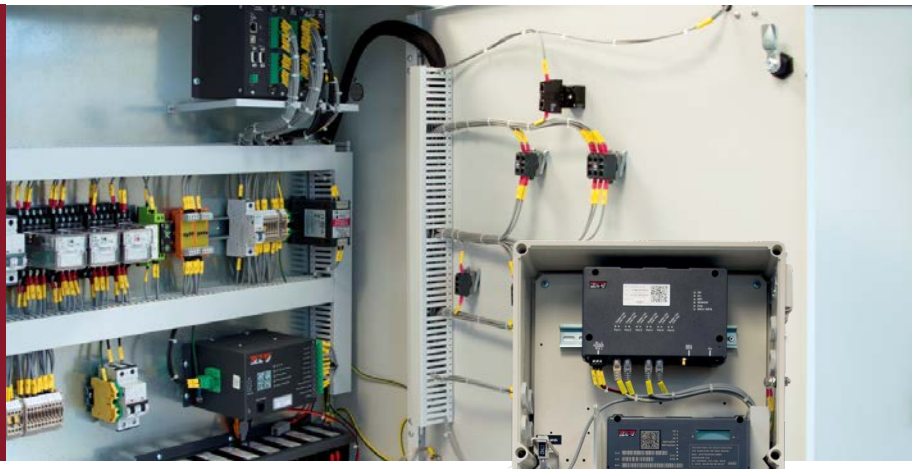
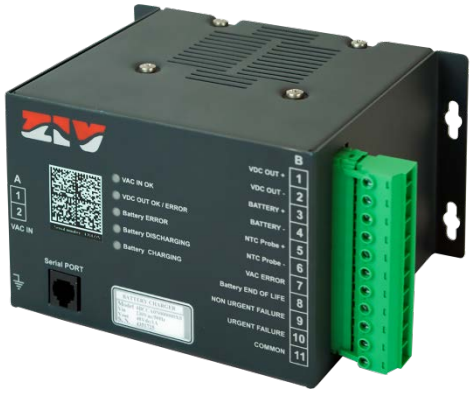
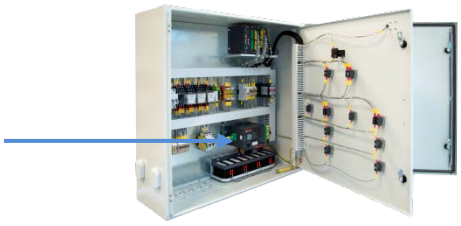
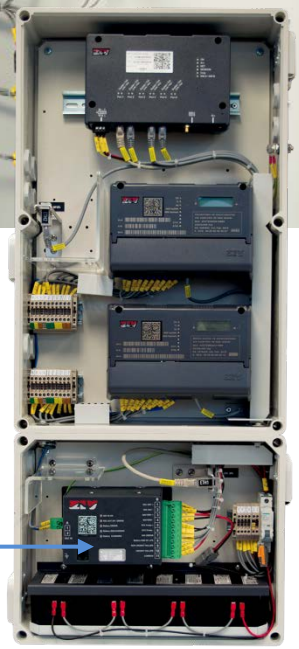
4BCC

Uninterruptible Power Supply









The 4BCC is a secure power supply intended to support smart grids cabinets or complete switchgears.

It is suitable for both 24 and 48 V_{DC} battery systems (Lead-gel high performance kits).

4BCC main function

The main purpose of the device is to maintain an **uninterrupted voltage at the output,** so when AC voltage drop occurs, a switching between the primary output and the external battery is carried out in a few milliseconds. If the battery level drops below a configured limit, it disconnects the battery in order to prevent the deep discharge.

The 4BCC monitors continuously the battery's temperature **to extend its lifetime** by optimizing the charge, and test battery is done periodically to calculate the **battery health**.

Main application

The 4BCC is a robust uninterruptible power supply backup system with integrated battery charger, specially designed for distribution automation systems.

Signalling

The 4BCC integrates five LEDs in the front to show the status of the battery, the LV and the device itself plus four voltage free auxiliary outputs to send the following alarms:

- V_{AC} failure.
- Battery end of life.
- Non urgent failure.
- Urgent failure.

Environment protection

Due to the electrical distribution environment, the voltage output is protected against overvoltages and short circuits.

The insulation level between low voltage terminals and the frame is 10 kVrms@1 min.

Version for automation

There is a 4BCC version for automation, adding the following features:

- The 4BCC supplies power peaks well above the rated power of the equipment, which is especially appropriate when using motorized sectionalizers or breakers.
- Output fuse as overload protection.

Technical Information

	Standard version	Automation version
Voltage input		
Nominal value	230 V_{AC}	
Operating range	±20%	
Maximum consumption	120 W	250 W
Voltage output		
Nominal value	24 V_{DC} / 48V_{DC}	
Maximum power	72 W	150 W
Battery output		
Voltage range	20-60 V_{DC}	
Maximum current	0.5 A	1.5 A
Temperature and Humidity		
Specific & operating range	-20ºC to +60ºC	
Operating limit & storage range	-30ºC to +85 ºC	
Humidity limit	95%	
Weight and dimensions		
Weight	3.2 kg	6.6 kg
Dimensions (mm)	175 x 135 x 100	300 x 143 x 128
Insulation		
AC input to chassis	10 kV_{AC}	
AC input to outputs	>5 kV_{AC}	
Power output to chassis	3 kV_{AC}	
Digital outputs to chassis	3 kV_{AC}	
Front serial port to chassis	1.5 kV_{AC}	

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ZIV Automation Headquarters
Parque Tecnológico de Bizkaia, 210 - 48170 Zamudio, Spain. Tel.: +34 944 522 003 Fax.: +34 944 522 140. E-MAIL: ziv@zivautomation.com
Please visit our website for local information in your area www.zivautomation.com