



# Hybrid Inverter 25-50kW

M2HT-25/29.9/30/40/50K-150

**40A**

Max. PV Input Current

**100%**

Unbalanced Output

**150A**

Max. Charge/Discharge

Commercial | Three Phase | HV Battery | 4 MPPTs



## Enhanced Power & Performance

- 150% Backup Power @10s
- <10ms Seamless On/Off-Grid Switching
- 100% Unbalanced Load Support
- Up to 200% Grid Input Power Support



## Solar & Energy Optimization

- PV Input Current Up to 20A
- 160% DC Oversizing Boosts Efficiency
- High Charging/Discharging Current
- Versatile Applications for All Scenarios



## System Integration & Flexibility

- Parallel Operation Supports Both Off-Grid and On-Grid
- Half-Wave Load Compatibility for Stable Performance
- Diesel Generator Integration Secures Reliable Backup
- Third-party EMS & BMS Compatibility



## Intelligent Control & Maintenance

- Six Built-In Operating Modes Optimize Energy Use
- Dynamic Pricing Mode Maximizes Cost Efficiency
- Remote Upgrade Ensures Fast Updates
- Precise Export Limitation Prevents Grid Backfeed



# Integ M Series

The Power Master

# Hybrid Inverter 25-50kW



Model		M2HT-25K-150	M2HT-29.9K-150	M2HT-30K-150	M2HT-40K-150	M2HT-50K-150
<b>PV Input</b>						
Start-up Voltage	[V]	210	210	210	210	210
Max. DC Input Voltage*	[V]	1000*	1000*	1000*	1000*	1000*
Rated DC Input Voltage	[V]	620	620	620	620	620
Operating Voltage Range*	[V]	200-950*	200-950*	200-950*	200-950*	200-950*
MPPT Voltage Range	[V]	200-850	200-850	200-850	265-850	330-850
No. of MPP Trackers		4	4	4	4	4
No. of PV Inputs per MPPT		2	2	2	2	2
Max. PV Input Current	[A]	40×4	40×4	40×4	40×4	40×4
Max. Short-circuit Current	[A]	50×4	50×4	50×4	50×4	50×4
<b>Battery Side</b>						
Battery Type		Lithium Battery (with BMS)				
Battery Communication Mode		CAN				
Battery Voltage Range	[V]	150-840				
Maximum Charging/Discharge Current	[A]	150/150				
<b>Grid Side/On-grid</b>						
Rated Output Power	[kW]	25.0	29.9	30.0	40.0	50.0
Max. Output Power	[kW]	25.0	29.9	30.0	40.0	50.0
Max. Output Apparent Power	[kVA]	25.0	29.9	30.0	40.0	50.0
Rated Output Voltage	[V]	3L/N/PE, 220/380V; 230/400V; 240/415V				
Rated Output Frequency	[Hz]	50/60				
Rated Output Current	[A]	37.9/36.2/34.7	45.3/43.3/41.5	45.5/43.5/41.7	60.6/58/55.6	75.8/72.5/69.4
Max. Output Current	[A]	37.9	45.3	45.5	60.6	75.8
Power Factor		0.8 leading ...0.8 lagging				
Max. Total Harmonic Distortion		<3% @Rated output power				
Max. Input Apparent Power	[kVA]	50.0	60.0	60.0	80.0	80.0
Max. Input Current	[A]	75.8	90.9	90.9	121.2	121.2
<b>Back-up Side/Off-grid</b>						
Rated Output Power	[kW]	25.0	29.9	30.0	40.0	50.0
Max. Output Power	[kW]	25.0	29.9	30.0	40.0	50.0
Max. Output Apparent Power	[kVA]	25.0	29.9	30.0	40.0	50.0
Rated Output Current	[A]	37.9/36.2/34.7	45.3/43.3/41.5	45.5/43.5/41.7	60.6/58/55.6	75.8/72.5/69.4
Max. Output Current	[A]	37.9	45.3	45.5	60.6	75.8
On/Off-grid Switching Time	[ms]	<10ms				
Rated Output Voltage	[V]	3/N/PE, 220/380V; 230/400V; 240/415V				
Rated Output Frequency	[Hz]	50/60				
Peak Output Apparent Power	[kVA]	1.5 times of rated output power, 10s				
Voltage Harmonic Distortion		<3% @Linear load				
<b>Generator Side</b>						
Max. Input Apparent Power	[kVA]	30.0	36.0	36.0	48.0	60.0
Max. Charging Power of Battery	[kW]	25.0	30.0	30.0	40.0	50.0
Rated Input Voltage	[V]	3/N/PE, 220/380V; 230/400V; 240/415V				
Rated Input Frequency	[Hz]	50/60				
Max. Input Current	[A]	45.5	54.5	54.5	72.7	90.9
<b>Efficiency</b>						
Max. Efficiency		97.8%	97.8%	97.8%	97.8%	97.8%
European Efficiency		97.2%	97.2%	97.2%	97.2%	97.2%
<b>Protection</b>						
Integrated Protection		DC reverse polarity protection / Battery input reverse connection protection / Insulation resistance protection / Surge protection / Over-temperature protection / Residual current protection / Islanding protection / AC over-voltage protection / Overload protection / AC short-circuit protection				
<b>General Data</b>						
Over Voltage Category		II(PV+Battery), III(Mains)				
Dimensions	[W×H×D mm]	909×735×305				
Weight	[KG]	89				
Ingress Protection		IP66				
Protective Class		1				
Standby Self-consumption	[W]	<30				
Topology		Transformerless				
Operating Temperature Range	[°C]	-30~60				
Relative Humidity	[%]	0~100				
Operating Altitude	[m]	3000				
Cooling		Smart fan				
Noise Level	[dB]	<65				
Display		OLED & LED				
Communication		CAN, RS485, WiFi/LAN (Optional)				

\* PV Max. Input voltage is 950V, otherwise inverter will be waiting;

\*\* Max apparent power means the maximum power imported from the grid used to satisfy the backup loads and charge the battery;

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