

M100-LS82P Battery Module

For models M100-LS82P and M100-L082P



PRODUCT SPECIFICATION SHEET

Aquion Energy's M100-LS82P Battery Module is a modular building block for clean energy storage systems. The M100-LS82P is composed of twelve S20-P08F Battery Stacks connected in parallel and comes pre-wired as a plug-and-play battery bank.

Based on Aquion's safe, clean, and sustainable Aqueous Hybrid Ion (AHI™) technology, the S20-P08F Stacks are the only Cradle to Cradle Certified™ energy storage product on the market. Designed for years of hassle-free operation in stationary, long-duration applications, AHI batteries are optimized for storing solar energy for residential, off-grid, and microgrid applications. The M100-LS82P delivers an unmatched combination of performance, safety, and environmental sustainability in a cost-effective battery platform.

PRODUCT PERFORMANCE

Testing Performed at 30°C

Embodied Energy (kWh)		Charge Duration (h)				
		4	8	10	12	20
Discharge Duration (h)	4	14.2	17.1	18.0	18.5	20.3
	8	14.4	18.0	19.2	19.9	22.2
	12	14.9	19.1	20.4	21.3	23.8
	20	17.1	22.3	24.0	25.2	28.4

Embodied Capacity (Ah)		Charge Current (A)				
		99.6	52.8	45.6	37.2	24.0
Discharge Current (A)	99.6	314.4	378.0	398.4	410.4	448.8
	52.8	316.8	397.2	422.4	438.0	487.2
	37.2	326.4	416.4	446.4	465.6	520.8
	24.0	342.0	446.4	480.0	502.8	567.6



PHYSICAL CHARACTERISTICS

Height	1,159 mm (45.6")
Width	1,321 mm (52.0")
Depth	1,016 mm (40.0")
Weight	1,504 kg (3,309 lbs)

OPERATION & PERFORMANCE

Cycle Life	3,000 cycles (to 70% retained capacity)
Operating Temperature	-5°C to 40°C ambient
Voltage Range	40.0 to 57.6 V
Nominal Voltage	48 V
Continuous Power	8.1 kW
Peak Power	9.6 kW
Continuous Current	204 A
Onboard Sensing (M100-LS82P, pictured)	Voltage, current, temperature (unsensed: M100-L082P)
Usable Depth of Discharge	100%

CERTIFICATIONS

Sustainability	Cradle to Cradle Certified™ Bronze product (component S20-P08F Battery Stacks only)
UL Recognition	UL recognition targeted
CE Recognition	CE mark targeted
Shipping Testing	Pending testing to ISTA 6B
IP Rating	IP2X

WARRANTY

Limited Warranty	4 years
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Performance characteristics based on testing conducted by Aquion Energy. Performance may vary depending on use, conditions, and application. For the most up-to-date specification, visit <http://aquionenergy.com>.

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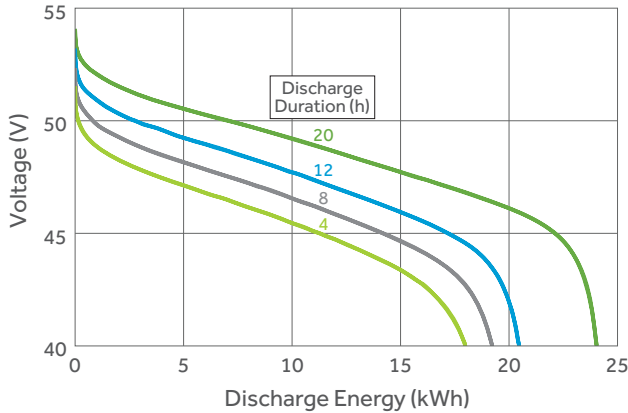
M100-LS82P Battery Module



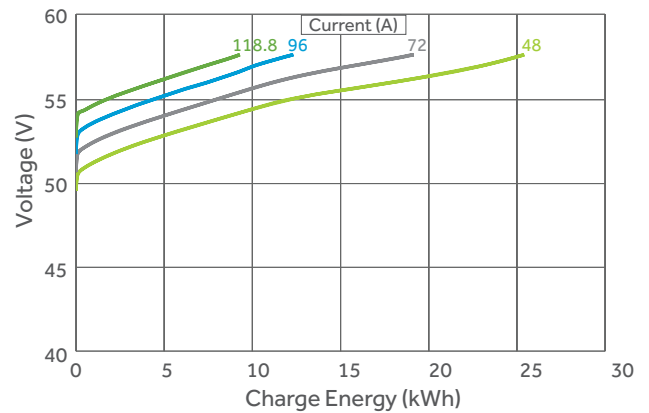
For models M100-LS82P and M100-L082P

PERFORMANCE DATA AT CONSTANT CURRENT DISCHARGE

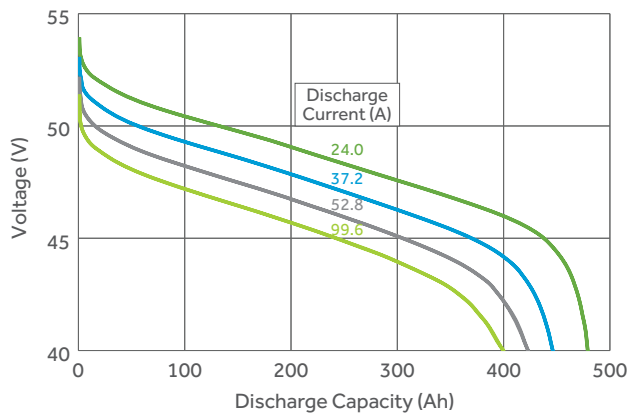
Voltage vs. Discharge Energy
(from 10-hour charge)



Voltage vs. Charge Energy



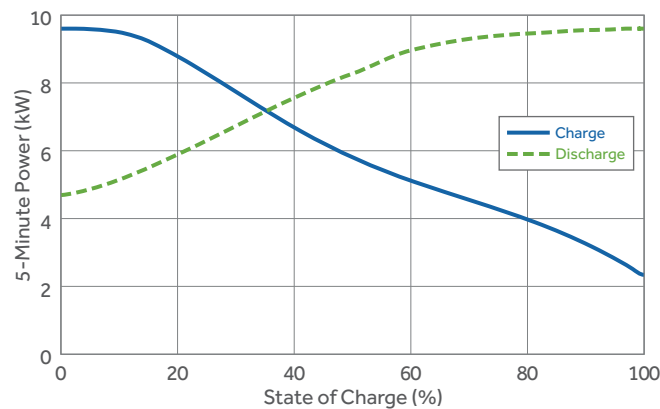
Voltage vs. Discharge Capacity
(from 10-hour charge)



Round Trip Energy Efficiency

Discharge Current (A)	Charge Current (A)				
	24	48	72	96	120
24	90%	89%	89%	89%	88%
48	88%	87%	87%	87%	86%
72	86%	85%	84%	84%	83%
96	83%	82%	82%	82%	82%
120	82%	81%	80%	80%	79%

5-Minute Peak Power



CRADLE TO CRADLE CERTIFIED™ BRONZE



Aquion batteries are the first and only batteries in the world to be Cradle to Cradle Certified™, an esteemed quality mark for products made from sustainable materials and manufacturing processes. Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute. Visit www.c2ccertified.org for more details.

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