



World leading MLPE PV inverter brand
Safer · Stronger · Smarter · Smaller

Hoymiles United States

8221 NW 30th Terrace Doral
Florida, 33122
Tel: (+1) 305 599 5208
E-mail: support_us@hoymiles.com

Hoymiles Canada

141 Stewart Ave. Stewart Siding
Lethbridge, AB
T1J 4P4
Tel: (+1) 403 360 1121
E-mail: support_ca@hoymiles.com

Hoymiles Germany

Frankfurt, Germany
Tel: (+49) 163 1958369
E-mail: support_de@hoymiles.com

Hoymiles France

277 Rue Jean-Baptiste Biot
66000 Perpignan
Tel: (+33) 972 528 520
E-mail: support_fr@hoymiles.com

Hoymiles Poland

Krakow, Poland
Tel: (+48) 664 340 224
E-mail: support_pl@hoymiles.com

Hoymiles Brazil

Endereço: Rua Joaquim Pimenta
195A - Montese
Fortaleza - CE
Tel: (+55) 85 3491 8556
E-mail: support_br@hoymiles.com

Hoymiles Ireland

2 The Diamond,
Ballycastle
BT54 6AW
Tel: (+44) 28 2076 9210
E-mail: support_ie@hoymiles.com

Hoymiles South Africa

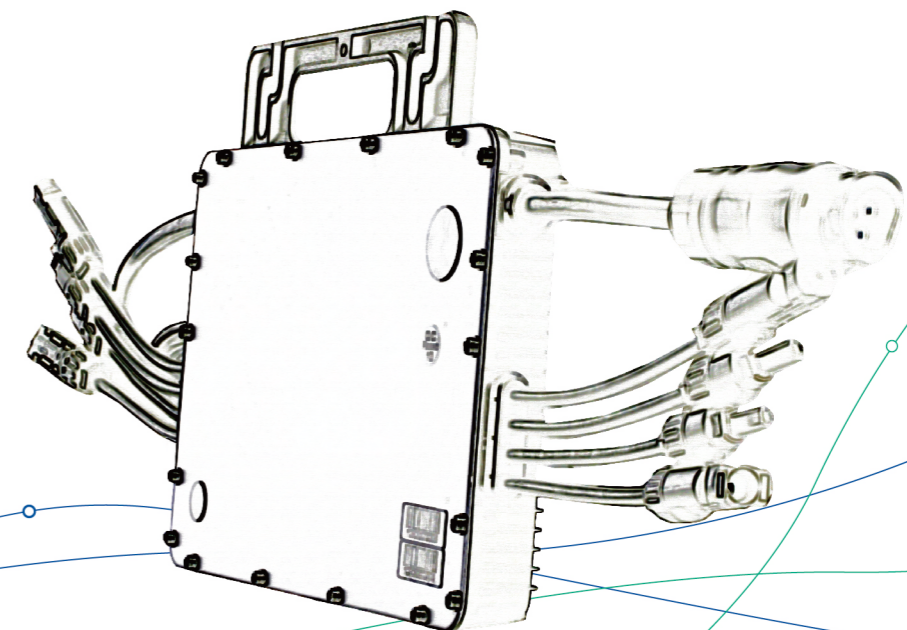
94 Eloff Street Ext
Village Deep
Johannesburg
Tel: (+27) 11 490 3800
E-mail: support_za@hoymiles.com

