(199x-2001)
Delle Alsthom, Alstom	CX	MV SF6 Circuit Breaker (1976-1982)
Delle Alsthom, Alstom	DIMAX	MV Switchgears Protection (1975-1999)
Delle Alsthom, Alstom	EPAC	MV Switchgears Protection (1990-2003)
Delle Alsthom, Alstom	HV400	MV Vacuum Circuit Breaker (1993-2001)
Delle Alsthom, GEC-Alsthom	BS	MV SF6 Circuit Breaker (19xx-1993)
Delle Alsthom, GEC-Alsthom, AREVA	Normasept N743	MV Switchboard AIS (19xx-1981)
Delle Alsthom-GEC-Alsthom, Alstom	20CB	MV Outdoor Disconnector & Switch (1988-1998)
Delta	H96	MV Switchboard AIS (19xx-1998)
GEC	MX36	MV Vacuum Circuit Breaker(1974-1981)
GEC-Alsthom	BVX	MV Vacuum Circuit Breakers (1970-1984)
GEC-Alsthom	MX51, MX81	MV Vacuum Circuit Breaker (1974-1981)
GEC-Alsthom-Alstom	FBE, FBT	MV Switchboard GIS (1991-2003)
Long & Crawford, GEC-Alsthom	J, J2, J3, J4	MV Vacuum Circuit Breaker (1958-2003)
Magrini	DH, DHE, DHF, DHM	MV Air Circuit breaker (19xx-1969, 1969,1997,1969)
Magrini	DISTRIVAN B, C	MV Switchboard AIS
Magrini	F (CS4)	MV Switchboard AIS (1970-1980)
Magrini	FS	MV Air Circuit breaker (1969-1997)
Magrini	Multiclad	LV panel (19xx-1975)
Magrini, VEI	GIE generation1, GIE generation2	MV SF6 Circuit Breaker (1987-1991,1992-1995)
Merlin Gerin	36BX	MV Switchboard AIS (1979-1988)
Merlin Gerin	Biovar	MV Capacitor (1978-1985)
Merlin Gerin	BMI	MV Indoor Disconnector & Switch (19xx-19xx)
Merlin Gerin	Chamrousse	MV Switchboard AIS (1968-1974)
Merlin Gerin	CI, DC, DCR	LV Circuit Breaker (1950-1966)
Merlin Gerin	CM14	LV panel (1972-1988)
Merlin Gerin	Compact CM	LV Molded Case Circuit Breaker (1981-2002)
Merlin Gerin	COQ	MV Switchboard AIS (1954-1968)
Merlin Gerin	DB 33 Marine	LV Circuit Breaker (1993-1998)

