# **Embedded Power System**

## ETP4860-B1A2



## Introduction

ETP4860-B1A2 is an AC/DC embedded power system with excellent performance such as high power efficiency, intelligent battery management, remote management, wide range of AC/DC input voltage, etc. The system can configure 1U 30A high rectifier module, and provides 4kW output. ETP4860-B1A2 can be embedded in 19-inch rack or cabinet.



ETP4860-B1A2

#### **Features**

- Wide range of AC input voltage from 85 V AC to 300 V AC
- Support high-voltage DC input (100 to 420V DC)
- Hot-swappable rectifier and DC distribution unit
- Standard structure design, adapt 19/21 inch installation
- Compact design(only 1U in height), saving user space
- High rectifier efficiency over 96% helps to save energy
- Excellent rectifier dormancy function increases system efficiency
- Intelligent battery management and protection help to prolong battery lifespan
- Support environmental signal monitoring and remote management through dry contact, serial interface or Ethernet interface



15A rectifier



30A rectifier



Monitoring unit SMU11C



Monitoring unit SMU11B

## **Specifications**

Product Type		ETP4860-B1A2		
System	Dimension	442 mm (W) × 255 mm (D) × 43.6 mm (1U,H)		
	Weight	≤ 4 kg (without rectifiers)		
	Cooling Mode	Natural cooling		
	Installation Mode	Installed on 19-inch rack or cabinet		
	Cabling Mode	Front inlet and front outlet		
	Maintenance Mode	Front		
	Protection Level	IP20		
Input	Input Mode	220 V AC single phase or 110 V AC dual-live wire	HVDC (High-voltage DC remote power supply)	
	Input Voltage	85–300 V AC, rated value: 220 V AC	100–420V DC rated value: 200–380V DC	
	Input Frequency	45–66 Hz, rated value: 50/60 Hz	/	
	Input Capacity	-		
Output	AC Output	-		
	Output Voltage	42–58 V DC, rated value: 53.5 V DC		
	Maximum Capacity	4 kW		
	Battery Breakers	1 × 50 A/1P		
	LLVD Breakers	-		
	BLVD Breakers	4 × 32 A/1P, 1 × 16 A/1P		
	SPD	-		
Environment	Operating Temperature	-40ºC to +65ºC		
	Storage Temperature	−40°C to +70°C		
	Operating Humidity	5% – 95% (non-condensing)		
	Altitude	$0-4000\mathrm{m}$ (When the altitude ranges from 2000 m to 4000 m, the operating temperature decreases by 1°C for each additional 200 m.)		

Product Type		R4815G1	R4830G1	
Rectifier	Efficiency	> 95% (60% to 100% load) > 96% Max	> 95% (30% to 90% load) > 96% Max	
	Maximum Power	1000W (176 to 300 V AC)	2000W (176 to 300 V AC)	
	Input Voltage	85 to 300 V AC	85 to 300 V AC / 85 to 400 V DC	
	Working Temperature	-40 °C to +75 °C (full output below 65 °C), ETS EN 300-019	-40 °C to +75 °C (full output below 55°C), ETS EN 300-019	
	Dimension	95.5 mm(W) $\times$ 208 mm(D) $\times$ 40.8 mm(H)	95.5 mm(W) × 208 mm(D) × 40.8 mm(H)	
	Weight	≤1.2 kg	≤1.2 kg	
	Cooling Mode	Forced Air cooling (Built-in fan)	Forced Air cooling (Built-in fan)	
	Power Factor	≥ 0.98 (> 50% load at 230 V AC)	≥ 0.99 (> 50% load at 230 V AC)	
	THD	≤ 5% (> 65% load at 230 V AC)	≤ 5% (> 50% load at 230 V AC)	
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Product Type		SMU11C	SMU11B	
Controller	Signal Input	5 DI, 1 gate,1 Btemp, 1 Etemp, 2 battery mid-point voltage detection		
	Alarm Output	2 DO (compatible with DI)		
	Communication Port	CAN, RS485(northbound), RS485(southbound)	CAN, FE(northbound), RS485(southbound)	
	Display Mode	No LCD, support mobile APP	No LCD, support web	

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