Open Energy For All

CONTENTS

WALTZ

Zhejiang University + Hangkai Group = hoymiles

Zhejiang University | Hangkai Group | Hoymiles R&D team

- Top 3 in China
- Top 60 in world

- 62 masters
- 12 doctors
- 6 post doctors

WALTZ

2012

Hoymiles was officially established as a business.

2013

We began R&D cooperation with Japan Fuji Electric Co. Ltd.

2014

Hoymiles microinverters were certificated by CSA, IEC, EN1 and CQC.

2015

Certified as the State High-tech Enterprise. Hoymiles microinverters entered the USA, Europe & Australia market.

2016

Dr. Ric Yang, founder of Hoymiles, won the award prize of the State Natural Science Awards.

2017

Raised $6 million US$ in Series A funding. Launched HMS1000-1600, one of the most cost effective 4 in 1 microinverter in the market. Our lab became a CEC authorized testing laboratory.

2018

Hoymiles joined the working of national energy industry standard of PV energy microinverter and optimizer (NB/T 10115/2018 & NB/T 10116/2018).

2020

Launched the 3rd generation of microinverter, adapted to industrial and commercial system, and the 2nd generation of hybrid inverter.

Certified as Model PV Manufacturing Enterprise by the Ministry of Industry and Information

2021

Hoymiles was officially delisted on the Shenzhen Stock Exchange (SZ: 300827) and started with Stock code: 688390.

Installation in 100+ countries & regions, and still counting

Partnership covering 76+ countries &regions

Local offices, staff & warehouses in the States, Canada, Netherland & Brazil

02

What do we value?

Clean Energy For All

What do we value

R&D

driven & diligent

Manufacturing

rigor & accuracy

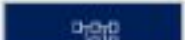
Service

responsive & customer-centered

WALTZ

Dedicated to MLPE

module level power electronics



Focus on distributed technology

safer, smarter, more efficient

Backed by a driven & diligent engineer team

Solid academic background with decades of experience

in sustainable energy industry

Pioneering Technology

Real CEC weighted efficiency of 98.5%

What do we value | manufacturing

Short lead Time

4-5 weeks

Low failure rate

0.18%

Instant trouble-shooting

1 hour

WALTZ

Responsive & Customer-centered

Assuring Warranty
up to 25 years

Quick Response
2-24 hours, 3 working days

Instant Access
to resources, regular webinars and fresh leads

Regular Visit
training & on-site service to key clients

Local Service
provided in most major markets

03

What have we done?

Clean Energy For All

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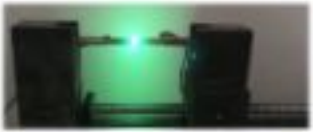
Build your smart energy ecosystem with reliable, rugged technology

WALTZ

Under 40V DC

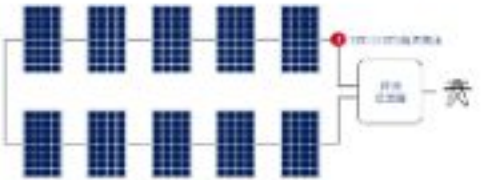
Slight drawing arc, no electric shock

Under 600V DC

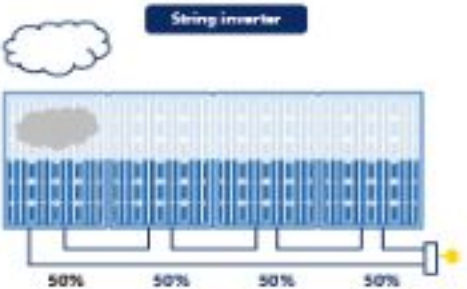


Strong drawing arc and electric shock

▶ Conflagrations of PV systems due to heavy drawing arcs caused by high DC voltage



In PV system consisted of micro-inverters, the voltage at DC side is less than 60V, will not cause any risk of conflagrations, while in conventional system of string inverter, the voltage at DC side are always between 600~1500V, which will highly lead to fire risk due to strong drawing arc and electric shocks



In PV system consisted of micro-inverters, highest power output from each panel can be achieved by modular level MPPT from each micro-inverter, while in conventional system of string inverter, due to the cost effect, its yield of energy is always limited by the panel which gives the weakest performance under various conditions

Advantages of our product portfolio

- Full product range
  1-1 to 1-6, 250W~2250W
- High cost effective
  LCOE
- World's leading power density
  920W/L(1500W)
- Global compliant
  EN50549-1:2019 and California Rule 21

- Best CEC weighted efficiency
  96.7%
- Leading MPPT efficiency
  99.8%
- Low failure rate
  0.1%
- Low start-up voltage
  22V
- Installer friendly
  Plug-and-play, easy installation

WALTZ

Single-Phase Microinverters

Best suited for residential use and in small commercial environments.

