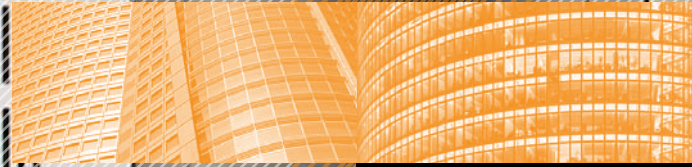


Modular, scalable
Three-phase UPS

PowerWAVE 9000DPA

Designed to meet requirements
of today – and tomorrow



Pioneering solutions for
total power protection

PowerWAVE 9000DPA

Delivers class leading 'Six Nines' (99.9999%) power availability

For more information call 0118 981 5151
or visit www.upspower.co.uk

PowerWAVE 9000DPA

- Up to 250 kVA (200 kVA N+1) in a single frame
- Paralleable up to 1-2 MVA N+1
- Transformerless technology
- 'Six Nines' (99.9999%) availability
- 96% true online efficiency
- Near unity power factor at parallel and full loads (0.99% @ 100% load)
- How input harmonic distortion (THDi<2%)
- Fully rated output power (Blade Friendly)
- Online double conversion technology
- Low total cost of ownership

Six Nines Availability for Mission Critical Applications

In today's 'on demand' world, mission critical applications must be continuously available and power protection systems, capable of providing high quality power non-stop, are essential to protect data and ensure 24/7 availability and business operation.

PowerWAVE 9000DPA provides class leading 'six nines' (99.9999%) availability by uniquely combining the benefits of decentralised parallel architecture (DPA), parallel redundancy and 'hot-swap' modularity.

Smallest footprint saves space

Class leading power density of 342kW/m² significantly minimises the floor space required to accommodate the PowerWAVE 9000DPA. This is particularly important in data centres where space must be maximised to accommodate revenue-earning equipment.

Advanced Decentralised Parallel Architecture (DPA)

Key benefits

- Distributed control and power
- Independent hot-swap modules
- No single points of failure

Decentralised Parallel Architecture (DPA) means that each UPS module in a parallel system contains all the hardware and software required for full system operation. They share no common components. The major benefit of a DPA system is extremely high availability (up to six nines 99.9999%) as there are effectively no single points of failure. DPA involves paralleling independent UPS modules and with all of the critical components duplicated and distributed between individual units, potential single points of failure are eliminated and system uptime maximised. PowerWAVE 9000DPA UPS modules can be paralleled to provide redundancy (parallel redundancy) or to increase the system's total capacity.

Easy to replace 'Hot-Swap' modules

Key benefits

- Replace or add modules with no downtime/no risk
- Simple power upgrade

True 'hot-swap' modularity enables the safe removal and/or insertion of UPS modules into a PowerWAVE 9000DPA 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 'hot-swap' modules in a PowerWAVE 9000DPA system significantly reduces its mean time to repair (MTTR) and simplifies system upgrades.

High reliability

Key benefits

- Reliability maximised
- Automatic parallel redundant operation

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

The PowerWAVE 9000DPA is designed to automatically operate as a parallel redundant system, ensuring that the critical load always receives the highest possible level of power protection.

Blade friendly

Key benefits

- Supports blade servers
- Supports leading power factors

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 9000DPA 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.



Reliable, cost effective
critical power protection

Class leading energy efficiency

Key benefits and features

100% support for your environmental policy
Lowest carbon footprint
Space and cost saving

The PowerWAVE 9000DPA's class leading 96% true online efficiency significantly reduces system running costs and site air conditioning costs. This helps reduce an organisation's carbon footprint.

Class leading input current total harmonic distortion (THDi) of <2% virtually eliminates harmonic pollution of the mains supply.

Near unity input power factor, at partial and full load, reduces the required size of the input cable and fuses thereby reducing the materials (and costs) associated with electrical installation.

Cost effective scalability

Key benefits and features

Ability to 'rightsize' the system over time
Simple installation of new modules

Cost effective scalability is another of PowerWAVE 9000DPA's key benefits. It is possible to simply add UPS modules – in cost-effective incremental steps – to the UPS system as the critical load power requirement grows. It is therefore unnecessary to oversize the UPS at the time of initial installation, a common disadvantage of other UPS systems. This 'rightsizing' reduces initial cost, optimises operating efficiency and helps reduce total cost of ownership.

Up to five UPS modules can be paralleled in a single rack-format cabinet to enable up to 200kW (342kW/m²) of power capacity per cabinet, providing 'vertical scalability'. If more capacity is required, cabinets can be paralleled providing 'horizontal scalability'.

