

- MAX 97.6% EFFICIENCY
- IP65 PROTECTION

MHSI-02HP1-3~8KW

Single Phase | 2 MPPTs | Hybrid inverter (HV)



Max. efficiency up to 97.6%



With AC output ranging from 3kW to 8kW



Powerful load adaptability, support multiple loads stable access



Fast and easy data checking and commissioning via App or OLED display



Wide battery voltage range allows more battery modules connection and increases self consumption rate.



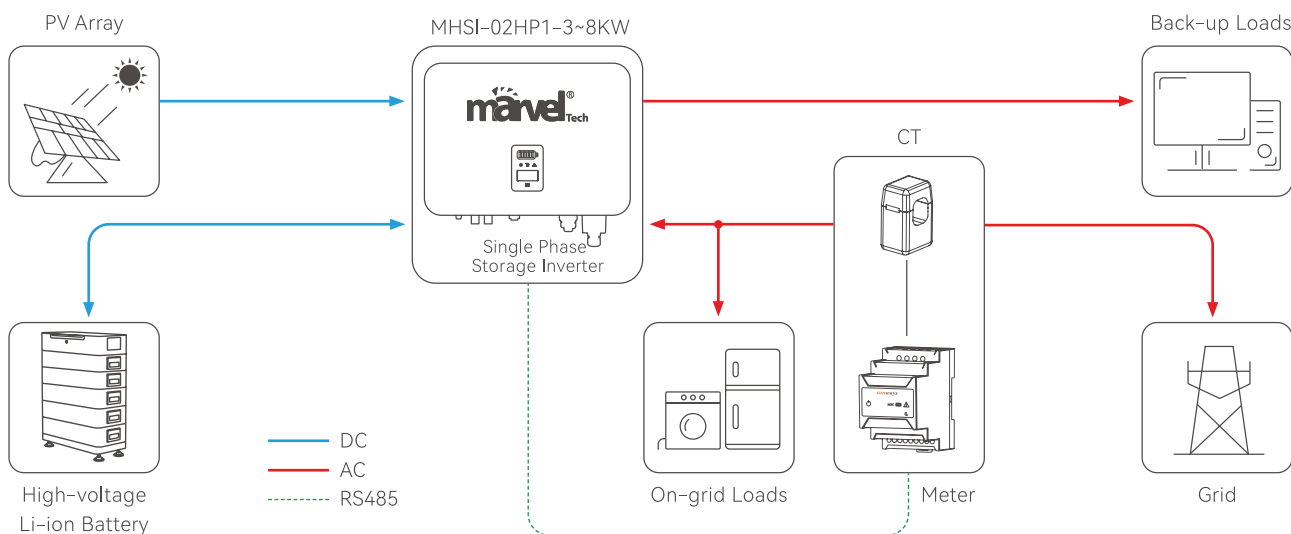
Fast charging/discharging of up to 30A to meet the demand of higher consumption and energy trading.



Up to 18A maximum PV input current allows most higher current PV panels connection and lowers the system LCOE.



Uninterruptible power supply, switch to off-grid mode within 10ms



Model	MHSI-3K-02HP1	MHSI-3.6K-02HP1	MHSI-4.2K-02HP1	MHSI-4.6K-02HP1	MHSI-5K-02HP1	MHSI-6K-02HP1	MHSI-7K-02HP1	MHSI-8K-02HP1
PV Input								
Max. Input Power (W)	4,800	5,760	6,720	7,360	8,000	9,600	11,200	12,800
Start-up Voltage (V)	80	80	80	80	80	80	80	80
Max. DC Input Voltage (V)	600	600	600	600	600	600	600	600
Rated DC Input Voltage (V)	360	360	360	360	360	360	360	360
MPPT Voltage Range (V)	100-550	100-550	100-550	100-550	100-550	100-550	100-550	100-550
Number of MPP Trackers	1	1	2	2	2	2	2	2
Number of DC Inputs per MPPT	1	1	1	1	1	1	1	1
Max. Input Current (A)	18	18	18	18	18	18	18	18
Max. Short-circuit Current (A)	20	20	20/20	20/20	20/20	20/20	20/20	20/20

Battery								
Battery Type	Lithium Battery (with BMS)							
Battery Communication Mode	CAN / RS485							
Battery Voltage Range (V)	85-500							
Max. Charge/Discharge Current (A)	30/30							
Rated Current of Built-in Fuse (A)	63							

Output(Grid)								
Rated Output Power (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000
Max. Output Power (W)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
Max. Apparent Power (VA)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
Max. Input Apparent Power (VA)	6,000 ^①	7,200 ^①	8,400 ^①	9,200 ^①	10,000 ^①	12,000 ^①	12,000 ^①	12,000 ^①
Max. Charging Power of Battery (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000
Rated Output Voltage (V)	L/N/PE, 220/230/240V							
Rated AC Frequency (Hz)	50/60							
Max. Output Current (A)	15	18	21	21	25/21.7	28.7	35	36.3
Power Factor	0.8 leading ...0.8 lagging							
Max. Total Harmonic Distortion	<3% @Rated Output Power							
DCI	<0.5%In							

Output(Back-up)								
Rated Output Power (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000
Max. Output Power (W)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
Back-up output rated apparent power (VA)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000
Max. Apparent Power (VA)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
Max. Output Current (A)	15	18	21	21	25/21.7	28.7	35	36.3
UPS switching time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
Rated Output Voltage (V)	L/N/PE, 220/230/240							
Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Peak output apparent power (VA)	3,900 ^② , 60s	4,700 ^② , 60s	5,500 ^② , 60s	6,000 ^② , 60s	6,500 ^② , 60s	7,800 ^② , 60s	9,100 ^② , 60s	10,000 ^② , 60s
Voltage harmonic distortion	<3% @Linear load							

Efficiency								
Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
European Efficiency	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%
Max. Battery Charging Conversion Efficiency	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%
Max. Battery Discharge Conversion Efficiency	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%

Protection	
DC Reverse Polarity Protection	Integrated
Battery Input Reverse Connection Protection	Integrated
Insulation Resistance Protection	Integrated
DC Switch	Integrated
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Anti-islanding Protection	Frequency Shift, Integrated
AC Over-voltage Protection	Integrated
Overload Protection	Integrated
AC Short-circuit Protection	Integrated

General Data	
Over Voltage Category	PV : II; Main : III
Dimensions (mm)	550W*410H*175D
Weight (kg)	26
Protection Degree	IP65
Self-consumption at Night (W)	< 15
Topology	Transformer less
Operating Temperature Range (°C)	-30~60
Relative Humidity (%)	0~100
Operating Altitude (m)	4000 (derating@ > 3000)
Cooling	Natural Convection
Noise Level (dB)	< 25
Display	OLED & LED
Communication	WiFi

Compliance	
IEC62109, EN61000, C10/C11, VDE 4105, UNE217001, UNE217002, RD647, RD1699, CEI021, G99, EN62477, NRS097-2-1, EN50549, NRS097-2-1, UE2016/631, TOR Erzeuger Type A, OVE-Richtlinie R 25	

- ① 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.
 ② 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.