

# Hybrid Battery System

	SH5000-G3	SH6000-G3		
<b>PV Port</b>				
Maximum PV Input Power	10000Wp	12000Wp		
Number of MPPTs	2	2		
Strings per MPPT Input	1/1	1/1		
MPPT Operating Voltage (range)	DC 60 - 550V	DC 60 - 550V		
Maximum Input Voltage (Vmax)	DC 600V	DC 600V		
Maximum Current (Imp)	DC 16/16A	DC 16/16A		
Short Circuit Current (Isc)	DC 23/23A	DC 23/23A		
<b>Grid Interactive Port</b>				
Nominal Output Voltage	AC 220/230/240V	AC 220/230/240V		
Nominal Output Frequency	50/60 Hz	50/60 Hz		
Max. Output Current	AC 22.7A	AC 27.3A		
Rated/Max Output Apparent Power	5000VA	6000VA		
Max. Input Current	AC 43.5A	AC 43.5A		
Rated Input Apparent Power	10000VA	10000VA		
Power Factor (range)	0.8 lagging to 0.8 leading	0.8 lagging to 0.8 leading		
Output Voltage THD	<3%	<3%		
<b>Backup Port</b>				
Nominal Output Voltage	AC 220/230/240V	AC 220/230/240V		
Nominal Output Frequency	50/60 Hz	50/60 Hz		
Maximum Output Current	AC 22.7A	AC 27.3A		
Rated Apparent Power (on-grid)	AC 6000VA	AC 6000VA		
Rated Apparent Power (off-grid)	AC 5000VA	AC 6000VA		
Peak Apparent Power	10000VA (10 sec max)	10000VA (10 sec max)		
Output Voltage THD	<3%	<3%		
<b>Battery Port</b>				
Voltage (nominal)	DC 40 - 60V	DC 40 - 60V		
Max. Current (charge)	DC 120A	DC 120A		
Max. Power (charge)	DC 5000W	DC 6000W		
Max. Current (discharge)	DC 120A	DC 120A		
Max. Power (discharge)	DC 5300W	DC 6300W		
Battery Type	Li-ion	Li-ion		
Battery Depth of Discharge	95%	95%		
<b>General Information</b>				
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 (>2000m derating)			
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	<13W			
Noise Emissions	<30 dBm (Inverter only) <sup>1</sup>			
Warranty	10 Years			
<b>Efficiency</b>				
Maximum Efficiency	97.60%			
Maximum Battery to Load Efficiency	95.50%			
European Efficiency	96.70%			
<b>Physical Data</b>				
Installed Weight (incl. SH-G3, SH-G3-BE and 0-4 US5000 Batteries)	57 - 217kg			
Material	Aluminium			
Finish	Sealed and powder coated			
<b>Battery Enclosure Data</b>				
Enclosure Model	SH-G3-BE			
Number of Battery Units	4			
Storage Capacity	4 x 4.8kWh			
Battery System Model	US5000			
Maximum Capacity	19.2kWh			
Nominal Voltage	DC 48V			
Rated Current	DC 120A			
Protective Class	I			
Ingress Protection Rating	IP54			
Dimensions (W x D x H)	549x368x1172mm			
Material	Aluminium			
Finish	Sealed and powder coated			
<b>Isolation Devices</b>				
	PV Port	Grid Interactive Port	Backup Port	Battery Port
Utilisation Category	DC-PV2	A	A	A
Isolator Rated Operational Current	63A	63A	63A	125A
<b>Load Control</b>				
Relays	Redback Smart Load Control using Direct IO; on kWh meter			
<b>User Interface</b>				
Front Panel Display	Coded, coloured LEDs			
Communications	Bluetooth for commissioning Wi-Fi or ethernet for remote access 4G (late 2024 release)			
Remote Access	Redback Portal or MyRedback app			
Remote Firmware Updates	Supported			
Power/Energy Monitoring	Includes 1 x utility grade energy meter (class 1) Single-phase / 2 CTs Measurement of AC coupled system via CT2			
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 • CE Mark (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			

