
PRODUCT CATALOG

Low-power UPS





0 Disclaimer

Terms and Conditions

The ABB Power Protection SA sales terms and conditions are valid for any items purchased from ABB Power Protection SA unless otherwise stated and agreed upon.

ABB's latest warranty terms and conditions are applicable unless otherwise stated and agreed upon. See the contact page at the end of this catalog for more information on obtaining the latest warranty terms and conditions.

Pricing

The full UPS, UPS accessories, battery modules, accessories and spare parts pricelists are available at your local ABB sales office. See the contact page at the end of this catalog for more information.

Technical

The information in this catalogue regarding UPS autonomy refers to a typical operation scenario. Refer to the product datasheet for a complete overview of the battery runtime.

The technical specifications in this document are subject to change without notice at the sole discretion of ABB Power Protection SA.

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1 UPS introduction

What is a UPS?



Electronic equipment supporting critical systems—such as telecommunication servers, LAN nodes, and computers—requires a continuous supply of power. In some cases, even a minor disruption in power can cause damage to the equipment, data loss, an interruption of vital communication channels, or disturb potentially life-saving equipment.

A guaranteed way to ensure critical systems maintain power during electrical variances is with an uninterruptible power supply (UPS). A UPS is a continuous power system protecting electronic equipment from unexpected power disruptions during mains failures and other power interruptions.

In the event of power failure or if the mains voltage falls below minimum levels, the UPS maintains continuous power to electronic equipment until the mains is restored, a shutdown sequence is performed, or a backup generator resumes power.

Unlike a UPS, a backup generator can provide electricity for a long period during outages. However, there will be a short interruption in the power supply while the generator comes up to speed. Further, a generator does not prevent power disruptions to equipment in the event of an outage, blackout, power surge, spikes, etc. This means important, even life-saving, electrical equipment either shuts down, restarts, or becomes damaged during power interruptions. A UPS stands apart from an emergency power system or a backup generator in that it provides continuous or near-instantaneous power when a failure occurs.

Why a UPS?

01 Common power disruptions

The short answer is that our modern world is nearly totally reliant upon electricity, and there are natural and environmental conditions as well as human errors that cause disruptions in power.

A sudden loss of power will disrupt most business, government, and business, commercial and government operations. There are many examples of companies that have gone into liquidation as a consequence of mains power failure. However, it is not only total mains power failures or "blackouts" that can trigger devastating effects. Many electrical loads, such as computer systems, are equally susceptible to:

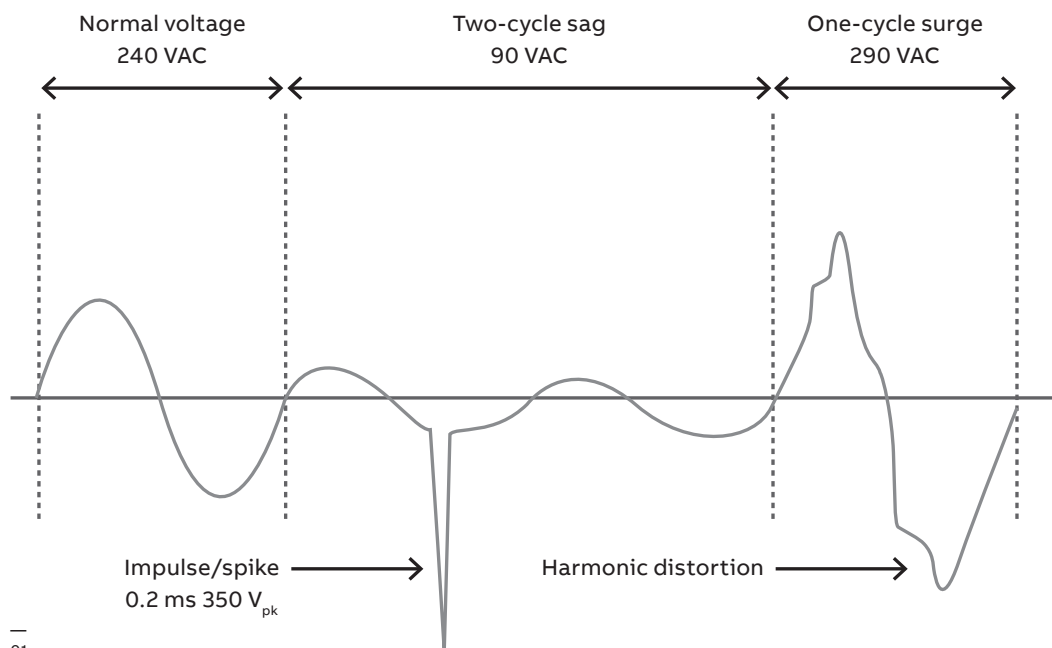
- Power sags
- Brownouts
- Blackouts
- Power spikes and surges
- Noise and radio-frequency interference
- Supply frequency changes

These are common types of power loss that affect and damage sensitive electrical systems. See the figure below for an example of common power disruptions.

Such loads are often referred to as "critical loads", partly because their continuous operation is fundamental to the functioning of the business and because they require a more stable and reliable power source than that generally offered by the utility mains supply in order to guarantee their correct function.

A UPS provides a simple and efficient way to ensure our world remains operational. There are critical telecommunication systems that we rely upon every day to conduct business, save lives and perform daily tasks. Our businesses, our emergency response systems, our medical institutions and even our homes all rely on an uninterrupted source of clean power.

These telecommunication systems operate on a multitude of pieces of electronic equipment – computers, servers, LAN nodes, etc. – and this equipment must maintain continuous operation. Interruptions in power are a detriment to commercial and government organizations – blackouts, brownouts, power surges, and spikes are just a few interruptions the UPS protects electrical equipment from.



UPS topologies

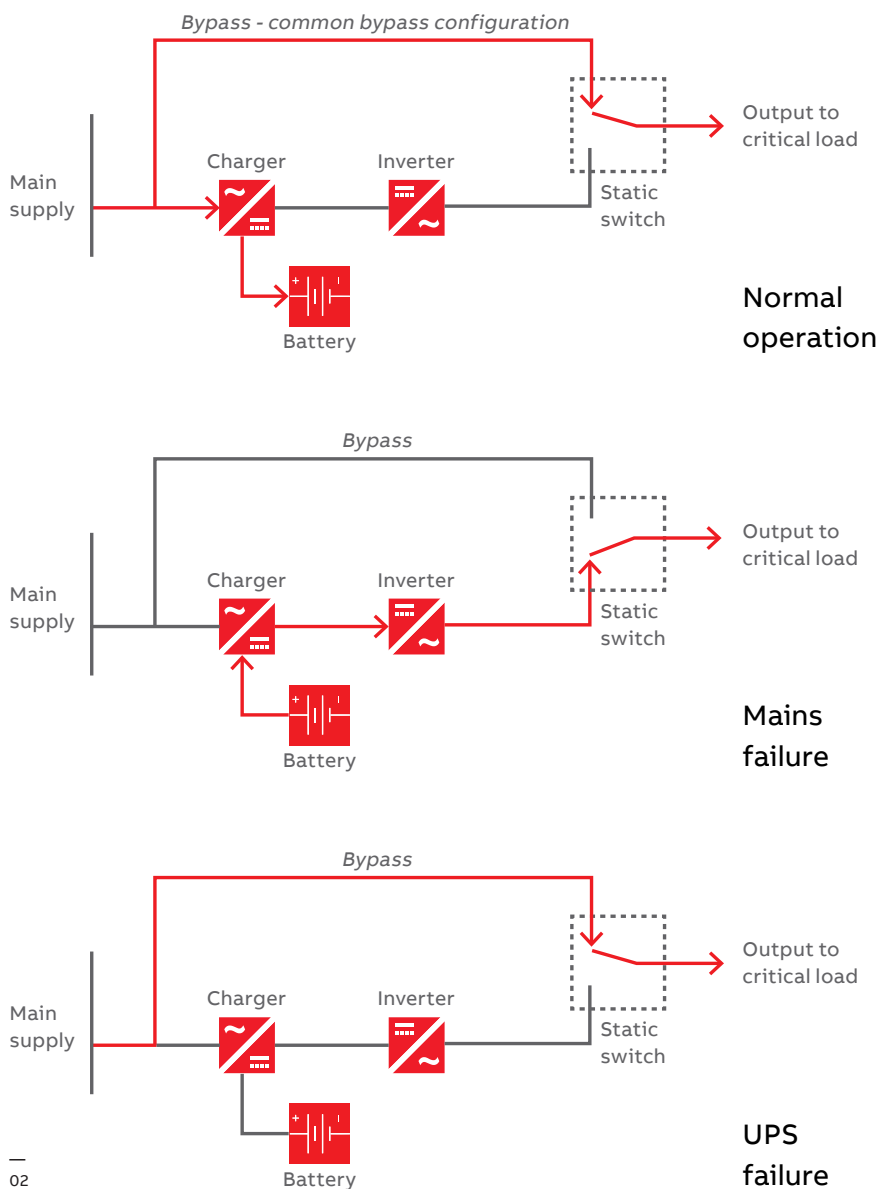
Offline/standby

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02 Offline/
standby UPS

An offline/standby UPS offers basic surge protection and continuous power from a backup battery.

The figure shows an offline UPS model during normal operation, mains failure and UPS failure. The offline UPS design protects equipment by powering the critical loads from the bypass line (ie, the raw mains) and then transferring power to the inverter if the bypass supply fails, or if the voltage goes above or below the acceptable preset limits.

During normal operation, equipment may experience several mains disturbances that are within the acceptable limits, but the offline UPS includes spike suppression and radio frequency (RF) filtering within its bypass circuit.

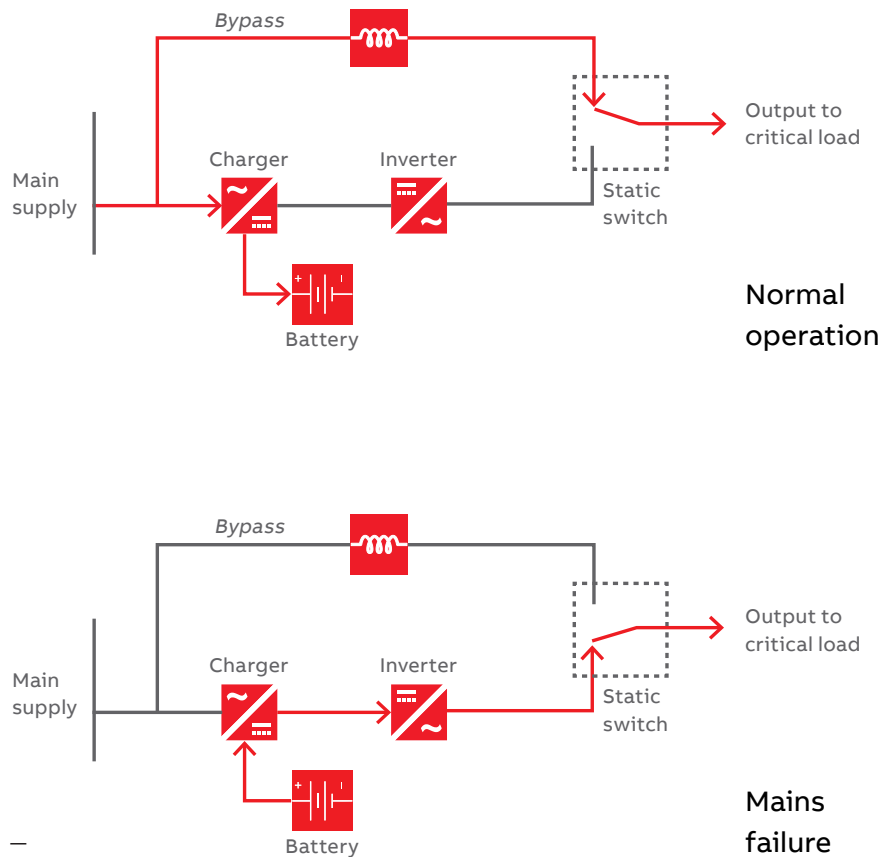


Line-interactive

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03 Line-inter-
active UPS

The line-interactive UPS operates similarly to the offline/standby UPS in that it typically supplies the critical load through the bypass line and then transfers it to the inverter in the event of a bypass supply failure. The line-interactive system utilizes the battery, charger and inverter in the same manner as the offline/standby unit, but with added circuit regulators in the bypass line. This regulator transfers the load to the battery-fed inverter supply less frequently, which makes the line-interactive UPS more efficient in operation costs and battery wear and tear compared to the offline/standby UPS system.

The figure shows the line-interactive UPS system during normal operation and mains failure. During normal operation, the mains supply powers the electrical load through the bypass line and charges the battery if needed. During mains failure, the battery supplies power to the inverter which provides power to the electrical load.



Online/double-conversion

An online UPS offers the most comprehensive solution in uninterruptible power. The online UPS system replaces the battery charger with a rectifier/charger block, which is either two separate units or a combined power block.

