



The VillaGrid energy storage system combines the industry's safest battery chemistry (LTO) with the longest warranty, providing outstanding energy stability for an increasingly unreliable electric power grid.

Harness the power of lithium titanate to meet the most demanding household loads during peak rate hours or overnight, day-after-day, with solar energy, even when the grid is down.

TECHNICAL SPECIFICATIONS

BATTERY – LITHIUM TITANATE

Performance		
Battery Models	VES20BC22S5P	VES20BC22S10P
Energy (usable)	5.75 kWh	11.5 kWh
Round Trip Efficiency (10 hour charge, 5 hour discharge)	99.2%	98.5%
Continuous Input Power	10kW	
Continuous Output Power	10kW	
Peak Input Power (10s)	30kW	
Peak Output Power (10s)	30kW	
Maximum Discharge Current	194A	
Maximum Charge Current	194A	
ISC	5200A	
Nominal Voltage	53V	
Minimum Voltage	39.6V	
Maximum Voltage	58.4V	
Warranty	20 years	
Mechanical		
Weight	115kg	185kg
Dimensions (WxHxD)	1032mm x 1413mm x 163mm (41in x 56in x 6.8in)	
Environmental		
Ambient Temperature	-30°C to +55°C	
Noise Level	0dBA	
Maximum Altitude	10,000 ft	
Compliance		
Certifications	UL 1642, UL 1973 (#3030543)	

SYSTEM (WITH INVERTER)

Performance		
ESS Models	VES20BC22S5P-S8K VES20BC22S10P-S8K	VES20BC22S5P-S12K VES20BC22S10P-S12K
Inverter Models	Sol-Ark 8K	Sol-Ark 12K
Stackable (in parallel)	No	Yes
Round Trip Efficiency (VES20BC22S[5P/10P])	92.4%/91.7%	
Continuous Input Power	8kW	
Continuous Output Power	8kW (33A @240VAC)	
Peak Input Power (10s)	16kW	
Peak Output Power (10s)	16kW (67A @240VAC)	
Maximum Discharge Current	185A	
Maximum Charge Current	185A	
Number of Phases input	120/240/208 split	
Frequency	50/60Hz	
Communication	CANbus	
Warranty	5 – 10 years	
Mechanical		
Inverter Weight	35.5kg	33.6kg
Inverter Dimensions (WxHxD)	441mm x 711mm x 238mm	425mm x 762mm x 238mm
Environmental		
Ambient Temperature	-25°C (derate at -15°C) to +55°C (derate at 45°C)	
Environmental Ratings	Indoor Use Only	
Maximum Altitude	10,000 ft	
Compliance		
Certifications	UL 9540 (#3030543)	