



EasyPact Solar Solutions

Trusted solutions for
solar farm applications

se.com

Life Is On

Schneider
Electric

Meeting the demand for efficient and **sustainable solar energy**

Solar power soared again in 2024 with a 33% increase, achieving nearly 600 GW in global installations.¹

Global investment in the solar sector is rising while wind investments are slowing down. As a result of this, solar maintenance and supervision services are growing to ensure solar farms operate efficiently, reliably, and sustainably.

What's driving solar development?

Residential, commercial, and industrial customers are turning to renewables to reduce their CO₂ footprint, advance ESG goals, comply with government regulations, and achieve long-term cost savings.

Skyrocketing demand

81%

Of the total renewable energy installed around the world comes from solar¹

x2 in 3 years

Solar production reach 7% of overall electricity generation in 2024¹

¹ [New report: Global solar installations almost double in 2023 but leaves emerging economies in the dark](#)

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Overcoming design, safety, operational, and **financial** challenges

With developers eager to respond to the growing demand for renewable energy, the solar farm market presents significant business opportunities to Schneider Electric partners. Design firms, panel builders, and electrical contractors can help developers overcome four main challenges they face:



Capital costs and time to market

Developers need to design, build, and deliver solar farms faster while optimizing their Levelized Cost of Energy (LCOE), which is the average cost of energy produced by a solar installation over its lifetime.



Operations and maintenance efficiency

To succeed, solar farms need to be highly efficient. Developers must optimize operations while safeguarding people and assets and ensuring system reliability and security.



Energy and revenue demands

Developers need to improve solar farm energy yield and generate new revenue streams in anticipation of the end of their government FITs, the feed-in tariffs that ensure an above-market price for the energy they provide to the grid.



Grid integration and repowering

Developers must help future power grids prepare for the rising demand for clean and renewable power.

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EasyPact Solar Solutions: Ensuring reliability for **string inverter solar farms**

