

Solar-Storage-Charging Integrated Machine



Introduce

A highly integrated energy hub that combines photovoltaic power generation, energy storage batteries, and electric vehicle charging. Its core feature lies in achieving maximum energy self-sufficiency and peak-valley arbitrage through an intelligent closed-loop system of "generation, storage, charging, and discharging", and it can seamlessly switch to provide emergency backup power for households. It is widely applied in daily household green power supply, DC fast charging for private parking spaces, emergency support during power grid outages, and independent power supply in off-grid/low-power areas. It is a key infrastructure for building a zero-carbon smart home.



Stable And Reliable

Independently build a microgrid
Ensure continuous and stable power supply for the load



Fluid Design

Modular design
Simple combination, quick installation



High-Effect

Adopting advanced MPPT algorithms
Improving the efficiency of photovoltaic power generation



Safe And Worry-free

Has system-level protection function
Intelligent shutdown to ensure system and personnel safety



Intelligent Management

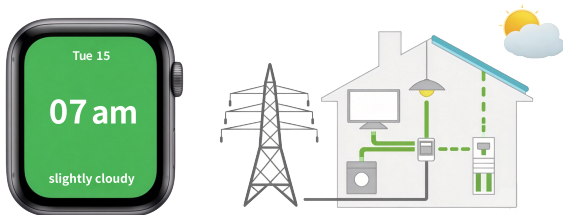
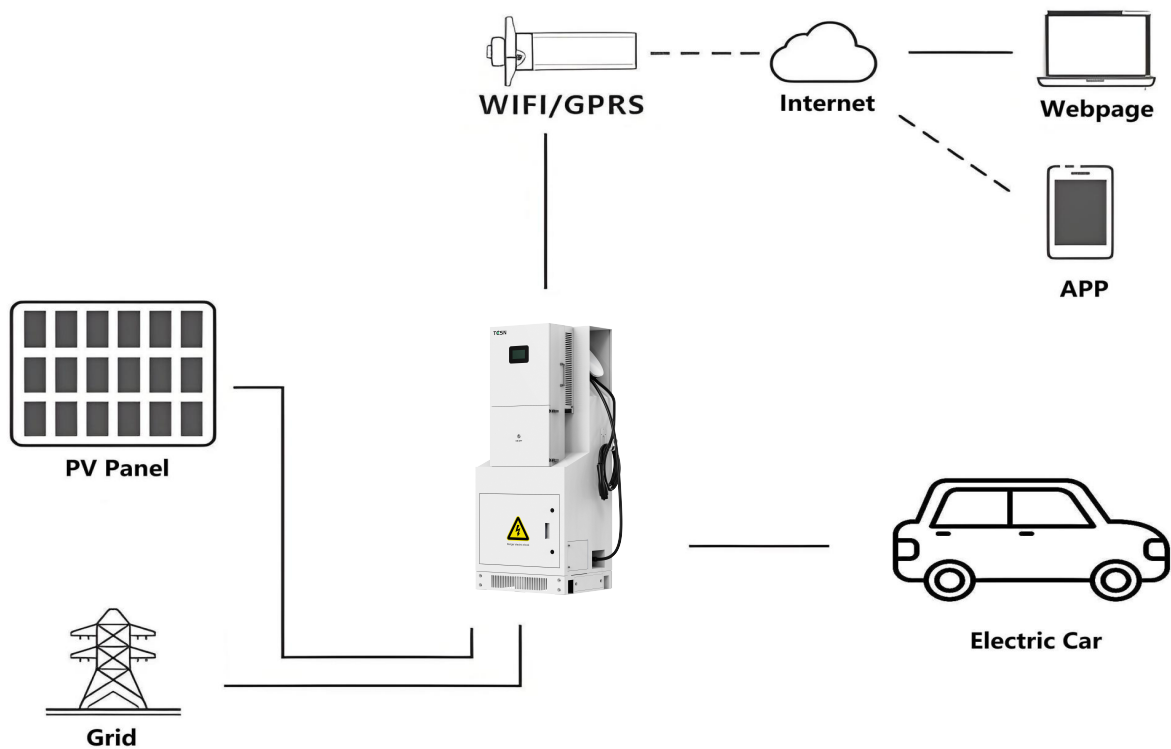
Built-in energy management system
Intelligent scheduling of photovoltaic, energy storage and charging loads



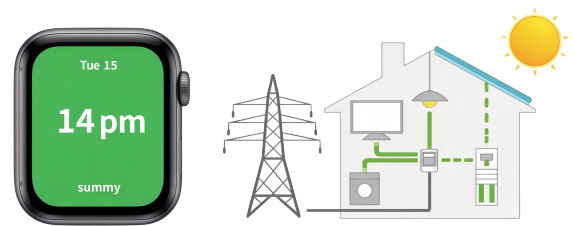
Professional Protection

IP65 level waterproof and dustproof
No worries about outdoor installation

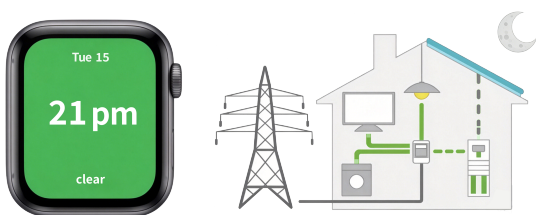
System Management Diagram



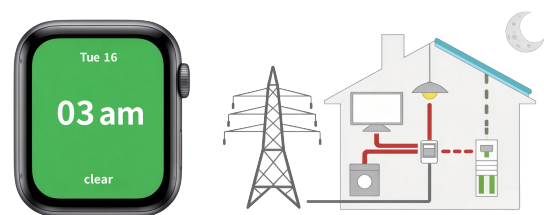
Solar energy is best used to power household appliances, with any excess energy stored in the battery.



During the day, when the battery is fully charged, any surplus solar energy can be sold to the public grid.



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		Phecda-H-T12-32-12
Battery Input Data		
Battery Type	LFP	
Battery Normal Voltage (V)	51.2	
Capacity(Ah)	628	
Energy(Wh)	32153.6	
PV String Input Data		
Max DC input Power(W)	18000	
Max PV Input Voltage(V)	500V	
Min PV Input Voltage(V)	120V	
Full Load DC Voltage Range	150~430V	
Max.PV Isc(A)	16+16+16+16	
No. of MPPT Trackers	4	
Number of Strings per MPPT Tracker	1+1	
AC input/Output Data		
Rated AC Output and UPS Power(W)	12000	
Max. AC Output Power(VA)	13200	
Peak Power(off grid)	110%,30s / 120%,10s / 150%,0.02s	
AC Input/output Rated Current(A)	50	
Max, AC input/Output Current(A)	55	
Power Factor	0.8 leading to 0.8 lagging	
Frequency and Voltage Range	55~55Hz;110~127/208~240Vac	
Grid Type	2L+N+PE	
Total Harmonic Distortion (THD)	<3% (of nominal power)	
Charging gun Data		
Rated Output Power(W)	12000	
Rated Voltage(V)	240	
Frequency	60Hz	
Max Charging Current(A)	50	
Type of Charging Plug	SAE 1772 (Type 1)	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	96.50%	
MPPT Efficiency	>99%	
General Data		
Operating Temperature Range(°C)	0~60°C,>55°C Derating	
Cooling	Smart cooling	
Noise(dB)	<50 dB	
Communication with BMS	CAN	
Monitoring mode	WiFi+APP	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Cabinet size(mm)(WxHxD)	680*1700*540mm	