KOHLER®

UNINTERRUPTIBLE POWER

KOHLER *PW* 9250DPA

Modular three-phase uninterruptible power supply

(50-300 kVA/kW)
Parallelable up to 1500 kVA/kW

Flexible power, *outstanding* efficiency.

A true modular three-phase UPS for medium power applications in critical, high-density computing environments such as small to medium-sized data centres, plus industrial automation processes and healthcare facilities.

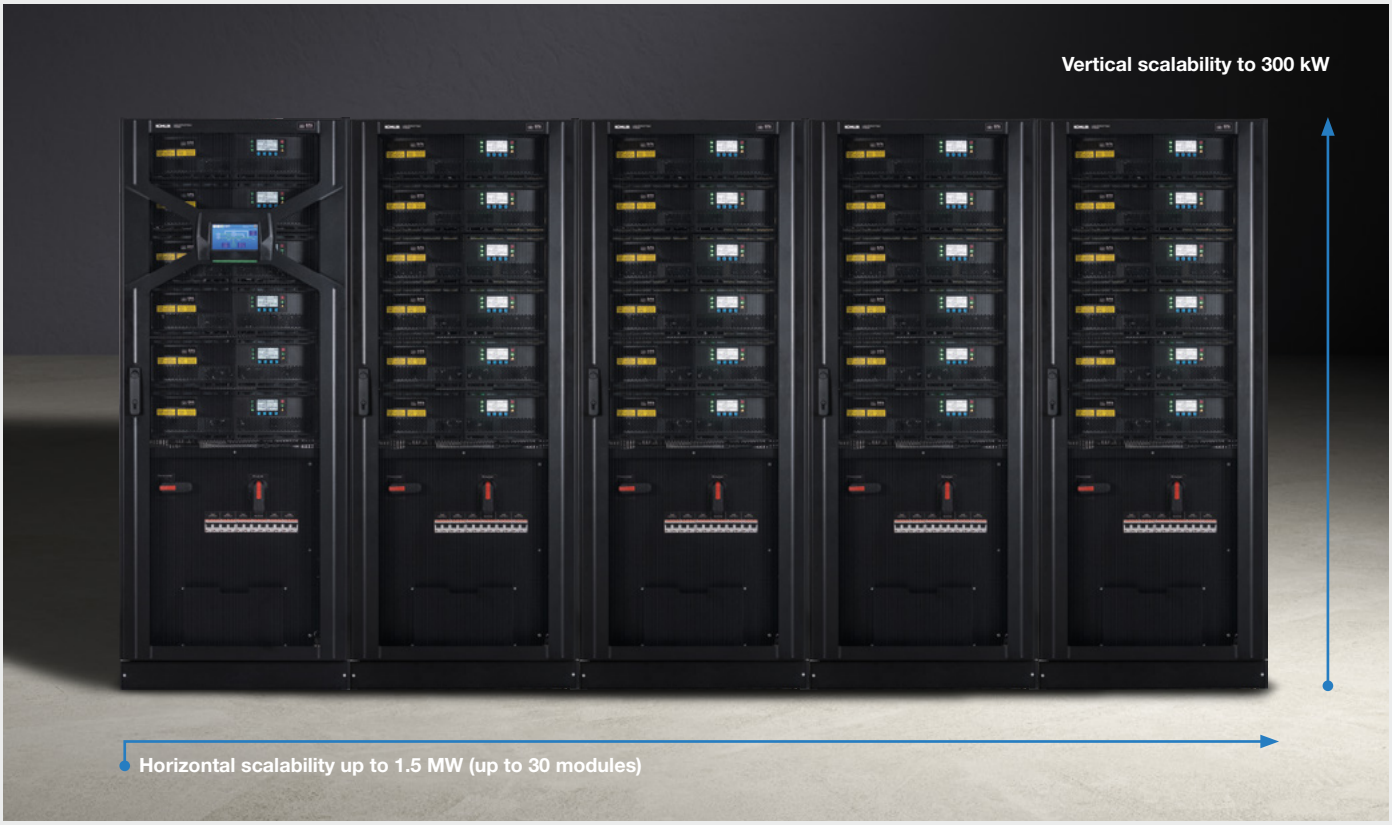
The KOHLER PW 9250DPA's highly efficient modular architecture offers the best reliability for environmentally conscious organisations that need zero downtime and low cost of ownership.

The PW 9250DPA sets the standard for the next generation of UPS with advanced features such as transformer-free IGBT converters that include three-level topology and interleaving controls to enable market leading efficiency of 97.4%.

It also supports Xtra VFI, a smart mode which further minimises power consumption by intelligently configuring the number of modules required to support the current critical load. When Xtra VFI is enabled, the number of active modules required will adjust accordingly, with modules not needed switching to a standby state of readiness but primed to become active again if the load increases.