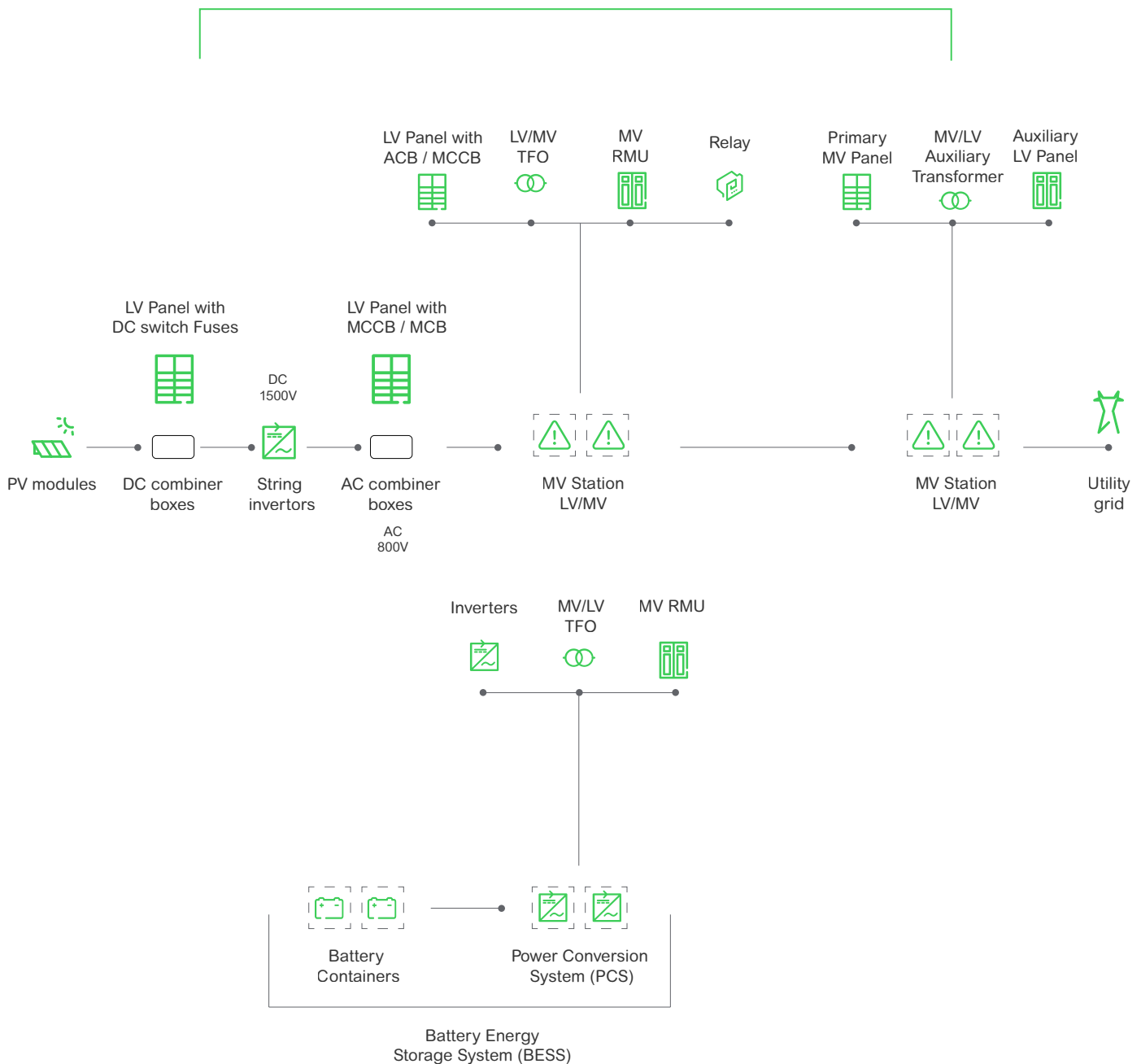
Our medium and low-voltage solutions help optimize the string inverter architectures increasingly preferred for solar farm applications while delivering important benefits to you and your developer customers.

Peace of mind	<ul style="list-style-type: none">• IEC 947-2 certified products• 800 VAC type-tested switchboards• Full documentation and reference designs provided• Worldwide offer availability and after-sales service
Easier operations, better business continuity	<ul style="list-style-type: none">• Circuit breaker performance, convenience, and reliability• Easy and quick resets after tripping• Fast fault identification and isolation• Priority loads maintained during outages
Improved sustainability	<ul style="list-style-type: none">• Increased electrical system efficiency (reduced losses)• Reduced carbon footprint (decarbonized & recycled material choice)• RoHS and REACH compliance with Green Premium products
Improved availability	<ul style="list-style-type: none">• Design flexibility• Easy installation• Thermal monitoring• Higher yield
Better return on investment	<ul style="list-style-type: none">• Optimized LCOE and energy yield with comprehensive end-to-end solutions

