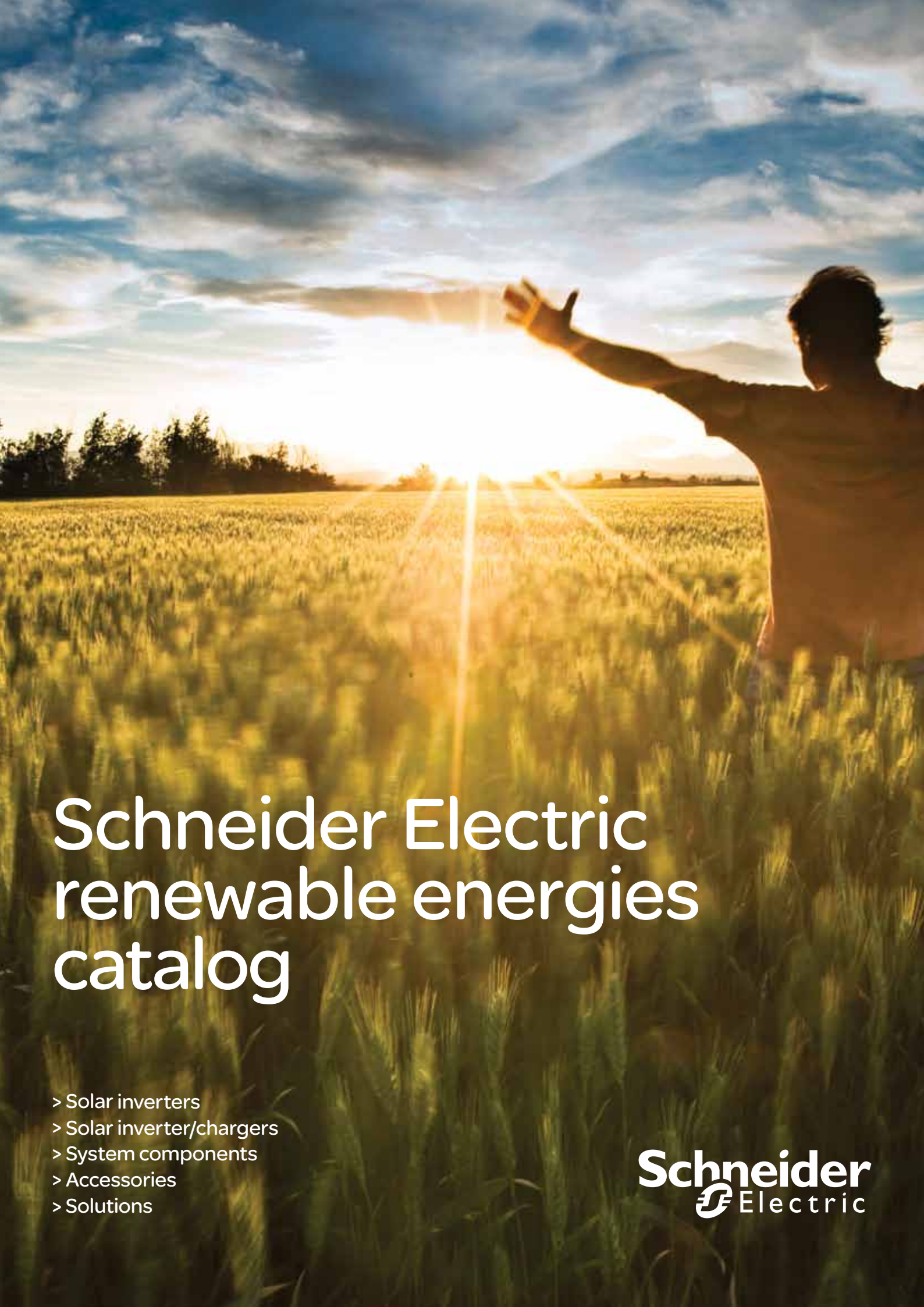

Schneider Electric renewable energies catalog

> Solar inverters
> Solar inverter/chargers
> System components
> Accessories
> Solutions

Schneider Electric

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The history of Schneider Electric

Schneider Electric, founded in 1836, has transformed itself into the global specialist in energy management. From its roots in the iron and steel industry, heavy machinery, and ship building, it moved into electricity and automation management. In the late 20th century the Schneider Group shifted its focus to the electrical industry by separating from its non-strategic activities and was solidified though its acquisitions of Telemecanique in 1988, Square D™ in 1991 and Merlin Gerin in 1992. In 1999 development of installation, systems and control was bolstered with the acquisition of Lexel, Europe's number two in electrical distribution. In May of the same year, the company was renamed Schneider Electric to more clearly emphasize its expertise in the electrical field.

From 2000 through 2009 Schneider Electric entered into a phase of organic growth and began positioning itself in new market segments: UPS (uninterruptible power supply), movement control, building automation and security and renewable energy through the acquisitions of APC, Clipsal, TAC, Pelco, Xantrex Technology and more. As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation, and data centers/ networks, as well as a broad presence in residential applications. Focused on making energy safe, reliable, efficient, productive and green, the company's 100,000 plus employees achieved sales of 15.8 billion euros in 2009, through an active commitment to help individuals and organizations "Make the most of their energy™."

Renewable Energies

In October of 2008, with Schneider Electric's purchase of Xantrex Technology, a significant milestone was reached in the company's expansion into the renewable energies sector. Combining Xantrex's knowledge and expertise in renewable energies and Schneider Electric's depth of experience in energy management was critical for the future success of the organization in this space.
The renewable energies business of Schneider Electric is focused on designing and developing renewable energy products and solutions and providing best-in-class, global customer service and technical support.

Make the most of your energy

Schneider Electric provides the full solution from the panel DC output to the grid connection, including monitoring & supervision. In 2009, Schneider Electric introduced a customizable solution geared to photovoltaic (PV) power plants. The Schneider Electric PV Box is a pre-wired equipment package specifically designed to meet the growing demand of large scale grid-tied solar farms and large commercial rooftop solar installations. The PV Box is a complete solution for electrical distribution, automation, security, monitoring and control available from one vendor.

A PV Box typically consists of solar inverters, DC combiner boxes, step-up transformers and a medium voltage switch housed in a prefabricated building to allow quick field wiring from both the solar arrays and the utility grid connection point. Other items can be added to the package including climate controls, security equipment, array string monitoring, SCADA monitoring equipment, and power metering, accompanied by operation and maintenance offerings.

With the PV Box, customers can significantly reduce total electrical installation costs and project cycle time. This product offers customers a reliable and complete solution from a company with over 100 years of experience designing electrical distribution and control systems. In addition, because the PV Box enclosure provides a controlled environment for its components, it can be installed in a variety of climates, including harsh desert environments where many future large scale solar projects are planned.

For more information about Schneider Electric and renewable energy solutions, please visit www.schneider-electric.com

Schneider Electric Professional Installer Training

Schneider Electric offers training for both the Schneider Electric Single-Phase and Three-Phase systems

Schneider Electric Single-Phase Training:

> Single-Phase:

This training is a comprehensive course for those professional installers looking to gain knowledge and hands on experience in installing the Schneider Electric grid tie and battery based products.

The format of the training is a small workgroup with a focus on hands-on training with open dialogue. The course covers a brief overview of conventional and renewable energy sources, an introduction to grid-tie energy transfer, an overview of Schneider Electric products and an in-depth discussion on the features, functions and benefits of the Schneider Electric Xantrex™ XW System, Schneider Electric Conext™ and the Xantrex GT Series product lines. Participants will also get to practice the physical installation of the products, and receive training in system wiring and commissioning of typical applications.

For more information on single-phase training please contact:
Jarmo Venalainen at jarmo.venalainen@ca.schneider-electric.com

Schneider Electric Three-Phase Training:

> Three-Phase:

This training is a comprehensive course for the system operators of larger solar farm installations who desire a more intricate understanding of the system operation and basic troubleshooting.

The format of the training is a small workgroup with a focus on hands-on training with open dialogue. The course covers a brief overview of conventional and renewable energy sources, an introduction to grid-tie energy transfer, an overview of Schneider Electric grid-tie products, and detailed discussion of the Xantrex GT Three Phase Series features, functions and benefits. Upon completion of the course, participants will have working knowledge of System Start-up, Operation and proper Shutdown procedures. We will cover the communication protocols and application used for retrieving system logs. Best maintenance practices will be covered as well as trouble code analysis.

Three-Phase classes available:

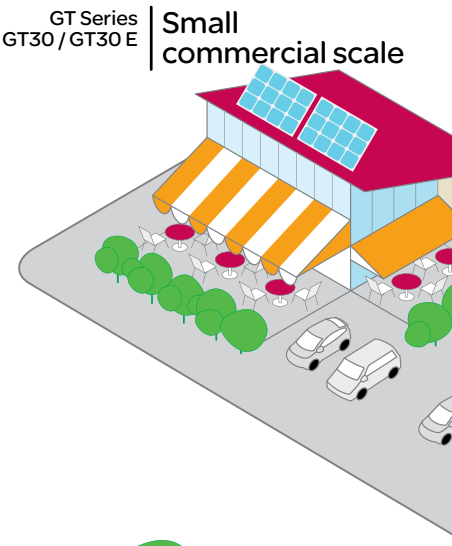
> Schneider Electric Xantrex™ GT500 MV Training
> Schneider Electric Xantrex™ GT500 E Training
> Schneider Electric Xantrex™ GT250 Training

For more information on three-phase training please contact:
Phil Robinson at phil.robinson@us.schneider-electric.com

Basic grid-tie system

A basic grid-tie system consists of solar cells and a grid tie inverter. Solar cells take the sun's energy and turn it into DC electricity. The inverter turns the DC electricity generated by the solar cells into utility grade AC power which can be sold to the utility grid. A grid-tie system is an effective way to obtain economical benefits, increase green energy production and improve the environment.

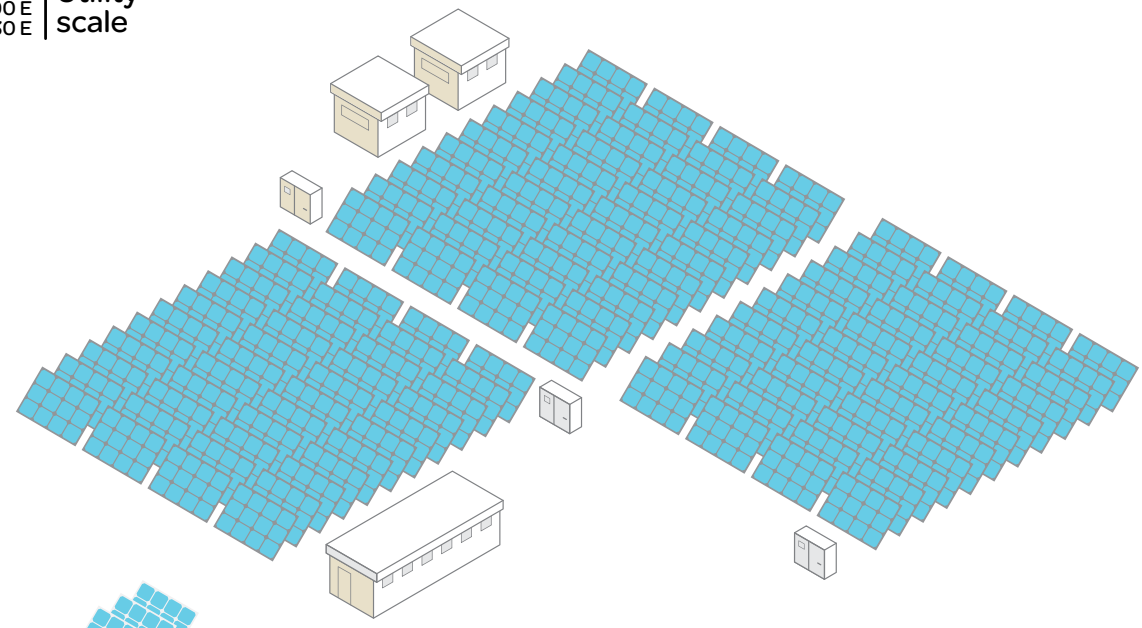
Large-scale solar electrical systems play an important part in conservation and energy production, and Schneider Electric is a premier supplier of inverters that turn the sun's energy into clean electricity. Grid tie inverters are a leading choice for large-scale solar installations in Europe.

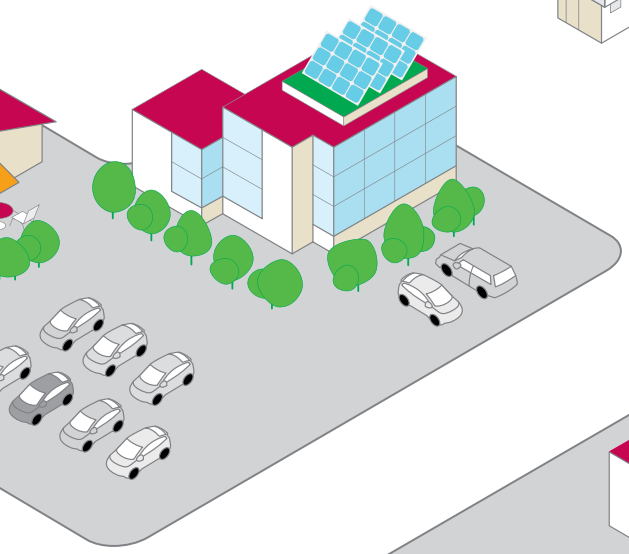


Residential grid-tie solar

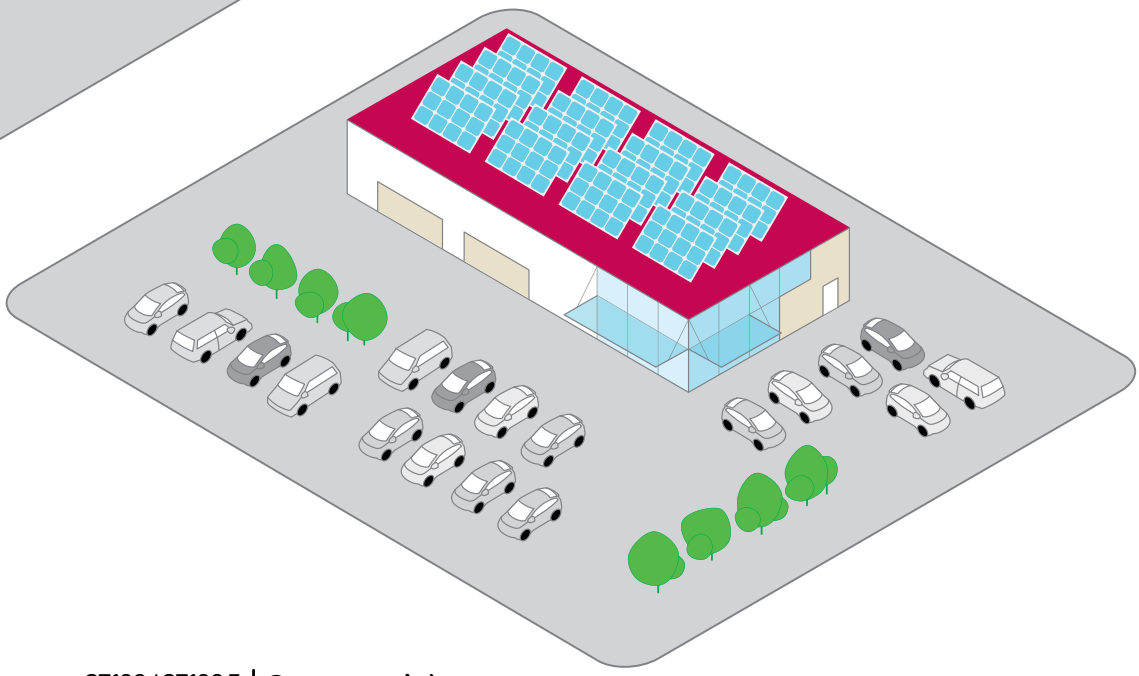
GT250 / GT250 E
GT500 / GT500 E
GT630 E
Utility scale

