## ETP4830-A1

# HUAWEI

### Introduction

ETP4830-A1 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 2 pieces of 1U 15A high rectifier modules, and provides 30A rated current output.

ETP4830-A1 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 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

- Access network
- Transmission network
- Communication network of enterprises



ETP4830-A1



15A rectifier



Monitoring unit SMU01A



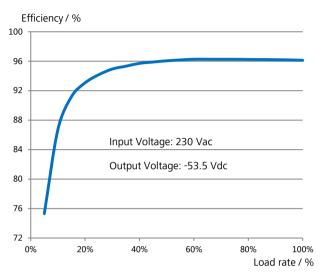
Monitoring unit SMU01B



Monitoring unit SMU01C



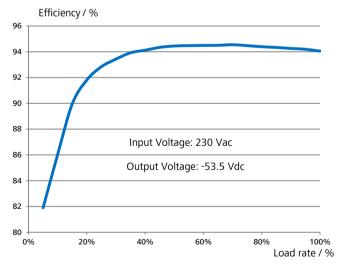
Rectifier -870 W-96% (R4815G1)



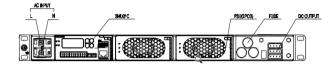
**Energy Efficiency Curve** 

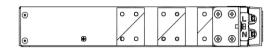


Rectifier -1 kW-94% (R4815N1)



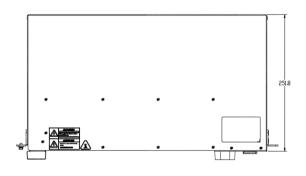
**Energy Efficiency Curve** 



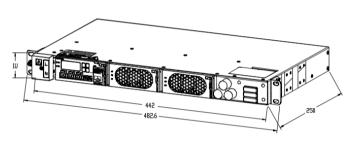


Front View of ETP4830-A1

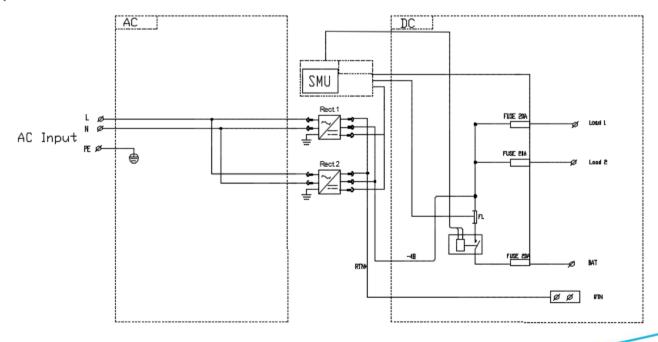
Side View of ETP4830-A1







Overview of ETP4830-A1



ETP4830-A1

Product Type		ETP4830-A1					
Dimension		482.6 mm (W) × 255 mm (D) × 43.6 mm (1U,H)					
System	Weight	≤ 8 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					
	AC Input Voltage	85–300 Vac, rated value: 220 Vac, 220 Vac single-phase or 110 Vac dual-live wire					
Input	Input Frequency	45–66 Hz, rated value: 50/60 Hz					
	Input Capacity	-	-				
	AC Output	-					
	Output Voltage	42–58 Vdc, rated value: 53.5 \	/dc				
	Maximum Capacity	2 kW					
Output	Battery Breakers	1 × 20 A (fuse)					
	LLVD Breakers	-					
	BLVD Breakers	2 × 20 A (fuse)					
	SPD	-					
EMC & Safety	EMC	CISPR 22/EN 55022, IEC 61000-3-2, IEC 61000-3-3, EN61000-4-11					
Zine a surety	Safety	IEC/EN60950-1/GB 4943					
	Operating Temperature	-40°C to +70°C (NOTE: The system can run for 8 hours at 70°C)					
	Storage Temperature	−40°C to +70°C					
Environment	Operating Humidity	5% – 95% (non-condensing)					
	Altitude	0 – 4000 m (When the altitude ranges from 2000 m to 4000m, the operating temperature decreases by 1°C for each additional 200 m)					
Pr	oduct Type	R4815G1		R4815N1			
	Efficiency	> 95% (60% to 100% load) > 93% (30% to 100% load) > 96% Max > 94% Max					
	Maximum Power	870 W (176 to 300 Vac) 1000 W (176 to 300 Vac)			6 to 300 Vac)		
	Input Voltage	85 to 300 Vac					
	Working Temperature	-40 °C to +75 °C (full output below 65°C), -40 °C to +3 ETS EN 300-019 ETS EN 300-1		+75 °C (full output below 55°C), I-019			
Rectifier	Dimension	95.5 mm(W) × 208 mm(D) × 4	10.8 mm(H)				
	Weight	≤1.2 kg		≤1.1 kg			
	Cooling Mode	Forced Air cooling (Built-in fan)					
	Power Factor	> 0.98 (> 50% load at 730 Vac)			0% load at 230 Vac), ≥ 0.99 ad at 230 Vac )		
	THD	,		% load at 230 Vac)			
Pr	oduct Type	SMU01A	SMU	01B	SMU01C		
Controller	Signal Input	7 digital inputs (need interface Unit MUE02A or MUE02B)	interface Unit MUE02A or interface Unit MUE02A or		2 digital inputs, 2 analog inputs		
	Alarm Output	-	5 .		4 dry contacts		
	Communication Port	RS232, RS485, FE	RS232, RS485				
	Display Mode	LCD					

