GOODWE

ESA Series

3-10kW/5-48kWh I Single Phase Home Storage Solution (HV)

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. 5kWh and 8kWh battery modules support 1C charging/discharging and can be mixed in a single stack up to 48kWh, with up to 6x stacks in parallel. The ESA provides UPS-level, full house back-up (63A) with no gateway needed. Models feature 2-4 MPPTs, each supporting up to 26A short-circuit input current. Safety features include 6-level battery protection and AI-driven AFCI 3.0 as standard, plus low noise levels of <35dB makes the ESA suitable for a wide variety of applications.

Optimized Performance

- 1C charge/discharge for rapid energy cycling
- Fanless design for quiet operation, noise <30dB
- 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 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[1]

Smart Control & Monitoring

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

1: Optional functions or devices are purchased separately.

ESA Series / Power Module

GOODWE

Technical Data	GW3K-EHA-G20	GW3.6K-EHA-G20	GW5K-EHA-G20	GW6K-EHA-G20	GW8K-EHA-G20	GW9.999KEHA-G20
Battery Side						
Battery Type	LFP($LiFePO_4$)					
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
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)	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)	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
Max. 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)	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)	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%
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)					
Cooling Method	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					

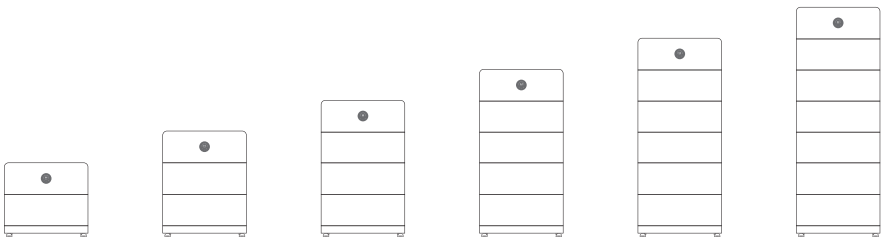
*1: If there's no PV, start-up voltage will be 380V.
*2: When the input voltage is 560V-600V, the inverter will enter standby mode, and the voltage returns to 560V to enter the normal operation state.
*3: Please refer to the user manual for the MPPT Voltage Range at Nominal Power.
*: Please visit GoodWe website for the latest certificates.

ESA Series / Battery Module

GOODWE

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			
	EMC	CE, RCM			
	Transportation	UN38.3, ADR			

*1: Test conditions, 98% DOD (cell 2.85 ~ 3.6V voltage range), 0.2P charge & discharge at 25 ± 2°C for battery system at the beginning of life. Usable energy is defined by its initial design value. Actual available energy may vary depending on charge / discharge rate, environmental conditions (e.g. temperature), transport and storage factors.
*2: Test conditions, 96% DOD (cell 2.85 ~ 3.6V voltage range), 0.2P charge & discharge at 25 ± 2°C for battery system at the beginning of life. Usable energy is defined by its initial design value. Actual available energy may vary depending on charge / discharge rate, environmental conditions (e.g. temperature), transport and storage factors.
*3: Max. Input Power / Max. Output Power / Peak.Output Power derating will occur related to Temperature and SOC.
*: Please visit GoodWe website for the latest certificates.



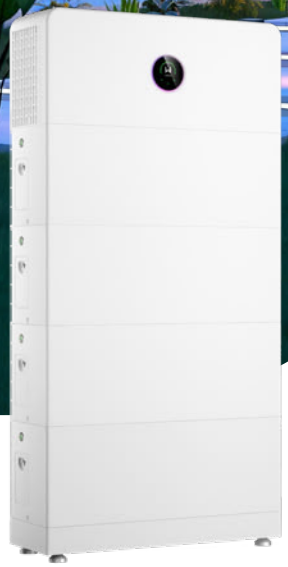
Number of Battery Modules (pcs)	1	2	3	4	5	6
Total Energy Capacity (kWh)	5.12	10.24	15.36	20.48	25.60	30.72
Total Energy Capacity (kWh)	8.32	16.64	24.96	33.28	41.60	49.92

GOODWE

ESA Series

5-30kW/5-108kWh I Three Phase Energy Storage Solution (HV)

The GoodWe ESA Series 5-30kW/5-108kWh is a three-phase all-in-one energy storage solution that integrates the inverter, battery, and intelligent energy management into a single system. Its pre-wired, modular design unifies the inverter and battery, delivering an installation-friendly structure that streamlines setup and accelerates commissioning. With four battery module options-5, 6, 8, and 9kWh-up to 12 modules can be connected for a total storage capacity of 108kWh. Featuring simplified configuration, large expandable storage, and an AI-driven EMS for dynamic tariff optimization, the ESA Series 5-30kW/5-108kWh provides an efficient, flexible, and future-ready solution for both residential and small commercial use.



