

OFF-GRID SYSTEMS



Plug'n'Play Power System Xtender Power Pro AC 3500

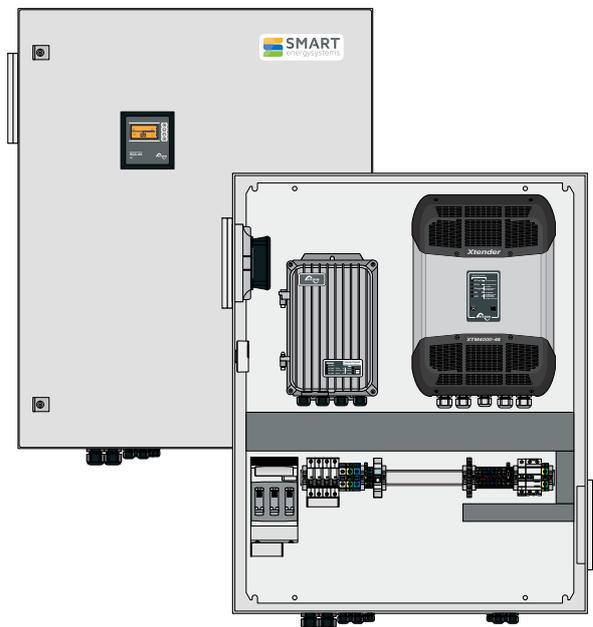
The Xtender Power Pro series represents smart solutions for the power supply of remote locations. German manufacturing and the use of high-grade components guarantee a quality standard that meets the demands of private and industrial customers.

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 Pro series guarantees a simple and error-free installation and commissioning on site.

The Xtender Power Pro cabinets are equipped with Studer Xtender inverter/chargers in combination with Studer VarioTrack and VarioString MPPT charge controllers. All systems include a control unit/display/data logger (Studer RCC-03) and battery status processor (Studer BSP-500) for accurate battery state of charge determination. Optionally the system can be monitored and controlled via remote access (XCom LAN / GSM / SMS / 232i).

The system's central DC and AC input/output terminals are clearly arranged. The solar generator can be safely disconnected from the system by a PV circuit breaker. NH fuse switches as well as circuit breakers (CB/RCD) secure all DC and AC circuits. If required, all inputs and outputs can be equipped with surge protection devices.

The Xtender Power Pro cabinets are available for wall and 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 (front view/inside) Xtender Power Pro AC3500

PV Power



Inverter Power



Special Features

- Pre-assembled all-in-one IP54 control cabinet
- Use of high-quality devices and components
- Central monitoring and data logging
- Standard-compliant fuse and switch components
- Well arranged AC and DC input/output terminals



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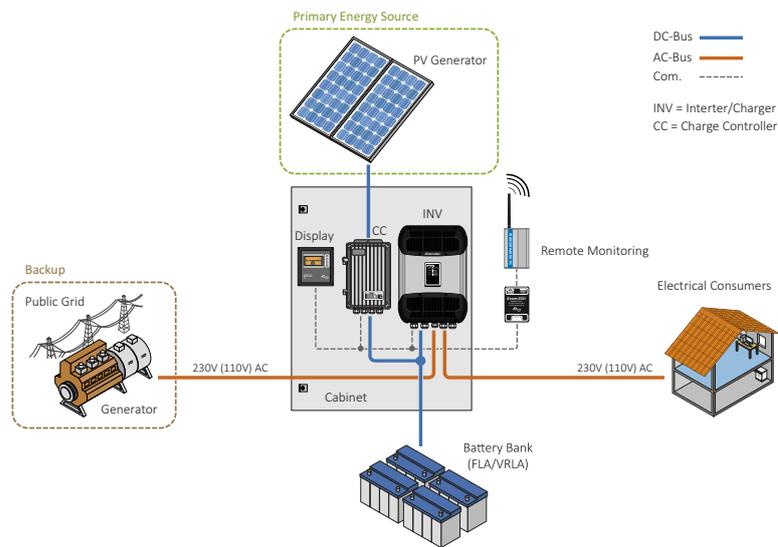
Plug'n'Play Power System

Application

The Xtender Power Pro 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 Pro system is primarily designed for the use of lead-acid batteries (FLA/VRLA). To ensure a long service life in high-cycle applications, sealed tubular plate (OPzV) batteries are recommended. For special applications alternative storage technologies such as nickel or lithium batteries can be used.



System scheme of a Xtender Power Pro 1PH off-grid system

Technical Data

Type	Xtender Power Pro AC3500
Inverter/Charger	XTM 4000-48
MPPT charge controller	VT 65
Battery voltage	48V
Max. PV power*	4kWp
Max. PV input voltage	150V
No. of MPP tracker	1
Nominal AC power (25°C)	3.5kVA
Max. charge current (gen./grid)	50A DC
Monitoring/Control/Logger	Studer RCC-03 (remote access optional: Xcom RS232/LAN/GSM/SMS)
AC fuse IN / OUT (standard)	25A / 25A
DC fuse (battery)	NH00 160A
Ventilation (temperature controlled)	up to 95m³/h
Features	RCC03 in front door, Studer BSP-500, PV breaker, RCD/CB for AC-OUT, PEN bridge (optional)
Type of cabinet (steel plate, powder coated)	wall- or ground-mounted**
Dimensions (wxhxd) in mm***	800 x1000 x300
Weight	ca. 95kg



*exceeding PV power will be limited to the given maximum / **plus 100mm height of socket for ground-mounted cabinets

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