Schneider Electric
Solar Business Catalogue

Schneider Electric

Schneider Electric™ has demonstrated its long-term commitment to the development of the Solar industry with the launch of many new products and solutions.

These new offers address the needs expressed by customers in all market segments for competitiveness, reliability, ease of installation and service. We are particularly proud to have been distinguished as one of the Top 3 "most competitively positioned PV inverter companies" by GTM Research, in part thanks to the competitiveness of our new products and solutions.

"Schneider Electric is among **Top 3 Most Competitive Inverter Companies in the world** according to GTM Research."

In the Large Commercial Buildings and PV Power Plants Solutions section of this catalogue, our offer is based on the best-in-class architecture which is standardised around Conext™ Core XC inverters, Conext Control system, our new range of array boxes and various PV boxes which are adapted to local regulations and environmental conditions. This solution package has proven its competitiveness and versatility to numerous customers and projects.

In the grid-tie rooftop market, we have launched a comprehensive series of great products with Conext RL for residential applications, Conext TL for buildings or decentralised farms, a large range of DC and AC protection boxes and Conext Monitor 20, our new communication gateway.

All these products benefit from Schneider Electric's stringent design for reliability process, which includes our proprietary MEOST approach (Multiple Environmental Over-Stress Testing).

Price competitiveness, product reliability and the global service footprint of Schneider Electric combine to bring you unrivalled peace of mind.

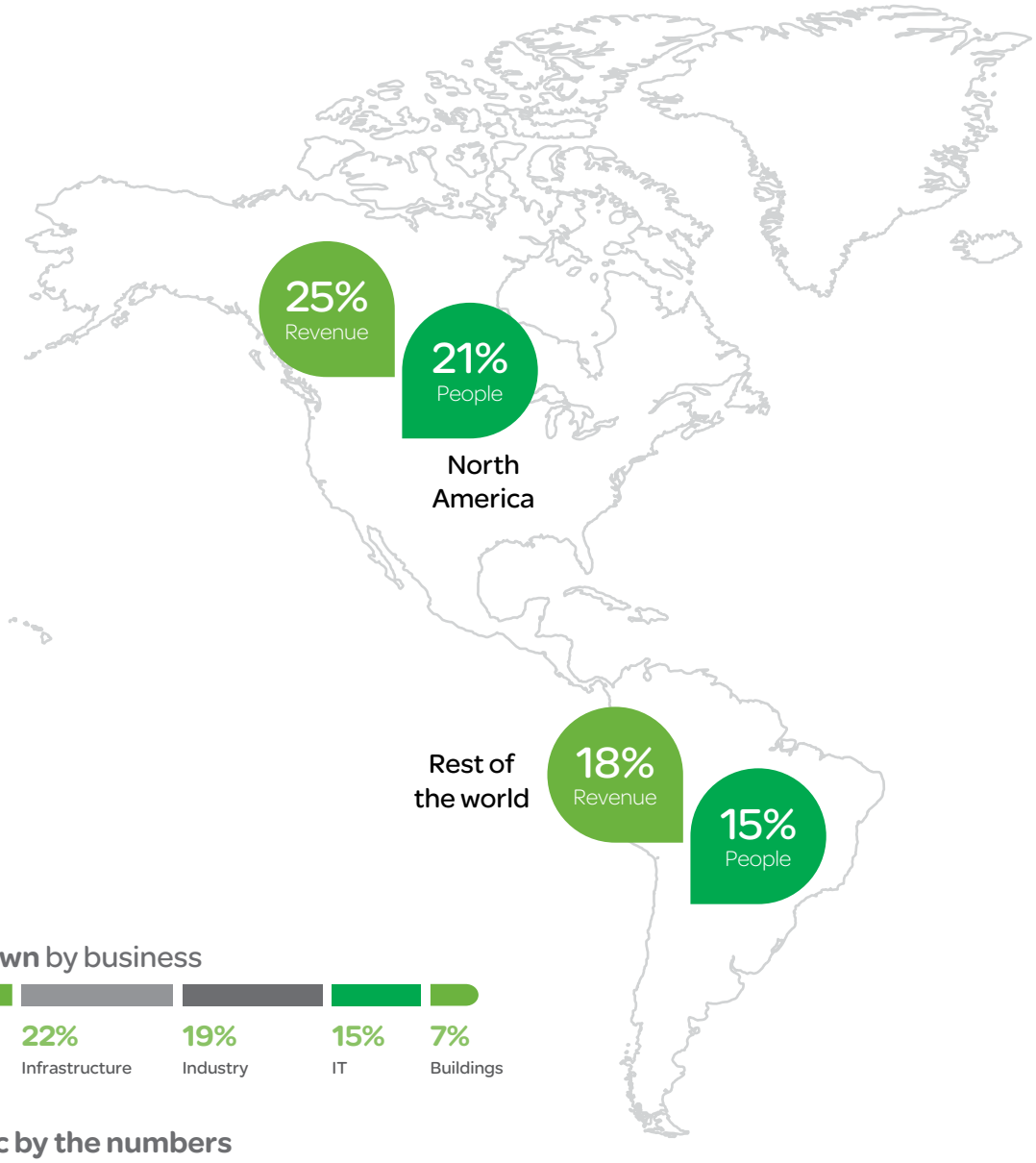
Laurent Bataille
Sr. VP Solar Business

Contents

All products illustrated in this catalog may not be exactly as shown.

Schneider Electric at a glance

As a global specialist in energy management, Schneider Electric has a 177-year legacy of innovation, international scope and corporate responsibility. Across three centuries, we have contributed to the transformation of multiple industries, including iron, steel, shipbuilding and electricity. Today, our 140,000+ employees in over 100 countries bring a singular mission to their work each day: **to help people make the most of their energy.**



Revenue breakdown by business

37%	22%	19%	15%	7%
Power	Infrastructure	Industry	IT	Buildings

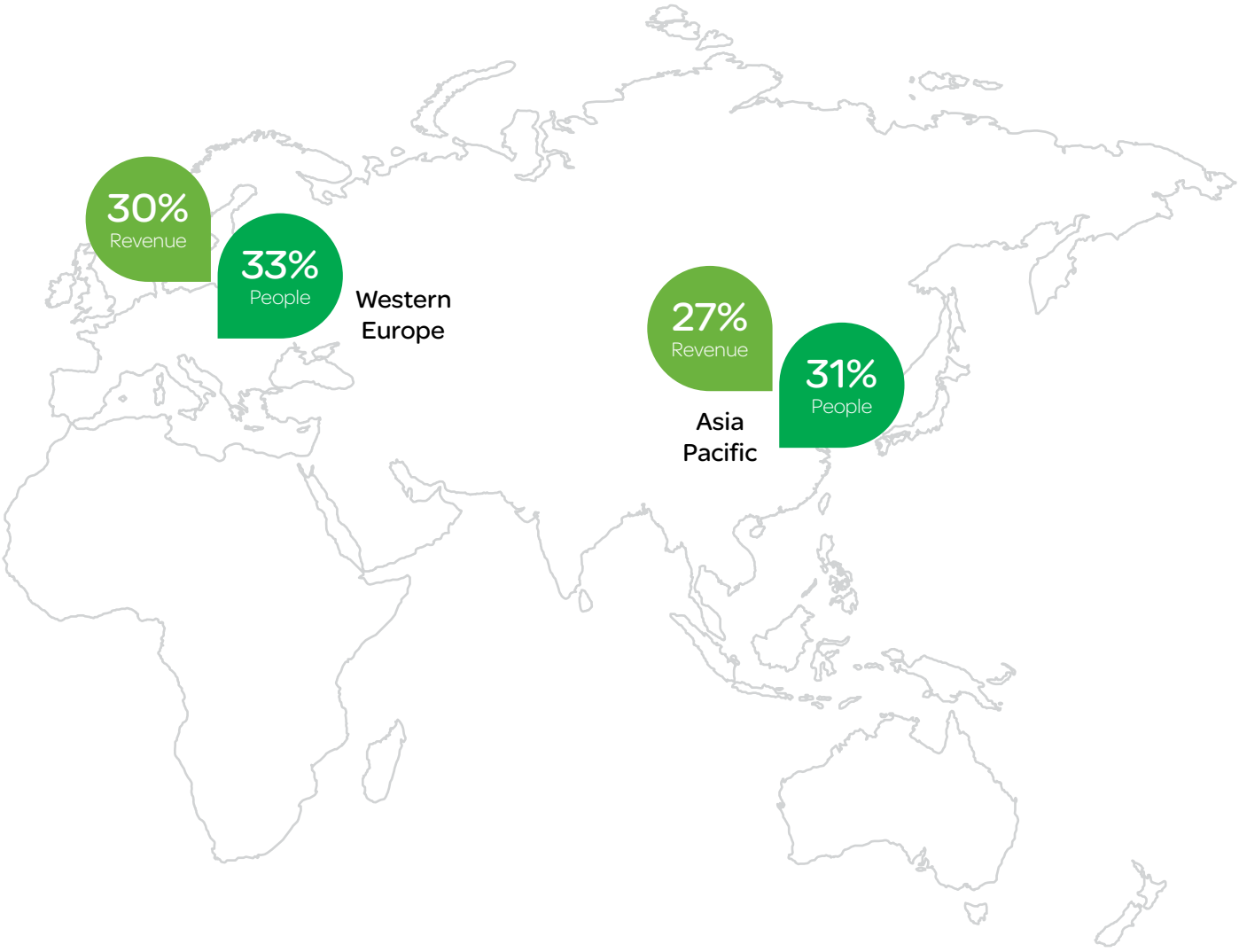
Schneider Electric by the numbers

177
years
of history

€24
billion
in consolidated revenue

140,000
total workforce
in 100+ countries

€1
billion
devoted to R&D representing almost 4.4% of our sales



41%
sales
in new economies

€2.02
billion net income*
+12% vs. 2011

110
volunteers
acting as delegates of the Schneider Electric Foundation in 75 countries

#1 or #2
player
in 90% world group sales

*Adjusted from impairment of goodwill.

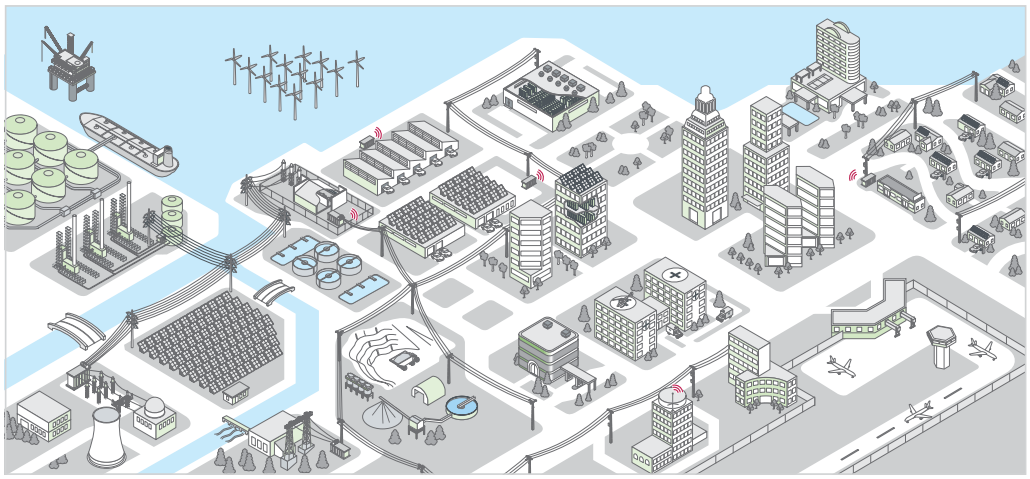
Delivering solutions which align business performance and sustainability

Schneider Electric delivers intelligent solutions across the energy chain, providing performance and sustainability across the grid in towns and cities.

