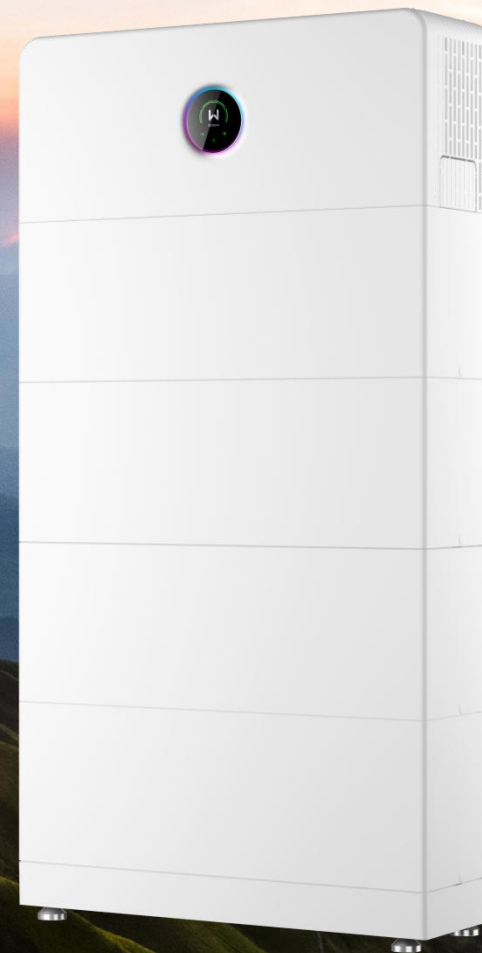


GOODWE

ESA 3ph 5-30kW/5-108kWh

GoodWe Distributor Launch



AGENDA

Product info

- Positioning
- Product overview
- Features

Market info

- Certification plan
- Warranty and Logistic data

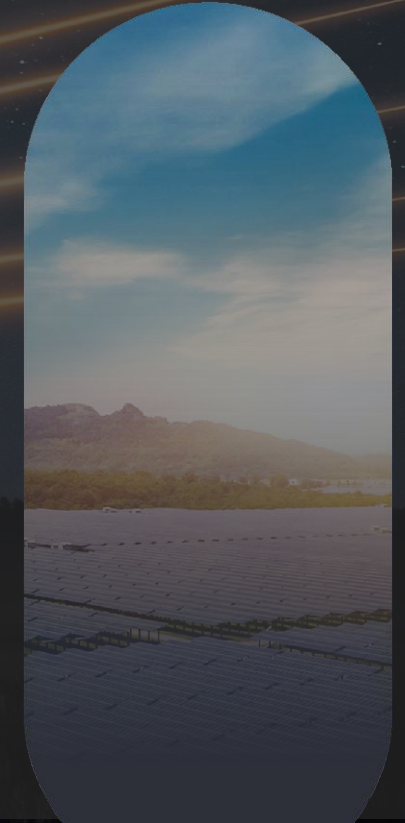
Launch plan

- Production and launch
- Promotional activities by GoodWe
- Marketing materials

Benchmark

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01 | Product Info



Product Positioning

1. Market Trend

- Growing Demand: Strong and increasing demand for all-in-one hybrid inverter systems in Europe
- Market Shift: Clear transition from simple grid-tied systems to integrated energy storage solutions in Europe

2. ESA 5-30K Series

- An all-in-one hybrid inverter designed for the residential and small commercial & industrial (C&I) segment.
- ESA complements the product portfolio, enriching energy storage lineup to saturate the EU markets where demand is shifting from grid-tied to storage systems.

Target Market

Germany, Czech Republic, Poland, Australia, Sweden, Austria, Denmark, Italy, Spain, Switzerland, Benelux, UK, Romania etc.



