

Central Supply Systems

CSS



Tower

1:1 **3:1** 6-15 kVA

3:3 10-100 kVA

EN50171 CERTIFIED PRODUCTS VERIFIED BY **IMQ**



HIGHLIGHTS

CERTIFIED COMPLIANCE WITH STANDARD EN 50171

Ideal for emergency lighting and alarm systems.

DUAL INPUT

Simplicity and safety for the periodical system operation check.

PROTECTION AGAINST BATTERY INVERSION

Protection for emergency services and safety for operators.

HIGH RECHARGE CURRENT

Reduced recharge times.

CONTINUOUS OVERLOAD OF 120%

Large power reserve.

CASING COMPLIANT WITH STANDARD EN 60598-1

High mechanical protection.

BATTERIES WITH 10 YEAR LIFE

Long battery life.

The CSS (Central Supply Systems) range by Riello UPS is certified and designed in compliance with standard EN 50171 and is therefore the ideal solution for installation in buildings subject to fire safety regulations and in particular for the power supply of emergency lighting systems. In addition the CSS range by Riello UPS is also suitable for supplying power to other emergency systems such as automatic fire extinguishing systems, alarm systems and emergency detection systems, smoke extraction equipment and carbon monoxide detection devices as well as dedicated security systems in sensitive areas.

The use of centralised supply systems (CSS) ensures a significant reduction in system set-up and maintenance costs as well as making periodical checks simpler and faster to perform.

Dual input

The Riello UPS CSS range is equipped with DUAL INPUT as standard on all models. This important feature allows the mandatory scheduled checks on system operation and

autonomy to be carried out with extreme ease and in complete safety by simply operating an input switch. This switch interrupts the power supply to the machine without interrupting the bypass line, which is able to support the load in the event of test failure.

High recharge current and battery care system

Proper battery care is critical to ensuring correct CSS operation in emergency conditions.

The Riello UPS battery care system consists of a series of features and capabilities designed to obtain the best performance, extend operating life and satisfy the recharge times imposed by the standard. The Riello UPS CSS range is designed in compliance with standard EN 50171 and ensures high current levels are available for the batteries, allowing recharge of up to 80% of full autonomy within 12 hours. Riello UPS CSS are suitable for use with hermetically sealed lead-acid (VRLA), AGM and GEL batteries and Open Vent and Nickel

Cadmium batteries. Different charging methods are available depending on the battery type.

The recharge voltage compensation function based on temperature prevents excessive battery charges and overheating.

The deep discharge protection prevents reduced battery performance and battery damage.

High Overload Capacity

As required by standard EN 50171, the Riello UPS CSS range is designed and sized to support continuous overloads (with no time limits) of up to 120% of the machine's nominal power rating.

Protection Against Battery Inversion

Mandatory in line with standard EN 50171, protection against battery inversion ensures the safety of those carrying out maintenance



operations on the devices and at the same time prevents damage to the system in the event that the batteries are inadvertently connected with the wrong polarity.

of reliability and flexibility common to the UPS range it derives from, as well as offering compatibility with the main options and accessories.

General features

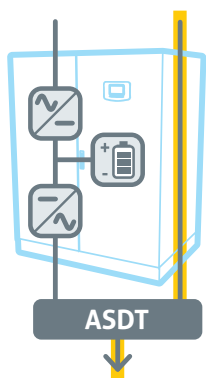
In addition to the features mentioned here, the Riello UPS CSS range has all the features

OPERATING MODE

Every Riello CSS model supports all the operating modes set out and described in standard EN50171, as below:

A Changeover mode

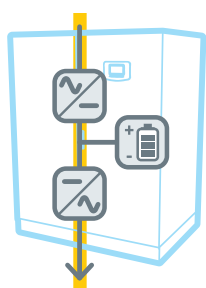
The load is supplied via the CSS bypass line (always supplied output "AS").



In the event of power supply failure the internal automatic device (ATSD) transfers the load to the inverter. The battery provides power to the inverter, ensuring the required runtime.

B Mode without interruption

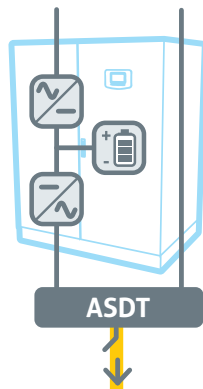
The load is supplied constantly by the CSS inverter (always supplied output "AS").



In the event of power supply failure the battery provides power to the inverter, ensuring the required runtime with no interruptions at all.

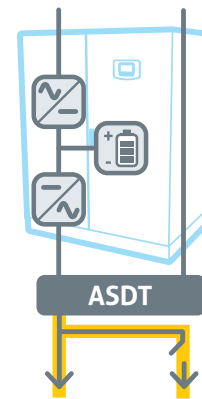
C Changeover mode with additional control switching device for control switching of the load

In addition to that described in points A and B, the equipment includes one or more switching devices (CSD), which rely on the availability of the normal power supply. On power supply failure the CSD device connects the load that up until that moment was not supplied (emergency only output "EO").



D Changeover mode with additional control switching device for partial switching of the load

Differently to that described in point C, part of the load is supplied without interruption whilst the remaining part is only supplied upon power supply failure thanks to the CSD device (always supplied + emergency only output "AS+EO").



*Requires EOS optional accessory

EOS optional accessory

The EOS (Emergency Only Switch) accessory is required whenever one part of the load must always be supplied (always supplied output "AS"), and one part must be supplied only when mains power fails (emergency only

output "EO"), in order to create the operating mode described in point D. By connecting several EOS accessories in a cascade configuration it is also possible to provide for the sequential delayed switching on of loads in order to reduce inrush switching on currents.

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