> **Efficiency:** Implementing the right services, systems and technology to reduce energy consumption, cost per kWh and operating expenditure

> **Intelligence:** Accessing smart, real-time data and information which can be shared, optimised and delivered across integrated systems through connected and open platforms, with the right level of information for each user

> **Sustainability:** Coupling efficient solutions with actionable data to provide the capability for any user to optimise energy usage, curb CO2 emissions and improve long-term ROI on CapEx and OpEx



Smart grid

Grid infrastructures are overloaded and in need of repair. They need to become smart to adapt to a more complex environment.

Smart cities

Cities today contain 50% of the world's populations, consume 75% of global energy and give off 80% of greenhouse gas emissions.

Source: UN State of the World Cities Report 2012

Enhancing the smart grid revolution...

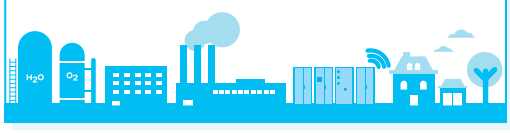
By supporting renewable energy, flexible distribution, active energy efficiency and energy management, electric vehicles and real-time grid management.

Supporting urban efficiency...

By setting the vision, bringing in the technology, working on the integration, adding the innovation and driving collabouration.

Making infrastructure, industry IT, buildings and homes more efficient ...

By enabling up to 30 per cent energy savings, improving productivity, reducing costs, enhancing comfort and increasing security.



Schneider Electric's Solar Solution

Schneider Electric is focused on designing and developing products and solutions for the solar power conversion chain by providing best-in-class global customer services and technical support.

As the solar market goes through a rapid wave of growth, the industry is increasingly concerned about securing the long-term future of installations. Peace of mind is key and not every solar PV company can offer assurance that spare parts, service and technical support will be continually available over the 20+ year life of a solar installation.

Schneider Electric is a bankable partner you can trust for providing superior designed, neatly integrated solutions packages and excellent long term technical support world wide.

Why Partner with Schneider Electric?

> A reliable solution for all projects, no matter the size
> Experience you can depend upon, with world wide leadership in power conversion and electric distribution technologies
> Complete photovoltaic solutions for any size installation from a single supplier
> Global service and support infrastructure with local presence in over 100 countries
> Products are designed and built to the highest standards and are engineered specifically to meet the demanding requirements of your installation

For more information about Schneider Electric and solar solutions, please visit **www.schneider-electric.com/solar/uk**

Schneider Electric is a **bankable partner** which you can trust

Comprehensive global services

> **Global service and on-site support:** with global service and support infrastructure and local presence in over 100 countries, we can support your PV parks anywhere in the world

> **Product warranty and service contracts:** Schneider Electric can provide different service levels to address customer demands, ranging from basic product warranty, preventive maintenance or guaranteed performance of inverters, low voltage components, medium voltage equipments and monitoring system; this wide spectrum of technical competencies of our service teams position Schneider Electric as one of the leader in offering operation and maintenance of the PV plant

> **Commissioning support:** visual inspections, functional testing and system support

> **Technical support:** specialist in system design, installation, safety, system operation and quality

Overview of Global service offering

			Preventive activities		Corrective Activities		
	Spare parts availability	Technical support	Spares costs	Labour costs	Spares costs	Labour costs	Performance guarantee
Warranty					●	●	
Technical support	●	●					
Essential	●	●		●			
Optimum	●	●		●		●	
Elite	●	●	●	●	●	●	
Ultra	●	●	●	●	●	●	●

Choose Schneider Electric for state-of-the-art products and reliable services you can depend upon.

24-hour
technical assistance

Designing robust solar products

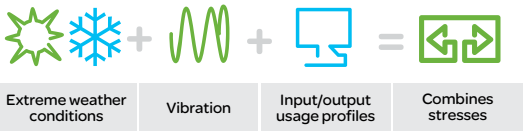
At Schneider Electric, all of our products are designed within stringent guidelines of quality and reliability throughout the product development cycle.

In addition our testing process doesn't stop once the product is launched. As a part of ongoing continuous improvement, we perform ongoing reliability monitoring to ensure the product robustness is maintained.

Key aspects of design for quality and reliability

> WCA (Worst Case Analysis)
> Useful life analysis
> Design standard check
> D-FMEA (Design Failure Modes, Effects Analysis)
> A-FMEA (Application Failure Modes, Effects Analysis)
> FIT/ MTBF (Failure In Time/Mean Time Between Failures) prediction
> List of preventive maintenance parts for field serviceable products
> Reliability testing

MEOST Reliability testing is an accelerated stress test which identifies potential weaknesses which may be uncovered during the life span of the product.



Types of reliability testing during product development cycle

> THB (Temperature Humidity Bias)
> Salt-fog testing
> HALT (Highly Accelerated Life Test):
Product evaluation process during which thermal stress is combined with vibration and the product's functionality is tested at these combined environments
> MEOST (Multiple Environmental Over Stress Testing):
Advanced version of HALT, the difference is in combining more stressors based on product application
STRESSORS: temperature step/shock, vibration, power, in put DC voltage, output AC voltage and frequency cycling
> Custom reliability testing:
Used for our large three phase inverters tested in walk-in chamber

Product life cycle reliability testing

> Qualification of major design improvements
> Continuous reliability monitoring to ensure the same level of reliability throughout the product life cycle

At Schneider Electric's
Solar Business,

customer satisfaction

is everyone's priority

We are committed to bringing a differentiated and superior experience to our customers

- Providing outstanding solutions, products and services
- Addressing customer issues professionally
- Ensuring a consistent experience worldwide
- Complying with the requirements

We develop an exemplary customer-centric culture

- Giving precedence to customer satisfaction over any other priority
- Listening and acting on our customers' feedback
- Delivering on our commitments
- Communicating proactively and transparently

We empower and train our people to make no compromise on quality

- Our managers lead by example
- Our people enjoy autonomy and develop accountability
- We plan, control and relentlessly improve with our business process excellence tools and methodologies
- We recognise and share best practices and attitudes

The ultimate measure of quality is **customer satisfaction**

Why choose **Schneider Electric's** solar products and services?

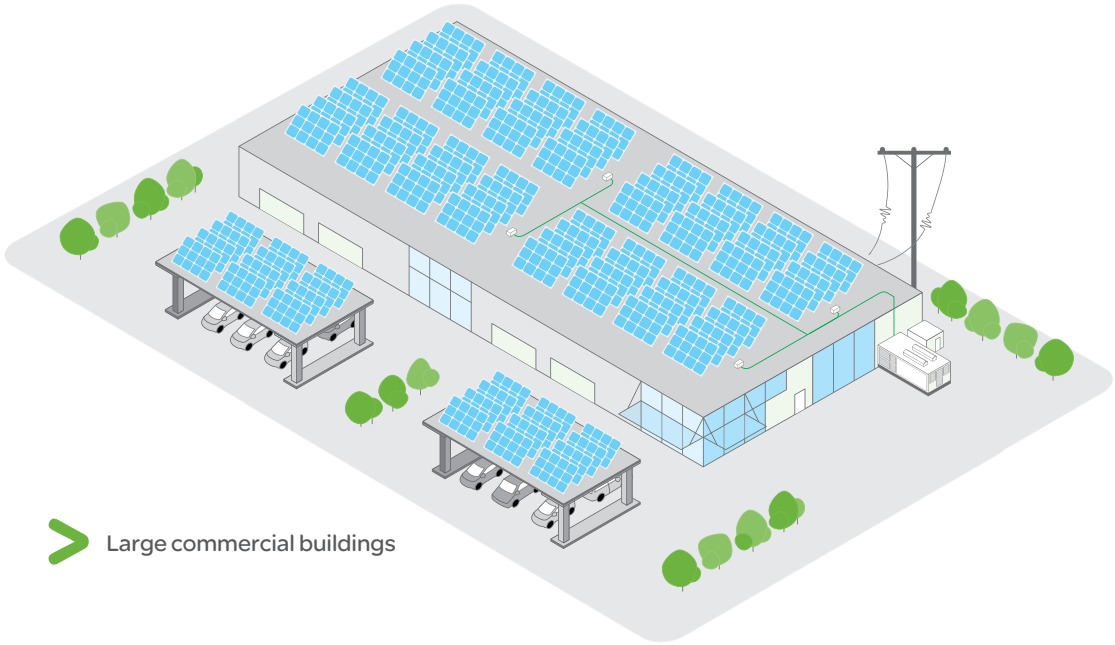
- True bankability
- Higher return on investment
- Designed for reliability
- Flexible
- Easy to service
- Easy to install

Istres (France)

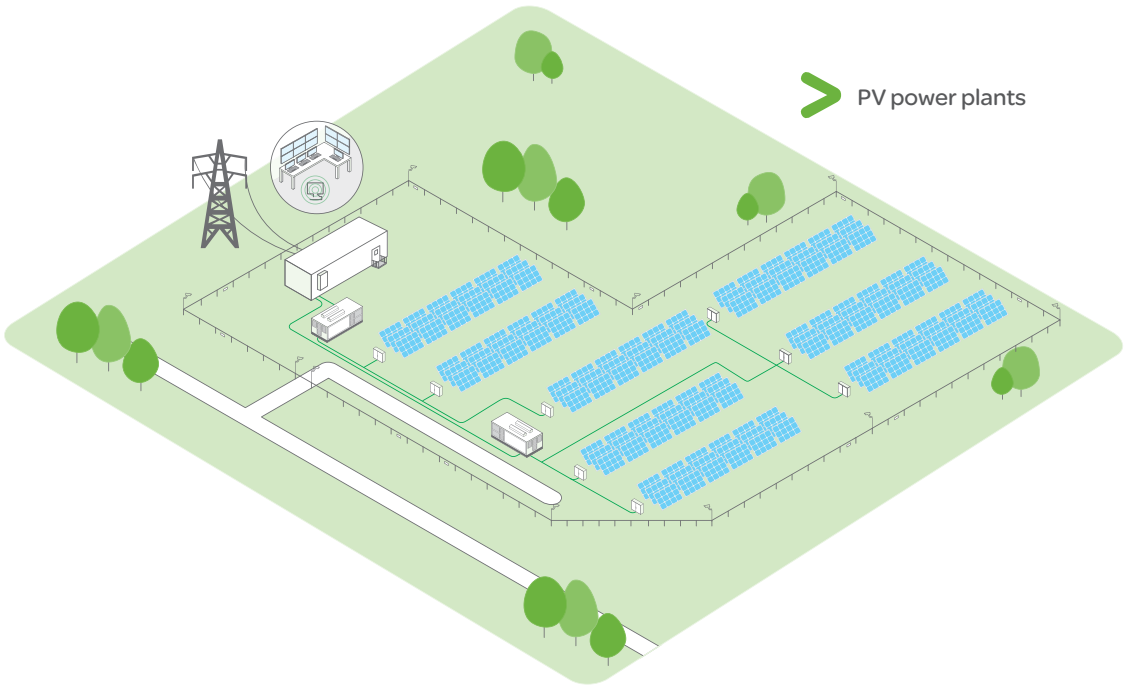
Large commercial buildings and PV power plants solutions

When it comes to large-scale solar projects, Schneider Electric has both the experience and the proven technology to help make your investment a success.

Schneider Electric solutions for PV power plants and large commercial buildings combine proven products with the kind of support only a global company can provide. Our balance-of-system solutions include everything you need to efficiently distribute and manage locally generated solar energy, from panel DC output to the grid connection.



