

Microinverter Datasheet

**HMT-1800
HMT-2250**

Features

- 01** Three-phase output, more suitable for commercial and industrial applications
- 02** Up to 2250VA output, adapted to mainstream high-powered PV modules
- 03** Each microinverter, with up to 6 PV modules connected, simplifies the installation process and ranks among the most cost effective solutions for commercial and industrial installations

Description

The world's first three-phase microinverter with Reactive Power Control, can be widely used in the general 230V/400V three-phase electric power distribution.

Each microinverter, with up to 6 PV modules connected, simplifies the installation process and ranks among the most cost effective solutions for commercial and industrial installations.

- 04** With Reactive Power Control, meets the requirements of EN50549-1:2019, VDE-AR-N 4105:2018, TOR Erzeuger : 2019-12, etc.

- 05** The Sub-1G wireless solution enables the stable communication when installed for commercial and industrial stations

Technical Specifications

Model	HMT-1800-6T	HMT-2250-6T
Input Data(DC)		
Commonly used module power(W)	240~380	300~470
Peak power MPPT voltage range(V)	29~48	36~48
Start-up voltage(V)	22	
Operating voltage range(V)	16~60	
Maximum input voltage(V)	60	
Maximum input current(A)	6*11.5	
Output Data(AC)		
Grid connection	Three phase	
Rated output power(VA)	1800	2250
Rated output current(A)	2.61*3	3.26*3
Nominal output voltage/range(V) ¹	230Vac/400Vac, 3W+N+PE	
Nominal frequency/range(Hz) ¹	50/60	
Power factor(adjustable)	>0.99 default 0.8 leading...0.8 lagging	
Total harmonic distortion	<3%	
Maximum units per 12AWG branch ²	7	6
Maximum units per 10AWG branch ²	11	9
Efficiency		
CEC peak efficiency	96.5%	
Nominal MPPT efficiency	99.8%	
Night power consumption(mW)	< 50	
Mechanical Data		
Ambient temperature range(°C)	-40 ~ +65	
Dimensions(W×H×D mm)	330*250*35	330*250*37
Weight(kg)	5.5	6.0
Enclosure rating	Outdoor-NEMA6(IP67)	
Cooling	Natural convection-No fans	
Features		
Communication	Sub-1G	
Monitoring	Hoymiles Monitoring System	
Compliance	VDE-R-N 4105: 2018, EN 50549-1: 2019, TOR Erzeuger : 2019-12, IEC/EN 62109-1/-2, IEC/EN 61000-3-2/-3, IEC/EN 61000-6-1/-2/-3/-4	

*1 Nominal voltage/frequency range can be changed due to the requirements of local power department.

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



Microinverter Datasheet

HMS-1800
HMS-2000

Description

With the output power up to 2000VA, Hoymiles new microinverter HMS-2000 ranks among the highest for 4 in 1 microinverters. Each microinverter connects up to four PV modules with independent MPPT and monitoring, makes greater energy harvest and easier maintenance. New Sub-1G wireless solution enables more stable communication when installed for any installation environment.

Features

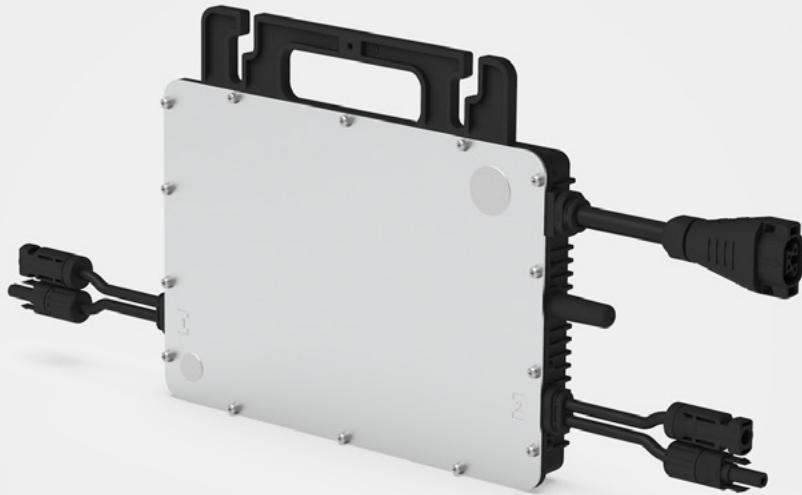
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|----|---|----|---|
| 01 | Highest-powered microinverter with output power up to 2000VA | 04 | Each microinverter supports up to 4 modules, faster installation and lower cost |
| 02 | Independent MPPT and monitoring makes greater energy harvest and easier maintenance | 05 | Safer for rooftop solar stations with rapid shutdown compliant and isolated transformer |
| 03 | With Reactive Power Control, meets the requirements of EN50549-1:2019, VDE-AR-N 4105:2018, UL1741, ABNT NBR 16150, etc. | 06 | Sub-1G wireless solution enables the stable communication when installed for commercial and industrial stations |

