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Benefits

Higher availability

Harmer & Simmons power systems provide an ultra-wide range of telecom power supplies, and the maximum power supply is up to 1000 A. Our power systems are compatible with the rectifiers of 2kW/3kW/4kW 48V. One slot is fitted with rectifiers with different efficiency. The system can also be applied as a hybrid power solution by integrating rectifiers, MPPT (solar) modules, DC-AC inverters, and DC-DC modules.

Higher adjustability

We provide sub-racks with the height from 1U to 23U and the width from 19" to 23". We also offer customized services according to the demands of the operators, to meet the installation requirements of various environments of the power systems.

Wider applications

Harmer & Simmons provides telecommunication power products and solutions that work in different scenarios. Designed for outdoor use, we have a 2kW/ 3kW/ 6kW IP65 power supply and a 50AH IP65 battery for 5G outdoor systems.

Better customized services

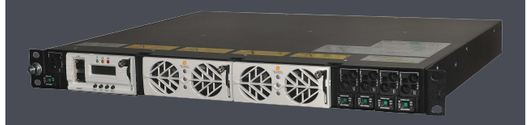
We offer customized solutions for our customers that require a specific system capacity, sub-rack size, or a designated breaker brand. The systems can be applied for the approval of CE, UL, IEC, and other certifications according to customer needs.

Harmer & Simmons: Approach your local Harmer & Simmons representative for further support.

Contact details can be found on: **www.harmer-simmons.com**

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1U System Centre Type



2U System Centre Type



5U System Centre Type



6U System Centre Type



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1U System Centre Type



Key Features:

- **Utilizes 2 x HSR483_HE rectifiers (3kW n+1 redundant)**
- **Supports ethernet, SNMP, ModBus and RS485 communication interfaces**
- **Efficiency up to 96% for lower operating cost**
- **Pre-configured for small cell applications**

AC Distribution		DC Distribution	
Input Mode	220VAC single-phase	Output Voltage	-42 to -58VDC, rated value:-53.5VDC
Input Capacity	63A (L+N) Front Connect	Battery Breakers	63A/1P x1
Input Frequency	45 to 66Hz, rated value: 50Hz/60Hz	Load Breakers	Blvd: 63A/1P x 2 , 32A/1P x 1 (Front Connect)
		DC SPD	10kA/20kA, 8/20μs (Internal)
Rectifier		**Controller (HSR48ACU)**	
Input Voltage	85 to 290VAC, rated 220VAC	Signal Input	(1 battery temp.,1 ambient temp.),2 RS485, 7 DI
Efficiency	>96%	Alarm Output	6 dry contacts
Rated Power	3kW (176 to 290VAC)	Communication Port	RS485,SNMP
Working Temperature	-10°C to +75°C (fully output below 45°C)	Display Mode	LCD
System		**Environment**	
Cooling Mode	Natural cooling	Operating Temperature	-10°C to +55°C (Without Output Derating)
Cabling Mode	Front inlet and rear outlet	Storage Temperature	-40°C to +75°C
Maintenance Mode	Front maintenance	Operating Humidity	5% to 95% (non-condensing)
Protection Level	IP20	Altitude	0 to 4000m (if the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m)

2U System Centre Type



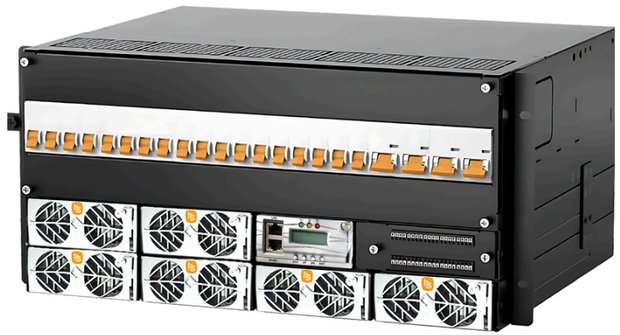
Key Features:

- **Utilizes 3 x HSR483_ HE rectifiers (6kW n+1 redundant)**
- **Supports ethernet, SNMP, ModBus and RS485 communication interfaces**
- **Efficiency up to 96% for lower operating cost**
- **Pre-configured for small cell applications**

