
MODULAR THREE-PHASE UPS SYSTEM

Conceptpower DPA 30–250 kVA

True modular UPS system
for critical applications



A UPS designed to meet the needs of today and tomorrow

The Conceptpower DPA is a high-power, modular UPS system designed for today's critical high-density computing environments. The UPS is built using true online double conversion technology and delivers high-quality power. When combined with complete network integration software and communication connectivity, the Conceptpower DPA provides a comprehensive, easy-to-integrate power protection for data centers and network environments.

The Conceptpower DPA is based on ABB's unique and proven Decentralized Parallel Architecture DPA™. DPA means that each UPS module contains all the hardware and software required for full system operation. They share no common components. The major benefit of a DPA system is very high power availability. Each UPS module has its own independent static bypass, rectifier, inverter, logic control, control panel and battery charger. Even the batteries can be configured separately for each module if required. With all of the critical components duplicated and distributed between individual units, potential single

points of failure are eliminated. System uptime is further maximized by the true safe-swap modularity of the modules (easy replacement during system operation) which allows the simple addition or removal of modules without the need to bypass the UPS.

Conceptpower DPA modules can be connected in parallel configuration to provide redundancy or to increase the system's total capacity. The Conceptpower DPA delivers power protection from 30 to 250kVA (one to five modules) in a single cabinet. Cabinets can operate in parallel configuration to build a system of up to 1.5MVA.

Further Conceptpower DPA highlights

- Power density of up to 342 kW / m² saves floor space
- Near-unity input power factor and low input harmonic distortion reduce running costs
- Safe-swap modules maximize availability and minimize upgrade costs



Online swappable modules

Fully scalable up to 1.5 MVA

“Six nines” availability

Low cost of ownership

Lower your total cost of ownership

The Conceptpower DPA boasts the lowest cost of ownership of any UPS system by offering energy efficiency, scalable flexibility and ergonomic design to enable easy serviceability. The Conceptpower DPA allows the infrastructure size to be scaled to align more closely with the prevailing IT requirements. Scaling the infrastructure to meet present IT needs, with the ability to add on incrementally as IT needs grow, also means that you only power and cool what you need. The resulting savings in power usage are substantial over the service life of the UPS.

Simplify installation and service

Its straightforward and understandable concept simplifies every step of the deployment process, from planning, through installation and commissioning to full use. Easy set-up and maintenance involve lower operating and maintenance costs. The Conceptpower DPA allows adding modules in a simple plug-and-play procedure.

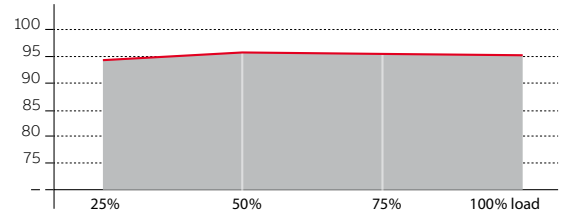
Optimize your energy efficiency

Class-leading energy efficiency significantly reduces system running costs and site air-conditioning costs.

Advanced scalable architecture

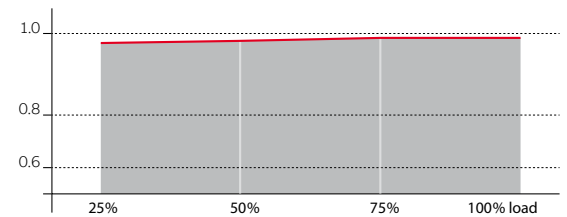
If additional capacity or redundancy is needed, up to 30 independent modules can operate in parallel configuration, achieving a total power capacity of up to 1.5 MVA.

Scalable up to 1.5 MVA



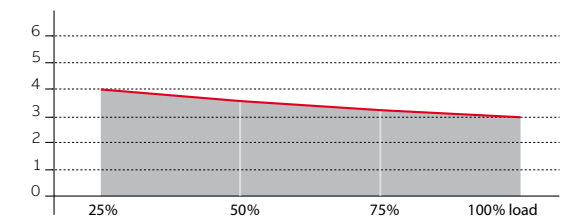
AC-AC efficiency

The flat efficiency curve enables significant energy savings in every working condition.



Input power factor versus load

The input power factor of DPA UPScale RI is near unity at partial and full load.