COMING SOON

Optimized Performance

- Up to 200% DC oversizing & AC backup overload
- 1C charge/discharge for rapid energy cycling
- Fanless design for quiet operation, noise <35dB

Flexible & Adaptable Applications

- Dual-port design for whole-home backup
- Flexible battery mixing with different capacity or old & new batteries
- Supports on- and off-grid parallel operation

Superb Safety & Reliability

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

Smart Control & Monitoring

- Ready for AI-driven EMS
- Seamless switching to backup <4ms
- One-click upgrade & one-click configuration

ESA Series / Power Module

GOODWE

Technical Data	GW5K-ETA-G20	GW6K-ETA-G20	GW8K-ETA-G20	GW9.999K-ETA-G20	GW10K-ETA-G20	GW12K-ETA-G20	GW15K-ETA-G20	GW20K-ETA-G20	GW25K-ETA-G20	GW29.999K-ETA-G20	GW30K-ETA-G20
Battery Side											
Battery Type	Li-ion										
Nominal Voltage (V)	750										
Voltage Range (V)	700 ~ 950										
Start-up Voltage (V)	720										
Number of Battery Input	1										
Max. Continuous Charging Current (A)	6.7	8.1	10.7	13.4	13.4	16.1	20.1	26.7	33.3	40.0	40.0
Max. Continuous Discharging Current (A)	7.4	8.9	11.8	14.7	14.7	17.7	22.1	29.4	36.7	44.1	44.1
Max. Charging Power (kW)	5.0	6.0	8.0	10.0	10.0	12.0	15.0	20.0	25.0	30.0	30.0
Max. Discharging Power (kW)	5.5	6.6	8.8	11.0	11.0	13.2	16.5	22.0	27.5	33.0	33.0
PV Side											
Max. Input Power (kW)	10	12	16	20	20	24	30	40	50	60	60
Max. Input Voltage (V)*1	1000										
MPPT Operating Voltage Range (V)*2	120 ~ 950										
Start-up Voltage (V)	150										
Nominal Input Voltage (V)	750										
Max. MPPT Current (A)	21 / 21 / 21			21 / 21 / 21 / 21					21 / 21 / 42 / 42		
Max. MPPT Short Circuit Current (A)	26 / 26 / 26			26 / 26 / 26 / 26					26 / 26 / 52 / 52		
Number of MPPTs	3			4							
Number of Strings per MPPT	1 / 1 / 1			1 / 1 / 1 / 1					1 / 1 / 2 / 2		
AC Side (Grid Port)											
Rated Power (kW)	5	6	8	9.999	10	12	15	20	25	29.999	30
Max. Power (kW)	5	6	8	9.999	10	12	15	20	25	29.999	30
Rated Apparent Power to Grid (kVA)	5	6	8	9.999	10	12	15	20	25	29.999	30
Rated Apparent Power from Grid (kVA)	5	6	8	9.999	10	12	15	20	25	29.999	30
Max. Apparent Power to Grid (kVA)*3	5	6	8	9.999	10	12	15	20	25	29.999	30
Max. Apparent Power from Grid (kVA)*4	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	55.2	55.2	55.2
Nominal Voltage (V)	220 / 380, 230 / 400, 3L / N / PE										
Voltage Range (V) (According to local standard)	180 ~ 260										
Nominal Frequency (Hz)	50 / 60										
Frequency Range (Hz)	45 ~ 55 / 55 ~ 65										
Rated Current to Grid (A)	7.6@380V 7.3@400V	9.1@380V 8.7@400V	12.2@380V 11.6@400V	15.2@380V 14.5@400V	15.2@380V 14.5@400V	18.2@380V 17.4@400V	22.8@380V 21.8@400V	30.4@380V 29.0@400V	37.9@380V 36.3@400V	45.5@380V 43.5@400V	45.5@380V 43.5@400V
Rated Current from Grid (A)	7.6@380V 7.3@400V	9.1@380V 8.7@400V	12.2@380V 11.6@400V	15.2@380V 14.5@400V	15.2@380V 14.5@400V	18.2@380V 17.4@400V	22.8@380V 21.8@400V	30.4@380V 29.0@400V	37.9@380V 36.3@400V	45.5@380V 43.5@400V	45.5@380V 43.5@400V
Max. Current to Grid (A)*5	7.6@380V 7.3@400V	9.1@380V 8.7@400V	12.2@380V 11.6@400V	15.2@380V 14.5@400V	15.2@380V 14.5@400V	18.2@380V 17.4@400V	22.8@380V 21.8@400V	30.4@380V 29.0@400V	37.9@380V 36.3@400V	45.5@380V 43.5@400V	45.5@380V 43.5@400V
Max. Current from Grid (A)*4*5	63	63	63	63	63	63	63	63	80	80	80
Power Factor	0.8 leading ... 0.8 lagging										
THDi	<3%										
AC Side (Back-up Port)											
Rated Apparent Power (kVA)	5	6	8	10	10	12	15	20	25	30	30
Max. Apparent Power (kVA)*6	Off-grid: 5.5 (10.0, 10s), on-grid: 43.5	Off-grid: 6.6 (12.0, 10s), on-grid: 43.5	Off-grid: 8.8 (16.0, 10s), on-grid: 43.5	Off-grid: 11.0 (20.0, 10s), on-grid: 43.5	Off-grid: 11.0 (20.0, 10s), on-grid: 43.5	Off-grid: 13.2 (24, 10s), on-grid: 43.5	Off-grid: 16.5 (30, 10s), on-grid: 43.5	Off-grid: 22.0 (30.0, 10s), on-grid: 43.5	Off-grid: 27.5 (45.0, 10s), on-grid: 55.2	Off-grid: 33.0 (45.0, 10s), on-grid: 55.2	Off-grid: 33.0 (45.0, 10s), on-grid: 55.2
Nominal Voltage (V)	220 / 380, 230 / 400, 3L / N / PE										
Nominal Frequency (Hz)	50 / 60										
Max. Current (A)*6	Off-grid: 11.4, on-grid: 63	Off-grid: 13.7, on-grid:63	Off-grid: 18.2, on-grid: 63	Off-grid: 22.8, on-grid:63	Off-grid: 22.8, on-grid: 63	Off-grid: 27.3, on-grid: 63	Off-grid: 33.4, on-grid: 63	Off-grid: 33.4, on-grid: 63	Off-grid: 50.0, on-grid: 80	Off-grid: 50.0, on-grid: 80	Off-grid: 50.0, on-grid: 80
THDv (@Linear Load)	<3%										
On / Off-grid Switching Time (ms)	<4										
Efficiency											
Max. Efficiency	98.0%	98.0%	98.0%	98.1%	98.1%	98.1%	98.1%	98.1%	98.2%	98.2%	98.2%
European Efficiency	96.4%	96.9%	97.1%	97.2%	97.2%	97.2%	97.3%	97.3%	97.4%	97.4%	97.4%
Max. Battery to AC Efficiency	98.0%										
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 Switch	Integrated										
DC Surge Protection	Type II(Type I + II optional)										
AC Surge Protection	Type II										
Rapid Shutdown	Optional										
AFCI	Optional										
Remote Shutdown	Integrated										
General Data											
Operating Temperature Range (°C)	-35 ~ +60										
Relative Humidity	0 ~ 100%										
Max. Operating Altitude (m)	4000 (>2000 derating)										
Cooling Method	Smart Fan Cooling										
User Interface	LED, WLAN + APP										
Communication with BMS	CAN										
Communication	RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional)										
Communication Protocols	Modbus-RTU, Modbus-TCP										
Weight (kg)	34	34	34	34	34	34	34	34	38	38	38
Dimension (W × H × D mm)	800 × 340 × 270										
Noise Emission (dB)	≤35	≤35	≤35	≤40	≤40	≤40	≤40	≤40	≤45	≤45	≤45
Ingress Protection Rating	IP66										
Mounting Method	Wall/Floor Mounted										

