# **Rectifier Module**

## R4830G2

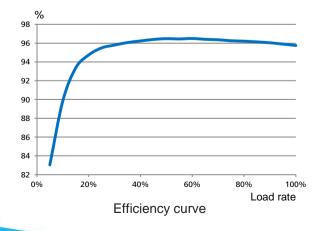


## Introduction

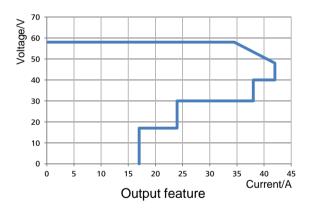
The R4830G2 is a digital rectifier that converts the 80~300VAC to 53.5 VDC and possesses the characters of high efficiency, high power density, walk-in start, hot-plug, complete protection, and low noise. The rectifier adopts the latest power monitoring technology, implements the function of monitoring the states of loads and the rectifier status in real time. The output voltage of the rectifier can be adjusted through the host.

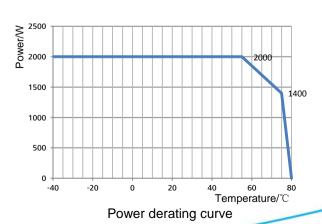
## **Feature**

- High efficiency: >96%
- Input voltage range: 80~300VAC
- 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**

