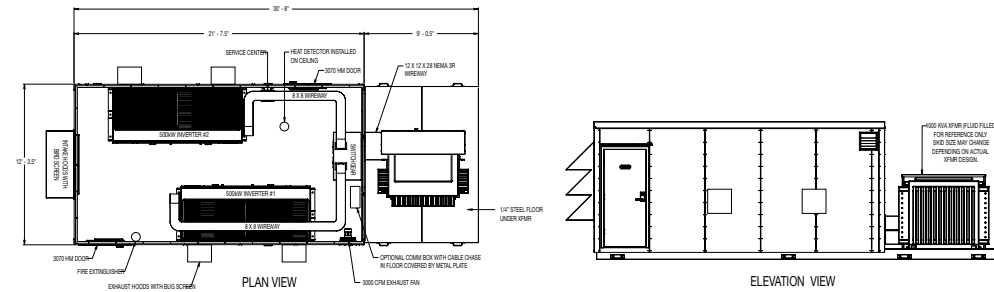


Dimensions (not for construction)



Electrical Specifications

Model	PVMV-500kW	PVMV-760kW	PVMV-1000kW
Continuous Output Power (kW)	500	760	1000
System Weighted CEC Efficiency at 480 VAC (%)	97%	97%	97%
Maximum DC Input Voltage (VOC)	600	600	600
Minimum MPPT	310	310	310
DC Input Nominal Current (A)	1600	2525	3200
AC Nominal Voltage (configurable with and without MV transformer)	480V - 35kV	480V - 35kV	480V - 35kV
AC Operating Voltage Range (% of nominal)	-12% to + 10%	-12% to + 10%	-12% to + 10%
AC Frequency Range (Hz)	59.3 - 60.5	59.3 - 60.5	59.3 - 60.5
Harmonic Distortion (%THD)	< 3%	< 3%	< 3%
Power Factor	>.99	>.99	>.99
Dimensions (H" x W" x D")	10" x 11' 3" x 26'	10' x 11' 8.5" x 30' 8"	10 x 12' 3.5" x 30' 8"

Mechanical Specifications

Model	PowerVault
Construction	Powder-coated steel base, stucco aluminum exterior walls, insulated membrane roof
Mounting	Pad Mount or Pier Mount
Weight (lbs)	Approximately 48,000 in 1000kW configuration
Cooling	Forced Convection
Operating Ambient Temperature Range (°C)	-30 to 50
Standby/Storage Ambient Temperature Range (°C)	-40 to 60

Configuration Options

- **Inverters:** Wide range of customizable DC subcombiner options
- **Switchboard:** Branch breakers for tracker power and other onsite power requirements
- **Single Phase Load Center:** Power for plug loads and other single phase convenience loads
- **Medium Voltage Transformer with Integrated Medium Voltage Switch:** Select AC output from up to 35kV AC, loop feed or radial feed, multiple protection and switching options
- **Metering:** Revenue grade metering can be selected for each inverter, at the switchboard, and at the medium voltage output
- **Central communication wiring:** Factory control wiring of inverters & meters to a central communications box with R5485 port, Ethernet switch & power supply.

Agency Approvals

- UL 1741 for Inverters



Advanced Energy Industries, Inc. • 20720 Brinson Blvd. • Bend, 97701 OR U.S.A.
T: 877.312.3832 • sales.support@aei.com • www.advanced-energy.com/solarenergy
Please see www.advanced-energy.com for worldwide contact information.

Performance Monitoring

Increase uptime and reduce maintenance costs with integrated performance monitoring hardware that enables connectivity to a variety of software solutions from industry leading monitoring partners. The tight integration between Advanced Energy and our monitoring partners creates a superior service and support experience while seamlessly delivering meaningful data. Factory integration and testing of our UL listed monitoring solution ensures high reliability and significantly reduces field installation costs.



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PV Powered solaron siteguard

PowerVault

The Turnkey DC-to-Medium Voltage Building Block for MW-Scale Projects



The PowerVault™ from Advanced Energy is a fully integrated power conversion solution for MW-scale PV projects that accepts PV DC inputs and provides medium voltage AC output. The PowerVault is built around the PV Powered line of commercial inverters which offer exceptional reliability and 20+ year operating life. The PowerVault also offers industry-leading efficiency by combining a high efficiency medium voltage transformer with Advanced Energy's high efficiency inverters. This combination of reliability, long life, and optimized energy harvest makes the PowerVault the right choice to maximize return on investment in multi-megawatt PV systems.

The pre-wired outdoor-rated skid reduces project engineering costs, accelerates project schedules, and significantly decreases the cost of on-site labor and installation. The entire package is also designated to be either pier or pad mounted to further simplify installation.

The enclosure houses the inverters, distribution switchboard, low voltage convenience power panel and data monitoring and plant control equipment. The pad mount transformer with integrated medium-voltage switch is a compact and cost-effective choice that enables low-cost loop-feed installations and minimizes the need for individual pieces of medium-voltage switchgear. The flexible design offers several configuration options to meet local utility requirements and installation preferences.

Advanced Energy backs all its PV Powered commercial inverters with an industry-leading 10-year nationwide warranty, optional 20-year warranty, and the most responsive and experienced service and support team in the business.

Superior Reliability

- Low inverter-parts count reduces potential failure points
- Redundant cooling system with Smart Air Management™
- Card-cage circuitboard system minimizes electronic interconnections and enables fast service
- Factory pre-wired and tested, reducing potential for field errors

Significant Financial Benefits

- Factory installation and wiring greatly reduce field labor
- Optional pier-mount skid installation reduces pad costs and simplifies conduit entry
- High efficiency and long service life maximize energy harvest every day for 20+ years
- Integrated solution reduces project engineering costs and management, and shortens project construction cycle
- Protected from vandalism without additional fencing or other on-site construction

PV Powered and Solaron products built in the U.S. are fully compliant with the Buy American Act and qualify for projects funded by the federal stimulus package.



PowerVault

PowerVault Enclosure

- Fully assembled, pre-wired, and ready to connect
- Houses inverters, performance monitoring, distribution switchboard, and 120 VAC service panel

Integrated Performance Monitoring

- Choose factory integrated performance monitoring from industry leaders: ESA, DECK Monitoring, Noveda Technologies, ArgusON, Locus Energy and Draker Laboratories
- Optional revenue-grade metering, subcombiner monitoring and string level monitoring
- Saves time and money versus field integration
- Communication wiring box

Medium Voltage Step-up Transformer

- Integrated medium voltage load-break switch
- Loop feed to minimize medium voltage connections to the grid
- Selectable output up to 35kV AC
- Multiple protection and switching options

Switchboard

- 1600A, 3-Phase
- Inverters are pre-wired to the switchboard and combined into single output to transformer
- Optional breakers for tracker power and other onsite loads
- Optional main circuit breaker and revenue grade meter

Engineered Cooling System

- Inverter Smart Air Management™ complements integrated PowerVault
- Inverter cooling air is exhausted through side wall
- Enclosure heat removed using a high-efficiency exhaust fan

Shown with (2) 500kW Commercial Inverters*

- Separate DC in to each inverter
- 97% CEC Efficiency
- 310-600 Volt MMPT Range
- *Additional inverter configurations available

Pier Mount (Optional)

- Easy access to AC and DC conduits simplifies installation
- Eliminates need to grade and level pad site and stub in conduit
- Pier-mount installation costs less than a full concrete pad
- Traditional pad mount also optional