*1: When the input voltage ranges from 950V to 1000V, the inverter will enter the standby mode, and the voltage returns to950V to enter the normal operation state.
*2: Please refer to the user manual for the MPPT Voltage Range at nominal Power.
*3: According to the local grid regulation.
*4: GOODWE ESA series has internal bypass 63A passthrough ability to supprt whole home backup solution. If the customer don't want to do any breaker upgrade, the main breaker size in SolarGo(or SEMS+) can be set as previous breaker size.
*5: If the backup port is not used, select an appropriate circuit breaker based on the AC maximum output current.
*6: "Off grid"means the energy of backup output only comes from PV and battery. "On grid"means the energy of the backup output includes the energy from grid or generator(on-grid) side.
*: Please visit GoodWe website for the latest certificates.
*: As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.

ESA Series / Battery Module

GOODWE

Technical Data	GW5.1-BAT-D-G20	GW8.3-BAT-D-G20	GW5.1-BAT-D-G21	GW8.3-BAT-D-G21	GW6.0-BAT-D-G20	GW9.0-BAT-D-G20
Rated Energy (kWh)	5.12	8.32	5.12	8.32	6.0	9.0
Usable Energy (kWh)*1	5.0	8.0	5.0	8.0	5.68	8.49
Battery Type	LFP (LiFePO4)					
Operating Voltage Range (V) (single phase system)	350 ~ 550					
Operating Voltage Range (V) (three phase system)	700 ~ 950					
Max. Input Current (System) (A)	12.0	19.0	12.0	19.0	7.1	10.6
Max. Output Current (System) (A)	13.2	21.0	13.2	21.0	7.8	11.8
Max. Input Power (System) (kW)*2	5.0	8.0	5.0	8.0	3.0	4.5
Max. Output Power (System) (kW)*2	5.0	8.0	5.0	8.0	3.0	4.5
Peak.Output Power (System) (kW)*2	7.5 @ 10s	12 @ 10s	7.5 @ 10s	12 @ 10s	4.5 @ 10s	6.75 @ 10s
Charging Temperature Range (°C)	-18 ~ +55	-18 ~ +55	+2 ~ +55	+2 ~ +55	-20 ~ +55	-20 ~ +55
Discharging Temperature Range (°C)	-20 ~ +55					
Relative Humidity	5 - 95%	5 - 95%	5 - 95%	5 - 95%	4 - 100%	4 - 100%
Max. Operating Altitude (m)	4000					
Noise Emission (dB)	≤29	≤29	≤29	≤29	≤27	≤27
Communication	CAN					
Weight (kg)	57.5 ± 1	79.0 ± 1	57.5 ± 1	79.0 ± 1	≤63	≤78
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	6 pcs	6 pcs	6 pcs	12pcs	12pcs
Mounting Method	Floor stacked / Wall-mounted					
Standard and Certification – Safety	IEC62619, IEC60730, EN62477, IEC63056, IEC62040, CE, CEC				IEC62619, IEC60730, EN62477, IEC63056, IEC62040, CE, CEC, Regulation 2023 / 1542, VDE2510-50	
Standard and Certification – EMC	CE, RCM					
Standard and Certification – Transportation	UN38.3, ADR					

*1: Test conditions, 100% DOD (cell 2.85 ~ 3.6V voltage range), 0.2P charge & discharge at 25 ± 2°C for battery system at the beginning of life. Usable energy is defined by its initial design value. Actual available energy may vary depending on charge / discharge rate, environmental conditions (e.g. temperature), transport and storage factors.
*2: Max. Input Power / Max. Output Power / Peak.Output Power derating will occur related to Temperature and SOC.
*: Please visit GoodWe website for the latest certificates.
*: As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.

