



# REEFMAGIC FHM SERIES HYBRID INVERTER

Scalable Energy Storage Solution for Homes & C&I



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# REEFMAGIC

## FHM SERIES HYBRID INVERTER



### Scalable from 15kWh to 450kWh

7.5kWh per module, up to 75kWh per tower and up to 6 groups in parallel, covering homes, small businesses and C&I applications.



### Built for Cold Conditions

With self-heating support and a -20°C to 55°C operating range, the system is designed for reliable use in colder climates.



### More Solar Value

The system supports higher PV input, with up to 200% PV oversizing on selected FHM models to make better use of rooftop solar.



### 3-50kW System Coverage

Paired with FHM Series hybrid inverters, the system supports single-phase and three-phase applications from residential to C&I.



### Smarter Energy Scheduling

AI-driven forecasting helps optimize charging and discharging based on tariffs, solar generation and load demand.



### Fast Backup Support

<10ms backup switching helps keep key loads running when grid issues occur.

ReefMagic | Recommended Configurations

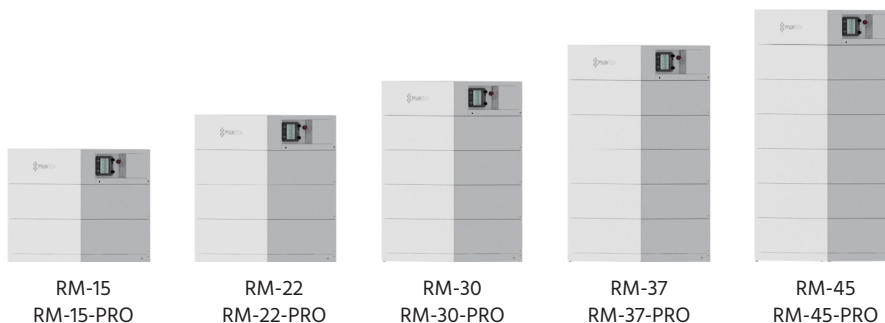
| Inverter Phase                    |        | Single-phase              |                             |                             |                           | Three-phase                |                            |                            |                            |                             |                             |                             |                             |
|-----------------------------------|--------|---------------------------|-----------------------------|-----------------------------|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Recommended battery configuration | kW     | 3.0                       | 3.60                        | 4.20                        | 5.00                      | 10.00                      | 12.00                      | 15.00                      | 20.00                      | 25.00                       | 30.00                       | 40.00                       | 50.00                       |
|                                   | kWh    |                           |                             |                             |                           |                            |                            |                            |                            |                             |                             |                             |                             |
| 1*Tower(2 Packs)                  | 15.00  | FHM-3K-30-1P-EU<br>5.00h* | FHM-3.6K-30-1P-EU<br>4.17h* | FHM-4.2K-30-1P-EU<br>3.57h* | FHM-5K-30-1P-EU<br>3.40h* |                            |                            |                            |                            |                             |                             |                             |                             |
| 1*Tower(3 Packs)                  | 22.50  | FHM-3K-30-1P-EU<br>7.50h* | FHM-3.6K-30-1P-EU<br>6.25h* | FHM-4.2K-30-1P-EU<br>5.36h* | FHM-5K-30-1P-EU<br>4.50h* |                            |                            |                            |                            |                             |                             |                             |                             |
| 1*Tower(4 Packs)                  | 30.00  |                           |                             |                             | FHM-5K-30-1P-EU<br>6.00h* | FHM-10K-40-3P-EU<br>3.00h* | FHM-12K-40-3P-EU<br>2.55h* |                            |                            |                             |                             |                             |                             |
| 1*Tower(5 Packs)                  | 37.50  |                           |                             |                             |                           | FHM-10K-40-3P-EU<br>3.75h* | FHM-12K-40-3P-EU<br>3.12h* | FHM-15K-40-3P-EU<br>2.55h* |                            |                             |                             |                             |                             |
| 1*Tower(6 Packs)                  | 45.00  |                           |                             |                             |                           | FHM-10K-40-3P-EU<br>4.50h* | FHM-12K-40-3P-EU<br>3.75h* | FHM-15K-40-3P-EU<br>3.00h* |                            |                             |                             |                             |                             |
