

# SMART STRING ENERGY STORAGE SYSTEM

Model: LUNA2000-5/7/10/12/14/15/17/19/21-S1



## Flexible Capacity

Flexible combination of 5 kWh with  
7 kWh per power podule  
Max. 4 groups for an inverter<sup>8</sup>



## More Usable Energy

Module+ architecture, built-in energy optimizer  
Ultra-long service time  
100% Depth of Discharge



## 5-layer Safety Protection

Cell-level, electrical-level, structural-level,  
active protection, emergency protection



## Ultimate Use Experience

-20°C to +55°C operating temperature  
Max 10.5 kW charging & discharging power per group  
Super quiet operation



## Easy Installation

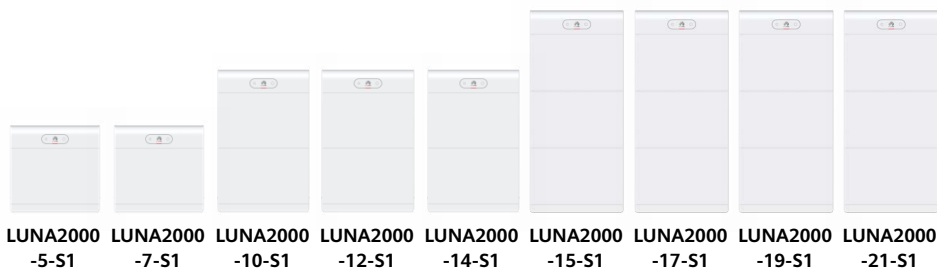
Cable free connection between modules  
Horizontal adjustment design  
Quick commissioning



## Aesthetically Pleasing Design

Breathing star ring display  
Silky curve design  
Simplistic and borderless

# LUNA2000-5/7/10/12/14/15/17/19/21-S1 Technical Specification



Performance									
Power module	LUNA2000-10KW-C1								
Battery module	LUNA2000-5-E1 / LUNA2000-7-E1								
Battery module energy	LUNA2000-5-E1: 5 kWh / LUNA2000-7-E1: 6.9 kWh								
Number of power modules	1								
Number of battery modules	1(5)	1(7)	2(5+5)	2(5+7)	2(7+7)	3(5+5+5)	3(5+5+7)	3(5+7+7)	3(7+7+7)
Battery usable energy <sup>1</sup>	5 kWh	6.9 kWh	10 kWh	11.9 kWh	13.8 kWh	15 kWh	16.9 kWh	18.8 kWh	20.7 kWh
Max. charging & discharging power	3.5 kW		7 kW			10.5 kW			
Operating voltage range (single-phase system)	350-560 V								
Operating voltage range (three phase system)	600-980 V								
Communication									
Display	SOC status indicator, LED indicator								
Communication <sup>2</sup>	RS485 / FE / CAN								
General Specification									
Dimensions (W x D x H)	590 mm x 255 mm x 510 mm		590 mm x 255 mm x 870 mm			590 mm x 255 mm x 1230 mm			
Weight (Floor stand toolkit included)	80 kg		148 kg			216 kg			
Power module dimensions (W x D x H)	590 mm x 255 mm x 150 mm								
Power module weight	10 kg								
Battery module dimensions (W x D x H)	590 mm x 255 mm x 360 mm								
Battery module weight <sup>3</sup>	68 kg								
Installation	Floor stand (standard), Wall mount (optional)								
Operating temperature <sup>4</sup>	-20°C to +55°C (-4°F to +131°F)								
Max. operating altitude <sup>5</sup>	4,000 m (13,123 ft.) (Derated above 2,000 m)								
Environment <sup>6</sup>	Outdoor / Indoor								
Relative humidity	5%-95%								
Cooling	Natural convection								
IP rating	IP66								
Noise emission	< 29 dB <sup>7</sup>								
Cell technology	Lithium-iron phosphate (LiFePO <sub>4</sub> )								
Scalability <sup>8</sup>	Max.4 systems in parallel operation								
Compatible inverters	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-3/3.68/4/4.6/5/6K-LB0, SUN2000-8/10K-LC0, SUN2000-3/4/5/6/8/10KTL-M1, SUN2000-5/6/8/10/12K-MAPO, SUN2000-12/15/17/20/25K-MB0, SUN5000-3/6K-LB0, SUN5000-8/12K-MAPO, SUN5000-17/25K-MB0								
Standards Compliance (More Available Upon Request)									
Certificates	CE, RCM, CEC, VDE2510-50, IEC62619, UN38.3, ISO13849, REACH, RoHS								
Ordering and Deliverable Part									
Available for ordering	LUNA2000-5-E1, LUNA2000-7-E1, LUNA2000-10KW-C1, LUNA2000 S1 Wall Bracket								

\*1 Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C, at the beginning of service life.

