Embedded DC Power System

ETP4830-A1



Introduction

ETP4830-A1 can convert from 220V or dual-wire of 110V input to stabilized -48V DC output. It can also be configured with 48V/15A rectifiers and provide 30A output. All the function units have standard sized design with 1U. ETP4830-A1 can be embedded in 19-inch rack or cabinet or other scenarios. The system can provide excellent performance such as intelligent battery management, remote monitoring, etc.



ETP4830-A1

Features

- Wide range of AC input voltage from 85V to 300V
- Wide operation temperature range of rectifier from -40°C to 75°C
- Online-swappable rectifier provides easy installation and maintenance
- Standard installation structure design, adapting to various scenarios
- Compact design, saving space and installation cost
- High rectifier efficiency over 96% helps to save energy
- Excellent rectifier dormancy function helps to increase system efficiency
- Intelligent battery management and protection helps to prolong battery lifespan
- Support environment monitoring and remote management through dry contact, serial interface or Ethernet interface



15A rectifier



Monitor unit SMU01A



Monitor unit SMU01B



Monitor unit SMU01C

Application Scenarios

- Access network
- Transmission network
- Communication network of enterprise

Specifications

Dimension							
Cooling mode Installation mode Front inlet and front outlet Maintenance mode Protection level Input mode Input mode Input mode Input wording Input voltage Input voltage Input voltage Input frequency Input frequency Input frequency Input frequency Input wording Input voltage Input wording Input wo	System	Dimension	442mm(W)×255mm(D)×43.6mm(1U,H)				
Installation mode		Weight	≤8kg(fully loaded)				
Cabling mode Maintenance mode Protection level IP20 Input mode Input woltage Input voltage Input voltage Input voltage Input voltage Input voltage Input woltage SEA/10KA, 8/20us Output voltage A2~58VDC, rated value: 50Hz/60Hz SED Maximum capacity Battery branch Load branch Load branch INFORMATION		Cooling mode	Natural cooling				
Maintenance mode Protection level IP20 Input mode Input woltage Input voltage Input frequency Single phase/ dual-live wire Input frequency SPD SkA/10KA 8/20us Output voltage A2~S8VDC, rated value: 50Hz/60Hz SPD Maximum capacity Battery branch Load branch Load branch Operating temperature A0°C-+70°C Operating humidity Altitude Type Input voltage Rectifier Rectifier Rectifier Maintenance mode Protection level IP20 Input woltage A2~S8VDC, rated value: 50Hz/60Hz Storage temperature A2~S8VDC, rated value: 53.5VDC A2~S8VDC, rated value: 53.5VDC Maximum capacity SkW(2×1000W) Sturde value: 53.5VDC A2~S8VDC, rated value: 53.5VDC A2~S8VDC, rated value: 53.5VDC A2~S8VDC, rated value: 53.5VDC A2~S8VDC, rated value: 53.5VDC A3—S8VDC, rated value: 53.5VDC A40°C-+70°C Operating temperature A40°C-+70°C Operating humidity S5%-95%(non-condensing) Altitude A10°C-+75°C (derated 20VAC Rated power A40°C-+75°C (derated 20VAC Rated power A40°C-+75°C (derated output above 55°C) Input voltage Power factor A40°C-+75°C (derated output above 65°C) Type Signal input A1.1kg SMU01A SMU01B SMU01C Signal input A1.2 AI A2 DI A4arm output A dry contact Communication port RS232, RS485, FE RS232, RS485		Installation mode	Installed on 19-inch rack, or embedded in cabinet				
Protection level IP20		Cabling mode	Front inlet and front outlet				
Input mode Single phase/ dual-live wire		Maintenance mode	Front access, support module grade alteration				
Input voltage		Protection level	IP20				
Distribution Input frequency 45~66Hz, rated value: 50Hz/60Hz		Input mode	Single phase/ dual-live wire				
SPD SkA/10kA, 8/20us		Input voltage	220VAC/110VAC				
DC Maximum capacity 2kW(2×1000W)		Input frequency	45~66Hz, rated value: 50Hz/60Hz				
DC Maximum capacity 2kW(2×1000W)		SPD	5kA/10kA, 8/20us				
Distribution Battery branch 1×20A(fuse)		Output voltage	42~58VDC, rated value: 53.5VDC				
Load branch 2×20A(fuse)		Maximum capacity	2kW(2×1000W)				
Controller Communication port Controller Communication port Controller Communication port Controller Controller Coperation Controller Coperation		Battery branch	1×20A(fuse)				
Storage temperature		Load branch	2×20A(fuse)				
Controller	Environment	Operating temperature	-40°C~+70°C				
Operating humidity 5%~95%(non-condensing) Altitude 0~4000m Rectifier Type R4815N1 R4815G1 Input voltage 85VAC~300 VAC, rated 220VAC Rated power 1000W(176~300VAC) 870W(176~300VAC) Working temperature -40°C~+75°C (derated output above 55°C) (derated output above 65°C) Dimension 95.5mm(W)×208mm(D)×40.8mm(H) ≤1.5kg Cooling mode Forced cooling Power factor ≥0.99 THD ≤5% Controller Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Storage temperature	-40°C~+70°C				
Type		Operating humidity	5%~95%(non-condensing)				
Input voltage		Altitude	0~4000m				
Input voltage							
Rated power 1000W(176~300VAC) 870W(176~300VAC) Working temperature -40°C~+75°C (derated output above 55°C) -40°C~+75°C (derated output above 65°C) Dimension 95.5mm(W)×208mm(D)×40.8mm(H) ≤1.5kg Cooling mode Forced cooling Power factor ≥0.99 THD ≤5% Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485	Rectifier						
Rectifier Working temperature -40°C~+75°C (derated output above 55°C) -40°C~+75°C (derated output above 65°C) Dimension 95.5mm(W)×208mm(D)×40.8mm(H) Weight ≤1.1kg ≤1.5kg Cooling mode Forced cooling Power factor ≥0.99 THD ≤5% Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Input voltage					
Working temperature (derated output above 55°C) (derated output above 65°C) Dimension 95.5mm(W)×208mm(D)×40.8mm(H) Weight ≤1.1kg ≤1.5kg Cooling mode Forced cooling Power factor ≥0.99 THD ≤5% Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Rated power					
Weight ≤1.1kg ≤1.5kg Cooling mode Forced cooling Power factor ≥0.99 THD ≤5% Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Working temperature					
Cooling mode Forced cooling Power factor ≥0.99 THD ≤5% Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Dimension	95.5mm(W)×208mm(D)×40.8mm(H)				
Power factor ≥0.99 THD ≤5% Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Weight	≤1.1kg	1.1kg ≤1.5kg			
THD ≤5% Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Cooling mode	Forced cooling				
Type SMU01A SMU01B SMU01C Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		Power factor	≥0.99				
Controller Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485		THD	≤5%				
Controller Signal input 7 DI, 2 AI 2 DI Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485							
Controller Alarm output 8 dry contact 4 dry contact Communication port RS232, RS485, FE RS232, RS485	Controller			SMU01B			
Communication port RS232, RS485, FE RS232, RS485					2 DI		
		•	8 dry contact			4 dry contact	
Display mode LCD			RS232, RS485, FE	RS232, RS485		2, RS485	
		Display mode	LCD				

Copyright © Huawei Technologies Co., Ltd. 2013. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

General Disclaimer