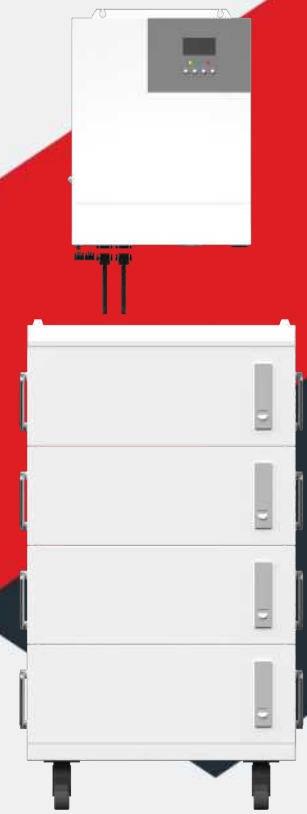
Eyesky Energy

Stackable solar energy storage system



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All-in-one solar charge inverter

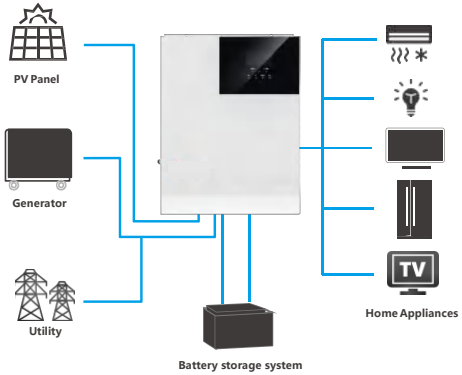
TY-LH4840K /TY-LH4850K

Performance characteristics

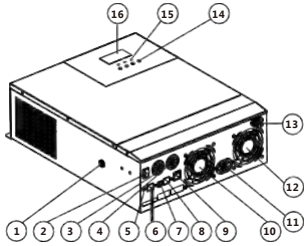
·Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sine wave.
·Two output modes: mains bypass and inverter output; uninterrupted power supply.
·Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
· Advanced MPPT technology with an efficiency of 99.9%.
·With the charging requirement (voltage, current, mode) settings, and suitable for various types of energystorage batteries.
· ON/OFF rocker switch for AC output control.
· Power saving mode available to reduce no-load loss.
· Intelligent variable speed fan to efficiently dissipate heat and extend system life.
·Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
·360 ° all-round protection with a number of protection functions. Such as overload,short circuit and overcurrent.
·Supply of a variety of user-friendly communication modules, such as Rs485 (GPRS,WiFi), CAN, USB etc., and suitable for computer, mobile phones, Internetmonitoring as well as remote operations.

Application scenarios

Product connection diagram



Product characteristics



①	Overload protector	⑨	Dry contact por
②	ON/OFF rocker switch	⑩	Cooling fan
③	AC input port	⑪	Battery port
④	AC output port	⑫	Cooling fan
⑤	Grounding screw hold	⑬	PV port
⑥	RS485-2 communication port	⑭	Touch button
⑦	USB communication port	⑮	Indicator
⑧	RS485-1 communication port	⑯	LCD screen

Parameters

Models	TY-LH4840K	TY-LH4850K
AC mode		
Rated input voltage	220/230Vac	
Input voltage range	(170Vac~280Vac) ±2%/(90Vac-280Vac)±2%	
Frequency	50Hz/ 60Hz (Auto detection)	
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);	
Overload/short circuit protection	Circuit breaker	
Efficiency	>95%	
Conversion time (bypass and inverter)	10ms (typical)	
AC reverse protection	Available	
Maximum bypass overload current	40A	
Inverter mode		
Output voltage waveform	Pure sine wave	
Rated output power (VA)	4000	5000
Rated output power (W)	4000	5000
Power factor	1	
Rated output voltage (Vac)	230Vac	
Output voltage error	±5%	
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Maximum Efficiency	>92%	
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;	
Peak power	8000VA	10000VA
Loaded motor capability	3HP	4HP
Output short circuit protection	Circuit breaker	
Bypass breaker specifications	40A	
Rated battery input voltage	48V (Minimum starting voltage 44V)	
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage rec overy... settable on LCD screen)	
Power saving mode	Load ≤50W	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current	60A	
Charge current error	± 5Adc	
Charge voltage range	40Vdc~58Vdc	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	40A	
Overcharge protection	Alarm and turn off charging after 1 minute	
PV charging		
Maximum PV open circuit voltage	145Vdc	
PV operating voltage range	60-145Vdc	
MPPT voltage range	60-115Vdc	
Battery voltage range	40-60Vdc	
Maximum output power	4200W	4200W
PV charging current range (can be set)	0-80A	0-80A
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
Certified specifications		
Certification	CE(EN62109-1)	
EMC certification leve	EN61000, C2	
Operating temperature range	-15°C to 55°C	
Storage temperature range	-25°C ~ 60°C	
Humidity range	5% to 95% (Conformal coating protection)	
Noise	≤60dB	
Heat dissipation	Forced air cooling, variable speed of fan	
Communication interface	USB/RS485(WiFi/GPRS)/Dry node control	
Size (L*W*D)	426*322*124mm	
Weight (kg)	10.8	

