

Catalogue EcoFit™ Life Extension Essential for Power

Modernize MV and LV installations by adding sensors and communication capabilities





Green Premium™

An industry leading portfolio of offers delivering sustainable value



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

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



Discover what we mean by green

[Check your products!](#)

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

CO₂ and P&L impact through... Resource Performance

Green Premium brings improved resource efficiency throughout an asset's life cycle. This includes efficient use of energy and natural resources, along with the minimization of CO₂ emissions.

Cost of ownership optimization through... Circular Performance

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

Peace of mind through... Well-Being Performance

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

Improved sales through... Differentiation

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

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

Resell EcoFit™ Life Extension Essential for Power

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Why Modernize your installation

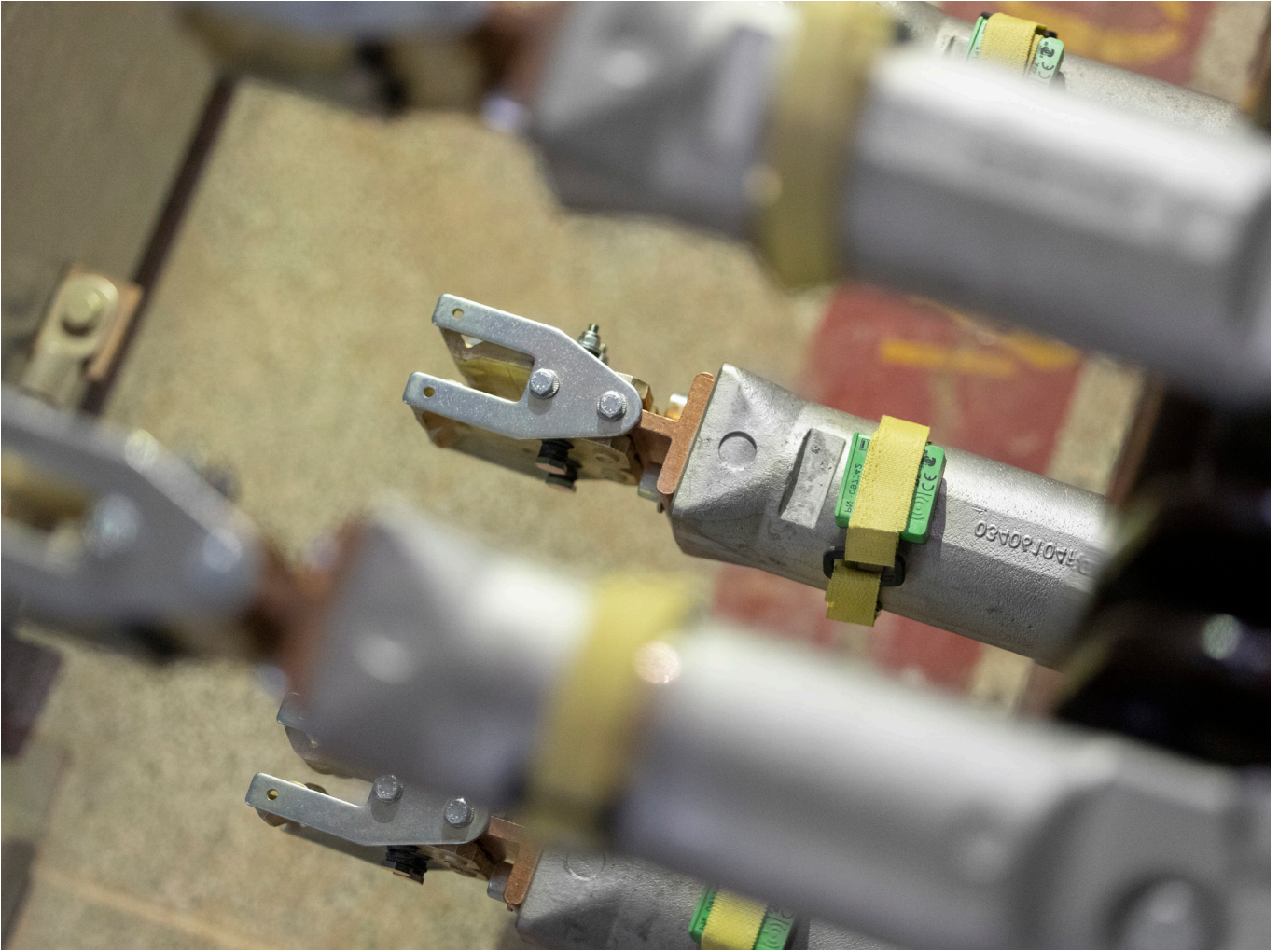
Trend to go Digital:

Connected installation maximizes the reliability and productivity of your installation.

Nowadays switchgear comes natively connected. However, the installed base can be upgraded and can gain benefits from IoT. When your installation is connected, you can monitor and prevent maintenance and extend lifespan of the equipment.

We support you and define all the commissioning of the installation and validate on site with you:

-  Prevent electrical fire and failure due to corrosion.
-  Schedule your periodic maintenance and safe cost.
-  Safety and compliance with evolving industry standards and legislation.
-  Monitor the temperature and humidity of your installation, and the circuit breaker health.
-  Maximize continuity of service.



EcoFit™ Life Extension Essential for Power: Develop your services business with your installed base

Modernize your existing your MV and LV installations by adding digital and communication capabilities

You always want to provide your customers with best-in-class service continuity.


With EcoFit™ Life Extension Essential for Power you can now offer optimized on-site and/or remote services that support their business continuity and help them to enhance their installation's lifetime.

You can offer your customers adapted levels of maintenance services and expertise to help them get the most of their electrical installation.



Thermal and condition monitoring

Now your MV and LV equipment can speak about its health status




MV switchgear

Monitor bolted connections, detect and solve installation issue to avoid fast aging. Adapt maintenance periods to real conditions.

