

Solar



CATALOG 2014 / 2015

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



Madrigal, Spain
1.3 MW

Dear Customers,

In 2014, Schneider Electric accelerates its development in Solar, with a continued focus on the value it brings to customers: true bankability, global presence and excellent products and solutions.

In a solar market marked by rapid internationalization and the need for a committed, bankable, long-term supplier, Schneider Electric is offering piece of mind to customers thanks to:

- > our financial strength: annual revenues of over 25bn Euros
- > our local presence (execution and service capabilities) in more than 100 countries
- > our competitive solutions in Solar, coming from a track-record of more than 15 years in the PV industry

In the "PV power plants market" section, we are extending our Conext Core XC inverter family with a UL outdoor version that fits perfectly the needs of the North American market. Our Conext Control monitoring and control system offers each customer what he needs with the flexibility to add simple or sophisticated plant control features can be added to meet the critical challenge of long-term integration of renewable energy into the grid. We are also very proud of our new range of PV boxes, which brings all the advantages of solution integration: excellent cost competitiveness, unrivalled reliability and flexibility. Our solution packages on the electrical chain continue to satisfy more and more PV customers in geographies as diverse as the USA, Japan, India, UK, Thailand, Chile or South Africa.

In the grid-tie rooftop market, our Conext RL range is setting the standard in the residential segment. For commercial buildings and decentralized farms, we are launching our new platform of three-phase string inverters, named Conext CL. It is designed to provide excellent value, high efficiency, flexibility and ease of installation to installers as well as end users.

In the off-grid, backup power and self consumption markets, we are launching the next generation of battery-based inverters with Conext XW+, building on the track-record of the XW family while introducing exciting new features: extended clustering capabilities, battery management, improved AC-coupling capabilities. This will help customers achieve greater self-consumption, increase the life of their batteries and design bigger off-grid systems for electrification of villages or islands

All these new products continue to benefit from Schneider Electric's design for reliability process that includes our proprietary MEOST approach (Multiple Environmental Over Stress Testing).

Finally, this year, we are launching a new website for our Solar Business, with comprehensive documentation and information on our products and solutions. Please visit us at www.SEsolar.com



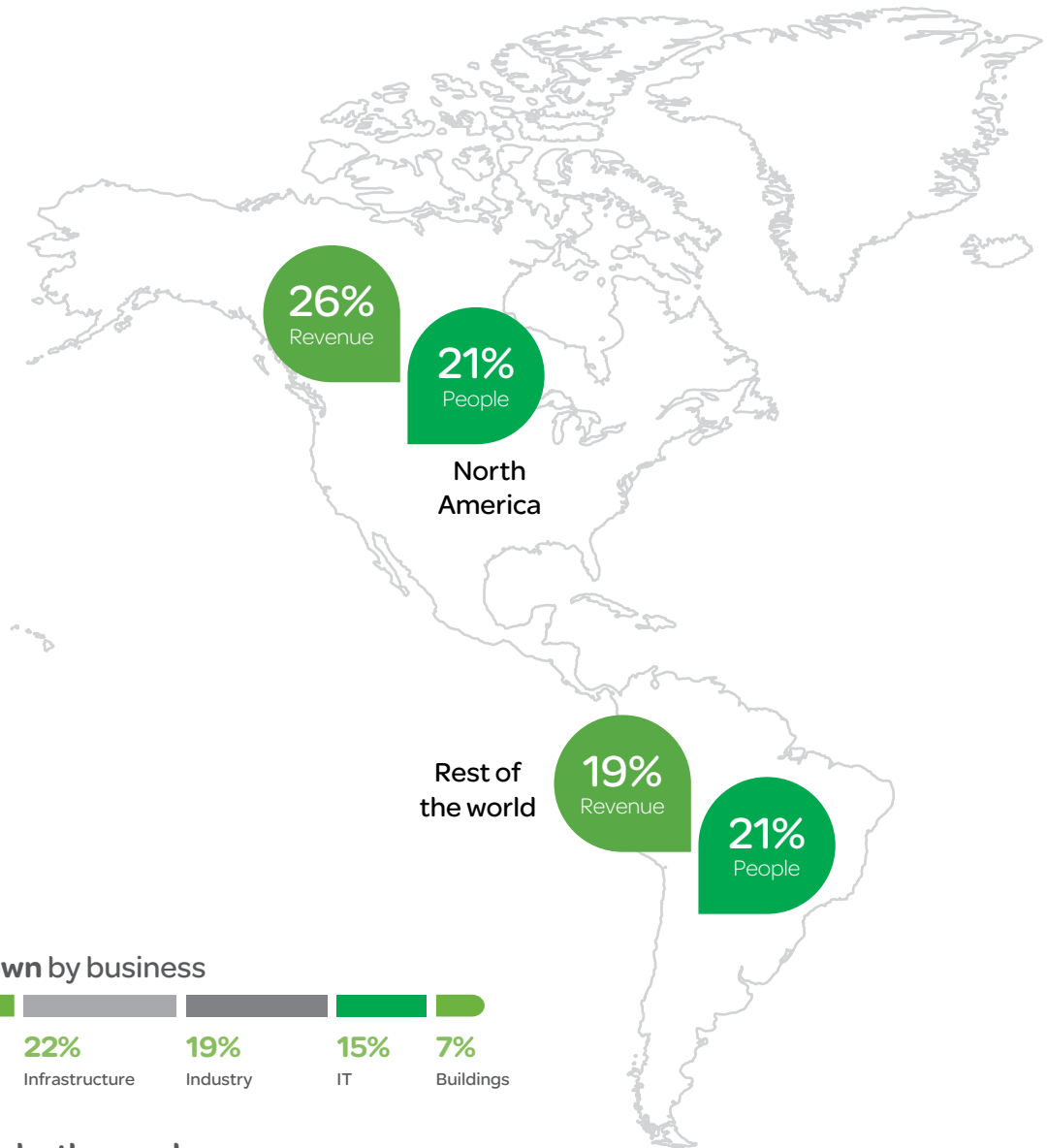
Laurent Bataille

Senior VP – Solar Business

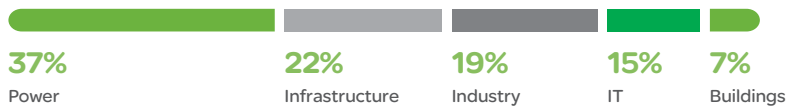


Schneider Electric at a glance

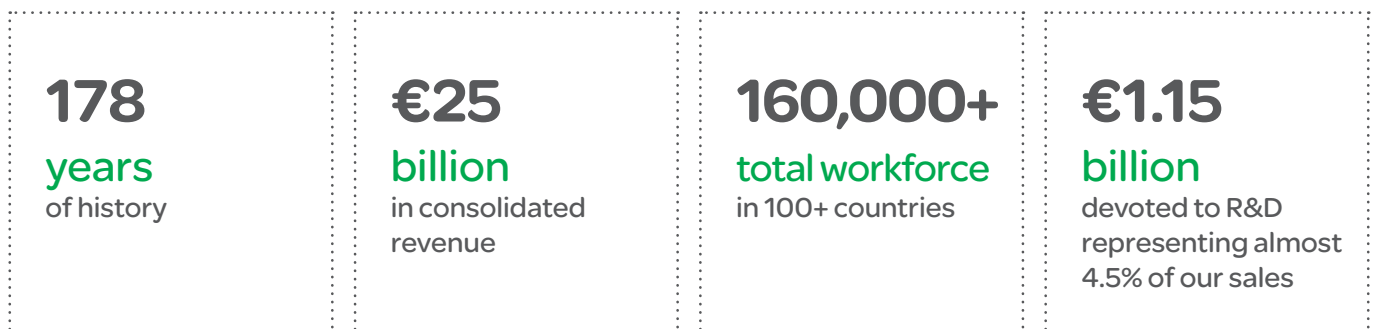
As the global specialist in energy management, Schneider Electric has a 178 year legacy of innovation, international scope, and corporate responsibility. Across three centuries, we have contributed to the transformation of multiple industries, including iron, steel, shipbuilding, and electricity. Today, our more than 160,000 employees in over 100 countries bring a singular mission to their work each day: **to help people make the most of their energy.**

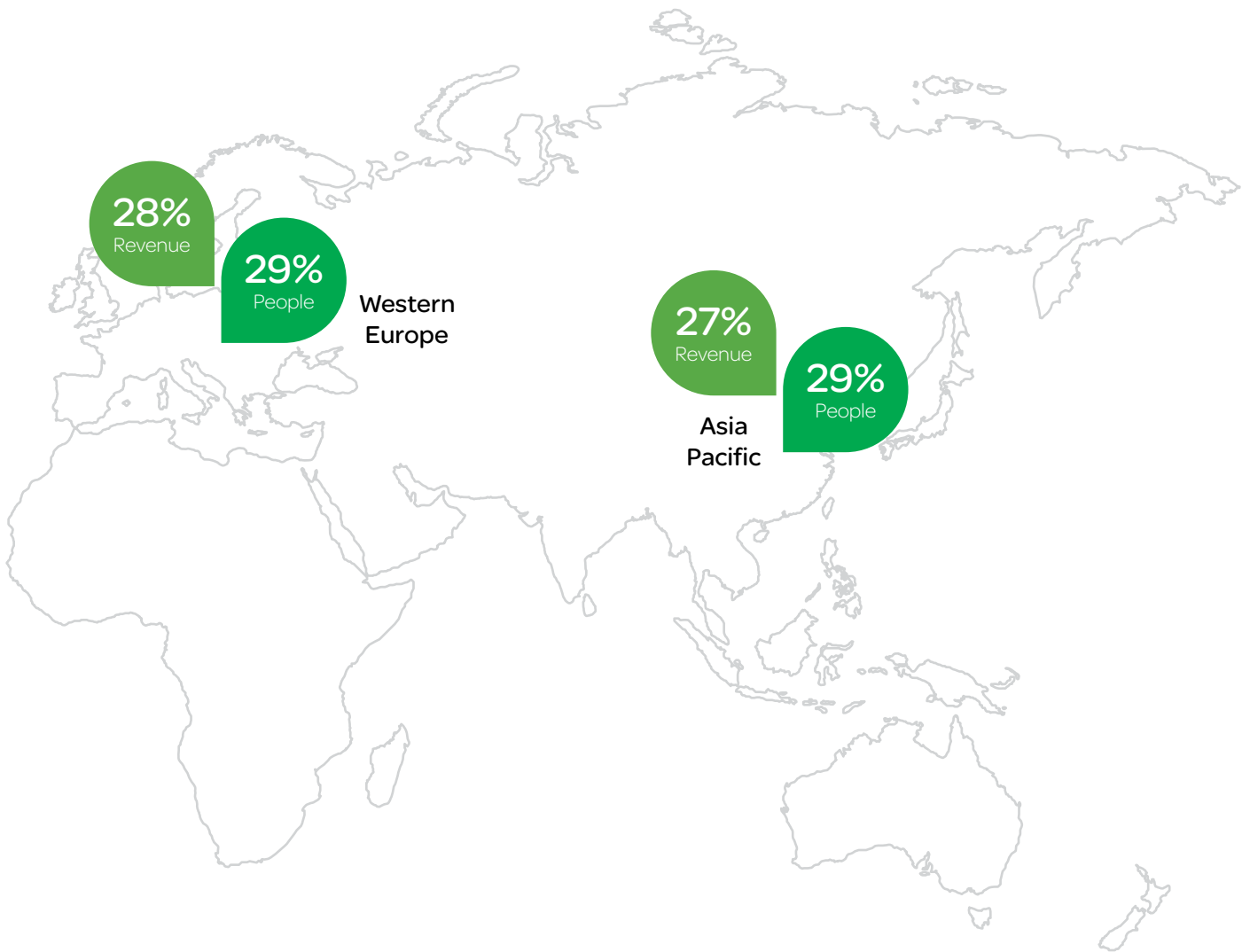


Revenue breakdown by business



Schneider Electric by the numbers





43%

sales

in new economies

€3.4

adjusted

EBITA

#1 or #2

player

in 90% world group sales

Why does bankability matter in Solar?

In a fast evolving, emerging solar market, where suppliers come and go, customers need to be able to count on a solid partner for their solar installation, and especially for its most critical technical part, the electrical conversion chain. A solid partner, financially and technically. A partner that will be around for the long term.

Schneider Electric brings *true bankability* to Solar

Schneider Electric's strong balance sheet and scale mean that you can rely on our financial strength, our worldwide support, our industry-leading experience and our reliable products and solutions for any solar installation:

- > Over 178 years of history, of which **15+ years experience** and track-record in the solar industry
- > Local presence in more than **100 countries**
- > More than **160 000 employees** worldwide
- > Annual revenues over **€25 bn**



Schneider Electric brings integrated competitive solutions to the market thanks to its know-how of all the bricks of the electrical conversion chain

Schneider Electric is the world leader in the domain of low voltage and medium voltage electrical equipment. This helps us deliver to customers best-in-class electrical equipment (from array boxes to MV switchgears and transformers integrated in our PV boxes).

Schneider Electric is also the world leader in power conversion technologies (UPS and Drives). Using similar key technology, we are leveraging this position to develop innovative and competitive solar inverters.


We are also utilizing the SCADA competency existing in Schneider Electric's other businesses to build the highest performing monitoring and control system in the solar market.

Our bankability and competitiveness in Solar are recognized by solar industry experts

GTM Research, a leading research firm covering the solar market, has recognized Schneider Electric as one of the Top 3 Most Competitive Solar Inverter Companies in the world in 2013.

In particular, GTM did observe that *"Schneider Electric's bankability will be a relief in an unstable market"*





A bankable partner for solar. It's the difference between night and day.

Competitive solutions, superior reliability, and global support.
The contrast is clear.

Opportunities abound as awareness and adoption of solar energy grow. However, to convert opportunities into profit, you need to choose a committed partner with a proven track record. A bankable partner.

With our strong heritage in the solar industry and best-in-class energy management expertise, Schneider Electric™ technology is already powering photovoltaic installations of all kinds, all around the world. Together with a comprehensive portfolio of balance-of-system solutions, backed by a global service network, we can help you gain a distinct competitive advantage.

For the long term.

**See how Schneider Electric bankability
enhances your business**

www.SEsolar.com



Nakhon Ratchasima, Thailand

Our experienced service representative
conducting maintenance on site

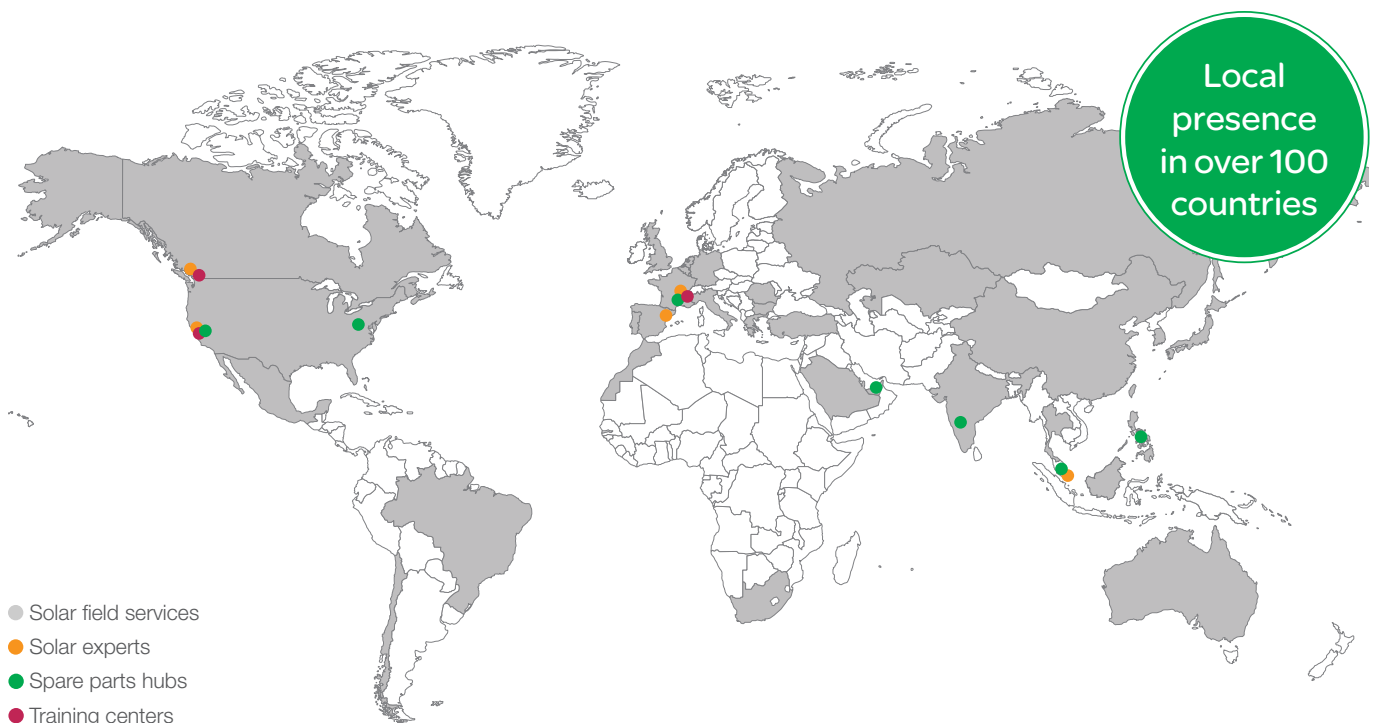
> Global services and support



Comprehensive services and global support

Overview of service offering

- > **Global service and on-site support:** with global service and support infrastructure and local presence in over 100 countries, we can support your PV power plants 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 power plant
- > **Commissioning support:** visual inspections, functional testing and system support
- > **Technical support:** specialist in system design, installation, safety, system operation and quality



24-hour
technical assistance

Services contracts

- > Simple and adaptable offer package
- > Meet business needs and fits customers budget, without any hidden charges
- > Configurable up to 20 years
- > Dedicated service partner for performance management

	Preventive maintenance				Corrective maintenance		Performance guarantee
	Spare parts availability	Technical support	Spare parts supply	Labor	Spare parts supply	Labor	
Product warranty					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
PRIORITY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
ESSENTIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
OPTIMUM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
ELITE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
ULTRA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



Nakhon Ratchasima, Thailand
12.5 MW



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



PV Box

Reliability Testing (UV, heat, humidity, power cycling)

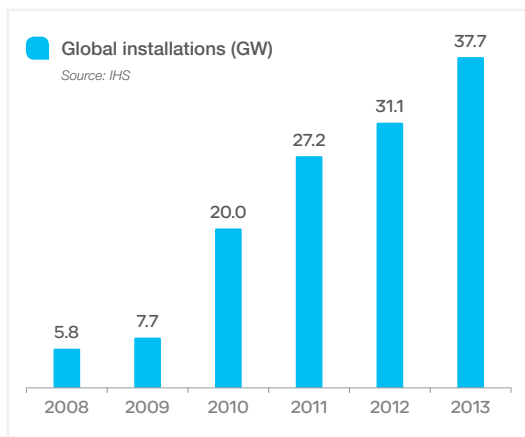
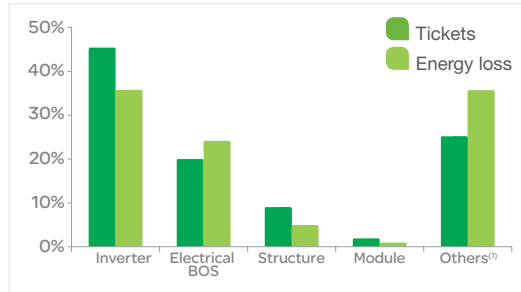
> Quality and reliability



Quality and reliability – why it matters?

> **High ROI:** solar inverters and electrical BOS are the heart of your PV installation and also, the most sophisticated part of the overall solar solution. As can be seen from the experience of a leading developer, 60% of the energy loss stems from the issues related to inverters and electrical balance of system. Upfront rigor in choosing the reliable inverter and balance of system supplier goes a long way in improving the return on investment on solar projects.

Source: SunEdison
(1) Planned outages, weather sth, meter, other external

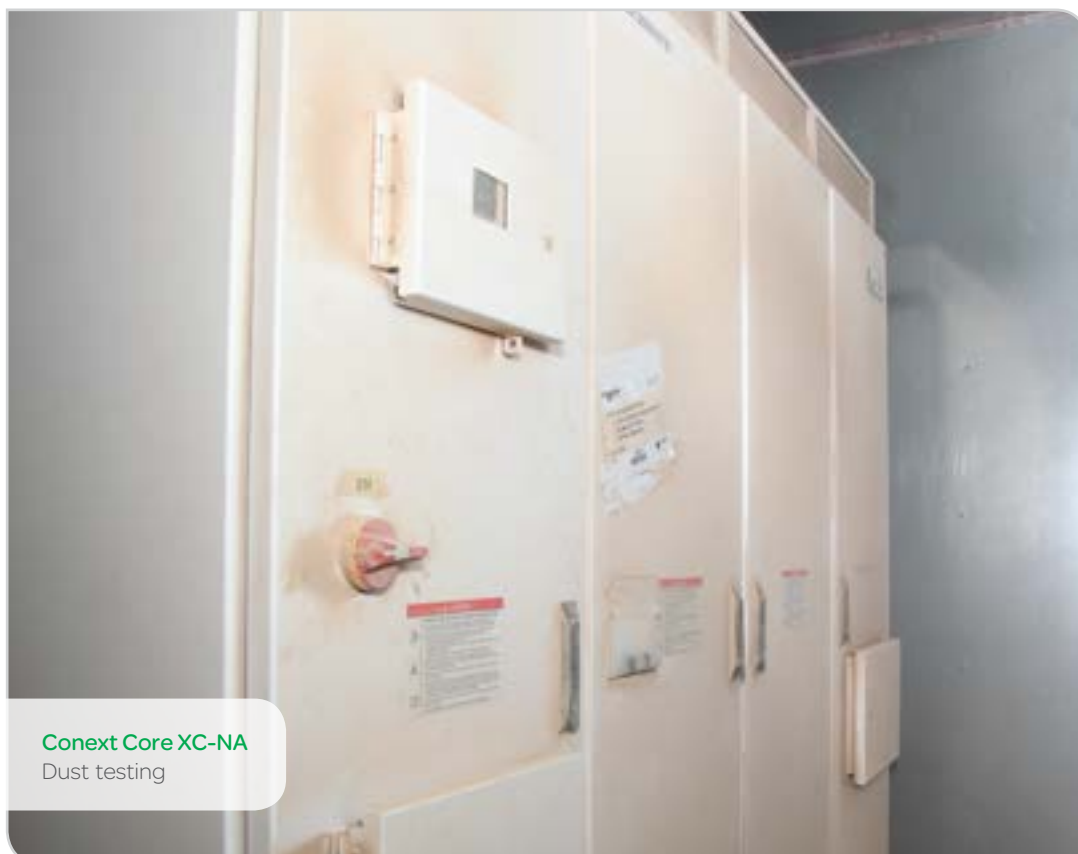


> **Choosing the right player:** solar is still a young industry with a weighted average life of PV installations worldwide below three years. It is also an industry which is going through intense cost competitive pressure, some dwindling markets and internationalization. It could be tempting for some suppliers to have a short-term horizon and lessen their specifications on quality of design, testing, manufacturing, supplier qualification etc., insufficient rigor in quality can threaten the long-term reliability of the solutions and put customer's investment at risk.

