

Rectifier Module

R4815N1

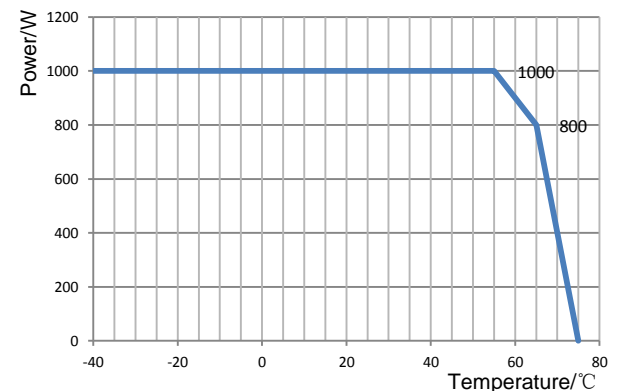
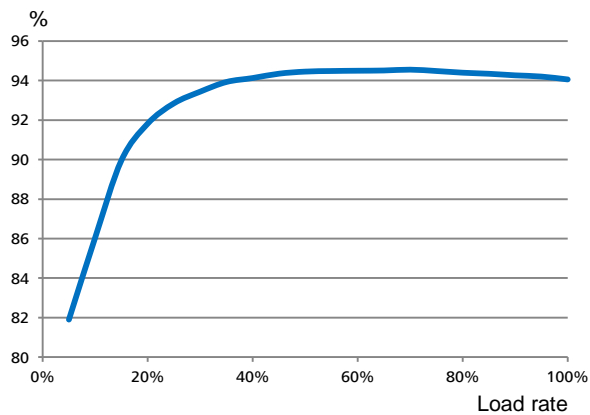
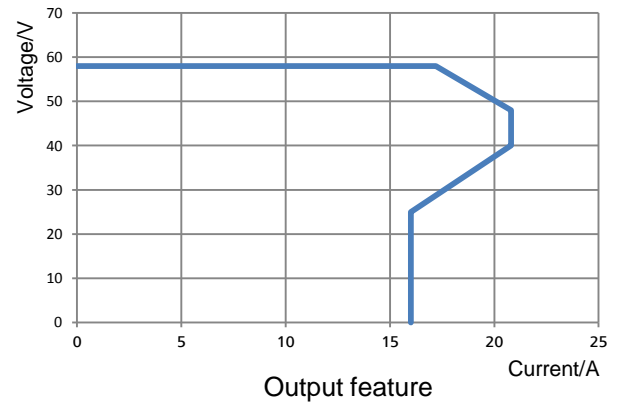


Introduction

The R4815N1 is a digital rectifier that converts the 85~300VAC input to 53.5 VDC output and possesses the characters of high efficiency, walk-in start, hot-plug, complete protection, and low audible noise. The rectifier adopts the latest power monitoring technology, implements the function of monitoring the states of loads and the rectifier status in real time. The output voltage of the rectifier can be adjusted through the host.

Feature

- High efficiency: >94%
- Input voltage range: 85~300VAC
- Operating temperature range: -40~+75°C
- Total harmonic distortion(THD): ≤5%
- Hot-plug
- Digital control
- Intelligent electric meter
- Communication over CAN
- Adjustment of voltage and current
- Meet RoHS requirements
- Passing the TUV,CE,CB,UL certifications



