



Microinverter Datasheet

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

Description

The Hoymiles HMS-500-1T series microinverters are designed for high-powered solar panels and are among the top-performing 1-in-1 microinverters on the market.

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, the Hoymiles micro-inverter is a PV Rapid Shutdown Equipment and conforms with NEC-2017, NEC-2020 Article 690.12, and CEC-2021 Sec 64-218.

The 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)								
Maximum input voltage (V)	60		65		65		65	
MPPT voltage range (V)	16–60							
Start-up voltage (V)	22							
Maximum input current (A)	13		14		15		16	
Maximum input short circuit current (A)	20		25		25		25	
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	1.50	1.73	1.71	1.98	1.98	2.28
Nominal output voltage/range (V) ¹	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) ¹	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 ²	18	15	16	13	14	12	12	10
Maximum units per 12 AWG branch ²	12	10	10	9	9	8	8	7
Efficiency								
CEC peak efficiency	96.70%		96.70%		96.50%		96.50%	
Nominal MPPT efficiency	99.80%							
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	NEMA 6 (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	UL 1741, IEEE 1547, UL 1741 SB, CSA C22.2 No. 1071-16, CA Rule 21 (240 Vac), FCC 15B, FCC 15C							
PV Rapid Shutdown	Conforms with NEC-2017 and NEC-2020 Article 690.12 and CEC-2021 Sec 64-218 Rapid Shutdown of PV Systems.							
* Within the allowable voltage and current range, the microinverter supports a DC/AC ratio of up to 1.5.								
1 Nominal voltage/frequency range can vary depending on local requirements.								
2 Refer to local requirements for the exact number of microinverters per branch.								