

# 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.



Charge Battery from Module and Grid



Compatible with Various Types of Batteries



-20°C ~ +60°C Working Temperature



Built-in WiFi, Bluetooth APP Remote Monitoring



Zero Export (optional)



TSUNESS Co.,Ltd

sales@tsun-ess.com www.tsun-ess.com +86-512-66186028



### Input [DC]

#### MH2000

Recommended Module Power [Wp]	300 ~ 700+
Start up Voltage [V]	22
MPPT Voltage Range per Input [V]	16~59
Nominal DC Voltage [V]	42
Input Voltage per Input [V]	59 Max.
Short Circuit Current [A]	25
Input Current per Input [A]	16 Max.
Quantity of MPPTs	4
Number of Inputs per MPPT	1
PV Port	MC4

### Battery [DC]

Operating Power [W]	2000 Max.
Operating Current [A]	35 Max.
Operating Voltage [V]	16~59 (LFP,VRLA etc...)
Max. Input Voltage per Input [V]	59
Quantity of DC Port	2
DC Port	MC4 Compatible
Communication mode	RS485
Discharge Power [W]	2000 Max.
Battery Nominal Voltage [V]	24/36/48/51.2 etc.
Charge/Discharge Current [A]	35 Max.

### Efficiency

MPPT Efficiency	99.8%
Peak Inverter Efficiency	96.7%
Charge/Discharge Efficiency	98%

### Output [AC]

Output Voltage/Range [V]	220/230/240
Nominal Frequency [Hz]	50
Output Power Factor	±0.8 ~ 1
Output Power [W]	2000 Max.
Output Current [A]	10 Max.
THDI	≤3%@100% Load

### Mechanical Data

Dimension [W×H×D mm]	360 * 320 *51
Weight [kg]	8

### General Data

Display	LED
Waterproof class	IP67
Cooling	Natural convection
Wireless type	Wi-Fi/Bluetooth & RS485
Operating Temperature Range [°C]	-40 ~ +65
Relative Humidity	0-95%, No condensing
Operating Altitude Without Derating [m]	2000

# Hybrid Microinverter

TSOL-MH2000



Hybrid Storage Unit (HSU) is one key components of the plug and play storage system which designed for end-users.

HSU can store excess electrical energy in the battery and release it when needed.



Zero Export



All-in-one Unit



Charge Battery from Module and Grid



-20°C ~ +60°C  
Working Temperature



Built-in WiFi, Bluetooth  
APP Remote Monitoring

**TSUNESS Co.,Ltd**

sales@tsun-ess.com www.tsun-ess.com +86-512-66186028





Input [DC]	HSU1000	HSU2000
Recommended Module Powe [Wp]		300 ~ 700+
Start up Voltage [V]		22
MPPT Voltage Range per Input [V]		16~60
Nominal DC voltage [V]		42
Input Voltage per Input [V]		59 Max.
Short-current [A]		25
Input Current per Input [A]		16 Max.
Quantity of MPPTs	2	4
Number of Inputs per MPPT		1
PV Port		MC4

Battery [DC]	HSU1000	HSU2000
Operating Power [W]	1000 Max.	2000 Max.
Operating Current [A]	35 Max.	45 Max.
Battery cell Capacity		42AH (2.15kwh)
Battery Nominal Voltage [V]		51.2
Communication mode		RS485
Battery Pack		2P16S
Charge/Discharge Current [A]		0.5C(21A)

Efficiency	HSU1000	HSU2000
MPPT efficiency		99.8%
Peak Inverter Efficiency		96.7%
Charge/Discharge Efficiency		98%

Output [AC]	HSU1000	HSU2000
Output Voltage/Range [V]		220/230/240
Nominal Frequency [Hz]		50/60
Output Power Factor		-0.8 ~ 0.8
On-Grid Output Power [W]	1000 Max.	2000 Max.
Off-Grid Output Power [W]	1000 Max.	2000 Max.
Output Current [A]	5 Max.	10 Max.
THDI		≤3%@100% Load

Mechanical Data	HSU1000	HSU2000
Dimension [W×H×D mm]	430 * 310 * 336 (HSU)	430 * 310 * 180 (Battery Pack)
Weight [kg]	30 (HSU)	18 (Battery Pack)

General Data	HSU1000	HSU2000
Display		LED
Waterproof class		IP67
Cooling		Natural convection
Wireless type		Wi-Fi/Bluetooth & RS485
Operating Temperature Range [°C]		-20 ~ +60
Relative Humidity		0~95%, No condensing
Operating Altitude Without Derating [m]		2000