RAFION

LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL PERFORMANCE

CHARGE PERFORMANCE	
Cells	Square Cell 3.2V100Ah
Self Discharge	<3% / Month
Resistance	≤20 mΩ @ 50% SOC
Energy	1280 Wh
Capacity @ 20A	300 min
Nominal Capacity	100 Ah
Nominal Voltage	12.8 V

Recommended Charge Current	20 A
Maximum Charge Current	50 A
Recommended Charge Voltage	14.6 V
Charge Cut-Off Voltage	<15.2 V (0.5 ~ 1.5 s)
Reconnect Voltage	>14.4 V
Balancing Voltage	<14 V
Maximum Batteries in Series	4

MECHANIC	CAL PERF	ORMANCE
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Dimension (L x W x H)	330 x 172 x 215 mm 12.99 x 6.77 x 8.46"
Approx. Weight	10.5 kg
Terminal Type	M8
Terminal Torque	80 ~ 100 in-lbs (9 ~ 11 N-m)
Case Material	ABS
Enclosure Protection	IP65

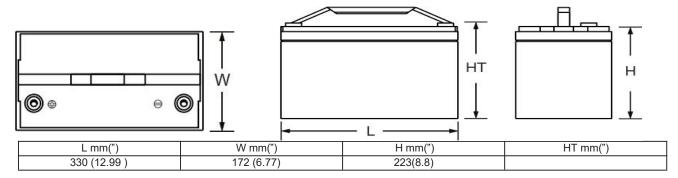
TEMPERATURE PERFORMANCE

Discharge Temperature	-4 ~ 140 °F (-20 ~ 60 °C)
Charge Temperature	32 ~ 113 °F (0 ~ 45 °C)
Storage Temperature	23 ~ 95 °F (-5 ~ 35 °C)
High Temperature Cut-Off	149 °F (65 °C)
Reconnect Temperature	118 °F (48 °C)

COMPLIANCE

Certifications	CE UN38.3 UL1642 & IEC62133
Shipping Classification	UN 3480, CLASS 9

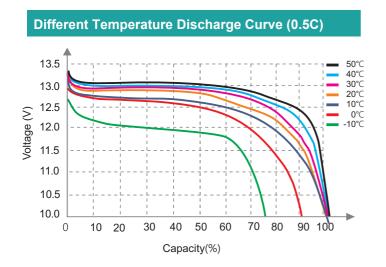
OUTLINE DIMENSION

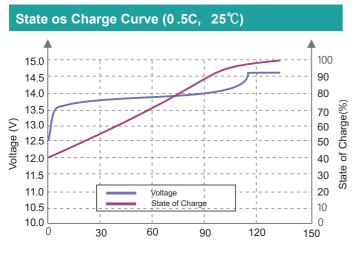


Performance may vary depending on application. All specifications are subject to change without prior notice to the user. This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact us.

DISCHARGE PERFORMANCE		
Continuous Discharge Current	50 A	
Maximum contiuous Discharge Current	150 A	
Peak Discharge Cut-Off Current	300 A(5 ~15 ms)	
Recommended Low Voltage Disconnect	10 V	
Discharge Cut-Off Voltage	>8.4 V (50 ~ 150 ms)	
Reconnect Voltage	>10 V	
Short Circuit Protection	200 ~ 600 µs	

PERFORMANCE CHARACTERISTICS





Charging Time (Minutes)

FEATURES

(Constant)

High cycle life

Longer service life

> 3000 cycles @100% DoD for effectively lower total cost of ownership.

Low maintenance, stable chemical materials, monitoring

Built in circuit protection Battery Management Systems (BMS) are incorporated against abuse.

the activity status of the battery smart mode.

Better storage

Up to 6 months due to the extremely low-self

discharge (LSD) rate and no risk of sulfation.

Quickly recharge.

Save time and increase productivity with less down time due to superior charge/discharge efficiency.

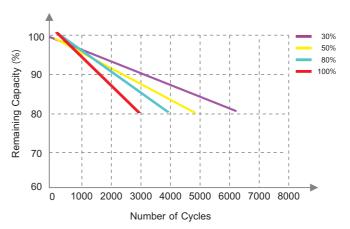
Extreme heat tolerance

Suitable for use in a wider range of applications where ambient temperature is unusually high: up to $+60^{\circ}$ C.

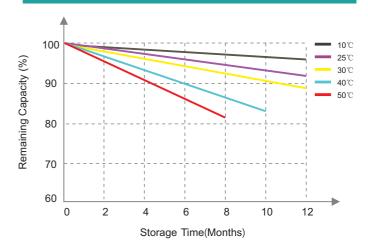
Lightweight

Lithium batteries provide more Wh/Kg while also being up to 1/3 the weight of its SLA equivalent.

Different DOD Discharge Cycle Life Curve (1C)



Different Temperature Self Discharge Curve



APPLICATIONS

Lithium Iron Phosphate can be used in most applications that use Lead Acid, GEL or AGM type batteries. Suitable applications include:

- Caravan
- Marine
- Golf Car
- Buggies
- Solar Storage
- Remote Monitoring
- Switching applications and more

CAUTIONS

- · Do NOT short circuit, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 50% capacity. Recharge every 3 months. The storage area should be clean, cool, dry and ventilated.