GOODWE Limited Warranty for BAT Series BAT 5.1 & 8.3 Battery System

(For Australia and New Zealand Markets)

OVERVIEW

GoodWe Technologies Co., Ltd (hereinafter referred to as GOODWE) warrants that, subject to the exclusions and limitations set out below, the GOODWE BAT Series battery system GW5.1-BAT-D-G20, GW8.3-BAT-D-G20, GW5.1-BAT-D-G21 and GW8.3-BAT-D-G21 come with a *Manufacturer's warranty which includes

1. 10 years of product warranty: GOODWE warrants that the hardware of electronics and enclosure (including battery cover, micro circuit breaker, BMS PCBA) will be free of defects caused by improper workmanship or defective materials and it will be starting from the original end user purchase date, if the customer is unable to provide adequate documentation of the original purchase, the warranty starting date shall be the earlier one of installation date or 6 months after the product was manufactured.
2. 10 years of performance warranty: GOODWE warrants that, for ten (10) years, the battery system (i) retains either seventy percent (70%) of Usable Energy from the warranty start date; or (ii) reach the Minimum Through Output Energy. Whichever comes first.
3. The Minimum Throughput DC Energy per kWh Usable Battery Capacity is 3 MWh

Statements required by Australian Consumer Law

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Manufacturer contact details:

Name	GoodWe Technologies Co., Ltd.
Address	No.90 Zijin Road., New District, Suzhou, China
Email address	service@goodwe.com
Phone number	0512 69582201
Website address	https://en.goodwe.com/

Australia importer contact details:

Name	GoodWe Australia Pty Ltd
Address	2/6 Enterprise Drive, Rowville, Victoria, 3178, Australia
Email address	service.au@goodwe.com
Phone number	03 9918 3905
Website address	https://www.goodwe.com.au/

PRECONDITIONS FOR WARRANTY

1. The defect of the battery system shall occur within the battery system warranty period as determined above.
2. Any battery system failure, fault or warning which leads to system not working or working abnormally, must be reported by following the terms described in 'HOW TO MAKE A CLAIM UNDER THE GOODWE LIMITED WARRANTY' within two weeks of appearance.
3. The battery system shall only be installed by a professional installers who are qualified according to local regulations.
4. End User shall correctly operate and use the battery system according to the User Manual and Installation Guide.
5. End User shall provide the proof of the original purchase of the battery system.
6. The installation of the Battery system for the End User shall be completed within maximum 6 months from the production date. If the equipment is not to be installed or used immediately, please ensure that the storage environment meets the following requirements:
   a) Do not unpack the outer packing box or throw the desiccant away.
   b) Complete the equipment installation in three days after unpacking it. Pack and store the equipment using the original packing box if it is not installed.
   c) Stack the equipment complying with the labels and requirements on the packing box.
   d) The equipment must be stacked with caution to prevent them from falling.
   e) Keep the equipment away from flammable, explosive, and corrosive matters.
   f) Place the equipment in a cool place where away from direct sunlight.
   g) Store the equipment in a clean place. Make sure the temperature and humidity are appropriate and no condensation.
   h) Storage SOC: 35%~45% SOC.
   i) Recommended storage temperature: 0~35℃, -20℃~35℃circle the charge-discharge every 12 months, 35℃~45℃circle the charge-discharge every 6 months.
   j) Recommended storage humidity: 5%~95%RH (no condensation). Do not install the battery if there is

any moisture or condensation.

7. If the Battery system is stored for a long time, the irreversible capacity loss may occur. The storage capacity of the battery may not meet 100% of the rated capacity, if customers perform the discharge test according to the specifications after long storage.
8. The charging/ discharging temperature of the battery system must NOT exceed -18℃~55℃ and shall not be exposed in an installed area to direct sunlight. The Battery system installation location must be ventilated in accordance with the requirements of User Manual and Installation Guide.
9. This Warranty covers a capacity equivalent to one full cycle per day. The Battery system is not suitable for supplying life-sustaining medical devices or automotive application.
10. Support capacity expansion, unlimited production time. The total capacity is accumulated based on the actual capacity.
11. When expanding/maintaining, please cooperate with the inverter to carry out a full charge and discharge cycle.

HOW TO MAKE A CLAIM UNDER THE GOODWE LIMITED WARRANTY

If the claimant wants to make a warranty claim, please contact your local distributor where you purchased the battery system from, or the installer who installed the inverter for you. If the claimant was unable to obtain service from them, or was NOT satisfied with their service, the claimant can escalate your service request by creating a service ticket and make a claim to GOODWE via https://goodwetechnology.zendesk.com/hc/en-gb

Please note, in order to deliver a friendly and timely service, GOODWE is cooperating with many of our distributors and installers all over the world. As such, please treat them as the default service channel of GOODWE and use these service channels to make your warranty claim; GOODWE will support and audit our service channel to ensure that we deliver a good service to our customers.

Please have the following information to hand as it may be required when contacting the local distributor.

1. Contact information of claimant, including name of the person, name of the company, phone number, email address and shipment address.
2. Information regarding all defective battery system, including model No., serial number, installation date and failure date. Please make the claim within one month from the failure date, otherwise GOODWE will treat it as you have abandoned the right to make a warranty claim.
3. Installation information, including brand, model, and number of PV panels.
4. Error message on APP screen (if applicable) and additional information regarding the fault/error.
5. Description of actions before the failure and detailed information of previous claims (if applicable).

GOODWE may arrange an on-site inspection to find out the root of the faults. The claimant is responsible for granting access, making time, and ensuring the safety of the inspection by a technician from GOODWE or an authorized third-party company. GOODWE reserves the right not to enter the site should the GOODWE technician consider it unsafe to do so.