HOW

- Critical bolted connections are equipped with wireless temperature sensor TH110
- Wireless temperature & humidity CL110 sensor measures Ambient T°, Cold point T° and Pollution level.

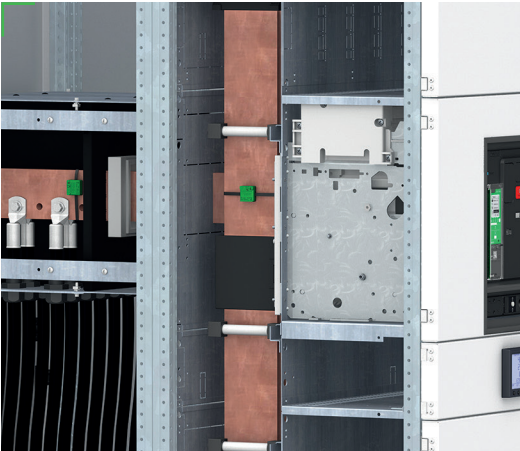


MV/LV Transformer

Monitor transformer age index and estimation of remaining lifetime.

HOW

- Trihal: TH110 on bolted connections + measurement of winding temperature
- Minera: TH110 sensors installation only on plug-in bushings + CL110 on Cooling.



LV switchgear

Monitor bolted connections, prevent damage & fire due to overheating of cables or wires in electrical cabinets.

HOW

- Heat Tag sensors analyze temperature, humidity gas and particles in air
- Critical bolted connections are equipped with wireless temperature sensor TH110.

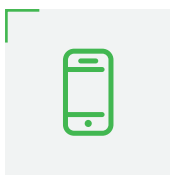
How you benefit from connected assets

A great opportunity to extend your expertise and Services



You offer the highest value to your customers

- Differentiate your offering with the advanced and valuable features from on-demand to 24/7 connectivity.
- Optimize customers' on-site operational time and improve business continuity.



Generate more opportunities

- Sell or perform⁽¹⁾ modernization of installed base with EcoFit™ Life Extension Essential for Power and remote Digital Services.
- Provide extra technical support and maintenance services based on data coming from the Easergy Thermal Connect App or Asset Advisor.



Develop your expertise and get more recognition

Become a trained and skilled member of the EcoXpert Power Services network with the EcoXpert Power Upgrade in connected system installations. Get recognized as an Authorized Services reseller to trade the best in class digital solutions.

A



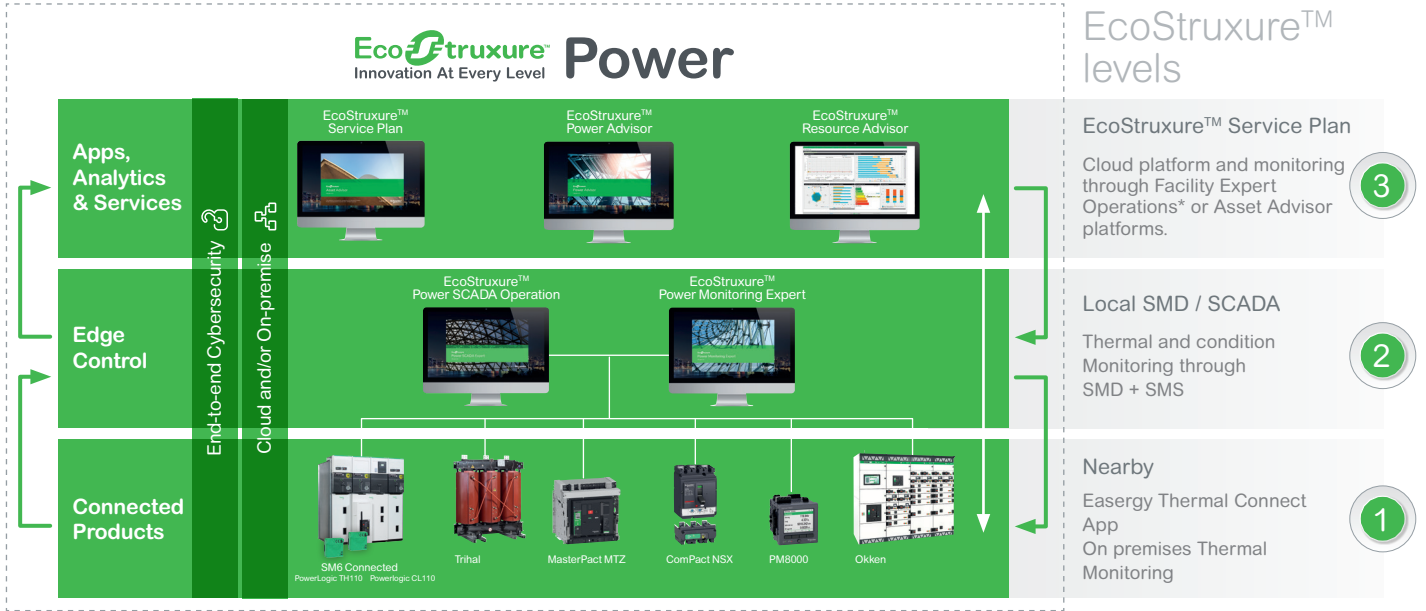
EcoXpert program supported by Schneider Electric helps our Partners to increase their knowledge in Digital and to be ready for Electrical transformation.



⁽¹⁾ only perform by EcoXpert Power Services in LV / MV installations and EcoXpert Power Upgrade in LV installations

Your connectivity at each levels!

3 digitization levels increasing Asset Management efficiency



* Facility Expert Operations Consult us



Connect your assets and select one of the 3 levels of services to support your customers' business continuity

You can access directly to each level of Services or scale from one level to another.