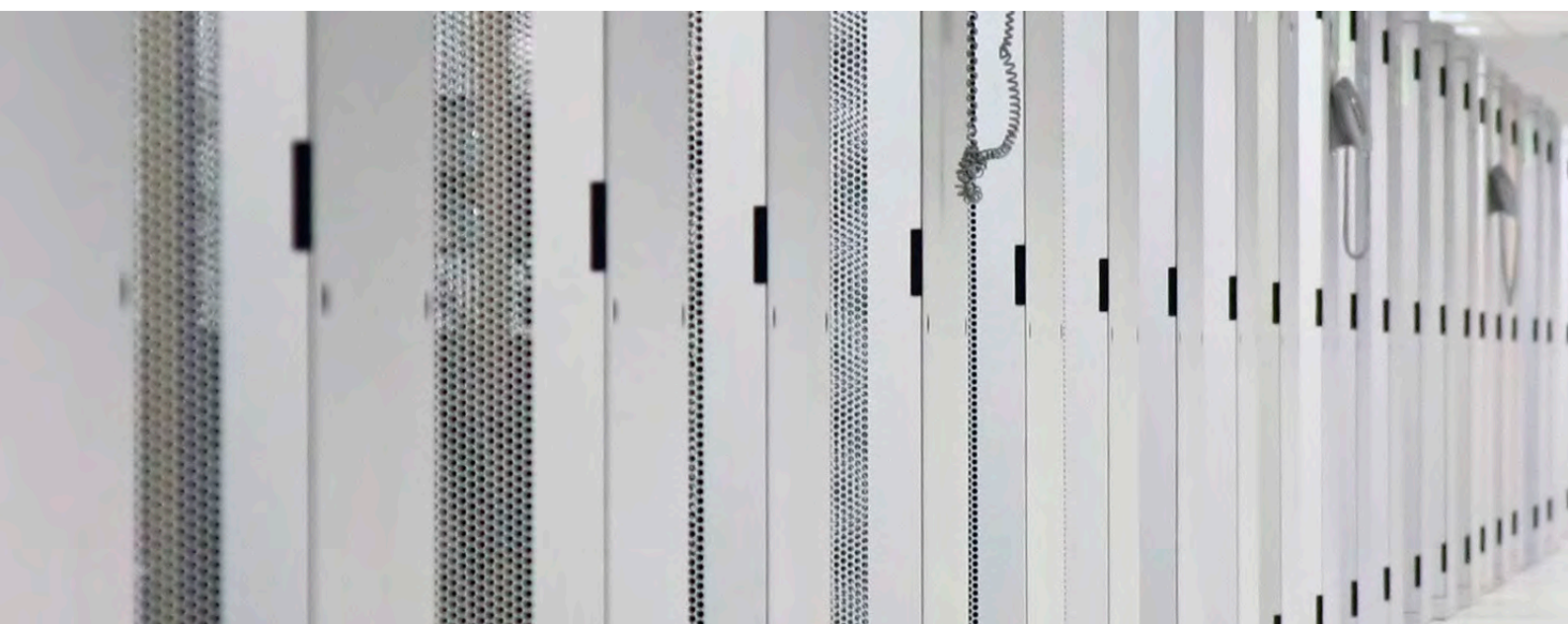
The figure below illustrates the online UPS system during normal operation, mains failure and UPS failure on bypass mode. When mains power is present, this power block charges the battery and supplies the inverter with a steady voltage supply. During mains failure, the UPS rectifier drops from the circuit, allowing the batteries to maintain constant and uninterrupted power. When power is restored, the rectifier begins carrying most of the load and recharging the batteries.

The rectifier/charger has a control feature that has an input current limit feature that protects critical equipment that is sensitive to minor power fluctuations from losing power. This type of UPS is perfect for environments containing sensitive electrical equipment that mandates isolation.

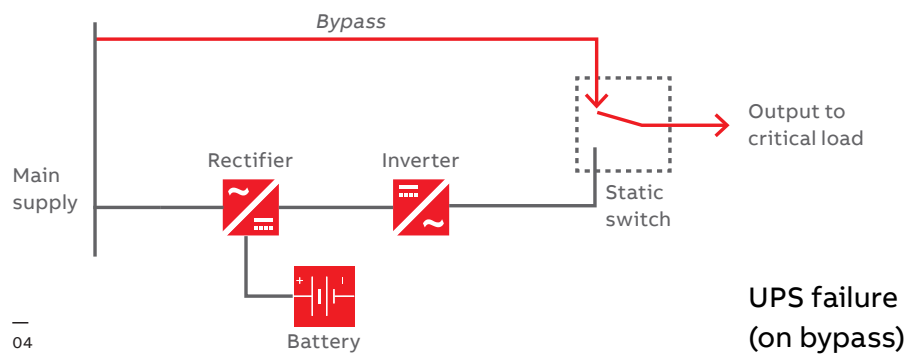
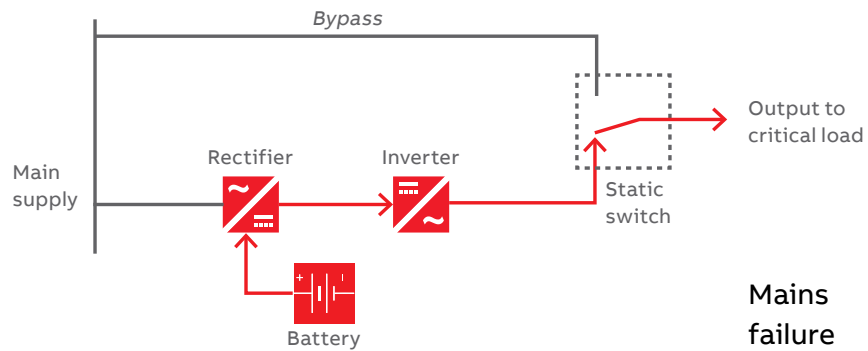
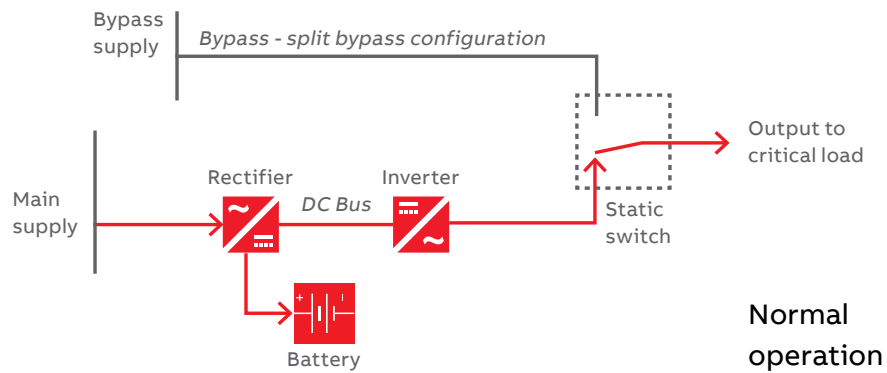
This UPS is also known as the double conversion UPS due to its two conversion stages of AC-DC and DC-AC. The double conversion UPS offers the greatest degree of critical power supply integrity. When the UPS input mains supply is present, the rectifier, charger, and inverter power blocks are all active and the load is connected to the inverter output from the static switch. As the load is powered from the inverter during normal operation circumstances, it is protected from power fluctuations and disturbances since the rectifier and inverter act as a “firewall” between the equipment and mains power voltage fluctuations.

If the mains input supply fluctuates above or below a preset voltage range (typically +10% to -20%) or suffers a total failure, the inverter continues operating from battery power and the event is completely transparent to the electrical load. This is because there is no power transfer operation involved.

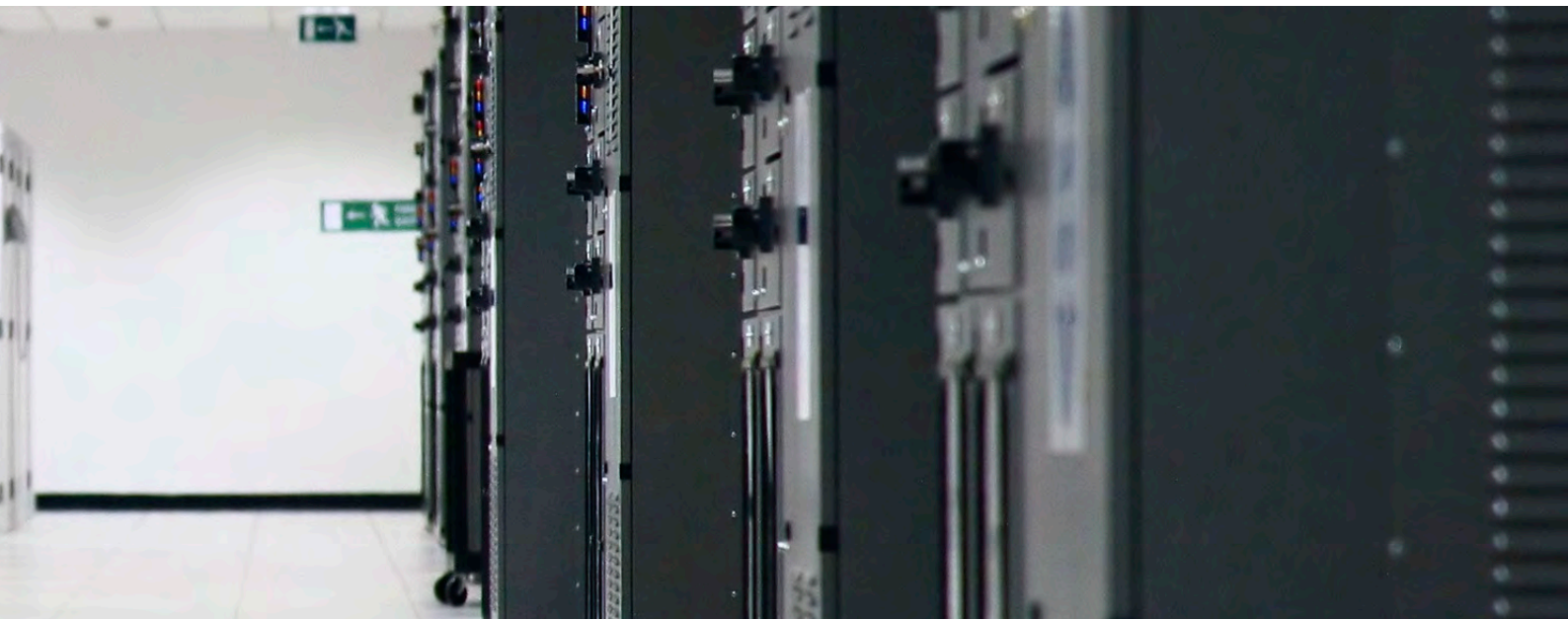
When operating from battery power, the inverter supplies steady regulation as when the mains is present. If the mains power is not restored before the battery is depleted, then the inverter shuts down.



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04 Online/double-
conversion UPS

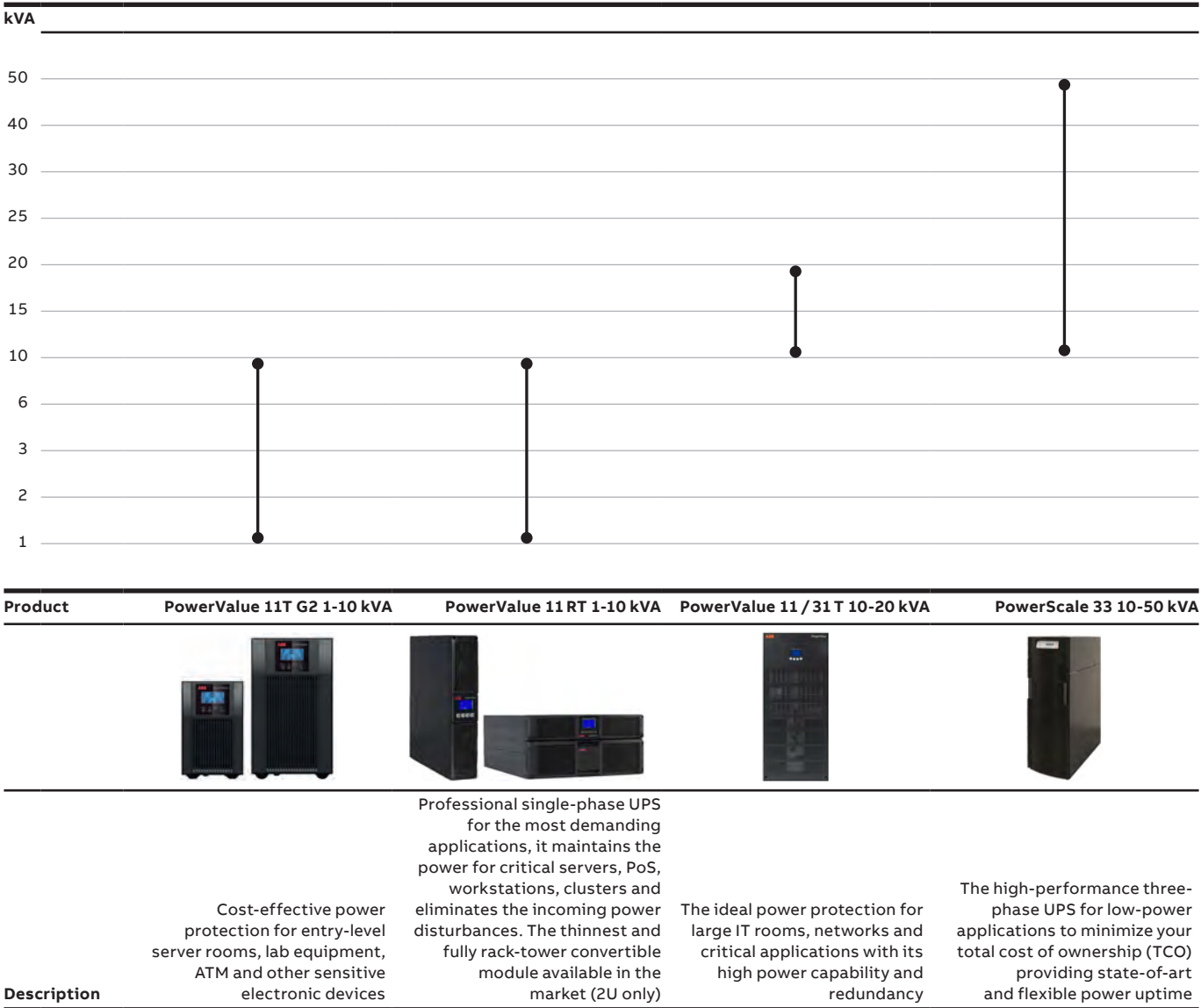


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04



2 Product overview

UPS rated power and overview





3 PowerValue 11T G2 1-10 kVA

A cost-effective solution for maximum power protection



ABB's PowerValue 11T G2 is a single-phase in/out, double conversion online uninterruptible power supply (UPS) that guarantees up to 10 kW per single UPS of clean, reliable power for your critical single-phase applications. As well as maintaining power to your server room, advertising display, turnstiles, lab equipment, transportation signaling systems, ATM or vending machine, the PowerValue 11T G2 also conditions incoming power to eliminate spikes, swells, sags, noise and harmonics.

