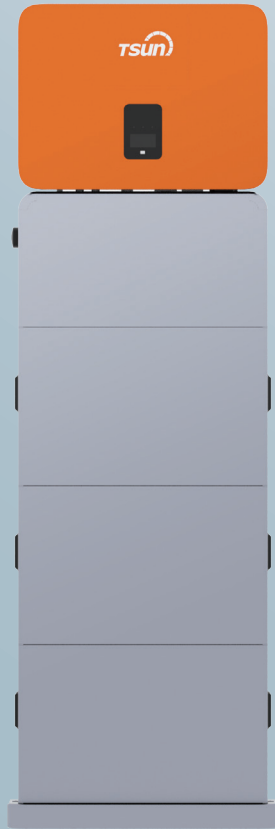


# TSUN Hybrid Storage Unit Single Phase



## TSOL-HSU3.0K/3.6K/4.0K/4.6K/5.0K/6.0K



### Flexibility

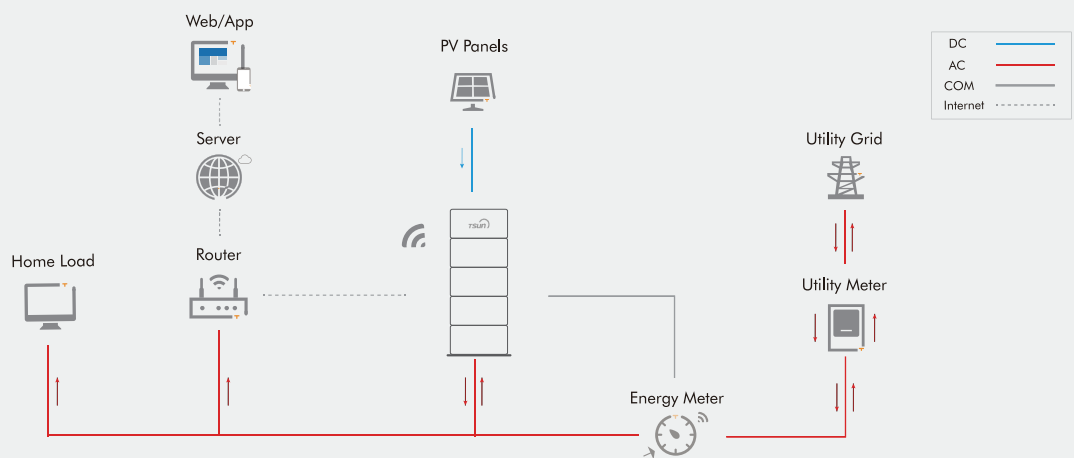
- ▣ Intergrated design with battery, extendable batteries optional.
- ▣ Multi operating modes optional.

### Reliability

- ▣ IP65, suitable for indoor & outdoor usage.
- ▣ Natural convection, no air fans.
- ▣ High-frequency isolation between battery and inverter, much safer.
- ▣ Intelligent battery management system, longer life time.

### Usability

- ▣ Higher charge & discharge efficiency.
- ▣ Multi monitoring modes optional.
- ▣ Emergency power supply.
- ▣ Precise reverse flow prevention, adjustable self-consumption ratio.



CE VDE 0126 VDE 4105 CEI 0-21 G98 G99 AS4777 IEC/EN 62477



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# Technical Data

Model	TSOL-HSU3.0K	TSOL-HSU3.6K	TSOL-HSU4.0K	TSOL-HSU4.6K	TSOL-HSU5.0K	TSOL-HSU6.0K
<b>DC Input</b>						
Max.PV Array Power[Wp]@STC	4800	5760	6720	7360	8000	9600
Max. DC Input Voltage [V]				600		
MPPT Voltage Range [V]				100-550		
Start Voltage [V]				80		
Max. DC Input Current[A]	15				15/15	
Max. DC Short Circuit Current[A]	20				20/20	
Number of MPPT	1				2	
No. of Strings per MPPT	1				1/1	
<b>Battery Data</b>						
Battery Type						LiFePO4
Battery Capacity per Kit [kWh]						5.12
Battery Voltage per Kit [V]						102.4
Max. Battery Quantities per System						3 (Up to 15.36 kWh)
Max. Charging Power [W]	3000	3600	4200	4600	5000	6000
Max. Charging/ Discharging Current [A]						30/30
<b>AC Input &amp; Output [On-grid]</b>						
Rated Output Power[W]	3000	3680	4200	4600	5000	6000
Max. Output Power [VA]	3300	3960	4600	4600	5500	6600
Max. Output Current [A]	15	18	21	21	25	28.7
Max. Input Apparent Power[VA]*	6000	7200	8400	9200	10000	12000
Rated Output Voltage [V]						220 / 230 / 240, L/ N/ PE
Rated Grid Frequency [Hz]						50/60
Power Factor [cos φ]						0.8 leading~0.8 lagging
Total Harmonic Distortion [THDi]						<3%
<b>AC Output [Back-up Mode]</b>						
Rated Output Power [W]	3000	3600	4200	4600	5000	6000
Max. Output Current [A]	15	18	21	21	25	28.7
Rated Output Voltage [V]						220 / 230 / 240, L/ N/ PE
Rated Output Frequency [Hz]						50/60
Total Harmonic Distortion of Voltage						<3%
Switch Time [ms]						<10
Peak Output Apparent Power [VA]**	3900VA, 60sec	4700VA, 60sec	5500VA, 60sec	6000VA, 60sec	6500VA, 60sec	7800VA, 60sec
<b>Efficiency</b>						
Max. Efficiency						97.6%
Euro Efficiency						97%
MPPT Efficiency						>99.9%
Max. Battery Charging/ Discharging Efficiency						96.6% / 96.6%
<b>Protection</b>						
DC Switch						Integrated
DC Reverse Polarity Protection						Integrated
AC Short Circuit Protection						Integrated
Overload Protection						Integrated
Insulation Resistance Protection						Integrated
DC Overvoltage/Undervoltage Protection						Integrated
Surge Protection						Integrated
Residual Current Protection						Integrated
AC Overvoltage/Undervoltage Protection						Integrated
AC Overfrequency/Underfrequency Protection						Integrated
Over Temperature Protection						Integrated
Anti-islanding protection						Integrated
<b>Interface</b>						
PV Connection Type						MC4 Compatible
Battery Connection Type						Quick Connector
AC Connection Type						Terminal
Display						LED+OLED
Communication port						CAN *2/ RS485 *2
Communication						Wi-Fi / 4G(Optional)
<b>General Data</b>						
Topology						Transformerless
Over Voltage Category						PV : II ; Main : III
Ingress Protection						IP65
Operating Temperature Range						-30 ~ +60°C
Ambient Humidity						0~100%
Altitude						4000m(>3000m power derating)
Noise[dBA]						<25
Cooling method						Natural Convection

\*Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.

\*\*The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is relating to the overload power.