Consistent Energy Storage Concept
CESC

Saturn LV5-01 Battery

Saturn residential storage system



- Max. 4 parallel stacking
  Max. 12 parallel operating in a system
- IP65(Suitable for outdoor scenes)
- Blind-plug design for quick install/replace
- 1C charging/discharging

Saturn LV5-01 is a low-voltage integrated lithium battery system, storing energy for grid-outage backup. Boasting compact, minimalist design and flexible indoor/outdoor mounting, it suits high-power scenarios with limited space, restricted load-bearing and long cycle life demands. Its built-in BMS monitors cell voltage, current and temperature, and balances charge/discharge to extend cycle life; multiple modules can be paralleled to expand capacity and power for longer-duration needs.

Safety and long lifespan, high efficiency and high-power density

Battery module auto networking, Automatic addressing, easy maintenance Free stand design and saving installation space.

Support high discharge power, module level Auto-balancing,under-voltage Automatic Restart.

Whole module non-toxic,pollution-free

Intelligent BMS, providing complete protection.

Remotely monitoring and upgrade, support IOT function for smarter and more efficient battery pack operation and maintenance.

Saturn LV5-01

Model	Saturn LV5-01	2×Saturn LV5-01	3×Saturn LV5-01	4×Saturn LV5-01
Schematic Drawing				
Total Energy [kWh]	5.12	10.24	15.36	20.48
Battery Module	51.2V 5.12kWh			
Number of Modules	1	2	3	4
Cell Type	LFP($LiFePO_4$)			
Nominal Voltage [V]	51.2			
Operating Voltage Range [V]	40-58.4			
Max. Charge/Discharge Current [A]	95	120	120	120
Continue Discharge Output [kW]	4.864	6.144	6.144	6.144
Dimensions [W*D*H mm]	740*240*490	740*240*795	740*240*1100	740*240*1405
Approximate Weight [KG]	63.2	112.4	161.6	210.8

General Specifications

Recommend Depth of Discharge	90%
LED Indicator	4 LED (SOC: 25%-SOC:100% blue), 2 LED (working green, alarming red)
IP Rating of Enclosure	IP65
Operating Temperature	Optional:Charge: 0°C - 50°C/Discharge: -20°C - 50°C(without heating film) Charge: -20°C - 50°C/Discharge: -20°C - 50°C(with heating film)
Storage Temperature	0°C - 35°C
Humidity	≤ 95%
Altitude	≤ 3000m
Cycle Life	10 + years, ≥ 6000 cycles (70 % EOL,80 % DOD,25 °C)
Installation	Floor-mounted,Stack
Communication Port	CAN
Certification	UN38.3,EMC

The current is affected by temperature and SOC.

Module

Low Voltage Break box

Operating Voltage	40-58.4Vdc
Max. Charge / Discharge Current	120A
Ingress Protection	IP65
Operating Temperature	Optional:Charge: 0°C - 50°C/Discharge: -20°C - 50°C(without heating film) Charge: -20°C - 50°C/Discharge: -20°C - 50°C(with heating film)
Storage Temperature	0°C - 35°C
Dimension [W / D / H]	740*240*110mm
Approximate Weight	9KG



Battery Module

Battery Type	$LiFePO_4$(LFP)
Nominal Voltage	51.2Vdc
Nominal Capacity	100Ah
Nominal Energy	5.12kWh
Max. Charge / Discharge Current	95A
Operating Temperature	Optional:Charge: 0°C - 50°C/Discharge: -20°C - 50°C(without heating film) Charge: -20°C - 50°C/Discharge: -20°C - 50°C(with heating film)
Storage Temperature	0°C - 35°C
Ingress Protection	IP65
Dimension [W / D / H]	740*240*305mm
Approximate Weight	49.3KG



Base

Dimension [W / D / H]	740*240*75mm
Approximate Weight	5KG

