



Single Phase ESS Series

CE MSDS IEC UN38.3

Product Highlights

Plug & Play

Plug & Play stackable design,
10 minutes fast commissioning.

Active Safety

AFCL active arcing protection.

Efficiency

Up to 98.4% European 97.9%.

More Options

2*9.6 kWh battery module
+ Optional battery stack.

Model	TG-ESS-S-5kw/9.6kwh	TG-ESS-S-5kw/19.2kWh	TG-ESS-S-6kw/9.6kwh	TG-ESS-S-6kw/19.2kwh
PV Specifications				
Max.Recommended PV Array Power(Wp)	12000		13000	
Rated/Max.PV Input Voltage(Vdc)	360/600			
Start-up Input Voltage(Vdc)	50			
MPPT Voltage Range (Vdc)	40-560			
No.Of MPPT/Strings Per MPPT	2(1/1)			
Max.PV Input Current (A)	32(16/16)			
Input/Output(Grid)				
Inverter model	THI-5000-1P-HV		THI-6000-1P-HV	
Max.AC Input Power From Grid(VA)	12000		13000	
Rated AC Output Power(W)	5000		6000	
Max.AC Output Power(VA)	5000		6000	
Max.AC Output Current(A)	22.8		27.3	
Rated AC Voltage (Vac)	L/N/PE,220/230/240			
AC Voltage Range (Vac)	154-276			
Rated Grid Frequency(Hz)	50/60			
Grid Frequency Range(Hz)	45-55/55-65			
Total Harmonic Distortion(Rated Power)(%)	<3			
Power Factor At Rated Power	>0.99			
Adjustable Power Factor	adj.0.8 leading to 0.8 lagging			
Integrated	Anti-islanding Protection			
Backup Output (off-Grid Mode)				
Rated output power	5000W/5000VA		6000W/6000VA	
Peak output power	8400VA,10s			
Switch time to emergency mode(ms)	≤10			
Rated voltage(Vac)	L/N/PE,220/230/240(±2%)			
Rated Frequency(Hz)	50/60(±0.5%)			
Total harmonic distortion (THDv, rated power, linear load)(%)	≤2			
Battery Data				
Battery model	TG-ESS-9HV-S1	TG-ESS-9HV-S2	TG-ESS-9HV-S1	TG-ESS-9HV-S2
Rated Voltage (Vdc)	192	384	192	384
Cell combination	60S1P	120S1P	60S1P	120S1P
Rated Capacity(Ah)	50			
Energy Storage (kWh)	9.6	19.2	9.6	19.2
Cycle life	25±2°C,0.5C/0.5C,EOL70%≥6000			
Max.Charge/Discharge current(A)	30/30			
Expansion				
Supports up to 4 battery clusters in parallel				
Discharge Cut-off Voltage(Vdc)	162	324	162	324
Charge Cut-off Voltage (Vdc)	219	438	219	438
Environment				
Charge Temperature Range	0°C-55°C@60±25%Relative Humidity			
Discharge Temperature Range	-20°C-55°C@60±25%Relative Humidity			
Storage Temperature	-20°C-50°C@60±25%Relative Humidity			
Mechanical				
IP Class	IP65			
Material System	LiFePO4			
Case Material	Metal			
Case Type	All In One Stack			
Product Dimension L*W*H(mm)	800*188*1422	800*188*1943	800*188*1422	800*188*1943
Package Dimension L*W*H(mm)	Battery outer packaging L920*W310*H750 Inverter outer packaging L915*W600*H305 Main control box outer packaging L890*W275*H380			
Net Weight	Inverter box:48kg /Battery box:101kg /Main control box and base:16.5kg			
Gross Weight	Inverter box:53kg /Battery box:112kg /Main control box and base:20kg			
Communication(Optional)	RS485/CAN/WLAM Optional			
Certificates	EN,IEC,UN38.3,MSDS,CE			