

# PowerWAVE 8000DPA

Specifically designed for low  
and medium power applications



# PowerWAVE 8000DPA

is ideal for low to medium, high density critical power protection applications.

For more information call 0118 981 5151  
or visit [www.upspower.co.uk](http://www.upspower.co.uk)

## PowerWAVE 8000DPA

Capacities from 10 kVA to 120 kVA in 10 kVA or 20 kVA modular steps

Available as free-standing (ST) or rack-independent (RI) solutions

N+1 Redundancy (up to 100 kVA N+1)

Transformerless technology

'Six nines' (99.9999%) availability

Up to 95.5% efficiency across a wide load range

Low carbon footprint

Near unity power factor at partial and full loads (PF=0.99 @ 100% load)

Low input harmonic distortion (THDi<3%)

Fully rated output power (Blade Friendly)

Online double conversion technology

## PowerWAVE 8000DPA ST (Free standing)

Up to 6 UPS modules

Customer inputs and volt-free outputs

RS232 Serial interface

Maintenance bypass switch

Slot for optional SNMP card

AC input terminals

AC output terminals

Battery terminal rail



Using proven Decentralised Parallel Architecture (DPA™) technology, the PowerWAVE 8000DPA combines true 'hot-swap' modularity with class leading efficiency, maximum availability, flexibility and low cost of ownership.

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## Maximum availability

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### Key benefits

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Six nines availability 99.9999%

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PowerWAVE 8000DPA provides class leading 'six nines' (99.9999%) availability by uniquely combining the benefits of decentralised parallel architecture (DPA), parallel redundancy and 'hot-swap' modularity to ensure 24/7 power availability.

The ability to 'hot-swap' modules, without risk to the critical load, significantly reduces the system's mean time to repair (MTTR) further increasing power availability.



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## The right solution

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### PowerWAVE 8000DPA is available in two different versions:

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PowerWAVE 8000DPA ST (Standard)

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PowerWAVE 8000DPA RI (Rack-Independent)

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PowerWAVE 8000DPA ST (Standard) is available for high density applications requiring a standard power protection solution including; frame, UPS, battery and communication. This solution delivers power protection from 10 kVA to 120 kVA (100 kVA N+1) in 10 kVA or 20 kVA modular steps to provide a maximum power density of 283 kW/m<sup>2</sup>.

PowerWAVE 8000DPA RI (Rack-Independent) solution including: UPS, battery and communication, which can be integrated into any 19" rack (independent of manufacturer) and provides up to 80 kVA (20 kVA N+1) making it ideal for integrated IT, Telecom or other applications.

See diagrams for details.

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## Advanced Decentralised Parallel Architecture (DPA)

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### Key benefits

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Distributed control and power

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Independent hot-swap modules

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No single points of failure

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Decentralised Parallel Architecture (DPA) means each UPS module contains all the hardware and software required for full system operation. They share no common components so a DPA parallel system offers extremely high availability. In addition, potential single points of failure are eliminated and system uptime is maximised. PowerWAVE 8000DPA UPS modules can be paralleled to provide redundancy (parallel redundancy) or to increase the system's total capacity.

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## Easy to replace 'Hot-Swap' modules

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### Key benefits

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Replace or add modules with no downtime

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Cost effective scalability & 'right-sizing'

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Simple power upgrade

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Future proof investment

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True 'hot-swap' modularity enables the safe removal and/or insertion of UPS modules into a PowerWAVE 8000DPA 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 directly addresses today's requirement for continuous uptime, reducing mean time to repair (MTTR).

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## High reliability

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### Key benefits

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Reliability maximised

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Automatic parallel redundant operation

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Parallel redundant (N+1) UPS systems provide the highest level of reliability by ensuring that the number of UPS modules in a system is a minimum of one (N) over and above the number required (N) to fully support the critical load.

The PowerWAVE 8000DPA is designed to automatically operate as a parallel redundant system, ensuring that the critical load always receives the highest level of power protection.

