## Lithium Battery Specifications

iFe4838P





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AUSTRALIAN MADE

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## BUILT IN A QUALITY CONTROLLED ENVIRONMENT TO YOUR NEEDS.

Have the best of both worlds with quality cells and increased storage capacity. Suited for many applications, this battery will assist with your all your energy projects.

## **Product Highlights:**

- **NEW!** Generation II BMS
- NEW! Advanced Status LED
- 15% Increased Capacity
- Multiple Install Options
- Safe Lithium Chemistry
- Compatible with AC & DC coupled Systems
- Mechanically Robust
  Cylindrical Cells
- Ongoing Local Support

	LiFe4838P
Nominal DC Voltage	51.2V
Operational Voltage Window	40V to 58.4V
Nominal Capacity	3.8kWh / 74.2Ah
Usable Capacity	3.8kWh
Depth of Discharge	Up to 100% #1
Recommended Depth of Discharge	80% or less
Continuous Discharge C-Rate	0.85C
Continuous Discharge Current	63A
Continuous Discharge Power	3.22kW
Maximum Discharge Current	63A
Maximum Charge Current	63A
Warrantable Charge Current	39A
Warrantable Charge Power	2.0kW
Prospective Fault Current (1ms)	TBD
Circuit Breaker	2-Pole 63A 360VDC K Curve
Lithium Composition	Lithium Ferro Phosphate (LiFeP04 or LFP)
Operating Temperature Range	Charge: 4° to 51°C / Discharge -10° to 56°C
Ideal Operating Temperature Range	0 to 45°C
Operating Humidity	85% Non Condensating

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	LiFe4838P
Cell-level Overvoltage Protection	3.65V/Cell-string
Cell-level Undervoltage Protection	2.5V/Cell-string
Number of Cell-strings	16 Cell-strings
BMS Over-Temp Cut Off	60°C
BMS Max Trip Current (Discharge)	$400A\pm50A$ for 32ms±15ms , 250A±30A for 100ms±50ms , 80A±5A for 3s±1.5s , 68A±5A for 5s±1.5s
Self Discharge	14% Per Annum
Altitude	< 2000m (seek manufacturers advice above 2000m)
Battery Mounting Options	Standard 19" Rack Mount / Horizontal / Vertical
Terminal Connections	Amphenol Surlok 100A Non Keyed
IP Rating	IP40
Efficiency	>96%
Cooling	Natural convection
Parallel Connection	Unlimited - Refer to Manufacturer
Series Connection	Not Permitted
Alarm Output	Normally-closed, Volt-free, 100mA 60V Max
Communications	Alarm Output
Module Weight	43kg
Battery Dimensions	635mm D x 434mm W x 88mm H
Arc Flash Incident Energy IEm in Cal/cm2 (45cm)	TBD
Arc Flash Incident Energy AFB in cm	TBD
Certifications	Pending: IEC 62619:2017, UN38.3, EMC, AS/NZS 62368.1
Warranty	10 Years (Conditions apply)
	Connected PCE Programming Requirements
Shutdown DC Voltage @ 0.5C	50.2V (48.0V#1)
Recovery / Restart Voltage	52V
Continuous Charge Voltage	56V
Recommended Charge Profile	Charge the battery with 39A constant current and 56.0V constant voltage unti current reduces to below 0.741A, then hold the battery at 56.0V for at least 30 minutes.
Float Voltage Cyclic (Short Term Float) (Example Solar Application)	56.0V
Float Voltage Standby (Long Term Float) (Example UPS Application)	TBD
Charge Current	39A
Peukert Exponent	1.02
Shutdown SoC Recommended	0.2
Calibration to 100%	Every 7 days or more frequent where possible.
	(Ensures cell balancing is performed & keeps external SoC counter more accurate)



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