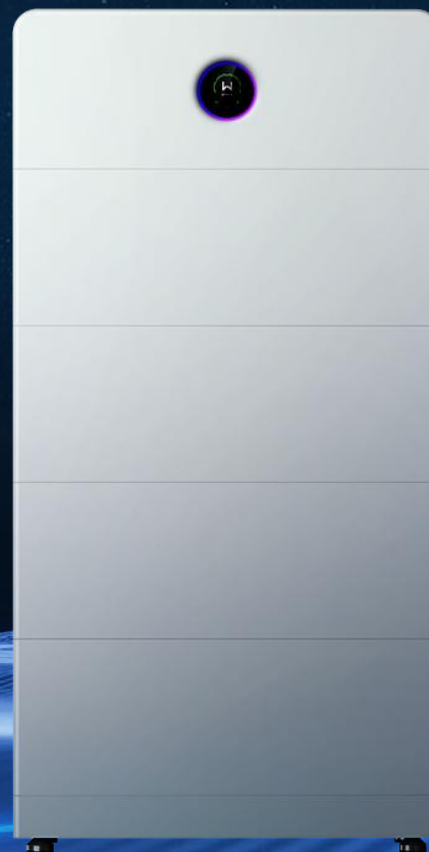
Parameters

PV

- 5/6/8kW: 3 MPPT, 3 Strings
- 10/12/15/20kW: 4 MPPT, 4 Strings
- 25/29.999kW: 4 MPPT, 6 Strings
- Max. 21A input current per string
- 5-20kW: Type II SPD
- 25/29.999kW: Type I+II SPD

Battery

- 5/8 kWh: 1C, 100Ah
- 6/9 kWh: 0.5C, 314Ah (Coming in April)
- Heating Standard
- Aerosol Standard



AC

- 8-20kW: max. 63A from the grid
- 25/29.999kW: max. 80A from the grid
- Type II SPD

Back-Up

- Off-grid : 110% output. 200% output in 10s
- On-grid: 8-20kW: max. 63A from the grid, 25/29.999kW: max. 80A from the grid

Residential All-in-one Energy Storage Solution

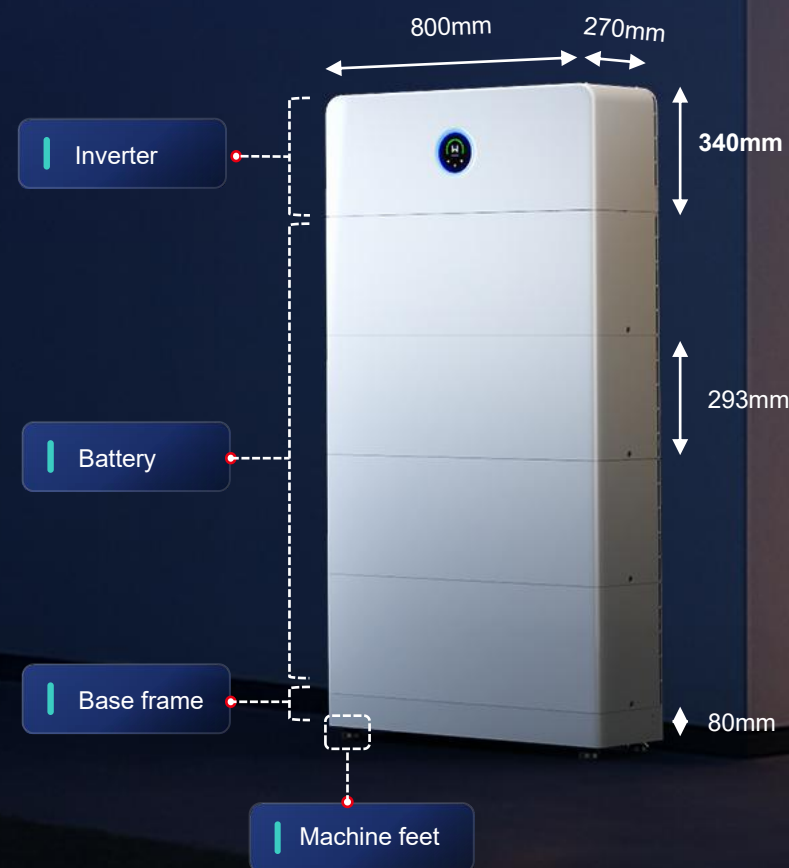
Three Phase 5-29.9 kW
max. 4 MPPTs | High voltage

Integrate Back-up port and smart meter in one system

Back-up Switching time ≤ 4 ms

200% PV Oversizing and 200% P_{Nom} back-up output (10s)

1ph 3-6kW < 30dB,
1ph 8-10kW and 3ph < 35dB



Scalable Design

Single inverter configuration

GOODWE

More Options. More Flexibility.



Battery optimizer inside, mix old and new: expandable anytime

Beyond Stacking Higher

Vertical Stack. Horizontal Cluster.