\*2 CAN is for communication between ESSs in parallel scenarios only. The launch time of the FE communication version is to be determined. Please confirm with your local product manager of Huawei for information about the final version.

\*3 The weight of the battery modules varies with products, with a tolerance of ±3%.

\*4 The output power may be affected by temperature. Please refer to the output derating curve for details.

\*5 The output power may be affected by altitude. Please refer to the output derating curve for details.

\*6 Outdoor installation is recommended. For indoor installation instructions, please refer to the user manual.

\*7 The data is from Huawei lab, and the test condition is 1m distance and typical working voltage.

\*8 Only inverter MB0 supports 4 energy storage systems in parallel operation.

# SMARTGUARD

SmartGuard-63A-S0



### Simple

Whole home backup,  
no need of additional  
switchboard



### Seamless

≤20ms Ultra-fast switchover to  
power backup mode



### Reliable

Provide bypass mode  
when a fault occurs



### Intelligent

Intelligent load control with  
built-in EMMA

# SmartGuard-63A-S0 Technical Specifications

Technical Specification	SmartGuard-63A-S0
General Data	
Dimensions (W x H x D)	485 mm × 150 mm × 355 mm
Weight	≤14 kg
Performance	
AC Voltage (Nominal)	220/230/240V L/N+PE
Max. current (from Grid)	63 A
Max. current (from Inverter)	60 A
Max. current (to Backup Load)	63 A
Max. current (to Non-BackupLoad) <sup>1</sup>	63 A
Self consumption	10 W
Low-Voltage ride-through	Supported
Switchover time	≤ 20ms (in Seamless Mode)
Bypass operation mode	Manual
Interface	
Power output	9.5 ~ 13.2V @ 100mA, ≤ 3m
LAN	10 / 100Mbps, ≤ 100m
WAN	10 / 100Mbps, ≤ 100m
WLAN	AP Mode, 802.11b/g/n (2.412GHz ~ 2.484GHz)
RS485	9600 / 19200 / 115200bps, × 2, ≤ 50m
Digital input	×2, ≤ 20m
Digital output	×2, ≤ 20m
Measurement Range	
Current range	≤ 63 A
Voltage range	1P (L-N): 85 ~ 299 Vac
Energy accuracy	± 1%
Device Management	
Smart energy controllers	up to 1
Smart chargers	up to 2
Heat pump	up to 1 <sup>2</sup>
Shelly device	up to 20
Environment	
Noise emission	≤ 29dB(A)
Cooling	Natural Convection
Relative humidity range	5%-95% RH (non condensing)
Max. operating altitude	4000m (derating over 2000m)
Degree of protection	IP55
Operating temperature range	-25°C~50°C <sup>3</sup>
Compatible Device	
Smart energy controller	SUN2000-2-6KTL-L1 / SUN2000-8-10K-LC0
Smart charger	SCharger-7KS-S0
Heat pump	SG-ready
Shelly device	Shelly Plus Plug S, Shelly Plus 2PM, Shelly Pro 2PM <sup>4</sup>

<sup>1</sup> The sum of the output current of the backup port and the non-backup port could not be more than 63A

<sup>2</sup> 1 SG-ready Heat Pump can be connected directly. Others can be connected via shelly devices.

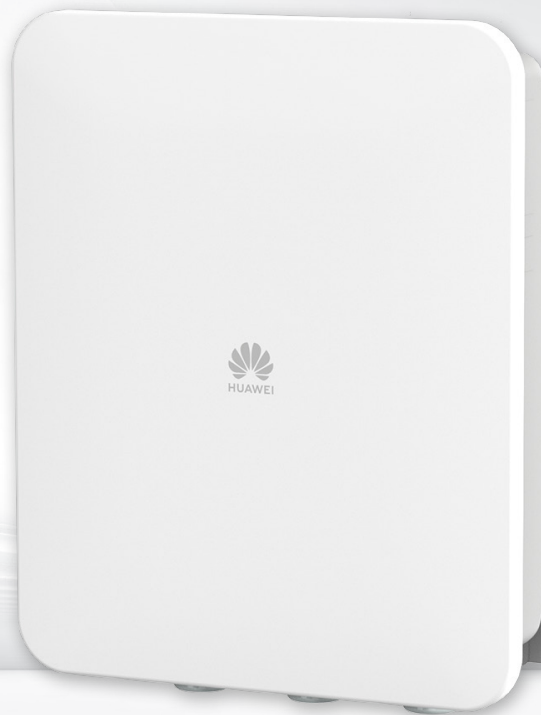
<sup>3</sup> On-grid Mode: 25~30 °C, no derating; 30~40 °C, linear derating from 63A to 50A; 40~50 °C, linear derating from 50A to 40A  
Off-grid Mode: 25~40 °C, no derating; 40~50 °C, linear derating from 54.5A to 50A

