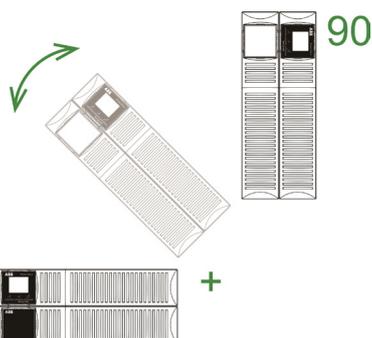
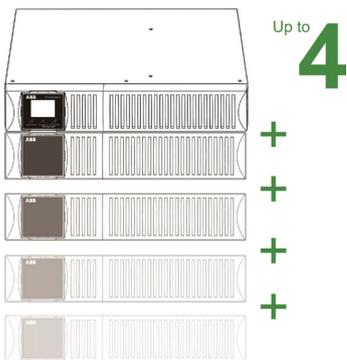


TECHNICAL DATASHEET

PowerValue 11 RT G2 IN

1-10 kVA



Classification IEC/EN 62040-3
VFI-SS-111

Working mode
On-line double conversion

Module power rating
1-10kVA

Paralleling
Up to 4 units (only 6-10 kVA)

Paralleling
Up to 4 units (only 6-10 kVA)

Output power factor
1.0

Efficiency double conversion
up to 91% (1-3 kVA), 94% (6-10 kVA)

Efficiency in ECO-MODE
up to 98%

Input current distortion THDi
<5%

Input power factor (PF)
1

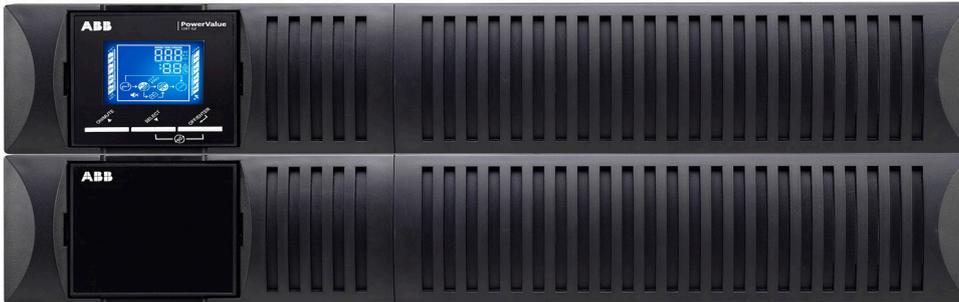
Communication cards
SNMP / ModBus / AS400 relay card

Mechanical configuration
Rack-Tower with rotatable display

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UPS features



Frequency conversion

Operating as a frequency converter, PowerValue 11 RT G2 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 are simple and implies in correctly wiring the UPS and in selecting the frequency conversion mode in the LCD display.

- **Input frequency range:**
 - 1-3 kVA: 45-66Hz
 - 6-10 kVA: 40-70Hz
- **Output frequency: 50 or 60 Hz**
- **Output de-rating:**
 - 1-3 kVA: 60%
 - 6-10 kVA: 80%

Cold start

PowerValue 11 RT G2 can be started without being connected to the mains power supply (start up from the batteries)

This feature is especially useful in the following situations:

- To start up and operate the unit even throughout a power outage.
- To help identify, during an unsuccessful system start-up, if the malfunction is on the power supply. Eg. if the UPS starts-up on battery and does not transfer to online or bypass mode, it is most probable that there is a mains failure.

Automatic load start-up

After a power outage, the UPS transfers to battery. If the batteries are completely discharged and the system shuts down, with the automatic load start up feature, the UPS will restart automatically once the mains power is recovered.

The operator can enable, disable this function through the LCD panel (setting of #21 and #07) according to the following options:

- UPS will charge the batteries and the inverter will start automatically (default, #21 enabled, #07 disabled)
- UPS will charge the batteries and start immediately on bypass. In this case, the operator has to start the inverter manually. (#21 disabled, #07 enabled)
- UPS will charge the batteries and no output power will be seen either on bypass or on inverter. In this case, the operator has to start the inverter manually. (#21 disabled, #07 enabled)

Paralleling

PowerValue 11 RT G@ 6 and 10 KVA UPSs can be installed in parallel to increase the total system power or to add redundancy to the system. The UPSs are delivered with an in-built parallel board and paralleling cables. No additional hardware is required for this installation.

Emergency power off (EPO)

Activating the emergency power off control of the UPS, the AC and the DC sources to the load are entirely disconnected.



Operation: To recover the UPS's normal status, the EPO connector has to be set back to its original configuration (Normally closed through a jumper in the UPS rear panel). After this, the EPO status has to be cleared through the LCD menu and the UPS will recover its operation in bypass-mode. To transfer the UPS to inverter-mode, the selection has to be made through the LCD display.

Fan speed control

The speed of PowerValue 11 RT G2 fans vary with the load level and with the ambient temperature to minimize the power consumption while keeping the UPS in a safe working temperature.

Wide input voltage and frequency range

With higher input tolerances, the UPS works longer on bypass or normal mode. This helps reducing the consumption of the batteries when there are small variations in the power supply.

