KOHLER®

UNINTERRUPTIBLE POWER

KOHLER *PW* 5000/TP

Three-phase uninterruptible power supply

(10-50 kVA)
Parallelable up to 400 kVA / 360 kW

Enhanced power protection in a compact format.

Three-phase UPS for midsize server rooms, networks, telecommunication systems, life-safety applications and industrial processes.

A true online, double conversion, VFI (voltage frequency independent) UPS that provides enhanced power protection in a compact format.

An outstanding combination of reliability, performance and price, backed by KUP's system design and support capabilities, have made the KOHLER PW 5000T/P a widely proven and trusted solution.

The KOHLER PW 5000/TP

| Capacities from 10 kVA to 50 kVA

| Parallel capability of up to 20 units

| Online double conversion technology for high reliability and optimised output

| Transformerless design for high efficiency, small footprint and low weight

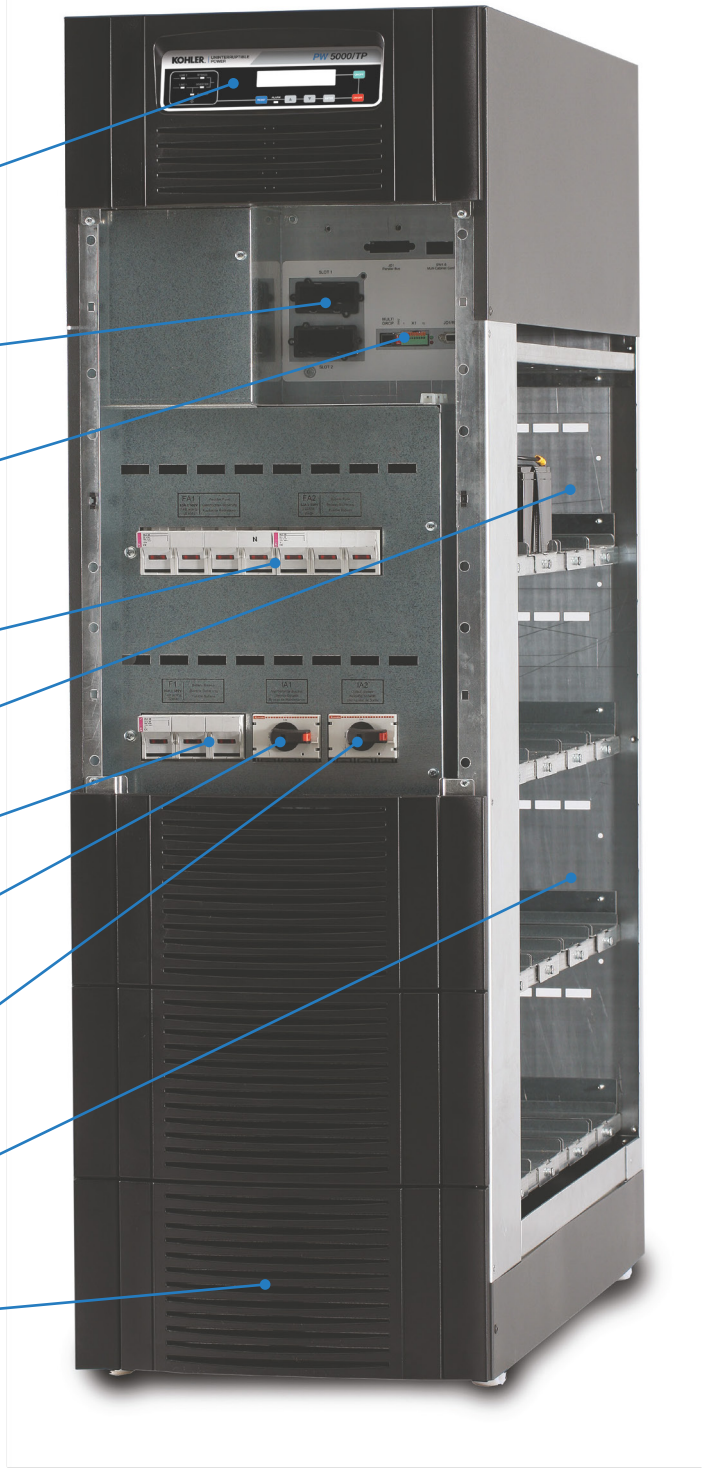
| High efficiency across a wide load range

| Low input harmonic distortion (THDi) reduces associated installation costs

| Choice of internal batteries or extended autonomy via matching external battery cabinets

| Adjustable automatic battery test function for increased confidence / early fault diagnosis plus battery management system to extend life

Features



LCD display

Output contacts and SNMP card (optional)

Customer inputs RS232 interface

Rectifier and bypass fuses

Batteries

Battery fuses

Maintenance bypass switch

Parallel isolator

Battery containment

Input/output connection

Space saving

With a footprint of only 0.4m2 at 50 kVA, the KOHLER PW 5000/TP has a power density of up to 100 kW/m2. As a result, substantial and valuable space savings are achieved even at the highest power ratings.

Wheeled A or B cabinets (see over) further reduce footprint by enabling units to be easily pulled forward for service access when fitted with suitable cabling.

Flexible battery configuration

| Optimal sizing of battery capacity

| 10–50 kVA with different sized cabinets

| Extended autonomy with matching battery cabinets

The KOHLER PW 5000/TP is available in three cabinet sizes, enabling you to choose the ideal capacity and required autonomy for your critical load. The smaller 10-25 kVA units are available in two cabinet sizes, dependent on the required level of autonomy, with the larger units (25–50 kVA) available in a third cabinet size, which can house both 7/9 Ah and 28 Ah batteries.

