GOODWE
YOUR SOLAR ENGINE

ESA Series

5kW / 10.8kWh I Single Phase LV Home Storage Solution (Inverter + Battery)

GoodWe ESA Series is an all-in-one solar and storage solution which integrates the inverter, battery charger, UPS and battery enclosure into a pre-wired modular system for easier and faster installation. The compact, elegantly designed and robust unit is IP65 rated so it can be mounted either inside or outside withstanding all weather conditions. Reduction of installation time of up to 50%.

- Integrated isolators
- Pre-wired
- Inbuilt 4.6kVA UPS
- 5kW AC Output
- 10.8kWh battery capacity
- 100A battery current

ESA Series

Technical Data	GW5048-ESA
Battery Module Data	
Battery Type	Li-Ion
Battery Module Nominal Capacity (KWh)	5.4
Battery Module Weight (Kg)	49
Size (Width × Height × Depth mm)	400 × 484.2 × 226.2
Cycle Life (25°C)	>3500
Maximum Number of Battery Connections	2
Maximum Total Battery Capacity (KWh)	10.8
Battery Enclosure Data	
Weight (Kg)	37
Size (Width × Height × Depth mm)	516 × 1205 × 280
Mounting	Wall Bracket
Protection Degree	IP54
Inverter Data	
Battery Input Data	
Nominal Battery Voltage (V)	48
Battery Voltage Range (V)	40~60
Maximum Charging Power (W)	4600
Maximum Discharging Power (W)	4600
Maximum Charging Current (A)	90
Maximum Discharging Current (A)	100
Battery Charging Method	Self-adaption to BMS
Battery Disconnect	Integrated 2 pole DC breaker 125A DC per pole
PV String Input Data	
Max. DC Input Power (W)	6500
Max. DC Input Voltage (V)	580
MPPT Range (V)	125~550
Start-up Voltage (V)	125
Min. Feed-in Voltage (V)*1	150
MPPT Range for Full Load (V)	215~500
Nominal DC Input Voltage (V)	360
Max. Input Current (A)	11 / 11
Max. Short Current (A)	13.8 / 13.8
Number of MPPTs	2
Number of Strings per MPPT	1
Solar Array Switch	Integrated

Technical Data	GW5048-ESA
AC Output Data (On-grid)	
Max. Apparent Power Output to Utility Grid (VA)*2	4600 / 5100
Max. Apparent Power from Utility Grid (VA)	9200
Nominal Output Voltage (V)	230
Nominal Ouput Frequency (Hz)	50 / 60
Max. AC Current Output to Utility Grid (A)	22.8
Max. AC Current From Utility Grid (A)	40
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)
Output THDi (@Nominal Output)	<3%
Grid disconnect	Integrated 2 pole 40A MCB
AC Output Data (Back-up)	
Nominal Output Apparent Power (VA)	4600
Nominal Output Current (A)	20
Peak Output Apparent Power (VA)*3	6900 (10 seconds maximum)
Nominal Output Voltage (V)	230 (±2%)
Nominal Ouput Frequency (Hz)	50/60 (±0.2%)
Output THDv (@Linear Load)	<3%
Back-up Loads AC Disconnect	Integrated 2 pole 25A MCB
Manual Back-up Load AC Bypass Switch	Integrated
Efficiency	
Max. Efficiency	97.6%
European Averaged Efficiency	97.0%
Max. Battery to Load Efficiency	94.0%

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Protection	
Anti-islanding Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
Output Over Current Protection	Integrated
Output Short Protection	Integrated
Output Over Voltage Protection	Integrated
General Data	
Operating Temperature Range (°C)	-25~60
Relative Humidity	0~95%
Operating Altitude (m)	3000
Cooling	Nature Convection
Noise (dB)	<25
User Interface	LED & APP
Communicaiton with BMS	CAN
Communicaiton with Meter	RS485
Communicaiton with Portal	Wi-Fi
Weight (Kg)	44
Size (Width × Height × Depth mm)	516 × 832 × 290
Mounting	Wall Bracket
Protection Degree	IP65
Standby Self-Consumption (W)	<13
Topology	Battery Isolation

*1: When there is no battery connected, inverter starts feeding in only if string voltage is higher than 200V.
*2: 4600VA for VDE-AR-N4105,5100VA for other country.
*3: Can be reached only if PV and battery power is enough.
*: Please visit GoodWe website for the latest certificates.