EasyPact Solar Solutions for String Inverters architecture

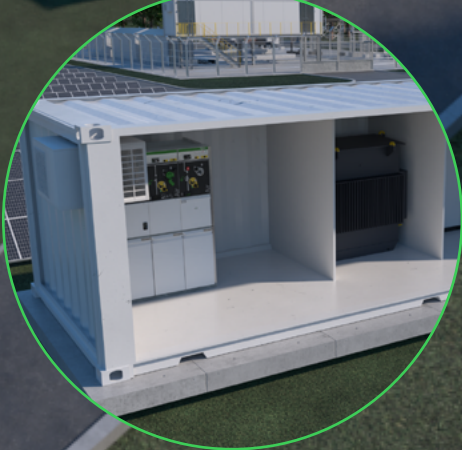
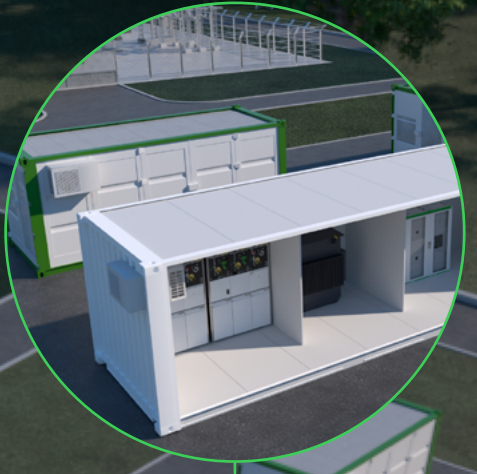
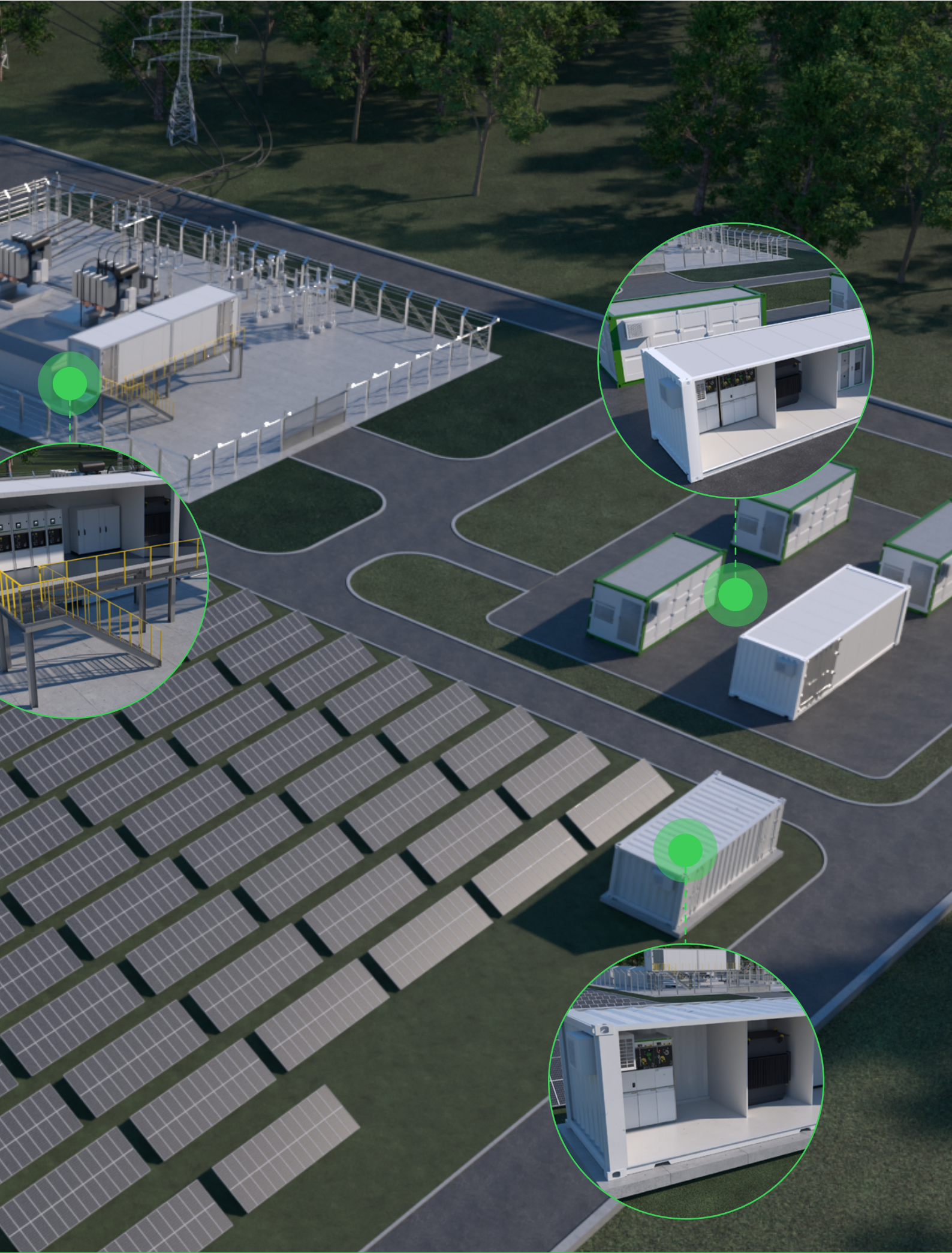
SCADA System