Featuring voltage and frequency independent (VFI) topology, the tower-only PowerValue 11T G2 saves costs by minimizing energy losses with its double conversion efficiency of up to 95 percent

(up to 98 percent in ECO mode). Two or three units can be connected in parallel to boost power delivery to a maximum of 30 kW or to provide redundancy.

Simple to install or maintain, inexpensive to run and with the most compact online UPS footprint available on the market, the PowerValue 11T G2 provides stable, regulated, transient-free, pure sine wave AC power with extremely tight output voltage regulation. All units can be fitted with up to four external battery modules (EBMs) to extend runtime to well over two hours. Each EBM is dedicated to its corresponding UPS and setup is easily accomplished via the LCD menu.

High reliability

- Double conversion topology protects the load from all input disturbances
- Parallelable up to three units (6-10 kVA only) to provide system redundancy
- User-replaceable batteries
- Wide input voltage tolerance

Low cost of ownership

- Scalable runtime
- High operating efficiency
- Low installation and upgrading costs
- Compact design
- Output power factor of 1.0 (6-10 kVA only)

Flexible design

- Multiple connectivity options
- Each UPS can be connected with up to four parallel battery modules for extended runtime
- Adjustable DC voltage and battery charger current
- Extended backup time models available
- Best power density available in the market segment

Efficient service concept

- Integrated manually operated maintenance bypass switch (6-10 kVA only)
- Easy setup and maintenance (plug and play)
- User-friendly display
- Remote monitoring options

PowerValue 11T G2 1-10 kVA

Product features

The PowerValue 11T G2 with its cost-effective ABB UPS technology makes a high-performance and is now available to market sectors with lower power requirements: Small server rooms, critical lab or industrial equipment, security installations and applications of a similar power class can now profit from one of 12 PowerValue 11T G2 models.

With the most compact online UPS footprint available, the PowerValue 11T G2 features true on-line double conversion. This provides a flexible output frequency and isolates the UPS from upstream disturbances so that the critical load sees only stable, well-regulated, transient-free, pure sine wave AC power.

A rated output power factor up to 1.0 (kVA = kW) means the PowerValue 11T G2 delivers 11 percent more active power than a UPS with a power factor of 0.9. The UPS is optimized for modern IT loads and helps users reduce their energy budget

with its double conversion efficiency of up to 95 percent (up to 98% in ECO mode).

- Low input line disturbances: input PF ≥ 0.995 @ 100 percent linear load – THDi < 3 percent
- Flexible configuration for scalable runtime: UPS and EBMs with and without batteries (long backup)
- Adjustable DC voltage and battery charger current
- Digital charger technology provides accurate charger current setting and reduces charger ripple current
- The UPS is delivered with an inbuilt parallel board and paralleling cables. No additional hardware is required for this installation.

All this with the same guaranteed high availability and quality standards as ABB's higher-power premium UPS models - and at the most attractive entry level price around.

UPS configuration

Standard

- Tower-type, IP20 UPS enclosure
- Single-phase in and out
- Online double conversion UPS
- Paralleling up to three units allows for increase of capacity to 30 kW or redundancy (6-10 kVA only)
- Operator and status LCD
- Wide voltage input frequency range
- Inbuilt batteries (B/B2 versions only)
- Maintenance bypass switch (6-10 kVA only)
- Plug-and-play

Options

- Additional battery cabinets (EBM) for scaling autonomy time
- SNMP, ModBus and AS400 interface cards for remote control and monitoring of the UPS via a web browser
- Sensors – combined with the network interface card, environmental humidity and temperature sensors can be integrated into the system and monitored remotely
- Connectivity functionality via Winpower SNMP (network management card), mini SNMP, ModBus, mini ModBus, EMP (environmental monitoring probe), AS400 and mini AS400

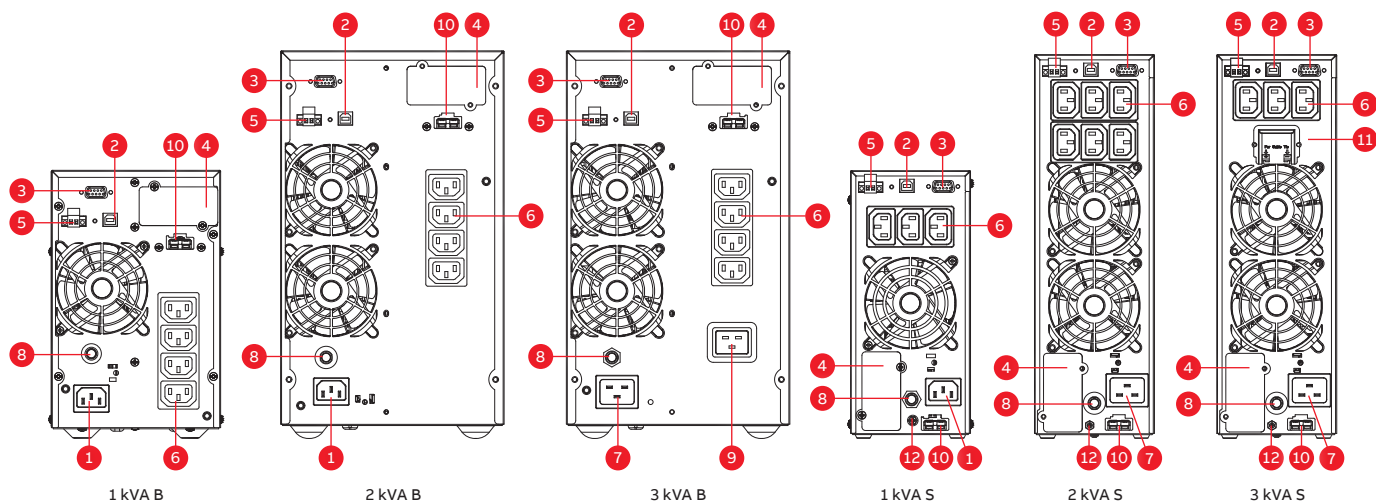
Battery runtime at full nominal load

Model	Internal batteries	EBM	UPS	UPS + 1 EBM	UPS + 2 EBM	UPS + 3 EBM	UPS + 4 EBM
G2 1 kVA B	1 x 2 x 9.4 Ah	3 x 2 x 9 Ah	5	23	52	85	120
G2 1 kVA S	No	3 x 2 x 9 Ah	-	17	48	70	100
G2 2 kVA B	1 x 4 x 9.4 Ah	3 x 4 x 9 Ah	5.5	25	55	90	125
G2 2 kVA S	No	3 x 4 x 9 Ah	-	18	50	80	110
G2 3 kVA B	1 x 6 x 9.4 Ah	2 x 6 x 9 Ah	5.5	16.5	35	55	80
G2 3 kVA S	No	2 x 6 x 9 Ah	-	10.5	28	50	70
G2 6 kVA B	1 x 16 x 7.2 Ah	2 x 16 x 9 Ah	4	18	41	68	99
G2 6 kVA B2	1 x 20 x 7.2 Ah	2 x 20 x 9 Ah	5.5	25	55.5	92.5	134
G2 6 kVA S	No	2 x 20 x 9 Ah	-	18	49	88	133
G2 10 kVA B	1 x 16 x 9 Ah	2 x 16 x 9 Ah	3	12	25	39	55.5
G2 10 kVA B2	1 x 20 x 9 Ah	2 x 20 x 9 Ah	4	17	34	53	75
G2 10 kVA S	No	2 x 20 x 9 Ah	-	9	24	42.5	64

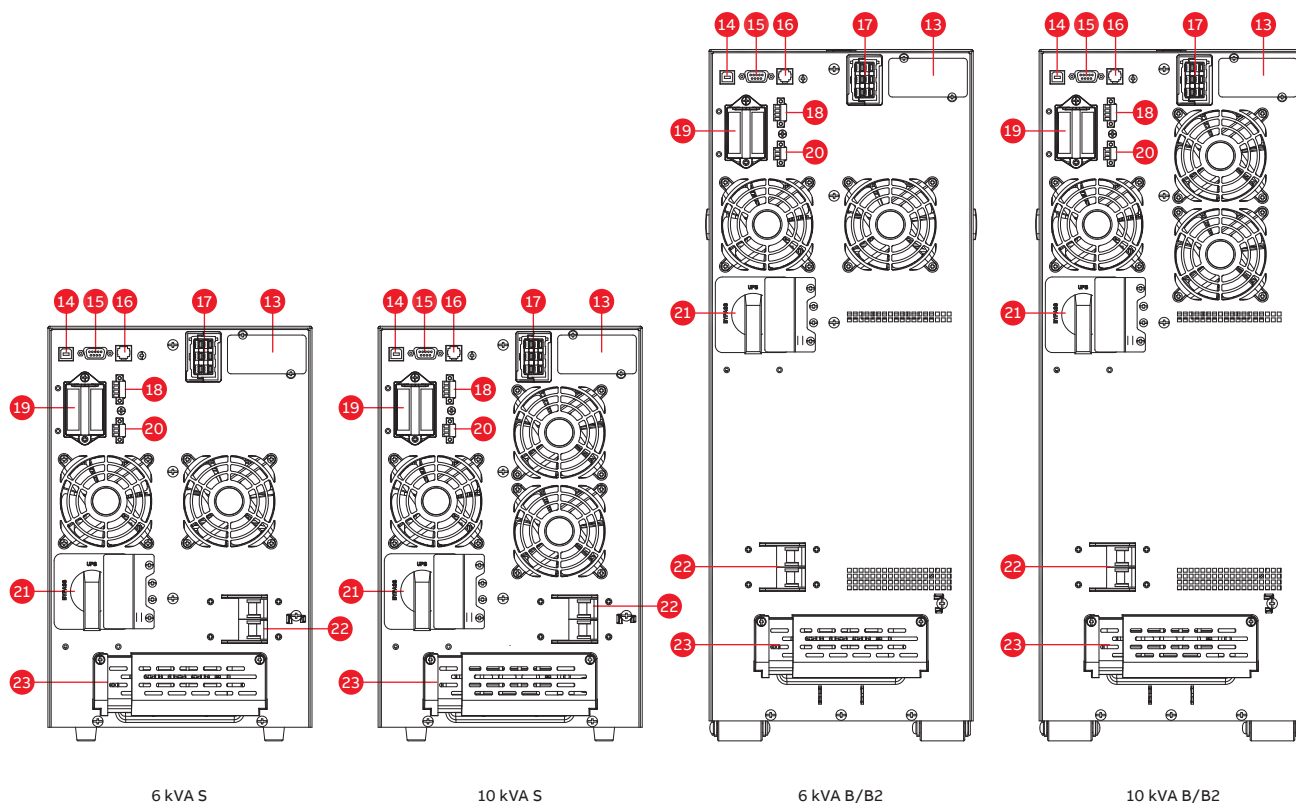
in minutes at full load

PowerValue 11T G2 1-10 kVA

Available models



1. AC input 10 A	4. Mini SNMP/ Mini ModBus / Mini AS400	7. AC input 16 A	10. EBM connector
2. USB port	5. EPO / dry input	8. Output breaker	11. AC input 20 A
3. RS-232	6. AC output 10 A	9. AC output 16 A	12. GND contact