Dimension   40.8(%) 105(NV) × 281(D)mm	Product		R4830G2
Specifications   Cooling   Forced air cooling   Forced air cooling   Input voltage   80–300/AC   Input mode   220/AC single phase(or 110/AC dual live lines)   Frequency   45–66Hz, rated: 50Hz/90Hz   Maximum input current		Dimension	40.8(H)×105(W)×281(D)mm
Input feature   Input votlage   80-300VAC   Input mode   220VAC single phase(or 110VAC dual live lines)		Weight	≤1.8kg
Input mode 220VAC single phase(or 110VAC dual live lines)  Frequency 45-66Hz, rated: 50Hz/60Hz  Asximum input current 512A  Power factor 20.99(full load)  THD 5514(over 50% load)  Output oliage 42-58VDC, default value: 53.5VDC  Output power 2000W(176-300VAC)  Operating temperature 40°C+75°C (non-derating under 55°C)  Storage temperature 40°C+75°C (non-derating under 55°C)  Relative humidity 5%-95%(non-condensing)  Altitude range 54000m(if the altitude is within the range of 2000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m.)  Protection Input undervoltage protection point: <80VAC  Protection Output overvoltage protection  Output overvoltage protection  Output overvoltage protection  Output overvoltage protection  Output overvoltage protection  Protection Output overvoltage protection function is available  Protection Output short circuit protection function is available  Protection Selective Complex with Uconsol of Complex of Compl		Cooling	Forced air cooling
Propulation	Input feature	Input voltage	80~300VAC
Maximum input current   si2A		Input mode	220VAC single phase(or 110VAC dual live lines)
Maximum input current   \$12A     Power factor   \$20.99(full load)     THD   \$5%(over 50% load)     Output voltage   42-58VDC, default value: \$3.5VDC     Output power   2000W(176-300VAC)     Output power   40°C+75°C (non-derating under 55°C)     Storage temperature   40°C+75°C (non-condensing)     Altitude range   \$400cm(fl the altitude is within the range of 2000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m.)     Input overvoltage protection   Protection point: \$300VAC     Input undervoltage protection   Protection point: \$80VAC     Input undervoltage protection   \$6~60VDC(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   \$500.000hours     Audible noises   Safety certification   Safe(25°C, full load)     Passes TUV, CE, UL certifications   Carch the CB certificate   Complies with UL 60950-1     ENG0950-1   EN60950-1     EN60950-1   EN60950-1     EN50202   EN850204     EN150203   ETSI EN300 386     ETSI EN300 1489   ITU-T K.20     TUT-T K.20		Frequency	45~66Hz, rated: 50Hz/60Hz
THD \$55%(over 50% load)  Output feature  Output voltage 42-58VDC, dafault value: 53.5VDC  Output power 2000W(176-300VAC)  Operating temperature 40°C+75°C (non-derating under 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 2000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m.)  Protection   Input undervoltage protection   Protection point: >300VAC   Input undervoltage protection   Protection point: >300VAC   Input undervoltage protection   A long term short circuit is allowed   Output short circuit protection   Protection function is available    Reliability   MTBF   >500,000 hours    Audible noises   Specification   Safety certification   Safety certification   Passes TUV, CE, UL certifications Carch the CB certificate Complies with UL00550-1   ENG0800-1 CANICSA C22.2 No. 60950-1   ENG0800-1 CANICSA C22.2 No. 60950-1   ENG0800-3 ETSI EN300.388   ETSI ETSI ETSI ETSI ETSI ETSI ETSI ETSI		Maximum input current	≤12A
Output feature Output power Output power Output power Output power Output power Operating temperature Output power Operating temperature -40°C-+75°C (non-derating under 55°C) Storage temperature -40°C-+75°C (non-derating under 55°C) Altitude range Altitude range Altitude range Altitude range Output overvoltage protection Input undervoltage protection Input undervoltage protection Output overvoltage protection Output overvoltage protection Output overvoltage protection Output short circuit protection  Reliability MTBF  >560-00DC(can be set by PMU)  Over-temperature protection Protection function is available  Protection function is available  Protection function is available  Safety/EMC/ Lightening Protection  EMC  EMC  EMC  EMC  EMC  EMC  EMC  EM		Power factor	≥0.99(full load)
Output power  Storage temperature  A10°C-475°C (non-derating under 55°C)  Storage temperature  A10°C-475°C  Relative humidity  5%-95% (non-condensing)  Altitude range  A1000mfff the altitude is within the range of 2000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m.)  Input overvoltage protection  Input undervoltage protection  Output overvoltage protection  Output overvoltage protection  Output overvoltage protection  Output short circuit protection  Output short circuit protection  Over-temperature protection  Protection function is available  Reliability  MTBF  >500,000hours  Aldible noises  Safety/EMC/ Lightening protection  EMC  EMC  EMC  EMC  EMC  EMC  EMC  EM		THD	≤5% (over 50% load)
Output power   2000W(176-300VAC)	Output feature	Output voltage	42~58VDC, default value: 53.5VDC
Environmental specifications  Storage temperature		Output power	2000W(176~300VAC)
Relative humidity 5%-95%(non-condensing)  Altitude range 54000m(lff the altitude is within the range of 2000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m.)  Protection Input overvoltage protection Protection point: >300VAC  Input overvoltage protection Protection point: <80VAC  Output overvoltage protection S6~60VDC(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 >500,000hours  Audible noises Specification \$45dB(25°C, full load)  Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEG6950-1 IEG6950-1 IEG6950-1 IEG6950-1 IEN60950-1 IEN60950		Operating temperature	-40°C~+75°C (non-derating under 55°C)
Altitude range		Storage temperature	-40℃~+75℃
Input overvoltage protection   Protection point: >300VAC		Relative humidity	5%~95%(non-condensing)
Protection   S6~60VDC(can be set by PMU)   Protection   Output short circuit   Protection   A long term short circuit is allowed   Protection   Passes TUV, CE, UL certifications   Catch the CB certificate   Complies with   UL60950-1   EC60950-1   EC60950-1   EC60950-1   EC60950-1   EC60950-1   EC60950-1   EN60950-1   EN60950-1   EN60950-2   EN60950-2   EN60950-3-2   EN55024   EN61000-3-2   EN55024   EN61000-3-2   EN51000-3-2   EN51000-3-2   EN51000-3-2   EN51000-3-3   ETSI EN300-386		Altitude range	
Protection  Output overvoltage protection  Output short circuit protection  Over-temperature protection  Protection function is available  Reliability  MTBF  Audible noises  Specification  Safety certification  Safety certification  Safety certification  EMC  Protection function is available  Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 IEC60950-1 IEN60950-1 CAN/CSA C22.2 No. 60950 -1  EN55022 Class B EN55024 EN61000-3-2 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN300 489 ITU-T K.20	Protection		Protection point: >300VAC
Protection  Output short circuit protection  Over-temperature protection  Protection function is available  Reliability  MTBF  >500,000hours  Audible noises  Specification  Safety certification  Safety certification  Safety certification  Safety certification  EMC  EMC  Solution  A long term short circuit is allowed  Protection function is available  Solution function is available  Solution function is available  Protection function is available  Protection function is available  Protection function is available  Solution function is available  Protection function is available  Solution function is available  Protection function is available  Protection function is available  Solution function is available  Protection function is available  Solution function is available  Protection func			Protection point: <80VAC
Protection  Over-temperature protection  Reliability  MTBF  >500,000hours   45dB(25°C, full load)  Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1 CAN/CSA C22.2 No. 60950 -1 EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20			56∼60VDC(can be set by PMU)
Protection Protection function is available  Reliability  MTBF  >500,000hours   445dB(25℃, full load)  Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1  EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20			A long term short circuit is allowed
Audible noises  Specification  ≤45dB(25℃, full load)  Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1  EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20		•	Protection function is available
Safety/EMC/ Lightening protection  EMC  EMC  EMC  EMC  Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950 -1  EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN300 386 ETSI EN301489 ITU-T K.20	Reliability	MTBF	>500,000hours
Safety certification   Catch the CB certificate	Audible noises	Specification	≤45dB(25℃, full load)
Lightening	Lightening	Safety certification	Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1
Lightening protection YD 5098-2005 5KA		EMC	EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489
		Lightening protection	YD 5098-2005 5KA

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