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## ETP4890-A2

# HUAWEI

## 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

- Access network
- Transmission network
- Communication network of enterprises



ETP4890-A2



15A rectifier



30A rectifier



Monitoring unit SMU01A



Monitoring unit SMU01B



Monitoring unit SMU01C



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



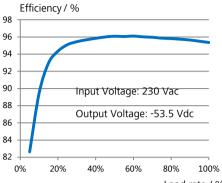
**Rectifier -1740 W-94%** (R4830N2)



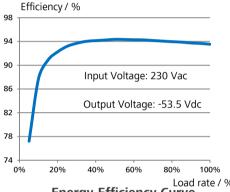
**Rectifier -870 W-96%** (R4815G1)



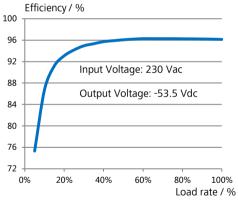
Rectifier -1 kW-94% (R4815N1)



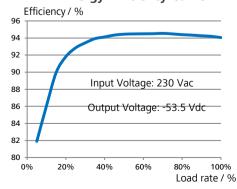
Energy Efficiency Curve



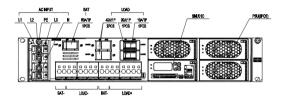
Load rate / % **Energy Efficiency Curve** 