> **Harsh environmental application:** as solar is globalizing, projects are being done all over the globe, in many harsh environments and in remote locations which further raises the need for project developers to demand "true" reliability.



Reliability testing is performed by simulating real life harsh conditions to ensure product robustness and high customer satisfaction

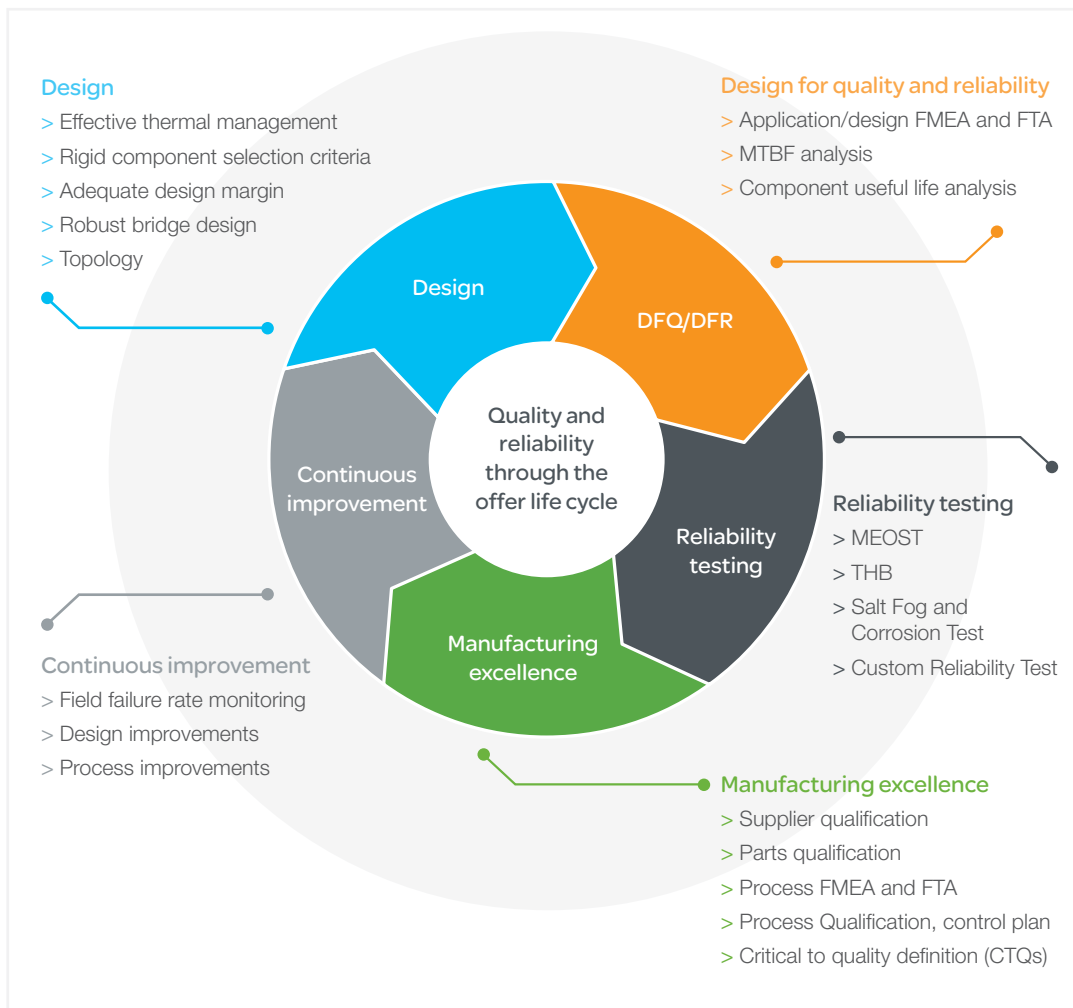


Conext Core XC-NA
Dust testing

Reliability is at the core of Schneider Electric's offering to its customer

At Schneider Electric, we provide our customers with robust long term and highly reliable solutions, understanding the special care needed in the PV industry.

Built-in reliability through:



Lessons learned from 15 years of experience in solar industry

MEOST reliability testing

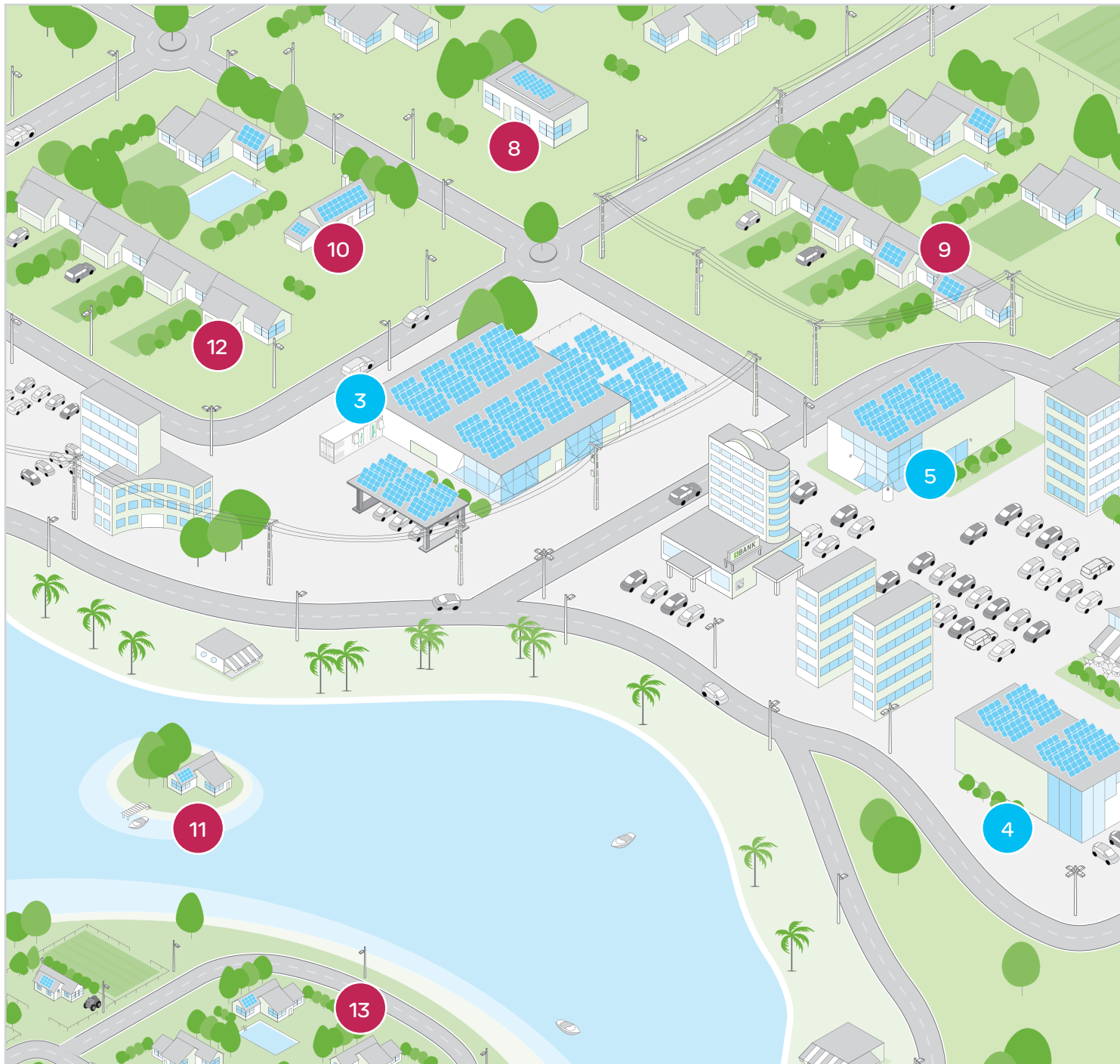


Accelerated multiple parameters stress test that identifies potential weaknesses which may be uncovered during the life span of the product.



Extreme weather conditions	Vibration	Input/output usage profiles	Combined stresses
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Schneider Electric solar solutions



PV power plants

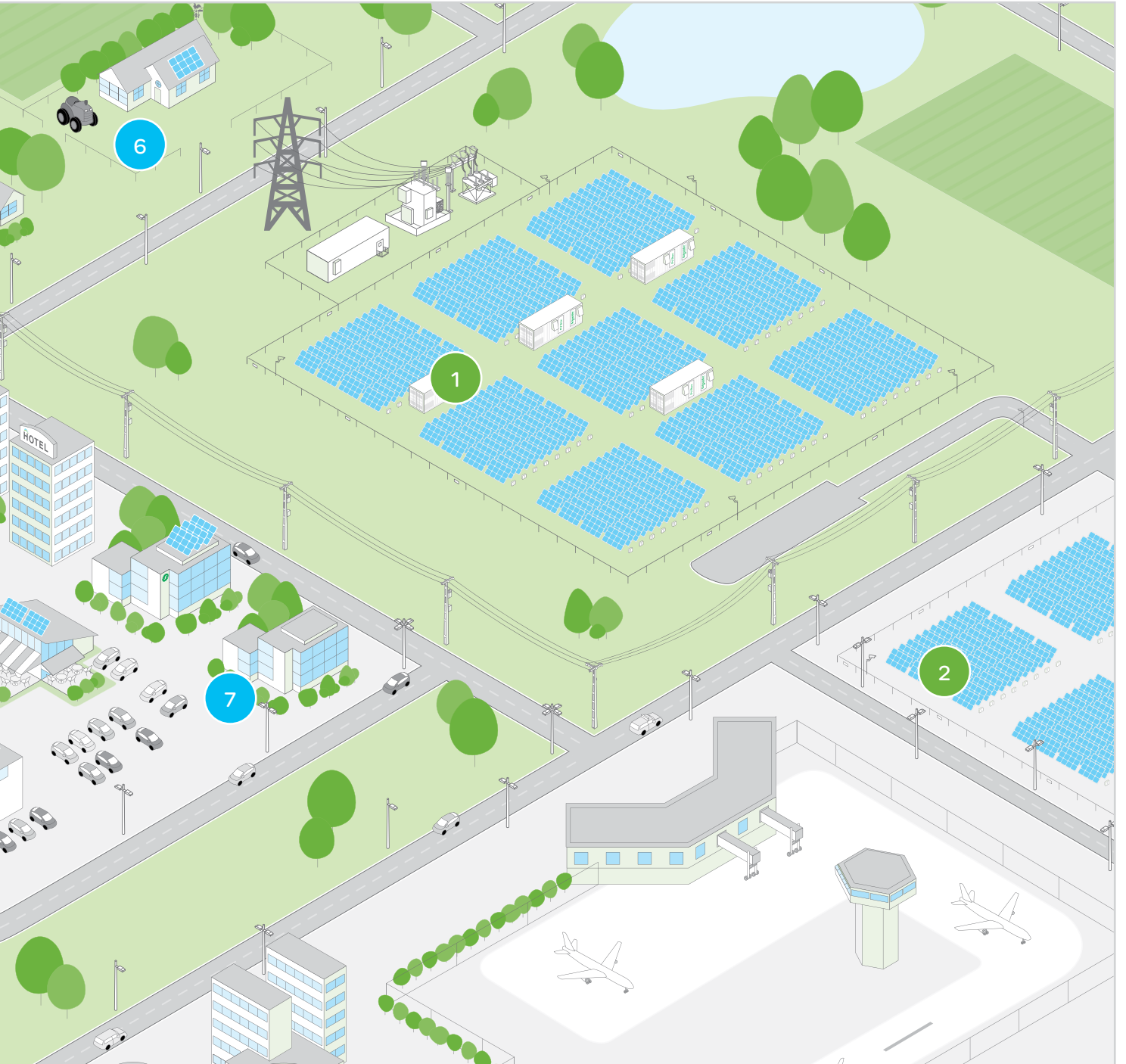
1. Centralised
2. Decentralised

Commercial

3. Grid-tie centralised
4. Grid-tie decentralised
5. Self-consumption
6. Off-grid solar
7. Backup power

Residential

8. Grid-tie
9. Grid-tie solar with backup power
10. Self-consumption
11. Off-grid solar
12. Backup power
13. Community electrification



"The sheer strength and integrity of the Schneider Electric company is head and shoulders above the competition. Your inverter is the heart and soul of your photovoltaic system; you simply can't afford anything but the best" — Kenny Habul, CEO of SunEnergy1



Istres, France
1 MW

> Centralised PV power plants and large commercial buildings

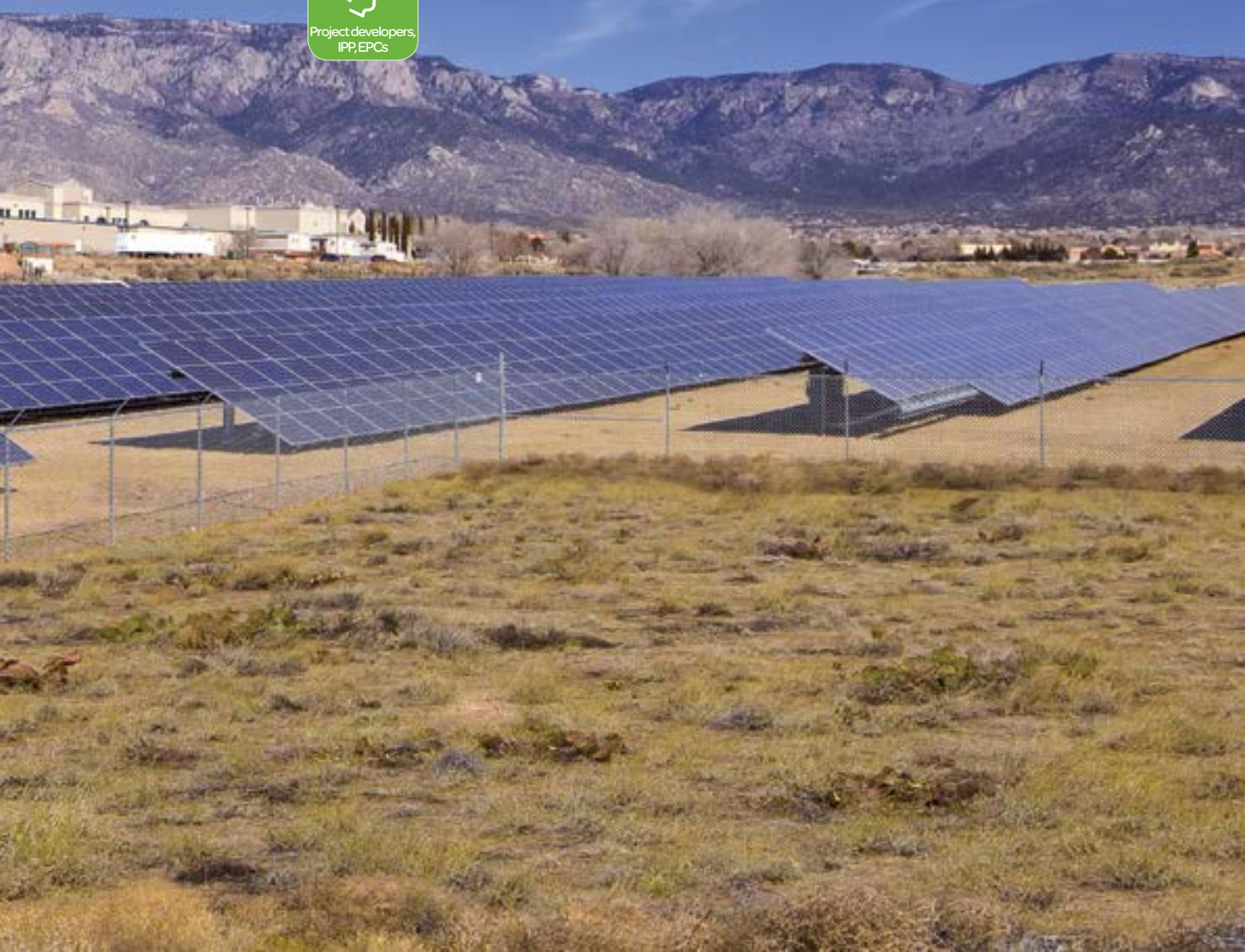
When it comes to large-scale solar, Schneider Electric has both the experience and the proven technology to help make your investment a success.

Schneider Electric solutions for PV power plants and large commercial buildings combine proven systems and 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.

Solar applications:

- > Centralised
- > Decentralised

Solar solutions for:

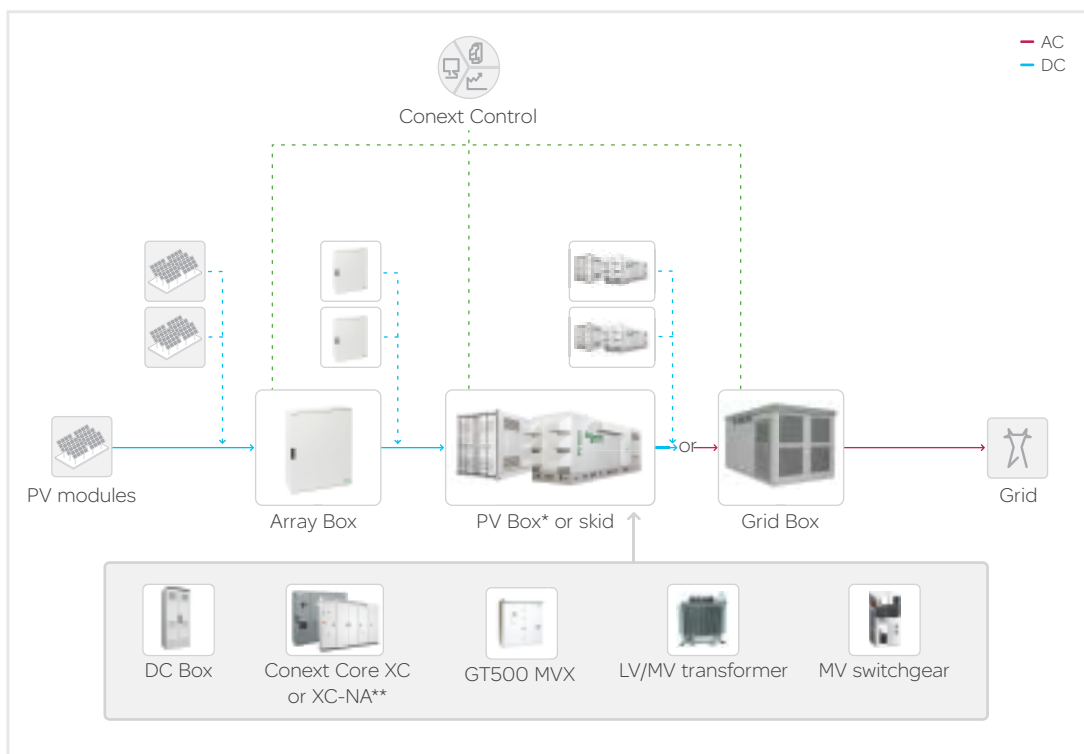


Designing your solar solution

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

PV power plants and large commercial solutions

The centralized architecture offers today the best LCOE (Levelized Cost of Electricity) for large PV power plants. Leveraging its expertise in power conversion, low and medium voltage protection, and SCADA and automation, Schneider Electric has developed a comprehensive, cost-effective and highly modular solution package for the balance-of-systems of a PV plant. Schneider Electric provides differentiated value to its customers through seamless integration of its solution bricks, global multi-skill services and capabilities to engineer the most complex plant-level controls.



*PV Box ST and RT. Different PV Boxes available to your region. **Conext Core XC-NA is an outdoor inverter mounted on skids.



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

- > DC power collection
- > Power conversion to MV AC
- > AC medium voltage power collection and delivery
- > Monitoring and control



Fukusaki, Japan
1.36 MW



Schneider Electric also has a range of outdoor rated UL inverters for large commercial buildings connected to LV networks



North Carolina, USA
5.2 MW

PV Box ST

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

PV Box is a power conversion system. In a 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 optimized 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 ST?



Higher return on investment

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



Designed for reliability

- Industrialized solution according to Schneider Electric proven industrial processes
- Equipment and integration made in Schneider Electric factories
- Configurable to withstand severe weather conditions: continental, tropical and desertic environments
- Undergone extensive safety, quality and reliability risk mitigation
- Proven robust design through rigorous Custom Reliability Testing
- Type-tested solution according to IEC-62271-202 including Arc Flash Testing (IAC-A)



Flexible

- Vast choice of power and AC medium voltage levels
- Suitable for most environmental conditions and local standards
- Configurable to be optimized for specific project needs



Easy to service

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



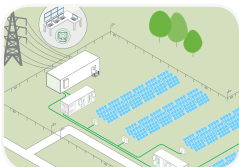
Easy to install

- Standard 40 feet ISO certified container for ease of shipment worldwide
- Solution delivered pre-assembled, configured and tested to reduce on-site labor and project duration

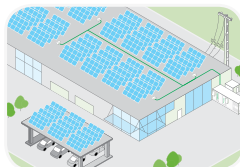


Sea transportation version

Product applications



PV power plants centralised



Commercial grid-tie centralised

Device short name	PV Box ST 1080	PV Box ST 1260	PV Box ST 1360
Electrical specifications			
DC input			
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
AC output			
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
Power factor compensation	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag
Equipment			
Inverters	2 x XC 540	2 x XC 630	2 x XC 680
DC connection	2 x DC Box 6 input or 2 x DC Box 10 input (+/-)		
DC fuse range ⁽¹⁾	DC Box 6: 315 A, 350 A, 400 A / DC Box 10: 160 A, 200 A, 250 A		
Transformer type	Schneider Electric Minera oil type ONAN		
Transformer losses	C0Bk		
Medium voltage switchgear U _≤ 24 kV	Schneider Electric RM6 ring main unit type NE-DI with Sepam 10 protection relay		
Medium voltage switchgear 24 kV ≤ U ≤ 36 kV	Schneider Electric Flusarc ring main unit type CB-C with Sepam 10 protection relay		
Optional content			
Automatic progressive reconnection ⁽²⁾	MV circuit breaker motorization, configurable timer		
Auxiliary power transformer	10 kVA / 400 V		
DC input measurement	DC Box monitored		
Monitoring and control	Conext Control monitoring cabinet with secured power supply		
Safety kit	Fire-extinguisher, insulated MV rod and gloves, insulating stool		
Service kit	Contacts on doors and smoke detector (available with Conext Control option)		
Service contract	Worldwide service team - consult your sales representative for service offer		
External operating conditions			
Temperature			
Standard temperature range	-20°C / + 45°C ⁽³⁾		
Other temperature ranges	Continental, desert, tropical (consult your sales representative)		
Pollution			
Standard low polluted environment (Rural and suburban environment)	G4 filters		
Option polluted environment (desert, urban...) ⁽⁴⁾	Internal filter box (G4 and F9 filters, fans, speed drives)		
Option saline environment	C5 paint		
Other conditions			
Max. relative humidity (non condensing)	100%		
Max. altitude above sea level ⁽⁵⁾	2000 m		
Max. wind speed	180 km / h		
Max. snow load	250 kg / m ²		
IP grade LV and MV compartment	IP54		
IP grade transformer compartment	IP23		
General specifications			
Dimensions and weight			
During transportation (H x W x D)	2.90 x 2.44 x 12.19 m		
Assembled on site (H x W x D)	2.90 x 3.38 (or 3.28 ⁽⁶⁾) x 12.19 m		
Weight approx. with standard content	19 tons		
Material			
Basement	Light basement to be done on site		
Walls and roof	Standard 40" container with insulating layer		
Cooling			
LV and MV switchboard compartment ⁽⁷⁾	Ensured by inverter fans.		
Transformer compartment	Natural		
Regulatory approvals			
Electrical standards	IEC 62271-202, IEC 61439, IEC 62271-200, IEC 60076		
Type-test certification	IEC 62271-202		
Internal arc classification (acc. to IEC 62271-202)	IAC-A		
General ventilation filters standard	EN779:2012		
Building standards	Eurocodes		

Specifications are subject to change without notice.