1

Nearby

On demand reports generated by the app

- Periodic inspections avoiding thermography
- Condition monitoring and data display
- Save/send temperature information
- Customer care contact in the app if support needed



Externalized Maintenance
Partners/Operators/
Technicians



Facility Managers
Or externalized Maintenance

B

2

Local SMD / SCADA

Monitor MV& LV installation from Local System HMI – SCADA commissioned with sensors

- Complete data acquisition, analysis, pre-alarming, and alarming
- Thermal monitoring and condition monitoring
- Circuit breaker health monitoring
- Nearby operation from a safer distance
- Open Modbus TCP interface for any SCADA system integration
- GSM modem for SMS smart alarming



Local condition monitoring/
thermal monitoring



Facility Managers
Or externalized Maintenance

3

EcoStruxure™ Service Plan

Visualize your customers' installations through the Web dashboard and mobile apps

- Remote thermal and condition monitoring
- Insight into fire risks 'Fire Prevention Risk Index'
- Access to live data
- Alarms in case a high risk is identified
- Continuous monitoring of critical assets
- 24/7 support from Schneider Connected Services Hub
- Support for your diagnosis
- Periodic reports with recommendations
- On request, Schneider Electric experts for on-site execution



Digital
services



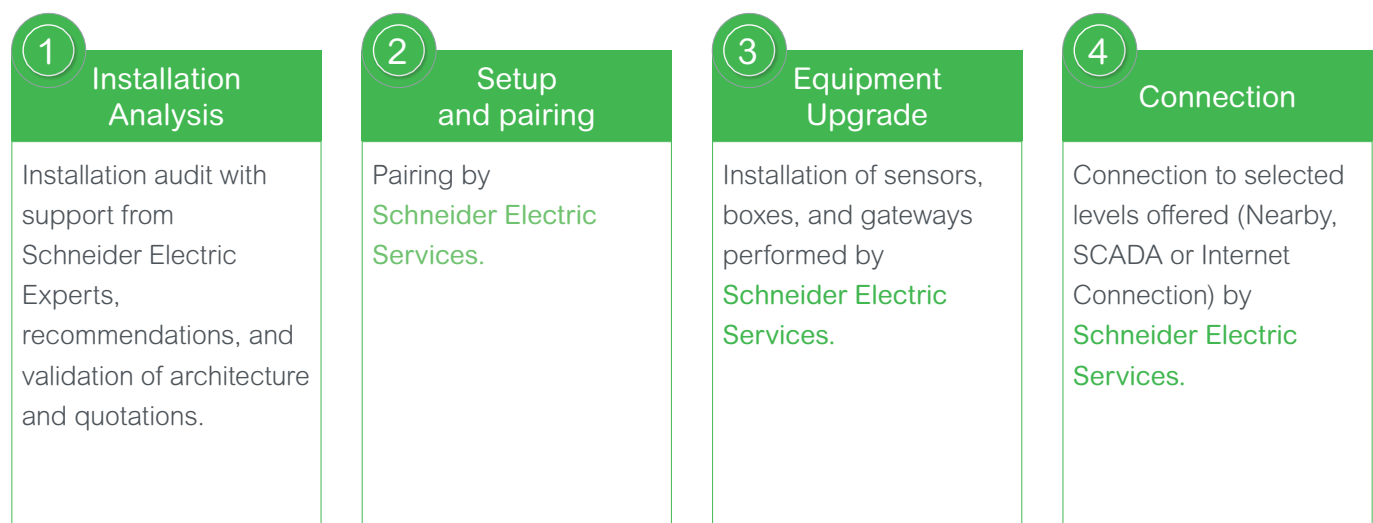
Externalized Maintenance,
EcoXpert Power Services or
Schneider Electric



EcoFit™ Life Extension Essential for Power: Steps to implement Digital Services

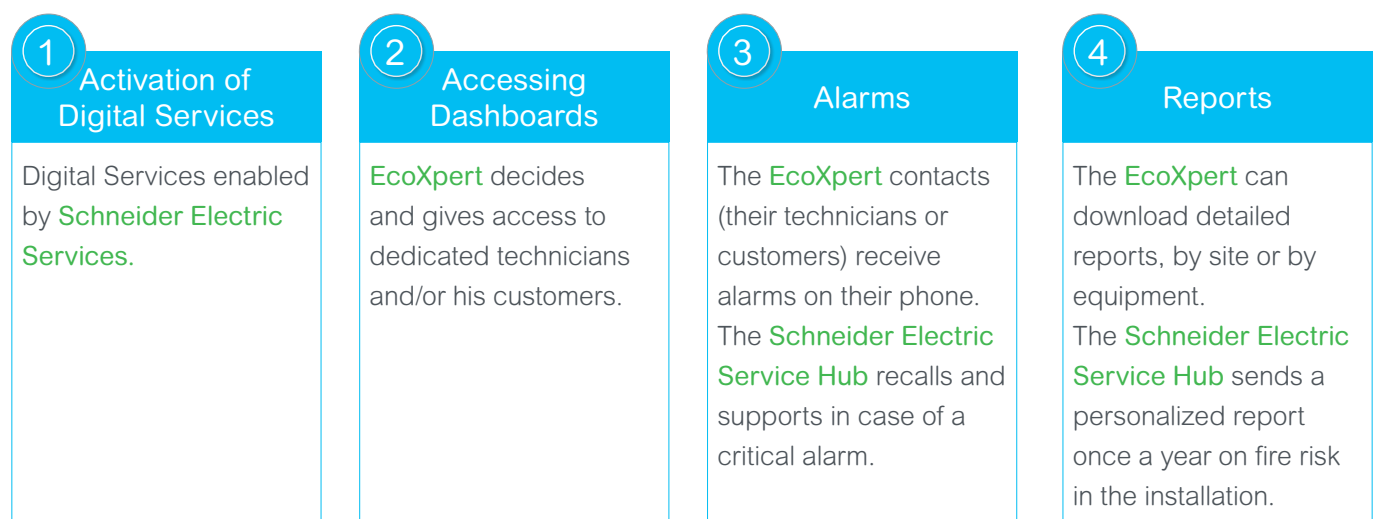
Modernize your installation to a connected system and use it