| 1*Tower(7 Packs)                  | 52.50  |                           |                             |                             |                           |                            |                            | FHM-15K-40-3P-EU<br>3.50h* | FHM-20K-40-3P-EU<br>2.62h* |                             |                             |                             |                             |
| 1*Tower(8 Packs)                  | 60.00  |                           |                             |                             |                           |                            |                            |                            | FHM-20K-40-3P-EU<br>3.00h* |                             |                             |                             |                             |
| 1*Tower(9 Packs)                  | 67.50  |                           |                             |                             |                           |                            |                            |                            | FHM-20K-40-3P-EU<br>3.38h* | FHM-25K-150-3P-EU<br>2.10h* | FHM-30K-150-3P-EU<br>2.25h* |                             |                             |
| 1*Tower(10 Packs)                 | 75.00  |                           |                             |                             |                           |                            |                            |                            |                            | FHM-25K-150-3P-EU<br>2.70h* | FHM-30K-150-3P-EU<br>2.50h* |                             |                             |
| 2*Tower<br>(6 Packs/Tower)        | 90.00  |                           |                             |                             |                           |                            |                            |                            |                            |                             |                             | FHM-40K-150-3P-EU<br>2.25h* |                             |
| 2*Tower<br>(7 Packs/Tower)        | 105.00 |                           |                             |                             |                           |                            |                            |                            |                            |                             |                             | FHM-40K-150-3P-EU<br>2.62h* | FHM-50K-150-3P-EU<br>2.10h* |
| 2*Tower<br>(8 Packs/Tower)        | 120.00 |                           |                             |                             |                           |                            |                            |                            |                            |                             |                             | FHM-40K-150-3P-EU<br>3.00h* |                             |
| 2*Tower<br>(9 Packs/Tower)        | 135.00 |                           |                             |                             |                           |                            |                            |                            |                            |                             |                             |                             | FHM-50K-150-3P-EU<br>2.70h* |
| 2*Tower<br>(10 Packs/Tower)       | 150.00 |                           |                             |                             |                           |                            |                            |                            |                            | FHM-25K-150-3P-EU<br>6.00h* | FHM-30K-150-3P-EU<br>5.00h* | FHM-40K-150-3P-EU<br>3.75h* | FHM-50K-150-3P-EU<br>3.00h* |
| 3*Tower<br>(10 Packs/Tower)       | 225.00 |                           |                             |                             |                           |                            |                            |                            |                            |                             |                             | FHM-40K-150-3P-EU<br>5.62h* | FHM-50K-150-3P-EU<br>4.50h* |
| 4*Tower<br>(10 Packs/Tower)       | 300.00 |                           |                             |                             |                           |                            |                            |                            |                            |                             |                             |                             | FHM-50K-150-3P-EU<br>6.00h* |

