

ENERGY STORAGE SOLUTION

Energy Solutions by Panasonic

SUNVOLT ENERGY STORAGE SYSTEM



口 Backup Power

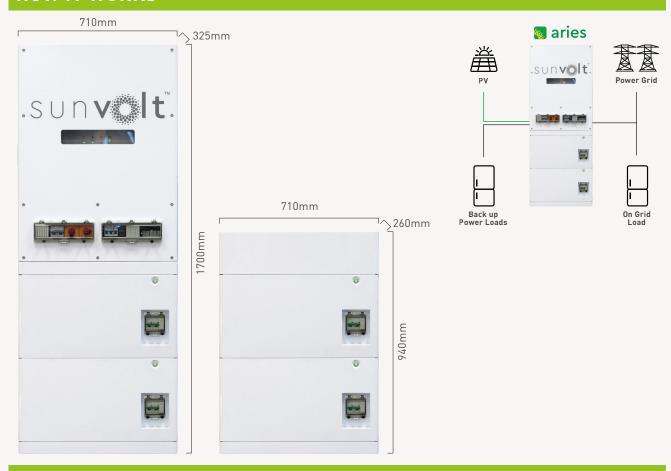
Integrated Isolators

Pre-wired

Mobile App



HOW IT WORKS



TECHNICAL SPECIFICATIONS

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SUNVOLT LV ESS Parameters	SV-LV ESS G3 5.4-1 (5.37kWh)	SV-LV ESS G3 10.8-1 (10.74kWh)	SV-LV ESS G3 16.2-1 (16.11kWh)	SV-LV ESS G3 21.6-1 (21.48kWh)	
PV String Input Data					
Max. Input Power (W)*1	7500				
Max. Input Voltage (V)		600			
MPPT Operating Voltage Range(V)		60~550			
MPPT Voltage Range at Nominal Power (V)	200-500				
Start-up Voltage (V)	58				
Nominal Input Voltage (V)	360				
Max. Input Current per MPPT (A)	16				
Max. Short Circuit Current per MPPT (A)	23				
Max. Backfeed Current to The Array (A)	0				
Number of MPP Trackers	2				
Number of Strings per MPPT		1			
Battery Input Data	•				
Battery Parameters	1×Battery System	2×Battery System	3×Battery System	4×Battery System	
Rated Energy (kWh)	5.37	10.74	16.11	21.48	
Usable Energy (kWh)*2	4.83	9.66	14.49	19.32	
Cell Type	LFP (LiFeP04)				
Cell Configuration	16S1P	16S2P	16S3P	16S4P	
Rated Voltage (V)	51.2				
Operating Voltage Range (V)	47.5~57.6				
Nominal Dis-/Charge Current (A)	50A	50A	50A	50A	
Max. Dis-/Charge Current (A)*3	50A (100A@15min)	100A	100A	100A	
Max. Discharge Power(kW) *3	5.3	5.3	5.3	5.3	
Communication	CAN&RS485				
Battery Weight (kg)	53 (1 pack)	106 (2 packs)	159 (3 packs)	212 (4 packs)	
Battery Dimensions (W×H×D) (mm)	650×390×260	650×390×260 ×2(Non-stack size)	650×390×260 ×3(Non-stack size)	650×390×260×4(Non-stack size)	
Operating Temperature()	Charge: 0~+50; Discharge: -10~+50				
Storage temperature ()	-20~+40 (<one (<one="" 0~+35="" month);="" td="" year)<=""></one>				
Relative Humidity	0~95%				
Max. Operating Altitude (m)	2000				
Protection Degree	IP55 (Outdoor / Indoor, Battery stack)				
Standard and Certification	Safety, EMC, UN38.3				