Scale Smartly

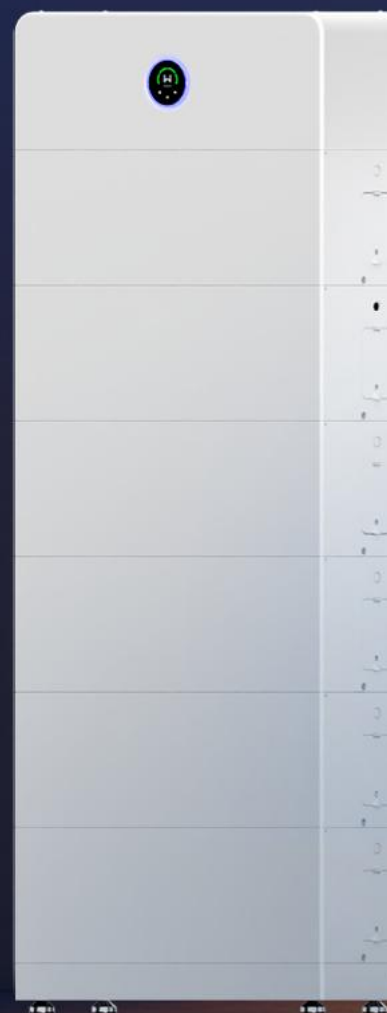
No Additional Inverters. Just a Simple DC Link.

Scale Easily

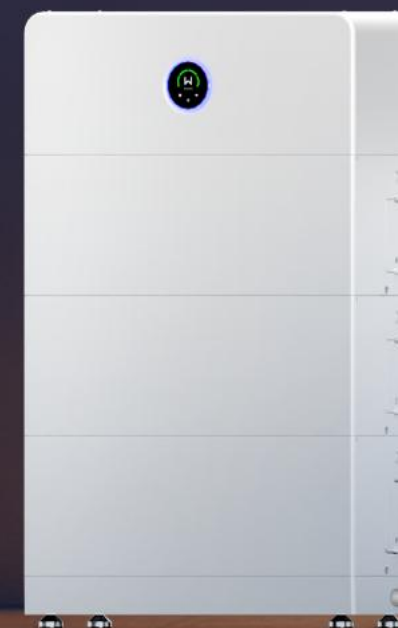
Low-profile design enable, one-person handling.

Scale Your way

Tailor your own system. Mix and match packs as needed.



Tower 1: Three-phase Inverter 1 pcs
BAT 6 pcs



Tower 2: BAT 6 pcs



Additional 'Expansion Kit' is necessary for two tower batteries paralleling

Double PV input Power for Both Charging & Output

Supports up to 200% PV input. The integrated system enables 100% battery charging and 100% AC output - simultaneously.

Higher PV usage rate

Fully meet PV government subsidy



Quietness with Creativity



More efficiency, less heat

SiC components for 98% efficiency



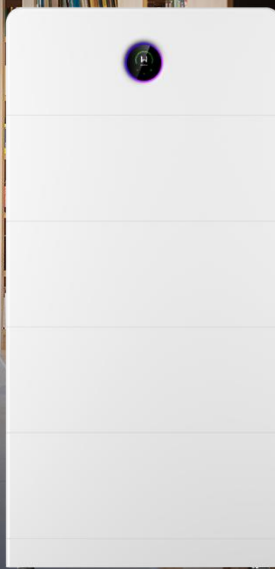
Air-cooling is enough

No fans design make library-grade silence



Pack-level heat dissipation

Built-in heat sink and bee mesh heat dissipation design



ESA

Working Noise < 35dB

10 dB



35 dB



Traditional RESS

Working Noise $\approx$ 60dB

60 dB



Full Backup

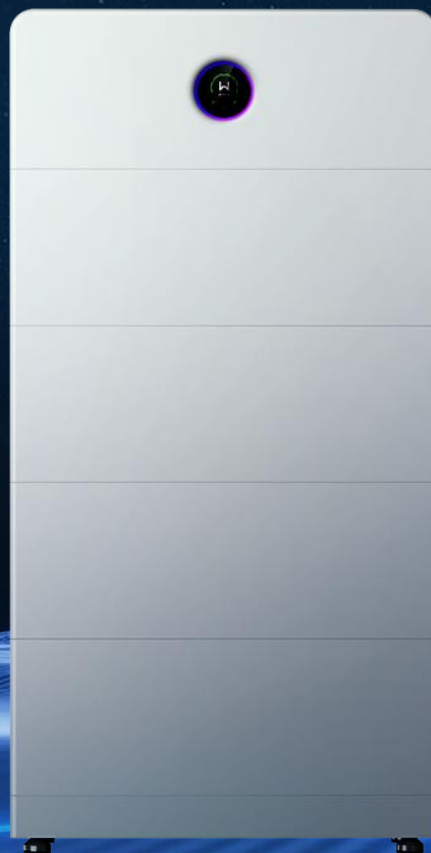
Simpler installation for full backup loads

