

END OF LIFE TREATMENT

# PowerValue 11 RT G2

## 1-3kVA



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# 1. Important safety instructions



THIS CHAPTER CONTAINS IMPORTANT SAFETY INSTRUCTIONS. READ IT CAREFULLY BEFORE STARTING DISASSEMBLING THE UNIT.

## 1.1. Symbols and warnings

The following symbols are used in this manual, the list below explains each symbol.



THIS SYMBOL IN CONJUNCTION WITH THE SIGNAL WORD “**DANGER**” INDICATES AN IMMINENT ELECTRICAL HAZARD.

FAILURE TO OBSERVE THE RELATED SAFETY NOTE MAY CAUSE INJURY, DEATH OR EQUIPMENT DAMAGE.



THIS SYMBOL IN CONJUNCTION WITH THE SIGNAL WORD “**WARNING**” INDICATES A POTENTIALLY DANGEROUS SITUATION.

FAILURE TO OBSERVE MAY CAUSE INJURY, DEATH OR EQUIPMENT DAMAGE.



THIS SYMBOL INDICATES A HEAVY WEIGHT OBJECT THAT CAN CAUSE INJURY IN CASE OF FALLING.



THIS SYMBOL INDICATES SHARP EDGES THAT MAY CAUSE INJURING FROM CUTTING.



DO NOT DISPOSE OF WITH ORDINARY TRASH.



THIS SYMBOL INDICATES USE OF GENERIC BUTTON-LIKE BATTERY, REQUIRING SELECTIVE DISPOSAL.

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## 1.2. Safety rules



**DANGER**

RISK OF ELECTRIC SHOCK:

BEFORE DISASSEMBLING THE UNIT, MAKE SURE THE UPS IS COMPLETELY SWITCHED OFF AND INTERNAL CAPACITORS HAVE BEEN DISCHARGED BY WAITING AT LEAST 10 MINUTES AFTER SHUTDOWN THE UNIT.



**DANGER**

THE UNIT MAY CONTAIN BATTERIES. A BATTERY CAN PRESENT A RISK OF ELECTRICAL SHOCK AND HIGH SHORT CIRCUIT CURRENT. THE FOLLOWING PRECAUTIONS SHOULD BE OBSERVED WHEN DISASSEMBLING A UNIT THAT CONTAINS BATTERIES:

- A) REMOVE WATCHES, RINGS OR OTHER METAL OBJECTS.
- B) USE TOOLS WITH INSULATED HANDLES.
- C) WEAR RUBBER GLOVES AND BOOTS.
- D) DO NOT LAY TOOLS OR METAL PARTS ON TOP OF BATTERIES.
- E) DISCONNECT THE CHARGING SOURCE PRIOR TO CONNECTING OR DISCONNECTING OF BATTERY TERMINALS.
- F) ESTABLISH IF THE BATTERY IS INADVERTENTLY GROUNDED. IF INADVERTENTLY GROUNDED, REMOVE SOURCE FROM GROUND. CONTACT WITH ANY PART OF A GROUNDED BATTERY CAN RESULT IN ELECTRICAL SHOCK. THE LIKELIHOOD OF SUCH SHOCK CAN BE REDUCED IF SUCH GROUNDS ARE REMOVED DURING INSTALLATION AND MAINTENANCE (APPLICABLE TO EQUIPMENT AND REMOTE BATTERY SUPPLIES NOT HAVING GROUNDED SUPPLY CIRCUIT. A BATTERY CAN PRESENT A RISK OF ELECTRICAL SHOCK AND HIGH SHORT CIRCUIT CURRENT.

KEEP OUT OF BATTERY POLES WHICH CONTAIN DANGEROUS DC-VOLTAGES CAUSING FATAL ACCIDENTS.

INAPPROPRIATE MANIPULATIONS OF THE BATTERIES CAN CAUSE LIGHTNING SPARKS.



**WARNING**

RISK OF INJURY:

MAKE EXTRA ATTENTION TO THE CORNERS OF THE METAL COVERS WHICH CAN BE SHARPER.



**WARNING**

RISK OF INJURY:

- DURING MANIPULATION AND DISASSEMBLING, BE CAREFUL OF THE HEAVY WEIGHT OF THE UNIT.
- THE UPS CONTAINS COMPONENTS WITH HEAVY WEIGHT CAUSING INJURY IS NOT PROPERLY HANDLED.
- THE UPS CONTAINS PARTS OR COMPONENTS THAT MAY BE SHARP: THE INADVERTENT TOUCH OR PROJECTION MAY RESULT IN INJURY: WEAR SUITABLE PERSONAL PROTECTIVE DEVICES (PPE).

