

#### Single-conversion Industrial UPS

The PCS100 Industrial UPS (PCS100 UPS-I) is an ideal complement to the PCS100 AVC. Unlike the PCS100 AVC, the PCS100 UPS-I incorporates energy storage, often in the form of Ultra Capacitors. This provides the energy to ride through very deep Voltage Sags and short power outage losses and a small footprint. It is available in a wide range of voltages, including 210 / 220 VAC up to multi-MVA ratings. This makes it suitable for direct connection to many semiconductor tool loads. Typical loads include photolithography, ion implantations and etching tools, wafer testing and die cutting.

#### Double-conversion Industrial UPS

The threat of lost production or the possibility of damage to work in process is a key concern in the Semiconductor manufacturing industry. The Industrial UPS features an insulated gate bipolar transistor (IGBT)-based pulse-width modulation (PWM) inverter design that employs active current limitation for higher short circuit tolerance. The active short-circuit method ensures the best possible current clearing waveform, while still protecting the inverter from catastrophic failure. In the event of a load-side short circuit or over-current that cannot be supplied by the inverter, the UPS logic will transfer away from the active inverter source, thereby preventing the fault condition from damaging the inverter.

#### Double-conversion Online Modular UPS

The compact design of UPS DPA, consisting of modular power modules, integrated batteries and distribution, offers a small footprint solution to optimize space. It is used to provide power backup to operations and telecommunications systems.

#### Single-conversion Medium Voltage UPS

Space for power protection equipment is often very limited in semiconductor plants. The PCS100 MV UPS, which provides a high level of power protection at medium voltage levels, is an ideal centralized power protection solution. With best in class electrical efficiency, a small footprint and a very low cost of ownership, the PCS100 MV UPS can protect against deep voltage sags and short outages. Typical loads include photolithography, ion implantations and etching tools, wafer testing, die cutting and air handling.

## Technical overview



PCS100 AVC  
Active Voltage Conditioner  
System rating: Up to 2.4 MVA  
Power range: 150 KVA to 2.4 MVA  
Efficiency: Typically 99 %  
Efficiency in Eco-mode: N/A  
Backup time: N/A  
Applications: Photolithography,  
ION implantations and etching  
tools, wafer testing and die  
cutting.



PCS100 RPC  
Reactive Power Conditioner  
System rating: Up to 2 MVA  
Power range: 100 KVA to 2 MVA  
Efficiency: 97 %  
Efficiency in Eco-mode: N/A  
Backup time: N/A  
Applications:  
Photolithography, ion  
implantations and etching tools,  
wafer testing, die cutting and air  
handling



#### PCS100 UPS-I

Single-conversion Industrial UPS

System rating: Up to 3 MVA

Power range: 150 KVA to 3 MVA

Efficiency: Greater than 99 %

Efficiency in eco-mode: N/A

Backup time: Configurable

Applications:

CVD, gas supply, tools and sub-systems.



**Double-conversion Industrial UPS**

System rating: Up to 80 KVA

Power range: 10 to 80 KVA

Efficiency: 86 %

Efficiency in Eco-mode: N/A

Backup time: Configurable

Applications:

Emergency operations,

telecommunications

systems.



PCS100 MV UPS  
Medium voltage single-conversion  
UPS  
System rating: Up to 6 MVA  
Power range: 2,4,6 MVA  
Efficiency: Greater than 99 %  
Efficiency in eco-mode: N/A  
Backup time: Configurable  
Applications:  
Protects all loads against deep  
voltage sags and short outages.