$\leq 20\text{kW}$ **63A**

25-30kW **80A**

Bypass to support full backup loads

Available in all models



Six-Layer Safety Architecture for Complete Protection

From cell to system level, comprehensive safety mechanisms—including battery management, thermal monitoring, fire protection, and more—ensure reliable and secure operation under all conditions.



Run Strong — Even in the Snow

1 **0°C – 10°C**

Normal operation

2 **-20°C – 0°C**

Heating mode ensures reliable performance



Retrofit Solution_PV Expansion

GOODWE



- Mixed parallel of GoodWe ESA and on-grid inverter to expand PV installed capacity
- Dual meter solution available for more complex monitoring and control

Generator Solution

GOODWE



Full House Backup



ESA



Grid

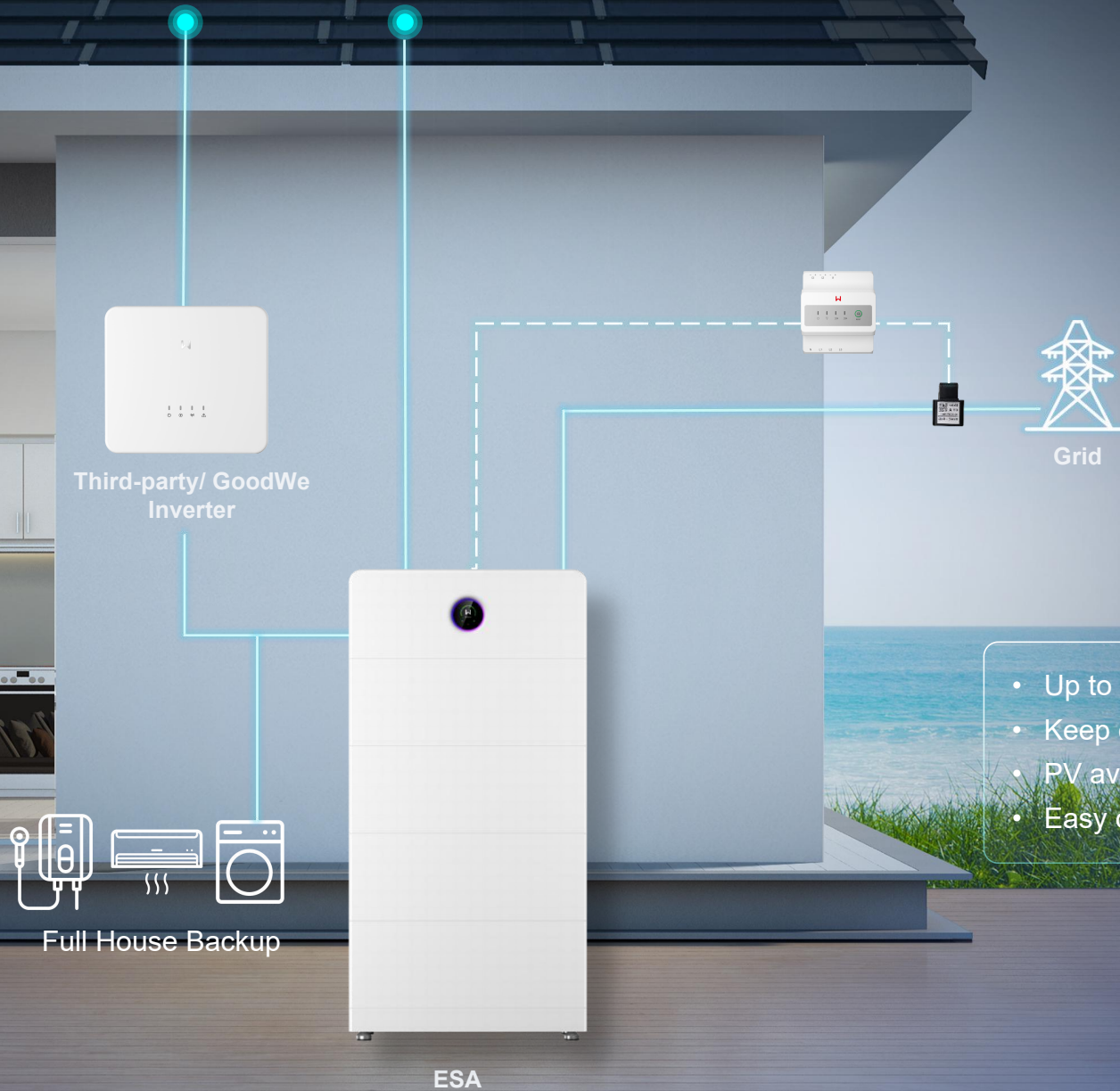


Generator

- In the microgrid scenario, connection to generators is not supported.

Microgrid System

GOODWE



- Up to 80A to support full house backup
- Keep on-grid inverter working with grid-forming function
- PV available even if grid-outage situation
- Easy cable connection

Retrofit Solution_AC Coupled (Coming on 31.03.2026)

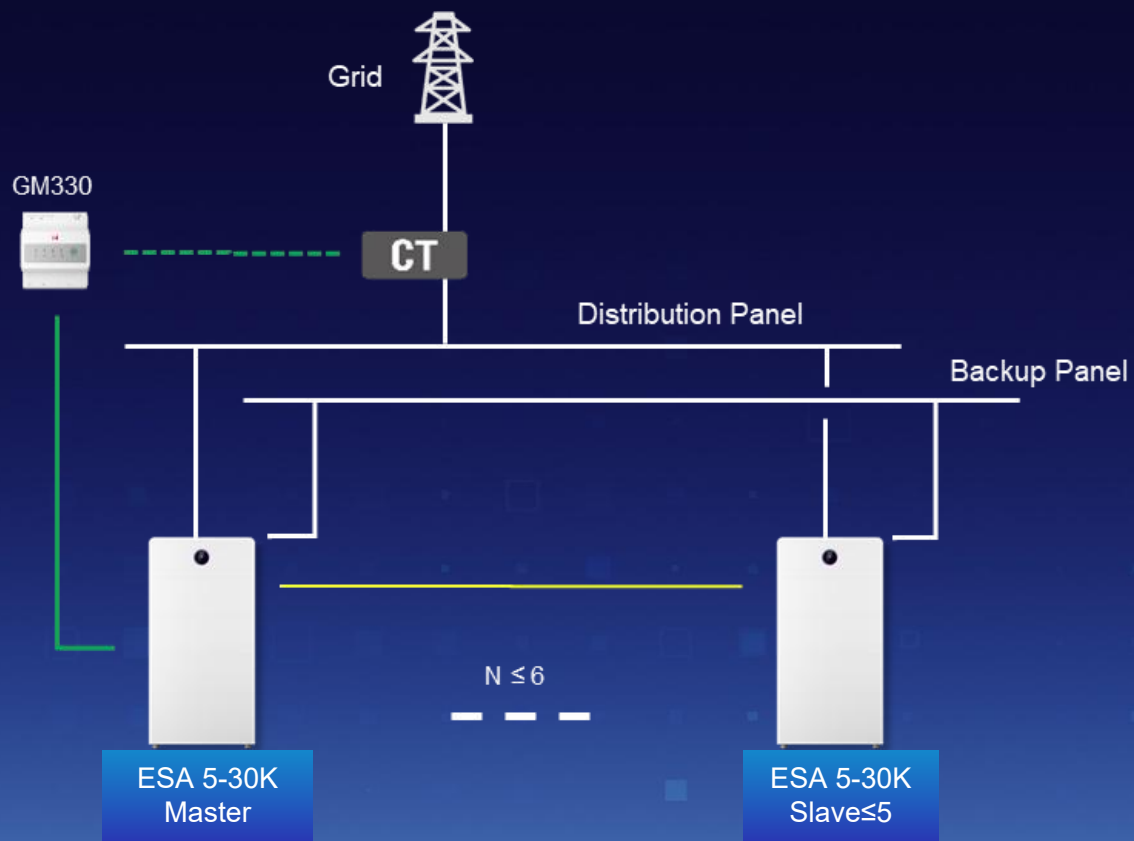
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- Add ESA on the AC side to achieve AC coupled function
- Third-Party on-grid inverter is available for the system
- Dual meter solution available for more complex monitoring and control

