

**Sustainable energy
you can always rely on**



**Engineered in Germany.
Manufactured in India.**





P-Secure

**Not a power solution.
But a smart energy manager.**

For the first time in the industry: 3-year warranty!

P-Secure is the most comprehensive solution for Hybrid System Applications facilitating high uptime. It facilitates Smart Management and high visibility to equipment health and site operations for the offices across the world. **P-Secure has been specifically designed for poor grid and off-grid applications. Capacities range from 5kW to 45 kW solutions.**

Introduction



Flexibility and reliability leads to cost saving.

P-Secure includes a ready to use integrated High Voltage MPPT charge controller, which accepts particularly high PV voltages, allowing many PV modules to be connected in series. **This decreases installation cost** and avoids combiner boxes, allowing it to function as an AC to DC battery charger, which provides flexible energy access solutions in a range of applications.

The battery can be charged from solar and/or an AC source with easy programming. **P-Secure can function without an AC source or alternatively even without solar, as a pure un-interruptible power supply (UPS).** When the utility grid or AC generator fails, the P-Secure immediately switches to 'Off-Grid' mode within 10 ms (typical, in UPS mode). **Solar can be set as the priority energy source to save electricity costs. P-Secure can also function in a battery-free mode.** In this mode, grid energy consumption can be reduced **without the need to spend on a costly battery bank.** Additionally, power can be supplied directly to loads from the grid and solar simultaneously.

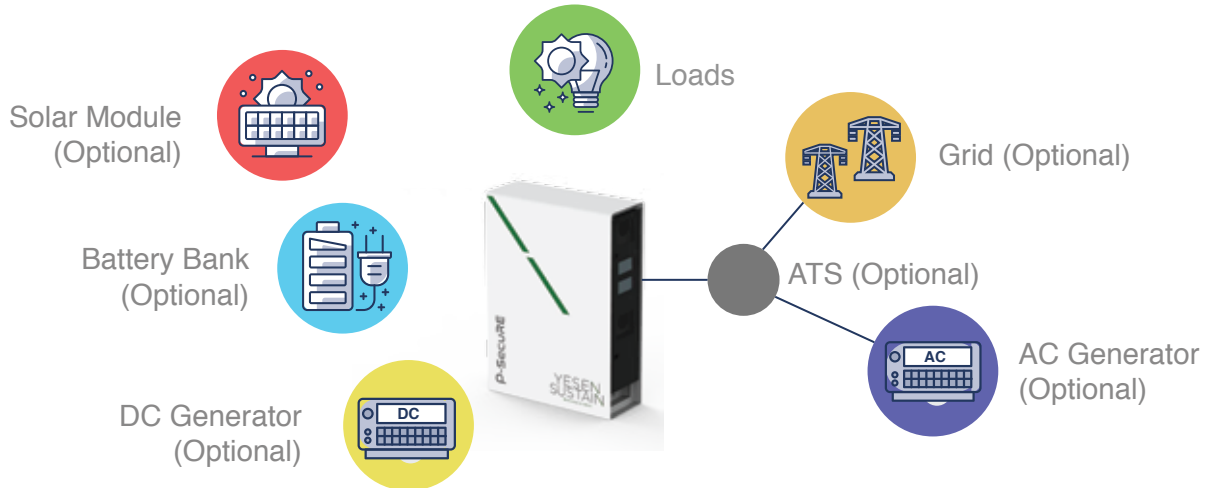
Product Features



- Integrated AC battery charger compatible with Lithium batteries
- High level of connectivity: BLE, USB-OTG (on-the-go), CAN Bus/RS-485/RS-232, relays for generator start
- Data logger with up to 60 days of data storage
- Grid feed-in option is code-protected to avoid accidental feed-in
- Charge controller functions even if inverter is turned off to keep batteries fully charged
- Functions without an expensive battery to reduce energy consumption from the grid with minimal investment.
- Store or load parameters via USB for quick configuration
- Integrated buzzer for error indications



Functional Overview



Advantages

P-Secure gives you On-site Bluetooth Connectivity with the Telematics platform providing Data Analytics for predictive analysis and alerts.

Low and Poor Grid Compatibility

Meets the challenging requirements of remote sites with poor grid.

Seamless Power transfer

Ensures seamless management and transfer of power between multiple sources.

Redundancy - Unique Architecture

Operates across challenging regions. Both hardware and software designed for reliability & visibility.