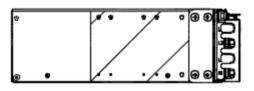
**Energy Efficiency Curve** 



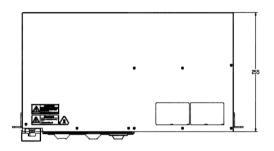
**Energy Efficiency Curve** 



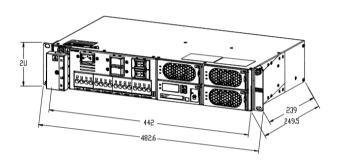
Front View of ETP4890-A2



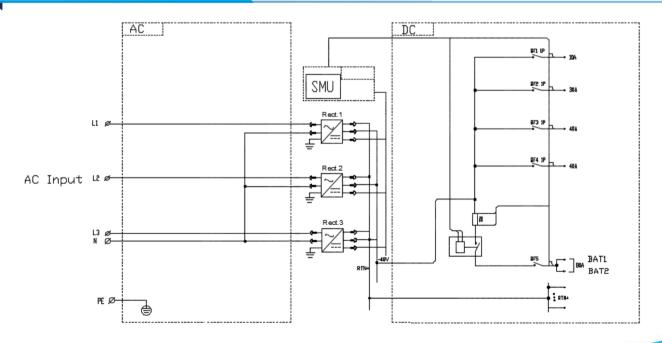
Side View of ETP4890-A2



**Top View of ETP4890-A2** 



Overview of ETP4890-A2



ETP4890-A2

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Pr	oduct Type			ETP4	890-A2			
	Dimension	482.6 mm (W) × 255 mm (D) × 86.1 mm (2U,H)						
System	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						
IIIput	Input Frequency	45–66 Hz, rated value: 50/60 Hz						
	Input Capacity							
	AC Output	-						
	Output Voltage	42–58 Vdc, rated value: 53.5 Vdc						
	Maximum Capacity	4.8 kW						
Output	Battery Breakers	1 × 80 A/1P						
	LLVD Breakers	-						
	BLVD Breakers	1 × 10 A/1P, 1 × 30 A/1P, 2 × 40 A/1P						
	SPD	-						
	EMC	CISPR 22/EN 55022, IEC 61000-3-3, IEC 61000-3-12, IEC61000-4-11						
EMC & Safety	Safety	IEC 60950-1/GB 494	3					
	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						
Environment	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)						
Pr	oduct Type	R4830G1	R <sub>4</sub>	1830N2	R4815N	1	R4815G1	
	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)	1740 300 \	W (176 to /ac)	1000W (176 · 300 Vac)	to	870W (176 to 300 Vac)	
	Input Voltage	85 to 300 Vac / 85 to 400 Vdc	85 to	300 Vac				
		-40 °C to +75 °C		C to +75 °C	-40 °C to +7		-40 °C to +75 °C	
Rectifier	Working Temperature	(full output below 55°C), ETS EN 300- 019		utput below , ETS EN 300-	(full output be 55°C), ETS EN 019		(full output below 65°C), ETS EN 300- 019	
	Dimension	95.5 mm(W) × 208 n		10.8 mm(H)	0.13		0.13	
	Weight	≤1.2 kg	≤1.3		≤1.1 kg		≤1.2 kg	
	Cooling Mode	Forced Air cooling	3			, j		
	Power Factor	≥ 0.99 (> 50% load at 230 Vac)	$\geq$ 0.98 (> 50% load at 230 Vac), $\geq$ 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)		
Pro	duct Type	SMU01A		SMU	J01B		SMU01C	
	Signal Input	7 digital inputs (need interface Unit MUE02 MUE02B)	_ · · · · · · · · · · · · · · · · · · ·		2 dig	gital inputs, 2 analog ts		
		8 dry contacts (need interface Unit MUE02A or MUE02B) RS232, RS485, FE RS232, RS485						
Controller	Alarm Output Communication Port	The state of the s	interface	Unit MUE02A or		4 dr	y contacts	

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Display Mode

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## ETP48150-A3

# HUAWEI

### Introduction

ETP48150-A3 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 150A rated current output.

ETP48150-A3 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 3U 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

- Access network
- Transmission network
- Communication network of enterprises



ETP48150-A3





15A rectifier

30A rectifier





Monitoring unit SMU01A

Monitoring unit SMU01B



Monitoring unit SMU01C



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



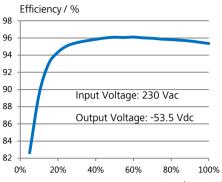
**Rectifier -1740 W-94%** (R4830N2)



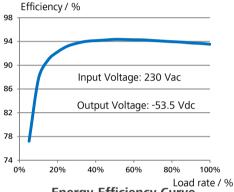
**Rectifier -870 W-96%** (R4815G1)



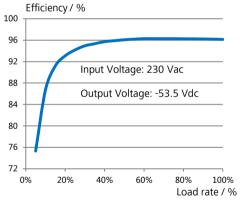
Rectifier -1 kW-94% (R4815N1)



