

DC POWER SYSTEMS

Smart Series



Dynamic Power

Smart Smallsize 1U Embedded Power System



Smart SYS N1360180R48



Smart SYS N1540180R48



Smart SYS N2540180R48



Features

- 1U sub-rack, easily to be embedded into any standard 19" rack or 300mm deep rack
- Up to 3kW system capacity
- Up to 0.99 power factor
- Intelligent fan-cooling
- Rectifier modules hot-swap
- N+1 rectifier module redundancy
- Advanced batteries monitoring and management
- ECO mode
- High power density

Applications

- Fiber optic network
- Access network
- Satellite communication ground station
- Transmission equipment
- Mobile communication
- ESS
- 5G base station/Micro base station

Introduction

- Smart Smallsize 1U Subrack system is a compact and intelligent power system, It can house up to 3*1KW rectifiers and 1*SC501 controller
- AC input, DC output and dry contact use front access and front operation.
- With micro-compact design, easy installation
- Two levels Low Voltage Disconnect (LVD) protection
- Compatible with rectifiers of the same size
- MCBs or fuses as output components can be supported depends on customer requirements.

Applicable Standards

Electrical	IEC 60950-1 EN 60950-1 UL 60950-1
EMC	EN 55022
Environmental	ETSI EN 300 019-2 ETSI EN 300 132-2 RoHS

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Input

AC Input	85Vac-300Vac
Input Current	≤7A (Per 1000w rectifier)
Frequency	45-65Hz
THDi	<5%@full load <10%@half load Rated input and output voltage

Output

Output Voltage	-53.5V Rated output voltage -53.5V float voltage -56.4V boost voltage
Output Current	≥54A
Voltage Regulation	≤ ± 1%
Current Sharing	≤ ± 5%
Efficiency	≥95%
Ripple and Noise	≤200mV Peak-Peak
Psophometric Noise	≤2mV

Options

Model	Smart SYS N1540180R48	Smart SYS N2540180R48	Smart SYS N1360180R48
AC Input	Reserved cable for single phase AC input Front operation and front connection		
Rectifier	SP III 48/1000HE		
DC Output	3KW Max.	3KW Max.	2KW Max.
DC Distribution	Load MCBs 2*30A+2*10A Battery MCBs:1*50A+1*30A Front operation	Load fuses: 6*15A Battery fuses:2*30A(parallel) Front operation	Load MCBs: 3*30A+3*10A Battery MCBs:1*50A+1*30A Front operation
DC Terminal	Loads & Batteries: push-in spring cage Front operation and front connection		
Low Voltage Disconnect	80A Bi-stable contactors should be used as BLVD & LLVD1 (Optional)		
Output Protection	Short-circuit protection Overload protection		

Monitoring

Function	Operation information acquires, battery and system management, system alarm, communicate with control center related ports
Controller	SC501
Battery Mid-Point	2 x Battery mid-point (Optional)
Dry Contact	6 relay outputs
Digital Input	6 DI
Interface	LCD
Temp Sensor	2

Other Specifications

Operating Temperature	-40°C to +70°C (-40°F to +167°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	Operating: ≤90% non-condensing Storage: ≤95% non-condensing
Dimensions(mm)	482.6W (19") x 44.4H (1U)x 280D
Weight	≤5kg (Without rectifier)