REMEDY

If a claim is received within the warranty period and a fault with the battery system is discovered that is covered under the warranty, GOODWE may, at its sole discretion, either

1. fix the issue by changing configurations or updating software; or
2. repair the battery system by replacing with spare parts; or
3. replace the battery system for a battery system that is brand new or refurbished but at least functionally equivalent to the original battery system, or an upgraded model which is either functionally equivalent or functionally superior to the original battery system. If the device is replaced within the warranty period, the remaining warranty period will be automatically transferred to the replacement unit. If the remaining warranty period is less than half a year after the replacement, it will be extended to a 6 months warranty. For every single battery system replacement case, the claimant must gather the necessary information and send the RMA report (by following GOODWE's RMA template) to GOODWE to confirm the RMA request, prior to the battery system being replaced.

All parts of the battery system that GOODWE replaces shall become GOODWE's property. If the battery system is found not to be covered by this Limited Warranty, GOODWE reserves the right to charge a handling fee.

WHAT IS COVERED AND NOT COVERED?

Unless a special/unique agreement exists between GOODWE and the customer, the GOODWE limited warranty covers only the cost of hardware material required to get the device functioning again.

Transportation costs: in some areas, GOODWE will cover the outbound and inbound transportation costs by using normal ground transportation up to a total amount (please contact GOODWE for the rate). The claimant must cover any excess costs or any costs generated by using another method of transportation. In some of the cases, the claimant need to organize the return of the allegedly defective battery system to GOODWE and should confirm with GOODWE for the shipment schedule in advance. As battery systems need to be packaged in a reasonable condition, GOODWE suggests using packaging material that is the same size as the battery system package at the time of purchase. If the allegedly defective battery system is not returned within 4 weeks of the

replacement unit being received by the claimant, or there's no damage found after checking the returned back battery system, GOODWE will invoice the claimant for the replacement unit in addition to the delivery and associated service charges.

On-site service labor costs: in some areas or business cases, to encourage the claimant using the installer's facilities to fix the problem, GOODWE may, at its sole discretion, decide to offer a rebate (please contact GOODWE for the rate) to the claimant or local installer/electrician to cover the on-site service labor under the following conditions:

1. The rebate will be eligible ONLY to the party who has carried out on-site service for the allegedly defective battery system.
2. The allegedly defective battery system has been returned to GOODWE and deemed to have workmanship or material defects upon testing and inspection by GOODWE.
3. The claimant must contact GOODWE prior to the site visit for authorization. If the site is a remote area or if the installer is unable to be on site, GOODWE recommends the claimant find a local electrician to carry out the on-site service.
4. The service rebate must be claimed within 2 months of the date upon which the on-site service is authorized by GOODWE.
5. The total labor cost (including TAX/GST) shall NOT exceed a total amount (please contact GOODWE for the rate) per case.

All other costs including but not limited to compensation from direct or indirect damages arising from the defective device or other facilities of the PV system, or loss of electrical power generated during the battery system downtime are NOT covered by the GOODWE limited warranty.

WARRANTY EXCEPTIONS

The following circumstances may cause device defects, but are NOT covered by GOODWE's limited warranty.

1. Normal wear and tear.
2. Any defects that occur when the battery system warranty period has expired (excluding additional agreements of warranty extension).
3. Product installation MUST be performed by trained installers. If it's proven that the problem was caused by faulty installation, the faults or damages are NOT covered by GOODWE's limited warranty.
4. Failure or damages due to failure to observe the product manuals or related installation and maintenance requirements.
5. Faults or damages due to faulty installations or operations, maintenance carried out against GOODWE instructions by an unauthorized installer.
6. Damage caused by End User deliberately or by willful act.
7. Disassembly, repair or modifications performed by a third-party company/person not authorized by GOODWE. Battery system modifications, design changes or part replacements not approved by GOODWE.
8. Faults or damages due to unforeseen circumstances, man-made factors, or examples of force majeure including but not limited to stormy weather, flooding, overvoltage, pests, inappropriate handling, misuse, neglect, fire, water, lightning or other acts of nature.
9. Vandalism, engraving, labels, irreversible marking or contamination or theft.
10. Faults or damage caused by other factors not related to battery system quality issues.
11. Any rust that appears on the device's enclosure caused by harsh environmental conditions, accidents and external influences. Faults or damage caused by exposure to sea coasts/saltwater or other aggressive atmospheres or environmental conditions without GOODWE's written confirmation/approval prior to the installation.
12. Damage caused during transport, incorrect product installation, removal, exceedance of temperature range during use and improper use.
13. End User fails to provide correct product serial number or product serial number is undecipherable or has been modified without permission by GOODWE.
14. Defects of Product arise due to renewal of the national or regional laws or regulations.
15. Product failure is not reported to GOODWE within two weeks of appearance.

OUT-OF WARRANTY-CASE

Any defects that occur after the expiry of the warranty period, or which occur within the warranty period but which falls into the warranty exceptions conditions above, are known by GOODWE as out-of-warranty cases. For all out-of-warranty cases, GOODWE may charge an on-site service fee, a parts fee, labor costs and a logistics fee to customer, including any/all of:

1. On-site service fee: cost of travel and time for the technician to deliver on-site service and labor cost for the technician, who is repairing, performing maintenance on, installing (hardware or software) and debugging the faulty battery system.
2. Parts/materials fee: cost of replacement parts/materials (including any shipping/admin fee that may apply).
3. Logistics fee: cost of delivery and any other expenses incurred when defective battery systems are sent from the user to GOODWE or/and repaired battery systems are sent from GOODWE to the user.

