



# Hybrid Inverter 25–50kW

MHT-25/30/36/40/50K-100

**30A** Max. PV Input Current

Unbalanced Output

100A

Max. Charge/Discharge

Commercial | Three Phase | HV Battery | 4 MPPTS

100%





#### **Maximized Energy Harvesting**

- 100% unbalanced output enhances self-consumption
- 100A charging/discharging for efficient energy transfer
- Continuous 110% AC overloading sustains power
- Starts at 135V for more generation time
- Smooth transition to backup power ensures continuity during power outages



### **Engineered for Versatility**

- Max. 10 pcs parallel for on-grid operation and max. 4 pcs parallel for off-grid operation
- 120% max backup @60s handles overloads
- IP65 protects both indoors and outdoors



# Integ M Series The Power Master

Intelligent Energy Dynamics

- Five work modes for diverse use
- Six charge/discharge intervals optimize control
- Centralized smart management for efficiency
- Supports diesel generators for diverse energy sourcing



#### **Simplified Interaction**

- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control
- The newly enhanced Solinteg EMS platform for peak
  intelligent energy management



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#### Hybrid Inverter 25-50kW



| Model<br>PV Input                             |              | MHT-25K-100  | MHT-30K-100                   | MHT-36K-100              | MHT-40K-100 | MHT-50K-100 |
|---|--------------|--|-------------------------------|--------------------------|-------------|-------------|
| Recommended Max. Input Power                  | [kW]         | 37.50  | 45.00                         | 54.00                    | 60.00       | 75.00       |
| Start-up Voltage                              | [V]          | 135  | 135                           | 135                      | 135         | 135         |
| 1ax. DC Input Voltage*                        |              |  |                               |                          |             |             |
| 1 3   | [V]          | 1000*  | 1000*                         | 1000*                    | 1000*       | 1000*       |
| ated DC Input Voltage                         | [V]          | 620  | 620                           | 620                      | 620         | 620         |
| 1PPT Voltage Range*<br>Io. of MPP Trackers    | [V]          | 200-850*   | 200-850*                      | 200-850*                 | 200-850*    | 200-850*    |
|   |              | 2  | 4                             | 4                        | 4           | 4           |
| lo. of DC Inputs per MPPT                     | <b>5</b> • 3 |  |                               |                          |             |             |
| 1ax. Input Current                            | [A]          | 30x4   | 30x4                          | 30x4                     | 30x4        | 30x4        |
| 1ax. Short-circuit Current                    | [A]          | 40x4   | 40x4                          | 40x4                     | 40x4        | 40x4        |
| attery Side                                   |              |  |                               |                          |             |             |
| attery Type                                   |              | Lithium Battery (with BMS)   |                               |                          |             |             |
| attery Voltage Range                          | [V]          | 135–750  |                               |                          |             |             |
| laximum Charging/Discharge Curre<br>irid Side | nt [A]       |  |                               | 100/100                  |             |             |
| ated Output Power                             | [kW]         | 25.00  | 30.00                         | 36.00                    | 40.00       | 50.00       |
| ated Output Apparent Power                    | [kVA]        | 25.00  | 30.00                         | 36.00                    | 40.00       | 50.00       |
|   |              |  | 33.00/30.00 <sup>1)</sup> *** |                          |             |             |
| lax. Output Apparent Power                    | [kVA]        | 27.50  |                               | 39.60                    | 44.00       | 55.00       |
| lax. Input Apparent Power**                   | [kVA]        | 30.00  | 36.00                         | 43.50                    | 48.00       | 60.00       |
| lax. Charging Power of Battery                | [kW]         | 25.00  | 30.00                         | 36.00                    | 40.00       | 50.00       |
| ated AC Voltage                               | [V]          | 3L/N/PE; 220/380V;230/400V;240/415V  |                               |                          |             |             |
| ated AC Frequency                             | [Hz]         |  |                               | 50/60                    |             |             |
| ated Output Current                           | [A]          | 38.00  | 43.5                          | 52.00                    | 60.00       | 75.00       |
| lax. Output Current                           | [A]          | 42.00  | 50.00/43.5 <sup>2)</sup> ***  | 60.00                    | 66.00       | 83.00       |
| ower Factor                                   |              | 0.8 leading0.8 lagging   |                               |                          |             |             |
| 1ax. Total Harmonic Distortion                |              | <3% @Rated output power  |                               |                          |             |             |
| CI  |              |  |                               | <0.5%In                  |             |             |
| ack-up Side                                   |              |  |                               |                          |             |             |