Specifications

Product		R4815N1
Basic specifications	Dimension	40.8(H)mm × 95.5(W)mm × 208(D)mm
	Weight	≤1.1kg
	Cooling	Forced air cooling
Input feature	Input voltage	85~300VAC
	Input mode	220VAC single phase(or 110VAC dual live lines)
	Frequency	45~66Hz, rated: 50Hz/60Hz
	Maximum input current	≤6.4A
	Power factor	≥0.99
	THD	≤5%
Output feature	Output voltage	42~58VDC, default value: 53.5VDC
	Output power	1000W(176~300VAC)
Environmental specifications	Operating temperature	-40℃~+75℃
	Storage temperature	-40℃~+70℃
	Relative humidity	5%~95%(non-condensing)
	Altitude range	≤4000m(If the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by 1℃ as the altitude increases by 200m.)
Protection	Input overvoltage protection	Protection point: >300VAC
	Input undervoltage protection	Protection point: <80VAC
	Output overvoltage protection	58.5~60.5VDC(can be set by PMU)
	Output short circuit protection	A long term short circuit is allowed
	Over-temperature protection	Protection point: ≥75℃(167℉)
Reliability	MTBF	>500,000hours
Audible noises	Specification	≤40db(25℃, full load)
Safety/EMC/ Lightening protection	Safety certification	Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1
	EMC	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20
	Lightening protection	YD 5098-2005 5KA

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Rectifier Module

R4830N2

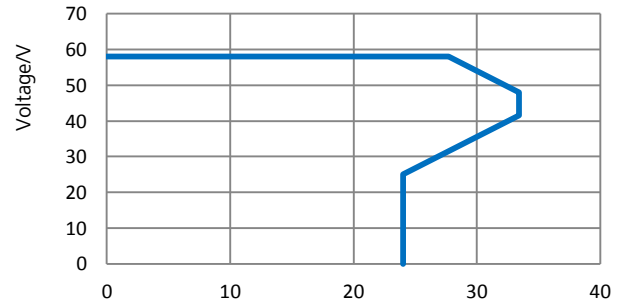


Introduction

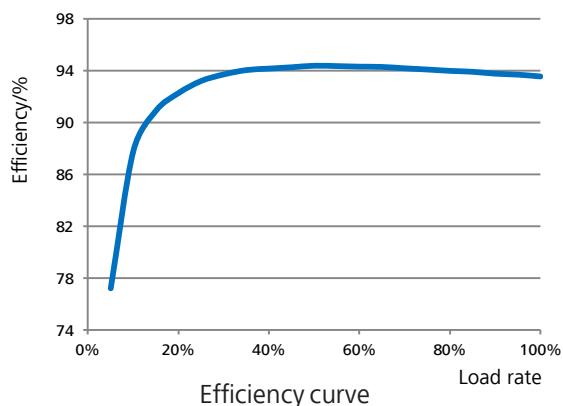
The R4830N2 is a digital rectifier with high efficiency and power density. It converts 85–300 Vac input voltage to 53.5 Vdc output voltage. The output voltage can be adjusted by the host. It performs comprehensive protection functions, supports soft start, and produces low noise. With the latest power monitoring technology, states of the rectifier and load are monitored in real time.

Feature

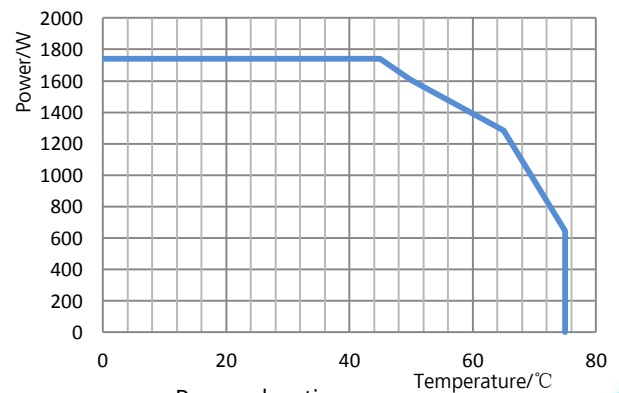
- Efficiency > 94%
- Input voltage range: 85–300 Vac
- Operating temperature range: -40°C to $+75^{\circ}\text{C}$
- Total harmonic distortion(THD): $\leq 3.5\%$
- Hot-swappable
- Digital control
- Intelligent electric meter
- Communication over CAN
- Adjustment of voltage and current
- Meet RoHS requirements
- Passing the TUV,CE,CB,UL certifications
- Disconnect above 320 Vac



