

ASC - Battery Charger and Power Supply



The Battery Charger and Power Supply (**ASC**), compliant to RFI IFS330A Italian railway Specification, is a DC Uninterruptible Power Supply, which feeds, by means of a DC Voltage BUS, auxiliary systems provided within Railway Electrical Substations (SSE), ensuring continuity of operation even in case of Mains Voltage interruptions.

The **ASC** requires an input connection to a Three Phase 400 V_{AC} Mains and provides an output DC voltage settable either to 110 V_{DC} or 132 V_{DC}.

In case of input Mains AC voltage available – normal operation – the output voltage is supplied by the power supply (**GAL**) subunit, while the battery charger (**GCB**) subunit charges the equipped battery pack.

In case of input Mains fail the switching unit (**GCU**) switches the battery to the output DC BUS ensuring continuity of operation.

The ASC is available as:

- Basic configuration: 1 **GAL** subunit and e 1 **GCB** subunit
- Redundant configuration: 2 **GAL** subunit and 2 **GCB** subunit.

Moreover both **GAL** and **GCB** are made in a modular design, in order to achieve a N+1 redundancy within each subunit; this allows to realize a higher reliability even without redundancy of the whole subsystem.



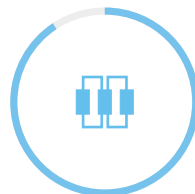
MAINTENANCE

The ASC includes a Diagnostics & Monitoring embedded Subsystem (SDM), provided with touchscreen LCD interface and LAN communication interface for local and remote command/control.



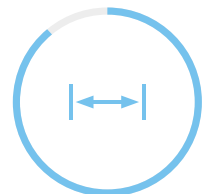
RELIABILITY

Due to the introduction of the modular approach, delivered power is shared between paralleled modules, so that a single module failure doesn't affect the power supply or battery charge operation.



REDUNDANCY

It's possible to implement N+1 redundant systems, avoiding to install twice the needed power capacity as traditional redundancy approach.



SIZE

The modular design and the appropriate distribution of functions allowed to get higher performances in a reduced size compared to larger power single unit approach.