AC Distribution		DC Distribution	
Input Mode	220VAC single-phase	Output Voltage	-42 to -58VDC,rated value: -53.5VDC
Input Capacity	63A (L+N) Front Connect	Battery Breakers	125A/1P x 2
Input Frequency	45 to 66Hz, rated value: 50Hz/60Hz	Load Breakers	Blvd: 10A/1P x 2 , 20A/1P x 2 ,32A/1P x 2 , 63A/1P x2 (FC)
AC SPD	20/40kA	DC SPD	10kA/20kA, 8/20μs (Internal)
Rectifier		**Controller (HSR48ACU)**	
Input Voltage	85 to 290VAC, rated 220VAC	Signal Input	(1battery temp.,1 ambient temp.,), 7 DI
Efficiency	>96%	Alarm Output	6 dry contacts
Rated Power	3kW (176 to 290VAC)	Communication Port	RS485,SNMP
Working Temperature	-10°C to +75°C (fully output below 45°C)	Display Mode	LCD
System		**Environment**	
Cooling Mode	Natural cooling	Operating Temperature	-10°C to +55°C (Without Output Derating)
Cabling Mode	Front inlet and rear outlet	Storage Temperature	-40°C to +75°C
Maintenance Mode	Front maintenance	Operating Humidity	5%to 95% (non-condensing)
Protection Level	IP20	Altitude	0 to 4000m (if the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m)

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5U System Centre Type



Key Features:

- **Upgradable for HSR484_UHE rectifiers (20kW n+1 redundant)**
- **Supports ethernet, SNMP, ModBus and RS485 communication interfaces**
- **Efficiency up to 97% for lower operating cost**
- **Utilizes 5 x HSR483_HE rectifiers (15kW n+1 redundant)**

AC Distribution		DC Distribution	
Input Mode	220VAC single-phase	Output Voltage	-42 to -58VDC, rated value: -53.5VDC
Input Capacity	< 18A per 3kW Rectifier Module 45	Battery Breakers	125A/1P x 4
Input Frequency	to 66Hz, rated value: 50Hz/60Hz	Load Breakers	LLVD /BLVD : 10A/1P x 3 , 20A/1P x 3 , 32A/1P X 3 , 40A/1P x 3 , 50A/1P x 3 , 63A/1P x 3 (Max 18 Load MCBs)**
		DC SPD	10kA/20kA, 8/20μs (Internal)
Rectifier		**Controller (HSR48ACU)**	
Input Voltage	85 to 290VAC, rated 220VAC	Signal Input	(1 battery temp.,1 ambient temp.),2 RS485, 7 DI
Efficiency	>96%	Alarm Output	6 dry contact
Rated Power	3000W (176 to 290VAC)	Communication Port	RS485,SNMP
Working Temperature	-10°C to +75°C (fully output below 55°C)	Display Mode	LCD
System		**Environment**	
Cooling Mode	Fan cooling	Operating Temperature	-10°C to +55°C (Without Output Derating)
Cabling Mode	Top inlet and top outlet	Storage Temperature	-40°C to +75°C
Maintenance Mode	Front maintenance	Operating Humidity	5% to 95% (non-condensing)
Protection Level	IP20	Altitude	0 to 4000m (if the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m)

6U System Centre Type



Key Features:

- **Upgradable for HSR484_UHE rectifiers (36kW n+1 redundant)**
- **Supports ethernet, SNMP, ModBus and RS485 communication interfaces**
- **Efficiency up to 97% for lower operating cost**
- **Utilizes 9 x HSR483_HE rectifiers (27kW n+1 redundant)**

AC Distribution		DC Distribution	
Input Mode	380VAC three-phase	Output Voltage	-42 to -58VDC, rated value: -53.5VDC
Input Capacity	< 18A per 3kW Rectifier Module 45	Battery Breakers	125A /1P x 4
Input Frequency	to 66Hz, rated value: 50Hz/60Hz	Load Breakers	LLVD /BLVD : 10A/1P x 3 , 20A/1P x 3 , 32A/1P X 3 , 40A/1P x 3 , 50A/1P x 3 , 63A/1P x 3 (Max 18 Load MCBs)**
		DC SPD	10kA/20kA, 8/20μs (Internal)
Rectifier		**Controller (HSR48ACU)**	
Input Voltage	85 to 290VAC, rated 220VAC	Signal Input	(1 battery temp.,1 ambient temp.),2 RS485, 7 DI
Efficiency	>96%	Alarm Output	6 dry contact
Rated Power	3000W (176 to 290VAC)	Communication Port	RS485,SNMP
Working Temperature	-10°C to +75°C (fully output below 55°C)	Display Mode	LCD
System		**Environment**	
Cooling Mode	Natural cooling	Operating Temperature	-10°C to +55°C (Without Output Derating)
Cabling Mode	Top inlet and top outlet	Storage Temperature	-40°C to +75°C
Maintenance Mode	Front maintenance	Operating Humidity	5% to 95% (non-condensing)
Protection Level	IP20	Altitude	0 to 4000m (if the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m)

** Note: The number of load breakers allocated to LLVD and BLVD, by default, will be 9 pieces each unless otherwise specified during ordering.
Operating temperature (without output derating) for HSR484_HE and HSR484_UHE is from -10°C to +45°C.

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