Installation is a breeze.

A product for every customer with our range of Smart Battery Systems.

- All-in-one streamlined design
- Australian designed, tested and supported
- AC Coupled single-phase systems, DC coupled single & three-phase systems
- Battery storage to suit your customers needs
- Pre-wired with inbuilt UPS and blackstart*
- Indoor/outdoor installations

*Blackstart available on the Redback Smart Hybrid Systems.

REDBACK TECHNOLOGIES

Making energy smart

We've done the hard work so you don't have to

Smarter designs built to last

Battery Systems for New Installs

The range of Smart Hybrid Systems offer complete flexibility with expandable battery storage, allowing customers to add storage as their energy needs change.

All our Smart Battery Systems come with active cooling to optimise battery operation.

Battery Systems for Existing Solar Systems

Homes with existing solar systems can be equipped with battery storage thanks to Redback's new Smart Battery System. Offering 7.2 kWh of battery storage, there has never been a better time for your customers to store their self-generated energy.

Easy Install

Our range of Smart Battery Systems come pre-wired and factory tested ensuring quick installation.

The all-in-one, easy to lift systems allow you to keep install costs down while still providing the best in class solutions for your customers.

Quality Solutions

Our modern, sleek, and robust all-in-one solutions have been built with lightweight, high-quality materials.

The systems can be installed in an outdoor location or in a garage and are designed, tested, and supported here in Australia.

Uninterruptible Power Supply

Even when the grid goes down, your customers' lights and essential appliances will stay on*. Switching over in just 10 milliseconds, your customers won't even notice a power outage.

*When DC-coupled, backup circuit is connected and solar or battery energy is available. Appliances selected at time of install. Rated as EPS in SA.

Blackstart Capability

Prolonged outages are taken care of by Redback's black start capability, so even if the batteries drain, the system will restart when the sun comes back up.

*Only applicable to Redback's Hybrid Models.

To find out more about the Redback Smart Battery Systems visit us at **redbacktech.com**

Empowering you through data-driven technology

RedbackINSTALL

No matter what product in the Redback range you are installing, the RedbackINSTALL app's simple step-by-step guide will walk you through the commissioning process and give you the ability to track your progress. With live data updated every 5 seconds, you will be able to test configurations and locate installation issues quickly and efficiently.

Download on the App Store

GET IT ON Google Play

Redback Partner Fleet Manager

You can actively monitor and manage your fleet of Redback Smart Storage Systems from one convenient location with the Redback Partner Fleet Manager. Here you can view your installations in a map or list format and apply filters to easily find customers.

Redback Portal

The Redback portal provides you and your customers with an intuitive dashboard that incorporates analytical solar and storage data dating back two years*

* Data will only be recorded if your customers' Redback Smart Storage System is connected to the internet and online.

MYRedback

The MYRedback app puts control in your customers hands. They can monitor the amount of electricity their solar panels are producing, the amount being exported to the grid and their household consumption.

Grow your business with Redback Partner Connect

The Redback Partner Connect program aims to build a long-term relationship with your business. We will support and assist you to grow your solar and battery storage sales through unique benefits including:

- Approved installer partner logo
- Nationally recognised installer and sales training
- Access to collateral, brochures, data sheets, imagery and much more
- A tiered incentive and co-marketing fund program that grows with your sales
- Priority support for our platinum partners
- Extended 5 year warranty*

Find out how you can join the Redback team at redbacktech.com/installers

Why Redback?

Redback Technologies is an Australian based clean-tech innovator that designs and develops best in class energy solutions for you and your customers.

We provide local support, in depth local training and a robust system designed for Australian conditions.

*Terms and Conditions apply

REDBACK TECHNOLOGIES

Smart Hybrid Systems

Intelligent System
Our unique software ensures the best use of your energy by controlling the inverters response, optimising the battery and directly controling loads.

Easy Installation
Our pre-wired balance of system and plug and play battery enclosure allows for fast and low-cost installation, including approved DC isolator.

Uninterruptible Power Supply
Experience near instantaneous and automatic back up to selected circuits* when the mains power fails.

