

Hybrid Solar

Inverter



TESSON ENERGY TE-HB series hybrid inverters are designed to integrate solar, battery, and grid power seamlessly for residential and commercial applications. They support both on-grid and off-grid functionality with advanced energy management and smart protection features.

Model	TE-HB1KW	TE-HB2KW	TE-HB3KW	TE-HB5KW	TE-HB8KW	TE-HB10KW
Hybrid Inverter Output (AC)						
Rated Output Power	1 kW	2 kW	3 kW	5 kW	8 kW	10 kW
Output AC Voltage	230V (1-Φ) / 400V (3-Φ)					
Output Waveform	Pure Sine Wave					
Output Frequency	50Hz ± 0.1Hz					
Powe Factor	0.9					
Efficiency	>92%	>93%	>93%	>95%	>96%	>96%
PV Input						
Max PV Input Power	1.3 kW	2.6 kW	3.9 kW	6.5 kW	10.4 kW	13 kW
MPPT Voltage Range	30Vdc - 450Vdc					
No. of MPPTs	1	1	1	1	2	2
Battery Input						
Battery Voltage	12Vdc/ 24Vdc/ 48Vdc					
Battery Type	Lithium/ Custom Battery					
Max Charging Current (Solar)	30A-120A (Programmable)					
Max Charging Current	20A-80A (Programmable)					
AC Grid Input						
Grid Voltage Range	170V – 270V (1Φ) / 320V – 480V (3Φ)					
Input Frequency	45–65Hz					
Bypass Mode	Auto / Manual					
Hybrid Inverter Features						
Protection Features	Overvoltage Protection/ Undervoltage Protection/ Overload Protection/ Overcurrent Protection/ Short Circuit Protection/ Temperature Protection					
Transfer Time	10ms (Typical value)					
Communication	RS485/ Mobile App (Optional)					
Display	LCD + LED					
Cooling	Cooling Fan in Intelligent control					
Environmental Parameters						
Enclosure Rating	IP20					
Operating Temperature	-10°C to 55°C					
Storage Temperature	15°C to 55°C					
Relative Humidity	0–95%					
Altitude	≤2000m					
Certifications	CE/ IEC/ RoHS/ BIS					
Warranty	3 or 5 Years* As Per Industry Norms					
*Specifications are subject to change without prior notice.						
*Voltage & powe requirements can be customized according to the actual situation of users.						