Stackable energy storage system

TY-CN5K-H1 /TY-CN5K-H2/TY-CN5K-H3/TY-CN5K-H4/TY-CN5K-H5/TY-CN5K-H6

Performance characteristics

·Compatible with multi-brand storage inverters

· Remote fault diagnosis

· Support parallel expansion, up to 6 parallel

· One-key automatic allocation of parallel ID, simple and convenient operation

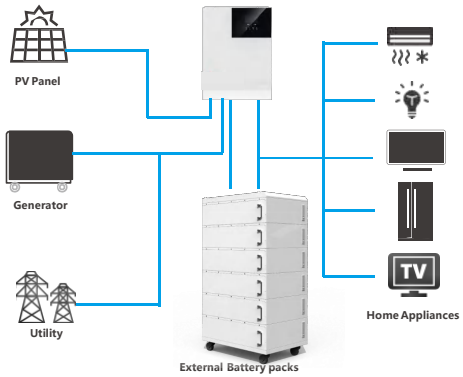
· Long cycle life (6000 times@80%DOD/25°C/0.5C charge and discharge, 60%EOL)

· Automated PACK production line, stable and reliable production quality

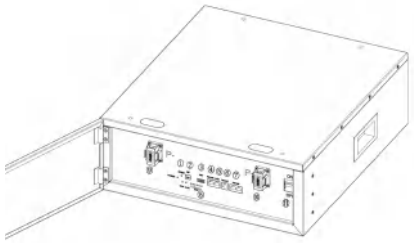
· Floor stacking installation, saving installation time and cost.

Application scenarios

Product connection diagram



Product characteristics



①	RESET	②	DIP
③	DRY	④	RS485
⑤	CAN	⑥	RS232
⑦	RS485	⑧	SOC
⑨	P-	⑩	P+
⑪	ON/OFF		

Parameters

Model Number	TY-CN5K-H1	TY-CN5K-H2	TY-CN5K-H3	TY-CN5K-H4	TY-CN5K-H5	TY-CN5K-H6
System Basic Parameters						
Number of battery packs	1	2	3	4	5	6
Nominal system voltage	51.2V					
System nominal energy (100% DOD)	5kWh	10kWh	15kWh	20kWh	25kWh	30kWh
System available energy (90% DOD)	4.5kWh	9kWh	13.5kWh	18kWh	22.5kWh	27kWh
Dimension (mm)	700*508*346	700*508*524	700*508*702	700*508*880	700*508*1057	700*508*1234
Weight (KGS)	60	104	147	190	233	276
Protection level	IP65					
Cooling method	Natural cooling					
Battery module parameters						
Nominal Voltage	51.2Vdc					
Nominal Capacity	100AH					
DOD	<90%					
Nominal Charging Current	100A					
Maximum continuous charging current	105A					
Rated Discharge Current	100A					
Maximum continuous discharge current	105A					
Working temperature	Discharge：-20°C~60°CCharge：0°C~60°C					
Storage temperature	<25°C 12 months<35°C 6 months<45°C months					
environment humidity	<95%RH（No condensation）					
Altitude conditions	<2500m					
Cycle life	6000times@80%DOD/25°C/0.5Ccharge & discharge,60%EOL					