SMART energysystems

OFF-GRID

Plug and play PV Power System

Xtender Power AC 1PH NEW

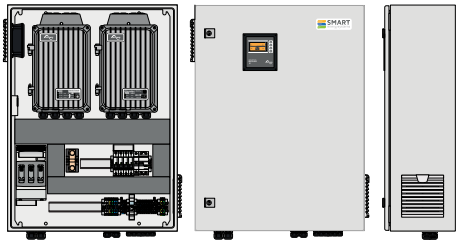
The **Xtender Power 1PH** series represents smart solutions for the power supply of remote locations. German manufacturing and the use of high-grade components guarantee a superior quality standard.

All electrical components are pre-assembled and pre-wired in a compact control cabinet. Each system is tested and delivered ready-to-operate. The plug'n'play concept of the **Xtender Power** series guarantees a simple, error-free installation and commissioning on site.

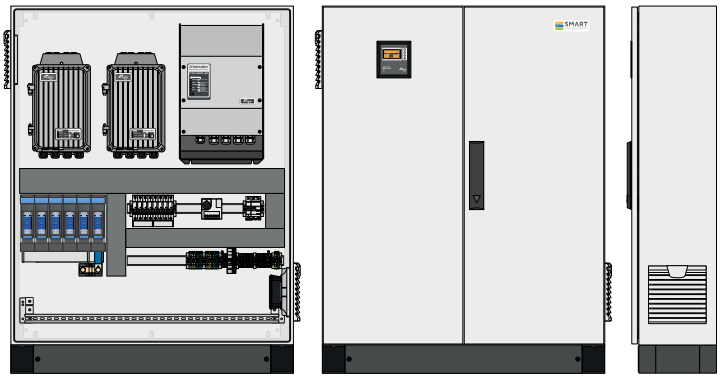
The **Xtender Power** cabinets are equipped with the Studer Xtender inverter/charger series in combination with the Studer VarioTrack or VarioString MPPT charge controllers. All systems include a digital display/control unit/datalogger (Studer RCC-03) and a battery status processor (Studer BSP-500) for accurate state of charge determination. Optional equipment (XCom LAN/GSM/SMS/232i) allows remote control and monitoring.

The system's central connection interface is clearly arranged and easy accessible. The solar generator can be safely disconnected from the system by a PV circuit breaker. Special DC fuse switches as well as AC breakers (CB/RCD) secure the electrical circuits. If required, all inputs and outputs can be equipped with surge protection devices.

The **Xtender Power** cabinets are available for wall or ground installation. A thermally controlled fan system maintains a constant temperature inside the cabinet and ensures a long life of the electrical components.



*Layout of cabinet **Xtender Power AC824** (open / front / right view)*



*Layout of cabinet **Xtender Power AC5048+** (open / front / right view)*

Special Features

- Pre-assembled all-in-one IP54 control cabinet
- Use of high-end devices and components
- Easy accessible input/output connection interface
- Central monitoring and data logging
- 5 years product warranty

