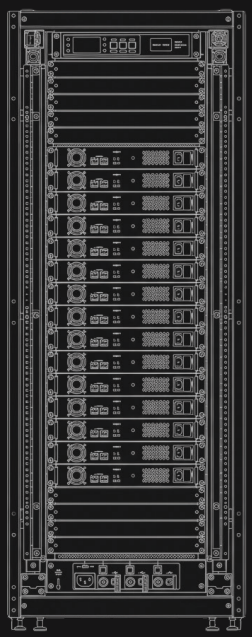
800 VDC POWER RACK

FOR NVIDIA VERA RUBIN (VRU)

The Axiom 800 VDC Liquid-Cooled Power Rack converts three-phase AC input to 800 VDC in a rack-level platform. The system integrates 2RU AC/DC power shelves, liquid distribution, management switching and protection functions for high-density power delivery.



High-Density Power

- Configurations up to 1.6 MW per rack

Modular Architecture

- 2RU shelf support rack configuration as per project requirement

Integrated Protection

- System level protection functions with embedded communication and firmware access

Parameter	Specification
Input topology	Three-phase, Wye
Input Voltage / frequency	415V AC / 50Hz or 480V AC / 60Hz
Output Nominal voltage	800 VDC
Output Power shelf	2RU liquid-cooled AC/DC power shelf
Full configuration	16 power shelves plus 2 management switches
Maximum stated rack load	1.6MW with 16pcs power shelfs full config, and 1.14MW at 4M3 config
Ripple and noise	<= 8V
Protection	Input UV/OV, OTP, OVP, UVP, OCP, GFD and leakage detection
Internal communication	Embedded PSC; USB protocol
Firmware interface	RJ45 network interface
Rack dimensions (W x D x H)	600 mm x 1200 mm x 2296.5 mm

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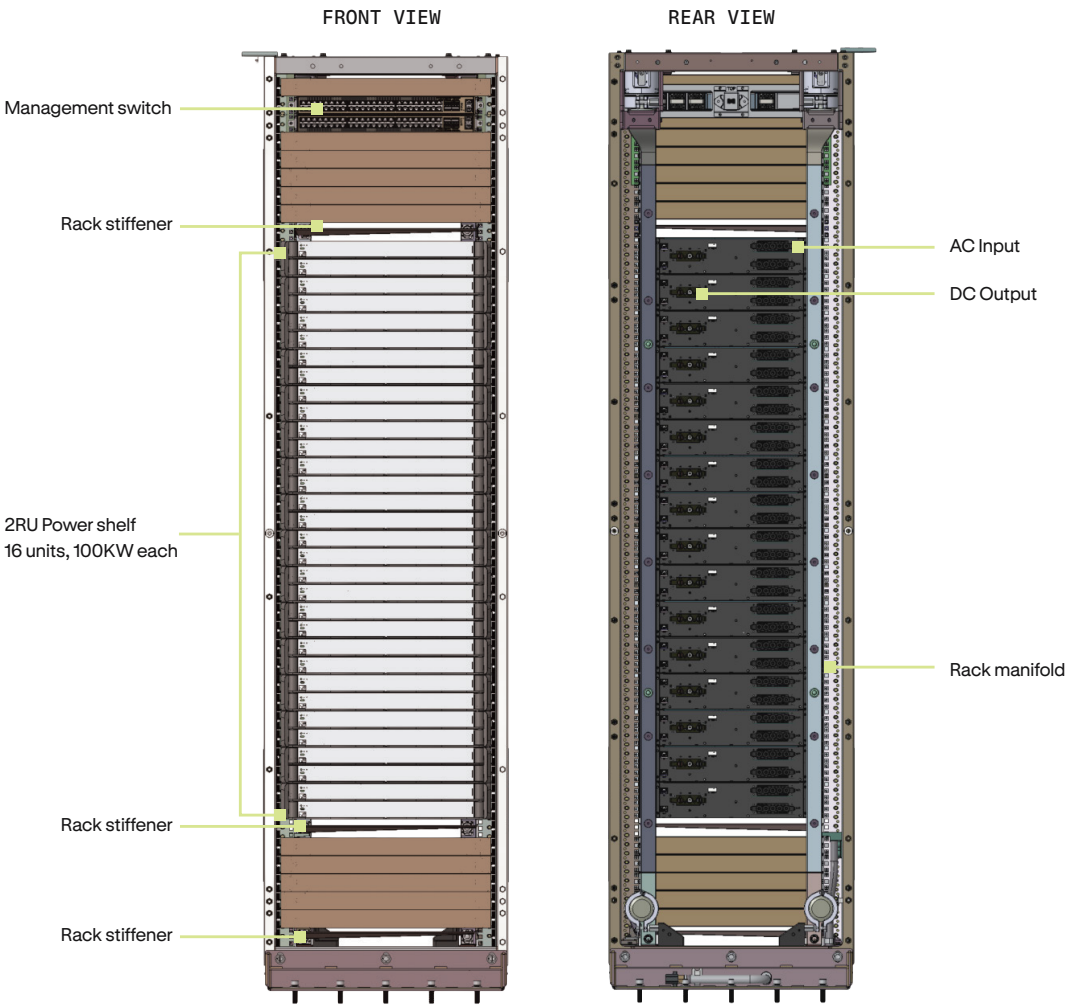
Protection and controls

