

Embedded Power System



ETP4890-A2

Introduction

ETP4890-A2 is an AC/DC embedded power system with excellent performance such as high power efficiency, intelligent battery management, remote management, wide range of AC input voltage, etc.

The system can configure 1U 15A/30A high rectifier modules, and provides 90A rated current output.

ETP4890-A2 can be embedded in 19-inch rack or cabinet.

Features

- Wide range of AC input voltage from 85 Vac to 300 Vac
- Wide operation temperature range of rectifier from – 40°C to 75°C
- Hot-swappable
- Standard structure design, adapt 19/21 inch installation
- Compact design(only 2U 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

Scenarios

- Access network
- Transmission network
- Communication network of enterprises



ETP4890-A2



15A rectifier



30A rectifier



Monitoring unit
SMU01A



Monitoring unit
SMU01B

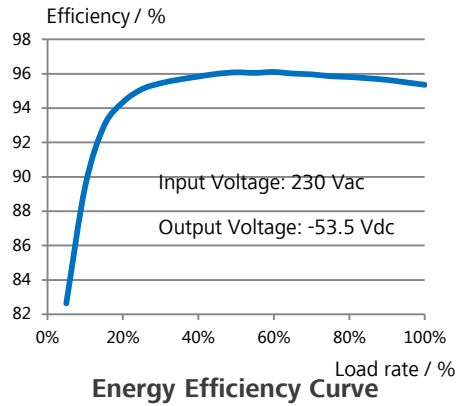


Monitoring unit
SMU01C

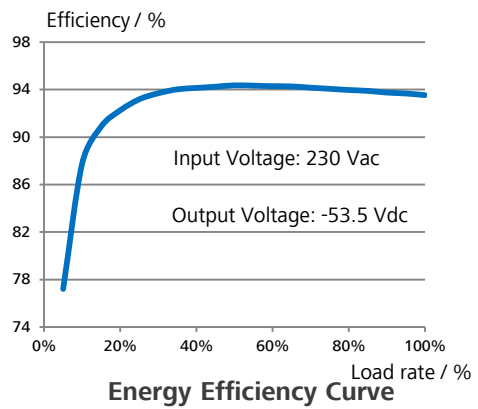
Efficiency Curve



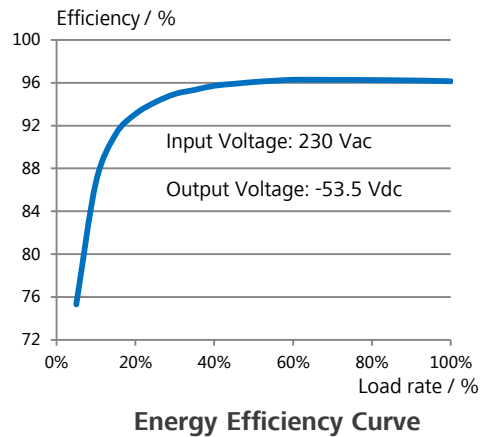
**Rectifier -1600 W-96%
(R4830G1)**



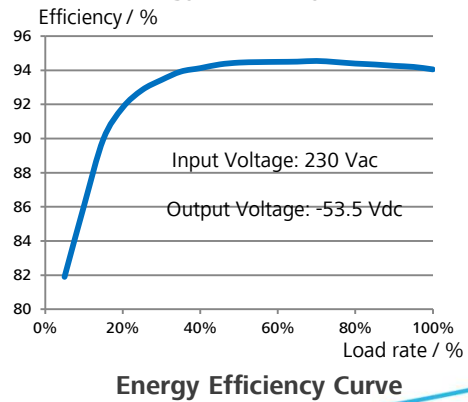
**Rectifier -1740 W-94%
(R4830N2)**



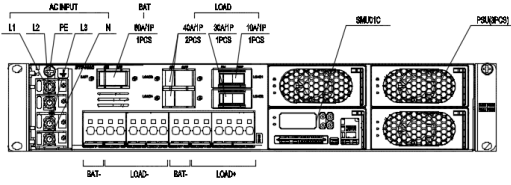
**Rectifier -870 W-96%
(R4815G1)**



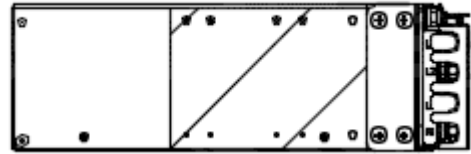
**Rectifier -1 kW-94%
(R4815N1)**



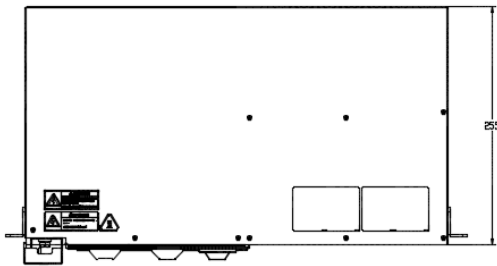
Dimension Drawings



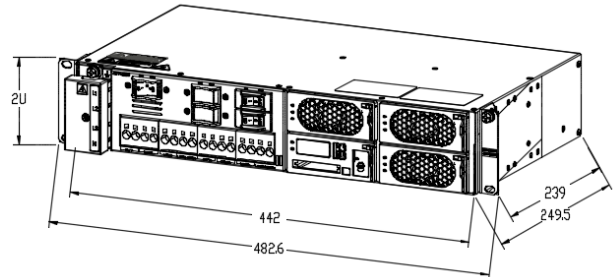
Front View of ETP4890-A2



Side View of ETP4890-A2

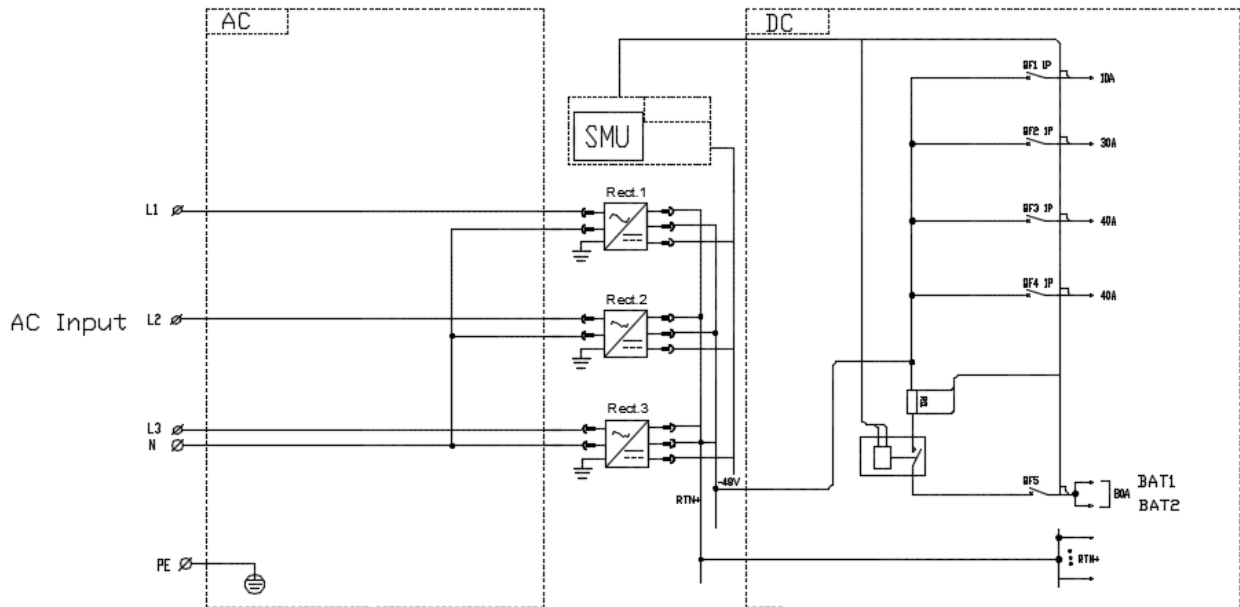


Top View of ETP4890-A2



Overview of ETP4890-A2

Schematic Diagram



ETP4890-A2

Specifications

Product Type		ETP4890-A2
System	Dimension	442 mm (W) × 255 mm (D) × 86.1 mm (2U,H)
	Weight	≤ 10 kg (fully loaded)
	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	AC Input Voltage	85–300 Vac, rated value: 220 Vac , 220/380 Vac three-phase or 220 Vac single phase or 110 Vac dual-live wire
	Input Frequency	45–66 Hz, rated value: 50/60 Hz
	Input Capacity	-
Output	AC Output	-