Nearly full-power output

Nominal power matching  
100%

\*Theoretical full charge/discharge time (h)

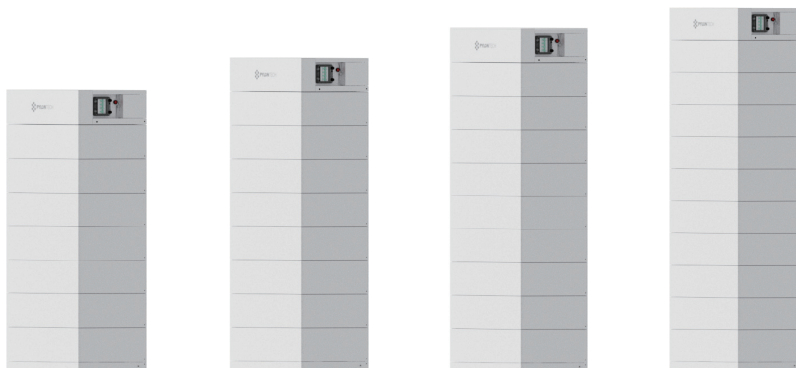
# ReefMagic



## Module

|                                                        |                                                 |             |             |              |              |
|--------------------------------------------------------|-------------------------------------------------|-------------|-------------|--------------|--------------|
| Control Module Model                                   | RMC1000   RMC1000-Pro                           |             |             |              |              |
| Battery Module Model                                   | RMB70100   RMB70100-Pro                         |             |             |              |              |
| Battery System Energy (kWh)                            | 15.0                                            | 22.5        | 30.0        | 37.5         | 45.0         |
| Battery System Voltage (VDC)                           | 147.2                                           | 220.8       | 294.4       | 368          | 441.6        |
| Battery Module Quantity (pcs)*                         | 2                                               | 3           | 4           | 5            | 6            |
| Battery Module Energy (kWh)                            | 7.5                                             |             |             |              |              |
| Battery Module Voltage (VDC)                           | 73.6                                            |             |             |              |              |
| Battery Module Capacity (Ah)                           | 102                                             |             |             |              |              |
| Battery System Charge Upper Voltage (VDC)              | 165.6                                           | 248.4       | 331.2       | 414          | 496.8        |
| Dimension (W*D*H mm)                                   | 770*380*550                                     | 770*380*720 | 770*380*890 | 770*380*1060 | 770*380*1230 |
| Weight (kg)                                            | 135                                             | 192         | 249         | 306          | 363          |
| Depth of Discharge                                     | 95%                                             |             |             |              |              |
| Battery System Charge/Discharge Current (Amps, Normal) | 50                                              |             |             |              |              |
| Battery System Charge/Discharge Current (Amps, Max)    | 55@15min/65A@15S                                |             |             |              |              |
| Communication port                                     | Modbus RTU/CAN                                  |             |             |              |              |
| Multi-group                                            | Max 6 groups in parallel                        |             |             |              |              |
| IP rating                                              | IP65                                            |             |             |              |              |
| Working Temperature/ (°C) Charge                       | 0~55/-20-55 (pro)                               |             |             |              |              |
| Working Temperature/ (°C) Discharge                    | -10~55/-20-55 (pro)                             |             |             |              |              |
| Humidity (RH)                                          | 5%~95% No condensation                          |             |             |              |              |
| Firefighting                                           | Aerosol (Optional)                              |             |             |              |              |
| Design life (@25°C)                                    | 15 Years                                        |             |             |              |              |
| Cycle life (@25°C)                                     | 8,000+                                          |             |             |              |              |
| Certification                                          | VDE2510-50/CE/IEC62477/IEC62619/IEC63056/UN38.3 |             |             |              |              |

# ReefMagic



## Module

RM-52 | RM-52-PRO

RM-60 | RM-60-PRO

RM-67 | RM-67-PRO

RM-75 | RM-75-PRO

|                                                        |                                                 |              |              |              |
|--------------------------------------------------------|-------------------------------------------------|--------------|--------------|--------------|
| Control Module Model                                   | RMC1000   RMC1000-Pro                           |              |              |              |
| Battery Module Model                                   | RMB70100   RMB70100-Pro                         |              |              |              |
| Battery System Energy (kWh)                            | 52.5                                            | 60.0         | 67.5         | 75           |
| Battery System Voltage (VDC)                           | 515.2                                           | 588.8        | 662.4        | 736          |
| Battery Module Quantity (pcs)*                         | 7                                               | 8            | 9            | 10           |
| Battery Module Energy (kWh)                            | 7.5                                             |              |              |              |
| Battery Module Voltage (VDC)                           | 73.6                                            |              |              |              |
| Battery Module Capacity (Ah)                           | 102                                             |              |              |              |
| Battery System Charge Upper Voltage (VDC)              | 579.6                                           | 662.4        | 745.2        | 828          |
| Dimension (W*D*H mm)                                   | 770*380*1400                                    | 770*380*1570 | 770*380*1740 | 770*380*1910 |
| Weight (kg)                                            | 420                                             | 477          | 534          | 621          |
| Depth of Discharge                                     | 95%                                             |              |              |              |
| Battery System Charge/Discharge Current (Amps, Normal) | 50                                              |              |              |              |
| Battery System Charge/Discharge Current (Amps, Max)    | 55@15min/65A@15S                                |              |              |              |
| Communication port                                     | Modbus RTU/CAN                                  |              |              |              |
| Multi-group                                            | Max 6 groups in parallel                        |              |              |              |
| IP rating                                              | IP65                                            |              |              |              |
| Working Temperature/ (°C) Charge                       | 0~55/-20-55 (pro)                               |              |              |              |
| Working Temperature/ (°C) Discharge                    | -10~55/-20-55 (pro)                             |              |              |              |
| Humidity (RH)                                          | 5%~95% No condensation                          |              |              |              |
| Firefighting                                           | Aerosol (Optional)                              |              |              |              |
| Design life (@25°C)                                    | 15 Years                                        |              |              |              |
| Cycle life (@25°C)                                     | 8,000+                                          |              |              |              |
| Certification                                          | VDE2510-50/CE/IEC62477/IEC62619/IEC63056/UN38.3 |              |              |              |

