

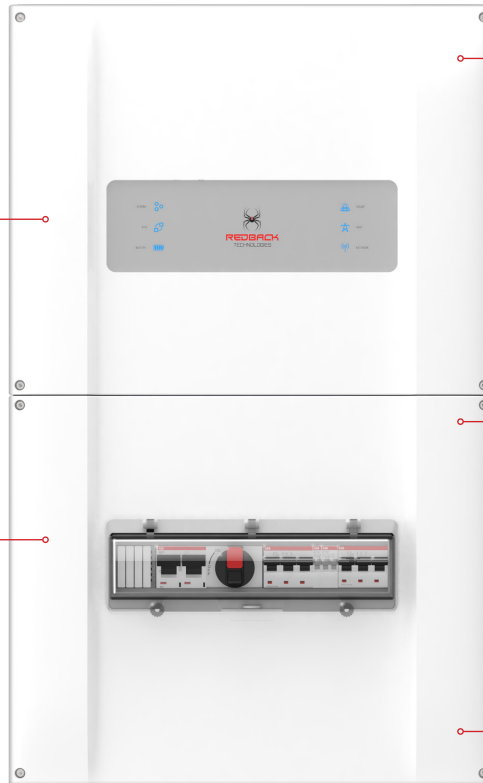
Smart Three Phase Hybrid Inverter ST10000

3 Phase Inverter

Ideal for larger homes and small commercial installations.

Pre-wired BoS

For fast and low cost installation, including approved DC isolator.



3 Phase UPS

Backup all three phases in the event of a power outage.

Indoor/outdoor rated

Ideal for Australian conditions.

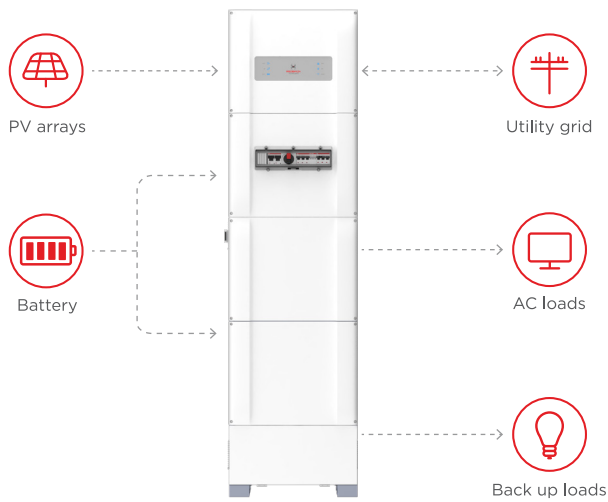
Simple Commissioning

Our all-in-one system is easy to commission with the RedbackINSTALL app.

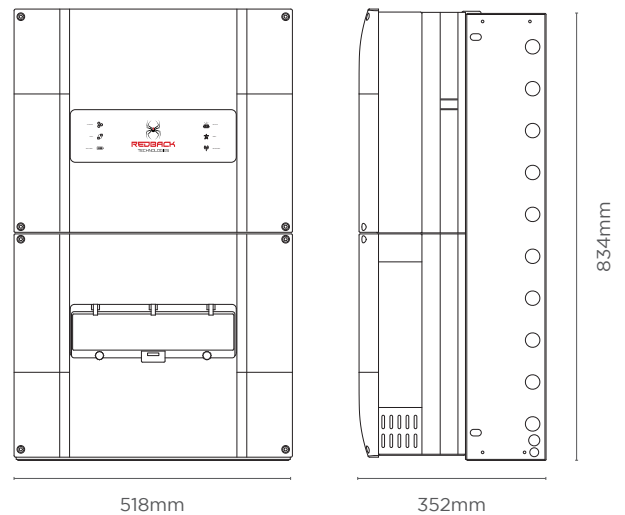
Energy for the future

Redback Technologies has a vision to enable every household and business to be entirely powered by low cost renewable energy all day, every day. The Redback Three Phase Smart Hybrid System is the platform which facilitates energy users to participate in the network of the future through clean, efficient and smart energy management. Redback Technologies, helping the world switch on renewable energy today for a cleaner tomorrow.

Energy flow



Dimensions



Specifications

Inverter & Balance of System

Sold as a component of the Smart Three Phase Hybrid System

Solar array

Number of MPP inputs	2
Strings per MPP input	1 / 2
Maximum DC open circuit voltage	600V DC
MPPT operating range	200 - 550V
Starting voltage	180V DC
Maximum input current (for each solar array input)	12.5/22A
Maximum short current (for each solar array input)	15.2/27.6A
Solar array switch rating	1100V DC
Input connectors	MC4
Residual current and insulation monitoring	Integrated

Utility interface

Nominal AC voltage	400V, 50Hz
Continuous AC power rating	10kVA AC (derate over 45°C ambient)
Maximum AC power to utility grid	11kVA AC (derate over 45°C ambient)
Maximum AC current to utility grid	16.5A
Maximum AC current from utility grid	22.7A
Nominal AC output range	400/380V AC 50Hz
Current THD	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

Battery interface

DC voltage	180-600V DC
Battery compatibility	PylonTech H48050 PylonTech H48074
Maximum charging and discharge power (from battery)	10kWh DC* *Dependant on number of batteries installed
Maximum charging current	25A DC
Maximum discharging current	25A DC
Battery charging method	Self-adaption to BMS
Battery disconnect	2 pole DC isolator 32A DC per pole

Grid regulation compliance: AS4777.2:2015, AS5033 AMD 2 Safety certification: AS3000:2018, IEC62109-1, IEC62109-2, IEC62040-1, IEC62116

Control interfaces

Signal relay outputs	4 (requires optional relay kit)
DRM modes	0
Remote firmware updates	Supported
Relays	Optional RK-1 available

Backup loads output

Nominal AC voltage/frequency	400/380, 3L/N/PE
Continuous AC power rating	10kVA AC (derate over 45°C ambient)
Maximum AC power rating	16.5VA AC (60s)
Maximum AC current	16.5A
Voltage THD	Less than 3.0%
Back-up circuit AC isolator	25A MCB
Manual back-up load AC bypass switch	Integrated

Efficiency

Maximum efficiency (to utility grid)	97.6%
European averaged efficiency	96.8%
Maximum power point tracking efficiency	99.9%
Efficiency (powering loads from battery)	97.5% typical
Standby losses	Less than 8W AC

General data

Dimensions (W x H x D)	518 mm x 834 mm x 352 mm
Mounting and weight	Frame 4.5kg, Inverter 27.5kg, BoS 12.5kg
Ambient temperature range	-35 to 60°C derate above 45°C
Relative humidity	0 to 95%
DC overcurrent category	Category II
Moisture location category	4K4H
Environmental protection rating	IP66* *expected rating with certificate to be provided
Cooling	Natural convection
Noise emissions	Less than 30dB
Warranty	5 years

User Interface

Front panel display	Coded, coloured LEDs
Communications	Bluetooth for onboarding, Wi-Fi or ethernet for phone and web monitoring
Remote access	Web Portal and android/iOS application
Power/energy monitoring	Includes 1 x utility grade 3 Phase (class 1) meter