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## 2. Introduction

### 2.1. Related to the document

The document contains information for end of life recyclers or treatment facilities in accordance with the EU Directive 2012/19/EU about waste electrical and electronic equipment (WEEE). Necessary dismantling information are detailed, together with indication of WEEE materials and components requiring selective treatment are located.

Substances of very high concern under Regulation (EC) No 1907/2006\* are typically used but not reported in this document: contact ABB to get the latest declaration available.

\* Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### 2.2. Applicability

This document covers the environmental information of the following products:

Product	Part number
UPS PowerValue 11RT G2 1 kVA B	4NWP100200R0001
UPS PowerValue 11RT G2 1 kVA S	4NWP100200R0007
UPS PowerValue 11RT G2 2 kVA B	4NWP100201R0001
UPS PowerValue 11RT G2 2 kVA S	4NWP100201R0007
UPS PowerValue 11RT G2 3 kVA B	4NWP100202R0001
UPS PowerValue 11RT G2 3 kVA S	4NWP100202R0007
External battery module 11RT G2 1 kVA	4NWP100203R0001
External battery case 11RT G2 1 kVA	4NWP100203R0002
External battery module 11RT G2 2 kVA	4NWP100204R0001
External battery case 11RT G2 2 kVA	4NWP100204R0002
External battery module 11RT G2 3 kVA	4NWP100205R0001
External battery case 11RT G2 3 kVA	4NWP100205R0002

### 2.3. Target audience

This document is intended for ABB customers and for professional recyclers. “Professional” refers to the expertise in implementing selective treatment according local National laws. That includes also the understanding of immediate or long term safety risks related to exposure to substances.

### 2.4. Disclaimer

The information presented in this publication does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequences of its use. Publication thereof does not convey nor imply any license under patent - or other industrial or intellectual - property rights.

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### 3. Recycling advice

The following table is intended to guide selective treatment and recycling, showing where which substances of concern are used and where they are located [ref. Directive 2012/19/EU Article 15 and Annex VII].

Substances of very high concern under Regulation (EC) No 1907/2006<sup>(1)</sup> are typically used but not reported in this document due to changing nature: contact ABB to get the latest declaration available.

*(1) Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).*

Substance(s)/Component(s)	Where used (potential)
Batteries	- As spare VRLA blocks;
Printed circuit boards	Used as spare and contained in fans.
Plastic containing brominated flame retardants (BFRs) <sup>(2)</sup>	- PVC insulation for cables; - Plastic housing for signal cables' terminals; - Cable ties (nylon), fasteners and supports (polyamide); - Plastic shell for SNMP card; - plastic cover for touch panel; - plastic of plugs and receptacles.
Liquid crystal displays (surface > 100 cm <sup>2</sup> )	Not used
Electrolyte capacitors (height > 25 mm, diameter > 25 mm)	On selected printed circuit board
External cables	Provided with original package
Mercury containing components	Not used
Toner cartridges	Not used
Asbestos containing components	Not used
CFC's, HCFC's, HFC's, HC's	Not used
Gas discharge lamps	Not used
Components containing refractory ceramic fibres	Not used
Components containing radioactive substances	Not used

*(2) due to assembly complexity and where-used indication, the location of these substances or material will not be indicated along the document, unless considered necessary.*

Other materials and components, when not indicated above:

High level component	Substance(s)
Original packaging	Paper; Polyethylene foam or film
Metallic covers (plain or painted)	Steel, zinc plated
Transparent air guide	Polycarbonate

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High level component	Substance(s)
Fasteners	Steel, Cr6+ plated (banned but used in the past) Steel, zinc plated Brass, nickel plated Polyamide
cables	PVC, Copper (conductor), Tin (plating), Ferrites, Nylon (housing end terminals), Brass (end terminals).
Heatsinks	Aluminum alloy

The following electrical components require further separation after removal from UPS. They might contain materials or components requiring selective disposal. Contact the manufacturer to get proper instructions:

- thermal circuit breakers;
- fans (may contain printed circuit boards).

