

MegaFlex DPA

The best in power protection



The on-line double conversion MegaFlex DPA UPS provides the best power protection for your critical infrastructure from 250 kW to 1,500 kW. This modular UPS is specifically designed for critical high-density computing environments across private and public enterprise, as well as data centers for colocation, hosting cloud and telecommunications. The modular UPS is based on ABB's decentralized parallel architecture (DPA™).

This innovative system means every UPS module is practically its own UPS with all the essential functional units needed for independent operation. DPA provides full redundancy and fault tolerance in a way that is unique amongst UPS vendors. This results in increased system reliability and availability that outperforms every other modular UPS solution on the market.

Flexible approach

- Easily scalable solutions
- Up to 1,500 kW power protection in a single UPS with add-on modules
- Redundant power capabilities: 1,000 kW N+1, 1,250 kW N+1
- Collaborative, customer-centered approach

Reliable operations

- DPA™ technology maximizing power availability
- Online-swappable power modules for continuous uptime
- Automatic isolation of any faulty power module
- Fault-tolerant UPS design for uninterrupted power
- Ease of operation with local and remote real-time monitoring

Optimized efficiency

- Minimized energy losses, heat dissipation and electricity cost in double conversion or eco mode
- Smart load-sharing optimizes energy consumption
- Optimized system efficiency under low load conditions with ABB Xtra VFI modes
- All guaranteed across the 15-year product lifespan

Simple installation and serviceability

- Plug-in power modules support easy, safe connections
- Pre-engineered power frames eliminate wiring entirely
- Cleans and optimizes incoming power
- Automatic self-configuration and testing minimizes human intervention

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Product features

Flexible approach

As your power requirements increase, you need a UPS that grows with your infrastructure. With 3-4 power frame slots and connection frames of 1 MW or 1.5 MW, the MegaFlex DPA UPS offers a flexible mechanical layout that can adapt to your current system and future power expansion.

- Easily scalable modular system
- Power capacity can be optimized to match variable loads
- Easy upgrade for power demand increases
- Ease-of-use for operations personnel
- Simple maintenance
- Can be paralleled with up to four systems

Optimized efficiency

Running a facility with high energy demands means that every percentage point of energy saved represents significant cost savings and a reduction in CO₂ emissions. The MegaFlex DPA UPS solution combines the highest efficiency ratings available with the smallest footprint.

- VFI double conversion operating mode with efficiency of up to 97.4 percent, rising to 99.4 percent efficiency in VFD ECO mode
- Up to 45 percent footprint savings with ultra-high kW per m²
- Optimized efficiency in partial-load conditions

The most reliable UPS on the market

Critical, high-density computing environments demand a combination of guaranteed uptime and the highest safety standards to ensure both assets and people are protected.

- Automatic power module self-configuration and firmware updates
- Slide-in power modules for simple and safe installation
- Full lifetime service from ABB-trained specialists
- Enhanced power measurement, providing comprehensive data to track energy consumption

Maintenance made easy

Serviceability has never been easier than with the MegaFlex DPA UPS's modular design. Each component has been expertly engineered to optimize accessibility and to reduce the possibility of human error.

Designed for ease of use from the first moment of installation, the module cabinets are easily transported to the UPS and slide into place on integrated wheels.

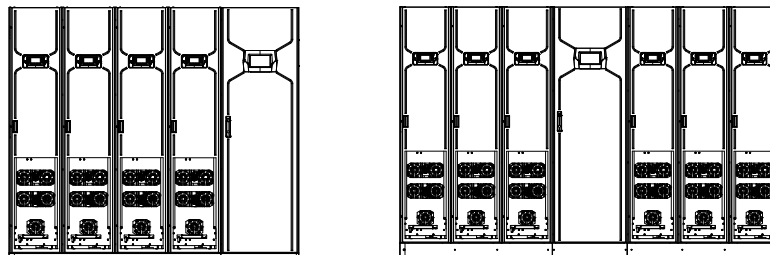
Docking connectors eliminate the threat of cabling faults during installation while entry points at the front and rear of the IP20-protected cabinet make connecting mains cabling convenient, safe and worry-free.

The fan array is mounted on a pull-out drawer for ease of access with failure detection and speed regulation provided as standard.



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Available models



Cabinet type	1,000 kW	1,500 kW
Capacity	Up to four modules	Up to six modules
Weight [kg]	1940	3250
Dimensions w × h × d (mm)	2235 x 2000 x 1000	3045 x 2000 x 1000

UPS cabinet configuration

- Available in two different frames (up to 1,000 kW / 1,500 kW)
- UPS frame equipped with up to 4 or 6 x UPS module slots
- Power modules of 250 kW
- Parallel system capability up to 4 UPS systems
- Single-input feed
- Top or bottom cable entry (standard)
- Frontal access for power frame and connection frame
- Inbuilt back-feed protection
- Separate battery kit
- Customer interface: UPS module with HMI interface, system graphical touch screen
- Communication ports: USB, RS-232, potential-free contacts, ABB network card

Options

- Battery temperature sensor
- Common battery kit
- Synchronization kit
- Cold start
- Xtra VFI modes

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Technical specification

General data			
System power rating [kW]	1,000	1,250	1,500
Core power rating [kW]	250		
Static byass architecture	Distributed		
Parallel system capability	Up to 4 UPS system		
Topology	Online double conversion		
Cable entry	Top or bottom		
Serviceability	Frontal access for power frame and connection frame, removable power module with 360° access		
Back-feed protection	Built-in as standard		
Input			
Nominal input voltage	380 / 400 / 415 VAC		
Voltage tolerance (referred to 3x 400 / 230 V)	- 30% at partial loads		
Current distortion THDi	<4%		
Frequency range	35 – 70 Hz		
Power factor	0.99		
Output			
Rated output voltage	380 / 400 / 415 VAC		
Voltage tolerance (referred to 400 V)	± 1%		
Voltage distortion THDU	<2.0%		
Frequency	50 or 60 Hz (selectable)		
Rated power factor	1.0		
Efficiency			
Max system efficiency (VFI) @ 50% load	97.4%		
Overall system efficiency (VFI)	Over 97% with varying of load		
In eco-mode (VFD)	Up to 99%		
Environment			
Protection rating	IP 20		
Storage temperature	-25 °C to +70 °C		
Operating temperature	0 °C to +40 °C		
Altitude (above sea level)	1,000 m w/o derating		
Communications			
User interface	System graphical touch screen		
Communication ports	USB, RS-232, potential-free contacts, ABB network card		
Customer interface	Remote shutdown, gen-set interface, external bypass contact		
Batteries			
Types	VRLA, open cells, NiCd and Li-Ion		
Charger	Decentralized battery charger per power module		
Standards			
Safety	IEC / EN 62040-1		
EMC	IEC / EN 62040-2		
Performance	IEC / EN 62040-3		
Manufacturing	ISO 9001:2015, ISO 14001:2015, OHSAS18001		
Weight, dimensions			
Weight [kg]	1940	2900	3250
Dimensions w × h × d (mm)	2235 x 2000 x 1000	3045 x 2000 x 1000	3045 x 2000 x 1000