

# Rectifier Module

## R4850N2



### Introduction

R4850N2 is a 3000W, 94% efficiency, digital controlled high power density rectifier.

It converts input voltage ranges between 85 to 300 Vac into 42 to 58 Vdc adjustable output voltage.

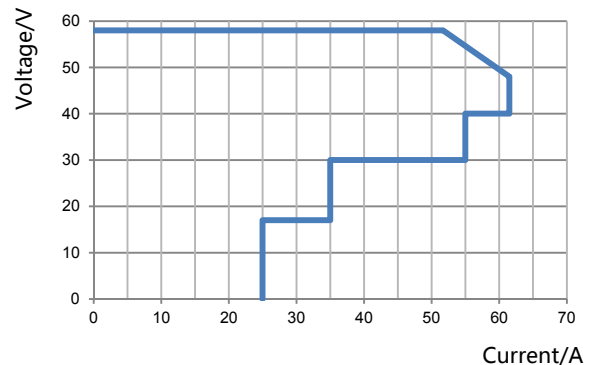
With state-of-the-art technologies, the online-swappable rectifier module supports walk-in start, low noise operation and multiple functions on real-time state management.



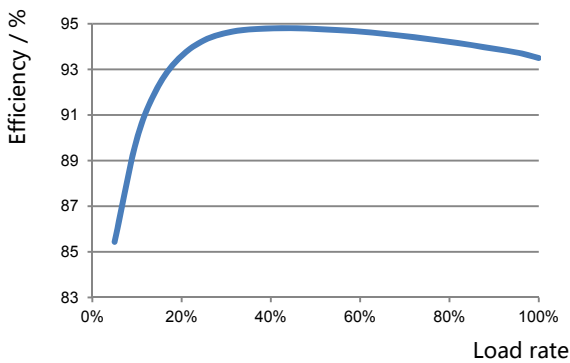
Overview of R4850N2

### Features

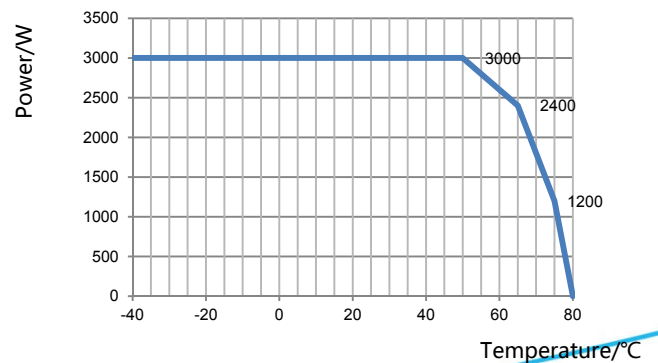
- **High efficiency:**  $\geq 94\%$
- **Wide input voltage range:** 85 to 300 Vac
- **Wide operation temperature range:** from  $-40\text{ }^{\circ}\text{C}$  to  $75\text{ }^{\circ}\text{C}$  (full output up to  $45\text{ }^{\circ}\text{C}$ )
- Total harmonic distortion (THD):  $\leq 5\%$
- **Hot-swappable** rectifier
- **Digital control**
- **Intelligent electric meter**
- **CAN communication**
- Alarms can be displayed on the LED
- Adjustable voltage and current
- Meet the RoHS requirements
- **UL, TUV, CE, CB** certifications



Output Feature Curve



Energy Efficiency Curve



Output Power Vs Temperature Curve

# Specifications

Product		R4850N2
Basic specifications	Dimension	105 mm(W) × 281 mm(D) × 40.8 mm(H)
	Weight	≤ 2 kg
	Cooling	Forced Air cooling
Input feature	Input Voltage	85 to 300 Vac
	AC Input Mode	220 Vac single phase (or 110 Vac dual live lines)
	Frequency	45 to 66 Hz, rated: 50 Hz / 60 Hz
	Input Current	< 19 A
	Power Factor	≥ 0.99
	THD	≤ 5%
Output feature	Output Voltage	42 to 58 Vdc, rated voltage: 53.5 Vdc
	Output Power	3000 W ( 176-300 Vac )
	Ripple and Noise	< 200 mVp-p ( 20MHZ bandwidth )
Environmental specifications	Operating Temperature	-40 °C to +75 °C
	Storage Temperature	-40 °C to +75 °C
	Relative Humidity	5% to 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 200 m)
Reliability	MTBF	≥ 500,000 hours (Telcordia SR-332 issue2 Method 1 at 25 °C)
Audible noises	Specification	≤ 55 dB (25 °C, full load)
Safety/EMC/ Lightning protection	Safety Certification	Passed TUV , CE , UL , CB certifications 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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