

PRODUCT BROCHURE

HIPERGUARD

Medium Voltage UPS 4.16 kV - 24 kV



- Continuous clean power
- Efficiency of 98 %
- Scalable power from 2.5 MW to 25 MW
- System energy reserve available for grid support services
- Design life of fifteen years

**ENGINEERED
TO OUTRUN**

HIPERGUARD MV UPS

Medium Voltage UPS based on ZISC architecture

The space and electrical power needed to run a large critical power facility have 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



01

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

01 HiPerGuard 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 installations. 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, leading to less cooling requirements.

HiPerGuard

HiPerGuard is the next generation of medium voltage UPS intended for multi megawatt power protection. Based on the impedance isolated static converter (ZISC) architecture, the HiPerGuard MV UPS introduces a flexible solution with high reliability and high efficiency for critical power installations.

The HiPerGuard is the most recent addition to ABB's Critical Power product portfolio, creating a complete power protection solution. This increased flexibility removes the need for complex power distribution architectures.



01



— Up to 25MW

Scalable power from 2.5 MW up to 25MW in parallel allows load growth with less stranded capacity, minimising CAPEX.

02



— 4.6 GWh

Of energy savings for fifteen years when compared to rotary systems. Leading efficiency for line-interactive UPS.

03



— Power Exchanger

System energy reserve available for grid support services or peak shaving.

04



— Up to 10 years

Intervals between intrusive maintenance. ABB's Ability™ real-time monitoring for maximum uptime.

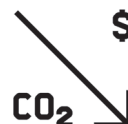
05



— High performance

IEC 62040.3 Class 1 load protection providing load isolation from the network with sub-cycle response load conditioning.

06



— 1,360 tonnes

CO₂ emissions are reduced by 1,360 tonnes throughout the lifespan of the product.

TECHNICAL DATA

Product Class	5 kV ANSI	7.2 kV IEC	12 kV IEC	15 kV ANSI	24 kV IEC
Rated Voltage ¹	4.16-4.76 kV	6-6.6 kV	10 – 11 kV	12.47 – 13.8 kV	20 – 22 kV
Rated apparent power	2500 kVA				Single unit
Rated active power	2500 kW				Load power factor 1.0
Hard parallel configuration	Up to 10 units				
PERFORMANCE					
Efficiency	98% for 50% to 100% loading				Under nominal conditions
Dynamic output performance	In line with IEC62040-3 VI SS 111				
Architecture	ZISC enabled line interactive				
INPUT					
Voltage tolerance	±10 %				From nominal voltage
Rated frequency	50 Hz/60 Hz				
Power Distribution system ¹	IT, 3-Wire Input				
OUTPUT					
Rated frequency	50 Hz or 60 Hz				
Load power factor range	0.9 leading to 0.8 lagging				
ENERGY STORAGE					
Energy storage type	Li-Ion batteries				
Energy storage supplier	ABB qualified				
Energy storage autonomy range ¹	60 sec to hours				
INTERFACE					
System display	10" touchscreen display				
Display advanced functionality	Comprehensive service log				
Communication	Ethernet Modbus TCP™				

¹ For other voltages, distribution systems, and autonomy options, please contact ABB.



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