ES Series
Single Phase Hybrid Inverter (LV Battery)

Technical Data		GW5048D-ES
Battery Input Data	Battery Type	Li-Ion
	Nominal Battery Voltage (V)	48
	Max. Charging Voltage (V)	≤60 (Configurable)
	Max. Charging Current (A)*1	100
	Max. Discharging Current (A)*1	100
	Battery Capacity (Ah)*2	50~2000
	Charging Strategy for Li-Ion Battery	Self-adaption to BMS
PV String Input Data	Max. DC Input Power (W)	6650
	Max. DC Input Voltage (V)	580
	MPPT Range (V)	125~550
	Start-up Voltage (V)*3	150
	Nominal DC Input Voltage (V)	360
	Max. Input Current (A)	11/11
	Max. Short Current (A)	13.8/13.8
	No. of MPP Trackers	2
	No. of Strings per MPP Tracker	1
AC Output Data (On-grid)	Nominal Apparent Power Output to Utility Grid (VA)	4600
	Max. Apparent Power Output to Utility Grid (VA)	4950
	Max. Apparent Power from Utility Grid (VA)	9200
	Nominal Output Voltage (V)	230
	Nominal Output Freqency (Hz)	50/60
	Max. AC Current Output to Utility Grid (A)	21.7
	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%
AC Output Data (Back-up)	Max. Output Apparent Power (VA)	4600
	Peak Output Apparent Power (VA)*4	6900,10sec
	Max. Output Current (A)	20
	Nominal Output Voltage (V)	230 (±2%)
	Nominal Output Freqency (Hz)	50/60 (±0.2%)
	Output THDv (@Linear Load)	<3%
Efficiency	Max. Efficiency	97.6%
	Max. Battery to Load Efficiency	94.0%
	European Efficiency	97.0%
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)	≤4000
	Cooling	Natural Convection
	Noise (dB)	<25
	User Interface	LED & APP
	Communication with BMS*5	RS485; CAN
	Communication with Meter	RS485
	Communicaiton with Portal	Wi-Fi*6
	Weight (kg)	30
	Size (Width*Height*Depth mm)	516*440*184
	Mounting	Wall Bracket
	Protection Degree	IP65
	Standby Self-Consumption (W)	<13
	Topology	High Frequency Isolation

*: The actual charge and discharge current also depends on the battery.
*: Under off-grid mode, then battery capacity should be more than 100Ah.
*: When there is no battery connected, inverter starts feeding in only if string voltage is higher than 200V.
*: Can be reached only if PV and battery power are enough.

*: The standard configuration is CAN.
*: Only compatible with 2.4Ghz network.
*: Please visit GoodWe website for the latest certificates.

MH POWER