Legacy range brand

spare parts nor ECOFIT™ solutions

Brand	Range	Description
Merlin Gerin	Dialpact	LV Circuit Breaker (1993-1999)
Merlin Gerin	DMC/DMP/DRC/DMG/DRP	LV Circuit Breakers (1950-1966)
Merlin Gerin	DSExxK, DSExx / SOLENARC	MV Air circuit breaker (1971-1988, 1972-1988)
Merlin Gerin	DSG	LV Circuit Breaker (1950-1966)
Merlin Gerin	DSL	LV Circuit Breaker (1983-1998)
Merlin Gerin	Equipunit	LV Capacitors (19xx-1980)
Merlin Gerin	Fluair F24F	MV Switchboard AIS (1972-1985)
Merlin Gerin	FLUARC FA/FB	MV SF6 Circuit Breaker (1972-1982)
Merlin Gerin	Fluostart 325	MV Switchboard AIS (1980-1985)
Merlin Gerin	FU, FUC, FUCO	MV Indoor Disconnector & Switch (1980-1985)
Merlin Gerin	HCV 5HS	MV Vacuum Contactors (2004->>>>)
Merlin Gerin	I Line/ I Line II	LV panel (1984-2000)
Merlin Gerin	IN250, IN400, IN630	LV Circuit Breaker (1985-2001)
Merlin Gerin	Interpact	LV Circuit Breaker (1981-1999)
Merlin Gerin	Intersec	MV Indoor Disconnector & Switch (1966-1980)
Merlin Gerin	ISOLARC	MV Indoor Disconnector & Switch (1985-1998)
Merlin Gerin	KA/KD	MV Air Contactor (1958-1972)
Merlin Gerin	Lamisec	MV Indoor Disconnector & Switch (1960-1980)
Merlin Gerin	MCC MODEL 2, 3, 4, 5	LV panel (1950-1960,1960-1970,1970-1980,1980-1995)
Merlin Gerin	Mecabloc	LV panel (1959-1974)
Merlin Gerin	Motorstart P12/30, P12D/P30D	MV Switchboard AIS (1960-1980)
Merlin Gerin	MULTITROL 10C, 14C	LV Circuit Breakers (19xx-1975)
Merlin Gerin	Murbloc	LV panel (1962-1974)
Merlin Gerin	OB1	MV Oil Circuit Breaker (19xx-1990)
Merlin Gerin	P400	LV Capacitors (19xx-2006)
Merlin Gerin	P6, P12	LV panel (1974-1995, 1972-1982)
Merlin Gerin	POWER ZONE 2	LV panel (1960-1985,1985-2001)
Merlin Gerin	POWERPACT N/P_Frame	LV Molded Case Circuit Breaker (1980-2008)
Merlin Gerin	Pragma C, D,F	LV panel (19xx-2002,-2003,-2003)
Merlin Gerin	Prebloc	LV panel (1949-1974)
Merlin Gerin	Propivar generation1, Propivar generation2	MV Capacitors (1985-1997,1997-2001)
Merlin Gerin	RCV-420	MV Swithgears Protection (1993-2007)
Merlin Gerin	Reactivar	MV/LV Capacitors (1993-2017)
Merlin Gerin	Rectibloc	LV Capacitors (19xx-2006)
Merlin Gerin	Ringmaster RN1.5, RN2.0	MV Switchboard GIS (1986-1991,1991-1999)
Merlin Gerin	RM6	MV Switchboard GIS (1983-1988)
Merlin Gerin	RNS11	MV Switchgears Protection (1995-2007)
Merlin Gerin	ROLLARC R100/R200	MV SF6 Contactors (1974-1984)
Merlin Gerin	Rotabloc_MDA	LV panel
Merlin Gerin	Secovar, Secomat	LV Capacitors (19xx-1988,19xx-1999)
Merlin Gerin	Sepam 15, Sepam 1000,Sepam 100LA, Sepam 100LD/100RT	MV Switchgears Protection (1985-1997,1993-2001,1995-2016,1995-2018)
Merlin Gerin	ST (COMPACT C)	LV Switchgear Protection (19xx-19xx)
Merlin Gerin	STR (COMPACT NS)	LV Switchgear Protection (1993-2011)
Merlin Gerin	STR (MASTERPACT M)	LV Switchgear Protection (1986-2003)
Merlin Gerin	T12	LV panel (1972-1980)
Merlin Gerin	Taillefer 900/1080	MV Switchboard AIS (1965-1974)
Merlin Gerin	TD8, TD9	LV panel (1969-1979,1980-1994)
Merlin Gerin	TDI, TMD, TMI	LV panel (1975-1995)
Merlin Gerin	TDS	LV panel (1980-1995)
Merlin Gerin	Temeg	MV Switchboard AIS (1965-1974)
Merlin Gerin	TLC11MS	MV Switchgears Protection
Merlin Gerin	TM, TD, TM7	LV panel (1967-1995,-1995,-1994)
Merlin Gerin	V23/V60, V500/V700	MV Switchboard AIS (1960-1974,1966-1980)
Merlin Gerin	Varset Direct	LV Capacitors (19xx-2013)
Merlin Gerin	VIGIRACK, VIGIRACK_Nuclear	MV Swithgears Protection (1960-1996,1990-2015)
Merlin Gerin	VIP 11, 11R/12R, 13/17, 200-201	MV Switchgears Protection
Merlin Gerin	Visibloc	LV panel (1968-1974)
Merlin Gerin	Visucompact CM	LV Molded Case Circuit Breaker(1981-2002)
Merlin Gerin Canalis	KB, KJ, KLA, KM, KR, KU,	LV panel (1975-1998,1966-1997,1982-1995,1962-1983,1971-1984,1964-1984, 1971-1981)
Merlin Gerin, Schneider Electric	TeSys GV7	LV Molded Case Circuit Breakers (19xx-19xx)
OBSAD -SAD	CSI	MV Oil Circuit Breaker
Sachsenwerk, AEG	A, D, F, G	MV Oil Circuit Breaker (19xx-1990)
Sachsenwerk, AEG	BT (CS0)	MV Oil Circuit Breaker (1965-1980)
Square D	FC	MV SF6 Circuit Breaker (1975-1988)
Square D	MULTIFOR	LV Circuit breaker (till 1981)
Square D	POWERSTYLE QED3, QED4	LV panel (1985-2004)
Square D	POWERSTYLE QED3, QED4	LV panel (1985-2004)
Square D	SE	LV Circuit breaker (1983-2003)
Télémécanique, Merlin Gerin	TMG	LV panel (1963-1966)
VAMP	V57	MV Switchgears Protection (20xx-2019)
VEB, Otto Buchwitz	BSIG – 10,BSIG-20	MV Switchboard AIS
VEB, Otto Buchwitz	CSIM 1-12, CSIM 3-12, CSIM 3-24	MV Switchboard AIS
VEI, AREVA	ISARC (Old version)	MV indoor switch disconnector (19xx-2006)

Please contact your local Services sales department to know more on modernization solution for those obsolete ranges

ECOFIT™ centers

Legacy range brand

BRAND	FRANCE Smart ECOFIT Grenoble	GERMANY Regensburg	UK Warrington	USA West Chester	ITALY Stezzano*	CANADA Toronto*
Schneider Electric	✓					
Merlin Gerin	✓					
AREVA	✓	✓	✓		✓	
Alstom	✓	✓				
CEM	✓					
DELLE	✓					
AEG		✓				
Sprecher + Schuh		✓				
Concordia Sprecher		✓				
VEM		✓				
GEC			✓			
GEC Alsthom	✓		✓			
AEI			✓			
YORKSHIRE SWITCHGEAR			✓			
				✓		✓
MAGRINI GALILEO					✓	
					✓	
						✓
Competitors**	✓	✓	✓	✓	✓	✓

* Not current ECOFIT™ reference centre
** ABB, Ansaldo, General Electric, Otto Buchwitz, VEB, Westinghouse, Siemens...

ECOFIT™ Reference Centers are in charge of:

- Design and development of ECOFIT™ offers using Schneider Offer Creation Process methodology.
- Industrialise, manufacture and optimise ECOFIT™ solutions to address customers' requests with optimum conditions.
- Testing, validation and certification of ECOFIT™ solutions using a standard quality directive procedure linked to international standards.

Notes

Notes

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