PV power plant





Small utility solar



GT100 / GT100 E
GT250 / GT250 E
Commercial scale

String inverter solutions

SunEzy VDE, RD, DK (indoor)

Models VDE-RD	SunEzy 2000	SunEzy 2800	SunEzy 3000 / 3043	SunEzy 4000
Reference	PVSNV12000	PVSNV12800	PVSNV13000	PVSNV14000
Models DK	SunEzy 2001	SunEzy 2801	PVSNV13000 / 13043	SunEzy 4043
Reference	PVSNV12001	PVSNV12801	PVSNV13043	PVSNV14043

Electrical specifications

			*only for 3043	
PV Generator recommended power	1200 to 2200 W	2000 to 3000 W	2600 to 3400 W (*2800 to 3600 W)	3200 to 4400 W
DC input max. no load voltage	500 V	500 V	500 V	500 V
DC input max. current	10 A	13 A	20 A	20 A
MPPT, PV voltage range (full power)	250 to 450 V	250 to 450 V	190 to 450 V (*200 to 450 V)	250 to 450 V
MPPT, PV voltage range	150 to 450 V	150 to 450 V	150 to 450 V	150 to 450 V
MPPT, number of trackers	1	1	1	1
Efficiency, maximum	> 96%	> 96%	> 96%	> 96%
Efficiency, European	> 95%	> 95%	> 95%	> 95%
Nominal AC output Power	2000 W	2800 W	3100 W (*3300 W)	4000 W
Maximum AC output Power	2200 W	3000 W	3400 W (*3600 W)	4400 W
AC output rated voltage	230 V, single-phase	230 V, single-phase	230 V, single-phase	230 V, single-phase
AC output rated frequency	50 Hz	50 Hz	50 Hz	50 Hz
AC output max. current	10.5 A	14.3 A	16 A (*16.5 A)	20 A
Power factor	> 0.99	> 0.99	> 0.99	> 0.99
Inherent operating consumption	7 W	7 W	7 W	7 W
Standby power consumption	< 0.2 W	< 0.2 W	< 0.4 W	< 0.4 W

General specifications

Operating temperature range	- 20°C to + 55°C	- 20°C to + 55°C	- 20°C to + 55°C	- 20°C to + 55°C
Relative humidity	0% to 95%	0% to 95%	0% to 95%	0% to 95%
Type of casing	Metallic	Metallic	Metallic	Metallic
Protection level	IP 43	IP 43	IP 43	IP 43
Width × height × depth	35 × 30,2 × 12 cm (13.78 x 11.89 x 4.72")	35 × 30,2 × 13.5 cm (13.78 x 11.89 x 5.31")	42,4 × 36,6 × 12 cm (16.69 x 14.41 x 4.72")	42,4 × 36,6 × 12 cm (16.69 x 14.41 x 4.72")
Weight	11.4 kg (25.13 lb)	12.5 kg (27.56 lb)	16.4 kg (36.16 lb)	16.4 kg (36.16 lb)

Features and options

Cooling type	Natural convection - no fans	Natural convection - no fans	Natural convection - no fans	Natural convection - no fans
DC connection	1 pair of MC4 connector	1 pair of MC4 connector	1 pair of MC4 connector	2 pairs of MC4 connector
Display	LCD 1 line 16 digits	LCD 1 line 16 digits	LCD 1 line 16 digits	LCD 1 line 16 digits
External communication port	RS232 standard (RS485 option)	RS232 standard (RS485 option)	RS232 standard (RS485 option)	RS232 standard (RS485 option)
Communication protocol	Proprietary	Proprietary	Proprietary	Proprietary

Country dependant features

For models 2000-2800-3000-3043-4000				
Decoupling protection choice	by selection at initialisation	by selection at initialisation	by selection at initialisation	by selection at initialisation
Decoupling protection according VDE 0126-1-1	Yes	Yes	Yes	Yes
Decoupling protection according RD 1663 (Spain)	Yes	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes	Yes
DC Residual current monitoring unit	acc. VDE 0126-1-1	acc. VDE 0126-1-1	acc. VDE 0126-1-1	acc. VDE 0126-1-1
For models 2001-2801-3043-4043				
Decoupling protection according DK 5940	Yes	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes	Yes

Regulatory approvals

EU LV Directive	In acc. with EN50178	In acc. with EN50178	In acc. with EN50178	In acc. with EN50178
EU EMC Directive	In acc. with EN61000-3-X /- 6-X	In acc. with EN61000-3-X /- 6-X	In acc. with EN61000-3-X /- 6-X	In acc. with EN61000-3-X /- 6-X
EU RoHS Directive	compliant	compliant	compliant	compliant
VDE 0126-1-1	Approved by VDE	Approved by VDE	Approved by VDE	Approved by VDE
DK 5940	Approved by DK	Approved by DK	Approved by DK	Approved by DK
Markings	CE, VDE, VDE-GS, DK	CE, VDE, VDE-GS, DK	CE, VDE, VDE-GS, DK	CE, VDE, VDE-GS, DK

Specifications are subject to change without notice.

SunEzy VDE, RD, DK (indoor) Grid Tie Inverters

SunEzy offer is a system for the interconnection of Photovoltaic modules, for DC/AC power conversion and for the protection of DC/AC circuits.

Easy to install

SunEzy BJ Junction Boxes

- Connect up to 3 strings of PV modules

SunEzy Inverters

- Transformerless VDE, RD, DK inverters
- From 2 kW to 4 kW nominal output AC power
- Lightweighted and compact size
- IP 43 (2 to 4 kW)

SunEzy CP protection enclosures*

- Protect the installation
- Allow a safe intervention on the installation
- DC switch disconnector for DC circuit isolation
- AC circuit breaker for network connection
- Option with AC residual current switch

* offer according to country regulations and standards

Surge arresters

- Helps protect the installation against effect of lighting

SunEzy VDE, RD, DK (outdoor)

Models VDE-RD	SunEzy 400E	SunEzy 600E	SunEzy 6065
Reference	PVSNV1400E	PVSNV1600E	PVSNV16065
Models DK	SunEzy 4065	SunEzy 4665	SunEzy 6065
Reference	PVSNV14065	PVSNV14665	PVSNV16065

Electrical specifications

PV Generator recommended power	3200 to 4400 W	4000 to 5000 W	4800 to 6300 W
DC input max. no load voltage	500 V	750 V	550 V
DC input max current	20 A	3 × 8.5 A	27.5 A
MPPT, PV voltage range (full power)	250 to 450 V	200 to 700 V	230 to 500 V
MPPT, PV voltage range	150 to 450 V	150 to 700 V	180 to 550 V
MPPT, number of trackers	1	3	1
Efficiency, maximum	> 96%	> 96%	> 97%
Efficiency, European	> 95%	> 94.5%	> 96%
Nominal AC output Power	4000 W	4600 W	6000 W
Maximum AC output Power	4400 W	5000 W	6000 W
AC output rated voltage	230 V, single-phase	230 V, single-phase	230 V, single-phase
AC output rated frequency	50 Hz	50 Hz	50 Hz
AC output max. current	20 A	25 A	28.6 A
Power factor	> 0.99	> 0.99	> 0.99
Inherent operating consumption	7 W	9 W	8 W
Standby power consumption	< 0.4 W	< 0.5 W	< 0.5 W

General specifications

Operating temperature range	- 20°C to + 55°C	- 20°C to + 55°C	- 20°C to + 55°C
Relative humidity	0 to 95%	0 to 95%	0 to 95%
Type of casing	Metallic	Metallic	Metallic
Protection level	IP 65	IP 65	IP 65
Weight	19.5 kg (42.99 lb)	27 kg (59.52 lb)	30.6 kg (67.46 lb)
Dimensions (H x W x D)	38.6 × 43.4 × 13.5 cm (15.2 x 17.09 x 5.31")	53 × 43 × 13 cm (20.87 x 16.93 x 5.12")	53.1 × 43 × 15.5 cm (20.91 x 16.93 x 6.1")

Features and options

Cooling type	Natural convection - no fans	Natural convection - no fans	Natural convection - no fans
DC connection	3 pairs of MC4 connector	1 pair of MC4 connector/ MPPT	2 pairs of MC4 connector/ MPPT
Display	LCD 1 line 16 digits	LCD 2 lines 16 digits	LCD 1 line 16 digits
External communication port	RS232 standard (RS485 option)	RS232 standard (RS485 option)	RS232 standard (RS485 option)
Communication protocol	Proprietary	Proprietary	Proprietary

Country dependant features

For models SunEzy 400E-600E-6065			
Decoupling protection choice	by selection at initialisation	by selection at initialisation	by selection at initialisation
Decoupling protection acc. VDE 0126-1-1	Yes	Yes	Yes
Decoupling protection acc. RD 1663 (Spain)	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes
DC Residual current monitoring unit	acc. VDE 0126-1-1	acc. VDE 0126-1-1	acc. VDE 0126-1-1

For models SunEzy 4065-4665-6065			
Decoupling protection according DK 5940	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes

Regulatory approvals

EU LV Directive	In acc. with EN50178	In acc. with EN50178	In acc. with EN50178
EU EMC Directive	In acc. with EN61000-3-X /- 6-X	In acc. with EN61000-3-X /- 6-X	In acc. with EN61000-3-X /- 6-X
EU RoHS Directive	Compliant	Compliant	Compliant
VDE 0126-1-1	Approved by VDE	Approved by VDE	Approved by VDE
DK 5940	Approved by DK	Approved by DK	Approved by DK
Markings	CE, VDE, VDE-GS, DK	CE, VDE, VDE-GS, DK	CE, VDE, VDE-GS, DK

Specifications are subject to change without notice.

SunEzy VDE, RD, DK (outdoor) Grid Tie Inverters

SunEzy offer is a system for the interconnection of Photovoltaic modules, for DC/AC power conversion and for the protection of DC/AC circuits.

Easy to install

SunEzy BJ Junction Boxes

- Connect up to 3 strings of PV modules

SunEzy Inverters

- Transformerless VDE, RD, DK inverters
- From 4 to 6 kW nominal output AC power
- Lightweighted and compact size
- IP 65

SunEzy CP protection enclosures*

- Protect the installation
- Allow a safe intervention on the installation
- DC switch disconnector for DC circuit isolation
- AC circuit breaker for network connection
- Option with AC residual current switch

* offer according to country regulations and standards

Surge arresters

- Helps protect the installation against effect of lighting

Xantrex™ GT Inverters

Electrical specifications

Models	GT2.8 SP	GT3.8 SP	GT5.0 SP
Maximum AC power output	2800 W	3800 W	5000 W
Nominal AC power output	2500 W	3300 W	5000 W
DC input voltage range	195 to 600 Vdc	195 to 600 Vdc	240 to 600 Vdc
Peak power tracking voltage range	195 to 550 Vdc	195 to 550 Vdc	240 to 550 Vdc
Suggested PV power	3070 W	4180 W	5300 W
Total harmonic distortion (THD)	< 3%	< 3%	< 3%
Peak inverter efficiency (includes transformer)	95,0%	95,3%	96,0%
Euro efficiency (includes transformer)	94,0%	94,5%	95,2%
Maximum continuous output current	14,5 Aac	19 Aac	23 Aac
Over current protection	20 A	20 A	30 A
Night time tare loss	< 1 W	< 1 W	< 1 W

General specifications

Enclosure type	IP54	IP54	IP54
Weight	19.5 kg (42.99 lb)	20.0 kg (44.09 lb)	22.3 kg (49.16 lb)
Dimensions (H x W x D)	59.7 x 40.3 x 13.6 cm (23.5 x 15.87 x 5.35")	59.7 x 40.3 x 13.6 cm (23.5 x 15.87 x 5.35")	59.7 x 40.3 x 13.6 cm (23.5 x 15.87 x 5.35")
Operating temperature range	-25ºC to 65ºC	-25ºC to 65ºC	-25ºC to 65ºC
Mounting	Wall mount (mounting bracket included)		
Part number	864-0105	864-0104	864-1029

Features and options

Cooling	Convection (no fan required)
Display	Backlit, two-line, Liquid Crystal Display
Communications	RS 232 and two Xanbus™ RJ45 ports

Regulatory approvals

CE marked according to the following EU directives and standards:	
EMC Directive	EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-3
Low Voltage Directive	EN 50178 and EN 60529
Other approvals	Royal Decree RD 661-2007, RD 1663/2000

Note: Specifications subject to change without notice.
SP = Spain

Xantrex™ GT Series Grid Tie Inverters (Spain)

High performance string inverters

- From 2,8 kW to 5,0 kW
- Superior PV energy harvest
- Peak inverter efficiency
- Excellent thermal performance

Easy and affordable to install

- Wide PV input MPPT tracking voltage range makes module selection and sizing extremely flexible
- Includes a lightweight and versatile mounting bracket that simplifies installation
- Inverters can be mounted side by side with zero clearance
- Lightweight and compact size
- Rugged IP54 inverter enclosure allows for outdoor and indoor installations

Full featured inverter display and communications

- Liquid Crystal Display (LCD)
- LCD vibration sensor allows the tap of a finger to turn backlight on and cycle through display screens
- Bright LED indicators provide system status at a glance
- PC software for remote monitoring and system troubleshooting

Xantrex™ Grid Tie Solar Inverters

Electrical specifications

Models	GT2.8 AU	GT5.0 AU
Output		
Maximum AC power output	2800 W	5000 W
Nominal AC voltage	230 V	230 V
Nominal AC frequency	50 Hz	50 Hz
Maximum continuous output current	14.0 A	24.0 A
Over current protection	20 A	30 A
Total harmonic distortion (THD)	< 3 %	< 3 %
Peak inverter efficiency	95%	96%
Euro efficiency	94%	95.20%
Night time tare loss	1 W	1 W
Topology	HF, Isolated	HF, Isolated
DC input voltage range	195 to 600 Vdc	240 to 600 Vdc
Peak power tracking voltage range	195 to 550 Vdc	240 to 550 Vdc
Recommended PV array power	3070 W	5300 W
Maximum array short circuit current	24 Adc	24 Adc

General specifications

Protection rating	IP54	IP54
Weight	19.5 kg (42.99 lb)	22.3 kg (49.16 lb)
Dimensions (H x W x D)	59.7 x 40.3 x 13.6 cm (23.5 x 15.87 x 5.35")	59.7 x 40.3 x 13.6 cm (23.5 x 15.87 x 5.35")
Shipping weight	25.5 kg (56.22 lb)	27.2 kg (59.97 lb)
Shipping dimensions (H x W x D)	69.2 x 51.8 x 26.2 cm (27.24 x 20.39 x 10.31")	69.2 x 51.8 x 26.2 cm (27.24 x 20.39 x 10.31")
Operating temperature range	-25°C to 65°C	-25°C to 65°C
Mounting	Wall mount (bracket included)	
Cooling	Convection (no fan)	Convection (no fan)
Display	Backlit, two line, 16 character liquid crystal display	
Communication interfaces	RS 232 and two Xanbus RJ45 ports	
Regulatory approvals	RCM mark for safety (AS/NZS 3100), interconnect (AS 4777), and EMC	
Other approvals	Australian Clean Energy Council "Tested and Approved Grid Connected Inverters" List	
Warranty	Five-year parts and labor (Ten-year extended warranty available)	
Model number	GT2.8-AU-QC-230	GT5.0-AU-QC-230
Part number	864-1030	864-1039-01

Accessories

Remote display	Optional GT Solar Inverter Monitor (p/n: 864-0203) provides total PV system performance in daily, monthly, and lifetime views, on a graphical display screen. Monitors up to five GT Series inverters.
Remote monitoring	Optional Xantrex Communication Gateway (p/n: 865-1055) includes both built-in Wi-Fi and Ethernet connectivity allowing for wireless or wired connection to a router or directly to a PC. Logs performance data and provides a simple and graphically rich view of system performance through widget based monitoring software. The Xantrex Gateway monitors up to twenty GT Series inverters.

