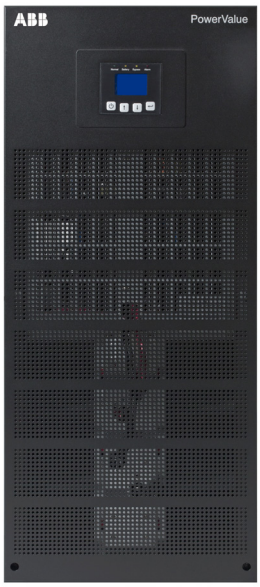
PowerValue 11 / 31 T

The single-phase UPS for IT rooms, networks and other critical applications



The PowerValue11/31T UPS delivers reliable power, low running costs, long battery life, easy maintenance and high levels of flexibility. Featuring double-conversion, voltage and frequency independent (VFI) topology, the PowerValue11/31T is available in both 10 and 20kVA versions, with the option to configure up to four units in parallel to boost power capability or provide redundancy.

Three-phase or single-phase inputs can also be accommodated, as well as single- or dual-supply inputs – allowing the customer to manage two independent power sources. Simple to install and with a small footprint, the PowerValue11/31T provides stable, regulated, transientfree, pure sine wave AC power with extremely tight output voltage regulation.

High reliability
- Online double conversion topology
- Parallelable up to four units to provide system redundancy
- Programmed and automated battery tests ensure optimized battery management

Low cost of ownership
- Simple power increase by paralleling up to four units
- High operating efficiency, regardless of loading
- Reduced installation costs
- Compact design

Flexible design
- Different autonomy variations with inbuilt batteries or additional battery cabinets
- Long backup models available
- Single- or three-phase input – adaptable to installation requirements (field configurable)
- Single- or dual-input power source compatible (field configurable)
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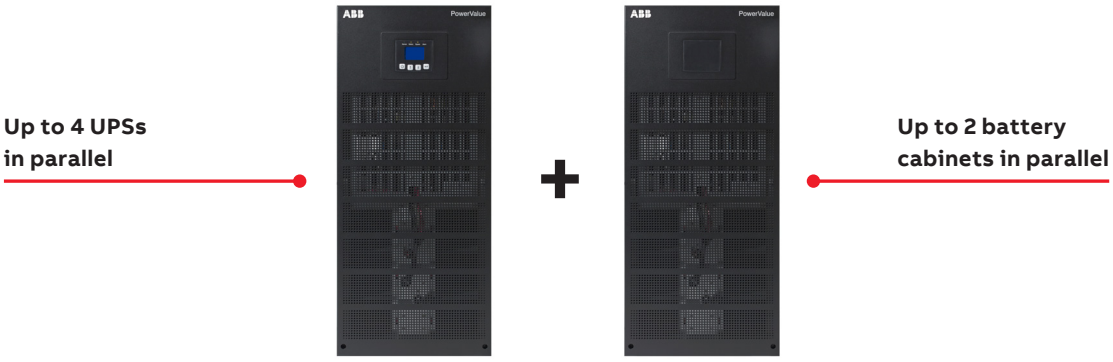
Efficient service concept
- Integrated manual bypass switch
- Easy to install and maintain
- User-friendly display
- User-replaceable batteries
- Remote monitoring and connectivity options

PowerValue 11 / 31 T
Product features

Compact power protection up to 80 kVA
PowerValue 11 / 31 T 10 and 20 kVA UPS can be installed in parallel to increase the total system power up to 80 kVA or to add redundancy to the system. The UPSs are delivered with an inbuilt parallel board and paralleling cables. No additional hardware is required for this installation.

PowerValue 11 / 31 T can be configured with up to two matching battery cabinets to satisfy extended runtime demands. Easily accessible and replaceable batteries increase availability and reduce mean time to repair (MTTR).

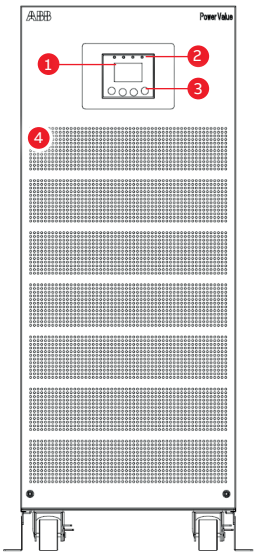


Frequency conversion
Operating as a frequency converter, PowerValue 11 / 31 T not only converts the power supply frequency (50 Hz to / from 60 Hz), but it also protects the load from power disturbances and guarantees additional battery power in case of mains failure.

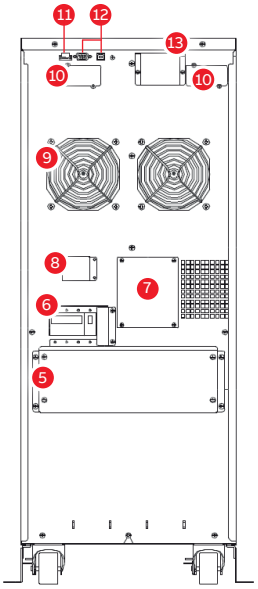
The operation and installation is simple and consists merely of correctly wiring the UPS and selecting the frequency conversion mode in the LCD.