Generator compatibility

Generators power are often routed through the UPS to supply power to the load during long power outages. The UPS acts as a power link that keeps critical systems operational until the generator synchronises with the UPS and picks up the load. With PowerValue 11 RT G2, the power of the generator should be dimensioned 1.3 times the UPS rated power.

Design flexibility

PowerValue 11 RT G2 is extremely compact and is designed to be positioned in a tower format or rack-mounted. The display is electronically rotatable and therefore easy adjustable to your configuration needs.

Increasing the runtime

Battery modules are available to increase the system runtime. The cables for connecting the battery modules to the UPS are integrated to the units and these can be easily plugged together to increase the system's runtime. To connect several battery modules to a group of UPSs in parallel (only for 6-10 kV A), the battery modules should be firstly connected to each UPS. Only after this procedure is done, the UPSs should be connected in parallel. Long backup models are available in the range 1-3 kV A with max 6A battery charger integrated in the UPS (no internal batteries).

The battery charger current is self adjusted by the UPS is function of the external battery system capacity. The 6-10 kVA UPS provides an adjustable battery charger current (up to 12A) for ease of operations demanding long backup.



1k-3k Applicable standard table

Low frequency signals	IEC 61000-2-2 Disturbing voltage : 10V
ESD	IEC 61000-4-2 Level 3
RS	IEC 61000-4-3 Level 3
EFT	IEC 61000-4-4 Level 4
Surge	IEC 61000-4-5 Level 4
CS	IEC 61000-4-6 Level 3
Power frequency magnetic field immunity	IEC 61000-4-8 Level 4
Conducted	IEC 62040-2 Category C2
Radiated	IEC 62040-2 Category C2
Performance classification	VFI-SS-III
Safety	IEC 62040-1:2008+A1+2013
Transportation	IEC 60068-2-31, IEC 60068-2-64, IEC 60068-2-27

6k-10k Applicable standard table

Low frequency signals	IEC 61000-2-2 Disturbing voltage :10V
ESD	IEC 61000-4-2 Level 3
RS	IEC 61000-4-3 Level 3
EFT	IEC 61000-4-4 Level 3
Surge	IEC 61000-4-5 Level 2 for line to line : Level 3 for line to earth
CS	IEC 61000-4-6 Level 3
Power frequency magnetic field immunity	IEC 61000-4-8 Level 4
EMC	IEC 62040-2 Category C3
Safety	IEC 62040-1
Performance	IEC 62040-3
RoHs	IEC/EN 50581

Batteries

PowerValue can be configured with matching battery modules to satisfy extended runtime demands. Easily replaceable batteries increase availability and reduce Mean Time to Repair (MTTR)



UPS



Power (kVA)	Internal batteries	Charging current	Dimensions (width × height × depth) [mm]	Weight
1 kVA B	1 x 2 x 10Ah	1.5A	438x86.2x309.8	11.4 kg
1 kVA S	-	6A	438x86.2x309.8	5.83 kg
2 kVA B	1 x 4 x 9.4Ah	1.5A	438x86.2x426.5	19.12 kg
2 kVA S	-	6A	438x86.2x426.5	8.74 kg
3 kVA B	1 x 6 x 9.4Ah	1.5A	438x86.2x629.8	27.94 kg
3 kVA S	-	6A	438x86.2x629.8	9.05 kg
6 kVA	-	0-12A (default 4A)	438x86.5x610	15.0 kg
10 kVA	-	0-12A (default 4A)	438x86.5x610	15.5 kg

External battery module



Power (kVA)	Batteries	Dimensions (width × height × depth) [mm]	Weight
1 kVA B	(2 x 2) x 10Ah	438x86.2x309.8	17.92 kg
1 kVA S	(2 x 2) x 10Ah	438x86.2x309.8	17.92 kg
2 kVA B	(2 x 4) x 10Ah	438x86.2x426.5	31.32 kg
2 kVA S	(2 x 4) x 10Ah	438x86.2x426.5	31.32 kg
3 kVA B	(2 x 6) x 10Ah	438x86.2x628.8	44.90 kg
3 kVA S	(2 x 6) x 10Ah	438x86.2x628.8	44.90 kg
6 kVA	(1 x 20) x 9Ah	438x131x630	62.5 kg
10 kVA	(1 x 20) x 9Ah	438x131x630	62.5 kg

Battery autonomy

POWER (kVA)	UPS internal batteries	UPS +1 batt. module	UPS +2 batt. module	UPS +3 batt. module	UPS +4 batt. module
1 kVA B	4/6/10/23	21/30/48/104	40/55/86/179	59/81/124/255	79/106/162/331
1 kVA S	-	12/18/29/66	30/42/67/141	49/73/105/217	69/94/143/293
2 kVA B	4/6/11/23	21/30/49/105	40/56/87/181	60/82/126/258	80/108/164/335
2 kVA S	-	12/18/30/68	31/44/69/145	50/70/108/222	70/96/147/300
3 kVA B	4/6/11/24	22/31/50/108	42/57/89/186	61/84/129/264	82/99/168/343
3 KVA S	-	13/19/32/72	32/45/72/152	51/72/112/233	72/98/152/315
6 kVA	-	7/11/20/49	20/29/49/113	34/49/80/184	49/69/133/>180
10 kVA	-	3/5/10/26	10/15/26/61	18/26/43/100	26/37/61/141

