

Nian Electronic Rectifier

NHR48S / NCR48S / NCR48U2000W / NCR48U 3000W / NCR48W / NHR484U2-Series

Nian Electronic rectifiers are highly reliable, telecom grade AC-DC48V rectifiers; covering a wide range of AC inputs and DC power outputs to suit different applications. Efficiency exceeding 96% with the Efficiency Plus Rectifiers, power dense and a standardized design assisting scalability, flexible mounting and universal AC input all contribute to Nian Electronic power system solutions to meet customer requirements.

NHR48S – Rectifier Series

Introduction

NHR48S is a single phase rectifier with outstanding efficiency and power density. This rectifier is optimal for Nian Electronic Metro and Core DC Power Systems. The excellent functional operation in high temperature ranges makes the device most suitable for wired and wireless broadband applications in harsh climates. Easy installation is assured as all Nian Electronic rectifiers are hot-pluggable. The fan cooling systems with speed control support the silent operation.



NHR48S / 6KW

Features

- High efficiency (More than 94%)
- Wide AC input range
- Wide operation temperature range
- Soft-Switching
- Comprehensive output protection
- Phase Shift Full Bridge Technology
- Hot-Pluggable
- Initial-Boost-Float charging mode
- Adjustable output voltage
- Active load sharing
- High Reliability

NCR48S – Rectifier Series

Introduction

These series of Nian Electronic rectifiers, comprising advanced control and monitoring features, are high-density, compact design and extremely cost-effective power supplies. A silent operation is by the application of Maglev fan cooling systems ensured.



NCR48S / 2KW

Features

- High efficiency (More than 94%)
- Wide operation temperature range
- Wide input range
- Soft-Switching
- Comprehensive output protection
- Hot-Pluggable
- Boost-Float charging mode
- Adjustable output voltage
- Active load sharing
- High quality components
- Fault LED indicators
- High Reliability

NCR48W / NHR484U2 - Rectifier Series



NHR484U2 / 4KW



NCR48W / 1200 W



NCR48W / 1500 W

NCR48U - Efficiency Plus Rectifier Series

Introduction

Nian Electronic presents one of the most efficient rectifiers in the industry! The combination of innovative design, efficiency and reliability makes the NCR48U 2KW EP Series to stand out. With the efficiency over 96%, the losses have been reduced by 50% compared to the current industry standards.

EP NCR48U / 2KW



NCR48U / 3KW



Features

- High efficiency (up to 96.2% at standard conditions)
- High reliability
- Wide operation temperature range
- Wide AC input range
- Compliance with international standards
- Hot-Pluggable (fast on-line expansion of rectifiers)

Technical Specification of Rectifiers

Model	NCR48U		NCR48S	NHR484U2	NHR48S
Part Number	NCR48U 2 KW	NCR48U 3 KW	NCR48S	NHR484U2	NHR48S
Input Data					
Voltage (Nominal)	185-275 VAC	195-275 VAC	185-265 VAC	185-275 VAC	185-265 VAC
Voltage (Range)*	85-275 VAC		150-265 VAC	85-275 VAC	150-265 VAC
Frequency	45-65 Hz				
Power Factor*	>0.99				
THD	<%5				
Input Current (Max.)	13 A	18 A	13 A	23 A	36 A
Inrush Current	<7 A				
Protection	Surge Protected, High Input Voltage, Low Input Voltage, Hot Plug-in, Inrush Current Limit				
Output Data					
Voltage (Default)	53.5 VDC				
Voltage (Adjustable Range)	44-58 VDC		42-59 VDC	44-58 VDC	41-59 VDC
Power (Max.)	2 KW	3 KW	2 KW	4 KW	6 KW
Current (Max.)	42 A	63 A	42 A	84 A	125 A
Current Sharing	<0.05 Maximum Current				
Charging Types	Equalize (Boost)-Float				Initial-Equalize-Float
Regulation Time	<2 ms				<1 ms
Ripple	<100 mV Peak to Peak				
Protections	<ul style="list-style-type: none"> • High Input Voltage • Over Voltage Shut-Down • Under Current Protection • Hot Pluggable/ Inrush Current Limiting • High Temperature Protection • Current Limit 		<ul style="list-style-type: none"> • Low Input Voltage • Under Voltage Shut-Down • Over Current Protection • Short Circuit Proof • Fan Failure 		
Other Specifications					
Efficiency*	>%95 (Upto 96.2 in Peak Efficiency)		>%95		
Operating Temperature & Humidity	-10 to +50 °C / 5-90%				
Cooling Method	2 Maglev Technology Fan-Front to Back Air Flow				
LED Indicators	Green LED: Normal/Yellow LED: Current Limit/Red LED: Output Failure				
Dimensions (HxWxD) mm	44x212x327	212x66x395	88.9x100x400	88x435x400	
Weight (kg)	3	3.5	5	5.5	10
Visual Display	LED Indicator				LCD Display

* Voltage (range), power factor, efficiency and DC output power are dependent on rectifier model fitted. Refer to the rectifier datasheet for further details.