

The Smart 3-Phase Hybrid System



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.



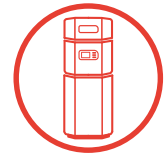
Image shown with extended battery cabinet BE14000-HV



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



**3-Phase 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**

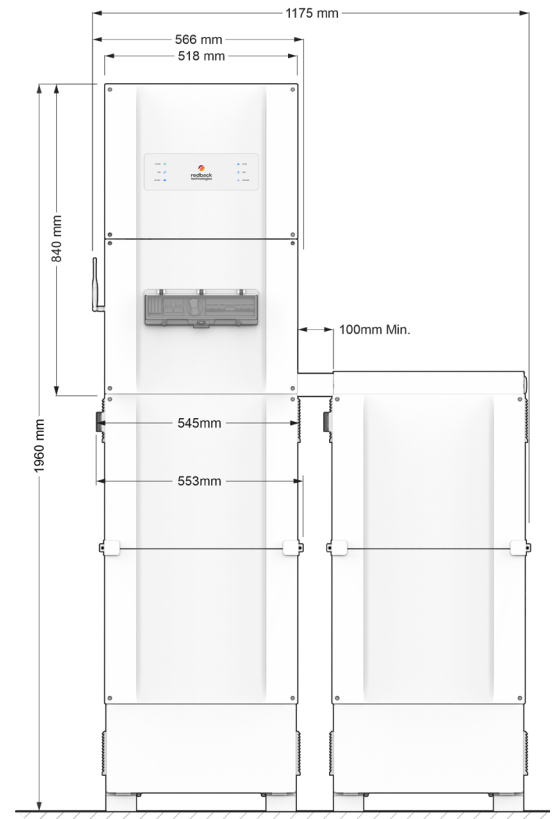
*When backup circuit is connected, and battery energy is available. Appliances selected at the time of install.

The Smart 3-Phase Hybrid System

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System Information Pack



| | |
|--|--|
| Product Model | ST10000 |
| PV Port | |
| Maximum Recommended PV Input Power ¹ | 16000Wp |
| Number of MPPTs | 2 |
| Strings per MPPT Input | 1/2 |
| MPPT Operating Voltage (range) ¹ | DC 200 - 850V ² |
| Maximum Input Voltage (Vmax) | DC 1000V ² |
| Maximum Current (Imp) ¹ | DC 12.5/22A |
| Short Circuit Current (Isc) | DC 17.5/36A ⁶ |
| 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 380/400,3L/N/PE |
| Nominal Output Frequency | 50 Hz |
| Rated Current | AC 16.5A / phase |
| Rated Active Power | AC 10000W |
| Rated Apparent Power | 10000VA ⁵ |
| 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 ³ |
| Max. Current (discharge) | DC 25 A |
| Max. Power (discharge) | 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 ⁴ |
| 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 (2.4GHz only) 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 AS/NZS 3000:2018 AS/NZS 5033:2014 (inc. Amd 1 & 2) AS/NZS 5139:2019 |



Designed with Installation Standards Considered

¹ Max PV Input Power is determined by the appropriate selection of panels within the MPPT voltage and current range

² 600 V maximum voltage for PV arrays on domestic dwellings N = number of battery modules

³ Dependant on number of batteries installed

⁴ Maximum capacity 14.2kWh with single cabinet, or 28.4kWh with optional expansion cabinet

⁵ 9.6kWh & 14.2kWh systems = 5000VA or 19.2kWh & 28.4kWh systems = 10000VA

⁶ Manufacturer's declared and tested Max Short Circuit Current (Isc Max)

 **redback
technologies**