

Datasheets

Energieopslag pakket Back-up Huawei 1-fase 5kW/14kWh



VDH SOLAR



Actieve beveiliging

Door AI mogelijk gemaakte actieve
vlamboombeveiliging



Hoger rendement

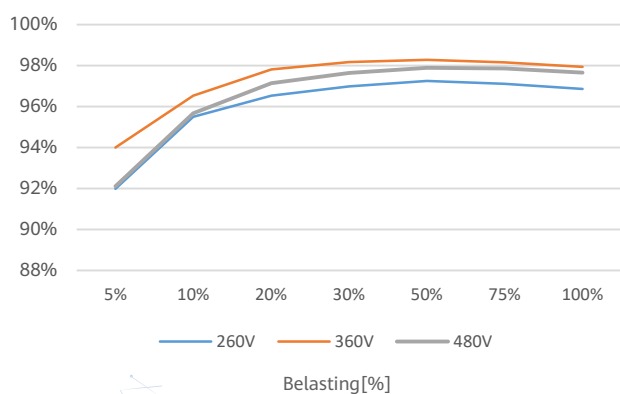
Tot 30% meer energie
met optimizers



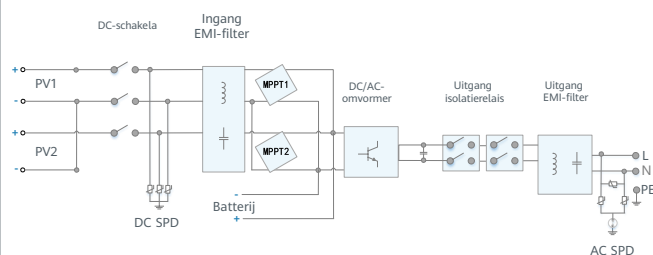
Betere ervaring

2xPower - batterij klaar
5KW AC plus 5KW batterij opladen

Rendementscurve



Schakelschema



SUN2000-2/3/3.68/4/4.6/5/6KTL-L1

Technische Specificaties

Technische Specificaties	SUN2000 -2KTL-L1	SUN2000 -3KTL-L1	SUN2000 -3.68KTL-L1	SUN2000 -4KTL-L1	SUN2000 -4.6KTL-L1	SUN2000 -5KTL-L1	SUN2000 -6KTL-L1 ¹
Rendement							
Max.rendement	98.2 %	98.3 %	98.4 %	98.4 %	98.4 %	98.4 %	98.4 %
Europees gewogen rendement	96.7 %	97.3 %	97.3 %	97.5 %	97.7 %	97.8 %	97.8 %
Ingang (PV)							
Aanbevolen max. PV-vermogen ²	3,000 Wp	4,500 Wp	5,520 Wp	6,000 Wp	6,900 Wp	7,500 Wp	9,000 Wp
Max. ingangsspanning	600 V ³						
Opstartspanning	100 V						
MPPT Werkingsspanningbereik	90 V – 560 V ³						
Nominale ingangsspanning	360 V						
Max. ingangsstroom per MPPT	12.5 A						
Max. kortsluitstroom	18 A						
Aantal MPP-trackers	2						
Max. aantal ingangen	2						
Ingang (DC batterij)							
Compatibel batterij	LG Chem RESU 7H_R / 10H_R						
Bedrijfsspanningsbereik	350 ~ 450 Vdc						
Max. Bedrijfsstroom	10 A @7H_R / 15 A @10H_R						
Max laadvermogen	3,500 W @7H_R / 5,000 W @10H_R						
Max ontlading Vermogen @ 7H_R	2,200 W	3,300 W	3,500 W	3,500 W	3,500 W	3,500 W	3,500 W
Max ontlading Vermogen @ 10H_R	2,200 W	3,300 W	3,680 W	4,400 W	4,600 W	5,000 W	5,000 W
HUAWEI Smart ESS batterij 5kWh – 30kWh ¹							
Compatibel batterij	350 ~ 560 Vdc						
Bedrijfsspanningsbereik	15 A						
Max. Bedrijfsstroom	5,000 W ⁴						
Max laadvermogen	2,200 W						
Max ontlading vermogen	2,200 W	3,300 W	3,680 W	4,400 W	4,600 W	5,000 W	5,000 W
Uitgang							
Netverbinding	Enkelfase						
Nominaal uitgangsvermogen	2,000 W	3,000 W	3,680 W	4,000 W	4,600 W	5,000 W ⁵	6,000 W
Max. uitgangsvermogen	2,200 VA	3,300 VA	3,680 VA	4,400 VA	5,000 VA ⁶	5,500 VA ⁷	6,000 VA
Nominale uitgangsspanning	220 Vac / 230 Vac / 240 Vac						
Nominale AC-netfrequentie	50 Hz / 60 Hz						
Max. uitgangsstroom	10 A	15 A	16 A	20 A	23 A ⁸	25 A ⁸	27.3 A
Aanpasbare arbeidsfactor	0.8 inductief ... 0.8 capacitief						
Max. totale harmonische vervorming	≤ 3 %						
Back-up vermogen	ja (via Backup Box-B0 ¹)						
Bescherming & Voorzien zijn van							
Anti-eilandbeveiliging	ja						
DC ompoolbeveiliging	ja						
Isolatiebewaking	ja						
DC-overspanningsbeveiliging	Ja, compatibel met beschermingsklasse TYPE II volgens EN / IEC 61643-11						
AC-overspanningsbeveiliging	Ja, compatibel met beschermingsklasse TYPE II volgens EN / IEC 61643-11						
Reststroombewaking	ja						
AC beveiliging tegen overstroom	ja						
AC beveiliging tegen kortsluiting	ja						
AC beveiliging tegen overspanning	ja						
Beveiliging tegen oververhitting	ja						
Bescherming tegen vlambogen	ja						
Batterij omgekeerd opladen vanaf het net	ja						
Algemene Gegevens							
Bedrijfstemperatuurbereik	-25 ~ +60 °C (Reductie boven 45 °C @ Nominaal uitgangsvermogen)						
Relatieve luchtvochtigheid	0 %RH ~ 100 %RH						
Bedrijfshoogte	0 ~ 4,000 m (Vermogensreductie boven 2,000 m)						
Koeling	Natuurlijke convectie						
Schermb	LED-indicatoren; geïntegreerde WLAN + FusionSolar APP						
Communicatie	RS485, WLAN via ingebouwde WLAN-module van de omvormer						
Gewicht (incl. Montagebeugel)	Ethernet via Smart Dongle-WLAN-FE (optioneel); 4G / 3G / 2G via Smart Dongle-4G (optioneel)						
Afmetingen (incl. Montagebeugel)	12.0 kg (26.5 lb)						
Beschermingsgraad	365mm * 365mm * 156 mm (14.4 x 14.4 x 6.1 inch)						
	IP65						
Optimizer-compatibiliteit							
DC MBUS-compatibel optimizer	SUN2000-450W-P						
Normnaleiving (meer beschikbaar op aanvraag)							
Veiligheid	EN/IEC 62109-1, EN/IEC 62109-2						
Standaarden voor netaansluitingen	G98, G99, EN 50549-1, CEI 0-21, VDE-AR-N-4105, AS 4777.2, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, IEC61727, IEC62116						