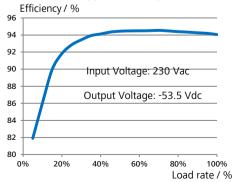
Energy Efficiency Curve



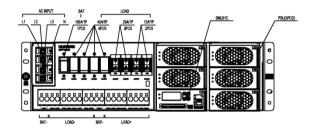
**Energy Efficiency Curve** 



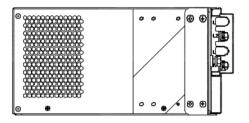
**Energy Efficiency Curve** 



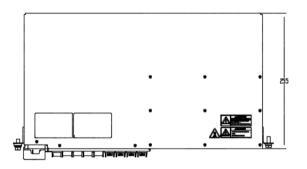
**Energy Efficiency Curve** 



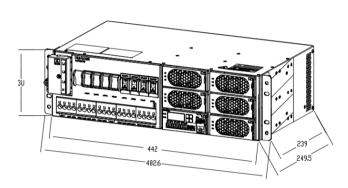
Front View of ETP48150-A3



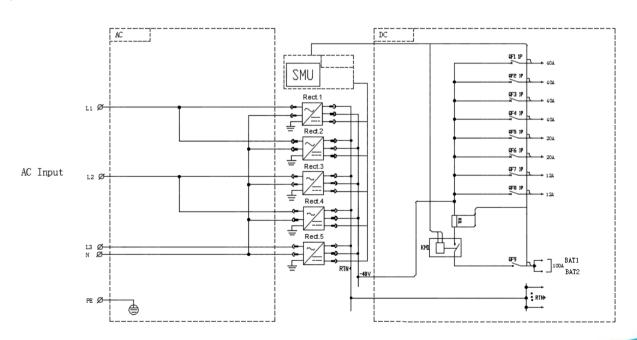
Side View of ETP48150-A3



Top View of ETP48150-A3



Overview of ETP48150-A3



ETP48150-A3

Pr	oduct Type			ETP48	3150-A3			
	Dimension	482.6 mm (W) × 255	mm (D) :	× 130.5 mm (3L	J,H)			
	Weight	≤ 15 kg (without rectifiers)						
System	Cooling Mode	Natural cooling						
	Installation Mode	Installed on 19-inch rack or cabinet						
	Cabling Mode	Front inlet and front of	outlet					
	Maintenance Mode	Front						
	Protection Level	IP20						
	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	Input Frequency	45–66 Hz, rated value	e: 50/60 H	łz				
	Input Capacity	-						
	AC Output	-						
	Output Voltage	42–58 Vdc, rated value: 53.5 Vdc						
	Maximum Capacity	8 kW						
Output	Battery Breakers	1 × 100 A/1P						
- Jack Control	LLVD Breakers	-						
	BLVD Breakers	2 × 12 A/1P, 2 × 20	A/1P 4 ×	40 A/1P				
	SPD	-	,,,,,	( 40 / 0 11				
	EMC	CISPR 22/EN 55022, I	EC 61000	1-2-2 IEC 61000	-2-2 IEC 61000-3	2-12 IEC	61000-4-11	
MC & Safety	Safety			7-3-2, IEC 01000	-3-3, IEC 01000-3	5-12, IEC	01000-4-11	
	Operating Temperature	IEC/EN60950-1/GB 4943						
		-40°C to +70°C (NOTE: The system can run for 8 hours at 70°C.)						
	Storage Temperature	-40°C to +70°C						
Environment	Operating Humidity	5% – 95% (non-condensing)						
	Altitude	0 – 4000 m (When the altitude ranges from 2000 m to 4000 m, the operating temperature decreases by $1^{\circ}$ C for each additional 200 m.)						
Pr	oduct Type	R4830G1	R4	1830N2	R4815N	1	R4815G1	
	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)	1740\ 300 \	W (176 to /ac)	1000W (176 300 Vac)	to		
	Maximum Power Input Voltage	300 Vac) 85 to 300 Vac / 85 to 400 Vdc	300 V 85 to	/ac) 300 Vac	300 Vac)		870W (176 to 30 Vac)	
Rectifier		300 Vac) 85 to 300 Vac / 85	300 V 85 to -40 °( (full o	/ac)		5 °C elow	870W (176 to 30 Vac)  -40 °C to +75 °C (full output below	
Rectifier	Input Voltage  Working Temperature  Dimension	300 Vac) 85 to 300 Vac / 85 to 400 Vdc -40 °C to +75 °C (full output below 55°C), ETS EN 300-	300 N 85 to -40 °( (full o 45°C) 019	300 Vac C to +75 °C output below , ETS EN 300-	-40 °C to +7 (full output be 55°C), ETS EN	5 °C elow	870W (176 to 30 Vac)  -40 °C to +75 °C (full output belove 65°C), ETS EN 30 019	
Rectifier	Input Voltage  Working Temperature  Dimension  Weight	300 Vac)  85 to 300 Vac / 85  to 400 Vdc  -40 °C to +75 °C  (full output below  55°C), ETS EN 300- 019  95.5 mm(W) × 208 m ≤1.2 kg	300 \ 85 to -40 °( (full o 45°C) 019 nm(D) × 4 ≤1.3	/ac) 300 Vac C to +75 °C cutput below , ETS EN 300- 40.8 mm(H)	-40 °C to +7 (full output b 55°C), ETS EN	5 °C elow	870W (176 to 30 Vac)  -40 °C to +75 °C (full output belove 65°C), ETS EN 30	
Rectifier	Input Voltage  Working Temperature  Dimension	300 Vac)  85 to 300 Vac / 85  to 400 Vdc  -40 °C to +75 °C  (full output below  55°C), ETS EN 300- 019  95.5 mm(W) × 208 m  ≤1.2 kg  Forced Air cooling	300 \ 85 to -40 °( (full o 45°C) 019 nm(D) × 4 ≤1.3   (Built-in	300 Vac  2 to +75 °C cutput below , ETS EN 300-  40.8 mm(H) kg fan)	-40 °C to +7 (full output be 55°C), ETS EN 019 ≤1.1 kg	5 °C elow	870W (176 to 30 Vac)  -40 °C to +75 °C (full output below 65°C), ETS EN 30 019  ≤1.2 kg	
Rectifier	Input Voltage  Working Temperature  Dimension  Weight	300 Vac)  85 to 300 Vac / 85  to 400 Vdc  -40 °C to +75 °C  (full output below  55°C), ETS EN 300- 019  95.5 mm(W) × 208 m ≤1.2 kg	300 \\ 85 to -40 °( (full o 45°C) 019 nm(D) × 4 ≤1.3   (Built-in ≥ 0.98	300 Vac  2 to +75 °C cutput below , ETS EN 300-  40.8 mm(H) kg fan)	-40 °C to +7 (full output be 55°C), ETS EN 019 ≤1.1 kg	5 °C elow	870W (176 to 30 Vac)  -40 °C to +75 °C (full output below 65°C), ETS EN 30 019  ≤1.2 kg  ≥ 0.98 (> 50% load at 230 Vac)	
