



Solar

CATALOG 2015 / 2016

Schneider
Electric

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

Dear Customers,

2014 was an exhilarating year for the Solar Business of Schneider Electric as we brought a complete range of new products and solutions to the solar market.

Our optimized versions of the PV Box RT, PV Box ST, PV Box ST+, and PV Skid for PV power plants provide a reduction in the balance of systems cost, increased reliability, improvement of construction lead times, and greater ease of transportation. We also released the Conext Core XC-NA central inverter to the North American market, a UL outdoor version of our already established Conext Core XC Series.

For commercial and decentralized PV power plants we launched the Conext CL, a new line of three phase string inverters for the IEC and UL markets, designed to provide high efficiency, flexibility, and ease of installation with an integrated wiring box which eliminates the cost of an external DC combiner box, saving installation time and reducing your overall cost.

We have been providing solutions for the off-grid, backup power, and self consumption market for over 17 years and in 2014 we strengthened our position by launching the next generation of the Conext XW hybrid inverter. The Conext XW+ has expanded features such as scalable modular architecture, higher power ratings, better battery management, including support for lithium-ion technology, and is suitable for large hybrid applications up to 102 kW.

On top of launching several new products last year, we also completed construction of our very own microgrid lab. This lab is the world's largest private microgrid lab designed for quality and reliability testing which allows us to test our solar products to all international safety and grid interconnection standards under a wide range of environmental conditions.

I am also very proud that Schneider Electric has been recognized by Greentech Media (GTM Research) as one of the *Top Three Most Competitive Solar Inverter Companies in the World* and ranked the *#1 Provider of Operations and Maintenance Services Among Electrical Equipment Manufacturers*.

In 2015 we will be complementing our product portfolio with two new remote monitoring products. The Conext Insight is an innovative remote monitoring and asset management platform for distributed PV plants, and the Conext Advisor is an analytics tool to help PV power plant owners visualize plant performance and measure their return on investment. We are also excited to announce our storage solutions for PV power plants. We have a new range of energy storage solutions, banking on the synergies with competitive PV technologies and leveraging our expertise in energy management and control systems.

I encourage you to stay up to date with our latest product news and announcements by signing up for our monthly newsletter at solar.schneider-electric.com



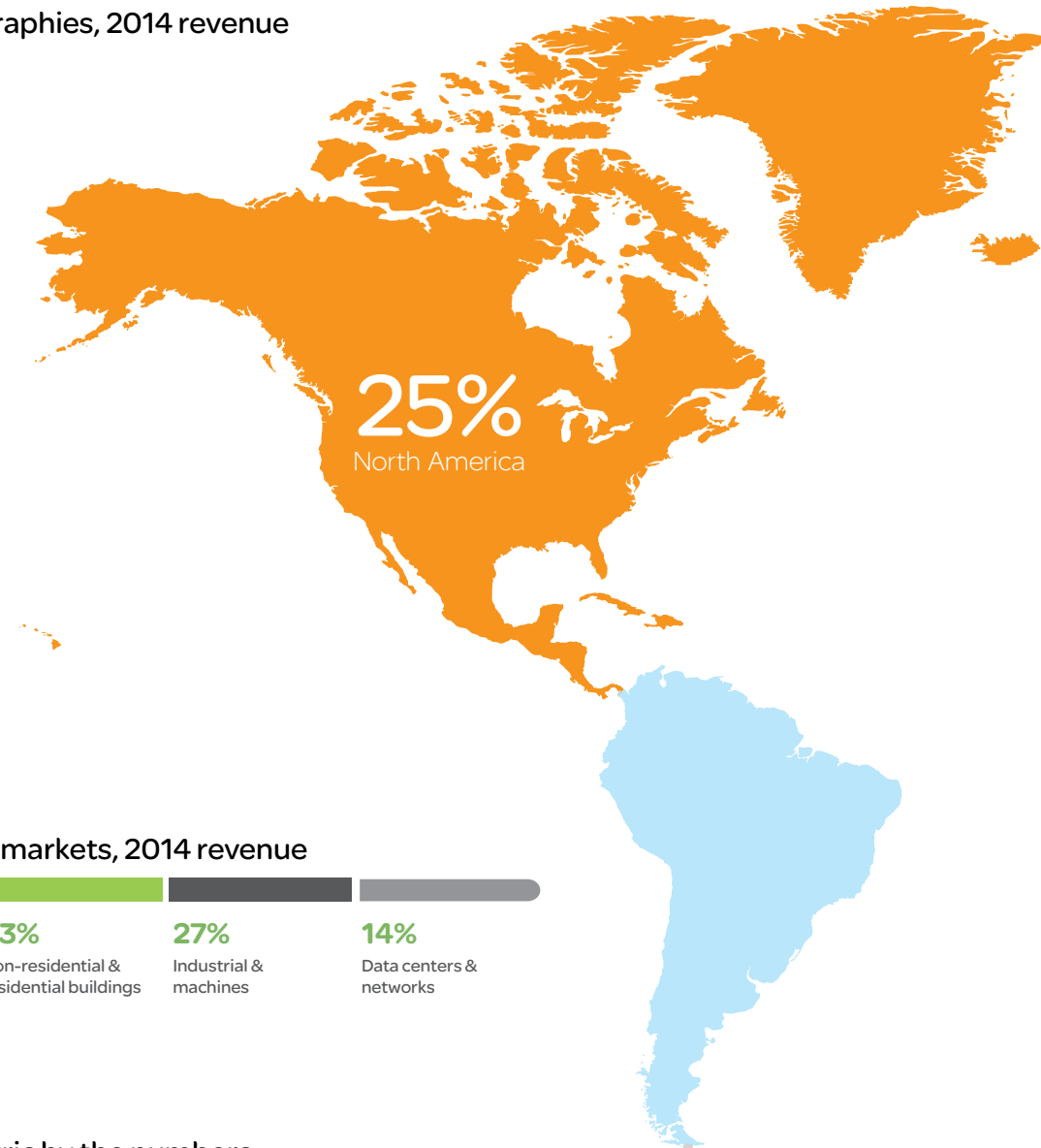
Serge Goldenberg
Senior Vice President — Solar Business

Schneider Electric at a glance

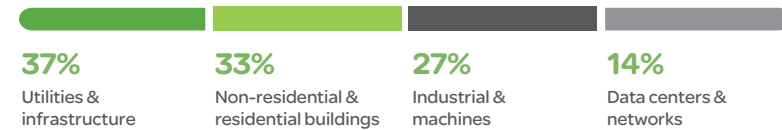
With 180 years of experience, we have developed world-leading capabilities to manage the full life cycle of our customers' energy and industrial needs.

Today, 170,000 Schneider Electric employees apply their expertise in energy management and automation, delivering innovative solutions for our customers in more than 100 countries. Our rich and integrated portfolio combined with a strong and broad global footprint, ensures best-in-class customer experience.

Balanced geographies, 2014 revenue



Diversified end markets, 2014 revenue



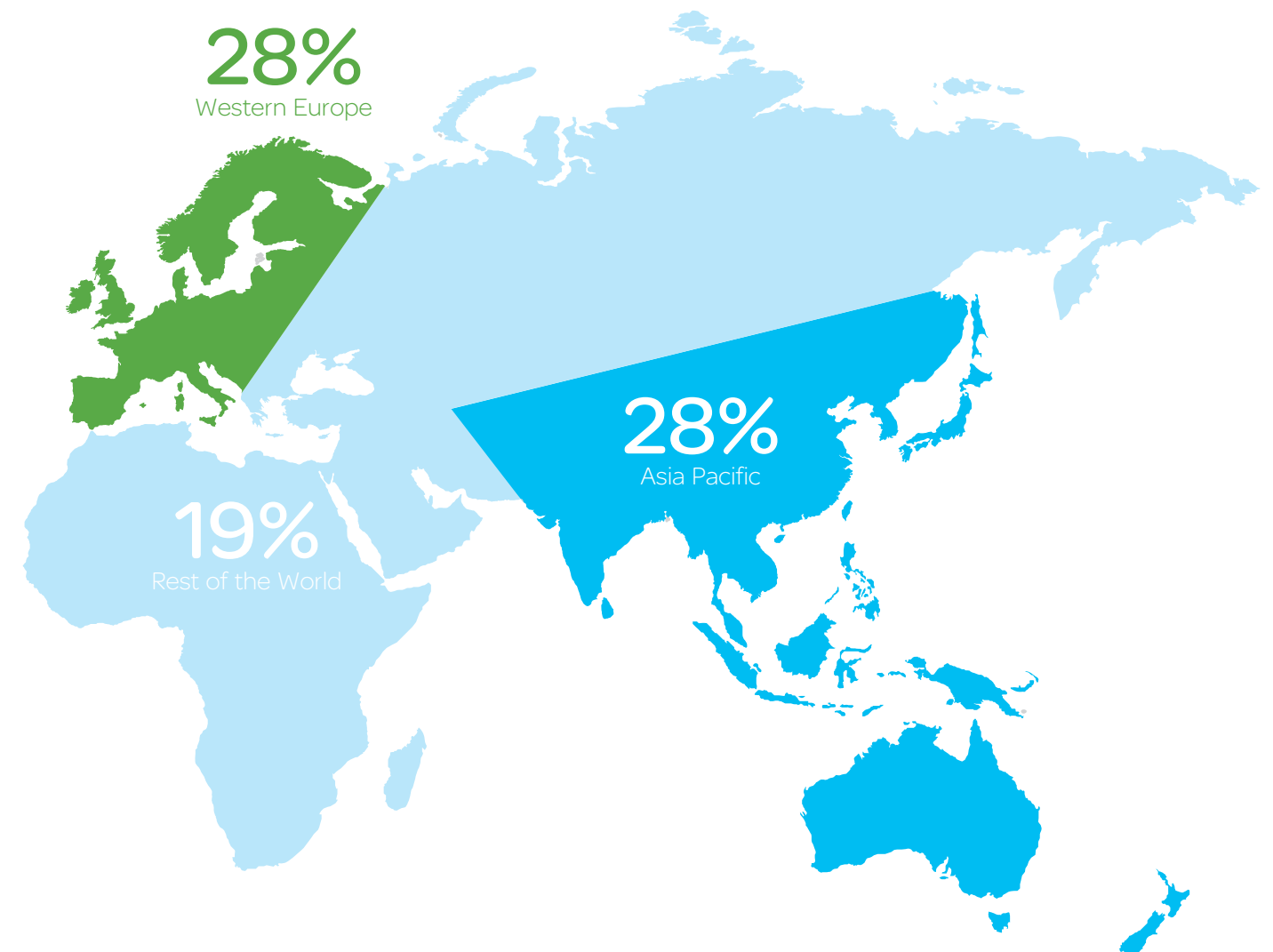
Schneider Electric by the numbers



We are committed to transformative solutions that provide connectivity, sustainability, efficiency, reliability, and safety while dramatically reducing power consumption. Less becomes more.

We are proud to share that, to date, our Access to Energy Program efforts have connected 2.4 million people to previously unavailable power sources. Collectively, we can do more while using less. Critical facilities can better manage rapidly increasing demands, both locally and remotely.

We can be more reliable, safe, secure, green, and efficient.



Why does bankability matter in solar?

In a fast evolving and emerging solar market, where suppliers come and go, customers need to choose a committed partner with a proven track record. A bankable partner.

With a strong background in the solar industry and expertise in energy management, 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.

The power of *true* bankability

Schneider Electric bankability means you can rely on our financial strength, worldwide support, industry-leading experience, and reliable products for any solar project.

- > 17+ years of expertise in the solar industry
- > Local presence in 100+ countries
- > More than 170,000 employees worldwide
- > Annual revenues of over €24.9 billion



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

Schneider Electric is the world leader in the domain of low and medium voltage electrical equipment. This enables us to deliver to customers best-in-class electrical equipment (from array boxes to MV switchgears, and transformers, all 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 is recognized by solar industry experts:

GTM Research recognized Schneider Electric as one of the top 3 Most Competitive Solar Inverter Companies in the world in 2013.

They also ranked Schneider Electric as the #1 Provider of Operations and Maintenance Services Among Electrical Equipment Manufacturers.



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

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

See how Schneider Electric bankability enhances your business
solar.schneider-electric.com

➤ Global services and support




Nakhon Ratchasima, Thailand
Our experienced service representative
conducting maintenance on site


Schneider
Electric

Comprehensive services and global support


Overview of service offering




Global field services
Thanks to our global infrastructure in over 100 countries




Expertise
Real industrial solutions which provide full control of the PV power plants and grid interface. Allows better diagnostic resulting in higher operational performance



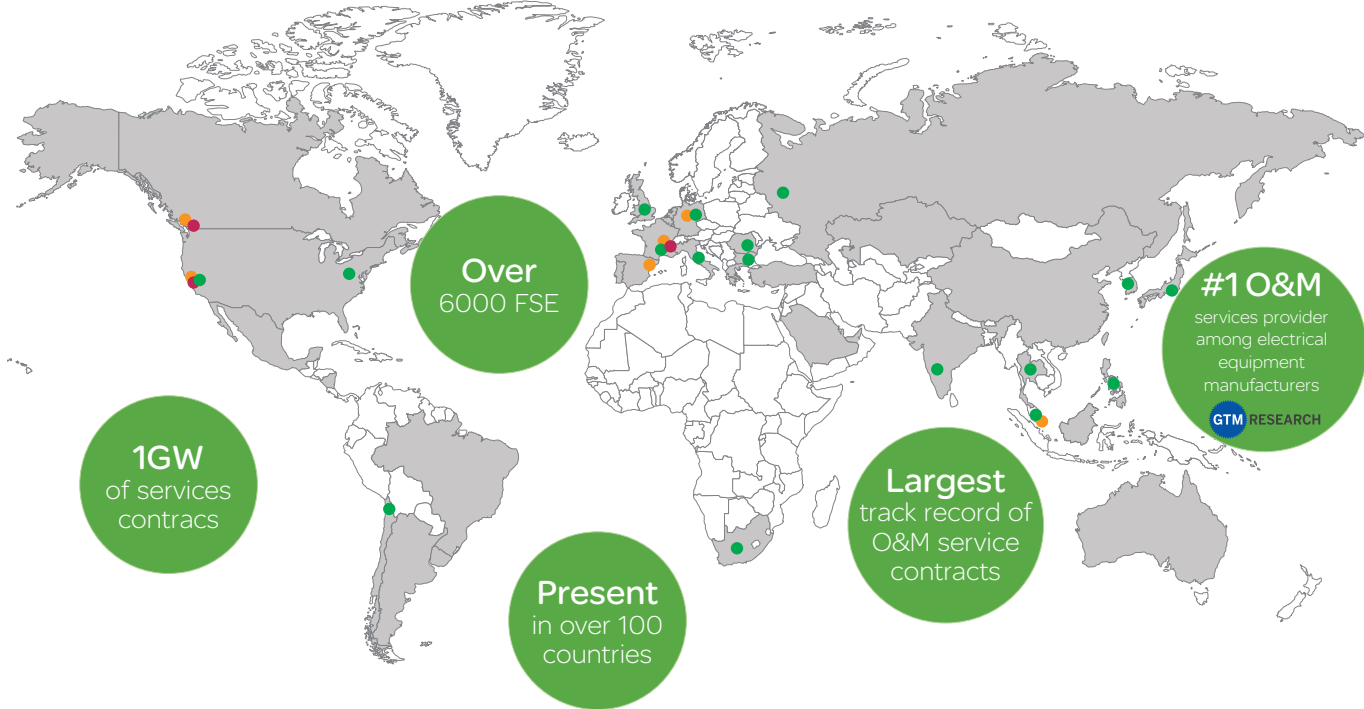
Service contracts
Our flexible offer through our contact services is designed to meet customer needs



Product support
With 180 years of experience, we are able to design products and provideservice support to our customers for years to come



Monitoring and control
Our experts are providing high level support 24/7 to our teams and customers in order to ensure that PV plants are optimally performing



- Solar field services
- Solar experts
- Spare parts hubs
- Training centers



On-demand services

Schneider Electric can provide a full range of on-demand services including:

Commissioning: The performance of your PV power plant depends on the quality of the design, installation, and commissioning which is under very high time pressure. In order to accelerate the project start-up, our solutions include pre-assembled and pre-tested electrical systems to allow easy and fast deployment on site by our field service engineers. Schneider Electric has already commissioned over 4.5 GW of inverters for PV power plants giving us the experience customers expect from a trusted partner.

Training: Schneider Electric has two dedicated training centers to provide support to our customers, and to train our field services engineers on the very latest preventative and operational maintenance of our equipment.

Spare parts management: Easy access to spare parts is a key requirement when you are looking to maximize the up-time of your PV power plant from both an availability and budgetary perspective. Schneider Electric can provide you with several options for on-site and off-site storage depending on the location of your asset and your specific needs.

Preventive and corrective maintenance: If you like flexibility but still want to benefit from our expertise and support, our customer care centers around the world are here to respond to your request and plan on-site intervention as needed.




What can Schneider Electric Solar Services provide?