Output feature



Efficiency curve



Power derating curve

Specifications

	Product	R4830N2
Basic specifications	Dimension	40.8 (H) × 95.5 (W) × 208 (D) mm
	Weight	≤ 1.3 kg
	Cooling	Forced air cooling
Input feature	Input Voltage	85–300 Vac
	Input Mode	220 Vac single-phase (or 110 Vac dual-live wire)
	Frequency	45-66 Hz, rated: 50Hz/60Hz
	Maximum Input Current	≤ 10A
	Power Factor	≥ 0.99 (full load)
	THD	≤ 3.5% (full load) ≤ 5% (load ≥ 50%)
Output feature	Output Voltage	42–58 Vdc, default value: 53.5 Vdc
	Output Power	1740 W (176–300 Vac); 755 W (85–175 Vac decreased linearly)
Environmental specifications	Operating Temperature	–40°C to +75°C (non-derating under 55°C)
	Storage Temperature	–40°C to +75°C
	Relative Humidity	5% – 95% (non-condensing)
	Altitude Range	≤ 4000 m (If the altitude is within the range of 3000 m to 4000 m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m)
Protection	Input Overvoltage Protection	Protection point: > 300 Vac
	Input Undervoltage Protection	Protection point: < 80 Vac
	Output Overvoltage Protection	56–60Vdc (can be set by PMU)
	Output Short Circuit Protection	A long term short circuit is allowed
	Over-temperature Protection	Protection function is available
Reliability	MTBF	> 500,000 hours
Audible noises	Specification	≤ 45dB (25°C, full load)
Safety/EMC/ Lightening protection	Safety Certification	Passes TUV, CE, UL certifications Catch the CB certificate UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1
	EMC	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20
	Lightening Protection	5KA

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Rectifier Module

R4850G2

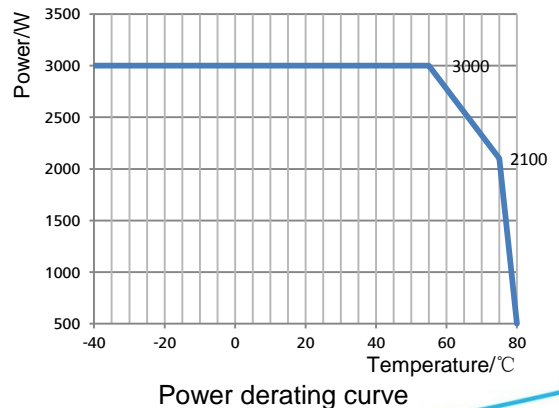
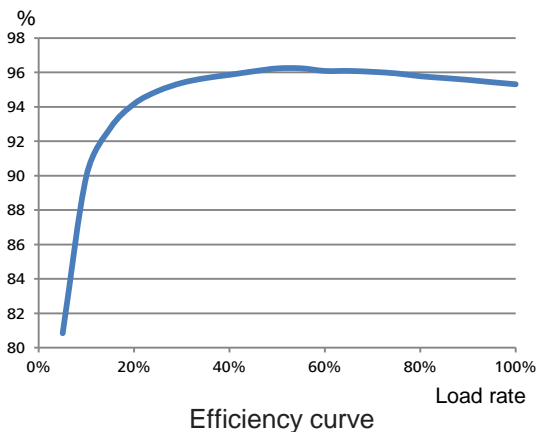
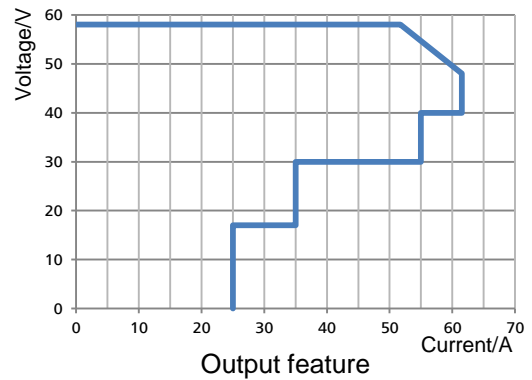


Introduction

The R4850G2 is a digital rectifier that converts the 85~300VAC to 53.5 VDC and possesses the characters of high efficiency, high power density, walk-in start, hot-plug, complete protection, and low noise. The rectifier adopts the latest power monitoring technology, implements the function of monitoring the states of loads and the rectifier status in real time. The output voltage of the rectifier can be adjusted through the host.

