

10KW Three-Phase Hybrid Inverter

With the development of energy storage market, the traditional grid-connected inverter can no longer meet the needs of customers. According to different applications, some customers need grid-connected, someone requires off-grid. Especially for home energy storage markets. Both on-grid and off-grid states require inverters to provide electricity power to the loads.

Therefore, the demand of on/off-grid inverter (two-way energy storage inverter) is growing rapidly. It allows users to generate their own power, to get certain economic benefits. When the PV energy is sufficient, the inverter draws power from the PV station to power the loads, and the rest power will charge the battery and be on to the grid. When the PV energy is insufficient, but the battery energy is enough, the inverter automatically supply power to the load from the battery. When the battery energy exhausted, the Inverter takes power from the grid, supplies the load and recharges the battery. This on-off grid inverter could be installed in/outdoor, and the power is 10KW, larger than the normal household energy storage inverter.

Features

● One-Key Setting

- 1.APP setting
- 2.Automatic matching
- 3.Multi-languages
- 4.Self-diagnosis, maintenance-free

● Simple Installation

- 1.Operationa manual&installation video
- 2.Modularization Installation
- 3.International standard cables

● Variety

- 1.Solar&High voltage battery compatible, various input souces
- 2.Compatiable Lifepo4&Lead-acid Battery
- 3.Solar,grid and generator accessed
- 4.Multiple inverters in parallel
- 5.On&off-grid mode switching time less than 10 ms, can be used as UPS
- 6.Single phase&three phases output for residential and commerical application
- 7.Flexible to add/retrofit more inverters or battery system.

● Efficiency

- 1.High efficiency at 99%
- 2.Advanced tracking tech to improve efficiency of PV station
- 3.High-precision MPPT control algorithm and INV algorithm enabling grid connection with high efficiency and energy converting by itself.



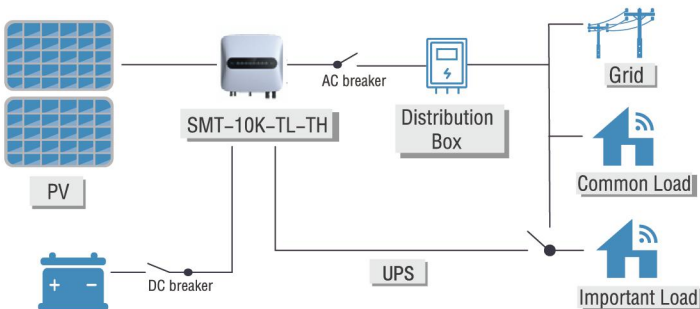
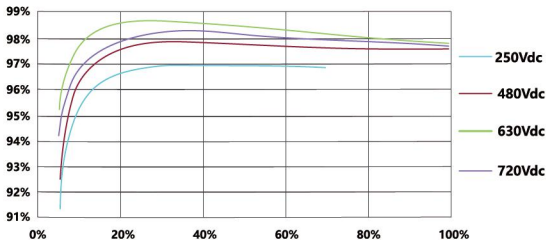
- **Safety**

1. Self-protection Technology
2. Wide voltage range and frequency input
3. IP65 Protection
4. Automatic air cooling
5. Stable operation in high altitude, high temperature, high humidity environment
6. Overload capacity

- **Intelligence**

1. Smart Management System enforces self-operation
2. WIFI, CAN, RS485, USB (optional), GPRS (optional) Multiple monitoring modes

10KW conversion efficiency



Technical Parameter

Model **SMT-10K-TH-HV**

PV INPUT(DC)

Rated DC power(U)	10000
Max.DC voltage (V)	1000
Nominal DC operating voltage (V)	200
Max.input current (A)	11/11
Max. over current (A)	15
MPPT voltage range (V)	200-900

Number of MPPT trackers	2
OUTPUT DC (BATTERY)	
Battery voltage range (V)	200-800
Recommended battery voltage (V)	620
Max charging/discharging power (W)	10000
Max charging/discharging current (A)	25
Communication interfaces	CAN/RS485
Reverse connect protection	YES
OUTPUT (AC)	
Nominal AC power (VA)	10000
Max AC power (VA)	Support off-grid mode, 110% load 30 min, 130% load 5min, 150% load 5S, at 25°C
Rated grid voltage (AC voltage range) (V)	400/230 ; 380/220
Rated grid frequency (Hz)	50/60
Nominal AC current (A)	15.2
Over current protection	22.8
Displacement power factor	-0.9overexcited, 0.9underexcited
Total harmonic distortion (THD, rated power) (%)	<3
Parallel operation	YES
BACK UP OUTPUT (WITH BATTERY)	
Rated power (VA)	10000
Rated voltage (V)	400/380
Rated frequency (Hz)	50/60
Rated current (A)	15.2
Peak power (W), duration (S)	Support off-grid mode, 110% load 30 min, 130% load 5min, 150% load 5S, at 25°C
UPS Switching time (MS)	<20ms
Total harmonic distortion(THD, linear load) (%)	<3
Parallel operation	YES
EFFICIENCY	
MPPT efficiency (%)	99.9
Europe efficiency (%)	97
Max efficiency	97.8
Battery charge/discharge efficiency (%)	>95
Power consumption	
Internal consumption(night) (W)	<7

Idle mode	YES
Standard	
Safety	IEC/EN 62109-1, IEC/EN 62109-2
EMC	IEC/EN 61000-6-2, IEC/EN 61000-6-3
Certification	VDE 0126/VDE-AR-N4105/G83-2/ AS 4777.2/EN50438/CEI 0-21
Environment limit	
Protection class	IP 65
Cooling method	Natural cooling
Altitude (m)	4000 (3000m scale down)
Storage temperature (°C)	-20 to +60
Noise emission (typical) (dB)	< 25
Over voltage category	III (electric supply side) , II (PV side)
Dimensions Weight	
Dimensions(WxHxD) (mm)	535*548*188
Weight (KG)	40
Cooling concept	Natural-cooling
Topology	Transformerless
Communication	CAN, RS485 WIFI, GPRS (optical, module reserves communication interface for external GPRS)
LED display	Yes

Notes: 10kw hybrid Inverter could be connected in parallel to 8 sets maximum.

