



Modular 48VDC 150A POWER SYSTEM

Feature

- ◆ Wide operating range of AC input voltage: 90~290Vac
- ◆ current/voltage switching tech with high efficiency $\geq 93\%$
- ◆ Perfect battery management, battery temperature
- ◆ Multiple communication ports, easy for networking and remote management. ModbusRS485、TCP/IP、YDN23 (YD/T 1363) protocol
- ◆ Temperature compensation, LVL and LVBD protection,
- ◆ Automatic battery test function, cycle test, quick test
- ◆ Supports power system & module sleep, efficiency mixing, energy saving
- ◆ Support real-time detection of the operating status of the power system
- ◆ Support alarm real-time detection and reporting
- ◆ Hot-swap able
- ◆ Input over/under voltage protection
- ◆ Output over voltage protection
- ◆ Output over current protection
- ◆ Output short circuit protection
- ◆ Auto current sharing, parallel operation



Description

Modular rectifier System is a modular Extra-able power system based on building blocks for both 19 inch system solutions. It is consist of Rectifier module & Control Monitor & 19" framework. This rectifier system 90~290 Vac Single phase AC supply voltages into stable nominal 48VDC voltage adjustable to the needs of the application.

All versions provide options for alarming and battery temperature probes.

Application

- ◇ Telecom station/base/ Cabinet Equipment
- ◇ SCADA Networks and Data Room
- ◇ Transmission equipment
- ◇ Radio base station/cell sites
- ◇ Railway & metro
- ◇ Direct-current emergency power units in power stations and chemical plants

Technical specifications 48Vdc-9KW

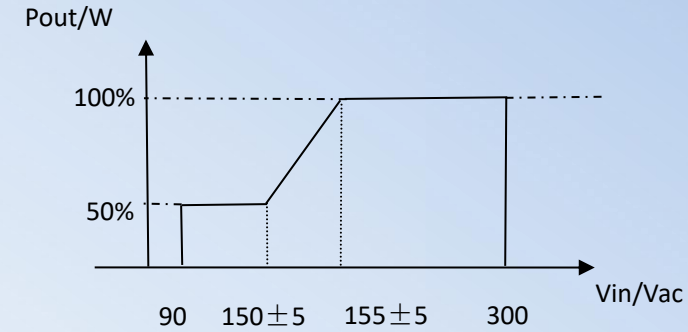
GENERALLY DETAILS

BR483000...Rectifier module*2 (I/P 220Vac,O/P:48Vdc);
M30.1.2V/1Monitor module (I/P 48Vdc ,2U Size);
Chassis.....19" 2 U rack mount;
ClassificationIP20;
Safety..... GB4943-2001& IEC 60950-1;
EMI EN 55032:2015;
EN 55035:2017;
EN61000-3-2:2014;
EN61000-3-3:2013;
 EN55022, CLASS A;
 EN300386,CLASS ;
ESD.....GB17626.2-1998/IEC61000-4-2;
EFT.....GB17626.4-1998/IEC61000-4-4;
SURGE.....GB17626.5-1998/IEC61000-4-5;
DIP.....GB17626.11-1998/IEC61000-4-11;
Conducted Immunity..... IEC61000-4-6;
Radiated ImmunityIEC61000-4-3;
EnvironmentETSI EN 300 019-2 RoHS;

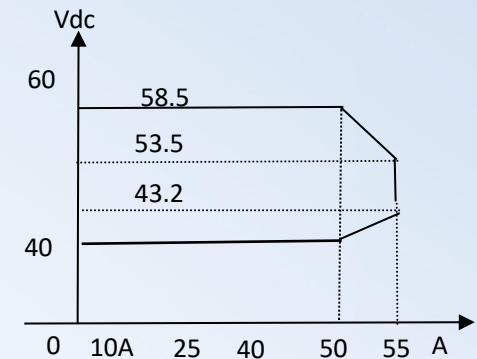
RECTIFIER MODULE -----BR483000

| Technical | | |
|-----------------|-----------------------|---|
| AC Input | Input | Single phase 220Vac .50hz |
| | Frequency | 50HZ, Range: 45Hz~66Hz |
| | Voltage Range | 90V~290VAC |
| DC output | Rated current (A) | 50A |
| | Max Output Current | 62.5A@48Vdc |
| | Rated power (W) | 3KW@Vout put>220V |
| | Rated voltage(V) | 48V |
| | Equ- charge (V) | 56.4V(42-58Vdc adjustable); |
| | Float voltage (V) | 53.5V(42-58Vdc adjustable); |
| | Output Accuracy (V) | ≤0.6% |
| | Output ripple voltage | ≤200mV<0-20mHZ> |
| | PF | 0.99@220VAC/550A, ≥0.98@220VAC/275A; |
| | Leakage current | ≤1.5mA |
| Indicator | LCD display | Input/output voltage、Frequency、 output current、 Environment、 Rate |
| | Power status | City power、Output、 Under voltage、 overload voltage |
| Current Sharing | | ±5% from true average current between modules; |
| Load regulation | | 2% |
| Line regulation | | 1% |
| Dimension | | 220X103X88mm (D*W*H) |