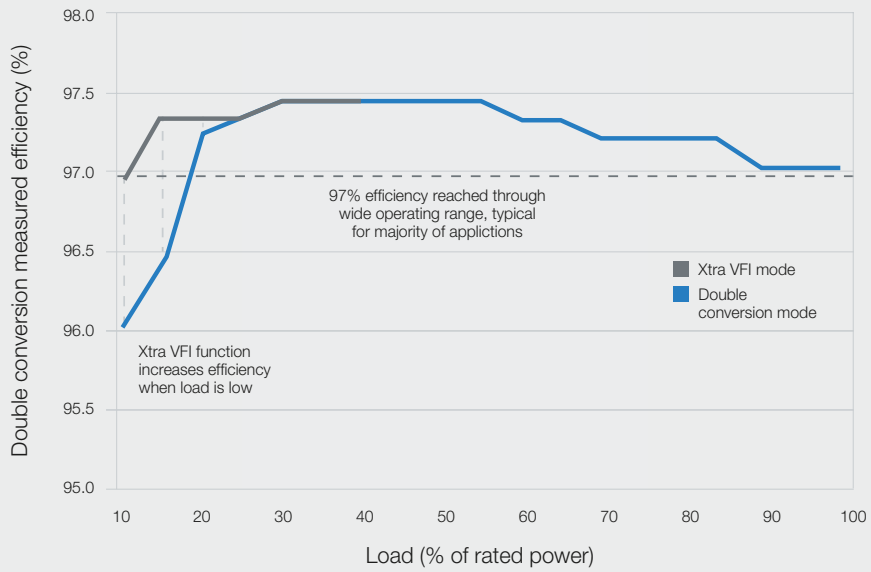
KOHLER PW 9250DPA

50kW - 300kW UPS, parallelable to 1500kW



Featuring superior 97.6% UPS module efficiency and 97.4% system efficiency, the PW 9250DPA reduces energy losses that increase electricity costs and costs for cooling.

Thanks to three-level interleaved IGBT technology the PW 9250DPA achieves an efficiency of over 97% in a wide operating range, when the load is between 25% and 75% of nominal capacity.



50-300 kW uninterrupted power in a single frame

The use of DPA™ (Decentralised Parallel Architecture) ensures each module has all the hardware and software needed for autonomous operation: rectifier, inverter, battery converter, static bypass switch, back-feed protection, control logic, display and mimic diagram for monitoring and control. If one module is lost, the others take up the load, meaning that the system is fault tolerant and there are no single points of failure.

Put simply, uptime and availability are maximised.

Compact, scalable reliability, maximum availability

- Exceptional power density allows provision of 300 kW of protection within a UPS footprint of only 0.73m^2
- Pay-as-you-grow: Easily add modules and frames as demand grows, from 50 kW to 1.5 MW
- Hot-swappable, front access DPA™ modules with an optimised electrical and mechanical design with virtually no wiring enable easy servicing and reduce mean time to repair (MTTR), increasing availability

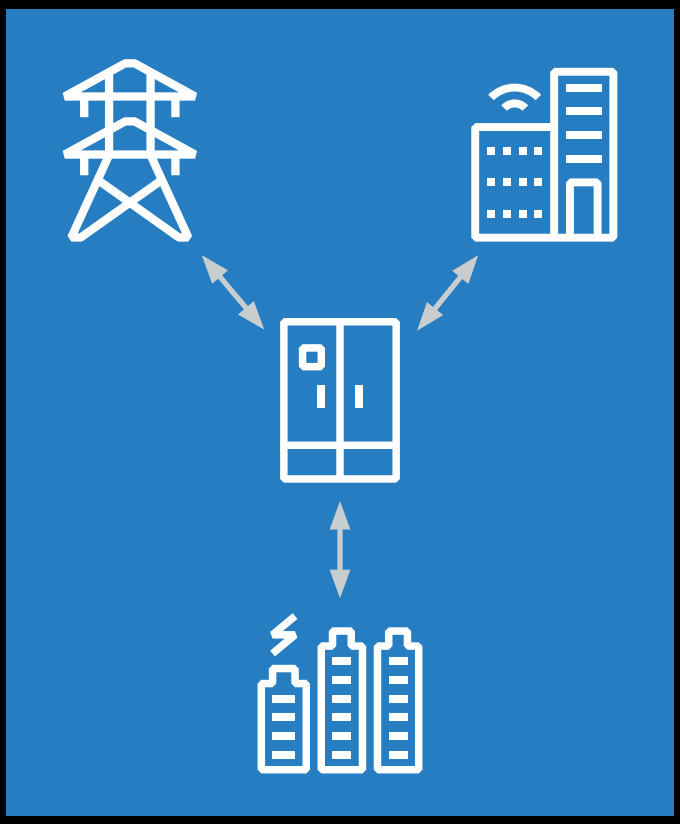
Wiring options secure compliancy for any site installation need