Hoymiles Korea

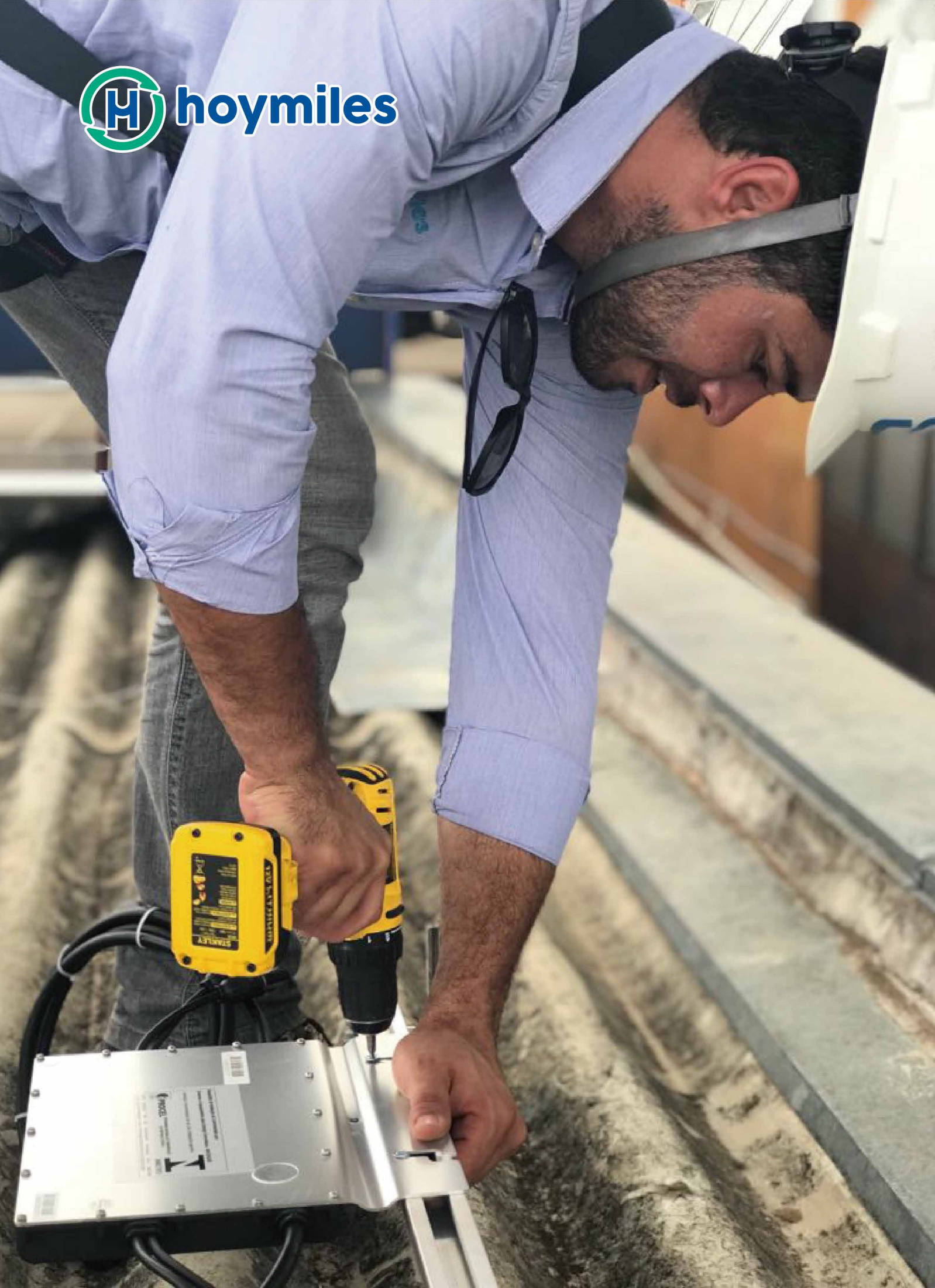
Dongmun Tower 2 706
Hosuro 358-25
Goyang City, Gyeonggi-prov
Tel: (+82) 70 4900 4686
E-mail: support_kr@hoymiles.com

Hoymiles Headquarters

No.18 Kangjing Road, Hangzhou 310015, P.R. China
Tel: +86 571 2805 6101
Fax: +86 571 2805 6137
E-mail: sales@hoymiles.com
Website: www.hoymiles.com



MICROINVERTER
SOLAR SOLUTIONS



Contents

About Hoymiles	01
Hoymiles Microinverters	05
4 in 1 Unit (for 4 panels)	
2 in 1 Unit (for dual panels)	
Single Unit (for single panel)	
Microinverter Accessories	11
Smart Monitoring	13
Global Applications	17
Global Service	21

Hoymiles Introduction

Hoymiles is a world leading microinverter company specialising in MLPE (Module-Level Power Electronics) solutions for global solar investors & end users.

As one of the fastest growing inverter brands globally, Hoymiles provides a safer and smarter module-level MPPT and monitoring microinverter in over 50 countries including the U.S., Europe, Australia, Latin America, India, Japan, Korea, South East Asia, the Middle East and South Africa.

Hoymiles was founded in 2008 by 3 post-doctors operating as a R&D team in China's National Power Electronics Laboratory, based at Zhejiang University, one of the top 3 universities in China and one of the top 60 in the world.

In 2015, Hoymiles microinverter achieved the world's highest CEC peak efficiency - 96.7% in California, U.S., which ranked it as the most efficient microinverter globally when compared with other well known brands.

An interview-based article in 2017 by PV-Tech, the leading professional solar media organisation, entitled "The Biggest Microinverter Firm You Have Never Heard Of", spread the Hoymiles name around the world as the "Invisible Champion" of microinverters in the Chinese PV market, now supplying over 50% of the world's solar installations with 53GW in 2017.

Today, 10,000+ commercial & residential rooftop installations (the biggest one 3.6MW) are built annually using different models of Hoymiles microinverters: single unit (MI-250/300), 2 in 1 unit (MI-500/600/700) & 4 in 1 unit (MI-1000/1200).

Thanks to the constant efforts of Hoymiles' 500+ staff, together with distribution and service partners all over the world, the company has established local logistics & service networks in over 20 countries, including Germany, the Netherlands, Poland, Estonia, Brazil, Mexico, South Africa, the U.S., Canada, Korea & India.

Localisation is the key to the company's ongoing success - the combination of local warehouses, local training and local service centers keeps Hoymiles together with its local customers 24/7, 365 days a year.

Hoymiles Milestone



2008

Establish R&D team of PV inverters in the National Key Power Electronics Laboratory of P.R.China.

2010

Successful design of smart modular PV on-grid inverters for PV power station in P.R.China.

2011

Successful design of microinverter with multiple international certificates.

2012

All series of Hoymiles 50kW-500kW smart modular PV on-grid inverter gain the certification of "CQC-SOLAR". Hoymiles becomes a member of Hangzhou PV Association.

2013

Hoymiles joins the writing of national compulsory standard of PV on-grid inverter.

2014

Hoymiles microinverters are certificated by CSA, BV, SAA and CQC.

2015

Hoymiles 250W & 500W microinverters enter the USA, Europe & Australia market. Over 10,000 rooftops are installed by Hoymiles microinverters globally.

2016

Hoymiles R&D team wins the second prize of National Natural Science Award of P.R.China.

