

PRODUCT BROCHURE

PCS100 UPS-I 150 kVA - 3000 kVA

Industrial UPS



- Protection against deep sags and short term outages
- Small footprint
- Faster return on investment due to high efficiency

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Industrial UPS

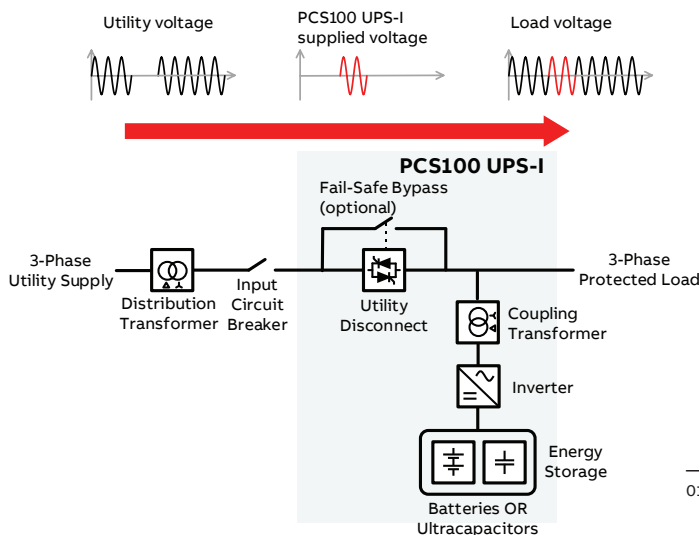
An ideal solution where very deep sags or short term power outages are a problem.

01 PCS100 UPS-I
Single line diagram

The PCS100 UPS-I is a high performance, high efficiency UPS system that ensures protection from power quality events, such as deep sags or short-term outages, enabling continuous power supply to modern industrial processes.

The PCS100 UPS-I uses a modular energy storage and inverter system to supply continuous power during utility events. The PCS100 UPS-I provides flexibility in the choice of energy storage, ultracapacitors or VRLA batteries to suit the required autonomy. Battery systems can deliver autonomy up to 5 minutes. Ultracapacitors provide seconds of protection for short power quality events, which are the most common power quality problems around the world. Ultracapacitors have extremely high power density and long lifetime resulting in a very compact and low maintenance solution.

Harsh electrical environments are often found in modern industry. The PCS100 UPS-I uses a robust high-speed power electronic disconnect switch to connect the load to the utility. The modular inverter construction and fail-safe electromechanical bypass provides the highest system availability. Coupled with the small footprint and easy serviceability, this low maintenance, high efficiency industrial UPS is the solution for all power protection applications.



How it works

When the utility voltage is within a user defined range, the load is supplied directly by the utility. When a sag, surge or outage occurs, the PCS100 UPS-I immediately transfers the load onto its inverter and energy storage.

When the utility voltage returns to within specification the PCS100 UPS-I will seamlessly transfer the load from the inverter back to the utility.

Key benefits

- Robust fail-safe modular industrial design
- Long lifetime energy storage
- Small footprint
- Highest efficiency and availability
- Low maintenance requirements
- Easy serviceability

Key features

- Very high efficiency (99% typical)
- Designed specifically for industrial loads (motors, drives, transformers, production tools)
- Modular design providing high reliability and typically 30 minutes MTTR (mean time to repair)
- Very high fault current capacity
- Advanced ultracapacitor or high discharge rate battery storage
- Generator walk-in algorithm for a controlled transfer of the load to backup generators
- Ratings from 150 kVA to 3000 kVA and voltages
- 208 Vac to 480 Vac

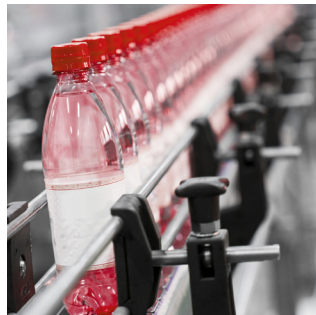
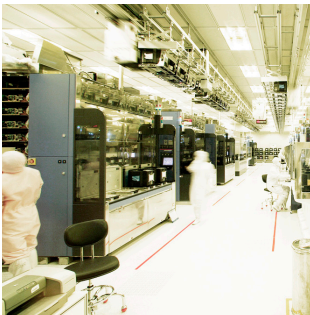
PCS100 UPS-I advantages compared to alternative solutions

- Robust with high availability
- Designed for harsh industrial electrical environments
- Modular design
- Lowest cost of ownership
- Highest efficiency
- Long lifetime energy storage
- Small footprint
- Flexible energy storage options (ultracapacitors or VRLA batteries)

Complete power protection

Typical applications

Improving productivity, reducing downtime and increasing manufacturing quality with minimized total cost of ownership.



Semiconductor fabrication, test and assembly lines

Flat panel and LCD production lines need to be in operation 24/7 in order to meet today's demands. ABB have installed many UPS-I's, that amount to hundreds of MVA at leading companies like, Samsung and many other LCD manufacturing plants worldwide.

High-speed packaging lines

Voltage variations in high-speed packaging lines cause major disruptions. The PCS100 UPS-I is protecting many high speed packaging lines, including a dairy operation in Washington DC, that produces several million "one time use" plastic coffee creamers per day.

Medical

To ensure that production at multi-billion dollar companies is not brought to a standstill by power failures, voltage sags and other electrical disruptions, power protection is needed. ABB's PCS100 UPS-I is protecting major medical suppliers like B.Braun from such events.

Cable manufacture

Contact manufactures such as NKT's specialist cable factory at Karlskrona, Sweden know the impact of an unplanned shutdown on their operation and invested in two high capacity UPS-I. The UPS-I secure the factory's operations against seasonal weather related utility disturbances along with less predictable voltage events caused by accidents.

Data centers HVAC and servers

PCS100 UPS-I's protects data centers and servers from voltage sags and surges. For example, the PCS100 UPS-I is supporting one of the Swiss government data centers with emergency power supply and a major data center based in Memphis, USA.

Aerospace application

Carbon fiber is extensively used in the aerospace industry. The PCS100 UPS-I protects the production of the carbon fibers, ensuring quality and yield requirements are met. Carbon fiber is the base fiber for all carbon composites.



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