Project developer	Investor	Engineering procurement construction	Installation operator
<ul style="list-style-type: none"> Secure requirements of the investor Full contract service packages to fit all needs 	<ul style="list-style-type: none"> Increase project financial feasibility Guaranteed availability Risk transfer through full service contract 	<ul style="list-style-type: none"> Service adaptability On-site response time and levels of commitment 	<ul style="list-style-type: none"> Predictable costs Long-term partner through the entire life-cycle of your plant Outsourcing technical maintenance

Service contracts

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

	Spare parts availability	Technical support	Preventive maintenance		Corrective maintenance		Performance guarantee
			Spare parts supply	Labor	Spare parts supply	Labor	
Product warranty					☑	☑	
PRIORITY	☑	☑					
ESSENTIAL	☑	☑		☑			
OPTIMUM	☑	☑		☑		☑	
ELITE	☑	☑	☑	☑	☑	☑	
ULTRA	☑	☑	☑	☑	☑	☑	☑

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

Our KEY PERFORMANCE INDICATORS (KPIs) support our service level agreements in order to provide our customers with the best opportunity to maximize their return on investment

Our flexible service contracts offers allow you to select several levels of performance indicators which are included in our contract management. They include:

- ✓ Hot-line
- ✓ Spare parts on site
- ✓ Stock refill rate
- ✓ Response time
- ✓ Energy availability
- ✓ Technical availability
- ✓ Time to fix
- ✓ First time fix rate



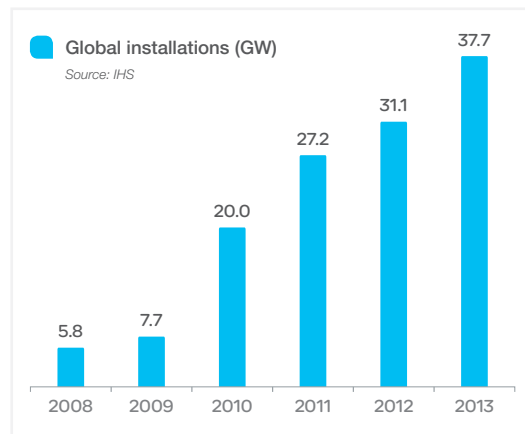
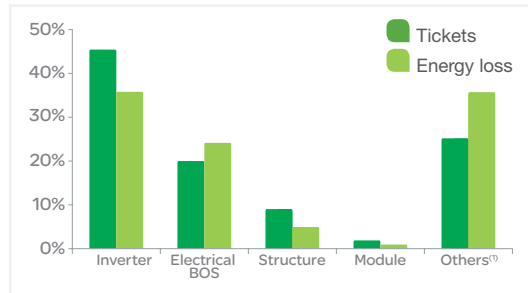
To learn more about our services offering, visit solar.schneider-electric.com/company/services

> Quality and reliability

Quality and reliability – why it matters?

> **High ROI:** solar inverters and electrical balance-of-systems (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 energy loss stems from issues related to inverters and the 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, with dwindling markets and internationalization. It could be tempting for some suppliers to think short-term and lessen their specifications on quality of design, testing, manufacturing, supplier qualification etc., insufficient rigor in quality can threaten the long-term reliability of solutions and put customer's investment at risk.

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



Conext Core XC-NA
Seismic testing

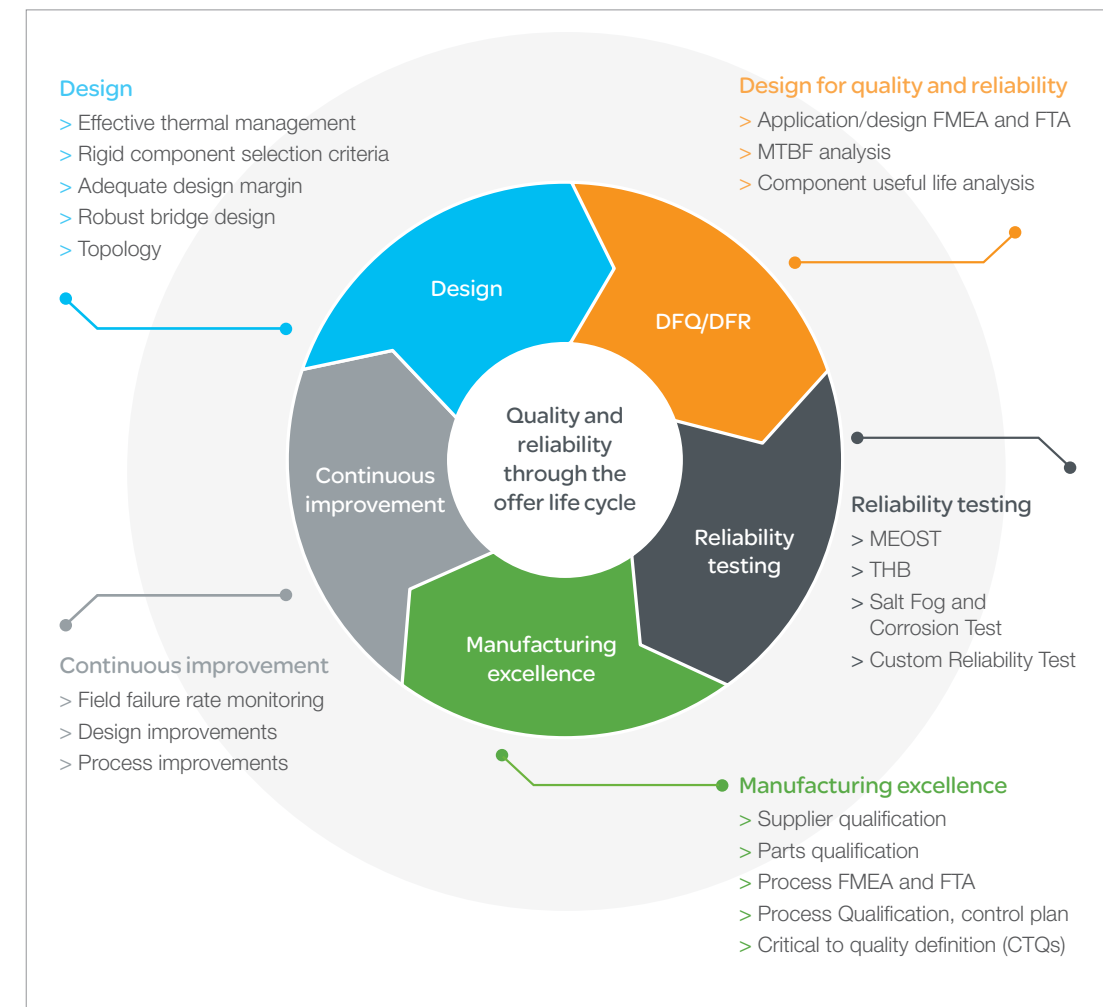


Reliability testing is performed by simulating real life harsh conditions to ensure product robustness and high customer satisfaction

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:

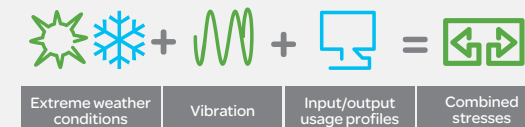


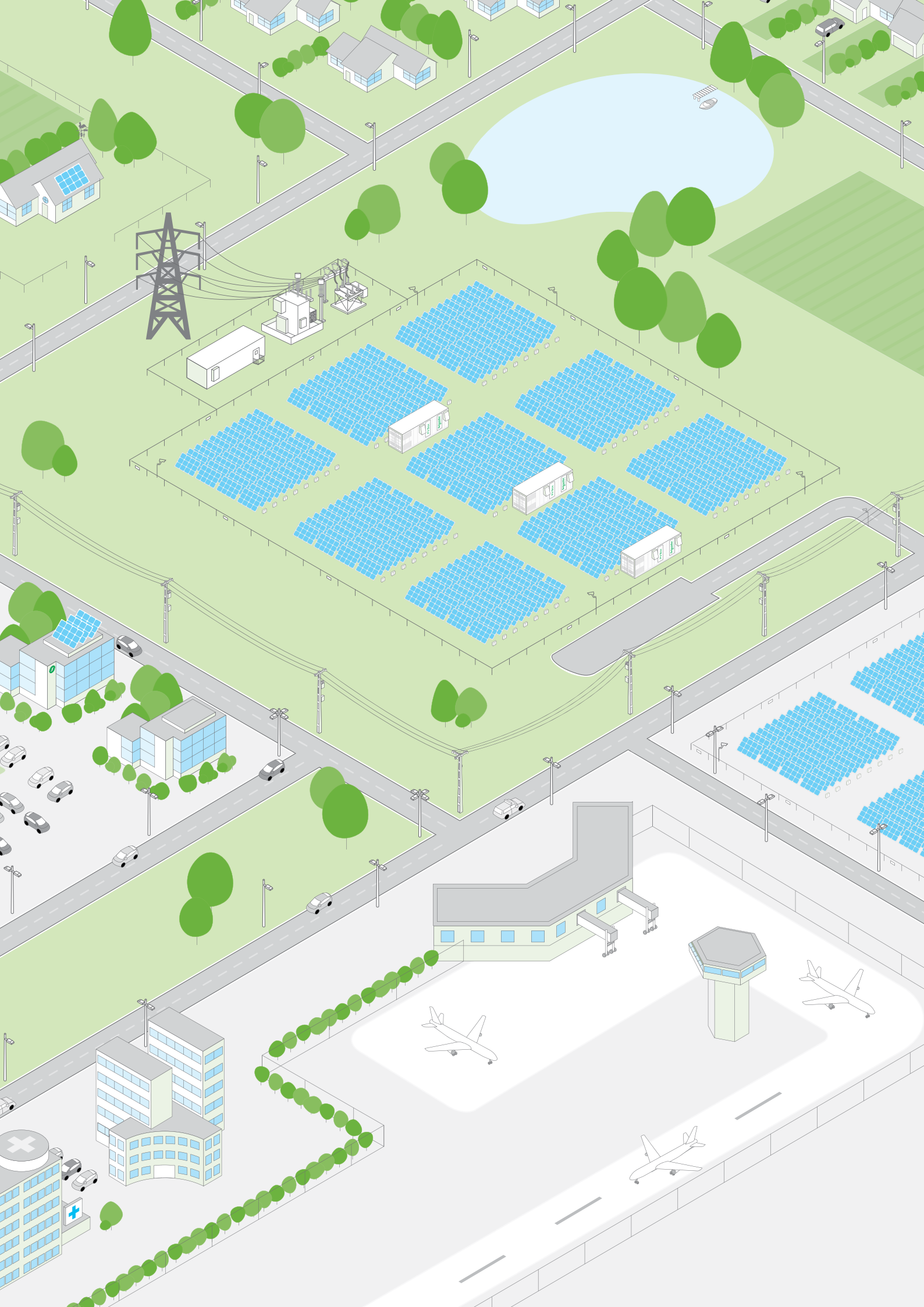
Lessons learned from over 16 years of experience in solar industry

MEOST reliability testing



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





Power plants and large commercial buildings

> Centralized PV solutions

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:

- > Centralized
- > Decentralized

Solar solutions for:

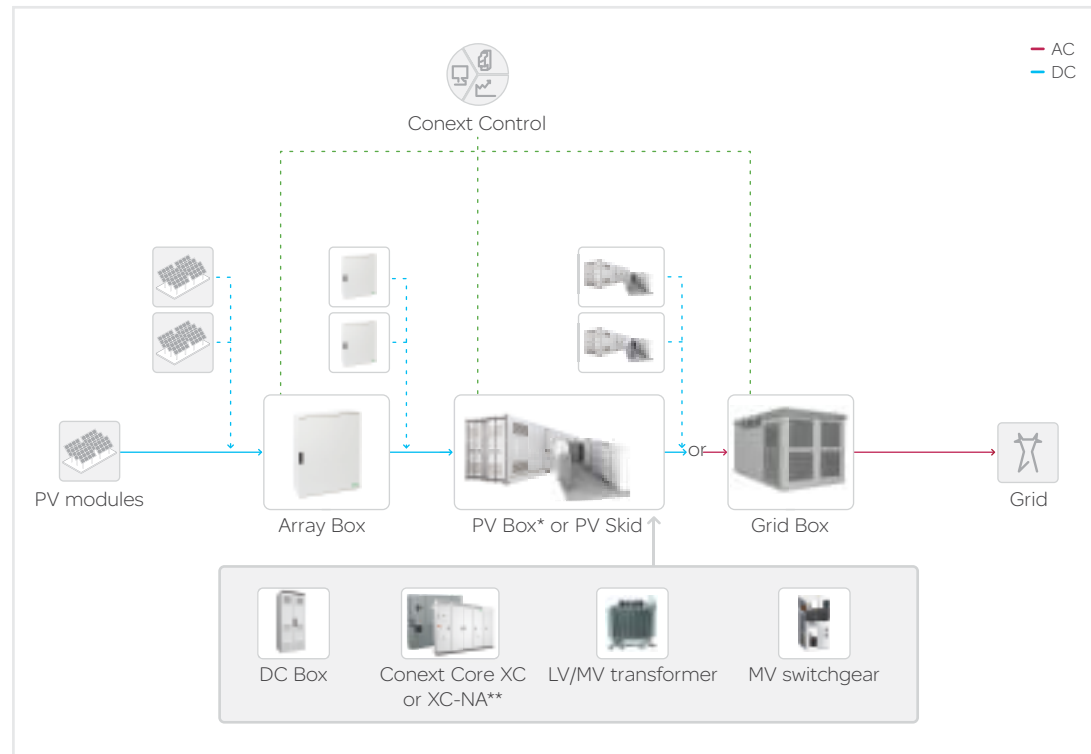


Designing your solar solution

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

Centralized architectures offer the best Levelized Cost of Electricity (LCOE) 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 solutions 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



Schneider Electric also has a range of locally manufactured PV Boxes tailored to specific market needs (Japan, India, Brazil, South Africa, US islands)



Fukusaki, Japan
1.36 MW



North Carolina, USA
5.2 MW

PV Box ST

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

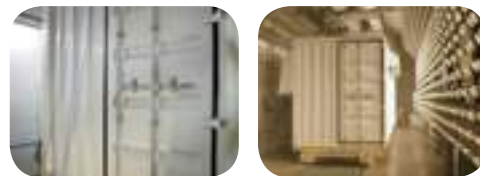
The PV Box is a power conversion system. In a PV plant installation, it operates between DC field and AC MV grid connection point. The PV Box performs the DC power concentration, the DC/AC conversion, and the AC voltage elevation to the grid voltage level. The PV Box protects maintenance staff and the installation against electrical faults, such as short-circuit and lightning. The optimized versions of the PV Box reduce the balance-of-systems costs, increase reliability, and improve 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

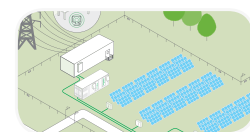


Sea transportation version

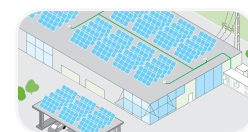


Extreme cold startup (-25°C) Combined heat (+50°C) & humidity (100%)

Product applications



PV power plants centralized



Commercial grid-tie centralized

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	50/60 Hz	50/60 Hz	50/60 Hz
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
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	COBk (according to EN 50464-1) or compliant with Ecodesign regulation (depending on geographies)		
Medium voltage switchgear U _g ≤ 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	-10°C / +45°C ⁽³⁾		
Other temperature ranges	Continental (-20°C / +45°C), Desert / Tropical (-10°C / +50°C)		
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	100% condensing		
Max. altitude above sea level ⁽⁵⁾	2000 m		
Max. wind speed	180 km / h		
Max. snow load	250 kg / m ²		
IP grade LV / MV compartment	IP44 / IP 54		
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" ISO high cube 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: See Conext Core XC inverter application note.
⁽⁴⁾For dust or sand (IEC 60721-2-5 (S4.2.4)) 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 ST+

Containerized plug and play power conversion system adapted to customer requirements and local standards up to 2MVA

The 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. The PV Box protects maintenance staff and the installation against electrical faults, such as short-circuit and lightning. The optimized versions of the PV Box reduce the balance-of-systems costs, increase reliability, and improve 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
-  **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



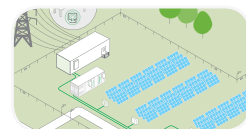
PV Box ST+ certified container ready for sea shipment



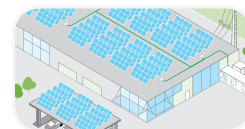
Extreme cold startup (-25°C)

Combined heat (+50°C) & humidity (100%)

Product applications



PV power plants centralized



Commercial grid-tie centralized

Device short name	PV Box ST+ 1620	PV Box ST+ 1890	PV Box ST+ 2040
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	3 x 1280 A	3 x 1280 A	3 x 1280 A
AC output			
Nominal power	1620 kVA	1890 kVA	2040 kVA
Nominal voltage	up to 36 kV	up to 36 kV	up to 36 kV
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Power factor range (PQ dispatch)	0 to 1 leading and lagging	0 to 1 leading and lagging	0 to 1 leading and lagging
Equipment			
Inverters	3 x XC 540	3 x XC 630	3 x XC 680
DC connection	3 x DC Box 6 input or 3 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	COBk (according to EN 50464-1) or compliant with Ecodesign regulation (depending on geographies)		
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			
Monitoring and control	Conext Control™ (by Schneider Electric) monitoring cabinet with secured power supply		
Automatic progressive reconnection ⁽²⁾	MV circuit breaker motorization, configurable timer		
Auxiliary power transformer	10 kVA / 400 V		
DC input measurement	DC Box monitored		
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	-10°C / +45°C ⁽³⁾		
Other temperature ranges	Continental (-20°C / +45°C) Desert (-10°C / +50°C)		
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	100% condensing		
Max. altitude above sea level ⁽⁵⁾	2000 m		
Max. wind speed	180 km / h		
Max. snow load	250 kg / m ²		
IP grade LV / MV compartment	IP44 / IP 54		
General specifications			
Dimensions and weight			
During transportation (H x W x D)	2.90 x 2.44 x 12.19 m + Transformer		
Assembled on site (H x W x D)	2.90 x 3.38 (or 3.2 ⁽⁶⁾) x 12.19 m + Transformer (may change according to selected configuration; confirm with your sales representative)		
Weight approx. with standard content	< 26 tons + Transformer		
Material			
Basement	Light basement to be done on site for PV Box and Transformer		
Walls and roof	Standard 40" ISO high cube container with insulating layer		
Cooling			
LV and MV switchboard compartment ⁽⁷⁾	Ensured by inverter fans.		
Transformer	Installed outdoor		
Regulatory approvals			
Electrical standards	IEC 62271-202, IEC 61439, IEC 62271-200, IEC 60076		
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: See Conext Core XC inverter application note. ⁽⁴⁾For dust or sand (IEC 60721-2-5 (S4.2.4)) 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

The 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. The PV Box protects maintenance staff and the installation against electrical faults, such as short-circuit and lightning. The optimized versions of the PV Box reduce the balance-of-systems costs, increase reliability, and improve 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

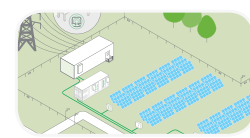


Extreme cold startup (-30°C)

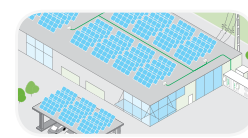


Combined heat (+50°C) & humidity (100%)

Product applications



PV power plants centralized



Commercial grid-tie centralized

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	50/60 Hz	50/60 Hz	50/60 Hz
Power factor range (PQ dispatch)	0 to 1 leading and lagging	0 to 1 leading and lagging	0 to 1 leading and lagging
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	COBk (according to EN 50464-1) or compliant with Ecodesign regulation (depending on geographies)		
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	-10°C / +40°C ⁽³⁾		
Other temperature ranges	Continental (-20°C / +45°C), Desert / Tropical (-10°C / +50°C), Very cold (-35°C / + 45°C)		
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	100% condensing		
Max. altitude above sea level ⁽⁵⁾	2000 m		
Max. wind speed	123 km / h		
Max. snow load	250 kg / m ²		
IP grade LV / MV compartment	IP44 / IP 54		
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 panel with mineral wool (50mm) EI 30 minutes		
Cooling			
LV and MV switchboard compartment ⁽⁷⁾	Ensured by inverter fans.		
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: See Conext Core XC inverter application note.
⁽⁴⁾For dust or sand (IEC 60721-2-5 (S4.2.4)) 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

The 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. The PV Box protects maintenance staff and the installation against electrical faults, such as short-circuit and lightning. The optimized versions of the PV Box reduce the balance-of-systems costs, increase reliability, and improve 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 *specific local versions*:

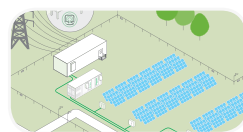


Japanese version



Indian version

Product applications



PV power plants centralized



Commercial grid-tie centralized

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.