Large commercial buildings

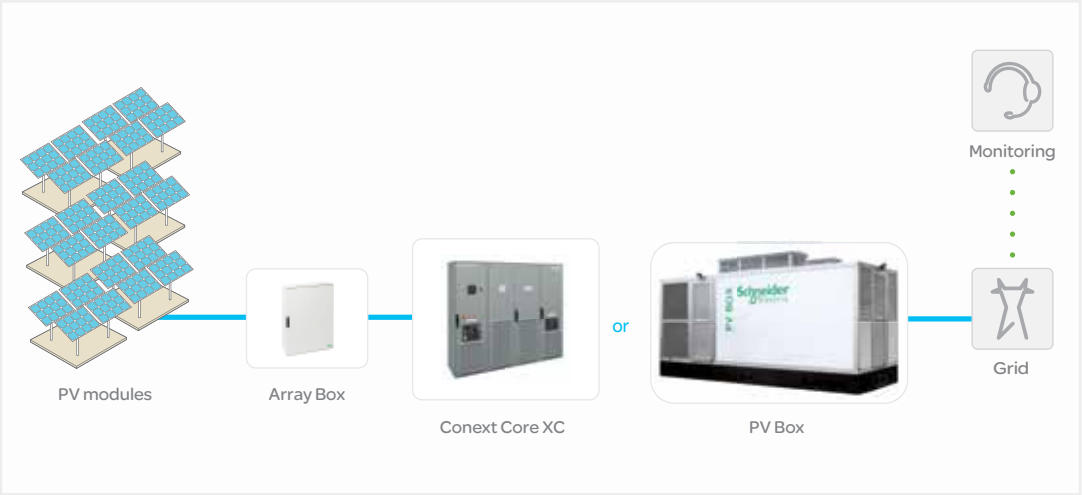


PV power plants

Designing your solar solution

Schneider Electric solutions for large commercial buildings and PV power plants include everything you need to efficiently distribute and manage locally generated solar energy, from panel DC output to the grid connection.

> Large commercial building solutions using the Conext Core XC or the PV Box




Bonnat (France)

A balance-of-system solution from Schneider Electric includes:

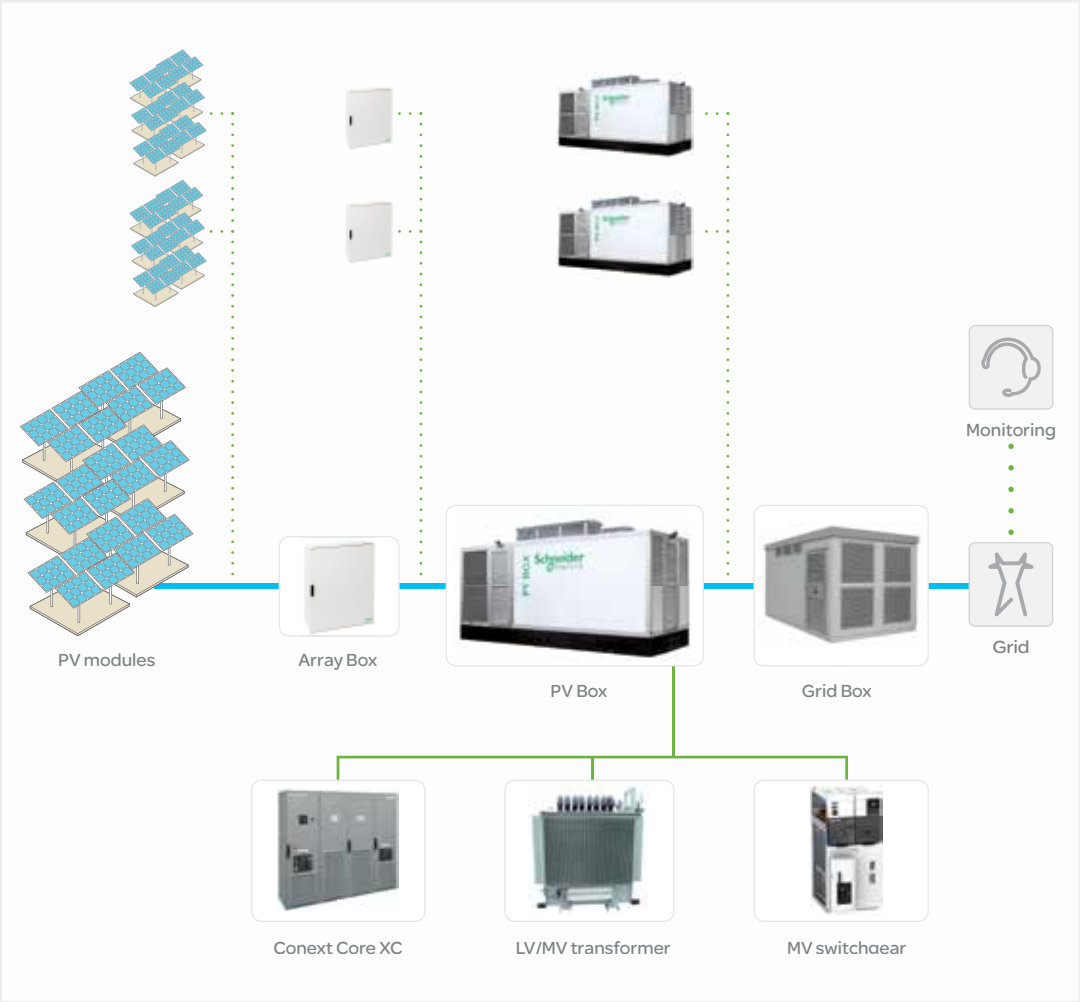
> Power collection and string monitoring

> Power Conversion and integration to the grid

> Supervision,monitoring and control

> Site security

PV power plants solutions using the PV Box




Puglia (Italy)

PV Box

Containerised plug and play power conversion system adapted to customer requirements and local standards

PV Box is a power conversion system. In PV plant installation, it operates between DC field and AC MV grid connection point. The PV Box performs the DC power concentration, the DC/AC conversion and the AC voltage elevation to the grid voltage level. It ensures the protection of the maintenance people and the installation against electrical faults such as short-circuit and lightning. The optimised versions of the PV Box allow a reduction of the balance of systems cost, an increase of the reliability and an improvement of construction lead times.

Why choose PV Box?

True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in industrial power drives, UPS and electrical distribution
- Strong service infrastructure worldwide to support your global needs

Higher return on investment

- Compressed construction lead-times through factory integrated solution
- Reduced transportation, off-loading and on-site labour costs
- Enhanced uptime thanks to qualified and reliable designs

Designed for reliability

- Designed to withstand severe weather conditions
- Undergone extensive safety, quality and reliability risk mitigation
- Robust design through rigorous Custom Reliability Testing

Flexible

- Customisable to be compliant with customer local building codes

Easy to service

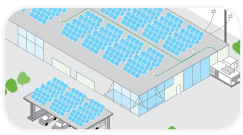
- Fully monitored solution
- Convenient and safe enclosure design for maintenance purposes
- Local Schneider Electric service and maintenance available in 100+ countries

Easy to install

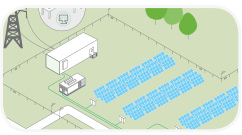
- Ease in transportation due to its compact and light design (<20t, minimised width, height and length for easy shipping by road and by sea)
- Solution delivered pre-assembled, configured and tested to reduce on-site labour and project duration

PV Box

Product applications



Large commercial



Centralised PV plants

Device short name	PV Box 1080	PV Box 1260	PV Box 1360
Electrical specifications			
Input ratings (DC)			
Recommended PV power	2 x 621 kWp	2 x 725 kWp	2 x 782 kWp
Voltage range, MPPT	440 - 800 V (at PF=1)	510 - 800 V (at PF=1)	550 - 800 V (at PF=1)
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Max. DC current	2 x 1280 A	2 x 1280 A	2 x 1280 A
Output ratings (AC)			
Nominal power	1080 kVA	1260 kVA	1360 kVA
Nominal voltage	up to 36 kV	up to 36 kV	up to 36 kV
Frequency	50 Hz	50 Hz	50 Hz
General specifications			
Inverters			
Power rating	2 x XC 540	2 x XC 630	2 x XC 680
DC recombiner			
Standard configuration 1	2 x 6 input channels max. with fuses between 350 and 400 A	2 x 6 input channels max. with fuses between 350 and 400 A	2 x 6 input channels max. with fuses between 350 and 400 A
Standard configuration 2	2 x 8 input channels max. with fuses between 160 and 350 A	2 x 8 input channels max. with fuses between 160 and 350 A	2 x 8 input channels max. with fuses between 160 and 350 A
Transformer			
Power rating	1080 kVA	1260 kVA	1360 kVA
Standard	IEC 60076	IEC 60076	IEC 60076
MV protection			
Grid voltage < 24 kV	RM6	RM6	RM6
Grid voltage 24 to 36 kV	Flusarc	Flusarc	Flusarc
Auxiliary power supply			
Voltage / frequency	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Power rating	2500 VA, ensured by UPS	2500 VA, ensured by UPS	2500 VA, ensured by UPS
Enclosure			
Dimensions			
During transportation (H x W x D)	310 x 250 x 886 cm	310 x 250 x 886 cm	310 x 250 x 886 cm
Installed on site (H x W x D)	260 x 250 x 886 cm	260 x 250 x 886 cm	260 x 250 x 886 cm
Weight			
Weight with standard content	< 20 Tons	< 20 Tons	< 20 Tons
Layout			
Subdivision	Fully separated LV and MV compartments	Fully separated LV and MV compartments	Fully separated LV and MV compartments
Cooling			
LV compartment	Forced, ensured by inverter fans. No extra fans	Forced, ensured by inverter fans. No extra fans	Forced, ensured by inverter fans. No extra fans
MV compartment	Natural	Natural	Natural
IP grade			
LV compartment	IP54 (with filters)	IP54 (with filters)	IP54 (with filters)
Transformer / MV protection	IP21 / IP33	IP21 / IP33	IP21 / IP33
Operating conditions			
Operating temperature range	-10°C / +45°C, power derating for higher ambient		
Max. relative humidity	95% non condensing		
Altitude	< 1500 m		
Max. solar irradiance	1200 W / m2		
Max. wind speed	123 km / h		
Max. snow load	250 kg / m2		
Seisms	Peak horizontal acceleration up to 0.3* g		
Mechanically active pollution	< 0.2 mg / m3		
Chemically active pollution	Rural and suburban environment		
Other features			
Lighting	Indoor and outdoor lighting		
Energy supply for servicing	Socket outlets		
Heating	Heater with thermostat		
Safety	Emergency lighting, safety and information kit according to IEC 62271-202		

Specifications are subject to change without notice.

Conext™ Core XC series central inverters

High availability and enhanced efficiency from a provider you can trust

The Conext Core XC Series is a new line of central inverters designed for high efficiency and flexibility for any PV panel type and installation. The Conext Core XC Series has peak efficiencies of 98.9% and its flexibility allows the inverter to be configured with voltage and power outputs up to 680 kW. In addition, the Conext Core XC Series is designed to allow for DC inputs up to 1000 Vdc for longer string lengths. It contains the latest grid management features to meet global utility requirements.

Why choose Conext Core XC?

