



ES Series

GoodWe ES series bidirectional energy-storage inverter is applicable for both on-grid and off-grid PV systems and can control the flow of energy hybrid with its working situation able to be switched automatically or manually. During the day time, the PV plant generates electricity which can be provided to the loads, fed into the grids or charged the battery. The power stored can be released when the loads require it during the night. Additionally, power grid can also charge the storage devices via the inverter.

- Future conception for Solar
- Charge controller and inverter integrated
- Intelligent battery management function
- Longer service life than conventional system
- Capable of being grid-interactive or grid-independent
- Compatible with both Lead-acid and Li-Ion battery
- More security & performance for same costs
- IP65 dust-proof and water-proof rating
- 45°C full-load output
- Monitoring inverters locally via EzMonitor
- Monitoring inverters freely via computers or moblie phones
- Fanless low-noise design

Technical Data

	GW5048D-ES	GW3648D-ES
Solar		
Max.Input	5.4kWp and 15 A per string	4.2kw p and 10A per string
No.of Inputs	4	4
No.of MPP trackers	2	2
DC Disconnection switch	4-pole,850V 25A	4-pole,850V 25A
Solar Voltage	125-580 Vdc	125-580Vdc
MPP Voltage	125-550 Vdc	125-550 Vdc
Solar Connections	MC4	MC4
Max.Efficiency	97.6%(97% EU)	97.6%(97% EU)
Max.MPP Efficiency	99.90%	99.90%
Battery		
Battery Type	Lead-acid or Li-Ion	Lead-acid or Li-Ion
Battery voltage range	40-60Vdc	40-60Vdc
Charge current	5-50 A continuous,programmable	5-50 A continuous,programmable
Battery capacity	100~500Ah(depending requirement)	100~500Ah(depending requirement)
Charging curve	3-stage adaptive with maintenance	3-stage adaptive with maintenance
Short circuit protection	Electronic, at max. charge current,switch off<1 sec	Electronic, at max. charge current,switch off<1 sec
Battery temperature compensation	Included	Included
Battery voltage sense	Integrated	Integrated
Current shunt	Integrated	Integrated
AC Output		
Continuous output power	4600 VA	3600VA
AC output current	25A	16A
Cos Phi	1(0.9 ind....0.9 cap. adjustable)	1(0.9 ind....0.9 cap.adjustable)
Nominal output voltage	230 Vac, 50Hz	230 Vac ,50Hz
AC output range	180-264Vac 50/60Hz(limited by local anti-islanding regulations)	180-264 Vac 50/60 Hz(limited by local anti-islanding regulations)
AC output voltage (Off Grid)	230Vac ±2%, 50Hz ±0.2%, THD<3%, single phase	230Vac ±2%, 50Hz ±0.2%, THD<3%, single phase
Peak power (Off Grid)	1.5xPnom, 10 sec	1.5x Pnom,10 sec
Protection	Electronic, fused	Electronic, fused
Standby losses	≤5 W	≤5 W
User interface	Display with EzMonitor	Display with EzMonitor
Connectivity	USB2.0; RS485(Wi-Fi optional)	USB2.0; RS485 (Wi-Fi optional)
Environmental		
Operating temperature range (full power)	-20°C to +60°C(derating from 45°C)	-20°C to +60°C (derating from 45°C)
Storage temperature	-40°C to +70 °C	-40°C to +70°C
Humidity	Maximum 95%,non-condensing	Maximum 95%,non-condensing
Regulatory approvals and standards	CE,VDE-AR-N 4105,EEG2012, G59,AS4777.2/3, C-Tick	CE,VDE-AR-N 4105, EEG2012,G83,AS4777.2/3, C-Tick
Safety	EN 60950-1,EN 62109-1/2, EN60335-2-29	EN 60950-1,EN 62109-1/2, EN60335-2-29
Emission	EN55014-1,EN 61000-3-2,EN 61000-3-3,EN61000-6-3	EN55014-1,EN 61000-3-2,EN 61000-3-3,EN61000-6-3
Immunity	EN 55014-2,EN61000-6-2	EN 55014-2,EN61000-6-2
Anti islanding protection	VDE 0126-1-1,G83/1(UK),RD1663/2000(ESP), DK5940 E.d .2.2, CEI 0-21 pending (IT),AS4777	VDE 0126-1-1,G83/1(UK),RD1663/2000(ESP), DK5940 E.d .2.2, CEI 0-21 pending (IT),AS4777
Warranty	five years(optional: extension to ten years)	five years(optional: extension to ten years)
General		
Device dimensions (WxHxD)	516*415*184(mm*mm*mm)	516*415*184(mm*mm*mm)
Protection category	Indoor and Outdoor use(IP65)	Indoor and Outdoor use(IP65)
Weight	30kg	30kg
Topology	Transformerless	Transformerless
Cooling	Natural convection	Natural convection