- Input frequency range: 40–70 Hz
- Output frequency: 50 Hz or 60 Hz
- Output derating:
  - Single-phase input: 60%
  - Three-phase input: no derating

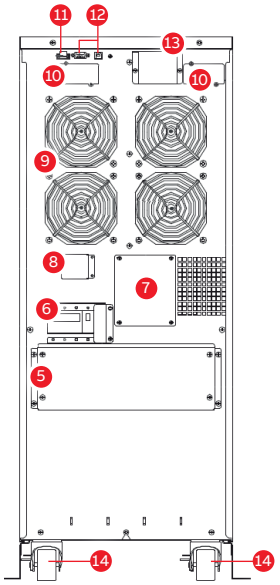
PowerValue 11 / 31 T
Available models



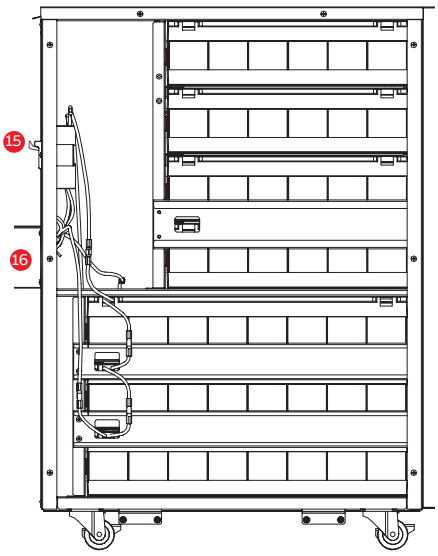
10 / 20 kVA



10 kVA



20 kVA



Battery cabinet (A and B)

1 LCD	**5** Connection terminals	**9** Fans	**13** Parallel port
2 LEDs	**6** Input breaker	**10** Network interface / AS400 slot	**14** Wheels / support and brakes
3 Control keys	**7** Manual bypass	**11** EPO contact	**15** Fuse holder
4 Ventilation inlets	**8** Back-feed protection terminals	**12** RS-232 port / USB port	**16** Battery connection terminals

UPS cabinet configuration

- Online double conversion UPS
- Efficiency in online mode up to 93.9%
- Efficiency in eco-mode up to 97%
- Paralleling up to four units allows for increase of capacity or redundancy
- Same model supports different wiring schemes
- Three-phase and single-phase input
- Single- and dual-input feed
- LCD
- Frequency converter operation (50 Hz or 60 Hz)
- Interfaces: USB, RS-232, ModBus, potential-free contacts, EPO contact inputs
- Emergency power-off for remote shutdown

Options

- Dry-contact card – relay interface card enables advanced communication between the UPS systems
- Network interface cards – control and monitoring of the UPS via a web browser
- Sensors – combined with the network interface card, humidity and temperature sensors can be integrated into the system and monitored remotely
- Additional battery cabinets that match perfectly with the UPS for scaling autonomy time

PowerValue 11 / 31 T
Technical specification

General data	10 kVA	10 kVA S	10 kVA B	10 kVA B2	20 kVA	20 kVA S	20 kVA B
Output rated power	9 kW				18 kW		
Output power factor	0.9						
Topology	Online double conversion						
Parallel configuration	Up to 4 units						
Inbuilt batteries	No	No	Yes	Yes	No	No	Yes
Input							
Nominal input voltage	1 ph + N: 220 / 230 / 240 VAC 3 ph + N: 380 / 400 / 415 VAC						
Input voltage tolerance	1 ph + N: 110–276 VAC 3 ph + N: 190–486 VAC						
Input current THDi	<5% linear load, <7% non linear load						
Frequency range	45–55 Hz for 50 Hz systems / 55–65 Hz for 60 Hz system						
Power factor	≥0.99						
Output							
Rated output voltage	220 / 230 / 240 VAC						
Voltage tolerance	±2%						
Voltage distortion	≤2% linear load, ≤5% non linear load						
Overload capability (linear load)	1 min: 110–130% / 5 min: 105–110% 100 ms: >150% / 10 s: 130–150%						
Nominal frequency	50 Hz or 60 Hz						
Crest factor	3:1 (load supported)						
Efficiency							
Overall efficiency	Up to 93.1%				Up to 93.9%		
In eco-mode	≥97%						
Environment							
Protection rating	IP 20						
Storage temperature	–15 °C to +60 °C for UPS, 0 °C to approx. +35 °C for battery						
Operating temperature	0 °C to +40 °C						
Relative humidity	0% to 95% (Non-condensing)						
Altitude (above sea level)	1000 m without derating						
Battery							
Type	VRLA (vented lead-acid)						
Inbuilt batteries	–	–	1 × 24	2 × 24	–	–	2 × 24
Battery capacity	–	–	9 Ah	9 Ah	–	–	9 Ah
Charging current	4 A	8 A	4 A	4 A	4 A	8 A	4 A
Recharge time	–	–	3 h to 90%	8 h to 90%	–	–	8 h to 90%
Communications							
User interface	LCD						
Communication cards (option)	Network interface (SNMP card), dry-contact card (AS400)						
Standards							
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	56 kg	65 kg	116 kg	178 kg	67 kg	68 kg	190 kg
Dimensions w × h × d	350 × 890 × 715 mm	350 × 890 × 715 mm	350 × 890 × 715 mm	350 × 890 × 715 mm	350 × 890 × 715 mm	350 × 890 × 715 mm	350 × 890 × 715 mm