



EV – Mega Vault



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The container based 'plug and power' Low Voltage energy storage & grid-tie inverter offers reliable high-performance power conversion for utility-scale grid-connected battery applications.

The container can be transported to the source of the power need – either as an energy backup system or for capturing unused generated power to release to the grid at a time of high demand and thereby smoothing out peaks and troughs in the renewable energy supply vs demand dilemma.

The container is available in 250kWh/500kWh or 1MWh storage sizes, and can be installed in low voltage systems and can even be daisy-chained to increase storage capacity.

The EV Mega Vault incorporates a large number of low voltage battery banks based on Lithium-Ion Phosphate batteries, offering industry leading superior power charging and discharge capabilities.

Li-ion batteries are light, with a number of features that can alter power/energy characteristics. They have > 90% efficiency and very good charging cycles.

Using lithium-ion also offers wider operational temperature bands with a range of -20 centigrade to +55 centigrade. In these kinds of environments, these non-toxic lithium fuel cells offer better performance than any other rechargeable batteries as well as being less damaging to the environment both in terms of their manufacturing processes and their disposal.

Key Features and Benefits

- The most efficient utility scale combined storage and battery system of its type currently available
- Fully modular plug & power units are scalable – Simply add additional battery banks as required
- Simple 'Plug & Power' installation and maintenance
- Can be powered from mains or from renewable energy sources
- Industry leading levels of charging & discharging
- Multiple cell configuration offers true failover capability and increased system redundancy
- Lighter fuel cells mean reduced shipping costs
- High energy density of fuel cells offers increased performance
- Greater tolerance to extremes of heat and cold
- More environmentally friendly than comparable systems
- Full web-based or local reporting software – usage and system health



Specifications

BATTERIES	EV250	EV500	EV1000
Nominal Voltage	48V	48V	48V
Useable Energy Storage (kWh)	200	400	800
Capacity (MWh)	0.25	0.5	1.0
Capacity (Ah)	5,000	10,000	20,000

CHARGING & POWER	EV250	EV500	EV1000
Charge Method	Constant Charge / Constant Voltage		
Maximum DC Charging Power (kW)	120	240	240
Maximum AC Discharge Power (kW)	120	240	240
Charge time @80%DOD	Under 2 hrs		
Efficiency	92%		

PHYSICAL CHARACTERISTICS	EV250	EV500	EV1000
Weight	5000kgs	10000kgs	20000kgs
Container Size (W x H x D)	2.45m x 2.9m x 6m		
Installation Options	Ground levelling works for outside installations		

LIFECYCLE	EV250	EV500	EV1000
Cycle life (0.5C/80%DOD)	3000+ times		

BATTERY MANAGEMENT SYSTEM	EV250	EV500	EV1000
Options for Monitoring locally on a PC, Fault alarms & alerts			
Communication via RS232, RS485 and remotely over the internet via the EV online portal			

WARRANTY	EV250	EV500	EV1000
3 Year Standard Warranty (Hardware Replacement)			
Extended Warranty Agreements 5 Year & 10 Year			



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