Feature

- High efficiency: >96%
- Input voltage range: 85~300VAC
- Operating temperature range: -40°C~75°C
- Total harmonic distortion(THD): ≤5%
- Hot-plug
- Digital control
- Intelligent electric meter
- Communication over CAN
- Adjustment of voltage and current
- Meet RoHS requirements
- Passing the TUV,CE,CB,UL certifications



Specifications

Product		R4850G2
Basic specifications	Dimension	40.8(H)×105(W)×281(D)mm
	Weight	≤2kg
	Cooling	Forced air cooling
Input feature	Input voltage	85~300VAC
	Input mode	220VAC single phase(or 110VAC dual live lines)
	Frequency	45~66Hz, rated: 50Hz/60Hz
	Rated input current	<17A
	Power factor	≥0.99
	THD	≤5%
Output feature	Output voltage	42~58VDC, default value: 53.5VDC
	Output power	3000W(176~300VAC)
Environmental specifications	Operating temperature	-40℃~+75℃(non-derating under 55℃)
	Storage temperature	-40℃~+75℃
	Relative humidity	5%~95%(non-condensing)
	Altitude range	≤4000m(If the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by 1℃ as the altitude increases by 200m.)
Protection	Input overvoltage protection	Protection point: >300VAC
	Input undervoltage protection	Protection point: <80VAC
	Output overvoltage protection	58.5~60.5VDC(can be set by PMU)
	Output short circuit protection	A long term short circuit is allowed.
	Over-temperature protection	Protection point: ≥75℃(167℉)
Reliability	MTBF	>500,000hours
Audible noises	Specification	≤55dB(40℃, full load)
Safety/EMC/ Lightening protection	Safety certification	Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1
	EMC	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20
	Lightening protection	YD 5098-2005 5KA

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Rectifier Module

R4850N2

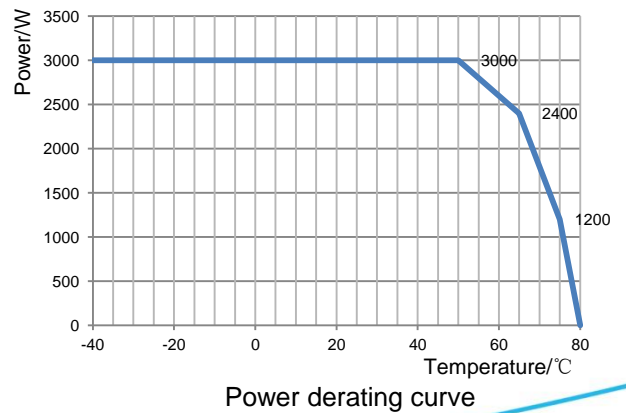
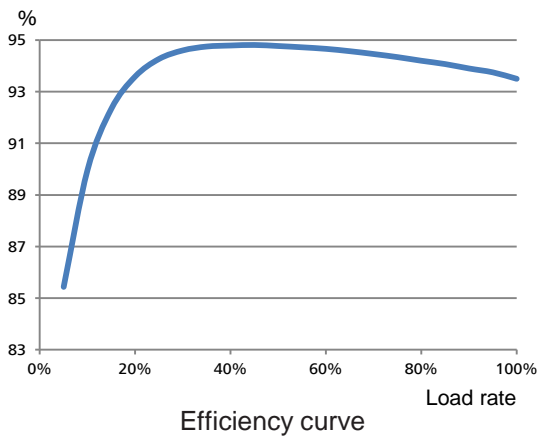
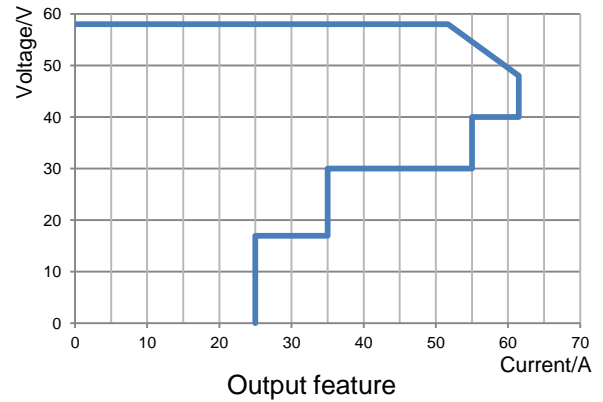