Over the Air firmware

Enables firmware upgrades without the need of physical access, saving time and money

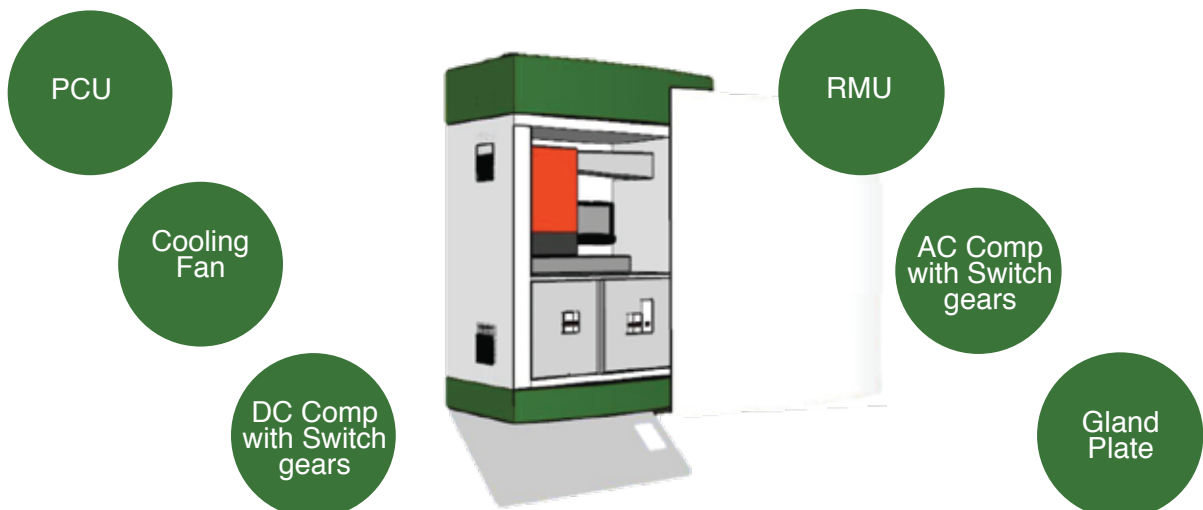
Communications Control and Analytics

- GSM based communication with SMS
- Analytics
- Built-in battery backup

Solar Ready MPPT

HighVoltage Solar=Ready MPPT thereby reducing cost of Cabling and switchgears.

P-Secure at a glance





| | | |
|--|--|--|
| AC input | Nominal Voltage | 220V – 240Vac |
| | Voltage Range | 90Vac ~ 280Vac |
| Solar input | Rated Current | 80A |
| | Frequency | 50Hz/60Hz |
| | Max. PV Array Power | 6000Wp per PV input |
| | PV Panel MPP Voltage | 120Vdc ~ 430 Vdc |
| | Nominal Input Voltage | 360Vdc |
| Battery Charging Discharging Specifications | Max. PV Panel Voltage | 450Vdc |
| | Max. PV Panel Current | 22.5Adc per PV input (18Adc per PV input usable) |
| | Power Conversion Peak Efficiency | > 96% |
| | Number of PV Inputs | 2 |
| AC Output | Battery Charging Current | 160 Adc |
| | Battery Discharging Current | 280 Adc (cont.); 560 Adc surge (5 sec) |
| | Float Charge | 55.2 Vdc (adjustable) |
| | Boost Charge | 57.6 Vdc (adjustable) |
| | Equalization Charge | 59.2 Vdc (adjustable) |
| | Deep-Discharge Protection | 44 Vdc (adjustable) |
| | Reconnect Level | 54.7 Vdc (adjustable) |
| | Overvoltage Protection | 66 Vdc |
| | Under voltage protection | 37.5 Vdc |
| | Environmental | Nominal Output Voltage |
| Output Frequency | | 50/60 Hz (auto recognition) |
| Rated Output Current | | 80A |
| Rated AC Output Power | | 10000W |
| Surge Power | | 2x nominal power for 5 seconds |
| Output Power Peak Efficiency | | > 93% |
| Nominal Temperature | | -10 to +50oC |
| Storage Temperature | -15 to +60oC | |
| Relative Humidity | 5% to 99% (non-condensing) | |
| Max. Altitude | 4,000m above sea level, 1% power de-rating per 100m above 1,000m above sea level | |
| Cooling | Self-cooled with fans | |
| Ingress Protection Rating | IP22 | |
| Communication | Connectivity | RS-485 / RS-232 / RJ45 / Ethernet |
| | Remote communication | |
| | Monitoring Platform | yeSeN Telematics Platform |
| General | Certificates | CE Compliant, RoHS Compliant |
| | Warranty | 3 years |
| | Dimensions (H x W x D) | 1300mm x 900 mm x 340 mm / 51.19in x 35.44in x 1 |

