

PowerWAVE 1000 (1-10 kVA)

Technical Specification



PowerWAVE 1000 (1–3 kVA)

Model	1 kVA	2 kVA	3 kVA
Input			
Nominal voltage	110–130 VAC @ 60% load/150–300 VAC @ 75% load/180–300 VAC @ 100% load		
Frequency	50/60 Hz ±5 Hz (auto sensing)		
Phase	Single phase		
Power factor	≥0.99 (full load)		
Output			
Voltage (VAC)	200/208/220/230/240		
Voltage regulation	+/-1% (until low battery warning)		
Capacity	1000 VA / 900 W	2000 VA / 1800 W	3000 VA / 2700 W
Wave form	Sine wave, THD<3% (no load to full load)		
Frequency	50–60 Hz +/-0.2% unless synchronised to line		
Transfer time inverter to bypass	4 ms (typical)	4 ms (typical) / 0 ms (optional)	
Crest factor	3:1		
Efficiency (AC to AC) full load @ 230 V	90%	91%	91%
Efficiency (eco mode)	97%	97%	97%
Autonomy (built-in battery)	>4 min		>3 min
DC start	Yes		
Battery			
Type	Sealed lead acid maintenance free		
Capacity	7 Ah		9 Ah
Quantity (pcs)	3	6	6
Display			
LED/LCD	Normal, battery, bypass, programmable outlet 1, programmable outlet 2, self-test, battery weak and bad, site wiring fault, fault, overload, and load/battery level conditions		
Key	On button/off button (test/alarm silence button)		
Self-diagnostics	Upon power on and software control		
Protection			
Overload AC mode & backup mode (delay before switching to bypass)	<105% continuously. >106%–120% for 30 seconds transfer to bypass. >121%–150% for 10 seconds transfer to bypass. >150% immediately transfer to bypass. Buzzer continuously alarms		
Epo	UPS shuts down immediately		
Alarms			
Audible & visual	Line failure, battery low, overload, system fault conditions		
Physical			
Dimensions (mm) W x D x H	440 x 405 x 88	440 x 600 x 88	
Net weight (Kg)	11.7	21.8	24.6
Environment			
Operating temperature	0°C – 40°C		
Altitude	0-2000 m up to 40°C / 3000 m up to 35°C		
Humidity	90% RH maximum, non-condensing		
Environment – heat dissipation (approx)	150 W	275 W	415 W
Noise	≤ 50 dBA		
Computer interface			
Interface type	EPO, Standard RS232		
Communication slots	Relay contact board, SNMP card		
Compatible platforms	Windows, Linux, Mac, Novell NetWare		

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Model	1 kVA	2 kVA	3 kVA
Safety conformance			
Quality assurance	ISO9001 certified company		
Safety standard	EN62040-1-1		
Performance	EN62040-3 complied		
EMC standard	EN62040-2, EN61000-3-2, EN61000-3-3		
Protection class	IP20		

PowerWAVE 1000 (6–10 kVA)

Model	6 kVA	10 kVA
Input		
Voltage	176–280 VAC – line to neutral @ 100% load	
Frequency	45–70 Hz	
Phase	Single phase	
Power factor	≥0.99 @ 100% linear load	
Output		
Voltage distortion (THD)	≤2% @ 100% linear load, ≤7% @ run linear load with CF:25	
Voltage	200/208/220/230/240 vac selectable	
Voltage regulation	+/-1% (until low battery warning)	
Capacity	6000 VA/6000 W	10000 VA/10000 W
Rated power factor	1.0	
Wave form	Pure sine wave	
Transfer time inverter to bypass	0 ms	
Crest factor	3:1	
Efficiency (mains operation)	93%	94%
Efficiency (AC to AC, ECO)	98%	98%
External battery cabinet		
Type	Sealed lead acid maintenance free	
Capacity	12 V/9 AH	
No. of battery blocks per cabinet	20 pcs (connected or a single battery string)	
Display		
Readings on LCD	Input voltage, input frequency, output voltage, output frequency, load percentage, battery voltage, and inner temperature	
Self-diagnostics	Upon power-on and front panel setting	
Alarms		
Audible	Battery mode, battery low, overload, general error	
Protection		
Overload	Inverter supply: sliding scale: 105% continuous operation, 150% 160 ms, >150% switch to bypass	
Physical		
Dimensions (mm) W x D x H without battery	440 x 680 x 88	440 x 680 x 132
Input/output connection	Hardwire	
External battery connection	Plug-in and play	
Net weight (kg)	24	45
Environment		
Operating temperature	0°C – 40°C	
Altitude	0–1000 m without derating	
Humidity	20–95% non-condensing	
Environment – heat dissipation (approx)	<450 W	<650 W
Noise at 1 metre	≤55 dBA	
Computer interface		
Interface type	Standard RS232/EPO interface/USB	
Communication slots	2nd RS232, USB, relay contact, SNMP/WEB card	

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Safety conformance

Quality assurance	ISO 9001:2000
Safety standard	EN62040-1-1, UL1778
EMC standard	EN 62040-2, EN 61000-3-2, EN61000 -3-3 FCC Part 15 class A
Certification protection class	CE (1P/1P), CTUVus (3P/1P)
Protection class	IP20

Battery bank

Model	Battery type	Maximum quantity	With batteries (Kg)	Dimension (W x H x D) mm
PWBAT-9-20	9AH	20 pcs	65.4	440 x 132 x 680 (3u)



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