Introduction

The R4850N2 is a digital rectifier that converts the 85~300VAC to 53.5 VDC and possesses the characters of high efficiency, high power density, walk-in start, hot-plug, complete protection, and low noise. The rectifier adopts the latest power monitoring technology, implements the function of monitoring the states of loads and the rectifier status in real time. The output voltage of the rectifier can be adjusted through the host.

Feature

- High efficiency: >94%
- Input voltage range: 85~300VAC
- Operating temperature range: -40°C~75°C
- Total harmonic distortion(THD): ≤5%
- Hot-plug
- Digital control
- Intelligent electric meter
- Supports CAN communication
- Adjustment of voltage and current
- Meet RoHS requirements
- Passing the TUV,CE,CB,UL certifications



Specifications

Product		R4850N2
Basic specifications	Dimension	40.8(H)×105(W)×281(D)mm
	Weight	≤2kg
	Cooling	Forced air cooling
Input feature	Input voltage	85~300VAC
	Input mode	220VAC single phase (or 110VAC dual live lines)
	Frequency	45~66Hz, rated: 50Hz/60Hz
	Maximum input current	≤19A
	Power factor	≥0.99
	THD	≤5%
Output feature	Output voltage	42~58VDC, default value: 53.5VDC
	Output power	3000W(176~300VAC)
Environmental specifications	Operating temperature	-40℃~+75℃(non-derating under 50℃)
	Storage temperature	-40℃~+75℃
	Relative humidity	5%~95%(non-condensing)
	Altitude range	≤4000m(If the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by 1℃ as the altitude increases by 200m.)
Protection	Input overvoltage protection	Protection point: >300VAC
	Input undervoltage protection	Protection point: <80VAC
	Output overvoltage protection	58.5~60.5VDC(can be set by PMU)
	Output short circuit protection	A long term short circuit is allowed.
	Over-temperature protection	Protection point: ≥75℃(167℉)
Reliability	MTBF	>500,000hours
Audible noises	Specification	≤55dB(40℃, full load)
Safety/EMC/ Lightening protection	Safety certification	Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1
	EMC	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20
	Lightening protection	YD 5098-2005 5KA

