
PRODUCT BROCHURE

PCS120 MV UPS

Medium Voltage UPS



- Continuous clean power
- Efficiency of 98%
- High fault clearing capability
- Indoor and outdoor solutions
- Versatile energy storage options

PCS120 MV UPS

Medium Voltage UPS based on ZISC architecture

The space and electrical power needed to run a large critical power facility has increased over the past decade. Facilities are now faced with the need for energy efficient and reliable power as it is essential to have clean continuous power to avoid any major losses.



ABB's PCS120 MV UPS is the next generation of medium voltage UPS intended for multi megawatt power protection. Based on the revolutionary ZISC architecture, the PCS120 MV UPS introduces a flexible solution for higher reliability and higher efficiency in critical power facilities.

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01 PCS120 MV UPS

Medium voltage

The transition from low voltage (LV) to medium voltage (MV) level is a natural progression of power protection for large critical power facilities. The approach offers two main benefits. It increases reliability and reduces costs of the critical power facility build and operation.

Increased reliability is derived from the MV design approach with larger protected load blocks, lower switchgear count and the operating culture of medium voltage systems.

Installing the power protection at the MV level provides the most energy efficient configuration as the lower currents at this voltage result in smaller cables and lower losses.

Impedance (Z) Isolated Static Converter ZISC

ABB's ZISC is a revolutionary high performance, high efficiency power conditioning and uninterruptible power supply architecture. It provides protection from a broad spectrum of utility voltage events and supplies continuous clean power.

ZISC architecture is based on an isolating line reactor coupled with the high performance ABB power converters. This simple approach, backed up with advanced control, provides unmatched reliability and performance, with class leading efficiency.

Combined with a wide range of the modern energy storage ABB's ZISC provides autonomies from a few seconds to many minutes.

Complete power protection

Reliable and clean power with optimized operating costs

The PCS120 MV UPS’s key benefits and advantages create a robust and extremely reliable power protection device for critical facilities.

Cost effective

- Class leading efficiency - 98% at 50% to 75% loading
- Reduced maintenance compared to alternative solutions

Performance

- Performance in line with IEC62040-3 Class 1
- High fault clearing capability
- Enhanced ring bus performance
- Higher availability due to modular design

Flexibility

- Paralleling and ring bus capabilities
- Distributed layouts
- Versatile energy storage options
- Indoor or containerized outdoor solution

Connectivity and monitoring

- Web server and email
- IEC 61850 digital communication
- Event analysis and waveform capture
- Remote monitoring and diagnostics

Serviceability

- Plug and play power converters
- Power converters and energy storage at low voltage
- MTTR typically less than an hour
- Comprehensive service log
- Shutdown every 5 years for maintenance

02 Outdoor solution

03 Indoor solution



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Technical specifications

Item	Value	Note
Nominal Voltage	12 kV IEC (10 - 11 kV) 15 kV ANSI (12 - 15 kV) 24 kV IEC (20 - 24 kV)	
Power Rating	2.25 MVA / 2 MW	Single unit
Efficiency	>98%	
Configurations	Parallel Ring bus	
Energy Storage	Li-Ion batteries VRLA batteries EDLC ultracapacitors	
Construction	Indoor solution Outdoor solution	



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Power conditioning products

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