Rectifier	Input Voltage  Working Temperature  Dimension  Weight Cooling Mode	300 Vac)  85 to 300 Vac / 85  to 400 Vdc  -40 °C to +75 °C  (full output below  55°C), ETS EN 300- 019  95.5 mm(W) × 208 m  ≤1.2 kg  Forced Air cooling  ≥ 0.99 (> 50%	300 \\ 85 to -40 °( (full o 45°C) 019 nm(D) × 4 ≤1.3   (Built-in ≥ 0.98 ( 1009	Jac) 300 Vac C to +75 °C Cutput below , ETS EN 300- 40.8 mm(H) kg fan) (> 50% load at 2	-40 °C to +7 (full output be 55°C), ETS EN 019 ≤1.1 kg	5 °C elow	870W (176 to 30 Vac)  -40 °C to +75 °C (full output below 65°C), ETS EN 30 019  ≤1.2 kg  ≥ 0.98 (> 50% load at 230 Vac)	
	Input Voltage  Working Temperature  Dimension Weight Cooling Mode Power Factor	300 Vac)  85 to 300 Vac / 85  to 400 Vdc  -40 °C to +75 °C  (full output below 55°C), ETS EN 300- 019  95.5 mm(W) × 208 m ≤1.2 kg Forced Air cooling ≥ 0.99 (> 50%  load at 230 Vac)	300 \\ 85 to -40 °( (full o 45°C) 019 nm(D) × 4 ≤1.3   (Built-in ≥ 0.98 ( 1009	/ac) 300 Vac C to +75 °C cutput below , ETS EN 300- 40.8 mm(H) kg fan) (> 50% load at 2	-40 °C to +7 (full output be 55°C), ETS EN 019 ≤1.1 kg	5 °C elow	870W (176 to 30 Vac)  -40 °C to +75 °C (full output below 65°C), ETS EN 30 019  ≤1.2 kg  ≥ 0.98 (> 50% load at 230 Vac) ≤ 5% (> 65% loa	
Pro	Input Voltage  Working Temperature  Dimension Weight Cooling Mode Power Factor  THD	300 Vac)  85 to 300 Vac / 85 to 400 Vdc  -40 °C to +75 °C (full output below 55°C), ETS EN 300- 019  95.5 mm(W) × 208 m ≤1.2 kg Forced Air cooling ≥ 0.99 (> 50% load at 230 Vac) ≤5% (> 50% load at	300 V 85 to -40 °C (full o 45°C) 019 nm(D) × 4 ≤1.3 l (Built-in decreased) ≥ 0.98 ( 100%) 230 Vac)	/ac) 300 Vac C to +75 °C cutput below , ETS EN 300- 40.8 mm(H) kg fan) (> 50% load at 2	300 Vac)  -40 °C to +7 (full output be 55°C), ETS EN 019  ≤1.1 kg  230 Vac), ≥ 0.99 ac )  JO1B  uts (need t MUE02A or	5°C elow 1300-	870W (176 to 30 Vac)  -40 °C to +75 °C (full output belov 65°C), ETS EN 30 019  ≤1.2 kg  ≥ 0.98 (> 50% load at 230 Vac) ≤ 5% (> 65% load at 230 Vac)  SMU01C  gital inputs, 2 analog	
	Input Voltage  Working Temperature  Dimension Weight Cooling Mode Power Factor  THD	300 Vac)  85 to 300 Vac / 85 to 400 Vdc  -40 °C to +75 °C (full output below 55°C), ETS EN 300- 019  95.5 mm(W) × 208 m ≤1.2 kg Forced Air cooling ≥ 0.99 (> 50% load at 230 Vac)  ≤ 5% (> 50% load at  SMU01A  7 digital inputs (need interface Unit MUE02	300 V 85 to -40 °( (full of 45°C) 019 ≤1.3 li (Built-in sign) ≥ 0.98 ( 1009) 230 Vac)	Jac) 300 Vac 2 to +75 °C 5 tutput below 5 ETS EN 300- 40.8 mm(H) 6 kg 6 fan) 6 So% load at 2 7 digital inpuinterface Uniterface Unit	300 Vac)  -40 °C to +7 (full output be 55°C), ETS EN 019  ≤1.1 kg  230 Vac), ≥ 0.99 ac )  JO1B  uts (need th MUE02A or analog input	5 °C elow I 300- 2 dig inpu	870W (176 to 30 Vac)  -40 °C to +75 °C (full output belov 65°C), ETS EN 30 019  ≤1.2 kg  ≥ 0.98 (> 50% load at 230 Vac) ≤ 5% (> 65% load at 230 Vac)  SMU01C  gital inputs, 2 analog	
Pro	Input Voltage  Working Temperature  Dimension Weight Cooling Mode Power Factor  THD  Dduct Type  Signal Input	300 Vac)  85 to 300 Vac / 85 to 400 Vdc  -40 °C to +75 °C (full output below 55°C), ETS EN 300- 019  95.5 mm(W) × 208 m ≤1.2 kg Forced Air cooling ≥ 0.99 (> 50% load at 230 Vac) ≤ 5% (> 50% load at  SMU01A  7 digital inputs (need interface Unit MUE02 MUE02B)	300 V 85 to -40 °( (full of 45°C) 019 ≤1.3 li (Built-in sign) ≥ 0.98 ( 1009) 230 Vac)	Jac) 300 Vac 2 to +75 °C 5 tutput below 5 ETS EN 300- 40.8 mm(H) 6 kg 6 fan) 6 So% load at 2 7 digital inpuinterface Uniterface Unit	-40 °C to +7 (full output be 55°C), ETS EN 019  ≤1.1 kg  230 Vac), ≥ 0.99 ac )  JO1B  ats (need through the second of the secon	5 °C elow I 300- 2 dig inpu	870W (176 to 30 Vac)  -40 °C to +75 °C (full output below 65°C), ETS EN 30 019  ≤1.2 kg  ≥ 0.98 (> 50% load at 230 Vac)  ≤ 5% (> 65% loa at 230 Vac)  SMU01C gital inputs, 2 analog ts	