4 steps to install sensors



C

Additional steps to cloud services



Pillars Sensors to enable digitization



PowerLogic TH110

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



PowerLogic CL110

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



HeatTag

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



PT100 (Trihal)

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

EcoFit™ Life Extension Essential for Power: cross selection

1 SELECT SENSORS ACCORDING TO THE EQUIPMENT


Equipment				
MV switchboard	MV/LV transformers		LV switchboards	
				
SM6	Trihal	Minera	PrismaSet, Okken, BlokSet	
Type of sensor				
TH110	●	●	●	●
CL110	●		●	●
HeatTag				●
PT100		●		

2 SELECT THE LEVEL OF SERVICES

1

Nearby


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



2

Local SMD / SCADA


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



3

EcoStruxure™ Service Plan

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



D

1

SELECT SENSORS ACCORDING TO THE EQUIPMENT

Sensors for Medium Voltage ranges

Here are only standard working hours references.

For extra working days type A and extra working hours type B (week-end), see information on page 15.

Type of equipment	References	
MV Switchgear		
SM6 Air insulated switchboard		
SM6 upgrade with 3 TH110	All SM6 cubicles except QM and IM after 1999	FSRACOSM6TH110
SM6 QM upgrade with 3 TH110 + Adaptation kit	SM6 QM, PM	FSRACOSM6TH110QM
SM6 IM<1999 upgrade with 3 TH110 + adaptation kit	SM6 IM, SM-NSM-IMC installed before 1999	FSRACOSM6TH110IM
SM6 upgrade with 2 CL110	Dew point sensors (2 CL110 sensors) for 2 cubicles Note: Can be used for all MV ranges (Pix, MCSet, RM6, YSF6, Masterclad ...) For Fluokit: to be installed in all cubicles.	FSRACOSM6CL110
Flusarc 36 kV Secondary Gas-Insulated Switchgear		
FLUSARC upgrade with 3x TH110		FSRACOFLUSRCTH110
DVCAS 36 kV Secondary Gas-Insulated Switchgear		
DVCAS upgrade with 3x TH110		FSRACODVCASTH110
YSF6 Metalclad switchboard		
YSF6 upgrade with 3x TH110 and 11x CL110		FSRACOYSF6THCL110
PIX Air insulated switchboard		
PIX upgrade with 3x TH110	6 to 12 required in cubicle, order kit according to 2, 3 or 4 quantities	FSRACOPIXTH110
Masterclad Air insulated primary Switchboard		
Masterclad upgrade with 3x TH110		FSRACOMSTCLDTH110
Masterclad upgrade with 2x CL110		FSRACOMSTCLDCL110
Fluair F400 Air insulated Metalclad switchgear		
Fluair upgrade with 3x TH110		FSRACOFLUAIRTH110
HWX Air insulated vacuum Metalclad switchgear		
HWX upgrade with 12x TH110		FSRACOHWXTH110
NEX upgrade with 2x CL110	Dew point sensors (2 CL110 sensors)	FSR421021
MCset switchgear		
MCset upgrade 3x TH110	3 to 12 sensors possible, so order 1,2,3,4 kits	FSRACOMCSETTH110
GHA Gas-Insulated Switchgear		
GHA upgrade with 3x TH110		FSRACOGHATH110
GMA Gas-Insulated Switchgear		
GMA upgrade with 3x TH110		FSRACOGMATH110
Motor Control Centre switchgear		
MotorPact Motor Control Centre		
MotorPact upgrade with from 3 to 12 TH110		FSRACOMOTPACTH110
Other MV equipment		
Busway junction box upgrade with 2x CL110		FSRACOBUSWAYCL110
Temperature/humidity CL110 in substation	To monitor temperature and humidity in substation	FSR421031

Sensors for other equipments

Type of equipment		References
Transformer		
Minera Oil-Immersed Transformer		
Minera upgrade with 6x TH110		FSRACOMINERATH110
Minera upgrade with 3x CL110		FSRACOMINERACL110
Trihal Cast Resin Distribution Transformer		
Trihal upgrade with 13x TH110		FSRACOTRHLTH110
Trihal upgrade with Digital Relay	Trihal PT100 installation + installation of the NT935 relay in LV cabinet or LV panel	FSRACOTRHLDIGRELAY
LV switchboards		
LV CB connection upgrade with 6x TH110		FSRACOLVCBTH110
LV PANEL connection upgrade with 3x TH110	Cable incomer or Cable feeder	FSRACOLVPANELTH110
HeatTag paired to ZigBee reciever	In PrismaSet panels, 1 Heat Tag for each column	FSR433281
Temperature/humidity CL110 in substation	For Okken and BlokSet Drawers and/or for the substation	FSR421031

! To get the reference for installation during extra working hours **type A**, add **1** at the end if it is a text reference, but if it is a numeric reference, replace 1 by **2**:
 FSRACODIGITALBOX (Digital box including COMX for EAA) → FSRACODIGITALBOX**1** (Digital box including COMX for EAA (Time 2))
 FSR421011 (NEX upgrade with 6 TH110) → FSR4210**12** (NEX upgrade with 6 TH110 (Time 2))

To get the reference for installation during extra working hours **type B**, add **2** at the end if it is a text reference, but if it is a numeric reference, replace 1 by **3**:
 FSRACODIGITALBOX (Digital box including COMX for EAA) → FSRACODIGITALBOX**2** (Digital box including COMX for EAA (Time 3))
 FSR421011 (NEX upgrade with 6 TH110) → FSR4210**13** (NEX upgrade with 6 TH110 (Time 3))

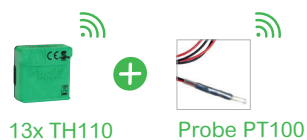
You have also to consider travel costs area 1, 2, 3 – consult Schneider Electric Services.