PV Skid

Optimized solar power conversion system tailored to enhance any North American PV power plant

The PV Skid is available in configurations up to 2.7 MW and incorporates the latest offering from Schneider Electric, the Conext Core XC-NA inverters, along with a medium voltage transformer, NEC 2011 compliant DC recombiners, and auxiliary switchboard for local loads and field tracker motors (optional) – all pre-wired and factory tested on a single skid. The integrated solution also offers an optional remote control operation using Schneider Electric’s SCADA system, Conext Control™.



Why choose PV Skid?

-  Higher return on investment
 - Factory integration reducing on-site labour
 - Reduced costs of transportation, offloading and site preparation
 - Reliable design reducing frequency and cost of site interventions
-  Designed for reliability
 - Designed to operate in harsh environmental conditions (low temperatures, desert, salty environment)
 - Industrialized solution to cater to customer’s needs
 - 20+ years lifetime
-  Flexible
 - Configurations ranging from 0.5MW to 2.7MW AC for PV Power Plants
 - Extended temperature range from -35 to +55°C
 - Salt corrosion resistance and high seismicity withstand options
 - Optional load center for tracker systems
 - NEC 2011 compliant DC recombiner with disconnects
-  Easy to service
 - Provision of maintenance corridor on the skid for easy access to inverters during periodic servicing
 - Optional sun and rain canopy
 - Optional integration of Conext Control for remote plant monitoring and control to minimize downtime*
-  Easy to install
 - Solution delivered pre-assembled, configured and tested to reduce on-site labor and expedite project completion
 - Mono-block basement design for faster installation; Ability to pad or pier mount

Product applications



PV power plants centralized

*Also compatible with other SCADA systems in the market.

Type of SKID	PV Skid 540kVA	PV Skid 630kVA	PV Skid 680kVA	PV Skid 1080kVA	PV Skid 1260kVA	PV Skid 1360kVA
Input ratings (DC)						
Nominal PV Box power at PF=1	1x540kW	1x630kW	1x680kW	2x540kW	2x630kW	2x680kW
Max. DC voltage, open circuit				1000 V		
Max. DC current	1x1280 A				2x1280 A	
Max short circuit DC Current in STC conditions	1x1600 A				2x1600 A	
Max. short circuit DC current	1x2000 A				2x2000 A	
Number of protected DC inputs	up to 10 inputs per inverter				up to 10 inputs per inverter	
Output ratings (AC)						
Nominal AC power	540 kVA	630 kVA	680 kVA	1080 kVA	1260 kVA	1360 kVA
Nominal MV voltage	Up to 34.5 kV					
Frequency	60 Hz					
Power factor range (cosφ)	0.8 to 1.0 lead / lag					
Inverter						
Type	1 XC540-NA	1 XC630-NA	1 XC680-NA	2 XC540-NA	2 XC630-NA	2 XC680-NA
Nominal output voltage	300 V	350 V	380 V	300 V	350 V	380 V
Auxiliary power connection						
Voltage	208Y/120V or (208Y/120V + 480Y/277V) for tracker application					
Frequency	60 Hz					
Auxiliary power Transformer (optional)	3kVA or (3kVA+30kVA) for tracker application					
Cooling						
Outdoor Inverter	Inverter ventilation ensured by internal fans : 4000 m³/h					
Transformer cooling method	ONAN or KNAN Transformer					
Dimensions and weight						
Nominal dimensions (transportation) (L/W/H)	126" X 270"					
Weight	< 44000lbs (to be confirmed depending on the skid configuration)					






Type of SKID	PV Skid 1620 kVA	PV Skid 1890kVA	PV Skid 2040kVA	PV Skid 2160kVA	PV Skid 2520kVA	PV Skid 2720kVA
Input ratings (DC)						
Nominal PV Box power at PF=1	3x540kW	3x630kW	3x680kW	4x540kW	4x630kW	4x680kW
Max. DC voltage, open circuit				1000 V		
Max. DC current	3x1280 A				4x1280 A	
Max short circuit DC Current in STC conditions	3x1600 A				4x1600 A	
Max. short circuit DC current	3x2000 A				4x2000 A	
Number of protected DC inputs	up to 10 inputs per inverter				up to 10 inputs per inverter	
Output ratings (AC)						
Nominal AC power	1620 kVA	1890 kVA	2040 kVA	2160kVA	2520 kVA	2720 kVA
Nominal MV voltage	Up to 34.5 kV					
Frequency	60 Hz					
Power factor range (cosφ)	0.8 to 1.0 lead / lag					
Inverter						
Type	3 XC540-NA	3 XC630-NA	3 XC680-NA	4 XC540-NA	4 XC630-NA	4 XC680-NA
Nominal output voltage	300 V	350 V	380 V	300 V	350 V	380 V
Auxiliary power connection						
Voltage	208Y/120V or (208Y/120V + 480Y/277V) for tracker application					
Frequency	60 Hz					
Auxiliary power Transformer (optional)	3kVA or (3kVA+30kVA) for tracker application					
Cooling						
Outdoor Inverter	Inverter ventilation ensured by internal fans : 4000 m³/h					
Transformer cooling method	ONAN or KNAN Transformer					
Dimensions and weight						
Nominal dimensions (transportation) (L/W/H)	3 inverters 126" X 364"			4 inverters 126" X 430"		
Weight	< 85000lbs			< 110000lbs		

Conext Core XC series central inverter

High availability and enhanced efficiency from a provider you can trust

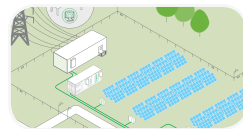
The Conext™ Core XC Series is a line of central inverters designed for high efficiency and flexibility for any PV panel type and installation. The Conext Core XC Series has peak efficiencies of 99.1% and its flexibility allows the inverter to be configured with voltage and power outputs up to 680 kW. 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?

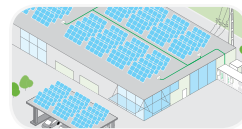
-  **Higher return on investment**
 - Best in class efficiency with 99.1% peak, 98.5% weighted EU
 - Increased uptime due to high reliability and comprehensive global service network
-  **Designed for reliability**
 - Robust design through rigorous Custom Reliability Testing
-  **Flexible**
 - Variety 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 centralized



Commercial grid-tie centralized

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 and dynamic 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)	98.6%	98.7%	99.1%
European (@ 50Hz)	98.4%	98.5%	98.5%
CEC (@ 60Hz)	98.3%	98.7%	98.5%
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 50°C (14°F to 122°F) full power. Power derating to 55°C		
Operating altitude	1000 m, derating for higher altitudes		
Relative humidity	0 to 95% non-condensing		
Features and options			
Type of cooling	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 0.1p=1.5 (ground mounted equipment)

Conext Core XC-NA series central inverter

High availability and enhanced efficiency from a provider you can trust

The Conext™ Core XC-NA series is a 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 has a type 3R rated enclosure for outdoor applications and can be provided as part of a skid-mounted (PV Skid) 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

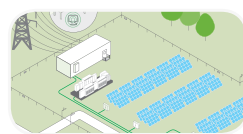
- Integrated AC and DC switchgear using Masterpact NW (AC circuit breaker, DC switch) which meet the requirements of NEC 690.17
- Suite of alarms and troubleshooting tools allow for remote diagnostics
- Pre-connection insulation detection with GFDI helps reduce hazards from PV array blind spots



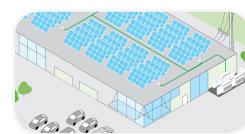
Easy to install

- Type 3R rated for outdoor use with skid or PV Box solutions available
- Integrated DC Combiner with 250 A to 400 A fuse options, optional string monitoring, and optional NEC 690.16(b) compliant disconnects

Product applications



PV power plants centralized



Commercial grid-tie centralized



ONTARIO FIT COMPLIANT

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 - 885 V	510 - 885 V	550 - 885 V
Static and dynamic 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 at STC	1600 A	1600 A	1600 A
Max. input short circuit current under any condition	2000 A	2000 A	2000 A
Output (AC)			
Nominal output power	540 kVA	630 kVA	680kVA
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
Real power	540 kW (at PF=1)	630 kW (at PF=1)	680 kW (at PF=1)
Reactive power range	+/- 325kVAR	+/- 380kVAR	+/- 410kVAR
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 (THDi)	< 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 AC156-2012**		
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 100% condensing		
Features and options			
Type of cooling	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, optional disconnects		
Regulatory approvals			
Conext Core XC-NA Series is certified to the requirements of: UL1741 (including IEEE 1547) and CSA-C22.2 no.107.1 / California Rule 21/PREPA MTR/HECO			

Specifications are subject to change without notice. Any other power levels or configurations need to be certified with CSA. *ZPA=0.5g 2% damping. **Seismic demand spectrum (SDS) of 1.78g 5% damping z/h=0 lp=1.5.

Array Box

Protect and enhance the performance of your photovoltaic installation

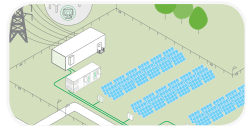
An Array Box is a PV string combiner box installed between the PV modules and the inverter, providing protection and performance monitoring to your PV power plant.

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 centralized



Commercial grid-tie centralized

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*	-25°C to +50°C, above*	-25°C to +50°C, above*	-25°C to +50°C, above*
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, IK10			
Features				
Protection				
DC inputs overcurrent protection	Protection on both polarities, gPV fuses, size 10 x 38 mm, max. rating 30 A (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 disconnector remote control****	Motor pack and MX shunt release			
Compliance				
LV switchgear	IEC / EN 61439-1 and 61439-2			
CE marking	According LV directive 2006 / 95 / CE and EMC directive 2004 / 108 / CE			
Available models				
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

Specifications are subject to change without notice. *Contact Schneider Electric. **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

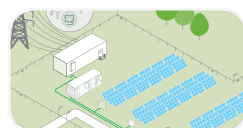
- Need for DC Box service is reported by Conext Control for the replacement of blown fuses
- Fuses are quickly mountable in fuse-holders to reduce service duration
- Enclosure with 2 narrow doors for a safer use in PV Box



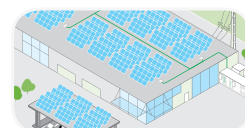
Easy to install

- 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 centralized



Commercial grid-tie centralized



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

Specifications are subject to change without notice. *DC Box equipped with the fuses listed below. ** For monitored models. ***Fuses not provided with product, to be ordered separately.

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

Accessories for the Array Box



Support bracket for roof-mounting and ground-mounting

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

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



Plinth for ground-mounting

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

Support for Array Box in polyester material reinforced with fibreglass. Plinth height of 200 mm stackable to obtain a 400-mm plinth. The frontal parts of the plinth can be opened and removed for easier cable installation. In stacked position, the bottom plinth can be partially buried.



Set of 4 x lugs for wall-mounting

(NSYFPPLM)

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 160-1000V, PVSDC30251)

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

> Energy storage systems

The energy challenge is regularly on top of the world's political, environmental, and economic agenda. Pushed by demographic growth, aspiration for better living conditions, and the development of digital technologies, electricity consumption is set to double between 2010 and 2030.

In this context, renewable energies are a key factor in solving the difficult equation between the evolution of energy demand and the necessity to reduce greenhouse gas emissions. In conjunction with the increasing penetration of renewable energies, grids have to evolve and become smarter to accommodate the bi-directional flow of energy and data. Storage contributes to a better integration of intermittent renewable energies, as well as the optimization of existing generation, transmission, and distribution of assets.

With this in mind, we have a new range of energy storage solutions, banking on the synergies with competitive PV technologies and leveraging our expertise in power electronics, energy management, and control systems.

As a global specialist in energy management, we have built relationships with utilities and renewable energy producers around the world, and we can provide quality and reliable storage solutions with flexible designs for various storage applications.

From delivering reliable products and solutions, to local service expertise worldwide, Schneider Electric is committed to ensuring a superior customer experience, including:

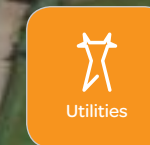
- > Designing and manufacturing innovative products with an emphasis on quality and reliability
- > A global organization with local sales and services in more than 100 countries

Whatever the application, wherever on the globe, we'll be here to support your energy storage needs.

Solutions for:



Project developers,
IPP



Utilities



Commercial &
Industrial End Users

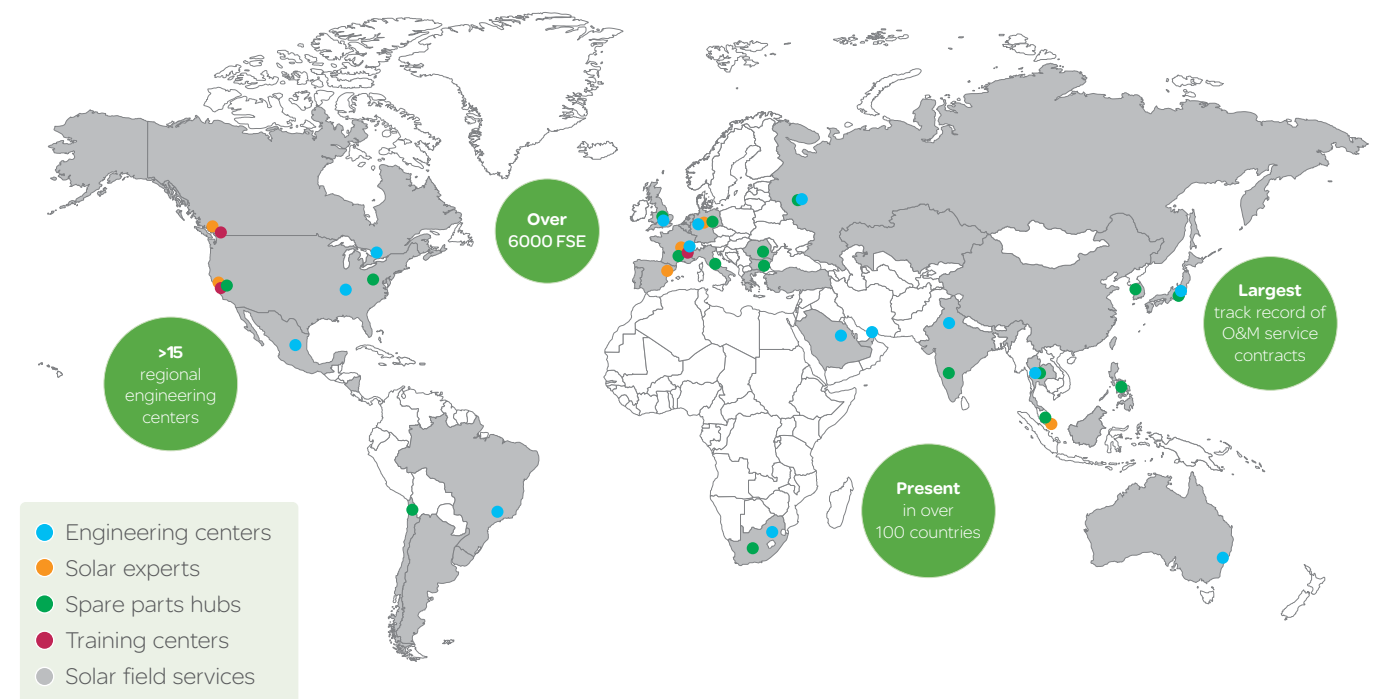
Supporting all of your energy storage applications

Schneider Electric offers comprehensive solutions for a wide range of energy storage applications:

Location	Applications	Description
Renewable Energy Generation	Renewable Energy Shifting and Firming	Charge the battery with excess of renewable energy during off-peak periods to release it onto the grid during peak periods to follow a predefined generation pattern
	Renewable Energy Smoothing	Charge/discharge the battery to smooth intermittent generation
Power Transmission and Distribution	Ancillary Services	Provide or absorb active power (respectively reactive power) in order to keep the grid frequency (respectively the grid voltage) within allowed boundaries.
	Investment Deferral	Store energy close to consumers during off-peak periods and release it during peak periods to avoid having to re-invest in new transmission or distribution lines
	Peak Shaving	Charge the battery with excess of renewable energy during off-peak periods to release it onto the grid during peak periods
Large End-Users	Electricity Rate Optimization	Store electricity when the market price is low and consume it when the market price is high
	MicroGrids, Diesel Abatement	Use storage in isolated grids in conjunction with renewable energy and fossil fuel sources

Schneider Electric services for utility-scale battery storage

Schneider Electric has the experience and global services infrastructure necessary to provide you with design and execution support, as well as operation and maintenance of your energy storage assets.



