



# Microinverter Datasheet

**HMS-400**  
**HMS-450**  
**HMS-500**

## Description

With the output power up to 500 VA, Hoymiles new microinverter HMS-500 series rank among the highest for 1-in-1 microinverters.

Each microinverter connects to 1 PV module with independent MPPT and monitoring, ensuring greater energy harvest and easier maintenance.

The new Sub-1G wireless solution enables more stable communication under various environmental conditions.

## Features

- 01 High-powered microinverter for 1-in-1 with output power up to 500 VA
- 02 With Reactive Power Control, compliant with EN 50549-1:2019, VDE-AR-N 4105:2018, UL 1741, etc.
- 03 Safer for rooftop solar stations with rapid shutdown compliance and isolated transformer

04 Connected to one panel, flexible for various applications

05 Sub-1G wireless solution allows stable communication with Hoymiles gateway DTU

# Technical Specifications

Model	HMS-400-1T			HMS-450-1T			HMS-500-1T		
<b>Input Data (DC)</b>									
Commonly used module power (W)	320 to 500+			360 to 565+			400 to 625+		
Maximum input voltage (V)				65					
MPPT voltage range (V)				16-60					
Start-up voltage (V)				22					
Maximum input current (A)	12.5			13.3			14		
Maximum input short circuit current (A)				20					
<b>Output Data (AC)</b>									
Rated output power (VA)	400			450			500		
Rated output current (A)	1.82	1.74	1.67	2.05	1.96	1.88	2.27	2.17	2.08
Nominal output voltage/range (V) <sup>1</sup>	220/180-275	230/180-275	240/180-275	220/180-275	230/180-275	240/180-275	220/180-275	230/180-275	240/180-275
Nominal frequency/range (Hz) <sup>1</sup>				50/45-55 or 60/55-65					
Power factor (adjustable)				> 0.99 default 0.8 leading...0.8 lagging					
Total harmonic distortion				< 3%					
Maximum units per 10AWG branch <sup>2</sup>	17	18	19	15	16	17	14	14	15
Maximum units per 12AWG branch <sup>2</sup>	11	11	12	9	10	10	8	9	9
<b>Efficiency</b>									
CEC peak efficiency				96.5%					
Nominal MPPT efficiency				99.8%					
Night power consumption (mW)				< 50					
<b>Mechanical Data</b>									
Ambient temperature range (°C)				-40 to +65					
Dimensions (W × H × D mm)				182 × 164 × 30					
Weight (kg)				1.75					
Enclosure rating				Outdoor-IP67 (NEMA 6)					
Cooling				Natural convection-No fans					
<b>Features</b>									
Communication				Sub-1G					
Type of isolation				Galvanically Isolated HF Transformer					
Monitoring				Hoymiles S-Miles Cloud <sup>3</sup>					
Compliance				EN 50549-1: 2019, VDE-AR-N 4105: 2018, UL 1741, IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3					

\*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