True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in industrial power drives, UPS and electrical distribution
- Strong service infrastructure worldwide to support your global needs

Higher return on investment

- Best in class efficiency: 98.9% peak efficiency and 98.6% weighted EU
- Increased uptime due to high reliability and comprehensive global service network

Designed for reliability

- Robust design through rigorous Custom Reliability Testing

Flexible

- Variety of power outputs from 540 kW to 680 kW
- Full grid management features including voltage/frequency high and low ride through, reactive current support, VAR control and frequency based active power control
- Configurable firmware to allow for easy adjustments to changing utility requirements

Easy to service

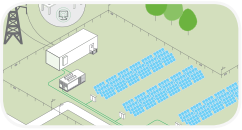
- Integrated switchgear using Masterpact NW air circuit breakers
- Full suite of alarms and troubleshooting tools allow for remote diagnostics

Easy to install

- Compact footprint for easy integration into compact enclosures
- Integrated AC and DC switchgear standard
- In-built hardware for 1000 VDC start-up and LVRT features

Product applications

Large commercial



Centralised PV plants

Device short name	XC 540	XC 630	XC 680
Electrical specifications			
Input (DC)			
Suggested photovoltaic power	621 kW	725 kW	782 kW
Input voltage range, MPPT	440 - 800 V (at PF=1)	510 - 800 V (at PF=1)	550 - 800 V (at PF=1)
Input voltage range, operating	440 - 850 V	510 - 850 V	550 - 850 V
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Max. input current	1280 A	1280 A	1280 A
Output (AC)			
Nominal output power	540 kVA	630 kVA	680 kVA
Output voltage	300 V	350 V	380 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Nominal output current	1040 A	1040 A	1040 A
Power Factor	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag
Harmonic distortion	< 3% at rated power	< 3% at rated power	< 3% at rated power
Efficiency (to IEC61683)			
Maximum (@ 50Hz)	98.5%	98.7%	98.9%
European (@ 50Hz)	98.3%	98.4%	98.6%
CEC (@ 60Hz)	98.5%	98.5%	98.7%
General specifications			
Power consumption, night time	< 100 W	< 100 W	< 100 W
IP degree of protection	IP20	IP20	IP20
Enclosure material	Steel	Steel	Steel
Product weight	1590.0 kg (3505.0 lb)	1590.0 kg (3505.0 lb)	1590.0 kg (3505.0 lb)
Product dimensions (H x W x D)	208.5 x 240.0 x 66.0 cm (82.0 x 94.5 x 26.0 in)	208.5 x 240.0 x 66.0 cm (82.0 x 94.5 x 26.0 in)	208.5 x 240.0 x 66.0 cm (82.0 x 94.5 x 26.0 in)
Ambient air temperature for operation	-10°C to 45°C (14ºF to 113ºF) full power. Power derating to 50°C		
Operating altitude	1000 m, derating for higher altitudes		
Relative humidity	0 to 95% non-condensing		
Features and options			
Type of cooling	Temperature-dependent forced convection cooling		
Display type	LCD multifunction removable display standard		
Communication interface	RS485/Modbus standard		
AC/DC disconnect	Load break rated DC disconnect and AC circuit breaker standard		
Ground fault detection/interruption	Optional isolation monitoring relay or GFDI with circuit breaker		
Sub-array combiner	Optional external combiners with various quantities and trip ratings		
Regulatory approvals			
Conext Core XC Series are CE marked for the EMC Directive (EN61000-6-2 and EN61000-6-4) and Low Voltage Directive (EN50178)			
Conext Core XC Series complies	with the French order of April 23, 2008		
	IEC 61727, PO 12.3 (Spain), French Order of April 23, 2008 (France), US-MV (FERC 661/661A, FRCC, WECC, NERC PRC-024-1), BDEW (Germany)		

Specifications are subject to change without notice. Other input voltage windows and power outputs available.

Conext Control

String to grid monitoring and control system for PV power plants

Conext Control is the global modular monitoring and control solution for large photovoltaic installations. It is designed to efficiently operate any site by providing site technicians the means to make prompt decisions, analyse long-term trends and manage the life cycle performance of your assets.

Conext Control also includes plant control features, enabling smooth integration of PV installations on the grid and implementation of complex grid support services

Why choose Conext Control?

True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in automation, SCADA and process control in diverse industries
- Strong service infrastructure worldwide to support your global needs

Higher return on investment

- CAPEX and feature level adapted to any need
- Minimises OPEX
- Improves energy harvest
- Contributes to extend equipment life duration

Designed for reliability

- Robust design through rigorous Custom Reliability Testing

Flexible

- Various features levels (Optimum+, Optimum, Essential) to meet any customer requirements
- Modular hardware and software based on standardised bricks

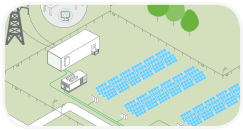
Easy to service

- Complete multi-site solution including data acqusition, remote control, grid interaction management, supervison, data storage and analysis

Easy to install

- An easy to adapt control system able to withstand harsh environments

Product applications



Utility scale power plants

Large commercial rooftops

Conext Control		Optimum +	Optimum	Essential
Monitoring features				
PV Box	Inverters	•	•	•
	Transformer (fault)	•	•	•
	Transformer (pre-alarm)	•	•	
	RMU status	•	•	
	RMU protection relay	•	•	•
	LV switchboard	•	•	
	Energy reserve	• (if installed)	• (if installed)	
	Weather sensors	• (if installed)	• (if installed)	
	Safety sensors	• (if installed)	• (if installed)	
	Sub-array current acquisition		•	•
Array Box	String current acquisition	•		
	Plane-of-array pyranometer	• (if installed)		
	Back-of-module temperature	• (if installed)		
	Electrical devices status	•		
Grid Box	Grid coupling breaker status	•	•	•
	Feeder status	•	•	•
	Feeder protection relays	•	•	•
	LV switchboard	•	•	•
	Energy reserve	• (if installed)	• (if installed)	• (if installed)
	Weather station	• (if installed)	• (if installed)	• (if installed)
	Safety sensors acquisition	• (if installed)	• (if installed)	• (if installed)
Monitoring and control system	2 seconds acquisition cycle	•	•	•
	Time synchronisation	•	•	•
	String failure detection	•		
	Sub-array failure detection		•	•
	1' data averaging	•	•	•
	1' data and alarm timestamping	•	•	•
	1' data and alarm storage	• (up to 40 days)	• (up to 40 days)	• (up to 40 days)
	Communications status	•	•	•
Control features				
PV Box	Inverter remote control	•	•	•
	Inverter (P, Q) fast control	• (if installed)	• (if installed)	• (if installed)
Array Box	Main switch remote control (LOTO)	• (if installed)		
Grid Box	Grid coupling breaker remote control	•	•	•
	RMU remote control	•	•	•
	Coupling / uncoupling management	•	•	•
	Grid operator interface	• (if installed)	• (if installed)	• (if installed)
	Plant controller	• (on demand)	• (on demand)	• (on demand)
Supervision and data analysis features				
Multi-site management		•	•	•
Operator interface	Client server access (ViewX)	•	•	•
	Web access (WebX)	•	•	•
Real time	Predefined	•	•	•
synoptic views	Customised	• (on demand)	• (on demand)	• (on demand)
Alarming	Real time alarming	•	•	•
	Alarm filtering (root cause display)	•	•	•
Alerting	SMS or e-mail	•	•	•
Key performance	PR, AL, Energy not supplied	•	•	•
	Site scorecard	•	•	•
Reports	Predefined	•	•	•
	Customised	• (on demand)	• (on demand)	• (on demand)
Trend analysis		•	•	•
Long term storage	SQL database	• (up to 20 years)	• (up to 20 years)	• (up to 20 years)
Optional interface	OPC AE, OPC DA, HDA, OPC HDA	• (on demand)	• (on demand)	• (on demand)
Hardware configuration				
PV Box	Optimum + monitoring cabinet	•		
	Optimum monitoring cabinet		•	
	Essential monitoring cabinet			•
Grid Box	Grid Box monitoring cabinet	•	•	•
	Multi-PV Box monitoring cabinet			•
	SCADA / SQL server cabinet*	•	•	•
Software configuration				
Application software	Conext Control	•	•	•
Supervision software	Clear Scada (see table below)	•	•	•

Power plant size	Recommended reference	Part number	# of monitoring points	# of web clients
< 5 MWp	Clear Scada PV 5	TBUCOEM-7500 PV	7500	5
5 to 10 MWp	Clear Scada PV 10	TBUCOEM-015 KPV	15000	6
10 to 20 MWp	Clear Scada PV 20	TBUCOEM-025 KPV	25000	8
20 to 40 MWP	Clear Scada PV 40	TBUCOEM-050 KPV	50000	10
	Extra web client	TBUCOEM-0001 CWC		1

Specifications are subject to change without notice. *The SCADA / SQL database may be alternatively hosted in a remote data center.

Array Box

Protect and enhance the performance of your photovoltaic installation

An Array Box is a PV string combiner box installed between the PV modules and the inverter, providing protection and performance monitoring to your PV power plant.

Why choose Array Box?

True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in industrial power drives, UPS and electrical distribution
- Strong service infrastructure worldwide to support your global needs

Higher return on investment

- Reduced CAPEX: Highly cost competitive range, offers capability to connect weather sensors
- Reduced OPEX: precise power production tracking, detection of PV modules failure and aging

Designed for reliability

- Resistant to corrosion and pollution thanks to the use of an isolating polyester enclosure reinforced with fibreglass
- Optimal cooling of the switch-disconnector and PV fuses to increase their useful life
- Undergone extensive safety, quality and reliability testing
- Robust design through rigorous Custom Reliability Testing

Flexible

- Fits every PV plant design and module technology with a range of 8/16/24 input channels and 160/300 A STC output currents
- Range available with and without monitoring of string currents
- On-field weather sensors easily connected inside the Array Box to avoid any additional equipment

Easy to service

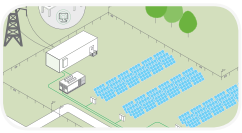
- Conext Control™ identifies the service needs of the Array Box
- Motorised switch controlled remotely by Conext Control accelerates lock-out / tag-out procedure and allows an easy return to operation

Easy to install

- Mounting on a support bracket or on a plinth for independence to the racking system, or hanged on the racking system for less civil work
- Capabilities to directly connect up to 2 PV string cables and 2 DC output cables per polarity