<sup>4</sup> The supported firmware version of shelly devices can be found in user manual

Disclaimer: the preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.

# SMARTGUARD

Model: SmartGuard-63A-T0/AUT0



### Simple

Three-phase whole home backup supported



### Seamless

$\leq 20$ ms Ultra-fast switchover to power backup mode



### Reliable

Provide bypass mode when a fault occurs



### Intelligent

Ready for DG, intelligent loads management with SA4H-A02

# SmartGuard-63A-T0/AUTO

## Technical Specifications

Technical Specification	SmartGuard-63A-T0	SmartGuard-63A-AUTO
General Data		
Dimensions (W x H x D)	490 mm × 600 mm × 170 mm	
Weight (not including mounting plate)	17 kg	
Performance		
AC Voltage (Nominal)	380/400/415V, 220/230/240V, L1/L2/L3/N+PE	
Max. current (from/to Grid)	63 A	
Max. current (from/to Inverter)	60 A	
Max. current (to Backup Load)	63 A	
Max. current(to Non-BackupLoad) <sup>1</sup>	63 A	
Low-Voltage ride-through	Supported	
Switchover time	≤ 20ms (MAPO), ≤ 100ms (M1/MB0) <sup>2</sup>	
Bypass operation mode	Manual	
DG mode	Remote control	
Interface		
Power output	9.5–13.2V @ 100mA, ≤ 3m	
LAN	10/100Mbps, ≤ 100m	
WAN	10/100Mbps, ≤ 100m	
WLAN	AP Mode, 802.11b/g/n (2.412GHz–2.484GHz)	
RS485	9600/19200/115200bps, × 2, ≤ 50m	
Digital input	×2, ≤ 20m; Active port <sup>3</sup>	
Digital output	×2, ≤ 20m	
DG Do Port	Passive Port, 1–100mA ≤24V	
ATS	Need prepare the ATS, which supports automatic control and automatic switch-in and reset.	
Measurement Range		
Current range	≤ 63 A	
Energy accuracy	± 1%	
Device Management		
Smart energy controllers	up to 3	
Smart chargers	up to 2	
Heat pump	up to 1 <sup>4</sup>	
Shelly device	up to 20	
Environment		
Cooling	Natural Convection	
Relative humidity range	5%-95% RH (non condensing)	
Max. operating altitude	4000m (derated over 2000m)	
Degree of protection	IP55	
Operating temperature range	-25°C–50°C <sup>5</sup>	
Compatible Device		
Smart energy controller	Max. 3 inverters supported in parallel connection (MAPO) Max. 1 inverter supported (M1/MB0)	
Smart charger	SCharger-7KS/22KT-50	
Heat pump	SG-ready	
Shelly device	Shelly Plus Plug S, Shelly Plus 2PM, Shelly Pro 2PM <sup>6</sup>	

<sup>1</sup> The sum of the output current of the backup port and the non backup port could not be more than 63A

<sup>2</sup> Seamless switching is disabled by default and needs to be manually enabled.

<sup>3</sup> The position feedback signal must be a passive port that works with an external circuit and can work at a current of less than or equal to 0.7 mA@12 V.  
The low impedance of the circuit for the position feedback signal is less than or equal to 100 ohms.

<sup>4</sup> 1 SG ready Heat Pump can be connected directly. Others can be connected via shelly devices.

<sup>5</sup> On grid Mode: 25–30°C, no derating; 30–50°C, linear derating from 63A to 43A;  
Off grid Mode: 25–40°C, no derating; 40–50°C, linear derating from 60A to 50A

<sup>6</sup> The supported firmware version of shelly devices can be found in user manual.

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