Engineering Services

- > Front-end engineering consulting
- > System sizing
 - Number of cycles for an expected end of life
 - End of life sizing
 - C rate sizing
 - Depth of discharge sizing
 - Sizing with LCOE / LCOS objectives
- > Power system modeling
- > System performance calculations
- > Project management



Field Services

- > Equipment commissioning and startup
- > Plant commissioning and startup
- > Customer training
- > Preventive and corrective maintenance
- > Remote support

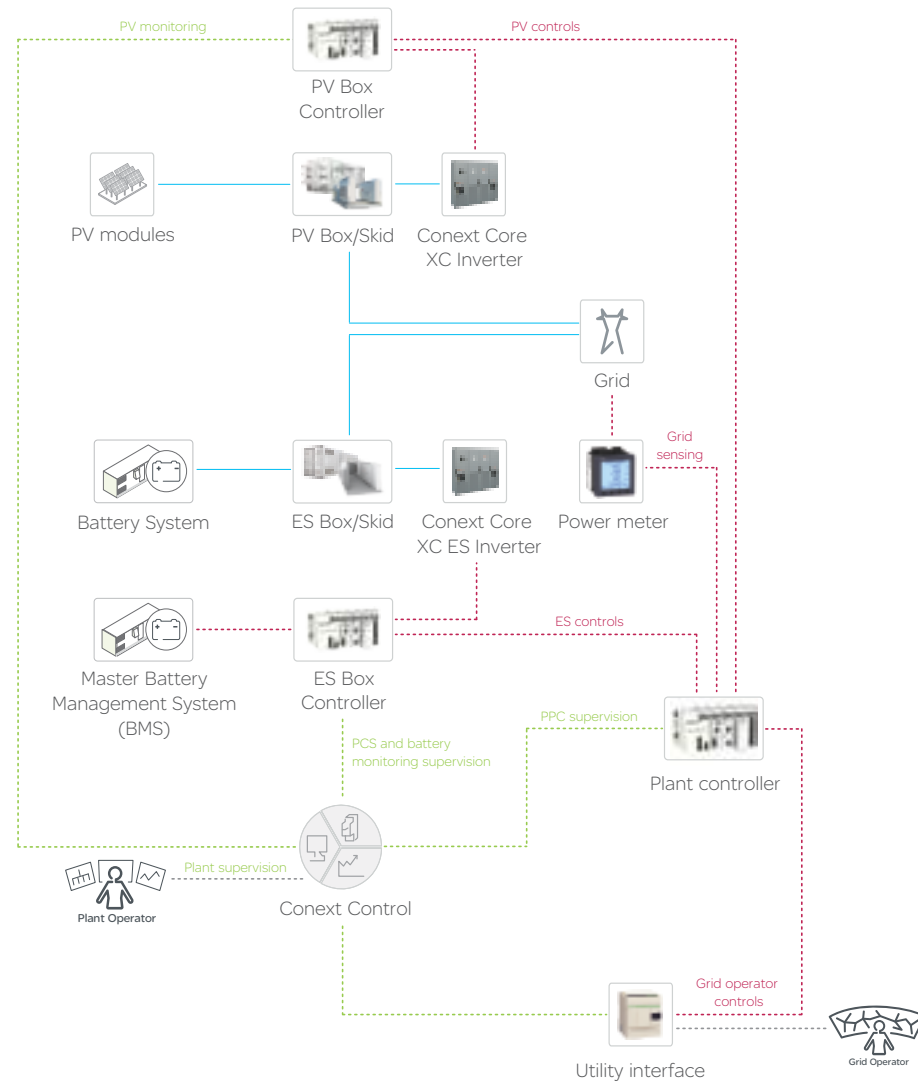
Your one-stop-shop for energy storage projects

Schneider Electric solutions for grid-scale and large end-user Energy Storage applications include everything you need to efficiently control the energy flows between the energy storage component and the point of interconnection; from the DC protections and power conversion, to the grid-tie substation.

The containerized ES Box ensures that all equipment inside works properly and is protected from outdoor conditions, while the ES Skid is a full outdoor solution designed to sustain harsh environmental conditions.

Electrical architecture - PV and Storage

Smart control architecture



Conext Control, our SCADA-based power plant monitoring and control solution, offers an integrated tool for fast, closed-loop controls, real-time supervision, and performance analysis of PV, energy storage, or hybrid power plants.



Acquiring information from the grid and external commands from the grid operator, the power plant controller drives PV and/or ES inverters to ensure a perfect integration of intermittent renewable energy onto the grid and the provision of advanced grid support or energy optimization services.



Ventee, France

ES Box

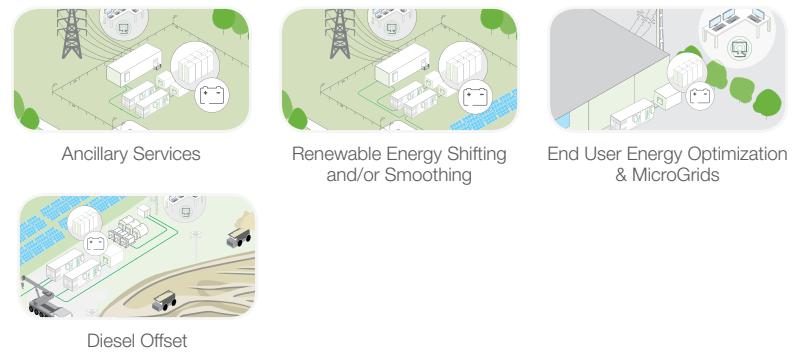
Containerized plug and play power conversion system adapted to customer requirements and local standards for energy storage application

The ES Box is a power conversion system for energy storage applications that performs AC/DC/AC conversion between the battery and grid network. The ES Box includes an LV/MV transformer, and protects maintenance staff and the installation against electrical faults, such as short-circuit and lightning. The optimized versions of the ES Box reduces balance-of-systems costs, and increases reliability, and improves construction lead times.

Why choose ES 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**
 - 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
 - IEC62271-202 compliant
- Flexible**
 - Ready for a vast majority of storage technologies
 - Range of choices for 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 different optimized design RT & ST (minimized width, height and length for easy shipping by road or by sea)
 - Solution delivered pre-assembled, configured and tested to reduce on-site labor and project duration

Product applications



ES Box RT



ES Box ST and ES Box ST

Device short name	ES Box RT 1080	ES Box RT 1260	ES Box RT 1360
Electrical specifications			
DC input			
DC operating voltage range	440 - 850 V (at PF=1)	510 - 850 V (at PF=1)	550 - 850 V (at PF=1)
Max. DC operating current	2 x 1280 A	2 x 1280 A	2 x 1280 A
Max DC short circuit current withstand (up to 1s) (XC-NA ES Inverter level)		85 kA per battery	
AC output			
Output power (S)	1080 kVA	1260 kVA	1360 kVA
Nominal voltage	up to 36 kV	up to 36 kV	up to 36 kV
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Power factor range (PQ dispatch)	0 to 1 leading and lagging	0 to 1 leading and lagging	0 to 1 leading and lagging
Equipment			
Inverters	2 x XC ES 540	2 x XC ES 630	2 x XC ES 680
Transformer type	Schneider Electric Minera oil type ONAN		
Transformer losses	COBK (according to EN 50464-1) or compliant with Ecodesign regulation (depending on geographies)		
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 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 ⁽¹⁾	MV circuit breaker motorization, configurable timer		
Auxiliary power transformer	10 kVA / 400 V		
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	-10°C / +40°C ⁽²⁾		
Other temperature ranges	Continental (-20°C / +45°C), Desert / Tropical (-10°C / +50°C), Very cold (-35°C / + 45°C)		
Pollution			
Standard low polluted environment (Rural and suburban environment)	G4 filters		
Option polluted environment (desert, urban...) ⁽³⁾	External filter box (G4 and F9 filters, fans, speed drives)		
Other conditions			
Max. relative humidity	100% condensing		
Max. altitude above sea level ⁽⁴⁾	2000 m		
Max. wind speed	123 km / h		
Max. snow load	250 kg / m ²		
IP grade LV / MV compartment	IP44 / IP 54		
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 ⁽⁵⁾) m		
Assembled on site (H x W x D)	2.65 x 3.15 x 8.90 (or 9.70 ⁽⁵⁾) m		
Weight approx. with standard content	24 tons		
Material			
Basement	Concrete basement included		
Walls and roof	Sandwich panel with mineral wool (50mm) EI 30 minutes		
Cooling			
LV and MV switchboard compartment ⁽⁶⁾	Ensured by inverter fans.		
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⁾To avoid simultaneous reconnection of every ES Boxes and for automatic opening and reclosing on grid voltage loss (grid requirement). ⁽²⁾Derating: See Conext Core XC inverter application note.
⁽³⁾For dust or sand (IEC 60721-2-5 (S4.2.4)) size<150 µm and concentration<2 mg / m³. ⁽⁴⁾Power derating above 1000 m. Above 2000 m special requirements. ⁽⁵⁾In case of filter box option.
⁽⁶⁾Extra fans in filter box only for polluted environment.

Device short name	ES Box ST 1080	ES Box ST 1260	ES Box ST 1360
Electrical specifications			
DC input			
DC operating voltage range	440 - 850 V (at PF=1)	510 V (at PF=1)	550 V (at PF=1)
Max. DC operating current	2 x 1280 A	2 x 1280 A	2 x 1280 A
AC output			
Output power (S)	1080 kVA	1260 kVA	1360 kVA
Nominal voltage	up to 36 kV	up to 36 kV	up to 36 kV
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Power factor range (PQ dispatch)	0 to 1 leading and lagging	0 to 1 leading and lagging	0 to 1 leading and lagging
Equipment			
Inverters	2 x XC 540	2 x XC 630	2 x XC 680
Transformer type	Schneider Electric Minera oil type ONAN		
Transformer losses	COBk (according to EN 50464-1) or compliant with Ecodesign regulation (depending on geographies)		
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 ⁽¹⁾	MV circuit breaker motorization, configurable timer		
Auxiliary power transformer	10 kVA / 400 V		
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	-10°C / +45°C ⁽²⁾		
Other temperature ranges	Continental (-20°C / +45°C), Desert / Tropical (-10°C / +50°C)		
Pollution			
Standard low polluted environment (Rural and suburban environment)	G4 filters		
Option polluted environment (desert, urban...) ⁽³⁾	Internal filter box (G4 and F9 filters, fans, speed drives)		
Option saline environment	C5 paint		
Other conditions			
Max. relative humidity	100% condensing		
Max. altitude above sea level ⁽⁴⁾	2000 m		
Max. wind speed	180 km / h		
Max. snow load	250 kg / m ²		
IP grade LV / MV compartment	IP44 / IP 54		
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 ⁽⁵⁾) 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" ISO high cube container with insulating layer		
Cooling			
LV and MV switchboard compartment ⁽⁶⁾	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⁾To avoid simultaneous reconnection of every ES Boxes and for automatic opening and reclosing on grid voltage loss (grid requirement). ⁽²⁾Derating: See Conext Core XC inverter application note.

⁽³⁾For dust or sand (IEC 60721-2-5 (§4.2.4)) size < 150 µm and concentration < 2 mg / m³. ⁽⁴⁾Power derating above 1000 m. Above 2000 m special requirements. ⁽⁵⁾In case of filter box option.

⁽⁶⁾Extra fans in filter box only for polluted environment.

Device short name	ES Box ST+ 1620	ES Box ST+ 1890	ES Box ST+ 2040
Electrical specifications			
DC input			
DC operating voltage range	440 V (at PF=1)	510 - 850 V (at PF=1)	550 - 850 V (at PF=1)
Max. DC operating current	3 x 1280 A	3 x 1280 A	3 x 1280 A
AC output			
Output power (S)	1620 kVA	1890 kVA	2040 kVA
Nominal voltage	up to 36 kV	up to 36 kV	up to 36 kV
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Power factor range (PQ dispatch)	0 to 1 leading and lagging	0 to 1 leading and lagging	0 to 1 leading and lagging
Equipment			
Inverters	3 x XC ES 540	3 x XC ES 630	3 x XC ES 680
Transformer type	Schneider Electric Minera oil type ONAN		
Transformer losses	COBk (according to EN 50464-1) or compliant with Ecodesign regulation (depending on geographies)		
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			
Monitoring and control	Conext Control™ (by Schneider Electric) monitoring cabinet with secured power supply		
Automatic progressive reconnection ⁽¹⁾	MV circuit breaker motorization, configurable timer		
Auxiliary power transformer	10 kVA / 400 V		
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	-10°C / +45°C ⁽²⁾		
Other temperature ranges	Continental (-20°C / +45°C) Desert (-10°C / +50°C)		
Pollution			
Standard low polluted environment (Rural and suburban environment)	G4 filters		
Option polluted environment (desert, urban...) ⁽³⁾	Internal filter box (G4 and F9 filters, fans, speed drives)		
Option saline environment	C5 paint		
Other conditions			
Max. relative humidity	100% condensing		
Max. altitude above sea level ⁽⁴⁾	2000 m		
Max. wind speed	180 km / h		
Max. snow load	250 kg / m ²		
IP grade LV / MV compartment	IP44 / IP 54		
General specifications			
Dimensions and weight			
During transportation (H x W x D)	2.90 x 2.44 x 12.19 m + Transformer		
Assembled on site (H x W x D)	2.90 x 3.38 (or 3.28 ⁽⁵⁾) x 12.19 m + Transformer (may change according to selected configuration; confirm with your sales representative)		
Weight approx. with standard content	< 26 tons + Transformer		
Material			
Basement	Light basement to be done on site for PV Box and Transformer		
Walls and roof	Standard 40" ISO high cube container with insulating layer		
Cooling			
LV and MV switchboard compartment ⁽⁶⁾	Ensured by inverter fans.		
Transformer	Installed outdoor		
Regulatory approvals			
Electrical standards	IEC 62271-202, IEC 61439, IEC 62271-200, IEC 60076		
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⁾To avoid simultaneous reconnection of every ES Boxes and for automatic opening and reclosing on grid voltage loss (grid requirement). ⁽²⁾Derating: See Conext Core XC inverter application note.

⁽³⁾For dust or sand (IEC 60721-2-5 (§4.2.4)) size < 150 µm and concentration < 2 mg / m³. ⁽⁴⁾Power derating above 1000 m. Above 2000 m special requirements. ⁽⁵⁾In case of filter box option.

⁽⁶⁾Extra fans in filter box only for polluted environment.

ES Skid

Optimized large scale energy storage system to enhance power quality

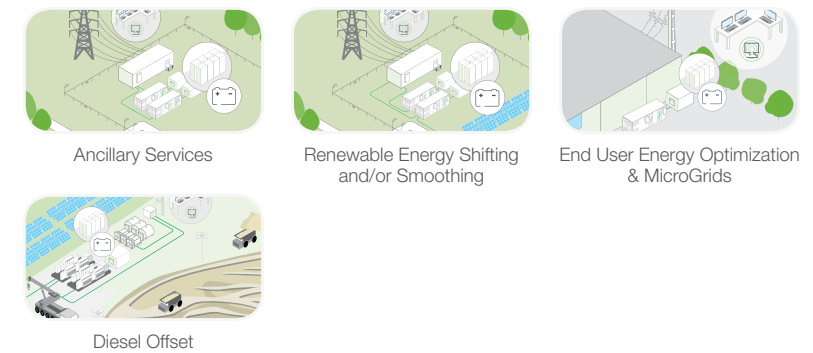
The ES Skid is available in configurations ranging from 540 kW to 2.7 MW and incorporates the latest offering from Schneider Electric, the Conext™ Core XC-NA ES bi-directional inverter/charger. The ES Skid includes the battery protection cabinets, a ground fault detection system, along with a medium voltage transformer, and auxiliary switchboard for local loads, all pre-wired and factory tested on a single skid.

The integrated solution also offers optional monitoring and control using Schneider Electric's SCADA system, Conext Control™.

Why choose ES Skid?

