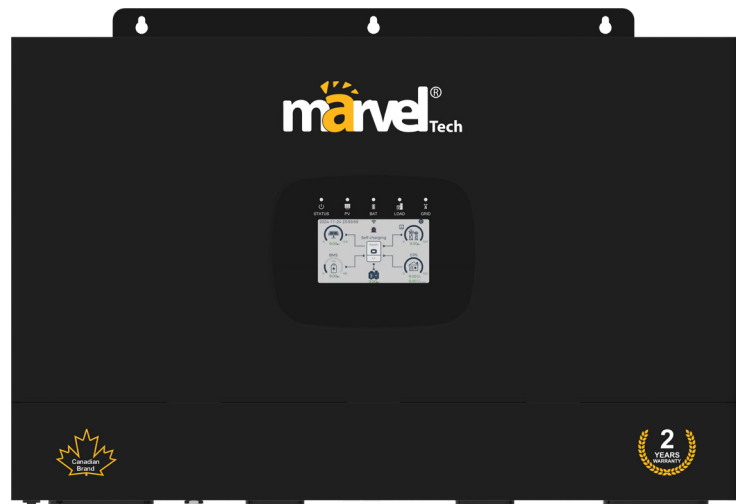




MHFI-1248-AG3

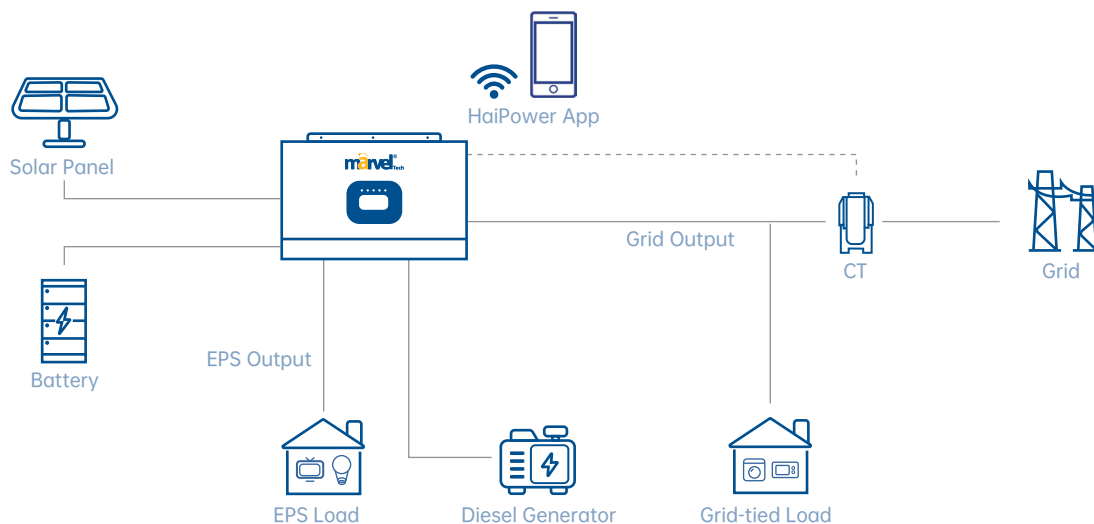
Features

- PV Oversizing**
Support up to 200% oversizing ratio
- Exceptional Load-carrying Capability**
Battery discharge current up to 280A,
support higher loads powered by battery only
- Parallel Connection**
Support parallel connection up to 9 units
- Powerful Instant Overload Capacity**
Support 2 times the rated power for 5
seconds in off-grid mode
- Seamless Switchover**
UPS-level switching time $\leq 4\text{ms}$
- High-Temperature Adaptability**
Allow full-power output under
high-temperature conditions



- Touch Screen**
4.3" 800x480 interactive display
- Flexible Connection**
 - GEN port for generator input
 - Dual AC outputs for smart load management

Energy Storage Solution



Specifications

Model

MHFI-1248-AG3

Solar Input Data

Recommended Max. PV Array Size	24000W
Max. PV Input Power	18000W
Max. Input Voltage	500V
Start-up Voltage	90V
MPPT Voltage Range	90~450V
Max. Input Current per MPPT	30+30A
Max. Short Circuit Current per MPPT	44+44A
Number of MPPT	2
Number of Strings per MPPT	2

Battery Data

Battery Type	Li-Ion / Lead-acid
Nominal Battery Voltage	48V
Battery Voltage Range	40~60V
Max. Discharge Current	280A
Max. Charge / Discharge Power	12000W
Li-Ion Battery Activation	Yes
Li-Ion Battery Communication	CAN / RS485
Max. Solar Charge Current	250A
Max. AC Charge Current	210A
Max. Charge Current (PV+AC)	250A

AC Input Data (Grid / GEN)

Nominal Input Voltage	230Vac, L / N / PE
Input Voltage Range	90-280(APL) / 170-265(UPS)
Max. AC Current From Utility Grid	70A
Max. Apparent Power from Utility Grid	12000VA
Max AC Current From Generator	60A
Max. Apparent Power From Generator	12000VA
AC Frequency Range	50 / 60Hz (Auto sensing)

Inverter Output Data

Nominal Output Power	12000W
Peak Apparent AC Power	24000VA
Nominal AC Voltage	230Vac
Nominal Grid Frequency	50 / 60Hz
Voltage Waveform	Pure Sine wave
Transfer Time	4ms
Max. Output Current	52.2A
Overload Protection	30s@102%-110% load; 10s@110%-130% load; 5s@130%-200% load

THDv (@linear load)	<5%
---------------------	-----

Efficiency

Peak Efficiency	94%
MPPT Efficiency	>99.9%

Protection

PV Reverse Polarity Protection	yes
AC Short-circuit Current Protection	yes
Grid Monitoring	yes
Over-current Protection	yes
Over-voltage Protection	yes
AC Surge Protection	yes
DC Surge Protection	yes

System Parameters

Dimension (W*H*D)	625*400*120mm
Weight	17.9kg
Relative Humidity	5%~95% (Non-condensing)
Operating Temperature Range	-10°C~60°C
Noise Emission	≤50dB
Altitude	2000m
Cooling Method	Fan Cooling
Ingress Protection	IP21

Characteristic

Number of AC Output	2
Display	LCD & APP
Communication Interface	RS485 / USB / CAN / Wi-Fi (built-in) / Dry-Contact
Parallel Capability	9