Communication and Control





PRELIMINARY

FLEXIBLE CONTROL

With a single Energy Block Gateway, seamlessly link anywhere from 2 - 60 Energy Racks[™] and control up to 9 MWh.

SIMPLE AND POWERFUL

The Energy Block Gateway communicates with the Battery Management System (BMS) housed within every Energy Rack and aggregates data into a single, simple interface.

Energy Block Gateway and BMS MK7: Your portal to unrivaled communication and control

Derived from the experience of NASA engineers, our proprietary charge control algorithm controlling each Energy Rack is aggregated into a simple, single point of control in the Energy Block Gateway. This technology capitalizes on the longevity and overcharge resilience of EnerVenue Energy Storage Vessels[™] to promote sustainable, predictable, and reliable cycling for the duration of your project's lifetime.

EnerVenue Communication Architecture



ENERGY BLOCK GATEWAY aggregates data from up to 60 Energy Racks

ENERGY RACK electronics module houses the BMS, also known as Rack String Interface and Isolation Controller (RSIIC)

Product: Energy Block Gateway

DESCRIPTION	SPECIFICATION
Dimensions	32" L x 24" W x 10" D
Weight	25 lbs.
Protection type	IP 20
Operating temperature	-10 to 45 C
Supported communication protocol	Modbus TCP
Supported Modbus map	SunSpec model 802, SunSpec model 803
Support number of Modbus masters	Up to 2 Modbus master (ex, 1 EMS and 1 data aggregator)
Supported Modbus scan rates	500 ms
Max strings per common DC bus	60
Input power	100 to 230 VAC
Power consumption	50 watts at 20 c
On board UPS for back up	30 minutes of back up power (via lead acid AGM battery)
Additional functionality	Web GUI, system level contactor control, alarm notificaton

Model: BMS MK 7

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ENERGY

RACK BMS

DESCRIPTION	SPECIFICATION
Communication protocol to external devices	Modbus TCP/IP
Auxiliary power requirement	24 Vdc
Max aux consumption	75 Watts
Operating temperature	-10 to 45 C
Enclosure rating	IP 65
Max racks per Energy Cluster	6
Internal data storage	SD Card
Fast stop input capable	Yes, 24 Vdc
Additional I/O capablities	Two outputs (NO or NC) and one Input (24 Vdc)
Additional functionality	Web GUI, contactor control, passive balancing, data logging
Certifications(pending)	UL1973, UL991, and UL 1998

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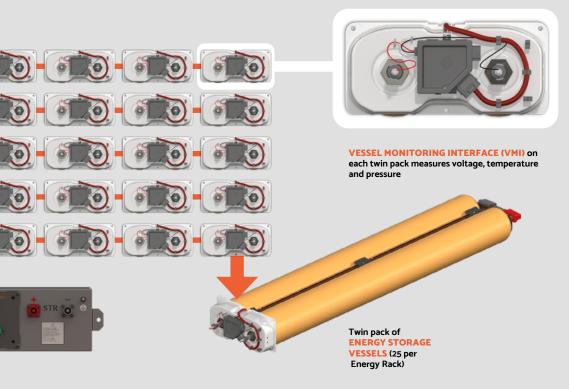
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ENERVENUE

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EnerVenue.com in linkedin.com/company/enervenue