Specifications are subject to change without notice.

Xantrex™ GT Series Grid Tie Inverters (Australia)

Xantrex inverters make installation easy and affordable

When Xantrex set out to develop the Grid Tie Solar Inverters we listened to the experts – renewable energy dealers and installers. The result is a high performance inverter that makes utility interactive installations easier and more cost effective. Our high performance PV string inverters offer high efficiency, lower installed cost, improved aesthetics and high reliability. The GT Series inverters are high quality products that offer one of the best price/performance ratios in the industry.

High performance string inverters:

- Superior PV energy harvest
- Peak inverter efficiency
- Excellent thermal performance

Easy and affordable to install:

- Wide PV input MPPT tracking voltage range makes module selection and sizing extremely flexible
- Includes a lightweight and versatile mounting bracket that simplifies installation
- Large heatsink on front allows inverters to be mounted side-by-side with zero clearance
- Lightweight and compact size
- Rugged IP54 inverter enclosure allows reliable outdoor and indoor installations

Full featured inverter display and communications:

- Liquid Crystal Display (LCD)
- Vibration sensor allows the tap of a finger to turn backlight on and display screen cycling
- Bright LED indicators provide system status at a glance
- PC software for remote monitoring and system troubleshooting

Schneider Electric Conext™ Grid Tie Inverters

Electrical specifications - output

Models	5000 W	3800 W	3300W	2800W
Nominal output power	5000 W / 4500 W	3800 W /3500 W	3300 W /3100 W	2800 W / 2700 W
AC output voltage (nominal)	240 Vac/ 208 Vac	240 Vac/ 208 Vac	240 Vac / 208 Vac	240 Vac / 208 Vac
AC output voltage range	Auto detect 240Vac to 208Vac			
AC frequency (nominal)	60 Hz			
AC frequency range	59.3 to 60.5 Hz			
Max. continuous output current	21A / 22Arms	15.8A / 16.8Arms	13.8A / 14.9Arms	11.7A / 13Arms
Max. output over-current protection	30Arms	20A / 25Arms	20Arms	20Arms
Max. utility back-feed current	0A			
Total harmonic distortion (THD)	< 5%			
Power factor	>0.99 (at rated power), >0.95 (full power range)			
Utility monitoring, islanding protection	UL1741-2010. Ed.2 / IEEE1547			
Output characteristics	Current Source			
Output current waveform	True Sine Wave			

Electrical specifications - input

Max. Array open-circuit voltage	600Vdc			
MPPT voltage range (CEC & CSA)	240-550 Vdc	195-550 Vdc	195-550 Vdc	195-550 Vdc
MPPT operating range	235-550 Vdc	193-550 Vdc	193-550 Vdc	193-550 Vdc
Max. input current	22 Adc / 20 Adc	20.8 Adc / 19.5 Adc	18 Adc / 17 Adc	15.4 Adc / 14.9 Adc
Max. array short-circuit current	24 Adc			
Reverse-polarity protection	Short-circuit diode			
Ground-fault protection	GF detection, IDIF > 1A			
Max. inverter efficiency	95.9% / 95.5%	95.9% / 95.6%	95.8% / 95.6%	95% / 94.6%
CEC Efficiency	95.5% / 95%	95% / 95%	95% / 95%	94% / 93.5%
Night-time power consumption	1W			

General specifications

Enclosure Type	NEMA 3R (Outdoor Rated)			
Weight	38.10 kg (84 lb)	36.42 kg (80.3 lb)	31.75 kg (70 lb)	30.21 kg (66.6 lb)
Dimensions (H x W x D)	98.8 x 40.3 x 18.5 cm (38.9 x 16 x 7.3")	98.8 x 40.3 x 18.5 cm (38.9 x 16 x 7.3")	88.8 x 40.3 x 18.5 cm (35.4 x 16 x 7.3")	88.8 x 40.3 x 18.5 cm (35.4 x 16 x 7.3")
Shipping dimensions (H x W x D)	116.5 x 57.7 x 26.0 cm (45.8 x 22.7 x 10.2")	116.5 x 57.7 x 26.0 cm (45.8 x 22.7 x 10.2")	106.5 x 57.7 x 26.0 cm (42 x 22.7 x 10.2")	106.5 x 57.7 x 26.0 cm (42 x 22.7 x 10.2")
Operating Temperature Range	-13˚F to 149˚F (-25˚C to 65˚C)			
Mounting	Wall mount (mounting bracket included)			
Input and output terminal	AC and DC terminals accepts wires sizes of #14 to #6 AWG			
PV / Utility disconnect	Eliminates need for external PV (DC) disconnect. Complies with NEC requirements			
Cooling	Convection cooled, fan not required			
Display	Backlit, two-line, 16-character liquid crystal display provides instantaneous power, daily and lifetime energy production, PV array voltage and current, utility voltage and frequency, time online "selling", faults messages, and installer-customizable screens			
Communications	Integrated RS232 and Xanbus™ RJ45 communication ports			
Wiring box	PV, utility, ground, and communications connections. The inverter can be separated from the wiring box.			
Warranty	10-year standard			
Part number (negative ground)	878-5001	878-3801	878-3301	878-2801

Regulatory approvals

CSA Certified to UL1741 1st Edition: inverters, converters, controllers and interconnection system equipment for use with distributed energy resources; and CSA C22.2 No.107-1-01 general use power supplies.

Specifications are subject to change without notice.

Available Q1 2011

Schneider Electric Conext™ Grid Tie Inverters (North America)

The new Schneider Electric Conext Grid Tie inverter has been redesigned to offer improved reliability and a low installed cost through ease of installation and integrated features. The Conext inverter is a proven, high-frequency design in a compact enclosure and may be installed as a single inverter, for a single PV array, or in a multiple-inverter configuration for large PV systems.

Features

- An NEC compliant, integrated Square D DC/AC disconnect, standard in the GT Series, eliminates the need for external DC (PV) disconnects, and in some jurisdictions, AC disconnects
- Large heat-sink offers extraordinary heat dispersion without the need for a cooling fan
- Large wiring enclosure with eight knockouts (¾ & 1 inch)
- 240 / 208 VAC operation; works out of the box for single phase residential and three phase commercial applications
- NEMA 3R enclosure
- Lightweight and easy to install
- Inverters can be mounted side by side with zero clearance
- Liquid crystal display (LCD) provides instantaneous information – power level, daily energy and lifetime production, system status, and installer customized screens
- Sealed inverter enclosure can be quickly separated from the wiring box allowing DC/AC connections to remain intact in the event of the inverter needs to be serviced
- Ten-year standard warranty

Xantrex™ GT Series Inverters

Electrical specifications - output

Models	GT5.0		GT4.0 N		GT3.8		GT3.3 N		GT2.8	
Nominal output power	5000 W	4500 W	4000 W	3800 W	3800 W	3500 W	3300 W	3100 W	2800 W	2700 W
AC output voltage (nominal)	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V
AC output voltage range	211 to 264 Vac 183 to 229 Vac									
AC frequency (nominal)	60 Hz									
AC frequency range	59.3 to 60.5 Hz									
Max. continuous output current	21 A	22 A	16.7 A	18.3 A	15.8 A	16.8 A	13.8 A	14.9 A	11.7 A	13.0 A
Max. output over-current protection	30 A		25 A		20 A	25 A	20 A		15 A	
Max. utility backfeed current	0 A									
Total harmonic distortion (THD)	< 3 %									
Power factor	> 0.99 (at rated power), > 0.95 (full power range)									
Utility monitoring, islanding protection	UL1741-2005 / IEEE 1547									
Output characteristics	Current source									
Output current waveform	True sine wave									

Electrical specifications - input

Max. array open-circuit voltage	600 Vdc									
MPPT voltage range (CEC & CSA)	240 to 550 Vdc		240 to 480 Vdc		195 to 550 Vdc		200 to 400 Vdc		195 to 550 Vdc	
MPPT operating range	235 to 550 Vdc		235 to 550 Vdc		195 to 550 Vdc		200 to 550 Vdc		193 to 550 Vdc	
Max. input current	22.0 Adc	20.0 Adc	18.0 Adc	17.0 Adc	20.8 Adc	19.5 Adc	17.5 Adc	16.5 Adc	15.4 Adc	14.9 Adc
Max. array short-circuit current	24.0 Adc									
Reverse-polarity protection	Short-circuit diode									
Ground-fault protection	GF detection, IDIF > 1 A									
Max. inverter efficiency	95.9%	95.5%	96.0%	95.7%	95.9%	95.6%	95.9%	95.6%	95.0%	94.6%
CEC efficiency	95.5%	95.0%	95.5%	95.0%	95.0%	95.0%	95.5%	95.0%	94.0%	93.5%
Night-time power consumption	1 W									

General specifications

Mounting	Wall mount (mounting bracket included)				
Input and output terminal	AC and DC terminals accept wires sizes of #14 to #6 AWG				
PV / Utility disconnect	Eliminates need for external PV (DC) disconnect. Complies with NEC requirements				
Cooling	Convection cooled, fan not required				
Display	Backlit, two-line, 16-character liquid crystal display provides instantaneous power, daily and lifetime energy production, PV array voltage and current, utility voltage and frequency, time online “selling”, fault messages, and installer-customizable screens				
Communications	Integrated RS232 and Xanbus™ RJ45 communication ports				
Wiring box	PV, utility, ground, and communications connections. The inverter can be separated from the wiring box.				
Warranty	Ten-year standard				
Model number (negative ground)	GT5.0-NA-240/208 UL-05	GT4.0N-NA-240/208 UL-05	GT3.8-NA-240-/208 UL-05	GT3.3N-NA-240/208 UL-05	GT2.8-NA-240/208 UL-05
Part number (negative ground)	864-1009-02	864-1008-02	864-1032-02	864-1006-02	864-1001-02

Environmental specifications

Operating temperature range	-13°F to 149°F (-25°C to 65°C)				
Enclosure type	NEMA 3R (outdoor rated)				
Inverter weight	62.8 lb (28.5 kg)		58.5 lb (26.6 kg)		
Shipping weight	80.6 lb (36.6 kg)		76.3 lb (34.7 kg)		
Inverter dimensions (H x W x D)	31.4 x 15.9 x 7.3” (79.8 x 40.3 x 18.5 cm)				
Shipping dimensions (H x W x D)	38 x 23 x 10” (96.5 x 58.4 x 25.4 cm)				

Regulatory approvals

CSA Certified to UL1741 1st Edition: inverters, converters, controllers and interconnection system equipment for use with distributed energy resources; and CSA C22.2 No.107-1-01 general use power supplies.

Specifications are subject to change without notice.

Xantrex™ GT Series
Grid Tie Inverters (North America)

Technology

- An NEC compliant, integrated DC/AC disconnect, standard in the GT Series, eliminates the need for external DC (PV) disconnects, and in some jurisdictions, AC disconnects
- Large heat-sink offers extraordinary heat dispersion without the need for a cooling fan
- Liquid crystal display (LCD) provides instantaneous information – power level, daily and lifetime energy production, PV array voltage and current, utility voltage and frequency, time online “selling”, fault messages, and installer-customized screens
- LCD vibration sensor allows the tap of a finger to turn backlight on and cycle through display screens

Installation

- Flexible PV module selection and string sizing due to wide PV input MPPT tracking voltage range
- Lightweight and versatile mounting bracket
- Easy access DC (photovoltaic) and AC (utility) terminal block simplifies wiring
- Rugged NEMA 3R inverter enclosure allows reliable indoor and outdoor installations
- DIN rail provided to accommodate optional devices such as touch-safe fuse holders for string fusing

Performance

- High efficiency to help maximize solar system return on investment
- Accurate MPPT tracking helps ensure maximum energy harvest under any conditions
- FCC Part B compliance provides less external electronic interference

Serviceability

- Ten-year standard warranty
- Sealed inverter enclosure can be quickly separated from the wiring box allowing DC/AC connections to remain intact in the event the inverter needs to be serviced

Central inverter solutions

Xantrex™ GT30 E Inverter

Electrical specifications

Nominal power rating (AC)	29,9 kW
Max continuous power (AC)	32,9 kW
Nominal AC voltage	400 V, three-phase
Nominal AC frequency	50/60 Hz
Line power factor	> 0,99 above 20% rated power
AC current distortion	< 4% THD at rated power
Max output power	77,4 Adc
Night consumption	< 1 W
Suggested PV power	25 to 35 kWp
Nominal power rating (DC)	31,6 kW
Max open-circuit voltage	840 Vdc
Power tracking window range	450 to 800 Vdc
Max efficiency	95,0% incl. transformer
European efficiency	94,2% incl. transformer

General specifications

Enclosure environmental rating	IP20
Enclosure	Powder-coated aluminum
Weight	80 kg (176.37 lb)
Dimensions (H x W x D)	71 x 47.5 x 34.7 cm (27.95 x 18.70 x 13.66")
Ambient temperature range	-0ºC to 50ºC
Mounting	Prepared for wall mounting
Relative humidity	0 to 95%, non-condensing

Features and options

Cooling method	Temperature-dependent forced-convection cooling
Protective functions	AC over / under-voltage, AC over / under-frequency, over-temperature, AC and DC over-current, DC over-voltage and reverse-polarity protection
User-display standard	LCD, four-line text display with keypad
Ground-fault protection	DC isolation monitoring
Disconnects	AC contactor integral to inverter assembly
Transformer	HF – Transformer
Output relays	Four relay contacts (three user-settable)
Interfaces	RS232/485, optional telephone modem for remote system monitoring

Regulatory approvals

Labeled with CE mark and complies with applicable European Directives:	
EMC Directive	EN61000-6-1, -2, -3, -4, EN61000-3-12
Low Voltage Directive	EN50178
The GT30 E complies with the requirements of VDEW and the Royal Decree, Spain	

Specifications are subject to change without notice.