## Single Phase Hybrid

### Model

| Model                                            | FHM-3k-HY-1P-EU                 | FHM-3.6k-HY-1P-EU   | FHM-4.2k-HY-1P-EU | FHM-5k-HY-1P-EU     |
|--------------------------------------------------|---------------------------------|---------------------|-------------------|---------------------|
| PV Input                                         |                                 |                     |                   |                     |
| Recommended Max. input power [kW]                | 4.80                            | 5.76                | 6.72              | 8.00                |
| Start-up voltage [V]                             | 80                              | 80                  | 80                | 80                  |
| Max. DC input voltage* [V]                       | 600*                            | 600*                | 600*              | 600*                |
| Rated DC input voltage [V]                       | 360                             | 360                 | 360               | 360                 |
| MPPT voltage range* [V]                          | 100-550*                        | 100-550*            | 100-550*          | 100-550*            |
| No. of MPP trackers                              | 1                               | 1                   | 2                 | 2                   |
| No. of DC inputs per MPPT                        | 1                               | 1                   | 1/1               | 1/1                 |
| Max. input current [A]                           | 15                              | 15                  | 15/15             | 15/15               |
| Max. shor-circuit current [A]                    | 20                              | 20                  | 20/20             | 20/20               |
| Battery Side                                     |                                 |                     |                   |                     |
| Battery Type                                     | Lithium Batter (with BMS)       |                     |                   |                     |
| Batter voltage range [V]                         | 85-450                          |                     |                   |                     |
| Maximum charging/discharge current Grid Side [A] | 30/30                           |                     |                   |                     |
| Grid Side                                        |                                 |                     |                   |                     |
| Rated output power [kW]                          | 3.00                            | 3.60                | 4.20              | 5.00 <sup>3)</sup>  |
| Max. output apparent power [kVA]                 | 3.30                            | 3.96 <sup>1)</sup>  | 4.60              | 5.50 <sup>4)</sup>  |
| Max. input apparent power** [kVA]                | 6.00                            | 7.20                | 8.40              | 10.00               |
| Max. charging power of batter [kW]               | 3.00                            | 3.60                | 4.20              | 5.00                |
| Rated AC voltage                                 | L/N/PE; 220/230/240V            |                     |                   |                     |
| Rated AC frequency [Hz]                          | 50/60                           | 50/60               | 50/60             | 50/60               |
| Max. output current [A]                          | 15.00                           | 18.00 <sup>2)</sup> | 21.00             | 25.00 <sup>5)</sup> |
| Power factor                                     | 0.8 leading ...0.8 lagging      |                     |                   |                     |
| Max. total harmonic distortior                   | <3% @Rated output power         |                     |                   |                     |
| DCI                                              | <0.5%In                         | <0.5%In             | <0.5%In           | <0.5%In             |
| Back-up Side                                     |                                 |                     |                   |                     |
| Rated output power [kW]                          | 3.00                            | 3.60                | 4.20              | 5.00                |
| Max. output apparent power [kVA]                 | 3.30                            | 3.96                | 4.60              | 5.50                |
| Max. output current [A]                          | 15.00                           | 18.00               | 21.00             | 25.00               |
| UPS switching time                               | <10ms                           | <10ms               | <10ms             | <10ms               |
| Rated output voltage                             | L/N/PE; 220/230/240V            |                     |                   |                     |
| Rated output frequency [Hz]                      | 50/60                           | 50/60               | 50/60             | 50/60               |
| Voltage harmonic distortior                      | <3% @Linear load                |                     |                   |                     |
| Efficiency                                       |                                 |                     |                   |                     |
| Max. efcieny                                     | 97.6%                           | 97.6%               | 97.6%             | 97.6%               |
| European efficiency                              | 97.0%                           | 97.0%               | 97.0%             | 97.0%               |
| Protection                                       |                                 |                     |                   |                     |
| DC reverse polarity protection                   | Integrated                      |                     |                   |                     |
| Batter 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 shor-circuit protection                       | Integrated                      |                     |                   |                     |
| General Data                                     |                                 |                     |                   |                     |
| Over voltage categor                             | PV: II Main: III                |                     |                   |                     |
| Dimensions [W×H×D mm]                            | 534×418×210                     |                     |                   |                     |
| Weight [KG]                                      | 27.0                            |                     |                   |                     |
| Protection degree                                | IP65                            |                     |                   |                     |
| Standby self-consumption [W]                     | <15                             |                     |                   |                     |
| Topology                                         | Transformerless                 |                     |                   |                     |
| Operating Temperature Range [°C]                 | -30~60                          |                     |                   |                     |
| Relative Humidity [%]                            | 0~100                           |                     |                   |                     |
| Operating Altitude                               | 3000 (>3000m derating)          |                     |                   |                     |
| Cooling                                          | Natural Convection              |                     |                   |                     |
| Noise Level [dB]                                 | <25                             |                     |                   |                     |
| Display                                          | OLED & LED                      |                     |                   |                     |
| Communication                                    | CAN, RS485, WiFi/LAN (Optional) |                     |                   |                     |

