

Working Mode: GHESS Series

Work Priority & Mechanism

1. When the grid is normal:

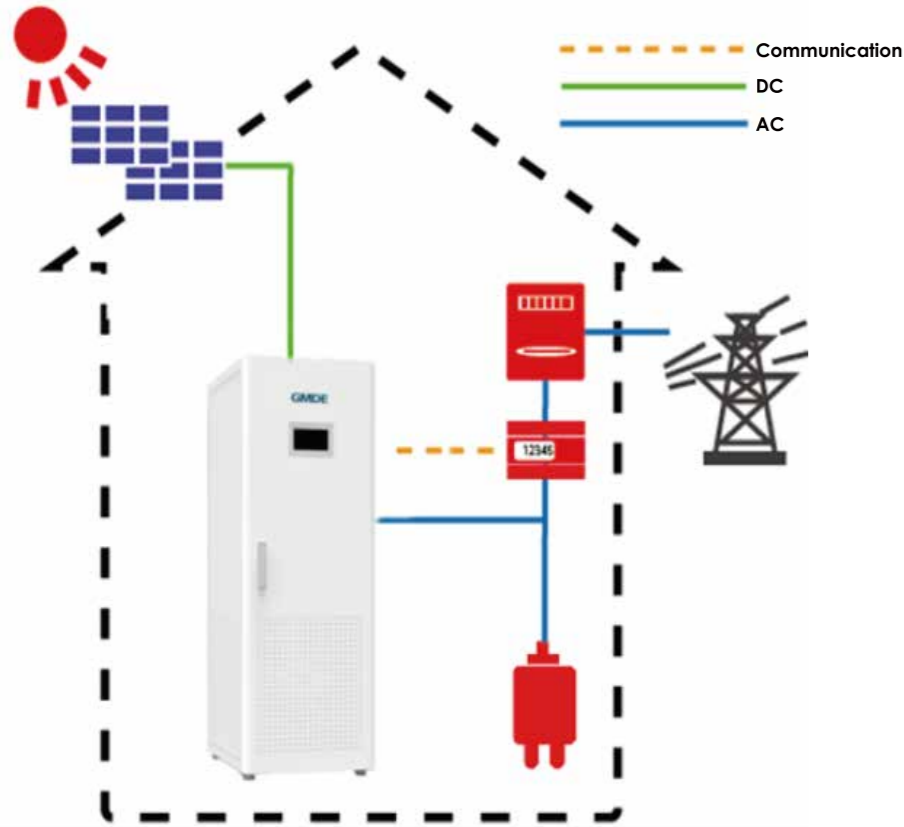
■ **Daytime:** If there is enough sunshine, energy generated by PV supplies the load first and then charges battery packs; if the load is covered and battery is fully charged, surplus energy will be fed into the public grid to win the FIT tariff;

■ **Night or no enough sunshine:** the hybrid system first discharges the battery pack to cover the load; if the energy is still not sufficient, the grid will power the rest family load.

2. When the grid is failed or abnormal:

■ **Auto-switch to off grid:** the device has integrated backup function. When the device sensors the drop/change of the grid voltage, it disconnects the relay completely and shifts from on-grid to off-grid mode. Under the off-grid mode, the important load is powered by battery;

■ **Auto-switch to on grid:** When the device sensors that the grid is back to normal, it stops running under off-grid mode and closes its internal relay. The system operates under on-grid mode again.



GHESS 5.0_7.2KWH PV Storage Hybrid System (3-phase, All-in-one version)

GMDE

Storage system	GHESS 5.0_7.2KWH All-in-One
System parameters	
Nominal/useable capacity[kWh]	7.2 / 5.76 @ 80% DoD
Installation	All-in-one cabinet
Warranty [year]	5 years standard, battery 10 years extendable
PV side input	
Max. input power [kW]	5.2
MPPT voltage range [V]	150 - 700
MPPT tracker	1
Battery side input	
Operating voltage range [V]	144 @ [120, 500]
Max. charging power [kW]	4
Max. charging current [A]	18
Charging/discharging efficient	97% / 96.5%
AC output-on grid	
Max. output power [kW]	5
Output voltage range [V]	3N~400, 324 - 436, 437 - 460 (<10min.)
Certification	VDE-AR-N4105
AC output-off grid (Optional)	
Rated voltage & frequency [V/Hz]	400±2%, 50±2%
Output power [kW]	Rated power 2.5, instantaneous power 5.0
Power factor	[-0.95, +0.95]
Battery packs	
Nominal capacity [kWh]	7.2
Module/unit	H48V / 50Ah lithium battery module * 3 modules in string
Life cycle	80% DOD for 6000 life cycles
Visual interface	
EMS	7 inch color touch screen
Interface communication	RS485 / Ethernet / WiFi



Lithium-ion Battery System:
600 * 600 * 1400 mm



EMS Display Interface