Minera oil Transformer

Trihal Transformer

Low Voltage switchboards

E



* According to number following configuration

2

SELECT THE LEVEL OF SERVICES

1

Level of Services: Nearby Apps for Periodic Inspections

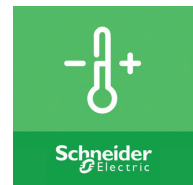
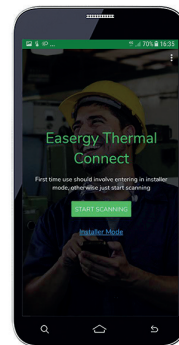


Modernize existing MV and LV installation with sensors and connect and monitor from close by.

Once sensors are settled connect the app easily using a smartphone or tablet and get access to data and thermal measurements on-demand directly from the sensors.

Perform wireless communication with Schneider Electric devices to carry out a thermal inspection at anytime.



Share and export reports including historical events with your contacts.



All SM6 manufactured since 2020 are natively equipped with TH110 sensors.

Then you access to the first level of Services: Nearby with Easergy Thermal Connect APP.

You can also monitor all the other assets if you modernize these assets. You will have to chose the 2 possibilities of NFC Tag references and choose the references of sensors you want to add in the installation.

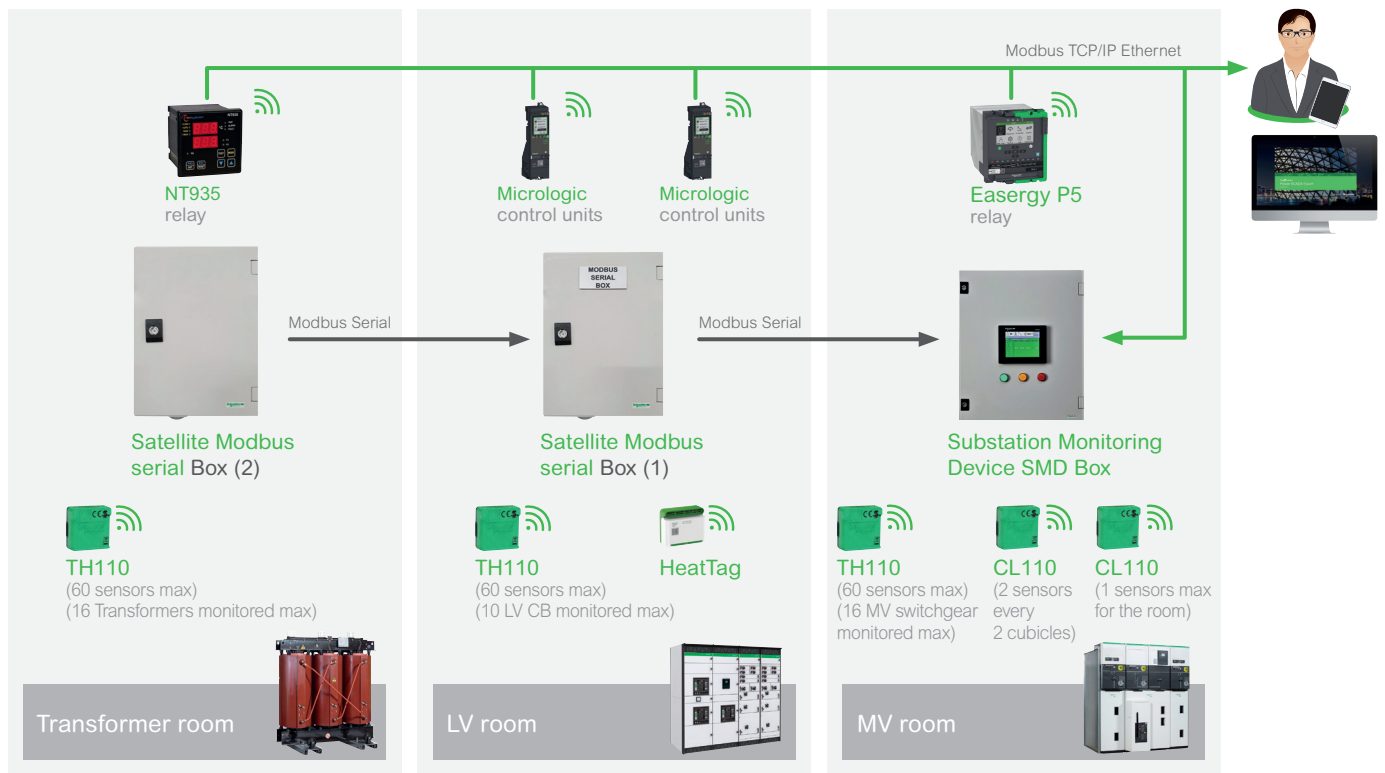
Enlarge Nearby level of Services to other assets			References
	Upgrade with Easergy Thermal Connect App per switchgear White NFC	1 NFC tag for all the assets in the substation	FSR433201
	Upgrade with Easergy Thermal Connect App per asset Green NFC	1 NFC tag for each asset	FSR433191

2

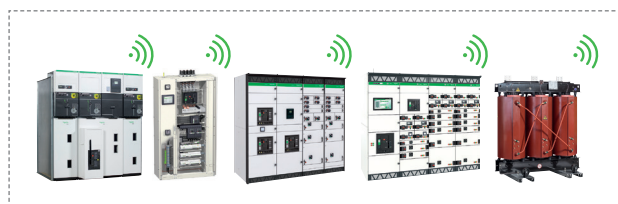
Level of Services: Local SMD / Scada / Thermal and condition monitoring





Type of SMD / SCADA architecture



Product interface and references



Select in the table below the references of sensors to modernize the assets + reference for SMD Box or satellite Box

