

ADVANCED SMR FEATURES

- Cost effective solution high integrated power supply including rectifier modules, controller, lightning protection, distributions
- Advanced battery management improves battery lifespan, especially suitable for poor AC mains application
- High/standard efficiency rectifier modules are compatible
- Hot plug rectifier module and fully front-access maintenance system for wall against or corner mounting
- LCD display with a state-of-the-art interface allow simple and convenient local set up, control and remote monitor
- Whole monitor ports, RS232/485/SNMP, dry contactors
- Extreme wide operation temperature -10~+55°C

APPLICATIONS

- Macro/micro BTS sites
- Broadband access
- Optical fiber transmission
- GSM-R

ADVANCED SMR SPECIFICATION

MODEL	SMR-48V120S	SMR-48V200S
Capacity	48 VDC / 120 A	48 VDC / 200 A
AC INPUT		
Phase	Single phase three wires	Three phase four wires
Nominal Voltage	220 VAC	3 x 380 VAC (3 Ph + N)
Voltage Range	85 ~ 300 VAC	138 ~ 520 VAC
Frequency Range	45 ~ 65 Hz	
DC OUTPUT		
Nominal Voltage	-53.5 VDC	
Voltage Range	-42 ~ -58.5 VDC	
Max. Current	120 A (30A Rectifier Module, optional up to 4 modules)	200 A (50A Rectifier Module, optional up to 4 modules)
SMR SYSTEM CONFIGURATION		
Component Requirement	Subrack + Monitor Module + 1 ~ 4units Rectifier Module + Distribute Breakers	
DISTRIBUTION BREAKERS		
AC Input Breaker	63 A / 2P * 1	63 A / 3P * 1
Battery Breaker	125 A / 1P * 2	125 A / 1P (Optional up to 4 ports)
DC Output Breaker	10 A / 1P * 2 + 16 A / 1P * 2 + 32 A / 1P * 2 + 63 A / 1P * 2	6 ~ 63 A / 1P (Optional up to 15 ports)
AC Output Breaker	16 A / 1P * 1	N / A
MANAGEMENT		
Communication	RS-232 + dry contact + SNMP	
PHYSICAL		
Mounting	19" rack	
Subrack Dimension (mm / in)	482.6 x 371.2 x 266.7 / 19 x 14.6 x 10.5 (6U)	482.6 x 378 x 223 / 19 x 14.9 x 8.8 (5U)
Rectifier Module Dimension (mm / in)	42.0 x 106 x 208 / 1.7 x 4.2 x 8.2	40.5 x 106 x 298.5 / 1.6 x 4.2 x 11.8
Monitor Module Dimension (mm / in)	42.5 x 85 x 230 / 1.7 x 3.3 x 9.1	42.5 x 85 x 230 / 1.7 x 3.3 x 9.1
Subrack Net Weight (kg / lb)	< 25 / 55.1 (w/o module)	
Rectifier Module Net Weight (kg / lb)	1.7 / 3.7	
Monitor Module Net Weight (kg / lb)	0.8 / 1.8	