*When DC-coupled, backup circuit is connected and solar or battery energy is available. Appliances selected at time of install. Rated as EPS in SA.

Indoor/Outdoor Rated
Our systems are outdoor rated and designed for Australian conditions.

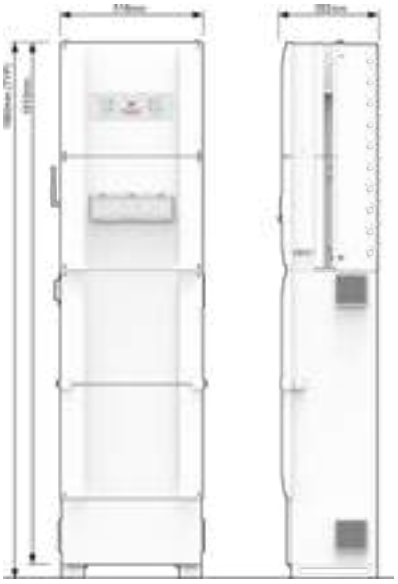
Smart Monitoring
Our easy to use portal and apps allow monitoring of PV generation, battery charge levels & household consumption from one convenient location.

	Smart Hybrid System SH5000 & BE14000	Smart Three Phase System ST10000 & BE-14000-HV
SOLAR ARRAY		
Number of MPPT inputs	2	2
Strings per MPPT input	1/1	1/2
Maximum Recommended PV	6.6kW	13kW
Maximum DC open circuit voltage	580V DC	600V DC
MPPT operating range	125 – 550V	200 – 550V
Starting voltage	125V DC	180V DC
Maximum DC input current (for each solar array input)	11A DC	12.5/22A
Maximum short current (for each solar array input)	13.8/13.8A	15.2/27.6A
Solar array switch rating	1000V DC	1100V DC
Input connectors	MC4	MC4
Residual current and insulation monitoring	Integrated	
UTILITY INTERFACE		
Nominal AC voltage/frequency	230V AC, 50Hz	400V, 50Hz
Continuous AC power rating	5000W AC	10kVA AC (derate over 45°C ambient)
Maximum AC power to utility grid	5000W AC (derated over 45°C ambient)	11kVA AC (derate over 45°C ambient)
Maximum AC current to utility grid	21.7A AC	16.5A
Maximum AC current from utility grid	40A AC	22.7A
Nominal AC output range	230/240V 50Hz	400V AC 50Hz
Current THD	Less than 1.5%	Less than 3%
Power factor	0.8 leading to 0.8 lagging (adjustable)	
AC overvoltage category	Category III	
Anti-islanding and AC overcurrent protection	Integrated	
Inverter topology	Transformerless (with HF transformer isolation for battery)	
BATTERY INTERFACE		
Nominal DC voltage	48V DC	180-600V DC
Battery compatibility	PylonTech US2000 & US3000	PylonTech H48050 & H48074
Maximum charging and discharge power (from battery)	4600W DC*	10kWh DC*
Maximum charging current	85A DC	25A DC
Maximum discharging current	100A DC	25A DC
Battery charging method	Self-adaption to BMS	
Battery disconnect	Integrated 2 pole DC breaker 125A DC per pole	2 pole DC isolator 32A DC per pole
CONTROL INTERFACE		
Signal relay outputs	4	3
DRM modes	0-8	0
Remote firmware updates	Supported	
Relays	2 x 10A Omron	Optional RK-1 available
BACK UP LOADS OUTPUT		
Nominal AC voltage/frequency	230V AC, 50Hz, L/N/PE	400V AC, 50Hz, 3L/N/PE
Continuous AC power rating	4600W AC (derate over 45°C ambient)	10kVA AC (derate over 45°C ambient)
Maximum AC power rating	6900W AC (10 seconds maximum)	16.5kVA AC (60 seconds maximum)
Maximum AC current	21.7A	16.5A
Voltage THD	Less than 4.5% (with linear loads)	Less than 3.0%
Back-up loads AC disconnect / isolator	25A MCB	25A MCB
Manual back-up load AC bypass switch	Integrated	