| ated Output Power                             | [kW]         | 25.00  | 30.00                         | 36.00                    | 40.00       | 50.00       |
| ated Output Apparent Power                    | [kVA]        | 25.00  | 30.00                         | 36.00                    | 40.00       | 50.00       |
| lax. Output Apparent Power                    | [kVA]        | 27.50  | 33.00                         | 39.60                    | 44.00       | 55.00       |
| 1ax. Output Current                           | [A]          | 42.00  | 50.00                         | 60.00                    | 66.00       | 83.00       |
| Dn/Off-grid Switching Time                    | [ms]         | 42.00  | 50.00                         |                          | 00.00       | 05.00       |
|   |              | <20ms  |                               |                          |             |             |
| Rated Output Voltage                          | [V]          | 3L/N/PE; 220/380V;230/400V;240/415V  |                               |                          |             |             |
| ated Output Frequency                         | [Hz]         |  |                               | 50/60                    |             |             |
| oltage Harmonic Distortion                    |              |  |                               | <3% @Linear load         |             |             |
| Senerator Side                                | FLN (4.7     | 00.00  | 0 ( 00                        | (0.50                    | (0.00       | (0.00       |
| 1ax. Input Apparent Power**                   | [kVA]        | 30.00  | 36.00                         | 43.50                    | 48.00       | 60.00       |
| 1ax. Charging Power of Battery                | [kW]         | 25.00  | 30.00                         | 36.00                    | 40.00       | 50.00       |
| ated AC Voltage                               | [V]          |  | 3L/N/PE                       | E; 220/380V;230/400V;24  | 40/415V     |             |
| lated AC Frequency                            | [Hz]         |  |                               | 50/60                    |             |             |
| 1ax. Input Current                            | [A]          | 43.50  | 52.20                         | 63.00                    | 69.60       | 87.00       |
| fficiency                                     |              |  |                               |                          |             |             |
| 1ax. Efficiency                               |              | 98.8%  | 98.8%                         | 98.8%                    | 98.8%       | 98.8%       |
| uropean Efficiency                            |              | 98.3%  | 98.3%                         | 98.3%                    | 98.3%       | 98.3%       |
| rotection                                     |              |  |                               |                          |             |             |
| ntegrated Protection                          |              | DC reverse polarity protection / Battery input reverse connection protection /<br>Insulation resistance protection / Surge protection /<br>Over-temperature protection / Residual current protection /<br>Islanding protection / AC over-voltage protection /<br>Overload protection / AC short-circuit protection |                               |                          |             |             |
| Protective Class<br>General Data              |              |  |                               | Class I                  |             |             |
| over Voltage Category                         |              |  |                               | PV+Battery: II Main: III |             |             |
| Pimensions [W×I                               | H×D mm]      |  |                               | 800×620×300              |             |             |
| Veight  | [KG]         |  |                               | 72                       |             |             |
| rotection Degree                              |              |  |                               | IP65                     |             |             |
| tandby Self-Consumption                       | [W]          | <15  |                               |                          |             |             |
| opology                                       |              | Transformerless  |                               |                          |             |             |
| perating Temperature Range                    | [°C]         | -30~60   |                               |                          |             |             |
| elative Humidity                              | [%]          | 0~100  |                               |                          |             |             |
| · · · · · · · · · · · · · · · · · · ·         |              | 3000   |                               |                          |             |             |
| perating Altitude                             | [m]          |  |                               |                          |             |             |
| cooling                                       | F 7          | Smart fan  |                               |                          |             |             |
| oise Level                                    | [dB]         | <50  |                               |                          |             |             |
| isplay  |              | OLED & LED   |                               |                          |             |             |
|   |              |  | CAN                           | DOVOE MUELU AND/O U      | 1)          |             |
| Communication                                 |              |  | CAN                           | , RS485, WiFi/LAN (Opti  | onal)       |             |

