

# PowerOasis

Australia's easiest large-scale system to install



**OFF-GRID  
RESORT**



**HOSPITALS/  
MEDICAL**



**CATTLE  
STATION**



**MINING  
CAMP**



**LARGE  
RESIDENTIAL**



**COMMERCIAL  
BUILDINGS**



**INVESTMENT  
FUNDS (EPP)**



**OUTBACK  
FARM**

**OUTDOOR-RATED, ON & OFF GRID,  
LARGE SCALE ENERGY STORAGE**

Turn-key, large scale battery energy storage with a range of world class benefits, including:

- ✓ Easiest large-scale system to install
- ✓ All-in-one outdoor system with integrated switchgear
- ✓ Modular design with scalable battery capacity
- ✓ Integrated solar MPPT for direct solar connection
- ✓ Certified SuperGrid ready (AS4777.2)
- ✓ ROI benefits via RedEarth's Enterprise Power Plant (EPP)
- ✓ EV fast charging options available
- ✓ RedEarth app for on-the-go monitoring

*“PowerOasis is a complete large-scale energy storage system with a full range of RedEarth certified components and services, making installation and ongoing operation the easiest in Australia”*

Co-Founder and Chief Technology Officer,  
RedEarth Energy Storage

# Fully integrated, scalable, ready-to-run modular design

## Customer benefits



## Installer benefits

- Fully integrated ✓
- Ready-to-run ✓
- Modular battery ✓
- 50kVA or 100kVA power rating ✓
- In-built MPPT ✓
- On-grid or off-grid ✓
- Built and tested in our Australian ISO 9001 factory ✓
- Easy to install ✓

## RedEarth proprietary custom-engineered software and remote monitoring service



### Energy Management System (RedHead EMS)

PowerOasis is fitted with RedEarth's proprietary in-house developed advanced Energy Management System. RedHead is designed to work reliably with all of the carefully certified components of the PowerOasis system. This provides a highly reliable and fully supported solution. A range of custom display options are also available (e.g. Lobby TV display).

### Energy Monetisation Unit (EMU app)

Monitor your PowerOasis on-the-go. All RedEarth systems are equipped with specialised monitoring software to ensure you are getting the most out of your battery energy storage system. Use RedEarth's own EMU app to view your system status.

### Enterprise Power Plant (EPP) Headquarters

**Remote monitoring and control service.** As part of the remote monitoring service, RedEarth has a team of highly-trained technicians observing systems in the field and providing ongoing support and recommendations to ensure you achieve the best results from your system.

# Complete solution-making it the easiest large battery system to install

The all-in-one PowerOasis is specially designed to make installation and ongoing operation as easy and reliable as possible. There are currently eight optional extras, including support services and seven compatible hardware components available, with more being added all the time. So no matter whether you are on-grid or off-grid, PowerOasis is the solution for up to 100kW applications needing up to 2.5MWh battery.

## RedEarth certified support services

							
<b>SINGLE LINE DIAGRAM SERVICE</b>	<b>ENGINEERING SUPPORT SERVICE</b>	<b>GENERATOR COMPATIBILITY SUPPORT SERVICE</b>	<b>PV ARRAY DESIGN SUPPORT SERVICE</b>	<b>SATELLITE STARLINK (local WiFi service)</b>	<b>FACTORY/ ONSITE SUPPORT &amp; TRAINING</b>	<b>REDEARTH REMOTE MONITORING SERVICE</b>	<b>REDEARTH'S ENTERPRISE POWER PLANT (EPP)</b>

## RedEarth certified components



## On-grid: 50kVA with 250kWh battery, or Off-grid: 100kVA with 502kWh battery

### Off-grid: Optional RedEarth Certified extras:

- PV Combiner Box for 140kW DC connected PV array via inbuilt MPPT
- Generator 140-160 kVA (2 wire autostart)
- AC coupled Inverter for additional solar or second MPPT orientation
- Automatic Transfer Switch

### On-grid: Optional RedEarth Certified extras:

- PV Combiner Box for 140kW DC connected PV array via inbuilt MPPT
- NPB grid protection board (set up for DNSP)
- Fronius Tauro AC coupled additional solar

