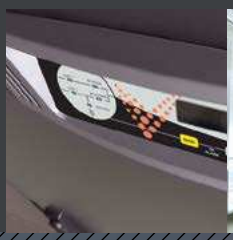
PowerWAVE 6000

The best combination of energy efficiency, reliability and low cost of ownership – capacity from 60 kVA to 5 MVA



Uninterruptible Power Supplies Ltd
A KOHLER COMPANY

PowerWAVE 6000

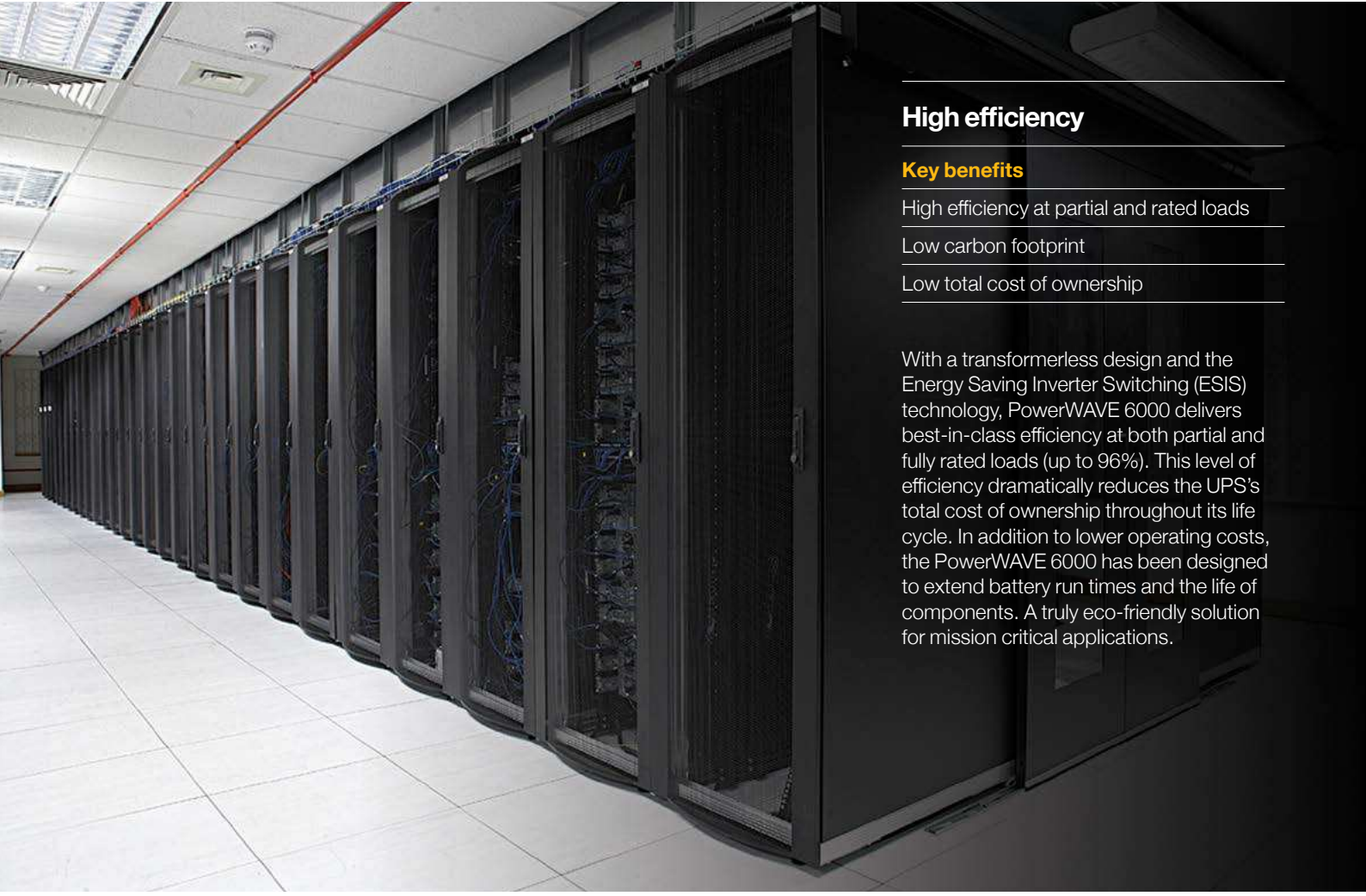
Transformerless UPS technology for best-in-class performance, up to 5 MVA.

