



Growes Industries

Clean Energy - Solutions

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ROYAL LITHIUM™ Energy Storage Module

Features of ROYAL LITHIUM™ Energy Storage

- Longer Life Cycle to minimize replacement cost and reduce total cost of ownership.
- Light Weight at about 40% of the lead acid and AGM batteries.
- Twice more power than the lead acid battery and higher discharge rate while maintaining high energy capacity.
- Operating Temperature Range from -20°C to 60°C
- Higher Safety with the Lithium Iron Phosphate chemistry eliminating risks of explosion or combustion induced by a high impact, overcharging or a short circuit.



Designed and built
in Canada

Technical Specifications of the ROYAL LITHIUM™ Energy Storage Modules

		12 V	24 V	48 V
Electrical Characteristics	Nominal Voltage	12.8 V	25.6 V	51.2 V
	Nominal Capacity	200 Ah	100 Ah	50 Ah
	Energy Storage	2560 Wh	2560 Wh	2560 Wh
	Internal Resistance	≤30 mΩ	≤30 mΩ	≤30 mΩ
	Cycle Life	> 2000 cycles at 100 DOD, 3000 cycles at 80% DOD		
Monthly Self Discharge		< 3%	< 3%	< 3%
Standard Charge	Charge voltage (1)*	14.4 V	28.8 V	57.1 V
	Charge Mode	CC/CV	CC/CV	CC/CV
	Recommended Charge Current	25 A	12.5 A	6.5 A
	Maximum Charge Current (2)*	50 A	30 A	15 A
Standard Discharge	Charge Cut-off Voltage	14.6 V	29.2 V	58.4 V
	Continuous Current	140 A	70 A	35 A
	Inrush Current (10 Sec.)	200 A	100 A	50 A
Environmental	Discharge Cut-off Voltage	9 V	18 V	38 V
	Charge Temperature (3)*	5°C to 45°C	5°C to 45°C	5°C to 45°C
	Discharge Temperature (4)*	-25°C to 60°C	-25°C to 60°C	-25°C to 60°C
	Storage Temperature (5)*	-10°C to 35°C	-10°C to 35°C	-10°C to 35°C
	Water Dust resistance	IP56	IP56	IP56
	Plastic case	ABS+PC UL V-0 Flame Resistant	ABS+PC UL V-0 Flame Resistant	ABS+PC UL V-0 Flame Resistant
	Lithium Cells Standards	UN38.3 - UL1973	UN38.3 - UL1973	UN38.3 - UL1973
	Dimensions	L520 x W267 x H 220 mm	L520 x W267 x H 220 mm	L520 x W267 x H 220 mm
Weight	24 kg	24 kg	28 kg	
Terminal Bolt Thread	M8	M8	M8	
Display Digital or Protocol	LED or Bluetooth	LED or Bluetooth	LED or Bluetooth	
Notes	Bullets (1)* and (2)*: are industry standards - Bullets (3)*,(4)*, (5)*: at 65±20% Relative Humidity			