13. SNMP/ModBus/AS400	16. Reserved for future use	19. Parallel port	22. Input breaker
14. USB port	17. EBM connector	20. EPO	23. I/O terminals
15. RS-232	18. Dry in / out	21. MBP switch	

PowerValue 11T G2 1-10 kVA

Technical specifications

GENERAL DATA	G2 1kVA B/ S	G2 2kVA B/ S	G2 3kVA B/ S	G2 6kVA B/ B2 / S	G2 10kVA B/ B2 / S
Output rated power	900 W	1'800W	2'400W	6'000W	10'000W
Output power factor	0.9	0.9	0.9	1.0	1.0
Topology	Online double conversion				
Parallel configuration	No	No	No	Yes, up to 3 UPS	Yes, up to 3 UPS
Inbuilt batteries	Yes/No	Yes/No	Yes/No	Yes/Yes/No	Yes/Yes/No
INPUT					
Nominal input voltage	220/230/240 VAC			208/220/230/240 VAC	
Input voltage tolerance	100-300 VAC (load dependent)			100-276 (load dependent)	
Input current THDi	5% with full resistive load			<3% with full resistive load	
Frequency range	45-55 Hz / 54-66 Hz			45-55Hz / 54-66Hz (extendable to 40~70HZ at load < 60%)	
Power factor	≥0.99			≥0.995	
OUTPUT					
Rated output voltage	220/230/240 VAC			208/220/230/240 VAC	
Voltage tolerance	±1% (referred to 230V)				
Voltage distortion	<2% linear load, <6% non linear load			<1% linear load, <5% non linear load	
Overload capacity (linear load) on inverter	60s: 106-130% load 10s: 131-150% load 300ms: ≥ 150% load			10m: 102-125% load 30s: 126 to 150% load 500 ms: ≥ 150% load	
Nominal frequency	50 or 60 Hz				
Crest factor	3:1 (load supported)				
EFFICIENCY					
Overall system efficiency	Up to 89%	Up to 91%	Up to 91%	Up to 95%	
In eco-mode	Up to 97.5%	Up to 98%	Up to 98%	Up to 98%	
ENVIRONMENT					
Protection rating	IP20				
Storage temperature	UPS: -25°C to 60°C; Batteries: 0°C to 35°C				
Operating temperature	0°C to 40°C			0°-40°C (up to 50°C at 50% load)	
Relative humidity	0% to 95%				
Altitude (above sea level)	1000m without derating				
BATTERIES					
Type	VRLA (valve regulated lead-acid)				
Inbuilt batteries	2x9.4 Ah (B)	4x9.4Ah(B)	6x9.4Ah(B)	16x9Ah(B) 20x9Ah (B2)	16x9Ah(B) 20x9Ah (B2)
Charging current	1.5A/3-6A adjustable	1.5A/1.5-6A adjustable	1.5A/1.5-6A adjustable	0-4A adjustable (B,B2) 0-12 adjustable (S)	
Recharge time (inbuilt batteries)	4h to 90%				
COMMUNICATIONS					
User interface	LCD display				
Optional communication cards	SNMP;ModBus;AS400;Environmental monitoring sensor probe				
STANDARDS					
Safety	IEC/EN 62040-1				
EMC	IEC/EN 62040-2				
Performance	IEC/EN 62040-3				
Manufacturing	ISO 9001:2015, ISO 14001:2015, OHSAS 18001				
WEIGHT, DIMENSIONS					
Weight	9.2/3.9 Kg	17.4/6.4 Kg	22.7/6.4 Kg	53/63/13 Kg	55.2/65.2/15.2 Kg
Dimensions w x h x d	144x228x356 mm 102x228x346mm	190x327x399 mm 102x327x390 mm	190x327x399 mm 102x327x390 mm	B / B2: 225 x 589x 452 mm S: 225x 348 x 452 mm	B / B2: 225 x 589x 452 mm S: 225x 348 x 452 mm

PowerValue 11T G2 1-10 kVA

Ordering info table

UPS	External battery module (EBM)	Article number	Power (VA/W)	Typical runtime (min)	Dimensions WxHxD (mm)	Weight (kg)
PowerValue 11T G2 1kVA B		4NWP100160R0001	1000/900	13.5	144x228x356	9.3
+	EBM 11T G2 1kVA	4NWP100165R0001	1000/900	65	144x228x356 / pc	18.4 / pc
+	2xEBM 11T G2 1kVA	2x4NWP100165R0001	1000/900	130		
+	3xEBM 11T G2 1kVA	3x4NWP100165R0001	1000/900	200		
+	4xEBM 11T G2 1kVA	4x4NWP100165R0001	1000/900	275		
PowerValue 11T G2 2kVA B		4NWP100161R0001	2000/1800	14	190x327x399	17.2
+	EBM 11T G2 2kVA	4NWP100166R0001	2000/1800	68	190x327x399 / pc	36.2 / pc
+	2xEBM 11T G2 2kVA	2x4NWP100166R0001	2000/1800	135		
+	3xEBM 11T G2 2kVA	3x4NWP100166R0001	2000/1800	210		
+	4xEBM 11T G2 2kVA	4x4NWP100166R0001	2000/1800	290		
PowerValue 11T G2 3kVA B		4NWP100162R0001	3000/2700	14	190x327x399	22.2
+	EBM 11T G2 3kVA	4NWP100167R0001	3000/2700	45	190x327x399 / pc	36.2 / pc
+	2xEBM 11T G2 3kVA	2x4NWP100167R0001	3000/2700	90		
+	3xEBM 11T G2 3kVA	3x4NWP100167R0001	3000/2700	135		
+	4xEBM 11T G2 3kVA	4x4NWP100167R0001	3000/2700	185	190x327x399 / pc	36.2 / pc
PowerValue 11T G2 6kVA B		4NWP100163R0001	6000/6000	10	225x589x452	53.2
+	EBM 11T G2 6-10kVA (16x9)	4NWP100168R0001	6000/6000	47	225x589x452 / pc	95.2 / pc
+	2xEBM 11T G2 6-10kVA (16x9)	2x4NWP100168R0001	6000/6000	105		
+	3xEBM 11T G2 6-10kVA (16x9)	3x4NWP100168R0001	6000/6000	176		
+	4xEBM 11T G2 6-10kVA (16x9)	4x4NWP100168R0001	6000/6000	255		
PowerValue 11T G2 6kVA B2		4NWP100163R0002	6000/6000	14	225x589x452	62.4
+	EBM 11T G2 6-10kVA (20x9)	4NWP100168R0002	6000/6000	64	225x589x452	115.6 / pc
+	2xEBM 11T G2 6-10kVA (20x9)	2x4NWP100168R0002	6000/6000	143		
+	3xEBM 11T G2 6-10kVA (20x9)	3x4NWP100168R0002	6000/6000	238		
+	4xEBM 11T G2 6-10kVA (20x9)	4x4NWP100168R0002	6000/6000	346		
PowerValue 11T G2 10kVA B		4NWP100164R0001	10000/10000	7	225x589x452	60.9
+	EBM 11T G2 6-10kVA (16x9)	4NWP100168R0001	10000/10000	31	225x589x452 / pc	95.2 / pc
+	2x EBM 11T G2 6-10kVA (16x9)	2x4NWP100168R0001	10000/10000	64	225x589x452 / pc	95.2 / pc
+	3x EBM 11T G2 6-10kVA (16x9)	3x4NWP100168R0001	10000/10000	101		
+	4x EBM 11T G2 6-10kVA (16x9)	4x4NWP100168R0001	10000/10000	143		
PowerValue 11T G2 10kVA B2		4NWP100164R0002	10000/10000	9	225x589x452	70.9
+	EBM 11T G2 6-10kVA (20x9)	4NWP100168R0002	10000/10000	43	225x589x452	115.6 / pc
+	2xEBM 11T G2 6-10kVA (20x9)	2x4NWP100168R0002	10000/10000	87		
+	3xEBM 11T G2 6-10kVA (20x9)	3x4NWP100168R0002	10000/10000	137		
+	4xEBM 11T G2 6-10kVA (20x9)	4x4NWP100168R0002	10000/10000	194		

Table 1: Ordering info (UPS with internal batteries)

UPS	External battery module (EBM)	Article number	Power (VA/W)	Typical runtime (min)	Dimensions WxHxD (mm)	Weight (kg)
PowerValue 11T G2 1kVA S		4NWP100160R0002	1000/900		102x228x346	3.8
+	EBM 11T G2 1kVA	4NWP100165R0001	1000/900	48	144x228x356 / pc	18.4 / pc
+	2xEBM 11T G2 1kVA	2x4NWP100165R0001	1000/900	100		
+	3xEBM 11T G2 1kVA	3x4NWP100165R0001	1000/900	155		
+	4xEBM 11T G2 1kVA	4x4NWP100165R0001	1000/900	195		
PowerValue 11T G2 2kVA S		4NWP100161R0002	2000/1800		102x327x390	6.0
+	EBM 11T G2 2kVA	4NWP100166R0001	2000/1800	48	190x327x399 / pc	36.2 / pc
+	2xEBM 11T G2 2kVA	2x4NWP100166R0001	2000/1800	110		
+	3xEBM 11T G2 2kVA	3x4NWP100166R0001	2000/1800	165		
+	4xEBM 11T G2 2kVA	4x4NWP100166R0001	2000/1800	210		
PowerValue 11T G2 3kVA S		4NWP100162R0002	3000/2700		102x327x390	6.0
+	EBM 11T G2 3kVA	4NWP100167R0001	3000/2700	28	190x327x399 / pc	36.2 / pc
+	2xEBM 11T G2 3kVA	2x4NWP100167R0001	3000/2700	70		
+	3xEBM 11T G2 3kVA	3x4NWP100167R0001	3000/2700	110		
+	4xEBM 11T G2 3kVA	4x4NWP100167R0001	3000/2700	140		
PowerValue 11T G2 6kVA S		4NWP100163R0003	6000/6000		225x352x452	14.0
+	EBM 11T G2 6-10kVA (20x9)	4NWP100168R0002	6000/6000	49	225x589x452	115.6 / pc
+	2xEBM 11T G2 6-10kVA (20x9)	2x4NWP100168R0002	6000/6000	133		
+	3xEBM 11T G2 6-10kVA (20x9)	3x4NWP100168R0002	6000/6000	237		
+	4xEBM 11T G2 6-10kVA (20x9)	4x4NWP100168R0002	6000/6000	358		
PowerValue 11T G2 10kVA S		4NWP100164R0003	10000/10000		225x352x452	16
+	EBM 11T G2 6-10kVA (20x9)	4NWP100168R0002	6000/6000	23	225x589x452	115.6 / pc
+	2xEBM 11T G2 6-10kVA (20x9)	2x4NWP100168R0002	6000/6000	64		
+	3xEBM 11T G2 6-10kVA (20x9)	3x4NWP100168R0002	6000/6000	114		
+	4xEBM 11T G2 6-10kVA (20x9)	4x4NWP100168R0002	6000/6000	172		

Table 2: Ordering info (UPS with enhanced battery charger)

4 PowerValue 11 RT

The single-phase UPS for critical applications



ABB's PowerValue11RT is a double-conversion on-line UPS that guarantees up to 10 kVA 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.

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

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

Three units of the 6 or 10 kVA models can be configured in parallel to provide redundancy or to increase the systems total capacity up to 30 kW. All units can be fitted with up to four battery modules to extend runtime.

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
- Full set of accessories and connectivity options

Efficient service concept

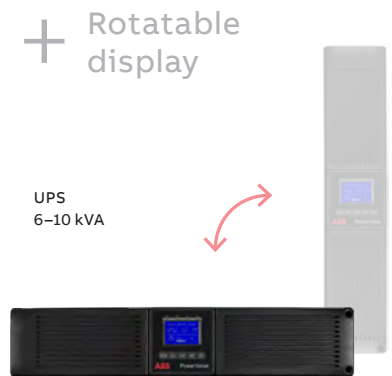
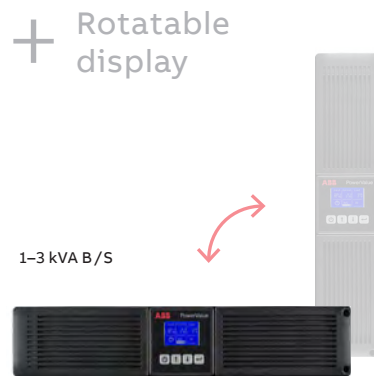
- Manually operated maintenance bypass switch (optional)
- Easy set up and maintenance (plug and play)
- User-friendly display
- Hot swap user-replaceable batteries

PowerValue 11 RT

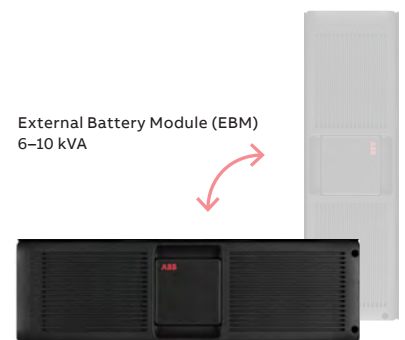
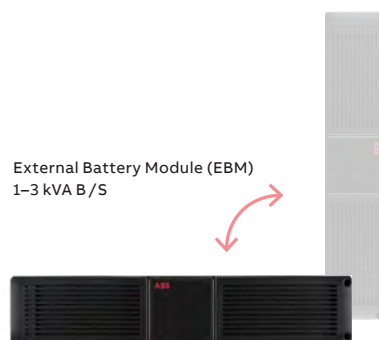
Product features

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, three PowerValue11RT 6 or 10kVA 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.