- Higher return on investment**
 - Factory integration reducing on-site labour
 - Reduced costs of transportation, offloading and site preparation
 - Reliable design reducing frequency and cost of site interventions
- Designed for reliability**
 - Designed to sustain harsh environmental conditions (low temperatures, desert, salty environment)
 - Industrialized solution to cater to customer's needs
 - 20+ years lifetime
- Flexible**
 - Configurations ranging from 0.5MW to 2.7MW AC
 - Extended temperature range from -35 to +55°C
 - Salt corrosion resistance and high seismicity withstand options
 - Flexible Power to energy ratio through DC paralleling option
- Easy to service**
 - Provision of maintenance corridor on the skid for easy access to inverters during periodic servicing
 - Optional sun and rain canopy
 - Optional integration of Conext Control for monitoring and control of Inverter and battery
- Easy to install**
 - Solution delivered pre-assembled, configured and tested to reduce on-site labor and expedite project completion
 - Mono-block basement design for faster installation; Ability to pad or pier mount

Product applications



Type of SKID	ES Skid 540	ES Skid 630	ES Skid 680	ES Skid 1080	ES Skid 1260	ES Skid 1360
Input ratings (DC)						
Max. DC voltage, open circuit				850V		
Operating DC voltage range	440-850 V	510-850 V	550-850 V	440-850 V	510-850 V	550-850 V
Maximum DC current		1x1280 A			2x1280 A	
Max DC short circuit current withstand (up to 1s) (XC-NA ES Inverter level)				85 kA per battery		
Output ratings (AC)						
Nominal AC power	540 kVA	630 kVA	680 kVA	1080 kVA	1260 kVA	1360 kVA
Nominal MV voltage				Up to 34.5 kV		
Frequency				60Hz		
Power factor range (cosφ)				0 to 1 leading and lagging		
XC-NA ES Inverter						
Type	1XC540-NA ES	1XC630-NA ES	1XC680-NA ES	2XC540-NA ES	2XC630-NA ES	2XC680-NA ES
Nominal output voltage	300 V	350 V	380 V	300 V	350 V	380 V
Auxiliary power connection						
Voltage				208Y/120 V		
Frequency				60 Hz		
Auxiliary power transformer				3kVA		
Cooling						
XC-NA ES Inverter outdoor				Forced cooling / Airflow 4000 m³/h per inverter		
Transformer cooling method				ONAN Transformer		
Dimensions and weight						
Nominal dimensions (transportation) (L/W/H)*				126" X 270" X 99"		
				(the final dimension will depend on the transformer design)		
Weight				< 66000 lbs (to be confirmed depending on the skid configuration)		
Regulatory Approvals						
Inverter Approvals				UL1741 (including IEEE 1547) and CSA-C22.2 no. 107.1		
Skid				Designed according to latest NEC standards		

Type of SKID	ES Skid 1620	ES Skid 1890	ES Skid 2040	Skid 2160kVA	Skid 2520kVA	Skid 2720kVA
Input ratings (DC)						
Max. DC voltage, open circuit				850 V		
Operating DC voltage range	440-850 V	510-850 V	550-850 V	440-850 V	510-850 V	550-850 V
Maximum DC current		3x1280 A			4x1280 A	
Max DC short circuit current withstand (up to 1s) (XC-NA ES Inverter level)				85 kA per battery		
Output ratings (AC)						
Nominal AC power	1620 kVA	1890 kVA	2040 kVA	2160 kVA	2520 kVA	2720 kVA
Nominal MV voltage				Up to 34.5 kV		
Frequency				60 Hz		
Power factor range (cosφ)				0 to 1 leading and lagging		
XC-NA ES Inverter						
Type	3 XC540-NA ES	3 XC630-NA ES	3 XC680-NA ES	4 XC540-NA ES	4 XC630-NA ES	4 XC680-NA ES
Nominal output voltage	300 V	350 V	380V	300 V	350 V	380V
Auxiliary power connection						
Voltage				208Y/120 V		
Frequency				60 Hz		
Auxiliary power Transformer (Optional)				3kVA		
Cooling						
XC-NA ES Inverter				Forced cooling / Airflow 4000 m³/h per inverter		
Transformer cooling method				ONAN Transformer		
Dimensions and weight						
Nominal dimensions (transportation) (L/W/H)*		126" X 364" X 107"			126" X 430" X 107"	
		(the final dimension will depend on the transformer design)			(the final dimension will depend on the transformer design)	
Weight		< 82000 lbs (to be confirmed)			< 110000lbs (to be confirmed)	
		(to be confirmed depending on the skid configuration)			(to be confirmed depending on the skid configuration)	
Regulatory Approvals						
Inverter Approvals				UL1741 (including IEEE 1547) and CSA-C22.2 no. 107.1		
Skid				Designed according to latest NEC standards		

Specifications are subject to change without notice.

Conext Core XC ES series central inverter for grid-tie energy storage systems (ESS)

Flexibility and high availability from a provider you can trust

The Conext™ Core XC ES series is a new line of central inverters designed for advanced battery-based energy storage applications. The Conext Core XC ES Series has peak efficiencies of 99.1% and its flexibility allows the inverter to be configured with voltage and power outputs up to 680 kVA. The Conext Core XC ES Series has been designed for integration into a battery-based energy storage solution.

The Conext Core XC ES can be part of a containerized (ES Box) solution.

Why choose Conext Core XC ES?



Higher return on investment

- Best in class efficiency with 99.1% peak, 98.5% weighted EU
- Increased uptime due to high reliability and comprehensive global service network



Designed for reliability

- Robust design through rigorous Custom Reliability Testing



Flexible

- Primary reserve functions: inertia emulation, P(f) drooping, Q(V) drooping.
- Secondary and tertiary reserve functions: PQ/PV dispatch mode, fast and accurate response to utility dispatch commands.
- Grid support functions: (e.g. frequency regulation) renewable power smoothing, dP/dt slew rate control, energy shifting.
- Active support in clearing grid fault conditions: LVRT, HVRT, FRT
- Compatible operation with most types of battery chemistries



Easy to service

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



Easy to install

- Compact footprint for easy integration into compact enclosures
- Integrated AC and DC switchgear standard

Product applications



Ancillary Services



Renewable Energy Shifting and/or Smoothing



End User Energy Optimization & MicroGrids



Diesel Offset



Device short name	XC 540 ES	XC 630 ES	XC 680 ES
Electrical specifications			
Number of output phases	3	3	3
Nominal phase-to-phase AC voltage (VAC)	300 V _{rms}	350 V _{rms}	380 V _{rms}
Max. AC output current	1040 A _{rms}	1040 A _{rms}	1040 A _{rms}
Nominal AC frequency (f)	50 Hz; 60 Hz	50 Hz; 60 Hz	50 Hz; 60 Hz
Reactive power range (Q)	+/- 540 kVAr	+/- 630 kVAr	+/- 680 kVAr
Power factor range(PQ dispatch)	0 to 1 (leading and lagging)	0 to 1 (leading and lagging)	0 to 1 (leading and lagging)
AC output current distortion @ rated power	<3% THD (total harmonic distortion)	<3% THD (total harmonic distortion)	<3% THD (total harmonic distortion)
Output power (S)	540 kVA	630 kVA	680 kVA
Max. DC operating current	1280 A	1280 A	1280 A
DC operating voltage range	440* to 850 V	510* to 850 V	550* to 850 V
Max. DC withstand current (1s) lcm	85 kA	85 kA	85 kA
Battery current ripple factor	<1%	<1%	<1%
Transient time for mode reversal (sinking/sourcing)	<5 ms	<5 ms	<5 m sec
Paralleling	DC permitted	DC permitted	DC permitted
Max. external auxiliary supply power required	2000 VA	2000 VA	2000 VA
Efficiency			
Maximum (@ 50Hz)	98.6%	98.7%	99.1%
European (@ 50Hz)	98.4%	98.5%	98.5%
CEC (@ 60Hz)	98.3%	98.7%	98.5%
Rectifying (full load)	>98.0%	>98.0%	>98.0%
General specifications			
Standby loss	< 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	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		
Battery combiner	Optional external combiners with various quantities and trip ratings		
Regulatory approvals			
Conext Core XC ES Series are CE marked for the EMC Directive (EN61000-6-2 and EN61000-6-4) and Low Voltage Directive (EN50178)			
Conext Core XC ES Series complies IEC 62116:2008/EN 62116-2011, 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. *Valid for power factor = 1 (Q = 0). Low limit of DC range is dynamically adjustable based on nominal phase-to-phase AC voltage based on: V_{dc min} = 15 V + √2 x (VAC [V])² + 3 x f [Hz] x Q [kVAr] if Q>0 and V_{dc min} = 15 V + √2 x (VAC [V])² + 1 x f [Hz] x Q [kVAr] if Q<0. **ZPA=1.0 g 2% damping. ***Seismic demand spectrum (SDS) of 1.78 g and z/h of Ip=1.5 (ground mounted equipment)

Conext Core XC-NA ES series central inverter for grid-tie energy storage systems (ESS)

Flexibility and high availability from a provider you can trust

The Conext™ Core XC-NA ES series is a new line of central inverters designed for advanced battery-based energy storage applications. The Conext Core XC-NA ES Series has peak efficiencies of 98.6% and its flexibility allows the inverter to be configured with voltage and power outputs up to 680 kVA. The Conext Core XC-NA ES Series has been designed for integration into a battery-based energy storage solution.

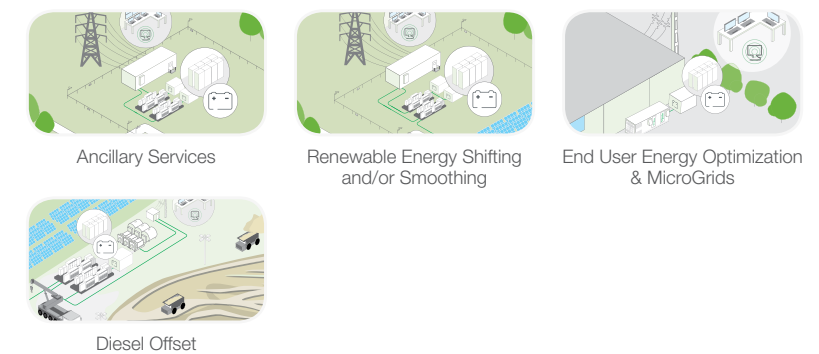
The Conext Core XC-NA ES has a type 3R rated enclosure for outdoor applications and can be provided as part of a skid-mounted (ES Skid) or containerized (ES Box) solution.

Why choose Conext Core XC-NA ES?

- Higher return on investment**
 - Best in class efficiency with 98.6% peak, 98% CEC
 - Increased uptime due to high reliability and comprehensive global service network
 - Wide range of full power operation from -20°C to 50°C, with -35°C option
- Designed for reliability**
 - Robust design through rigorous Custom Reliability Testing
- Flexible**
 - Primary reserve functions: inertia emulation, P(f) drooping, Q(V) drooping.
 - Secondary and tertiary reserve functions: PQ/PV dispatch mode, fast and accurate response to utility dispatch commands.
 - Grid support functions: (e.g. frequency regulation) renewable power smoothing, dP/dt slew rate control, energy shifting.
 - Active support in clearing grid fault conditions: LVRT, HVRT, FRT
 - Compatible operation with most types of battery chemistries
- Easy to service**
 - Integrated switchgear using Masterpact NW air circuit breakers
 - Full suite of alarms and troubleshooting tools allow for remote diagnostics
- Easy to install**
 - Type 3R rated for outdoor use with skid or containerized solutions




Product applications



Device short name	XC540-NA ES	XC 630-NA ES	XC 680-NA ES
Electrical specifications			
Number of output phases	3	3	3
Nominal phase-to-phase AC voltage (VAC)	300 V _{rms}	350 V _{rms}	380 V _{rms}
Max. AC output current	1040 A _{rms}	1040 A _{rms}	1040 A _{rms}
Nominal AC frequency (f)	60 Hz	60 Hz	60 Hz
Reactive power range (Q)	+/- 540 kVAr	+/- 630 kVAr	+/- 680 kVAr
Power factor range(PQ dispatch)	0 to 1 (leading and lagging)	0 to 1 (leading and lagging)	0 to 1 (leading and lagging)
AC output current distortion @ rated power	<3% THD (total harmonic distortion)	<3% THD (total harmonic distortion)	<3% THD (total harmonic distortion)
Output power (S)	540 kVA	630 kVA	680 kVA
Max. DC operating current	1280 A	1280 A	1280 A
DC operating voltage range	440* to 850 V	510* to 850 V	550* to 850 V
Max. DC withstand current (1s) Icm	85 kA	85 kA	85 kA
Battery current ripple factor	<1%	<1%	<1%
Transient time for mode reversal (sinking/sourcing)	<5 ms	<5 ms	<5 m sec
Paralleling	DC permitted	DC permitted	DC permitted
Max. external auxiliary supply power required	2000 VA	2000 VA	2000 VA
Efficiency			
Maximum	98.2%	98.5%	98.6%
CEC	97.5%	98.0%	98.0%
Rectifying (full load)	>97.5%	>97.5%	>97.5%
General specifications			
Standby loss	< 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 material	Steel with 3 layer coating (zinc primer, epoxy powder coat, polyester powder coat)		
Seismic	IEEE-693-2005 Moderate Performance level**, IB certification ICC-ES AC156-2012***		
Product weight	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)	227.3 x 321.3 x 85.8 cm (89.5 x 126.5 x 33.8 in)	227.3 x 321.3 x 85.8 cm (89.5 x 126.5 x 33.8 in)	227.3 x 321.3 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 100% condensing		
Features and options			
Type of cooling	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		
Battery combiner	Optional external combiners with various quantities and trip ratings		
Regulatory approvals			
UL1741 (including IEEE 1547) and CSA-C22.2 no. 107.1			

Specifications are subject to change without notice. Other input voltage windows and power outputs available. *Valid for power factor = 1 (Q = 0). Low limit of DC range is dynamically adjustable based on nominal phase-to-phase AC voltage based on: V_{dc min} = 15 V + √2 x (VAC [V]) 2 + 3 x f [Hz] x Q [kVAr] if Q>0 and V_{dc min} = 15 V + √2 x (VAC [V]) 2 + 1 x f [Hz] x Q [kVAr] if Q<0. *ZPA= 0.5g 2% damping. ***Seismic demand spectrum (SDS) of 1.78g 5% damping z/h=0 Ip=1.5.



> Monitoring and control solutions for PV power plants

Maximizing the energy harvest of a PV plant requires powerful and detailed insight into each of its components and a reliable, intelligent means of control. Schneider Electric's global monitoring and control solutions provide you with adequate tools to ensure full controllability of your PV generator, proper supervised operation of the system in real-time, short and long-term analysis into the performance of your assets, and trigger adequate servicing and refurbishing decisions. Our comprehensive suite of control supervision, performance analytics, and forecasting modules will support you, helping to optimize your operating expense, while enhancing your energy generation.

A complete suite of monitoring and control solutions for PV power plants

Schneider Electric's monitoring solutions for PV power plants allows plant owners and grid operators to monitor and optimize plant performance from anywhere in the world.

Conext Control

> A solution for PV power plants that provides real-time monitoring and control dedicated to Operation & Maintenance. It is a tool dedicated for users interested in short-term, real-time activity of the plant.



Main features of Conext Control

- > Real-time SCADA for monitoring and control
- > Real-time alarms with filtering features
- > Real-time warnings (SMS & emails) to operators
- > Monitor multiple equipment with two second time scale up to the Array Box
- > Remote control: manual control, automated grid coupling/uncoupling sequences
- > **Power Plant Controller:** In order to comply with various grid requirements around the world, the PPC offers great scalability and the ability to regulate of energy at the point of injection

Conext Advisor

> Web-based portal focused on providing power plant owners and investors with high level analysis of the plant performance. Conext Advisor utilizes the Conext Control database and extracts the necessary KPIs, with long-term analysis in mind. It is a decision-making tool, helping owners and investors gain better visibility and manage the performance of the plant.



Main features of Conext Advisor

- > Short and long-term analysis of the PV power plant performance (yield, performance ratio, availability, etc.)
- > Performance comparison & analysis between power plants and between equipment
- > String failure analysis: blown fuses, string failure, wrong calibration, wiring issues, or shading effects
- > String underperformance and PV module aging analysis
- > **Conext Horizon:** An option through Conext Advisor that provides Production Forecast for a dedicated plant (7 days and/or 6 hour forecast)

> User-friendly interface

With the user-friendly interface of the web-portal, operators and investors gain easy access to many important measures and KPIs coming from data extracted by Conext Control.

Conext Advisor enables the generation of comprehensive, interactive, and ergonomic charts to produce standard and custom dashboards and reports, and to export data in various formats.

> Multi-site analysis

Conext Advisor acts both as a multi-site supervision and data aggregation tool, enabling the production of performance reports and comparison of a full asset portfolio.



> Single device analysis

Conext Advisor includes standard and customizable charts, enabling operators and investors to analyze the performance of individual equipment on site; from PV Boxes to inverters, recombiners, string combiners, down to PV strings¹.

¹For Array Boxes (string combiners) equipped with current sensing



> Equipment comparison

Conext Advisor compares performance indicators of several equipments under similar environmental conditions to identify underperforming equipment and trigger necessary service actions.

Conext Control

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

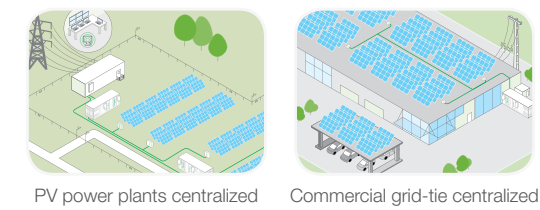
Conext Control™ is a solution that integrates control, monitoring, and performance management features and is designed to operate any site efficiently, providing the means to make prompt decisions and react accordingly. It can easily be adapted to your required level of service, from maintenance contracts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



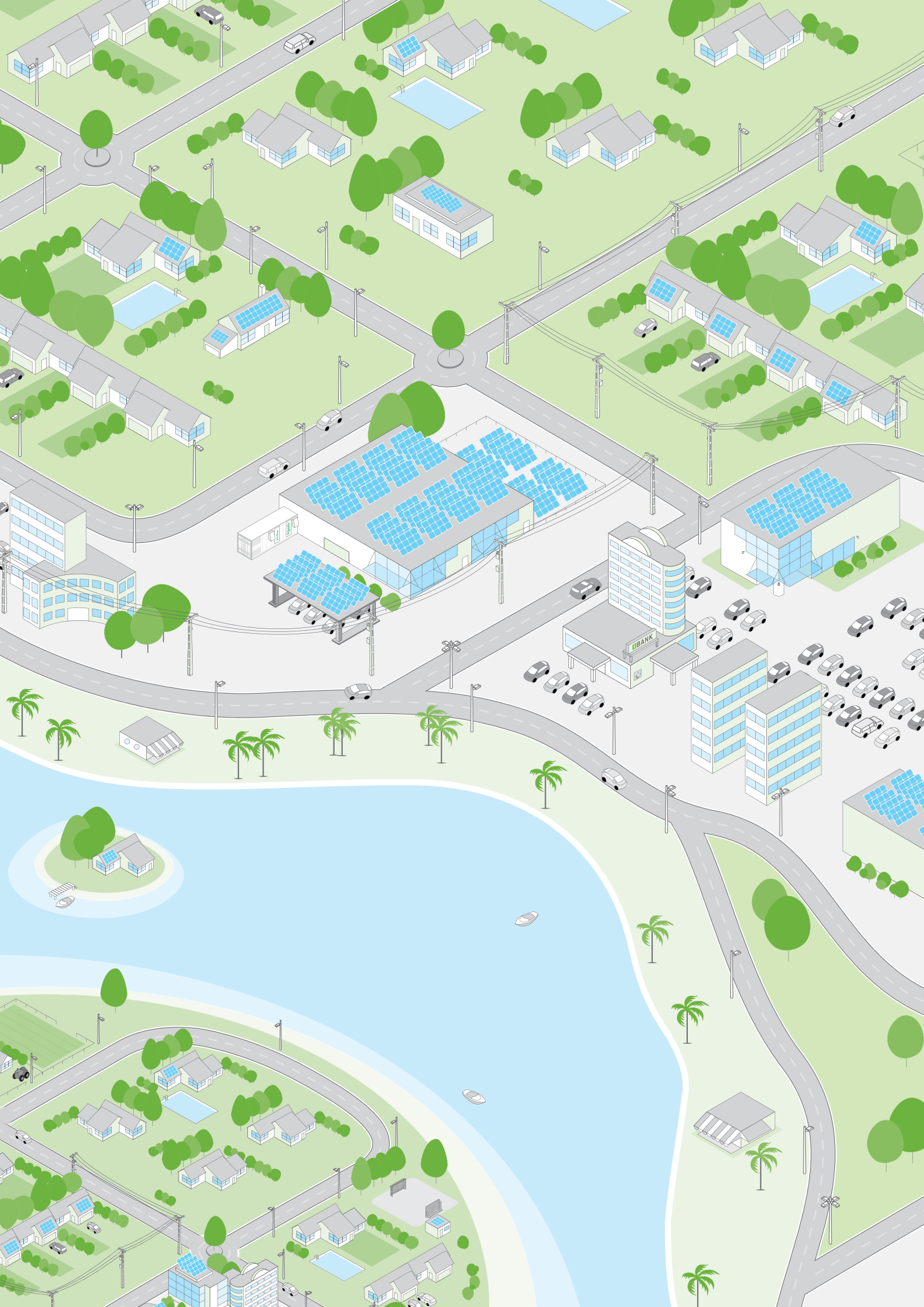
Product applications



PV power plants centralized Commercial grid-tie centralized

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)
Control features			
PV Box			
Inverter remote control	•	•	•
Inverter (P, Q) fast control	• (if installed)	• (if installed)	• (if installed)
Array Box			
Main switch remote control (LOTO)	• (if installed)		
Grid Box			
Grid coupling breaker remote control	•	•	•
RMU remote control	•	•	•
Coupling / uncoupling management	•	•	•
Grid operator interface	• (if installed)	• (if installed)	• (if installed)
Plant controller	• (on demand)	• (on demand)	• (on demand)
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.



