

S30-0080 Battery Stack



PRELIMINARY TECHNICAL INFORMATION SHEET

Aquion Energy's S-Line Battery Stack is a modular building block for clean energy storage systems. Based on Aquion's safe, clean, and sustainable Aqueous Hybrid Ion (AHI™) technology, the S30-0080 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 S30-0080 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 (Wh)		Charge Duration (h)				
		4	8	10	12	20
Discharge Duration (h)	4	1,264	1,520	1,600	1,647	1,803
	8	1,335	1,672	1,780	1,848	2,055
	12	1,389	1,775	1,900	1,982	2,217
	20	1,569	2,046	2,200	2,307	2,603

Embodied Capacity (Ah)		Charge Duration (h)				
		4	8	10	12	20
Discharge Duration (h)	4	28.7	35.0	37.2	38.7	42.5
	8	30.3	37.0	39.4	40.9	44.9
	12	31.3	38.2	40.6	42.3	46.3
	20	32.6	39.8	42.3	44.0	48.3



PHYSICAL CHARACTERISTICS

Height	935 mm (36.8")
Width	330 mm (13.0")
Depth	310 mm (12.2")
Weight	118 kg (260 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	680 W
Peak Power	800 W
Continuous Current	17 A
Usable Depth of Discharge	100%
Round Trip Efficiency	>90%

CERTIFICATIONS

Sustainability	Cradle to Cradle Certified™ Bronze product
UL Recognition	UL recognition in process
CE Recognition	CE marking in process
Shipping Testing	Modified ISTA 3H
IP Rating	IP22

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>.

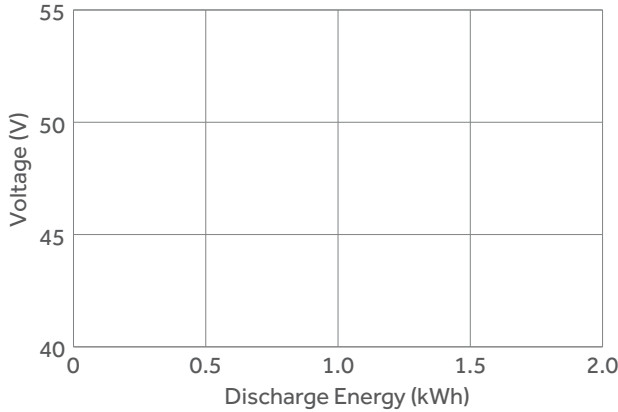
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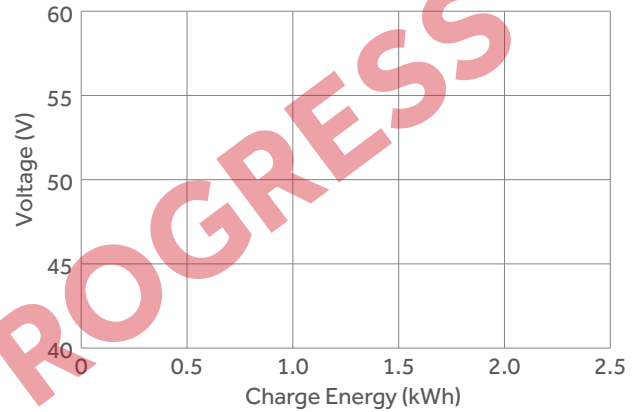


TESTING IN PROGRESS: PERFORMANCE AT CONSTANT CURRENT DISCHARGE

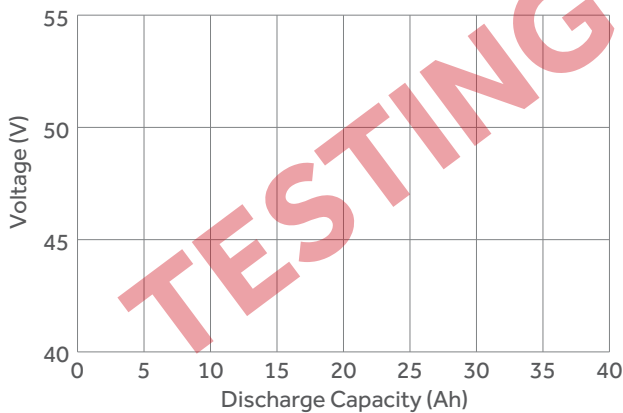
Voltage vs. Discharge Energy
(from 10-hour charge)



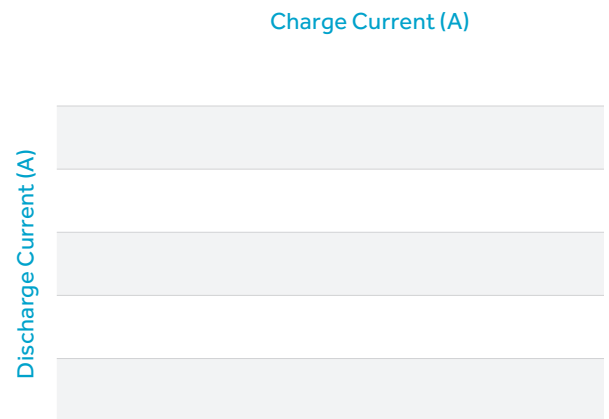
Voltage vs. Charge Energy



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



Round Trip Energy Efficiency



CRADLE TO CRADLE CERTIFIED™ BRONZE PRODUCT

Cradle to Cradle Certified™ is a multi-attribute certification program that assesses products and materials for safety to human & environmental health, design for future use cycles, and sustainable manufacturing. Cradle to Cradle Certified™ products are evaluated for material health, material reutilization, renewable energy use and carbon management, water stewardship, and social fairness. The Aquion S20-P080, S20-P08F, and S30-0080 are the only energy storage products or batteries that have met these requirements. Please see www.c2ccertified.org for more details on specific program requirements.

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