Our microinverters are long-lasting, easy to install, and come with incredibly low failure rates.

HMS-450/500

HMS-900/1000

HMS-1600/1800/2000

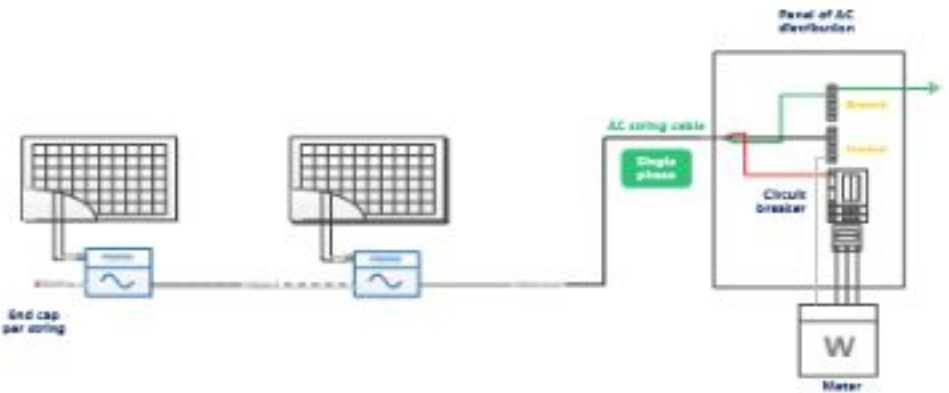
DTU Sub1G

Smart monitoring

Accessories

▶ **Hoymiles single-phase micro-inverter series (HMS series)**

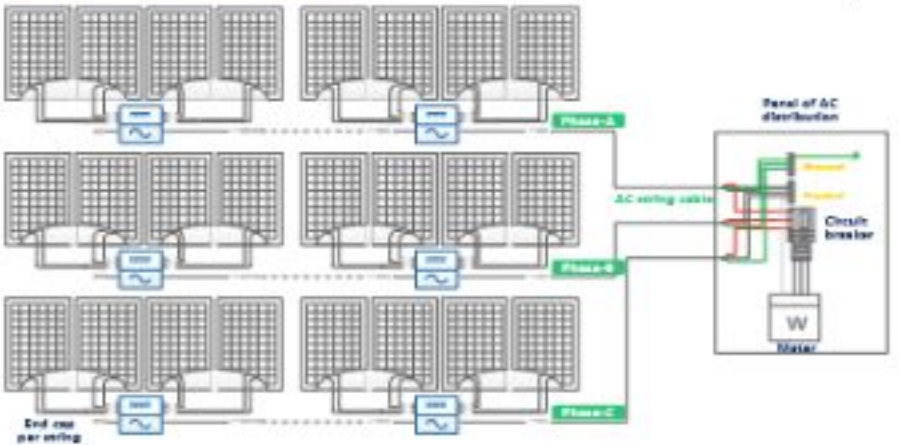
	HMS-450-TT	HMS-500-TT
Recommended power of PV modules [W]	360~600+	400~670+
Range of MPPT voltage [V]	36~48	36~48
Range of operating voltage [V]	16~60	
Maximum input voltage [V]	65	
Maximum input current [A]	15	16
Rated output power [VA]	450	500
Rated output current [A]	2.05/1.96/1.88	2.27/2.17/2.08
Nominal output voltage (range) [V]	220/230/240 (180~275)	220/230/240 (180~275)
Nominal frequency (range) [Hz]	50(45~55) or 60(55~65)	
Power factor (adjustable)	>0.99 default (0.8 leading....0.8 lagging)	
Communication	Sub-1G Proprietary RF	
Total harmonic distortion	<3%	<3%
Maximum units per string (10AWG)	15/16/17	14/14/15
Efficiency	96.5% (Peak) / 99.8% (Nominal MPPT)	
Enclosure rating	IP67 (Outdoor - NEMA6)	
Operating temperature [°C]	-40 to +65	
Dimensions and weight	182*164*30mm / 1.75Kg	182*164*30mm / 1.75Kg
Standard warranty [Years]	12 (Extendable to 20 and 25 years)	


