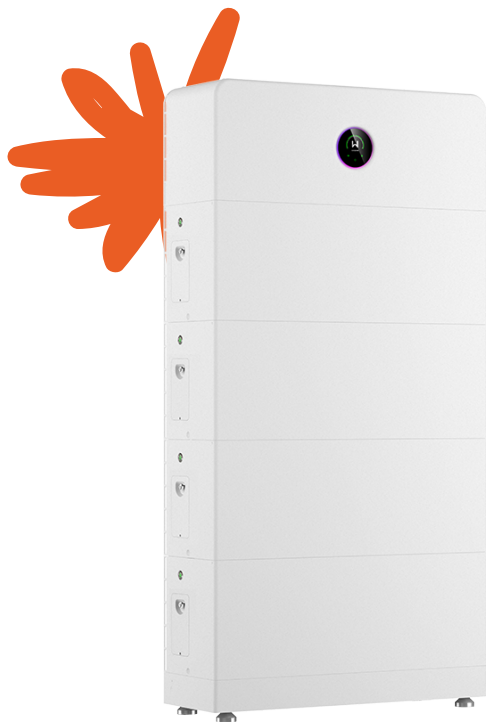


GOODWE - BATTERY STORAGE



FEATURES



Optimized Performance

- 1C charge/discharge for rapid energy cycling
- Fanless design for quiet operation, noise <35dB
- 20A per string & 200% PV oversizing



Flexible & Adaptable Applications

- Dual output ports for simplified installation & off-grid capability
- Flexible battery mixing with different capacity or old & new batteries
- Support full backup load with 63A×5 output



Superb Safety & Reliability

- Advanced 6-layer safety protection
- Heating mode ensures reliable performance even in -20°C
- AI-driven AFCI 3.0 for safety



Smart Control & Monitoring

- Seamless switching to backup <4ms
- One-click upgrade & one-click configuration

SPECIFICATIONS

TECHNICAL DATA	GW3K-EHA-G20	GW3.6K-EHA-G20	GW5K-EHA-G20	GW6K-EHA-G20	GW8K-EHA-G20	GW9.999K-EHA-G20
BATTERY SIDE						
Battery Type	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)	11.9	14.3	19.8	23.7	31.6	35.6
Max. Continuous Discharging Current (A)	8.7	10.5	14.5	17.4	23.2	29.0
Max. Charging Power (kW)	4.5	5.4	7.5	9.0	12.0	13.5
Max. Discharging Power (kW)	3.3	3.96	5.5	6.6	8.8	11.0
PV SIDE						
Max. Input Power (kW)	6.0	7.2	10.0	12.0	16.0	20.0
Max. Input Voltage (V)*2	600					
MPPT Operating Voltage Range (V)*3	40 ~ 560					
Start-up Voltage (V)	50					
Nominal Input Voltage (V)	400					
Max. MPPT Current (A)	20					
Max. MPPT Short Circuit Current (A)	26					
Number of MPPTs	2	2	2	2	4	4
Number of Strings per MPPT	1/1	1/1	1/1	1/1	1/1/1/1	1/1/1/1

SPECIFICATIONS

TECHNICAL DATA	GW3K-EHA-G20	GW3.6K-EHA-G20	GW5K-EHA-G20	GW6K-EHA-G20	GW8K-EHA-G20	GW9.999K-EHA-G20
AC SIDE (ON-GRID)						
Nominal Power (kW)	3.0	3.6	5.0	6.0	8.0	9.999
Nominal Apparent Power to Grid (kVA)	3.0	3.6	5.0	6.0	8.0	9.999
Max. Apparent Power to Grid (kVA)	3.0	3.6	5.0	6.0	8.0	9.999
Max. Apparent Power from Grid (kVA)*4	6.0	7.2	10.0	12.0	14.5	14.5
Nominal Voltage (V)	220 / 230 / 240, L / N / PE					
Voltage Range (V)	170 ~ 280					
Nominal Frequency (Hz)	50 / 60					
Frequency Range (Hz)	45 ~ 55 / 55 ~ 65					
Max. Current to Grid (A)	13.7 @ 220V 13.1 @ 230V 12.5 @ 240V	16.4 @ 220V 15.7 @ 230V 15.0 @ 240V	22.8 @ 220V 21.8 @ 230V 20.9 @ 240V	27.3 @ 220V 26.1 @ 230V 25.0 @ 240V	36.4 @ 220V 34.8 @ 230V 33.4 @ 240V	43.5 @ 220V 43.5 @ 230V 41.7 @ 240V
Max. Current From Grid (A)*4	27.3 @ 220V 26.1 @ 230V 25.0 @ 240V	32.8 @ 220V 31.4 @ 230V 30.0 @ 240V	45.5 @ 220V 43.5 @ 230V 41.7 @ 240V	50.0 @ 220V 50.0 @ 230V 50.0 @ 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)					
THDi	<3%					
BACK-UP SIDE						
Nominal Output Apparent Power (kVA)	3.0	3.6	5.0	6.0	8.0	10.0
Nominal Output Apparent Power (kVA)	3.0 (6.0, 10s)	3.6 (7.2, 10s)	5.0 (10.0, 10s)	6.0 (12.0, 10s)	8.0 (16.0, 10s)	10.0 (20.0, 10s)
Max. Output Apparent Power (Bypass) (kVA)	6.0	7.2	10.0	12.0	14.5	14.5
Max. Output Current (A)*5	13.7 @ 220V 13.1 @ 230V 12.5 @ 240V	16.4 @ 220V 15.7 @ 230V 15.0 @ 240V	22.8 @ 220V 21.8 @ 230V 20.9 @ 240V	27.3 @ 220V 26.1 @ 230V 25.0 @ 240V	36.4 @ 220V 34.8 @ 230V 33.4 @ 240V	43.5 @ 220V 43.5 @ 230V 41.7 @ 240V
Max. Output Current (Bypass) (A)*5	27.3	32.8	45.5	50.0	63.0	63.0
Nominal Output Voltage (V)	220 / 230 / 240, L / N / PE					
Nominal Output Frequency (Hz)	50 / 60					
THDv (@Linear Load)	<3%					
EFFICIENCY						
Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.5%	97.5%
European Efficiency	96.5%	96.5%	96.8%	97.0%	96.8%	96.8%
Max. Battery to AC Efficiency	98.0%	98.0%	98.0%	98.0%	97.8%	97.8%