Technical Specifications

Model	HMS-1800-4T			HMS-2000-4T			
Input Data(DC)							
Commonly used module power(W)		360~565			400~625		
Peak power MPPT voltage range(V)		36~48			38~48		
Start-up voltage(V)			22				
Operating voltage range(V)				16~60			
Maximum input voltage(V)				60			
Maximum input current(A)		4*13.3			4*14		
Output Data(AC)							
Rated output power(VA)		1800			2000		
Rated output current(A)	8.18	7.83	7.5	9.09	8.70	8.33	
Nominal output voltage/range(V) ¹	220/180-275	230/180-275	240/180-275	220/180-275	230/180-275	240/180-275	
Nominal frequency/range(Hz) ¹				50/45-55 or 60/55-65			
Power factor(adjustable)				>0.99 default 0.8 leading...0.8 lagging			
Total harmonic distortion				<3%			
Maximum units per 10AWG branch ²	3	4	4	3	3	3	
Efficiency							
CEC peak efficiency				96.5%			
Nominal MPPT efficiency				99.8%			
Night power consumption(mW)				<50			
Mechanical Data							
Ambient temperature range(°C)				-40 ~ +65			
Dimensions(W×H×D mm)				331*218*34.6			
Weight (kg)				4.7			
Enclosure rating				Outdoor-NEMA6(IP67)			
Cooling				Natural convection-No fans			
Features							
Communication				Sub-1G			
Monitoring				Hoymiles Monitoring System			
Compliance		EN 50549-1: 2019, VDE-R-N 4105: 2018, UL1741, ABNT NBR 16150, 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 exact number of microinverters per branch.



Microinverter Datasheet

HMS-900
HMS-1000

Description

With the output power up to 1000VA, Hoymiles new microinverter HMS-1000 ranks among the highest for 2 in 1 microinverters.

Each microinverter connects up to 2 PV modules with independent MPPT and monitoring, makes greater energy harvest and easier maintenance.

New Sub-1G wireless solution enables more stable communication when installed for any installation environment.

Features

- | | | | |
|----|---|----|---|
| 01 | Highest-powered microinverter for 2 in 1 with output power up to 1000VA | 04 | Independent MPPT and monitoring makes greater energy harvest and easier maintenance |
| 02 | With Reactive Power Control, meets the requirements of EN50549-1:2019, VDE-AR-N 4105:2018, UL1741, ABNT NBR 16150, etc. | 05 | Each microinverter supports up to 2 modules, faster installation and good adaptability to all kinds of module arrangement |
| 03 | Safer for rooftop solar stations with rapid shutdown compliant and isolated transformer | 06 | Sub-1G wireless solution enables the stable communication when installed for commercial and industrial stations |

Technical Specifications

Model	HMS-900-2T			HMS-1000-2T		
Input Data(DC)						
Commonly used module power(W)	360~565			400~625		
Peak power MPPT voltage range(V)	36~48			38~48		
Start-up voltage(V)	22					
Operating voltage range(V)	16~60					
Maximum input voltage(V)	60					
Maximum input current(A)	2*13.3			2*14		
Output Data(AC)						
Rated output power(VA)	900			1000		
Rated output current(A)	4.09	3.91	3.75	4.55	4.35	4.17
Nominal output voltage/range(V) ¹	220/180-275	230/180-275	240/180-275	220/180-275	230/180-275	240/180-275
Nominal frequency/range(Hz) ¹	50/45-55 or 60/55-65					
Power factor(adjustable)	>0.99 default 0.8 leading...0.8 lagging					
Total harmonic distortion	<3%					
Maximum units per 10AWG branch ²	7	8	8	7	7	7
Efficiency						
CEC peak efficiency	96.5%					
Nominal MPPT efficiency	99.8%					
Night power consumption(mW)	< 50					
Mechanical Data						
Ambient temperature range(°C)	-40 ~ +65					
Dimensions(W×H×D mm)	261*223*31					
Weight(kg)	3.0					
Enclosure rating	Outdoor-NEMA6(IP67)					
Cooling	Natural convection-No fans					
Features						
Communication	Sub-1G					
Monitoring	Hoymiles Monitoring System					
Compliance	EN 50549-1: 2019, VDE-R-N 4105: 2018, UL1741, ABNT NBR 16150, IEC/EN 62109-1/-2, IEC/EN 61000-6-11/-2/-3/-4, IEC/EN 61000-3-2/-3					

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



Microinverter Datasheet

HMS-450

HMS-500

Features

01 Highest-powered microinverter for 1 in 1 with output power up to 500VA

02 With Reactive Power Control, meets the requirements of EN50549-1:2019, VDE-AR-N 4105:2018, UL1741, etc.

03 Safer for rooftop solar stations with rapid shutdown compliant and isolated transformer

Description

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

Each microinverter connects up to 1 PV modules with independent MPPT and monitoring, makes greater energy harvest and easier maintenance.