PowerWAVE 6000
Single unit capacities from 60 kVA to 500 kVA
Capacity up to 5 megawatts (5 MVA) with 10 units in parallel
Power density of up to 363kW/m^2
High efficiency and minimum cost of ownership
Low input harmonic distortion: THDi =3.5%
Near to unity input power factor of 0.99
Fully rated output power (Blade Friendly)
Full front access maximises system serviceability
Transformerless design
Fully DSP (Digital Signal Processing) controlled

For more information call 01256 386700
or visit www.upspower.co.uk

The PowerWAVE 6000 three phase UPS delivers the best combination of availability, energy efficiency, overall power performance and lowest total cost of ownership in its class.

Offering both intelligent energy management and maximum power protection it uses less energy, achieves significant cost reductions, saves on valuable floor space (leaving room for revenue-earning equipment) and has a reduced impact on the environment.



High efficiency

Key benefits

- High efficiency at partial and rated loads
- Low carbon footprint
- Low total cost of ownership

With a transformerless design and the Energy Saving Inverter Switching (ESIS) technology, PowerWAVE 6000 delivers best-in-class efficiency at both partial and fully rated loads (up to 96%). This level of efficiency dramatically reduces the UPS's total cost of ownership throughout its life cycle. In addition to lower operating costs, the PowerWAVE 6000 has been designed to extend battery run times and the life of components. A truly eco-friendly solution for mission critical applications.

Highest load availability

Key benefits

- Productivity maximised
- Reliability maximised
- Availability maximised

When operating in a parallel configuration, the PowerWAVE 6000 incorporates redundant critical circuits (RCC) to effectively eliminate all single points of failure, and provide class leading system reliability and load availability. PowerWAVE 6000 UPS can be paralleled up to 5 MVA, accommodating even the highest levels of load availability and/or redundancy.

Improved input performance

Key benefits

- Low input harmonic distortion (THDi)
- Near to unity input power factor
- Reduced installation costs

PowerWAVE 6000 manages the Total Input Harmonic Distortion (THDi) at a low level (3.5% at 100% load). It does this by neutralising the emission of harmonics at the input of the UPS. Low harmonic distortion saves unnecessary over-sizing of generators, cabling and ancillary equipment (such as circuit breakers), avoids extra heating of input transformers (thus wasting less energy) and extends the lifetime of all input components.

High efficiency is further enhanced by removing any requirement for additional phase compensating devices.

Integral batteries

Key benefits

- Bespoke configuration
- Extended battery life
- Front access for ease of installation and servicing

PowerWAVE 6000 allows the freedom to tailor the battery installation to the requirements of the critical load at the lowest possible cost. By adding external battery cabinets, it enables each battery configuration to match the required autonomy, ensuring smallest system footprint and easy usability.

Running costs are further reduced by ripple-free and temperature controlled chargers that protect batteries and extend life-time performance. Front access also aids easy installation and servicing.

Product range

PowerWAVE 6000 is available in a variety of different configurations to suit your requirements, both now and in the future.

60–120 kVA

Dimensions
W x H x D (mm):
615 x 1954 x 480
Footprint: 0.3m^2

160–200 kVA

Dimensions
W x H x D (mm):
850 x 1820 x 750
Footprint: 0.64m^2

250–300 kVA

Dimensions
W x H x D (mm):
1100 x 1920 x 750
Footprint: 0.82m^2

400–500 kVA

Dimensions
W x H x D (mm): 1650 x 2094 x 850
Footprint: 1.4m^2

Blade friendly

Key benefits

- Supports high powered servers such as Blade servers
- Supports leading power factors

Blade servers typically have a leading power factor and this can present problems to UPS systems not designed to manage such loads. The PowerWAVE 6000 is designed to power all types of electrical loads, including high powered servers. It can provide fully rated output power to power factors from 0.9 leading to 0.6 lagging.

Space saving

Key benefits

- Reduced footprint
- Valuable floor space maximised

PowerWAVE 6000's class leading power density (up to 363kW/m^2) is driven by the UPS's small physical footprint of 0.3m^2 up to 120kVa, 0.64m^2 up to 200 kVA, 0.82m^2 up to 300 kVA and 1.4m^2 up to 500 kVA. As a result, substantial and valuable space savings are achieved even at the highest power ratings.

For data centres in particular, this helps to maximise floor space for revenue-earning servers.

