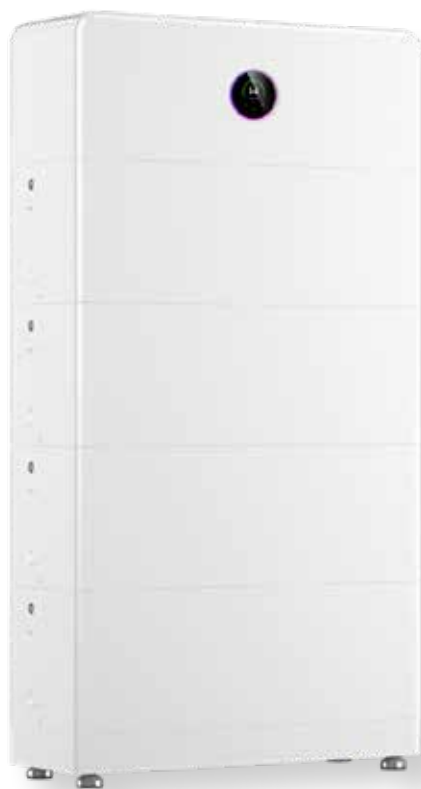


SOLAR POWER SYSTEMS



GOODWE ESA SERIES

5-9.999KWH/5-48KWH | SINGLE PHASE HOME STORAGE SOLUTION | HIGH VOLTAGE BATTERY



The GoodWe ESA Series is a fully integrated all-in-one solar and storage solution that combines inverter and battery in a pre-wired, modular design-making installation significantly faster and easier.

Engineered for flexibility, the ESA system allows seamless expansion to meet evolving energy needs, with scalable battery capacity for future upgrades. With its streamlined setup, the ESA Series can reduce installation time by up to 50%, making it an ideal choice for efficient and adaptable residential energy systems. It also supports dynamic tariff optimisation.

How you benefit:



HIGH EFFICIENCY

Ease of installation and maintenance



FLEXIBLE DESIGN

Supports full back-up load with 63A.
Stackable and modular design for easy system expansion.



SAFE OPERATION

Reliable LFP technology with high cycle stability.



INNOVATIVE

IP55 for both indoor and outdoor installation safety.



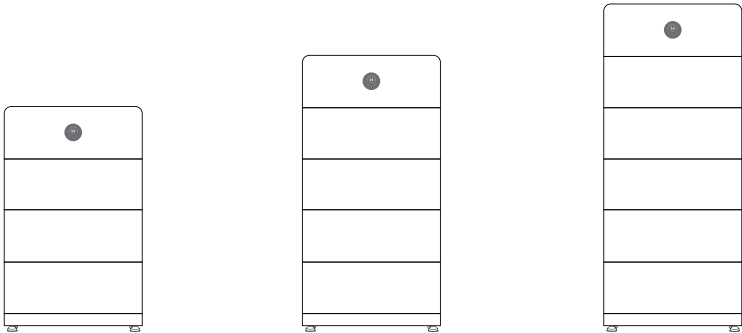
SOLAHART WARRANTY

Enjoy a 10-year warranty, for peace of mind⁽¹⁾.

