

Switching Power Supply

ESPS48150_DS201 & ESPS48200_DS403

Scenarios

- ◆ Medium and small-sized base stations
- ◆ Indoor and outdoor communication cabinets, computer rooms, data centers

Features

- ◆ Rectifier module efficiency up to 96%
- ◆ wide input voltage range: 85Vac~300Vac
- ◆ hot-swappable modular design, front access wiring
- ◆ multiple battery management functions
- ◆ remote operation and maintenance: configured with ethernet and RS485/RS232 interface, support Modbus_RTU/SNMP, web and network management system
- ◆ user-friendly interface: configured with a LCD display, buttons and indicators.

Introduction

ESPS48 series is 19" embedded switching power supply used for -48Vdc communication equipment. It consists the rectifying unit, a monitoring unit, a DC distribution unit and a BMS. The efficiency of the RM4850DS rectifier module reaches 96%. With hot-swappable modular design, all the units can be easily installed and replaced easily.

ESPS48150_DS201



ESPS48200_DS403



Table of Configuration

Item		ESPS48150_DS201	ESPS48200_DS403
1	Dimension(W*H*D)	19 inch*2U*400mm	19 inches*4U*400mm
2	AC input circuit breaker	1U/1P , 50A*1pcs	1U/4P, three phase four wire, 63A/4p*2 or 100A/4P*2pcs
3	AC SPD	1P+N, ClassII, In20kA, Imax40kA, (8/20μs), 1pcs	3P+N 230/400VAC, ClassII, In20kA, Imax40kA, (8/20μs), 1pcs
4	Rectifier module	3KW per module, 9KW max.	3KW per module, 12KW max.
5	DC lightning protector	Class II, DC48V, In20kA, Imax40kA, (8/20μs), 1pcs	
6	Load circuit breaker	LLVD: 1U/1P DC, 32A*1+16A*2 BLVD: 1U/1P DC, 32A*3+16A*2	LLVD: 1U/1P DC, 63A*2+32A*2+16A*1 BLVD: 1U/1P DC, 125A*2+63A*3
7	Battery circuit breaker	1U/1P DC, 50A*2	1U/1P DC, 100A*2, 6 max.
8	Monitoring unit	ZTKD PMU-01, 1 pcs	
9	User interface module	ZTKD SIU-01, 1 pcs	

Rectifier

input voltage	85 ~ 300VAC(Nominal 220VAC)
input current max.	<18.5A
power factor	>0.99
THDi	<5%
output voltage	42 ~ 58V DC (Nominal 53.5V DC)
output current max.	62.5A
efficiency	96%
input protection	4KV lightning protection
output protection	58.5 Vdc overvoltage shutdown
operating temp.	-40°C ~ +75°C



RM4850DS

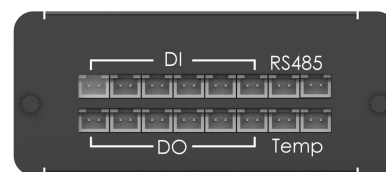
Monitor

Introduction

- Monitor the status of the rectifier, PV module, BMS, and it sends out audio and visual alarms.
- Configured with RS485 and ethernet port which support MODBUS_RTU and SNMP, the monitor enables remote detecting, remote control and remote adjusting.
- User-friendly interface includes LED indicators, buttons, and a LCD display.



ZTKD PMU-01



ZTKD SIU-01

Functions

Detection

AC input	voltage, current, frequency
DC output	voltage, current
Load	total load current
Battery	lithium BMS, voltage, current, capacity, remaining capacity, number of cycles, temperature
Environment	ambient temperature

Alarm

Output voltage
output current
current limiting point
AC input voltage
temperature

Rectifier management

Rectifier power-on and power-off control
Rectifier operation status
Rectifier output power control
Rectifier Over-voltage protection
Rectifier dormancy management
PV module management

Load management

Load low voltage disconnection (LLVD)
Battery low voltage disconnection (BLVD)

Battery management

Battery manual and automatic control
Battery equalizing and floating charge
Disconnection protection
Battery charging management
Battery testing
Battery temperature compensation
Battery high temperature protection
Battery capacity detection and report
Battery backup time setting