

TH-B Series Hybrid Inverter

ESS-TH15/20/25K



Key Features:

- Supports DC couple and AC couple to upgrade existing photovoltaic plants into energy storage systems.
- 6 time periods for battery charging/discharging; 4ms rapid switching to ensure critical loads remain powered without interruption.
- Max. 10pcs parallel for on-grid and off -grid operation.
- 100% unbalanced output, each phase; Max. output up to 50% rated power.
- Slash Your Energy Bill
 Smart Peak Shaving and Optimal Charging Schedules.

- Smart Load/AC Couple Applications Intelligently customizable for multi-scenario solutions; the critical load output interface can accommodate the connection of all electrical devices.
- Supports a battery voltage range of 160-700V. The 25KW inverter supports a maximum charging/discharging current of 50A, offering greater charging/discharging power and higher conversion efficiency.

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Specifications

Model	ESS-TH15K	ESS-TH20K	ESS-TH25K
Battery input parameter			
Battery Type		Lithium-ion	
Battery Voltage Range (V)		160-700	
Max. Charging/Discharging Current(A)	37/37	37/37	50/50
Max. Charging/Discharging Power(KW)	15/15	20/20	25/25
PV String Input Data	,		
Max. DC Input Power(Wp)	19500	26000	32500
Max. DC Input Voltage (V)		1000	
Rated DC Input Voltage (V)		600	
Start-up Voltage (V)		180	
MPPT Voltage Range (V)		150-850	
No.of Mpp trackers		2	
No.of Strings per MPP Tracker	2+1	2+2	2+2
Max. PV Input Current (A)	26+20	26+26	26+26
Max. Short-Circuit Current (A)	39+30	39+39	39+39
Grid-connected Output Data			
Rated AC Output and UPS Power (W)	15000	20000	25000
Max. AC Output Apparent Power (VA)	165000	22000	27500
Rated Output Voltage and Frequency		3L/N/PE 220/380Vac, 230/400Vac; 50/60Hz	
Rated AC Output Current (A)	22.8/21.8	30.4/29.0	37.9/36.3
Max. AC Output Current (A)	25.0/24.0	33.4/31.9	41.7/39.9
Max. Three-phase Unbalanced Output Curr	ent (A) 30	35	41.7
Max. Continuous AC Passthrough (A)	80	80	80
Power Factor	•1	0.8 leading to 0.8 lagging	
Total Current Harmonic Distortion (THD	1)	<3%	
Off-grid Output Data			
Rated AC Output Power(VA)	15000	20000	25000
Max. AC Output Apparent Power (VA) Max. AC Output Current(A)	16500	22000	27500
Rated AC Output Voltage and Frequency	25.0/24.0	33.4/31.9 3L/N/PE 220/380Vac, 230/400Vac; 50/60Hz	41.7/39.9
Peak Power (off-grid)		1.5 times of rated power, 10 sec	
Off-grid Switching Time		<4ms	
Efficiency			
Max. Efficiency		97.60%	
European Efficiency		97%	
MPPT Efficiency		>99.90%	
General Data		× 33.3070	
Weight (kg)		30.5	
Operating Temperature Range		-40 °C ~+60°C	
Dimensions (W×H×D mm)		408*638*237	
Type of Cooling		Smart cooling	
Permissible Operating Altitude (m)		2000	
IP Level		IP65	
Communication		WIFI/RS485/CAN	
Display		LED/APP	
Certification Standard	VDF-AR-4105 JFC61727	7, IEC62116, VDE0126, AS4777.2, CEI0-21,EN50549-	1 G98 G99
Certification Standard	VDL-AN-4103, ILC01121	, iECOZIIO, VDEOIZO, ASTITIZ, CEIO-ZI, ENSUS49-	1,000,000

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