

## FlexCombi 120 Rectifier System

**Rating:** 120A Rectifier System

**Input / Output Voltage:** 230VAC / 48VDC

**Configuration:** Rackmount

PowerHub FlexCombi 120 Rectifier System is an AC/DC embedded power system with excellent performance and high power efficiency. It comprises of intelligent battery management, remote management, wide range of AC input voltage, etc. The system can configure 4 pieces of 1U 30A high rectifier modules, and provides 120A rated current output. PowerHub FlexCombi 120 can be installed inside a 19-inch rack or cabinet and is widely deployed in the Telecom environment today. The product is a new generation of "Green & Energy Saving" system aiming at outdoor low power mobile telecom power market, meeting the trend of telecom base station development, saving construction cost and shortening time. The system is highly adaptable with environment, features with wide operating temperature range, meeting the demand of high level users

### Applications:

- Telecommunications
- Air Conditioner
- Microwave Communication Equipment
- Computer Equipment

PowerHub FlexCombi 120 series consists of the monitoring module, rectifier modules and distribution unit. It can support up to 120A of DC loads.

Item	Description	Note	
Monitoring Module	FlexCombi Monitoring Module	1qty	
Rectifier Module	FlexCombi 2000 /2000H Rectifier Module	Up to 2qty	
Distribution Unit	AC	Input: 63A/2P 220V	1pc
		Rectifier Input: 32A/1P	6pcs
	DC	Load Distribution: 1 x 80A, 6 x 30A	MCB / Fuse type
		Battery Distribution 1 x 125A	MCB

### Product Highlights:

- Green & environment friendly. With excellent filtering and shielding process, super low electromagnetic radiation; Within wide load range, the power factor over 0.99, input harmonic current component below 5%, input voltage range 85~300Vac. The system noise is below 60dB;
- High efficiency energy saving, able to operate with high efficiency at full load;
- More reliable operation. With complete test, control, alarm and protection functions,
- Perfect surge protection performance, the product reliability and adaptability is highly improved;
- Configured with 19" standard power rack, the rectifier is hot swappable, complete frontal operation, making the operation and maintenance safer, quicker and more convenient;
- Perfect battery management function. With functions of temperature compensation, battery protection, charging current limit and battery capacity estimation;
- CAN bus distributed digital control, intelligent network design, providing RS485/RS232 telecom port and dry contact alarm port, flexible network enables remote monitoring with unattended operation;



MODEL	FlexCombi 120
<b>AC DISTRIBUTION</b>	
AC Supply	85V-290VAC (Nominal: 220/230VAC)
Input Voltage	220VAC
Frequency	45-65Hz
THD	>5%
Power Factor	0.99
Efficiency	≥95%(at Full Load)
Current Distortion	≤5% @ 100% Load
Protection	AC overvoltage, under-voltage protection; DC overvoltage, under-voltage, current limit., short circuit protection, battery and rectifier over temperature protection; automatic or artificial restoration happens after the over-voltage, over-current, under-voltage or over-temperature disappears.
<b>DC DISTRIBUTION</b>	
Rated Output Voltage	53.5V (43.2 to 57.6VDC Adjustable)
System Output Current	120A Max
System Load Regulation	≤±0.5%
Voltage Regulation	≤±0.1%
System Stability Precision	≤±0.6%
Current Sharing	≤±2%
Phone Balance Weight Noise	≤2mV (@230VAC; Full Load)
Ripple / Noise	≤200mVp-p / ≤ 2mVrms (Psophometric)
Output Distribution	Load distribution:1 x 80A, 6 x 30A
Battery Distribution	Battery distribution : 1 x 125A
Battery Low Voltage Alarm and Protection	When DC voltage is adjusted below battery protection threshold value and there is no AC input, the battery protection alarm will last for 1 minute before DC contactor cut off
<b>MONITORING</b>	
Hot swappable Rectifier	Modules are able to hot swap without influencing system operation
Soft start time	3s to 10s
Remote Operation	Dry Contact, Optional: RS232 / RS485 / SNMP
Visual Indications	Green LED – System ON Yellow LED – Minor Alarms Red LED – Major Alarms
Alarms Relays	4 Relays
Digital Inputs	2 Options (for Monitoring of External Equipment and Battery)
Alarms	AC over voltage/under voltage, DC voltage/under voltage, Module fault and Over temperature
<b>OTHER SPECIFICATIONS</b>	
Operating Temperature	-40 to +70°C
Storage Temperature	-40 to +70°C
Insulation Resistance	Electric circuit to insulation resistance ≥2MΩ (500V mega meter)
Insulation Strength	Input to output: 3535VDC @1min&leak current ≤30mA Input to enclosures: 3535VDC @1min&leak current ≤30mA Output to enclosures: 1414VDC @1min&leak current ≤30mA
System leak current	≤3.5mA (220VAC input)
Grounding Performance Requirement	The system with operating ground and protection ground. Resistance between the enclosures of distribution and all palpable metal components and grounding nut is not more than 0.1Ω
AC Lightning Protection	The equipment AC side can bear simulated lightning impulse Current of waveform 8/20μS and rated amplitude 40kA.
EMC	In accordance with YD/T 983-1998 Telecom Power System EMC Limit Value and Test Method. CLASS A
Noise	≤60dB (A)
MTBF	≥500000 hours
Humidity	≤ 95% Non-Condensing
Dimension (WxDxH)	440x344x132(mm) 3U
Weight	21kg

\* Specifications are subject to change without prior notice

