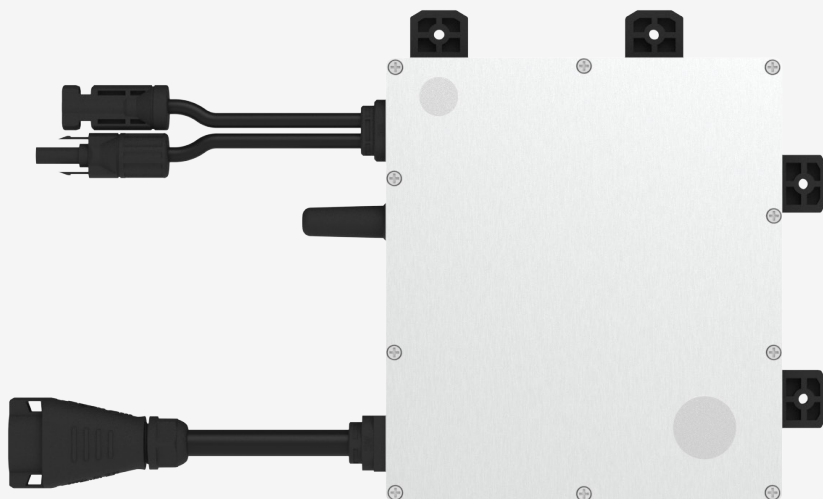




Microinverter Datasheet

HMS-300-1A
HMS-350-1A
HMS-400-1A
HMS-450-1A
HMS-500-1A

Description

Hoymiles HMS-500-1A series microinverters have been developed with a new design architecture, making them particularly suitable for AC module applications.

Each microinverter connects to a PV module, providing module-level MPPT and real-time monitoring. This enables efficient energy harvest and convenient operation and maintenance.

HMS-500-1A series microinverters also feature a Sub-1G wireless communication solution for stable communication in various environmental conditions.

Features

01

Suitable for AC module applications

02

Safer for rooftop solar stations with integrated rapid shutdown functionality and isolated transformer

03

With Reactive Power Control, compliant with EN 50549-1:2019, VDE-AR-N 4105:2018, UL 1741, etc.

04

Grid protection relay integrated

05

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

Technical Specifications

Model	HMS-300-1A	HMS-350-1A	HMS-400-1A	HMS-450-1A	HMS-500-1A
Input Data (DC)					
Commonly used module power (W)	240 to 405+	280 to 470+	320 to 540+	360 to 600+	400 to 670+
Maximum input voltage (V)	60				
MPPT voltage range (V)	16-60				
Start-up voltage (V)	22				
Maximum input current (A)	12	13	14	15	16
Maximum input short circuit current (A)	20	20	25	25	25
Number of MPPTs	1				
Number of inputs per MPPT	1				
Output Data (AC)					
Rated output power (VA)	300	350	400	450	500
Rated output current (A)	1.30	1.52	1.74	1.96	2.17
Nominal output voltage/range (V) ¹	230/180-275	230/180-275	230/180-275	230/180-275	230/180-275
Nominal frequency/range (Hz) ¹	50/45-55				
Power factor (adjustable)	> 0.99 default 0.8 leading ... 0.8 lagging				
Total harmonic distortion	< 3%				
Maximum units per 12 AWG branch ²	15	13	11	10	9
Maximum units per 10 AWG branch ²	24	21	18	16	14
Efficiency					
CEC peak efficiency	96.70%				
Nominal MPPT efficiency	99.80%				
Night power consumption (mW)	< 50				
Mechanical Data					
Ambient temperature range (°C)	-40 to +65				
Storage temperature range (°C)	-40 to +85				
Dimensions (W × H × D [mm])	184.5 × 204.5 × 26				
Weight (kg)	1.71				
Enclosure rating	Outdoor-IP67 (NEMA 6)				
Cooling	Natural convection – No fans				
Features					
Communication	Sub-1G				
Topology	Galvanically Isolated HF Transformer				
Monitoring	S-Miles Cloud				
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 be changed due to the requirements of local power department.

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