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## ETP48200-C5B4

## Introduction

ETP48200-C5B4 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 4 pieces of 1U 50A high rectifier modules, and provides 200A rated current output.

ETP48200-C5B4 can be embedded in 19-inch rack or cabinet.

## **Features**

- 1U rectifier: high density, high efficiency (> 96%), excellent high temperature performance (fully output below 55°C)
- Wide operation temperature range of embedded power from – 40°C to 65°C
- Hot-swappable
- Standard structure design, adapt 19/21 inch installation
- Compact design(only 5U in height), saving user space
- 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

- Wireless base station
- Transmission network
- Communication network of enterprises





ETP48200-C5B4



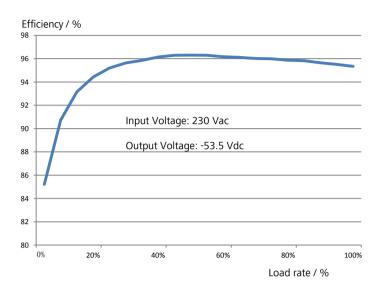
50A rectifier



Controller



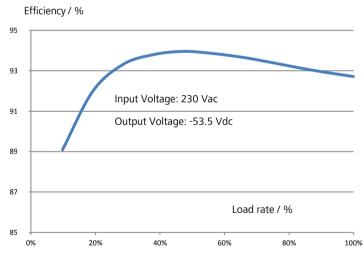
Rectifier -3000 W-96% (R4850G2)



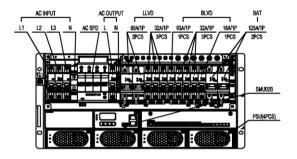
**Energy Efficiency Curve** 



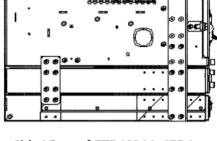
Rectifier -3000 W-94% (R4850N6)