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Rectifier Module

R4850S1

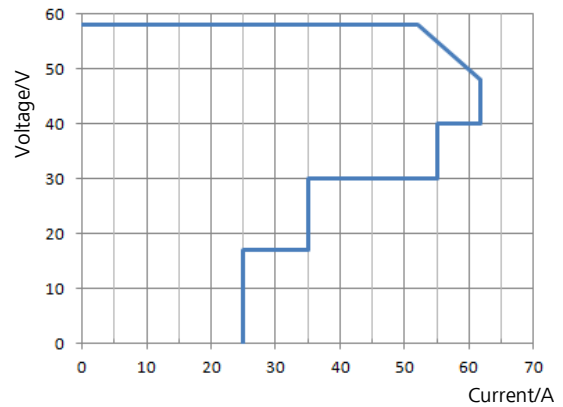


Introduction

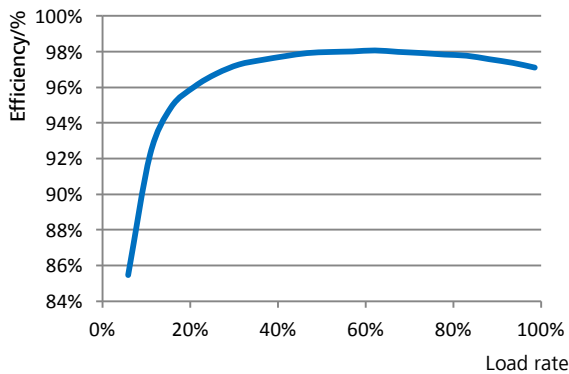
The R4850S1 is a digital rectifier that converts 85-300V AC to 53.5 V DC and has the highest efficiency in industry. It also possesses the characters of high power density, walk-in start, hot-swappable, complete protection, and low noise, etc. The rectifier adopts the latest power monitoring technology, implements the function of monitoring the status of the load and rectifier in real time. The output voltage of the rectifier can be adjusted through the host.

Feature

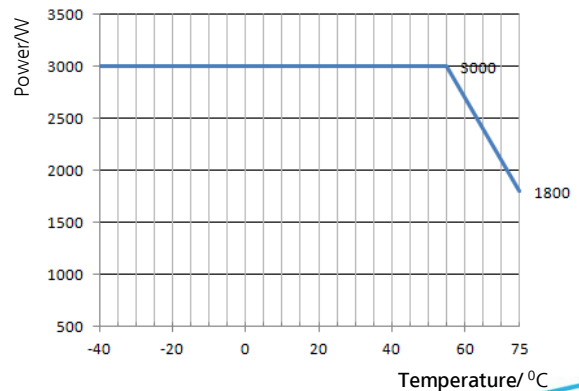
- Super high efficiency: 98%, the highest in industry
- Wide input voltage range: 85-300V AC
- Wide operating temperature range: -40 °C-75 °C
- Low total harmonic distortion(THD): $\leq 5\%$
- Hot-swappable
- Digital control
- Intelligent electric meter
- CAN communication
- LED alarm presentation
- Voltage and current adjustable, current sharing
- 320V AC offline function



Output feature



Efficiency curve



Power derating curve

Specifications

Product		R4850S1
Basic specifications	Dimension	40.8(H) × 105(W) × 281(D)mm
	Weight	≤2.5kg
	Cooling	Forced air cooling
Input	Input voltage	85-300V AC
	Input mode	220V AC single phase (or 110V AC dual live lines)
	Frequency	45-66Hz, rated: 50Hz/60Hz
	Rated input current	<17A
	Power factor	≥0.99 (load rate ≥50%)
	THD	≤5% (load rate ≥50%)
Output	Output voltage	42-58V DC, default value: 53.5V DC
	Output power	3000W (176-300V AC) 1250W (85V AC, 175-85V AC derating linearly)
Environment	Operating temperature	-40 °C~+75 °C (full rated output below 55 °C)
	Storage temperature	-40 °C~+75 °C
	Relative humidity	5%-95% (non-condensing)
	Altitude range	≤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)
Protection	Input overvoltage protection	>300V AC
	Input undervoltage protection	<80V AC
	Output overvoltage protection	56 ~ 60V DC (Adjustable)
	Output short circuit protection	A long term short circuit is allowed
	Over-temperature protection	Protection point: >75 °C (167 °F)
Reliability	MTBF	>500,000hours
Audible noise	Specification	≤55dB (40 °C, full load)
Design standards	Electrical Safety	TUV, CE, UL, FCC, RCM certifications CB certificate UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1 EN60950-1
	EMC	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20 FCC CFR47 Part 15 Subpart B AS/NZS CISPR22
	Lightening protection	YD 5098-2005 5KA

