

Bi-directional energy-storage ES series Grid Tied Power Inverter



Features:

- Future conception for Solar
- Charge controller and inverter integrated
- Intelligent battery management function
- 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

Introduction

ES series bi-directional energy-storage inverter is applicable to both on-grid and off-grid PV systems. It can control the flow of energy intelligently. During the daytime, the PV plant generates electricity which can be provided to the loads.

APP EzManage

Multiple operating modes



	GW3648D-ES	GW5048D-ES
Solar		
Max.allowed PV Power(W)	4600	6000
Max. recommended PV Power(W)	4200	5000
Max. PV voltage	580	
MPPT voltage range	125-550	
Starting voltage (V)	125	
Max. PV current	11/11	
No. of PV connectors	2	
No. of MPPTs	2(can parallel)	
Slolar Connections	Phenix -Sunplux	
Battery		
Battery Type	Lead – acid or Li - Ion	
Normal Voltage(V)	48	
MAX Discharge power (W)	3600	4600
MAX Charge power (W)	2300, programmable	
Charge current (A)	5-50 (programmable)	
Battery capacity	≥100 (depending requirement)	
Charging curve	3-stage adaptive with maintenance	
Charging voltage (V)	57, programmable	
Battery temperature compensation	Integrated(Li-Ion)	
Battery voltage sense	Integrated	
Current shunt	Integrated	
AC Output		
Max.AC power(W)	3600VA	4600VA
Peak power(back-up)(W)	1.5x Pnom, 10sec	
Max.AC current(A)	16	20
AC output(back-up)	230Vac , 50/60Hz	
AC output range	45~55Hz/55~65Hz; 180~270Vac	
AC output data(back-up)	230Vac ±2%, 50Hz ±0.2%, THDv<3%(linear load)0.	
THDI	<1.5%	
Power factor	0.9 leading~0.9 lagging	
Grid connection	Single phase	
Efficiency		
Max. efficiency	97.6%	
Euro efficiency	>97.0%	
MPPT adaptation efficiency	>99.9%	
Protection		
Residual current monitoring unit	Integrated	
Anti-islanding protection	Integrated	
DC switch(PV)	Integrated (optional)	
AC Over current protection	Integrated	
Issulation monitoring	Integrated	
Certification&Standards		
Grid regulation	VDE4105, VDE 0126-1-1+A1, G83/2, G59/2, AS4777.2/3, IEC62109-2	
Safety	IEC62109-1&-2, AS3100, IEC62040-1	
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-3-11, EN61000-3-12	
General Data		
Dimensions(W*H*D)	516*440*184mm	
Weight(kg)	28	30
Mounting	Wall bracket	
Ambient temperature range	-25~60° C (>45° C derating)	
Relative humidity	0~95%	
Max.operating altitude	4000 (>3000m derating)	
Protection degree	IP65	
Topology	Transformerless	
Standby losses(W)	<8	
Cooling	Nature convection	
Noise emission(dB)	<25	
Display	LED light& APP	
Communication	USB2.0; RS485 WiFi	