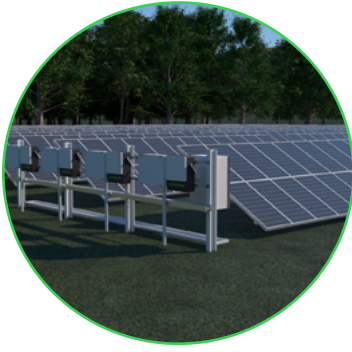
EcoStruxure Power Automation system + Power Plant Controller (PPC)



EasyPact Solar Solutions: Proven and **certified,** **end-to-end**





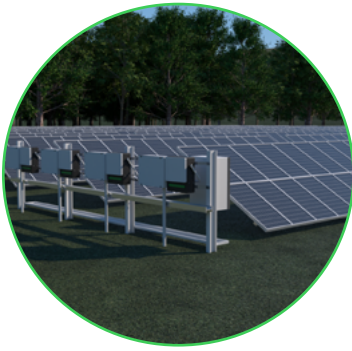


DC array combiner box

Combiner boxes are designed to bundle, protect, and combine PV strings efficiently. The components of a PV system must be able to withstand extreme climatic conditions such as rapid temperature changes, extreme weather events, and constant heat and cold.

Key Schneider Electric components:

- **EasyPact SD DC** - Manual Switch Disconnecter 1500 VDC
- **PanelSet PLM** - Polyester enclosure

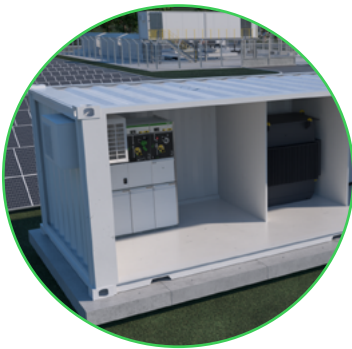


AC array combiner box

AC combiner boxes offer optimal short-circuit and overvoltage protection. Each string inverter can be easily isolated for maintenance tasks. AC combiner boxes help reducing wire connections, improve maintenance and reliability of the PV power generation system.

Key Schneider Electric components:

- **EasyPact Solar** – Molded-Case Circuit Breaker 800 VAC
- **PanelSet PLM** - Polyester enclosure



LV/MV station

Medium-voltage station, a compact step-up power center which is capable of withstanding various types of environments. It offers the highest power density in an energy-efficient and safe solution comprised of MV switchgear, transformer, and LV switchgear

Key Schneider Electric components:

LV equipments

- **EasyPact MVS T3** - Air Circuit Breaker 800 to 4000 A / 800 to 1140 VAC
- **EasyPact Solar** - Molded Case Circuit Breaker 125 to 800 A / 800 VAC
- **FuPacT ISFL** - Fuse Switch Disconnecter 800 VAC
- **PrismaSeT** – Steel floor standing switchboards

MV equipments

- **RM AirSeT** SF6-free RMU and secondary switchgear
- **EasyLogic PM 5000** Power Meter for energy monitoring and network management application
- **PowerLogic T300** for LV/MV station protection, control and monitoring
- **Vigilohm** - Insulation monitoring and Surge protection devices



Connection to Grid substation

A connection to grid substation is vital for connecting a solar farm to the electrical grid.

