

TELSIS APS Modular Rectifier Battery/Charger Systems

Description



The TELSIS AP range of rectifiers/battery chargers, has been designed to give response to latest needs of the battery market and to improve the features and flexibility of Telecom systems.

As its architecture is modular there's no need any over dimensioning which means smaller initial investment. It also allows the easy configuration of redundant systems n+1, n+2.

Thanks to its small size and high efficiency, these systems can be installed beside the loads to protect and because of this, it's required much less wiring, getting improvements in the distribution.

As a consequence of the embedded remote communication possibilities, the TELSIS APS systems can be controlled and supervised local and remotely at real time by a unique monitor centre.

This feature allows check possible problems with enough time in advance to programme maintenance interventions, both preventive and corrective, which will benefit customers with reduced costs (labour, travelling expenses, etc.)

The rectifiers are modular, high frequency switch-mode type, which allows parallel connection with automatic distribution of charge. These rectifiers work autonomously without the need of any auxiliary element and they are controlled and managed all the time by the powerful TELSIS APM Monitor Unit.



Telsis APS

Features

- > Small size
- > High efficiency
- > Easy maintenance
- > High level of control, management and supervision
- > Progressive power increase possibility
- > TELSIS APM Monitor with integrated Web server
- > Redundant systems configuration n+1, n+2
- > Applications:
 - Telecommunication systems
 - Switching circuits in high and middle voltage substations
 - Converters supply, emergency lighting systems, operating theatres, large facilities, etc
 - Signalling, control and command centres
 - Solar energy applications
 - DC safety applications

Telsis APS system elements

- > AC Distribution panel
- > Rectifiers frame
- > DC distribution panel
- > Mixed block of rectification and distribution
- > Back-up and continuity cabinet (Batteries)
- > Auxiliary systems
- > Monitor module – Telsis APM



APS architecture

electrical

railway

industrial

telecommunications

data centers

facilities



TELSIS APS 48 V (from 2000-18000 W)**Rectifier ZR2048**

Rack	N° of rectifiers	Range of power	Imax. Rack @ V Nominal output
1U / 19"	1 - 4	2000 - 8000 W	166 A
3U / 19"	1 - 9	2000 - 18000 W	375 A

TELSIS APS 48 V (from 3000-27000 W)**Rectifier ZR3048**

Rack	N° of rectifiers	Range of power	Imax. Rack @ V Nominal output
1U / 19"	1 - 2	3000 - 6000 W	120 A
5U / 19"	1 - 9	3000 - 27000 W	540 A

TELSIS APS 120 V (from 3000-27000 W)**Rectifier ZR30110**

Rack	N° of rectifiers	Range of power	Imax. Rack @ V Nominal output
1U / 19"	1 - 2	3000 - 6000 W	50 A
5U / 19"	1 - 9	3000 - 27000 W	225 A

*Rectifier Module* **ZR2048***Rectifier Module* **ZR3048***Rectifier Module* **ZR30110**

RECTIFIER MODULE GENERAL SPECIFICATIONS

Voltage	48 V	125 V
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Rectifier module	ZR2048	ZR3048	ZR30110
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INPUT

Nominal voltage	230V, 50/60Hz		
Voltage range	175V AC – 300V AC (full output power) 90V AC – 175V AC (reduced output power)		
Frequency range	45 – 65Hz		
Power factor	> 0.99 from 20% - 100% output power		
Efficiency	> 92% (>50% output power)		
Max. Input current	12.7 A	19 A	19 A

OUTPUT

Nominal power	48V	125 V	
Voltage range	43V – 58V	80V – 155V	
Max. Current	41.7A	60A	27.3A
Max. Power	2000W	3000W	3000W
Protection	Automatic shut-down/Output fuse with diode/Adjustable limit Over temperature/Inverse polarity/Overload		

STANDARDS

Certificates	CE marking
Directives	(2004/108/CEE)

OTHERS

Operative temperature range	-10°C to 50°C
Extended temperature range	50°C a 70°C with automatic power reduction (derating)
Storage temperature	-20°C to 70°C
Humidity	5 – 95% RH (without condensation)
Altitude	<2500m

TELSIS APM: Monitoring, Control and Management Unit for TELSIS APS Systems

The Telsis APM is the monitoring, control and management unit for TELSIS APS Systems. The fundamental elements are as follows:



- > Central supervision unit. This shows the status of the unit, allows local action and configuration and acts like an external communications link.
- > Communications gateway (optional): Allows remote communications via SNMP and WEB (http).
Note: The central supervision units and gateway (optional) are integrated in the Telsis APM manager.
- > Rectifier modules. These include the necessary intelligence for supervising their status, alarms, refrigeration control, output voltage, current limitations, and so.

In order to get access to the Telsis APS System, the user has available a web server (built-in in the Telsis APM) capable to provide complete access at real time, both local and remote.

The Web server let the user to communicate with the inverters in different languages and record the following data:

- > Status
- > Configuration
- > Events
- > Orders