Product applications

Large commercial



Centralised PV plants

Device short name	AB08-160	AB16-160	AB16-300	AB24-300
Electrical specifications				
DC inputs				
Number of inputs	8	16	16	24
Max. voltage in open circuit	1000 Vdc	1000 Vdc	1000 Vdc	1000 Vdc
Max. input current in short circuit	25 A	25 A	25 A	25 A
Max. input current in short circuit at STC	20 A	20 A	20 A	20 A
DC output				
Max. output current in short circuit				
at ambient temperature ≤ 40°C	200 A	200 A	375 A	375 A
at ambient temperature ≤ 45°C	180 A	200 A	350 A	350 A
at ambient temperature ≤ 50°C	160 A	200 A	315 A	315 A
Max. output current in short circuit at STC				
at ambient temperature ≤ 40°C	160 A	160 A	300 A	300 A
at ambient temperature ≤ 45°C	145 A	160 A	280 A	280 A
at ambient temperature ≤ 50°C	125 A	160 A	250 A	250 A
AC supply*				
Voltage at 50/60 Hz	230 V + 10 / -15%	230 V + 10 / -15%	230 V + 10 / -15%	230 V + 10 / -15%
Environmental specifications (in operation)				
Ambient temperature	-25°C to +50°C, above contact Schneider Electric	-25°C to +50°C, above contact Schneider Electric	-25°C to +50°C, above contact Schneider Electric	-25°C to +50°C, above contact Schneider Electric
Relative humidity	0 to 100% condensing	0 to 100% condensing	0 to 100% condensing	0 to 100% condensing
Altitude	0 to 2000 m without derating	0 to 2000 m without derating	0 to 2000 m without derating	0 to 2000 m without derating
Mechanical specifications				
Enclosure				
Type	Outdoor use, full insulating cabinet (polyester reinforced with fibreglass)			
Fire withstand	Self-extinguishing (does not propagate fire during the glow-wire test at 960 °C), halogen-free			
Color	RAL 7032, grey	RAL 7032, grey	RAL 7032, grey	RAL 7032, grey
Product				
Dimensions (H x W x D)	84.7 x 63.6 x 30.0 cm (33.3 x 25.0 x 11.8 in)	105.6 x 85.2 x 35.0 cm (41.6 x 33.5 x 13.8 in)	105.6 x 85.2 x 35.0 cm (41.6 x 33.5 x 13.8 in)	105.6 x 85.2 x 35.0 cm (41.6 x 33.5 x 13.8 in)
Weight (essential / monitored / controlled)	33.0 / 37.0 / 40.0 kg (72.8 / 81.6 / 88.1 lb)	58.0 / 62.0 / 65.0 kg (127.9 / 136.7 / 143.3 lb)	63.0 / 67.0 / 71.0 kg (138.9 / 147.7 / 156.5 lb)	67.0 / 71.0 / 75.0 kg (147.7 / 156.5 / 165.3 lb)
Mounting	Floor-standing on support, wall-fixing or hanging with lugs (must be installed protected from direct sunshine)			
Degrees of protection	IP54 (IP55 with optional covers), IK10			
Features				
Protection				
DC inputs overcurrent protection	Protection on both polarities, gPV fuses, size 10 x 38 (fuses not provided with product)			
DC overvoltage protection	Surge arrester, 1000 Vdc, type 2, Imax 40 KA			
AC supply overvoltage protection*	Surge arrester, 230 Vac, type 2, Imax 40 KA			
Electric shock protection	Class II equipment			
Monitoring and control*				
DC input currents*	0 to 30 A, accuracy +/- 0.5% full scale (one measurement per input)			
DC voltage*	0 to 1000 V, accuracy +/- 0.5%			
Internal temperature*	-30 to +120°C, accuracy +/- 1°C			
Temperature sensor input**	-30 to +120°C, accuracy +/- 1°C, for external PT1000 2 wires temperature sensor			
2 x irradiance sensor inputs**	0 to 1600 W/m², accuracy +/- 0.5% full scale, for external 4-20 mA irradiance sensor			
Communication*	Profibus DP, RS485 link			
Switch disconnector remote control***	Motor pack and MX shunt release			
Compliance				
LV switchgear	IEC / EN 61439-1 and 61439-2			
CE marking	According LV directive 2006 / 95 / CE and EMC directive 2004 / 108 / CE			
Available models				
Essential: protection only	PVSAB31101	PVSAB31201	PVSAB31301	PVSAB31401
Monitored: protection and monitoring	PVSAB31111	PVSAB31211	PVSAB31311	PVSAB31411
Controlled: Protection, monitoring and switch control	PVSAB31121	PVSAB31221	PVSAB31321	PVSAB31421
Optional weather module*	PVSAB31021	PVSAB31021	PVSAB31021	PVSAB31021
Accessories				
Support bracket for roof-mounting	Product no. NSYCOCNS1400 Product no. NSYCOCNS1800 see page 33 for more details			
Support bracket for ground-mounting	Product no. NSYCOCNS1800 SPECIAL see page 33 for more details			
Plinth for ground-mounting	For AB31-08 models product no. NSYZM263 For AB31-16/24 moderls product no. NSYZM283 see page 33 for more details			
Sealing cover IP55	Product no. NSYCAP125LZF see page 33 for more details			
Set of 4 x lugs for wall-mounting	Product no. NSYPFPLM see page 33 for more details			
Set of 4 x feet for ground-mounting with plinths	Product no. NSYAEBFZ see page 33 for more details			

Specifications are subject to change without notice. *For monitored and controlled models. ** With optional weather sensors connection module. ***For controlled models.

MV/LV offer (CE compliant)

RM6

The RM6 is a compact, self-contained totally insulated switchgear which comprises 1 to 4 integrated, low dimension functional units. It enables the connection, supply and protection of transformers on an open ring or radial network. Available up to 24 kV.

SM6

The SM6 is a modular, comprehensive range of metal-enclosed switchgear and control gear units up to 24 kV. SM6 units are used for the MV section in MV/LV transformer substations in public distribution systems and MV consumer or distribution substations up to 36 kV.

Flusarc 36

The Flusarc 36 is a medium voltage switchgear, suitable for 36 kV rated voltage and specifically conceived for the secondary distribution substations in MV with either ring or radial type networks. With its flexibility and low operating cost, is the ideal choice for utilities all over the world, in every environment.

Minera HE

Ultra high efficiency amorphous distribution transformers up to 1250 kVA and 36 kV, 50 / 60 Hz.

Minera PV

High efficiency oil immersed transformer for photovoltaic systems up to 1600 kVA and 36 kV, 50 / 60 Hz.

MV/LV offer (UL and IEEE compliant)

Solar disconnect switch

The 1000 Vdc disconnect switch functions as a local disconnect for a string of PV panels and is IEC 60947 and UL compliant for use in photovoltaic systems at a maximum of 1000 Vdc. This compact disconnect is available in both 100 and 200 amp, 2-pole and 4-pole versions.

Heavy duty safety switches (fusible and non-fusible) on direct current and photovoltaic systems

Schneider Electric™ provides a solar disconnect switch solution encompassing all of the quality, durability and ease of use for photovoltaic applications. The product offering spans 30 – 100 A, 2- and 3-pole fusible and non-fusible heavy duty safety switches. All Square D® brand heavy duty safety switches with dc ratings (2 and 3-pole fusible and non-fusible) are Underwriters Labouratories® (UL®) Listed for use on DC applications when properly wired.

PowerLogic metering

Schneider Electric offers a full portfolio of metering and monitoring products and solutions, scaleable from simple metering and analysis to remote, online enterprise wide power management solutions. Whether you are an energy supplier or consumer, our integrated solutions provide the tools to deliver fast and quantifiable payback by helping you to manage the quality and cost of your energy.

Padmount liquid transformers

Schneider Eletric three-phase, pad-mounted, liquid-filled transformers for use on underground power distribution systems, meet modern design requirements for flexibility and provide a low profile, visually pleasing installation. Construction allows installation in locations accessible to the general public without the need for protective fencing or vaults.

Accessories for the Array Box

Support bracket for roof-mounting and ground-mounting

(For roof-mounting NSYCOCNS1400, NSYCOCNS1800, for ground-mounting NSYCOCNS1800 SPECIAL)

Support bracket with anti-tilt kit. In roof-mounting, it can be used when the Array Box cannot be hung from a wall or a post. In ground-mounting, it can be partially buried and it is an alternative to the use of plinths.

Plinth for ground-mounting

(NSYZM263 for AB31-08 models, NSYZM283 for AB31-16/24 models)

Support for Array Box in polyester material reinforced with fibreglass. Plinth height of 200 mm stackable to obtain a 400-mm plinth.

The frontal parts of the plinth can be opened and removed for easier cable installation. In stacked position, the bottom plinth can be partially buried.

Sealing cover IP55

(NSYCAP125LZF)

Protection of a ventilation grille from any direct spray. It provides an efficient air flow for cooling and a true IP 55 rating. The cover is placed over the grille with a filter located at the bottom of the cover to prevent the entry of particles.

Set of 4 x lugs for wall-mounting

(NSYPFPLM)

Set of four lugs delivered with fixings, in polyamide reinforced with fibreglass, for fixing Array Box by the front face.

Set of 4 x feet for ground-mounting with plinths

(NSYAEBFZ)

Set of four feet with a standard length of 750 mm to be attached to one plinth and allowing to partially bury the plinth before completion of the floor. Possibility of horizontal adjustment of the plinth.

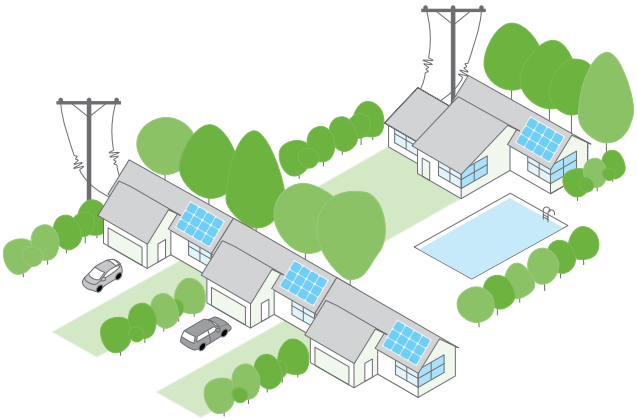
For more products and information please visit our website at www.schneider-electric.com/solar/uk


Bonne
Energie

Grid-tie residential and commercial building solutions

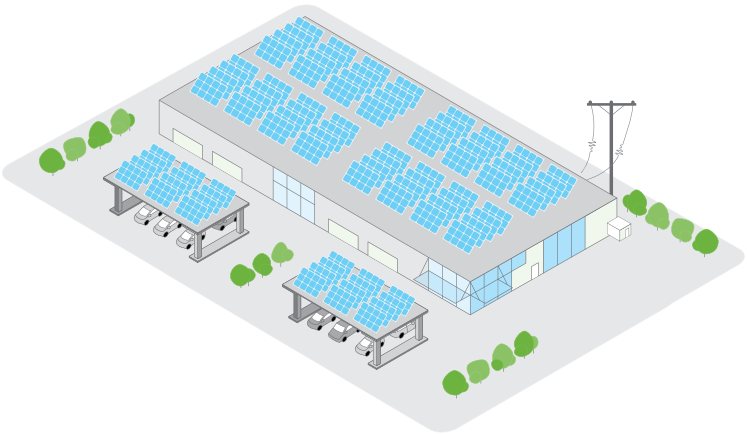
For any solar application, it's critical that the solution is flexible enough to meet your needs and deliver the greatest possible return on investment.

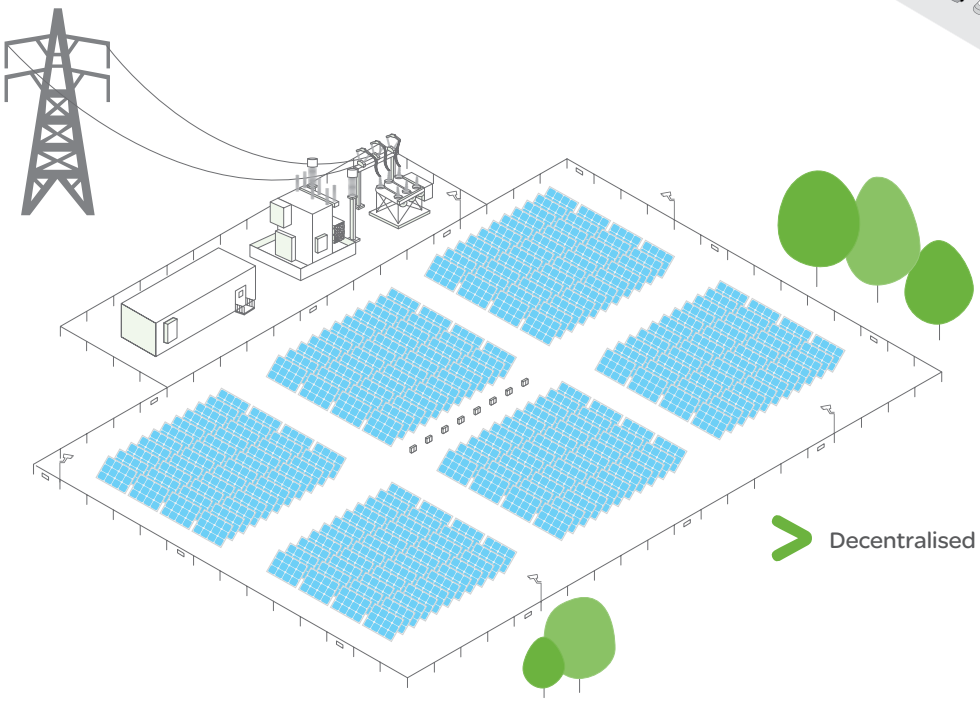
Schneider Electric offer a complete portfolio of reliable, easy-to-install grid-tie residential and commercial building products, supported by our global service infrastructure – all from a bankable partner which you can trust.



