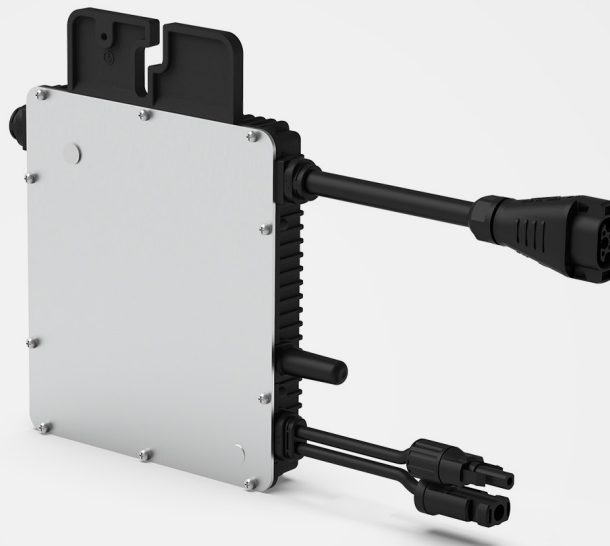




## Microinverter Datasheet

**HMS-350-1T-NA**  
**HMS-400-1T-NA**  
**HMS-450-1T-NA**  
**HMS-500-1T-NA**

### Description

Hoymiles new microinverter HMS-500 series are suitable for high-powered solar panels, which rank among the highest for 1-in-1 microinverters.

Each microinverter can be connected to one panel and used in various applications, making it one of the most flexible solar solutions. With a maximum DC voltage of 65 volts, Hoymiles microinverter is a PV Rapid Shutdown Equipment and conforms with NEC-2017 and NEC-2020 Article 690.12 and CEC-2021 Sec 64-218.

The new Sub-1G wireless solution enables more stable communication with Hoymiles gateway DTU.

### Features

01

High-powered microinverter for 1-in-1 series with superior performance

02

Safer for rooftop solar stations with PV rapid shutdown compliance

03

With Reactive Power Control, compliant with UL 1741, IEEE 1547, UL 1741 SB, etc.

04

1-in-1 design enables most flexible applications

## Technical Specifications

| Model                                         | HMS-350-1T-NA                                                                                               |             | HMS-400-1T-NA |             | HMS-450-1T-NA |             | HMS-500-1T-NA |             |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|
| Input Data(DC)                                |                                                                                                             |             |               |             |               |             |               |             |
| Commonly used module power (W)                | 280 to 470+                                                                                                 |             | 320 to 540+   |             | 360 to 600+   |             | 400 to 670+   |             |
| Maximum input voltage (V)                     | 60                                                                                                          |             | 65            |             | 65            |             | 65            |             |
| MPPT voltage range (V)                        | 16-60                                                                                                       |             |               |             |               |             |               |             |
| Start-up voltage (V)                          | 22                                                                                                          |             |               |             |               |             |               |             |
| Maximum input current (A)                     | 11.5                                                                                                        |             | 12.5          |             | 13.3          |             | 14            |             |
| Maximum input short circuit current (A)       | 16                                                                                                          |             | 20            |             | 20            |             | 20            |             |
| Number of MPPTs                               | 1                                                                                                           |             |               |             |               |             |               |             |
| Number of Inputs per MPPT                     | 1                                                                                                           |             |               |             |               |             |               |             |
| Output Data(AC)                               |                                                                                                             |             |               |             |               |             |               |             |
| Peak output power (VA)                        | 350                                                                                                         |             | 400           |             | 450           |             | 500           |             |
| Maximum continuous output power (VA)          | 319                                                                                                         |             | 360           |             | 410           |             | 475           |             |
| Maximum continuous output current (A)         | 1.33                                                                                                        | 1.53        | 1.5           | 1.73        | 1.71          | 1.98        | 1.98          | 2.28        |
| Nominal output voltage/range (V) <sup>1</sup> | 240/211-264                                                                                                 | 208/183-228 | 240/211-264   | 208/183-228 | 240/211-264   | 208/183-228 | 240/211-264   | 208/183-228 |
| Nominal frequency/range (Hz) <sup>1</sup>     | 60/55-65                                                                                                    |             |               |             |               |             |               |             |
| Power factor (adjustable)                     | > 0.99 default<br>0.8 leading ... 0.8 lagging                                                               |             |               |             |               |             |               |             |
| Total harmonic distortion                     | < 3%                                                                                                        |             |               |             |               |             |               |             |
| Maximum units per 10 AWG branch <sup>2</sup>  | 18                                                                                                          | 15          | 16            | 13          | 14            | 12          | 12            | 10          |
| Maximum units per 12 AWG branch <sup>2</sup>  | 12                                                                                                          | 10          | 10            | 9           | 9             | 8           | 8             | 7           |
| Efficiency                                    |                                                                                                             |             |               |             |               |             |               |             |
| CEC peak efficiency                           | 96.70%                                                                                                      |             |               |             | 96.50%        |             |               |             |
| Nominal MPPT efficiency                       | 99.80%                                                                                                      |             |               |             |               |             |               |             |
| Night power consumption (mW)                  | < 50                                                                                                        |             |               |             |               |             |               |             |
| Mechanical Data                               |                                                                                                             |             |               |             |               |             |               |             |
| Ambient temperature range (°C)                | -40 to +65                                                                                                  |             |               |             |               |             |               |             |
| Dimensions (W × H × D [mm])                   | 182 × 164 × 30                                                                                              |             |               |             |               |             |               |             |
| Weight (kg)                                   | 1.75                                                                                                        |             |               |             |               |             |               |             |
| Enclosure rating                              | Outdoor-IP67 (NEMA6)                                                                                        |             |               |             |               |             |               |             |
| Cooling                                       | Natural convection (no fans)                                                                                |             |               |             |               |             |               |             |
| Features                                      |                                                                                                             |             |               |             |               |             |               |             |
| Communication                                 | Sub-1G                                                                                                      |             |               |             |               |             |               |             |
| Type of isolation                             | Galvanically Isolated HF Transformer                                                                        |             |               |             |               |             |               |             |
| Monitoring                                    | Hoymiles S-Miles Cloud <sup>3</sup>                                                                         |             |               |             |               |             |               |             |
| Compliance                                    | UL 1741, IEEE 1547, UL 1741 SB (Pending), CSA C22.2 No. 107.1-16<br>FCC 15B, FCC 15C                        |             |               |             |               |             |               |             |
| PV Rapid Shutdown                             | Conforms with NEC-2017 and NEC-2020 Article 690.12<br>and CEC-2021 Sec 64-218 Rapid Shutdown of PV Systems. |             |               |             |               |             |               |             |

\*1 Nominal voltage/frequency range can vary depending on local requirements.

\*2 Refer to local requirements for exact number of microinverters per branch.

\*3 Hoymiles Monitoring System