PV Power

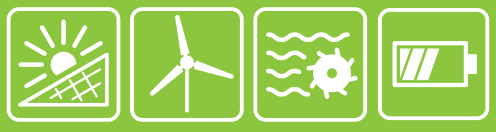
max. 10 kWp

0 2 4 6 8 10 kWp

Inverter Power

max. 10 kVA 1-phase

0 2 4 6 8 10 kVA



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OFF-GRID

Xtender Power 1PH

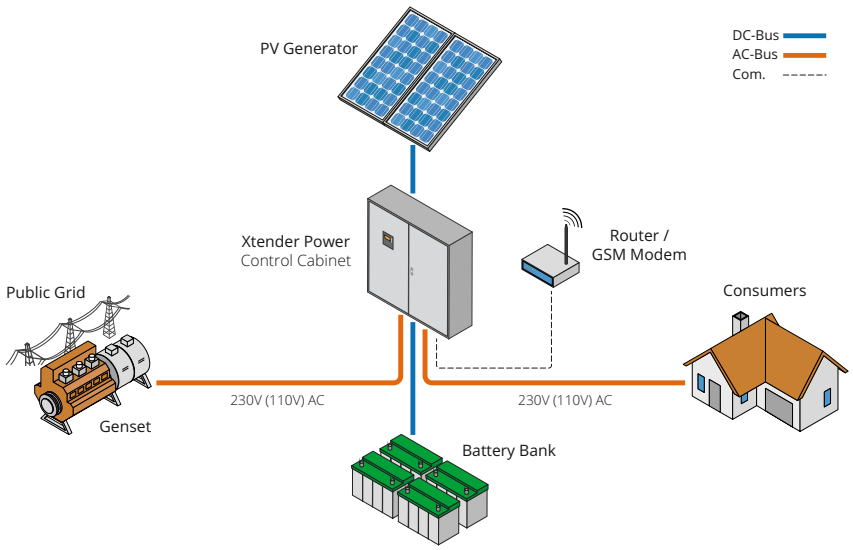
Plug and Play Power System

Application

The **Xtender Power 1PH** is designed for off-grid power supply of common 230V (110V) AC single-phase consumers. Generally the photovoltaic generator represents the primary source of energy. Depending on favourable wind conditions and availability of hydro potentials at site, small wind or micro-hydro generators can be added to increase energy production.

In order to secure an uninterrupted power supply all over the year a diesel, petrol or gas generator is recommended for backup power supply.

The **Xtender Power** system is designed for the use of lead-acid (FLA/VRLA) and lithium batteries. For stationary high-cycle applications sealed tubular plate (OPzV) batteries are recommended to ensure best price-performance ratio and a long service life.



*System scheme of **Xtender Power 1PH** off-grid system*

Technical Data

Type	Xtender Power 1PH							
	AC824	**AC948**	**AC2024**	**AC3548**	**AC5048**	**AC5048VS**	**AC5048+**	**AC10048**
Inverter / Charger	Studer Xtender XTS1200-24	Studer Xtender XTS1400-48	Studer Xtender XTM2400-24	Studer Xtender XTM4000-48	Studer Xtender XTH6000-48			2x Studer Xtender XTH6000-48
Charge controller	Studer VarioTrack VT-80					Studer VarioString VS-120	2x Studer Vario-Track VT-80	Studer VarioTrack VT-80
Nom. battery voltage	24V	48V	24V	48V				
Nominal AC power (25°C)	0.8kVA 230V AC/50Hz	0.9kVA 230V AC/50Hz	2.0kVA 230V AC/50Hz	3.5kVA 230V AC/50Hz	5kVA 230V AC/50Hz			10kVA 230V AC/50Hz
Max. charge current (genset/grid)	25A DC	12A DC	55A DC	50A DC	100A DC			200A DC
UPS transfer time	< 15ms							
Max. PV power*	2.5kWp	5kWp	2.5kWp	5kWp	5kWp	7kWp	10kWp (2x 5kWp)	5kWp
Max. PV charge current	80A DC					120A DC	160A (2x 80A) DC	80A DC
Max. PV input voltage	150V					2x 600V or 1x 900V	2x 150V	150V
Monitoring	digital display/control unit/datalogger Studer RCC-03 (optional remote access via Studer Xcom RS232/CAN/LAN/GSM/SMS)							
AC fuse IN/OUT (standard)	16A circuit breaker (type B)	16A circuit breaker (type B)	25A circuit breaker (type B)		32A circuit breaker (type B)			63A circuit breaker (type B)
DC fuse inverter / PV charger	NH fuse breaker 125A / 80A	NH fuse breaker 63A / 80A	TPS fuse breaker 150A / 80A	TPS fuse breaker 100A / 80A	TPS fuse breaker 150A / 80A			
Ventilation	up to 55m³/h		up to 95m³/h					
Features	temperature controlled fan, PV breaker(s) (1000V/63A), RCD (30mA) for AC OUT**, removable N-bridge and PEN-bridge							
Add. connection terminals	changeover relay (inverter) AUX1+2***, battery processor/temp. sensor (BSP), earthing							
Type of cabinet	IP54, wall-mounted (steel plate powder coated) incl. wall mounting brackets					IP54, ground-mounted (steel plate, powder coated) incl. socket		
Dimensions (wxhxd) in mm	600 x800 x250		800 x1000 x300			1000 x1300**** x400		
Weight	approx. 65kg	approx. 64kg	approx. 96kg	approx. 101kg	approx. 122kg	approx. 146kg	approx. 171kg	approx. 210kg

*exceeding PV power will be limited to the given maximum PV charge current / **except Xtender Power AC10048 / ***except Xtender Power AC824/AC948 / ****incl. 100mm socket height

Your Dealer

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