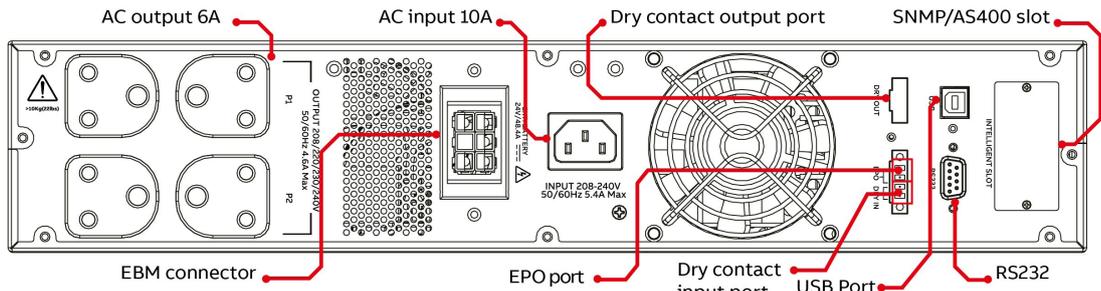
Battery autonomy in minutes at 100 / 75 / 50 25% load

Given runtime are estimates and valid at 20 degree Celsius.

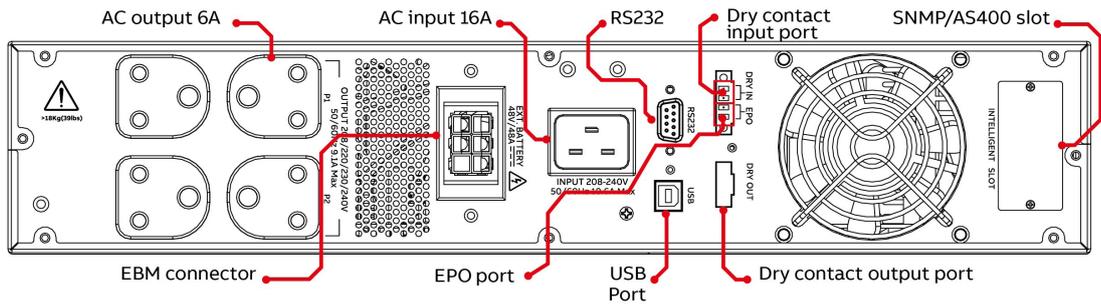
Actual runtime of the system will depend. among many variables. On the age of the batteries and environmental conditions.