## 4. Dismantling and recycling instructions



**RISK OF ELECTRIC SHOCK:**

- CAPACITORS AND OTHER UPS COMPONENTS MAY STORE NON-LETHAL ENERGY FOR LONG TIME: HANDLE EVERY CONDUCTIVE PART WITH CARE, AVOIDING SHORT CIRCUIT CAUSING SPARKING OR ARCING.

**DANGER**

- BEFORE DISASSEMBLING COMPONENTS REQUIRING FURTHER RECYCLING, CONTACT THE MANUFACTURER TO GET NECESSARY DISPOSAL INFORMATION;



**RISK OF INJURY:**

THE UPS CONTAINS COMPONENTS WITH HEAVY WEIGHT CAUSING INJURY IS NOT PROPERLY HANDLED.



**RISK OF CUTTING:**

THE UPS CONTAINS PARTS OR COMPONENTS THAT MAY BE SHARP: THE INADVERTENT TOUCH OR PROJECTION MAY RESULT IN INJURY: WEAR SUITABLE PERSONAL PROTECTIVE DEVICES (PPE).

This section describes the procedure to follow for disassembly. At the end of each subsections, relevant WEEE or recycling information are reported.

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## 4.1. Packaging and external cables

Remove the UPS from the carton box.



**RISK OF INJURY:** DEPENDING ON THE POWER RATING, A POWERVALUE SERIES UPS WEIGHT CAN BE 12 kg TO 32 kg. HANDLE CAREFULLY.

### WARNING

UPS is delivered with external cables requiring selective disposal: Except 3KS model, UPS is equipped with 2x extension cords 1.83 m long for AC input and output (Schuko plug-IEC C13, IEC C13-IEC C14). On the 3KB & 3KS models, they equipped with additional extension cord for the output (IEC C20-IEC C19). Battery cable only available on the 1KS/2KS/3KS and EBM models.

	1KB	1KS	2KB	2KS	3KB	3KS	External battery
<b>Input power cord</b>	Schuko-IEC C13	Schuko-IEC C13	Schuko-IEC C19	Schuko-IEC C19	Schuko-IEC C19	N/A	N/A
<b>Output power cord</b>	IEC C13-C14	IEC C13-C14	IEC C13-C14	IEC C13-C14	IEC C13-C14 IEC C19-C20	IEC C13-C14 IEC C19-C20	N/A
<b>Battery cable</b>	N/A	Battery cable	N/A	Battery cable	N/A	Battery cable	Battery cable



Figure 4-1 external cables provided

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## 4.2. External and internal covers

Remove the front plastic cover and disconnect the internal battery connector.

Remove all screws on the top and slide the cover to remove it (Figure 4-2).



Figure 4-2 PowerValue 11 RT G2, top cover removal



Figure 4-3 PowerValue 11 RT G2, top cover removed

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Remove all screws on the front and remove the front plate (Figure 4-4).



Figure 4-4 PowerValue 11 RT G2, front plate removed

Slide out the battery tray. In case of battery pack, one tray is used (Figure 4-5).



**WARNING**

VRLA BATTERY BLOCKS CONTAINS HAZARDOUS SUBSTANCES AS:

- INORGANIC LEAD, LEAD COMPOUNDS (Pb – CAS 7439-92-1);
- SULFURIC ACID (CAS 7664-93-9 - CAUSES SEVERE BURNS).

THE CONCENTRATION MAY CHANGE, DEPENDING ON THE MANUFACTURER.

CUTTING OR DAMAGING THE PLASTIC CASE, WILL EXPOSE ENVIROMENT TO FURTHER HAZARDOUS SUBSTANCES AS LEAD MONOXIDE (CAS 1317-36-8 -HARMFUL BY INHALATION AND IF SWALLOWED).