# Three Phase Hybrid

## Model

|                                               | FHM-10K2-HY-3P-EU                   | FHM-12K2-HY-3P-EU | FHM-15K-HY-3P-EU   | FHM-20K-HY-3P-EU |
|-----------------------------------------------|-------------------------------------|-------------------|--------------------|------------------|
| PV Side                                       |                                     |                   |                    |                  |
| Max. PV Array Power [kWp]                     | 15.0                                | 18.0              | 22.5               | 30.0             |
| Star-up voltage [V]                           |                                     |                   | 135                |                  |
| Max. DC input voltage* [V]                    |                                     |                   | 1000*              |                  |
| Rated DC input voltage [V]                    |                                     |                   | 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. shor-circuit current [A]                 | 40/40                               | 40/40             | 40/40              | 40/40            |
| Battery Side                                  |                                     |                   |                    |                  |
| Batter type                                   | Lithium Batter (with BMS)           |                   |                    |                  |
| Batter voltage range [V]                      | 135-750                             |                   |                    |                  |
| Maximum charging/discharge current [A]        | 40/40                               | 40/40             | 40/40              | 40/40            |
| Grid Side                                     |                                     |                   |                    |                  |
| Rated output power [kW]                       | 10.0                                | 12.0              | 15.0               | 20.0             |
| Max. output apparent power [kVA]              | 11.0 <sup>9)</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 batter [kW]            | 10.0                                |                   | 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 distorion                 | <3% @Rated output power             |                   |                    |                  |
| DCI                                           | <0.5%In                             |                   |                    |                  |
| Back-up Side                                  |                                     |                   |                    |                  |
| 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 distorion                    | <3% @Linear load                    |                   |                    |                  |
| Efciency                                      |                                     |                   |                    |                  |
| Max. efciency                                 | 98.4%                               | 98.4%             | 98.4%              | 98.4%            |
| European efficiency                           | 97.5%                               | 97.5%             | 97.5%              | 97.5%            |
| Protection                                    |                                     |                   |                    |                  |
| DC reverse polarity protection                | Integrated                          |                   |                    |                  |
| Batter 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 protectionc                   | Integrated                          |                   |                    |                  |
| Overload protectionAC shor-circuit protection | Integrated                          |                   |                    |                  |
| General Data                                  |                                     |                   |                    |                  |
| Over voltage categor                          | PV: II Main: III                    |                   |                    |                  |
| Dimensions [W×H×D mm]                         | 534×418×210                         |                   |                    |                  |
| Weight [KG]                                   | 28.0                                | 28.0              | 31.0               | 31.0             |
| 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                                       | Smar fan                            |                   |                    |                  |
| Noise Level [dB]                              | <40                                 | <40               | <40                | <40              |
| Display                                       | OLED & LED                          |                   |                    |                  |
| Communication                                 | CAN, RS485, WiFi/LAN (Optional)     |                   |                    |                  |

