The Smart 3-Phase Hybrid System

redback technologies

Redback's Smart 3-Phase Hybrid System is a robust hybrid solution designed for three phase homes or light commercial installations.

The system combines a 10kVA solar inverter with two standard battery storage capacity options of either 9.6 or 14.2kWh and an option for an extended capacity of 19.2 or 28.4kWh. The Smart 3-Phase Hybrid System also includes a pre-wired BoS and integrated isolators to ensure a fast and easy installation.

Image shown with extended battery cabinet BE14000-HV

9.6kWh, 14.2kWh, 19.2kWh or 28.4kWh Battery Storage Capacity

Backup Supply in a Power Outage*

Streamlined All-In-One Design

Indoor or Outdoor Installation

Easy Monitoring App and Portal

Australian-supported 10-Year Warranty

*When backup circuit is connected, and battery energy is available. Appliances selected at the time of install.

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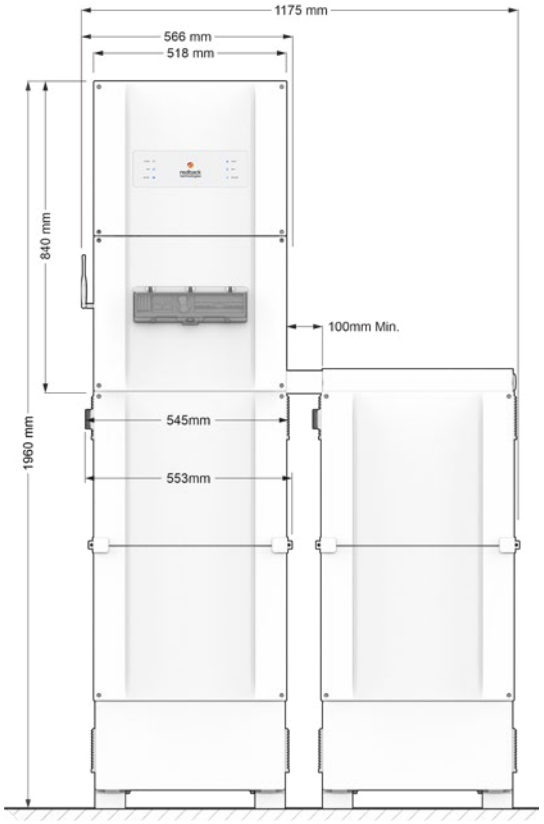
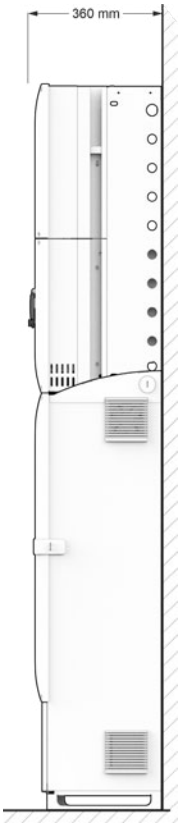
System Information Pack

Product Model	ST10000
PV Port	
Number of MPPTs	2
Strings per MPPT Input	2/1
MPPT Operating Voltage (range)	DC 200 - 850V*
Maximum Input Voltage (Vmax)	DC 1000V*
Maximum Current (Imp)	DC 12.5/22A
Short Circuit Current (Isc)	DC 15.2/27.6A
Grid Interactive Port	
Nominal Output Voltage	AC 400/380V
Nominal Output Frequency	50 Hz
Max. Output Current	AC 16.5A / phase
Rated Output Apparent Power	10000VA
Rated Input Current	AC 22.7 A/phase
Rated Input Apparent Power	15000VA
Power Factor (range)	0.8 lagging to 0.8 leading
Output Voltage THD	<3%
Backup Port	
Nominal Output Voltage	AC 230V
Nominal Output Frequency	50 Hz
Rated Current	AC 16.5A / phase
Rated Active Power	AC 10000W
Rated Apparent Power	10000VA
Peak Apparent Power	16500VA (60 sec max)
Output Voltage THD	<3%
Battery Port	
Voltage (nominal)	DC 180 - 600V
Max. Current (charge)	DC 25 A
Max. Power (charge)	DC 10000W
Max. Current (discharge)	DC 25 A
Max. Power (charge)	DC 10000W
Battery Type	Li-ion
Battery Depth of Discharge	90%
General Information	
Operating Temperature	-35°C to 60°C
Operating Temperature Derated Output	Below 10°C and over 45°C
Operating Relative Humidity	0 - 95%
Operating Altitude	0 - 4000m
Protective Class	I
Ingress Protection Rating	IP66
AC Overvoltage Category	OVC III
DC Overvoltage Category	OVC II
Active Anti-islanding Method	Active Frequency Drift
Inverter Topology	Non-isolated
Country of Origin	China
Demand Response Modes	DRM 0
Standby Self-Consumption	<15W
Noise Emissions	<30 dBA
Warranty	10 Years
Efficiency	
Maximum Efficiency	97.60%
Maximum Battery to Load Efficiency	97.50%
European Efficiency	96.80%
Physical Data	
Installed Weight	127-210kg
Material	Aluminium
Finish	Sealed and powder coated
Battery Enclosure Data	
Enclosure Model	BE14000-HV
Name	Smart Hybrid Battery Enclosure
Chemistry (label only)	
Number of Battery Units	4 or 8
Storage Capacity	N x 2.4kWh N x 3.55kWh
Battery System Model	RB-HVS-Nx48-50 RB-HVS-Nx48-74
Maximum Capacity	28.4kWh**
Nominal Voltage	DC N X 48V
Rated Current	DC 25A
Fan Specification	DC 12V / 0.3A x2
Protective Class	I
Ingress Protection Rating	IP54
Material	Steel
Finish	Sealed and powder coated
Isolation Devices	
PV Port Isolator Utilisation Category	DC-PV2
Grid Interactive Port Isolator Rated Operational Current	40A
Backup Port Isolator Rated Operational Current	25A
Battery Port Isolator Rated Operational Current	32A
Battery Cabinet Isolator Rated Operational Current	32A
Communications Ports and Protocols	
Relays	RJ45; 3x Digital I/O; +DC5V & GND
User Interface	
Front Panel Display	Coloured LEDs
Communications	Bluetooth for commissioning; Wi-Fi or ethernet for remote access
Remote Access	Web Portal; MyRedback App; Redback Install app
Remote Firmware Updates	Supported
Power/Energy Monitoring	Includes 1 x utility grade energy meter (class 1)
Certifications and Approvals	AS/NZS 4777.2:2020 IEC 62109-1:2010 IEC62109-2:2011 IEC 62116:2014 IEC 62040-1:2017 IEC 62477-1:2012 IEC 60529 EN 61000 RCM CE
Designed with Installation Standards Considered	AS/NZS 3000:2018 AS/NZS 5033:2014 (inc. Amd 1 & 2) AS/NZS 5139:2019





*600 V maximum voltage for PV arranys on domestic dwellings N = number of battery modules
**Maximum capacity 14.2kWh with single cabinet, or 28.4kWh with optional expansion cabinet.