Input current total harmonic distortion (THDi)

Class-leading THDi of < 3% virtually eliminates harmonic distortion of the mains supply.

Rightsize your system



| Product types | Conceptpower DPA Triple | Conceptpower DPA Upgrade |
|--|-------------------------|--------------------------|
| Output power | 30–150kVA | 30–250kVA |
| No. of UPS modules | 1 to 3 | 1 to 5 |
| Parallel configuration | Up to 30 modules | Up to 30 modules |
| Dimensions W×H×D(mm) | 730×1975×800 | 730×1975×800 |
| Weight frame (without modules / without batteries) | 239kg | 205kg |

Conceptpower DPA – product range

To ensure the ultimate in flexibility, the Conceptpower DPA is available in various configurations. The lower power cabinets can accommodate batteries internally. External battery cabinets are available for all product types. All UPS cabinets are paralleleable.

Conceptpower DPA – safe-swap modularity

True safe-swap modularity enables the safe removal and / or insertion of UPS modules into a Conceptpower DPA system without risk to the critical load and without the need to either transfer the critical load onto raw mains or remove power from the critical load. This unique feature directly addresses today’s requirement for continuous uptime. The ability to safe-swap modules in a Conceptpower DPA system significantly reduces its mean time to repair (MTTR) and simplifies system upgrades.

Independent safe-swap modules!



| MODULES | MX |
|-----------------------|--------------------|
| Maximum output power | 30, 40, 50kVA |
| Weight | 43.1, 45.3, 46.8kg |
| Dimensions W×H×D (mm) | 663×225×720 |

Technical specifications

| GENERAL DATA | Conceptpower DPA Triple | Conceptpower DPA Upgrade |
|---|--|--------------------------|
| Maximum output power (frame) | 150kVA | 250kVA |
| Number of UPS modules | 1 to 3 | 1 to 5 |
| Weight (with modules / without batteries) | 368–379 kg | 421–439 kg |
| Dimensions W × H × D (mm) | 730 × 1975 × 800 | 730 × 1975 × 800 |
| Output power factor | 0.8 | |
| Topology | True online double conversion | |
| Parallel configuration | Up to 30 modules (up to 1.5 MVA) | |
| UPS type | Modular (DPA) | |
| Cable entry | Front access | |
| INPUT | | |
| Nominal input voltage | 3 × 380 / 220 V + N, 3 × 400 / 230 V + N, 3 × 415 / 240 V + N | |
| Voltage tolerance (Ref. to 3 × 400 / 230 V) | For loads < 100 % (–20 %, +15 %), < 80 % (–26 %, +15 %), < 60 % (–35 %, +15 %) | |
| Input distortion THDi | ≤ 3 % at 100 % | |
| Frequency | 30–70 Hz | |
| Power factor | 0.99 | |
| OUTPUT | | |
| Rated output voltage | 3 × 380 / 220 V + N, 3 × 400 / 230 V + N, 3 × 415 / 240 V + N | |
| Voltage distortion (Ref. to 3 × 400 / 230 V) | < 2 % | |
| Frequency | 50 or 60 Hz | |
| Overload capability | 10 min.: up to 125 % or 1 min.: up to 150 % | |
| Unbalanced load | 100 % possible | |
| Crest factor | 3 : 1 | |
| EFFICIENCY | | |
| Overall efficiency | Up to 95.5 % | |
| In eco-mode configuration | 98 % | |
| ENVIRONMENT | | |
| Storage temperature | –25–+70 °C | |
| Operating temperature | 0–40 °C | |
| Altitude | 1000 m without derating | |
| BATTERY | | |
| Battery capacity | Configurable up to several hours | |
| Internal batteries | Yes | – |
| No. of internal batteries | Up to 240 | – |
| COMMUNICATIONS | | |
| LCD display | Yes (per module) | |
| LEDs | LED for notification and alarm | |
| Communication ports | USB, RS-232, SNMP slot, potential-free contacts | |
| STANDARDS | | |
| Safety | IEC / EN 62040-1 | |
| Electromagnetic compatibility (EMC) | IEC / EN 62040-2 | |
| Performance | IEC / EN 62040-3 | |
| Manufacturing | ISO 9001:2015, ISO 14001:2015, OHSAS18001 | |
| Product certification | CE | |
| IP rating | IP 20 | |

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