Residential, commercial and decentralized PV power plants

> Grid-tie string inverters

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
- > Decentralized PV plants

Solar solutions for:



Conext RL single-phase grid-tie inverter

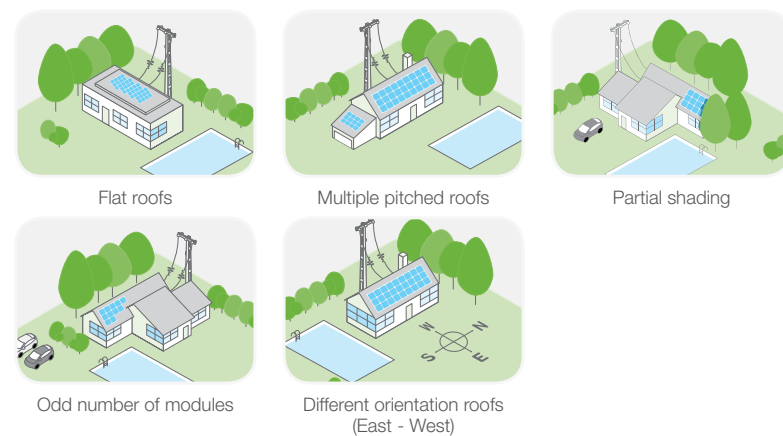
Flexible and efficient residential solar solution

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

Product applications



Available in 3, 4 and 5 kW

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 2006/95/EC 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, IEC 62116, IEC 61727, MEA, PEA, IEC 61683, G83/2 for Conext RL 3000E and 4000E, G59/2 for Conext RL 5000E, C10/C11 ed. 06.2012		
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)		

Specifications are subject to change without notice. *3.68 kVA for UK. **4.6 kVA for Germany. 4.95kVA for Queensland. *** 16A for UK. ****-20°C cold start temperature.

Conext CL three-phase grid-tie inverter

Ideal solution for commercial buildings, carports and decentralized 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. Integrated wiring box with multiple options allow for easy, flexible and low cost installations. Remote asset management and trouble shooting are easier than ever before together with Schneider Electric Conext SmartBox and Conext Insight portal. Decentralized architecture and system capability together with Schneider Electric's broad range of medium voltage products make Conext CL the ideal choice for commercial buildings and decentralized power 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 the cost of external DC combiner box*
- Built-in CloudConnect feature to allow direct connection to Conext Insight portal for easy and free remote monitoring **

Designed for reliability

- Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST), Highly Accelerated Life Test (HALT) and Temperature Humidity and Bias Testing (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

- Multiple options of wiring box to fit different applications
- Both wall, pole and minimum 10° tilt installation
- Easy to connect to third party monitoring system, wire line and wireless (optional) communication

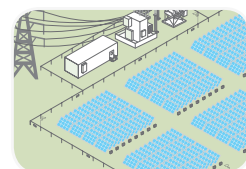
Easy to service

- Touch-safe fuse holder available for easy and protective fuse replacement
- Easily replaceable fan, easy firmware upgrade via USB, and remote firmware upgrade (CL4000E)
- Self diagnosis and analysis through Cloud connected Conext SmartBox and Conext Insight

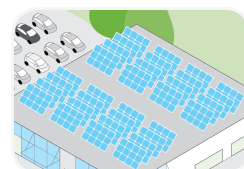
Easy to install

- Detachable inverter and wiring box to reduce weight and ease installation
- Pre-wired wiring box to save connection time
- Conext CL EasyConfig tool to allow fast commissioning

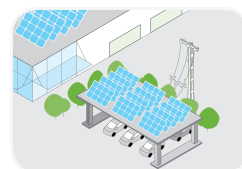
Product applications



PV power plants decentralized



Commercial grid-tie decentralized



Carports



Schneider Electric Conext CL 18 / 25 / 40 kW string inverter with wiring box

Device short name	CL20000 E	CL25000 E	CL40000 E*
Electrical specifications			
Input (DC)			
Full power MPPT voltage range	350 - 800 V	430 - 800 V	520 - 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. array short circuit current per MPPT	40.0 A	40.0 A	120.0 A
Nominal DC input power	21.5 kW	26.5 kW	42.0 kW
Max. DC input power per MPPT***	12.9 kW	15.9 kW	42.0 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	Screw type Fuse holder
Output (AC)			
Rated output power (PF=1)	20.0 kW	25.0 kW	40.0 kW
Max. apparent power	20.0 kVA	25.0 kVA	40.0 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	30.0 A	37.0 A	60.0 A
Nominal continuous output current	29.0 A	36.1 A	58.0 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	98.3 %	98.3 %	98.4 %
European	98.0 %	98.0 %	98.0 %
General specifications			
Power consumption at night time	<3.0W	< 3 .0W	< 3.0 W
Enclosure rating	IP65 (electronics)	IP65 (electronics)	IP65 (electronics)
Cooling	Fan cooled	Fan cooled	Fan cooled
Inverter weight	54 kg (119 lb)	54 kg (119 lb)	62 kg (137 lb)
Wiring box weight	15 kg (33 lb)	15 kg (33 lb)	23 kg (51 lb)
Inverter dimensions (H x W x D)	71.4 x 67.4 x 26.8 cm (28.1 x 26.5 x 10.5 in)	71.4 x 67.4 x 26.8 cm (28.1 x 26.5 x 10.5 in)	71.4 x 67.8 x 30.7 cm (28.1 x 26.7 x 12.0 in)
Wiring box dimensions (H x W x D)	36.1 x 67.4 x 26.8 cm (14.2 x 26.5 x 10.5 in)	36.1 x 67.4 x 26.8 cm (14.2 x 26.5 x 10.5 in)	39.6 x 67.8 x 30.7 cm (15.6 x 26.7 x 12.0 in)
Ambient air temperature for operation	-20 to 60°C (-13°F to 140°F)	-20 to 60°C (-13°F to 140°F)	-20 to 60°C (-13°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	< 58 dBA
Features and options			
Embedded data logger	Yes		
User interface	Graphic display, key pad		
Communication interface	RS485 (MODBUS RTU), Ethernet / MODBUS TCP (Ethernet), USB and dry contact, CL40000E allows Ethernet daisy chain		
Monitoring	Easy to connect to third party monitoring system and Schneider Electric monitoring system, inverter built-in web server supporting local webpage monitoring		
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, G59/3, 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	PVSCL40E100
Essential: Touch-safe fuse holder	PVSCL20E200	PVSCL25E200	
DC switch and AC connector			
Essential+: Essential with MC4 connector	PVSCL20E201	PVSCL25E201	PVSCL40E201
Optimum: Essential + DC SPD and AC SPD	PVSCL20E300	PVSCL25E300	
Optimum*: Optimum with MC4 connector	PVSCL20E301	PVSCL25E301	PVSCL40E301

Specifications are subject to change without notice. *Preliminary specification. **Base model: 2/1 ***Under unbalanced condition. ****Country certification is subject to modification.






*An external fuse protection shall be installed if base model from available product variants is chosen. ** Up to eight inverters in one cluster

Conext CL-NA three-phase grid-tie inverter

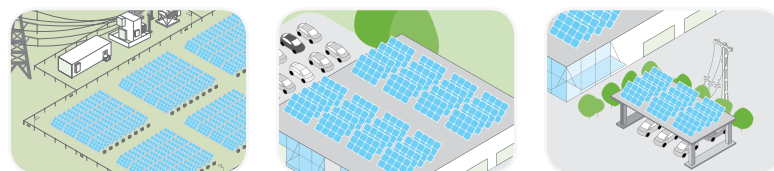
Ideal solution for commercial buildings, carports and decentralized power plants

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. Integrated wiring box with multiple options allow for easy, flexible and low cost installations. Remote asset management and trouble shooting are easier than ever before together with Schneider Electric Conext SmartBox and Conext Insight portal. Decentralized architecture and system capability together with Schneider Electric's broad range of medium voltage products make Conext CL the ideal choice for commercial buildings and decentralized power 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-NA?

-  **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*
 - Built-in CloudConnect feature to allow direct connection to Conext Insight portal for easy and free remote monitoring **
-  **Designed for reliability**
 - Robust design through rigorous Multiple Environmental Over Stress Testing (MEOST), Highly Accelerated Life Test (HALT) and Temperature Humidity and Bias Testing (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**
 - Multiple options of wiring box to fit different applications
 - Both wall, pole and minimum 10° tilt installation
 - SunSpec Alliance profile, wire line and wireless (optional) communication
-  **Easy to service**
 - Touch-safe fuse holder available for easy and protective fuse replacement
 - Easily replaceable fan, easy firmware upgrade via USB, and remote firmware upgrade (CL40000NA)
 - Self diagnosis and analysis through Cloud connected Conext SmartBox and Conext Insight
-  **Easy to install**
 - Detachable inverter and wiring box to reduce weight and ease installation
 - Pre-wired wiring box to save connection time
 - Conext CL EasyConfig tool to allow for fast commissioning

Product applications



PV power plants decentralized

Commercial grid-tie decentralized

Carports



Schneider Electric Conext CL 18 / 25 / 40 kW string inverter with wiring box

Device short name	CL18000 NA	CL25000 NA	CL40000 NA*
Electrical specifications			
Input (DC)			
Full power MPPT voltage range	300 - 800 V	500 - 800 V	540 - 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
Absolute max. short circuit current per MPPT	36.0 A	36.0 A	108.0 A
Nominal DC input power	19.0 kW	26.5 kW	42.0 kW
Max. DC input power per MPPT***	11.4 kW	15.9 kW	42.0 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	Screw type Fuse holder
Output (AC)			
Rated output power (PF=1)	18.0 kW	25.0 kW	40.0 kW
Max. apparent power	18.0 kVA	25.0 kVA	40.0 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	25.0 A	33.0 A	50.0 A
Nominal continuous output current	21.7A	30.1A	48.1 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	< 3.0 W	< 3.0 W	< 3.0 W
Enclosure rating	TYPE 4 (electronics)	TYPE 4 (electronics)	TYPE 4 (electronics)
Cooling	Fan cooled	Fan cooled	Fan cooled
Inverter weight	54 kg (119 lb)	54 kg (119 lb)	62 kg (137 lb)
Wiring box weight	15 kg (33 lb)	15 kg (33 lb)	23 kg (51 lb)
Inverter dimensions (H x W x D)	71.4 x 67.4 x 26.8 cm (28.1 x 26.5 x 10.5 in)	71.4 x 67.4 x 26.8 cm (28.1 x 26.5 x 10.5 in)	71.4 x 67.8 x 30.7 cm (28.1 x 26.7 x 12.0 in)
Wiring box dimensions (H x W x D)	36.1 x 67.4 x 26.8 cm (14.2 x 26.5 x 10.5 in)	36.1 x 67.4 x 26.8 cm (14.2 x 26.5 x 10.5 in)	39.6 x 67.8 x 30.7 cm (15.6 x 26.7 x 12.0 in)
Ambient air temperature for operation	-20 to 60°C (-13°F to 140°F)	-20 to 60°C (-13°F to 140°F)	-20 to 60°C (-13°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	< 58 dBA
Features and options			
Embedded data logger	Yes		
User interface	Graphic display, key pad		
Communication interface	RS485 (MODBUS RTU), Ethernet / MODBUS TCP (Ethernet), USB and dry contact, CL40000 allows Ethernet daisy chain		
Monitoring	SunSpec Alliance profile, easy to connect to third party monitoring system and Schneider Electric monitoring system, inverter built-in web server supporting local webpage monitoring		
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	PVSCL40NA100
Essential: Touch-safe fuse holder, DC switch and AC connector	PVSCL18NA200	PVSCL25NA200	
Essential+: Essential + AFD	PVSCL18NA201	PVSCL25NA201	PVSCL40NA201
Optimum: Essential + DC SPD and AC SPD	PVSCL18NA300	PVSCL25NA300	
Optimum+: Optimum + AFD	PVSCL18NA301	PVSCL25NA301	PVSCL40NA301






Specifications are subject to change without notice. *Preliminary specification. **Base model: 2/1 ***Under unbalanced condition. ****Country certification is subject to modification.

Conext TL three-phase grid-tie solar inverter

Ideal solar power generators for small commercial buildings

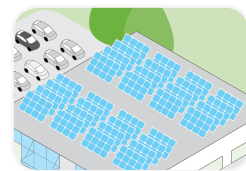
The Conext™ TL 8, and TL 10 kW grid-tie solar inverters are suited for outdoor use and are the ideal solution for small commercial buildings. The inverters provide dual MPPT (Maximum Power Point) trackers with a wide voltage range, peak efficiency of greater than 98% for fast ROI. The embedded Modbus 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 decentralized

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 (cosφ=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.

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

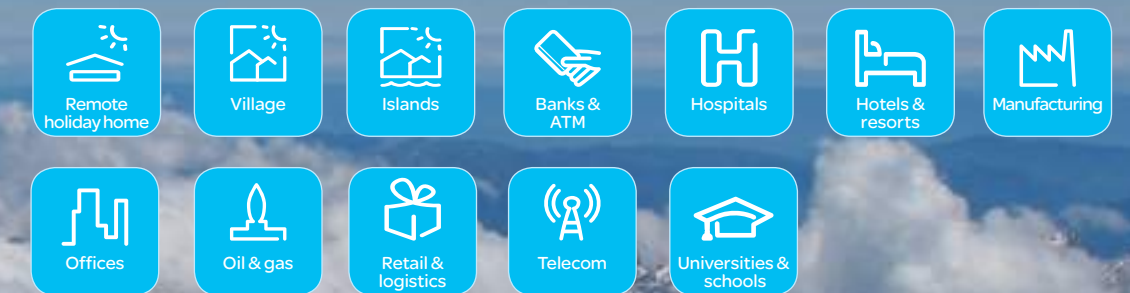
> Battery based inverters

Powering off-grid locations, not connected to the grid, or those connected to the grid and needing backup power, 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 hybrid 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		
AC distribution panel (120/240 V)	865-1017		
AC distribution panel (230 V)	865-1017-61		
Conext System Control Panel	865-1050		
Conext Automatic Generator Start	865-1060		
Conext ComBox	865-1058		
Conext MPPT 60 150 solar charge controller	865-1030-1		
Conext SW On/Off Remote Switch	865-1052		
Conext SW Stacking Kit	865-1019-61 for 230 Vac, 865-1019 for 120/240 Vac		
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01		

Specifications are subject to change without notice.

Conext SW-NA hybrid 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-NA?



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

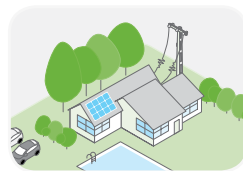


Easy to install

- 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	3800 W
Output power (30 min) at 25°C	2700 W	4000 W	4400 W
Output power (5 sec) at 25°C	5000 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		
AC distribution panel (120/240 V)	865-1017		
AC distribution panel (230 V)	865-1017-61		
Conext System Control Panel	865-1050		
Conext Automatic Generator Start	865-1060		
Conext ComBox	865-1058		
Conext MPPT 60 150 solar charge controller	865-1030-1		
Conext SW On/Off Remote Switch	865-1052		
Conext SW Stacking Kit	865-1019-61 for 230 Vac, 865-1019 for 120/240 Vac		
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01		

Specifications are subject to change without notice.

