



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.

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 UL 1741, ABNT NBR 16150:2013, ABNT NBR 16149:2013, 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			
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)												
Maximum continuous output power (VA)	400				450				500			
Maximum continuous output current (A)	1.92	1.82	1.74	1.67	2.16	2.05	1.96	1.88	2.40	2.27	2.17	2.08
Nominal output voltage	208	220	230	240	208	220	230	240	208	220	230	240
Nominal output range (V)*	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 10 AWG branch**	16	17	18	19	14	15	16	17	13	14	14	15
Maximum units per 12 AWG branch**	10	11	11	12	9	9	10	10	8	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 (°F)	-40 to 149 (-40°C to +65°C)											
Dimensions (W × H × D [inches])	7.17 × 6.46 × 1.18 (182 × 164 × 30 mm)											
Weight (lbs)	3.86 (1.75 kg)											
Enclosure rating	Outdoor-IP67 (NEMA 6)											
Cooling	Natural convection-No fans											
Features												
Communication	Sub-1G											
Type of isolation	Galvanically Isolated HF Transformer											
Monitoring	S-Miles Cloud (Hoymiles Monitoring Platform)											
Compliance	UL 1741, ABNT NBR 16150:2013, ABNT NBR 16149:2013											

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

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