

# 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



## Optimal Power & Storage

- 98.4% Max. Efficiency
- 30A PV input current, 2 MPP trackers
- 110% Unbalanced Output
- 40A charge/discharge current



## Strong Load & Back-up

- 110% continuous AC output overloading
- 200% max. back-up output overloading @60s
- 10ms UPS-level switching
- 150% DC oversizing



## Convenient Installation & Operation

- Plug & Play terminals for easy wiring
- Solinteg I-light, power and alarm indicator
- OLED display and App for setting and data management
- WIFI configuration via App



## Flexible Design & Use

- 135-750V wide battery voltage range
- IP65 for indoor and outdoor installation
- Support paralleling up to 10 devices
- Compact size and elegant appearance

# Integ M Series

## The Power Master

| Model                                       | MHT-10K-40                          | MHT-12K-40 | MHT-15K-40         | MHT-20K-40 |
|---|-------------------------------------|------------|--------------------|------------|
| <b>PV Input</b>                             |                                     |            |                    |            |
| 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        |
| 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      |
| <b>Battery Side</b>                         |                                     |            |                    |            |
| Battery type                                | Lithium Battery (with BMS)          |            |                    |            |
| Battery voltage range [V]                   | 135-750                             |            |                    |            |
| Maximum charging/discharge current [A]      | 40/40                               |            |                    |            |
| <b>Grid Side</b>                            |                                     |            |                    |            |
| Rated output power [kW]                     | 10.0                                | 12.0       | 15.0               | 20.0       |
| Max. output apparent power [kVA]            | 11.0 <sup>1)</sup>                  | 13.2       | 16.5 <sup>3)</sup> | 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      |
| Max. output current [A]                     | 16.5 <sup>2)</sup>                  | 20.0       | 25.0 <sup>4)</sup> | 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    |
| <b>Back-up Side</b>                         |                                     |            |                    |            |
| Rated output power [kW]                     | 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                    |            |                    |            |
| <b>Efficiency</b>                           |                                     |            |                    |            |
| Max. efficiency                             | 98.4%                               | 98.4%      | 98.4%              | 98.4%      |
| European efficiency                         | 97.5%                               | 97.5%      | 97.5%              | 97.5%      |
| <b>Protection</b>                           |                                     |            |                    |            |
| 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                          |            |                    |            |
| AC over-voltage protection                  | Integrated                          |            |                    |            |
| Overload protection                         | Integrated                          |            |                    |            |
| AC short-circuit protection                 | Integrated                          |            |                    |            |
| <b>General Data</b>                         |                                     |            |                    |            |
| 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)     |            |                    |            |

\* PV Max. Input voltage is 950V without battery, or 850V with battery, otherwise inverter will be waiting;

\*\* 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;

1) G98: 10.5kVA; 2) G98: 16.00A; 3) AS 4777.2: 15.0kVA; 4) AS 4777.2: 21.7A