

ZGR TELSIS APS

MODULAR SWITCHED RECTIFIER-CHARGER

The range of **ZGR TELSIS APS** rectifier/chargers combine great flexibility with high-performance

The ZGR TELSIS APS rectifier/chargers have been designed to respond to new market needs for battery chargers, by improving the performance and flexibility of the systems both for telecom and industrial applications. As it is a modular device, initial oversizing is not necessary which means an initial investment saving. This reduced size and high energy density mean that it can be installed in the same room as the loads and, consequently, shorter distances and smaller wire cross-sections are required, thus obtaining improvements in distribution. The high frequency switching technology allows it to be connected in parallel with automatic load distribution. Furthermore, they allow the configuration of n+1, n+2 redundant systems. In addition, these rectifiers operate autonomously without the need for any auxiliary element and are controlled and managed at all times by the Central Management Unit. Thanks to the remote communication possibilities, the ZGR TELSIS APS systems can be controlled and monitored in real-time from a single control centre. This characteristic means that possible problems can be diagnosed sufficiently in advance in order to plan maintenance interventions, both preventive and corrective, which results in a cost reduction (labour, travelling, etc.)



Applications



Characteristics

- Compact design
- High-efficiency
- Easy maintenance Hot plugging modules
- Device control and monitoring by Web Server
- Progressive power increase potential
- Configuration of n+1, n+2 redundant systems
- Applications
 - Telecommunications
 - Operation of on/off switches in high and medium-voltage distribution circuits
 - Converter power supplies
 - Emergency lighting systems, large surface areas, etc.
 - Signalling, control and command centres.
 - Solar energy applications
 - DC security applications
 - Electricity substations and power plants

Connectivity and Monitoring

ZGR TELSIS APS provides centralized monitoring, control and management of chargers – rectifiers. Supervision is based on a series of elements that incorporate microprocessors and are linked by an internal communications network.

The fundamental elements are:

Central Management Unit

It presents the status of the equipment, allows local action and configuration and acts as an external communication link.

Communication gateway (optional)

It allows remote communication via SNMP and WEB (http).

The central supervision unit and the gateway (optional) are integrated.

Rectifier module

It includes the intelligence necessary for monitoring its status, alarms, cooling control, output voltage, current limitations, etc.



TECHNICAL DETAILS		
System	TELSIS APS 48 V	TELSIS APS 125 V
Module	ZR3048 (48 V / 3000 W)	ZR30110 (125 V / 3000 W)
ELECTRICAL INPUT CHARACTERISTICS		
Voltage range	85 - 185 - 300 Vac	90 - 175 - 300 Vac
Frequency range		45 - 65Hz
Power factor	> 0.99 from 20% - 100% output power	
Efficiency	> 92% (> 50% output power)	
Maximum input current	19 A / module	
ELECTRICAL OUTPUT CHARACTERISTICS		
Rated Voltage	48 Vdc	125 Vdc
Voltage range	43 - 60V	80 - 155 V
Power range	3000 - 36000 W	3000 - 27000 W
Maximum current	720 A (@ 48 V)	225 A (@ 125 V)
MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS		
Protections	Automatic over-temperature shutdown, reverse polarity output, adjustable overvoltage limit and battery test	
Operating temperature range	-10°C ~ +50°C (70°C with automatic power reduction)	
Storage temperature	-20°C ~ +70°C	
Operating altitude	< 2500m	
Relative humidity	5 to 95% without condensation	
STANDARDS		
Marking	CE	
General directives	2004/108/CEE, EMC (61000-6-4, 61000-6-2), IEC 60146-1-1, EN 50178	

Block diagram

