

FlexCombi 90 Rectifier System

Rating: 90A Rectifier System

Input / Output Voltage: 230VAC / 48VDC

Configuration: Rackmount

PowerHub FlexCombi 90 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 3 pieces of 1U 30A high rectifier modules, and provides 90A rated current output. PowerHub FlexCombi 90 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 90 series consists of the monitoring module, rectifier modules and distribution unit. It can support up to 90A of DC loads.

| Item | | Description | Note |
|-------------------|----|--|------------|
| Monitoring Module | | FlexCombi Monitoring Module | 1qty |
| Rectifier Module | | FlexCombi 2000 /2000H Rectifier Module | Up to 3qty |
| Distribution Unit | AC | Input: Single Phase 220V | |
| | DC | Load Distribution: 1 x 10A, 1 x 30A, 2 x 40A | Fuse type |
| | | Battery Distribution 1 x 80A | Fuse type |

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 90 |
|--|---|
| AC DISTRIBUTION | |
| AC Supply | 85V-290VAC (Nominal: 220/230VAC) |
| Input Voltage | 220VAC |
| Frequency | 45-65Hz |
| THD | >5% |
| Power Factor | 0.99 |
| Efficiency | ≥91%(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. |
| DC DISTRIBUTION | |
| Rated Output Voltage | 53.5V (43.2 to 57.6VDC Adjustable) |
| System Output Current | 90A 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 10A, 1 x 30A, 2 x 40A |
| Battery Distribution | Battery distribution : 1 x 80A |
| 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 |
| MONITORING | |
| 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 |
| OTHER SPECIFICATIONS | |
| Operating Temperature | -40 to +55°C |
| Storage Temperature | -40 to +85°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) | 440x310x88(mm) 2U |
| Weight | 13kg |

* Specifications are subject to change without prior notice