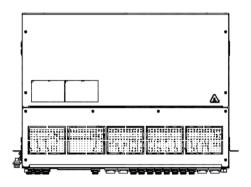
**Energy Efficiency Curve** 



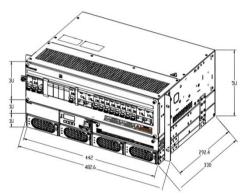
Front View of ETP48200-C5B4



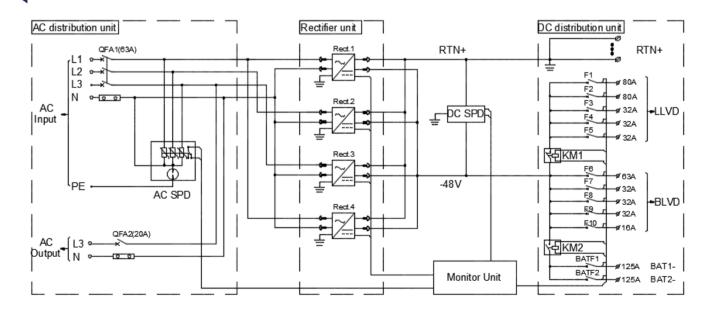
Side View of ETP48200-C5B4



Top View of ETP48200-C5B4



Overview of ETP48200-C5B4



ETP48200-C5B4

Pr	oduct Type	ETP48200-C5B4				
	Dimension	482.6 mm (W) × 330 mm (D) × 219.5 mm (5U,H)				
System	Weight	≤ 20 kg (without rectifiers)				
	Cooling Mode	Natural cooling				
	Installation Mode	Installed on 19-inch rack or cabinet				
	Cabling Mode	Top inlet and top outlet				
	Maintenance Mode	Front				
	Protection Level	IP20				
lance.	AC Input Voltage	85–300 Vac, rated value: 220 Vac, 220/380 Vac three-phase or 220 Vac single phase				
Input	Input Frequency	45–66 Hz, rated value: 50/60 Hz				
	Input Capacity	1 × 63 A/3P				
	AC Output	1 × 20 A/1P				
	Output Voltage	42–58 Vdc, rated value: 53.5 Vdc				
	Maximum Capacity	12 kW				
Output	Battery Breakers	2 × 125 A/1P				
	LLVD Breakers	2 × 80 A/1P, 3 × 32 A/1P				
	BLVD Breakers	1 × 63 A/1P, 3 × 32 A/1P, 1 × 16 A/1P				
	SPD	30/60 kA, 8/20 μs (AC) , 10/20 kA, 8/20 μs (DC)				
EMC & Safety	EMC	EN 55022, IEC 61000-3-3, IEC 61000-3-12, IEC 61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC 61000-4-11				
	Safety	IEC/EN60950-1 and GB4943				
	Operating Temperature	-40°C to +65°C				
	Storage Temperature	-40°C to +70°C				
	Operating Humidity	5% – 95% (non-condensing)				
Environment	Altitude	0-4000 m (When the altitude ranges from 3000 m to 4000 m, the operating temperature decreases by 1°C for each additional 200 m )				

Product Type		R4850G2	R4850N6	
	Efficiency	> 95% (30% to 100% load) > 96% Max	> 92% (30% to 100% load) Near to 94% Max	
	Maximum Power	3000W (176 to 300 Vac )		
	Input Voltage	85 to 300 Vac		
B 475	Working Temperature	-40 $^{\circ}$ C to +75 $^{\circ}$ C (non-derating below 55 $^{\circ}$ C), ETS EN 300-019	-40 °C to +75 °C (non-derating below 40 °C), ETS EN 300-019	
Rectifier	Dimension	105 mm(W) × 281 mm(D) × 40.8 mm(H)		
	Weight	≤ 2.0 kg		
	Cooling Mode	Forced Air cooling (Built-in fan)		
	Power Factor	≥ 0.99 (> 50% load at 230 Vac)		
	THD	≤ 5% (> 50% load at 230 Vac)		

Product Type		SMU02B				
	Signal Input	6 digital inputs (need interface Unit UIM02C), 7 analog inputs (need interface Unit UIM02C)				
Controller	Alarm Output	8 dry contacts (need interface Unit UIM02C)				
	Communication Port	RS232, RS485, FE				
	Display Mode	LCD				

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## ETP48400-C9A2

# HUAWEI

### Introduction

ETP48400-C9A2 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 8 pieces of 1U 50A high rectifier modules, and provides 400A rated current output.

ETP48400-C9A2 can be embedded in 19-inch rack or cabinet.

#### **Features**

- 1U rectifier: high density, high efficiency (98% max), excellent high temperature performance (fully output below 55°C)
- Wide operation temperature range of embedded power from – 40°C to 65°C
- Hot-swappable
- Standard structure design, adapt 19/21 inch installation
- Compact design(only 9U in height), saving user space
- 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

- Wireless base station
- Transmission network
- Communication network of enterprises



ETP48400-C9A2



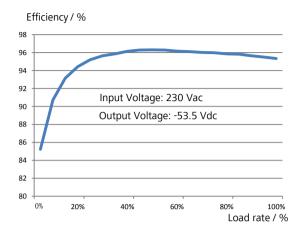
50A rectifier



Controller



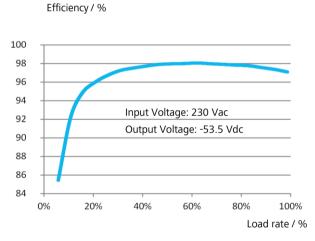
Rectifier -3000 W-96% (R4850G2)



**Energy Efficiency Curve** 



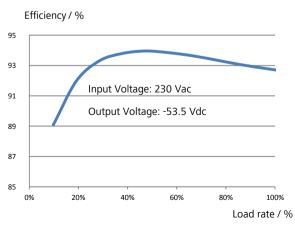
Rectifier -3000 W-98% (R4850S1)