	Output Voltage	42–58 Vdc, rated value: 53.5 Vdc
	Maximum Capacity	4.8 kW
	Battery Breakers	1 × 80 A/1P
	LLVD Breakers	-
	BLVD Breakers	1 × 10 A/1P, 1 × 30 A/1P, 2 × 40 A/1P
	SPD	-
EMC & Safety	EMC	CISPR 22/EN 55022, IEC 61000-3-3, IEC 61000-3-12, IEC61000-4-11
	Safety	IEC 60950-1/GB 4943
Environment	Operating Temperature	-40°C to +70°C (NOTE: ETP4890-A2 can still run 8 hours at the temperature of 70°C)
	Storage Temperature	-40°C to +70°C
	Operating Humidity	5% – 95% (non-condensing)
	Altitude	0 – 4000 m (When the altitude ranges from 2000 m to 4000 m, the operating temperature is decreased by 1°C for each additional 200 m)

Product Type	R4830G1	R4830N2	R4815N1	R4815G1	
Rectifier	Efficiency	> 95% (25% to 100% load) > 96% Max	> 93% (30% to 100% load) > 94% Max	> 95% (60% to 100% load) > 96% Max	
	Maximum Power	1600W (176 to 300 Vac)	1740W (176 to 300 Vac)	1000W (176 to 300 Vac)	870W (176 to 300 Vac)
	Input Voltage	85 to 300 Vac / 85 to 400 Vdc	85 to 300 Vac		
	Working Temperature	-40 °C to +75 °C (full output below 55°C), ETS EN 300-019	-40 °C to +75 °C (full output below 45°C), ETS EN 300-019	-40 °C to +75 °C (full output below 55°C), ETS EN 300-019	-40 °C to +75 °C (full output below 65°C), ETS EN 300-019
	Dimension	95.5 mm(W) × 208 mm(D) × 40.8 mm(H)			
	Weight	≤1.2 kg	≤1.3 kg	≤1.1 kg	≤1.2 kg
	Cooling Mode	Forced Air cooling (Built-in fan)			
	Power Factor	≥ 0.99 (> 50% load at 230 Vac)	≥ 0.98 (> 50% load at 230 Vac), ≥ 0.99 (100% load at 230 Vac)		≥ 0.98 (> 50% load at 230 Vac)
	THD	≤ 5% (> 50% load at 230 Vac)			≤ 5% (> 65% load at 230 Vac)

Product Type	SMU01A	SMU01B	SMU01C	
Controller	Signal Input	7 digital inputs (need interface Unit MUE02A or MUE02B)	7 digital inputs (need interface Unit MUE02A or MUE02B), 1 analog input	2 digital inputs, 2 analog inputs
	Alarm Output	8 dry contacts (need interface Unit MUE02A or MUE02B)		4 dry contacts
	Communication Port	RS232, RS485, FE	RS232, RS485	
	Display Mode	LCD		

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