Schneider Electric Xantrex™ GT30 E Grid Tie Solar Inverter

High-efficiency isolated HF design

- One of the highest efficiencies in the 30 kW class
- Rapid Maximum Power Point Tracking
- Manufactured in Germany

Designed to help maximize the return on investment

- Superior PV energy harvest
- Simplified, fast installation
- Excellent thermal performance

Engineered for compatibility with thin-film technology

- Wide input voltage range
- Isolated high-frequency design
- Flexible array sizing and module selection

Lightweight

- Lowest weight in its class at 80 kg
- Easy wall mounting
- Simplified operation and transportation
- Installation in most locations

Compact design

- Smallest enclosure size in its class
- Space-saving installation
- Multiple inverters are easily paralleled for large PV power plants
- Prepared for wall mounting

Xantrex™ GT30 Inverters

Electrical specifications

Nominal power rating (AC)	28.8 kW
Maximum power output (AC)	30 kW
Maximum continuous AC current	80 A rms
Nominal AC voltage	120/208 Vac, three-phase, four-wire, WYE
Nominal AC frequency	60 Hz, +0.5 Hz/-0.7 Hz
Line power factor	> 0.99 above 25% rated power
AC current distortion	< 3% THD at rated power
Night consumption	< 20 W
Minimum DC voltage for feed-in	180 Vdc
Maximum PV power	35 kW
Maximum DC current	Two master source circuits – 80 A each
Maximum open-circuit voltage	430 Vdc
PV operating range	180 to 430 Vdc
Maximum efficiency	97.4%
CEC efficiency	96.0%

General specifications

Enclosure environmental rating	NEMA 3R / outdoor rated
Enclosure	Powder-coated aluminum
Weight	75 kg (165 lb)
Dimensions (H x W x D)	122 x 55 x 33 cm (48 x 22 x 13")
Ambient temperature range	-4ºF to 122ºF (-20ºC to 50ºC)
Mounting	Wall mounted (includes mounting bracket) or optional pedestal mount
Relative humidity	0 to 95%, non-condensing

Features and options

Cooling method	Temperature-dependent forced-convection cooling
Protective functions	AC over/under voltage, AC over/under frequency, over-temperature, AC over-current, DC over-voltage and reverse-polarity protection
User display	Standard LCD four-line text display
Ground-fault protection	DC ground-fault detection and interruption
Communications	Optional RS485/Modbuss and RS232 comminications interfact kit
Disconnects	AC and DC disconnect integral to the inverter assembly
Transformer	None required
Interfaces	Standard RS485/Modbus for local and remote monitoring

Regulatory approvals

Safety	UL1741 rev. 2005, CSA 107.1
EMC	FCC and Industry Canada Class A
Interconnect	IEEE 1547 and CSA 107.1

Specifications are subject to change without notice.
US patent pending.

Schneider Electric Xantrex™ GT30 Grid Tie Solar Inverter

Features

- Transformerless design with high peak and CEC efficiency
- Bipolar design, coupled with internal inverter ground points, eliminate the need for double-insulated DC conductors
- Outdoor rated, corrosion resistant cabinet and included wall mount bracket allows for flexible installation
- AC and DC switchgear are included to reduce installation expense
- One of the lowest weights in its class at 75 kg
- Multiple inverters are easily paralleled for large PV plants
- Designed to help maximize return on investment

Xantrex™ GT100 E Inverter

Electrical specifications

Continuous power rating	100 kW AC
Nominal DC power rating	105 kW DC
Nominal AC voltage	400 Vac three-phase
Nominal AC frequency	50 Hz, optional 60 Hz
Line power factor	> 0,99 above 20% rated power
Maximum AC line current	164 Aac
AC current distortion	< 3% THD at rated power
Max. open circuit voltage	650 Vdc
Power tracking window range	300 to 650 Vdc
Max. DC input current	347 Adc
Peak inverter efficiency	96,6% incl. transformer
European weighted efficiency	96,0% incl. transformer
Standby tare losses	93 W

General specifications

Enclosure environmental rating	IP21
Enclosure	Rittal TS Series
Weight	870 kg (1918.02 lb)
Dimensions (H x W x D)	190.5 x 120.5 x 60.6 cm (75 x 47.44 x 23.86")
Ambient temperature range	-10ºC to 45ºC
Altitude	up to 2000 m without de-rating
Relative humidity	0 to 95% non-condensing

Features and options

Cooling method	Forced convection cooling
Protective functions	AC over / under-voltage, AC over / under-frequency, over-temperature, AC and DC over-current, DC over-voltage
User display standard	Four-line, 80-character VFD with a keypad
Disconnects (AC & DC)	Integral to inverter assembly
Isolation transformer	Integral to inverter assembly
Interfaces	Modems (Ethernet or Wireless) for remote monitoring and faults notification

Regulatory approvals

The GT100E is compliant to applicable European directives and CE marked:
EMC Directive: EN61000-6-2, EN61000-6-4
The GT100 E complies with the requirements of Spain's RD1663 and RD661

Specifications are subject to change without notice.

Schneider Electric Xantrex™ GT100 E Grid Tie Solar Inverter

Features

- Digital Signal Processor (DSP) based controls with self-diagnostics and LCD for display of operating status
- Inverter shut off and disconnects
- Over and under-voltage and frequency protection
- Anti-islanding protection prevents back-feeding inverter-generated power to the grid in the event of a utility outage
- User definable power tracking allows the user to match the inverter to the array, as well as to adjust delay periods to customize system shutdown sequences
- Graphical user interface software for real time communications, monitoring and control
- Isolated design with integrated transformer
- Multiple inverters can be paralleled for large power installations

Options

- Insulation monitoring systems
- Remote monitoring and fault notification via various communication options
- Warranty extensions and service contracts with uptime guarantees

Xantrex™ GT100 and GT250 Inverters

Electrical specifications

Models	GT100 208	GT100 480	GT100 600 (preliminary)	GT250 480	GT250 600 (preliminary)
Maximum continuous output power	100 kW	100 kW	100 kW	250 kW	250 kW
Nominal output voltage	208 Vac (line to line, +10%-12%)	480 Vac (line to line, +10%-12%)	600 Vac (line to line, +10%-12%)	480 Vac (line to line, +10%-12%)	600 Vac (line to line, +10%-12%)
Nominal output frequency	60 Hz (+0.5 Hz / -3.0 Hz)	60 Hz (+0.5 Hz / -3.0 Hz)	60 Hz (+0.5 Hz / -3.0 Hz)	60 Hz (+0.5 Hz / -3.0 Hz)	60 Hz (+0.5 Hz / -3.0 Hz)
Nominal output current	278 A rms	121 A rms	97 A rms	301 A rms	241 A rms
Maximum output fault current	1100 A peak	1100 A peak	TBD	1400 A peak	TBD
Power factor	> 0.99	> 0.99	> 0.99	> 0.99	> 0.99
DC input voltage range	300 to 600 Vdc	300 to 600 Vdc	300 to 600 Vdc	300 to 600 Vdc	300 to 600 Vdc
Peak power tracking voltage range	300 to 480 Vdc	300 to 480 Vdc	300 to 480 Vdc	300 to 480 Vdc	300 to 480 Vdc
Maximum input current	347 Adc	347 Adc	347 Adc	867 Adc	867 Adc
Maximum input short-circuit current	460 Adc	460 Adc	460 Adc	1214 Adc	1214 Adc
Maximum backfeed current	0 Adc	0 Adc	0 Adc	0 Adc	0 Adc
Peak inverter efficiency	96.2%	96.7%	96.7%	96.8%	96.8%
CEC efficiency	95.0%	96.0%	96.0%	96.0%	96.0%
Night-time power consumption	< 100 W	< 100 W	< 100 W	< 100 W	< 100 W

General specifications

Enclosure rating	NEMA 3R (outdoor rating)				
Enclosure	Zinc coated and powder coated steel enclosure				
Weight	1361 kg (3000 lb)	1361 kg (3000 lb)	1361 kg (3000 lb)	2018 kg (4450 lb)	2018 kg (4450 lb)
Dimensions (H x W x D)	186.2 x 170.2 x 117.1 cm (73.3 x 67.0 x 46.1") (Removable air intake reduces depth by 12" for fitting through doors)	186.2 x 170.2 x 117.1 cm (73.3 x 67.0 x 46.1") (Removable air intake reduces depth by 12" for fitting through doors)	186.2 x 170.2 x 117.1 cm (73.3 x 67.0 x 46.1") (Removable air intake reduces depth by 12" for fitting through doors)	219.2 x 228.6 x 117.1 cm (86.3 x 90.0 x 46.1") (Removable air intake reduces depth by 12" for fitting through doors)	219.2 x 228.6 x 117.1 cm 86.3 x 90.0 x 46.1") (Removable air intake reduces depth by 12" for fitting through doors)
Operating temperature range	5ºF to 122ºF (-15ºC to 50ºC) available low temperature option with space heaters				
Altitude	up to 6600' (2012 m) without de-rating				
Relative humidity	0 to 95% non-condensing				
Noise	< 75 dBA	< 75 dBA	< 75 dBA	< 75 dBA	< 75 dBA

Features and options

Cooling method	Forced convection cooling/sealed design
AC/DC disconnect	Standard and integrated within the inverter enclosure
Isolation transformer	Standard and integrated within the inverter enclosure
User display	Standard bright fluorescent green vacuum display
Ground-fault detection/interruption	Standard and integrated within the inverter enclosure
Communications	Optional RS485/Modbus and RS232 communications interface kit
Sub-array combiner	Optional and integrated within the inverter enclosure, 100 A, 150 A or 200 A circuits

Regulatory approvals

Safety	UL1741 rev. 2005, CSA 107.1
Interconnect	IEEE 1547 and CSA 107.1

Specifications are subject to change without notice.

ONTARIO FIT COMPLIANT

Schneider Electric Xantrex™ GT100 and GT250 Grid Tie Solar Inverters

Features

- Ultra-efficient design with industry-leading CEC efficiency of 96%, including isolation transformer
- Integrated design with isolation transformer in one unit
- Includes AC and DC disconnects
- Integrated ground-fault detection and interruption
- Soft-start circuit to reduce nuisance trips
- Sealed design does not require filters or external air to cool sensitive components
- Back and sides of unit designed for zero clearance installations to minimize inverter space requirements
- Wiring access points on bottom, sides and back of inverter
- Removable air outlet allows inverter to be mated with venting ductwork
- Designed for fork lift or sling transportation
- Zinc primed and powder coated steel enclosure for maximum corrosion resistance
- Designed to help maximize reliability with film-type capacitors and bus bars in the power path
- Bright fluorescent green vacuum display with UV cover for ease of reading in sunlight
- RS485/Modbus and RS232 communications
- Available with a five-year standard warranty, extendable to ten years
- Ontario FIT Compliant (most models)

Options

- PV Box solution with multiple inverters and medium voltage transformers
- Fused sub-array combiner integrated with the inverter enclosure
- Positive-ground configuration
- Remote monitoring and control options
- Preventative maintenance programs
- Uptime guarantees and service contracts for up to 20 years

Xantrex™ GT250 E, GT500 E, and GT630 E

Electrical specifications

Models	GT250 E	GT500 E	GT630 E
Continuous power rating	250 kW AC	500 kW AC	630 kW AC
Suggested PV power	280 kWp	560 kWp	705 kWp
Nominal AC voltage	315 Vac three-phase	315 Vac three-phase	375 Vac three-phase
Nominal AC frequency	50 Hz (60 Hz optional)	50 Hz (60 Hz optional)	50 Hz (60 Hz optional)
Line power factor	> 0,99 above 20% rated power	> 0,99 above 20% rated power (optional 0,93 leading to 0,93 lagging with grid interactive feature)	> 0,99 above 20% rated power (optional 0,93 leading to 0,93 lagging with grid interactive feature)
AC current distortion	< 3% THD at rated power	< 3% THD at rated power	< 3% THD at rated power
Maximum AC line current	460 Aac	1040 Aac	1040 Aac
Night consumption	< 100 W	< 100 W	< 100 W
Minimum DC voltage for feed-in	450 Vdc	450 Vdc (495 Vdc for grid interactive option)	575 Vdc
Maximum DC current	555 Adc	1120 Adc	1120 Adc
Maximum open circuit voltage	880 Vdc	930 Vdc	930 Vdc (1000 Vdc optional)
Power tracking window range	450 to 800 Vdc	450 to 880 Vdc (495 to 880 Vdc for grid interactive option, reduced current above 820 Vdc)	575 to 880 Vdc (reduced current above 820 Vdc)
Maximum efficiency	97,5%	98,1% (98,3% for grid interactive option)	98.4%
European efficiency	96,6%	97,6% (97,9% for grid interactive option)	98.2%

General specifications

Enclosure environmental rating	IP20	IP20	IP20
Enclosure	Rittal TS Series	Rittal TS Series	Rittal TS Series
Weight	1160 kg (2557.36 lb)	1770 kg (3902.18 lb)	1770 kg (3902.18 lb) (without 1000 Vdc option)
Dimensions (H x W x D)	211.2 x 200.6 x 60.5 cm (83.15 x 78.98 x 23.82")	211.2 x 240.6 x 60.5 cm (83.15 x 94.72 x 23.82")	211.2 x 240.6 x 60.5 cm (83.15 x 94.72 x 23.82") (without 1000 Vdc option)
Ambient temperature range	-10°C to 45°C	-10ºC to 45ºC	-10ºC to 45ºC
Altitude	Full power up to 1500 m, with power derating above 1500 m	Full power up to 1500 m, with power derating above 1500 m	Full power up to 1500 m with power derating above 1500 m
Relative humidity	0 to 95% non-condensing	0 to 95% non-condensing	0 to 95% non-condensing

Features and options

Cooling method	Temperature-dependent forced convection cooling
Protective functions	AC over / under-voltage, AC over / under-frequency, over-temperature, AC and DC over-current, DC over-voltage
User display standard	LCD, four-line, 20-character with keypad
Disconnects (AC & DC)	Integral to inverter assembly
Combiner boxes	Optional feature (information on request)
Container solution	Optional feature (information on request)

Regulatory approvals

GT250 E, GT500 E and GT630 E are CE marked for the EMC Directive (EN61000-6-2 and EN61000-6-4) and Low Voltage Directive (EN50178)
GT500 E and GT630 E with grid-interactive options comply with German (EON, BDEW) and French (EDF) requirements
GT500 E complies with Spain's RD1663 and RD661
GT250 E, GT500 E and GT630 E comply with the requirements of Italy's ENEL DK5940

Specifications are subject to change without notice.