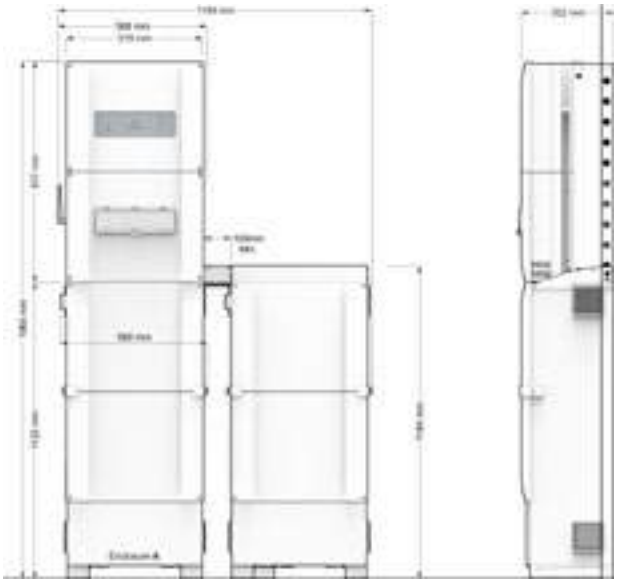
*Dependant on number of batteries installed

	Smart Hybrid System SH5000 & BE14000	Smart Three Phase System ST10000 & BE-14000-HV
EFFICIENCY		
Maximum efficiency (to utility grid)	97.60%	
European averaged efficiency	97.00%	96.80%
Maximum power point tracking efficiency	99.90%	
Efficiency (powering loads from battery)	90% typical	97.5% typical
Standby losses	Less than 8W AC	
BATTERY ENCLOSURE		
Compatible Smart Hybrid System	SH5000	ST10000
Number of battery units	2-4 x 19" rack mountable battery packs	4 x 19" rack mountable battery packs
Storage capacity	Up to 14.2kWh (4 x 3.55kWh PylonTech batteries)	Expandable from 9.6kWh up to 28.4kWh with expansion pack
Battery voltage	48V DC nominal	192V DC nominal
Battery chemistry	Lithium-ion Phospate	
Access type	Removable front panels	
CABLE SPECIFICATION		
Battery cable rating	4 x 65A	25A
Battery cable type	8 AWG (8.36mm2)	
Battery cable termination (battery enclosure)	Surlok Amphenol connector	
Battery cable termination (inverter)	Surlok Amphenol connector	
BMS cable type	Supplied	
VENTILATION SPECIFICATION		
Ventilation type	Passive and active cooling	
Ventilation control	Smart temperature control	
Number of fans	2	
Fan power	48V DC / 0.04A per fan	12V DC / 0.13A per fan
Fan activation temperature	Variable depending on charge/discharge	
Incoming ventilation aperture	288cm2 with washable filter	
Outgoing ventilation aperture	288cm2 with washable filter	
Passive airflow rate	30cm3/min	
Active airflow rate	320cm3/min	
GENERAL DATA		
Dimensions (W x H x D)		
Mounting and weight	"Frame + Inverter + BoS + Battery Enclosure = 78.6kg	Frame + Inverter + BoS + Battery Enclosure = 76.5kg
Mounting and weight - with batteries	*174.6* - 206.6kg** *BE14000 + 4 x US2000 **BE14000 + 4 x US3000	*172.5* - 204.5kg** *BE14000-HV + 4 x H48050 **BE14000-HV + 4 x H48074
Ambient temperature range - Inverter & BoS	-25°C to 60°C Batteries will derate at 10°C and over 40°C	-35°C to 60°C Batteries will derate at 10°C and over 40°C
Ambient temperature range - Battery Enclosure	Based on battery specification	
Relative humidity	0 to 95%	
DC overcurrent category	Category II	
Moisture location category	4K4H	
Environmental protection rating - Hybrid Inverter & BOS	IP65	IP66
Environmental protection rating - Battery Enclosure	IP54	
Operating Altitude	<4000m	
Cooling	Natural convection	
Noise emissions	Less than 25dB	Less than 30dB
Warranty	5 years	
Construction	Powder coated steel chassis	
Finish	Sealed, powder coated front covers and chassis	
Supply	Ships pre-assembled (excluding batteries)	
Maintenance	Externally serviceable dust filters	
USER INTERFACE		
Front panel display	Coded, coloured LEDs	
Communications	Bluetooth for onboarding, Wi-Fi or Ethernet for phone and web monitoring	
Remote access	Web and Android/iOS application	
Power/energy monitoring	Includes 1 x 3-Phase (class 1) meter	

