

## System Introduction :

This switch mode DC power supply system developed by our company is a high effective, high intelligent telecommunication power supply system consisting of -48V/20A high frequency switch mode rectifier modules developed by our company, The switch mode DC power supply system can suitable for the various systems of telecommunication, Such as program-controlled switchboard, mobile phone system, fiber-optic system, digital microware system, railway telecommunication station, and call-transmission communication station.

The system is of modular design with international standards. The modules are easily accessible from the front. As N+1 configuration is adopted, it is very convenient for users to change or enlarge the configuration. The system also can be installed beside communication equipment because of its excellent electricity and magnet compatibility and strict safety requirements. With perfect centralized monitor and remote control and intelligent management function, the system can perform remote monitor and control for various communication power supplies without human attendance.

YK-48/20 is a microprocessor programmer switch mode single-phase input rectifier module to provide the 48V/20A DC power for communication. The interior circuit of rectifier module is adopted the full-wave bridge rectifier and pulse width modulation technology and power factor compensation technology. It's working frequency is 100KHz. It has multifunction display and adjustment. With the application of the programmer monitoring dot matrix LCD, the working contents and operating status of rectifier module can be

displayed completely and clearly.

## Features :

- Ultra-width input voltage range.
- Output power: 1000W
- Micro-processor control and RS-485 communication interface.
- Back-lighting LCD display, English and Chinese characters display, can display the status and alarms of rectifier module
- Because pulse-width modulation technology is adopted, it has high-efficiency and high power-factor.
- Interior temperature-controlled fan, rectifier use forced wind cooling
- Audible noise less than 50dB.
- Easy to change and maintain for fan filter.
- Conforming to EN50081

YK-48/20 SMR (1U)

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## Protections :

### ● Input Transient Voltage Protection

MOVs are installed to protect AC voltage transient and spike.

### ● AC mains High or low

Rectifier shuts down starting from input voltage higher than 265V or lower than 170V for 1P2W, and automatically turns on after mains are recovered.

### ● Over Temperature Protection (OT)

When internal temperature exceeds 70°C (55~90°C, adjustable) and above safety limit, rectifier is inhibited, when internal temperature down to 70°C and below, rectifier automatically turns on after mains are recovered.

### ● High Voltage Alarm (HV)

Occurs if the output voltage exceeds 58Vdc (55~63V, adjustable) and the red LED is on.

### ● Over Voltage Shut Down (OVSD)

When output voltage exceeds 61Vdc (57~63V, Adjustable), rectifier will be shut down instantly and red LED is on.

### ● Low Voltage Alarm (LV)

When output voltage is below 48Vdc(42~52V, Adjustable), red LED will be turned on.

## Technical Specifications :

### A48/20/40 EZ2 SHELF

#### AC INPUT

System operating voltage : 170~265Vac (1P2W+G)

Frequency range : 47~63Hz

Input current : 16A(MAX. )

#### DC OUTPUT

Voltage : 48Vdc

Current : 40A

Audible noise :  $\leq 60$ dBa

Dimensions(mm) : 44.3(H)\*440(W)\*455(D)

### YK-48/35 SMR

#### AC INPUT

Voltage : 150~275Vac(1P2W+G)

Current : 7A(MAX.)

Frequency range : 47~63Hz

Power factor :  $\geq 0.99$  at 50%~90% Load

Efficiency :  $\geq 90\%$  at 50%~90% Load

Inrush current :  $\leq$  nominal input rate current value.

Surge protection : ANSI/IEEE C62.41

EMI : EN55081、55082

Safety : EN60950

## DC OUTPUT

Voltage : Float 44~56Vdc / EQ 50~60Vdc  
(Adjustable)

Current : 0~20A

Power Max. : 1000W

Over current limit : 3~20A(Adjustable)

Voltage regulation :  $\leq 2\%$

Current share :  $< \pm 5\%$

Soft start :  $\geq$  sec 3

Dynamic transient response :  $MAX \leq 5\%$  , 1ms  
recovery  $< 1\%$

Audio noise :  $\leq 32$ dBrc

Wide-band noise : 5mVrms at 10KHz~100MHz

Audible noise :  $\leq 50$ dBa

## OTHER

Working environment temperature : -5°C~50°C

Humidity : (non-condensing) 10~90% RH

Dimensions(mm) : 44.3(H)\*145(W)\*370(D)

Weight : 5Kg

**YK-48/20/40 EZ2 SHELF**