Rear view

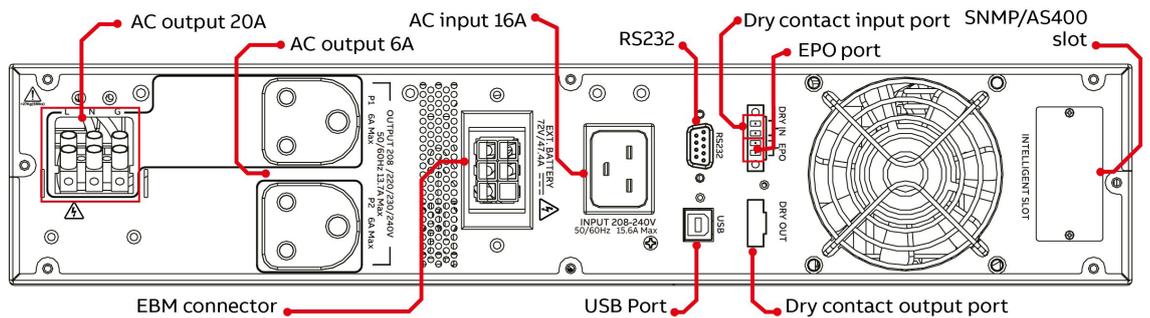
1 kVA B, 1 kVA S



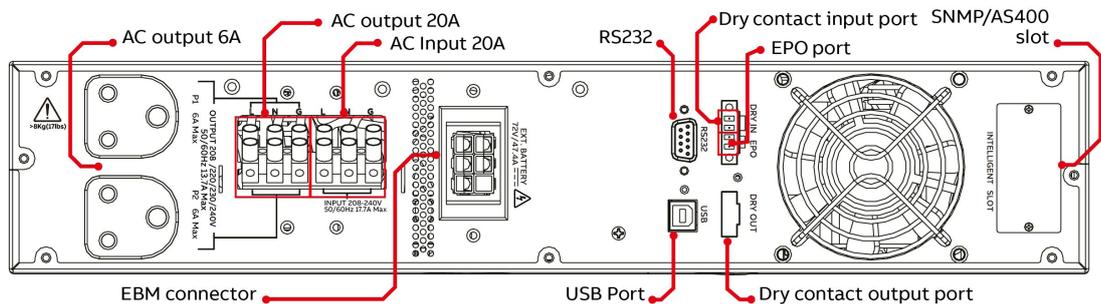
2 kVA B, 2 kVA S



3 kVA B

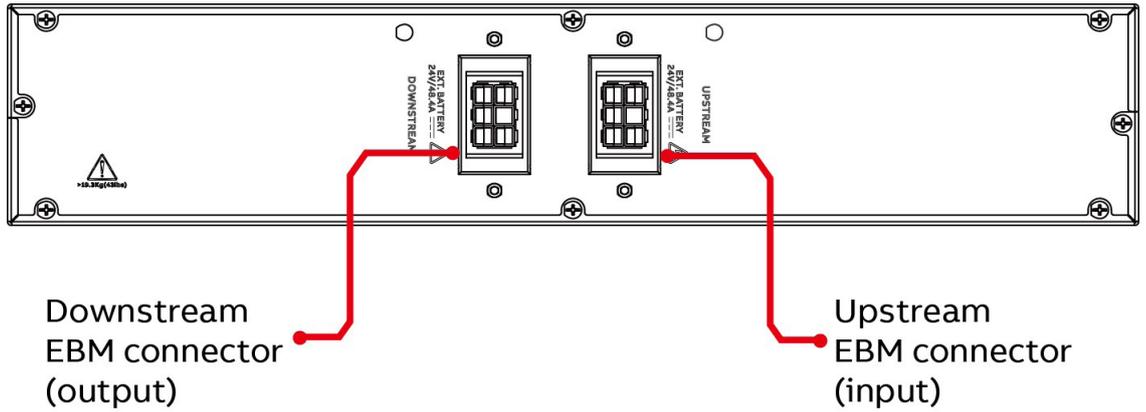


3 kVA S

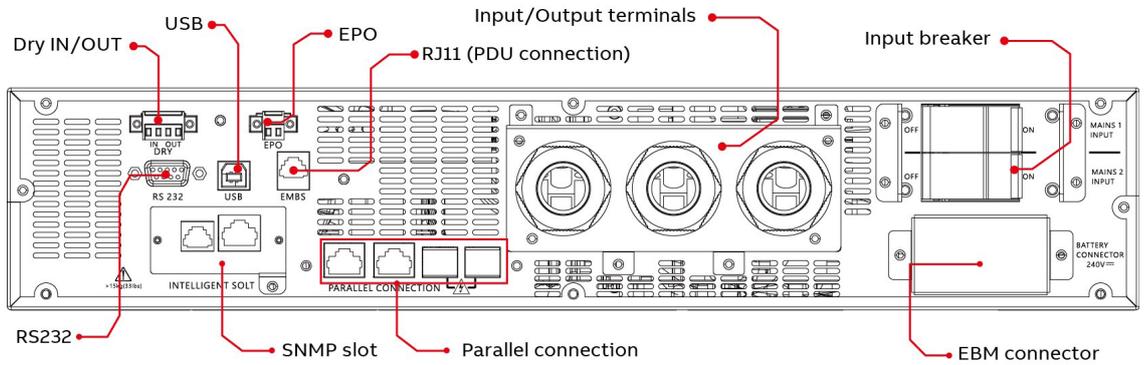


Rear view

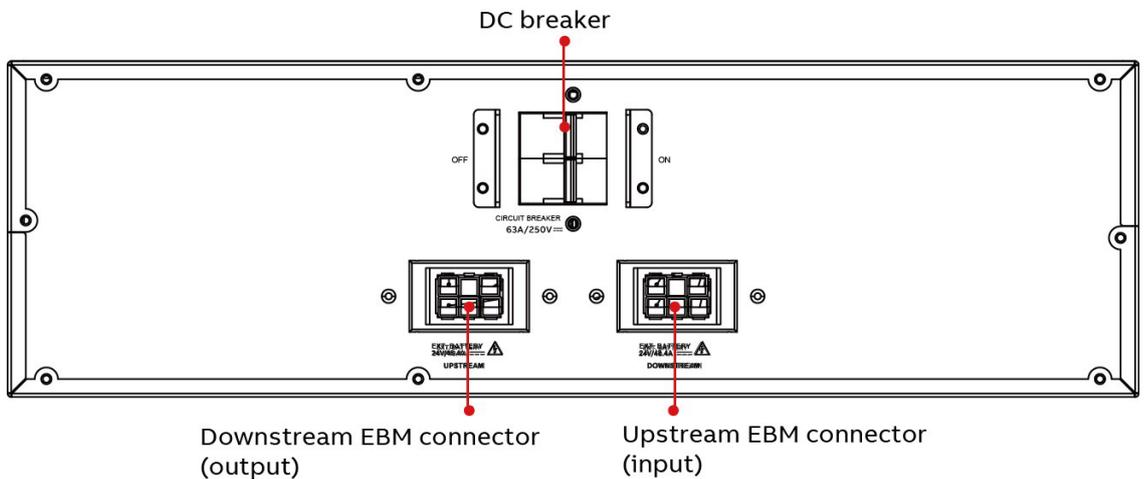
EBM for 1 kVA - 3 kVA



6 kVA / 10 kVA



EBM for 6 kVA - 10 kVA



Connectors / Sockets

Model		Output socket				Input socket			
Qty	Type	Current	Drawing	Qty	Type	Current	Drawing		
1 kVA B	4	India	6A		1	IEC-320C14	10A		
1 kVA S									
2 kVA B	4	India	6A		1	IEC-320C20	16A		
2 kVA S									
2 kVA B	2	India	6A		1	IEC-320C20	16A		
	1	Terminal block	20A						
2 kVA S	2	India	6A		1	Terminal block	20A		
	1	Terminal block	20A						
2 kVA	1	Terminal block	76A		2	Terminal block	20A		
10 kVA	1	Terminal block	76A		2	Terminal block	76A		

Options

Rack mounting kit

Rack rails, screws and metallic plates for easy installation of the UPS and external battery modules to a standard 19" rack. The kit is included in each UPS and battery module box.