Smart Hybrid System
SH5000 & BE14000



Smart Three Phase System
ST10000 & BE-14000-HV



REDBACK TECHNOLOGIES

Smart Battery System

Upgrade your PV System & Save
Get the most from your self-generated energy. Store your excess energy for use at night.

Uninterruptible Power Supply*
Experience near instantaneous back-up with your UPS functionality.

*When backup circuit is connected and solar or battery energy is available.
Appliances selected at time of install. Rated as EPS in SA.

Pre-wired for Quick Install
Bringing the unique Redback pre-wired design to an AC coupled battery to ensure ease of install.

Indoor/Outdoor Rated
Our systems are IP54 rated and designed for Australian conditions.

	SB7200
UTILITY INTERFACE	
Utility Grid Max. Export Power	3300W
Utility Grid Max. Export Current	14.3A
Utility Grid Max. Input Apparent Power	7000VA
Utility Grid Max. Input Current	30.4A
Utility Grid Nominal Output Voltage	230V
Utility Grid Nominal Output Frequency	50Hz
Utility Grid Power Factor	1.0 (unity)
Utility Grid Power Factor	0.8 lagging to 0.8 leading
Utility Grid Inverter Isolation	Non-Isolated
BACKUP LOADS OUTPUT	
Backup Continuous AC Output Power	3300W
Backup Max. AC Output Power	3300VA
Backup Max. AC Output Current	14.3A
Backup AC Output Voltage THD	< 3%
Backup/Battery Isolation AC Output	Non-Isolated
BATTERY INTERFACE	
Battery Type	Li-Ion
Battery Charging Method	BMS Controlled
Battery Voltage Range	85 to 460V
Battery Max. Charging Power	3600W
Battery Max. Charging Current	25A
Battery Max. Discharging Power	3300W
Battery Max. Discharging Current	25A
GENERAL DATA	
Dimensions (w x h x d)	556 x 1238 x 369 mm
Installed Weight	130kg
Noise Emissions	Less than 30dB
Standby Losses	Less than 8W AC
Operating Temperature Range	-20°C to 60°C Batteries will derate below 10°C and over 40°C
Operating Temperature Derated Output	over 45°C
Allowable Relative Humidity	0 - 100%
Protective Class	Class I
Enviromental Protection Rating	IP54
Operation Altitude	0 - 4000m
AC Overvoltage Category	Category III
DC Overvoltage Category	Category II
Moisture Location Category	4K4H
External Enviroment Pollution Degree	Grade 1, 2 and 3
Grid Connection Standard	AS 4777.2:2015
Safety Regulation	IEC/EN 62477-1, AS 62040.1.1
Compatible Batteries	PylonTech H48050 (2.4kWh)
Battery Controller	RB600-AC
USER INTERFACE	
Front Panel Display	Coded, Coloured LEDs
Communications	Bluetooth for commissioning; Wi-Fi or Ethernet for phone and web monitoring. Bluetooth and Wi-Fi for onboarding. Ethernet for automatic onboarding for phone and web monitoring
Smartphone App	Android 7 or higher; iOS 12.0 or higher
Portal	Web based; platform independent
Power/Energy Monitoring	Includes 1 x utility grade meter (class 1)

CERTIFICATIONS		APPROVALS
AS3000:2018	IEC 62109-1:1.0:2010	RCM
AS/NZS 4777.2:2015	IEC 62109-2:1.0:2011	CE Mark (LVD, EMC, RoHS Directives)
AS/NZS 5033:2014 Amd. 1 & Amd. 2	IEC 62040-1:2.0:2017	Battery Best Practice Guide compliant
AS/NZS 5139:2019	IEC 62116:2.0	CEC listed