⁽¹⁾Fuses may be ordered separately. ⁽²⁾To avoid simultaneous reconnection of every PV Boxes and for automatic opening and reclosing on grid voltage loss (grid requirement). ⁽³⁾Derating above 40°C.

⁽⁴⁾For dust or sand (IEC 60721-2-5 (§4.2.4)) size<150 µm and concentration<2 mg / m³. ⁽⁵⁾Power derating above 1000 m. Above 2000 m special requirements. ⁽⁶⁾In case of filter box option.

⁽⁷⁾Extra fans in filter box only for polluted environment.

PV Box RT

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

PV Box is a power conversion system. In a 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 optimized 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 RT?



Higher return on investment

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



Designed for reliability

- Industrialized solution according to Schneider Electric proven industrial processes
- Equipment and integration made in Schneider Electric factories
- Configurable to withstand severe weather conditions: continental, tropical and desertic environments
- Undergone extensive safety, quality and reliability risk mitigation
- Proven robust design through rigorous Custom Reliability Testing
- Type-tested solution according to IEC-62271-202 including Arc Flash Testing (IAC-A)



Flexible

- Vast choice of power and AC medium voltage levels
- Suitable for most environmental conditions and local standards
- Configurable to be optimized for specific project needs



Easy to service

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



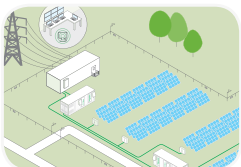
Easy to install

- Ease in transportation due to its compact and light design (minimized width, height and length for easy shipping by road)
- Solution delivered pre-assembled, configured and tested to reduce on-site labor and project duration
- Integrated concrete basement requiring minimal civil works at site

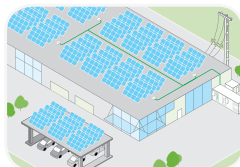


Road transportation version

Product applications



PV power plants centralised



Commercial grid-tie centralised

Device short name	PV Box RT 1080	PV Box RT 1260	PV Box RT 1360
Electrical specifications			
DC input			
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
AC output			
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
Power factor compensation	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag
Equipment			
Inverters	2 x XC 540	2 x XC 630	2 x XC 680
DC connection	2 x DC Box 6 input or 2 x DC Box 10 input (+/-)		
DC fuse range ⁽¹⁾	DC Box 6: 315 A, 350 A, 400 A / DC Box 10: 160 A, 200 A, 250 A		
Transformer type	Schneider Electric Minera oil type ONAN		
Transformer losses	C0BK		
Medium voltage switchgear $U \leq 24$ kV	Schneider Electric RM6 ring main unit type NE-DI with Sepam 10 protection relay		
Medium voltage switchgear $24 \text{ kV} \leq U \leq 36$ kV	Schneider Electric Flusarc ring main unit type CB-C with Sepam 10 protection relay		
Optional content			
Automatic progressive reconnection ⁽²⁾	MV circuit breaker motorization, configurable timer		
Auxiliary power transformer	10 kVA / 400 V		
DC input measurement	DC Box monitored		
Monitoring and control	Conext Control monitoring cabinet with secured power supply		
Safety kit	Fire-extinguisher, insulated MV rod and gloves, insulating stool		
Service kit	Contacts on doors and smoke detector (available with Conext Control option)		
Service contract	Worldwide service team - consult your sales representative for service offer		
External operating conditions			
Temperature			
Standard temperature range	-20°C / + 45°C ⁽³⁾		
Other temperature ranges	Temperate, continental, desert, tropical (consult your sales representative)		
Pollution			
Standard low polluted environment (Rural and suburban environment)	G4 filters		
Option polluted environment (desert, urban...) ⁽⁴⁾	External filter box (G4 and F9 filters, fans, speed drives)		
Other conditions			
Max. relative humidity (non condensing)	100%		
Max. altitude above sea level ⁽⁵⁾	2000 m		
Max. wind speed	123 km / h		
Max. snow load	250 kg / m ²		
IP grade LV and MV compartment	IP54		
IP grade transformer compartment	IP23		
General specifications			
Dimensions and weight			
During transportation (H x W x D)	3.10 x 2.50 x 8.90 (or 9.70 ⁽⁶⁾) m		
Assembled on site (H x W x D)	2.65 x 3.15 x 8.90 (or 9.70 ⁽⁶⁾) m		
Weight approx. with standard content	24 tons		
Material			
Basement	Concrete basement included		
Walls and roof	Sandwich panels		
Cooling			
LV and MV switchboard compartment	Ensured by inverter fans. ⁽⁷⁾		
Transformer compartment	Natural		
Regulatory approval			
Electrical standards	IEC 62271-202, IEC 61439, IEC 62271-200, IEC 60076		
Type-test certification	IEC 62271-202		
Internal arc classification (acc. to IEC 62271-202)	IAC-A		
General ventilation filters standard	EN779:2012		
Building standards	Eurocodes		

Specifications are subject to change without notice.

⁽¹⁾Fuses may be ordered separately. ⁽²⁾To avoid simultaneous reconnection of every PV Boxes and for automatic opening and reclosing on grid voltage loss (grid requirement). ⁽³⁾Derating above 40°C.

⁽⁴⁾For dust or sand (IEC 60721-2-5 (§4.2.4)) size<150 µm and concentration<2 mg / m³. ⁽⁵⁾Power derating above 1000 m. Above 2000 m special requirements. ⁽⁶⁾In case of filter box option.

⁽⁷⁾Extra fans in filter box only for polluted environment.

PV Box (NA, Japan, India)

Containerized 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 optimized 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?



Higher return on investment

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



Designed for reliability

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



Flexible

- Customizable 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, minimized width, height and length for easy shipping by road and by sea)
- Solution delivered pre-assembled, configured and tested to reduce on-site labor and project duration



North American version

Schneider Electric™ also offers designs adapted to customer needs based on special country requirements. Some examples of *engineered to order* versions:

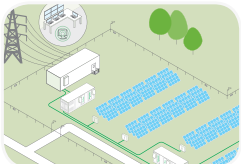


Japanese version

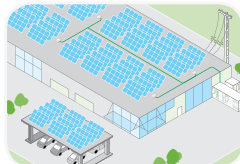


Indian version

Product applications



PV power plants centralised



Commercial grid-tie centralised

PV Box North America

General specifications

Fully enclosed or porch version with outdoor pad-mounted transformer

MV transformer UL compliant with integrated MV switch and fuse protection

Plug-in type filter boxes for desertic and tropical climates

PV Box Japan

General specifications

Seismic withstand

Special protection against dry salt corrosion

Combined forced ventilation & air conditioning advanced cooling system

Local manufacturing compliant to Japanese standards (JIS)

Choice of 6.6 kV, 22 kV and 33 kV transformers and MV switchgears

Special 2 MW version with integrated 6.6 kV grid-tie switchgear for MegaSolar projects

PV Box India

General specifications

Special ventilation system for operation at high temperatures (50°C)

Filtering system for dusty environments

Metallic basement enabling elevated installation for areas subject to floods

Compliant to local building codes, including 2 access doors

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?



Higher return on investment

- Best in class efficiency with 98.9% peak, 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 (AC circuit breaker, DC switch)
- Full suite of alarms and troubleshooting tools allow for remote diagnostics

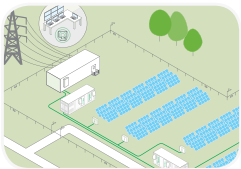


Easy to install

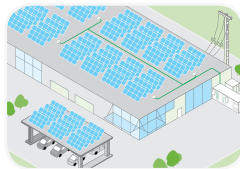
- Compact footprint for easy integration into compact enclosures
- Integrated AC and DC switchgear standard
- In-built hardware for 1000 VDC start-up and LVRT features



Product applications



PV power plants centralised



Commercial grid-tie centralised

Device short name	XC 540	XC 630	XC 680
Electrical specifications			
Input (DC)			
Input voltage range, MPPT	440 - 800 V (at PF=1)	510 - 800 V (at PF=1)	550 - 800 V (at PF=1)
Static MPPT accuracy	>99.9%	>99.9%	>99.9%
	5% to 100% of nominal power	5% to 100% of nominal power	5% to 100% of nominal power
	Entire MPP (maximum power point) range; PV generator Fill Factor from 60-80%	Entire MPP (maximum power point) range; PV generator Fill Factor from 60-80%	Entire MPP (maximum power point) range; PV generator Fill Factor from 60-80%
Input voltage range, operating	440 - 885 V	510 - 885 V	550 - 885 V
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Max. input current	1280 A	1280 A	1280 A
Max. input short circuit current	2000 A	2000 A	2000 A
Output (AC)			
Nominal output power	540 kVA	630 kVA	680 kVA
Real power	540 kW (at PF=1)	630 kW (at PF=1)	680 kW (at PF=1)
Reactive power range	+ / - 540 kVAr	+ / - 630 kVAr	+ / - 680 kVAr
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 settable range (Ppf dispatch)	0.8 to 1.0 leading and lagging	0.8 to 1.0 leading and lagging	0.8 to 1.0 leading and lagging
Power factor range (PQ dispatch)	0 to 1 leading and lagging	0 to 1 leading and lagging	0 to 1 leading and lagging
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
Seismic	IEEE-693-2005 High performance level*, ICC-ES AC156-2012**		
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 (14°F to 113°F) 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	French order of April 23, 2008, IEC 61727, PO 12.3 (Spain), US-MV (FERC 661/661A, FRCC, WECC, NERC PRC-024-1), BDEW (Germany), RD1663/200 (Spain), RD661/2007 (Spain), CEI-016 (Italy), ANRE Order 30/2013 (Romania), PEA (Thailand)		

Specifications are subject to change without notice. Other input voltage windows and power outputs available.
*ZPA=1.0 g 2% damping, **Seismic demand spectrum (SDS) of 1.78g and z/h of 0 lp=1.5 (ground mounted equipment)

Conext Core XC-NA series central inverters

High availability and enhanced efficiency from a provider you can trust

The Conext™ Core XC-NA 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-NA Series is CSA Certified to UL1741 and CSA C22.2 no.107.1 to 1000 VDC and comes with integral AC and DC switchgear which meets the requirements of NEC 690.17. In addition, the Conext Core XC-NA comes with an integrated DC combiner with a variety of fuse and monitoring options and a next generation ground fault detection system which helps reduce hazards from PV array blind spots. The Conext Core XC-NA is enclosure type 3R rated for outdoor applications and can be provided as part of a skid-mounted or PV box solution.

Why choose Conext Core XC-NA?



Higher return on investment

- Best in class efficiency: 98.6% peak and 98% CEC
- Wide range of full power operation from -20°C to 50°C, with -35°C option
- Static and dynamic MPPT efficiency over 99.9% (Tested to EN50530)
- Increased uptime due to high reliability and comprehensive service network



Designed for reliability

- Undergone extensive safety, quality and reliability risk mitigation
- Robust design through rigorous custom reliability and environmental testing



Flexible

- UL1741 listed to 1000 VDC
- Full grid management features including
 - Voltage/frequency high and low ride through
 - Reactive current support
 - VAR control 0.8 lagging to 0.8 leading
 - VARs at night
 - Frequency-based active power control
- Configurable firmware to allow for easy adjustments to changing utility requirements



Easy to service

- Integrated AC and DC switchgear using Masterpact NW (AC circuit breaker, DC switch) which meet the requirements of NEC 690.17
- Suite of alarms and troubleshooting tools allow for remote diagnostics
- Pre-connection insulation detection with GFDI helps reduce hazards from PV array blind spots



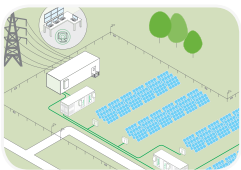
Easy to install

- Type 3R rated for outdoor use with skid or PV Box solutions available
- Integrated DC Combiner with 250 A to 400 A fuse options and optional string monitoring

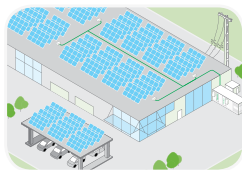


ONTARIO FIT COMPLIANT 

Product applications



PV power plants centralised



Commercial grid-tie centralised

Device short name	XC 540-NA	XC 630-NA	XC 680-NA
Electrical specifications			
Input (DC)			
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
Static MPPT accuracy	>99.9%	>99.9%	>99.9%
	5% to 100% of nominal power	5% to 100% of nominal power	5% to 100% of nominal power
	Entire MPP (maximum power point) range; PV generator Fill Factor from 60-80%	Entire MPP (maximum power point) range; PV generator Fill Factor from 60-80%	Entire MPP (maximum power point) range; PV generator Fill Factor from 60-80%
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Max. input current	1280 A	1280 A	1280 A
Max. input short circuit current	2000 A	2000 A	2000 A
Output (AC)			
Nominal output power	540 kVA	630 kVA	680kVA
Power factor	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag	0.8 to 1.0 lead / lag
Real power	540 kW (at PF=1)	630 kW (at PF=1)	680 kW (at PF=1)
Reactive power range	+ / - 324 kVAr	+ / - 380 kVAr	+ / - 410 kVAr
Output voltage	300 V	350 V	380 V
Frequency	60 Hz	60 Hz	60 Hz
Nominal output current	1040 A	1040 A	1040 A
Harmonic distortion	< 3% at rated power	< 3% at rated power	< 3% at rated power
Efficiency			
Maximum	98.2%	98.5%	98.6%
CEC	97.5%	98.0%	98.0%
General specifications			
Power consumption, night time	< 210 W	< 210 W	< 210 W
Degree of protection	Enclosure type 3R, suitable for use in class 4S2 according to IEC 60721-3-4	Enclosure type 3R, suitable for use in class 4S2 according to IEC 60721-3-4	Enclosure type 3R, suitable for use in class 4S2 according to IEC 60721-3-4
Enclosure material	Steel with 3 layer coating (zinc primer, epoxy powder coat, polyester powder coat)		
Seismic	IEEE-693-2005 Moderate performance level*, IBC certification ICC-ES AC153 (2013)**		
Product weight (includes DC combiner)	2240.0 kg (4938.0 lb)	2240.0 kg (4938.0 lb)	2240.0 kg (4938.0 lb)
Product dimensions (H x W x D) (includes DC combiner)	227.3 x 321.4 x 85.8 cm (89.5 x 126.5 x 33.8 in)	227.3 x 321.4 x 85.8 cm (89.5 x 126.5 x 33.8 in)	227.3 x 321.4 x 85.8 cm (89.5 x 126.5 x 33.8 in)
Ambient air temperature for operation	-20°C to 50°C (-4°F to 122°F) full power. Power derating to 55°C (low temperature option to -35°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, Modbus over TCP/IP optional		
AC/DC disconnect	Load break rated DC disconnect and AC circuit breaker standard - meets the requirements of NEC 690.17		
Ground fault detection/interruption	Pre-connection isolation monitoring relay with GFDI (negative or positive grounding), or isolation monitor (floating configuration)		
Sub-array combiner	Integrated sub-array combiner - up to 10 poles with fuse sizes from 250 A to 400 A, optional string monitoring		
Regulatory approvals			
Conext Core XC-NA Series is certified to the requirements of UL1741 (including IEEE 1547) and CSA-C22.2 no.107.1			

Specifications are subject to change without notice. Any other power levels or configurations need to be certified with CSA. *Anchored at 0.5g peak ground acceleration (PGA). **Seismic demand spectrum (SDS) of 1.78g and z/h of 0 (ground mounted equipment)

GT500 and GT500 MVX grid-tie solar inverters

High efficiency and reliability from a provider you can trust

Designed for large scale applications, the GT500 and GT500 MVX is a high efficient, proven high reliability inverter suitable for both utility power plants and large rooftops. The GT500 connects directly to the low voltage grid using a high efficiency low voltage transformer supplied by Schneider Electric™. The GT500 MVX integrates utility interactive feature of power factor control which can be used to either export or import VAR's when connected to the utility using a transformer supplied by the customer.

The inverters incorporate an advanced Maximum Power Point Tracking (MPPT) algorithm to maximize the energy harvested from a PV array. To ensure reliability, the GT500 and GT500 MVX and its sub-components have been tested using Highly Accelerated Life Testing (HALT) and Multiple Environment Over Stress Testing (MEOST). The high reliability of the GT500 and GT500 MVX reduces system downtime and results in a higher energy production.

Why choose GT500 and GT500 MVX?



Higher return on investment

- Ultra-efficient design with CEC efficiency of 97%
- Reduced system costs thank to outdoor installation
- Enhanced reliability through segregation of sensitive electronics and power components



Designed for reliability

- Undergone extensive safety, quality and reliability testing



Flexible

- PV Box solution with multiple inverters and medium voltage remote monitoring and control options
- Ontario FIT compliant available



Easy to service

- Sub-array string monitoring
- Remote monitoring and control options
- Comprehensive Schneider Electric service network to ensure rapid response when issues arise
- Alarms and troubleshooting tools allow for remote detection and analysis of issues before arriving on site



Easy to install

- Integrated ground fault detection and interruption
- Includes AC and DC disconnects
- Designed for fork lift or sling transportation
- Back and sides of unit designed for zero clearance installations to minimize inverter space requirements



GT500 MVX

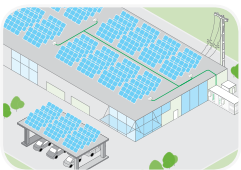
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GT500

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Product applications



Commercial grid-tie centralised

Device short name	GT500 480	GT500 600	GT500 MVX
Electrical specifications			
Input (DC)			
Input voltage range, MPPT	310 to 480 V	310 to 480 V	310 to 480 V
Max. input voltage, open circuit	600 V	600 V	600 V
Max. input current	1720 A	1720 A	1720 A
Max. input short circuit current	2150 A	2150 A	2850 A
DC backfeed current	0 A	0 A	0 A
Output (AC)			
Output voltage	480 V Delta	600 V Delta	208V (for direct connection to a medium voltage isolation transformer)
Frequency	60 Hz	60 Hz	60 Hz
Nominal output current	610 A	490 A	1400 A
AC current distortion	< 5% at rated power	< 5% at rated power	< 5% THD at rated power
Nominal Output power	500 kW	500 kW	500 KVA 45°C with derating to 50°C
Topology	Isolation transformer standard and integrated within the inverter enclosure (480 V and 600 V only)		
Efficiency			
Peak	96.9%	96.9	98% not including MV transformer
CEC weighted	96.0%	96.0	97% not including MV transformer
General specifications			
Power consumption, night time	336 W	336 W	< 161 W
NEMA degree of protection	Type 3R (outdoor rating)	Type 3R (outdoor rating)	Type 3R (outdoor rating)
Enclosure material	Zinc plated, highly reflective, powder coating finish		
Product weight	3103.0 kg (6840.0 lb)	3103.0 kg (6840.0 lb)	1587.0 kg (3499.0 lb)
Product dimensions (H × W × D)	224.0 × 463.8 × 108.7 cm (88.2 × 182.6 × 42.8 in)	224.0 × 463.8 × 108.7 cm (88.2 × 182.6 × 42.8 in)	224.0 × 228.6 × 126.0 cm (88.4 × 90.0 × 49.6 in)
Ambient air temperature for operation	-20°C to 50°C (-4°F to 122°F)		
Operating altitude	2000 m (6562 ft) without de-rating		
Relative humidity	0 to 95% non-condensing		
Part number	820-0076-01-01: GT500-480 Neg Gnd 820-0076-03-01: GT500-480 Pos Gnd	820-0076-02-01: GT500-600 Ontario Fit Compliant	820-0150-01-01: GT500 MVX Neg Gnd with Power Factor Control 820-0150-02-01: GT500 MVX Neg Gnd with Power Factor Control and Power Limiting for Ontario Fit 820-0150-04-01: GT500 MVX Pos Gnd with Power Factor Control 820-0150-05-01: GT500 MVX Neg Gnd with Power Factor Control and Power Limiting non Ontario Fit
Features and options			
Type of cooling	Forced convection cooling		
Display type	Standard bright fluorescent green Vacuum display		
Communication interface	RS485/Modbus communications interface kit included		
AC/DC disconnect	Standard and integrated within the inverter enclosure		
Ground fault detection/interruption	Standard and integrated within the inverter enclosure		
Sub-array combiner	Optional integrated with the inverter enclosure, 100 A 150 A or 200 A circuits		
Regulatory approvals			
Safety	CSA certified to UL1741 Ed. 2, CSA 107.1-01		
Interconnect	IEEE 1547		

Specifications are subject to change without notice.

GT250 grid-tie solar inverters

High availability from a provider you can trust

Easy to install and operate, the Schneider Electric™ GT250 grid tie inverters automate startup, shut down and fault detection scenarios. They incorporate advanced Maximum Power Point Tracking technology to maximize the energy harvested from a PV array. To ensure reliability, the GT250 and their sub-components have been tested using Highly Accelerated Life Testing (HALT) and Multiple Environment Over Stress Testing (MEOST). Multiple inverters are easily paralleled for larger power installations.

Why choose GT250?



Higher return on investment

- Designed to help maximize reliability with film-type capacitors and bus bars in the power path



Designed for reliability

- Undergone extensive safety, quality and reliability testing



Flexible

- RS485/Modbus and RS232 communications
- Ontario FIT Compliant available



Easy to service

- Integrated ground fault detection and interruption
- Soft-start circuit to reduce nuisance trips
- Preventative maintenance program
- Five-year standard warranty
- Remote monitoring and control options



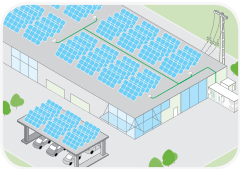
Easy to install

- Integrated design with isolation transformer
- Includes AC and DC disconnects
- Designed for fork lift or sling transportation



ONTARIO FIT
COMPLIANT 

Product applications



Commercial grid-tie centralised

Device short name	GT250 480	GT250 600
Electrical specifications		
Input (DC)		
Input voltage range, MPPT	300 to 480 V	310 to 480 V
Max. input voltage, open circuit	600 V	600 V
Max. input current	867 A	867 A
Max. input short circuit current	1214 A	1214 A
Utility backfeed current	0.1 A	0.1 A
Output (AC)		
Nominal output power	250 kW	250 kW
Output voltage	480 V delta	600 V delta
Frequency	60 Hz (+0.5 Hz / -0.7 Hz)	60 Hz (+0.5 Hz / -0.7 Hz)
Max. continuous AC output current	301 A	241 A
Power factor	> 0.99	> 0.99
AC current distortion	<5% THD at rated power	<5% THD at rated power
DC Current Ripple	<2% at rated power	<2% at rated power
Topology	Isolation transformer standard and integrated within the inverter enclosure	
Efficiency		
Maximum	96.8%	96.8%
CEC weighted	96.0%	96.0%
General specifications		
Power consumption, night time	< 35 W	< 35 W
NEMA degree of protection	Type 3R (outdoor rating)	Type 3R (outdoor rating)
Enclosure material	Corrosive resistant, powder-coated steel	
Product weight	2018.0 kg (4450.0 lb)	2018.0 kg (4450.0 lb)
Product dimensions (H x W x D)	219.2 x 228.6 x 117.1 cm (86.3 x 90.0 x 46.1 in) (Removable air intake reduces depth by 12 in for fitting through doors)	219.2 x 228.6 x 117.1 cm (86.3 x 90.0 x 46.1 in) (Removable air intake reduces depth by 12 in for fitting through doors)
Ambient air temperature for operation	-15°C to 50°C (5°F to 122°F) available lower temperature option with space heaters	-35°C to 45°C (-31°F to 113°F)
Operating altitude	2000 m (6562 ft) without de-rating	
Relative humidity	0 to 95% non-condensing	0 to 95% non-condensing
Part number	820-0200-01-01: GT250 Neg Gnd 820-0200-02-01: GT250 Pos Gnd 820-0200-05-01: GT250 Neg Gnd with heaters	820-0200-03-01: GT250 Neg Gnd Ontario Fit
Features and options		
Type of cooling	Forced convection cooling	
Display type	Standard bright fluorescent green Vacuum display	
Communication interface	RS485 / Modbus and RS232 communications interface kit	
AC/DC disconnect	Standard and integrated within the inverter enclosure	
Ground fault detection/interruption	Standard and integrated within the inverter enclosure	
Sub-array combiner	Optional integrated with the inverter enclosure	
Regulatory approvals		
Safety	CSA certified to UL1741 Ed. 2, CSA 107.1-01	
Interconnect	IEEE 1547	

Specifications are subject to change without notice.