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

\*\* Max apparent power from the grid means the maximum power impored from the utility grid used to satisfy the backup loads and charge the batter;

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

## Three Phase Hybrid

### Model

| Model                                         | FHM-25K-HY-3P-EU                                                                                                                                                                                                                                                                                                             | FHM-30K-HY-3P-EU                      | FHM-40K-HY-3P-EU | FHM-50K-HY-3P-EU |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------|------------------|
| PV Side                                       |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| Max. PV Array Power [kWp]                     | 50                                                                                                                                                                                                                                                                                                                           | 60                                    | 80               | 100              |
| Max. PV Input Voltage <sup>1</sup> [V]        |                                                                                                                                                                                                                                                                                                                              |                                       | 135              |                  |
| Rated PV Input Voltage [V]                    |                                                                                                                                                                                                                                                                                                                              |                                       | 1000*            |                  |
| Start-up Voltage [V]                          |                                                                                                                                                                                                                                                                                                                              |                                       | 620              |                  |
| MPPT Operating Voltage Range <sup>1</sup> [V] |                                                                                                                                                                                                                                                                                                                              |                                       | 200-950*         |                  |
| No. of MPP Trackers                           |                                                                                                                                                                                                                                                                                                                              |                                       | 4                |                  |
| No. of Strings per MPPT                       |                                                                                                                                                                                                                                                                                                                              |                                       | 2/2/2/2          |                  |
| Max. Input Current per MPP [A]                |                                                                                                                                                                                                                                                                                                                              |                                       | 40/40/40/40      |                  |
| Max. Short-circuit Current per MPPT [A]       |                                                                                                                                                                                                                                                                                                                              |                                       | 50/50/50/50      |                  |
| Battery Side                                  |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| Battery Type                                  |                                                                                                                                                                                                                                                                                                                              |                                       | Litnum-lion      |                  |
| Battery Voltage Range [V]                     |                                                                                                                                                                                                                                                                                                                              |                                       | 150-840          |                  |
| No. of Battery Input                          |                                                                                                                                                                                                                                                                                                                              |                                       | 1                |                  |
| Max. Charge/Discharge Current [A]             |                                                                                                                                                                                                                                                                                                                              |                                       | 150/150          |                  |
| Max. Charge/Discharge Power                   | 25/25                                                                                                                                                                                                                                                                                                                        | 30/30                                 | 40/40            | 50/50            |
| Grid Side (On-Grid)                           |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| Rated Output Power [kW]                       | 25.0                                                                                                                                                                                                                                                                                                                         | 30.0                                  | 40.0             | 50.0             |
| Max. Output Apparent Power [kVA]              | 25.0                                                                                                                                                                                                                                                                                                                         | 30.0                                  | 40.0             | 50.0             |
| Rated AC Voltage [V]                          |                                                                                                                                                                                                                                                                                                                              | 3L/N/PE; 220/380V; 230/400V; 240/415V |                  |                  |
| Rated AC Frequency [Hz]                       |                                                                                                                                                                                                                                                                                                                              | 50/60                                 |                  |                  |
| Rated Output Current [A]                      | 37.9/36.2/34.7                                                                                                                                                                                                                                                                                                               | 45.5/43.5/41.7                        | 60.6/58/55.6     | 75.8/72.5/69.4   |
| Max. Output Current [A]                       | 37.9                                                                                                                                                                                                                                                                                                                         | 45.5                                  | 60.6             | 75.8             |
| Power Factor                                  |                                                                                                                                                                                                                                                                                                                              | 0.8 leading ...0.8 lagging            |                  |                  |
| THDi (@Rated Power)                           |                                                                                                                                                                                                                                                                                                                              | <3%                                   |                  |                  |
| Max. Input Apparent Power **                  | 50.0                                                                                                                                                                                                                                                                                                                         | 60.0                                  | 80.0             | 80.0             |
| Rated AC Voltage [V]                          |                                                                                                                                                                                                                                                                                                                              | 3L/N/PE; 220/380V; 230/400V; 240/415V |                  |                  |
| Rated AC Frequency [Hz]                       |                                                                                                                                                                                                                                                                                                                              | 50/60                                 |                  |                  |
| Max. AC Input Current [A]                     | 75.8                                                                                                                                                                                                                                                                                                                         | 90.9                                  | 121.2            | 121.2            |
| Back-up Side (Off-Grid)                       |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| Rated Output Power [kW]                       | 25.0                                                                                                                                                                                                                                                                                                                         | 30.0                                  | 40.0             | 50.0             |
