

TSUN Hybrid Inverter (NA)



TSOL-H5.0K/8.0K-US



High-yield

- Real time precise MPPT algorithm for max power generation.
- Wide input voltage operation range.
- High battery voltage, higher efficiency.

Reliable and Safe

- High efficiency, less maintenance.
- High frequency isolation between battery & PV/grid.
- Advanced battery management technology for better battery performance.

Easier Operation

- Flexible installation site selection due to NEMA 4X.
- 4"LCD clear, easy-to-read display.
- Easy monitoring by mobile phone (APP) & PC (web).

Intelligent

- Reactive power capability.
- Limits AC output when grid frequency/voltage is too high or too low.
- Built-in anti-reflex function .

UL1741

IEEE1547

CSA-C22.2

UL1998

UL1699B

FCC part15 Class B



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Technical Data

Model	TSOL-H5.0K-US	TSOL-H8.0K-US
PV Input Data (DC)		
Max DC Input Power(W)	6000	10000
Max DC input Voltage(V)	550	600
MPPT Voltage Range(V)	100-500	50-550
Setup Voltage (V)	70	60
Max DC Input Current(A)	12*2	13.5*3
No. of MPPTs	2	3
Grid Output Data (AC)		
Normal AC Output Power (VA)	5000	8000
Normal AC Output Current (A)	20.8	33.5
Max AC Output Current (A)	25	33.5
AC Frequency (Hz)		60
Power Factor	0.9i - 0.9c	0.9i - 0.9c
THD (Current)		<3%
Battery Data (DC)		
Rated Battery Voltage (V)	48	300
Battery Voltage Range(V)	38 - 60	80 - 495
Max Charge/Discharge Current(A)	80 / 100	30 / 30
Max Discharge/Charge Power (W)	4200 / 5000	10000 / 10000
Charge Curve		3 stages
Battery Types		Li-ion / Lead-acid
Back-up Output Data (AC)		
EPS Normal Output Power(VA)	5000	8000
EPS Normal Output Voltage (V)		120/240v Split phase
EPS Normal Output Frequency (Hz)		60
EPS Normal Output Current(A)	20.8	33.5A
Peak Output Power (VA)	5500,60s	9600,60s
THD (Voltage)		<3%
Switching Time (S)		<0.01
Efficiency		
CEC Efficiency	97%	97.5%
Max Efficiency	97.60%	97.9%
Battery charge & discharge efficiency	94.3% / 94%	94.5% / 94.5%
Protect Data		
Reverse Polarity Protection		✓
DC disconnect device		✓
Over Current/Voltage Protection		✓
Anti-islanding Protection		✓
AC Short-circuit Protection		✓
Leakage Current Detection		✓
Ground Fault Monitoring		✓
Grid Monitoring		✓
Insulation resistor detection		✓
General Data		
Enclosure Protect Level		NEMA4X
Dimensions [W/H/D] (mm)	445*630*215	450*650* 210
Weight (kg)	26	30
Topology		Transformerless(Solar) / High Frequency Isolation (Battery)
Cooling Concept		Natural Convection
Relatively Humidity		0-95%, Non condensing
Operating Temperature Range (°C)		-25~60
Operating Altitude (m)	< 2000	< 4000
Noise Emission (dB)	< 25	< 25
Display & Communication Interfaces	"LCD, LED, Meter (RS485), Battery (CAN)"	"LCD, LED, Meter (RS485), Battery (CAN), Parallel Output(RS485)"