

KOHLER®

UNINTERRUPTIBLE
POWER



KOHLER *PW* 6000

Medium to high power three-phase uninterruptible power supply

(60-500 kVA)

Parallelable up to 6-10 units

Clean power, *dependable* resilience.

An advanced, transformerless medium to high power three-phase UPS combining energy efficiency, proven reliability and compact footprint.

Three phase monolithic UPS with unity power factor delivering a leading combination of reliability, energy efficiency, performance and ownership costs in a compact footprint, backed by Kohler Uninterruptible Power's exceptional support and service.

Innovative design and electronics result in dependable, clean power with a minimised, and often class-leading physical and environmental footprint.



KOHLER PW 6000

| Exceptional active power density

An active power density of up to 407 kW/m² is achieved through electronics that deliver an output power factor of 1.0 (unity) and a compact physical footprint. Frequently offering the best power / footprint ratio in its class, without compromising efficiency, this makes the KOHLER PW 6000 an ideal solution for space-constrained installations.

| Leading parallel capability

Facilitates configurations requiring built-in redundancy eg N+N and easy expansion as load grows.

Scale up on your timescale to operate up to ten 60-300 kW models in parallel or six 400-500 kW units.



Lowering your cost of ownership

- | Bespoke configuration
- | Reduced running costs
- | Extended battery life

Choosing from the wide range available, KUP's expert team will select the right size KOHLER PW 6000 and combine it with a battery system that is bespoke to your requirements, avoiding expensive over-sizing and increased running costs.

Running costs are reduced again by ripple-free and temperature controlled chargers that protect batteries and extend lifetime. This can be extended further, typically up to 30%, with individualised battery charge control via the optional PowerNSURE Battery Management System.

Proven performance

- | Externally validated specification
- | Large installed base
- | Best-in-class service performance

The specifications and performance of the KOHLER PW 6000 have been independently verified, whilst its large installed base is testament to its reliability.

Add to that the exceptional customer scores given to KUP for service performance and you can be confident in your choice of UPS solution.

Kohler PW 6000 range

60–120 kVA



Dimensions
W x D x H (mm)
60-80 kVA: 615 x 480 x 1954
100-120 kVA: 615 x 480 x 1978
Footprint 0.30m²

160–200 kVA



Dimensions
W x D x H (mm) 850 x 750 x 1820
Footprint: 0.64 m²

250–300 kVA



Dimensions
W x D x H (mm) 1100 x 750 x 1920
Footprint: 0.82 m²

400–500 kVA



Dimensions
W x D x H (mm) 1650 x 850 x 1994
Footprint: 1.40 m²



Blade friendly

- | 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 those UPS systems that are not designed to manage such loads. The KOHLER PW 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 0.9 lagging.

Service friendly

- | Front-only service access
- | Remote monitoring compatible

Designed so all service operations can be carried out with only front access, installation and service times are minimised and availability maximised.

To improve peace of mind and accelerate time to repair in the event of an issue, the KOHLER PW 6000 is fully compatible with KUP's PowerREPORTER remote monitoring system.

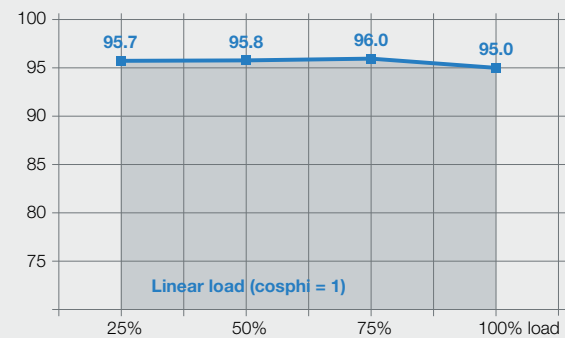
Connectivity

- | Multiple interface options
- | Supports monitoring and control

The KOHLER PW 6000 is equipped with multiple interfaces that can be used for local network connectivity, status signalling, control, maintenance and firmware upgrade.

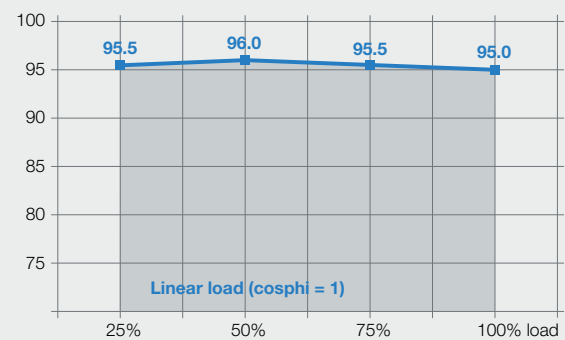
Understanding efficiency and power

AC-AC efficiency (60 – 120)



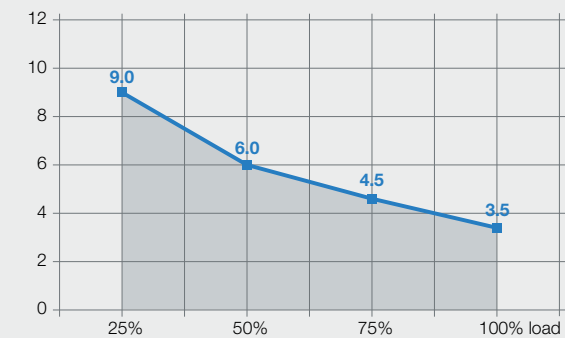
Top-of-market efficiency in double conversion mode, (eg up to 96.2% for latest 500 kW model), reduces running costs without compromising reliability. This UPS has a very flat efficiency curve so high efficiency is reached at low load levels.