Network interface cards

They enable real-time monitoring of your UPS system via a standard web browser or by using included monitoring software.

ABB's monitoring devices provide real-time visibility of the condition of your power equipment and help in solving problems before they become critical.

Supported models

- ViewPower SNMP adapter (for 1-10 KVA)
- Webpro ModBus (for 1-10 KVA)
- Environmental Monitoring Probe (for 1-3 KVA)

Third party adapters can be installed as well (for 1-3 KVA)

- CS141 slot/Box Basix
- CS141 slot/box Advanced
- CS141 slot/ box ModBus



Sensors

Temperature sensors, humidity sensors and alarm buzzers support monitoring the environmental condition and enables an efficient identification of the alarms.

Relay interface cards

Provides contact closures for remote monitoring of alarm conditions of PowerValue 11 RT G2 systems.

The card is user-installable, hot-swappable and enables advanced communication between the UPS and the computer.

Models

- AS400

External maintenance bypass switch

It provides maintenance bypass capability plus serves as an output power distribution unit; it allows service continuity during UPS maintenance or upgrade with no load interruptions. Two models are available, respectively for 1-3 KVA and 6-10 KVA.

ATS 16A (only for 1-3 KVA)

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. 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.

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.

Monitoring software

It is an advanced UPS management software suite to allow remote control and monitoring of UPS equipped with network interface cards in a LAN or internet environment. It can manage a single or multiple UPSs and prevent data loss from power outage by programming a safe system shutdown.

Technical specifications

General data	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
Photograph					
Apparent power	1 kVA	2 kVA	3 kVA		
Active power	1 kW	2 kW	3 kW		
UPS type	on-line, transformer-free				
Parallel capability	No	No	No	Up to 3 frames	Up to 3 frames
Battery	Included (1-3kVA B) / not included (1-3kVA S)			Not classified	
Performance classification	VFI-SS-111			VFI-SS-111	
MECHANICAL					
Dimensions (Width x height x depth) [mm]	436x86.2x309.8	436x86.2x426.5	436x86.2x629.8	436x86.5x610	436x86.5x610
Weight (with batteries)	11.4 kg (B) 5.83 kg (S)	19.12 kg (B) 8.74 kg (S)	27.94 kg (B) 9.05 kg (S)	15 kg	15.5 kg
ACOUSTIC NOISE (acc. To IEC 62040-3)					
in normal mode (at <=25°C) at 100 / 50% Load	<45 dBA	<50 dBA	<50 dBA	<58 dBA	<58 dBA
in battery mode (at <=25°C) at 100 / 50% Load	<45 dBA	<50 dBA	<50 dBA	<58 dBA	<58 dBA
SAFETY					
Access	Operator				
Degree of protection against hazards and water ingress : IP 20					
ELECTROMAGNETIC COMPATIBILITY					
Compliant to IEC 62040-2	Yes	Yes	Yes	Yes	Yes
Category Emission / Immunity	C2	C2	C2	C1	C1
ENVIRONMENTAL					
Storage temperature range	-15° - +60°C				
Operative temperature range storage	0°C - +40°C				
Storage (models with batteries)	0°C - +35°C				
Relative humidity	< 95% (non-condensing)				
Max. altitude without de-rating	1000m (above 100m, 1% de-rating 100m according to IEC/EN 62040-3)				
ADDITIONAL AND USUAL INFORMATION					
Input connection	3 wires, 1 phase + N + PE				
Output connection	3 wires, 1 phase + N + PE				
Cable entry	Rear				
Battery cable entry	Rear				
Accessibility	Front only				
Air outlet	Rear				
OPTIONS					
Environment monitoring probe (for 1-3 kVA only)					
External battery modules (EBM)					



