



TPH4LS/TPH6LS

Off-Grid Hybrid Inverter



Features >>

- IP66 protection rating.
 - 1.7 times the maximum MPPT input power; under specific conditions, supports up to 2 times the PV input power.
 - Maximum MPPT input current of 28A, supporting multiple strings of photovoltaic panels connected in parallel.
 - Dual AC outputs with intelligent load management.
 - Supports battery-free operation mode.
 - Maximum discharge design of 135A.
 - Configure up to 6 inverters in parallel to form a single-phase or 9 inverters to form a three-phase.
 - Wide grid voltage adaptation range of 90-280Vac.
 - 1.5 times grid input over-provisioning technology.
 - Minimum MPPT operating voltage of 60Vdc.
 - 5-year warranty / 10-year service (optional).
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SPECIFICATIONS

Model	TPH4LS	TPH6LS
Battery Data		
Battery Type	Lithium-ion& Lead-acid	
Rated Battery Voltage (Vdc)	48	
Battery Voltage Range (Vdc)	40~60	
Max. Charge/Discharge Current (A)	80 / 100	125 / 135
Forced Wake-up by PV	YES	
PV Input		
Max. PV Access Power (W)	8000	12000
Max. MPPT Input Power (W)	6800	10200
Max. Input Voltage (Vdc)	500	
Rated Input Voltage (Vdc)	370	
MPPT Voltage Range (Vdc)	60~450	
No. Of MPPT/ Strings Per MPPT	1/2	
Max Input Current Per MPPT (A)	28	
Max. Short Circuit Current Per MPPT (A)	35A	
Grid Input		
Rated Grid Voltage (Vac)	220/230/240±5%	
Voltage Input Range (Vac)	90~280	
Rated Grid Frequency (Hz)	50/ 60	
Max Input Current (A)	26	40
Total Harmonic Distortion (THDi)	<3% (of nominal power)	
Backup Data		
Rated Output Power (W)	4000	6000
Rated Output Current (A)	18	27
Rated Output Frequency (Hz)	50/60±0.1%	
Overload Capability	1min@101-110%;10s@110% ~ 150%;5s@150% ~ 200%;100ms@ > 200%	
Switch Time (ms)	10ms for Computer Equipment,20ms for Household Equipment	
Total Harmonic Distortion (THDv)	<3%	
Efficiency		
Max. Efficiency	97.00%	
MPPT Tracking Efficiency	99.90%	
Protection		
Integrated	DC Polarity Reverse Connection Protection,AC Output Over Current Protection, Thermal Protection, AC Output Over Voltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Over Voltage Load Drop Protection, Power Network Monitoring, Earth Fault Detection,Surge protection level	
Surge Protection	TYPE II(DC),TYPE II(AC)	
Over Voltage Category	OVC II (DC),OVC III (AC)	
General Data		
Operating Temperature (℃)	-40~+60 (Above 45℃ Derating)	
Dimensions [W*H*D] (mm)	395*485*156	
Weight (kg)	14.5	
Inverter Topology	Non-Isolated	
Cooling	Smart cooling	
Altitude (m)	≤3000	
Protection Level	IP66	
Communication	RS232 / RS485 / CAN / Dry contact/ External battery NTC/ Parallel communication/WIFI(optional)	
Warranty	5Years	
Standard		
Safety Standards	IEC 62109-1:2010, EN 62109-1:2010, IEC 62109-2:2011, EN 62109-2:2011	
EMC Standards	EN IEC 61000-6-1:2019;EN IEC 61000-6-3:2021;EN IEC 61000-3-11:2019;EN61000-3-12:2011	
Efficiency Standard	IEC 61683:1999	