AC Output Data (On-grid) Nominal Apparent Power Durput to Unitaly Grid (NA) Nominal Apparent Power Curput to Unitaly Grid (NA) Nominal Apparent Power Curput to Unitaly Grid (NA) Nominal Apparent Power from Unitaly Grid (NA) Nominal Apparent Power from Unitaly Grid (NA) Nominal August Voltage (V) 1707-289 Nominal AC Grid Frequency (Na) AC Grid				
NAL				
Nominal Apparent Power from Utility Grid IVA 2007207240				
Nominal Dutput Vottage (IV) Output Vottage (IV) Output Vottage (Inge (IV) Output Vottage (Inge (IV) Nominal AC Grid Frequency (Ivid) AS-55/ SS-65 Max. AC Current Pown Upput to Utility Grid (IA) Ax. AC Current From Upput to Utility Grid (IA) Ax. AC Current From Upput to Utility Grid (IA) Ax. AC Current From Upput to Utility Grid (IA) Ax. AC Current From Upput to Utility Grid (IA) Ax. AC Current From Upput to Utility Grid (IA) Ax. AC Current From Upput to Utility Grid (IA) Ax. AC Current From Upput (IV) Ax. Output Current (IA) Ax. Total Harmonic Distortion Ax. Current (IA) Ax				
Output Vottage Range IV1 170-280 Nominal AD Grid Frequency IHzl 50/00 AC Grid Frequency Range (Hz) 45-55 / Max AD Current Output to Utility Grid (A) 22.7 Max AD Current From Utility Grid (A) 43.5 Nominal AC Current From Utility Grid (A) 21.7 Max Output Fault Current Peak and Duration [A] 96.883µs Nominal Lope Current (Peak and Duration) [A] 96.883µs Nominal Output Current (A) 21.7 Power Factor -1 (Adjustable from O.8 leading to 0.8 lagging) Max Total Harmonic Distortion 43% Max Maximum Output Overcurrent Protection (A) 80 Type of Voltage [a.e. et d.c.] a.c. AC Output Data (Back-up) a.c. Back-up Nominal Apparent Power (VA) 5000 Nominal Output Current (A) 21.7 Max. Output Fault Current (A) 22.7 Max. Output Fault Current (Peak and Duration) (A) 96.83µs Max. Output Fault Current (Peak and Duration) (A) 96.83µs Maximum Output Overcurrent Protection (A) 90 Max. Output Fault Current (Peak and Duration) (A) 96.80µs				
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AC Grid Frequency Range [Hz]				
AG Grid Frequency Range Htz 55-65				
Max. AC Current From Utility Grid (A) 4.2.5 Nominal AC Current From Utility Grid (A) 2.17 Max. Output Fault Current Peak and Duration (IA) 94.8483 µs Nominal Output Current (IA) 21.7 Power Factor -1 (Adjustable from 0.8 leading to 0.8 leaging) Max. Total Harmonic Distortion -3% Maximum Output Overcurrent Protection (IA) 80 Type of Vottage (a.c. or d.c.) a.c. AC Output Data (Back-up) a.c. Back-up Nominal Apparent Power (VA) 5000 Nominal Output Current (IA) 21.7 Max. Output Fault Current (Peak and Duration) (IA) 22.7 Max. Output Fault Current (Peak and Duration) (IA) 94.803) µs Inrush Current (Peak and Duration) (IA) 94.803) µs Inrush Current (Peak and Duration) (IA) 94.803) µs Inrush Output Voltage (V) 220/230/240 Nominal Output Voltage (V) 80 Nominal Output Voltage (V) 30.60 Output THDV (IBLINEAR Load) 3% Efficiency 97.80% Max. Efficiency 96.90% Max. Efficiency 99.90% <td></td>				
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Anti-islanding Protection Integrated AC Overcurrent Protection Integrated				
AC Overcurrent Protection Integrated				
AC Short Circuit Protection Integrated				
AC Overvoltage Protection Integrated				
DC Switch Integrated				
DC Surge Protection Type II	Type II			
AC Surge Protection Type III	Type III			
AFCI Optional				
Remote Shutdown Integrated				
General Data				
Operating Temperature Range ()* 4 -25~50	-25~50			
Relative Humidity 0~95%	0~95%			
Max. Operating Altitude(m) 2000				
Cooling Method Natural Convection				
User Interface LED,WLAN+APP				
Communication with BMS CAN				
Communication with Meter RS485				
Left: 168.5 Left: 1.				
Weight [kg] 115.5 168.5 Right: 68 Right: 61 Right: 62 Right: 62 Right: 63 Right: 63 Right: 64 Ri	3.5			
Ulmension (W×H×D mm)	21			
Topology Non-isolated	21 700×325			
Ingress Protection Rating Decorated Enclosure: IP43, Electrical Enclosure:IP65,Battery Enclosure:IP55	21 700×325			

Environmental Category	4K4H	
Pollution Degree	III	
Overvoltage Category	DC II / AC III	
Protective Class	ı	
Storage Temperature ()	Battery : -20~+40(∢One Month) ; 0~+35(∢One Year) Inverter : -40~+85	
The Decisive Voltage Class(DVC)	Battery: A PV: C AC: C Com: A	
Installation Location	Wall Mounted & Grounded	
Type of Electrical Supply System	single phase	
Active Anti-islanding Method*5	AFDPF + AQDPF *5	
Country of Manufacture	China	
*1 The second of DV		

The max power is the actual power of PV.

MONITORING

Sunvolt ARIES is a web based application designed for customers to control and monitor Energy Storage Systems. They can view system information over the course of a day, week, month or year, without interfering with how the system is being operated.

Early Intelligent Device Failure Detection for Zero Downtime

Data Analytics for Performance Improvement and Diagnosis

Easy Management with Real Time Alerts and Reports



WARRANTY

10 Year Warranty. Terms & Conditions apply.

^{*2} Usable Energy (kWh)* : Test conditions, 90% DOD, 0.5C charge & discharge at +25±2 °C for battery system at beginning life. System Usable Energy may vary with different Inverter.
3 Max. Continuous Discharge Current/Power*: Max. Continuous Charge/Discharge and power derating will occur related to Temperature and SOC.

⁴ Operating Temperature Range (] *: When the temperature is lower than 0 ° C, the battery will stop charging. When the temperature is lower than -10 ° C, the battery will stop discharging. The PV

^{*5} AFDPF: Active Frequency Drift with Positive Feedback, AQDPF: Active Q Drift with Positive Feedback