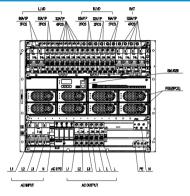
**Energy Efficiency Curve** 



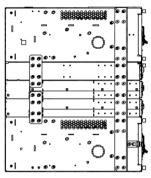
Rectifier -3000 W-94% (R4850N6)



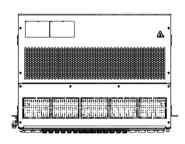
**Energy Efficiency Curve** 



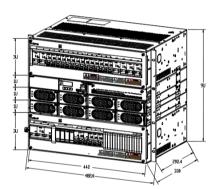
Front View of ETP48400-C9A2



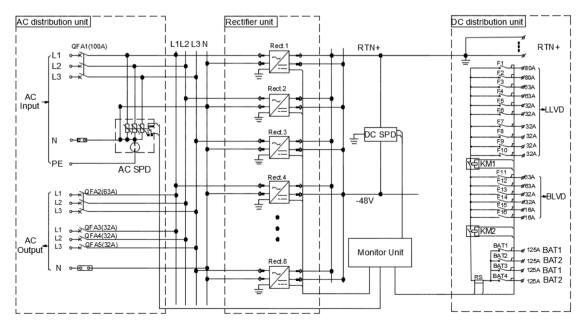
Side View of ETP48400-C9A2



Top View of ETP48400-C9A2



Overview of ETP48400-C9A2



ETP48400-C9A2

Pr	oduct Type		ETP48400-C9A2				
	Dimension	482.6 mm (W) × 330 mm (D) × 397.3 mm (9U,H)					
	Weight	≤ 30 kg (without rectifiers)					
System	Cooling Mode	Natural cooling					
	Installation Mode	Installed on 19-inch rack or cabinet					
	Cabling Mode	Bottom inlet and top outlet					
	Maintenance Mode	Front					
	Protection Level	IP20					
	AC Input Voltage	85–300 Vac, rated value: 220	Vac, 220/380 Vac three-phase fo	our-line			
Input	Input Frequency	45–66 Hz, rated value: 50/60 Hz 1 × 100 A/3P					
	Input Capacity						
	AC Output	1 × 63 A/3P, 3 × 32 A/1P					
	Output Voltage	42–58 Vdc, rated value: 53.5 Vdc					
	Maximum Capacity	24 kW					
Output	Battery Breakers	4 × 125 A/1P					
	LLVD Breakers	2 × 80 A/1P, 2 × 63 A/1P, 6	x 32 A/1P				
	BLVD Breakers	2 x 63 A/1P, 2 x 32 A/1P, 2	x 16 A/1P				
	SPD	20/40 kA, 8/20 μs (AC) , 10/2	0 kA, 8/20 μs (DC)				
EMC & Safety	EMC	61000-3-12, IEC 61000-4-2, IEC C 61000-4-11	61000-4-3, IEC 61000-4-4, IEC				
	Safety	IEC/EN60950-1 and GB4943					
	Operating Temperature	−40°C to +65°C					
	Storage Temperature	−40°C to +70°C					
Environment	Operating Humidity	5% – 95% (non-condensing)					
	Altitude	0 – 4000 m (When the altitude temperature decreases by 1°C	e ranges from 2000 m to 4000 m, c for each additional 200 m.)	, the operating			
Pr	oduct Type	R4850G2	R4850S1	R4850N6			
	Efficiency	> 95% (30% to 100% load) > 96% Max	> 96% (30% to 100% load) 98% Max	> 92% (30% to 100% load) Near to 94% Max			
	Maximum Power	3000W (176 to 300 Vac )					
	Input Voltage	85 to 300 Vac					
Rectifier	Working Temperature	-40 °C to +75 °C (non-deratir 019	-40 °C to +75 °C (non- derating below 40 °C), ETS EN 300-019				
	Dimension	105 mm(W) × 281 mm(D) × 40.8 mm(H)					
	Weight	≤ 2.0 kg	≤ 2.5 kg	≤ 2.0 kg			
	Cooling Mode	Forced air cooling (Built-in fan)					
	Power Factor	≥ 0.99 (> 50% load at 230 Vac)					
	THD	≤ 5% (> 50% load at 230 Vac)					
Pro	duct Type	SMU02B					
	Signal Input	6 digital inputs (need interface Unit UIM02C), 7 analog inputs (need interface Unit UIM02C)					
	Alarm Output	8 dry contacts (need interface Unit UIM02C)					
Controller	Communication Port	RS232, RS485, FE					
	Display Mode	LCD					
	-170	LCD					

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