


Off-grid Energy Storage Integrated Machine





Introduce


Vertical Energy Storage System is a complete battery system for home energystorage. The system adopts modular design, stacked structure, through the parallel battery modules to increase the capacity of the system, achieving plug and play. The system is safe and reliable, can be applied to home storage, industrial, and commercial energy storage.


 **Long Lifespan**
15 years of design service life

 **Modular**
Modular design is simple and fast

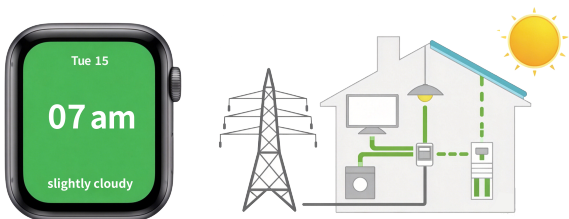
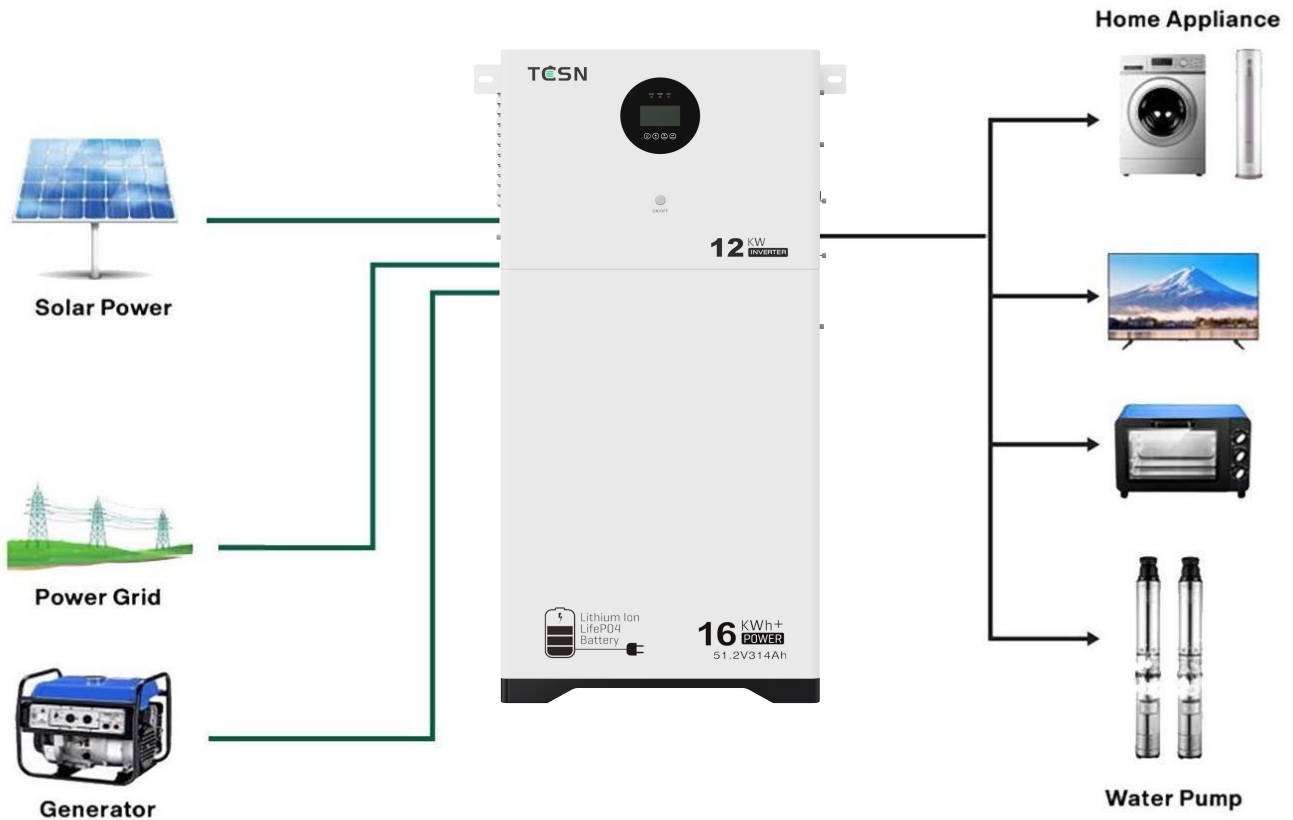
 **Intelligentize**
Efficient operation and maintenance Automatic and intelligent management

 **Multi parallel use**
Off grid inverter, battery support parallel

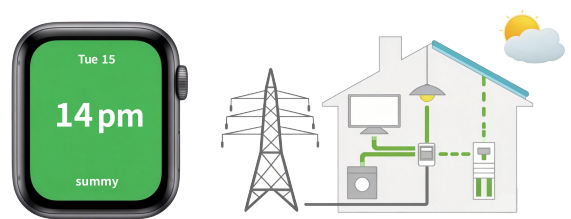
 **Visualization**
Visual display interface, easy to maintain

 **Multifunction**
Support Wifi wireless network

System Management Diagram



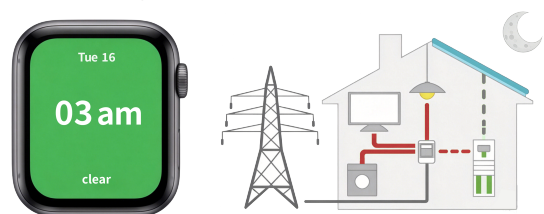
Solar energy is best used to power household appliances, with any excess energy stored in the battery.



During the day, when there is insufficient light, the energy stored in the battery will be used to supplement the power supply.



At night, the energy stored in the battery powers household appliances.



When the stored energy in the battery is depleted, the public grid supplies power to household appliances.

Specifications

Model	Merak G-HESS T12-16
AC Input	
Rate Input Voltage(VAC)	220/230;L+N+PE
Voltage Range(VAC)	90~280±3 (normal mode) ;170~280±3 (UPS mode)
Frequency(Hz)	50Hz/60Hz (Auto detection)
AC Output	
Rated Capacity(kW)	12
Voltage Regulation	≤5%
Rate Voltage(VAC)	230;L+N+PE
PowerFactor(PF)	1
Frequency	50Hz±0.3Hz/60Hz±0.3Hz
Transfer Time(ms)	10ms(Typical)
Maximum Efficiency	>94%
Overload protection	(102% < load <125%) ±10%: report error and turn off the output after 5 minutes; (125% < load < 150%) ± 10%: report error and turn off the output after 10 seconds; Load >150% ±10%:report error and turn off the output after 5 seconds;
Charger(PV/AC)	
Solar Charger Type	MPPT
Max PV input power(kW)	9+9
MPPT Range@Operating Voltage(VDC)	90~450
Max PV Open Circuit Voltage(VDC)	500
Max PV Charge Current(A)	150
Max AC Charge Current(A)	150
Max.Charge Current (PV+AC)	150
Battery	
Normal Voltage(VDC)	51.2
Capacity(Ah)	314
Energy(Wh)	16076.8
Charge Voltage(VDC)	54.4~55.2V
Overcharge Protection(VDC)	58.4V
Battery type	LFP
Interface	
HMI	LCD
Monitoring	WiFi(Optional)
General Data	
Ingress Protection	IP20
Operating Temperature	0~50°C
Relative Humidity	20%~95%(Non-condensing)
Storage Temperature	-5°C~35°C
Net Weight(kg)	163
Dimensions/W*D*H(mm)	600×200×1280
Max.Operating Altitude	4000m(Derating above 1000m)
Noise Emission	≤50dB