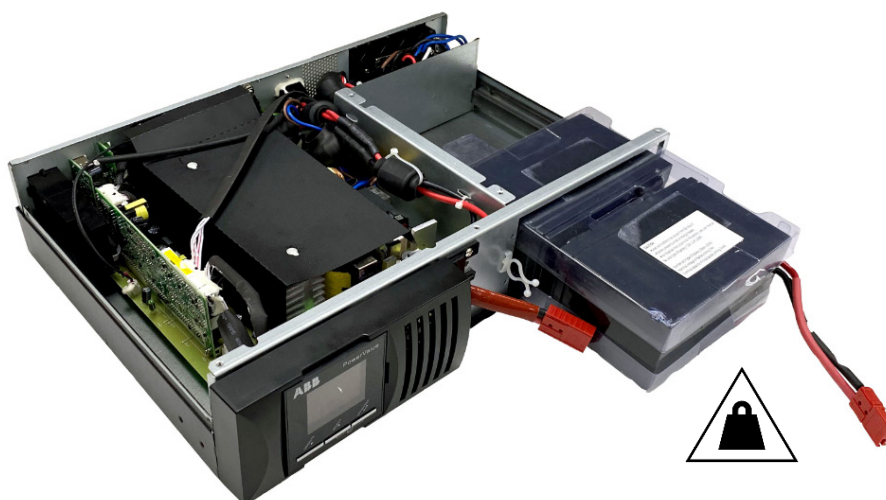


Figure 4-5 PowerValue 11 RT G2, battery tray slide out

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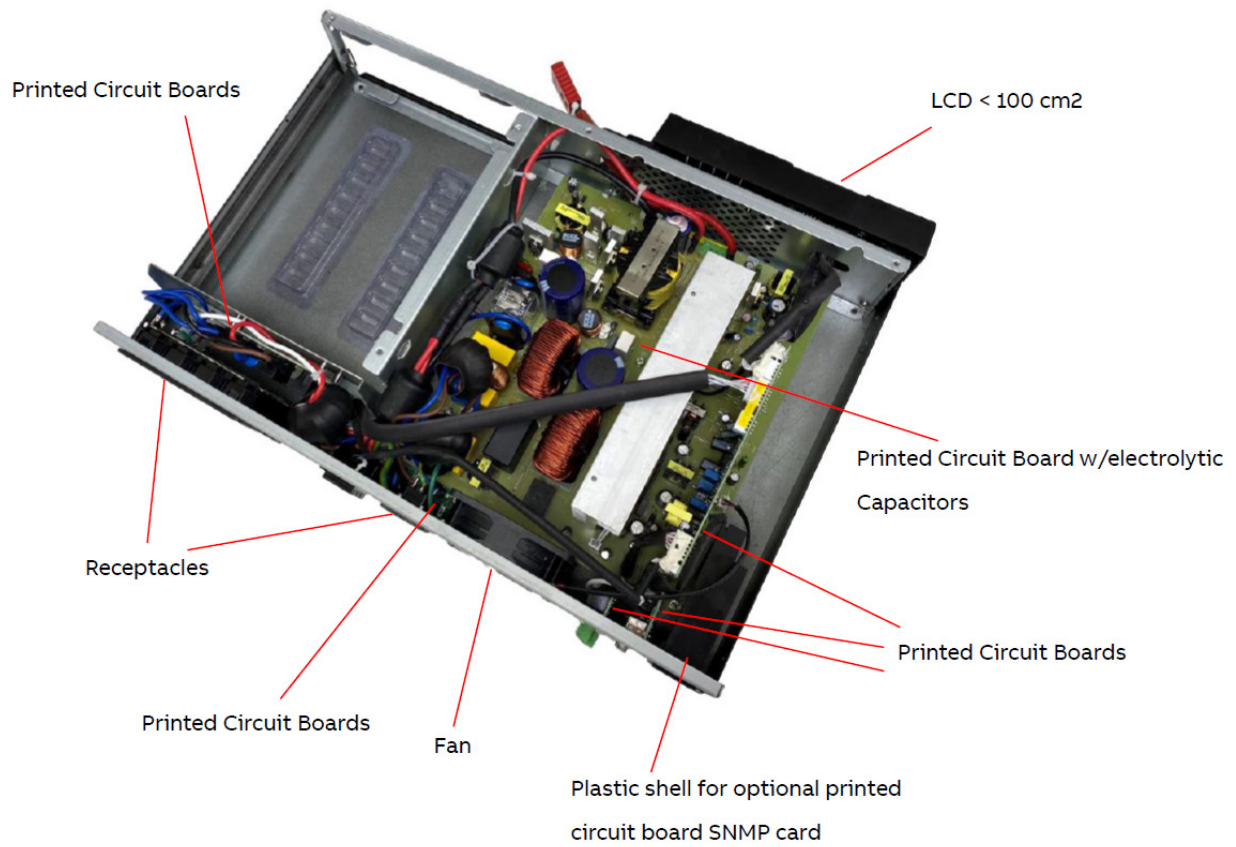


Figure 4-6 PowerValue 11 RT G2, relevant materials

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### 4.2.1. SNMP card

The SNMP Web Pro card is made by one PCBA (see Figure 4-7)



*Figure 4-7 SNMP Card*

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