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?



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 fiberglass
- 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
- Motorized switch controlled remotely by Conext Control accelerates lock-out / tag-out procedure and allows an easy return to operation

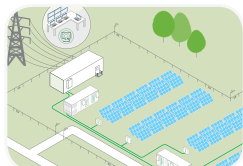


Easy to install

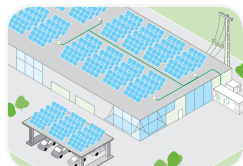
- Mounting on a support bracket or on a plinth for independence to the racking system, or attached to the racking system for less civil work
- Capabilities to directly connect up to 2 PV string cables and 2 DC output cables per polarity



Product applications



PV power plants centralised



Commercial grid-tie centralised

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 fiberglass)			
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 (protect / 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 attached 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, I _{max} 40 KA			
AC supply overvoltage protection*	Surge arrester, 230 Vac, type 2, I _{max} 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/m ² , accuracy +/- 0.5% full scale, for external 4-20 mA irradiance sensor			
Communication*	Profibus DP / RS485 and Modbus RTU / RS485 link			
Switch disconnecter 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				
Protect: 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
Compatible products (see page 43 for more details)				
Support bracket for roof-mounting	Product no. NSYCOCONS1400, NSYCOCONS1800			
Support bracket for ground-mounting	Product no. NSYCOCONS1800 SPECIAL			
Plinth for ground-mounting	Product no. NSYZM263 for AB31-08 models, NSYZM283 for AB31-16/24			
Sealing cover IP55	Product no. NSYCAP125LZF			
Set of 4x lugs for wall-mounting	Product no. NSYPFPLM			
Set of 4x feet for ground-mounting with plinths	Product no. NSYAEBFZ			

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

DC Box

Protect and keep an eye on the arrays of your PV installation

The DC Box is a PV array combiner box installed next to the Conext™ Core XC inverter, providing protection and supervision of the PV plant performance.

Why choose DC Box?



Higher return on investment

- Reduced CAPEX: Highly cost competitive offer with and without current monitoring
- Reduced OPEX: Detection of PV strings failure and aging by measuring the energy produced with a high precision



Designed for reliability

- Designed for indoor use with temperature around DC Box from -10°C to +55°C
- Control of humidity by using an internal controlled heater when DC Box is monitored
- Robust metal enclosure painted with epoxy-polyester resin, textured RAL 7035 grey
- Optimal cooling of the PV fuses to reduce their temperature rise and increase their life duration
- Certified according IEC/EN 61439-1 and -2 as quality guarantee for construction and verification



Flexible

- Offer range with 6/10 inputs and a maximum output current of 1600A STC to fit with a large number of PV plant designs
- Large range of possible fuse ratings for each DC Box model
- Available with and without monitoring of the sub-array currents to fit with every monitoring architecture approach



Easy to service

- Need for DC Box service is reported by Conext Control for the replacement of blown fuses
- Fuses are quickly mountable in fuse-holders to reduce service duration
- Enclosure with 2 narrow doors for a safer use in PV Box

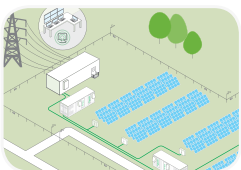


Easy to install

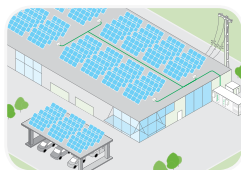
- Floor-standing close to the inverter, cables are passing through the bottom
- Up to 2 x 300 mm² DC input cables per polarity to connect the PV string combiner boxes
- Up to 4 x 300 mm² DC output cables per polarity to connect the inverter



Product applications



PV power plants centralised



Commercial grid-tie centralised

Device short name	DC06B Protect	DC06B Monitored	DC10B Protect	DC10B Monitored
Electrical specifications				
DC input				
Number of inputs	6	6	10	10
Max. voltage in open circuit	1000 V	1000 V	1000 V	1000 V
Max. input current in short circuit	375 A	375 A	200 A	200 A
Max. input current in short circuit @ STC	300 A	300 A	160 A	160 A
DC output				
Max. output current in short circuit	2000 A	2000 A	2000 A	2000 A
Max. output current in short circuit @ SCT	1600 A	1600 A	1600 A	1600 A
Max. output current in operation	1280 A	1280 A	1280 A	1280 A
Max. thermal dissipation in operation @ 1280A*	250 W	300 W	250 W	300 W
AC supply**				
Voltage at 50/60 Hz	-	230 V + 10/-15%	-	230 V + 10/-15%
Internal consumption	-	60 VA	-	60 VA
Additional consumption for heater	-	170 VA	-	170 VA
Environmental specifications (in operation)				
Ambient air temperature for operation	-10°C to 55°C(23°F to 131°F)	-10°C to 55°C(23°F to 131°F)	-10°C to 55°C(23°F to 131°F)	-10°C to 55°C(23°F to 131°F)
Operating 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
Relative humidity	0 to 100%, condensing	0 to 100%, condensing, control of humidity by using an internal controlled heater	0 to 100%, condensing	0 to 100%, condensing, control of humidity by using an internal controlled heater
General specifications				
Enclosure				
Enclosure material	Indoor use, metallic cabinet with two doors	Indoor use, metallic cabinet with two doors	Indoor use, metallic cabinet with two doors	Indoor use, metallic cabinet with two doors
Color	RAL 7035, grey	RAL 7035, grey	RAL 7035, grey	RAL 7035, grey
Product				
Product weight	180.0 kg (396.8 lb)	190.0 kg (418.9 lb)	200.0 kg (440.9 lb)	210.0 kg (463.0 lb)
Product dimensions (H x W x D)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)
Device mounting	Floor-standing	Floor-standing	Floor-standing	Floor-standing
Degrees of protection	IP20, IK10	IP20, IK10	IP20, IK10	IP20, IK10
Features				
Protection				
DC input overcurrent protection***	Protection on both polarities, gPV fuses	Protection on both polarities, gPV fuses	Protection on both polarities, gPV fuses	Protection on both polarities, gPV fuses
Range of fuses (for other ratings, contact Schneider Electric)	315 A, 355 A, 400 A	315 A, 355 A, 400 A	160 A, 200 A, 250 A	160 A, 200 A, 250 A
Electric shock protection	Class I equipment	Class I equipment	Class I equipment	Class I equipment
Monitoring**				
DC input currents (one measurement per input)	-	0 to 400 A, accuracy +/- 2% full scale	-	0 to 200 A, accuracy +/- 2% full scale
Communication interface	-	RS485 / Modbus RTU	-	RS485 / Modbus RTU
Relative humidity control by heater	-	Local setting range 20-80%	-	Local setting range 20-80%
Regulatory approvals				
Electrical safety	CE marked for the Low Voltage Directive 2006-95-EC			
EMC	CE marked for the EMC directive 2004-108-EC			
LV switchgear assemblies	IEC/EN 61439-1, IEC/EN 61439-2			
Available models				
Part number	PVSDC31101	PVSDC31111	PVSDC31201	PVSDC31211
Compatible products (see page 43 for more details)				
For DC Box DC 06B (pack, 12 units)				
Fuse gPV 400 A - 1000 V	Product no. PVSDC30201			
Fuse gPV 355 A - 1000 V	Product no. PVSDC30211			
Fuse gPV 315 A - 1000 V	Product no. PVSDC30221			
For DC Box DC 10CB (pack, 20 units)				
Fuse gPV 250 A - 1000 V	Product no. PVSDC30231			
Fuse gPV 200 A - 1000 V	Product no. PVSDC30241			
Fuse gPV 160 A - 1000 V	Product no. PVSDC30251			

Specifications are subject to change without notice. *DC06B with 5 inputs at 256A and fuses gPV 400 A; DC10B with 8 inputs at 160 A and fuses gPV 250 A.

** For monitored models. ***Fuses not provided with product.

Conext Control

Your solution for control and monitoring of large commercial rooftops and PV power plants

Conext™ Control is a solution that integrates control, monitoring and performance management features and is designed to operate any site efficiently, providing the means to make prompt decisions and react accordingly. It can easily be adapted to your required level of service, from maintenance contracts with a simplified monitoring system, to performance contracts with a fast and comprehensive system covering the entire life cycle of your installation.

Why choose Conext Control?



Higher return on investment

- CAPEX and feature level adapted to any need
- Minimizes OPEX through real time supervision and advanced diagnostics
- Asset performance tracking tools enabling enhancement of energy harvest
- Contributes to extend equipment life duration



Designed for reliability

- Robust hardware design through rigorous Custom Reliability Testing
- Software application validated through extensive qualification testing



Flexible

- Various features levels (Advanced HD, Advanced, Initial) to meet any customer requirements
- Modular hardware and software based on standardized bricks
- Complete multi-site solution including data acquisition, remote control, grid interaction management, supervision, data storage and analysis
- Wide selection of devices for easy and speedy site implementation



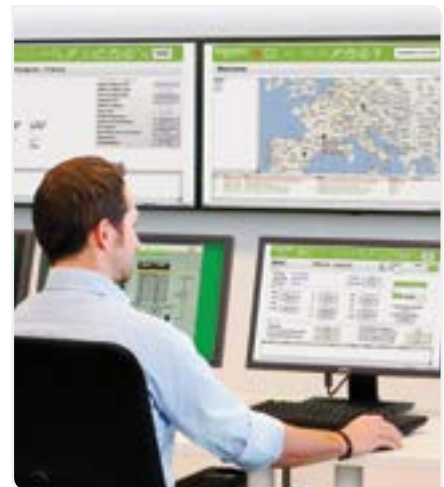
Easy to service

- Embedded Conext Control self diagnostics tool
- Smart alarming management based on plant-wide time synchronization
- Hardware and software components shared with several Schneider Electric global business

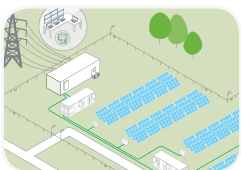


Easy to install

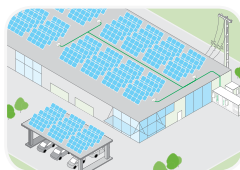
- Based on tested and validated monitoring and control system architectures, removing needs for customization
- System configuration tool enables fast and error-free site configuration and implementation



Product applications



PV power plants centralised



Commercial grid-tie centralised

Conext Control		Advanced HD	Advanced	Initial
Conext Control				
	Intelligence	•	•	•
	Reports	•	•	•
	Performance	•	•	•
	Smart string monitoring	• (option)	• (option)	
	Production Forecast	• (on demand)	• (on demand)	• (on demand)
	DC performance evolution tracking	• (on demand)		
Conext Control intelligence				
Multi-site management				
Data behaviors				
	Acquisition cycle	• (2 seconds)	• (2 seconds)	• (5 seconds)
	Time synchronization	•	•	•
	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 10 days)
	Communication status	•	•	•
Operator interface				
	Client server access	•	•	•
	Web access	•	•	•
Real time synoptic views				
	Predefined	•	•	•
	Customized	• (on demand)	• (on demand)	
Alarming				
	Real time alarming	•	•	•
	Alarm filtering (root cause display)	•	•	•
Alerting				
	SMS or e-mail	•	•	•
Conext Control reports				
	Predefined	•	•	•
	Customized	• (on demand)	• (on demand)	
	Site scorecard	•	•	•
	Trend analysis	•	•	•
Conext Control performance				
Key performance indicators PR, AL, energy not supplied				
		•	•	•
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)
Controlled features				
PV Box				
	Inverter remote control	•	•	•
	Inverter (P, Q) fast control	• (if installed)	• (if installed)	• (if installed)
Array Box				
	Main switch remote control (LTO)	• (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)
Monitored devices				
PV Box				
	Inverters	•	•	•
	Transformer (fault)	•	•	•
	Transformer (pre-alarm)	•	•	
	RMU status	•	•	
	RMU protection relay	•	•	•
	LV switchboard	•	•	
	Auxiliary consumption metering	• (if installed)	• (if installed)	
	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	•	•	•
	Revenue grade metering	•	•	•
	Feeders status	•	•	•
	Feeders 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)

Specifications are subject to change without notice.

MV/LV offer (CE compliant)



RM6

The RM6 is a compact, self-contained totally insulated switchgear that 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.



Transformers

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 IEE compliant)



Padmount oil-filled transformers

Square D three-phase, pad-mounted oil-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.

MV/LV offer (CE and UL compliant)



Protection relays for MV and HV applications (MiCOM, SEPAM series)

Earth fault protection devices for feeders and distribution transformers.



LV switchgear and protection

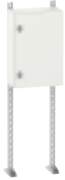
Schneider Electric offers a comprehensive range of low voltage switchgear and protection components for both the AC and 1000 VDC PV sides. The range includes breakers and switches from the Masterpact, Compact and Powerpact families, surge protection devices and PV rated insulation monitors from the Vigilohm family.



PowerLogic metering

Schneider Electric offers a full portfolio of metering and monitoring products and solutions, scalable 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.

Accessories for the Array Box



Support bracket for roof-mounting and ground-mounting

(For roof-mounting NSYCOCONS1400, NSYCOCONS1800, for ground-mounting NSYCOCONS1800 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 fiberglass, 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.

Accessories for the DC Box



Fuses - 12 unit pack

(GPV 400A-1000V, PVSDC30201, gPV 355A-1000V, PVSDC30211, gPV 315A-1000V, PVSDC30221)



Fuses - 20 unit pack

(GPV 250A-1000V, PVSDC30231, gPV 200A-1000V, PVSDC30241, gPV 315A-1000V, PVSDC30251)

For more products and information please visit our website at www.SESolar.com



La Réunion, France
18 MW

> Residential, commercial and decentralised PV power plants

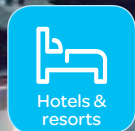
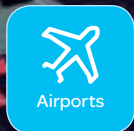
For any solar application, it's critical that the solution be flexible enough to meet your needs, and deliver the greatest possible return on investment.

That's why Schneider Electric™ offers a complete portfolio of reliable, easy-to-install grid-tie residential and commercial building products, backed by our global service infrastructure and expertise in energy management – all from a bankable partner that you can trust.

Solar applications:

- > Residential buildings
- > Commercial buildings and carports
- > Decentralised PV plants

Solar solutions for:



Conext RL single-phase grid-tie inverter

Flexible and efficient residential solar solution

The Schneider Electric™ Conext™ RL inverters are specially designed to maximize 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 enables you to maximize your ROI. Backed 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?



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 minimize 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)



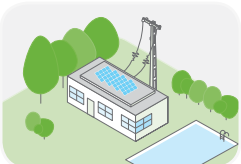
Easy to install

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

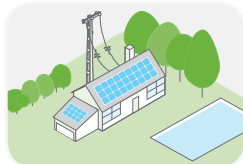


Available in 3, 4 and 5 kW

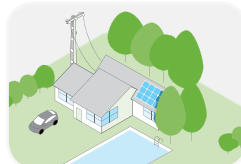
Product applications



Flat roofs



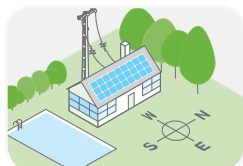
Multiple pitched roofs



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	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	4 kVA*	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	18.2 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 65°C (-4°F to 149°F)***	-20 to 65°C (-4°F to 149°F)***	-20 to 65°C (-4°F to 149°F)***
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, UTE C15-712-1, AS4777, VDE 0126, EN50438, IEC 62116, IEC 61727, MEA, PEA, IEC 61683, G83/2 for Conext RL 3000E and 4000E, G59/2 for Conext RL 5000E		
Environmental	RoHS, REACH, IEC 60068-2 (as per MNRE Technical Specifications)		
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) see page 54 for more details		

Specifications are subject to change without notice. *3.68 kVA for UK. **4.6 kVA for Germany. ***-20°C cold start temperature.

Conext CL three-phase grid-tie inverters

Ideal solution for commercial buildings, carports and decentralised power plants

The Conext™ CL Series is a new line of three phase string inverters designed for high efficiency, maximum flexibility and easy installation and service. Electrolyte-free design with Schneider Electric's rigorous reliability test procedures improve the long term reliability. Five configuration options of integrated wiring box allow for easy, flexible and low cost installations. Decentralised architecture, full grid support features and system capability together with Schneider Electric's broad range of medium voltage products make Conext CL the ideal choice for medium and large PV plants. Backed by Schneider Electric's global service infrastructure, leading manufacturing facilities and its expertise in energy management, the Conext CL Series is the inverter you should trust for quality and reliability.

Why choose Conext CL?



Higher return on investment

- High conversion efficiency: 98.4% peak efficiency, 98.0% Euro efficiency
- Great value for money: integrated wiring box saves customer the cost of external DC combiner box*
- Overpaneling capability to allow for maximizing energy harvest



Designed for reliability

- Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST), Highly Accelerated Test (HALT) and Temperature Humidity Bias (THB)
- Electrolyte-free design to guard against dried cap issue and help to improve long term reliability
- Designed and qualified for applications in tropical environments through salt fog testing and use of conformal coating



Flexible

- Five options of wiring box (base, essential, essential*, optimum and optimum*) to fit different customer needs
- 10° - 90° installation angle to allow for flexible mounting
- Easy to connect to third party monitoring systems



Easy to service

- Touch-safe fuse holder available for easy and protective fuse replacement
- Easily replaceable fan
- Both DC and AC Surge Protection Device (SPD) with included monitoring to help to protect inverter from lightning threat (optimum model)



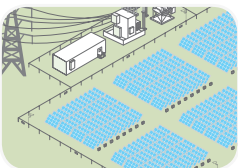
Easy to install

- Detachable inverter to allow for easy installation and upgrades
- Light weight with integrated handles for 2 persons installation
- Touch-safe fuse holder to guard for an easy installation and replacement

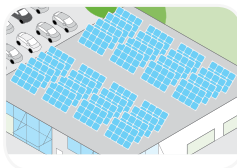


Schneider Electric Conext CL 20 / 25 / 35 kW string inverter with wiring box

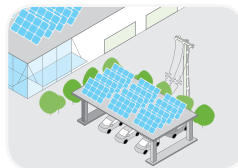
Product applications



PV power plants decentralised



Commercial grid-tie decentralised



Carports

*An external fuse protection shall be installed if base model from available product variants is chosen.

Device short name	CL20000 E	CL25000 E	CL35000 E
Electrical specifications			
Input (DC)			
Full power MPPT voltage range	350 - 800 V	430 - 800 V	500 - 800 V
Operating voltage range at nominal AC voltage	250 - 1000 V	250 - 1000	250 - 1000 V
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Number of MPPT / strings per MPPT	2 / 4	2 / 4	1 / 10
Max. DC input current per MPPT	31.0 A	31.0 A	76.8 A
Absolute max. short circuit current per MPPT*	50.0 A	50.0 A	96.0 A
Nominal DC input power	21.5 kW	26.5 kW	36.8 kW
Max. DC input power per MPPT	12.9 kW	15.9 kW	44.2 kW
DC connection (in the wiring box)	Base model: spring cage clamp connector, Essential model and optimum model: fuse holder	Base model: spring cage clamp connector, Essential model and optimum model: fuse holder	Base model: spring cage clamp connector, Essential model and optimum model: fuse holder
Output (AC)			
Rated output power**	20.0 kW	25.0 kW	35.0 kW
Max. apparent power	22.0 kVA	27.5 kVA	38.9 kVA
Nominal output voltage	230 / 400 V	230 / 400 V	230 / 400 V
AC voltage range	184 - 276 V / 319-478 V	184 - 276 V / 319-478 V	184 - 276 V / 319-478 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Frequency range (adjustable)	50 +/- 3 Hz, 60 +/- 3Hz	50 +/- 3 Hz, 60 +/- 3Hz	50 +/- 3 Hz, 60 +/- 3Hz
Max. output current	32 A	40 A	56 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 (in the wiring box)	spring cage clamp connector	spring cage clamp connector	spring cage clamp connector
Efficiency			
Peak	98.4 %	98.4 %	98.4 %
European	98.0 %	98.0 %	98.0 %
General specifications			
Power consumption at night time	< 2.5 W	< 2.5 W	< 3.0 W
Enclosure rating	IP65 (electronics) / IP54 (rear portion)	IP65 (electronics) / IP54 (rear portion)	IP65 (electronics) / IP54 (rear portion)
Cooling	Fan cooled	Fan cooled	Fan cooled
Inverter weight	45 kg (99.2 lb)	45 kg (99.2 lb)	50 kg (110.2 lb)
Wiring box weight	16 kg (35.3 lb)	16 kg (35.3 lb)	18 kg (39.7 lb)
Inverter dimensions (H x W x D)	71.5 x 67.8 x 26.4 cm (28.1 x 26.7 x 10.4 in)	71.5 x 67.8 x 26.4 cm (28.1 x 26.7 x 10.4 in)	71.5 x 67.8 x 29.4 cm (28.1 x 26.7 x 11.6 in)
Wiring box dimensions (H x W x D)	36.0 x 67.8 x 26.4 cm (14.2 x 26.7 x 10.4 in)	36.0 x 67.8 x 26.4 cm (14.2 x 26.7 x 10.4 in)	36.0 x 67.8 x 29.4 cm (14.2 x 26.7 x 11.6 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)
Max. operating altitude without derating	2000 m (6560 ft)	2000 m (6560 ft)	2000 m (6560 ft)
Relative humidity %	4...100 condensing	4...100 condensing	4...100 condensing
Noise emission (at 1 m distance)	< 55 dBA	< 55 dBA	< 55 dBA
Features and options			
Embedded data logger	Yes		
User interface	Graphic display, buttons		
Communication interface	RS485 (MODBUS RTU), Ethernet / MODBUS TCP (Ethernet), USB and dry contact		
Monitoring	Easy to connect to third party solution, Surge Protection Device (SPD) monitoring available with device		
Remote power off	Yes		
Regulatory approval			
Electrical safety	CE marked for the Low Voltage Directive EN / IEC 62109-1 / EN / IEC 62109-2, AS3100		
Grid interconnection (pending)	BDEW, VDE0126-1-1, VDE-AR-N 4105, CEI 0-21, CEI 0-16, G59/2, UTE C15-712-1, AS4777, IEC 62116, IEC 61727, PEA & MEA for Thailand***		
Environmental	RoHS, REACH and 4K4H		
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			
Base: AC connector and DC connector	PVSCL20E100	PVSCL25E100	PVSCL35E100
Essential: Touch-safe fuse holder DC switch and AC connector	PVSCL20E200	PVSCL25E200	PVSCL35E200
Essential:: Essential with MC4 connector	PVSCL20E201	PVSCL25E201	PVSCL35E201
Optimum: Essential + DC SPD and AC SPD	PVSCL20E300	PVSCL25E300	PVSCL35E300
Optimum:: Optimum with MC4 connector	PVSCL20E301	PVSCL25E301	PVSCL35E301

Specifications are subject to change without notice. *Absolute max. short circuit current is 77.0A for 1 MPPT configuration for CL20000E and CL25000E.