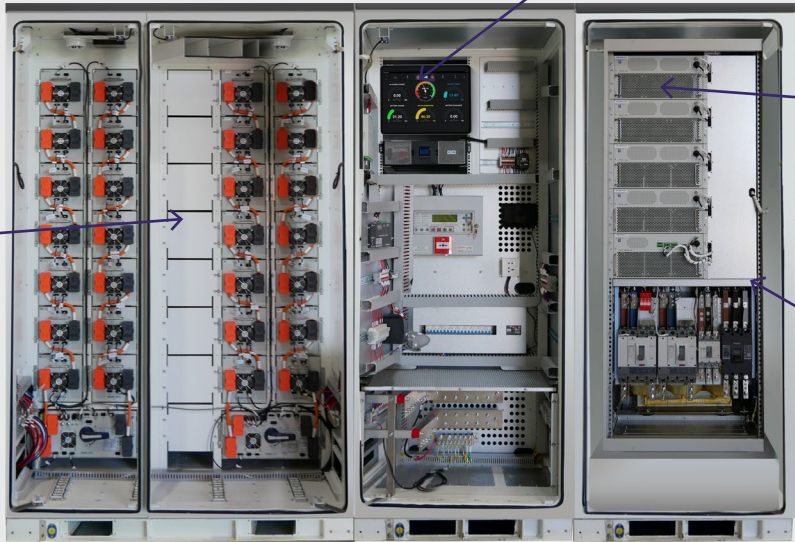


# On or off-grid, outdoor-rated, large-scale energy storage

**EMS**  
RedEarth's proprietary Energy Management System.

**Easy to install**  
Comprehensive range of optional components to easily complete your install, including:

- ATS -250A +1000A
- PV Protection Board 110kW
- Recommended generator (including remote monitoring and control)



**MPPT Built-In**  
PowerOasis is fully integrated and ready-to-run. There is no need for a third party PV inverter.

**Hybrid Inverter**  
All required breakers are built-in (typically no need for external subboard).

Inverter information		Working conditions	
Continuous AC Power	50+100kVA PCS Inverter (integrated 100kW Solar PV MPPT input)	IP rating	IP54 weatherproof outdoor rated enclosure
Surge capacity (% of kVA)	200ms	125% - 150%	Noise levels
	1 min	115% - 125%	
	10 min	105% - 115%	
PV DC max current (A)	384 A (Number of MPPT = 1)	Operating temperature	-20°C ~ +50°C (de-rating over 45°C)
PV voltage range	520 - 900 V (MPPT = 1)	Relative humidity	0 ~ 95% (No condensing)
Power factor	Actual: -1 ~ +1 lagging or leading (load dependant)	System information	
Grid voltage range	3 Phase nom. 400V 50Hz	Dimensions W*D*H (mm)	<b>PCS, BCP, EMS &amp; battery enclosure (total)</b> 3,500 W x 1,680 D x 2,500 H Ca. 4,033kg (minimum 50kVA/99kWh config.)
Isolation	Built-in Transformer	Weight (kg)	
Battery information		<b>Each additional battery enclosure:</b> 1,580 W x 1,680 D x 2,500 H	
Battery cell	CATL / 280 Ah (110S1P minimum) LFP	Cooling method	Battery enclosure: Aircon HVAC      PCS: Forced fan
Battery energy	8.96kWh nom. per module (min. 11 - max. 280 modules)	Fire suppression	Halocarbon gas with mechanical glass bulb release
Battery voltage range	250-520 VDC (varies according to final configuration)	Communication protocol	Modbus TCP/IP RS485, CAN, Ethernet utilising RedEarth EMS
		Certificate & compliance	CEC listed, AS 4777.2 2020, IEC 62109-1/2, UN/DOT 38.3 (Shipping)

## Need help with the install? No worries.

Are you an EPC or commercial solar and battery installer? Come to our factory to learn more about our commercial scale systems and for system testing. RedEarth also offers ongoing engineering support services including single line diagram (SLDs). Give us a call today to see how you can future-proof your business with a RedEarth system.

[www.redearth.energy](http://www.redearth.energy)  
1800 RE ENERGY (1800 733 637) | [sales@redearth.energy](mailto:sales@redearth.energy)  
15 Fienta Place, Darra, Brisbane, QLD Australia 4076



**Power yourself.**