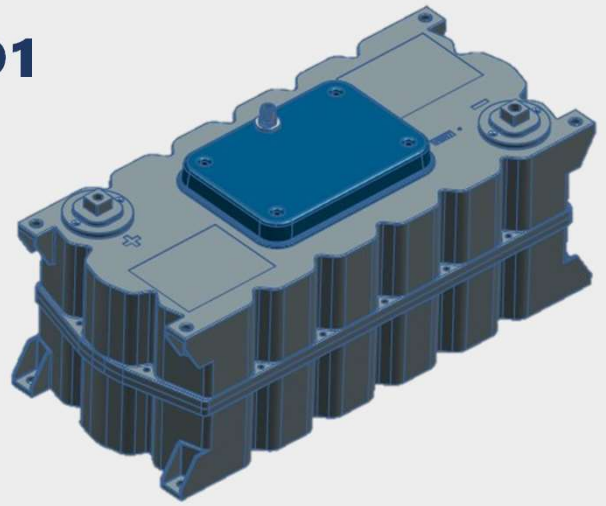


DATA SHEET

LSUM 054R0C 0188F EA AMD1

- ✓ 54V nominal voltage Module
- ✓ 18S UC voltages and 1-channel temperature measurement
- ✓ 32bit real-time controller
- ✓ Isolation interface: AFE, control logic & CAN communication
- ✓ Warning & protection monitoring: voltages (cells, modules), temperatures
- ✓ Smart resistive balancing cells & modules balancing support
- ✓ CAN 2.0B communication interface
- ✓ Secondary Alarm for Module over voltage using dry contactor
- ✓ Secondary connecting pin for temperature resistance



PERFORMANCE SPECIFICATIONS

Rated Voltage(Nominal)	54.0 V
Surge Voltage	57.6 V
Max. Series Voltage	1,500 V
Capacitance	188.8 F
Capacitance Tolerance	-0% / + 20%
Max. ESR DC	4.4 mΩ
Typical ESR DC	3.7 mΩ
Total Energy	76.4 Wh
Max. Current ¹	2,700 A
Leakage Current ²	< 9 mA
Rated voltage of Cells	3.0 V
Capacitance of Cells	3,400 F
Number of Cells	18 Series

¹ The stated maximum peak current should not be used in normal operation and is only provided as a reference value.

² The module leakage current is based on the calculated value. It may change depending on the cell balancing configuration.

LIFE INFORMATION

Endurance Life (65 °C)	1500hr
Capacitance Change ³	< 20%
ESR DC Change ⁴	< 100%
Projected Life (25 °C)	10 Years
Capacitance Change ³	< 20%
ESR DC Change ⁴	< 100%
Projected Cycle Life (25 °C) ⁵	1,000,000 Cycles
Capacitance Change ³	< 20%
ESR DC Change ⁴	< 100%
Shelf Life (25 °C) ⁶	4 Years

³ Decrease from minimum initial value.

⁴ Increase from maximum initial value.

⁵ Cycle Life may vary for different working conditions. (e.g. voltage or temperature)

⁶ Stored uncharged state under appropriate storage conditions.

THERMAL SPECIFICATIONS

Max. Continuous Current $\Delta T=15\text{ }^{\circ}\text{C}^7$	80 A
Max. Continuous Current $\Delta T=40\text{ }^{\circ}\text{C}^7$	130 A
Thermal Resistance ($^{\circ}\text{C}/\text{W}$) ⁸	0.54 $^{\circ}\text{C}/\text{W}$

⁷Initial state value.

⁸The specification is calculated under limited conditions.

SAFETY INFORMATION

Short Circuit Current ⁹	12,200 A
Isolation Voltage (DC, Terminal - Case)	4.0 kV
Certification	ROHS, REACH

⁹Calculated value. Do not use as an operating current.