¹ Beschikbaar in 2020 Q3.² Het maximale ingangsvermogen van de omvormer is 10,000 Wp wanneer lange strings zijn ontworpen en volledig zijn aangesloten op SUN2000-450W-P power optimizers.³ De maximale ingangsspanning en de bovengrens van de bedrijfsspanning worden verlaagd tot 495 V wanneer de omvormer verbinding maakt en werkt met een LG-batterij.⁴ HUAWEI ESS-batterij van 2.500 W @ 5kWh⁵ AS4777.2: 4,991W. ⁶ VDE-AR-N 4105: 4,600VA / AS4777.2: 4,999VA. ⁷ AS4777.2: 4,999VA / C10/11: 5,000VA. ⁸ AS4777.2: 21.7A.

SMART STRING ENERGY STORAGE SYSTEM

LUNA2000-7/14/21-S1



Flexible Capacity

6.9 kWh per Battery Module

Scalable from 6.9 kWh to 20.7 kWh per Group
Max. 4 Groups with 82.8 kWh for an Inverter⁸



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 10.5kW Charging & Discharging Power
per Group
Super Quiet Operation



Easy Installation

Cable Free Connection Between Modules
Horizontal Adjustment Design
Quick Commissioning



Aesthetically Pleasing Design

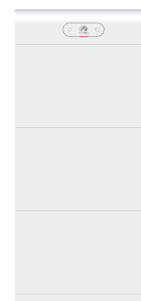
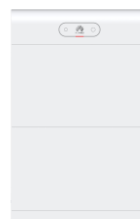
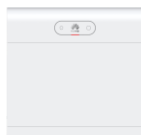
Breathing Star Ring Display
Silky Curve Design
Simplistic and Borderless

