

# Conceptpower DPA 500 100 kW – 3 MW

## The modular UPS – now available for high-power systems

### The modular UPS – now up to 3 MW

ABB's Conceptpower DPA 500 is a high-power, modular and transformer-free UPS system for organizations who need zero downtime. The UPS is built using true online double conversion technology and provides low cost of ownership.

#### True modularity up to 3 MW

Now you can have a UPS size to exactly fit your needs: The Conceptpower DPA 500 is the only modular UPS on the market that can easily be scaled up to provide 3 MW of clean, reliable power.

This scalability means that there is no need to over-specify the original configuration as power modules can simply be added, as needed, in the future.

#### True parallel architecture

Reliability and availability are ensured by the Conceptpower DPA 500's proven Decentralised Parallel Architecture (DPA™). Each module contains all the hardware and software required for full system operation. They share no common components. Each UPS module has its own independent static bypass, rectifier, inverter, logic control, control panel, battery charger and batteries. With all the critical components duplicated and distributed between individual units, potential single points of failure are eliminated.

#### Highlights:

- 100 kW rated power module
- 500 kW rated power in single frame
- Extended power range: from 100 kW to 3 MW
- Unity output power factor (kVA = kW)
- AC-AC efficiency up to 96 %
- Efficiency in eco-mode  $\geq 99$  %
- Online Swap Modularity (OSM)
- Online serviceability
- Top or bottom cable entry (standard)
- Built-in back-feed protection (standard)
- Graphical display on system level
- DPA displays in each module
- Maintenance bypass switch (optional)

#### Typical applications:

- mid-sized datacenters
- large datacenters
- server rooms and IT applications
- critical process protection



Online-swappable modules

# Technical specifications

GENERAL DATA	
System power range	100 kW – 3 MW
Nominal power / module	100 kW
Nominal power / frame	500 kW
Output power factor	1.0
Topology	Double conversion, transformer-free, modular, Decentralized Parallel Architecture
Parallel configuration	Up to 5 modules in one frame (500 kW) / up to 6 frames in parallel (3 MW)
Cable entry	Bottom or top as standard
Serviceability	Fully front serviceable
Back-feed protection	Built-in as standard
INPUT	
Nominal input voltage	3 x 380 / 220 V + N, 3 x 400 / 230 V + N, 3 x 415 / 240 V + N
Voltage tolerance (referred to 400 / 230 V)	308 – 460 V (–23 – +15 %) < 100 % load, 280 – 460 V (–30 – +15 %) < 80 % load, 240 – 460 V (–40 – +15 %) < 60 % load
Input distortion THDi	< 3.5 % at 100% load
Frequency range	35 – 70 Hz
Power factor	0.99 @ 100 % load
Walk in / Soft start	Yes
OUTPUT	
Rated output voltage	3 x 380 / 220 V + N, 3 x 400 / 230 V + N, 3 x 415 / 240 V + N
Voltage tolerance (referred to 400 / 230 V)	< ±1 % with static load / < ±4 % with step load
Voltage distortion	< 2 % with linear load / < 4 % with non-linear load
Frequency	50 or 60 Hz (selectable)
EFFICIENCY	
AC-AC	Up to 96 %
In eco-mode	≥ 99 %
ENVIRONMENT	
Protection rating	IP 20
Storage temperature	–25° – +70°
Operating temperature	0° – +40°C
Altitude (above sea level)	1000 m without de-rating
BATTERIES	
Number of 12V blocks/string	Flexible number from 40 – 50 blocks
Types	VRLA, vented lead-acid, NiCd
Battery charger	Decentralized charger per module
COMMUNICATIONS	
User interface	Graphical touch screen (one per frame as standard) Decentralized LCD + mimic diagram (one per module as standard)
Communication ports	USB, RS-232, voltage-free contacts, SNMP (optional)
Customer interface	Remote shutdown, gen-set interface, external bypass contact
COMPLIANCY	
Safety	IEC / EN 62040-1
EMC	IEC / EN 62040-2
Performance	IEC / EN 62040-3
Manufacturing	ISO 9001:2008, ISO 14001:2004
WEIGHT, DIMENSIONS	
Weight	approx. 975 kg (500 kW system without batteries)
Dimensions WxHxD	1580 x 1975 x 945 mm

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