Conext XW+ hybrid inverter/charger

One solution for global power needs

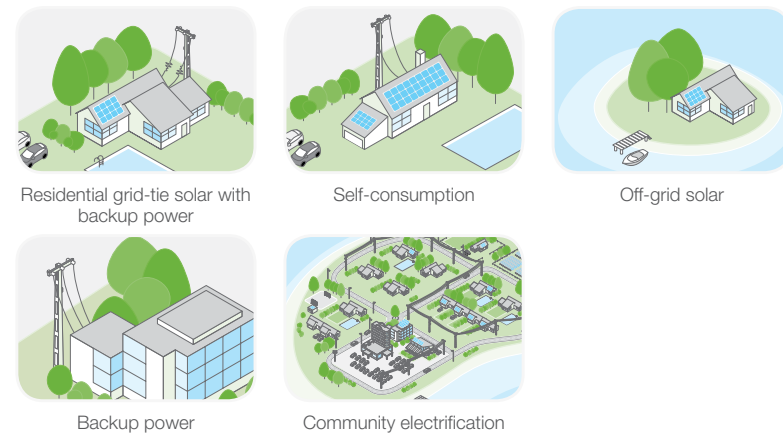
Conext™ XW+ is an adaptable single-phase and three-phase inverter/charger system with grid-tie functionality and dual AC power inputs. Available solar charge controllers, monitoring, and automated generator control modules enable further adaptability. From a single Conext XW+ unit to clusters up to 102 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



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	
Conext System Control Panel	865-1050	
Conext Automatic Generator Start	865-1060	
Conext MPPT 60 150	865-1030-1	
Conext MPPT 80 600	865-1032	
Conext ComBox	865-1058	
Conext Battery Monitor	865-1080-01	
Conext Battery Fuse Combiner Box	865-1031-01	
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01	

Specifications are subject to change without notice.

Conext XW+ NA hybrid inverter/charger

One solution for global power needs

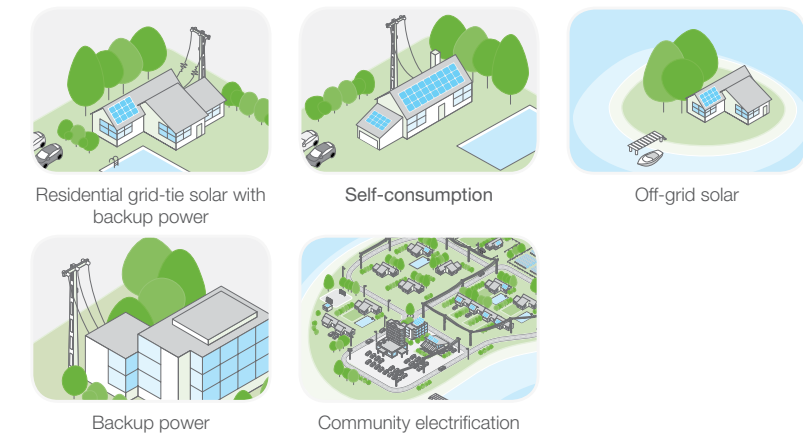
Conext™ XW+ is an adaptable single-phase and three-phase inverter/charger system with grid-tie functionality and dual AC power inputs. Available solar charge controllers, monitoring, and automated generator control modules enable further adaptability. From a single Conext XW+ unit to clusters up to 102 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-tie 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



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	
Conext System Control Panel	865-1050	
Conext Automatic Generator Start	865-1060	
Conext MPPT 60 150	865-1030-1	
Conext MPPT 80 600	865-1032	
Conext ComBox	865-1058	
Conext Battery Monitor	865-1080-01	
Conext Battery Fuse Combiner Box	865-1031-01	
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01	

Specifications are subject to change without notice.

Conext SW Power Distribution Panels

Save time and money installing, and integrating SW system

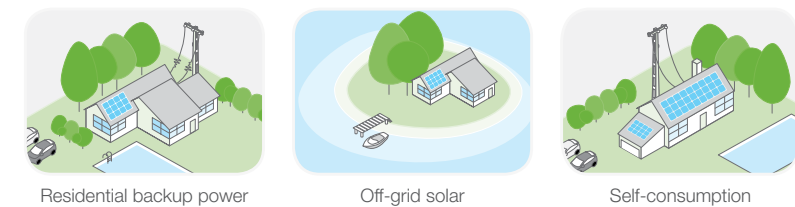
The Conext™ SW Power Distribution Panels are pre-wired out of the box and labeled to support the integration of Conext SW inverter/chargers with a Conext MPPT Solar Charge Controller, battery bank and load centers. Designed to save installers significant time, effort and costs on every installation,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

Product applications



SW DC Power Distribution Panel



SW AC Power Distribution Panel (120/240 V)



SW AC Power Distribution Panel (230 V)

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
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048
Conext MPPT 60 150	Product no. 865-1030-1
Conext System Control Panel	Product no. 865-1050
Conext SW Stacking Kit	230 Vac product no. 865-1019-61 120/240 Vac product no. 865-1019
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01

Specifications are subject to change without notice.

Conext XW+ Power Distribution Panels

Save time and money installing and integrating XW+ system

Conext™ XW+ Power Distribution Panels (XW+ PDP and Mini PDP) are 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 and Mini 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 and Mini PDP supports one XW+ inverter/charger, a diesel generator and either a MPPT 80 600 or MPPT 60 150 Solar Charge Controller. The XW+ PDP and Mini 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 and Mini PDP enclosure to be mounted and configured on either side of the inverter/charger.

XW+ Power Distribution Panels are 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 and Mini PDP.



Mini PDP



XW+ Power Distribution Panel



XW+ Installation Kit for INV 2 INV 3 PDP

XW+ Conduit Box

Why choose a 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
 - 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

Device short name	XW+ Mini PDP
Product dimensions (H x W x D)	47.0 x 40.6 x 22.5 cm (18.5 x 16 x 8.9 in) *24.9" door swing clearance, measured from back of unit.
Shipping dimensions (H x W x D)	53.5 x 56.5 x 33 cm (21.0 x 28.6 x 13.0 in)
Shipping weight	13kg 28.2lb
Product number	865-1013-01
Included	XW+ Mini-PDP enclosure with a field-reversible panel door and integrated wall mounting bracket Three 60 A, 120/240 Vac, two-pole, Square-D QOU260, DIN-rail mounted AC breakers for AC input, bypass and AC load (factory-installed), plus one additional expansion position for two pole AC breaker, type QOU260. Mini-PDP AC Cabling is pre-wired/pre-measured for easy installation to XW+ unit. One GJ 250A 160 Vdc DC breaker installed Two expansion positions for charge controller DC breakers (PV array or battery) Termination lugs for ground, common and battery connections Integrated DC busbars for direct connection to XW+ DC terminals. 3/8" hardware for connection of DC cables to busbars Cable ties for cable management Quick start guide Additional Breaker labels Plastic knockout bushings for connection between Mini-iPDP and XW/XW+ unit. Document holder Sized for easy cable installation and management

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 (Note: XW supports up to 4 MPPT 80 600 or 4 MPPT 60 150 charge controllers) 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/split-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
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01
Conext MPPT 60 150	Product no. 865-1030-1
Conext MPPT 80 600	Product no. 865-1032
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01

Specifications are subject to change without notice.

Conext Battery Fuse Combiner Box

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

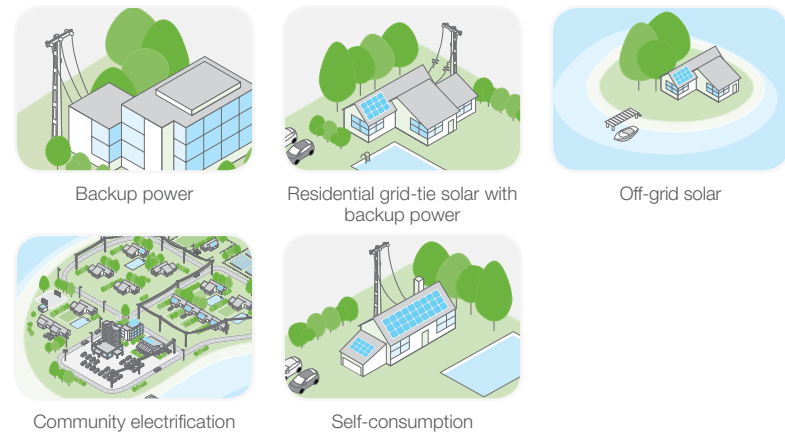
The Conext™ Battery Fuse Combiner Box 250 combines up to three Conext XW+ inverter/chargers with one battery bank using a single battery pole disconnect method and provides fuse protection for cables, batteries and inverter/chargers. Two Battery Fuse Disconnect Box 250s can be configured side-by-side 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



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	70 mm ² (2/0)	107 mm ² (4/0)
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	
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01	
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	
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048	
Conext MPPT 60 150	Product no. 865-1030-1	
Conext MPPT 80 600	Product no. 865-1032	
Conext portable installation and configuration tool	Product no. 865-1155-01	





Specifications are subject to change without notice.

Conext MPPT 80 600 solar charge controller

Install for less, harvest more energy

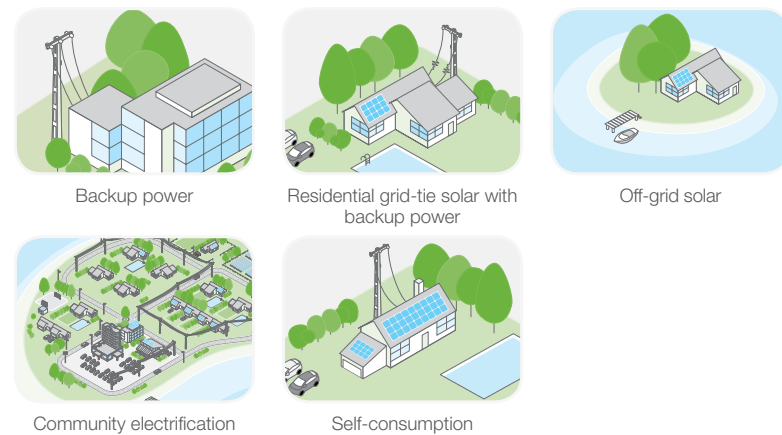
The Conext™ MPPT 80 600 solar charge controller offers an industry-first set of integration features and top performance that allows for large PV array systems to be easily installed and connected to the battery bank at the lowest overall cost. Installing one MPPT 80 600 is faster than installing multiple 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 Maximum Power Point Tracking (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



Device short name	MPPT 80 600
Electrical specifications	
Nominal battery voltage	24 and 48 V (Default is 48 V)
PV array operating voltage	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
Conext XW+ inverter/charger (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01
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
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048
Conext System Control Panel	Product no. 865-1050
Conext Automatic Generator Start	Product no. 865-1060
Conext ComBox	Product no. 865-1058
Conext portable installation and configuration tool	Product no. 865-1155-01

Specifications are subject to change without notice.

Conext MPPT 60 150 solar charge controller

MPPT multi-stage charging, better battery life

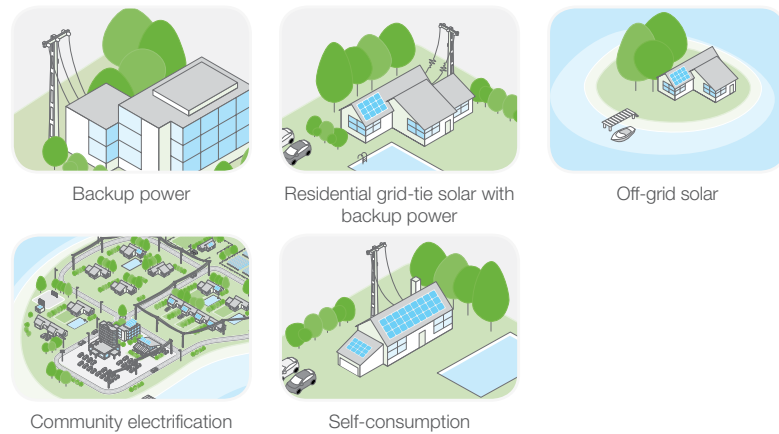
The Conext™ MPPT 60 150 is a PV charge controller that tracks the maximum power point of a PV array to deliver the maximum available current for charging batteries. When charging, the MPPT 60 150 regulates battery voltage and output current based on the amount of energy available from the PV array and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



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
PV array operating voltage	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
Conext XW+ inverter/charger (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01
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
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048
Conext System Control Panel	Product no. 865-1050
Conext Automatic Generator Start	Product no. 865-1060
Conext ComBox	Product no. 865-1058
Conext portable installation and configuration tool	Product no. 865-1155-01

Specifications are subject to change without notice.





C12 PWM charge controller

PV charge, lighting and load controller

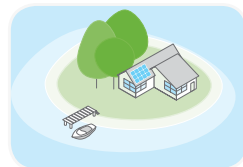
The C12 charge, lighting, or load controller is uniquely sophisticated. As a charge controller, it features three-stage charging, user definable voltage parameters, and automatic equalization. Standard in the C12's load control circuitry are field adjustable low voltage disconnect and reconnect points, 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

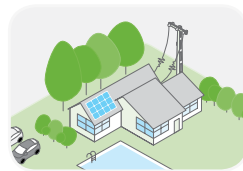
- Electronic protection against short-circuit, overload, and over-temperature conditions
- Tolerance to hostile environments with conformal-coated boards and powder-coated enclosure



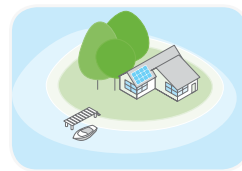
Easy to install

- 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 System Control Panel

Monitor and configure Conext inverter charger systems and Xanbus enabled accessories

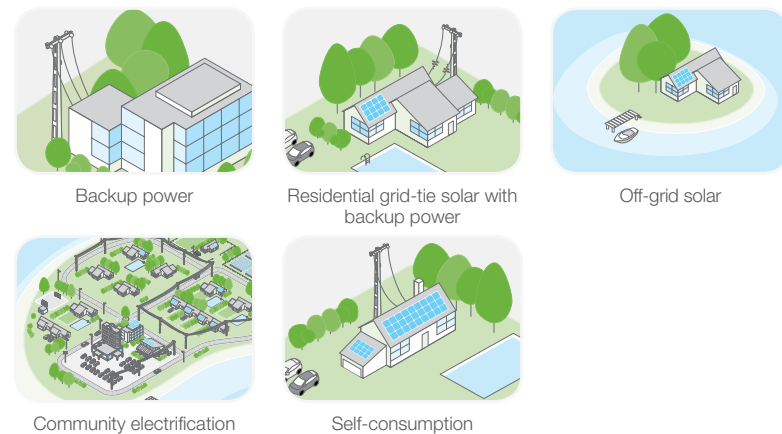
The Conext™ System Control Panel (SCP) eliminates the need for separate control panels for each device and gives a single point of control to set up and monitor the entire Conext inverter charger system, including Conext MPPT Solar Charge Controllers. Featuring a graphical backlit liquid crystal display,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



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	865-1050-01
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
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01
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
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048
Conext MPPT 80 600	Product no. 865-1032
Conext MPPT 60 150	Product no. 865-1030-1
Conext Automatic Generator Start	Product no. 865-1060
Conext ComBox	Product no. 865-1058
Conext Battery Monitor	Product no. 985-1081-01
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01

Specifications are subject to change without notice.

Conext Automatic Generator Start

Automatically start and stop a generator to meet power needs

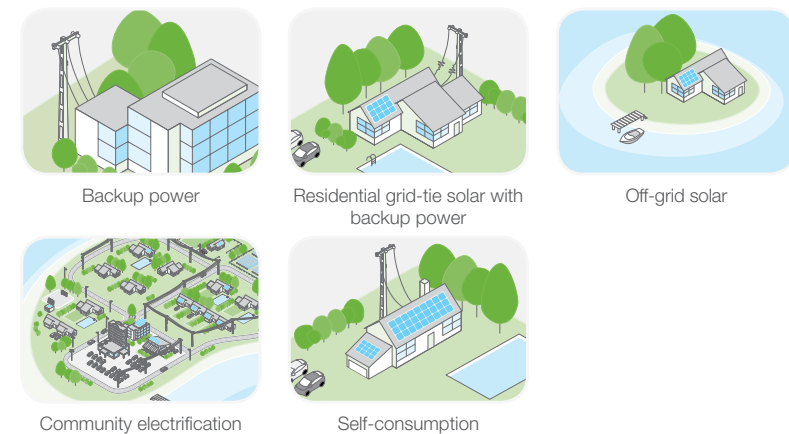
The Conext™ Automatic Generator Start (AGS) can automatically activate or stop a generator in response to changing power requirements. An excellent addition to an off-grid or backup power system, the AGS seamlessly connects to the Xanbus™ network and shares status information with all other devices on 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



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	865-1060-01
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
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01
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
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048
Conext MPPT 80 600	Product no. 865-1032
Conext MPPT 60 150	Product no. 865-1030-1
Conext System Control Panel	Product no. 865-1050
Conext ComBox	Product no. 865-1058
Conext Battery Monitor	Product no. 985-1081-01
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01

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.

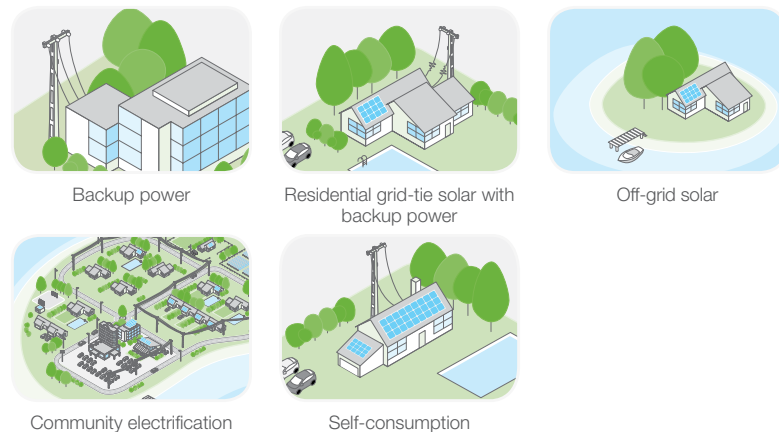
Industrial and telecom customers can integrate Conext Battery Monitor with energy management systems over Modbus™ RS485.