Scalable battery runtime



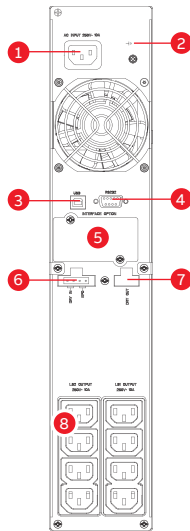
Battery runtime at full / half nominal load

	1kVA B		1kVA S		2 kVA B		2 kVA S		3kVA B		3kVA S		G2 6kVA		G2 10kVA	
	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+1EBM	16	40	6	22	12	29	<5	11	13	31	<5	10	7	18	3	9
UPS+2EBM	32	76	22	62	22	54	11	34	23	56	10	34	18	49	9	24
UPS+3EBM	52	119	40	112	32	78	22	62	35	82	21	61	33	88	16	42,5
UPS+4EBM	68	166	62	160	45	105	34	99	49	111	33	98	49	133	24	64

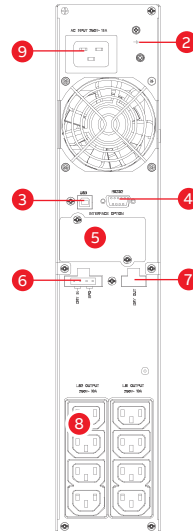
PowerValue 11 RT

Available models

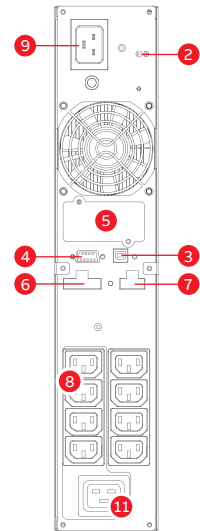
1	AC input 10A
2	Ground contact
3	USB port
4	RS-232
5	SNMP / AS400 slot
6	EPO / dry contact input port
7	Dry contact output port
8	AC output 10A
9	AC input 16A
10	AC input 20 A
11	AC output 16A
12	EPO
13	Parallel port
14	Dry in / out
15	MBP connector
16	Output breaker
17	I/O terminals
18	Input breaker
19	EBM connector



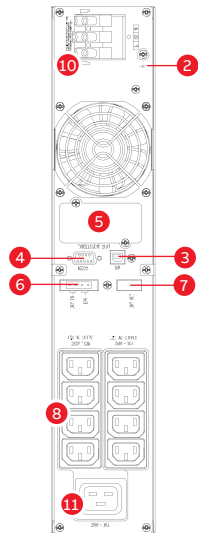
PowerValue 11RT – 1-2 kVA B and 1 kVA S



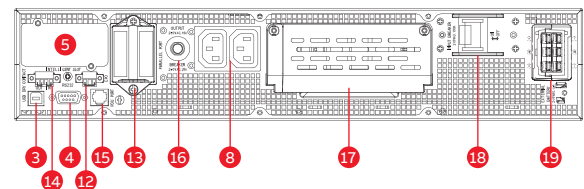
PowerValue 11RT – 2 kVA S



PowerValue 11RT – 3 kVA B



PowerValue 11RT – 3 kVA S



PowerValue 11RT – 6-10 kVA

Options

- Rack installation kit allows for easy mounting to standard 19" rack
- Full range connectivity: SNMP, ModBus (RS-485 and TCP/IP), environmental monitoring probe, relay card with I/O contacts
- External maintenance bypass
- Automatic transfer switch (PowerValue 11RT 1-3 kVA)

UPS cabinet configuration

- Online double conversion UPS
- Efficiency in online mode up to 95%
- Efficiency in eco-mode up to 98%
- Configurable in tower format or rack-mount
- Three 6 kVA and 10 kVA UPSs (max 30 kW per system) 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)

PowerValue 11 RT

Technical specification

GENERAL DATA	1kVA B/ S	2kVA B/ S	3kVA B/ S	G2 6kVA	G2 10kVA
Output rated power	900 W	1'800W	2'400W	6'000W	10'000W
Output power factor	0.9	0.9	0.9	1.0	1.0
Topology	Online double conversion				
Parallel configuration	No	No	No	Yes, up to 3 UPS	Yes, up to 3 UPS
Inbuilt batteries	Yes/No	Yes/No	Yes/No	No	No
INPUT					
Nominal input voltage	208/220/230/240 VAC				
Input voltage tolerance	120-276 VAC (load dependent)			100-276 (load dependent)	
Input current THDi	<5% with full resistive load			<3% with full resistive load	
Frequency range	45-55 Hz / 54-66 Hz			45-55Hz / 54-66Hz (extendable to 40~70HZ at load < 60%)	
Power factor	≥0.99			≥0.995	
OUTPUT					
Rated output voltage	208/220/230/240 VAC				
Voltage tolerance	±1% (referred to 230V)				
Voltage distortion	≤2% linear load, ≤5% non linear load			<1% linear load, <5% non linear load	
Overload capacity (linear load) on inverter	12s: 102-129% load			10m: 102-125% load	
	1.5s: 130-150% load			30s: 126 to 150% load	
	100ms: ≥ 150% load			500 ms: ≥ 150% load	
Nominal frequency	50 or 60 Hz				
Crest factor	3:1 (load supported)				
EFFICIENCY					
Overall system efficiency	Up to 93%			Up to 95%	
In eco-mode	Up to 95%			Up to 98%	
ENVIRONMENT					
Protection rating	IP20				
Storage temperature	UPS: -25°C to 60°C; Batteries: 0°C to 35°C				
Operating temperature	0°C to 40°C				
Relative humidity	0% to 95%				
Altitude (above sea level)	1000m without derating				
BATTERIES					
Type	VRLA (valve regulated lead-acid)				
Inbuilt batteries	3x7.2 Ah (B)	4x9Ah(B)	6x9Ah(B)	-	-
Charging current	1.5A/6A	1.5A/6A	1.5A/6A	0-12 A adjustable	
Recharge time (inbuilt batteries)	3h to 90%				
COMMUNICATIONS					
User interface	LCD display				
Optional communication cards	SNMP;ModBus;AS400;Environmental monitoring sensor probe				
STANDARDS					
Safety	IEC/EN 62040-1				
EMC	IEC/EN 62040-2				
Performance	IEC/EN 62040-3				
Manufacturing	ISO 9001:2015, ISO 14001:2015, OHSAS 18001				
WEIGHT, DIMENSIONS					
Weight	16.2/8.4 Kg	19.7/9.3 Kg	28.6/13 Kg	13.6 Kg	15.5 Kg
Dimensions w x h x d	438x86.5(2U) x436mm	438x86.5(2U) x436mm	438x86.5(2U) x608mm	438x86(2U) x573 mm	438x86(2U) x573 mm

PowerValue 11 RT

Ordering info table

UPS	External battery module (EBM)	Article number	Power (VA/W)	Typical runtime (min)	Dimensions WxHxD (mm)	Weight (kg)
PowerValue 11RT 1kVA B		4NWP100100R0001	1000/900	8	436x86.5(2RU)x438	16.7
+	EBM 11RT 1kVA	4NWP100105R0001	1000/900	40	436x86.5(2RU)x438 / pc	21.3 / pc
+	2xEBM 11RT 1kVA	2x 4NWP100105R0001	1000/900	76		
+	3xEBM 11RT 1kVA	3x 4NWP100105R0001	1000/900	119		
+	4xEBM 11RT 1kVA	4x 4NWP100105R0001	1000/900	166		
PowerValue 11RT 2kVA B		4NWP100101R0001	1000/900	11	436x86.5(2RU)x438	20.6
+	EBM 11RT 2kVA	4NWP100106R0001	2000/1800	29	436x86.5(2RU)x438 / pc	25.9 / pc
+	2xEBM 11RT 2kVA	2x 4NWP100106R0001	2000/1800	54		
+	3xEBM 11RT 2kVA	3x 4NWP100106R0001	2000/1800	78		
+	4xEBM 11RT 2kVA	4x 4NWP100106R0001	2000/1800	105		
PowerValue 11RT 3kVA B		4NWP100102R0001	1000/900	11	436x86.5(2RU)x608	29.9
+	EBM 11RT 3kVA	4NWP100107R0001	3000/2700	31	436x86.5(2RU)x608 / pc	37.8 / pc
+	2xEBM 11RT 3kVA	2x 4NWP100107R0001	3000/2700	56		
+	3xEBM 11RT 3kVA	3x 4NWP100107R0001	3000/2700	82		
+	4xEBM 11RT 3kVA	4x 4NWP100107R0001	3000/2700	111		

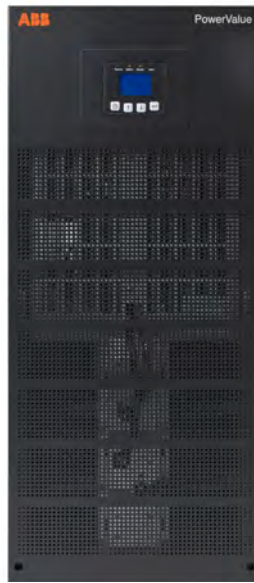
Table 3: Ordering info (UPS with internal batteries)

UPS	External battery module (EBM)	Article number	Power (VA/W)	Typical runtime (min)	Dimensions WxHxD (mm)	Weight (kg)
PowerValue 11RT 1kVA S		4NWP102193R0001	1000/900		436x86.5(2RU)x438	8.4
+	EBM 11RT 1kVA	4NWP100105R0001	1000/900	22	436x86.5(2RU)x438 / pc	21.3 / pc
+	2xEBM 11RT 1kVA	2x 4NWP100105R0001	1000/900	62		
+	3xEBM 11RT 1kVA	3x 4NWP100105R0001	1000/900	112		
+	4xEBM 11RT 1kVA	4x 4NWP100105R0001	1000/900	160		
PowerValue 11RT 2kVA S		4NWP102194R0001	1000/900		436x86.5(2RU)x438	9.3
+	EBM 11RT 2kVA	4NWP100106R0001	2000/1800	11	436x86.5(2RU)x438 / pc	25.9 / pc
+	2xEBM 11RT 2kVA	2x 4NWP100106R0001	2000/1800	34		
+	3xEBM 11RT 2kVA	3x 4NWP100106R0001	2000/1800	62		
+	4xEBM 11RT 2kVA	4x 4NWP100106R0001	2000/1800	99		
PowerValue 11RT 3kVA S		4NWP102195R0001	1000/900		436x86.5(2RU)x608	13.2
+	EBM 11RT 3kVA	4NWP100107R0001	3000/2700	10	436x86.5(2RU)x608 / pc	37.8 / pc
+	2xEBM 11RT 3kVA	2x 4NWP100107R0001	3000/2700	34		
+	3xEBM 11RT 3kVA	3x 4NWP100107R0001	3000/2700	61		
+	4xEBM 11RT 3kVA	4x 4NWP100107R0001	3000/2700	98		
PowerValue 11RT G2 6kVA		4NWP100150R0001	6000/6000		438x86.5(2RU)x573	13.6
+	EBM 11RT G2 6-10 kVA	4NWP100152R0001	6000/6000	18	438x129(3RU)x592 / pc	62.1 / pc
+	2xEBM 11RT G2 6-10 kVA	2x4NWP100152R0001	6000/6000	49		
+	3xEBM 11RT G2 6-10 kVA	3x4NWP100152R0001	6000/6000	88		
+	4xEBM 11RT G2 6-10 kVA	4x4NWP100152R0001	6000/6000	133		
PowerValue 11RT G2 10kVA		4NWP100151R0001	10000/10000		438x86.5(2RU)x573	15.5
+	EBM 11RT G2 6-10 kVA	4NWP100152R0001	10000/10000	9	438x129(3RU)x592 / pc	62.1 / pc
+	2xEBM 11RT G2 6-10 kVA	2x4NWP100152R0001	10000/10000	24		
+	3xEBM 11RT G2 6-10 kVA	3x4NWP100152R0001	10000/10000	43		
+	4xEBM 11RT G2 6-10 kVA	4x4NWP100152R0001	10000/10000	64		

Table 4: Ordering info (UPS with enhanced battery charger)

5 PowerValue 11 / 31 T

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



The PowerValue 11/31 T 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 PowerValue 11/31 T is available in both 10 and 20 kVA versions, with the option to configure up to four units in parallel to boost power capability or provide redundancy.

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

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 PowerValue 11/31 T provides stable, regulated, transient-free, pure sine wave AC power with extremely tight output voltage regulation.

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)

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/ 31T 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/ 31T 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).