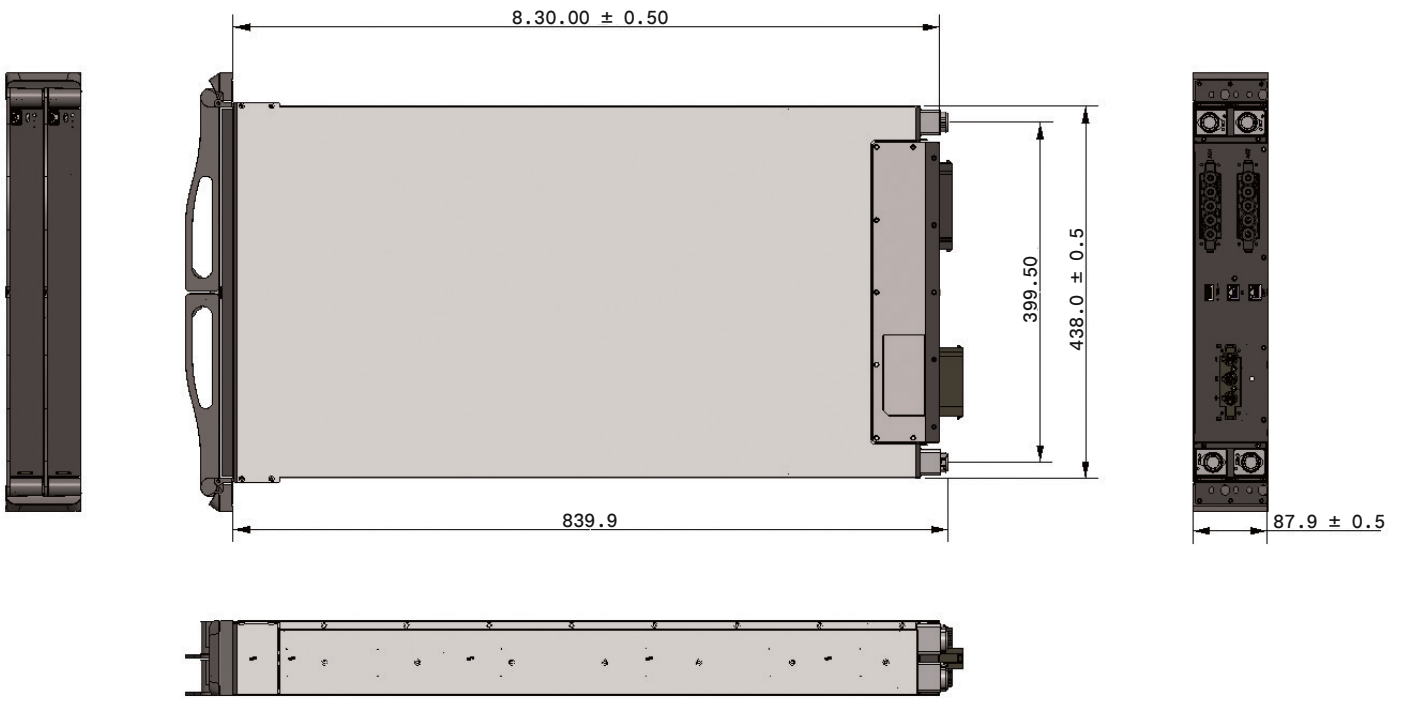
Integrated protection includes input under-voltage and over-voltage, over-temperature, output over-voltage and under-voltage, over-current, ground-fault and leakage detection. Embedded PSC control supports internal communication, with an RJ 45 interface for firmware access.

Mechanical Arrangement

Rack arrangement shown for reference. Installation, clearance, connection and service dimensions are defined by released engineering drawings.



2RU power shelf dimensions



Ordering information

The full rack configuration includes 16 AC/DC power shelves and 2 management switches. Ordering details are listed below.

Item	Detail
System	AC-800 VDC, MGX, VRU liquid-cooled power system without BBU
Product description	800V liquid-cooled power rack with 2RU power shelf
Master part number	NVD-R-57E4ADT00-101
2RU shelf part number	NVD-R-10E4ADT00-101
Shelf assembly	HV 2RU 100 kW liquid-cooled shelf | NVD-P-0000ADT00-501
PSU module	HV 50 kW liquid-cooled AC/DC PSU | NVD-S-50E3ADT00-101