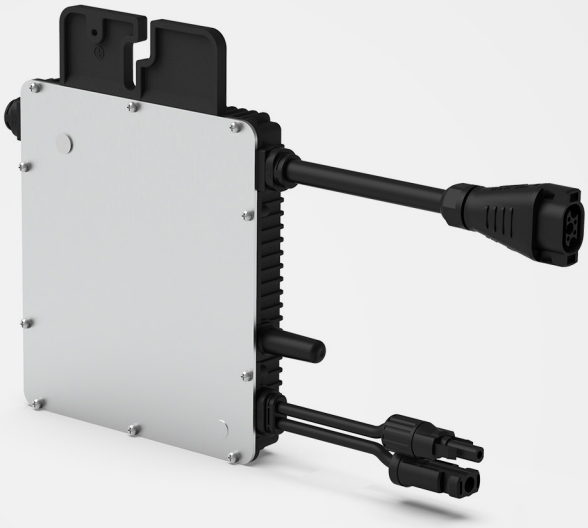


Microinverter Datasheet

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 With HMS Cable System, installation is easier and faster than ever before

06 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)	12.5			13.3			14		
Maximum input short circuit current (A)	20								
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 2.5 mm^2 branch**	13	13	14	11	12	12	10	11	11
Maximum units per 4 mm^2 branch**	17	18	19	15	16	17	14	14	15
Maximum units per 6 mm^2 branch**	22	23	24	19	20	21	17	18	19
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 (°C)	-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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