



# VEGA® RECTIFIER V1000A



## Introduction

V1000A is a purpose designed digital rectifier module for telecom, network access and data center applications. The product features outstanding reliability, efficiency, and excellent power density.

## Applications

- Fiber optic network
- Access network
- Satellite communication ground station
- Transmission equipment
- Mobile communication
- Industrial DC power

## Features

- **High efficiency and high power density**  
95.5% efficiency and 28.64W/in<sup>3</sup> power density.
- **Digital control**  
Design incorporates digital control to provide best-in-class performance, and comprehensive monitoring and data reporting.
- **High reliability design**  
Single fan's front-to-back airflow provides advanced thermal performance.
- **Excellent EMC performance**  
Low emission and high susceptibility design to meet global standards for EMI/EMC.
- **Global approvals**  
Designed to meet global certification standards in safety and other areas.



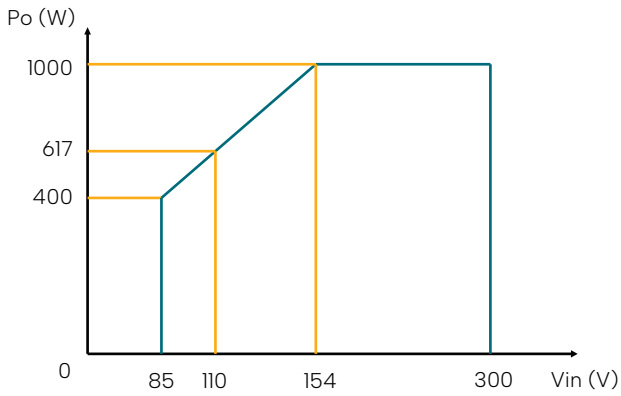
# Specifications

MODEL	V1000A
<b>INPUT</b>	
Voltage	85-300VAC (Nominal 208VAC)
Frequency	45-66Hz
Input Current	< 5Arms at 220VAC input; < 7.5Arms at 154VAC input
Power Factor	> 0.99
THDi	< 5%
<b>OUTPUT</b>	
Voltage	42-58VDC (Nominal 53.5VDC)
Power	1000W
Max. Current	21A at 48VDC
Static Voltage Regulation	< 0.6%
Dynamic Voltage Regulation	< 5% for 10%-90% load, regulation time < 50ms
Ripple	< 120mV peak to peak
Psophometric	< 2mV
Current Sharing	< 5%
Holdup Time	> 10ms
Startup Time	3-8s
Efficiency	95.5%
<b>OTHER SPECIFICATIONS</b>	
Temperature	Operating: -40°C ~ 75°C; Storage: -40°C ~ 85°C
Relative Humidity	< 95% (non-condensing)
Altitude	13000ft (above sea level)
IP Level	IP20
Input Protection	2KA lightning protection
Output Protection	59VDC overvoltage shutdown, short circuit protection, output fuse protection.
Isolation	3.0KVAC-input and output; 1.5KVAC-input and earth; 0.5KVAC-output and earth
Cooling	One fan (front-to-back airflow)
Fan Speed	Temperature and output current regulated
MTBF	> 300000 hours (T_ambient: 25°C) Telcordia SR-332 Issue 1
Acoustic Noise	≤ 50dB at 220VAC input and full load (T_ambient: < 30°C)
Dimensions (W*H*D, inch)	2.2*1.6*10
Weight	2.2lb
<b>DESIGN STANDARDS</b>	
Electrical Safety	UL 60950-1, EN 60950-1
EMC	ETSI EN 300 386 V.1.4.1; EN 61000-6-1 (immunity, light industry); EN 61000-6-2 (immunity, industry) EN 61000-6-3 (emission, light industry); EN 61000-6-4 (emission, industry)
Environment	ETSI EN 300 019-2-1 Class 1.2; ETSI EN 300 019-2-2 Class 2.3; ETSI EN 300 019-2-3 Class 3.2



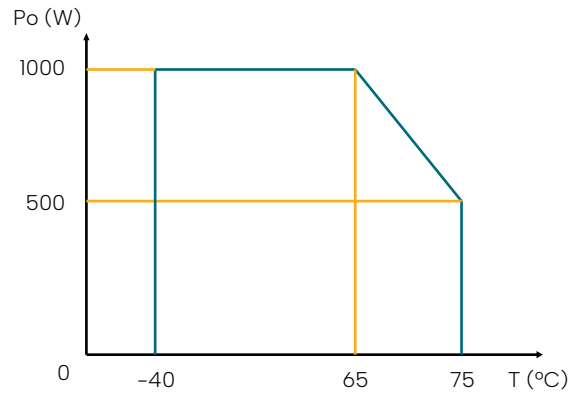
# Diagrams

## Figure 1



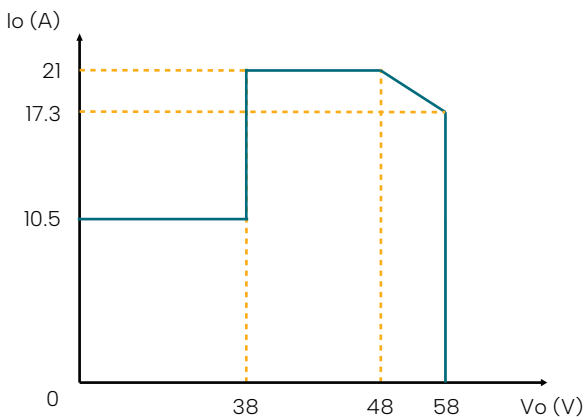
Output Power vs. Input Voltage

## Figure 2



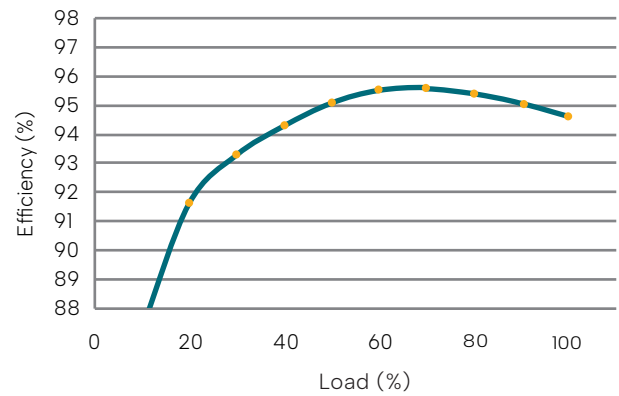
Output Power vs. Ambient Temperature

## Figure 3



Output Current vs. Output Voltage

## Figure 4



Efficiency vs. Load (at 220VAC Input)

