

Semi-Solid State Lithium-ion Battery ESS

RT5427 HV/SHV 5.43-32.58kWh Stackable

- Higher Safety Protection
- Faster Dis/Charging Speed
- High Inverter Compatibility
- Intelligent Built-in BMS
- 6pcs Connections in Series
- Top Cover (Optional)



FEATURES



16000
Cycle Life@25°C



Solid-State
LFP Battery Cells



53Ah
single battery



1C
Discharging Rate



Increase 8%
Energy Density



The test of drill



The test of shear

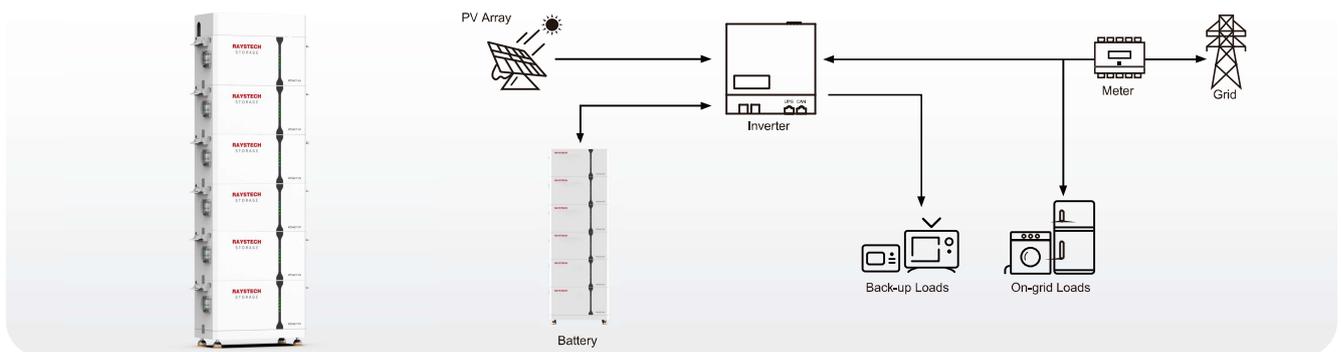


The test of acupuncture



The test of squeeze

APPLICATION



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Semi-Solid State BESS

Technical Specifications

RAYSTECH

Product Model	RT5427 HV/SHV					
Number of batteries in series connection	1	2	3	4	5	6
Total Energy*	5.43kWh	10.86kWh	16.29kWh	21.72kWh	27.15kWh	32.58kWh
Battery Capacity	53Ah					
Max.recommended DOD	93%					
Max Dis/Charge Power	6.0kW for 3S	12.3kW for 3S	18.4kW for 3S	24.6kW for 3S	30.8kW for 3S	36.9kW for 3S
Voltage	96~112Vd.c	192~224Vd.c	288~336Vd.c	384~448Vd.c	480~560Vd.c	576~672Vd.c
Nominal Voltage	102.4Vd.c	204.8Vd.c	307.2Vd.c	409.6Vd.c	512.5Vd.c	614.4Vd.c
Nominal Dis/charging Current	50A / 50A					
Max Dis/charging Current	60A(3s) / 60A(3s)					
Max. Charge Voltage	115.2Vd.c	230.4Vd.c	345.6Vd.c	460.8Vd.c	576Vd.c	691.2Vd.c
Weight(N.W.)	53kg/54kg	106kg/113kg	159kg/167kg	212kg/216kg	265kg/270kg	318kg/324kg
Dimension(mm)(L*W*H)	660*300*320mm	660*300*640mm	60*300*960mm	660*300*1280mm	660*300*1600mm	660*300*1920mm
Ambient Temperature (Cell)	Charge	0~55 °C				
	Discharge	-20~55 °C				
Operating Ambient Temperature Charge/Discharge (Pack)	RT5427 HV:-20~55 °C			RT5427 SHV:-30~55 °C		
Cycle Life	16000 @SOH70%					
WiFi Frequency Range	2400MHz~2483MHz					
Humidity	5%~95%(No condensed water)					
Over Voltage Category	II					
Cooling Type	Natural cooling					
Installation	Ground Installation					
IP rating	IP65					
Protective Class	I					
Max. Connection Number	6S					
Communication	CAN/ RS485					
Protection Mode	Hardware&software protection					
Battery Protection	Over-current/Over-voltage/Short circuit/ Under-voltage/Over temperature					
Certification	Cell UL TUV					
	PACK CE-RED & IEC62619 & IEC62477, UN 38.3					
Hazardous Material Classification	9					
Remark	1)For better battery life cycles,we suggest charge in 30A(0.6C @25°C) 2)For better battery life cycles,we suggest discharge in 30A(0.6C @25°C) 3)Peak Current excludes repeated short duration (less than 100ms) of current pattern.					

Testing conditions based on temperature 25 °C at the beginning of life.

*Total Energy/Usable Energy measured under specific conditions from RAYSTECH 0.2C CC-CV.

*All information contained in this document is subject to change without notice

Core Advantages

•**Ultimate Safety:** Semi-solid electrolyte technology eliminates leakage and significantly mitigates thermal runaway and fire risks.

•**Smart Balancing:** Advanced BMS ensures real-time voltage equalization across cells and packs for optimized longevity.

•**Precision Monitoring:** Dynamic SOC calibration provides ultra-accurate state-of-charge readings.

•**Flexible Integration:** Supports "Batch-Mixing," allowing seamless parallel connection of batteries from different production cycles.