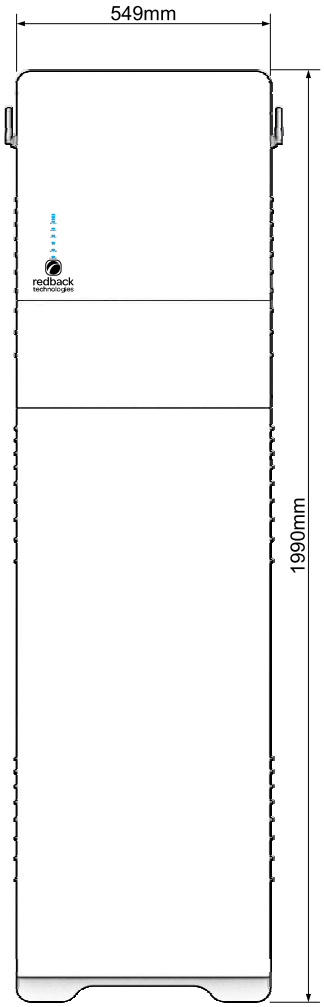
Hybrid Battery System

redback technologies

	SH5000-G3	SH6000-G3
PV Port		
Maximum PV Input Power[1]	8000Wp	9600Wp
Number of MPPTs	2	
Strings per MPPT Input	1/1	
MPPT Operating Voltage (range)	DC 90-520V	
Start-up Voltage	DC 90V	
Maximum Input Voltage (Vmax)	DC 600V	
Maximum Current (Imp)	DC 16/16A	
Short Circuit Current (Isc)	DC 24/24A	
Grid Interactive Port		
Max. Output Apparent Power	5,000VA	6,000VA
Nominal Output Voltage	AC 220/230/240V	
Nominal Output Frequency	50Hz	
Max. Output Current	AC 21.7A	AC 26.1A
Max. Input Current	AC 32A	AC 40A
Power Factor (range)	0.8 lagging to 0.8 leading	
Output Voltage THD	<3%	
Backup Port		
Nominal Output Voltage	AC 220/230/240V	
Nominal Output Frequency	50Hz	
Maximum Output Current	AC 21.7A	AC 26.1A
Rated Apparent Power (on-grid)	AC 5000VA	AC 6000VA
Rated Apparent Power (off-grid)	AC 5000VA	AC 6000VA
Peak Apparent Power	7000VA (60s max)	8000VA (60s max)
Output Voltage THD	<3%	
Battery Port		
Voltage (nominal)	DC 42-58V	
Max. Current (charge)	DC 105A	DC 125A
Max. Power (charge)	DC 5000W	DC 6000W
Max. Current (discharge)	DC 105A	DC 125A
Max. Power (discharge)	DC 5000W	DC 6000W
Battery Type	Li-ion	
Battery Depth of Discharge	95%	
General Information (Inverter)		
Operating Temperature	-25°C to 60°C	
Operating Temperature Derated Output	Below 10°C and over 45°C	
Operating Relative Humidity	0 - 95%	
Operating Altitude	3000m	
Protective Class	I	
Ingress Protection Rating	IP66 (Outdoors)	
AC Overvoltage Category	OVCIII	
DC Overvoltage Category	OVCII	
Active Anti-islanding Method	Active Frequency Shifting	
Inverter Topology	Non-isolated	
Country of Origin	China	
Demand Response Modes	DRM 0	
Standby Self-Consumption	<20W	
Noise Emissions	<35 dBA	
Installed Weight	63kg	
Material	Aluminium	
Finish	Sealed and powder coated	
Warranty	10 Years	
Efficiency		
Maximum Efficiency	97.50%	
Maximum Battery to Load Efficiency	93.51%	
European Efficiency	96.20%	
Isolation Devices		
	Utilisation Category / Isolator Rated Operational Current	
PV Port Isolator	DC-PV2 / 55A	
Grid Interactive Port	C / 50A	
Backup Port	C/ 50A	
Battery Port	B/C / 125A	
Load Control		
Relays	Redback Smart Load Control using Direct IO; on kWh meter	
Battery Enclosure Data		
Enclosure Model	SH-G3-BE	
Number of Battery Units	2-4	
Storage Capacity	9.6-19.2kWh	
Battery System Model	US5000	
Maximum Capacity	19.2kWh	
Nominal Voltage	DC 48V	
Rated Current	DC 120A	
Protective Class	I	
Ingress Protection Rating	IP54 (outdoors)	
Dimensions (W x D x H)	540 x 363 x 1270mm	
Material	Aluminium	
Finish	Sealed and powder coated	
User Interface		
Front Panel Display	Coded, coloured LEDs	
Communications	Bluetooth for commissioning, WI-Fi or ethernet for remote access, 4G (optional)	
Remote Access	Redback Portal or MyRedback app	
Remote Firmware Updates	Supported	
Power/Energy Monitoring	Includes 1 x utility grade energy meter (class 1)	
Product Compliance		
Certification, Standards and Approvals	AS/NZS 4777.2:2020 • IEC 62116:2014 • IEC 60529 • RCM • IEC 62109-1:2010 • IEC 62040-1:2017 • EN 61000 • RCM (LVD, EMC, RoHS directives) • IEC 62109-2:2011 • IEC 62477-1:2012	
Designed with Installation Standards Considered	AS/NZS 3000:2018 • AS/NZS 5139:2019 • AS/NZS 5033:2021	



[1]Max PV Input Power is determined by the appropriate selection of panels within the MPPT voltage and current range, and actual design needs to be compliant to local regulation.

V3.0
Coming Q4 2024