2017

The World's largest microinverter project (3.6MW) is built by Hoymiles with 6,000 units of 2 in 1 unit MI-600; Hoymiles is authorized as CSA testing laboratory.



10+ SCI/EI Papers

50+ Export Countries

100+ R&D Engineers

2000+ Group Staff

CSA 集团授权实验室
CSA AUTHORIZED TESTING LABORATORY

Advantages of Hoymiles MLPE Microinverters

Safer

100% safe up to 60V DC input voltage (natural rapid shutdown); IP67

Smarter

Smarter monitoring for remote module-level troubleshooting & maintenance

More Powerful

Module-level MPPT & unique parallel design ensuring 10-30% higher yield than series-wound PV system

More Reliable

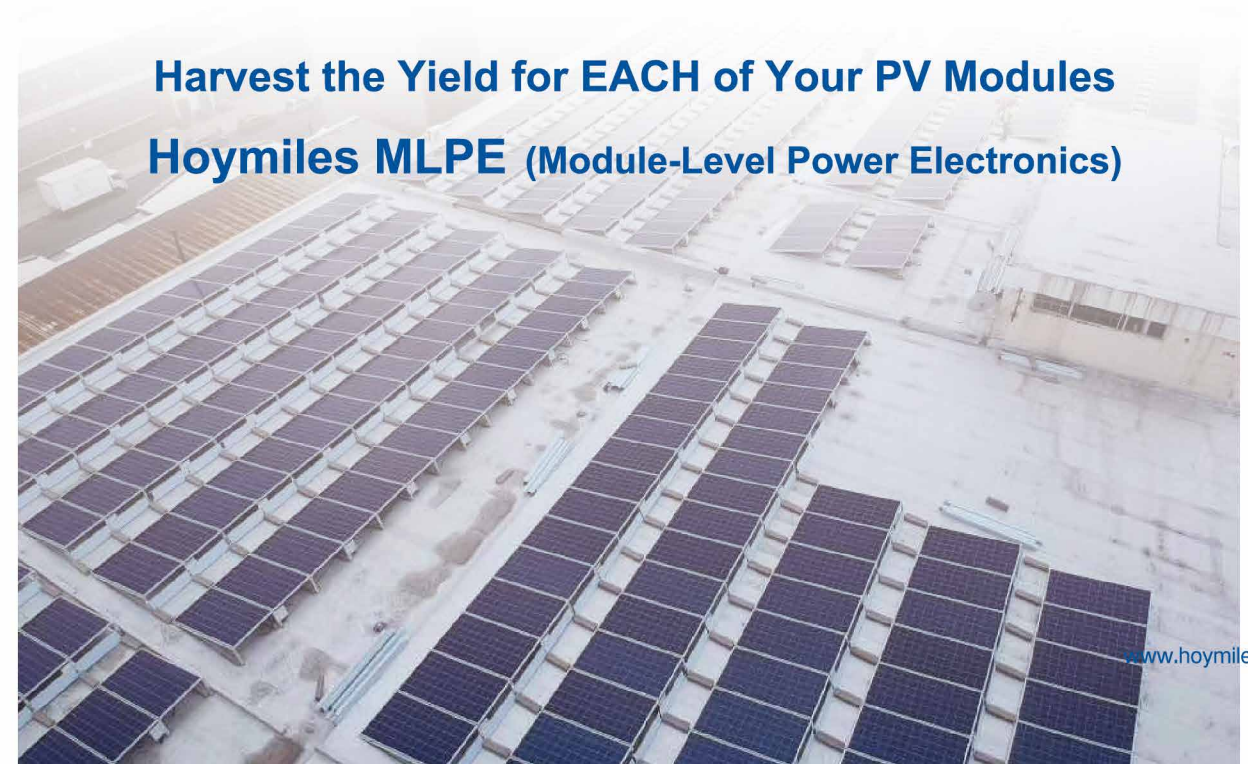
6000V surge protection; MTBF (mean time between failure) > 550 years; Yearly failure rate < 0.18%



The Top World's No.1 CEC Peak Efficiency for Microinverter - **96.7%** in 2015

The Biggest The Biggest Microinverter Supplier in the Chinese Market

The Best The Best Power Density Ever for Microinverter



Harvest the Yield for EACH of Your PV Modules
Hoymiles MLPE (Module-Level Power Electronics)

Microinverter

4 in 1 unit



MI-1000 / MI-1200

“The World’s First Single-Phase Microinverter” designed for 4 solar panels with dual MPPT, with wide DC input operating voltage range (16-60V) and low start-up voltage (22V only).

Hoymiles 4 in 1 microinverter MI-1000/MI-1200 is “The Best Power Density Microinverter” ever in the solar industry with extremely light weight - only 3.75kg including integrated DC & AC cables; 3-phase wiring makes it easy to be configured by Hoymiles 4 in 1 microinverter for MW size commercial PV power stations (one of the world’s biggest microinverter projects configured by Hoymiles microinverter is 3.6MW).