Up to 4 UPSs
in parallel



Up to 2 battery
cabinets in parallel

Battery runtime at full /half nominal load

	10 kVA		10 kVA S		10 kVA B		10 kVA B2		20 kVA		20 kVA S		20 kVA B	
	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%	100%	50%
UPS internal battery	–	–	–	–	4	12	12	30	–	–	–	–	4	12
UPS + 1xEBM	30	69	30	69	39	87	49	109	12	29	12	29	21	49
UPS + 2xEBM	69	151	69	151	79	176	87	208	29	69	29	69	39	97

in minutes at full /half load

Battery cabinet	Batteries
EBM 11/31T	4 × 24 × 9 Ah

Frequency conversion

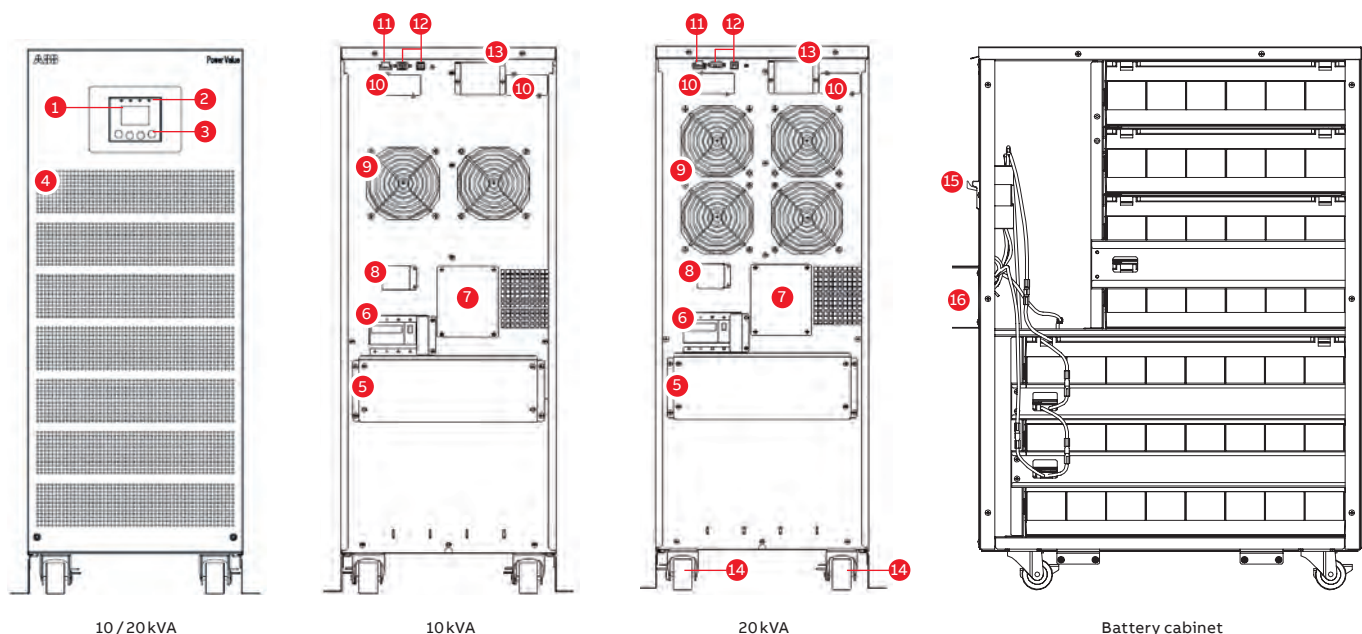
Operating as a frequency converter, PowerValue 11/ 31T not only converts the power supply frequency (50 Hz to /from 60 Hz), but it also protects the load from power disturbances and guarantees additional battery power in case of mains failure.

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



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

[illegible]

PowerValue 11 / 31 T

Ordering info table

UPS	External battery module (EBM)	Article number	Power (VA/W)	Typical runtime (min)	Dimensions WxHxD (mm)	Weight (kg)
PowerValue 11/31 T 10kVA		4NWP100117R0001	10000/9000		350x1120x815	58
+	1xEBM 11/31T	4NWP100119R0003	10000/9000	69	350x1120x815 / pc	303 / pc (including batteries)
+	2xEBM 11/31T	2x4NWP100119R0003	10000/9000	151		
PowerValue 11/31 T 10kVA B		4NWP100117R0002	10000/9000		350x1120x815	118
+	1xEBM 11/31T	4NWP100119R0003	10000/9000	87	350x1120x815 / pc	303 / pc (including batteries)
+	2xEBM 11/31T	2x4NWP100119R0003	10000/9000	176		
PowerValue 11/31 T 10kVA B2		4NWP100117R0003	10000/9000		350x1120x815	178
+	1xEBM 11/31T	4NWP100119R0003	10000/9000	109	350x1120x815 / pc	303 / pc (including batteries)
+	2xEBM 11/31T	2x4NWP100119R0003	10000/9000	208		
PowerValue 11/31 T 20kVA		4NWP100118R0001	20000/18000		350x1120x815	67.5
+	1xEBM 11/31T	4NWP100119R0003	20000/18000	29	350x1120x815 / pc	303 / pc (including batteries)
+	2xEBM 11/31T	2x4NWP100119R0003	20000/18000	69		
PowerValue 11/31 T 20kVA B		4NWP100118R0002	20000/18000		350x1120x815	188
+	1xEBM 11/31T	4NWP100119R0003	20000/18000	49	350x1120x815 / pc	303 / pc (including batteries)
+	2xEBM 11/31T	2x4NWP100119R0003	20000/18000	97		

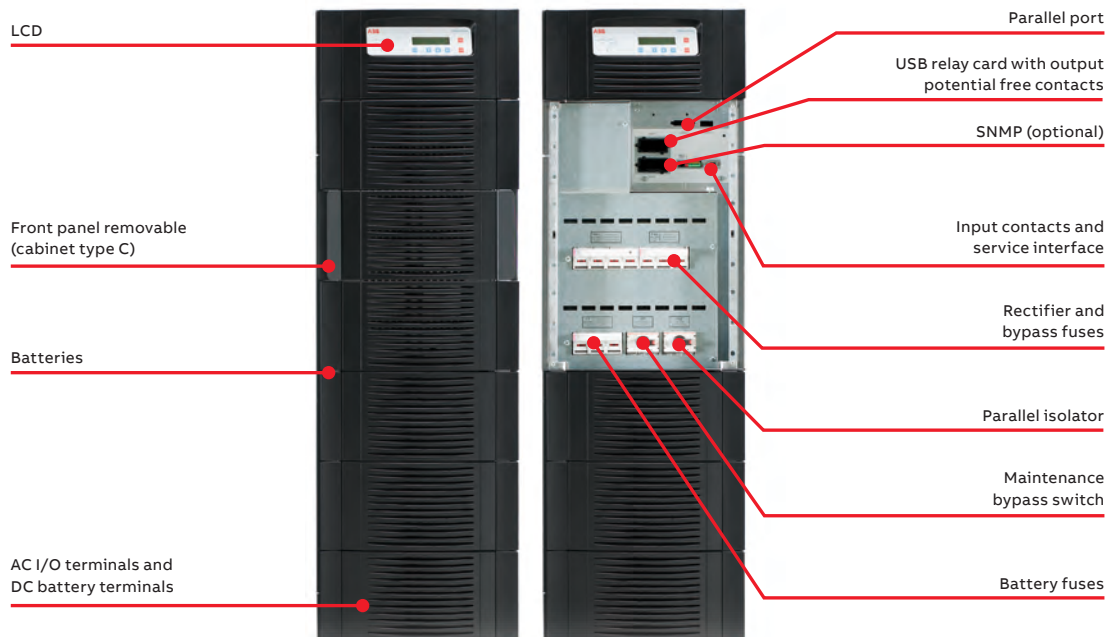
Table 5: Ordering info

UPS	External battery module (EBM)	Article number	Power (VA/W)	Typical runtime (min)	Dimensions WxHxD (mm)	Weight (kg)
PowerValue 11/31 T 10kVA S		4NWP100117R0004	10000/9000		350x1120x815	58
+	1xEBM 11/31T	4NWP100119R0003	10000/9000	69	350x1120x815 / pc	303 / pc (including batteries)
+	2xEBM 11/31T	2x4NWP100119R0003	10000/9000	151		
PowerValue 11/31 T 20kVA S		4NWP100118R0004	10000/9000		350x1120x815	67.5
+	1xEBM 11/31T	4NWP100119R0003	10000/9000	49	350x1120x815 / pc	303 / pc (including batteries)
+	2xEBM 11/31T	2x4NWP100119R0003	10000/9000	97		

Table 6: Ordering info (UPS with enhanced battery charger)

6 PowerScale 33 10-50 kVA

The three-phase UPS for low power applications



PowerScale is an online, double-conversion, VFI (voltage frequency independent) UPS that provides enhanced power protection in a compact format. Its outstanding price/ performance delivers the best value for money in its category with

uncompromised system reliability and power availability. PowerScale is available in three cabinet sizes, enabling you to choose the ideal capacity and required autonomy for your critical load.

High reliability

- Online double conversion technology
- Parallelable systems for increased redundancy

Low cost of ownership

- Scalable power and autonomy time
- Small footprint/high power density
- High efficiency at partial and rated loads (up to 95.5%)
- Reduced installation costs
- Ripple-free and temperature controlled battery chargers extend battery life time performance
- Low input harmonic distortion (THDi <3%)

Flexible design

- Available in seven power ratings and three cabinet sizes
- Parallel capacity up to 20 units
- External battery cabinets for extended autonomy

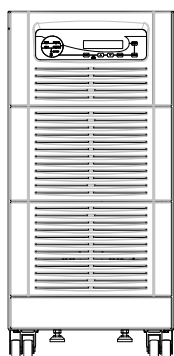
Efficient service concept

- Manually operated maintenance bypass switch
- User-friendly LCD
- Ergonomic design for easy serviceability
- Remote monitoring and connectivity options

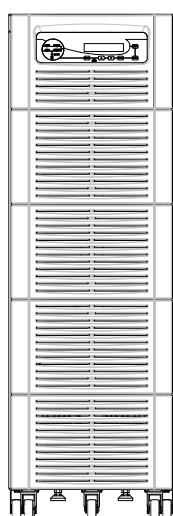
PowerScale 33 10-50 kVA

Available models

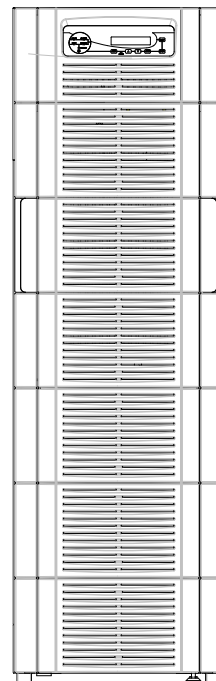
Cabinet A:10-15-20 kVA



Cabinet B:10-15-20-25 kVA



Cabinet C:25-30-40-50 kVA



Standard configuration

- Online double conversion UPS
- Capacities from 10 kVA to 50 kVA in three different cabinet sizes
- Input, bypass and battery protection fuses
- Manual bypass switch
- Up to 95.5% efficiency across a wide load range
- Single- and dual-input feed available
- Integrated back-feed protection
- Communication interfaces: RS-232 and USB ports, input dry contacts (EPO, GEN On, ...)
- With or without internal batteries
- Parallel ready (up to 20 units)
- Relay card with USB and output potential free contacts

Options

- Battery temperature sensor
- External battery cabinets
- ModBus RS-485, ModBus TCP/IP, SNMP

Safeguarding your power supply has never been easier. Ideal for small and medium IT power environments, ABB's PowerScale three-phase UPS is simple and cost-effective to install, maintain and expand.