> Residential buildings

> Commercial buildings and carports



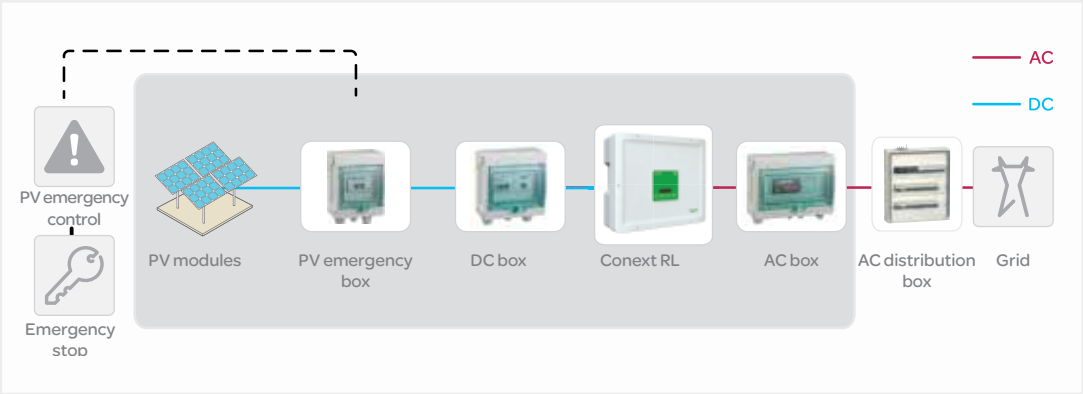


> Decentralised PV plants

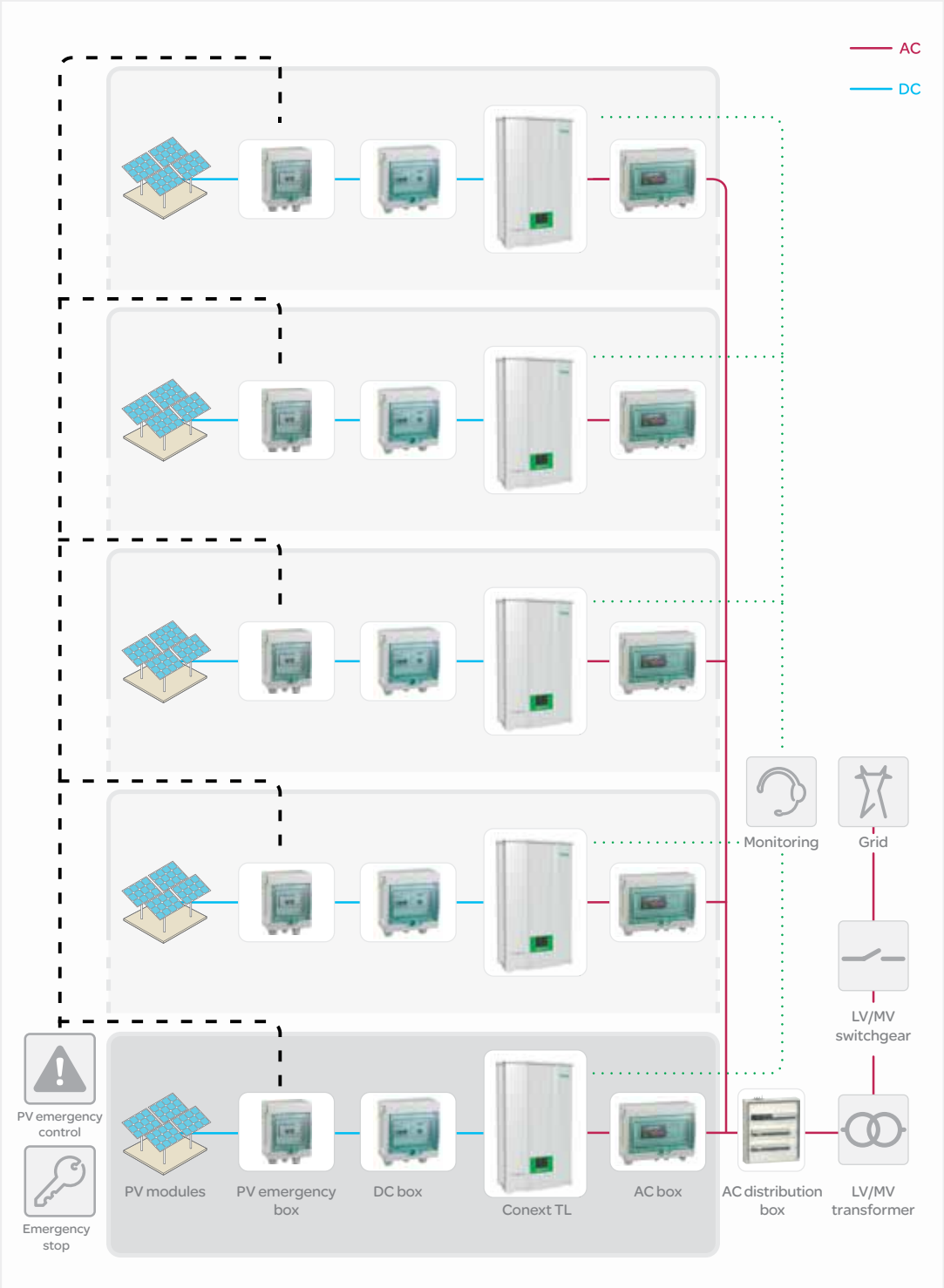
Designing your solar solution

Schneider Electric™ solutions for grid-tie residential and commercial building applications include everything you need from the DC output to the grid connection.

Residential solar solution using Conext RL



Commercial buildings and decentralised PV plants solutions using Conext TL



Using Conext TL inverters in a decentralised PV architecture, the PV array is broken up into smaller sub-arrays, each with its own small power string inverters.

Conext™ RL single-phase grid-tie inverter

Flexible and efficient residential solar solution

The Schneider Electric Conext™ RL inverters are specially designed to maximise yields for a wide range of rooftops of detached houses and multiple dwellings. The rich MPPT features, high energy efficiency, partial shading algorithm and a wide temperature and voltage operating range enable you to maximise your ROI. Supported by Schneider Electric's global service infrastructure and expertise in energy management, the Conext RL series are the inverters you can trust for quality and reliability.

Why choose Conext RL?

True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in industrial power drives, UPS and electrical distribution
- Strong service infrastructure worldwide to support your global needs

Higher return on investment

- Best in class conversion efficiency: 97.5% peak efficiency
- Broad operating range to harvest more energy (early mornings and late afternoons)
- Higher ROI with dual MPPT
- Shade tolerant MPPT algorithm designed to minimise the effect of partial shading on the energy output

Designed for reliability

- Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST) and Temperature Humidity Bias (THB)
- IP65 compliant rugged, completely sealed unit to stand the harshest environmental conditions

Flexible

- Dual MPPTs with wide MPPT voltage range (160-500V*) to support multiple roof orientations
- Ability to support unbalanced arrays
- Local as well as remote monitoring options available to track PV plant performance

Easy to service

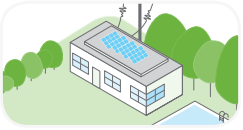
- No moving parts (e.g. fans) for low maintenance and increased uptime
- Easily replaceable communication card
- Integrated DC switch (optional)

Easy to install

- Compact unit which allows easy and fast mounting with included bracket
- Pluggable AC and DC connectors (MC4)
- Auto country/multilingual configurations

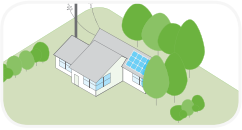
Available in 3, 3.6 and 5 kW

Product applications



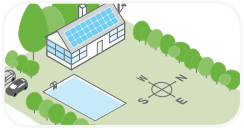
Flat roofs

Multiple pitched roofs



Partial shading

Odd number of modules



Different orientation roofs (East – West)

* Full power MPPT voltage range for RL 3000E: 160-500V; RL 4000E/5000E: 180-500V

Device short name	RL 3000 E	RL 4000 E	RL 5000 E*
Electrical specifications			
Input (DC)			
MPPT voltage range, full power	160 - 500 V	180 - 500 V	180 - 500 V
Operating voltage range	90 - 550 V	90 - 550 V	90 - 550 V
Starting voltage	100 V	100 V	100 V
Max. input voltage, open circuit	550 V	550 V	550 V
Number of MPPT	2	2	2
Max. input current per MPPT	10 A	12 A	18 A
Max. short circuit current per MPPT	13.9 A	16.7 A	25.0 A
Nominal input power for max. output	3.2 kW	4.2 kW	5.3 kW
Max. DC input power per MPPT	3.2 kW	3.2 kW	3.5 kW
DC connection type	MC4, 2 pairs (1+1)	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)
DC switch	Integrated (optional)	Integrated (optional)	Integrated (optional)
Output (AC)			
Nominal output power	3 kVA	3.6kVA	5 kVA
Nominal output voltage	230 V, single-phase	230 V, single-phase	230 V, single-phase
Isolation	Transformerless	Transformerless	Transformerless
AC voltage range	184 V - 276 V	184 V - 276 V	184 V - 276 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Frequency range	50 / 60 Hz +/- 5 Hz	50 / 60 Hz +/- 5 Hz	50 / 60 Hz +/- 5 Hz
Max. output current	13.9 A	16 A	23.2 A
Total harmonic distortion	<3 %	<3 %	<3 %
Power factor (adjustable)	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag
AC connection type	IP67 connector	IP67 connector	IP67 connector
Efficiency			
Peak	97.5%	97.5%	97.5%
European	97.0%	97.0%	97.0%
General specifications			
Power consumption, night time	<1 W	<1 W	<1 W
IP degree of protection	IP65 (electronics and balance)	IP65 (electronics and balance)	IP65 (electronics and balance)
Climatic category (per IEC 60721-3-4)	4K4H	4K4H	4K4H
Cooling	Natural convection	Natural convection	Natural convection
Enclosure material	Aluminium	Aluminium	Aluminium
Product weight	20.0 kg (44.1 lb)	21.0 kg (46.3 lb)	24.0 kg (52.9 lb)
Shipping weight	25.0 kg (55.1 lb)	25.0 kg (55.1 lb)	30.0 kg (66.1 lb)
Product dimensions (H x W x D)	42.0 x 48.0 x 16.0 cm (16.5 x 18.9 x 6.3 in)	42.0 x 48.0 x 16.0 cm (16.5 x 18.9 x 6.3 in)	44.5 x 51.0 x 17.7 cm (17.5 x 20.1 x 7.0 in)
Shipping dimensions (H x W x D)	50.5 x 59.5 x 29.5 cm (19.9 x 23.4 x 11.6 in)	50.5 x 59.5 x 29.5 cm (19.9 x 23.4 x 11.6 in)	56.6 x 61.9 x 33.1 cm (22.3 x 24.4 x 13.0 in)
Ambient air temperature for operation	-20 to 65ºC (-4ºF to 149ºF)**	-20 to 65ºC (-4ºF to 149ºF)**	-20 to 65ºC (-4ºF to 149ºF)**
Operating altitude	Up to 2000 m	Up to 2000 m	Up to 2000 m
Relative humidity	4 - 100% condensing	4 - 100% condensing	4 - 100% condensing
Noise emission (at 1 m distance)	<40 dbA	<40 dbA	<40 dbA
Features and options			
Embedded data logger	365 days		
Display	LCD 2 -line 16 digits, 2 Buttons		
Communication interface standard/optional	RS 485, MODBUS / Ethernet (with built-in web server)		
Multifunction relay	Yes		
Warranty in years standard/optional	5 / 10		
Regulatory approvals			
Electrical safety	CE marked for the Low Voltage Directive EN / IEC 62109-1 EN / IEC 62109-2, AS3100/AS5033		
Grid interconnection	VDE-AR-N 4105, RD1699, CEI 0-21, G59/2, G83/1, UTE C15-712-1, AS4777, VDE 0126, EN50438, IEC 62116, IEC 61727		
Environmental	RoHS, REACH		
EMC	CE marked for the EMC directive 2004-108-EC Emissions: EN 61000-6-3 (residential) Immunity: EN 61000-6-2 (industrial)		
Available product variants			
Standard	PVSNVC3000 (RL 3000 E)	PVSNVC4000 (RL 4000 E)	PVSNVC5000 (RL 5000 E)
With integrated DC switch	PVSNVC3000S (RL 3000 E-S)	PVSNVC4000S (RL 4000 E-S)	PVSNVC5000S (RL 5000 E-S)
Monitoring accessories			
Local monitoring	Ethernet card (PVSCMC1105)		
Remote monitoring	Conext Monitor 20 (PVSCMC1120)		

