



Troppo

LFP 4841



RedEarth

ENERGY STORAGE

RedEarth's Troppo Battery uses the safest lithium-ion chemistry available, Lithium Ferro Phosphate (LFP). When combined with our latest Battery Management System (BMS), accessible 63A DC dual pole breaker On/Off switch and overcurrent protection device (OCPD), the Troppo Battery delivers safe, highly efficient and cost-effective service over the life of both residential and commercial installation, on or off-grid.

Compatible with all industry-standard inverter charge controllers, the Troppo supports balance-of-system equipment and optimizes any power generation source – solar, wind, grid and generator – with scalable, on-demand energy storage solutions for critical back-up and daily savings on electricity bills.

- **Maintenance Free**
- **10-year Warranty**
- **High Efficiency >96%**
- **Flexible Capacity Design**
- **Flexible Installation Options**
- **BMS in Each Battery**
- **Compatible AC & DC Coupled Systems**
- **High Temperature Protection**
- **Low Temperature Protection**
- **Over Charge Protection**
- **Made in Australia**
- **National Support**



Electrical Characteristics			
Nominal Capacity	4.1kWh / 79.8Ah	Recommended Operating Voltage Range	48.0 - 57.6 V _{DC}
Useable Capacity	3.28kWh @ 80%	Charge / Discharge Cycles of certified 3.800mAh cells at 1C rate (to 80% Residual Capacity)	2,000@100% DoD / 4,000@80% DoD / 7,000@50% DoD @ 25°C operating temp.
Nominal DC Voltage	51.2V	Projected MWh delivered over battery lifetime	10.2 MWh at 80% DoD
Maximum Discharge Current	63A (Limited by circuit breaker)	Round Trip Efficiency	>96%
Lifetime Continuous Discharge Current	40A (C2)	Parallel connection	from 4.1kWh to 100kWh+
Maximum Charge Current	63A (Limited by circuit breaker)	Series connection	Not designed for series connection
Lifetime Continuous Charge Current	16A*	Expected calendar Life @25°C	>10 years when used as per warranty terms
Maximum Power on Discharge (kW)	approx. 3kW		
Environmental Characteristics			
Operating Temperature Range - Discharging	Discharge: -20°C to 60°C (+/-5°C)	Cooling	Natural convection
Operating Temperature Range - Charging	Charge: 0°C to 50°C (+/-5°C)		
Physical Characteristics			
Battery Mounting Options	Standard 19" Rack + Horizontal, Vertical or on either side	Battery Dimensions	725mm D x 438mm W x 88mm H
Battery Terminal Connections	Amphenol Surlok 100A non-keyed	Battery Weight	42.5kg
Battery Circuit Breaker	2-Pole 63A 360VDC (Z-curve)	IP Rating	IP20
Safety Parameters and Certification			
Short-circuit current	400A per battery in parallel	Certification - TROPPO 4841 Battery	IEC62619:2017 & AS/NZS 60950.1:2015
Lithium Composition	Lithium Ferro Phosphate (LiFePO ₄ or LFP)	Certification - LiFePO ₄ 3.800mAh Cell	IEC62619:2017 & UN38.3
Battery Management System (BMS) Protection Settings			
Battery type and number of cells in series	LiFePO ₄ (16S)	High temperature - discharge protection	60±5°C
BMS Over-Volt cut off	58.4V _{DC}	High temperature - charge protection	50±5°C
BMS Under-Volt cut off	40V	Low temperature - discharge protection	-20±5°C
Charging over-current protection	78±8A	Low temperature - charge protection	Activated below 0°C
Discharge over-current protection (2 levels)	250±60A(20-400mS) & 400±100A(10-100mS)	Cell balancing method	Passive equalisation at 57.6V _{DC}
Inverter capacitors - starting capability	14.600uF		

*Recommended average charging amps per battery over the warranty period.
 Note: In our efforts towards constant product enhancement this specification is subject to change at anytime without notice



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The Vault

BATTERY CABINET

*** Picture displayed includes optional extras**

Control shelf with master breaker, monitor display.
Victron BMV. BT compatible. Add remote 4G monitoring. Additional costs.

RedEarth Energy Storage 'The Vault' series is an Australian designed battery mounting cabinet that makes installing our Troppo batteries easy to install. Including preinstalled battery supports, bus bars and cables. The Vault reduces installation time and improves the aesthetics.

With an option to include Bluetooth monitoring and battery isolator, we ensure that the storage is safe and accessible.

Model	MP18	MP22	MP27
No Of Troppo 4.1	*9	*11	*13
Total Storage	Up to 39.6 kWh	Up to 45.1 kWh	Up to 53.3 kWh
Dimensions mm (WxDxH)	600 x 800 x 988	600 x 800 x 1166	600 x 800 x 1388
Weight (Excluding Batteries)	65 kg	70 kg	105 kg
Battery Connections	Bus bars (+ve & -ve) with M8 Stud 1000A Continuous rated		
Maximum loading	800 kg		
Material	SPCC quality cold rolled steel		
Door	Supplied standard with toughened glass front door		
Lockable	YES		
IP Rating	21		
Mounting	Floor only (indoors)		
Parallel connection of cabinets	YES		



Contact



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