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## Blade friendly

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### Key benefits

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Supports blade servers

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Supports leading power factors

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Blade servers typically have a leading power factor, which can present problems to UPS systems, particularly if they are not designed to power such loads. The PowerWAVE 8000DPA is designed to power all types of electrical loads, including blade servers. It can provide fully rated output power to power factors in the range of 0.9 leading to 0.8 lagging.

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## PowerWAVE 8000DPA RI (Rack independent)

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UPS modules

Internal battery storage

RS232 Serial interface

Customer inputs and volt-free outputs

Maintenance bypass switch

Slot for optional SNMP card

Battery Fuses



Free standing and Rack independent images not to scale.

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## Class leading energy efficiency – low total cost of ownership

### Key benefits

Very high operating efficiency

Reduced installation and upgrade costs

Near unity power factor and very low input (THDi) – reduces running costs

The PowerWAVE 8000DPA delivers class leading efficiency of up to 95.5% across a wide load range significantly reducing system running costs and site air conditioning costs.

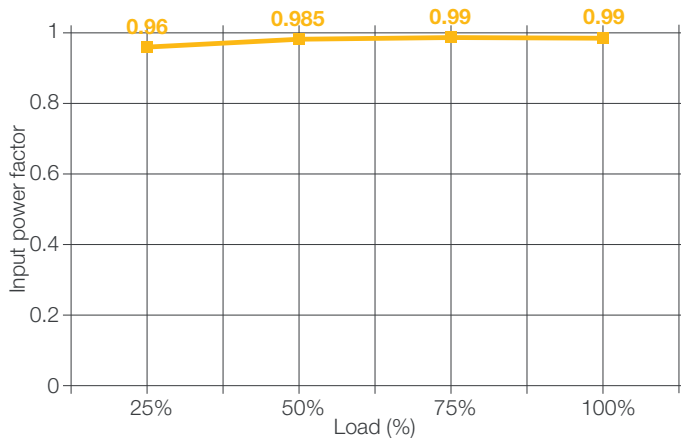
Additionally, PowerWAVE 8000DPA has a near unity input power factor at full load (and even partial loads) reducing the size of the input cable and fuses, thereby saving on materials and costs.

Input current total harmonic distortion (THDi) of less than 3% virtually eliminates harmonic pollution of the mains supply. This saves unnecessary over-sizing of gen-sets, cabling and circuit breakers, avoids extra heating of input transformers and extends the overall life-time of all input components.

All these benefits ensure the PowerWAVE 8000DPA offers one of the lowest 'total cost of ownership' and smallest carbon footprint of any UPS system in its class.

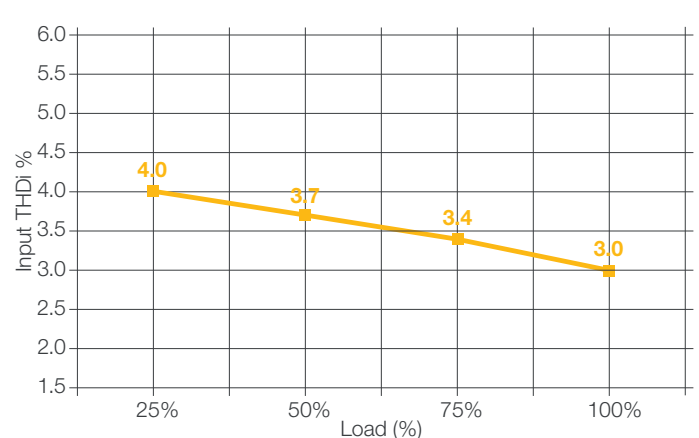


Input power factor versus load (Leading)