New Sub-1G wireless solution enables more stable communication when installed for any installation environment.

04 Excellent flexibility, faster installation and good adaptability to all kinds of module arrangement

05 Sub-1G wireless solution enables the stable communication when installed for commercial and industrial stations

Technical Specifications

Model	HMS-450-1T			HMS-500-1T		
Input Data(DC)						
Commonly used module power(W)	360~565			400~625		
Peak power MPPT voltage range(V)	36~48			38~48		
Start-up voltage(V)	22					
Operating voltage range(V)	16~60					
Maximum input voltage(V)	60					
Maximum input current(A)	13.3			14		
Output Data(AC)						
Rated output power(VA)	450			500		
Rated output current(A)	2.05	1.96	1.88	2.27	2.17	2.08
Nominal output voltage/range(V) ¹	220/180-275	230/180-275	240/180-275	220/180-275	230/180-275	240/180-275
Nominal frequency/range(Hz) ¹	50/45-55 or 60/55-65					
Power factor(adjustable)	>0.99 default 0.8 leading...0.8 lagging					
Total harmonic distortion	<3%					
Maximum units per 10AWG branch ²	15	16	17	14	14	15
Maximum units per 12AWG branch ²	9	10	10	8	9	9
Efficiency						
CEC peak efficiency	96.5%					
Nominal MPPT efficiency	99.8%					
Night power consumption(mW)	< 50					
Mechanical Data						
Ambient temperature range(°C)	-40 ~ +65					
Dimensions(W×H×D mm)	182*164*30					
Weight(kg)	1.75					
Enclosure rating	Outdoor-NEMA6(IP67)					
Cooling	Natural convection-No fans					
Features						
Communication	Sub-1G					
Monitoring	Hoymiles Monitoring System					
Compliance	EN 50549-1: 2019, VDE-R-N 4105: 2018, UL1741, 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 exact number of microinverters per branch.



Data Transfer Unit Datasheet

DTU-Pro-S

Description

Hoymiles gateway DTU-Pro-S is a data transfer unit which collects the information and data of PV microinverter using the Sub-1G wireless solution and sends to Hoymiles Monitoring System, S-miles Cloud, using different communication options such as Ethernet, WiFi or 4G.

With DTU-Pro-S, users can easily read the module-level data and alarm, realize remote operation and maintenance of the microinverter system at any time and any place on S-miles Cloud.

Features

01 Reliable and Flexible

- Sub-1G wireless solution enables stable communication with HMS, HMT series of microinverter
- More communication options with Ethernet, Wi-Fi or 4G
- Support of RS485, Ethernet to communicate with peripherals

02 Simple and Efficient O&M

- Module-level monitoring and data storage
- Local configuration with S-miles Toolkit
- Support remote O&M including remote upgrading, parameter setting

03 Smart

- Smart zero export control and power export limiting
- PV generation and load consumption monitoring

Technical Specifications

Model	DTU-Pro-S(WIFI Version)	DTU-Pro-S(4G Version)
Communication to Microinverter		
Signal		Sub-1G
Maximum distance (open space)		400m
Monitoring data limit from solar panels ¹		99
Communication to S-miles Cloud		
Ethernet	RJ45*1, 100Mbps	
Wireless ²	WIFI:802.11b/g/n	4G:TDD-LTE, FDD-LTE 3G:SCDMA 2G:GSM/GPRS
Sample rate		Per 15 minutes
Communication to Peripherals		
RS485		COM*1, 9600bps, Modbus-RTU
Ethernet		RJ45*1, Modbus-TCP
DRM (For AU/NZ only)		RJ45*1, DRM0/5/6/7/8
Interaction		
LED		LED Indicator*4 – RUN, Cloud, MI, ALM
APP		S-miles Toolkit
Power Supply (Adapter)		
Type		External adapter
Adapter input voltage/frequency		100 to 240 V AC / 50 or 60Hz
Adapter output voltage/current		5V / 2A
Power consumption	Typ. 1.5W / Max. 3.0W	Typ. 2.5W / Max. 5.0W
Mechanical Data		
Ambient temperature(°C)		-20°C to 55°C
Dimensions(W×H×D)		200mm×101mm×29mm (without antennas)
Weight		0.20 kg
Installation method		Wall mounting / Desktop mounting
Environmental rating		Indoor-IP20
Compliance		
Certificates		CE, FCC, IC, RCM, Anatel
Microinverter Compatibility		
Microinverter model		HMT-2250/1800-6T HMS-2000/1800-4T, HMS-1500/1200-4T HMS-1000/900-2T, HMS-800/700/600-2T HMS-500/450/400/350/300-1T

*1 Depending on the installation environment, please refer to user manual for more details.

*2 If the DTU installation location is inside a metal box or under the metal/concrete roof, extended antenna will be suggested.