

PowerValue 11 RT

The single-phase UPS for critical applications



ABB's PowerValue11RT is a double-conversion on-line UPS that guarantees up to 10kVA of clean, reliable power for your critical single-phase applications. As well as maintaining power to your servers, point-of-sale terminals, workstation clusters, routers, switches, hubs and sensitive electronic equipment, the PowerValue11RT also conditions incoming power to eliminate spikes, swells, sags, noise and harmonics.

The PowerValue11RT can be used as a standalone UPS device or installed into a standard 19" rack configuration, with connectivity options available for each.

Two units of the 6 or 10kVA models can be configured in parallel to provide redundancy or to increase the systems total capacity up to 20kVA. All units can be fitted with up to four battery modules to extend runtime.

High reliability

- Reliable double conversion topology protects load from all input disturbances
- Batteries can be added or replaced easily
- Reduced recovery time from discharge
- Redundant parallel operation available (6 and 10 kVA units)

Low cost of ownership

- Scalable runtime
- High operating efficiency, regardless of loading
- Reduced installation and upgrading costs
- Compact design

Flexible design

- Configurable in tower or rack-mount format
- Rotatable display
- UPS can be connected with up to four parallel battery modules for extended runtime
- Long backup models available

Efficient service concept

- Manually operated maintenance bypass switch (optional)
- Easy set up and maintenance (plug and play)
- User-friendly display
- User-replaceable batteries
- Remote monitoring and connectivity options

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Product features

The advanced system architecture guarantees that the user is able to select a system to match their needs. Scalable runtime and the easy introduction of additional batteries make the solution sustainable.

In addition, two PowerValue11RT 6 or 10 kVA UPSs can be connected in parallel to increase total power or to add redundancy. The UPSs are delivered with an installed parallel board and paralleling cables. No additional hardware is required for a parallel installation.

+ Rotatable display



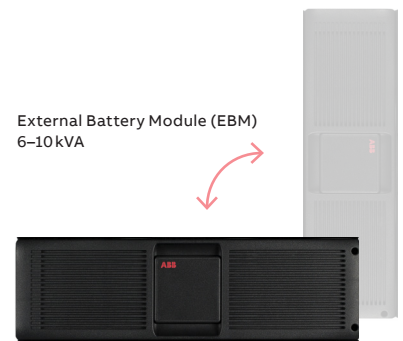
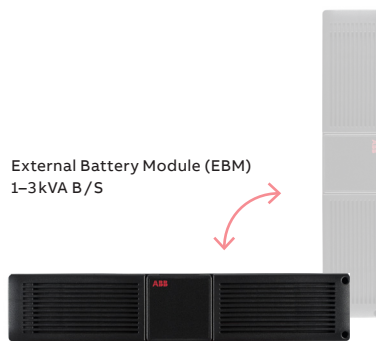
+ Rotatable display



+ Rotatable display



Scalable battery runtime



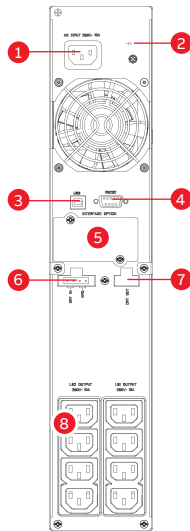
Battery runtime at full / half nominal load

	1 kVA B		1 kVA S		2 kVA B		2 kVA S		3 kVA B		3 kVA S		6 kVA		10 kVA	
	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%
UPS	<4	8	n.a.	n.a.	4	11	n.a.	n.a.	4	11	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UPS + 1 EBM	16	40	6	22	12	29	<5	11	13	31	<5	10	6	16	5	13
UPS + 2 EBM	32	76	22	62	22	54	11	34	23	56	10	34	16	36	13	29
UPS + 3 EBM	52	119	40	112	32	78	22	62	35	82	21	61	26	59	20	47
UPS + 4 EBM	68	166	62	160	45	105	34	99	49	111	33	98	36	84	29	68

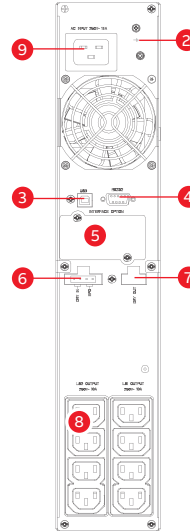
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Available models

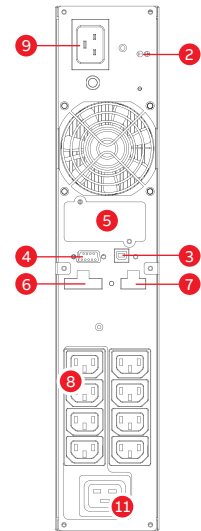
1	AC input 10A
2	Ground contact
3	USB port
4	RS-232
5	SNMP / AS400 slot
6	EPO / dry contact input port
7	Dry contact output port
8	AC output 10A
9	AC input 16A
10	AC input 20A
11	AC output 16A
12	EPO
13	Parallel port
14	Bypass
15	Output circuit breaker
16	AC input 55A
17	AC output 57A
18	AC output 13A
19	Battery connector
20	AC input 57A



