

# Hybrid Microinverter

TSOL-MH2000



Hybrid Microinverter is one key components of the plug and play storage system which designed for end-users.

Hybrid Microinverter, which is connected between solar modules and battery, can charge excess electrical energy into the battery and release it when needed.



Zero Export



Time-of-use Control



Bidirectional Inverter Technology



Parallel Output for Single/Three-phase Grids



Dynamic Tariff Applicable



Compatible with Various Types of Batteries



Supports Black Start via PV or Grid



Power Bypass Mode (PV-first supply)

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# Technical Data

<b>Model</b>	<b>TSOL-MH2000</b>
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## PV Input(PV)

Recommended Module Power (Wp)	400 ~ 700+
Quantity of PV Module	1 ~ 4
Start up Voltage @Rated condition (V)	22
Operating Voltage Range per Input (V)	16 ~ 60
Max. Input Voltage per Input (V)	60
Short Circuit Current per Input (A)	25
Max. Input Current per Input (A)	18
Quantity of MPPTs	4
Quantity of DC Inputs (MC4)	4

## Battery Port (DC)

Nominal Voltage (V)	51.2
Operating Voltage Range (V)	43.2 ~ 58.4
Max. Discharge Power (W)	2000
Max. Discharge Current (A)	50
Max. Charge Power (W)	2000
Max. Charge Current (A)	50
Max. System Capacity (kWh)	

## AC Port (On-grid)

Max AC Output Power (W)	800 <sup>III</sup> / 2000
Max. AC Output Current (A)	10 or 4
Max. AC Input Power (W)	2000
Max. AC Input Current (A)	11
Nominal AC Voltage (V)	220 / 230 / 240, L / N / PE
Nominal AC Frequency (Hz)	50 / 60
Power Factor	> 0.99 default 0.8 leading ... 0.8 lagging
THDI	≤ 3 % @100 % Load

## AC Port (Off-grid)

Max. AC Output Power (W)	2000
Max. AC Output Current (A)	10
Nominal AC Voltage (V)	220 / 230 / 240, L / N / PE
Nominal AC Frequency (Hz)	50 / 60
Switch Time (ms)	< 10
Peak Output Apparent Power (VA)	150 % 2 s

## Efficiency

Peak Inverter Efficiency	97.0 %
EU Efficiency	96.7 %
MPPT Efficiency	99.9 %
Battery Charge / Discharge Efficiency	95 % / 95 %

# Technical Data

Model	TSOL-MH2000
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## Mechanical Data

Dimensions (Wx H x D mm)	360 x 320 x 51
Weight (kg)	8

## General Data

Communication	WiFi (Bluetooth) + 2 × RS485
Ingress Protection	IP65
Cooling	Natural Convection
Operating Ambient Temperature Range	-40 °C ~ 65 °C
Relative Humidity	0 ~ 95 %, Non condensing
Max. Operating Altitude Without Derating (m)	2000

Model	TSOL-DB2000Lite	TSOL-B2000Lite	TSOL-B4000Lite
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## Battery Specifications

Battery Type		LiFePO <sub>4</sub>	
Battery Capacity (Wh)	2010	2010	4020
Cell Type		314 Ah	
Life Cycle		10,000 <sup>[2]</sup>	
Nominal Voltage (V)		51.2	
Operating Voltage Range (V)	43.2 – 57.6	43.2 - 58.4	
Nominal Discharge Power (W)	800	2000	
Max. Discharge Current (A)	25	45	

## Mechanical Data

Dimensions (W×H×D mm)	380 x 203.7 x 180	455 x 236 x 280	583 x 333 x 375
Weight (kg)	20	17.6	35

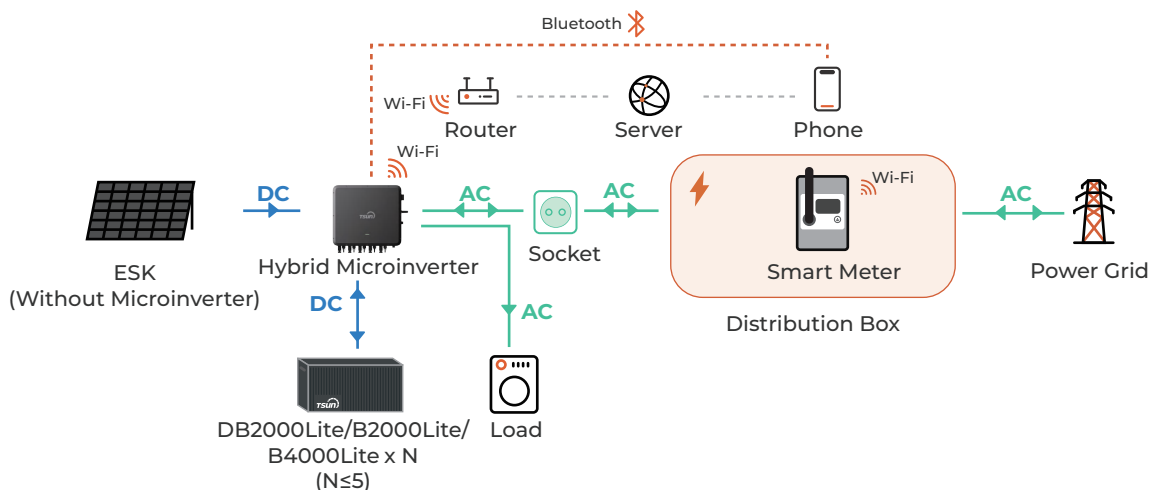
## General Data

Ingress Protection	IP65
Cooling	Natural Convection
Operating Temperature Range	-20 – 55 °C
Relative Humidity	0 – 95 %, Non Condensing
Max. Operating Altitude Without Derating (m)	2000

[1]According to the legal requirements of certain countries, output load limits are implemented to 800W.

[2]Designed for a lifespan of 10,000 cycles at 25 °C ambient temperature.

## Diagram



MORE SAFETY MORE POWER