Schneider Electric Xantrex™ GT250 E, GT500 E, and GT630 E Grid Tie Solar Inverters

Features

- Digital Signal Processor (DSP) based controls with self-diagnostics
- LCD display with keypad for display of operating status and for access of user-changeable settings
- Over and under-voltage and frequency protection, shutting down the inverter
- User definable power tracking allows the user to match the inverter to the array, as well as to adjust delay periods to customize system shutdown sequences
- DC and AC surge protection
- Graphical user interface software for real time communications, monitoring and control
- Manufactured in Germany

Options

- 1000 Vdc Input for GT630 E
- Grid interactive features including low voltage ride through and reactive (VAR) power control for the GT500 E and GT630 E
- Insulation monitoring systems and positive or negative grounding kits
- Containerized solutions
- M/S Combiner Box with input fusing
- Remote monitoring and faults notification via various communication options
- Warranty extensions and service contracts with uptime guarantees

Xantrex™ GT500 Inverters

Electrical specifications

Models	GT500 480 (preliminary)	GT500 600 (preliminary)	GT500 MVX
Maximum continuous output power	500 kW	500 kW	500 kW
Nominal output voltage	480 Vac	600 Vac	208 Vac (for direct connection to a medium voltage isolation transformer)
Nominal output frequency	60 Hz	60 Hz	60 Hz
Nominal output current	602 A rms	482 A rms	1388 A rms
Maximum output fault current	TBD	TBD	2550A
Power factor	> 0.99	> 0.99	> 0.99
DC input voltage range	310 to 600 Vdc	310 to 600 Vdc	310 to 600 Vdc
Peak power tracking voltage range	310 to 480 Vdc	310 to 480 Vdc	310 to 480 Vdc
Maximum input current	1700 Adc	1700 Adc	1700 Adc
Maximum input short-circuit current	2200 Adc	2200 Adc	2200 Adc
Maximum backfeed current	0 Adc	0 Adc	0 Adc
Peak inverter efficiency	97.3% (est)	97.3% (est)	98% not including MV transformer
CEC efficiency	96.5% (est)	96.5% (est)	97% not including MV transformer
Night-time power consumption	< 100 W	< 100 W	< 100 W

General specifications

Enclosure rating	NEMA 3R	NEMA 3R	NEMA 3R
Weight	2268 kg (5000 lb (est))	2268 kg (5000 lb (est))	1587 kg (3500 lb)
Dimensions (H × W × D)	224.6 × 379.8 × 126 cm (88.4 × 149.5 × 49.6")	224.6 × 379.8 × 126 cm (88.4 × 149.5 × 49.6")	224.6 × 228.6 × 126 cm (88.4 × 90.0 × 49.6")
Operating temperature range	-4ºF to 113ºF (-20ºC to 45ºC) low temperature option available down to -35ºC, power derating above 45ºC		
Altitude	up to 6600' (2012 m) without de-rating		
Relative humidity	0 to 95% non-condensing		
Noise	< 75 dBA	< 75 dBA	< 75 dBA

Features and options

Cooling Method	Forced convection cooling/sealed design
AC/DC disconnects	Standard and integrated within the inverter enclosure
Isolation transformer	Standard and integrated within the inverter enclosure (480 V and 600 V only)
User Display	Standard bright flourescent green vacuum display
Ground-fault detection/interruption	Standard and integrated within the inverter enclosure
Communications	Optional RS485/Modbus and RS232 communications interface kit
Sub-array container	Optional beside the inverter, 100 A 150 A or 200 A circuits

Regulatory approvals

Safety	UL1741 rev. 2005, CSA 107.1
Interconnect	IEEE 1547 and CSA 107.1

Specifications are subject to change without notice.

ONTARIO FIT COMPLIANT

Schneider Electric Xantrex™ GT500 Grid Tie Solar Inverter

Features

- Ultra-efficient design with CEC efficiency of 97% (GT500 MVX version)
- Option to connect directly to medium voltage using a customer supplied transformer or transformer supplied by Schneider Electric
- Integrated design with isolation transformer (480V and 600V only) in one unit
- Includes AC and DC disconnects for both 480 V and MV versions
- Integrated ground-fault detection and interruption
- Soft-start circuit to reduce nuisance trips (480V and 600V only)
- Sealed design does not require filters or external air to cool sensitive components
- Back and sides of unit designed for zero clearance installations to minimize inverter space requirements
- Wiring access points on bottom, sides and back of inverter
- Removable air outlet allows inverter to be mated with venting ductwork
- Designed for fork lift or sling transportation
- Zinc primed and powder coated steel enclosure for maximum corrosion resistance
- Designed to help maximize reliability with film-type capacitors and bus bars in the power path
- Bright fluorescent green vacuum display with UV cover for ease of reading in sunlight
- RS485/Modbus and RS232 communications
- Available with a five-year standard warranty, extendable to ten years
- Ontario FIT Compliant (most models)

Options

- PV Box solution with multiple inverters and medium voltage transformers
- Fused sub-array combiner integrated with the inverter enclosure
- Sub-array string monitoring
- Positive-ground configuration
- Remote monitoring and control options
- Preventative maintenance programs
- Uptime guarantees and service contracts for up to 20 years

PV BOX Europe

Additional Features

- Integrated medium voltage switchgear providing grid-connection and transformer feeder with circuit-breaker
- Meets the FNN and BDEW grid-connection requirements of 2010 and 2011
- PV Box available at 500 / 630 / 1000 / 1250 kW power levels

Additional Options

- Monitoring and detection of AC-voltage quality with ION 7650
- Web-based monitoring of the Solar Power Plant with W@de-modules
- Power quality supervision according to EN 50160

PV BOX North America

Additional Features

- Integrated Square D™ Step-up Transformer and Medium Voltage Fused Disconnect

Additional Options

- Web-based SCADA monitoring of the Solar Power Plant

* PV Boxes are customized to suit each individual application and may look different from the images shown.

PV BOX

The Schneider Electric PV BOX is a pre-wired equipment package for the European and North American market, specifically designed to meet the growing demand of large scale grid-tied solar farms and large commercial rooftop solar installations. The PV BOX is a complete solution for electrical distribution, automation, security, monitoring and control available from one vendor.

Reduce your costs

Customers can reduce total electrical installation costs and project cycle time with the PV BOX. In addition, by placing the inverters into a structure with a controlled environment, the PV BOX can be installed into a variety of climates, including harsh desert environments where many future large scale solar projects are planned.

What components make up the PV BOX?

The PV BOX typically consists of solar inverters, DC combiner boxes, step-up transformers and a medium voltage switch housed in a prefabricated building to allow quick field wiring from both the solar arrays and the utility grid connection point. Other items can be added to the package including climate controls, security equipment, array string monitoring, SCADA monitoring equipment, and power metering. Custom designs are available using Xantrex™ GT250 E, GT250, GT500 E, GT500 MVX and GT630 E inverters.

Common Features

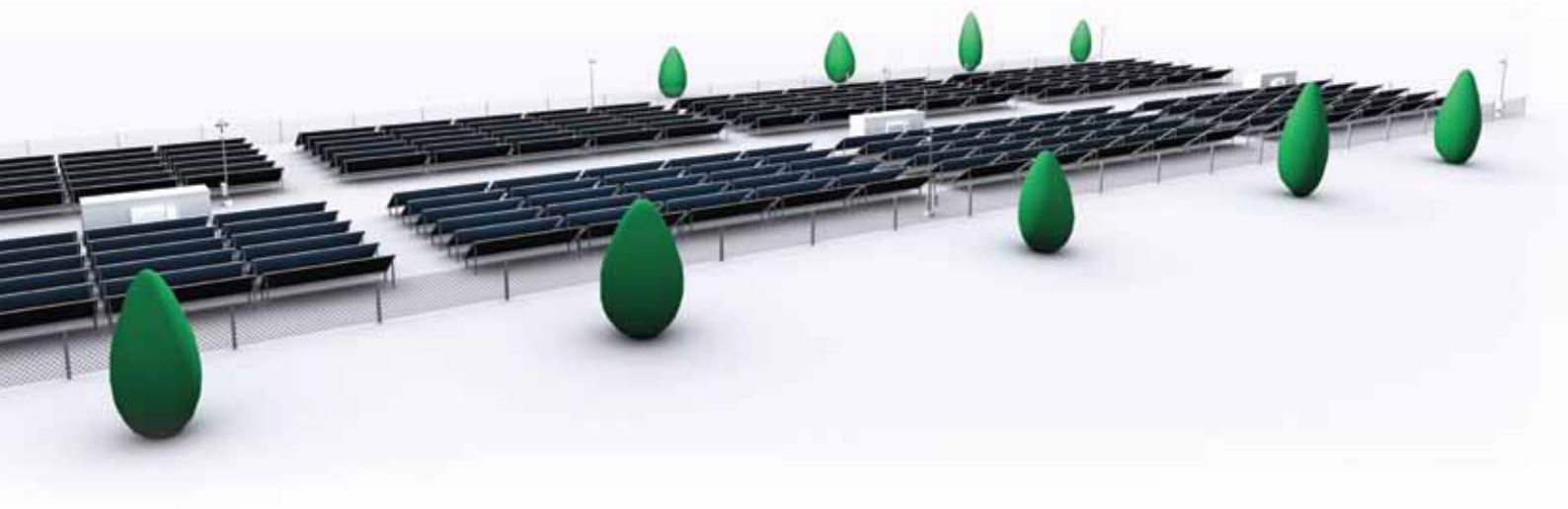
- Complete solution for electrical distribution, automation, security, monitoring and control
- 250 kW, 500 kW, 1 MW and 2 MW standard and custom configurations available
- Integrated medium voltage transformer with dual secondary windings
- Combiner Box for interconnection with PV-modules
- Minimize field electrical work and minimize installation cost
- Fully pre-wired turn-key solution
- Insulated steel or concrete building
- Combiner Box for PV cables and optimum inverter switching at low level irradiance
- Isolation from grid through AC and DC switching devices under unfavourable generating conditions and at night
- Maximum Power Point Tracking (MPPT) for optimum power extraction from the PV generator
- Single source of procurement
- Global availability and service

Common Options

- Several configurations available upon request
- Climate controls
- Security equipment
- Array string monitoring
- Power metering

Turnkey solutions

Comprehensive, innovative and global solutions



Our turnkey solutions include:

Power conversion substations
PV Box including inverters (**Schneider Electric Xantrex™** GT100, GT100 E, GT250, GT250 E, GT500, GT500 E and GT630 E), DC combiner box, transformer, MV protection, monitoring

Grid connection substations
MV switchgear, metering and protection, grid supervision, weather station

Monitoring, supervision and control
DC array boxes, data monitoring, efficiency of the production, maintenance program

Security systems
Schneider Electric and **PELCO**

Advanced services
Schneider Electric is able to commit on the global performance of the plant during the 20 years life time

> Engineering

- Presales support
- Design, architecture and lay-out
- Electrical protection and selectivity study
- Lightning protection study
- Dependability study

> Project

- Project management
- Planning, scheduling and logistics
- Public work
- Installation and cabling
- Commissioning
- Initial Performance Ratio assessment

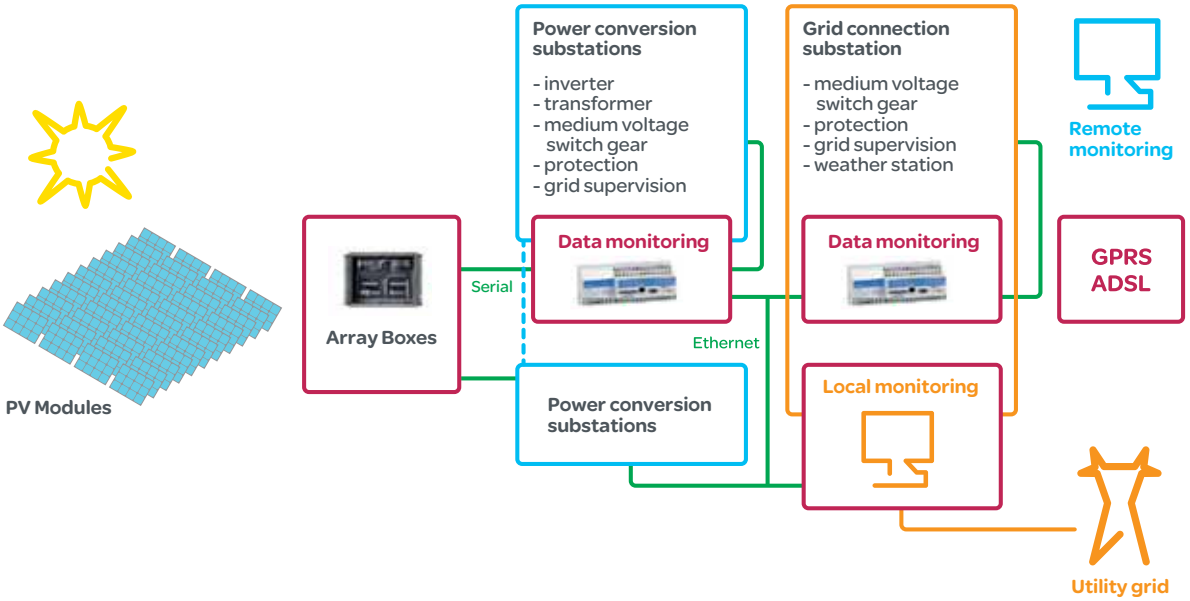
> Operation

- Real time monitoring and alarming
- Data recording, hosting and processing
- Preventive maintenance
- Curative maintenance
- Performance Ratio and Availability Level monitoring

Monitoring solutions

Reduction of operational costs:
automated management and reliable datAacquisition
Production increase during operation:
information in real time, alarms and reports
Planning improvements:
detailed cost information, capacity and stress
Interoperability with other systems:
CCTV, access control,...
Multi-site, scalable and flexible:
PV power plant remote access and monitoring, including large geographically dispersed systems

- DatAacquisition : Voltage, current, temperature, irradiation, devices status, etc.
- Wide choice of local communication media
- Data logging and stamping
- Web-enabled devices
- Local or remote transmission (ADSL, GPRS, ...)
- Mono- or multi-sites Supervision
  - Visualization
  - Reporting
  - Data exploitation : Performance ratio, availability level
  - Computer aided maintenance



Security

CCTV and access control
Schneider Electric and **PELCO**:

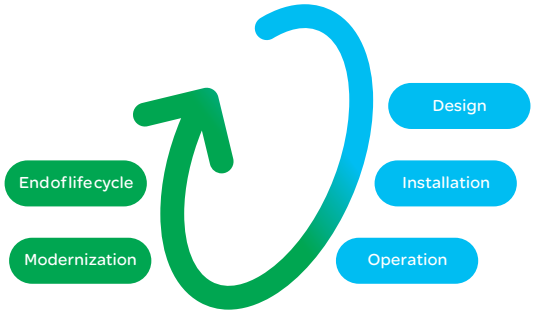
- Compact, standard and mobile cameras
- Dome cameras day/night
- Microwave or infrared shielding
- Microwave shield BM-XXQ

> Complete surveillance for risk reduction

Service

throughout the life cycle of your installation

Schneider Electric
offers customized services:



Reaches

100%

of its potential

- Preventive maintenance
- Predictive maintenance
- Diagnostics
- Emergency intervention
- Management and supply of spares
- 24 hour technical assistance
- Upgrades

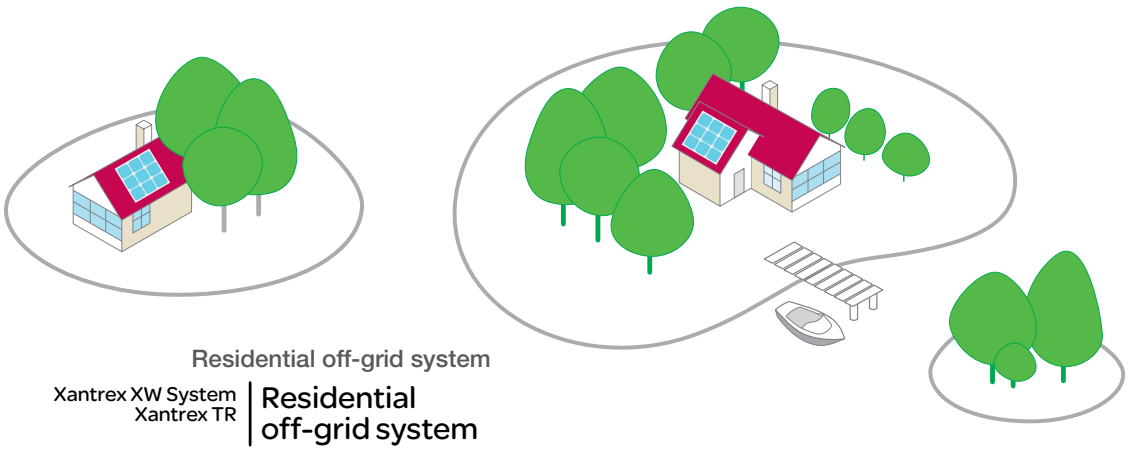
Basic off-grid system

With an off-grid system, you can easily produce your own power without the expense and environmental impact of extending power lines, or relying completely on a generator.