| Peak Output Apparent Power [kVA]              | 37.5 @10s                                                                                                                                                                                                                                                                                                                    | 45 @10s                               | 60 @10s          | 75 @10s          |
| 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                                                                                                                                                                                                                                                                                                               | 45.5/43.5/41.7                        | 60.6/58/55.6     | 75.8/72.5/69.4   |
| On/Off-grid Switching Time [ms]               |                                                                                                                                                                                                                                                                                                                              | < 10ms                                |                  |                  |
| THDv (@Linear Load)                           |                                                                                                                                                                                                                                                                                                                              | <3%                                   |                  |                  |
| Generator Side                                |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| Max. Input Apparent Power [kVA]               | 25                                                                                                                                                                                                                                                                                                                           | 30                                    | 40               | 50               |
| Rated Input Voltage [V]                       |                                                                                                                                                                                                                                                                                                                              | 3L/N/PE; 220/380V; 230/400V; 240/415V |                  |                  |
| Rated Input Frequency [Hz]                    |                                                                                                                                                                                                                                                                                                                              | 50/60                                 |                  |                  |
| Max. Input Current [A]                        | 37.9                                                                                                                                                                                                                                                                                                                         | 45.5                                  | 60.6             | 75.8             |
| Efciency                                      |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| MPPT Efficiency                               |                                                                                                                                                                                                                                                                                                                              | 99.90%                                |                  |                  |
| Max. Efciency                                 |                                                                                                                                                                                                                                                                                                                              | 97.80%                                |                  |                  |
| European Efciency                             |                                                                                                                                                                                                                                                                                                                              | 97.20%                                |                  |                  |
| Max. Batter to AC Efficiency                  |                                                                                                                                                                                                                                                                                                                              | 98.50%                                |                  |                  |
| Max. PV to Batter Efciency                    |                                                                                                                                                                                                                                                                                                                              | 97.50%                                |                  |                  |
| Protection                                    |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| Integrated Protection                         | DC reverse polarity protection / Batter input reverse connection protection / Insulation resistance protection / Surge protection(DC/AC: Type II/Type II) / Over-temperature protection / Residual current protection / Islanding protection / AC over-voltage protection / Overload protection / AC shor-circuit protection |                                       |                  |                  |
| General Data                                  |                                                                                                                                                                                                                                                                                                                              |                                       |                  |                  |
| Dimensions [W×H×D mm]                         | 919*739*305                                                                                                                                                                                                                                                                                                                  |                                       |                  |                  |
| Weight [KG]                                   | 89                                                                                                                                                                                                                                                                                                                           |                                       |                  |                  |
| Ingress Protection                            | IP66                                                                                                                                                                                                                                                                                                                         |                                       |                  |                  |
| Standby Self-consumption [W]                  | < 40                                                                                                                                                                                                                                                                                                                         |                                       |                  |                  |
| Topology                                      | Transfomerless                                                                                                                                                                                                                                                                                                               |                                       |                  |                  |
| Operating Temperature Range [°C]              | -30~60                                                                                                                                                                                                                                                                                                                       |                                       |                  |                  |
| Relative Humidity [%]                         | 0~100                                                                                                                                                                                                                                                                                                                        |                                       |                  |                  |
| Max. Operation Altitude [m]                   | 3000                                                                                                                                                                                                                                                                                                                         |                                       |                  |                  |
| Over Voltage Category                         | II(PV+Batter), III(Mains)                                                                                                                                                                                                                                                                                                    |                                       |                  |                  |
| Cooling                                       | Smar Fan                                                                                                                                                                                                                                                                                                                     |                                       |                  |                  |
| Noise Level [dB]                              | < 65                                                                                                                                                                                                                                                                                                                         |                                       |                  |                  |
| Display                                       | LED & OLED                                                                                                                                                                                                                                                                                                                   |                                       |                  |                  |
| Communication                                 | CAN, RS485                                                                                                                                                                                                                                                                                                                   |                                       |                  |                  |

\* 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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