Easy System Parallel(Coming on 31.03.2026)

Multiple inverter on/off grid working



RS485 parallel solution without purchasing for another communication device

Three Phase Inverter: 6 pcs

Battery: 5~576kwh

EzManager_AI-Driven HEMS Solution (Compatible on 31.03.2026)

Integrate GoodWe Family To One System

GOODWE



Preliminary Compatibility with GW portfolio



Meter

Inverter Version	Inbuilt Smart Meter	CT 120A*3	GMK330 120A CT	GM330 N:5A CT
ESA 5-30kw	Standard	Standard	- Optional - GMA0300-21-00P,available by 2026.3.1	- Optional - GMA0300-15-00P,available by 2026.3.1

Communication module

Inverter Version	WiFi/LAN Kit-20	4G 2.0	HEMS (EzDesigner)
ESA 5-30kw	Integrated	- Optional - Available by 2026.3.31	- Optional - Available by 2026.3.31

Platform

Inverter Version	SEMS+	IOT
ESA 5-30kw	Standard	Standard

02 | Market Info



Inverter Product Code-EU

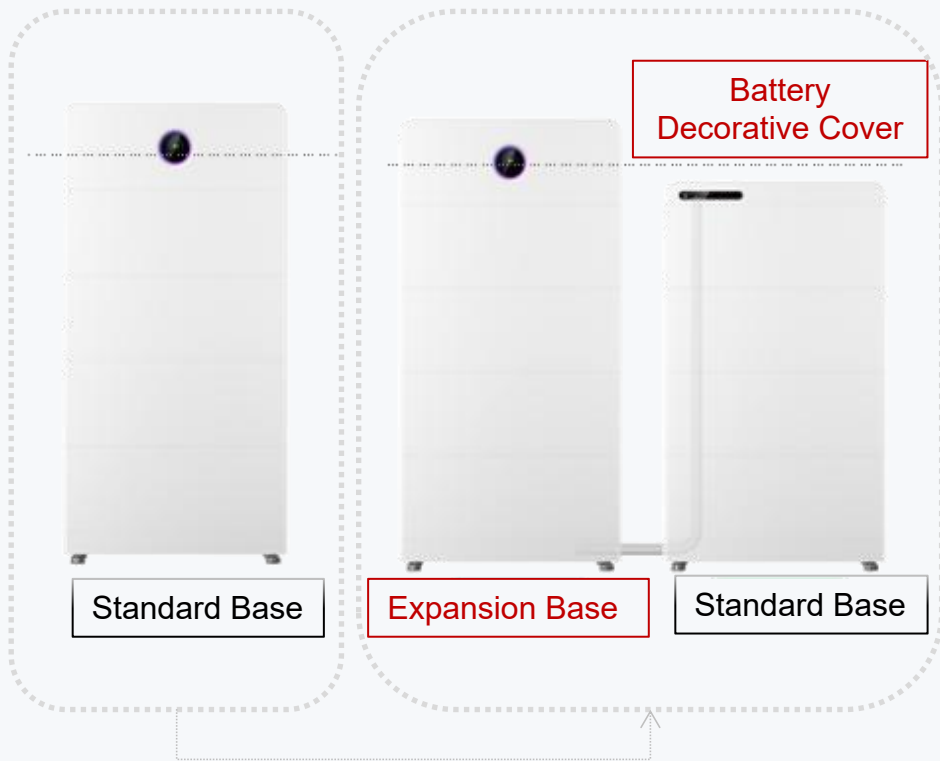


Pro. Series	Prod. Name	Power/Capacity	Prod. Type	Prod. Code	Protection	Type of Cooling/Heating	Included communication	DC-Switch	Warranty
ESA	GW5K-ETA-G20	5kW	Inverter Module	NBG5000-02-00P (Textured Finish)	AFCI, Type II DC/AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW6K-ETA-G20	6kW	Inverter Module	NBG6000-02-00P (Textured Finish)	AFCI, Type II DC/AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW8K-ETA-G20	8kW	Inverter Module	NBG8000-07-00P (Textured Finish)	AFCI, Type II DC/AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW10K-ETA-G20	10kW	Inverter Module	NBG0010-01-00P (Textured Finish)	AFCI, Type II DC/AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW12K-ETA-G20	12kW	Inverter Module	NBG0012-04-00P (Textured Finish)	AFCI, Type II DC/AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW15K-ETA-G20	15kW	Inverter Module	NBG0015-04-00P (Textured Finish)	AFCI, Type II DC/AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW20K-ETA-G20	20kW	Inverter Module	NBG0020-06-00P (Textured Finish)	AFCI, Type II DC/AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW25K-ETA-G20	25kW	Inverter Module	NBG0025-03-00P (Textured Finish)	AFCI, Type I+II DC SPD, Type II AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW29.999K-ETA-G20	29.999kW	Inverter Module	NBG29K9-03-00P (Textured Finish)	AFCI, Type I+II DC SPD, Type II AC SPD	Smart Fan Cooling	WIFI&LAN&BT&RS485	YES	10
