

Supply. Responsible and Secure.

24/7 Electricity for Commercial
and Industrial Applications



Renewable energy supply with next generation technology

Vision **Electric Independence**

We are passionate about the sustainable supply of energy using renewable energy systems. Experience has shown that diesel generators are almost exclusively employed for captive energy generation to achieve a secured energy supply. Captive generation using renewable energies now present a much more cost-effective solution. By offering a Li-Ion battery based storage system, we want to contribute to helping renewable energies become more reliable source of supply.

Application **Uninterrupted Power Supply and Grid-Forming**

Brief power outages lead to losses for many businesses. Load shedding is a phenomenon that is faced by industries and commercial users in many emerging economies on a daily basis. This stems from either a lack of supply capacity to cater to demand or perhaps even the dearth of funds within distribution companies to purchase power for supplying to it's consumers. To counter these issues, several industrial and commercial users resort to captive power generation to meet their needs in case of an outage. Diesel generators are the preferred option because of their low capital costs. However they are polluting, inefficient and expensive to operate and maintain.

Although the installation of rooftop solar photovoltaic plants for captive generation is a step in the right direction, diesel generators are still used to compensate for intermittency and the supply of power during non-sunshine and power outage hours. As a specialist, Autarsys offers a reliable and zero emission Energy Storage System (ESS) that is precisely engineered and designed to take over the role

of a grid in the event of a power outage. It instantaneously feeds power to the load and intelligently chooses either individually or a combination of the captive renewable energy generation source and the energy stored in it's batteries. The containerized solution with it's onboard energy management software ensures optimum operation of individual components for long lifetimes.



Product Autarsys Medium Energy Storage System (ESS)

As a sealed "Plug & Play" system, the Autarsys Medium ESS is a specialized solution for harsh weather conditions. Easy to install, it is designed to operate at stable conditions that prolong lifetime in spite of high ambient temperature, dust and humidity, thereby requiring negligible maintenance.

| | |
|------------------------|-----------------------------------|
| Nominal AC Power | 100 - 800 kVA |
| Energy Capacity | 91 - 1095 kWh |
| Output Voltage | 3 Ø 480 V ± 10% |
| Output Current | 125 - 1000 A |
| Frequency | 50/60 Hz |
| System Efficiency | > 85% |
| Ambient Temperature | -10 to 50 °C |
| Dimensions (l x b x h) | 6.06 x 2.44 x 2.90 m ³ |
| Guarantee* | 10 years |
| Lifetime* | 20 years |

ESS Features and Capabilities

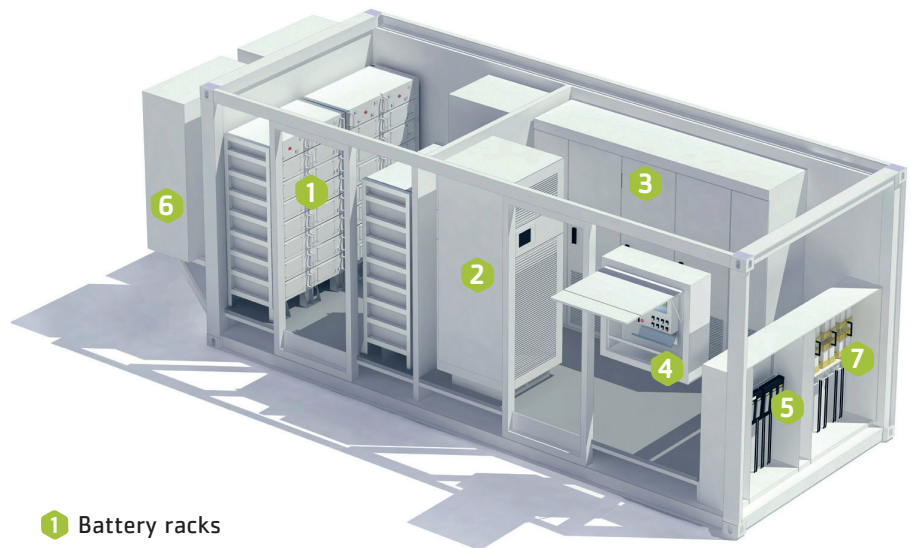
Off-Grid, On-Grid, Black start capability, Islanding Fuel save, Energy Management, Renewable Control Mode, Arbitrage / Load shifting, Frequency regulation P(f), Voltage stabilization Q(U), Harmonic compensation up to 51st, Reactive power compensation, UPS-functionality
SWER-net integration

ESS Communication Interface

Touchscreen Display
Data Monitoring (SCADA)
Ethernet Support
Modbus
GPRS/Satellite Communication

ESS Product Certifications

EN 61000-6-2, EN 61000-6-4,
IEC 62040, CE Conformity



- 1 Battery racks
- 2 Battery inverter
- 3 PV inverter (optional)
- 4 Control panel (outside)
- 5 AC connections
- 6 Air Conditioning system
- 7 DC connections

*The guarantee and lifetimes mentioned are under specific standard conditions of operation of the ESS.

Actual product specifications and layout may vary depending upon the application.

For further details, please contact your support team at Autarsys.

Hybrid Control Uninterrupted power, be it Grid or Solar

Load shedding and unscheduled power cuts lead to monetary losses and downtime in production for the commercial and industrial users. Even when the sun is shining, captive solar PV generation in most cases must be interrupted when the grid fails. The Autarsys ESS ensures that businesses remain online by either supplying energy directly from the sun or that which is stored in it's batteries. It's bidirectional hybrid inverters form a grid and are capable of supplying energy both at high or low load conditions.



Global Presence **Where we are on duty**



Ancillary Tailored Service and Support **You can rely on us**

| Analysis & Engineering | Installation | Operation & Maintenance |
|---|--|---|
| Load profiling and forecasting energy demand | Adaptation of communication interface and system power | Remote monitoring of system performance |
| Evaluation of the grid and renewable energy sources | Commissioning | Provide online support for troubleshooting |
| Sizing the energy storage system | Onsite O&M training for technical personnel | Comprehensive hardware, software and spare part management through product lifetime |

autarsys

Make your own energy.

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