Specifications are subject to change without notice. **-20°C cold start remperature.

Conext™ TL three-phase grid-tie inverters

Ideal solution for commercial buildings, carports and decentralised power plants

The new Conext TL 8, 10, 15 kW and TL 20 kW grid-tie solar inverters are suited for outdoor use and are the ideal solution for commercial buildings, carports and decentralised PV plants up to the MW range. The inverters provide dual MPP (Maximum Power Point) trackers with a wide voltage range, peak efficiency of greater than 98% for fast ROI. The embedded Modbus communication card allows connectivity with a large range of Schneider Electric™ products, as well as the option to easily add third party monitoring solutions. Backed by Schneider Electric's global service infrastructure and its expertise in energy management, the Conext TL series are the inverters you can trust for quality and reliability.

Why choose Conext TL?

True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in industrial power drives, UPS and electrical distribution
- Strong service infrastructure worldwide to support your global needs

Higher return on investment

- High conversion efficiency: >98% peak efficiency
- Broad operating range to harvest more energy (early mornings and late afternoons)
- Higher ROI with dual MPPT
- Great value for money: DC switch, AC connectors and RS485 ports are included

Designed for reliability

- Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST) and Temperature Humidity Bias (THB)
- IP65 compliant rugged, completely sealed unit to stand the harshest environmental conditions
- Design and qualified for applications in tropical environments through conformal coating and salt fog testing

Flexible

- Wide MPPT voltage range (350 - 850 V)
- Modular system designs using a combination of models
- Easy to connect to third party monitoring solutions

Easy to service

- Easily replaceable fan block and communications card
- Integrated DC switch
- Ability to remotely disable

Easy to install

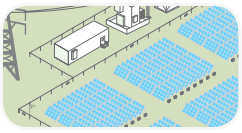
- Easy and fast mounting with included bracket
- Pluggable AC and DC Connectors (MC4)
- Auto country/multilingual configurations

Available in
15 and 20 kW

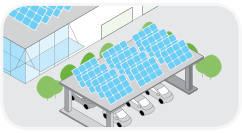
Available in
8 and 10 kW

Product applications

Commercial buildings



Decentralised PV plants



Carports

Device short name	TL 8000 E	TL10000 E	TL 15000 E	TL 20000 E
Electrical specifications				
Input (DC)				
MPPT voltage range, full power	350 - 850 V	350 - 850 V	350 - 800 V	350 - 800 V
Operating voltage range	200 - 1000 V	200 - 1000 V	200 - 1000 V	200 - 1000 V
Starting voltage	200 V	200 V	200 V	200 V
Max. input voltage, open circuit	1000 V	1000 V	1000 V	1000 V
Number of MPPT	2	2	2	2
Max. input current per MPPT	17 A	17 A	23 A	30 A
Max. short circuit current per MPPT	24 A	24 A	30 A	30 A
Nominal input power for max. output	8.3 kW	10.4 kW	17.0 kW	22.0 kW
Max. DC input power per MPPT	5.5 kW	7.0 kW	8.5 kW	11.0 kW
DC connection type	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)
DC switch	Integrated	Integrated	Integrated	Integrated
Output (AC)				
Nominal output power	8 kVA	10 kVA	15 kVA	20 kVA
Nominal output voltage	230 / 400 V, three-phase	230 / 400 V, three-phase	230 / 400 V, three-phase	230 / 400 V, three-phase
Isolation	Transformerless	Transformerless	Transformerless	Transformerless
AC voltage range	184 - 276 V	184 - 276 V	184 - 276 V	184 - 276 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Frequency range	50 / 60 +/- 3 Hz	50 / 60 +/- 3 Hz	50 / 60 +/- 3 Hz	50 / 60 +/- 3 Hz
Max. output current	12.8 A	16.0 A	24.0 A	32.0 A
Total harmonic distortion	< 3 %	< 3 %	< 3 %	< 3 %
Power factor (adjustable)	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag
AC connection type	IP67 connector	IP67 connector	IP67 connector	IP67 connector
Efficiency				
Peak	98.2 %	98.3 %	98.0%	98.0 %
European	97.4 %	97.7 %	97.3 %	97.5 %
General specifications				
Power consumption, night time	< 2 W	< 2 W	< 2 W	< 2 W
IP degree of protection	IP65 (electronics), IP55 (balance)	IP65 (electronics), IP55 (balance)	IP65 (electronics), IP55 (balance)	IP65 (electronics), IP55 (balance)
Cooling	Fan cooled	Fan cooled	Fan cooled	Fan cooled
Enclosure material	Aluminium	Aluminium	Aluminium	Aluminium
Product weight	41.0 kg (90.2 lb)	41.0 kg (90.2 lb)	67.2 kg (148.2 lb)	67.2 kg (148.2 lb)
Shipping weight	48.5 kg (106.9 lb)	48.5 kg (106.9 lb)	122.0 kg (269.0 lb)	122.0 kg (269.0 lb)
Product dimensions (H x W x D)	62.5 x 61.2 x 27.8 cm (24.6 x 24.0 x 10.9 in)	62.5 x 61.2 x 27.8 cm (24.6 x 24.0 x 10.9 in)	96.0 x 61.2 x 27.8 cm (37.8 x 24.1 x 10.9 in)	96.0 x 61.2 x 27.8 cm (37.8 x 24.1 x 10.9 in)
Shipping dimensions (H x W x D)	75.0 x 74.0 x 40.0 cm (29.5 x 29.1 x 15.8 in)	75.0 x 74.0 x 40.0 cm (29.5 x 29.1 x 15.8 in)	115.0 x 79.0 x 48.0 cm (45.3 x 31.1 x 18.9 in)	115.0 x 79.0 x 48.0 cm (45.3 x 31.1 x 18.9 in)
Ambient air temperature for operation	-20 to 60°C (-4°F to 140°F)	-20 to 60°C (-4°F to 140°F)	-20 to 60°C (-4°F to 140°F)**	-20 to 60°C (-4°F to 140°F)**
Operating altitude	Up to 2000 m	Up to 2000 m	Up to 2000 m	Up to 2000 m
Relative humidity	4 - 100 % (condensing)	4 - 100 % (condensing)	4 - 100 % (condensing)	4 - 100 % (condensing)
Noise emission (at 1 m distance)	< 50 dBA	< 50 dBA	< 55 dBA	< 55 dBA
Features and options				
Embedded data logger	365 days			
Display	5" Graphic LCD (320 x 240 pixels), 4 buttons			
Communication interface	Modbus (RS485)			
Multifunction relay	Yes			
Warranty in years (standard/optional)	5 / 10			
Regulatory approval				
Electrical safety	CE marked for the Low Voltage Directive EN / IEC 62109-1 / EN / IEC 62109-2 AS3100 (Australia / Israel***)			
Grid interconnection*	BDEW***, VDE0126-1-1, VDE-AR-N 4105, RD1663, RD661, RD1699, ENEL-Guida***, CEI 0-21, A70, G59/2***, UTE C15-712-1, AS4777/SI4777***, PO12.3***, IEC 62116***, IEC 61727***			
Environmental	RoHS, REACH			
EMC	CE marked for the EMC directive 2004-108-EC Emissions: EN 61000-6-3 (residential) Immunity: EN 61000-6-2 (industrial)			
Available product variants				
Standard	PVSNVC8000	PVSNVC10000	PVSNVC15000	PVSNVC20000

Specifications are subject to change without notice. *More available upon request. **-15°C cold start temperature. Vpv ≥500V. ***Only for TL 15000 E and TL 20000 E.

Conext™ Monitor 20 communication device

Compact and easy to use remote monitoring solution for residential PV installations

Conext Monitor 20 is a compact monitoring and control unit. This data logger allows simple configuration and operation. Connecting the data logger to the internet via Ethernet allows the operating data to be visualised and monitored regardless of location using the web portal. The key data displayed in the web portal includes current and historical energy generation, environmental impact and system set-up data.

With four digital inputs and a power control function, it also meets the grid feed-in management requirements by allowing the connection of a ripple control receiver to the inverter through the data logger.

Conext Monitor 20 is suitable for Conext RL and Conext TL series of inverters for PV systems up to 20 kW (not more than three inverters).

Why choose Conext Monitor 20?