Type of equipment	References
 <p>SMD Box up to 16 cubicles Main receiver (HMI + PLC + Zigbee receiver + Modbus Ethernet connection for SCADA) MV: Maximum of 16 MV functions + associated transformers LV: Maximum of 60 sensors (group of three) Maximum of 2 Satellites Modbus serial box per SMD Box (daisy chain)</p>	FSRACOSMDBOX
 <p>Satellite Modbus Serial receiver Satellite Box used when substation is split in different rooms Limitations: 60 sensors Connected in daisy chain (Modbus serial network - RJ45)</p>	FSRACOSATMODSERIAL

2

SELECT THE LEVEL OF SERVICES

2

Level of Services: Local SMD / SCADA / Thermal and condition monitoring

Example two separated rooms (MV and LV)

Always associate SM6 + Trihal upgrade reference + receiver references

MV substation



Room 1: References	Qty
FSRACOSM6TH110	1
FSRACOSM6TH110QM	2
FSRACOSM6CL110	2
FSRACOSMDBOX	1

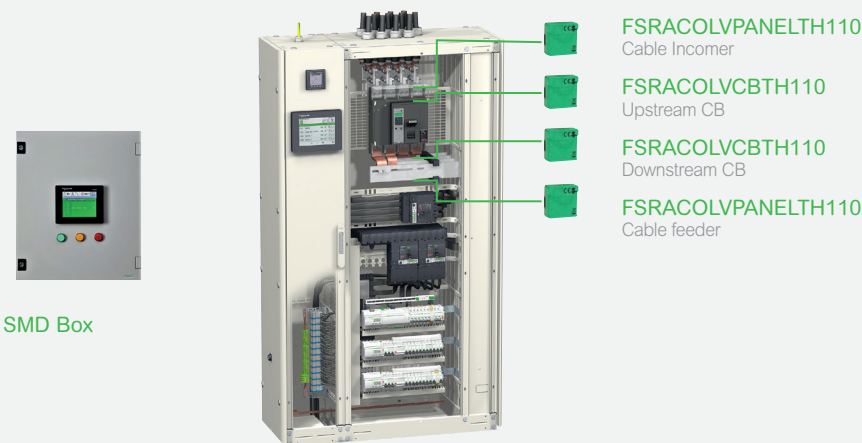
Room 2: References	Qty
FSRACOTRHLTH110	1
FSRACOTRHLDIGRELAY	1
FSRACOSATMODSERIAL	1

Example: EcoFit™ Life Extension Essential for Power for LV if 1 panel with 1 MTZ

FSRACOLVCBTH110: 6 sensors installed on CB connectors

FSRACOLVPANELTH110: 3 sensors installed on main panel incomers and/or load

LV Panel



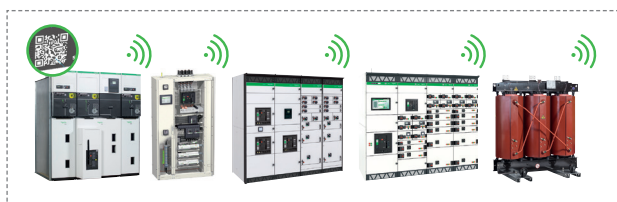
References	Qty
FSRACOLVCBTH110	1
FSRACOLVPANELTH110	2
FSRACOSMDBOX	1







Upgrade from Nearby to local SMD / SCADA

Modernize or not the other assets and upgrade the installation with SMD / SCADA

Product interface and references



SM6 already equipped with sensors
 Select the references of sensors to modernize other assets in the table below
 + reference for SMD box below

Type of equipment		References
	Upgrade Easergy Thermal Connect App to SMD Material: SMD Box (version 1) Labor: repairing of sensors to Zigbee receiver + SMD configuration per substation	FSR433211
 	Upgrade Easergy Thermal Connect App to SMD with SMS Material: SMD Box (version 2) Labor: repairing of sensors to Zigbee receiver + SMD & SMS configuration per substation	FSR433221
	Satellite Modbus Serial receiver	FSRACOSATMODSERIAL