Highlights

- Maximum output power up to 1000/1200W; Adapted to 60 & 72 cells PV panels
- Peak efficiency 96.5%; CEC weighted efficiency 96.0%
- Static MPPT efficiency 99.8%; Dynamic MPPT efficiency 99.76% in overcast weather
- High reliability: NEMA6 (IP67) enclosure ; 6000V surge protection

Model	MI-1000 / MI-1200 (4X60 cells / 4X72 cells)		
-------	--	--	--

Input Data(DC)			
Recommended input power (W)	Up to 310/380 (Single panel)		
Peak power MPPT voltage range (V)	27 ~ 48/32 ~ 48		
Start-up voltage(V)	22		
Operating voltage range (V)	16 ~ 60		
Maximum input voltage (V)	60		
Maximum input current (A)	10.5Ax4		

Output Data (AC)	@208V AC	@240V AC	@230V AC
Rated output power (W)	1000/1200	1000/1200	1000/1200
Rated output current (A)	4.81/5.76	4.16/5	4.35/5.22
Nominal output voltage/range (V)	208/183-250	240/211-264	230/180-275
Nominal frequency/range (Hz)	60/59.3-60.5	60/59.3-60.5	50/45-55
Power factor	> 0.99	> 0.99	> 0.99
Output current harmonic distortion	< 3%	< 3%	< 3%
Maximum units per 20A branch	3 / 3	4 / 3	4 / 3

Efficiency	
CEC peak efficiency	96.50%
CEC weighted efficiency	96.00%
Nominal MPPT efficiency	99.80%
Night time power consumption (mW)	<50

Mechanical Data	
Ambient temperature range (°C)	-40 ~ +65
Operating temperature range (°C)	-40 ~ +85
Dimensions (W×H×D mm)	280×176×33
Weight (kg)	3.75(including 1.9m AC cable)
Enclosure rating	NEMA6(IP67)
Cooling	Natural convection - No fans

Loading Quantity		
Container	1X20' GP	1X40' GP/1X40' HQ
Pallet No.	10	22
Carton No.	360	756
Total Quantity	1800	3780

Other Features	
Communication	Wireless
Design lifetime	> 25 years

Standard Compliance	
EMC	EN61000-6-3:2007+A1:2011EN61000-6-2:2005EN61000-3-2:2014 EN61000-3-3:2013
Safety	EN62109-1:2010EN62109-2:2011IEC 62109-1 Ed 1.0IEC 62109-2 Ed 1.0 UL Std No.1741-Second EditionEN 60529
On-Grid	AS/NZS 4777.2:2015VDE-AR-N4105:2011-08DIN V VDE V 0126-1-1/A1:2012:02 IEC61727:2004EN50438:2013ANSI/IEEE 1547.1IEC62116:2011UTE C 15-712-1:2010-07 NBT32004-2013



Microinverter

2 in 1 unit



MI-500 / MI-600 / MI-700

“The World’s First Daisy-Chain 2 in 1 Microinverter for Large Scale Commercial Application” is designed for dual solar panels with double MPPT, and wide DC input operating voltage range (16–60V) and low start-up voltage (22V only).

Hoymiles 2 in 1 microinverter MI-500/MI-600/MI-700 is the world’s most powerful microinverter solution for dual solar panels with CEC weighted efficiency as high as 96.5% (world’s No.1 for 2 in 1 unit in 2015); with quicker installation and much higher power density compared with single unit, it’s also one of the best-selling microinverters for Hoymiles up to now worldwide.

Highlights

- Maximum output power up to 500/600/700W; Adapted to 60 & 72 cells PV panels
- Peak efficiency 96.7%; CEC weighted efficiency 96.5%
- Static MPPT efficiency 99.8%; Dynamic MPPT efficiency 99.76% in overcast weather
- High reliability: NEMA6 (IP67) enclosure; 6000V surge protection

Model	MI-500 / MI-600 / MI-700 (2X60 cells / 2X72 cells)		
Input Data(DC)			
Recommended input power (W)	Up to 310/380/400 (Single panel)		
Peak power MPPT voltage range (V)	27 ~ 48/29 ~ 48/33 ~ 48		
Start-up voltage(V)	22		
Operating voltage range (V)	16 ~ 60		
Maximum input voltage (V)	60		
Maximum input current (A)	10.5/11.5/11.5		
Output Data (AC)			
	@208V AC	@240V AC	@230V AC
Rated output power (W)	500/600/700	500/600/700	500/600/700
Rated output current (A)	2.40/2.88/3.36	2.08/2.50/2.91	2.17/2.61/3.04
Nominal output voltage/range (V)	208/183-250	240/211-264	230/180-275
Nominal frequency/range (Hz)	60/59.3-60.5	60/59.3-60.5	50/45-55
Power factor	> 0.99	> 0.99	> 0.99
Output current harmonic distortion	< 3%	< 3%	< 3%
Maximum units per 20A branch	6/5/4	7/6/6	7/5/5
Efficiency			
CEC peak efficiency	96.7%		
CEC weighted efficiency	96.5%		
Nominal MPPT efficiency	99.8%		
Night time power consumption (mW)	< 50		
Mechanical Data			
Ambient temperature range (°C)	-40 ~ +65		
Operating temperature range (°C)	-40 ~ +85		
Dimensions (W×H×D mm)	250×170×28		
Weight (kg)	3.00(including 1.9m AC cable)		
Enclosure rating	NEMA6(IP67)		
Cooling	Natural convection - No fans		
Loading Quantity			
Container	1X20' GP	1X40' GP/1X40' HQ	
Pallet No.	10	22	
Carton No.	480	1008	
Total Quantity	2400	5040	
Other Features			
Communication	Wireless		
Design lifetime	> 25 years		
Standard Compliance			
EMC	×	EN61000-6-3:2007+A1:2011EN61000-6-2:2005EN61000-3-2:2014 EN61000-3-3:2013	
Safety		EN62109-1:2010EN62109-2:2011IEC 62109-1 Ed 1.0IEC 62109-2 Ed 1.0 UL Std No.1741-Second EditionEN 60529	
On-Grid		AS/NZS 4777.2:2015VDE-AR-N4105:2011-08DIN V VDE V 0126-1-1/A1:2012:02 IEC61727:2004EN50438:2013ANSI/IEEE 1547.1IEC62116:2011UTE C 15-712-1:2010-07 NBT32004-2013	



Microinverter

Single unit



MI-250 / MI-300

“The World’s First Daisy-Chain Single Unit Microinverter” with extremely wide DC input operating voltage range (16-60V) and low start-up voltage (22V only).

