

# M110-LS83 Battery Module



## PRELIMINARY TECHNICAL INFORMATION SHEET

For models M110-LS83 and M110-L083

Aquion Energy's M-Line Battery Module is a modular building block for clean energy storage systems. The M110-LS83 and M110-L083 are composed of twelve S30-0080 Battery Stacks connected in parallel and come pre-wired as plug-and-play battery banks.

Based on Aquion's safe, clean, and sustainable Aqueous Hybrid Ion (AHI™) technology, the S30-0080 Stack is 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 energy for residential, off-grid, and microgrid applications. The M-Line Battery Module 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	14.9	17.8	18.8	19.4	21.2
	8	15.7	19.7	21.0	21.8	24.2
	12	16.4	20.9	22.3	23.3	26.1
	20	18.4	24.1	25.9	27.1	30.6

Embodied Capacity (Ah)		Charge Duration (h)				
		4	8	10	12	20
Discharge Duration (h)	4	344.4	420.0	446.4	464.4	510.0
	8	363.6	444.0	472.8	490.8	538.8
	12	375.6	458.4	487.2	507.6	555.6
	20	391.2	477.6	507.6	528.0	579.6



## 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	M110-LS83: voltage, current, temperature M110-L083: none
Usable Depth of Discharge	100%
Round Trip Efficiency	>90%

## CERTIFICATIONS

Sustainability	Cradle to Cradle Certified™ Bronze product (component S30-0080 Battery Stacks only)
UL Recognition	UL recognition in process
CE Recognition	CE marking in process
Shipping Testing	ISTA testing in process
IP Rating	IP2X

## WARRANTY

Limited Warranty	5-year full plus 3-year prorated
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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://info.aquionenergy.com/download-specs>.

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