At rated grid voltage with power factor 0.9 to 1. * Country certification is subject to modification.

Conext CL-NA three-phase grid-tie inverters

Ideal solution for commercial buildings, carports and decentralised power plants

The Conext™ CL Series is a new line of three phase string inverters designed for high efficiency, maximum flexibility and easy installation and service. Electrolyte-free design with Schneider Electric's rigorous reliability test procedures improve the long term reliability. Five configuration options of integrated wiring box allow for easy, flexible and low cost installations. Decentralised architecture, full grid support features and system capability together with Schneider Electric's broad range of medium voltage products make Conext CL the ideal choice for medium and large PV plants. Backed by Schneider Electric's global service infrastructure, leading manufacturing facilities and its expertise in energy management, the Conext CL Series is the inverter you should trust for quality and reliability.

Why choose Conext CL?



Higher return on investment

- High conversion efficiency: 98.4% peak efficiency, 98.0% CEC efficiency
- Great value for money: integrated wiring box saves customer the cost of external DC combiner box*
- Overpaneling capability to allow for maximizing energy harvest



Designed for reliability

- Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST), Highly Accelerated Test (HALT) and Temperature Humidity Bias (THB)
- Electrolyte-free design to guard against dried cap issue and help to improve long term reliability
- Designed and qualified for applications in tropical environments through salt fog testing and use of conformal coating



Flexible

- Five options of wiring box (base, essential, essential*, optimum and optimum*) to fit different customer needs
- 10° - 90° installation angle to allow for flexible mounting
- CL 18000NA supporting both 600 V and 1000 V applications



Easy to service

- Touch-safe fuse holder available for easy and protective fuse replacement
- Easily replaceable fan
- Both DC and AC Surge Protection Device (SPD) with included monitoring to help to protect inverter from lightning threat (optimum model)



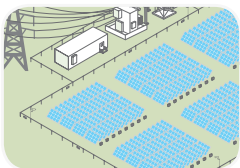
Easy to install

- Detachable inverter to allow for easy installation and upgrades
- Light weight with integrated handle for 2 persons installation
- Both bottom and side cable entry to allow for flexible installation

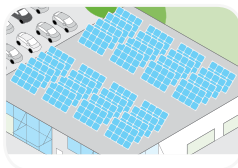


Schneider Electric Conext CL 18 / 20 / 25 kW string inverter with wiring box

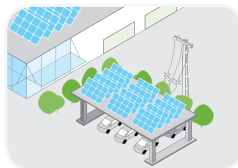
Product applications



PV power plants decentralised



Commercial grid-tie decentralised



Carports

*An external fuse protection shall be installed if base model from available product variants is chosen.

Device short name	CL18000 NA	CL25000 NA	CL35000 NA
Electrical specifications			
Input (DC)			
Full power MPPT voltage range	300 - 800 V	500 - 800 V	520 - 800 V
Operating voltage range	250 - 1000 V	250 - 1000 V	250 - 1000 V
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Number of MPPT / strings per MPPT	2 / 4	2 / 4	1 / 10
Max. DC input current per MPPT	32.0 A	26.5 A	73.7 A
Absolute max. short circuit current per MPPT	36.0 A	36.0 A	96.0 A
Nominal DC input power	19.0 kW	26.5 kW	36.8 kW
Max. DC input power per MPPT	11.4 kW	15.9 kW	44.2 kW
DC connection (in the wiring box)	Bottom and side conduit/ cable entry, Base model: spring cage clamp connector, Essential model and Advanced model: fuse holder	Bottom and side conduit/ cable entry, Base model: spring cage clamp connector, Essential model and Advanced model: fuse holder	Bottom and side conduit/ cable entry, Base model: spring cage clamp connector, Essential model and Advanced model: fuse holder
Output (AC)			
Rated output power*	18.0 kW	25.0 kW	35.0 kW
Max. apparent power	20.0 kVA	27.5 kVA	38.9 kVA
Nominal output voltage	277 / 480 V	277 / 480 V	277 / 480 V
AC voltage range	244 - 305 V / 422 - 528 V	244 - 305 V / 422-528 V	244 - 305 V / 422-528 V
Frequency	60 Hz	60 Hz	60 Hz
Frequency range (adjustable)	60 +/- 3 Hz	60 +/- 3 Hz	60 +/- 3 Hz
Max. output current	25 A	33 A	46 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 (in the wiring box)	Bottom and side conduit/cable entry, spring cage clamp	Bottom and side conduit/cable entry, spring cage clamp connector	Bottom and side conduit/cable entry, spring cage clamp connector
Efficiency			
Peak	98.0 %	98.4 %	98.4 %
CEC	97.5 %	98.0 %	98.0 %
General specifications			
Power consumption at night time	< 2.5 W	< 2.5 W	< 3.0 W
Enclosure rating	NEMA 4 (electronics) / NEMA 3R (rear portion)	NEMA 4 (electronics) / NEMA 3R (rear portion)	NEMA 4 (electronics) / NEMA 3R (rear portion)
Cooling	Fan cooled	Fan cooled	Fan cooled
Inverter weight	45 kg (99.2 lb)	45 kg (99.2 lb)	50 kg (110.2 lb)
Wiring box weight	16 kg (35.3 lb)	16 kg (35.3 lb)	18 kg (39.7 lb)
Inverter dimensions (H x W x D)	71.5 x 67.8 x 26.4 cm (28.1 x 26.7 x 10.4 in)	71.5 x 67.8 x 26.4 cm (28.1 x 26.7 x 10.4 in)	71.5 x 67.8 x 29.4 cm (28.1 x 26.7 x 11.6 in)
Wiring box dimensions (H x W x D)	36.0 x 67.8 x 26.4 cm (14.2 x 26.7 x 10.4 in)	36.0 x 67.8 x 26.4 cm (14.2 x 26.7 x 10.4 in)	36.0 x 67.8 x 29.4 cm (14.2 x 26.7 x 11.6 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)
Max. operating altitude without derating	2000 m (6560 ft)	2000 m (6560 ft)	2000 m (6560 ft)
Relative humidity %	4...100 condensing	4...100 condensing	4...100 condensing
Noise emission (at 1 m distance)	< 55 dBA	< 55 dBA	< 55 dBA
Features and options			
Embedded data logger	Yes		
User interface	Graphic display, buttons		
Communication interface	RS485 (MODBUS RTU), Ethernet / MODBUS TCP (Ethernet), USB and dry contact		
Monitoring	SunSpec Alliance profile, Surge Protection Device (SPD) and Arc Fault Detection (AFD) monitoring available with device		
Remote power off	Yes		
Regulatory approval			
Certifications (pending)	UL1741, IEEE 1547.1, CSA C22.2 107.1-01, FCC Part 15**		
Available product variants			
Base: AC connector and DC connector	PVSCL18NA100	PVSCL25NA100	PVSCL35NA100
Essential: Touch-safe fuse holder, DC switch and AC connector	PVSCL18NA200	PVSCL25NA200	PVSCL35NA200
Essential+: Essential + AFD	PVSCL18NA201	PVSCL25NA201	PVSCL35NA201
Optimum: Essential + DC SPD and AC SPD	PVSCL18NA300	PVSCL25NA300	PVSCL35NA300
Optimum+: Optimum + AFD	PVSCL18NA301	PVSCL25NA301	PVSCL35NA301

Specifications are subject to change without notice. *At rated grid voltage with power factor from 0.9 to 1. **Country certification is subject to modification.

Conext TL

Three-phase grid-tie solar inverters

Ideal solar power generators for small commercial buildings

The Conext™ TL 8, and 10 kW grid-tie solar inverters are suited for outdoor use and are the ideal solution for small commercial buildings. The inverters provide dual MPPT (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?



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
- Appropriate for outdoor installations (IP65 electronics)



Easy to service

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

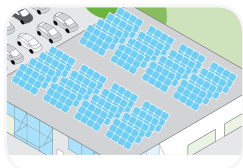


Easy to install

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



Product applications



Commercial grid-tie decentralised

Device short name	TL 8000 E	TL10000 E
Electrical specifications		
Input (DC)		
MPPT voltage range, full power	350 - 850 V	350 - 850 V
Operating voltage range	200 - 1000 V	200 - 1000 V
Starting voltage	250 V	250 V
Max. input voltage, open circuit	1000 V	1000 V
Number of MPPT	2	2
Max. input current per MPPT	17 A	17 A
Nominal input power (cos ϕ =1)	8.3 kW	10.4 kW
Max. DC input power per MPPT	5.5 kW	7.0 kW
DC connection type	MC4, 4 pairs (2+2)	MC4, 4 pairs (2+2)
DC switch	Integrated	Integrated
Output (AC)		
Nominal output power	8 kVA	10 kVA
Max. AC output power	8.4 kVA	10.5 kVA
Nominal output voltage	230 / 400 V, three-phase	230 / 400 V, three-phase
Isolation	Transformerless	Transformerless
AC voltage range	184 - 276 V	184 - 276 V
Frequency	50 / 60 Hz	50 / 60 Hz
Frequency range	50 / 60 +/- 3 Hz	50 / 60 +/- 3 Hz
Max. output current	12.8 A	16.0 A
Total harmonic distortion	< 3 %	< 3 %
Power factor (adjustable)	0.8 lead to 0.8 lag	0.8 lead to 0.8 lag
AC connection type	IP67 connector	IP67 connector
Efficiency		
Peak	98.2 %	98.3 %
European	97.4 %	97.7 %
General specifications		
Power consumption, night time	< 2 W	< 2 W
IP degree of protection	IP65 (electronics), IP55 (balance)	IP65 (electronics), IP55 (balance)
Cooling	Fan cooled	Fan cooled
Enclosure material	Aluminium	Aluminium
Product weight	41.0 kg (90.2 lb)	41.0 kg (90.2 lb)
Shipping weight	48.5 kg (106.9 lb)	48.5 kg (106.9 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)
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)
Ambient air temperature for operation	-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
Relative humidity	4 - 100 % (condensing)	4 - 100 % (condensing)
Noise emission (at 1 m distance)	< 50 dBA	< 50 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	
Grid interconnection*	VDE0126-1-1, VDE-AR-N 4105, RD1663, RD661, RD1699, CEI 0-21, A70, UTE C15-712-1, AS4777	
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

Specifications are subject to change without notice. *More available upon request.

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 visualized 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?



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

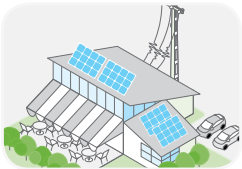


Easy to install

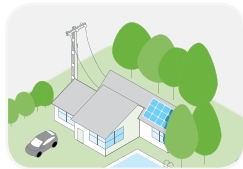
- Compact unit that is very easy to mount
- Configuration software included for installation assistance
- Simple registration process for web portal



Product applications



Commercial grid-tie decentralised



Residential grid-tie

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 connect 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°F to 104°F); Storage: -20°C to 65°C (-4°F to 149°F)
Relative humidity	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 immunity	EN61000-6-2, EN61000-4-11
EMC emission	EN55022 Class B, EN 61000-3-2, EN61000-3-3
Substances/environmental	RoHS
Compatible products	
Conext TL	TL 8000 E product no. PVSNVC8000, TL 1000 E product no. PVSNVC10000, see page 52 for more details
Conext RL	RL 3000 E product no. PVSNVC3000 / PVSNVC3000S, RL 4000 E product no. PVSNVC4000 / PVSNVC4000S, RL 5000 E product no. PVSNVC5000 / PVSNVC5000S, see page 46 for more details

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 farther 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



AC Combiner Box

- Disconnects multiple inverters from the AC line
- Protects the inverters 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



Grenoble, France
50 kWp



Refuge du Goûter, France
12 kW

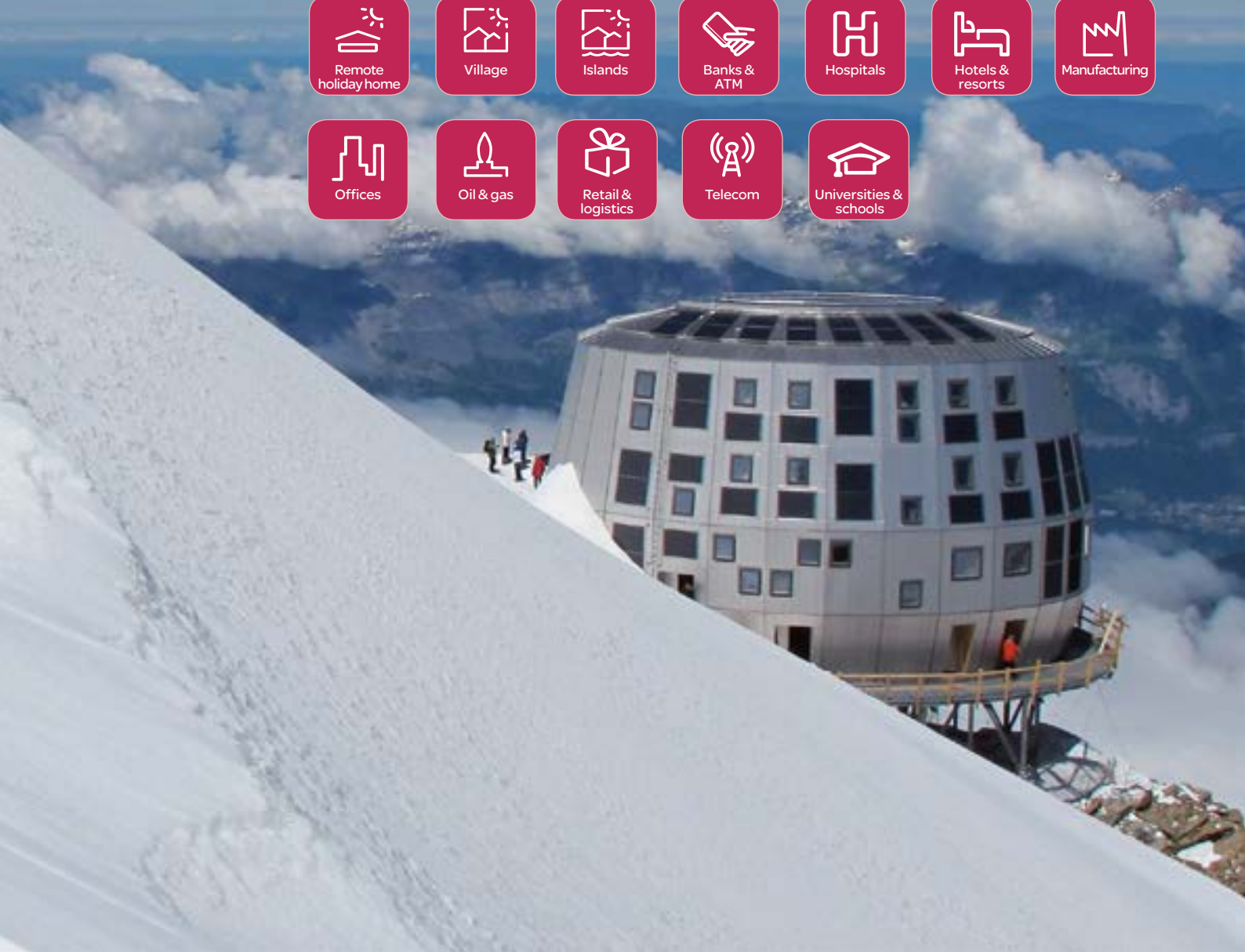
> Battery based inverters

Powering locations not connected to the grid, or those connected to the grid and needing backup power or solar for energy storage and self-consumption, has never been easier with proven solutions from Schneider Electric. Our off-grid and backup power inverter/chargers are reliable, quick to install, adaptable and scalable providing the right solution for powering remote or city residences, farms, rural workshops, off-grid communities and telecom base transceiver stations. Advanced controls for grid-interaction, custom battery settings, charger controls, and hybrid generator systems are fundamental to many of our models reducing consumption of utility or generator power.

Solar applications:

- > Grid-tie solar with backup power
- > Self-consumption
- > Off-grid solar
- > Backup power
- > Community electrification

Solar solutions for:



Conext SW inverter/charger

New value in off-grid solar and backup power

Conext™ SW delivers new value and a new price point to installers and system owners globally. Perfect for off-grid, backup power and self-consumption applications, it is a pure sine wave, inverter/charger system with switchable 50/60 Hz frequencies, providing power for every need.

For expanded off-grid capacity, the Conext SW is integrated with fuel-based generators as required to support loads larger than the generator's output. It's also self consumption ready, able to prioritize solar consumption over the grid, while maintaining zero grid export. The Conext SW works with the grid to avoid peak utility charges and support the grid when utility supply is limited. Accessories include pre-wired universal DC distribution panel and AC distribution panels. Stacking two Conext SW units will double the system's total output power and available solar charge controllers allow for the integration of solar capacity as required.

Why choose Conext SW?



Higher return on investment

- Cost effective
- Excellent load start capabilities with high 30-minute and 5-second surge power
- Harness the continuously declining production cost of solar power



Designed for reliability

- Robust design through rigorous reliability testing (HALT)



Flexible

- Available in 24VDC and 48VDC models. All models support both 50Hz and 60Hz output
- Stack two units to double output power up to 8 kW
- Supports AC coupled and DC coupled off-grid and grid-tie architectures
- Intelligent functionality enables self consumption with solar prioritization, peak shaving and, assisting small generators with heavy loads



Easy to service

- Monitor, troubleshoot or upgrade firmware with the Conext ComBox
- Global support and training
- Replaceable boards and spare parts



Easy to install

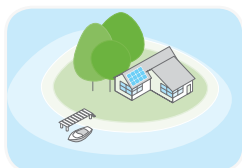
- Configures quickly into compact wall mounted system
- Companion breaker panels integrate inverter with battery bank and solar charge controllers
- Mounting bracket design makes hanging inverter on the wall easy



Product applications



Residential backup power



Off-grid solar

Device short name	SW 2524 E	SW 4024 E	SW 4048 E
Electrical specifications - inverter			
Output power (continuous) at 25°C	2500 W	3400 W	3400 W
Output power (30 min) at 25°C	2800 W	4000 W	4000 W
Output power (5 sec) at 25°C	5000 W	7000 W	7000 W
Peak current	24.3 A	42 A	42 A
Output frequency	50 / 60 Hz selectable	50 / 60 Hz selectable	50 / 60 Hz selectable
Output voltage	230 Vac	230 Vac	230 Vac
Output wave form	True sine wave	True sine wave	True sine wave
Optimal efficiency	91.5%	92%	92%
Idle consumption search mode	<11 W	<11 W	<11 W
Input DC voltage range	20 - 34 Vdc	20 - 34 Vdc	40 - 68 Vdc
AC connections	Single phase	Single phase	Single phase
Electrical specifications - charger			
Output current	65 A	90 A	45 A
Nominal output voltage	24 Vdc	24 Vdc	48 Vdc
Output voltage range	12 - 32 Vdc	12 - 32 Vdc	24 - 64 Vdc
Charge control	3 stage	3 stage	3 stage
Charge temperature compensation	Yes - BTS included	Yes - BTS included	Yes - BTS included
Optimal efficiency	90%	90%	90%
AC input power factor	> 0.98	> 0.98	> 0.98
Input current	10.6 A	14.0 A	14.0 A
Input AC voltage	230 Vac	230 Vac	230 Vac
Input AC voltage range line to neutral	170 - 270 Vac	170 - 270 Vac	170 - 270 Vac
Dead battery charge	Yes	Yes	Yes
General specifications			
Compatible battery types	FLA, Gel, AGM, Custom	FLA, Gel, AGM, Custom	FLA, Gel, AGM, Custom
Transfer relay rating	30 A	30 A	30 A
Transfer time (AC to inverter and inverter to AC)	<1 cycle (20 ms)	<1 cycle (20 ms)	<1 cycle (20 ms)
Optimal operating temperature range	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Storage ambient temperature range	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity Operation / storage	<=95% RH, non condensing	<=95% RH, non condensing	<=95% RH, non condensing
Ingress protection rating	Indoor only, IP20	Indoor only, IP20	Indoor only, IP20
Altitude (operating)	2000 m (6562 ft)	2000 m (6562 ft)	2000 m (6562 ft)
Product weight	22.3 kg (49.0 lb)	28.1 kg (62.0 lb)	28.1 kg (62.0 lb)
Shipping weight	27.2 kg (60.0 lb)	35.0 kg (77.1 lb)	35.0 kg (77.1 lb)
Product dimensions (H x W x D)	41.8 x 34.1 x 19.7 cm (16.5 x 13.4 x 7.6 in)	41.8 x 34.1 x 19.7 cm (16.5 x 13.4 x 7.6 in)	41.8 x 34.1 x 19.7 cm (16.5 x 13.4 x 7.6 in)
Shipping dimensions (H x W x D)	56.0 x 44.0 x 32.0 cm (22.0 x 17.3 x 12.6 in)	56.0 x 44.0 x 32.0 cm (22.0 x 17.3 x 12.6 in)	56.0 x 44.0 x 32.0 cm (22.0 x 17.3 x 12.6 in)
System network and remote monitoring	Available	Available	Available
Warranty (Depending on the country of installation)	2 or 5 years	2 or 5 years	2 or 5 years
Part number	865-2524-61	865-4024-61	865-4048-61
Regulatory approvals			
Safety	CE mark , RCM mark IEC/EN62109-1, IEC/EN62109-2	CE mark , RCM mark IEC/EN62109-1, IEC/EN62109-2	CE mark , RCM mark IEC/EN62109-1, IEC/EN62109-2
Compatible products			
Universal DC distribution panel	865-1016 see page 68 for more details		
AC distribution panel (120/240 V)	865-1017 see page 68 for more details		
AC distribution panel (230 V)	865-1017-61 see page 68 for more details		
Conext System Control Panel	865-1050 see page 84 for more details		
Conext Automatic Generator Start	865-1060 see page 86 for more details		
Conext ComBox	865-1058 see page 82 for more details		
Conext MPPT 60 150 solar charge controller	865-1030-1 see page 76 for more details		
Conext SW On/Off Remote Switch	865-1052		
Conext SW Stacking Kit	865-1019-61 for 230 Vac, 865-1019 for 120/240 Vac		

Specifications are subject to change without notice.

Conext SW-NA inverter/charger

New value in off-grid solar and backup power

Conext™ SW delivers new value and a new price point to installers and system owners globally. Perfect for off-grid, backup power and self-consumption applications, it's a pure sine wave, inverter/charger system with switchable 50/60 Hz frequencies, providing power for every need.

North American Conext SW units feature 120/240 VAC output, and capable of producing 120/240 VAC output from a 120 VAC input, without the need for an external transformer.