Panel of AC distribution
AC wiring cable
Single phase
Circuit breaker
End cap per string
W
Meter

	HMS-900-2T	HMS-1000-2T
Recommended power of PV modules [W]	360~600+	400~670+
Range of MPPT voltage [V]	36~48	36~48
Range of operating voltage [V]	16~60	
Maximum input voltage [V]	65	
Maximum input current [A]	2*15	2*16
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]	220/230/240 (180~275)	220/230/240 (180~275)
Nominal frequency (range) [Hz]	50(45~55) or 60(55~65)	
Power factor (adjustable)	>0.99 default (0.8 leading....0.8 lagging)	
Communication	Sub-1G Proprietary RF	
Total harmonic distortion	<3%	<3%
Maximum units per string (18AWG)	7/8/8	7/7/7
Efficiency	96.5% (Peak) / 99.8% (Nominal MPPT)	
Enclosure rating	IP67 (Outdoor - NEMA6)	
Operating temperature [°C]	-40 to +65	
Dimensions and weight	261*223*31mm / 3.0Kg	261*223*31mm / 3.0Kg
Standard warranty [Years]	12 (Extendable to 20 and 25 years)	


Phase-A
Phase-B
Phase-C
AC wiring cable
Panel of AC distribution
Neutral
Positive
Circuit breaker
W
Meter
End cap per string

	HMS-1600-4T	HMS-1800-4T	HMS-2000-4T
Recommended power of PV modules [W]	320~540w	360~565	400~625
Range of operating voltage [V]	16~60		
Maximum input voltage [V]	65		
Maximum input current [A]	4*15	4*15	4*16
Rated output power [VA]	1600	1800	2000
short circut current[A]	25	25	25
Nominal output voltage (range) [V]	220/230/240 (180~275)		
Nominal frequency (range) [Hz]	50(45~55) or 60(55~65)		
Communication	Sub-1G Proprietary RF		
Maximum units per string (10AWG)	4/4/4	3/4/4	3/3/3
Efficiency	96.5% (Peak) / 99.8% (Nominal MPPT)		
Enclosure rating	IP67 (Outdoor - NEMA6)		
Operating temperature [°C]	-40 to +65		
Dimensions and weight	331*218*34.6mm / 4.7Kg		
Standard warranty [Years]	12 (Extendable to 20 and 25 years)		

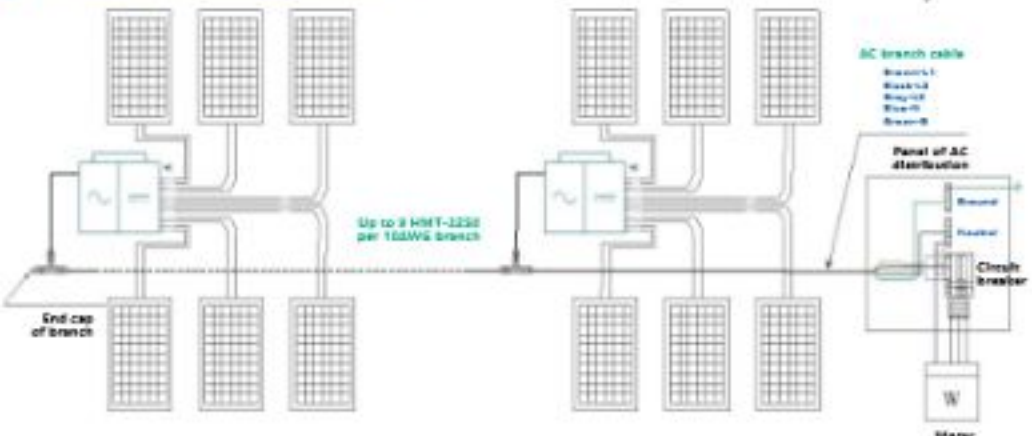

Phase-A
Phase-B
Phase-C
AC wiring cable
Panel of AC distribution
Circuit breaker
W
Meter
End cap per wiring

WALTZ

Three-Phase Microinverters

Our three-phase microinverters include reactive power control to improve the performance and stability of your installation.