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



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
Conext XW+ (120/240 V)	XW 5548 NA product no. 865-5548-01 XW 6848 NA product no. 865-6848-01
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
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Conext MPPT 80 600	Product no. 865-1032
Conext MPPT 60 150	Product no. 865-1030-1
Conext System Control Panel	Product no. 865-1050
Conext Automatic Generator Start	Product no. 865-1060
Conext ComBox	Product no. 865-1058
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01

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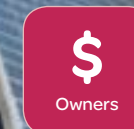
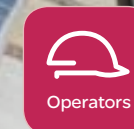
> Monitoring solutions for distributed PV power plants

Your customer's PV systems are valuable investments, and we understand the importance of staying connected with your customers to provide value added services. Our remote diagnostics features also help you minimize truck rolls in response to service calls, saving you time and lowering costs. With Schneider Electric's monitoring and control solutions for distributed PV plants, we help you gain actionable insight so you can make confident decisions and help your customers maximize ROI of their PV assets.

Solar applications:

- > Residential buildings
- > Commercial buildings and carports
- > Decentralized PV plants
- > Grid-tie solar with backup power
- > Self-consumption
- > Off-grid solar
- > Backup power
- > Community electrification

Solar solutions for:



Stay connected with your customers and provide value added services using Conext Insight



> Remote monitoring and diagnostics to minimize truck rolls



> Analytics reporting to synthesize vast amount of data for key stakeholders



> Performance alerts to help you take proactive measures to maximize ROI

- ! Decline in performance ratio
- ! Sub-optimal battery operating conditions
- ! Significant inverter performance deviation
- ! Near real time device errors/warnings

Conext Insight PV monitoring web portal

Remote monitoring and asset management platform for distributed PV systems

The Conext™ Insight web portal gives you detailed insight into the performance of your distributed PV plants. You now have the convenience and ease to remotely monitor all your decentralized grid-tie and battery based plants from any Internet connected device—anytime, anywhere.

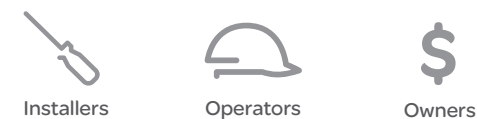
As an installer, you can always remain connected with your customers and provide value added services. The intuitive dashboard, historical performance charts, events log and performance alerts enable you to have a comprehensive understanding of the plant health and carry out remote troubleshooting with ease. Notify your customers of upcoming maintenance requirements, make suggestions for system improvements, and make confident decisions, all through Schneider Electric's new remote monitoring and asset management platform.

Why choose Conext Insight?

- Higher return on investment**
 - Ensure high plant uptime by remotely accessing energy and events logs and performance alarms
 - Minimize truck rolls through effective remote troubleshooting
 - Reduce energy bills by analyzing energy use and production
 - Extend equipment life by monitoring key operating parameters e.g. battery temperature, generator run time
 - The CloudConnect feature ensures that you do not need any additional Capex for small commercial grid-tie PV plants
- Designed for reliability**
 - Software application validated through extensive qualification testing
- Flexible**
 - Monitor all of your PV plants' performance regardless of location
 - Various data access options to ensure all key stakeholders are kept abreast with your plant performance
 - Optimum design for monitoring various applications: back-up, off-grid, rural electrification and small/medium commercial grid tie plants
- Easy to use**
 - Easily drilldown from a multi-site overview to the detailed diagnostics of specific equipments at a site
 - Simplified asset management with centralized access that gives you comprehensive data to all of your key installed devices
 - Document vault feature to ensure quick access to plant related documents during troubleshooting
- Easy to set-up**
 - Quick configuration of Conext ComBox/Conext SmartBox/Conext CL to connect to the remote portal
 - Quick portal registration, with simple management of users and notifications



Solar solutions for:



Conext SmartBox-BA communication device

Configure, monitor, diagnose and control—a versatile assistant for commercial grid-tie PV plant installers

Conext™ SmartBox-BA is a robust outdoor rated communication device with a rich browser-based user interface. Conext SmartBox-BA is designed to meet the various commissioning and operational needs of commercial grid-tie PV installations. The **SmartInstall** feature provides an installation wizard for speedy set-up, while the **SmartConfig** feature provides a single point of access for configuring all of your inverters in the field. With **SmartDiagnose**, you can access high-resolution energy data as well as real-time event logs for quick troubleshooting. With a built-in 1GB SD card, you can store up to five years of energy data. For in-depth analytics and reports, connect Conext SmartBox to Schneider Electric's Conext Insight remote monitoring portal. With two RS-485 ports, you can connect up to 64 devices (inverters, meters and sensors) to Conext SmartBox-BA.



Why choose Conext SmartBox-BA?

Higher return on investment

- Access to vital plant performance data at fingertips to proactively address issues leading to plant downtime
- On-demand high-resolution (every 10 seconds) data logging for quick diagnostics
- User interface is optimized for decentralized PV plants for quick troubleshooting

Designed for reliability

- IP66 rated corrosion resistant stainless steel enclosure
- Robust design proven through rigorous Multiple Environmental Over Stress Testing (MEOST), and Temperature Humidity Bias (THB)
- Designed and qualified for applications in tropical environments through salt fog testing and the use of conformal coating

Flexible

- Multiple data access options (e.g. Internet browser, e-mail alerts, FTP, CSV/JPEG/PDF download, USB export, etc.)
- Compatible with leading global brands of sensors and meters
- Connection to Conext Insight offers access to PV plant performance data, regardless of location

Easy to service

- Easily replace a SmartBox in the field without losing data by simply swapping the SD card
- Perform remote firmware upgrades and remote reboots
- Periodic FTP data export to ensure automatic remote back-up of data

Easy to install

- Pre-configured, ready-to-install outdoor rated cabinet
- **SmartInstall** wizard guides you through the key installation steps
- Intelligent device detection to precisely detect a device, even when the Modbus address falls outside the recommended range
- Easily replicate standard configurations across several SmartBox devices by importing a config file

Device short name	Conext SmartBox-BA
Electrical specifications	
Communication interfaces	
Ethernet (LAN1)	Connector: 1 x RJ45, 10/100 Mbps Server: FTP, Web, Modbus TCP/IP Client: SMTP, SNMP
Serial Interface	4 x 2-wire RS485 ports (2 x Connector block: Screw 4-terminal, 16-24AWG; 2 x RJ45 ports). Protocol: MODBUS RTU Products Supported: Conext CL inverters, power meter, pyranometers, temperature sensors, weather station/sensor box
Data Interfaces	
USB 2.0-Host	Connector: USB-A, Protocols: MSD
SD Card	SDHC/SDXC compatible socket with push-push mechanism, Class 2 or better recommended
User Interface	Status indicator LEDs on SmartBox data logger Web graphical user interface for Configuration and Monitoring functions
Power supply	
Power consumption	3 W average (data logger)
Power Module (Input)	Dual Setting: 100-500V AC, 50-60Hz
24V on Modbus/RS 485 Connector blocks (Output)	24V DC each connector block (0.75A maximum)
Memory	
Data sampling	Every 1 minute
Data logging	Every 15 minute
Internal	2GB
External	1GB SD Card (included) Up to 5 years data storage
General specifications	
Weight (device only)	9.0 kg (19.8 lbs)
Dimensions (device only) (W x H x D)	11.8 x 15.7 x 7.9 inches (400 x 500 x 300 mm)
Enclosure	Stainless steel
IP rating / Mounting Location	IP 66, NEMA 4X / outdoor
Temperature	Operating: -4 to 131 F (-20 to 55 C) Storage: -40 to 158 °F (-40 to 70 °C) Maximum case temperature: 140 °F (60 °C)
Humidity	Operating: < 95%, non-condensing Storage: < 95%
Part number	865-300
Features	
Max. number of Modbus devices	Up to 64 (max. 32 on each port)
Graphical user interface	Internet Browser
Remote firmware upgrades	Yes
Regulatory	
Marking	C(ETL)us, RCM, CE
EMC immunity	EN61000-6-1
EMC emission	EN61000-6-3, FCC Part 15 Class B, Ind. Canada ICES-003 Class B
Substances / environmental	RoHS

Specifications are subject to change without notice.

PRELIMINARY

Conext SmartBox-ES communication device

Higher performance and more versatility for commercial grid-tie PV plants

Conext SmartBox-ES has all the rich features of Conext SmartBox-BA and much more. The integrated energy meter allows you to accurately monitor and report PV energy generation. The built-in digital and analog I/Os facilitate the transmission of active and reactive power control commands from the utility to inverters in the field. The functionality of the integrated I/Os can be extended to add further value to plant monitoring. Analog inputs can be utilized to monitor sensors while digital inputs can also be used to collect plant status information (e.g. fire alarms, breaker status, etc.). The optical fiber switch option makes it possible to easily set-up multiple SmartBox-ES devices for larger plants in a modular manner. The optional cellular router allows you to connect your PV plant to the Conext Insight portal in remote areas where access to wired Internet is a challenge.

Why choose Conext SmartBox-ES?

Higher return on investment

- Conveniently access vital plant performance data at your fingertips, to help you proactively address issues that could potentially lead to plant downtime
- Plant status monitoring through digital inputs for comprehensive monitoring beyond just inverters
- On-demand high-resolution (every 10 seconds) data logging for quick diagnostics
- User interface is optimized for decentralized PV plants for quick troubleshooting

Designed for reliability

- IP66 rated corrosion resistant stainless steel enclosure
- Robust design proven through rigorous Multiple Environmental Over Stress Testing (MEOST), and Temperature Humidity Bias (THB)
- Designed and qualified for applications in tropical environments through salt fog testing and the use of conformal coating

Flexible

- Multiple data access options (e.g. Internet browser, e-mail alerts, FTP, CSV/JPEG/PDF download, USB export, Conext Insight, etc.)
- Compatible with leading global brands of sensors and meters
- Ability to connect to Modbus compatible sensors as well as analog sensors
- Option to use cellular connectivity if wired Internet is not available
- Connection to Conext Insight offers access to PV plant performance data, regardless of location
- Built-in Modbus TCP communication with expanded digital, and analog I/Os facilitate interactions with the utility/plant operator
- Connection to Conext Insight offers access to PV plant performance data, regardless of location

Easy to service

- Easily replace a SmartBox in the field without losing data by simply swapping the SD card
- Perform remote firmware upgrades and remote reboots
- Periodic FTP data export to ensure automatic remote back-up of data

Easy to install

- Pre-configured, ready-to-install outdoor rated cabinet
- Step-by-step installation guided by the **SmartInstall** wizard
- Intelligent device detection to precisely detect a device, even when the Modbus address falls outside the recommended range
- Easily replicate standard configurations across several SmartBox devices by importing a config file



Device short name	Conext SmartBox-ES
Electrical specifications	
Communication interfaces	
Ethernet (LAN1)	Connector: 1 x RJ45, 10/100 Mbps Server: FTP, Web, Modbus TCP/IP Client: SMTP, SNMP
Serial Interface	4 x 2-wire RS485 ports (2 x Connector block: Screw 4-terminal, 16-24AWG; 2 x RJ45 ports). Protocol: MODBUS RTU Products Supported: Conext CL inverters, power meter, pyranometers, temperature sensors, weather station/sensor box
Extended I/Os	
Digital inputs	8 (Type 3; 5mA; 19...30V DC) Usage: Active/reactive power control; Plant status monitoring
Analog inputs	4 (3x 4-20mA; 1 x 0-10V) Usage: Active/reactive power control; Weather sensor monitoring
Digital outputs	6 (0.25 mA per output, 19...30V DC) Usage: Active/reactive power control feedback; error reporting
Data interfaces	
USB 2.0-Host	Connector: USB-A, Protocols: MSD
SD Card	SDHC/SDXC compatible socket with push-push mechanism, Class 2 or better recommended
User Interface	Status indicator LEDs on SmartBox data logger Web graphical user interface for Configuration and Monitoring functions
Power supply	
Power consumption	3 W average (data logger)
Power Module (Input)	Dual Setting: 100-500V AC, 50-60Hz
24V on Modbus/RS 485 Connector blocks (Output)	24V DC each connector block (0.75A maximum)
Memory	
Data sampling	Every 1 minute
Data logging	Every 15 minute
Internal	2GB
External	1GB SD Card (included) Up to 5 years data storage
Energy Meter	
Accuracy (Real power and energy)	0.5% (ANSI C12.20, IEC 62053-22 Class 0.5S)
Accuracy (Reactive power and energy)	IEC 62053-23 Class 2, 2%
CT scaling*	Primary: Adjustable from 5 A to 32,000 A
CTs measurement input range	0 to 0.333 VAC or 0 to 1.0 VAC
Measured AC voltage	Minimum: 90 V _{L-N} (156 V _{L-L}), UL Maximum: 600 V _{L-L} (347 V _{L-N}), CE Maximum: 300 V _{L-N} (520 V _{L-L})
General specifications	
Weight (device only)	15.0 kg (33.1 lb)
Dimensions (device only) (W x H x D)	15.8 x 23.6 x 7.9 inches (400 x 600 x 200 mm)
Shipping package weight	16.0 kg (35.3 lb)
Shipping box dimensions (W x H x D)	18.9 x 27.9 x 11.4 inches (480 x 710 x 290 mm)
Enclosure	Stainless steel
Mounting type	Wall mounting
IP rating / Mounting Location	IP 66, NEMA 4X / outdoor
Temperature	Operating: -4 to 131 °F (-20 to 55 °C) Storage: -40 to 158 °F (-40 to 70 °C) Maximum case temperature: 140 °F (60 °C)
Humidity	Operating: < 95%, non-condensing Storage: < 95%
Part number	865-302
Features	
Max. number of Modbus devices	Up to 64 (max. 32 on each port)
Graphical user interface	Internet Browser
Remote firmware upgrades	Yes
Regulatory	
Marking	C(ETL)us, RCM, CE
EMC immunity	EN61000-6-1
EMC emission	EN61000-6-3, FCC Part 15 Class B, Ind. Canada ICES-003 Class B
Substances / environmental	RoHS
Accessories	
Fiber Optic Switch	
Cellular router	






Specifications are subject to change without notice. *: CTs not included in the offer

Conext ComBox communication device

Advanced monitoring and control solution for battery based PV installations

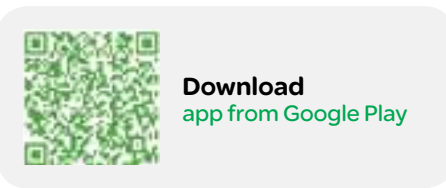
The Conext™ ComBox is a powerful communications and monitoring device for installers and operators of Conext solar systems. It features an integrated web server, enabling graphical displays of system daily, monthly and lifetime energy data to be viewed using a simple web browser or Android™ tablet device. 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. Easy connectivity to Conext Insight portal gives you an added ability to remotely monitor portfolio of PV assets.

Why choose Conext ComBox?

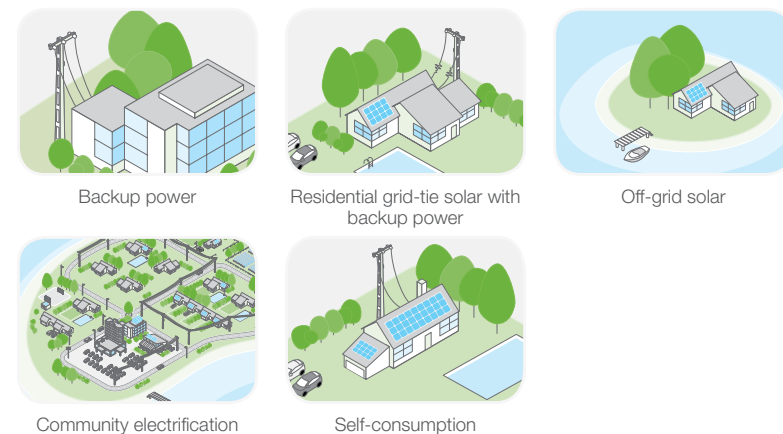
-  **Higher return on investment**
 - Monitor solar system harvest and yield
 - Measure and compare energy performance over varying timelines
 - Receive email alerts and reduce system downtime
-  **Designed for reliability**
 - Tested and qualified for harsh environmental conditions (HALT reliability 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
 - Conext Insight portal enables quick remote troubleshooting
-  **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
 - Easy to connect to Conext Insight portal



Conext ComBox Android tablet application



Product applications



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, SNMP, 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 4.0 (Ice Cream Sandwich), download via Google Play
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
Conext XW+ (120/240 V)	XW+ 5548 NA product no. 865-5548-01 XW+ 6848 NA product no. 865-6848-01
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
Conext SW (120 V)	SW 2524 product no. 865-2524 SW 4024 product no. 865-4024 SW 4048 product no. 865-4048
Conext MPPT 80 600	Product no. 865-1032
Conext MPPT 60 150	Product no. 865-1030-1
Conext System Control Panel	Product no. 865-1050-01
Conext Automatic Generator Start	Product no. 865-1060-01
Conext Battery Monitor	Product no. 985-1080-01
Conext Portable Installation and Configuration Tool	Product no. 865-1155-01

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

Selected customer references

Global support that makes any size installation a success story



Cestas, France
PV power plant
300 MW



Cibao, Dominican Republic
PV power plant
1.5 MW



Phetchabun, Thailand
PV power plant
3.3 MW



California, USA
Off-grid solar
4.5 kW



Fukusaki, Japan
PV power plant
1.36 MW



Borneo, Indonesia
Off-grid solar
12 kW



Maui, USA
Off-grid solar (ground mounted PV arrays)
20 kW



Plugia, Italy
PV power plant
43 MW



Villanueva del Aceral, Spain
PV power plant
3 MW



Bonnat, France
PV power plant
5.4 MW



Philippines
Telecom Towers
18 kW



Montego Bay, Jamaica
Self-consumption
5 kW



Madrid, Spain
Off-grid solar
18 kW



Senftenberg, Germany
PV power plant
82 MW



Osiyan, India
PV power plant
5 MW



Florida, USA
Off-grid solar
23 kW



Ontario, Canada
Off-grid solar
10 kW



Ostwind, Germany
Commercial rooftop
360 kW

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