

Protect 1 TOWER

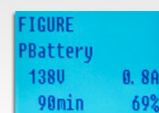
6 - 10 KVA w/o batt



Applications



Estimated Remaining Time (LCD)



The LCD display shows an estimation of the remaining battery backup time.

Specifications



- On-line "double conversion" technology (VFI)
- DSP (Digital Signal Processor) technology
- Internal static and manual bypass breaker
- Input Power Factor up to 0.99
- Wide input voltage range
- Up to 4 units in parallel
- Battery (DC) cold start
- Common or separate battery in parallel mode
- Charging current 1-10A
- Selectable battery voltage (16/18/20 batteries)
- ECO-mode for energy saving
- Site wiring fault indication
- Self testing at UPS startup
- Intelligent management through RS485, USB, DB9
- Backfeed protection

Options:

- SNMP adapter
- Relay card (dry contacts)
- Additional / external battery packs
- Spirit II 6/10kVA version (3/1)
- 2 years warranty

Parallel Redundancy Mode

Up to 4 Protect 1 systems can be connected in parallel to get maximum power capacity. Only one battery is necessary in the parallel redundancy mode.

Additional battery pack open view

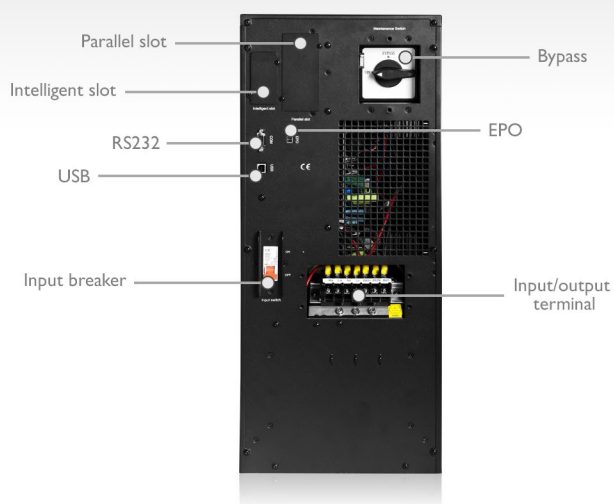


Common battery in parallel mode

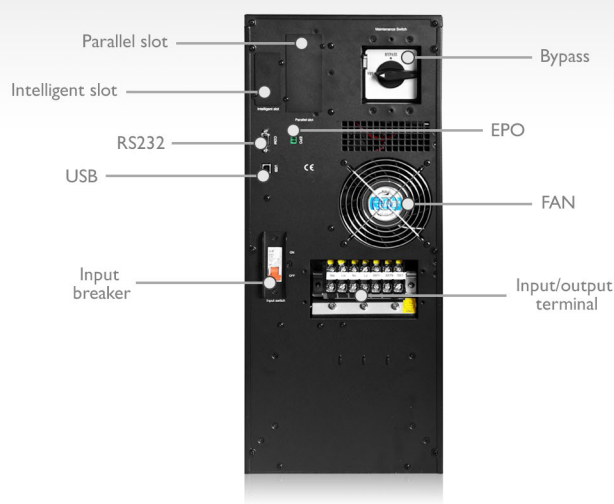


Up to 4 units in parallel

Protect 1 TOWER 6kVA



Protect 1 TOWER 10kVA



Protect 1 TOWER	Model	
	6000VA	10000VA
Power (Watt)	5400W	9000W
— Input		
Nominal voltage	220/230/240Vac, optional 380/400/415Vac selectable	
Input voltage range	120-276Vac (1/1), 208-478Vac (3/1)	
Frequency range	45-55Hz for 50Hz, 55-65Hz for 60Hz (auto-sensing)	
Input power factor	≥0.99	
Bypass voltage range	-45% / +15%	
Harmonic distortion (THDi)	≤5% at 100% non-linear load	
— Output		
Voltage	208/220/230/240Vac selectable	
Waveform	Pure sine wave	
Harmonic distortion (THD)	<2% at 100% linear load	
Frequency	50/60Hz +/- 0,2%	
Voltage regulation	+/-2% at nominal voltage	
Crest factor	3:1	
Efficiency at 75-100% load	>92% (AC mode) / >95% (battery mode) / >97% (ECO mode)	
— Battery (internal)		
Type	VRLA, AGM	
Voltage	240Vdc (selectable 192/210/240Vdc)	
Standard backup time (internal battery)	6-8min at nominal load	3-5min at nominal load
Power of the internal charger	1-10A adjustable	
— Protection		
Input/output	Overvoltage, short-circuit, battery deep discharge, thermal protection	
Overload capacity AC Mode/Battery Mode	≤110% load 3min/30sec, ≤125% load 30sec/3sec, ≤150% load 1sec/200ms	
— Alarms - informations		
Audible	Battery backup, battery low, overload status, fault status	
LED	Mains, inverter, bypass, fault, battery level	
LCD	Input and output voltage, load, battery voltage, error codes	
— Bypass		
Type	Internal static (automatic) and manual bypass / External bypass optional	
— Environment		
Temperature / altitude / humidity	0-40°C / less than 1500m / 0-95% non-condensing	
Audible noise at 1m	< 50dB	
— Interface		
Standard	USB, RS232, EPO	
Optional	SNMP card, parallel card, relay card	
— Dimensions		
Weight (with internal batteries)	70kg	80kg
WxDxH (mm)	250x510x620 (UPS), 250x600x620 (Battery cabinet)	
Standard	CE-certificate, EN/IEC 62040-2, EN/IEC 62040-1, GOST	