

Micro Hybrid Storage Unit
(1kW/2kW | 2kWh-10kWh)



Highlight



Zero Export



All-in-one Unit



Charge Battery from
Module and Grid



-20°C ~ +55°C
Working Temperature



Built-in WiFi, Bluetooth
APP Remote Monitoring

PV Input (PV)	TSOL-MSU2000	TSOL-MSU2000DE	TSOL-MSU1000	TSOL-MSU1000DE
Recommended Module Power [Wp]	300 ~ 700+	300 ~ 700+	300 ~ 700+	300 ~ 700+
Quantity of PV Module	1 to 4	1 to 4	1 to 2	1 to 2
Start up Voltage @Rated condition [V]	22	22	22	22
Operating Voltage Range per Input [V]	16~60	16~60	16~60	16~60
Max. Input Voltage per Input [V]	60	60	60	60
Short Circuit Current per Input [A]	25	25	25	25
Max. Input Current per Input [A]	18	18	18	18
Quantity of MPPTs	4	4	2	2
Quantity of DC Inputs [MC4]	4	4	2	2

Battery (DC)				
Battery Capacity (Wh)		2048		
Battery Type		LiFePO4		
Nominal Voltage (V)		51.2		
Operating Voltage Range (V)		43.2 - 58.4		
Max. Discharge Power (W)	2000	2000	1000	1000
Max. Discharge Current (A)	45	45	25	25
Max. Charge Power (W)	2000	2000	1000	1000
Max. Charge Current (A)	40	40	20	20
Max. System Capacity (kWh)		10.24 (1 MSU + 4 Stakebale Battery)		

AC Port (On-grid)				
Max AC Output Power (W)	2000	800	1000	800
Max. AC Output Current (A)	10	4	5	4
Max. AC Input Power (W)	2000	2000	1000	1000
Max. AC Input Current (A)	11	11	5.5	5.5
Max. AC Input Current (A)		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	2000	1000	1000
Max. AC Output Current (A)	10	10	5	5
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]		200% 2s		

Efficiency				
Peak Inverter Efficiency		97.0%		
EU Efficiency		96.7%		
MPPT Efficiency		99.9%		
Battery Charge/Discharge Efficiency		95%/95%		
Consumption (Without Load)		< 25W		
Self-consumption (Device Shutdown)		< 1W		

Mechanical Data				
Dimensions (W×H×D mm)		455×320×280(MSU) / 455x242x280(B2000)		
Weight [kg]		29(MSU)/19(B2000)		

General Data				
Communication		WiFi (Bluetooth) + 2 * RS485		
Ingress Protecction		IP65		
Cooling		Natural convection		
Operating Ambient Temperature Range		-20 ~ +55 °C		
Relative Humidity		0-95%, Non condensing		
Max. Operating Altitude Without Derating [m]		2000		