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Rectifier Module

R48100G1

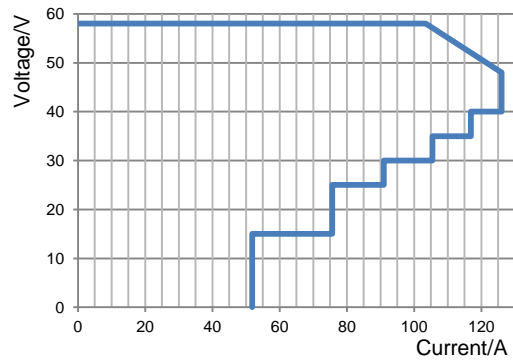


Introduction

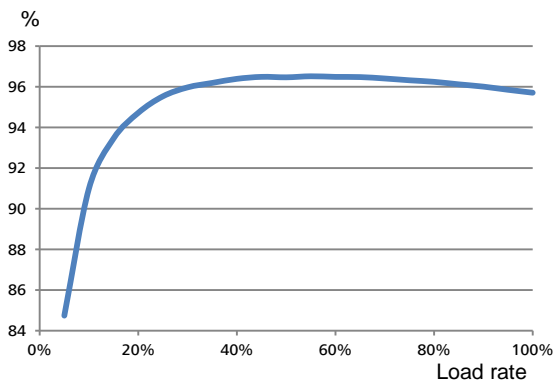
The R48100G1 is a digital control 3-phase rectifier with the maximum output power being 6000W. It converts 260~530VAC input voltage to 53.5VDC output voltage. The output voltage can be adjusted by the host. It performs comprehensive protection functions, supports soft start, and produces low noise. With the latest power monitoring technology, states of the rectifier and load are monitored in real time. Multiple rectifiers can be paralleled.

Feature

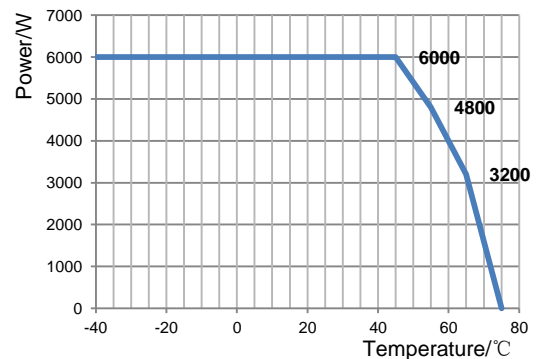
- Efficiency over 96%, saving huge energy
- Wide range of AC input voltage:260~530VAC
- Wide range of operating temperature:-40 °C to +75 °C
- Total harmonic distortion (THD) \leq 5%
- Digital control mode
- Hot swap
- Supports intelligent electric meter
- Supports CAN communication
- Supports LED display
- Supports voltage and current adjustment
- Passes the TUV,CE,UL certifications and gets the CB certificate



Output feature



Efficiency curve



Power derating curve

Specifications

Product		R48100G1
Basic specifications	Dimension	43mm(H) × 238mm(W) × 378mm(D)
	Weight	< 6kg
	Cooling	Forced cooling
Input feature	Input voltage	260~530VAC
	Input mode	380V, three phase three line
	Frequency	45~66Hz, rated 50Hz/60Hz
	Maximum input current	≤13A(Vin: 308VAC,100% load)
	Power factor	≥ 0.99
	THD	≤ 5%
Output feature	Output voltage	42~58VDC, rated 53.5VDC
	Output power	6000W(304~530VAC)
Environmental specifications	Operating temperature	-40℃ to +75 ℃(output derating above 45℃)
	Storage temperature	-40℃ to +75℃
	Relative humidity	5%~95% (non-condensing)
	Altitude range	≤ 4000m (If the altitude is within the range of 2000m to 4000m, the maximum operating temperature decreases by 1℃ as the altitude increases by 200m)
Protection	Input overvoltage protection	Protection point: >530VAC, <550VAC
	Input undervoltage protection	Protection point: <260VAC
	Output overvoltage protection	58.5~60.5VDC(can be set by PMU)
	Output short circuit protection	A long term short circuit is allowed. After the fault is rectified, the rectifier is restored to a healthy state automatically.
	Over-temperature protection	Protection point: 75℃
Reliability	MTBF	540,000 hours
Audible noises	Specification	≤45dB(25℃, full load)
Safety/EMC/ Lightening protection	Safety certification	Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950-1
	EMC	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ITU-T K.20
	Lightening protection	5KA

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