- Supports top or bottom cable entry
- Supports single or dual input feed
- Common battery per frame or dedicated for each UPS module
- Robust ring-bus communication for increased reliability

Integrated switchgear completes the system

- Output isolation switch to disconnect the UPS output from downstream distribution
- Optional maintenance bypass switch for enhanced serviceability

Engineered for maximum performance



Easy to monitor and manage

- Intuitive, graphical system user interface
- Each module features a dedicated display for module specific data access
- Robust ring-bus communication for increased reliability

Energy storage

- Compatible with lithium-ion, VRLA and NiCd battery types

Future-ready with Grid Support functionality

The KOHLER PW 9250DPA is able to interact with the mains grid and external systems to provide:

- Input power reduction or increase
- Backfeed to grid
- Fast Frequency Response
- Island Mode operation

Capabilities will also depend on local standards and battery systems – please consult KUP for details.

Features

DC (battery) breakers

DC breakers for energy storage connection on each module separately in distributed battery systems.

Maintenance bypass (optional)

Integrated MBS is available as an option for enhanced serviceability with single frame installations.

I/O section and DC wiring

Wiring area designed with service and installation in mind. Single and dual input feed supported as well as common or separate battery. Top or bottom cable entry supported.

Up to 6 x 50 kW UPS modules

Integrated UPS module with all essential functions: rectifier, inverter, static bypass, control logic and display.

Output isolation switch

Included in the standard configuration to allow disconnection of complete UPS cabinet from load supply.

Connectivity section

Two slots for connectivity cards, e.g. SNMP web card and relay board. USB and RS-232 communication ports. Building alarm inputs/ relay outputs. Connection point for parallel system communication cable.

User interface

System graphical display

- Touch screen interface – one per system
- Interactive mimic diagram
- Coloured and graphical display
- Integrated buzzer for alarms
- 18-languages selection
- Extended events log (1,000 events)
- Clear system overview, measurements and system status
- Navigation into module level, module level measurements and status
- System level commands

DPA module display

- 240 x 128 pixel graphical display
- Five-line menu
- Capacitive buttons/key
- Status LED RG/RGB
- Allows for easy module level data access and module management

Technical specification

General Data	
System power range	50–1,500 kVA
Nominal power per module	50 kW
Nominal power / frame	300 kW or 250kW (N+1)
Number of UPS modules	6
Topology	Online double conversion, Class 1 VFI-SS-111
Parallel configuration	Up to 30 modules
Cable entry	Top or bottom
Output power factor	1.0
Serviceability	Front access
Back-feed protection	Built-in as standard
Input	
Nominal input voltage	380/400/415 VAC
Voltage tolerance % (applicable for 400 V nominal voltage)	Load ≤ 100% (-10%, +15%), Load ≤ 80% (-20%, +15%), Load ≤ 60% (-30%, +15%)
Current distortion THDi	<3% linear load, <4% non-linear load
Frequency range	35–70 Hz
Power factor	0.99 at 100% rated load
Walk in/soft start	Yes
Output	
Rated output voltage	380/400/415 VAC
Voltage tolerance (referred to 400 V)	±1.0%
Voltage distortion THDU	<2.0%
Frequency	50 or 60 Hz (selectable)
Output power factor	1.0
Efficiency	
Module efficiency	Up to 97.6% (VFI)
Overall system efficiency	Up to 97.4% (VFI)
In eco-mode	Up to 99.2% (VFD)
Environment	
Protection rating	IP 20 (IP 21 optional)
Storage temperature	-25°C to +70°C (Max +55°C recommended to maximise capacitor life)
Operating temperature	0°C to +40°C
Altitude (above sea level)	1,000 m w/o derating
Batteries	
Types	VRLA, NiCd and Li-Ion
Battery charger	Decentralised charger per module
Communications	
User interface	Graphical touch screen (one per frame as standard) Decentralised LCD and mimic diagram (one per module as standard)
Communication ports	Communication ports USB, RS-232, potential-free contacts, SNMP (optional)
Customer interface	Remote shutdown, gen-set interface, external bypass contact
Compliancy	
Safety	IEC / EN 62040-1
EMC	IEC / EN 62040-2
Performance	IEC / EN 62040-3
Manufacturing	ISO 9001:2015, ISO 14001:2015, OHSAS18001
Weight/Dimensions	
Weight (without modules/without batteries)	270 kg
Weight (per module)	66 kg
Dimensions (mm) W x D x H	795 x 943 x 1978

Exceptional 24/7/365 Service Support

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