

Rectifier Module

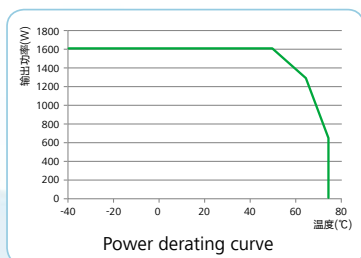
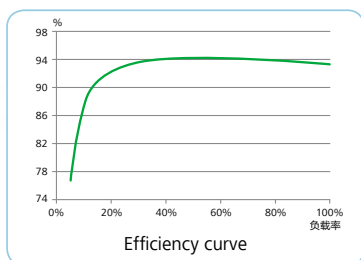
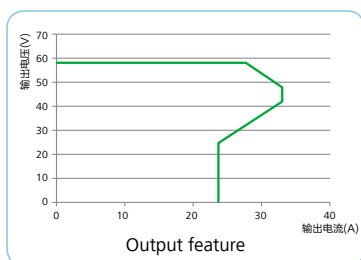
R4830N2

Introduction

The R4830N2 is a digital rectifier with high efficiency and power density. It converts 85–300 V AC 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.

Features

- 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
- Communication over CAN
- Adjustment of voltage and current
- Meet RoHS requirements
- Passing the TUV, CE, CB, UL certifications



Specifications

Product		R4830N2
Basic specifications	Dimension	41(H)×95.5(W)×208(D)mm
	Weight	≤1.3kg
	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	≤10A
	Power factor	≥0.99(full load)
	THD	≤ 3.5% (full load) ≤5% (load≥50%)
Output feature	Output voltage	42–58VDC, default value: 53.5VDC
	Output power	1605 W (176–300 VAC) 755 W (85–175 VACdecreased linearly)
Environmental specifications	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 3000m to 4000m, the maximum operating temperature decreases by 1°C as the altitude increases by 200m.)
Protection	Input overvoltage protection	Protection point: >300VAC
	Input undervoltage protection	Protection point: <80VAC
	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	>500,000hours
Audible noises	Specification	≤45dB(25°C, 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	5KA