ESA	GW5.1-BAT-D-G20	5.1kWh	Battery Module	BAB5000-06-00P (Textured Finish) BAB5000-10-00P (Textured Finish)-UK	Pack-Level Fire Protection	Natural cooling, Module heating	CAN	YES	10
ESA	GW8.3-BAT-D-G20	8.3kWh	Battery Module	BAE8000-06-00P (Textured Finish) BAE8000-10-00P (Textured Finish)-UK	Pack-Level Fire Protection	Natural cooling, Module heating	CAN	YES	10
Battery Expansion Kit	Battery Expansion Kit	/	Battery Expansion Kit	ACS0064-00-00P	/	/	/	/	

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Expansion Details of Battery

Product Code: ACS0064-00-00P



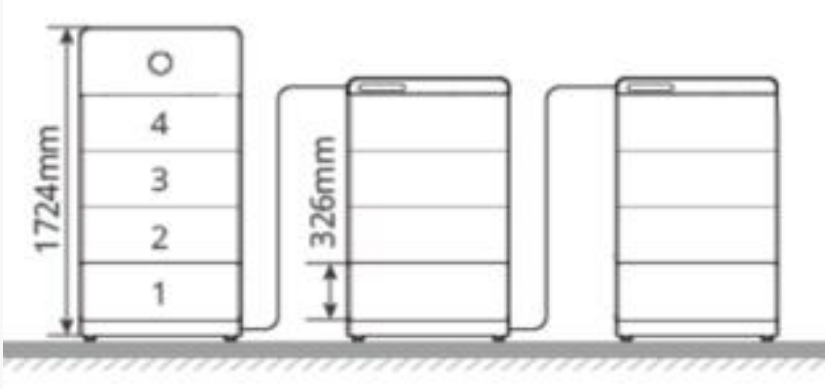
Note: support up to 3 towers of batteries can be clustered

Part *Qty
Base x 1(Expansion Base)
locking bracket x 4
M5 Screw x 7
M6 Expansion Screw x 4
Adjustable Feet x 4
OT Grounding Terminal x 1
Terminal resistor x 1
Battery Decorative Cover x 1
Drilling Marking Paper x 2
Battery Expansion Cluster Harness x 1
PIN terminal x 8
Battery Expansion Cluster Positive Connection Harness x 1
Battery Expansion Cluster Negative Connection Harness x 1
Battery Expansion Cluster Network Cable x 1
Silicone Cap x 2
Handle x 2
Hex Key x 1
Product Documentation x 1

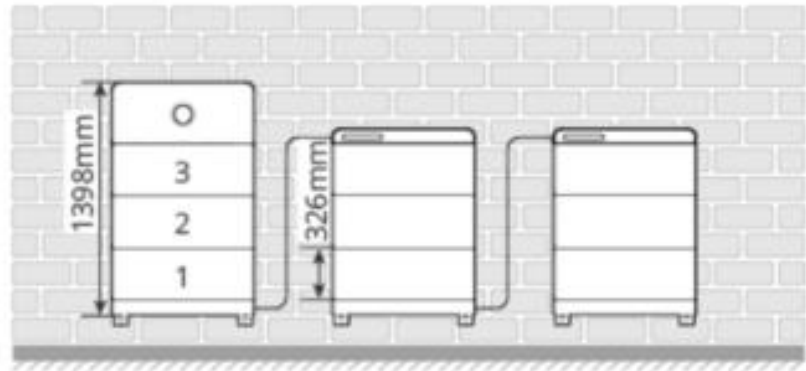
Installation Details of Battery

Mounting Method	Total Number of Batteries	Expansion Group Count	Stacking per Group
Floor Installation	≤12 units	≤3 groups	Away from wall ≤4 units Against wall ≤6 units
Wall-mounted Installation (5kWh model)	≤9 units	≤3 groups	≤3 units
Wall-mounted Installation (8kWh/5kWh+8kWh model)	≤6 units	≤3 groups	≤2 units
Mounting Method	Total Number of Batteries	Expansion Group Count	Stacking per Group
Note: Expansion Group Count × Stacking per Group ≤ Total System Battery Count			