Hoymiles single unit microinverter MI-250/MI-300 is the perfect selection for PV system with uneven number of panel numbers with world’s No.1 CEC weighted efficiency - 96.5% (peak efficiency - 96.7%) in 2015.

Highlights

- Maximum output power up to 250/300W; Adapted to 72 cells PV panels
- Peak efficiency 96.7%; CEC weighted efficiency 96.5%
- Static MPPT efficiency 99.8%; Dynamic MPPT efficiency 99.76% in overcast weather
- High reliability: NEMA6 (IP67) enclosure; 6000V surge protection

Model	MI-250 / MI-300 (1X60 cells / 1X72 cells)		
-------	--	--	--

Input Data(DC)			
Recommended input power (W)	Up to 310/380		
Peak power MPPT voltage range (V)	27 ~ 48/29 ~ 48		
Start-up voltage(V)	22		
Operating voltage range (V)	16 ~ 60		
Maximum input voltage (V)	60		
Maximum input current (A)	10.5/11.5		

Output Data (AC)	@208V AC	@240V AC	@230V AC
Rated output power (W)	250/300	250/300	250/300
Rated output current (A)	1.20/1.44	1.04/1.25	1.09/1.30
Nominal output voltage/range (V)	208/183-250	240/211-264	230/180-275
Nominal frequency/range (Hz)	60/59.3-60.5	60/59.3-60.5	50/45-55
Power factor	>0.99	>0.99	>0.99
Output current harmonic distortion	<3%	<3%	<3%
Maximum units per 20A branch	13/12	14/12	14/11

Efficiency	
CEC peak efficiency	96.7%
CEC weighted efficiency	96.5%
Nominal MPPT efficiency	99.8%
Night time power consumption (mW)	< 50

Mechanical Data	
Ambient temperature range (°C)	-40 ~ +65
Operating temperature range (°C)	-40 ~ +85
Dimensions (W×H×D mm)	178x153x28
Weight (kg)	1.98(including 1m AC cable)
Enclosure rating	NEMA6(IP67)
Cooling	Natural convection - No fans

Loading Quantity		
Container	1X20' GP	1X40' GP/1X40' HQ
Pallet No.	10	22
Carton No.	600	1260
Total Quantity	3000	6300

Other Features	
Communication	Wireless
Design lifetime	> 25 years

Standard Compliance	
EMC	EN61000-6-3:2007+A1:2011 EN61000-6-2:2005 EN61000-3-2:2014 EN61000-3-3:2013
Safety	EN62109-1:2010 EN62109-2:2011 IEC 62109-1 Ed 1.0 IEC 62109-2 Ed 1.0 UL Std No.1741-Second Edition EN 60529
On-Grid	AS/NZS 4777.2:2015 VDE-AR-N4105:2011-08 DIN V VDE V 0126-1-1/A1:2012:02 IEC61727:2004 EN50438:2013 ANSI/IEEE 1547.1 IEC62116:2011 UTE C 15-712-1:2010-07