GEOGRAPHICAL SCOPE

The GOODWE Limited warranty terms and conditions only apply for the devices which are originally purchased from channels authorized by GOODWE and installed in the destination defined within the Australia and New Zealand market, unless there are specially stipulated warranty terms and conditions between GOODWE and the direct purchaser. For any units sold for installation in one country/region but installed in another country/region, the warranty will become invalid if GOODWE does not provide written confirmation/approval prior to the installation.

LIMITATION OF GOODWE's LIABILITY

This limited warranty applies to the battery system which is sold and installed after October, 2024. It is the end user's sole and exclusive remedy against GOODWE and GOODWE's sole and exclusive liability in respect of defects in battery system. This limited warranty replaces all other GOODWE warranties and liabilities, whether oral, written, (non-mandatory) statutory, contractual, in tort or otherwise, including, without limitation, and where permitted by applicable law, any implied conditions, warranties or other terms as regards satisfactory quality or fitness for purpose. However, this limited warranty shall neither exclude nor limit any of your legal (statutory) rights under the applicable national laws. To the extent permitted by applicable law(s), GOODWE does not assume any liability for any loss of, damage to or corruption of data, for any loss of profit, loss of use of battery systems or functionality, loss of business, loss of contracts, loss of revenue or loss of anticipated savings, increased costs or expenses or for any indirect loss or damage, consequential loss or damage or special loss or damage, or punitive loss or damage. To the extent permitted by applicable law, GOODWE's liability shall be limited to the purchase value of the battery system. The above limitations shall not apply in case of gross negligence or intentional misconduct of GOODWE or in case of death or personal injury resulting from GOODWE's proven negligence.

*Manufacturer's warranty is a basic warranty promise from GOODWE to the end users. In some countries/districts, end users may receive an additional warranty promise (should be at least equivalent to the manufacturer's warranty) which is provided by GOODWE's local distributor; should any claims arise in this respect, please direct them to the local distributor. Please note this GOODWE limited warranty statement may NOT be the latest version, please refer to the latest version of the GOODWE limited warranty by visiting our global website via https://en.goodwe.com/warranty.asp

*The Minimum Through Output Energy estimate simulation conditions: ambient temperature 10~25℃, on average ≤ one cycle a day, and the maximum discharge current <=50A.

*Usable Energy (KWh) needs to be measured by following the testing conditions and methods in Appendix A

Appendix A

Capacity measurement condition: Ambient temperature: 25±2℃， and testing should be conducted after at least 12 hours of storage.

Charge / Discharge method:

1. Discharge the battery with 0.2P constant current until any cell reaches the cut-off voltage.
2. Lay aside the battery for 30mins.
3. Charge the battery with 0.2P constant current until any cell reaches the cut-off voltage.
4. Lay aside the battery for 30mins.
5. Discharge the battery with 0.2P constant current until any cell reaches the cut-off voltage.

Repeat steps 2-4 three times, take the discharge capacity of the third cycle as the final capacity.

安全技术说明书(SDS)编制报告
MATERIAL SAFETY DATA SHEET

Date: 2025-06-06
File No.: GW-SDS-250606-01

1. 企业和物质标识
Identification of the substance/preparation and of the company/undertaking

产品名称：可充电锂电池包
型号：GW5.1-BAT-D-G20
GW8.3-BAT-D-G20
GW5.1-BAT-D-G21
GW8.3-BAT-D-G21

Product name: Rechargeable Li-ion Battery System
Model: GW5.1-BAT-D-G20
GW8.3-BAT-D-G20
GW5.1-BAT-D-G21
GW8.3-BAT-D-G21

制造商/供应商识别
公司:固德威科技股份有限公司
地址：中国苏州市新区紫金路 90 号，邮编：215011
电话:+86—51—69582260
Manufacturer/supplier identification
Company: GoodWe Technologies Co.,Ltd.
Contact for information: No.90 Zijin Rd., New District, Suzhou, 215011, China
Emergency telephone No.: +86-512-69582260

澳洲进口商信息
公司名称：**GoodWe Australia Pty Ltd**
地址：**2/6 Enterprise Drive, Rowville, Victoria, 3178, Australia**
联系人姓名：Dean Williamson
联系人号码：**61 402 817 522**
联系人电子邮件：**Dean.williamson@goodwe.com**
Australia Importer
Company Name: GoodWe Australia Pty Ltd
Address: 2/6 Enterprise Drive, Rowville, Victoria, 3178, Australia
Contact Person Name: Dean Williamson
Contact Person Number: 61 402 817 522
Contact Person E-mail : **Dean.williamson@goodwe.com**

紧急电话号码
急救电话+86-512-69582201
Emergency Phone Number
Emergency Phone +86-512-69582201

2. 成分和组成信息

Composition/information on ingredients

成分 Component	CAS No.	EC No.	含量范围 Concentration (weight percent, %)
Lithium iron phosphate 磷酸铁锂	15365-14-7	476-700-9	49%
Phosphate(1-),hexafluoro,lithium 磷酸盐	21324-40-3	244-334-7	3%
Graphite 人造石墨	7782-42-5	231-955-3	24%
Aluminum 铝	7429-90-5	231-072-3	6%
Copper 铜	7440-50-8	231-159-6	13%
Polypropylene 聚丙烯	9003-07-0	-	5%

3. 危险识别
Hazards identification

健康危害（急性及慢性）：
对于电池单元，化学材料储存在一个密封的罐中，该罐设计用于承受，在正常使用过程中遇到的温度和压力。因此在正常使用过程中，没有物理着火或爆炸的危险，以及危险物质泄漏的化学危险。
然而如果暴露在火中，添加机械冲击分解或通过滥用添加电应力罐体可能破裂，危险品可能泄漏。此外，如果受到强烈加热，火灾周围可能会释放出刺鼻的气体。

Health Hazards (Acute and Chronic):
For the battery cell, chemical materials are stored in a hermetically sealed can, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there is no physical danger of ignition or explosion and chemical danger of hazardous materials leakage.
However, if exposed to a fire, added mechanical shocks, decomposed, or added electric stress by misuse the cell case will be breached and hazardous materials may be released. Moreover, if heated strongly by the surrounding fire, acrid gas may be emitted.

