



## Technical Data

GW5048D-ES

Solar		
Max. allowed PV Power [W]	6000	4600
Nominal DC Power [W]	5000	4200
Max. DC voltage [V]	580	580
MPPT voltage range [V]	125~550	125~550
Starting voltage [V]	150	150
Max. DC current [A]	11/11	11/11
No. of DC connectors	2	2
No. of MPPTs	2 (can parallel)	2 (can parallel)
DC connector	MC4/ Phoenix/ Amphenol	MC4/ Phoenix/ Amphenol
Battery		
Battery type	Lead-acid or Li-Ion	Lead-acid or Li-Ion
Nominal Voltage [V]	48	48
Max Discharge power [W]	4600	3600
MAX Charge power [W]	4600, programmable	3600, programmable
Battery capacity [Ah]	≥ 100 (depending requirement)*	≥ 100 (depending requirement)*
Charging curve	3-stage adaptive with maintenance	3-stage adaptive with maintenance
Charging voltage [V]	60 (configurable)	60 (configurable)
Battery temperature compensation	Included (Li-Ion)	Included (Li-Ion)
Battery voltage sense	Integrated	Integrated
Current shunt	Integrated	Integrated
AC Output Data		
Nominal AC power [W]	4600	3600
Max. AC power [W]	4600/4850/4950/5100**	3600
Peak power (Back-up) [W]	1.5x Pnom, 10sec	1.5x Pnom, 10sec
Max. AC current [A]	20/21***	16
Nominal AC output	50/60Hz; 230Vac	50/60Hz; 230Vac
AC output range	45~55Hz/55~65Hz; 180~270Vac	45~55Hz/55~65Hz; 180~270Vac
AC output (Back-up)	230Vac ±2%, 50Hz(60Hz optional) ±0.2%, THDv<3% (linear load)	
THDi	<1.5%	<1.5%
Power factor	0.8 leading~0.8 lagging	0.8 leading~0.8 lagging
Grid connection	Single phase	Single phase
Efficiency		
Max. efficiency	97.6%	97.6%
Euro efficiency	>97.0%	>97.0%
MPPT adaptation efficiency	99.9%	99.9%
Protection		
Residual current monitoring unit	Integrated	Integrated
Anti-islanding protection	Integrated	Integrated
DC switch (PV)	Integrated (optional)	Integrated (optional)
AC over current protection	Integrated	Integrated
Insulation monitoring	Integrated	Integrated
Certifications & Standards		
Grid regulation	VDE-AR-N4105, VDE 0126-1-1, G83/2, G59/3, AS4777.2/3	
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	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-3-2, EN61000-3-3
General Data		
Dimensions (WxHxD) [mm]	516*440*184	516*440*184
Weight [kg]	30	28
Mounting	Wall bracket	Wall bracket
Ambient temperature range	-25~60°C (>45°C derating)	-25~60°C (>45°C derating)
Relative humidity	0~95%	0~95%
Max. operating altitude	4000m(> 3000m derating)	4000m(> 3000m derating)
Protection degree	IP65	IP65
Topology	Transformerless	Transformerless
Standby losses [W]	<8	<8
Cooling	Natural convection	Natural convection
Noise emission [dB]	<25	<25
Display	LED light & APP	LED light & APP
Communication	Wi-Fi; RS485 or Ethernet	Wi-Fi; RS485 or Ethernet
Standard warranty [years]	5	5