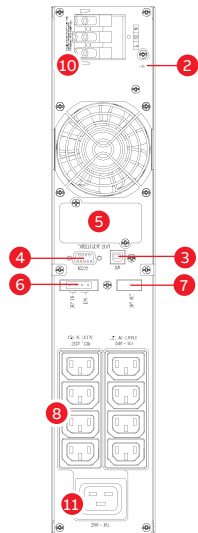
PowerValue11RT – 1–2kVA B and 1kVA S



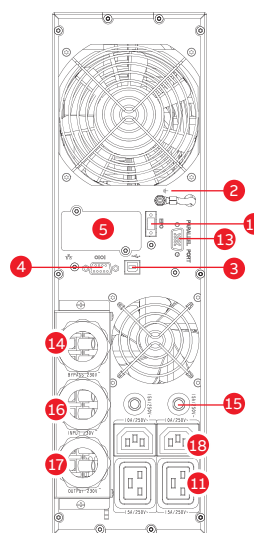
PowerValue11RT – 2kVA S



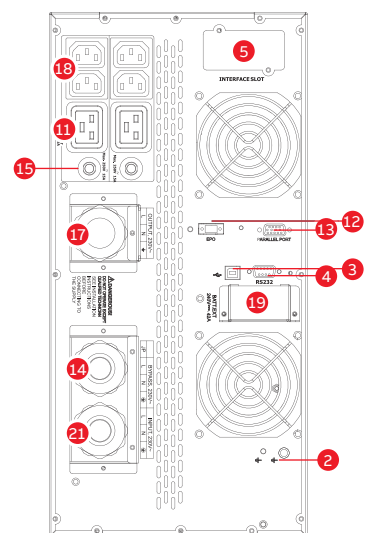
PowerValue11RT – 3kVA B



PowerValue11RT – 3kVA S



PowerValue11RT – 6kVA



PowerValue11RT – 10kVA

UPS cabinet configuration

- Online double conversion UPS
- Efficiency in online mode up to 94.6%
- Efficiency in eco-mode up to 97%
- Configurable in tower format or rack-mount
- Two 6kVA and 10kVA UPSs can be connected in parallel for redundancy or extra capacity
- Cold start
- Frequency converter operation (50 Hz or 60 Hz)
- Interfaces: USB, RS-232, potential-free contacts, EPO contact inputs
- Emergency power-off for remote shutdown
- Load segmentation (for PowerValue 11RT 1-3 kVA)

Options

- Rack installation kit allows for easy mounting to standard rack
- Software and connectivity options, including ModBus
- Maintenance bypass PDU 16A (for PowerValue11RT 1–3kVA)

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Technical specification

General data	1kVA B	1kVA S	2kVA B	2kVA S	3kVA B	3kVA S	6kVA	10kVA
Output rated power	900W	900W	1800W	1800W	2700W	2700W	5400W	9000W
Output power factor	0.9							
Topology	Online double conversion							
Parallel configuration	No						Up to 2 units	
Inbuilt batteries	Yes	No	Yes	No	Yes	No	No	No
Input								
Nominal input voltage	208 / 220 / 230 / 240VAC							
Input voltage tolerance	120–276VAC (depending on load level)							
Input current THDi	<5% with full resistive load							
Frequency range	45–55 Hz / 54–66 Hz							
Power factor	≥0.99							
Output								
Rated output voltage	208 / 220 / 230 / 240VAC							
Voltage tolerance	±1% (referred to 230V)							
Voltage distortion	≤2% linear load, ≤5% non linear load							
Overload capability on inverter	12 s.: 102–130% load						2 mins.: 102–130% load	
	1.5 s.: 130–150% load						30 s.: 130–150% load	
	100 ms.: >150% load						100 ms.: >150% load	
Nominal frequency	50 Hz or 60 Hz							
Crest Factor	3:1 (load supported)							
Efficiency								
Overall efficiency	Up to 93%						Up to 94.6%	
In eco-mode	≥95%						≥97%	
Environment								
Protection rating	IP 20							
Storage temperature	UPS: -15 °C to +60 °C; Batteries: 0 °C to +35 °C							
Operating temperature	0 °C to +40 °C							
Relative humidity	0% to 95% (Non-condensing)							
Altitude (above sea level)	1000m without derating							
Battery								
Type	VRLA (vented lead-acid)							
Battery configuration	1×3×7.2Ah	–	1×4×9Ah	–	1×6×9Ah	–	–	–
Charging current	1.5A	6A	1.5A	6A	1.5A	6A	8A	8A
Recharge time	3 h to 90% (only 1–3 kVA B)						External battery dependent	
Communications								
User interface	LCD							
Communication cards	SNMP (option), AS400 Relay card (option)							
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	16.2 kg	8.4 kg	19.7 kg	9.3 kg	28.6 kg	13.0 kg	20.1 kg	28.1 kg
Dimensions w × h × d	438 × 86.5 × 436 mm		438 × 86.5 × 436 mm		438 × 86.5 × 608 mm		438 × 129 × 594 mm	
Battery modules								
Weight	22.2 kg		27.5 kg		40.5 kg		48.4 kg	
Dimensions w × h × d	438 × 86.5 × 436 mm		438 × 86.5 × 436 mm		438 × 86.5 × 608 mm		438 × 129 × 594 mm	