致癌性：
NTP：无　　IARC 专题报告：无　　OSHA 监管：无

Carcinogenicity:
NTP：None　　IARC Monograph：None　　OSHA Regulated：None

暴露通常会加重医疗状况：
急性暴露通常不会加重任何医疗状况。

Medical Conditions Generally Aggravated by Exposure:
An acute exposure will not generally aggravate any medical condition.

人类健康影响：
吸入：电解质的蒸汽具有麻醉作用，并刺激呼吸道。
皮肤接触：电解质的蒸汽刺激皮肤。电解质皮肤接触会引起疼痛和对皮肤的刺激。
眼睛接触：电解质产生的蒸汽刺激眼睛。电解质眼睛接触会引起疼痛和对眼睛的刺激。可能会发生眼睛的炎症。

Human health effects:

Inhalation： The steam of the electrolyte has an anesthesia action and stimulates a respiratory tract.
Skin contact： The steam of the electrolyte stimulates a skin. The electrolyte skin contact causes a sore and the stimulation on the skin.
Eye contact： The steam of the electrolyte stimulates eyes. The electrolyte eye contact causes a sore and the stimulation on the eye. Inflammation of the eyes may occur.

环境影响：
请不要将电池扔到自然环境中。
Environmental effects:
Since a battery cell remains in the environment, do not throw out it into the environment.
具体危害：
如果电解质与水接触，可能会产生有害的氟化氢。
由于泄漏的电解质是易燃液体，请不要靠近火源。
Specific hazards:
If the electrolyte contacts with water, it may generate detrimental hydrogen fluoride.
Since the leaked electrolyte is inflammable liquid, do not bring close to fire.

4. 急救措施 First aid measures

吸入后接触：让受害者擤鼻涕，漱口。如有必要，寻求医疗帮助。
皮肤接触后：立即去除污染的衣物和鞋子。立即用肥皂和水清洗异物或接触部位。
眼睛接触后：不要揉眼睛。立即用清水连续冲洗眼睛至少 15 分钟。寻求医疗帮助。
误食后接触：使受害者呕吐。立即寻求医疗救助。
After inhalation contact： Make the victim blow his/her nose, gargle. Seek medical attention if necessary.
After skin contact： Remove contaminated clothes and shoes immediately. Immediately wash extraneous matter or contact region with soap and plenty of water.
After eye contact： Do not rub eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention.
After ingestion contact： Make the victim vomit. Immediately seek medical attention.

5. 消防措施 Fire-fighting measures

灭火介质：大量的水、二氧化碳气体、氮气、化学粉末灭火介质和灭火泡沫。
灭火方法：电池与其他可燃物同时燃烧时，采用与可燃物相适应的灭火方法，尽量从上风口灭火。
易燃极限：不可用
Extinguishing Media： Plenty of water, CO2 gas, nitrogen gas, chemical powder fire extinguishing medium and fire foam.
Specific methods of fire-fighting： When the battery burns with other combustibles simultaneously, take fire extinguishing method which corresponds to the combustibles. Extinguish a fire from the windward as much as possible.
Flammable Limits： Not available

6. 意外释放措施 Accidental release measures

优选的应对措施是离开该区域，让电池冷却，让蒸气消散。避免皮肤，避免眼睛接触或吸入蒸气。用吸收剂清除溢出的液体并焚化。
The preferred response is to leave the area and allow the batteries to cool and the vapors to dissipate. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

7. 处理和储存 Handling and storage

避免机械或电气滥用。如果拆卸、压碎或暴露，电池可能会爆炸或引起烧伤，不要短路或高温。不要短路或安装错误极性。
Avoid mechanical or electrical abuse. Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

8. 暴露控制/个人保护 Exposure controls/personal protection

特定控制参数：在正常使用条件下不需要。
个人防护装备：在正常使用条件下不需要。
呼吸保护（指定类型）：在正常使用的情况下不需要。
通风：在正常使用的情况下不需要通风。
防护手套：在正常使用情况下不需要。
眼部防护：在正常使用情况下不需要。
其他防护（服装或设备）：在正常使用情况下不需要。
Specific control parameter: Not necessary under conditions of normal use.
Personal protective equipment : Not necessary under conditions of normal use.
Respiratory protection (Specify Type): Not necessary under conditions of normal use.
Ventilation: Not necessary under conditions of normal use.
Protective Gloves: Not necessary under conditions of normal use.
Eye protection: Not necessary under conditions of normal use.
Other Protective(Clothing or Equipment): Not necessary under conditions of normal use.

