

# powerBOX<sup>®</sup>

PB900 1 KVA ~ 20 KVA  
PF 0.9 / 1.0



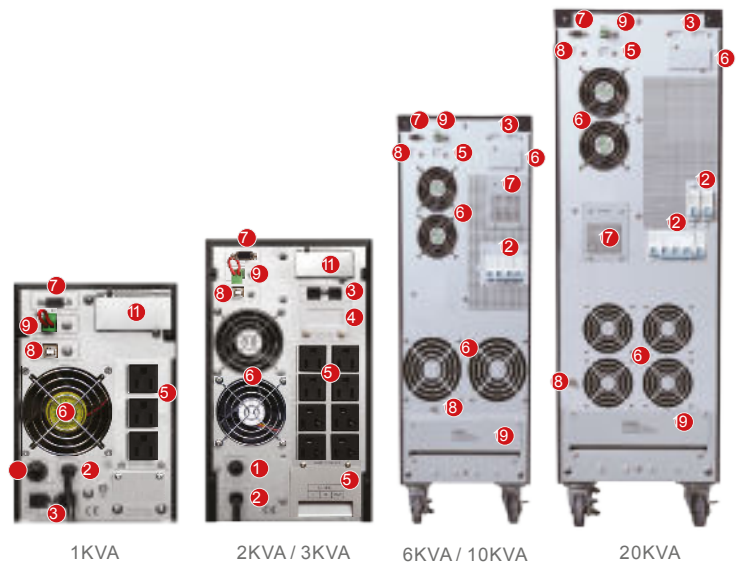
## Features

- High frequency and true double-conversion
- DSP digital control technology
- Input power factor correction (PFC)
- Wide input voltage range
- Output power factor 1.0 on 6 ~ 20KVA
- Cold start
- Auto sensing frequency
- ECO mode operation for energy saving
- Selectable output voltage via LCD
- Output bypass settable for 1,2,3KVA via LCD
- 50Hz/60Hz frequency conversion mode available on 6 ~ 20KVA
- 6 ~ 20KVA built in output isolation transformer

- Selectable battery low voltage via LCD
- Power-on self test
- Advanced battery management (ABM)
- Short circuit and overload protection
- Automatic charging in OFF mode
- Fan speed auto control when loads varies
- Standard RS232 communication port and RJ45 protection
- Optional USB/SNMP communication port
- Optional emergency power off (EPO)
- Optional extension battery bank
- Optional manual bypass on 6 ~ 20KVA
- Optional N+X redundancy parallel on 6 ~ 20KVA

## Rear Panel

1. Overcurrent Protection
2. AC Input
3. Modem/Tel/Fax
4. DC Input
5. Outlet
6. FAN
7. RS232
8. USB (optional)
9. EPO (optional)
10. Manual Bypass (optional)
11. SNMP/AS400 (optional)
12. Breaker
13. Parallel Card (optional)
14. BAT\_NTC (optional)
15. Temperature Detection (optional)
16. Intelligent Slot or RS485 (optional)
17. Reserved (optional)
18. GND
19. Terminals and Cover



## Specifications

MODEL	PB901	PB902	PB903	PB906	PB9010	PB9020
Capacity	1 KVA / 900 W	2 KVA / 1800 W	3 KVA / 2700W	6 KVA / 6 KW	10 KVA / 10 KW	20 KVA / 20 KW
<b>INPUT</b>						
Rated voltage	100 Vac / 110 Vac / 115 Vac / 120 Vac / 127 Vac			208 Vac / 220 Vac / 230 Vac / 240 Vac		
Voltage range	50~ 80Vac (linear derating between 50% and 100% load);			110 ~ 176 Vac (linear derating between 50% and 100% load);		
	80 ~ 150Vac (no derating);			176 ~ 288 Vac (no derating)		
Frequency	45 ~ 55Hz ± 0.5% or 55 ~ 65Hz ± 0.5% (auto-sense)			50 / 60 Hz (auto-sensing)		
Power factor	≥ 0.98			≥ 0.99		
Bypass voltage range	(90 ~ 140) ±5 Vac			-40% ~ +15% (settable)		
<b>OUTPUT</b>						
Voltage regulation	100 Vac / 110 Vac / 115 Vac / 120 Vac / 127 Vac (settable via LCD)			208 (PF=0.9) / 220 / 230 / 240 Vac Or 110 / 115 / 120 Vac (two groups, their phase angles different by 180°)		
Voltage	± 1%			± 5%		
Frequency	Synchronized with utility in mains mode; 50/60±0.2Hz in battery mode			Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode		
Waveform	Sinusoidal					
Crest factor	3:1					
Harmonic distortion	≤ 3% (linear load); ≤ 5% (non-linear load)			≤ 3% (linear load); ≤ 6% (non-linear load)		
Transfer time	Mains mode to battery mode: 0 ms			0 ms		
	Inverter mode to bypass mode: 4 ms (typical)					
Overload capability	105% ~ 150%: transfer to bypass in 30 s; > 150%: transfer to bypass in 300 ms			105% ~ 110% for 10 min, 110% ~ 125% for 1 min, 126% ~ 150% for 30 s		
<b>BATTERIES</b>						
DC voltage	24 V	48 V	72 V	192 Vdc (192 ~ 240 Vdc settable)		
Inbuilt battery of standard model	2 × 9 Ah	4 × 9 Ah	6 × 9 Ah	12 V / 7 Ah × 16	12 V / 9 Ah × 16	12 V / 9 Ah × 16 (two groups)
Charging current	1 A					
Typical recharge time	8 h			90% capacity restored in 8 hours		
Efficiency	≥ 90% in mains mode; ≥ 87% in battery mode; ≥ 94% in ECO mode			Max. 89.5% (max. 93% in ECO mode)		Max. 90% (max. 93% in ECO mode)
Communications	RS232 (standard), USB / SNMP (optional)			RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)		
<b>OTHERS</b>						
Humidity	20 ~ 90% RH @ 0 ~ 40ℳ (non-condensing)			0 ~ 95% (non-condensing)		
Noise level	≤ 50dB (1m)			≤ 55 dB	≤ 58 dB	
Dimensions (mm) W×D×H	144 × 357 × 215	190 × 452 × 341		262 × 712 × 732		350 × 745 × 1183
Packaged dimensions (mm) W×D×H	232 × 457 × 320	320 × 573 × 472		382 × 825 × 931		460 × 890 × 1366
Net/Gross weight (kg)	11.0 / 13.5	20.0 / 21.5	24.0 / 25.5	93.0 / 105.0	115.0 / 127.0	256.0 / 271.0