A basic off-grid system consists of a renewable energy source, which generates DC power, a battery bank that stores the DC power, and an inverter. Our inverter is the intelligent center of a renewable power system, seamlessly converting DC power to clean AC electricity for your needs.

With a backup system, grid-connected homes can benefit from electricity even if there is a grid failure. An inverter/charger automatically detects the failure and instantly switches to backup power stored in a battery bank that stores the DC power.

Residential backup system



Residential off-grid system

Xantrex XW System
Xantrex TR

Residential off-grid system

Off-grid and backup products and solutions

Schneider Electric Xantrex™ TR Series Inverter/Chargers

The TR Series Inverter/Charger is an economical power conversion solution designed to provide dependable modified sine-wave electricity to essential circuits in the home or business during a power outage.

Features

- 120 Vac / 60 Hz and 230 Vac / 50 Hz Models
- New digital display shows kilowatts (kW) when inverting and amps (A) when charging, plus incorporates a robust ON/OFF membrane switch and status indicators
- New power factor corrected (PFC) charging, combined with a more sophisticated multi-stage battery charging algorithm, reduces electricity draw and generator run-time
- Simplified controls with a snap-on cover that protects settings from being accidentally changed
- Better thermal performance allows full output power to 50°C without de-rating
- High surge capacity starts more difficult loads and handles overload conditions
- Circuit boards are conformally-coated to protect them from corrosion for longer life and improved reliability
- Durable powder coated, corrosion resistant steel chassis

Options

- TR-Remote On/Off Switch – includes LED status indicator
- TR-Conduit Box – connects to the DC side of the inverter and accepts 2 cm, 2.5 cm or 5 cm conduit

Xantrex™ TR Series Inverter/Chargers 230 V 50 Hz

Electrical specifications

Models	TR1512 230 50	TR1524 230 50	TR2424 230 50
Continuous output power	1500 VA	1500 VA	2400 VA
AC output voltage (rms)	230 Vac	230 Vac	230 Vac
AC output frequency	50 Hz	50 Hz	50 Hz
Rated AC output current	6,4 Aac	6,4 Aac	10,4 Aac
Surge capability max. output & duration:			
Overload 10 sec rating	3000 VA	3000 VA	4800 VA
Short circuit 10 sec rating	26,5±2,5 Apk	26,5±2,5 Apk	42±4 Apk
Adjustable load sensing range	10 W minimum to 480 W maximum	10 W minimum to 480 W maximum	10 W minimum to 480 W maximum
Waveform	Modified sine wave	Modified sine wave	Modified sine wave
DC input current at no load - search mode	0,35 Adc	0,20 Adc	0,20 Adc
Efficiency – peak	> 92%	> 91%	> 94%
DC input voltage range	11 to 15 Vdc	22 to 30 Vdc	22 to 30 Vdc
Rated DC input current	158 Adc	77 Adc	121 Adc
Load power factor (allowed)	0,8 to 1,0 (leading or lagging)	0,8 to 1,0 (leading or lagging)	0,8 to 1,0 (leading or lagging)
Series operation	No	No	No
Bypass / Charge mode:			
AC input voltage range	120 to 253 Vac (wide), 180 to 253 Vac (narrow),	120 to 253 Vac (wide) 180 to 253 Vac (narrow)	120 to 253 Vac (wide) 180 to 253 Vac (narrow)
AC input frequency range	45 to 55 Hz (narrow-charge and pass-through)	45 to 68 Hz (wide-charge)	41 to 68 Hz (wide pass-through)
Built-In internal supplemental breakers	15 Aac bypass, 8 Aac charger	15 Aac bypass, 8 Aac charger	15 Aac bypass, 15 Aac charger
DC charger rate (adjustable)	10 to 70 Adc	5 to 35 Adc	10 to 70 Adc
AC input current at max. charge rate	5,9 Aac	6,0 Aac	10,4 Aac
AC input power factor	0,91	> 0,83	0,92
Multi-stage charging	Yes – bulk, absorption and float, plus user-initiated equalize (for flooded batteries only)		
Temperature compensation	Battery temperature sensor included	Battery temperature sensor included	Battery temperature sensor included
Automatic transfer relay	15 Aac	15 Aac	15 Aac
Transfer time (typical)	< 40 ms (wide), < 20 ms (narrow)	< 40 ms (wide), < 20 ms (narrow)	< 40 ms (wide), < 20 ms (narrow)

General specifications

Weight	19 kg (42 lb)	19 kg (42 lb)	19 kg (42 lb)
Dimensions (H x W x D)	18.4 x 21.6 x 54.6 cm (7.24 x 8.5 x 21.5")	18.4 x 21.6 x 54.6 cm (7.24 x 8.5 x 21.5")	18.4 x 21.6 x 54.6 cm (7.24 x 8.5 x 21.5")
Shipping weight	23.6 kg (52 lb)	23.6 kg (52 lb)	23.6 kg (52 lb)
Shipping dimensions (H x W x D)	30 x 31.5 x 67.5 cm (11.81 x 12.4 x 26.57")	30 x 31.5 x 67.5 cm (11.81 x 12.4 x 26.57")	30 x 31.5 x 67.5 cm (11.81 x 12.4 x 26.57")
Operating temperature range	0°C to 50°C	0°C to 50°C	0°C to 50°C
Mounting	Wall-mount (with 16" mounting centers)	Wall-mount (with 16" mounting centers)	Wall-mount (with 16" mounting centers)
Warranty	Two years	Two years	Two years
Part number	989-1025	989-1030	989-1035

Accessories

Conduit Box (989-1050)
Remote On/Off Switch (989-1060)

Regulatory approvals

CE Marked and compliant with Europe's EMC Directive (EN61000-6-1, -6-3, -3-2, and -3-3) and Low Voltage Directive (EN50178)

Specifications are subject to change without notice.

Xantrex™ TR Series Inverter/Chargers 120 V 60 Hz

Electrical specifications

Models	TR1512120 60	TR2412 120 60	TR1524 120 60	TR2424 120 60	TR3624 120 60
Invert mode – waveform	Modified sine wave				
Continuous output power	1500 VA	2400 VA	1500 VA	2400 VA	3600 VA
AC output voltage (rms)	120 Vac	120 Vac	120 Vac	120 Vac	120 Vac
AC output frequency	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz
Rated AC output current	12.5 Aac	20 Aac	12.5 Aac	20 Aac	30 Aac
Surge capability max. output & duration					
Overload 10 sec rating	3000 VA	4800 VA	3000 VA	4800 VA	7200 VA
Short circuit 10 sec rating	50±5 Apk	80±8 Apk	50±5 Apk	80±8 Apk	120±12 Apk
Adjustable load sensing range	Five watts minimum to 240 watts maximum				
DC input current at no load – search mode	0.35 amps	0.35 amps	0.17 amps	0.17 amps	0.20 amps
Efficiency – peak	> 90%	> 92%	> 92%	> 93%	> 94%
DC input voltage range	11.0 to 15.0 Vdc	11.0 to 15.0 Vdc	22.0 to 30.0 Vdc	22.0 to 30.0 Vdc	22.0 to 30.0 Vdc
Rated DC input current	157 amps	252 amps	76 amps	120 amps	186 amps
Load power factor (allowed)	0.8 to 1.0 (leading or lagging)				
Series operation	Yes – Two units can be connected to produce 120/240 Vac split phase power, stacking cable included				
Bypass / charge mode – AC input voltage range	65 to 140 Vac (wide), 95 to 140 Vac (narrow)				
AC input frequency range	55 to 64 Hz (narrow-charge & pass-through), 55 to 68 Hz (wide-charge), 41 to 68 Hz (wide pass-through)				
Built-In internal supplemental breakers	30 Aac bypass, 20 Aac charger	30 Aac bypass, 30 Aac charger	30 Aac bypass, 20 Aac charger	30 Aac bypass, 30 Aac charger	30 Aac bypass, 30 Aac charger
DC charger rate (adjustable)	10 to 70 amps	14 to 100 amps	5 to 35 amps	10 to 70 amps	10 to 70 amps
AC input current at max. charge rate	11.2 Aac	15.8 Aac	10.2 Aac	19.7 Aac	19.5 Aac
AC input power factor	0.88	0.89	> 0.88	0.92	0.93
Multi-stage charging	Yes – bulk, absorption and float, plus user-initiated equalize (for flooded batteries only)				
Temperature compensation	Battery temperature sensor included				
Automatic transfer relay	30 amps	30 amps	30 amps	30 amps	30 amps
Transfer time (typical)	< 40 ms (wide), < 20 ms (narrow)				

General specifications

Weight	18 kg (40 lb)	19 kg (42 lb)	18 kg (40 lb)	20 kg (45 lb)	20 kg (45 lb)
Dimensions (H x W x D)	18.4 x 21.6 x 54.6 cm (7.25 x 8.5 x 21")				
Shipping weight	22.7 kg (50 lb)	23.6 kg (52 lb)	22.7 kg (50 lb)	24.9 kg (55 lb)	24.9 kg (55 lb)
Shipping dimensions (H x W x D)	30 x 31.5 x 67.5 cm (11.8 x 12.4 x 26.6")				
Operating temperature range	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C	0°C to +50°C
Mounting	Wall-mount (with 16" mounting centers)				
Warranty	Two years	Two years	Two years	Two years	Two years
Part number	989-1000	989-1010	989-1005	989-1015	989-1020

Regulatory approvals

Safety	UL1741 rev. 2005, CSA 107.1
EMC	FCC and Industry Canada Class B

Specifications are subject to change without notice.

Schneider Electric Xantrex™ XW Inverter/Charger

Features

- True sine-wave output
- High surge capacity – innovative Full Digital Control regulates voltage to prevent a drop during a power surge
- Full 200% rated output power is delivered to the load
- Single-phase (230 Vac / 50 Hz or 120/240Vac / 60 Hz) and three-phase (230/400 Vac / 50Hz, or 120/208 Vac / 60Hz) configuration possible
- It is the foundation for battery- based residential applications up to 24 kW, and commercial applications up to 36 kW in a three-phase configuration
- Up to four inverters can be installed to create larger single-phase systems and up to two units per phase can be connected for three-phase installations
- Non volatile memory
- Dual AC inputs (grid and generator)
- Configurable auxiliary output
- Full control of generator with optional automatic generator start (AGS)
- Efficient, power factor corrected, high-current, multistage battery charging (minimizes recharge time, and electricity/fuel costs, and prolongs battery life)
- CE marked (50 Hz models) or CSA Certified (60 Hz)
- Easier and less expensive to install – mounting bracket is included
- Local display on inverter shows output power, charge current and battery level, to provide system status at-a-glance
- Xanbus™ Network provides plug-and-play networkability (no need for separate hub or router)

Xantrex™ XW Series Inverter/Chargers 230 V 50 Hz

Electrical specifications

Models	XW6048 230 50	XW4548 230 50	XW4024 230 50
Continuous output power	6000 W	4500 W	4000 W
Surge rating	12000 W (15 sec)	9000 W (20 sec)	8000 W (20 sec)
Surge current	53 A rms	40 A rms	35 A rms
Waveform	True sine wave	True sine wave	True sine wave
Peak efficiency	95,4%	95,6%	94%
Idle consumption - search mode	< 7 W	< 7 W	< 7 W
AC connections	AC1 (grid), AC2 (generator)	AC1 (grid), AC2 (generator)	AC1 (grid), AC2 (generator)
AC input voltage range (bypass/charge mode)	165 to 280 Vac (230 V nominal)	165 to 280 Vac (230 V nominal)	165 to 280 Vac (230 V nominal)
AC input frequency range (bypass/charge mode)	40 to 68 Hz (50 Hz nominal)	40 to 68 Hz (50 Hz nominal)	40 to 68 Hz (50 Hz nominal)
AC output voltage	230 Vac +/- 3%	230 Vac +/- 3%	230 Vac +/- 3%
Maximum AC pass through current	56 Aac	56 Aac	56 Aac
AC output continuous current	26,1 Aac	19,6 Aac	17,4 Aac
AC output frequency	50 Hz +/- 0,1 Hz	50 Hz +/- 0,1 Hz	50 Hz +/- 0,1 Hz
Total harmonic distortion	< 5% at rated power	< 5% at rated power	< 5% at rated power
Typical transfer time	8 ms	8 ms	8 ms
DC current at rated power	131 Adc	96 Adc	178 Adc
Utility-interactive	Disabled	Disabled	Disabled
DC input voltage range	44 to 64 Vdc	44 to 64 Vdc	22 to 32 Vdc
Continuous charge rate at nominal voltage	100 Adc	85 Adc	150 Adc
Power factor corrected charging	0,98	0,98	0,98
DC input voltage (nominal)	50.4 Vdc	50.4 Vdc	25.2 Vdc

General specifications

Enclosure type	IP20 (sensitive electric components sealed inside enclosure)		
Weight	55.2 kg (121.7 lb)	53.5 kg (118 lb)	52.5 kg (116 lb)
Dimensions (H x W x D)	58 x 41 x 23 cm (23 x 16 x 9")	58 x 41 x 23 cm (23 x 16 x 9")	58 x 41 x 23 cm (23 x 16 x 9")
Shipping weight	76.7 kg (169 lb)	75 kg (165 lb)	74 kg (163 lb)
Shipping dimensions (H x W x D)	71,1 x 57,2 x 39,4 cm (27.99 x 22.52 x 15.51")	71,1 x 57,2 x 39,4 cm (27.99 x 22.52 x 15.51")	71,1 x 57,2 x 39,4 cm (27.99 x 22.52 x 15.51")
Operational temperature range	-25°C to 70°C (power derated above 45°C)		
Mounting	Wall mount, backplate included	Wall mount, backplate included	Wall mount, backplate included
Supported battery types	Flooded (default), Gel, AGM, custom	Flooded (default), Gel, AGM, custom	Flooded (default), Gel, AGM, custom
Battery bank size	100 to 10000 Ah	100 to 10000 Ah	100 to 10000 Ah
Battery temperature sensor	Included	Included	Included
Non volatile memory	Yes	Yes	Yes
Display panel	Status LEDs indicate AC In status, faults/warnings, equalize mode, On/Off and equalize button battery level. Three-character display indicates output power or charge current		
Multiple unit configurations	Single-phase: up to four parallel units. Three-phase: two units per phase		
System network	Xanbus™	Xanbus	Xanbus
Warranty	Five years	Five years	Five years
Part number	865-1035	865-1040	865-1045

Accessories

Remote display (865-1050)	Xantrex XW System Control Panel monitors and configures all devices connected to Xanbus Network
Generator support (865-1060)	Xantrex XW Automatic Generator Start module connects to Xanbus Network. Automatically activates generator to recharge depleted battery bank or assist inverter with heavy loads
Conduit Box (865-1025)	Xantrex XW Conduit Box encloses the bottom of the inverter and protects the cabling. Provides knockouts for 2 cm, 2.5 cm, 3.2 cm, 6 cm, and 6.5 cm conduit
Solar Charge Controller (865-1030-1)	Xantrex XW MPPT Solar Charge Controller with MPPT delivers the maximum energy available from the PV array to the battery bank
Configuration Tool (865-1155)	The Xantrex XW Configuration Tool aids dealers and installers by simplifying and expediting the configuration and/or troubleshooting of a Xantrex XW System

Regulatory approval

CE marked according to the following EU directives and standards:	
EMC Directive	EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3
Low Voltage Directive	EN50178

Specifications are subject to change without notice.

