Hybrid Inverter 75-125kW

M2HT-75/80/99/100/125K-300

48A	100%	300A
Max. PV Current per MPPT	Unbalanced Output	Max. Charge/Discharge

Commercial | Three Phase | HV Battery | 6 MPPTs

High Power & Performance

- 200% PV oversizing for higher yield
- 300A charge/discharge for high-capacity battery
- 165KVA backup peak for 10 seconds
- 24A PV input current per string

Advanced Energy Management

- AI EMS with PV forecasting
- Dynamic pricing & ToU optimization
- Accurate export control compliance
- Six preset operating modes

System Integration & Flexibility

- Dual independent battery ports
- On-grid / off-grid / parallel support
- Support diesel generator connection
- 100% unbalanced & half-wave loads

Industrial Reliability & Protection

- IP66 & C4 outdoor durability
- 330A high-current contactor
- <20 ms seamless transfer
- Auto-reverse fan dust removal

Integ M Series

The Power Master

EN-M2HT-75-125-NO1.01-2026

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Models		M2HT-75K-300	M2HT-80K-300	M2HT-99K-300	M2HT-100K-300	M2HT-125K-300
PV Side						
Max. PV Array Power	[kWp]	150	160	200	200	250
Max. PV Input Voltage *	[V]	1000*				
Rated PV Input Voltage	[V]	620				
Start-up Voltage	[V]	180				
MPPT Operating Voltage Range *	[V]	160-950*	160-950*	160-950*	160-950*	160-950*
No. of MPP Trackers		6	6	6	6	6
No. of Strings per MPPT		3	3	3	3	3
Max. Input Current per MPPT	[A]	6 x 48	6 x 48	6 x 48	6 x 48	6 x 48
Max. Short-circuit Current per MPPT	[A]	6 x 60	6 x 60	6 x 60	6 x 60	6 x 60
Battery Side						
Battery Type		Lithium-ion				
Battery Voltage Range	[V]	150-950				
No. of Battery Input		1 or 2				
Max. Charge/Discharge Current	[A]	300 or 150+150				
Max. Charge/Discharge Power	[kW]	75/75	80/80	100/100	100/100	125/125
Grid Side (On-Grid)						
Rated Output Power	[kW]	75.0	80.0	99.0	100.0	125.0
Max. Output Apparent Power	[kVA]	75.0	80.0	99.0	100.0	125.0
Rated AC Voltage	[V]	3L/N/PE; 220/380V; 230/400V; 240/415V				
Rated AC Frequency	[Hz]	50/60				
Rated Output Current	[A]	113.9/108.3/104.3	121.6/115.5/111.1	150.4/1142.9/137.7	151.9/144.3/139.1	189.9/180.4/173.9
Max. Output Current	[A]	113.9	121.6	150.4	151.9	189.9
Power Factor		0.8 leading ...0.8 lagging				
THDi (@Rated Power)		<3%				
Max. Input Apparent Power **	[kVA]	150.0	160.0	198.0	200.0	207.0
Rated AC Voltage		3L/N/PE; 220/380V;230/400V;240/415V				
Rated AC Frequency	[Hz]	50/60				
Max. AC Input Current	[A]	227.8	227.8	243.1	243.1	273.4
Back-up Side (Off-Grid)						
Rated Output Power	[kW]	75.0	80.0	99.0	100.0	125.0
Peak Output Apparent Power	[kVA]	165 @10S	165 @10S	165 @10S	165 @10S	165 @10S
Rated Output Voltage	[V]	3L/N/PE; 220/380V; 230/400V; 240/415V				
Rated Output Frequency	[Hz]	50/60				
Rated Output Current	[A]	113.9/108.3/104.3	121.6/115.5/111.1	150.4/1142.9/137.7	151.9/144.3/139.1	189.9/180.4/173.9
On/Off-grid Switching Time		< 20ms				
THDv (@Linear Load)		<3%				
Efficiency						
MPPT Efficiency		99.90%				
Max. Efficiency		98.80%				
European Efficiency		98.30%				
Protection						
Integrated Protection		DC reverse polarity protection / Battery input reverse connection protection / Insulation resistance protection / Surge protection(DC: Type I+II, AC: Type II) / Over-temperature protection / Residual current protection / Islanding protection / AC over-voltage protection / Overload protection / AC short-circuit protection				
General Data						
Dimensions	[W*H*D mm]	1226x932x356				
Weight	[KG]	164				
Ingress Protection		IP66				
Anti-corrosion Degree		C4				
Standby Self-consumption	[W]	< 35				
Topology		Transfomerless				
Operating Temperature Range	[° C]	-30~60				
Relative Humidity	[%]	0~100				
Max. Operation Altitude	[m]	3000				
Over Voltage Category		II(PV+Battery), III(Mains)				
Cooling		Smart Fan				
Display		LED & OLED				
Communication		CAN, RS485				

* Max. PV input voltage is 950V, otherwise inverter will be waiting;
** Max input apparent power means the maximum power imported from the grid used to satisfy the backup loads and charge the battery;

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