Technical specifications

General data	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
Network interface cards / box					
Relay card with potential free contacts (customer outputs)					
External maintenance bypass with PDU					
ATS 16 A (for 1-3 kVA) only					
Rack mounting kits for UPS and EBM					
ModBus card					
INCLUDED (DEFAULT)					
Parallel kit (parallel board pre-installed, parallel cable provided with each unit)	N/A	N/A	N/A	Included	Included
Sea freight packaging (carton box)	Included	Included	Included	Included	Included
Back-feed protection	Internal	Internal	Internal	See manual	See manual
INPUT CHARACTERISTICS	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
Rated voltage (steady-state, r.m.s.)	120-300VAC (de-rating to 60% @ 120V)	120-300VAC (de-rating to 60% @ 120V)	120-300VAC (de-rating to 60% @ 120V)	100-276VAC (de-rating to 50% @ 100V)	100-276VAC (de-rating to 50% @ 100V)
Nominal voltage	208 VAC 220 VAC / 230 VAC / 240 VAC	208 VAC 220 VAC / 230 VAC / 240 VAC	208 VAC 220 VAC / 230 VAC / 240 VAC	208 VAC 220 VAC / 230 VAC / 240 VAC	208 VAC 220 VAC / 230 VAC / 240 VAC
Tolerance, referred to 230V	-22% / +30% at <100% load, -31% / +30% at <80% load.	-22% / +30% at <100% load, -31% / +30% at <80% load.	-22% / +30% at <100% load, -31% / +30% at <80% load.	-23% / +20% at <100% load, -33% / +20% at <80% load.	-23% / +20% at <100% load, -33% / +20% at <80% load.
Frequency, rated	50 Hz / 60 Hz (selectable)				
Frequency, tolerance	45 Hz - 55 Hz (50 Hz system) / 54 Hz - 66 Hz (60Hz system)	45 Hz - 55 Hz (50 Hz system) / 54 Hz - 66 Hz (60Hz system)	45 Hz - 55 Hz (50 Hz system) / 54 Hz - 66 Hz (60Hz system)	45 Hz - 55 Hz (50 Hz system) / 54 Hz - 66 Hz (60Hz system) Extendable to 40 Hz - 70 Hz at load <60%	45 Hz - 55 Hz (50 Hz system) / 54 Hz - 66 Hz (60Hz system) Extendable to 40 Hz - 70 Hz at load <60%
Current (r.m.s.), rated (with battery charged and input 230V)	4.9 A	9.6 A	14.2 A	27.7 A	46.2 A
Current (r.m.s.), maximum (with charging batt. and input 230V)	5.2 A (B) 5.9 A (S) < 5% @ 100% R Load	10.2 A (B) 11.4 A (S) < 5% @ 100% R Load	15.0 A (B) 16.9 A (S) < 5% @ 100% R Load	30.3 A < 5% @ 100% R Load	48.8 A < 5% @ 100% R Load
Total harmonic distortion (THDi)					
Power factor	>0.99 @ 100% load	>0.99 @ 100% load	>0.99 @ 100% load	>0.995 @ 100% load	>0.995 @ 100% load
Rated short-time withstand current (I_{sc})	3 kA for 1.5 cycles	3 kA for 1.5 cycles	3 kA for 1.5 cycles	6 kA for 1.5 cycles	6 kA for 1.5 cycles
AC POWER DISTRIBUTION SYSTEMS:					
Phases required	1	1	1	1	1
Neutral required	Yes	Yes	Yes	Yes	Yes
ADDITIONAL AND USUAL INFORMATION					
Connection	3 wires, 1 phase + N + PE				
Cable entry	Rear				
Walk In / Soft Start	Yes (Power supply needed only for first start-up)				



Technical specifications

OUTPUT CHARACTERISTICS	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
Rated power	1 kW	2 kW	3 kW	6 kW	10 kW
AC power distribution system: TN-C, TN-C-S, TN-S,TT					
Available	1				
Neutral available	Yes				
Rated voltage (steady state, r.m.s.)	208 / 220 / 230 / 240 VAC (no de-rating)				
Variation in normal mode / battery mode	± 1%				
TOTAL HARMONIC DISTORTION (THDU), 100% LOAD, NORMAL MODE:					
Linear	< 2%	< 2%	< 2%	< 2%	< 2%
Non-linear (acc. to IEC 62040-3)	< 5%	< 5%	< 5%	< 4%	< 4%
TOTAL HARMONIC DISTORTION (THDU), 100% LOAD, BATTERY MODE:					
Linear	< 2%	< 2%	< 2%	< 2%	< 2%
Non-linear (acc. to IEC 62040-3)	< 5%	< 5%	< 5%	< 4%	< 4%
VOLTAGE TRANSIENT AND RECOVERY TIME, 100% STEP LOAD:					
Linear	20 ms				
Non-linear (acc. to IEC 62040-3)	100 ms				
Transfer normal mode--> battery mode	0 ms				
Frequency (steady-state), rated	Synchronized with the input mains: 45-55 Hz for 50 Hz system 54 - 66 Hz for 60 Hz system Range adjustable in 50 / 60 Hz +/- 4Hz				
Variation in free-running	+ / 0.1 Hz	+ / 0.1 Hz	+ / 0.1 Hz	+ / 0.1 Hz	+ / 0.1 Hz
Max. synch phase error (referred to a 3600 cycle)	<3°	<3°	<3°	<3°	<3°
Max. slew-rate	1 Hz/s	1 Hz/s	1 Hz/s	1 Hz/s	1 Hz/s
Nominal current (In), r.m.s. rated	4.5 A	9 A	13 A	26.1 A	43.5 A
Overload on inverter (line mode)	300ms : > 150% load; 10s : 130% - 150% load; 60s : 105% - 129% load Continuous: 100%			500ms : > 150% load; 30s : 125% - 150% load; 10m : 100%-124% load	
Fault clearing capability normal mode and battery mode (100ms)* default	2.0 x In	2.0 x In	2.0 x In	3 x In	3 x In
Crest factor (Load supported)	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1
Load power factor, rated	1.0	1.0	1.0	1.0	1.0
Displacement (permissible lead-lag range)	0.5 lead - 0.5 lag	0.5 lead - 0.5 lag	0.5 lead - 0.5 lag	0.5 lead - 0.5 lag	0.5 lead - 0.5 lag