PowerScale 33 10-50 kVA

Technical specifications

General data	10kVA	15kVA	20kVA	25kVA	30kVA	40kVA	50kVA
Output power max.	9kW	13.5kW	18kW	22.5kW	27kW	36kW	45kW
Output power factor							0.9
Topology							Online double conversion
Parallel configuration							Up to 20 units in parallel configuration
UPS type							Standalone
Inbuilt batteries							Yes (model dependent)
Input							
Nominal input voltage	3×380V/220V+N, 3×400V/230V+N, 3×415V/240V+N						
Voltage tolerance (referred to ×400V/230V)	For loads <100% (-10%, +15%), <80% (-20%, +15%), <60% (-30%, +15%)						
Input distortion THDi	≤3 at 100% (sine wave)						
Frequency	35–70Hz						
Power factor	0.99 at 100% load						
Output							
Rated output voltage	3×380V/220V+N, 3×400V/230V+N, 3×415V/240V+N						
Voltage tolerance (referred to ×400V/230V)	1% (static), 4% (dynamic)						
Voltage distortion	<2% linear load, <4% non linear load (IEC/EN62040-3)						
Frequency	50Hz or 60Hz						
Overload capability	5 min.:110 % or 20 sec.: 125 % (10 kVA - 25 kVA); 10 min.: 110 % or 1 min.: 125 % (30 kVA - 50 kVA)						
Unbalanced load	100% (all three phases regulated independently)						
Crest factor	3:1 (load supported)						
Efficiency							
Overall efficiency	Up to 95.5%						
In eco-mode configuration	98%						
Environment							
Storage temperature	-25 °C to +70 °C						
Operating temperature	0 °C to +40 °C						
Altitude	1000m without derating						
Battery							
Battery type	7 Ah/8Ah, sealed, lead-acid, maintenance-free, 6-9 years design lifetime						
Battery replacement	Field-replaceable						
Battery voltage	Flexible voltage for longer backup times						
Max battery capacity	48 or 96×7/8Ah	48 or 96×7/8Ah	48 or 96×7/8Ah	96 or 144×7/8Ah	144×7/8Ah	144×7/8Ah	144×7/8Ah
Communications							
LCD	Yes (per module)						
LEDs	LED for notification and alarm						
Communication ports	RS-232, SNMP slot, USB and potential-free contacts						
Standards							
Safety	IEC/EN 62040-1						
Electromagnetic compatibility (EMC)	IEC/EN 62040-2						
Performance	IEC/EN 62040-3						
Product certification	CE						
Protection rating	IP 20						
Manufacturing	ISO 9001:2015, ISO 14001:2015, OHSAS18001						
Weight, dimensions							
Cabinet type	A or B	A or B	A or B	B or C	C	C	C
Weight	48 (cab A) - 68 (cab B)	48 (cab A) - 68 (cab B)	48 (cab A) - 68 (cab B)	68 (cab B) - 177 (cab C)	177 kg	177 kg	177 kg
Dimensions w×h×d (mm)	345×720×710 or 345×1045×710	345×720×710 or 345×1045×710	345×720×710 or 345×1045×710	345×1045×710 or 440×1400×910	440×1400×910	440×1400×910	440×1400×910

PowerScale 33 10-50 kVA

Ordering info table

UPS	External battery cabinet	Article number	Power (VA/W)	Batteries info	Typical runtime	Dimensions WxHxD (mm)	Weight (kg)
UPS Powerscale 33 10kVA Cab.A w/o batt.		4NWP103584A1000	10000/9000			345x720x710	48
+	C-BATT88	4NWP103674BC088	10000/9000	2x44x28Ah	125	490x1400x940	1015*
UPS Powerscale 33 10kVA Cab.A 10 min		4NWP103584A1010	10000/9000	28x8Ah	10	345x720x710	118
UPS Powerscale 33 10kVA Cab.A 15 min		4NWP103584A1015	10000/9000	38x8Ah	15	345x720x710	143
UPS Powerscale 33 10kVA Cab.A 20 min		4NWP103584A1020	10000/9000	46x8Ah	20	345x720x710	163
UPS Powerscale 33 15kVA Cab.A w/o batt.		4NWP103584A1500	15000/13500			345x720x710	48
+	C-BATT88	4NWP103674BC088	15000/13500	2x44x28Ah	110	490x1400x940	1015*
UPS Powerscale 33 15kVA Cab.A 10 min		4NWP103584A1510	15000/13500	42x8Ah	10	345x720x710	153
UPS Powerscale 33 15kVA Cab.A 12 min		4NWP103584A1512	15000/13500	48x8Ah	12	345x720x710	168
UPS Powerscale 33 20kVA Cab.A w/o batt.		4NWP103584A2000	20000/18000			345x720x710	48
+	C-BATT88	4NWP103674BC088	20000/18000	2x44x28Ah	60	490x1400x940	1015*
UPS Powerscale 33 20kVA Cab.A 8 min		4NWP103584A2008	20000/18000	48x8Ah	8	345x720x710	168
UPS Powerscale 33 10kVA Cab.B w/o batt.		4NWP103584B1000	10000/9000			345x1045x710	68
+	C-BATT88	4NWP103674BC088	10000/9000	2x44x28Ah	125	490x1400x940	1015*
UPS Powerscale 33 10kVA Cab.B 30 min		4NWP103584B1030	10000/9000	2x32x8Ah	30	345x1045x710	228
UPS Powerscale 33 10kVA Cab.B 50 min		4NWP103584B1050	10000/9000	2x48x8Ah	50	345x1045x710	308
UPS Powerscale 33 15kVA Cab.B w/o batt.		4NWP103584B1500	15000/13500			345x1045x710	68
+	C-BATT88	4NWP103674BC088	15000/13500	2x44x28Ah	110	490x1400x940	1015*
UPS Powerscale 33 15kVA Cab.B 20 min		4NWP103584B1520	15000/13500	2x36x8Ah	20	345x1045x710	248
UPS Powerscale 33 15kVA Cab.B 30 min		4NWP103584B1530	15000/13500	2x46x8Ah	30	345x1045x710	298
UPS Powerscale 33 20kVA Cab.B w/o batt.		4NWP103584B2000	20000/180000			345x1045x710	68
+	C-BATT88	4NWP103674BC088	20000/180000	2x44x28Ah	60	490x1400x940	1015*
UPS Powerscale 33 20kVA Cab.B 20 min		4NWP103584B2020	20000/180000	2x44x8Ah	20	345x1045x710	288
UPS Powerscale 33 20kVA Cab.B 22 min		4NWP103584B2022	20000/180000	2x48x8Ah	22	345x1045x710	308
UPS Powerscale 33 25kVA Cab.B w/o batt.		4NWP103584B2500	25000/22500		25	345x1045x710	68
+	C-BATT88	4NWP103674BC088	25000/22500	2x44x28Ah	50	490x1400x940	1015*
UPS Powerscale 33 25kVA Cab.B 15 min		4NWP103584B2515	25000/22500	2x48x8Ah	15	345x1045x710	308

UPS	External battery cabinet	Article number	Power (VA/W)	Batteries info	Typical runtime	Dimensions WxHxD (mm)	Weight (kg)
UPS Powerscale 33 25kVA Cab.C w/o batt.		4NWP103584C2500	25000/22500			440x1400x910	177
+	C-BATT88	4NWP103674BC088	25000/22500	2x44x28Ah	50	490x1400x940	1015*
UPS Powerscale 33 25kVA Cab.C 20 min		4NWP103584C2520	25000/22500	3x46x8Ah	20	440x1400x910	522
UPS Powerscale 33 30kVA Cab.C w/o batt.		4NWP103584C3000	30000/27000			440x1400x910	177
+	C-BATT88	4NWP103674BC088		2x44x28Ah	42	490x1400x940	1015*
UPS Powerscale 33 30kVA Cab.C 10 min		4NWP103584C3010	30000/27000	3x28x8Ah	10	440x1400x910	387
UPS Powerscale 33 30kVA Cab.C 15 min		4NWP103584C3015	30000/27000	3x36x8Ah	15	440x1400x910	447
UPS Powerscale 33 30kVA Cab.C 20 min		4NWP103584C3020	30000/27000	3x48x8Ah	20	440x1400x910	537
UPS Powerscale 33 40kVA Cab.C w/o batt.		4NWP103584C4000	40000/36000			440x1400x910	177
+	C-BATT88	4NWP103674BC088	40000/36000	2x44x28Ah	31	490x1400x940	1015*
UPS Powerscale 33 40kVA Cab.C 10 min		4NWP103584C4010	40000/36000	3x36x8Ah	10	440x1400x910	447
UPS Powerscale 33 40kVA Cab.C 15 min		4NWP103584C4015	40000/36000	3x48x8Ah	15	440x1400x910	537
UPS Powerscale 33 50kVA Cab.C w/o batt.		4NWP103584C5000	50000/45000			440x1400x910	177
+	C-BATT88	4NWP103674BC088	50000/45000	2x44x28Ah	21	490x1400x940	1015*
UPS Powerscale 33 50kVA Cab.C 10 min		4NWP103584C5010	50000/45000	3x46x8Ah	10	440x1400x910	522

* batteries included

Table 7: Ordering info

7 Accessories

Accessory compatibility matrix

UPS												Accessories
	AS400	Mini AS400	Winpower SNMP	Mini Winpower SNMP	Winpower ModBus	Mini Winpower ModBus	EMP	CS141 Basic (slot/box)	CS141 Advanced (slot/box) with optional sensors	CS141 ModBus (slot/box) with optional sensors	ATS-16	External maintenance bypass with PDU
PowerValue 11T G2 1-3 kVA (B/S)		•		•			•	•				
PowerValue 11T G2 6-10 kVA (B/B2/S)	•		•		•		•	•	•	•		
PowerValue 11RT 1-3 kVA (B/S)	•		•		•		•	•	•	•	•	•
PowerValue 11RT G2 6-10 kVA	•		•		•		•	•	•	•		•
PowerValue 11/31T 10-20 kVA	•		•		•		•	•	•	•		
PowerScale 33								•	•	•		

Table 8: Accessory compatibility matrix

7a Connectivity options

Smart power monitoring for single or multiple systems

ABB offers intelligent solutions that monitor the status of your power system and thus ensure your data storage equipment or control process continues to receive clean, reliable power. The monitoring devices provide real-time visibility of the condition of your power equipment and help to identify problematic trends before they become critical.

Power and environmental monitoring

Network interface cards connect ABB's UPS systems to the network. These cards also provide the ability to connect several environmental sensors to the UPS. This combination allows for a clear visual representation on a web interface of not only the UPS system but also its environment.

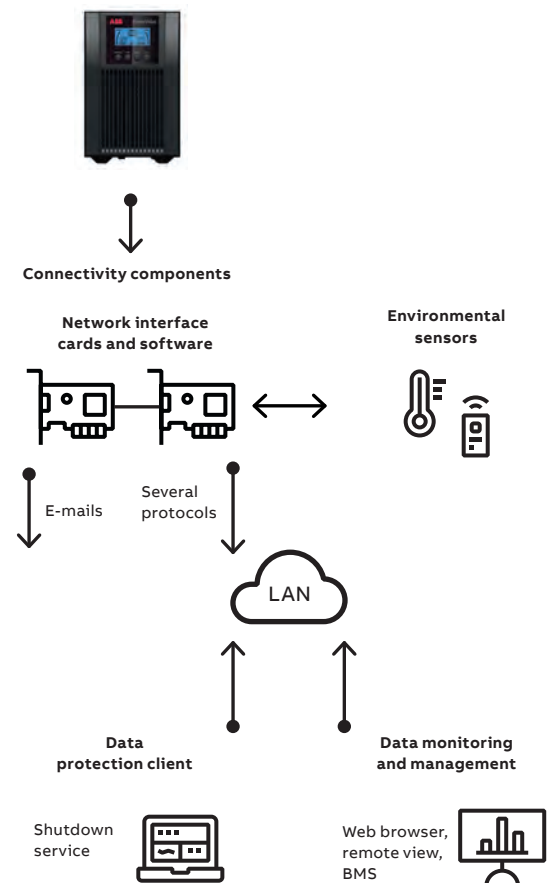
Management software

The network interface cards are provided with extensively configurable software that provide access to measurement values and to the UPS's status information. The status of each UPS cabinet, UPS module or the entire system can be presented on a separate mimic diagram. These diagrams provide users with clear, real-time information. During normal operation, records of all events are kept in a log file. In case of a power failure, battery autonomy is monitored and network shutdown of the protected devices is initiated.

Data protection

The remote shutdown software manages a particular workstation, network or servers. Shutdown or reboot can be executed safely.

In addition, text messages, e-mails, pop-ups and mobile messages can be dispatched or displayed before the devices are shut down – giving the user the flexibility to manage or cancel the operation.



Highlights

- Remote monitoring via web
- Environmental monitoring
- Extensive alarm handling and dispatching
- Redundant UPS monitoring
- Integration into network or building management system
- Integration into multivendor and multiplatform environments
- ModBus interface
- Multiple standard protocols are supported

Applications

- Personal computers
- Servers and network devices
- Data centers
- Storage systems
- Industrial automation
- Power systems

AS400 and Mini AS400

AS400 and Mini AS400 are two plug-and-play cards installed in the UPS intelligent slot. They provide dry contact signals to inform

the user about different UPS operative statuses and send alerts in case of disruptions:

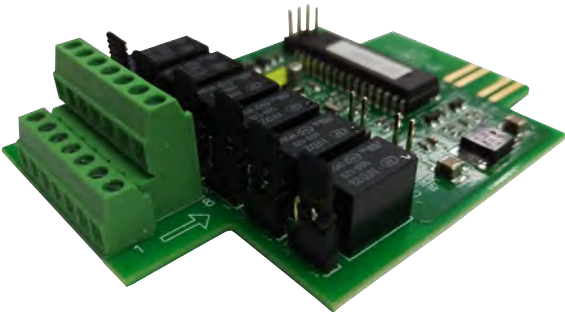
Alarms

- AC mains failure
- UPS fault
- UPS running in bypass mode
- Communication error
- Battery low

Indicator

- Bypass active
- UPS ON

Additionally, these cards provide input dry contacts to switch the UPS on and off.



Product description	Article number
AS400 slot card with dry contacts	4NWP100120R0001
AS400 mini slot card with dry contacts	4NWP100120R0002

Table 9: Ordering info table

Winpower and Mini Winpower

The Winpower series is the budget solution that enables the integration of the UPS within Ethernet and ModBus networks.



With Winpower and mini Winpower SNMP slot cards, the operator can easily monitor the UPS status and send commands through a user-friendly web-based interface to control the UPS itself; the same action is also possible via a network management software that supports the SNMP protocol. Winpower and mini Winpower SNMP are easy to install in the UPS intelligent slot and they are both provided along with a CD containing SPS software, a must-have utility to program the remote shutdown of the most common server platforms.

