

# V Series Rectifier Modules

Reliable, efficient, cost-effective rectifier modules

Eltek Valere *V-series* rectifier modules provide unprecedented power density and in a truly compact, plug-and-play format. With a wide range of available voltages, power ratings, and system form factors, Eltek Valere's power modules allow optimal system design and cost-effective deployment from initial install to future upgrades.



## Applications

### Cabinet power systems

Vertical air flow, high efficiency, and a high operating temperature rating make Eltek Valere rectifiers ideal for wireless, broadband, and fiber-based outdoor and indoor telecommunications cabinets.

### Enterprise networking equipment

*V-series* rectifiers provide an efficient solution to the power needs of routers, servers, storage networks, modem pools, and other power-hungry networking gear.

### Embedded power systems

Give your network a competitive edge. The combination of a space-saving form factor and high-efficiency leaves more room for other equipment.

### Carrier networks

Is space cramped for powering more telecommunications equipment? Free up space with *V-series* rectifiers to avoid costly rack or cabinet expansions.

## The Eltek Valere Difference

### Optimization

Eltek Valere rectifiers are optimized for the demanding power and power conversion needs of wireless communications, enterprise and broadband access equipment.

### Small size, big power

At only 2RU, Eltek Valere *V-series* rectifiers can provide up to 2,500 Watts of power per unit. The small rectifier size allows for the use of smaller DC systems, freeing up space for additional electronics.

### Industry-leading efficiency

At over 95% efficiency, the *V-Series HE* rectifiers not only reduce energy waste and costs, but since they generate less heat it also takes less energy to cool the equipment, thus reducing expenses in multiple areas of the operator's network.

### Flexibility

*V-series* rectifiers are designed to operate in Eltek Valere's *Compact* and *Integrated* DC Power Systems. Utilize *V-Series* rectifiers for 92% conversion efficiency. Upgrade to *V-Series HE* rectifiers for an incredible 95.5% efficiency.

# V Series Rectifiers

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## Technical Specifications

- 2RU height
- Vertical airflow
- Wide range of input voltage options

### Input Specifications

- Universal AC: 100 to 240Vac (up to 1250 watt)
- High Line AC Only: 200 to 240 Vac (1500 watt and above)
- Power Factor: >.98 for loads above 60% full load
- THD: Line Harmonics meet EN61000-3-2

### Output Specifications

- |            |  |
|------------|--|
| Noise      | 20mV RMS, 10 kHz -20 MHz bandwidth   |
| Regulation | +/- 1% over line, load, and temperature  |
| Efficiency | <ul style="list-style-type: none"> <li>○ 92% for V-Series rectifiers</li> <li>○ <b>95% for V-Series HE rectifiers</b></li> </ul> |

### Temperature Range

- -40°C to +85°C storage
- See table below for operating range

### Standard Alarm and Control Interfaces

- |   |
|---|
| Opto-isolated alarms: AC fail, DC fail, and thermal alarm |
| Opto-isolated output disable command                      |
| I <sup>2</sup> C addressable serial interface             |

### Auxiliary Bias

- |  |
|--|
| 12V/500mA independent bias output for system control loads |
|--|


### Protection

- |            |                              |
|------------|------------------------------|
| Redundancy | internal "or"-ing protection |
| ESD        | EN61000-4-2                  |
| AC surge   | EN61000-4-5                  |

### Physical Specifications

- |            |                           |
|------------|---------------------------|
| Dimensions | ○ Height: 81.3 mm (3.2")  |
|            | ○ Width: 86.4 mm (3.4")   |
|            | ○ Depth: 266.7 mm (10.5") |
| Weight     | ○ 3.2kg (7lbs)            |

### Configuration Options

V Series Rectifiers		Nominal DC Output Voltage	Rated DC Output Current	AC Input Voltage Range	Efficiency	Airflow	Operating Temperature
	V0500A1	48V	10A	Universal	92%	Vertical	-40 to +65°C
	V0750A1	48V	15A	Universal	92%	Vertical	-40 to +65°C
	V1000A1	48V	20A	Universal	92%	Vertical	-40 to +65°C
	V1500A1	48V	30A	High Line	92%	Vertical	-40 to +65°C
	V2000A1	48V	40A	High Line	92%	Vertical	-40 to +70°C
	V2500A1	48V	50A	High Line	92%	Vertical	-40 to +65°C
	V1500B1	24V	30A	High Line	92%	Vertical	-40 to +73°C
	V1000A1-HE	48V	20A	Universal	<b>95.5%</b>	Vertical	-40 to +70°C
	V1500A1-HE	48V	30A	High Line	<b>95%</b>	Vertical	-40 to +70°C
	V2000A1-HE	48V	40A	High Line	<b>95%</b>	Vertical	-40 to +70°C

### Agency Certifications

NEBS	Level 3
EMI/EMC	CISPR class B conducted and radiated 10V/M radiated susceptibility
CSA/UL	UL60950-1
VDE	EN60950-1

Specifications are subject to change without notice