LUNA2000-7/14/21-S1 Technical Specification

LUNA2000-21-S1

LUNA2000-14-S1

LUNA2000-7-S1



Performance

Power module	LUNA2000-10KW-C1		
Number of power modules	1		
Battery module	LUNA2000-7-E1		
Battery module energy	6.9 kWh		
Number of battery modules	1	2	3
Battery usable energy ¹	6.9 kWh	13.8 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 ²	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 dimension (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 ³	68 kg		
Installation	Floor stand (standard), Wall mounting (optional)		
Operating temperature ⁴	-20°C to +55°C (-4°F to +131°F)		
Max. operating altitude ⁵	4,000 m (13,123 ft.) (Derating above 2,000 m)		
Environment ⁶	Outdoor/Indoor		
Relative humidity	5%-95%		
Cooling	Natural convection		
Protection rating	IP 66		
Noise emission	< 29 dB ⁷		
Cell technology	Lithium iron phosphate (LiFePO ₄)		
Scalability ⁸	Max. 4 systems in parallel operation		
Compatible inverters ⁹	SUN2000-12/15/17/20/25K-MB0, SUN2000-3/4/5/6/8/10KTL-M1 SUN2000-8/10K-LC0, SUN2000-2/3/3.68/4/4.6/5/6KTL-L1		

Standards Compliance (more available upon request)

Certificates	CE, RCM, CEC, VDE2510-50, IEC62619, IEC 60730, UN38.3, ISO13849, REACH, RoHS
--------------	--

Ordering and Deliverable Part

Available for ordering ¹⁰	LUNA2000-7-E1, LUNA2000-10KW-C1, Wall Mounting Bracket for LUNA2000-7/14/21-S1
--------------------------------------	--

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 energy storage in parallel scenarios only. Launch time of FE communication is to be determined, please confirm with your local product manager of Huawei for 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 SUN2000-12/15/17/20/25K-MB0 supports 4 energy storage systems in parallel operation.

9. For details on the timetable of compatibility with SUN2000-8/10K-LC0 and SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, please confirm with your local product manager of Huawei for final version.

10. The power module and battery modules of the storage system are separately order in the required quantity.

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

Smart Power Sensor



Accurate

Class 1 measurement accuracy



Simple & Easy

LCD display, easy to set and check



Energy Efficient

Overall power consumption ≤ 1 W

Technical Specification	DDSU666-H	DTSU666-H	DTSU666-H 250A/50mA
General Data			
Dimension (H x W x D)	100 x 36 x 65.5 mm (3.9 x 1.4 x 2.6 inch)	100 x 72 x 65.5 mm (3.9 x 2.8 x 2.6 inch)	100 x 72 x 65.5 mm (3.9 x 2.8 x 2.6 inch)
Mounting type	DIN35 Rail		
Weight (including cables)	1.2 kg (2.6 lb)	1.5 kg (3.3 lb)	1.5 kg (3.3 lb)
Power Supply			
Power grid type	1P2W	3P4W	3P4W/3P3W
Input voltage (phase voltage)	176 Vac ~ 288 Vac		
Power consumption	≤ 0.8 W	≤ 1 W	≤ 1 W
Measurement Range			
Line voltage	/	304 Vac ~ 499 Vac	304 Vac ~ 499 Vac
Phase voltage	176 Vac ~ 288 Vac		
Current	0 ~ 100 A	0 ~ 100 A	0 ~ 250 A
Measurement Accuracy			
Voltage	±0.5 %		
Current / Power / Energy	±1 %		
Frequency	±0.01 Hz		
Communication			
Interface	RS485		
Baud rate	9,600 bps		
Communication protocol	Modbus-RTU		
Environment			
Operating temperature range	-25 °C ~ 60 °C		
Storage temperature range	-40 °C ~ 70 °C		
Operating humidity	5 %RH ~ 95 %RH (non-condensing)		
Others			
Accessories	RS485 Cable (10 m / 33 ft.)		
	1 CT 100A / 40mA (5 m / 16.4 ft.) 	3 CT 100A / 40mA (5m / 16.4 ft.) 	3 CT 250A / 50mA (5m / 16.4 ft.) 

Backup Box



Simple

Automatic detection & switchover



Reliable

Provide Reliable backup power

Technical Specification	Backup Box-B0	Backup Box-B1
AC Output (On grid)		
Grid connection	Single Phase	Three Phase
Rated voltage	220 V / 230 V	380 V / 400 V
AC frequency	50Hz / 60Hz	
AC output voltage range	198 V ~ 253 V	342 V ~ 440 V
AC Output (Backup)		
Load connection	Single Phase	Single Phase
Rated voltage	220 V / 230 V	220 V / 230 V
AC frequency	50Hz / 60Hz	
Maximum apparent power	5,000 VA	3,300 VA
Maximum output current	22.7 A	15.2 A
Switchover time	< 3 s	
AC Input (Inverter)		
Rated voltage	220 V / 230 V	380 V / 400 V
AC frequency	50Hz / 60Hz	
Compatible inverter	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1	SUN2000-3/4/5/6/8/10KTL-M1
General Specification		
Operating temperature range	-20 °C to +45 °C (-4 °F to 113 °F)	
Relative humidity range	0 %RH ~ 100 %RH	
Dimensions (W * H * D)	400 x 350 x 130 mm (15.8 x 13.8 x 5.1 inch)	
Weight	11 kg	
Degree of protection	IP 65	