

# NESPACE Series Rectifier Module

## 3 kW 62 A 48 Vdc



NESPACE Rectifier Modules deliver outstanding reliability and world-leading power density.

Ideally suited for 48V telecom and other applications where wide input voltage ranges and high operating temperatures are required.

### FEATURES

**High efficiency and high power density**

Max efficiency 96%  
1U height

**Wide input voltage range**

85-296 Vac 1ph

**High operating temperature range**

Operating -40 to +75° C, full power -40 to +45° C

**High reliability**

Efficient thermal design and self-protection features ensure high reliability  
Hot swappable

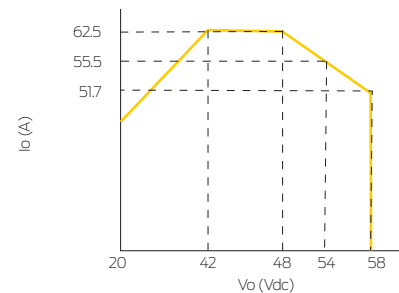
**Excellent EMC performance**

Low interference and low susceptibility

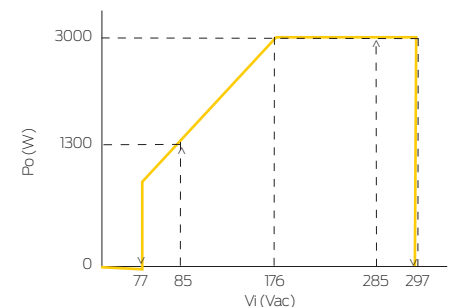
**Worldwide certifications**

UL and CE

### Output Voltage vs Output Current



### Output Power vs Input Voltage



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## 3 kW 62 A 48 Vdc

### SPECIFICATION

#### AC Input

Nominal voltage	240 Vac 1ph
Range	85-296 Vac 1ph
Frequency	45~66 Hz
Inrush	25 A at nominal input, full load
Efficiency	Up to 96%
Power factor	> 0.99 at 50% load or more
Protection	Under and over voltage mains fuse in both lines

#### DC Output

Nominal voltage	54.0 Vdc
Range	42.0 - 58.0 Vdc
Output power	3000 W at $\geq 176$ Vac input 1954 W at 120 Vac input 1300 W at 85 Vac input
Output current	55.5 A at 54V, input $\geq 176$ Vac 36.2 A at 54V, input 120 Vac 24.1 A at 54V, input 85 Vac
Line regulation	$\pm 0.5\%$ Max over entire input range
Load regulation	$\pm 0.5\%$ Max over entire load range
Ripple and noise	$\leq 300$ mV, p-p
Overvoltage protection	Overvoltage at 59 Vdc (recycle input to reset) Power de-rating Thermal shutdown

#### General Specifications

Cooling	Single fan (front to back airflow)
MTBF	>350,000 hours (25° C)
Acoustic noise	<58 dBA at nominal input and full load (ambient <40° C)
Operating temperature	-40 to +75° C (de-rated above 45° C)
Storage temperature	-40 to +85° C
Humidity	$\leq 95\%$ non-condensing
H x W x L mm	44 (1U) x 108 x 340
Weight kg	2.3
Monitoring and Control	NESPACE KA/KA2 Monitoring Control Unit
Communication protocol	CAN Bus

#### Standards

Safety	IEC 60950-1, UL 60950-1
EMC	EN 55022 Class A (emission) IEC 61000-4-2 (electrostatic discharge) IEC 61000-4-3 (radiated immunity) IEC 61000-4-4 (fast transients) IEC 61000-4-5 (surge immunity) IEC 61000-4-6 (conducted immunity) IEC 61000-4-10 (voltage dips) IEC 61000-4-11 (voltage interruptions) IEC 61000-3-3 (fluctuations & flicker)
Certification	UL, CE, CB