SPECIFICATIONS

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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		
DC Surge Protection				Type II		
AC Surge Protection				Type II		
RSD				Optional		
AFCI				Integrated		
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)		
PV Reverse Polarity Protection				Natural convection		
User Interface				LED, WLAN + APP		
Communication with BMS				CAN		
Communication				RS485, WiFi + LAN + Bluetooth		
Communication Protocols				Modbus-RTU, Modbus-TCP		
Weight (kg)	24	24	24	24	26	26
Dimension (W × H × D mm)				800 × 300 × 270		
Noise Emission	≤30	≤30	≤30	≤30	≤35	≤35
Topology				Non-isolated		
Ingress Protection Rating				IP66		
Mounting Method				Wall / Floor Mounted		
Country of Manufacture				China		

SPECIFICATIONS

TECHNICAL DATA	GW5.1-BAT-D-G20	GW8.3-BAT-D-G20	GW5.1-BAT-D-G21	GW8.3-BAT-D-G21
Rated Energy (kWh)	5.12	8.32	5.12	8.32
Usable Energy (kWh)	5*1	8*2	5*1	8*2
Battery Type	LFP (LiFePO ₄)			
Nominal System Voltage (V)	Charge: 420V; Discharge: 380V			
Operating Voltage Range (V)(single phase system)	350 ~ 550			
Operating Voltage Range (V)(three phase system)	700 ~ 950			
Max. Input Current (System) (A)	12	19	12	19
Max. Output Current (System) (A)	13.2	21.0	13.2	21.0
Max. Input Power (System) (kW)*3	5	8	5	8
Max. Output Power (System) (kW)*3	5	8	5	8
Peak. Output Power (System) (kW)*3	7.5 @ 10s	12 @ 10s	7.5 @ 10s	12 @ 10s
Charging Temperature Range (°C)	-18 ~ +55	-18 ~ +55	+2 ~ +55	+2 ~ +55
Discharging Temperature Range (°C)	-20 ~ +55			
Relative Humidity	5 - 95%			
Max. Operating Altitude (m)	4000			
Noise Emission (dB)	≤29			
Communication	CAN			
Weight (kg)	57.5 ± 1	79.0 ± 1	57.5 ± 1	79.0 ± 1
Dimensions (W × H × D mm)	800 × 326 × 270			
Optional Function Configuration	Heating	Heating	-	-
Ingress Protection	IP66			
Max. Storage time	12 months (-20°C ~ +35°C) / 6 months (+35°C ~ +45°C)			
Scalability	6 pcs			
Mounting Method	Floor stacked / Wall-mounted			
Country of Manufacture	China			
Standard and Certification	Safety	IEC62619, IEC60730, EN62477, IEC63056, IEC62040, CE, CEC, VDE2510		
	EMC	CE, RCM		
	Transportation	UN38.3, ADR		

TECHNICAL DATA	GW3K-EHA-G20	GW3.6K-EHA-G20	GW5K-EHA-G20	GW6K-EHA-G20	GW8K-EHA-G20	GW9.999K-EHA-G20
Number of Battery Modules (pcs)	1	2	3	4	5	6
Total Energy Capacity (kWh)	5.12	10.24	15.36	20.48	25.60	30.72
Total Energy Capacity (kWh)	8.32	16.64	24.96	33.28	41.60	49.92