\* PV Max. DC Input voltage and MPPT Max. voltage is 850V. The inverter will stop working when voltage between 850V 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-30K-100" can not exceed 30 kVA via setting the "Underload" mode.;

1) VDE-AR-N 4105: 30.0kVA; 2) VDE-AR-N 4105: 43.5A





## Hybrid Inverter 40-50kW

MHT-40/50K-100-P

Max. PV Input Current

**60A** 

Unbalanced Output

100A

Max. Charge/Discharge

Commercial | Three Phase | HV Battery | 2 MPPTS

100%





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- 120% max backup @60s handles overloads
- IP65 protects both indoors and outdoors



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### Simplified Interaction

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#### Hybrid Inverter 40-50kW



| Model                                     |         | MHT-40K-100-P   | MHT-50K-100-P        |  |  |  |
|---|---------|---|----------------------|--|--|--|
| PV Input                                  |         |   |                      |  |  |  |
| Recommended Max. Input Power              | [kW]    | 60.00   | 75.00                |  |  |  |
| Start-up Voltage                          | [V]     | 135   | 135                  |  |  |  |
| Max. DC Input Voltage*                    | [V]     | 1000*   | 1000*                |  |  |  |
| Rated DC Input Voltage                    | [V]     | 620   | 620                  |  |  |  |
| MPPT Voltage Range*                       | [V]     | 200-850*  | 200-850*             |  |  |  |
| No. of MPP Trackers                       |         | 2   | 2                    |  |  |  |
| No. of DC Inputs per MPPT                 |         | 3   | 3                    |  |  |  |
| Max. Input Current                        | [A]     | 60x2  | 60x2                 |  |  |  |
| Max. Short-circuit Current                | [A]     | 80x2  | 80x2                 |  |  |  |
| Battery Side                              | [A]     | 60X2  | 00X2                 |  |  |  |
|   |         | Lithium De  | there (with DMC)     |  |  |  |
| Battery Type                              | D.C.    | Lithium Battery (with BMS)  |                      |  |  |  |
| Battery Voltage Range                     | [V]     | 135-750   |                      |  |  |  |
| Maximum Charging/Discharge Curre          | nt [A]  | 1   | 00/100               |  |  |  |
| Grid Side                                 |         |   |                      |  |  |  |
| Rated Output Power                        | [kW]    | 40.00   | 50.00                |  |  |  |
| Rated Output Apparent Power               | [kVA]   | 40.00   | 50.00                |  |  |  |
| 1ax. Output Apparent Power                | [kVA]   | 44.00   | 55.00                |  |  |  |
| 1ax. Input Apparent Power**               | [kVA]   | 48.00   | 60.00                |  |  |  |
| fax. Charging Power of Battery            | [kW]    | 40.00   | 50.00                |  |  |  |
| Rated AC Voltage                          | [V]     | 3L/N/PE; 220/380V;230/400V;240/415V   |                      |  |  |  |
| Rated AC Frequency                        | [Hz]    |   | 50/60                |  |  |  |
| Rated Output Current                      | [A]     | 60.00   | 75.00                |  |  |  |
| Max. Output Current                       | [A]     | 66.00   | 83.00                |  |  |  |
| Power Factor                              |         |   |                      |  |  |  |
|   |         | 0.8 leading0.8 lagging  |                      |  |  |  |
| Max. Total Harmonic Distortion            |         | <3% @Rated output power   |                      |  |  |  |
| DCI                                       |         | <   | <0.5%In              |  |  |  |
| Back-up Side                              | Et a c  |   | 50.00                |  |  |  |
| Rated Output Power                        | [kW]    | 40.00   | 50.00                |  |  |  |
| Rated Output Apparent Power               | [kVA]   | 40.00   | 50.00                |  |  |  |
| Max. Output Apparent Power                | [kVA]   | 44.00   | 55.00                |  |  |  |
| Max. Output Current                       | [A]     | 66.00   | 83.00                |  |  |  |
| On/Off-grid Switching Time                | [ms]    |   | <20ms                |  |  |  |
| Rated Output Voltage                      | [V]     | 3L/N/PE; 220/38   | 0V;230/400V;240/415V |  |  |  |
| Rated Output Frequency                    | [Hz]    |   | 50/60                |  |  |  |
| Voltage Harmonic Distortion               |         | <3% @   | ົມLinear load        |  |  |  |
| Generator Side                            |         |   |                      |  |  |  |
| Max. Input Apparent Power**               | [kVA]   | 48.00   | 60.00                |  |  |  |
| Max. Charging Power of Battery            | [kW]    | 40.00   | 50.00                |  |  |  |
| Rated AC Voltage                          | [V]     |   | 0V;230/400V;240/415V |  |  |  |
| Rated AC Frequency                        | [Hz]    |   | 50/60                |  |  |  |
|   |         |   |                      |  |  |  |
| Max. Input Current                        | [A]     | 69.60   | 87.00                |  |  |  |
| Efficiency                                |         | 00.001  | 00.00/               |  |  |  |
| Max. Efficiency                           |         | 98.8%   | 98.8%                |  |  |  |
| European Efficiency                       |         | 98.3%   | 98.3%                |  |  |  |
| Protection                                |         |   |                      |  |  |  |
| Integrated Protection<br>Protective Class |         | DC reverse polarity protection / Battery input reverse connection protection /<br>Insulation resistance protection / Surge protection /<br>Over-temperature protection / Residual current protection /<br>Islanding protection / AC over-voltage protection /<br>Overload protection / AC short-circuit protection<br>Class I |                      |  |  |  |
| General Data                              |         |   |                      |  |  |  |
| Over Voltage Category                     |         | PV+Batt   | ery: II Main: III    |  |  |  |
| Dimensions [W×                            | H×D mm] | 800   | ×620×300             |  |  |  |
| Veight                                    | [KG]    |   | 72                   |  |  |  |
| Protection Degree                         |         |   | IP65                 |  |  |  |
| Standby Self-Consumption                  | [W]     |   | <15                  |  |  |  |
| Topology                                  |         | Trans   | sformerless          |  |  |  |
| Operating Temperature Range               | [°C]    |   |                      |  |  |  |
|   | [%]     | -30~60  |                      |  |  |  |
| Relative Humidity                         |         | 0~100   |                      |  |  |  |
| Operating Altitude                        | [m]     | -   | 3000                 |  |  |  |
| Cooling                                   |         | Sr  | mart fan             |  |  |  |
| loise Level                               | [dB]    | <50   |                      |  |  |  |
| Display                                   |         | OLED & LED  |                      |  |  |  |
| Communication                             |         | CAN, RS485, \   | WiFi/LAN (Optional)  |  |  |  |
| communication                             |         |   |                      |  |  |  |

\* PV Max. DC Input voltage and MPPT Max. voltage is 850V. The inverter will stop working when voltage between 850V 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;

This version is only for Australia.