MANAGEMENT INFORMATION

Balancing	Smart resistive balancing Cell – Cell & Module – Module		
Monitoring	Individual cell(18ch), 1 NTC thermistor		
Communication Interface	CAN 2.0 B		
Auxiliary power voltage	Min.	Typ.	Max.
	21.6V	24V	26.4V
Auxiliary power current	Min.	Typ.	Max.
		40mA	60mA
Secondary OVA signal	Dry contactor(normally closed)		
Secondary temp. signal (resistance)	1 NTC thermistor		
Connector	8 pin circular connector		

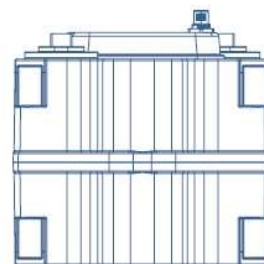
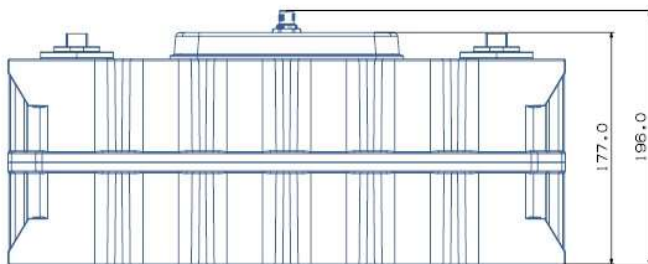
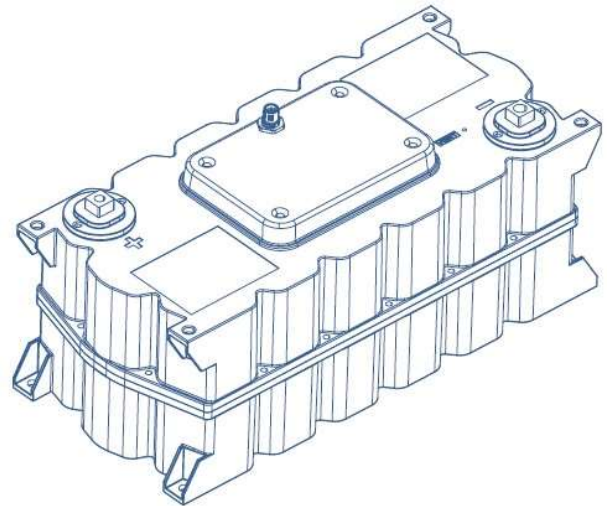
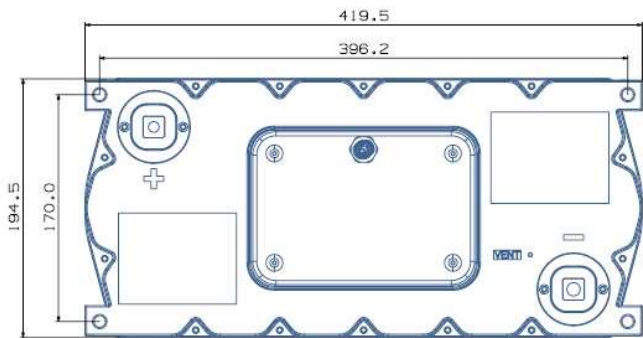
MECHANICAL SPECIFICATIONS

Length	194.5 ± 1.0 mm
Width	419.5 ± 1.0 mm
Height	177.0 ± 1.0 mm
Weight	Max. 14.0 kg

PHYSICAL SPECIFICATIONS

Power Terminals	M8 / M10
Recommended Torque (Terminal)	20Nm / 30Nm
Vibration & Shock Protection ¹⁰	IEC61373
Environment Protection ¹⁰	IP 65

¹⁰The specifications are for tests with limited conditions and may differ under actual conditions.



Markings

- Positive / Negative terminal
- Serial number
- Part number
- Warning marking

Accessories

Notice : Product dimensions and specifications may change without notice. Please contact LS Materials for any technical specifications.