Connectivity

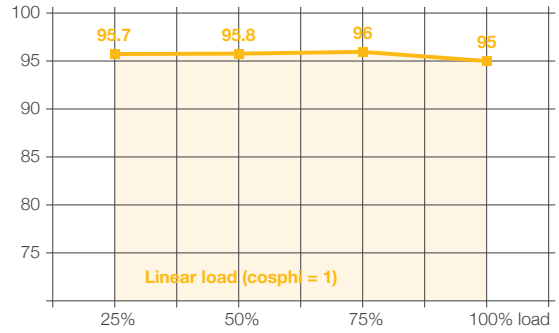
Key benefits

- Multiple interface options
- Supports monitoring and control

PowerWAVE 6000 is equipped with multiple interfaces that can be used for local and remote monitoring, status signalling, control, maintenance and firmware upgrade.

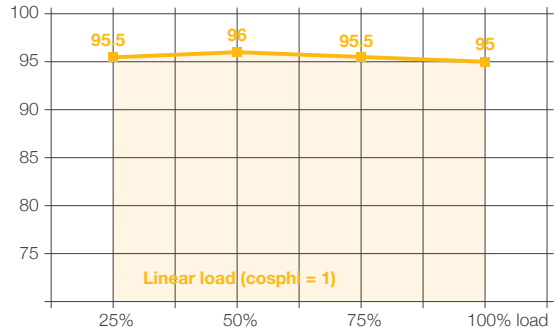
Understanding efficiency and power

AC–AC efficiency (60—120)



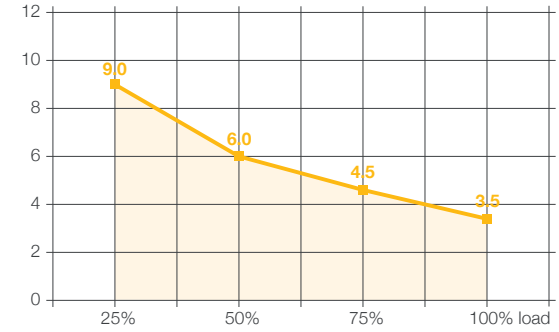
Top-of-market 96 percent efficiency in double conversion mode reduces running costs without compromising reliability. This UPS has a very flat efficiency curve so high efficiency is reached at low load levels.

AC–AC efficiency (160—500)



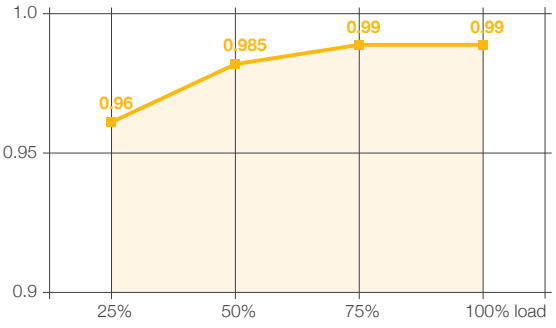
With a transformerless design and Energy Saving Inverter Switching (ESIS) technology, the PowerWAVE 6000 delivers high efficiency at partial and full load (up to 96% in double conversion online mode). This level of efficiency dramatically reduces the total cost of ownership of the UPS system during its life cycle. In addition to lower operating costs, the PowerWAVE 6000 extends the service life of components, thereby greatly increasing overall power performance.

Input current total harmonic distortion (THDi)