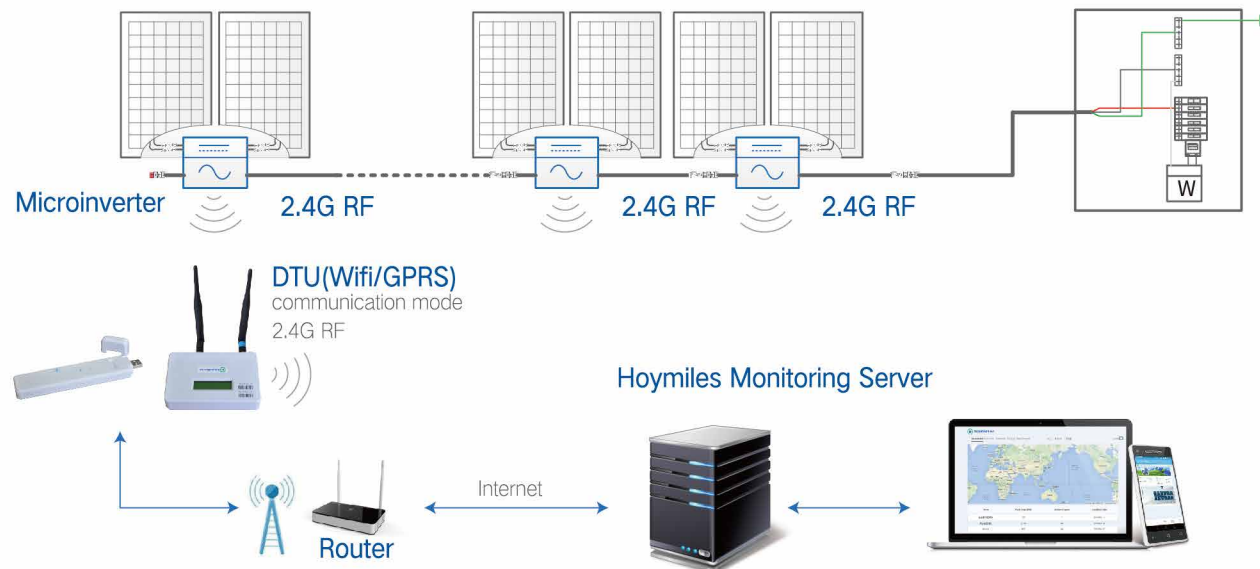
Microinverter Accessories



Name	Function	Applicable Models
1 DC Extension Cable	Provides extended connection between microinverter & PV model; With x1 MC4 male and x1 MC4 Female connector.	MI-1000/1200
2 AC Extension Cable	To extend cable length; With male and female connector.	ALL
3 AC End Cable-F	Provides connection from the last microinverter to distribution box; One female connector with 2m 12 AWG cable.	ALL
4 AC Female Connector	AC female connector is provided to make AC end cable or AC extension cable.	ALL

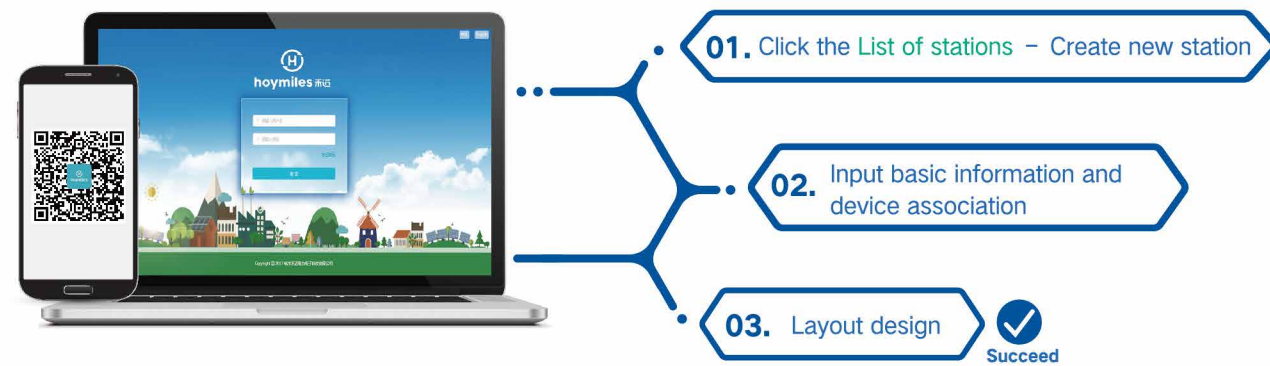
Name	Function	Applicable Models
5 AC Male Connector	AC male connector is provided to make AC end cable or AC extension cable.	ALL
6 AC Female End Cap	IP67 female end cap is provided to seal AC female connector of microinverter.	ALL
7 AC Male End Cap	IP67 male end cap is provided to seal AC male connector of microinverter.	ALL
8 DC Connector Unlock Tool	Used to remove DC connectors.	ALL
9 AC Connector Unlock Tool	Used to unlock AC connectors.	ALL
10 Screw	Install one microinverter on the rail by 2 pcs of M8*25 screws.	ALL

Hoymiles 3rd Generation Monitoring Platform



How to set up a Hoymiles monitoring system?

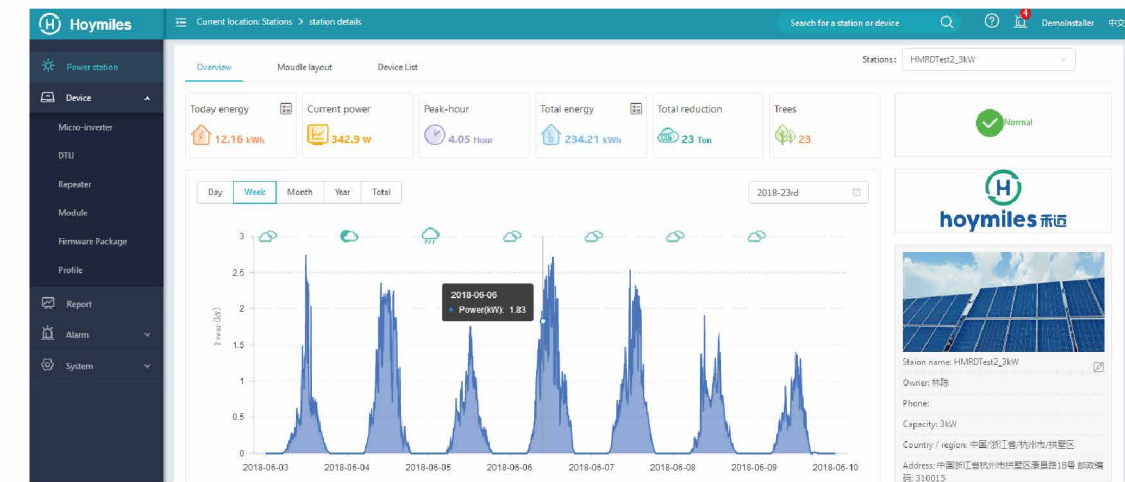
Download and access the Hoymiles monitoring application easily with the use of your Smartphone/Pad; each Hoymiles PV monitoring station will be setup in **3 easy steps**