Technical Data	GW5K-EHA-G20		GW8K-EHA-G20	GW9.999K-EHA-G20
Battery Input Data				
Battery Type	LFP (LiFePO4)			
Nominal Battery Voltage (V)	380			
Battery Voltage Range (V)	350 - 550			
Start-up Voltage (V) ¹	380			
Number of Battery Input	1			
Max. Continuous Charging Current (A)	19.8	31.6	35.6	
Max. Continuous Discharging Current (A)	14.5	23.2	29.0	
Max. Charging Power (kW)	7.5	12.0	13.5	
Max. Discharging Power (kW)	5.5	8.8	11.0	
PV String Input Data				
Max. Input Power (kW)	10.0	16.0	20.0	
Max. Input Voltage (V)	600			
MPPT Operating Voltage Range (V)	40 - 560			
Start-up Voltage (V)	50			
Nominal Input Voltage (V)	400			
Max. Input Current per MPPT (A)	20			
Max. Short Circuit Current per MPPT (A)	26			
Number of MPP Trackers	2	4	4	
Number of Strings per MPPT	1 / 1	1 / 1 / 1 / 1	1 / 1 / 1 / 1	
AC Output Data (On-grid)				
Nominal Output Power (kW)	5.0	8.0	10.0	
Nominal Apparent Power to Grid (kVA)	5.0	8.0	10.0	
Max. Apparent Power to Grid (kVA)	5.0	8.0	10.0	
Nominal Apparent Power from Grid (kVA)	5.0	8.0	10.0	
Max. Apparent Power from Grid (kVA)	10.0	14.5	14.5	
Nominal Output Voltage (V)	220 / 230 / 240, L / N / PE			
Output Voltage Range (V)	170 - 280			
Nominal Output Frequency (Hz)	50 / 60			
AC Grid Frequency Range (Hz)	45 - 55 / 55 - 65			
Max. Current to Grid (A)	22.8 @ 220V / 21.8 @ 230V / 20.9 @ 240V	36.4@220V / 34.8@230V / 33.4@240V	45.5@220V / 43.5@230V / 41.7@240V	
Max. Current from Grid (A)	45.5 @ 220V / 43.5 @ 230V / 41.7 @ 240V	63.0 @ 220V / 63.0 @ 230V / 60.5 @ 240V	63.0 @ 220V / 63.0 @ 230V / 60.5 @ 240V	
Power Factor	-1 (Adjustable from 0.8 leading to 0.8 lagging)			
Max. Total Harmonic Distortion	<3%			
AC Output Data (Back-up)				
Back-up Nominal Apparent Power (kVA)	5.0	8.0	10.0	
Max. Output Apparent Power Without Grid (kVA)	5.0 (10.0, 10s)	8.0 (16.0, 10s)	10.0 (20.0, 10s)	
Max. Output Apparent Power (Bypass) (kVA)	10.0	8.0 (16.0, 10s)	10.0 (20.0, 10s)	
Max. Output Current (A)	22.8 at 220V / 21.8 at 230 / 20.9 at 240V	36.4 at 220V / 34.8 at 230V / 33.4 at 240V	43.5 at 220V / 43.5 at 230V / 41.7 at 240V	
Max. Output Current (Bypass) (A)	45.5	63.0	63.0	
Nominal Output Voltage (V)	220 / 230 / 240, L / N / PE			
Nominal Output Frequency (Hz)	50 / 60			
Output THDv (@Linear Load)	<3%			
Efficiency				
Max. Efficiency	97.6%	97.5%	97.5%	
European Efficiency	96.8%	96.8%	96.8%	
Max. Battery to AC Efficiency	98.0%	97.8%	97.8%	
Protection				
PV String Current Monitoring	Integrated			
PV Insulation Resistance Detection	Integrated			
Residual Current Monitoring	Integrated			
PV Reverse Polarity Protection	Integrated			
Battery Reverse Polarity Protection	Integrated			
Anti-islanding Protection	Integrated			
AC Overcurrent Protection	Integrated			
AC Short Circuit Protection	Integrated			
AC Overvoltage Protection	Integrated			

Specifications and designs included in this data sheet are subject to change without notice.

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Technical Data	GW5K-EHA-G20		GW8K-EHA-G20	GW9.999K-EHA-G20
Protection				
DC Surge Protection			Type II	
AC Surge Protection			Type II	
Remote Shutdown			Integrated	
General Data				
Operating Temperature Range (°C)			-35 ~ +60 (Derating at +40)	
Relative Humidity			0 ~ 95%	
Max. Operating Altitude (m)			4000 (>2000 derating)	
Cooling Method			Natural convection	
User Interface			LED, WLAN + APP	
Communication with BMS			CAN	
Communication with Meter			RS485	
Communication with Portal			WiFi / 4G	
Weight (kg)	24		26	26
Dimension (W × H × D mm)			800 × 300 × 270	
Noise Emission (dB)	≤30		≤35	≤35
Topology			Non-isolated	
Self-consumption at Night (W)			≤10	
Ingress Protection Rating			IP66	
Mounting Method			Wall / Floor Mounted	
Active Anti-islanding Method			Frequency shift	
Country of Manufacture			China	

¹ Refer Solahart Warranty for details of the product warranty and Solahart Owner's Guide & Installation Instructions for installation details.
Please visit GoodWe website for the latest certificates. All pictures shown are for reference only. Actual appearance may vary.
Refer to Solahart Warranty for details of the product warranty and Solahart Owner's Guide & Installation Instructions for installation details. Marketing material is up to date at the time of creation.
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