

## High - frequency communications switching power supply

### Application:

The advanced modular design makes the whole system is small, can provide sufficient power to meet the requirements of the communication system. In line with the characteristics of the rack-mounted , suitable for all kinds of exchange, room, base stations, satellite communications, data communications , railways and power systems and other power fluctuations in a wide range of occasions .

### System Components

- SETEC MINI 53000 system consists of SET1648 rectifier, SETM16 monitoring modules, power distribution unit, sub-rank etc.

48V/60A DC power system consists of 2pcs 30A module and one distribution, one monitor



## Features:

- Circuit of the Rectifier modules have two parts,one is PFC adjust;the other is DC/DC transformation.All technology make the wide input voltage range(85v-290v).
- High efficiency rectifier modules used soft switch technology,while load rate 10%,then efficiency can be 91%,50% load the efficiency can be above 96%
- Adopted stepless current limiter technology,output current is continuously adjustable.
- Adopted stepless temperature control speed,it can reduce power consumption and prolong the life of the fan
- Sharing load,equalized-current imbalance<3%
- Optional Ethernet interface through SNMP and/or TCP/IP
- Controller MCU
- Digital signal collection via internal RS485 bus; RS232 interface for remote operation
- Hot-swappable technology,plug and play,N+1 redundancy,extension slots
- Using Low pressure difference automatic current sharing technology between modules
- EMI circuit provide a stable, reliable power to the load
- Fan use stepless temperature control to reduce losses and noise
- Dual input AC and DC load power supply is reliable
- Pairs of soft-switching technology and circuit topology
- Dry contact alarm and out of the system function, more secure and more stable
- 2U height, 19 inch rack,light weight ,high power density.
- Active power factor compensation technology, the power factor is 0.9999.

## SETM16 monitoring module

Monitoring module monitors the working status of each rectifier module, has function of collecting, displaying and setting the operation parameters of the system. It can also communicate with an external computer and form a local or remote centralized monitoring system.

### Monitoring module monitoring content

- LCD display blue background and white information, including date, system voltage, load current, battery current, input voltage, load condition (connect or disconnect), battery temperature etc.
- through the system menu set relevant parameters , including system voltage setting, charge management , alarm limit setting, low pressure breaker setting, time setting , modify passwords , language selection, module configuration, etc.
- Alarm and recording function: through RS485 connect and communicate between rectifier module and monitor module, there are three types of alarms: ‘emergency’ alarm, the main alarm ,and general alarm.

## Distribution unit

### Product feature

- shunt load with short-circuit and overcurrent protection, shunt capacity can be adjusted according to user requirements .
- Battery input should connect with an external fuse protector or air switch, has short circuit, over current protection and alarm functions , and can detect fault conditions .
- Power off auto/manual,load off on/off control switch,etc
- Battery current,the total load current can be detected
- All DC outputs have fault detection function
- LVDS2 function to protect load and battery
- Capacity of MCB in each channel is 50A.

## Communication protocol

### Feature

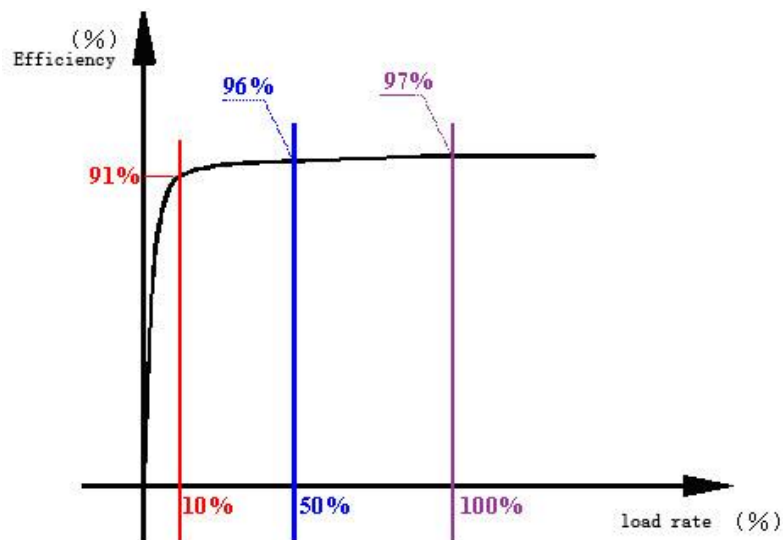
- safe operation: With the host computer own password and dual authentication, greatly protect system parameters safety.
- Parameter setting is comprehensive, detailed: slave module time setting, temperature compensation setting, output over/low voltage setting, boost charge time setting, over-voltage and recovery voltage setting, boost charge setting.

## 48V rectifier module

### Feature

- When load rate is 10%, efficiency can reach 91%; when load rate is 50%, efficiency can reach above 96%.
- Stepless current limiting technology, output current is continuously adjustable.
- Adopt stepless temperature control automatic speed adjustment, reduce power consumption and extend the life of the fan.
- Sharing load,Equalized- current imbalance  $\leq 3\%$
- 2U height, light weight, high power density

◎ High conversion efficiency



## Technical data

Model			SET1648	
Input voltage (AC)	85V-290V			
Output voltage (DC)	48V( 42V-59V continuously adjustable)			
Output current (A)			30A	
Max. power (W)			1600W	
Operating temperature	-25℃ ~ 65℃			
Relative Humidity	≤97%RH			
Load regulation	≤0.5%			
Voltage regulation	≤0.10%			
Dimension	88*103*261(mm) H*W*D			
Weight	2.4kg			