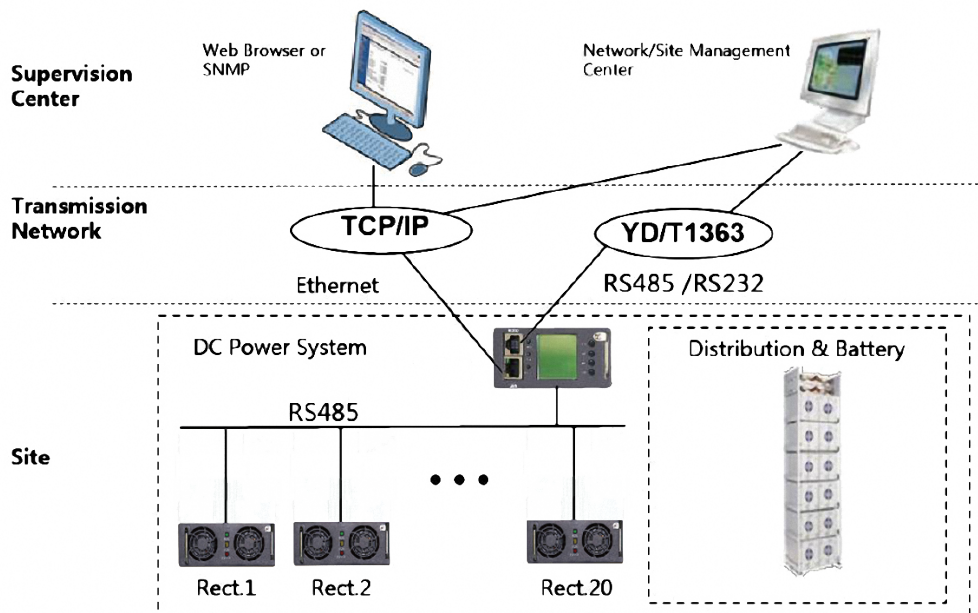
RECTIFIER MODULE OVERVIEW

The innovative design makes great customer advantages of high efficiency, reliable and cost-effective. With up to 96% efficiency, the power loss will be 60% reduced by, as well as a big TCO reduction.

MONITOR MODULE OVERVIEW

The monitor module "MC-2000" is the new generation DC power controller module. It adopts ARM7 CPU as primary controller, and RTOS as system platform. This module offers many features and functions, and a more robust, user-friendly, and easy-to-use interface.

SITE MONITORING SOLUTION



30A/50A RECTIFIER MODULE SPECIFICATION

RECTIFIER MODULE INPUT	
Voltage Range	85 ~ 300 VAC (Phase Voltage)
Frequency Range	45 ~ 65 Hz
Power Factor	≥0.99 @ 220 VAC (100% load)
THDi	≤5% @ 50% ~ 100% load
Protection	L-line fuse, the Varistors for transient protection
RECTIFIER MODULE OUTPUT	
Nominal Voltage	+53.5 VDC
Capacity	1800 W @ 175 ~ 300 VAC, 720 W @ 85 ~ 174 VAC for 30 A module (RPM-48V30A) 3000 W @ 175 ~ 300 VAC, 1200 W @ 85 ~ 174 VAC for 50 A module (RPM-48V50A)
Dynamic Voltage Regulation	±5.0% for 10-90% or 90-10% load variation, regulation time < 200us
Load Regulation	±0.5% from 10% to 100% load
Ripple and Noise	< 200 mV peak to peak, 30 MHz bandwidth, < 2 mV rms psophometric
Protection	Overvoltage shutdown, Hot swappable - Inrush current limiting Fuse, Short circuit proof, High temperature protection
Efficiency	Standard module "RPM-48V30AS"/"RPM-48V50AS" : ≥93.0%(Peak) @ 220 VAC, ≥92.5% @ 220 VAC & 100% load Medium module "RPM-48V30AM"/"RPM-48V50AM" : ≥95.0%(Peak) @ 220 VAC, ≥94.0% @ 220 VAC & 100% load High module "RPM-48V30AH"/"RPM-48V50AH" : ≥96.0%(Peak) @ 220 VAC, ≥95% @ 220 VAC & 100% load
RECTIFIER MODULE OTHER PARAMETER	
Isolation	3.0 KVAC – input and output, 1.5 KVAC – input earth, 0.5 KVDC – output earth
Indicator LEDs	Green--normal, Yellow--protection warning, Red--failure
Alarms	Low mains shutdown, High temperature shutdown, Rectifier failure, Output overvoltage shutdown, Fan failure
Warnings	Rectifier in power derating mode, Remote battery current limit activated, Input voltage out of range, Low voltage alarm, LVD activated
MONITOR MODULE MC-2000 KEY FUNCTIONS	
Remote Metering	AC voltage, Bus voltage, Load current, Battery current, Battery temperature, Ambient temperature, Rectifier modules voltage/current
Remote Control	Equalizing and floating charge of rectifier module, Voltage regulating of rectifier module, Current limiting of rectifier module, On/Off control of rectifier module, Load disconnect, Battery disconnect
Battery Management	Boost Charge, Temperature Compensation, Battery Test, Low Voltage Disconnect, Battery Capacity Prediction
Energy Saving Mode	High/standard efficiency modules, mixture management, Modules running cyclic, Modules running dormancy