For expanded off-grid capacity, the Conext SW is integrated with fuel-based generators as required to support loads larger than the generator's output. It's also self consumption ready, able to prioritize solar consumption over the grid, while maintaining zero grid export. The Conext SW works with the grid to avoid peak utility charges and support the grid when utility supply is limited. Accessories include pre-wired universal DC distribution panel and AC distribution panels. Stacking two Conext SW units will double the system's total output power and available solar charge controllers allow for the integration of solar capacity as required.

Why choose Conext SW?



Higher return on investment

- Cost effective
- Excellent load start capabilities with high 30-minute and 5-second surge power
- Harness the continuously declining production cost of solar power



Designed for reliability

- Robust design through rigorous reliability testing (HALT)



Flexible

- Available in 24VDC and 48VDC models. All models support both 50Hz and 60Hz output
- Stack two units to double output power up to 8 kW
- Supports AC coupled and DC coupled off-grid and grid-tie architectures
- Intelligent functionality enables self consumption with solar prioritization, peak shaving and, assisting small generators with heavy loads



Easy to service

- Monitor, troubleshoot or upgrade firmware with the Conext ComBox
- Global support and training
- Replaceable boards and spare parts



Easy to install

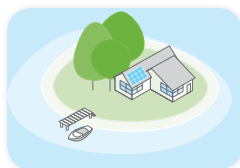
- Configures quickly into compact wall mounted system
- Companion breaker panels integrate inverter with battery bank and solar charge controllers
- Mounting bracket design makes hanging inverter on the wall easy



Product applications



Residential backup power



Off-grid solar

Device short name	SW 2524 NA	SW 4024 NA	SW 4048 NA
Electrical specifications - inverter			
Output power (continuous) at 25°C	2400 W	3400 W	3400 W
Output power (30 min) at 25°C	2700 W	4000 W	4000 W
Output power (5 sec) at 25°C	4000 W	7000 W	7000 W
Peak current	24.3 A	41 A	41 A
Output frequency	50 / 60 Hz selectable	50 / 60 Hz selectable	50 / 60 Hz selectable
Output voltage	120 / 240 Vac	120 / 240 Vac	120 / 240 Vac
Output wave form	True sine wave	True sine wave	True sine wave
Optimal efficiency	91.5%	92%	92%
Idle consumption search mode	<11 W	<11 W	<11 W
Input DC voltage range	20 - 34 Vdc	20 - 34 Vdc	40 - 68 Vdc
AC connections	Single / Split phase	Single / Split phase	Single / Split phase
Electrical specifications - charger			
Output current	65 A	90 A	45 A
Nominal output voltage	24 Vdc	24 Vdc	48 Vdc
Output voltage range	12- 32 Vdc	12 - 32 Vdc	24 - 64 Vdc
Charge control	3 stage	3 stage	3 stage
Charge temperature compensation	Yes - BTS included	Yes - BTS included	Yes - BTS included
Optimal efficiency	90%	90%	90%
AC input power factor	> 0.98	> 0.98	> 0.98
Input current	9 A	13 A	13 A
Input AC voltage	120 / 240 Vac split phase	120 / 240 Vac split phase	120 / 240 Vac split phase
Input AC voltage range line to neutral	95 - 135 Vac single phase 135 - 270 Vac split phase	95 - 135 Vac single phase 135 - 270 Vac split phase	95 - 135 Vac single phase 135 - 270 Vac split phase
Dead battery charge	Yes*	Yes*	Yes*
General specifications			
Compatible battery types	FLA, Gel, AGM, Custom	FLA, Gel, AGM, Custom	FLA, Gel, AGM, Custom
Transfer relay rating	30 A	30 A	30 A
Transfer time (AC to inverter and inverter to AC)	<1 cycle (16.7 ms)	<1 cycle (16.7 ms)	<1 cycle (16.7 ms)
Optimal operating temperature range	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Storage ambient temperature range	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)	-40°C to 85°C (-40°F to 185°F)
Humidity Operation / storage	<=95% RH, non condensing	<=95% RH, non condensing	<=95% RH, non condensing
Ingress protection rating	Indoor only, IP20	Indoor only, IP20	Indoor only, IP20
Altitude (operating)	2000 m (6562 ft)	2000 m (6562 ft)	2000 m (6562 ft)
Product weight	22.3 kg (49.0 lb)	28.1 kg (62.0 lb)	28.1 kg (62.0 lb)
Shipping weight	27.2 kg (60.0 lb)	35.0 kg (77.1 lb)	35.0 kg (77.1 lb)
Product dimensions (H x W x D)	41.8 x 34.1 x 19.7 cm (16.5 x 13.4 x 7.6 in)	41.8 x 34.1 x 19.7 cm (16.5 x 13.4 x 7.6 in)	41.8 x 34.1 x 19.7 cm (16.5 x 13.4 x 7.6 in)
Shipping dimensions (H x W x D)	56.0 x 44.0 x 32.0 cm (22.0 x 17.3 x 12.6 in)	56.0 x 44.0 x 32.0 cm (22.0 x 17.3 x 12.6 in)	56.0 x 44.0 x 32.0 cm (22.0 x 17.3 x 12.6 in)
System network and remote monitoring	Available	Available	Available
Warranty (Depending on the country of installation)	2 or 5 years	2 or 5 years	2 or 5 years
Part number	865-2524	865-4024	865-4048
Regulatory approvals			
Safety	c(CSA) us mark CSA C22.2 No. 107.1-01 UL1741 Ed.2	c(CSA) us mark CSA C22.2 No. 107.1-01 UL1741 Ed.2	c(CSA) us mark CSA C22.2 No. 107.1-01 UL1741 Ed.2
Compatible products			
Universal DC distribution panel	865-1016 see page 68 for more details		
AC distribution panel (120/240 V)	865-1017 see page 68 for more details		
AC distribution panel (230 V)	865-1017-61 see page 68 for more details		
Conext System Control Panel	865-1050 see page 84 for more details		
Conext Automatic Generator Start	865-1060 see page 86 for more details		
Conext ComBox	865-1058 see page 82 for more details		
Conext MPPT 60 150 solar charge controller	865-1030-1 see page 76 for more details		
Conext SW On/Off Remote Switch	865-1052		
Conext SW Stacking Kit	865-1019-61 for 230 Vac, 865-1019 for 120/240 Vac		

Specifications are subject to change without notice.

Conext XW+ inverter/charger

One solution for global power needs

Conext™ XW+ is an adaptable single-phase and three-phase inverter/charger system with grid-tie functionality and dual AC power inputs. Available solar charge controllers, monitoring, and automated generator control modules enable further adaptability. From a single Conext XW+ unit to clusters up to 102 kW, the Conext XW+ is a scalable system that allows for the integration of solar capacity as required. Adaptable and scalable, the Schneider Electric™ Conext XW+ system is the one solution for grid-interactive and off-grid, residential and commercial, solar and backup power applications.

Why choose Conext XW+?



Higher return on investment

- Excellent load starting with high 30-minute and 5-second power
- Performs in hot environments up to 70°C
- Intelligent functionality enables solar prioritization, load shifting, peak shaving, and assists small generators with heavy loads
- Backup power with grid-tie functionality converts external DC power to AC power for export to the utility grid



Designed for reliability

- Extensive quality and reliability testing
- Highly Accelerated Life Testing (HALT)
- Globally proven and recognized field performance



Flexible

- Single or three phase systems from 7.0 kW to 102 kW
- Supports DC coupled and AC coupled off-grid and grid-tie architectures
- Supports charging of Lithium Ion battery packs



Easy to service

- Field serviceable with replacement boards and spare parts
- Monitor, troubleshoot or upgrade firmware with Conext ComBox



Easy to install

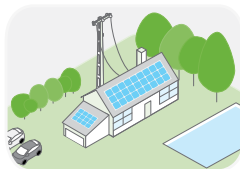
- System configures quickly into compact wall-mounted system
- Integrates both grid and generator power with dual AC inputs
- Balance of system components integrates battery bank, solar charge controllers and generators
- Commission the entire system with PC software tool and Conext ComBox



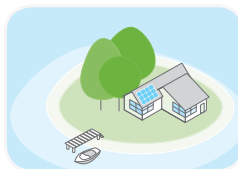
Product applications



Residential grid-tie solar with backup power



Self-consumption



off-grid solar



Backup power



Community electrification

Device short name	XW+ 7048 E	XW+ 8548 E
Inverter AC output		
Output power (continuous) at 25°C	5500 W	6800 W
Overload 30 min / 60 sec at 25°C	7000 W / 9500 W	8500 W / 12000 W
Output power (continuous) at 40°C	4500 W	6000 W
Maximum output current 60 seconds (rms)	40 A	53 A
Output frequency (selectable)	50 / 60 Hz	50 / 60 Hz
Output voltage	230 Vac	230 Vac
Total harmonic distortion (THD) at rated power	< 5%	< 5%
Idle consumption search mode	< 7 W	< 7 W
Input DC voltage range	40 to 64 V (48 V Nominal)	40 to 64 V (48 V Nominal)
Maximum input DC current	150 A	180 A
Charger DC output		
Maximum output charge current	110 A	140 A
Output charge voltage range	40 - 64 V (48 V Nominal)	40 - 64 V (48 V Nominal)
Charge control	Three stage, two stage, boost, custom	Three stage, two stage, boost, custom
Charge temperature compensation	Battery temperature sensor included	Battery temperature sensor included
Power factor corrected charging	0.98	0.98
Compatible battery types	Flooded (default), Gel, AGM, LiON, custom*	Flooded (default), Gel, AGM, LiON, custom*
Battery bank range (scaled to PV array size)	440 to 10000 Ah	440 to 10000 Ah
AC input		
AC 1 (grid) input current (selectable limit)	3 - 60 A (56 A default)	3 - 60 A (56 A default)
AC 2 (generator) input current (selectable limit)	3 - 60 A (56 A default)	3 - 60 A (56 A default)
Automatic transfer relay rating / typical transfer time	60 A / 8 ms	60 A / 8 ms
AC input voltage nominal	230 V +/- 3%	230 V +/- 3%
AC input frequency range (bypass/charge mode)	45–55 Hz (default) 40–68 Hz (allowable)	45–55 Hz (default) 40–68 Hz (allowable)
AC grid-tie output		
Grid sell on AC1 (max)	4.5 kVA	6.0 kVA
Grid sell current range on AC1 (selectable range)	0 to 20 A	0 to 27 A
Grid sell voltage range on AC1	205 to 262 Vrms (auto adjust entering sell mode)	205 to 262 Vrms (auto adjust entering sell mode)
Grid sell frequency range on AC1	48 to 51 Hz (auto adjust entering sell mode)	48 to 51 Hz (auto adjust entering sell mode)
Grid sell power factor range (lead/lag)	0.5	0.5
Efficiency		
Peak	95.8%	95.8%
General specifications		
Part number	865-7048-61	865-8548-61
Product / shipping weight	53.5 kg (118.0 lb) / 75.0 kg (165.0 lb)	55.2 kg (121.7 lb) / 76.7 kg (169.0 lb)
Product dimensions (H x W x D)	58 x 41 x 23 cm (23 x 16 x 9 in)	58 x 41 x 23 cm (23 x 16 x 9 in)
Shipping dimensions (H x W x D)	71.1 x 57.2 x 39.4 cm (28.0 x 22.5 x 15.5 in)	71.1 x 57.2 x 39.4 cm (28.0 x 22.5 x 15.5 in)
IP degree of protection	IP20	
Operating air temperature range	-25°C to 70°C (-13°F to 158°F) (power derated above 25°C (77°F))	
Warranty (Depending on the country of installation)	2 or 5 years	2 or 5 years
Features		
System monitoring and network communications	Available	
Intelligent features	Grid sell, peak load shave, generator support, prioritized consumption of battery or external DC energy	
Auxiliary port	0 to 12 V, maximum 250 mA DC output, selectable triggers	
Off-grid AC coupling	Frequency control	
Multi-unit operation	Single phase: up to four units in parallel, three phase: up to 12 units in multi-cluster configuration with external AC contractor	
Regulatory approval		
CE marked according to the following EU directives and standards:		
EMC directive	EN61000-6-1, EN61000-6-3, EN61000-3-2	
Low voltage directive	EN50178	
Safety	IEC 62109-1, IEC 62109-2	
RCM marked and compliant	AS 4777.2, AS 4777.3	
Compatible products		
Conext XW+ Power Distribution Panel	865-1014-01 see page 70 for more details	
Conext System Control Panel	865-1050 see page 84 for more details	
Conext Automatic Generator Start	865-1060 see page 86 for more details	
Conext MPPT 60 150	865-1030-1 see page 76 for more details	
Conext MPPT 80 600	865-1032 see page 74 for more details	
Conext ComBox	865-1058 see page 82 for more details	
Conext Battery Monitor	865-1080-01 see page 88 for more details	
Conext Battery Fuse Combiner Box	865-1031-01 see page 72 for more details	

Specifications are subject to change without notice.

Conext XW+ NA inverter/charger

One solution for global power needs

Conext™ XW+ is an adaptable single-phase and three-phase inverter/charger system with grid-tie functionality and dual AC power inputs. Available solar charge controllers, monitoring, and automated generator control modules enable further adaptability. From a single Conext XW+ unit to clusters up to 102 kW, the Conext XW+ is a scalable system that allows for the integration of solar capacity as required. Adaptable and scalable, the Schneider Electric™ Conext XW+ system is the one solution for grid-interactive and off-grid, residential and commercial, solar and backup power applications.

Why choose Conext XW+ NA?



Higher return on investment

- Excellent load starting with high 30-minute and 5-second power
- Performs in hot environments up to 70°C
- Intelligent functionality enables solar prioritization, load shifting, peak shaving, and assists small generators with heavy loads
- Backup power with grid functionality converts external DC power to AC power for export to the utility grid



Flexible

- Single or three phase systems from 7.0 kW to 102 kW
- Supports DC coupled and AC coupled off-grid and grid-tie architectures
- Supports charging of Lithium Ion battery packs



Easy to service

- Field serviceable with replacement boards and spare parts
- Monitor, troubleshoot or upgrade firmware with Conext ComBox



Designed for reliability

- Extensive quality and reliability testing
- Highly Accelerated Life Testing (HALT)
- Globally proven and recognized field performance



Easy to install

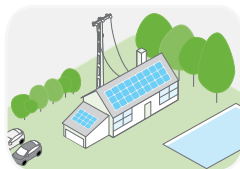
- System configures quickly into compact wall-mounted system
- Integrates both grid and generator power with dual AC inputs
- Balance of system components integrates battery bank, solar charge controllers and generators
- Commission the entire system with PC software tool and Conext ComBox



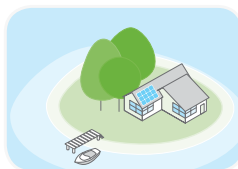
Product applications



Residential grid-tie solar with backup power



Self-consumption



off-grid solar



Backup power



Community electrification

Device short name	XW+ 5548 NA	XW+ 6848 NA
Inverter AC output		
Output power (continuous) at 25°C	5500 W	6800 W
Overload 30 min / 60 sec at 25°C	7000 W / 9500 W	8500 W / 12000 W
Output power (continuous) at 40°C	4500 W	6000 W
Maximum output current 60 seconds (rms)	82 A (120 V); 41 A (240 V)	102 A (120 V); 52 A (240 V)
Output frequency (selectable)	50 / 60 Hz	50 / 60 Hz
Output voltage	L-N: 120 V +/- 3%; L-L: 240 V +/- 3%	L-N: 120 V +/- 3%; L-L: 240 V +/- 3%
Total harmonic distortion (THD) at rated power	< 5%	< 5%
Idle consumption search mode	< 8 W	< 8 W
Input DC voltage range	42 to 60 V (48 V Nominal)	42 to 60 V (48 V Nominal)
Maximum input DC current	150 A	180 A
Charger DC output		
Maximum output charge current	110 A	140 A
Output voltage range	40 - 64 V (48 V Nominal)	40 - 64 V (48 V Nominal)
Charge control	Three stage, two stage, boost, custom	Three stage, two stage, boost, custom
Charge temperature compensation	Battery temperature sensor included	Battery temperature sensor included
Power factor corrected charging	0.98	0.98
Compatible battery types	Flooded (default), Gel, AGM, LION, custom*	Flooded (default), Gel, AGM, LION, custom*
Batter bank range (scaled to PV array size)	440 - 10000 Ah	440 - 10000 Ah
AC input		
AC 1 (grid) input current (selectable limit)	3 - 60 A (60 A default)	3 - 60 A (60 A default)
AC 2 (generator) input current (selectable limit)	3 - 60 A (60 A default)	3 - 60 A (60 A default)
Automatic transfer relay rating / typical transfer time	60 A / 8 ms	60 A / 8 ms
AC input voltage limits (bypass/charge mode)	L-N: 78 - 140 V (120 V nominal) L-L: 160 - 270 V (240 V nominal)	L-N: 78 - 140 V (120 V nominal) L-L: 160 - 270 V (240 V nominal)
AC input frequency range (bypass/charge mode)	55 - 65 Hz (default); 52 - 68 Hz (allowable)	55 - 65 Hz (default); 52 - 68 Hz (allowable)
AC grid-tie output		
Grid sell current range on AC1(selectable limit)	0 to 40 A (120 V) / 0 to 20 A (240 V)	0 to 48 A (120 V) / 0 to 27 A (240 V)
Grid sell voltage range on AC1 (auto adjusts entering sell mode)	L-N:105.5 to 132 +/- 1.5 V L-L: 211 to 264 +/- 3.0 V	L-N:105.5 to 132 +/- 1.5 V L-L: 211 to 264 +/- 3.0 V
Grid sell frequency range on AC1 (auto adjust entering sell mode)	59.4 to 60.4 +/- 0.05 Hz	59.4 to 60.4 +/- 0.05 Hz
Efficiency		
Peak	95.7%	95.7%
CEC weighted efficiency	93.0%	92.5%
General specifications		
Part number	865-5548-01	865-6848-01
Product / shipping weight	53.5 kg (118.0 lb) / 75.0 kg (165.0 lb)	55.2 kg (121.7 lb) / 76.7 kg (169.0 lb)
Product dimensions (H x W x D)	58 x 41 x 23 cm (23 x 16 x 9 in)	58 x 41 x 23 cm (23 x 16 x 9 in)
Shipping dimensions (H x W x D)	71.1 x 57.2 x 39.4 cm (28.0 x 22.5 x 15.5 in)	71.1 x 57.2 x 39.4 cm (28.0 x 22.5 x 15.5 in)
IP degree of protection	NEMA Type 1 Indoor	
Operating air temperature range	-25°C to 70°C (-13°F to 158°F) (power derated above 25°C (77°F))	
Warranty (Depending on the country of installation)	2 or 5 years	2 or 5 years
Features		
System monitoring and network communications	Available	
Intelligent features	Grid sell, peak load shave, generator support, prioritized consumption of battery or external DC energy	
Auxiliary port	0 to 12 V, maximum 250 mA DC output, selectable triggers	
Off-grid AC coupling	Frequency control	
Multi-unit operation	Single and split phase: up to four units in parallel, three phase: up to 12 units in multi-cluster configuration with external AC contractor	
Regulatory approval		
Safety	UL1741, CSA 107.1	
EMC directive	FCC and Industry Canada Class B	
Interconnect	IEEE 1547 and CSA 107.1	
Compatible products		
Conext XW+ Power Distribution Panel	865-1014-01 see page 70 for more details	
Conext System Control Panel	865-1050 see page 84 for more details	
Conext Automatic Generator Start	865-1060 see page 86 for more details	
Conext MPPT 60 150	865-1030-1 see page 76 for more details	
Conext MPPT 80 600	865-1032 see page 74 for more details	
Conext ComBox	865-1058 see page 82 for more details	
Conext Battery Monitor	865-1080-01 see page 88 for more details	
Conext Battery Fuse Combiner Box	865-1031-01 see page 72 for more details	

Specifications are subject to change without notice.

Conext SW Power Distribution Panels

Save time and money installing, and integrating SW system

The Conext™ SW Power Distribution Panels are pre-wired out of the box and labeled to support the integration of Conext SW inverter/chargers with a Conext MPPT Solar Charge Controller, battery bank and load centers. Designed to save installers significant time, effort and costs on every installation, the Distribution Panels offer excellent value when compared to customized options.

The solution set includes a DC distribution panel complete with a pre-installed 250 A DC breaker and additional breaker slots for integrating multiple DC power sources. AC distribution panels are also available for 120/240 VAC and 230 VAC requirements, pre-installed with multiple AC breakers for integrating AC power sources and loads. Each AC panel also supports the integration of fuel-based generators providing a central load center for managing an installation's AC power needs.

Why choose Conext SW Power Distribution Panel?



Higher return on investment

- Integrate SW inverter/chargers and MPPT Solar Charge Controllers with a single battery bank
- Repeatable standard installation that saves time and money



Flexible

- Additional DC and AC breaker slots available for expanded capacity
- Key holes available on side of DC panel for integrating MPPT60 Solar Charge Controller
- Use AC distribution panels as optional load centers



Easy to service

- Breaker configuration allows SW inverter/chargers to be AC bypassed for servicing
- Removable front cover allows for visual inspection



Easy to install

- Wall mount – AC distribution panels can be installed directly above or underneath the SW inverter/charger
- Add additional SW inverter/chargers with Conext SW inverter/charger stacking kit



SW DC Power Distribution Panel

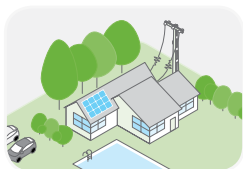


SW AC Power Distribution Panel
(120/240 V)

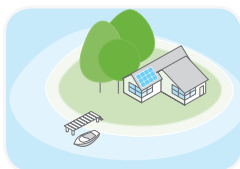


SW AC Power Distribution Panel
(230 V)

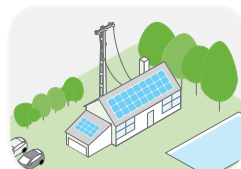
Product applications



Residential backup power



Off-grid solar



Self-consumption

Device short name	SW DC Distribution Panel
Product dimensions (H x W x D)	42.1 x 24.0 x 20.0 cm (16.57 x 9.45 x 7.87 in)
Shipping dimensions (H x W x D)	47.5 x 29.7 x 26.0 cm (18.7 x 11.7 x 10.24 in)
Shipping weight	9.0 kg (20.0 lb)
Product number	865-1016
Included	1 x Distribution Panel Box 1 x Distribution Panel Cover 1x 250-amp DC Breaker (pre-installed) 1x Positive copper bus bar (pre-installed) 1x Negative copper bus bar (pre-installed) 1 x Mounting bracket Expansion positions available for 2 x DC breakers
Device short name	SW AC Distribution Panel (120/240 VAC)
Product dimensions (H x W x D)	52.0 x 20.0 x 20.0 cm (20.5 x 7.9 x 7.9 in)
Shipping dimensions (H x W x D)	58.5 x 36.3 x 26.0 cm (23.0 x 14.3 x 10.24 in)
Shipping weight	11.0 kg (24.2 lb)
Product number	865-1017
Included	1 x Distribution Panel Box 1 x Distribution Panel Cover 2 x Double-pole 30-amp AC Breaker (bundled) 1 x Double-pole 60-amp AC Breaker 4 x Jumper Bar (pre-installed) 1 x Handle Interlock Device (pre-installed) 6 x 10 AWG AC Wire (black, pre-wired) 2 x 10 AWG AC Wire (red, pre-wired) 1 x 10 AWG AC Wire (white, pre-wired) 1 x 12 AWG Ground Wire (green, pre-wired) 4 x Terminal buses (one each - L1, L2, Ground, Neutral) 1 x DIN Rail Expansion positions available for up to 8 x single pole AC breakers or 4 x double pole AC breakers
Device short name	SW AC Distribution Panel (230 VAC)
Product dimensions (H x W x D)	26.7 x 20.0 x 11.2 cm (10.5 x 7.9 x 4.4 in)
Shipping dimensions (H x W x D)	82.5.0 x 26.5 x 17.5 cm (32.5 x 10.43 x 6.9 in)
Shipping weight	2.3 kg (5 lb)
Product number	865-1017-61
Included	1 x Distribution Panel Box 1 x Distribution Panel Cover 3 x Single-pole 30-amp AC Breaker (bundled) 1 x Handle Interlock Device (pre-installed) 2 x 10 AWG AC Wire (brown, pre-wired) 1 x 10 AWG AC Wire (blue, pre-wired) 1 x 12 AWG Ground Wire (green/yellow, pre-wired) 2 x Copper jumper wire 1 x DIN Rail Expansion positions available for up to 8 x single pole AC breakers
Compatible products	
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details
Conext MPPT 60 150	Product no. 865-1030-1 see page 76 for more details
Conext System Control Panel	Product no. 865-1050 see page 84 for more details
Conext SW Stacking Kit	230 Vac product no. 865-1019-61 120/240 Vac product no. 865-1019

Specifications are subject to change without notice.

