

# Eco P Series Lithium Battery



- Maintenance Free
- Fast Charging
- Flexible Capacity Design
- Compatible AC & DC Coupled Systems
- High Temperature Tolerance
- Multiple Installation Options
- Free Warranty Returns
- Safe Lithium Option
- Master BMS in each Battery
- Mechanically Robust Cylindrical Cells
- Increased Storage Efficiency
- High Efficiency
- Manufactured in Australia
- Local Support by the Manufacturer
- Direct Replacement for Lead Acid in most applications

Eco4840P	
Nominal DC Voltage	51.2V
Operational Voltage Window	40V to 58.4V
Nominal Capacity	4.0kWh (3.993) / 78Ah
Usable Capacity	4.0kWh (3.993)
Recommended Usable Capacity	3.2kWh (3.194)
Depth of Discharge	Up to 100%
Recommended Depth of Discharge	80% or less
Continuous Discharge C-Rate	0.5C (C2)
Continuous Discharge current	39A
Continuous Discharge Power	2.0kW
Maximum Discharge (Limited by K-Curve Circuit Breaker) (Refer manual for circuit breaker characteristics)	63A* (3.22kW)
Maximum Charge Current	63A
Warrantable Charge Current	39A
Warrantable Charge Power	2.0kW
Prospective Fault Current (1ms)	250A
Circuit Breaker (k Curve)	2-Pole 63A 360VDC
Lithium Composition	Lithium Ferro Phosphate (LiFePO4 or LFP)
Operating Temperature Range	Charge: 0° to 55°C / Discharge -20° to 60°C
Ideal Operating Temperature Range	0 to 45°C
Operating Humidity	85% Non Condensating
BMS Over-Volt Cell Level Protection	3.9V/Cell



Residential



Commercial



Industrial



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Eco4840P	
BMS Under-Volt Cell Level Protection	2.0V/Cell
BMS Over-Temp Cut Off	65°C
BMS Max Trip Current	200A
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 Manufacturer
Serial Connection	Not Permitted
Alarm Output	Normally closed, Volt free, 1A maximum
Communications	Alarm Output
Module Weight	43kg
Battery Dimensions	635mm D x 434mm W x 88mm H
Arc Flash Incident Energy IEm in Cal/cm <sup>2</sup> (45cm)	0.36
Arc Flash Incident Energy AFB in cm	24.45
Certifications	Pending IEC: 62619:2017, UN38.3, EMC
Terminal Connections	Amphenol Surlok 100A Non Keyed
Note:	This specification is subject to change at anytime without notice
Warranty	10 Years (Conditions apply)

Connected PCE Programming Requirements	
Eco4840P	
Shutdown DC Voltage @0.5C	48.0V
Shutdown Voltage Recommended	50.2V
Recovery / Restart Voltage	52V
Continuous Charge Voltage	57.6V
Continuous Charge Transition	Battery is considered full after battery is absorbing less than 1% of maximum charge current after being held at specified charge voltage for 30minutes minimum.
Float Voltage Cyclic (Short Term Float) (Example Solar Application)	57.6V
Float Voltage Standby (Long Term Float) (Example UPS Application)	54.4V to 56V
Charge Current	39A
Peukert Exponent	1.02
Shutdown SoC Recommended	20%
Calibration to 100%	Every 7 days or more frequent where possible. (Ensures cell balancing is performed & keeps external SoC counter more accurate)
Note	These charging requirements are subject to change at anytime without notice



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