

10-20kW Hybrid Inverter

MHT-10/12/15/20K-40

98.4%

Max. Efficiency

40A

Charge/Discharge

110%

Unbalanced Output

10ms

UPS-level Switch

Commercial

Three-Phase

HV Battery

2 MPPTs



Maximized Energy Harvesting

- 110% unbalanced output enhances self-consumption
- 40A charging/discharging for efficient energy transfer
- Continuous 110% AC overloading sustains power
- 10ms UPS-level switch secures supply



Engineered for Versatility

- Wide 135-750V range fits diverse batteries
- 200% max backup @60s handles overloads
- IP65 protects both indoors and outdoors



Simplified Interaction

- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control



Intelligent Energy Dynamics

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency

Integ M Series

The Power Master

Model		MHT-10K-40	MHT-12K-40	MHT-15K-40	MHT-20K-40
PV Input					
Recommended Max. input power	[kW]	15.0	18.0	22.5	30.0
Start-up voltage	[V]	135	135	135	135
Max. DC input voltage*	[V]	1000*	1000*	1000*	1000*
Rated DC input voltage	[V]	620	620	620	620
Minimum operating DC voltage	[V]	200	200	200	200
MPPT voltage range*	[V]	200-950*	200-950*	200-950*	200-950*
No. of MPP trackers		2	2	2	2
No. of DC inputs per MPPT		2/2	2/2	2/2	2/2
Max. input current	[A]	30/30	30/30	30/30	30/30
Max. short-circuit current	[A]	40/40	40/40	40/40	40/40
Battery Side					
Battery type		Lithium Battery (with BMS)			
Battery voltage range	[V]	135-750			
Maximum charging/discharge current	[A]	40/40			
Grid Side					
Rated output power	[kW]	10.0	12.0	15.0	20.0
Rated output apparent power	[kVA]	10.0	12.0	15.0	20.0
Max. output apparent power	[kVA]	11.0 ¹⁾	13.2	16.5***	22.0
Max. input apparent power**	[kVA]	20.0	24.0	30.0	30.0
Max. charging power of battery	[kW]	10.0	12.0	15.0	20.0
Rated AC voltage		3L/N/PE; 220/380V;230/400V;240/415V			
Rated AC frequency	[Hz]	50/60	50/60	50/60	50/60
Rated output current	[A]	14.5	17.4	21.7	29.0
Max. output current	[A]	16.5 ²⁾	20.0	25.0***	33.5
Power factor		0.8 leading ...0.8 lagging			
Max. total harmonic distortion		<3% @Rated output power			
DCI		<0.5%In	<0.5%In	<0.5%In	<0.5%In
Back-up Side					
Rated output power	[kW]	10.0	12.0	15.0	20.0
Rated output apparent power	[kVA]	10.0	12.0	15.0	20.0
Max. output apparent power	[kVA]	11.0	13.2	16.5	22.0
Max. output current	[A]	16.5	20.0	25.0	33.5
UPS switching time		<10ms	<10ms	<10ms	<10ms
Rated output voltage		3L/N/PE; 220/380V;230/400V;240/415V			
Rated output frequency	[Hz]	50/60	50/60	50/60	50/60
Voltage harmonic distortion		<3% @Linear load			
Efficiency					
Max. efficiency		98.4%	98.4%	98.4%	98.4%
European efficiency		97.5%	97.5%	97.5%	97.5%
Protection					
DC reverse polarity protection		Integrated			
Battery input reverse connection protection		Integrated			
Insulation resistance protection		Integrated			
Surge protection		Integrated			
Over-temperature protection		Integrated			
Residual current protection		Integrated			
Islanding protection		Integrated (Frequency shift)			
AC over-voltage protection		Integrated			
Overload protection		Integrated			
AC short-circuit protection		Integrated			
Protective class		Class I			
General Data					
Over voltage category		PV: II Main: III			
Dimensions	[W×H×D mm]	534×418×210			
Weight	[KG]	28.0 (10-12kW) / 31.0 (15-20kW)			
Protection degree		IP65			
Standby self-consumption	[W]	<15			
Topology		Transformerless			
Operating Temperature Range	[°C]	-30~60			
Relative Humidity	[%]	0~100			
Operating Altitude	[m]	3000 (>3000m derating)			
Cooling		Smart fan			
Noise Level	[dB]	<40			
Display		OLED & LED			
Communication		CAN, RS485, WiFi/LAN (Optional)			
Country of manufacture		China			

* PV Max. DC Input voltage and MPPT Max. voltage is 950V without battery, or 850V with battery. The inverter will stop working when voltage between 950V (without battery) / 850V (with battery) to 1000V. The inverter will cause damage when voltage higher than 1000V;

** 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;

*** In some countries and areas, Max. Power of inverter "MHT-15K-40" can not exceed kVA via setting the "Underload" mode;

1) G98: 10.5kVA; 2) G98: 16.00A;