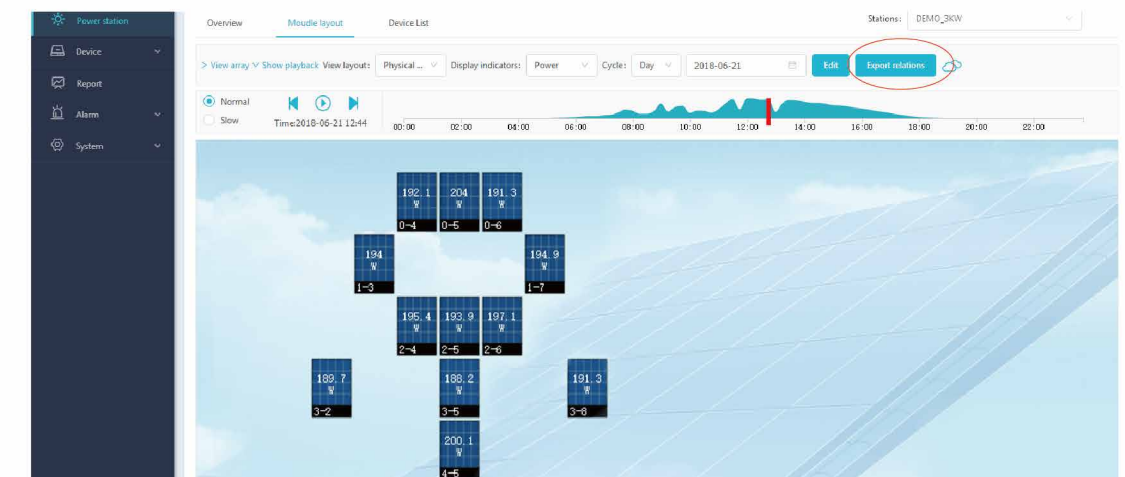
Privacy protection of personal information
Compliant with GDPR (the General Data Protection Regulation) of EU

Key features of Hoymiles new smart monitoring system

Module-level remote monitoring for microinverter's operating status in real time.



Availability for downloading module-level operating & failure report.



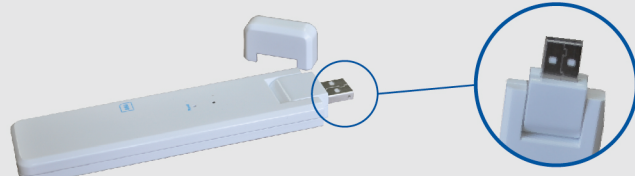
Smart operation for adding, cancelling, checking & revising power station data.

Micro inverter id	NET connect	Station Name	Dealer	Installer	Connected DTU	Connected repeater	Hardware item number	hardware version	Alarm status	Action
100088889999	Offline	CustomerDemo_2k W	英迈	Installer-Demo	10K0335555	...	...	...	...	Restart, Firmware upgrades, More >
104066665555	Offline	CustomerDemo_2k W	英迈	Installer-Demo	10K0335555	...	...	...	Normal	Restart, Firmware upgrades, More >
100041600015	Offline	CustomerDemo_2k WQ	英迈	Installer-Demo	10F1316033 04	10E021602179	...	H0.0.0	...	Restart, Firmware upgrades, More >
100041600025	Offline	CustomerDemo_2k WQ	英迈	Installer-Demo	10F1316033 04	10E031602179	...	H0.0.0	...	Restart, Firmware upgrades, More >
100041600004	Offline	CustomerDemo_2k WQ	英迈	Installer-Demo	10F1316033 04	10E031602179	...	H0.0.0	...	Restart, Firmware upgrades, More >

Wireless Communication for Both Microinverter & Cloud



DTU-G100
DTU-W100
DTU-G20
DTU-W20



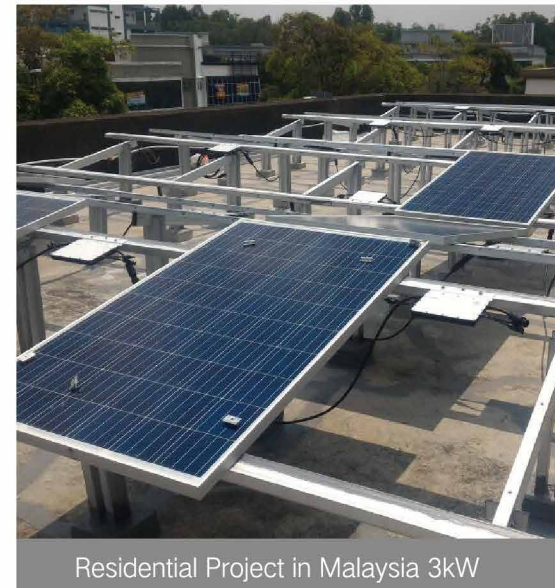
Model	DTU-G100 / DTU-W100 (Commercial use)	DTU-G20 / DTU-W20 (Residential use)
Communication to Microinverter		
Signal	2.4G RF	
Sample Rate	Per 15 minutes	
Maximum Distance (Open space)	200m	
Monitoring Data Limit from Solar Panels	100 panels (DTU-G100/W100)	20 panels (DTU-G20/W20)
Communication to Cloud		
Signal	GSM (frequency: 850/900/1800/1900MHz) / Wi-Fi	
Power Supply(Adapter)		
Type	Wireless adapter with USB port	
Input Voltage / Frequency	100 to 240 V AC/50 or 60Hz	
Output Voltage / Current	5V/2A	
Power Consumption	1.0W(typical), 5W(maximum)	
Mechanical Data		
Ambient Temperature(°C)	-20 ~+55	
Dimensions (W×H×D mm)	143×33×12.5	
Weight (kG)	0.1	
Mounting System	Direct plugin	
Indicator Light	LED	
Others		
Compliance	EN 60950-1 EN 62311 EN 301 489-1 EN 301 489-3 EN 300 440 EN 55032 EN 55035 EN 61000-3-2 EN 61000-3-3	
Standard Warranty	2+ years	