Xantrex™ XW Series Inverter/Chargers 120/240 V 60 Hz

Electrical specifications

Models	XW6048 120240 60	XW4548 120240 60	XW4024 120240 60
Continuous output power	6,000 W	4500 W	4000 W
Surge rating (10 seconds)	12,000 W	9000 W	8000 W
Surge current	L-N: 105 Arms (15 sec) L-L: 52.5 Arms (15 sec)	L-N: 75 Arms (20 sec) L-L: 40 Arms (20 sec)	L-N: 70 Arms (20 sec) L-L: 35 Arms (20 sec)
Waveform	True sine wave	True sine wave	True sine wave
Low-load efficiency	95%	95%	94%
Idle consumption - search mode	< 8 W	< 8 W	< 8 W
AC connections	AC1 (Grid), AC2 (Generator)	AC1 (Grid), AC2 (Generator)	AC1 (Grid), AC2 (Generator)
AC voltage	120/240 Vac split-phase	120/240 Vac split-phase	120/240 Vac split-phase
AC input breaker	60 A two-pole	60 A two-pole	60 A two-pole
Utility interactive	Yes	Yes	Yes
CEC weighted efficiency	92.5%	93%	91%
CEC power rating	5752 W	4500 W	4000 W
AC input voltage range (bypass/charge mode)	L-N: 80 - 150 Vac (120 V nominal); L-L: 160 - 270 Vac (240 V nominal)		
AC input frequency range (bypass/charge mode)	55 to 65 Hz (default); 44 to 70 Hz (allowable)		
AC1 voltage range – Sell mode	L-N: 108 - 130 +/- 1.5 Vac; L-L: 214 - 260 +/- 3.0 Vac (automatically adjusts when entering Sell mode)*		
AC1 frequency range – Sell mode	59.4 - 60.4 +/- 0.05 Hz (automatically adjusts when entering Sell mode)*		
AC output voltage	L-N: 120 Vac +/- 3%; L-L: 240 Vac +/- 3%		
AC output frequency	60.0 +/-0.1 Hz		
DC current at rated power	130 A	96 A	178 A
Total harmonic distortion	< 5%		
Automatic transfer relay	60 A		
Typical transfer time	8 ms		
DC input voltage (nominal)	50.4 Vdc	50.4 Vdc	25.2 Vdc
DC input voltage range	44 to 64 Vdc	44 to 64 Vdc	22 to 32 Vdc
Maximum continuous charge rate	100 A	85 A	150 A
Efficiency at maximum charge rate	89.4%	90.2%	85.8%
Power factor corrected charging	0.98	0.98	0.98
Emissions	FCC Class B	FCC Class B	FCC Class B
Multiple-unit configurations	Up to three parallel units in 120/240 V split-phase configuration		
Auxiliary relay output	0 to 12 Vdc, maximum 250 mA DC		
System network	Xanbus™ (publish-subscribe network, no need for hubs or special cards)		

General specifications

Enclosure type	NEMA Type 1 – Indoor (sensitive electronic components sealed inside enclosure)		
Weight	55.2 kg (121.7 lb)	53.5 kg (118 lb)	52.5 kg (116 lb)
Dimensions (H x W x D)	58 x 41 x 23 cm (23 x 16 x 9")		
Shipping weight	76.7 kg (169 lb)	75 kg (165 lb)	74 kg (163 lb)
Shipping dimensions (H x W x D)	71.1 x 56.5 x 26.7 cm (28 x 22.25 x 10.5")		
Operational temperature range	-13 to 158°F (-25 to 70°C) (power derated above 45°C)		
Mounting	Wall mount, backplate included		
Display panel	Status LEDs indicate AC In status, faults/warnings, equalize mode, battery level. Three-character display indicates output power or charge current, fault/warning codes. On/off and equalize buttons		
Battery temperature sensor	Included	Included	Included
Standard warranty	Five years (Ten years optional)	Five years (Ten years optional)	Five years (10 years optional)
Part number	865-1000-01	865-1005	865-1010

Accessories

Remote display (865-1050)	Xantrex XW System Control Panel monitors and configures all devices connected to Xanbus Network
Generator support (865-1060)	Xantrex XW Automatic Generator Start module connects to Xanbus Network. Automatically activates generator to recharge depleted battery bank or assist inverter with heavy loads
Solar Charge Controller (865-1030-1)	Xantrex XW MPPT Solar Charge Controller with MPPT delivers the maximum energy available from the PV array to the battery bank
Configuration Tool (865-1155)	The Xantrex XW Configuration Tool aids dealers and installers by simplifying and expediting the configuration and/or troubleshooting of a Xantrex XW System

Regulatory approvals

Safety	UL1741 rev. 2005, CSA 107.1
EMC	FCC and Industry Canada Class B
Interconnect	IEEE 1547 and CSA 107.1

Specifications are subject to change without notice.

Schneider Electric Xantrex™ XW MPPT 60 150 Solar Charge Controller

Electrical specifications

Nominal battery voltage	12, 24, 36, 48, 60 Vdc
Maximum PV array voltage (operating)	140 Vdc
Maximum PV array open circuit voltage	150 Vdc
Array short-circuit current	60 Adc maximum
Maximum and minimum wire size in conduit	between 2,5 to 10 mm² (6 AWG to 14 AWG)
Total stand-by power consumption	2,5 W (tare loss)
Charger regulation method:	Three-stage (bulk, absorption, float) Two-stage (bulk, absorption)

General specifications

Enclosure type	Indoor, ventilated, sheet metal chassis with 2.2 cm and 2.8 cm (7/8" and 1") knockouts and aluminium heat-sink
Weight	4.8 kg (10.75 lb)
Dimensions (H x W x D)	36.8 x 14.6 x 13.8 cm (14.5 × 5.75 × 5.5")
Shipping weight	8 kg (17.6 lb)
Shipping dimensions (H x W x D)	48.3 x 22.9 x 35 cm (19 × 9 × 9.75")
Operating temperature range (full power)	-20°C to 45°C (-4°F a 113°F)
Storage temperature	-40°C to 85°C (-40°F a 185°F)
Altitude limit (operating)	Sea level to 2000m
Mounting	Vertical wall mount
Standard warranty	Five years
Part number	865-1030-1

Regulatory approvals

Safety	CSA Certified (UL1741 rev. 2005, CSA 107.1) and CE Marked for the Low Voltage Directive (EN50178)
EMC	FCC and Industry Canada (Class B) and CE Marked for the EMC Directive (EN61000-6-1, -6-3)

Specifications are subject to change without notice.

Schneider Electric Xantrex™ XW MPPT 60 150 Solar Charge Controller

The Xantrex XW MPPT 60 150 is a photovoltaic (PV) charge controller that tracks the electrical maximum power point of a PV array to deliver the maximum available current for charging batteries. When charging, the XW 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.

Features

- Can be used with 12, 24, 36, 48, and 60 Vdc battery systems and is able to charge a lower nominal voltage battery from a higher nominal voltage array
- Maximum Power Point Tracking (MPPT) algorithm continually seeks the maximum power available from the PV array
- Integrated PV ground-fault protection for negative grounded arrays
- Convection-cooled design does not require a cooling fan – large, aluminum, die-cast heat-sink allows full output current up to 45°C without thermal derating
- Selectable two or three-stage charging algorithms with manual equalization to maximize system performance and improve battery life
- Configurable auxiliary output
- Two-line, 16-character liquid crystal display (LCD) and four buttons for configuration and system monitoring
- Input over-voltage and under-voltage protection, output over-current protection, and backfeed (reverse current) protection (warning and fault messages appear on LCD when unit shuts down as a protective measure)
- Can also be used with other battery-based solar energy systems
- Over-temperature protection and power derating when output power and ambient temperature are high
- Battery Temperature Sensor (BTS) included – automatically provides temperature compensated battery charging
- Xanbus™-enabled network communications protocol
- Five-year warranty

Schneider Electric Xantrex™ XW MPPT 80 600 Solar Charge Controller

Electrical specifications

Nominal battery voltage	24 and 48 VDC (Default is 48 V)
Maximum PV array voltage (operating)	195 to 550 VDC
Maximum PV array open circuit voltage	600 VDC
Array short-circuit current	28 ADC @ STC
Maximum and minimum wire size in conduit	#6 AWG to #14 AWG (13.5 to 2.5 mm^2)
Total stand-by power consumption	< 1W
Charger regulation method:	Three stage (bulk, absorption, float) Two stage (bulk, absorption)

General specifications

Enclosure type	Indoor, ventilated, aluminum sheet metal chassis with 7/8" and 1" (22.22 mm and 27.76 mm) knockouts and aluminum heat sink
Weight	13.5 kg (29.8 lb)
Dimensions (H x W x D)	76 × 22 × 22 cm (30 × 8.625 × 8.625")
Shipping weight	17.4 kg (38.3 lb)
Shipping dimensions (H x W x D)	87 × 33 × 27 cm (34.3" × 13" × 10.6")
Operating temperature range	-20 to +65°C (-4 to 149°F), power derating above 45°C
Storage temperature	-40 to +85°C (-40 to 185°F)
Altitude limit (operating)	Sea level to 6,500 feet (approximately 2000 m)
Mounting	Vertical wall mount
Standard warranty	Five Years
Part number	865-1032

Regulatory approvals

Certified to UL 1741: 2nd Ed and to CSA 107.1-01

Specifications are subject to change without notice.

Available Q1 2011

Schneider Electric Xantrex™ XW MPPT 80 600 Solar Charge Controller

The Xantrex XW MPPT 80 600 is a photovoltaic (PV) Charge Controller that tracks the maximum power point of a PV array to deliver the maximum available current for charging batteries. When charging, the XW MPPT 80 600 regulates the battery voltage and output current based on the amount of energy available from the PV array and present state-of-charge of the battery. The XW MPPT 80 600 accepts PV array voltages up to 600V; significantly reducing system wiring gauges and conduit costs.

Features

- High DC voltage input allows increased installation flexibility and allows long wiring distances from the PV array to the controller
- Can be used with 24 and 48V battery systems
- Maximum Power Point Tracking MPPT delivers maximum available power from PV array to battery bank
- Configurable for positive, negative, and ungrounded PV systems
- Integrated PV ground fault protection
- Full output power of 4800W up to 45ºC without de-rating
- Configurable Auxiliary output
- Input over-voltage and under-voltage protection, output over current protection, and back-feed (reverse current) protection
- Over-temperature protection and power derating when ambient temperatures are high
- Battery Temperature Sensor included – automatically provides temperature-compensated battery charging
- Xanbus™ – enabled network communications protocol allows settings and activity to be communicated to other Xanbus-enabled devices, such as the XW Hybrid Inverter/Charger, the XW System Control Panel (SCP), XW Automatic generator start (XW AGS) and other XW Solar Charge Controllers
- Can be installed in a stand-alone mode with XW System Control Panel (XW SCP) (sold separately)
- Five-Year Warranty

Xantrex™ C12 PWM Charge Controller

Electrical specifications

Maximum PV amps	12 A at 12 Vdc only
Maximum DC load	12 A with auto reset
Minimum operating voltage	6 V
Maximum voltage drop - PV to battery	0,3 V
Maximum voltage drop - battery to DC load	0,5 V
Regulation setting	13 to 15 Vdc
Equalize setting	Bulk plus 1 volt for two hours
Typical consumption while charging	0,007 A
Typical consumption at night	0,003 A
Typical consumption with load disconnected	0,003 A
Maximum stranded wire size	10 AWG stranded (5.2 mm^2)

General specifications

Enclosure type	Powder coated steel with strain relief for wiring and knockouts for up to three ½" conduits
Weight	0.9 kg
Dimensions (H x W x D)	16.5 x 11 x 4 cm (6.5 x 4.33 x 1.57")
Shipping weight	1.13 kg
Shipping dimensions (H x W x D)	20.3 x 11.7 x 4 cm (7.99 x 4.61 x 1.57")
Allowed temperature range	0°C to 40°C
Mounting	Vertical wall mount – indoor
Warranty	Two years
Part number	C12 – charge controller

Features and options

Regulation method	Standard – three-stage (bulk, absorption, and float), solid state, pulse width modulation
Field adjustable control setpoints	Standard – removable knobs and calibrated scales
Setting protection	Standard – knobs can be removed to prevent tampering
Testpoints	Standard – provided for each setting
Automatic equalization	Standard – every 30 days or after voltage reaches low voltage disconnect – can be disabled
External battery temperature compensation	Optional – battery temperature sensor (BTS)
Short circuit protection	Standard – fully electronically protected with auto reset and manual reset switch, protects both the loads and PV array from damage from short circuits – a fuse for the battery is still advised to protect the battery wires if located separately
Reverse polarity protection	Standard – fully protected
Low voltage disconnect	Standard – adjustable automatic or manual operation, manual reconnection includes warning flash of loads five minutes before and a ten minute grace period

Regulatory approvals

CE marked for the Low Voltage Directive and EMC Directive

Specifications are subject to change without notice.

Schneider Electric Xantrex™ C12 PWM Charge Controller

The C12 PWM 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 PWM's load control circuitry are field adjustable low voltage disconnect and reconnect points, along with a five minute low battery disconnect warning. The C12 PWM also functions as a lighting controller. Lighting run time is adjustable from 2 to 8 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 in Africa, Latin America, and Asia. An optional battery temperature sensor ensures precise battery charging regardless of battery temperature fluctuations.