Floor-standing installation



• Wall-mounted installation



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Customs Information Form

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Product Model	Remarks	Unit Net Weight (kg)	Unit Gross Weight (kg)	Carton Length (mm)	Carton Width (mm)	Carton Height (mm)	Pallet Length (mm)	Pallet Width (mm)	Pallet Height (mm)	Standard Pallet Layers (layer)	Units per Layer (unit)	Units per Std. Pallet (unit)	Units per 20GP	Units per 40GP
GW5K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW6K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW8K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW9.999K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW10K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW12K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW15K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW20K-ETA-G20	40HQ 3+2 210pcs	34	50	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW25K-ETA-G20	40HQ 3+2 210pcs	38	54	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168
GW29.999K-ETA-G20	40HQ 3+2 210pcs	38	54	990	600	450	1220	1000	126	2(3)	2	4 (6)	80	168

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Certification Roadmap

GOODWE

Country/Area	Standard	certificate	listing
Safety	IEC 62109-1/-2	Done	
Safety	IEC 62477-1	Done	
Safety	IEC63027(EN)	Done	
Germany/Switzerland	VDE-AR-N 4105:2018	Done	Done
Netherland/Luxembourg	EN50549-1/-10(EN)	Done	
Netherland/Luxembourg	EN50549-2/-10(EN)	Done	
Sweden	EIFS 2018:2 Self declaration	Done	Done
Czech	PPDS 2024	TBD	TBD
AU&NZS	AS 60947.3	Done	Done
AU&NZS	AS/NZS4777.2	Done	2026/5/29
AU&NZS	AS/NZS4777.2	Done	2026/6/12
Poland	PSE 2018 Type A&B	2026/3/30	next 6 months
Austria	TOR Type A	Done	2026.3.31
Denmark	Dansk Energi Self declaration	Done	2026.5.31
Italy	CEI 0-21:2025	Done	
Italy	CEI 0-16:2025	Done	
Spain	NTS Type A, UNE 217001,UNE 217002,RD 647	2026/2/13	
Belguim	C10/C11	Done	2026.4.30
Romania	ANRE Order no. 208	Done	2026.4.7
UK	G98:2025	Done	Done
UK	G99:2025	Done	Done
UK	G100	Done	Done
Hungary	IEC62116	Done	
Hungary	IEC 62109-1/-2,EN 50549-1,IEC62116,EMC	TBD	TBD

03 | Benchmark



Comparison of Product Competitiveness



Core parameters/functions	Sixx	Dexx	HIxxx	GoodWe	
	(5~25kW)	(5~20kW)	(5~15kW)	(5~30kW)	
Oversizing	1.6	1.3	2	2	★
Max. Input Voltage (V)	1100	1000	1000	1000	
MPPT Operating Voltage Range (V)	160~1000	150~850	180~850	120~950	★
MPPT/PV String	5~8 kW: 2*1; 10~15 kW: 3*1; 17~25 kW: 4*1	5~10 kW: 2*2 12~15kW: 2*3 20: 2*3	5~10 kW: 2*1 12~15kW: 3*1	≤8kw: 3MPPT 10-30kw: 4MPPT	★
Max. Input Current per MPPT (A)	16	20	20	21	
Off grid overloading	≤20kW, 1.5 times@10s; 25/30kW, 1.2 times@10s	1.5 times@10s	2tims@10s	1.5 times@10s;	★
Three-Phase Unbalance	110%	100%	110%	Up to 150%	★
Dimension(W/H/D,mm)	700*300*283	540*450*385	700*520*240	800*340*270	
Weight (kg)	30	39.8	5~8 kW: 36	≤20kw: 34	★
			10~15kW: 40	25-30kw: 38	
Noise (dB)	< 45 dB(A)	/	/	≤8kW, ≤35; 10~20kW, ≤40; 25~30kW, ≤45;	★
Number of inverter parallel	30	10	6	6	

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THANK YOU