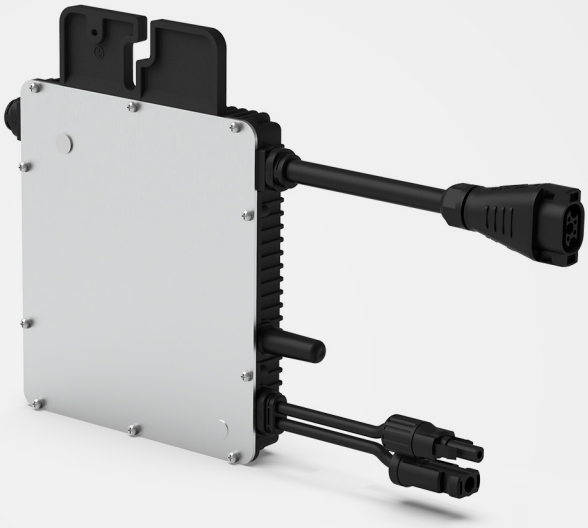

Microinverter Datasheet

HMS-400-1T
HMS-450-1T
HMS-500-1T

Description

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

All of these models listed are equipped with reactive power control and can meet the requirements of EN 50549-1:2019, VDE-AR-N 4105:2018, UL 1741, etc.

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

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Technical Specifications

Model	HMS-400-1T			HMS-450-1T			HMS-500-1T		
Input Data (DC)									
Commonly used module power (W)	320 to 540+			360 to 600+			400 to 670+		
Maximum input voltage (V)	65								
MPPT voltage range (V)	16–60								
Start-up voltage (V)	22								
Maximum input current (A)	14			15			16		
Maximum input short circuit current (A)	25								
Number of MPPTs	1								
Number of inputs per MPPT	1								
Output Data (AC)									
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)*	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)*	50/45–55 or 60/55–65								
Adjustable Power factor (@nominal power)	> 0.99 default 0.8 leading ... 0.8 lagging								
Total harmonic distortion (@nominal power)	< 3%								
Maximum units per 10AWG branch**	17	18	19	15	16	17	14	14	15
Maximum units per 12AWG branch**	11	11	12	9	10	10	8	9	9
Efficiency									
CEC peak efficiency	96.7%			96.5%			96.5%		
Nominal MPPT efficiency	99.8%								
Night power consumption (mW)	< 50								
Mechanical Data									
Ambient temperature range (℃)	-40 to +65								
Dimensions (W × H × D [mm])	182 × 164 × 30								
Weight (kg)	1.75								
Enclosure rating	Outdoor-IP67								
Cooling	Natural convection-No fans								
Features									
Communication	Sub-1G								
Type of isolation	Galvanically Isolated HF Transformer								
Monitoring	S-Miles Cloud (Hoymiles Monitoring Platform)								
Compliance	EN 50549-1: 2019, VDE-AR-N 4105: 2018, UL 1741, AS/NZS 4777.2:2020, IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3								

* : Nominal voltage/frequency range can vary depending on local requirements.
** : Refer to local requirements for exact number of microinverters per branch.

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