Features

- Silent, pulse width modulated microprocessor control (maximizing battery life)
- Field adjustable voltage and battery set points
- Electronic protection against short-circuit, overload, over-temperature and reverse polarity conditions

Xantrex™ C Series Charge Controllers

Electrical specifications

Models	C35 PWM	C40 PWM	C60 PWM
Voltage configurations	12 and 24 Vdc	12, 24, and 48 Vdc	12 and 24 Vdc
Max. PV open circuit array voltage	55 Vdc	125 Vdc	55 Vdc
Charging / load current (@ 25°C)	35 Adc	40 Adc	60 Adc
Max. short circuit current	85 A	85 A	85 A
Max. voltage drop through controller	0,30 V	0,30 V	0,30 V
Total operating consumption	15 mA	15 mA	15 mA
Total idle consumption	3 mA	3 mA	3 mA
Recommended 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	6 AWG rated at 90°C	6 AWG rated at 90°C
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

Enclosure type	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
Weight	1.2 kg (2.65 lb)	1.4 kg (3.09 lb)	1.4 kg (3.09 lb)
Dimensions (H x W x D)	20.3 x 12.7 x 6.4 cm (7.99 x 5 x 2.52")	25.4 x 12.7 x 6.35 cm (10 x 5 x 2.5")	25.4 x 12.7 x 6.35 cm (10 x 5 x 2.5")
Shipping weight	1.4 kg (3.09 lb)	1.6 kg (3.53 lb)	1.6 kg (3.53 lb)
Shipping dimensions (H x W x D)	31.5 x 17.8 x 6.4 cm (12.4 x 7.01 x 2.52")	31.5 x 17.8 x 6.4 cm (12.4 x 7.01 x 2.52")	31.5 x 17.8 x 6.4 cm (12.4 x 7.01 x 2.52")
Specified temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C
Mounting	Vertical wall mount – indoor only	Vertical wall mount – indoor only	Vertical wall mount – indoor only
Altitude – operating	4.572 m	4.572 m	4.572 m
Altitude – non-operating	15.240 m	15.240 m	15.240 m
Warranty	Two years	Two years	Two years
Part number	C35, C40, C60 – Controllers		
	CM – Front display panel		
	CM/R-50, CM/R-100 – Remote display panel		
	BTS – Battery temperature sensor		

Features and options

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
Display panel	CM, CM/R-50, or CM/R-100 – optional LCD – backlit, alphanumeric display showing battery voltage, DC amperage, cumulative amp hours, and amp hours since last reset – remote includes 15 m or 30,5 m cable
Equalization charge	User selectable manual or automatic equalization – every 30 days
Battery temperature sensor	BTS – optional remote battery temperature sensor for increased charging precision

Regulatory approvals

Safety	UL Listed to UL1741 and CSA 14; 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.

Schneider Electric Xantrex™ C Series Controller

The Schneider Electric Xantrex C35 PWM and C60 PWM are field configurable for 12- and 24- Vdc operation. The Schneider Electric Xantrex C40 PWM may be configured for 12-, 24-, or 48- Vdc operation. All can be used as a charge, diversion, or load controller and come with a standard multi-color charge status LED.

Features

- Silent, pulse width modulated microprocessor control (helping to maximize battery life)
- Field adjustable voltage and battery type set points
- Electronic protection against short-circuit, overload, over-temperature, and reverse polarity conditions

C Series

- CM: Cumulative amp hour meter
- CM/R: Remote cumulative amp hour meter (available in 50 or 100 foot lengths)
- BTS: Battery temperature sensor

Optional Accessories:

CM and CM/R Digital Meter or Remote Display

This digital meter mounts onto the front of a charge controller or as a remote it can be installed up to 31 m away. It displays volts, amps, and resettable cumulative amp hours for a solar array, DC loads, or diversion loads, depending on the application. The CM/R comes with 15 m or 31 m communication cable for remote installation.

Accessories and protection

Xantrex™ Gateway

Electrical specifications

Communication	Physical layer 2, CAN
Communication protocol	Xanbus™
Maximum Xanbus cable length	40 m
Maximum Ethernet cable length	60 m
Connectors	3 RJ45 – 8 pins (two Xanbus, one Ethernet)

Communication specifications

Ethernet	IEEE Std 802.3-2005™
Wireless	802.11.4b and 802.11.4g; WEP and WPA security
	Channels 1-11 (US/Canada), 1-9 (Europe)

General specifications

Weight	0.21 kg (0.46 lb)
Dimensions (H x W x D)	11.2 x 19.0 x 45 cm (4.41 x 7.48 x 17.72")
Height including antenna	24.9 cm (9.8")
Part number	865-1056

Regulatory approvals

North America	EMC FCC and Industry Canada class B	
Europe	Safety	Low Voltage Directive EN 60950-1
	EMC	EMC Directive EN 55022, EN 55024
	Telecom	R&TTE Directive, ETSI EN 301 489-1, ETSI EN 301 489-17

Specifications are subject to change without notice.

Schneider Electric Xantrex™ Gateway

The Xantrex Gateway bridges the gap between a Xantrex GT or XW System and the system owner's computer, making it the central component for a residential or small commercial remote monitoring system.

The Xantrex Gateway logs performance data directly from the Xantrex GT or XW System, and transmits it to the included widget based monitoring software for a simple and graphically rich view of system performance. More than a data logger, the Xantrex Gateway offers a web page with the ability to configure automated email reports and fault status to the user or installer.

The Xantrex Gateway includes both built-in Wi-Fi and Ethernet connectivity allowing for flexible and simple set up for wireless or wired connection to a router or direct to a PC.

The Xantrex Gateway logs and transmits performance data

- System power production
- Inverter specific power production
- Lifetime energy production; daily, weekly, monthly energy production graphs
- Inverter faults with date and time stamp

Features

- Can monitor a network consisting of up to 20 single phase GT inverters or up to 8 Xantrex XW devices (Xantrex XW Inverter/Charger(s), Xantrex XW MPPT Solar Charge Controller(s), Xantrex XW SCP, and Xantrex XW AGS)
- Wi-Fi/Ethernet module with 10/100 Base-T or 802.11 b/g
- Can be configured to send energy and alarm reports via email
- Graphical interactive solar monitoring software
- Embedded web page for configuring the Xantrex Gateway and upgrading inverter firmware
- 16 megabytes of storage

Battery Temperature Sensor

The BTS mounts on your battery and measures its temperature. It sends precise information to the inverter/charger or charge controller, which automatically adjusts charging voltage to ensure full battery charge, regardless of the ambient temperature of your battery installation. The BTS is standard on SW Inverters.

For use with Xantrex C Series Charge Controllers

Xantrex™ XW SCP*

The Xantrex XW System Control Panel (XW SCP) features a graphical, backlit LCD display that provides system configuration and diagnostic information for devices connected to the Xanbus™-enabled network. The XW SCP gives a single point of control to setup and monitor an entire system, which may consist of multiple Xantrex XW Inverter/Chargers, Xantrex XW MPPT Solar Charge Controllers and other components.

For use with Xantrex XW System

Xantrex™ XW AGS*

The Xantrex XW Automatic Generator Start (XW AGS) will automatically activate a generator to provide an Xantrex XW Inverter/Charger with power to recharge a depleted battery bank or provide additional power for heavy loads. The XW AGS adds intelligence to generator management, thereby eliminating time spent monitoring batteries and inverter loads.

For use with Xantrex XW System

Xantrex™ XW CB

The Xantrex XW Conduit Box (XW CB), is a bare conduit box (no wires) that can be used to create systems larger than two inverters, or to retrofit Xantrex XW Inverters into existing systems which may already have AC/DC disconnects.

For use with Xantrex XW System

Xantrex™ XW CK

The Xantrex XW Connection Kit is a wiring kit and conduit box used to connect a second inverter to a Xantrex XW Power Distribution Panel. All wires are measured, pre-cut and labeled to facilitate quick and easy installation.

For use with Xantrex XW System

Xantrex™ XW PDP

The Xantrex XW Power Distribution Panel with conduit box is factory-wired and labeled to support a code-compliant single-inverter installation. Internal wiring and breakers can be added to expand the XW System with up to three inverters, four charge controllers, or other equipment to support larger systems.

For use with Xantrex XW System

Xantrex™ GT SIM*

The Xantrex Grid Tie Solar Inverter Monitor features a graphical, backlit LCD screen to monitor your single or multi-inverter PV system in one convenient location inside the home. The GT SIM is a simple means of monitoring your solar system, with its large keypad buttons, an intuitive on-screen menu system, and plain text status messages to make the monitor easy to read and use. The monitor easily connects to Xantrex GT Series inverters using standard CAT5 Ethernet cable that also provides power to the monitor. Built-in flash memory stores PV system data and makes software upgrades simple.

For use with single or multi-inverter PV system

* **Meets regulatory approvals:**
CSA Certified (UL458 and CSA 107.1)
EMC Directive: FCC and Industry Canada Class B, and CE marked for the EMC Directive (EN61000-6-1, -6-3).

DC circuit protectors for Photovoltaic installations

C60PV-DC

The C60PV-DC is a DC circuit breaker dedicated to multi string for PV installations with Voc until 650 Vdc.
It isolates PV strings and protects them from reverse current. The C60PV-DC is not polarity sensitive.
3 ratings: 10, 16, and 20 A

Compact NS DC circuit breaker

The Compact NS DC is a DC circuit breaker dedicated to multi-array photovoltaic installation with Voc until 750 Vdc (please consult for higher voltage). It isolates PV sub-arrays and protects them from reverse current.
Ratings from 80 A to 250 A (4 poles)

DC main switch for photovoltaic installations

SW60-DC

The SW60-DC is a polarized DC main switch disconnector dedicated to isolate the inverter from the array in photovoltaic installation with Voc until 1000 Vdc. The SW60-DC shall be installed between the photovoltaic strings and the inverter.
Polarized: the polarity – and + must be respected during connection.
Operating Voltage: 1000 Vdc, rated operational current 63 A

C60NA-DC

The C60NA-DC is an un-polarized DC switch disconnector dedicated to array isolation and control with Voc until 650 Vdc. When fuses are provided for over current protection, the use of C60NA-DC is required.
Operating current and voltage: 20A - 650 Vdc; 30A - 500 Vdc; 40A - 400 Vdc; 50A - 300 Vdc

INS PV1

The INS PV1 is a DC switch disconnector dedicated to array isolation and control with Voc until 600 Vdc.
Designed for maximum performance and safety for PV applications, this product operates with a wide choice of accessories and auxiliaries.
Operating current and voltage: 10A - 600 Vdc; 25A - 500 Vdc; 32A - 400 Vdc

Compact NS DC switch disconnector

The Compact NS DC switch disconnector is designed for DC Voltage up to 750 Vdc (please consult for higher voltage). It is dedicated to array isolation or as a main DC switch. For PV installation this product operates with 4 pole basic frames equipped with accessories (phase barrier, pole connections, rotary handle etc.) and NA trip unit.

Protection against lightning strikes

PRD-DC surge arresters

The PRD-DC direct current surge arrester is designed to help protect PV panels and the DC input to the inverter from over-voltages due to a lightning strike. It should be installed in an enclosure, weatherproof if installed outside. We recommend the use of mini-Kaedra enclosures. The withdraw-able PRD-DC allows damage cartridges to be replaced quickly.
Ratings: 40 kA, 600 and 1000 Vdc

AC surge arresters with built-in disconnector

A large range of AC surge arresters are designed to help protect your PV installation against lightning induced surges. Each surge arrester in the range has a specific use:

- High risk level: with I max 40 kA (Quick PRD 40r 1 ph and 3 ph)
- Moderate risk level: with I max 10, 12.5, 20 kA (PF'clic, Quick PRD 20r single-phase and three-phase)

Alternating current (AC)
The type of electricity supplied by the utility company. The unique characteristic of this form of electricity is that it reverses direction at regular intervals. For example, 230 Vac 50 Hz power reverses flow 50 times a second, hence the rating 50 Hz (cycles).

Amp (A)
A unit of measure of the flow of electrical current.

Amp hour (Ah)
One amp of electrical current flowing for one hour. The unit Ah is an expression of the capacity (size) of a battery.

Current
The rate of flow of electric charge, usually expressed in amps (or amperes).

Direct current (DC)
The type of electricity stored in batteries and generated by solar electric devices. Current flows in a single direction.

Electrolyte
A conductive medium in which the flow of electricity takes place; this is the liquid found inside storage batteries.

Grid
When used in reference to utility power, it refers to a system of electrical transmission and distribution lines.

Off-grid
An electrical system that is not connected to a utility distribution grid.

Ground fault protection (GFP)
A shock hazard protection device that limits the flow of electrical current to earth. Usually required in wet locations, e.g. for outdoor, kitchen, and bathroom circuits.

Hertz (Hz)
The frequency, or number of times per second, that the flow of AC electricity reverses itself. Also referred to as cycles (see alternating current).

High battery voltage protection
A control circuit that disconnects charge current flowing to the battery before voltage reaches a dangerously high threshold. Prevents damage created by excess gassing (or boiling) of electrolyte.

Idle current
The amount of electrical current required to keep an inverter ready to produce electricity on demand.

Inrush current
The peak current an appliance or tool will draw at the instant it starts up.

Kilowatt (kW)
One thousand watts of electricity. Ten 100-watt light bulbs use one kW of electrical power.

Kilowatt hour (kWh)
One kW of electrical power used for one hour. Most grid connected electrical meters measure kWh for billing purposes.

Line loss
A voltage drop caused by resistance in wire during transmission of electrical power over distance.

Load
Any device that consumes electricity to operate. Appliances, tools, and lights are examples of electrical loads.

Low battery protection
A control circuit that stops the flow of electricity from batteries to loads when battery voltage drops to low levels.

Modified sine wave
Also called a modified square wave, this type of waveform emulates a sine wave using a series of steps.

Overload/overcurrent protection
A control circuit designed to protect an inverter, load, or wiring against current exceeding its capacity. (A fuse, for example, is an overcurrent protection device.)

Parallel wiring
Batteries or PV modules, wired together to increase ampacity, while voltage remains constant.
Two 100 Ah 12 Vdc batteries wired in parallel will form a 200 Ah 12 Vdc battery bank.

Photovoltaic (PV) array
A group of solar (PV) panels connected together to convert energy from sunlight into DC electrical energy.

Sine wave
The type of AC waveform produced by the utility or by most generators.

Series wiring
Batteries or PV modules wired together to increase voltage, while ampacity remains constant. Two 100 Ah 12 Vdc batteries wired in series form a 100 Ah 24 Vdc battery bank.

Surge capacity
The amount of current an inverter can deliver for short periods of time. For example, electric motors draw up to 6 times their rated current while starting. An inverter will provide surge current to meet the start-up requirements of motors or other loads with high inrush current.

Transfer switch
A switch designed to transfer electricity being supplied to loads from one source of power to another.

Volts (V)
A unit of measure of voltage, which is the electromotive force or electric potential difference between two points in a circuit.

Watt(s) (W)
A unit of measure of the amount of electrical power consumed by a load or supplied by a source such as the grid or an inverter.
Watts = volts x amps x power factor

Watt hour (Wh)
Electrical energy consumption or capacity measured in terms of time. One watt hour of electricity is equal to one watt of power being consumed for one hour.

At Schneider Electric Renewable Energies,

customer satisfaction

is everyone's number one priority

Make the most of your energy

Head office

35 rue Joseph Monier
CS30323
92506 Rueil-Malmaison
Tel.: +33 (0)1 41 29 85 00
France

re.pvsales@schneider-electric.com

Schneider Electric

As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation, and data centres/networks, as well as a broad presence in residential applications. Focused on making energy safe, reliable, and efficient, the company's 100,000 plus employees achieved sales of 15.8 billion euros in 2009, through an active commitment to help individuals and organizations "Make the most of their energy".

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