Consistent Energy Storage Concept
CESC

Saturn LV5-03 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 LV5-03 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 LV5-03

Model	Saturn LV5-03	2×Saturn LV5-03	3×Saturn LV5-03	4×Saturn LV5-03
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]	100	200	260	260
Continue Discharge Output [kW]	5.12	10.24	13.312	13.312
Dimensions [W*D*H mm]	740*240*565	740*240*885	740*240*1205	740*240*1525
Approximate Weight [KG]	67.5	118	168.5	219

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	260A
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*170mm
Approximate Weight	11.5KG



Battery Module

Battery Type	$LiFePO_4$(LFP)
Nominal Voltage	51.2Vdc
Nominal Capacity	100Ah
Nominal Energy	5.12kWh
Max. Charge / Discharge Current	100A
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*320mm
Approximate Weight	50.5KG



Base

Dimension [W / D / H]	740*240*75mm
Approximate Weight	5.5KG