Model	DTU-MI	
Communication to Microinverter		
	DTU-MI / DTU-MI-GPRS	
Signal	2.4G RF	
Sample Rate	Per 5 minutes	
Maximum Distance (Open space)	200m	
Monitoring Data Limit from Solar Panels	99	
Communication to Cloud		
	RJ45 Ethernet 10M or 100M	GPRS
Power Supply		
Type	External plug-in adapter	
Adapter Input Voltage / Frequency	100-240V AC/50 or 60Hz	
Adapter Output Voltage / Current	5V/0.8A	
Power Consumption	2.5W(typical)/ 5W (maximum)	
Mechanical Data		
Ambient Temperature Range(°C)	-20~+55	
Dimensions (W×H×Dmm)	149×90×31	
Weight (kG)	0.22	
Mounting System	Wall mounted	
Display	LCD	
Others		
Compliance	EN 60950-1 EN 62311 EN 301 489-1 EN 301 489-3 EN 300 440 EN 55032 EN 55035 EN 61000-3-2 EN 61000-3-3	
Standard Warranty	2+ years	

Model	DTU-433	Repeater
Communication to Microinverter		
Signal	470M-LORA	2.4G RF
Sample Rate	Per 5-15minutes	Per 5 seconds
Maximum Distance (Open space)	500m	200m
Monitoring Data Limit from Solar Panels	299	N.A.
Communication to Router/PC		
	RJ45 Ethernet 10M or 100M	470M-LORA
		Maximum distance (open space) 2000m
Power Supply		
Type	External plug-in adapter	100 - 240 V AC/50 or 60Hz
Adapter Input Voltage / Frequency	100 - 240 V AC/50 or 60Hz	N.A.
Adapter Output Voltage / Current	5V/0.8A	0.5W (typical), 1W (maximum)
Power Consumption	2.5W (typical), 5W (maximum)	N.A.
Mechanical Data		
Ambient temperature range (°C)	-20 ~ +65	-40 ~ +65
Dimensions (W X H X D mm)	149 X 90 X 31	145 X 125 X 60
Weight (kG)	0.22	0.35
Mounting System	Wall Mounted	N.A.
Display	LCD	N.A.
Others		
Compliance	EN 60950-1 EN 62311 EN 301 489-1 EN 301 489-3 EN 300 440 EN 55032 EN 55035 EN 61000-3-2 EN 61000-3-3	
Standard Warranty	2+ years	

Global Applications

Asia



Africa



North America



Industrial Project in Cuba 100kW



Residential Project in USA 10kW

South America



Gas Station Project in Brazil 26kW



Residential Project in Mexico 5kW

Europe



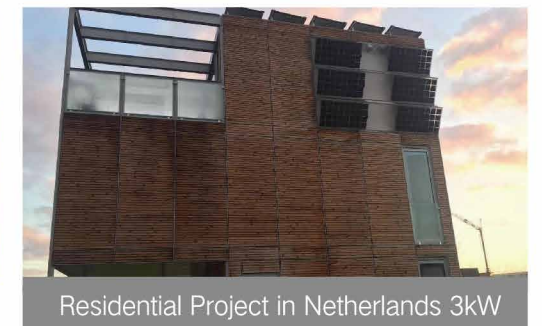
Residential Project in Austria 3kW



Residential Project in Poland 3kW



Commercial Project in Poland 12kW



Residential Project in Netherlands 3kW

Local Service for Distributors/Installers



System Design

We provide customized service to customers in terms of system design of photovoltaic power station, the implementation, equipment selection, optimization, consultation and the necessary support, which help our customers optimize the PV power stations.



Hotline Service

Customers can contact our 24/7 hotline in case of any equipment failure. Our technical staff will contact the customer to analyze the fault, propose solutions, and consequently direct the customers in trouble shooting.



On-site Service

If the problem can't be solved via hotline, Engineers will be sent to site in a timely manner to clear the fault to ensure the proper functioning of the equipment within the shortest time.



Regular Return Visit

Our after service team will provide one follow up visit per annum within the warranty. We'll check the equipment to remove any hazards thus to reduce the chance of faults and guarantee the proper functioning of the equipment.



Customer Training

Hoymiles attaches much importance on customer training to effectively deliver the specialized knowledge to our customers. We provide timely on-site training programs according to varied requirements to share the specialized knowledge and rich experiences. The regular training programs include fault diagnosis, device debugging, equipment maintenance etc.



Customized Service

Customized service and corresponding agreements are available to meet the specific needs of customers. The services include system design secondary development, technique support to special tests, and warranty service etc.

Global Service Networks

With the world leading cutting-edge technology of the Microinverter, Hoymiles developed a global market which covers more than 50 countries, including USA, Australia, Germany, France, Netherlands, Italy, Japan, Korea, Brazil, Mexico and India.