Conext XW+ Power Distribution Panel

Save time and money installing and integrating XW+ system

The Conext™ XW+ Power Distribution Panel (XW+ PDP) is factory-wired and labeled to support the integration of multiple Conext XW+ inverter/chargers and Conext MPPT Solar Charge Controllers with a single battery bank. The XW+ PDP ships with breakers, bus bars and cables to install a single XW+ inverter/charger. With space to add wiring and breakers a single XW+ PDP supports one to three XW+ inverter/chargers, a diesel generator and either four MPPT 80 600 or four MPPT 60 150 Solar Charge Controllers. The XW+ PDP supports single-phase split phase or three-phase installations. A field-reversible door and multiple conduit knockout entry points allow for the XW+ PDP enclosure to be mounted and configured on either side of the inverter/charger.

The XW+ Power Distribution Panel is designed to save significant time and money during installation, when compared to custom solutions. A mounting bracket and Conext XW+ Conduit Box are also supplied with each XW+ PDP.

Why choose Conext XW+ Power Distribution Panel?



Higher return on investment

- Integrate multiple XW+ inverter chargers and MPPT Solar Charge Controllers with a single battery bank
- Repeatable standard installation that saves time and money



Flexible

- Single-phase split-phase or three phase systems
- Configure to the left or right side of the XW+ inverter/chargers
- Multiple field configurable conduit entry points on the back, bottom, top and sides
- DIN Rail mounting for QOU type and Multi-9 AC breakers



Easy to service

- Breaker configuration allows XW+ inverter/chargers to be AC bypassed for servicing
- Field-reversible door panel allows for visual inspection



Easy to install

- Wall mount with included bracket
- Add additional XW+ inverter chargers with Conext XW+ connection kit



XW+ Power Distribution Panel



XW+ Installation Kit for INV 2 INV 3 PDP



XW+ Conduit Box

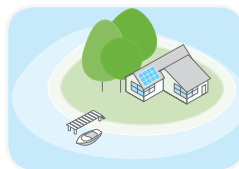
Product applications



Backup power



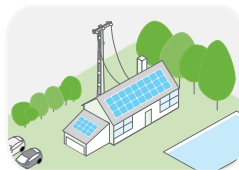
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

Device short name	XW# Power Distribution Panel
Product dimensions (H x W x D)	76.1 x 40.6 x 21.0 cm (30.0 x 16.0 x 8.3 in)
Shipping dimensions (H x W x D)	122.0 x 53.3 x 34.3 cm (48.0 x 21.0 x 13.5 in)
Shipping weight	30.5 kg (67.2 lb)
Product number	865-1015-01
Included	XW+ PDP enclosure with a field-reversible panel door, includes wall mount bracket, and XW+ Conduit Box Three 60 A, 120/240 Vac, two-pole, Square-D, type QOU, DIN-rail mounted AC breakers for AC input, bypass and AC load (factory-installed), plus five AC breaker expansion positions One GJ 250A 160 Vdc, 3/8" stud DC breaker installed, plus two expansion positions Eight expansion positions for charge controller DC breakers One ground terminal bus bar, one neutral terminal bus bar and one battery negative terminal bus bar One pair #4/0 AWG Arctic Ultraflex Blue™ battery cables (factory installed and labeled, ready to connect) #6 AWG Arctic Ultraflex Blue™ AC wiring (factory installed and labeled, ready to connect)
Device short name	XW# Power Distribution Panel (without AC breakers)
Product number	865-1014-01
Included	Same as XW+ PDP (865-1015-01), but does not include any AC breakers
Device short name	XW# Installation Kit for INV 2 INV 3 PDP
Product dimensions (H x W x D)	22.9 x 40.6 x 21.0 cm (8.5 x 16.0 x 8.3 in)
Shipping dimensions (H x W x D)	44.5 x 33.3 x 30.5 cm (17.5 x 13.0 x 12.0 in)
Shipping weight	10.5 kg (23.1 lb)
Product number	865-1020-01
Included	XW+ Conduit Box and AC Sync and Xanbus™ cables #6 AWG AC wiring to connect the inverter to the AC breakers One GJ 250A 160 Vdc, 3/8" stud DC breaker, one bus bar for DC positive and one pair #4/0 AWG battery cables
Device short name	XW# Conduit Box
Product dimensions (H x W x D)	22.9 x 40.6 x 21.0 cm (8.5 x 16.0 x 8.3 in)
Shipping dimensions (H x W x D)	44.5 x 33.0 x 30.5 cm (17.5 x 13.0 x 12.0 in)
Shipping weight	4.6 kg (10.0 lb)
Product number	865-1025-01
Included	XW+ Conduit Box
Device short name	Conext 120/240VAC Breaker Kit for Conext XW+ PDP
Usage	XW+ PDP for additional XW+ inverter chargers, single-phase/spit-phase
Product number	865-1215-01
Included	Three 60 A, 120/240 Vac, two-pole, Square-D, type QOU, DIN-rail mountable AC breakers, jumpers, bypass interlock
Device short name	Conext three-phase Breaker Kit for Conext XW+ PDP
Usage	XW+ PDP for additional XW+ inverter chargers, three-phase
Product number	865-1315-01
Included	Three 60 A, 120/208 Vac, three-pole, Square-D, type QOU, DIN-rail mountable AC breakers, jumpers, bypass interlock
Device short name	100A, 125VDC Breaker Master Pack (12 units)
Usage	XW+ PDP for MPPT 80 600 output, battery side
Product number	865-1080
Device short name	80A, 125VDC Breaker Master Pack (12 units)
Usage	XW+ PDP for MPPT 60 150 output, battery side
Product number	865-1070
Device short name	60A, 160VDC Breaker Master Pack (48 units)
Usage	XW+ PDP for MPPT 60 150 input, PV array side
Product number	865-1075
Device short name	250A, 160VDC Breaker Master Pack (6 units)
Usage	XW+ PDP for inverter charger connection to battery
Product number	865-1065
Compatible products	
Conext XW+ (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details
Conext MPPT 60 150	Product no. 865-1030-1 see page 76 for more details
Conext MPPT 80 600	Product no. 865-1032 see page 74 for more details

Specifications are subject to change without notice.

Conext Battery Fuse Combiner Box

Combine, connect and disconnect Conext inverter/chargers with battery bank

The Conext™ Battery Fuse Combiner Box 250 combines up to three Conext XW+ inverter/chargers with one battery bank using a single battery pole disconnect method and provides fuse protection for cables, batteries and inverter/chargers. Two Battery Fuse Disconnect Box 250s can be configured side-by-side to accommodate dual battery pole disconnection requirements. A smaller, more compact Battery Fuse Combiner Box 160 is available battery side application with Conext MPPT Solar Charge Controllers.

Why choose Conext Battery Fuse Combiner Box?



Higher return on investment

- One low cost device to combine up to three Conext inverter chargers with one battery bank
- Standardized repeatable and cost effective installation method



Flexible

- Single or dual pole battery disconnection for Conext XW and SW inverter chargers
- Single or dual pole battery disconnection for Conext MPPT Solar Charge Controllers



Easy to service

- Clear plastic window allows visual no-touch inspection of fuses
- Access holes for volt meter probes allows for testing without interrupting system
- Lockout accepts lead seal to guard against unauthorized access



Easy to install

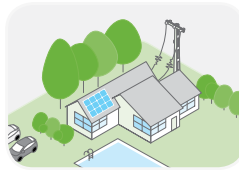
- Wall-mount or flush-mount
- Lug nut cable connections



Product applications



Backup power



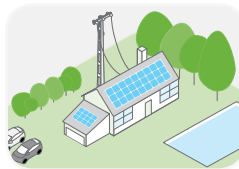
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

Device short name	Battery Fuse Combiner Box 160	Battery Fuse Combiner Box 250
Electrical specifications		
Nominal voltage	24 / 48 V DC	24 / 48 V DC
Nominal current	160 A	250 A
Fuse specifications		
Type	DIN	DIN
Size	NH00, NH000	NH1
Number	3	3
Cable connections		
Quantity per pole	3	3
Maximum Cable Size	95 mm ² (4/0)	150 mm ² (2/0)
Terminal Type	M8	M10
General specifications		
Part number	865-1030-01	865-1031-01
Product dimensions (H x W x D)	16.3 x 10.7 x 8.0 cm (6.4 x 4.2 x 3.1 in)	24.6 x 18.6 x 11.0 cm (9.7 x 7.3 x 4.3 in)
Shipping dimensions (H x W x D)	29.2 x 15.8 x 14.5 cm (11.5 x 6.2 x 4.5 in)	34.3 x 24.6 x 26.4 cm (13.5 x 9.7 x 10.4 in)
Product weight	1.4 kg (3.1 lb)	3.6 kg (7.9 lb)
Shipping Weight	1.8 kg (4.0 lb)	4.2 kg (9.2 lb)
Mounting options	Wall-mount, flush-mount	
Operating temperature range °C	-20... 70	
Warranty	2 - 5 years (depending on country)	
Regulatory approval		
Markings	CE	
Standards	EN/IEC 60947-1, EN/IEC 60947-3, IEC 60269-2-1	
IP degree of protection	IP20 conforming to IEC 60529	
Included parts		
Fuse box		
Mounting hardware		
Top terminal shield		
Fuses (3)		
Combiner bar		
Compatible products		
Conext XW+ (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details	
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details	
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details	
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details	
Conext MPPT 60 150	Product no. 865-1030-1 see page 76 for more details	
Conext MPPT 80 600	Product no. 865-1032 see page 74 for more details	

Specifications are subject to change without notice.

Conext MPPT 80 600 solar charge controller

Install for less, harvest more energy

The Conext™ MPPT 80 600 solar charge controller offers an industry-first set of integration features and top performance that allows for large PV array systems to be easily installed and connected to the battery bank at the lowest overall cost. Installing one MPPT 80 600 is faster than installing multiple smaller charge controllers and lowers overall costs further by utilizing fewer PV strings, smaller wiring and conduit, and by eliminating the need for PV combiner boxes and DC circuit breakers. Longer distances from array site to battery bank are also easier to accommodate than with smaller charge controllers. Advanced Fast Sweep MPPT charging technology helps harvest the most energy available from the PV array, even in partial shade conditions. 80 A of battery charge current allows for the connection of PV arrays rated up to 600 V STC (2560 W for 24 V systems, 4800 W for 48 V systems).

Why choose Conext MPPT 80 600?



Higher return on investment

- Installs faster with fewer costly components
- Improve battery life with selectable multi-stage temperature compensated charging
- Harvest more energy with shade tolerant fast sweep MPPT algorithm



Designed for reliability

- Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST)



Flexible

- Available remote monitoring and configuration
- Compatible with any brand of PV module, any grounding method
- Stand-alone application or full integration with Conext XW inverter charger system



Easy to install

- Fewer string wires
- Smaller AWG Wire
- No need for combiner box or GFI circuit breaker



Product applications



Backup power



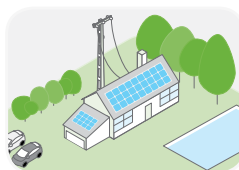
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

Device short name	MPPT 80 600
Electrical specifications	
Nominal battery voltage	24 and 48 V (Default is 48 V)
Max. PV array voltage (operating)	195 to 550 V
Max. PV array open circuit voltage	600 V including temperature correction factor
Battery voltage operating range	16 to 67 VDC
Array short-circuit current	35 A (28 A @ STC)
Max. charge current	80 A
Max. and min. wire size in conduit	#6 AWG to #14 AWG (13.5 to 2.5 mm ²)
Max. output power	2560 W (nominal 24 V), 4800 W (nominal 48 V)
Charger regulation method	Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization
Supported battery types	Flooded, GEL, AGM, Custom
Efficiency	
Max. power conversion efficiency	94% (nominal 24V), 96% (nominal 48V)
General specifications	
Power consumption, night time	< 1 W
Battery temperature sensor	Included
Auxiliary output	Dry contact switching up to 60VDC, 30VAC, 8A
Enclosure material	Indoor, ventilated, aluminum sheet metal chassis with 22.22 mm and 27.76 mm (7/8 in and 1 in) knockouts and aluminum heat sink
IP degree of protection	IP20
Product weight	13.5 kg (29.8 lb)
Shipping weight	17.4 kg (38.3 lb)
Product dimensions (H x W x D)	76.0 x 22.0 x 22.0 cm (30.0 x 8.6 x 8.6 in)
Shipping dimensions (H x W x D)	87.0 x 33.0 x 27.0 cm (34.3 x 13.0 x 10.6 in)
Device mounting	Vertical wall mount
Ambient air temperature for operation	-20°C to 65°C (-4°F to 149°F), power derating above 45°C
Storage temperature range	-40°C to 85°C (-40°F to 185°F)
Operating altitude	Sea level to 2000 m (6562 ft)
System network and remote monitoring	Available
Warranty	Five-year standard
Part number	865-1032
Regulatory approval	
Safety	CSA Certified (UL1741, CSA 107.1) and CE Marked for the Low Voltage Directive (EN50178)
EMC	FCC and Industry Canada (Class B), CE Marked for the EMC Directive (EN61000-6-1, -6-3), C-Tick compliant
Compatible products	
Conext XW+ inverter/charger (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details
Conext XW+ inverter/charger (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details
Conext System Control Panel	Product no. 865-1050 see page 84 for more details
Conext Automatic Generator Start	Product no. 865-1060 see page 86 for more details
Conext ComIBox	Product no. 865-1058 see page 82 for more details

Specifications are subject to change without notice.

Conext MPPT 60 150 solar charge controller

MPPT multi-stage charging, better battery life

The Conext™ MPPT 60 150 is a photovoltaic (PV) charge controller that tracks the maximum power point of a PV array to deliver the maximum available current for charging batteries. When charging, the MPPT 60 150 regulates battery voltage and output current based on the amount of energy available from the PV array and state-of-charge of the battery.

Why choose Conext MPPT 60 150?



Higher return on investment

- Maximum Power Point Tracking (MPPT) algorithm continually seeks the maximum power available from the PV array
- Improve battery life with selectable multi-stage temperature compensated charging
- Five-year standard warranty



Flexible

- Stand-alone application or full integration with Conext XW and Conext SW inverter charger system
- Compatible with any brand of PV Module
- Available remote monitoring and configuration



Easy to install

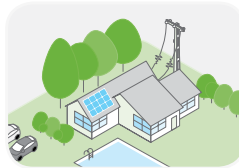
- Configurable auxiliary output
- LCD screen with face plate buttons for configuration and system monitoring
- Integrated PV ground fault protection for negative grounded arrays



Product applications



Backup power



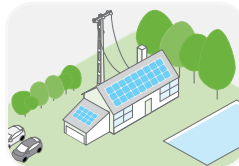
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

Device short name	MPPT 60 150
Electrical specifications	
Nominal battery voltage	12, 24, 36, 48, 60 V
Battery voltage operating range	0 Vdc to 80 Vdc
Max. PV array voltage (operating)	140 V
Max. PV array open circuit voltage	150 V including temperature correction factor
Max. array short-circuit current	60 A (48 A @ STC)
Max. charge current	60 A (for all battery voltages except 60 V)
Max. and min. wire size in conduit	#6 AWG to #14 AWG (10 to 2.5 mm ²)
Max. output power	3500 W
Charger regulation method	Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization
Supported battery types	Flooded, GEL, AGM, Custom
Efficiency	
Max. power conversion efficiency	93% (nominal 12 V), 96% (nominal 24 V), 97% (nominal 36 V), 98% (nominal 48 V), 99% (nominal 60 V)
General specifications	
Power consumption, night time	2.5 W
Battery temperature sensor	Included
Auxiliary output	5 - 13 V, up to 200 mA
Enclosure material	Indoor, ventilated, sheet metal chassis with 2.2 cm and 2.8 cm (7/8 in and 1 in) knockouts and aluminium heat-sink
IP degree of protection	IP20
Product weight	4.8 kg (10.8 lb)
Shipping weight	8.0 kg (17.6 lb)
Product dimensions (H x W x D)	36.8 x 14.6 x 13.8 cm (14.5 x 5.8 x 5.5 in)
Shipping dimensions (H x W x D)	48.3 x 22.9 x 35 cm (19.0 x 9.0 x 9.8 in)
Device mounting	Vertical wall mount
Ambient air temperature for operation	-20°C to 45°C (-4°F to 113°F)
Storage temperature range	-40°C to 85°C (-40°F to 185°F) full power, power derating above 45°C
Operating altitude	Sea level to 2000 m (6562 ft)
System network and remote monitoring	Available
Warranty	Five-year standard
Part number	865-1030-1
Features	
Display type	LCD, 2 lines 16 digits
Regulatory approval	
Safety	CSA Certified (UL1741, CSA 107.1) and CE Marked for the Low Voltage Directive (EN50178)
EMC	FCC and Industry Canada (Class B), CE Marked for the EMC Directive (EN61000-6-1, -6-3), C-Tick compliant
Compatible products	
Conext XW+ inverter/charger (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details
Conext XW+ inverter/charger (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details
Conext System Control Panel	Product no. 865-1050 see page 84 for more details
Conext Automatic Generator Start	Product no. 865-1060 see page 86 for more details
Conext ComBox	Product no. 865-1058 see page 82 for more details

Specifications are subject to change without notice.

C12 PWM charge controller

PV charge, lighting and load controller

The C12 charge, lighting, or load controller is uniquely sophisticated. As a charge controller, it features three-stage charging, user definable voltage parameters, and automatic equalization. Standard in the C12's load control circuitry are field adjustable low voltage disconnect and reconnect points, along with a five minute low battery disconnect signal. The C12 also functions as a lighting controller. Lighting run time is adjustable from two to eight hours or can be set from dusk to dawn operation. It is used worldwide in a variety of applications, including remote village lighting systems and automatic outdoor lighting. An optional battery temperature sensor manages battery charging based on battery temperature.

Why choose C12 PWM?



Higher return on investment

- Improve battery life with pulse width modulated (PWM) multi-stage temperature compensated charging
- Two-year standard warranty



Flexible

- PV charge and load controller
- Automatic lighting controller



Easy to service

- Electronic detection of short-circuit, overload, over-temperature and reverse polarity conditions
- Tolerance to hostile environments with conformal-coated boards and powder-coated enclosure

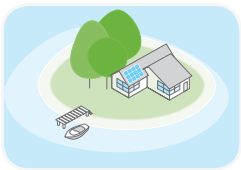


Easy to install

- Field adjustable voltage and battery set points
- Automatically disconnects from the battery at night
- Compatible with negative ground and ungrounded systems



Product applications



Residential off-grid solar

Device short name	C12
Electrical specifications	
Rated PV current	12 A at 12 V only
Max. DC load	12 A with auto reset
Min. operating voltage	6 V
Max. PV open circuit array voltage	25 V
Max. voltage drop (PV to battery)	0.3 V
Max. voltage drop (battery to DC load)	0.5 V
Regulation setting	13 to 15 V
Equalize setting	Bulk plus 1 volt for two hours
Max. stranded wire size	#10 AWG stranded (5.2 mm ²)
Typical consumption while charging	0.007 A
Typical consumption with load disconnected	0.003 A
General specifications	
Power consumption, night time	0.003 A
Enclosure material	Powder coated steel with strain relief for wiring and knockouts for up to 3.5 in conduits
Product weight	0.9 kg (2.0 lb)
Shipping weight	1.1 kg (2.5 lb)
Product dimensions (H x W x D)	16.5 x 11.0 x 4.0 cm (6.5 x 4.3 x 1.6 in)
Shipping dimensions (H x W x D)	20.3 x 11.7 x 4.0 cm (8.0 x 4.6 x 1.6 in)
Device mounting	Vertical wall mount – indoor only
Ambient air temperature for operation	0°C to 40°C (32°F to 104°F)
Warranty	Two-year standard
Part number	C12
Features	
Regulation method	Three-stage (bulk, absorption, and float), solid state, pulse width modulation
Field adjustable control setpoints	Removable knobs and calibrated scales
Testpoints	Provided for each setting
Automatic equalization	Every 30 days or after voltage reaches low voltage disconnect – can be disabled
Short circuit detection	Auto reset and manual reset switch
Low voltage disconnect	Adjustable automatic or manual operation
Options	
130-0004-02-01	BTS – battery temperature sensor for increased charging precision, 7.62 m (25 ft) cable
Regulatory approval	
CE marked for the Low Voltage Directive and EMC Directive	

Specifications are subject to change without notice.

C Series PWM charge controller

PV charge, diversion and load controller

The C35 and C60 are field configurable for 12 V and 24 V operation. The C40 may be configured for 12 V, 24 V, or 48 V operation. C35, C40 and C60 charge controllers can be used as a charge, diversion, or load controller and come with a standard multi-color charge status LED face plate.

Why choose C Series PWM?