Easily add extra protection

| Parallel functionality for creating systems with built-in redundancy

Paralleled systems are designed to ensure availability by significantly increasing system redundancy. In the case of a power failure, should a UPS unit fail, the remaining units are still able to continue to support the critical load.

Redundant paralleled systems also enable regular maintenance to be carried out on the system without any requirement to remove the critical load from conditioned power.

Engineered for low lifetime costs

| High efficiency at partial and rated loads

| Charging control system extends battery life

Advanced, transformerless design and Energy Saving Inverter Switching (ESIS) technology enable the KOHLER PW 5000/TP to deliver high efficiency from partial up to full rated load. This reduces both electrical and cooling costs.

Ripple-free temperature controlled battery chargers protect batteries and extend the lifetime performance, further reducing running costs.

These benefits combine to make the KOHLER PW 5000/TP highly cost effective and eco-friendly to operate.

The KOHLER PW 5000/TP range

UPS cabinet A (10–20 kVA)

Dimensions (W x D x H)
345 x 710 x 720 mm

Weight without battery

10 kVA: 60 kg

15 kVA: 62 kg

20 kVA: 64 kg

Weight with 48 x 7/9 Ah battery

10 kVA: 180 kg

15 kVA: 182 kg

20 kVA: 184 kg

UPS cabinet B (10–25 kVA)

Dimensions (W x D x H)
345 x 710 x 1045 mm

Weight without battery

10 kVA: 88 kg

15 kVA: 90 kg

20 kVA: 92 kg

25 kVA: 94 kg

Weight with 96 x 7/9 Ah battery

10 kVA: 328 kg

15 kVA: 330 kg

20 kVA: 332 kg

25 kVA: 334 kg

UPS cabinet C (25–50 kVA)

Dimensions (W x D x H)
440 x 910 x 1420 mm

Weight: 7/9 Ah cabinet without battery

25 kVA: 151 kg

30 kVA: 160 kg

40 kVA: 165 kg

50 kVA: 170 kg

Weight: 28 Ah cabinet without battery

25 kVA: 135 kg

30 kVA: 145 kg

40 kVA: 150 kg

50 kVA: 155 kg

Weight with 144 x 7/9 Ah

25 kVA: 540 kg
battery Weight with 48 x
30 kVA: 550 kg

40 kVA: 555 kg
28 Ah battery 25 kVA: 605
50 kVA: 560 kg

kg

30 kVA: 615 kg

40 kVA: 620 kg

50 kVA: 625 kg

Available in three different cabinet sizes

Cabinet A: 10 – 20 kVA

Cabinet B: 10 – 25 kVA

Cabinet C: 25 – 50 kVA

For all models, a wide range of autonomies can be configured to suit your application. Please consult KUP to determine the best solution for your specific requirement.

Technical specification

General Data	10 kVA	15 kVA	20 kVA	25 kVA	30 kVA	40 kVA	50 kVA
Topology	True online double conversion, Class 1 VFI-SS-111						
Parallel configuration	Up to 20 units						
Integral batteries	Yes, plus optional matching expansion cabinets						
Input							
Nominal input voltage	3 x 380 / 220 V + N, 3 x 400 V / 230 V + N, 3 x 415 / 240 V + N						
Voltage tolerance (ref to 3 x 400/230 V)	(-10% / +15%) 3 x 360/207 V to 3 x 460/264 V for <100% load						
Input distortion THDi	<3.0% at 100% load						
Frequency range	35–70 Hz						
Power factor	0.99 at 100 % load						
Output							
Output rated power	9 kW	13.5 kW	18 kW	22.5 kW	27 kW	36 kW	45 kW
Output power factor	0.9						
Rated output voltage	3 x 380 / 220 V + N, 3 x 400 / 230 V + N, 3 x 415 / 240 V + N						
Voltage tolerance	<±1% static, <±4% dynamic						
Voltage distortion	< 2% with linear load, < 4% with non-linear load						
Overload capability (0.9 p.f)	110% load 5 mins, 125% load 20 seconds				110% load 10 mins, 125% load 1 min		
Nominal frequency	50 or 60 Hz						
Crest factor	3:1						
Efficiency							
Overall efficiency, VFI mode	94.5% at 25% load; 95.0% at 50% load; 95.5% at 75-100% load						
In eco-mode (VFD) configuration	Up to 98%						
Environment							
Protection rating	IP 20						
Operating temperature	0°C–40°C for UPS. 20-25°C recommended for batteries						
Input and output power cabling accessibility	Cabled at the rear (A and B cabinets only)				-		
	-			Cabled at the front (C cabinets only)			
Relative air humidity	Up to 95% (non-condensing)						
Noise, dBA at 50% / 100% load (1 m)	61 / 55		71 / 65				
Communication							
Standard ports	RS232, Remote shut down / EPO, GEN-ON, 1 x programmable, battery temp. input						
Batteries							
Min/max number of 12 V blocks per string, depending on effective system load	24-50	30-50	28-50	26-50	18-50	20-50	34-50
Charging current	4 A				6 A		
Battery type	Maintenance free VRLA or NiCd						
Compliance							
Standards	Safety IEC/EN 62040-1, IEC/EN 60950-1; EMC IEC/EN 62040-2; Performance IEC/EN 62040-3						
Marking	CE, UKCA						

Options

| Parallel connection kit – enables operation of several units in parallel for increased resilience

| SNMP card – allows integration into management network

| Relay and USB card – includes 5 output dry ports

| RS232 on USB port – for remote signalling and automatic computer shutdown

| Battery temperature sensing – provides input to aid charging

| PowerREPORTER remote monitoring – ideal for unmanned sites

Exceptional 24/7/365 Service Support

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