E

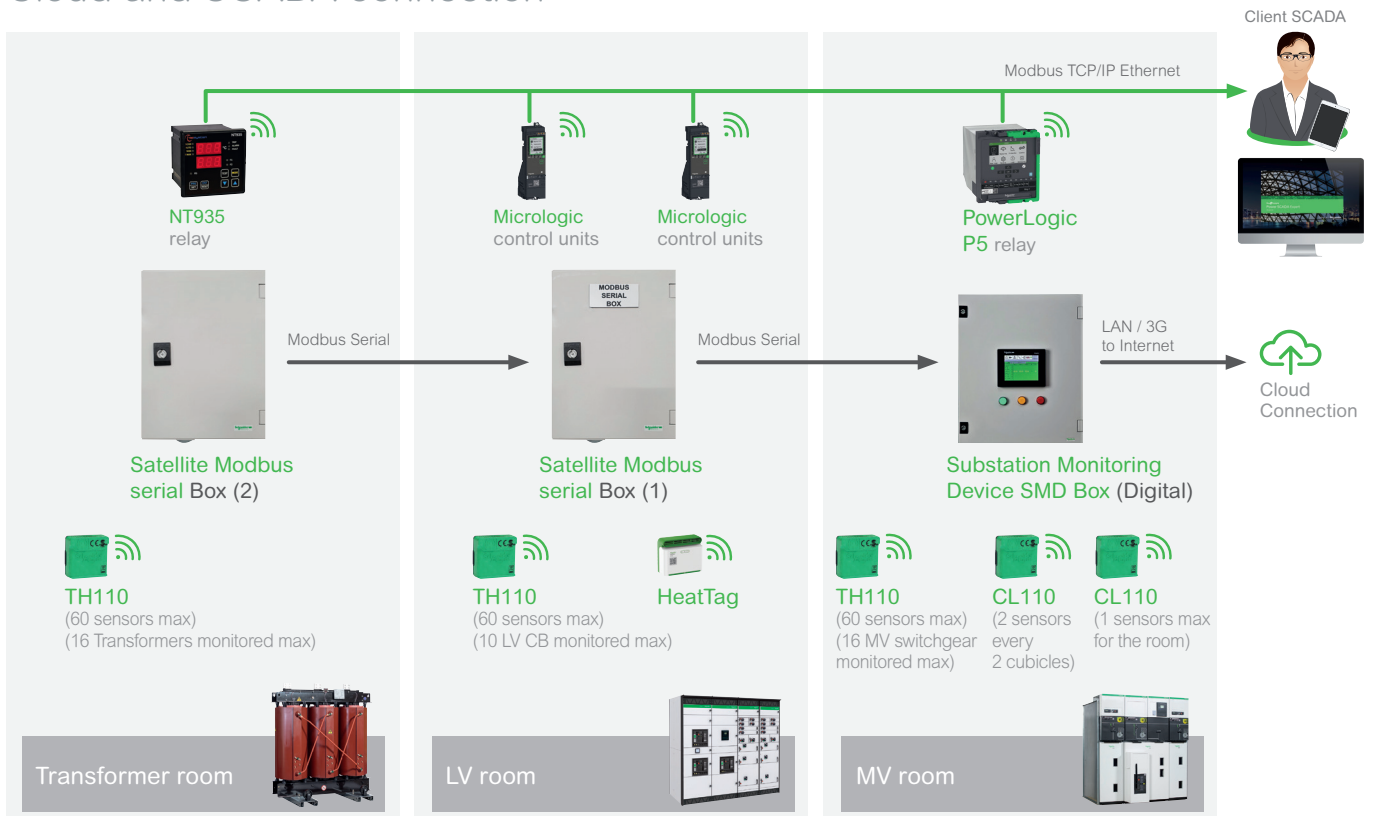
2

SELECT THE LEVEL OF SERVICES

3

Level of Services: EcoStruxure™ Service Plan and connection to SCADA with SMD

Cloud and SCADA connection









Product interface and references



Select in the table below the references of sensors to modernize the assets + reference for SMD box below + reference for connection to the cloud with Com'X

Optional:
Satellite Box if needed
3G / 4G Modem Setup
if no LAN Connection

Type of equipment		References
SMD Box up to 16 cubicles		
	Main receiver: HMI + PLC + Zigbee receiver + Modbus Ethernet connection for SCADA + Com'X Cloud Gateway MV: Maximum of 16 MV functions + associated transformers LV: Maximum of 60 sensors (group of 3) Maximum of 2 Satellites Modbus serial box per SMD Box (daisy chain)	FSRACOSMDCOMXBOX
Satellite Modbus Serial receiver		
	Satellite Box used when substation is split in different rooms Limitations: 60 sensors Connected in daisy chain (Modbus serial network - RJ45)	FSRACOSATMODSERIAL
Com'X setup and commissioning		
	Com'X setup and commissioning	FSRACOCOMXSTEUP
3G/4G MODEM to setup connection to the Schneider Electric cloud		
	3G/4G MODEM setup connection to the Schneider Electric cloud	FSRACO3G4GMODEM

E

2

SELECT THE LEVEL OF SERVICES

3

Level of Services: EcoStruxure™ Service Plan Cloud and SMD / SCADA

Upgrade from Nearby level of Services to EcoStruxure Service Plan





Cloud and SCADA connection

Product interface and references



Assets already equipped with sensors. Select in the table below reference for SMD box + reference connection to cloud with Com'X

Optional: Satellite Box if needed 3G / 4G Modem Setup if no LAN Connection

Type of equipment	References
<p>Upgrade Easergy Thermal Connect App to cloud and SCADA connection</p>  <p>SMD Box (with Com'X) up to 16 cubicles Labor: repairing of sensors to Zigbee receiver + SMD + Gateway configuration / per substation Main receiver (HMI + PLC + Zigbee receiver + Modbus Ethernet connection for SCADA + Com'X Cloud Gateway) MV: Maximum of 16 MV functions + associated transformers LV: Maximum of 60 sensors (group of three) Maximum of 2 Satellites Modbus serial box per SMD Box (daisy chain)</p>	<p>FSR433231</p>
<p>Satellite Modbus Serial receiver</p>  <p>Satellite Box used when substation is split in different rooms Limitations: 60 sensors Connected in daisy chain (Modbus serial network - RJ45)</p>	<p>FSRACOSATMODSERIAL</p>
<p>3G/4G MODEM to setup connection to the Schneider Electric cloud</p>  <p>3G/4G MODEM setup connection to the Schneider Electric cloud</p>	<p>FSRACO3G4GMODEM</p>
<p>Com'X setup and commissioning</p>  <p>Com'X setup and commissioning</p>	<p>FSRACOCOMXSTEUP</p>





Upgrade from local SMD Services level to EcoStruxure Service Plan

Cloud and SCADA connection

Product interface and references



Select the references of sensors to modernize SMD Box to cloud connection with LAN or with 4G/5G Modem in the table below

Type of equipment		References
Upgrade SMD to cloud connection with LAN		
	Gateway Install and configure Gateway in SMD Box / per substation	FSR433261
Upgrade SMD to cloud connection with 4G/5G Modem		
	Gateway + 4G/5G Modem Install and configure Gateway & 4G/5G Modem in SMD Box / per substation	FSR433271