Low cost of ownership

Key benefits and features

High operating efficiency, regardless of loading
Reduced installation and upgrading costs
Near unity input power factor and very low input THDi – thus, reduced running costs

The PowerWAVE 9000DPA offers the lowest cost of ownership of any UPS system by delivering energy efficiency, scalable flexibility and ergonomic design, which also enables easy serviceability.

Total cost of ownership of a PowerWAVE 9000DPA, when calculated over its working life, is arguably the lowest of any UPS system currently available.

Future proof installation

Key benefit and features

Investment protection

Future proof installation is assured with the PowerWAVE 9000DPA. With its unique scalability and ability to supply the most demanding of modern loads. The PowerWAVE 9000DPA offers unprecedented security of your power protection investment.



With all of these environmental benefits, it's no wonder the PowerWAVE 9000DPA is considered to be the world's most environmentally friendly UPS.

PowerWAVE 9000DPA (Left)

Specifications

Specifications are subject
to change without notice

PowerWAVE 9000DPA UPS modules

Input characteristics								
Nominal Voltage		3x380/220V+N, 3x400V/230V+N, 3x415/240V+N						
Voltage Tolerance (ref to 3x400/230V)		For loads <100% (-23%+15%), <80% (-30%+15%), <60% (-40%+15%)						
Frequency	Hz	35 to 70						
Power factor (leading)		Up to 100% load						
Inrush current		limited by soft start						
Distortion THDi	%	2% @ 100% load (Sinewave)						
Efficiency (with 0.8 PF linear load)		Up to 100% load						
Output characteristics		DPA 10	DPA 15	DPA 20	DPA 25	DPA30	DPA40	DPA50
Apparent Power	kVA	10	15	20	25	30	40	50*
Active power	kW	8	12	16	20	24	32	40
Dimensions (W x H x D)	mm	483 x 225 x 700 (5U)				663x225x720 (5U)		
Weight	kg	28.5	31	33	35	44	53	56
Standards								
Safety		EN62040-1-1, EN 60950-1						
Electromagnetic Compatibility		EN 61000-6-4, EN 61000-6-2, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6						
Performance		EN62040-3						
Product Certification		CE – GOST by TÜV						
Degree of protection		IP 20						

PowerWAVE 9000DPA cabinets

MD Frame		Single DPA-25	Triple DPA-75	Upgrade DPA-125
Accommodates		1 UPS module	3 UPS modules	5 UPS modules
		10-25kVA	10-25kVA each	10-25kVA each
		Internal batteries	Internal batteries	External batteries
Maximum load	kVA	25	75	125
Dimensions (WxHxD)	mm	550 x 1650 x 780	550 x 1975 x 780	550 x 1975 x 780
Weight of cabinet with UPS modules and w/o batteries	kg	215 (1 module)	max. 323 (3 modules)	max. 346 (5 modules)
MX Frame				
Accommodates		1 UPS module	3 UPS modules	5 UPS modules
		30-50kVA	30-50kVA each	30-50kVA each
		Internal batteries	Internal batteries	External batteries
Maximum load	kVA	50	150	250
Dimensions (WxHxD)	mm	730 x 1650 x 800	730 x 1975 x 800	730 x 1975 x 800
Weight of cabinet with UPS modules and w/o batteries	kg	318 (1 module)	max. 407 (3 modules)	max. 485 (5 modules)

*45kVA on Bypass

UPSL is a leading provider of power protection product and service solutions including UPS, standby diesel generators, battery banks, software and ancillaries. Part of Kohler Corporation's Global Power Group, UPSL has a proven and enviable track record with customers across all market sectors around the world ensuring 24/7 power protection of mission-critical business systems.

Options

- Matching battery cabinets for longer autonomies
- Remote signal panel
- External maintenance bypass switch
- SNMP card
- Modem/Ethernet card or Modem/GSM card
- Battery charger temperature compensation
- Single or dual input
- Comprehensive service plans

About Kohler Corporation

Established in 1873, Kohler Corporation has a pedigree for quality, innovation and exceptional craftsmanship. In 1920, it launched the world's first engine-powered electric generator, which became known as the revolutionary 'mini power and light' power plant. Since then, it has been developing products for every aspect of critical load requirements and is one of the world's largest power protection equipment manufacturers with products in use on every continent.

Together, UPSL and Kohler bring a potent, global force of longevity, pedigree, pioneering product technology, service excellence and global reach to the power protection industry.

For more information call 0118 981 5151 or visit www.upspower.co.uk



A guarantee of service excellence

Uninterruptible Power Supplies Ltd has built its reputation for service excellence by providing industry leading pre and post sales service and support. The company is recognised as setting the benchmark for quality of service in the industry, and has accreditation and endorsement from all major bodies.



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