EMP (Environmental Monitoring Probe) is a multi-sensor that collects external temperature and relative humidity data in the environment where the UPS has been installed.



It is easily connected to Winpower and miniWinpower SNMP cards and enables the operator to remotely monitor these crucial parameters to correctly operate the UPS.



Additionally, it alerts the system administrator in case temperature and relative humidity values go beyond pre-set thresholds.

Winpower and miniWinpower ModBus slot cards enable UPS monitoring and control via ModBus protocol over RS232 or RS485.

The cards provide two serial interfaces and a RS232/RS485 conversion.

Product description	Article number
Winpower SNMP card	4NWP100110R0001
Mini Winpower SNMP card	4NWP100110R0002
Winpower ModBus card	4NWP104039R0001
Mini Winpower ModBus card	4NWP104039R0002
EMP for Winpower/Mini Winpower SNMP card	4NWP104040R0001

Table 10: Ordering info table

CS141

CS141 represents the ABB premium connectivity offering by providing the user with a full set of products and accessories for UPS remote monitoring and control.

Available in three models (Base, Advanced, and ModBus) and two different formats (slot and box),

CS141 enables the IoT concept and simplifies the integration of the UPS within the network to bring the operator the state-of-art UPS monitoring technology.

All CS141 products are provided with one free RCCMD client and UPS monitoring software.



Slot format

CS141 Basic
For interfacing the UPS to the network without the need for additional sensors or interfaces. Available in slot and box formats.

Supports the following protocols	
1 HTTP	4 ModBus TCP
2 SNMP	5 Telnet FPT
3 SMTP (e-mail)	



Slot format

CS141 Advanced
For interfacing the UPS to the network and allowing users to connect additional sensors and I/O options either directly to the card or via sensor manager. Available in slot and box formats.

Supports the following protocols	
1 HTTP	4 ModBus TCP
2 SNMP	5 Telnet FPT
3 SMTP (e-mail)	6 ModBus RS-232



Box format

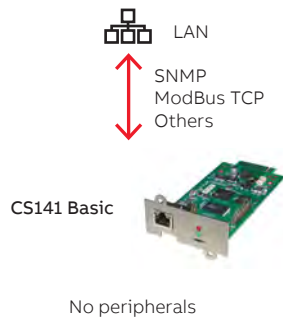
CS141 ModBus
For interfacing the UPS to the network and the ModBus RS-485 with an option to connect alarm buzzers or an additional relay board. Available in slot and box formats.

Supports the following protocols	
1 HTTP	4 ModBus TCP
2 SNMP	5 Telnet FPT
3 SMTP (e-mail)	6 ModBus RS-485

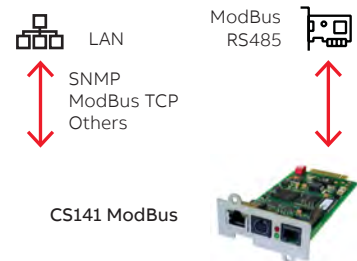
Slot cards are UPS-powered, while cards in box format require external power.

Connectivity and sensor options for CS cards and boxes

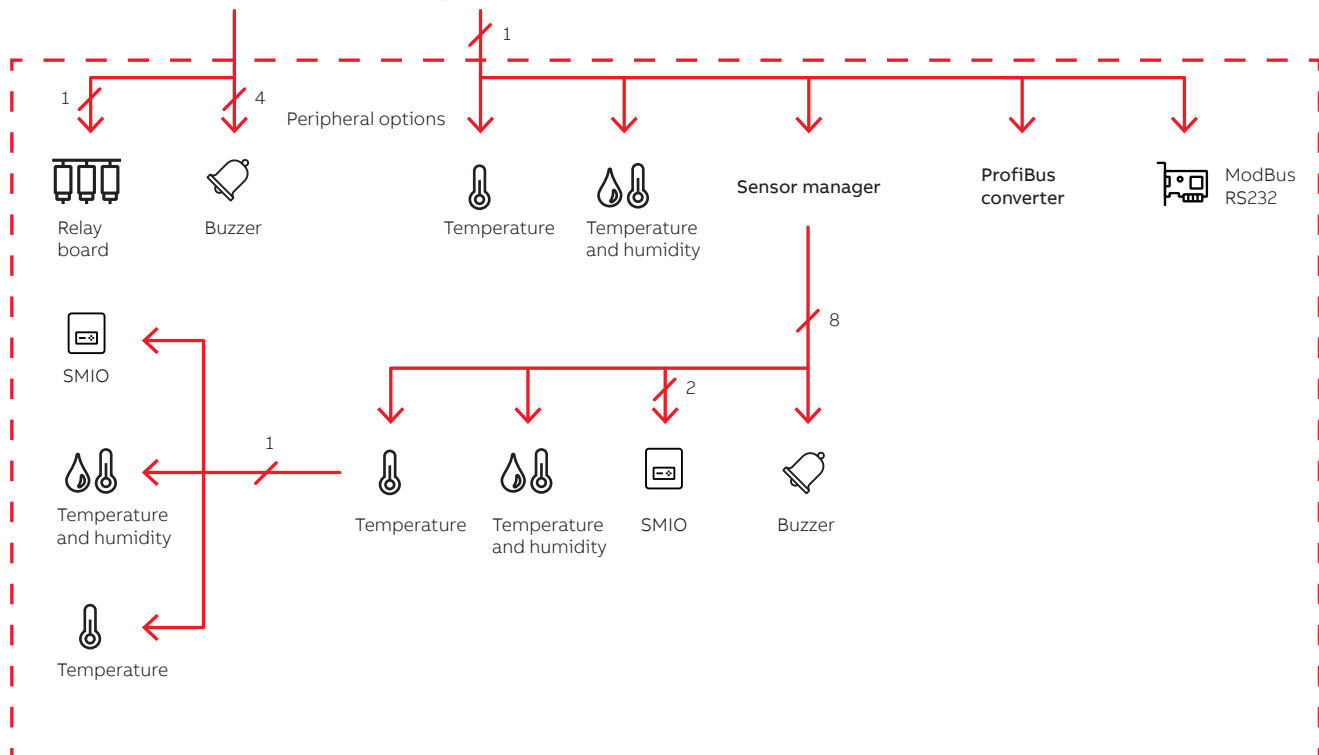
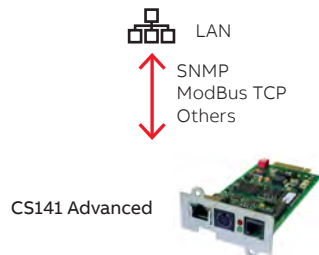
Basic



ModBus



Advanced



List of connectivity and sensor options for different network interfaces

Article number		Product description		Details	
CS141	Network interface*	4NWP102687R0001	Box	CS141 Basic	No sensor options
		4NWP102688R0001	Slot	CS141 Basic	No aux options
		4NWP102879R0001	Box	CS141 Advanced	Optional sensors
		4NWP102880R0001	Slot	CS141 Advanced	Aux connection
		4NWP102881R0001	Box	CS141 ModBus	ModBus RS845
		4NWP102882R0001	Slot	CS141 ModBus	Aux connection
	I/O options	4NWP103268R0001		Alarm buzzer CS141	Buzzer, 60 dB 5 m cable
		4NWP103097R0001		Relay board CS141	4 digital inputs 4 relay outputs 1 m cable
		04-0594		Profibus converter	External DIN rail mount device
		00-6944		Temperature sensor	-25°C to +100°C, ±0.5% 1.8 m cable
	Sensor manager options	04-3880	Combisensor for temperature and humidity	-25°C to +100°C, ±0.5% 0% to 100% RH, ±5%	1.8 m cable
		00-5915	Sensor manager	Environmental interface	
		00-5916	Temperature sensor	0°C to +100°C, ±0.5%	5 m cable
		00-6948	Combisensor for temperature and humidity	0°C to +100°C, ±0.5% 0% to 100% RH, ±5%	5 m cable
		00-6945	Alarm buzzer	85 dB	5 m cable
		00-6947	Relay box	1 input contact 1 output contact	5 m cable
	RCCMD	04-3869	RCCMD license	For Windows, Linux, MAC X, OS/2, UNIX, NOVELL	
		04-3870	RCCMD license	For IBM AS 400 V4R5, V5, V6, V7	
		01-0014	RCCMD enterprise license	>50 licenses (Windows, Linux, MAC X, OS/2, UNIX, NOVELL)	

Sensor connections

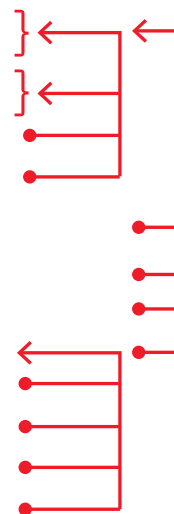


Table 11: Ordering info table

7b Electrical options

ATS-16



The ATS-16 is a two-way, single-phase, automatic switch powered by two independent synchronous or asynchronous AC power supply sources (typically two feeding UPSs upstream).

One of the two sources can be designated as the preferred power supply, to which the ATS-16 will transfer the load. The ATS-16 promptly switches to the other source in the event of primary source failure.

Easy to install in a rack-mount (1RU only) or vertical configuration, the ATS-16 has an intuitive interface with LED indicators and push buttons.

The ATS-16 enhances the system reliability due to internal back-feed protection and complete protection for overload and short-circuit.

Product description	Article number
ATS-16	4NWP104041R0001

Table 12: Ordering info table

External maintenance bypass with PDU



The external maintenance bypass with PDU delivers a maintenance bypass feature and convenient power distribution.

This enables the user to service the UPS in a safe and proper manner by excluding any risk for the operator while the load is powered by the AC mains.

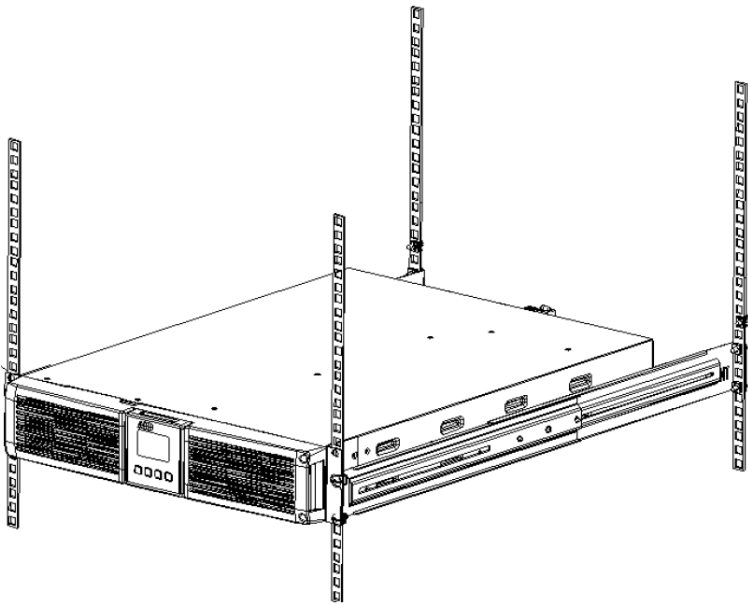
This feature is available for the PowerValue 11RT entire range. The PowerValue 11RT UPS within the 6-10 kVA range offers a unique mounting concept with 0 RU occupied in the installation due to flexible mounting brackets.

Product description	Article number
External maintenance bypass with PDU PowerValue 11RT 1-3 kVA	4NWP101737R0001
External maintenance bypass with PDU PowerValue 11RT G2 6-10 kVA	4NWP101737R0002

Table 13: Ordering info table

7c Mechanical options

Rack mounting kit for PowerValue 11RT



Mechanical kit made by 2 rails to fit the Power-Value 11RT UPS and EBM within a standard 19” rack.

Product description	Article number
Rack mounting kit PowerValue 11RT 1-3 kVA	4NWP100111R0001
Rack mounting kit PowerValue 11RT G2 6-10 kVA	4NWP100111R0003
Rack mounting kit PowerValue 11RT G2 6-10 kVA EBM	4NWP100111R0004

Table 14: Ordering info table

8 Warranty and extension matrix

A flexible lifetime warranty plan is available to provide coverage for the UPS.

The optional warranty extension must be purchased at the time of the UPS purchase. The warranty protects the UPS only (not the batteries).

Product family	Base warranty	Warranty extension	Warranty extension article number
PowerValue 11T G2 1-3 kVA	2 years	1 year (max 3 years)	4NWP104078R0001
PowerValue 11T G2 6-10 kVA	2 years	1 year (max 3 years)	4NWP104079R0001
PowerValue 11RT 1-3 kVA	3 years	1 year (max 2 years)	4NWP104078R0001
PowerValue 11T G2 6-10 kVA	3 years	1 year (max 2 years)	4NWP104079R0001
PowerValue 11/31T 10-20 kVA	2 years	1 year	4NWP101080R0001
PowerScale 33 10-25 kVA (cab A-B)	1 year	1 year	00-5517
PowerScale 33 25-50 kVA (cab C)	1 year	1 year	04-3254

Table 15: Warranty and extension matrix



—
abb.com/ups
ch-ups-orders-18@abb.com



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