9. 物理和化学性质 Physical and chemical properties

外观
物理状态:固体
形状:圆柱形
颜色:金属色
气味:无气味
水质:无
特定温度:物理状态的温度范围变化。
闪光点:无
爆炸性能:无
密度:无
溶解性:有溶剂指示:不溶于水
Appearance
Physical state: Solid

Form: Cylindrical
Color: Metallic color
Odor: No odor
PH: N/A
Specific temperatures: Temperature ranges changes in physical state occur.
Flash point: N/A
Explosion properties: N/A
Density: N/A
Solubility: with indication of the solvent(s): Insoluble in water

10. 稳定性和反应性
Stability and reactivity

稳定性：稳定
避免条件：当电池暴露于外部短路、挤压、变形、高于 100° C 的高温时，会引起发热和着火。避免直射阳光和高湿度。
危险分解：或副产品：火灾过程中会释放出刺鼻或有毒气体。
避免的材料：导电材料、水、海水、强氧化剂和强酸。
不会发生危险的聚合反应。
Stability: Stable
Conditions to Avoid: When cell is exposed to an external short-circuit, crushes, deformation, high temperature above 100 degree C, it will cause heat generation and ignition. Avoid direct sunlight and high humidity.
Hazardous Decomposition: or By-products: Acrid or harmful gas is emitted during fire.
Materials to avoid: Conductive materials, water, seawater, strong oxidizers and strong acids.
Hazardous polymerization will not occur.

11. 毒性信息
Toxicological information

急性毒性：
铜：60-100 毫克大小的颗粒可引起胃肠道紊乱，伴有恶心和炎症。TD Lo，皮下注射---兔---375 毫克/千克
有机电解质：LD50，口服 - 大鼠 2000 毫克/千克或更多
进一步的毒理学信息：
铝：长期吸入粗颗粒或烟雾，有可能导致肺损伤（铝肺）。
石墨：长期吸入高浓度的石墨粗颗粒可能会导致
Acute toxicity:
Copper: 60-100mg sized coarse particulate causes a gastrointestinal disturbance with nausea and inflammation. TDLo, hypodermic - Rabbit 375mg/kg
Organic electrolyte: LD50, oral - Rat 2,000mg/kg or more
Further toxicological information:
Aluminum: By the long-term inhalation of coarse particulate or fume, it is possible to cause lung damage (aluminum lungs).
Graphite: Long-term inhalation of high levels of graphite coarse particulate may cause lung disease or a tracheal disease.

12. 生态信息
Ecological information

生态毒性效应：无相关信息。
可生物降解：无相关信息。
土壤移动性：无资料。
生物富集或生物蓄积：无资料。
其他有害影响：不要将电池丢弃在环境中，可能会造成水污染或土壤污染。
Ecotoxic effects： No information is available.
Biodegradable ： No information is available.
Mobility in soil ： No information is available.
Bioconcentration or biological accumulation： No information is available.
Other harmful effects： Don' t abandon the battery into environment, may cause water or soil pollution.

13. 处理方式
Disposal considerations

废弃化学品：在处置前应参考相关国家和地方法律法规。
受污染的包装：容器在空时仍可能存在化学危险。远离热源和
火灾的点火源。如果可能的话，返回供应商进行回收。
处置建议：参见废物化学品和受污染的包装。
Waste Chemicals： Before disposal should refer to the relevant national and local laws and regulation.
Contaminated Packaging： Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal Recommendations： Refer to Waste chemicals and Contaminated packaging.

14. 运输信息
Transport information

锂电池分为锂离子电池（锂离子聚合物电池）和锂离子电池（锂合金电池）。
锂离子蓄电池以“锂离子蓄电池”、“锂离子蓄电池成套设备”或
“设备中含有的电池”在运输时可能不被归类为“危险品”
符合《IATA-DGR》第 II 节或《IMO-IMDG 守则》第 188 条特别规定。
根据 IATA-DGR 第 62 版（2021 年 1 月 1 日-12 月 31 日生效），航空运输
联合国编号 UN 3480
正确的运输名称：锂离子电池
危险等级：9 级
包装要求：I B 部分包装说明 965
海运，根据国际海事组织《国际散装运输液化气体规则》（修正案 39-18）联合国编号：UN 3480
正确的运输名称：锂离子电池
危险等级：9 级
包装指令：非限制性货物
编号：F-A，S-I
Lithium batteries are classified to Lithium ion batteries (including lithium ion polymer batteries) and Lithium metal batteries (including lithium alloy batteries).
Lithium batteries shipped as "Lithium batteries", "Lithium batteries packed with equipment", or "Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with "PI965-970 section II of IATA-DGR" or "special provision 188 of IMO-IMDG Code".
Air transportation, according to IATA-DGR 62nd Edition (Effective 1 January-31December 2021)
UN Number： UN 3480
Proper Shipping Name ： LITHIUM ION BATTERIES

Hazard Class ： Class 9
Packaging requirement ： PACKING INSTRUCTION 965 of section IB
Sea transportation, according to IMO IMDG Code (Amend 39-18) UN Number ： UN 3480
Proper Shipping Name ： LITHIUM ION BATTERIES
Hazard Class ： Class 9
Package instruction ： Not-restricted goods
EmS No. ： F-A, S-I

15. 监管信息
Regulatory information

Dangerous Goods Regulation (DGR)
Recommendations on the Transport of Dangerous Goods Model Regulations International Maritime Dangerous Goods (IMDG)
Occupational Safety and Health Act (OSHA)
Toxic Substances Control Act (TSCA)

危险品条例（DGR）
关于危险货物运输的建议《示范条例》国际海事组织危险品（IMDG）
职业安全与健康法（OSHA）
有毒物质控制法（TSCA）

16. 其他资料信息
Other information

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