Technical specifications

OUTPUT CHARACTERISTICS	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
DOUBLE CONVERSION EFFICIENCY IN NORMAL MODE, LINEAR LOAD:					
100% load	89%	91%	92%	93.5%	93.4%
75% load	87.7%	88.2%	91.6%	94.4%	94.2%
50% load	84.6%	86.5%	90.6%	94.7%	94.6%
25% load	76.2%	80.6%	88.8%	93.2%	94.1%
Eco-mode efficiency, linear load	>97.5%	>98%	>98%	>98%	>98%
BYPASS-AUTOMATIC : STATIC SWITCH					
Transfer time:					
inverter to bypass / bypass to inverter / inverter to eco-mode / eco-mode to inv.	<8 ms / <8 ms / <8 ms / <8 ms /	<8 ms / <8 ms / <8 ms / <8 ms /	<8 ms / <8 ms / <8 ms / <8 ms /	<4 ms / <4 ms / <4 ms / <10 ms /	<4 ms / <4 ms / <4 ms / <10 ms /
Fault clearing capability (bypass mode) for 20 ms	26.6 x In ¹⁾ (120A)	22.2 x In1) (200A)	15.3 x In1) (200A)	15.3 x In1) (400A)	13.3 x In1) (580A)
Overload on bypass mode	300ms : > 180 ³⁾ load, 60s L 130% - 180 load, Continuously : 101% - 129% load			500ms : > 150 load, 30s L 125% - 150 load, Continuously : < 125% load	
Bypass - maintenance	Optional, external	Optional, external	Optional, external	Optional, external	Optional, external
Bypass protection fuse or circuit breaker rating	External fusing according to section Cables and Fuses				
BATTERY CHARACTERISTICS					
Technology	VRLA, vented lead-acid				
Number of 12 V blocks (fixed)	2 (B) - (S)	4 (B) - (S)	6 (B) - (S)	-	-
Battery charger max. current charger capabilities	1.5 A (B) 6A (S)	1.5 A (B) 6A (S)	1.5 A (B) 6A (S)	0-12 A Adjustable (4A default)	0-12 A Adjustable (4A default)
Battery charger max. power charger capability	36W (B) 144 W (S)	72W (B) 288 W (S)	108W (B) 432 W (S)	3355 W	3355 W
Floating voltage (VRLA)	2.275V/pc	2.275V/pc	2.275V/pc	2.275V/pc	2.275V/pc
End of discharge voltage (VRLA)	10.7V/pcs, 0-30% Load 10.2V/pcs, 30% - 70% Load 9.6V/pcs, > 70% Load	10.7V/pcs, 0-30% Load 10.2V/pcs, 30% - 70% Load 9.6V/pcs, > 70% Load	10.7V/pcs, 0-30% Load 10.2V/pcs, 30% - 70% Load 9.6V/pcs, > 70% Load	Load dependent - 1.6VDC/cell	Load dependent - 1.6VDC/cell
Temperature compensation	Yes	Yes	Yes	No	No
Battery test	Automatic and periodic battery test (selectable)	Automatic and periodic battery test (selectable)	Automatic and periodic battery test (selectable)	Automatic and periodic battery test (selectable)	Automatic and periodic battery test (selectable)

1) With recommended fuses, see section Cables and Fuses



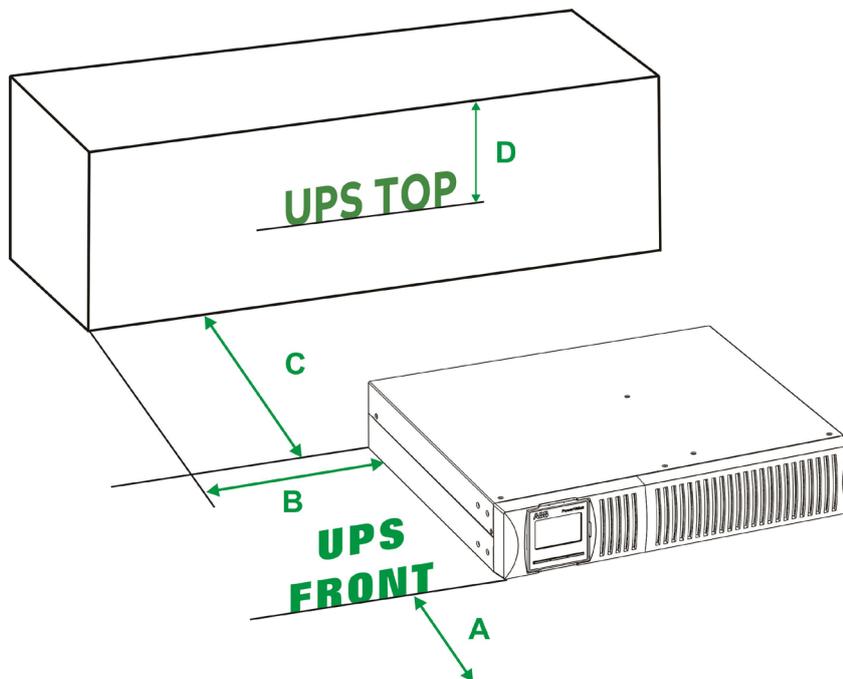
Technical specifications

USER INTERFACE - COMMUNICATION

STANDARD ITEMS

RS232 on Sub-D9 port	for service and for CS141 box
Connectivity slot	for integration of optional connectivity and relay card
Display	LCD display
EPO	Emergency Power Off
Dry In/OUT contacts	Yes
USB (momnitoring software, HID)	Yes