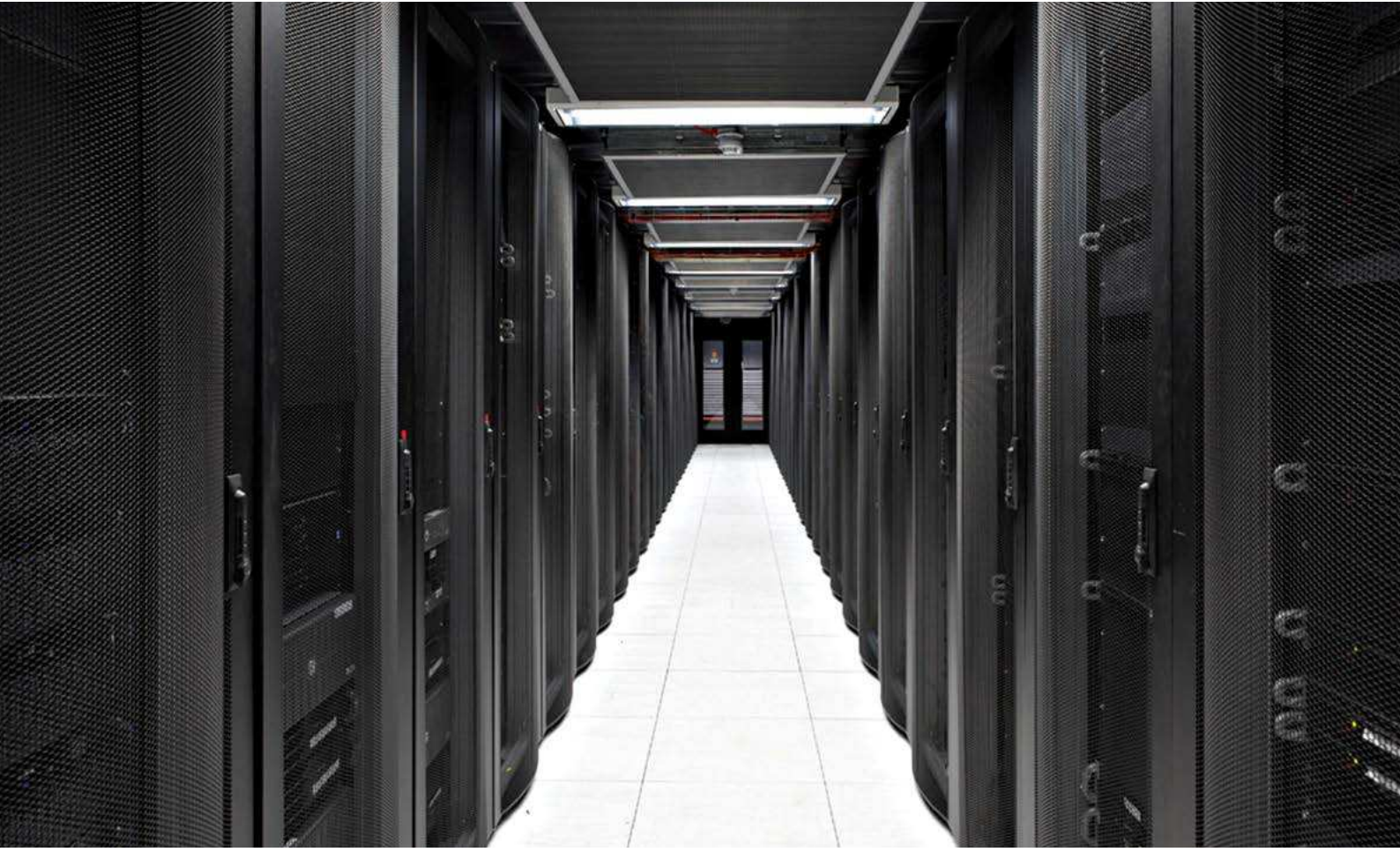


The PowerWAVE 6000 actively manages the input current total harmonic distortion (THDi) at a low level (3.5% at 100% load). PowerWAVE's unique technology neutralises the emission of harmonics at the input of the UPS system, providing greater reliability of operations for circuit breakers and extending the overall service life of the equipment. Low harmonic distortion saves unnecessary oversizing of gensets, cabling and circuit breakers, avoids extra heating of input transformers and extends the overall service life of all upstream components.

Input power factor versus load



Thanks to the near-to-unity input power factor of 0.99, even with partial loads, the PowerWAVE 6000 reduces the input installation costs by enabling the use of smaller cables. Furthermore it avoids the unnecessary use of additional phase compensating devices, which consequently keeps the overall UPS-efficiency high.



Reliable, cost effective, critical power protection

Key benefits

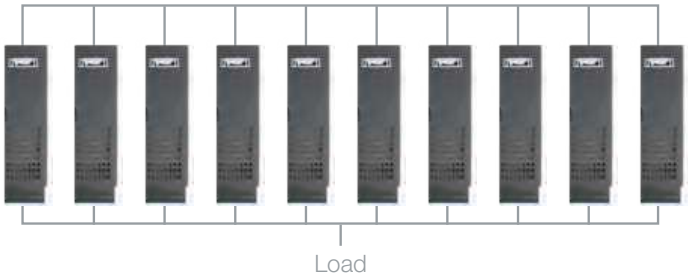
‘Pay as you grow’ right-sizing

Future-proof investment protection

Up to 10 independent PowerWAVE 6000 units can be connected in parallel to provide additional capacity (up to 5 MVA) or N+1 redundancy for mission critical systems. In a parallel configuration, each unit is securely synchronised with the other units.

This flexible scalability lowers capital commitment and reduces operating costs. As power requirements grow or change, it also permits cost effective upgrading – you only need to pay for capacity as it’s required.

Parallel configuration for power extension or redundancy



Maximum power capacity of up to 5000 kVA (10 UPS in parallel)

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