It performs several functions:

- Step Up Voltage
- Point of Interconnection
- Protection, Control and Grid Code compliance
- Monitoring and Communication

Key Schneider Electric components:

- **GM AirSeT** - SF6-free MV Primary Gas Insulated Switchgear
- **PowerLogic P5 & P7**- Protection Relays for Advanced applications
- **PowerLogic PM 8000 & ION 9000**- Power quality meters

Auxiliary LV Panels:

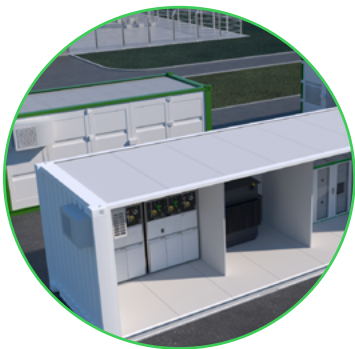
- **EasyPact CVS** - MCCB -16 to 1600 A with adjustable settings
- **Easy UPS** - Uninterruptible Power Supply 1Ph & 3Ph
- **Acti 9 iC60** - Miniature Circuit Breaker up to 63 A
- **PanelSeT SFN** - Steel floor standing modular panel

SCADA and Power Plant Controller

- **EcoStruxure Power Automation System**

Software & Data management

- **AVEVA Connect** - Aggregate, contextualize and share real-time industrial data
- **AVEVA Unify Operations Center** - Manage geographically dispersed operation
- **Ecostruxure Transformer Expert & Asset Advisor** - Condition Monitoring & Predictive Maintenance



Battery Energy Storage System (BESS)

BESS is composed with PCS and battery containers. It enables energy from renewable sources, such as solar from our grid network, to be stored and then released when the national grid requires power

Key Schneider Electric components:

- **RM AirSeT** – SF6 free RMU and secondary switchgear
- **EasyPact MVS T3** – Air Circuit Breaker 800 to 4000 A / 800 to 1140 VAC
- **EasyPact CVS DC NE** – MCCB 100 to 630 A / 1500 VDC
- **EasyPact SD DC** – Manual switch disconnecter 1500 VDC
- **EasyPact MVS DA1** - Switch disconnecter 1500 VDC
- **EasyPact Combined Switch** - Disconnecter and high-voltage DC contactor*

* Not available in all countries. Check your sales contact for more information

EasyPact Solar Offer Panorama

Molded Case Circuit Breakers



EasyPact Solar MCCB

High voltage performance for applications such as PV energy production. Operational voltage is 800VAC.

- From 125 to 800 A
- Breaking capacity from 25 to 50 kA at 800 VAC



EasyPact CVS

- From 16 to 1600 A
- Breaking capacity from 25 to 70 kA at 400/415 VAC



EasyPact CVS DC NE

- From 100 to 630 A
- Breaking capacity from 25 to 30 kA at 1500 VDC

Air Circuit Breakers



EasyPact MVS T3

- From 800 to 4000 A
- Breaking capacity 66kA at 800/1140 VAC

Power Metering & Insulation Monitoring



Vigilohm

Insulation monitoring devices for fault detection and location.



EasyLogic Power Meter (PM5000 range)

Compact, versatile meters for energy monitoring and basic network management applications.

Switch Disconnectors



EasyPact MVS DA1

- From 1600 to 4000 A
- Operating voltage 1500 VDC



EasyPact SD DC

- From 250 to 630 A
- Operating voltage 1500 VDC

Fuse Switch Disconnectors



FuPacT ISFL

- From 160 to 630 A
- Operating voltage up to 800 VAC

Cubicles & Enclosures



PanelSet PLM

Polyester reinforced with fiberglass enclosure



PrismaSeT

Modular metal electrical stand alone switchboards & enclosures

Proven solutions for optimized Solar Farm performance



At Schneider Electric, we are committed to providing our partners and customers with reliable solutions that ensure peace of mind and business continuity. To support this commitment, we have conducted a series of switchboard type tests at 800 VAC on various configurations.

These tests are designed to guarantee full compliance with international standards while delivering optimized breaker density, easy cable fitting, and a simplified installation processes.

