

Semi Solid-State LFP Battery

RT 6140M&RT 6140S 24.56-79.82kWh

- High-performance high-voltage storage system.Mod
- Modular design for ultimate flexibility.
- Suitable for a wide range of applications.
- Expandable up to 79.82 kWh capacity.
- Stack-and-play for quick installation



PRODUCT FEATURES



Ultra safe with solid-state battery cells



Flexible expansion: up to 8 clusters in parallel



SOC balancing between packs & clusters



Built-in intelligent BMS

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.

● Technical Specifications

Battery Module Image	 	
Model	RT 6140M	RT 6140S
Battery Type	Semi-solid state Prismatic	
Nominal Energy	6.14kWh	
Usable Energy*	5.83kWh	
Nominal Capacity	120Ah	
Nominal Voltage	51.2V	
Operating Voltage	41.6~57.6V	
Recommended Charge&Discharge Current	80A/100A	
Max Charge/Discharge Current	120A/120A	
Peak Discharge Current (2min 25℃)	125A	
Peak Discharge Power (2min 25℃)	6.14kW	
Recommended Depth of Discharge (DOD)	95%	
Charging Temp. Range(Cell)	From 0~55℃	
Discharging Temp. Range(Cell)	From -20~55℃	
Operating Ambient Temperature (Pack)	With heating module:-30~55℃ / No heating module:-20~55℃	
Cycle Life	16000 @SOH70%	
Scalability	1 Master series	Up to 12 Slave series
WIFI Module	Built-in	
Communication	CAN/ RS485	
IP Rating	IP65	
Recommended Humidity	5%~95%(No condensed water)	
Cooling Type	Natural cooling	
Color	White(optional)	
Installation	Stack-mounting	
Net Weight	58±1kg	56±1kg
Dimension (W*H*D)	620*170*400mm	
Protection	Over-current/Over-voltage/Short circuit/ Under-voltage/Over temperature	
Heating Module	Yes	
Balancing Module	Yes	
Application	Residential, C&I energy storage systems	
Certification	CE/UN38.3/IEC62619/IEC62477	

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

*Total Energy/Usable Energy measured under specific conditions by Raystech 0.2C CC-CV and based on recommended DOD(95%);

● Technical Specifications

Product Image			
Model	24.56kWh	30.70kWh	36.84kWh
Battery Type	Semi-solid state Prismatic		
Nominal Energy	24.56kWh	30.70kWh	36.84kWh
Usable Energy*	23.33kWh	29.16kWh	34.99kWh
Nominal Capacity	120Ah		
Nominal Voltage	204.8V	256V	307.2V
Operating Voltage	166.4~230.4V	208~288V	249.6~345.6V
Recommended Charge&Discharge Current	80A/100A		
Max Charge/Discharge Current	120A/120A		
Peak Discharge Current (2min 25℃)	125A		
Peak Discharge Power (2min 25℃)	24.57kW	30.72kW	38.84kW
Recommended Depth of Discharge (DOD)	95%		
Charging Temp. Range(Cell)	From 0~55℃		
Discharging Temp. Range(Cell)	From -20~55℃		
Operating Ambient Temperature (Pack)	With heating module:-30~55℃ / No heating module:-20~55℃		
Cycle Life	16000 @SOH70%		
Scalability	4S	5S	6S
WIFI Module	Built-in		
Communication	CAN/ RS485		
IP Rating	IP65		
Recommended Humidity	5%~95%(No condensed water)		
Cooling Type	Natural cooling		
Color	White(optional)		
Installation	Stack-mounting		
Net Weight	226±4kg	282±5kg	338±6kg
Dimension (W*H*D)	620*680*400mm	620*850*400mm	620*1020*400mm
Protection	Over-current/Over-voltage/Short circuit/Under-voltage/Over temperature		
Application	Residential, C&I energy storage systems		
Certification	CE/UN38.3/IEC62619/IEC62477		

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

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● Technical Specifications

Product Image			
Model	42.98kWh	49.12kWh	55.26kWh
Battery Type	Semi-solid state Prismatic		
Nominal Energy	42.98kWh	49.12kWh	55.26kWh
Usable Energy*	40.83kWh	46.66kWh	52.49kWh
Nominal Capacity	120Ah		
Nominal Voltage	358.4V	409.6V	460.8V
Operating Voltage	291.2~403.2V	332.8~460.8V	374.4~518.4V
Recommended Charge&Discharge Current	80A/100A		
Max Charge/Discharge Current	120A/120A		
Peak Discharge Current (2min 25 °C)	125A		
Peak Discharge Power (2min 25 °C)	42.98kW	49.12kW	55.26kW
Recommended Depth of Discharge (DOD)	95%		
Charging Temp. Range(Cell)	From 0~55 °C		
Discharging Temp. Range(Cell)	From -20~55 °C		
Operating Ambient Temperature (Pack)	With heating module:-30~55 °C / No heating module:-20~55 °C		
Cycle Life	16000 @SOH70%		
Scalability	7S	8S	9S
WIFI Module	Built-in		
Communication	CAN/ RS485		
IP Rating	IP65		
Recommended Humidity	5%~95%(No condensed water)		
Cooling Type	Natural cooling		
Color	White(optional)		
Installation	Stack-mounting		
Net Weight	394±7kg	450±8kg	506±9kg
Dimension (W*H*D)	620*1190*400mm	620*1360*400mm	620*1530*400mm
Protection	Over-current/Over-voltage/Short circuit/Under-voltage/Over temperature		
Application	Residential, C&I energy storage systems		
Certification	CE/UN38.3/IEC62619/IEC62477		

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

*Total Energy/Usable Energy measured under specific conditions by Raystech 0.2C CC-CV and based on recommended DOD(95%);

● Technical Specifications

Product Image				
Model	61.4kWh	67.54kWh	73.68kWh	79.82kWh
Battery Type	Semi-solid state Prismatic			
Nominal Energy	61.4kWh	67.54kWh	73.68kWh	79.82kWh
Usable Energy*	58.33kWh	64.16kWh	69.99kWh	75.82kWh
Nominal Capacity	120Ah			
Nominal Voltage	512V	563.2V	614.4V	665.6V
Operating Voltage	416~576V	457.6~633.6V	499.2~691.2V	540.8~748.8V
Recommended Charge&Discharge Current	80A/100A			
Max Charge/Discharge Current	120A/120A			
Peak Discharge Current (2min 25℃)	125A			
Peak Discharge Power (2min 25℃)	61.4kW	67.54kW	73.68kW	79.82kW
Recommended Depth of Discharge (DOD)	95%			
Charging Temp. Range(Cell)	From 0~55℃			
Discharging Temp. Range(Cell)	From -20~55℃			
Operating Ambient Temperature (Pack)	With heating module:-30~55℃ / No heating module:-20~55℃			
Cycle Life	16000 @SOH70%			
Scalability	10S	11S	12S	13S
WIFI Module	Built-in			
Communication	CAN/ RS485			
IP Rating	IP65			
Recommended Humidity	5%~95%(No condensed water)			
Cooling Type	Natural cooling			
Color	White(optional)			
Installation	Stack-mounting			
Net Weight	562±10kg	618±11kg	674±12kg	730±13kg
Dimension (W*H*D)	620*1700*400mm	620*1870*400mm	620*2040*400mm	620*2210*400mm
Protection	Over-current/Over-voltage/Short circuit/Under-voltage/Over temperature			
Application	Residential, C&I energy storage systems			
Certification	CE/UN38.3/IEC62619/IEC62477			

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

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