E

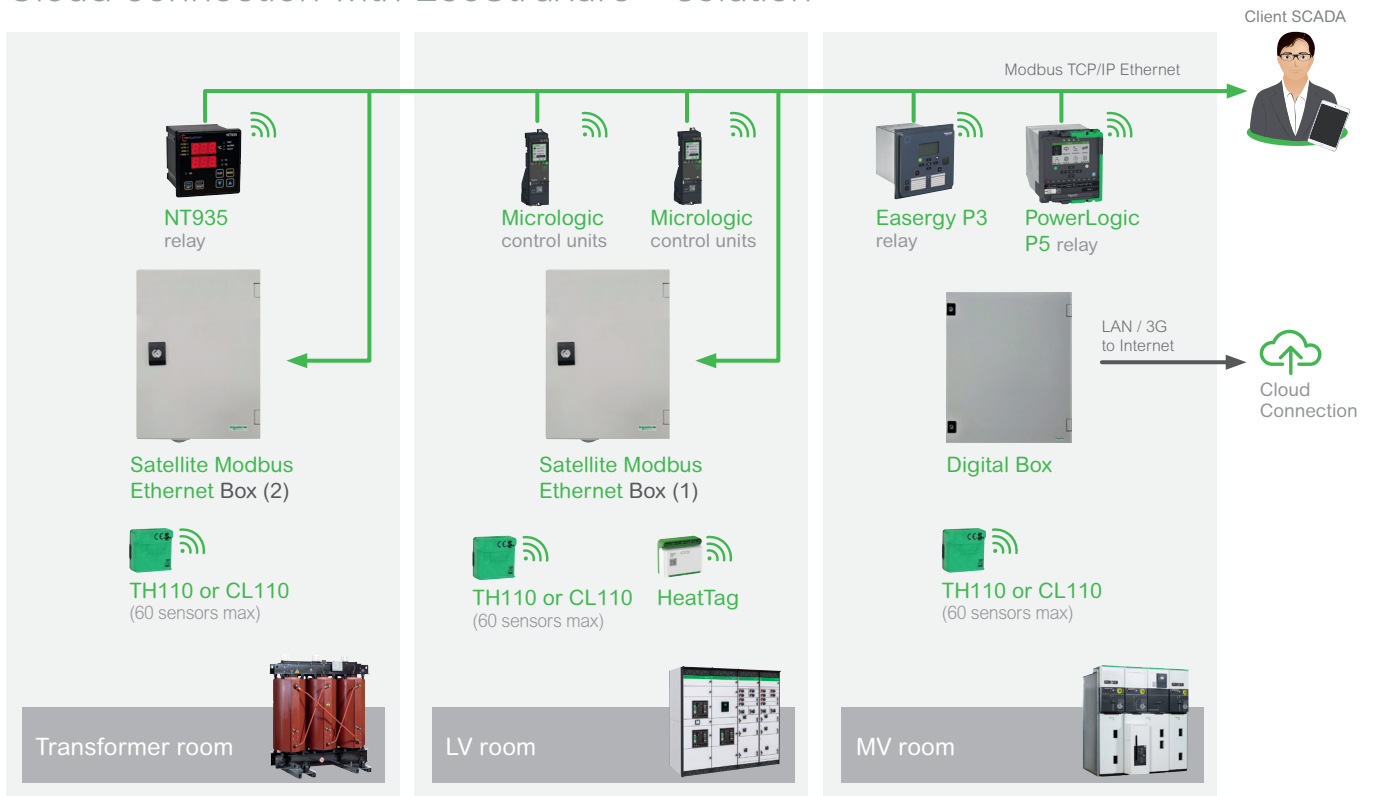
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SELECT THE LEVEL OF SERVICES

3

Level of Services: EcoStruxure™ Service Plan

Cloud connection with EcoStruxure™ solution


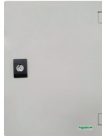




Product interface and references



Select the references of sensors to modernize other assets in the table below
+ reference for Digital Box below

Optional:
Satellite Modbus Serial receiver if needed
3G / 4G Modem Setup if no LAN Connection

Type of equipment		References
Digital Box including Com'X for connection to the cloud		
	Box (with Com'X) up to 16 cubicles Maximum of 60 sensors (group of three) Maximum of 2 Satellites Modbus Ethernet Box per Digital Box (daisy chain)	FSRACODIGITALBOX
Satellite Modbus ethernet receiver		
	Satellite Box used when substation is split in different rooms Limitations: 60 sensors Connected in daisy chain (Modbus serial network - RJ45)	FSRACOSATMODTCP
Com'X setup and commissioning		
	Com'X setup and commissioning	FSRACOCOMXSTEUP
3G/4G MODEM setup to setup connection to Schneider Electric cloud		
	3G/4G MODEM setup connection to Schneider Electric cloud	FSRACO3G4GMODEM

2

SELECT THE LEVEL OF SERVICES

3

Level of Services: EcoStruxure™ Service Plan


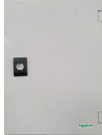

Upgrade from level of Services Nearby to EcoStruxure Service Plan

Optionally modernize other assets if needed and upgrade the installation with Cloud connection

Product interface and references



Select the references of sensors to modernize other assets in the table below + take the reference for Digital Box (LAN) or Digital Box (3G / 4G Modem Setup if no LAN Connection

Type of equipment		References
Upgrade Easergy Thermal Connect App to Digital Box for cloud connection with EcoStruxure™ solution		
	Box (with Com'X) up to 16 cubicles Maximum of 60 sensors (group of three) Maximum of 2 Satellites Modbus Ethernet Box per Digital Box (daisy chain) Labor: repairing of sensors to Zigbee receiver + Gateway + LAN configuration / per substation	FSR433241
Satellite Modbus ethernet receiver		
	Satellite Box used when substation is split in different rooms Limitations: 60 sensors Connected in daisy chain (Modbus serial network - RJ45)	FSRACOSATMODTCP
Upgrade Easergy Thermal Connect App to Digital Box + EcoStruxure™ solution with 4G/5G Modem		
	Material: Digital Box Labor: repairing of sensors to Zigbee receiver + Gateway + 4G modem configuration / per substation	FSR433251



Life Is On

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December, 2022
998-21782400

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