CLEARANCES	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
MINIMUM CLEARANCES FOR SINGLE UPS					
A	25 cm	25 cm	25 cm	38 cm	38 cm
B	0 cm	0 cm	0 cm	0 cm	0 cm
C	25 cm	25 cm	25 cm	38 cm	38 cm
D	0 cm	0 cm	0 cm	0 cm	0 cm
MINIMUM CLEARANCES FOR UPS PLUS OTHER CABINETS IN ROW					
A	25 cm	25 cm	25 cm	38 cm	38 cm
B	0 cm	0 cm	0 cm	0 cm	0 cm
C	25 cm	25 cm <td 25 cm	38 cm	38 cm	
D	0 cm	0 cm	0 cm	0 cm	0 cm

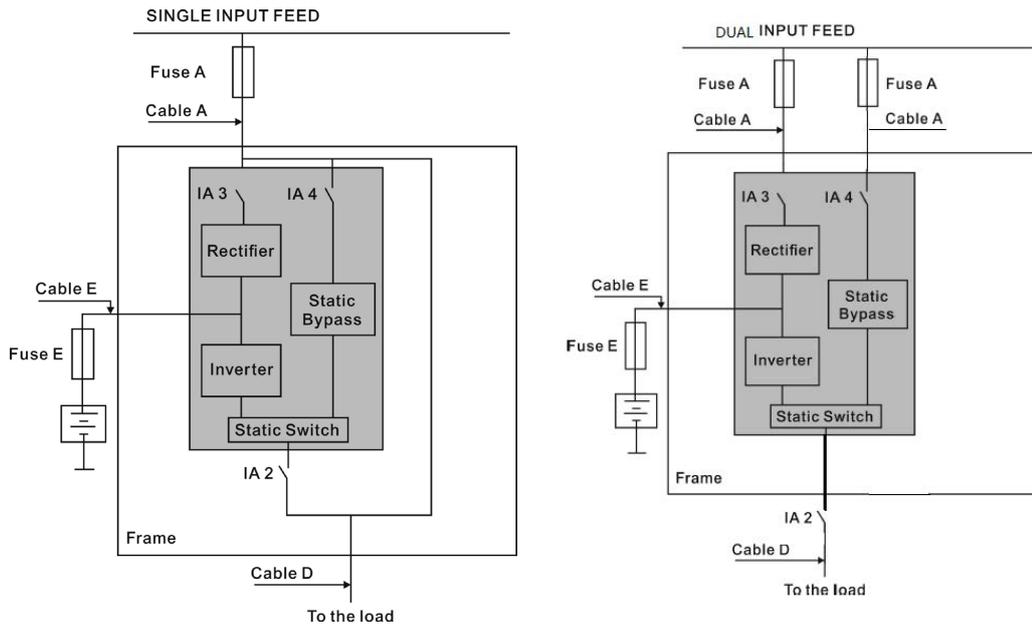


Thermal data and cable sizing

HEAT DISSIPATION	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
Air-flow	From front to back				
Heat dissipation with 100% linear load	165W	290W	410W	376W	627W
Heat dissipation with 100% linear load (acc. to 62040-30)	165W	290W	410W	376W	627W
Air-flow (25° - 30°) with 100% non-linear load	18.000 m ³ /h	34.285 m ³ /h	37.000 m ³ /h	75.000 m ³ /h	125.000 m ³ /h
Heat dissipation without load	43 W	50 W	57 W	70 W	100 W

CABLE & FUSE

Cable sections and fuse ratings recommended according to (IEC 60950-1)



RATINGS	1 kVA (B/S)	2 kVA (B/S)	3 kVA (B/S)	6 kVA	10 kVA
SINGLE INPUT FEED					
Input fuse A-type: gL or CB	1 x 10A	1 x 16A	1 x 20A	1 x 50A	1 x 63A
Input cable A	3 x 0.75mm ²	3 x 1.5mm ²	3 x 1.5mm ² for 3kVA B 3 x 2.5mm ² for 3kVA B 3 x 1.5mm ² for 3kVA B	3 x 4mm ²	3 x 5.5mm ²
Output cable D	3 x 0.75mm ²	3 x 0.75mm ²	3 x 2.5mm ² and 3 x 1.5mm ² for 3kVA S	3 x 4mm ²	3 x 5.5mm ²
Battery fuse E-Type: gR or CB	2 x 30A	2 x 30A	2 x 30A	1 x 50A	1 x 63A



ABB India Helpline

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