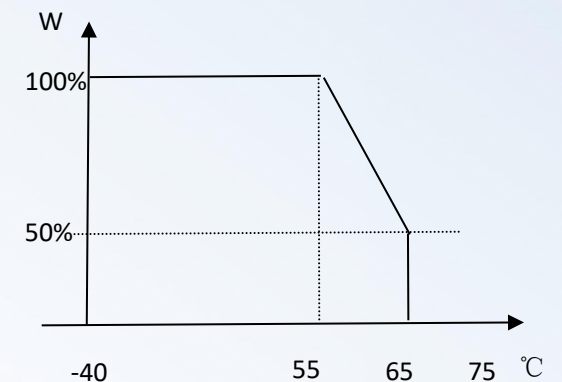
Output power Vs input voltage @ 45° C



Output voltage Vs output current @ 45° C



Output power Vs ambient temperature



Monitor Control---M30.1.2V Serial



Features:

- ◆ Monitors the power system operating status in real time ;
- ◆ Detects and reports alarms in real time
- ◆ Supports multiple remote management modes.
- ◆ Supports flexible rectifier management.
- ◆ Supports effective energy conservation management.
- ◆ Supports comprehensive battery management.
- ◆ Supports intelligent temperature control management.
- ◆ Supports flexible and programmable logic control.
- ◆ Supports detailed data records and performance statistics.

DISTRIBUTION

AC Distribution :

Single phases, 2 wires input, 2-pole AC breaker @ general line (135A);

Input Surge :

Class II/C SPDs;

DC Distribution :

Battery fuse 550A*1

DC LOAD:

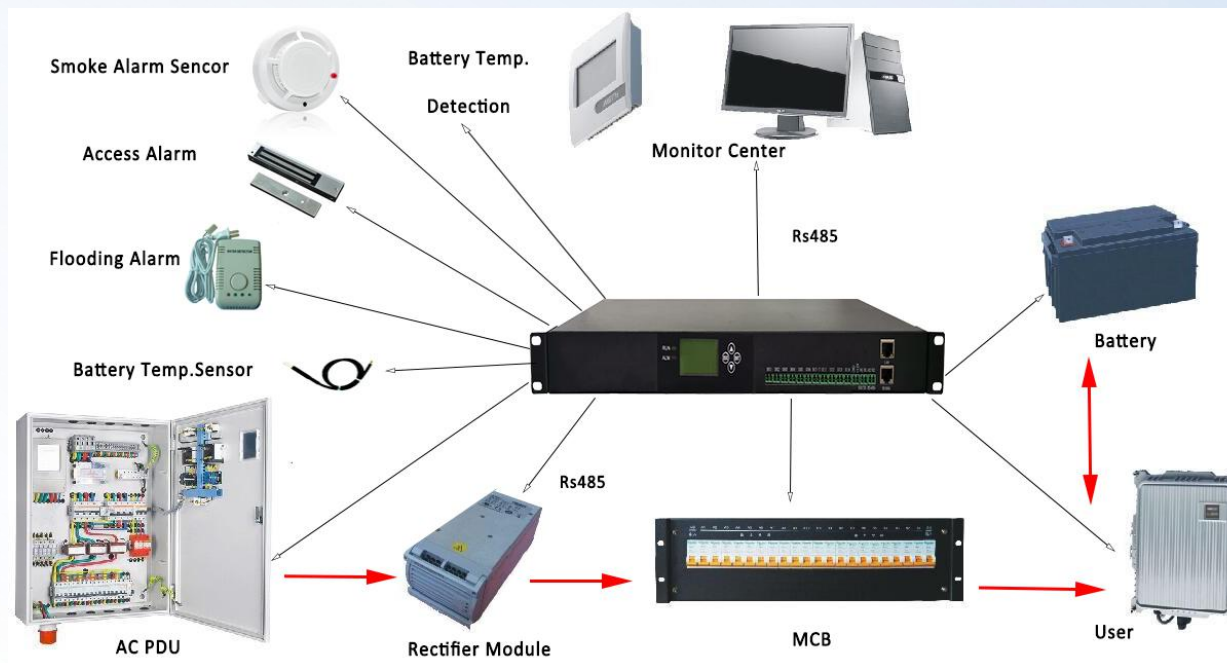
MCB@150A*3

MCB@100A*3

MCB@63A *6

LBVLD: 550A

| Technical | | |
|-------------------------|--------------------------|---|
| DC Input | Voltage (V) | 40~60Vdc |
| | Current (A) | ≤0.5A |
| | Power(W) | Less than 20W |
| Communication Interface | Rs485 | Default (Modbus Protocol RTU) |
| | TCP/IP | Default |
| | SNMP | Customized |
| | 6 Dry Contact | AC Power Failure, AC Input Fault , DC Output Fault , Battery Over Voltage, DI Dry contact, Rectifier module output Over Voltage, Rectifier module output Under Voltage, Rectifier Module Fault, Rectifier Module Communication Fault, Rectifier Module Current Limiting, Rectifier module current non-equalize, Rectifier module Protection, Battery Power off , Load Fuse, Battery Fuse, Battery Connect Fail. |
| | Signal Input | 1* Battery Temp,1*Ambient Temp,1*Air Conditioning , 1*Smoke Alarm.,1*Flooding Alarm.,1*Access Alarm.,1*Surge arrest,1* Fan,1*generator |
| | Baud Rate | 9600 Bit/s |
| Storage Capacity | Historical Alarm Records | Up to 1000 Units |
| Display Mode | | LC |



ORTHER SPECIFICATIOS

| | |
|-----------------------|--|
| Alarms: | Low mains shutdown High temperature shutdown Rectifier Failure Over voltage shutdown on output Fan failure, one or two fans. Low voltage alarm CAN bus failure |
| Warnings: | Low temperature shutdown Remote battery current limit activated Input voltage out of range,Over voltage Loss of CAN communication with control |
| Isolation | 4242Vdc/10mA//1min Input - output 4242Vdc/10mA//1min Input-chassis 750Vdc/10mA//1min Output - chassis |
| MTBF | > 10,0000 hours (Tambient : 25°C) |
| Operating temp | -40 to +55°C (-40 to +131°F) |
| Storage temp | -40 to +70°C (-40 to +158°F) |
| Acoustic Noise | < 55dBA at nominal input and full load(Tambient < 30°C) |
| Altitude | <2000M |
| Cooling | fans (front to back airflow) |
| Fan Speed | Temperature and current regulated |
| Humidity | Operating: 5% to 95% RH non-condensing |

| Parameters | Setting range | Default value |
|---|---------------|---------------|
| Battery capacity | 20Ah-3000Ah | 1000Ah |
| Battery H-temp.Protection Voltage | 40~60V | 53V |
| Float Switch to Equalizing Charging Coefficient | 0.05-0.25 | 0.06 C10 |
| Equalizing Switch to Float charging Coefficient | 0.01-0.25 | 0.04C10 |
| Charging current limit | 0.05-0.5C | 0.1C |
| Charging over current | 0.05-0.5C | 0.25C |
| Battery Com Coeff | 0-500 mV | 50mV |
| Battery test termination voltage | 40-60V | 60 V |
| Note: | | |
| 1. The battery protection voltage should be set according to the requirements of the battery manufacturer | | |
| 2. If the user configures iron lithium battery, the relevant charging parameters should be set according to the requirements of the battery manufacturers | | |
| 3. For more details about the Common Parameters of rectifier system, please refer to the Factory Testing reports. | | |

Other type can be supply

| Model.No | Rectifier module | Output Capacity |
|-----------------------|------------------|-----------------|
| BWT220Vac/48Vdc-30AS | BR481800*1 | 1.8KW |
| BWT220Vac/48Vdc-50AS | BR483000*1 | 3KW |
| BWT220Vac/48Vdc-80AS | BR483000*2 | 4.8KW |
| BWT220Vac/48Vdc-100AS | BR483000*2 | 6KW |
| BWT220Vac/48Vdc-120AS | BR483000*3 | 7.2KW |
| BWT220Vac/48Vdc-200AS | BR483000*4 | 12KW |
| BWT220Vac/48Vdc-300AS | BR483000*6 | 18KW |

[Application for other type, please advise to us](#)

Contact Bwitt for data sheets and characterization details. Due to product development, specifications are subject to change without prior notice.

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