Example of type tests performed with 2.6 MW PrismaSeT P switchboard and different set-up of EasyPact Solar circuit breakers.

Test performed

1

IEC 61439

This is the primary international standard for low-voltage switchgear assemblies, which outlines the requirements for design, performance, and testing.

2

Type Testing Requirements

Within IEC 61439, Part 1 and Part 2 detail the type testing procedures for verifying the performance of switchboards, including:

- Temperature rise
- Dielectric properties
- Short-circuit withstand strength up to 36/50 kA - 2000 A - 800 VAC
- Switching and operating characteristics

Connectivity, smart sensors, and services

Featuring continuous thermal monitoring, cloud-based analytics, and services to enhance safety and business continuity.

One of the primary causes of electrical fires in solar installations is faulty power connections, particularly at cables, busbars, and withdrawable circuit breakers when connections are made on-site.

Poor connections can significantly increase electrical contact resistance, leading to overheating and in extreme cases, thermal runaway. This can result in the destruction of switchgear and pose serious safety risks to operators.

Common causes of increased contact resistance include:

- Loose connections due to improper installation or insufficient maintenance (e.g., incorrect tightening torque, loosening from vibration or thermal cycling)
- Damaged contact surfaces caused by corrosion, excessive pressure, or friction

While infrared inspections are commonly used to detect such issues, they are manual, time-consuming, and limited to periodic checks, potentially missing developing problems between inspections.

Main benefits with thermal monitoring



Detect thermal runaways before they lead to electrical fires



Take actions to resolve any faulty connections



Reduce the costs of infrared inspections



Monitor connections that may not be visible during inspections

Key Offers

EcoStruxure Service Plan provides remote monitoring, asset management consulting, and on-site maintenance activities with recommendations from our Schneider Electric service experts.



Gas Analysis with Insulation Decomposition Detection (IDD) Technology



Set of PowerLogic TH110 sensors fixed on the 3 phases of an electrical connection



EcoStruxure Panel Server Wireless Concentrator and Modbus Gateway



PowerLogic CL110 sensors mounted near busway junctions or connection points

App, Analytics and Services



EcoStruxure Service Plan Powered by EcoStruxure Asset Advisor Platform

Connected Products

EcoStruxure Panel Server

LV Switchboard

EcoStruxure Panel Server

LV SMD*(optional HMI)



PowerLogic TH110 Thermal Tag



PowerLogic CL110 Environment Tag



PowerLogic HeatTag Wireless Sensor

Find all details about implementation in Continuous Thermal Monitoring - Digital Application from [EcoStruxure Power Design Guide \(IEC\)](#).



Optimizing performance with **asset management services**

Schneider Electric's end-to-end services ensure solar farm efficiency, reliability, safety, and sustainability for developers while offering our partners an opportunity to create new revenue streams.



Core asset management services

- Monitoring and maintenance of all system components
- Timely repair, retrofit, and renovation, if needed



Advanced asset management services

- Electrical digital twin (ETAP) to allow predictive maintenance
- Power system and quality audits to ensure reliability
- Cybersecurity assessments to optimize safety
- Workforce empowerment training to facilitate operations
- Dynamic maintenance plans to minimize unanticipated downtime



Schneider Electric is the global specialist in energy management and automation, with more than 135,00 employees in over 110 countries.

Amid the tectonic transition to a more electric and digital world, we want to be your trusted partner in sustainability and efficiency as you empower your customers to navigate the New Energy Landscape. Schneider Electric Solar Services is helping to drive the rise of renewables with:



20+

years of experience
in solar plants



12+

GW connected to
the grid since 2000



2.8+

GW monitored by
Schneider Electric



4.4+

GW under service
contracts

Start your journey today, visit:

[EasyPact Solar MCCB](#)

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Head Office

35, rue Joseph Monier
CS 30323
F92506 Rueil-Malmaison
Cedex

www.se.com