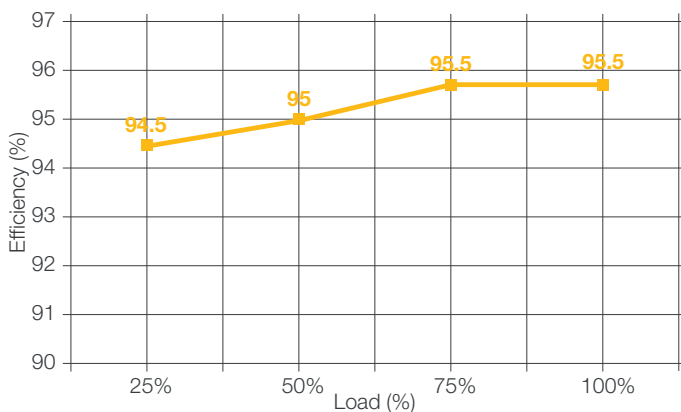
PowerWAVE 8000DPA has a near unity input power factor at full load (and even partial loads) reducing the size of the input cable and fuses, thereby saving on materials and costs.

Input Current Distortion THDi



Input current total harmonic distortion (THDi) of <3% virtually eliminates harmonic pollution of the mains supply.

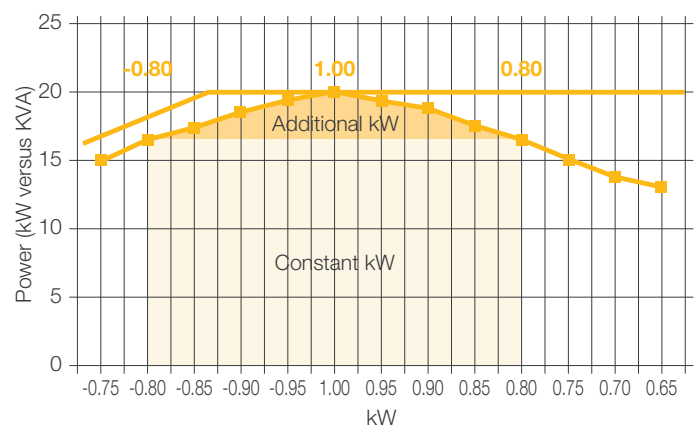
Reduced TCO – AC-AC efficiency



The PowerWAVE 8000DPA's 95.5% true online efficiency, significantly reduces system running costs and site air-conditioning costs. This helps reduce the organisation's carbon footprint.

\*Depending on configuration.

Blade server friendly power



Designed to power all types of electrical loads including blade servers, the PowerWAVE 8000DPA can provide fully rated output power from 0.9 leading to 0.8 lagging.

\*Depending on configuration.

## PowerWAVE 8000DPA ST Range – 10-120 kVA

### 2 module – ST 40



Dimensions WxHxD (mm):  
550x1135x770

Number of internal batteries:  
2 x 40 x 7.2/9Ah  
Total 80 blocks

### 3 modules – ST 60



Dimensions WxHxD (mm):  
550x1975x770

Number of internal batteries:  
3 x (2x40) x 7.2/9Ah  
Total 240 blocks

### 4 modules – ST 80



Dimensions WxHxD (mm):  
550x1135x770

External Batt. ONLY

### 6 modules – ST 120



Dimensions WxHxD (mm):  
550x1975x770

External Batt. ONLY

## PowerWAVE 8000DPA RI 10-80 kVA Rack-Independent Models

### With batteries

#### RI 11



Dimensions WxHxD (mm):  
448x487x735 (11 HU)

Number of batteries: 40

#### RI 12



Dimensions WxHxD (mm):  
448x665x735 (15 HU)

Number of batteries: 80

#### RI 22



Dimensions WxHxD (mm):  
448x798x735 (18HU)

Number of batteries: 80

#### RI 24



Dimensions WxHxD (mm):  
448x1153x735 (26HU)

Number of batteries: 160

### Without batteries

#### RI 10



Dimensions WxHxD (mm):  
448x310x565 (7 HU)

#### RI 20



Dimensions WxHxD (mm):  
448x440x565 (10HU)

#### RI 40



Dimensions WxHxD (mm):  
448x800x735 (18HU)

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