

# Rectifier AR48-1700

## Description

The AST R48-1700 rectifier efficiently converts standard AC supply voltages into stable nominal-48V DC voltage, tailored to meet the specific requirements of various applications.

Featuring constant power output, this rectifier offers enhanced performance. To accommodate higher load capacities, multiple rectifiers can be connected in parallel, and for added intelligent control, a separate controller can be integrated.

## Benefits

Reduce operational expenses by utilizing high-efficiency rectifiers, achieving an efficiency more than 94% to meet the specific requirements of various applications.

Operate your DC plant effectively in challenging environments thanks to its wide input voltage range.

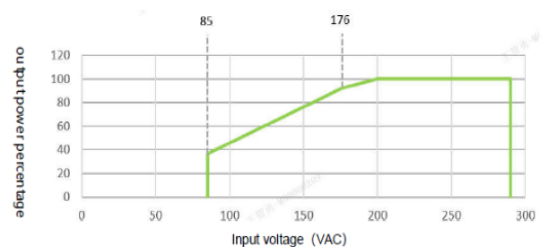
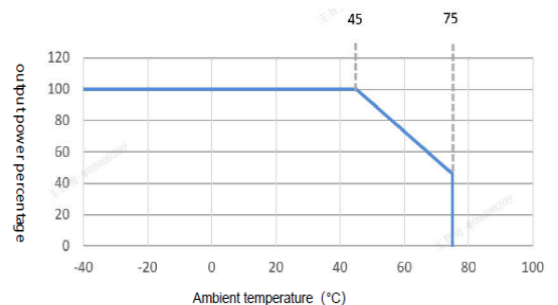


Figure 1-4 Input Voltage Derating Curve



## Technical Specifications

### 1.1 AC Inputs

Operating Range	190V <sub>ac</sub> to 290V <sub>ac</sub>
Input Current	≤ 11A
Power Factor	≥ 0.99 (220V <sub>ac</sub> @20% ~ 100% load)
Frequency	45Hz~66Hz Rated Value is 50Hz/60Hz
THD	<3% @ ≥50% load <8% @ ≥20% load

### 1.2 DC Output

Output voltage	42 V <sub>dc</sub> - 58 V <sub>dc</sub> Rated Value is 53.5V <sub>dc</sub>
Regulated voltage precision	≤±0.6%V <sub>o</sub>
Ripple and noise	≤200mVp-p (bandwidth ≤20MHz)
Standby power	≤5W
Startup duration	3s~8s (Instant start mode)
Output hold-up. time	>10ms
Phone noise. weighting voltage	≤2mV
Wide-band noise voltage	≤50mV (3.4kHz~150kHz) ≤20mV (0.15MHz~30MHz)
Efficiency	>94%

### 1.3 Operational Environment

Operating temperature	-20 to +60 °C Note: for DC/AC & AC/AC -20°C to +45 °C- It works normally. +45°C to +60°C- linear derating to 1190W
Storage Temperature	-40 °C to +75 °C
Relative Humidity	5% - 95% (No condensation)
Altitude	≤ 4000m (3000m – 4000m the temperature will decrease by 1°C for every 200m)

### 1.4 Mechanical Characteristics

Dimensions	1U X 2U
Weight	< 1.2Kg
Cooling mode	Forced air cooling, built-in fan (with linear speed regulation function) every 200m)