Higher return on investment

- Improve battery life with pulse width modulated (PWM) multi-stage temperature compensated charging
- Two-year standard warranty



Flexible

- PV charge, diversion, load controller
- Available remote display with cumulative AMP hours



Easy to service

- Electronic protection against short-circuit, overload, and over-temperature conditions
- Tolerance to hostile environments with conformal-coated boards and powder-coated enclosure

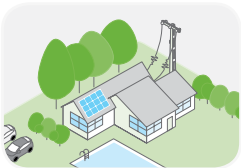


Easy to install

- Field adjustable voltage and battery set point
- Automatically disconnects from the battery at night
- Compatible with negative ground and ungrounded systems



Product applications



Residential grid-tie solar with backup power



Off-grid solar

Device short name	C35	C40	C60
Electrical specifications			
Rated PV current	35 A	40 A	60 A
Charging / load current @ 25°C (77°F)	35 A	40 A	60 A
Voltage configurations	12 and 24 V	12, 24, and 48 V	12 and 24 V
Max. PV open circuit array voltage	55 V	125 V	55 V
Max. voltage drop through controller	0.30 V	0.30 V	0.30 V
Total operating consumption	15 mA	15 mA	15 mA
Recommended NEC breaker size	60 A rated at 100% continuous duty	60 A rated at 100% continuous duty	60 A rated at 100% continuous duty
Recommended wire size	#6 AWG rated at 90°C (194°F)	#6 AWG rated at 90°C (194°F)	#6 AWG rated at 90°C (194°F)
Lead acid battery settings	Adjustable	Adjustable	Adjustable
NiCd battery settings	Adjustable	Adjustable	Adjustable
Load control mode	Low voltage reconnect – adjustable (sticker provided with unit) all models Low voltage disconnect – user selectable manual or automatic reconnection – (includes warning flash before disconnect and provides a one time, user selected grace period) all models		
General specifications			
Power consumption, night time	3 mA	3 mA	3 mA
Enclosure material	Indoor, ventilated, powder coated steel with 2 cm and 2.5 cm knockouts	Indoor, ventilated, powder coated steel with 2 cm and 2.5 cm knockouts	Indoor, ventilated, powder coated steel with 2 cm and 2.5 cm knockouts
Product weight	1.2 kg (2.7 lb)	1.4 kg (3.1 lb)	1.4 kg (3.1 lb)
Shipping weight	1.4 kg (3.1 lb)	1.6 kg (3.5 lb)	1.6 kg (3.5 lb)
Product dimensions (H x W x D)	20.3 x 12.7 x 6.4 cm (8.0 x 5.0 x 2.5 in)	25.4 x 12.7 x 6.4 cm (10.0 x 5.0 x 2.5 in)	25.4 x 12.7 x 6.4 cm (10.0 x 5.0 x 2.5 in)
Shipping dimensions (H x W x D)	31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)	31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)	31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)
Device mounting	Vertical wall mount – indoor only	Vertical wall mount – indoor only	Vertical wall mount – indoor only
Ambient air temperature for operation	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Operating altitude	4572 m (15000 ft)	4572 m (15000 ft)	4572 m (15000 ft)
Non-operating altitude	15240 m (50000 ft)	15240 m (50000 ft)	15240 m (50000 ft)
Warranty	Two-year standard	Two-year standard	Two-year standard
Part number	C35	C40	C60
Features			
Display type	Multi color LED indicates the operating and battery voltage status		
Regulation method	Solid state, three-stage (bulk, absorption, and float), pulse width modulation		
Field adjustable control setpoints	Two user adjustable voltage setpoints for control of loads or charging sources – settings retained if battery is disconnected		
Equalization charge	User selectable manual or automatic equalization – every 30 days		
Options			
CM/R-100	Backlit LCD remote, alphanumeric display showing battery voltage, DC amperage, cumulative amp hours, 30.5 m (100 ft) cable		
130-0004-02-01	Battery temperature sensor for increased charging precision, 7.62 m (25 ft) cable		
Regulatory approval			
Safety	UL listed to UL1741* and CSA 107.1-01; CE Marked for the Low Voltage Directive		
EMC	FCC and Industry Canada Class B, CE Marked for the EMC Directive		

Specifications are subject to change without notice. *Assembly with optional digital meter is NOT UL listed.

Conext ComBox communication device

New monitoring solution from Schneider Electric

The Conext™ ComBox is a powerful communications and monitoring device for installers and operators of Conext solar systems. It features an integrated web server, enabling graphical displays of system daily, monthly and lifetime energy data to be viewed using a simple web browser or Android™ tablet device. Installers can change or configure the settings of Conext devices through the user-interface on the ComBox and respond to system email alerts promptly. A user-configurable data logger and integrated FTP server provides a system owner with powerful analytics tool for data download and analysis. Modbus™ interface on the ComBox links Conext devices with third party systems through RS485 or Ethernet ports. Conext ComBox is compatible with Xanbus™ protocol devices. For large multi-cluster systems, the ComBox can be setup in a master-slave configuration to monitor multiple separate Xanbus networks and supported Modbus devices, such as power meters.

Why choose Conext ComBox?



Higher return on investment

- Monitor solar system harvest and yield
- Measure and compare energy performance over varying timelines
- Receive email alerts and reduce system downtime



Designed for reliability

- Tested and qualified for harsh environmental conditions (HALT reliability testing)



Flexible

- Customizable home screen tailored to your specific system setup
- Multiple visualization options - bar charts or line graphs
- Retrieve data logs or system information through USB, Micro-SD card, RS485, Ethernet



Easy to service

- View or download an events log for faster troubleshooting
- Upgrade ComBox and Conext device firmware through a web browser or Android tablet
- Settings are maintained during power or network interruptions



Easy to install

- Configure devices using web browser, Android tablet or Modbus
- Surface or DIN-Rail mounting options
- Multiple power supply options, AC adapter, Xanbus, RS485



Conext ComBox
Android tablet application

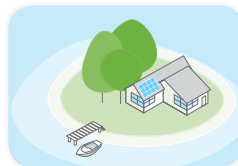
Product applications



Backup power



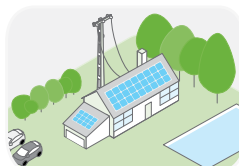
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption



Download
app from [Google Play](#)

Device short name	Conext ComBox
Electrical specifications	
Communication interfaces	
Xanbus	Connector: 2 x RJ45 Products Supported: Conext XW, SW, TX, GT-AUS, MPPT 60-150, MPPT 80-600, AGS, SCP
Ethernet	Connector: 1 x RJ45, 10 / 100 MBPS Server: FTP, Web, Modbus TCP/IP slave, SMTP, SNTP, Auto discovery: DPWS
RS485	Modbus (1 x Connector: Screw 5-terminal, 16-24AWG, 2-wire serial, 19200 bps)
Data Interfaces	
USB 2.0-Host	Connector: USB-A, Protocols: MSD (firmware upgrades and device locator)
USB 2.0-Device	Connector: USB-mini B, Protocols: MSD (data extraction)
Power supply options	
DC input	Certified / Listed / CE, using a 6.5 mm power plug, 9 - 24 Vdc (universal multi-pin AC adapter included)
Power consumption	<2 W typical / 10 W peak
Xanbus	When connected to Conext XW, SW or MPPT 80 600, or more than one Conext TX
RS485 connector	24 Vdc input(safety extra low-voltage only)
Memory	
Internal	96 MB flash
External	Micro-SD Card (2GB or more, class 2 or better recommended)
Conext ComBox Android tablet application*	
Software	Minimum Android version 3.0 (Honeycomb)
Hardware	Minimum tablet screen size (7", 1024 x 600, e.g. Acer Iconia Tab A100, Acer Iconia Tab A500, Google Nexus™ 7, Asus Transformer TF700T, Samsung Galaxy Tab™ 2 10.1)
General specifications	
Weight	0.25 kg (0.55 lb)
Dimensions (H x W x D)	11.4 x 16.9 x 5.4 cm (4.5 x 6.7 x 2.1 in)
Housing/mounting system	ABS Plastic / DIN-rail: 35 mm, Wall-mount: 2-screw
IP rating/mounting Location	IP 20, NEMA 1, Indoor only
Status display	5 x LEDs
Temperature	Operating: -4 to 122 °F (-20 to 50 °C) / storage: -40 to 185 °F (-40 to 85 °C)
Humidity	Operating: < 95%, non-condensing / storage: < 95%
Part number	865-1058
Features	
Programmable dry contact relay	Screw 3-terminal, 16-24 AWG, NC-Com-NO, Form: Class 2, 24 Vdc 4 A max
Graphical user interface	Internet Browser, Android tablet app
Remote firmware upgrades	Yes (ComBox and connected Xanbus devices)
Custom datalogger	Yes (requires Micro-SD card)
Warranty	5 years
Number of Xanbus devices	Up to 20 (depending on device type)
Regulatory approvals	
Marking	CE, RCM
EMC immunity	EN61000-6-1 residential / commercial
EMC emission	EN61000-6-3, FCC Part 15 Class B, Ind. Canada ICES-003 Class B
Substances/environmental	RoHS
Compatible products	
Conext XW+ (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details
Conext MPPT 80 600	Product no. 865-1032 see page 74 for more details
Conext MPPT 60 150	Product no. 865-1030-1 see page 76 for more details
Conext System Control Panel	Product no. 865-1050 see page 84 for more details
Conext Automatic Generator Start	Product no. 865-1060 see page 86 for more details
Conext Battery Monitor	Product no. 985-1081-01 see page 88 for more details

Specifications are subject to change without notice. *Tablet not included.

Conext System Control Panel

Monitor and Configure Conext Inverter Charger Systems and Xanbus Enabled Accessories

The Conext™ System Control Panel (SCP) eliminates the need for separate control panels for each device and gives a single point of control to set up and monitor the entire Conext inverter charger system, including Conext MPPT Solar Charge Controllers. Featuring a graphical backlit liquid crystal display, the SCP selectively displays configuration, status and diagnostic information for all devices connected to the Xanbus™ network.

Why choose Conext System Control Panel?



Higher return on investment

- Get the most out of Conext inverter charger systems and Conext MPPT Solar Charge Controllers
- Clearly understand status and settings
- Optimize system set up and device performance



Designed for reliability

- Extensive quality and reliability testing



Flexible

- Monitor and configure Conext XW+, SW, MPPT 60 150, MPPT 80 600, AGS, Battery Monitor
- Multiple SCP can be used on the same Xanbus network
- Compatible with Conext ComBox



Easy to service

- Access and troubleshoot Xanbus enabled devices on the network from one location
- Remove and replace without the loss of device settings



Easy to install

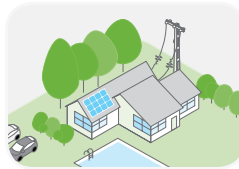
- Surface mount or panel mount on wall
- RJ45 connections for Xanbus network cables



Product applications



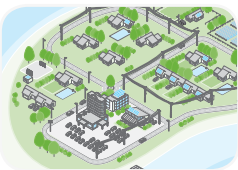
Backup power



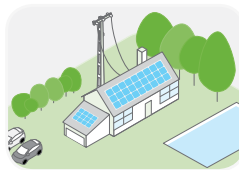
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

Device short name	Conext System Control Panel
Electrical specifications	
Nominal voltage	15 VDC
Min. operating network voltage	14.25 VDC
Max. operating network voltage	15.75 VDC
Max. operating current at nominal voltage	200 mA
General specifications	
Dimensions (H x W x D)	15.2 x 10.3 x 4.0 cm (5.9 x 2.6 x 1.6 in)
Weight	200.0 g (0.4 lb)
Shipping weight	800.0 g (1.8 lb)
Mounting options	Panel-mount, wall-mount
IP rating / location	IP20, indoor only
Operating temperature range	-20 to 50°C (-4°F to 122°F)
Part number	865-1050
Features	
Network	Protocol: Xanbus / Connectors: RJ45
Internal clock	Provides network time
Memory	Non volatile
Alarm	Audible
Display	Backlit LCD. Green / red LED
Front-panel interface	Four menu buttons, One standby button
Warranty	2 to 5 years (depending on country)
Regulatory approvals	
Safety	CSA 107.1, UL 458 4 th Ed
EMC	CE directive 2004 / 108 / EC, IEC / EN61000-6-3, IEC / EN61000-6-1, FCC Part 15B Class B, Industry Canada ICES-00. Class B
Included parts	
	One remote head
	One network terminal
	One CAT5 cable (2.1 m)
	One mounting plate
	One mounting bracket
	Four #8 screws
	Two #6 screws
Compatible products	
Conext XW+ (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details
Conext MPPT 80 600	Product no. 865-1032 see page 74 for more details
Conext MPPT 60 150	Product no. 865-1030-1 see page 76 for more details
Conext Automatic Generator Start	Product no. 865-1060 see page 86 for more details
Conext ComBox	Product no. 865-1058 see page 82 for more details
Conext Battery Monitor	Product no. 985-1081-01 see page 88 for more details

Specifications are subject to change without notice.

Conext Automatic Generator Start

Automatically start and stop a generator to meet power needs

The Conext™ Automatic Generator Start (AGS) can automatically activate or stop a generator in response to changing power requirements. An excellent addition to an off-grid or backup power system, the AGS seamlessly connects to the Xanbus™ network and shares status information with all other devices on the network. It can monitor a set of system user-programmable parameters such as battery voltage, state of charge or grid power and can activate the generator in response to any changes. The AGS can also be configured remotely using the Conext System Control Panel (SCP) or Conext ComBox to engage a generator, and can assist an inverter/charger when output power demands are high.

Why choose Automatic Generator Start?



Higher return on investment

- Integrate with an inverter/charger to maximize system power performance



Designed for reliability

- Tested and qualified for harsh environmental conditions (HALT reliability testing)



Flexible

- Works with multiple Xanbus devices - Conext XW, SW, MPPT 60-150, MPPT 80-600, SCP, ComBox
- User-programmable trigger settings to meet specific application needs
 - Battery voltage
 - SOC
 - Exercise time
 - Quiet time
 - Inverter / charger AC power loads
- Supports manual start and stop operation modes



Easy to service

- Access and troubleshoot AGS device events using the Conext ComBox or SCP
- Easily upgrade new firmware to the AGS using the ComBox



Easy to install

- Wall mount
- RJ45 connections for Xanbus network cables



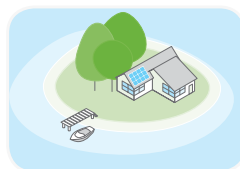
Product applications



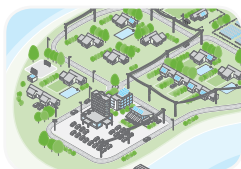
Backup power



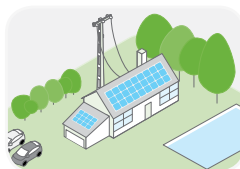
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

Device short name	Conext Automatic Generator Start
Electrical specifications	
Nominal input network voltage	15 Vdc
Max. operating current	200 mA @ nominal input network voltage
Relay contact voltage rating	12 Vdc, 30 Vdc max*
Max. relay contact current	5 A DC*
Nominal 12/24 V thermostat input voltage	12 Vdc / 24 Vdc* = On
Min. 12/24 V thermostat input voltage	9.5 Vdc*
Max. 12/24 V thermostat input voltage	30 Vdc*
Typical 12/24 V thermostat input current	14.6 mA @ 12 V
Nominal 12/24 V generator running B+ voltage	12 Vdc / 24 Vdc* = On
Min. 12/24 V generator running B+ voltage	9.5 Vdc*
Max. 12/24 V generator running B+ voltage	30 Vdc*
Typical 12/24 V generator running B+ voltage	14.6 mA @ 12 V
General specifications	
Dimensions (H x W x D)	9.55 x 14.6 x 3.7 cm (3.8 x 5.7 x 1.5 in)
Weight	225.0 g (0.5 lb)
Mounting options	Wall-mount
IP rating / location	IP20, indoor only
Warranty	2 to 5 years (depending on country)
Part number	865-1060
Communication	
Network protocol	Xanbus
Connectors	2 x RJ45 ports
Regulatory approvals	
Safety	CSA 107.1-01, UL 458 4 th Ed including the Marine Supplement
EMC	FCC Part 15B Class B, Industry Canada ICES-0003 Class B
Included parts	
	One network terminator
	One CAT5 cable (2.1 m)
	One mounting plate
	Four #6 screws
Compatible products	
Conext XW+ (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details
Conext MPPT 80 600	Product no. 865-1032 see page 74 for more details
Conext MPPT 60 150	Product no. 865-1030-1 see page 76 for more details
Conext System Control Panel	Product no. 865-1050 see page 84 for more details
Conext ComBox	Product no. 865-1058 see page 82 for more details
Conext Battery Monitor	Product no. 985-1081-01 see page 88 for more details

Specifications are subject to change without notice.

Conext Battery Monitor

Battery bank monitoring with battery string health detection

Conext™ Battery Monitor indicates hours of battery based runtime and determines battery bank state of charge. Conext Battery Monitor shares key battery bank parameters with Conext XW+ inverter/chargers improving overall system performance of 24V and 48V battery banks. Detecting battery string imbalance is determined using innovative mid-point sensing technology providing time to address the issue before performance is significantly impacted.

Conext Battery Monitor features built-in data logging and a local display to selectively show the voltage, current, consumed amp-hours, remaining capacity and remaining hours. The same information and battery bank data is reported by ComBox and distributed to other Conext devices such as XW+ inverter chargers as well as MPPT Solar Charge Controllers, Automatic Generator Start module and System Control Panel via Xanbus™ network connectivity enhancing performance of the overall system.

Industrial and telecom customers can integrate Conext Battery Monitor with energy management systems over Modbus™ RS485.

Why choose Conext Battery Monitor?



Higher return on investment

- Get the most out of battery based Conext inverter charger systems
- Clearly understand hours of available battery based autonomy
- Detect imbalance between battery-strings before it becomes an issue



Designed for reliability

- Extensive quality and reliability testing
- Highly Accelerated Life Testing (HALT)



Flexible

- Stand-alone application or integration with Conext XW+ inverter charger systems
- Enables State of Charge triggers for AGS module control of diesel generators
- Enables balancing of multi-battery bank systems for large clustered Conext XW+ inverter charger systems



Easy to service

- Remotely monitor, troubleshoot or upgrade firmware with Conext ComBox
- Built-in data logger



Easy to install

- Wall-mount, DIN-rail mount, panel mount
- RJ45 connections for XanBus network and battery signals
- Configure with front-panel buttons, Conext ComBox or RS485 Modbus



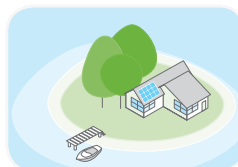
Product applications



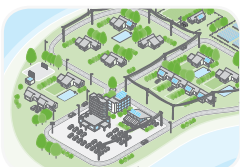
Backup power



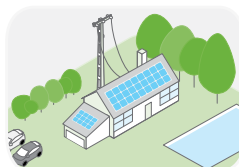
Residential grid-tie solar with backup power



off-grid solar



Community electrification



Self-consumption

Device short name	Conext Battery Monitor
Electrical specifications	
Supply voltage	18 - 66 VDC
Supply current (backlight off, logging-disabled)	80 mA @ VIN=48 VDC, 150 mA @ VIN=24 VDC
Input voltage range	0 - 70 VDC
Input current range	-9999 - +9999 A
Battery capacity range	20 - 10, 000 Ah
Operating temperature range	-20 - +50°C
Displayed increments	
Voltage	0 - 70 V (0.01 V)
Current	0 - 200 A / 200 - 9999 A (0.1 A / 1 A)
Amp-hours	0 - 200 Ah / 200 - 99990 Ah (0.1 Ah / 1 Ah)
State-of-charge	0 - 100% (0.1%)
Time remaining	0 - 24 hrs / 24 - 240 hrs (1 min / 1 hr)
Temperature	-20 to +50°C (0.1°C)
Accuracy	
Voltage measurement	+/- 0.3%
Current measurement	+/- 0.4%
Features	
Network	Protocol: Xanbus / Connectors: RJ45
USB 2.0	Protocol: MSD (data extraction) Connector: USB mini-B
ModBus	Isolated RS-485, 2-wire serial
Data Logging	10 data points every 10 mins for 10 years
Display	Backlight LCD
Front-panel interface	3 menu buttons, 1 power button
Battery string-imbalance detection	Two point sensing
Temperature sensor(included)	762 cm
Warranty	2 - 5 years (depending on country)
General specifications	
Product dimensions (H x W x D)	8.5 x 8.5 x 9.0 cm (3.3 x 3.3 x 3.5 in)
Product / shipping weight	0.2 kg (0.4 lb) / 1.95 kg (4.3 lb)
Mounting options	Panel-mount, wall-mount, DIN-rail: 35 mm
IP rating / location	IP 20, NEMA 1, indoor only
Storage temperature range	-30 - +70°C
Part number	865-1080-01
Battery interface kit with shunt (included)	
Connection to battery	300 cm cable with ring-terminals
Connection to battery-monitor	500 cm CAT5 cable RJ45
Shunt	500 A / 50 mv
Regulatory approval	
Markings	CE, RCM, UL, CSA
Safety	IEC / EN62109-1, UL1741, CSA 107.1
EMC	Directive 2004/108/EC, IEC/EN61000-6-3, IEC/EN61000-6-1, FCC Part 15 Class B, Industry Canada ICES-003 Class B
Compatible products	
Conext XW+ (230 V)	XW 7048 E product no. 865-7048-61 XW 8548 E product no. 865-8548-61 see page 64 for more details
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01 see page 66 for more details
Conext SW (230 V)	SW 2524 product no. 865-2524-61 SW 4024 product no. 865-4024-61 SW 4048 product no. 865-4048-61 see page 60 for more details
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048 see page 62 for more details
Conext MPPT 80 600	Product no. 865-1032 see page 74 for more details
Conext MPPT 60 150	Product no. 865-1030-1 see page 76 for more details
Conext System Control Panel	Product no. 865-1050 see page 84 for more details
Conext Automatic Generator Start	Product no. 865-1060 see page 86 for more details
Conext ComBox	Product no. 865-1058 see page 82 for more details

Specifications are subject to change without notice.

Selected customer references

Global support that makes any size installation a success story



Florida, USA
PV power plant
23 kW



Cibao, Dominican Republic
PV power plant
1.5 MW



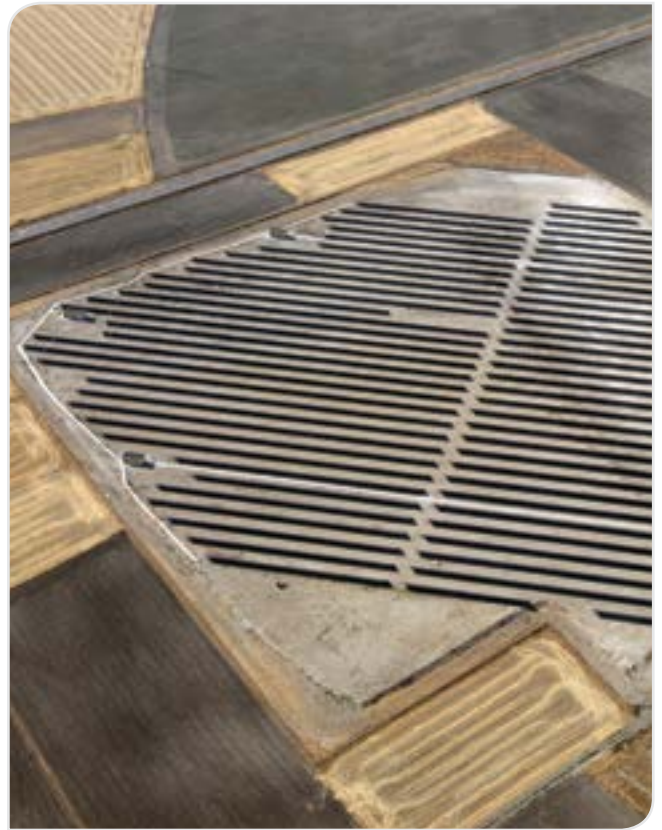
Ontario, Canada
Off-grid solar
10 kW



California, USA
Off-grid solar
4.5 kW



Montego Bay, Jamaica
Self-consumption
5 kW



Villanueva del Aceral, Spain
PV power plant
3 MW



Ostwind, Germany
Commercial rooftop
360 kW



Puglia, Italy
PV power plant
43 MW



Osiyan, India
PV power plant
5 MW



Phetchabun, Thailand
PV power plant
3.3 MW



Tennessee, USA
PV power plant
1 MW



Bonnat, France
PV power plant
5.4 MW



Madrid, Spain
Off-grid solar
18 kW



Senftenberg, Germany
PV power plant
82 MW

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