AC-AC efficiency (160 – 500)



With a transformerless design and Energy Saving Inverter Switching (ESIS) technology, the KOHLER PW 6000 delivers high efficiency at partial and full load in double conversion online mode. This dramatically reduces the total cost of ownership of the UPS system during its life cycle.

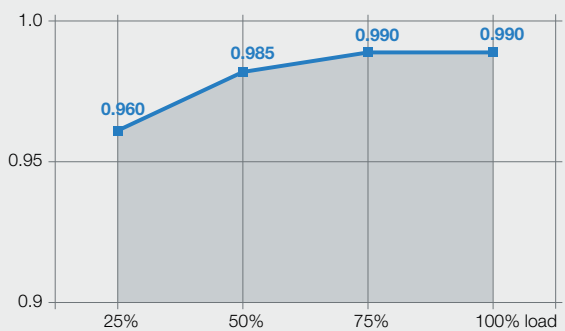
Input current total harmonic distortion, THDi (160-500)



The KOHLER PW 6000 actively manages the input current total harmonic distortion (THDi) at a low level. 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, the KOHLER PW 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.

Technical specification

General Data	60 kVA	80 kVA	100 kVA	120 kVA	160 kVA	200 kVA	250 kVA	300 kVA	400 kVA	500 kVA
Topology	True online double conversion, Class 1 VFI-SS-111, standalone / monolithic									
Parallel configuration	Up to 10 units								Up to 6 units	
Cable entry	Bottom front, single or dual input feed for rectifier and bypass									

Input

Nominal input voltage		3 × 380 / 220 V + N, 3 × 400 / 230 V + N, 3 × 415 / 240 V + N			
Voltage tolerance	Load <100%	-10%, +15%	-23%, +15%		-10%, +15%
(ref. to 3 × 400 / 230 V)	Load <80%	-20%, +15%	-30%, +15%		-20%, +15%
	Load <60%	-30%, +15%	-40%, +15%		-30%, +15%
Input distortion THDi		≤4% at 100% load		≤3.5% at 100% load	
Frequency		35–70 Hz			
Power factor		0.99 at 100% load			

Output

Output power max, PF 1.0	60 kW	80 kW	100 kW	120 kW	160 kW	200 kW	250 kW	300 kW	400 kW	500 kW
Rated output voltage	3 × 380 / 220 V + N, 3 × 400 / 230 V + N, 3 × 415 / 240 V + N								3 x 400/230V + N	
Voltage distortion	< 2% with linear load, <4% with non-linear load (IEC 62040-3)									
Frequency	50 or 60 Hz									
Overload capability on inverter	110% 20 min 125% 5 min 150% 0.5 min			110% 10 min 135% 1 min					110% 30 min 125% 10 min 150% 1 min	
Permissible unbalanced load	100%									
Crest factor	3:1									

Efficiency

Max. efficiency, VFI mode	96.0%	96.0%	96.0%	96.0%	95.5%	95.8%	95.3%	95.4%	96.0%	96.2%
In eco-mode configuration, VFD	≥99.0%				99.0%					

Environment

Storage temperature	-25°C to +70°C (Max +55°C recommended to maximise capacitor life)									
Operating temperature	0°C to +40°C for UPS system. (+20–25°C recommended for VRLA battery systems)									
Altitude configuration	1000 m without derating									
Product certification	CE, UKCA									

Battery

Battery type	VRLA, NiCd, Li-ion				VRLA, NiCd				VRLA, NiCd, Li-ion	
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Communications

Display	LCD				LCD, 7" touchscreen optional				7" touchscreen	
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Standards

Safety	IEC/EN 62040-1									
Electromagnetic compatibility (EMC)	IEC/EN 62040-2									
Performance	IEC/EN 62040-3									
Protection rating	IP 20									
Manufacturing	ISO 9001, ISO 14001									

Weight/Dimensions

Weight (without batteries)	198 kg	206 kg	228 kg	230 kg	370 kg	390 kg	540 kg	580 kg	970 kg	970 kg
Dimensions (mm) W x D x H	615 x 480 x 1954		615 x 480 x 1978		850 x 750 x 1820		1100 x 750 x 1920		1650 x 850 x 1994	



Exceptional 24/7/365
Service Support

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