True bankability

- Warranty from a trusted partner with over 177 years of experience
- World leader in industrial power drives, UPS and electrical distribution
- Strong service infrastructure worldwide to support your global needs

Higher return on investment

- Energy generation charts and regional benchmarking to proactively address PV plant performance issues, if any
- Meets current grid feed-in management guidelines to avoid any blanket reduction e.g. in Germany

Designed for reliability

- Undergone extensive safety, quality and reliability testing

Flexible

- Compatible with Conext RL and TL series of inverters
- Access to PV plant performance regardless of location
- Both visual and audible alarm available for quick error reporting

Easy to service

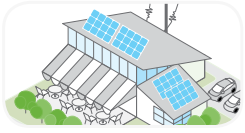
- Provision to backup and to load data logger configuration
- Easy replacement of data logger without losing any portal data

Easy to install

- Compact unit which is very easy to mount
- Configuration software included for installation assistance
- Simple registration process for web portal

Product applications

Residential



Small commercial

Device short name	Conext Monitor 20
Electrical specifications	
Communication interfaces	
Inverter (Modbus RS 485)	Connector: 1x RJ12, 2-wire serial, termination: 120 Ohms Inverter connect cable (length: 2 m / 6.56 ft) and RJ45 - RJ45 adapter for extension provided Products supported: Conext RL, Conext TL (max. plant size 20 kW, max. number of inverters: 3)
Ethernet	Connector: 1 x RJ45, 10 Mbps (HTTP(s), DHCP, REST) Ethernet conect cable provided (length: 1 m / 3.28 ft)
USB-device	Connector: USB-MicroTypeB, full speed 12 Mbps, protocols: CDC, RS232 emulation USB connect cable provided (length: 1.8 m / 5.91 ft)
Other interfaces	
Ripple control receiver	Connector: 1x RJ45, 4x digital inputs (EN62053-31)
Power supply options	
DC input	24 V +/- 5% , using 2.1 x 5.5 mm (0.08 x 0.22 in) center positive socket
AC frequency of power adapter	47 - 63 Hz
AC voltage of power adapter	100 - 240 VAC
Power consumption	1.7 W typical
Memory	
Internal flash	5 days data
General specifications	
Product weight	0.2 kg (0.4 lb)
Shipping weight	0.7 kg (1.5 lb)
Product dimensions (H x W x D)	10.7 x 15.2 x 3.7 cm (4.2 x 6.0 x 1.5 in)
Shipping dimensions (H x W x D)	16.0 x 33.2 x 12.2 cm (6.3 x 13.1 x 4.8 in)
Housing/mounting system	ABS PA-765A / Wall-mount: 2-screw
IP rating/mounting location	IP 21 / indoor only
Status display	8x Light Emitting Diodes (LEDs)
Push buttons	3x (menu, action and reset)
Switch	1x (for power control on/off)
Audible alarm	Yes (with on/off control)
Temperature	Operating: 0°C to 40°C (32 to 104 F); Storage: -20°C to 65°C (-4 to 149 F)
Relative humidity	Rel. 20 to 90% (non-condensing)
Part number	PVSCMC1120
Features and options	
Warranty	2 years
Portal compatibility with browsers	IE8 and above, Firefox 13.0.1 and above, Google Chrome 20.0.1132.47m and above, Apple Safari 5.1.7 and above
Regulatory approvals	
Marking	CE, RCM
Safety	EN 60950-1
EMC inmmunity	EN61000-6-2, EN61000-4-11
EMC emission	EN55022 Class B, EN 61000-3-2, EN61000-3-3
Substances/environmental	RoHS
Works with	
Conext TL	TL 8000 E product no. PVSNVC8000, TL 1000 E product no. PVSNVC10000, TL 15000 E product no. PVSNVC15000, TL 20000 E product no. PVSNVC20000
Conext RL	RL 3000 E product no. PVSNVC3000 / PVSNVC3000S, RL 4000 E product no. PVSNVC4000 / PVSNVC4000S, RL 5000 E product no. PVSNVC5000 / PVSNVC5000S

Specifications are subject to change without notice.

System accessories

PV emergency stop

- Isolation from the AC source at the combiner box level
- Isolation from the DC source at the DC box level (at the location upstream if both)

DC Box

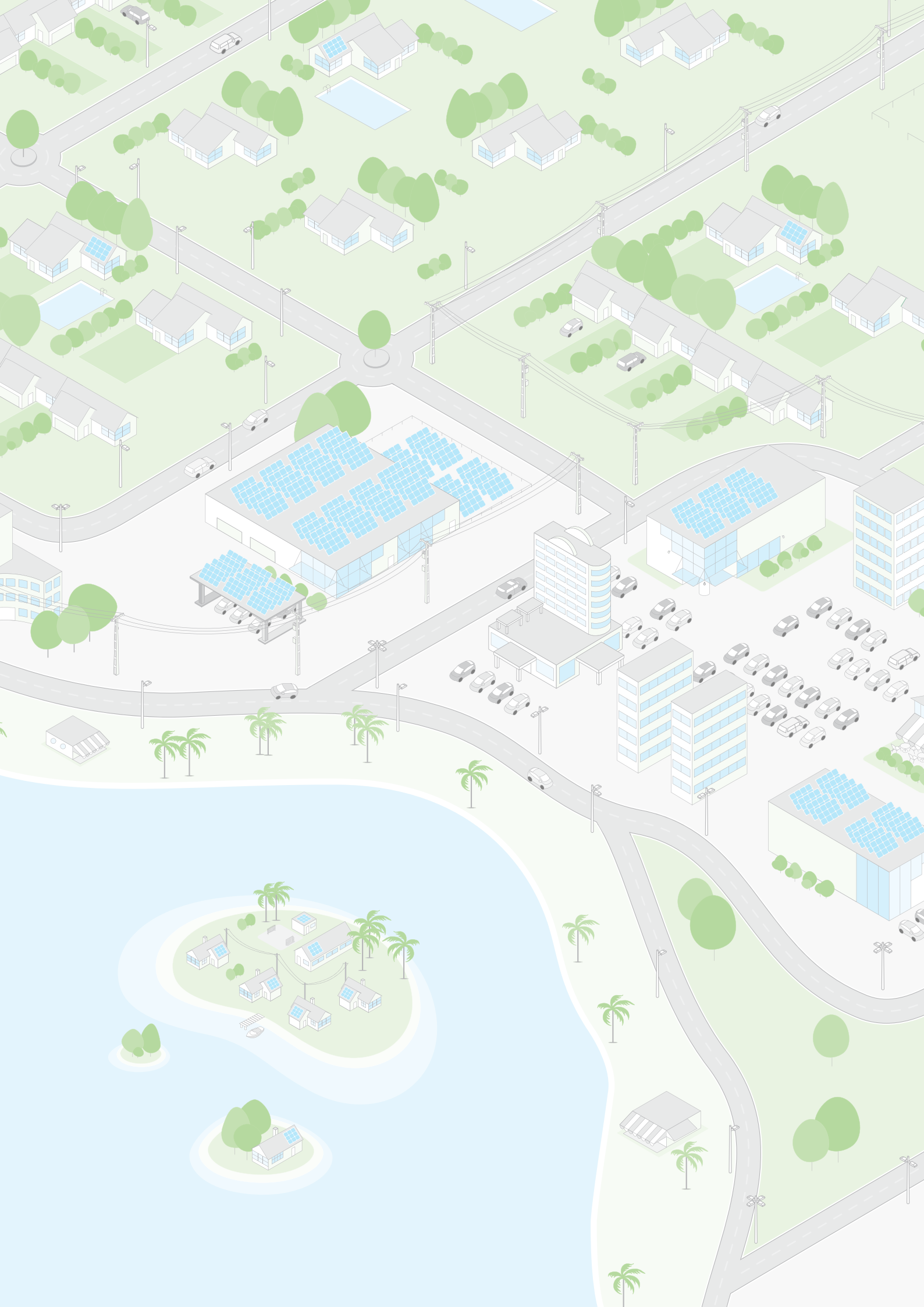
- Disconnects each MPPT input of the inverter from the DC line
- Protects the inverter against voltage surges coming from DC lines
- Controls the release of the switches remotely for emergency purpose

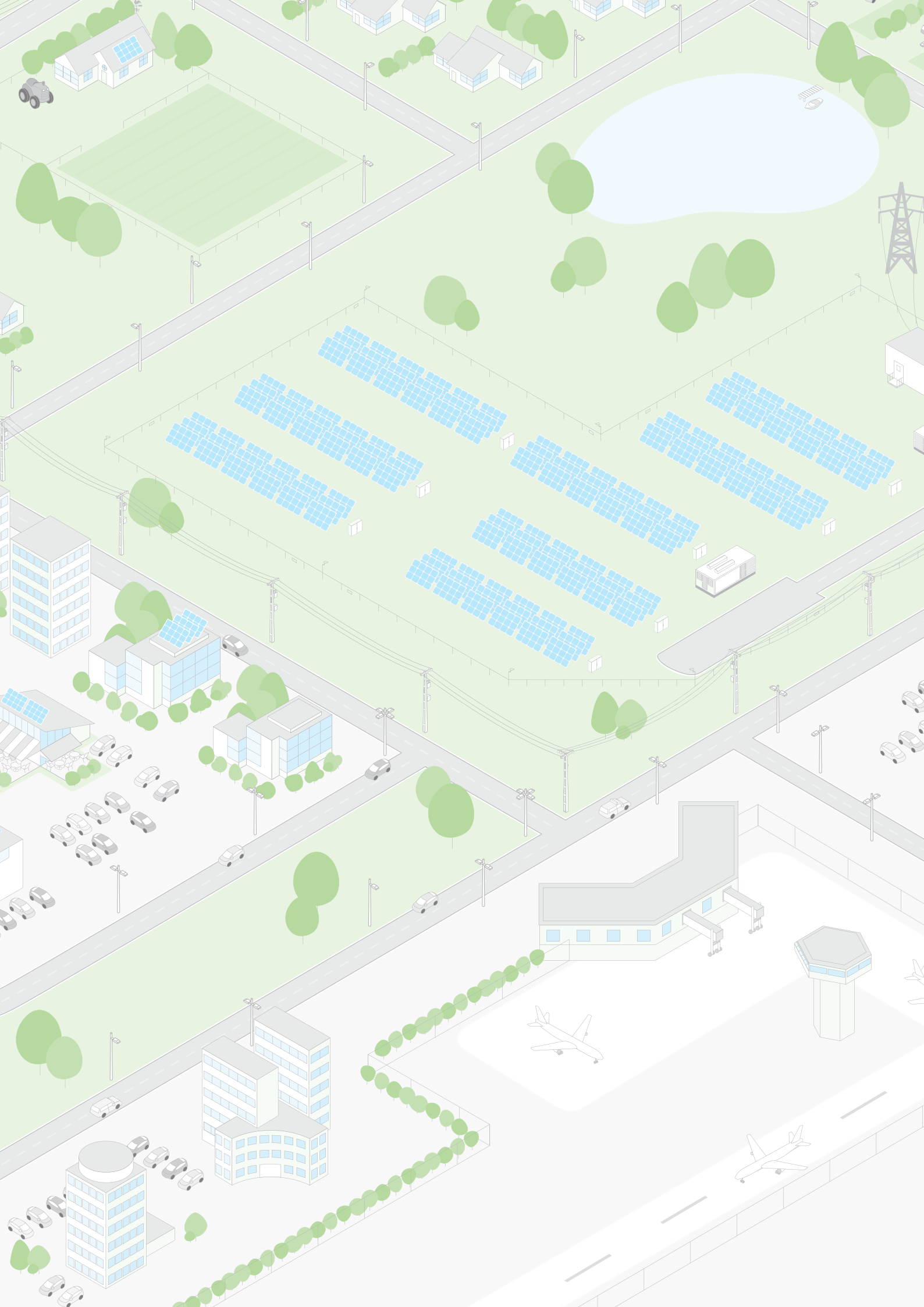
AC Box

- Disconnects inverter from the AC line
- Protects the inverter against voltage surges coming from AC lines

To order a solution tailored to your plant design and local regulatory requirements, please contact your local country representative


Best-in-class products and reliable
support from a partner you can trust





UK contact details -

0870 608 8 608

Fax 0870 608 8 606

Ireland contact details -

01 601 2200

Fax 01 601 2201

As the global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation and data centres/networks, as well as a broad presence in residential applications.

Schneider Electric is dedicated to making individuals' and organisations' energy safe, reliable, efficient, productive and green from Power Plant to Plug™.

We are changing our brand names and becoming one Schneider Electric. You'll get the same great quality products, but from one name you can remember and trust. This provides you and your customers with the reassurance associated with Schneider Electric.

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Working as one Schneider Electric makes it clearer which our ranges are highly compatible for integrated solutions.

Schneider Electric Ltd

United Kingdom
Stafford Park 5,
Telford
Shropshire
TF3 3BL
Tel: 0870 608 8 608
Fax: 0870 608 8 606
www.schneider-electric.com/uk

Ireland
Head office,
Block a
Maynooth Business Campus
Maynooth, Co. Kildare
Tel: (01) 601 2200
Fax: (01) 601 2201
www.schneider-electric.com/ie

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