These are the first of their kind, and are able to support up to six solar panels at once - perfect for industrial settings.


WALTZ
AC branch cable
Panel of AC distribution
Breaker
Inverter
Circuit breaker
Up to 9 HMT-2250 per 10AWG branch
End cap of branch
W
Meter

Data Transfer Units

Our DTUs bridge your solar system and its data. Gain valuable insights into your sustainability and bring data together for easy management, quick trouble-shooting, and proactive support.

All out DTUs are backed by a comprehensive 24-month warranty to give you peace of mind.

DTU-Pro

- WiFi or GPRS connectivity
- Dependable monitoring and data storage for your entire installation
- Consumption and load monitoring in S-Miller Cloud
- External antenna for strong, reliable communication
- Ideal for every kind of installation

DTU-W100

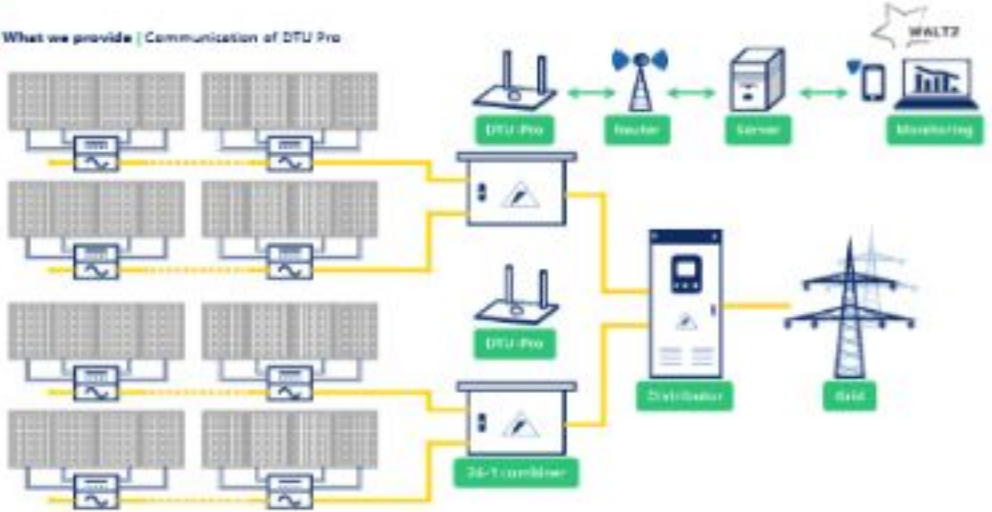
- Plug-and-play format for powerful data capture
- WiFi to feed performance data to our user-friendly monitoring platform
- Easily monitor consumption
- Change your settings with a single click
- Explore potential performance issues

DTU-Lite 4G

- Increased flexibility and stability
- Fast 4G wireless and WiFi included as standard
- Optimise communication across your installation
- One of the first units of its kind
- Quick installation and guaranteed great performance

	DTU-Pro	DTU-Pro S	DTU-Lite	DTU-WLite
Communications at side of micro-inverter				
Signal of communication	2.4GHz RF	Sub1G	2.4GHz RF	2.4GHz RF
Time rate per sampling	15 minutes	15 minutes	15 minutes	15 minutes
Maximum distance (open space)	200m	400m	150m	150m
Maximum PV panels connected	99	99	99	4
Power supply				
Method of power supply	External adapter	External adapter	USB adapter	USB adapter
Input voltage and frequency [V/Hz]	100~240/50~60	100~240/50~60	100~240/50~60	100~240/50~60
Output voltage and current	5V/2A	5V/2A	5V/2A	5V/2A
Power consumption [W]	2.5 (Typical), 5.0(Maximum)		1.0 (Typical), 5.0(Maximum)	
General parameters				
Operating temperature [°C]	-20 ~ +55	-20 ~ +55	-20 ~ +55	-20 ~ +55
Dimensions [W*H*D mm]	200*101*29		143*93*12.5(without antennas)	
Weight [Kg]	0.20	0.20	0.10	0.10
Display and mounting	LED indicator / on wall or on desktop		LED indicator / Direct plugin	
Other aspects				
Communications in clouds	WIFI, GSM, Ethernet	WIFI, GSM, Ethernet	WIFI, GSM	WIFI
Standard warranty [Years]	3	3	3	3

What we provide | Communication of DTU Pro



WALTZ

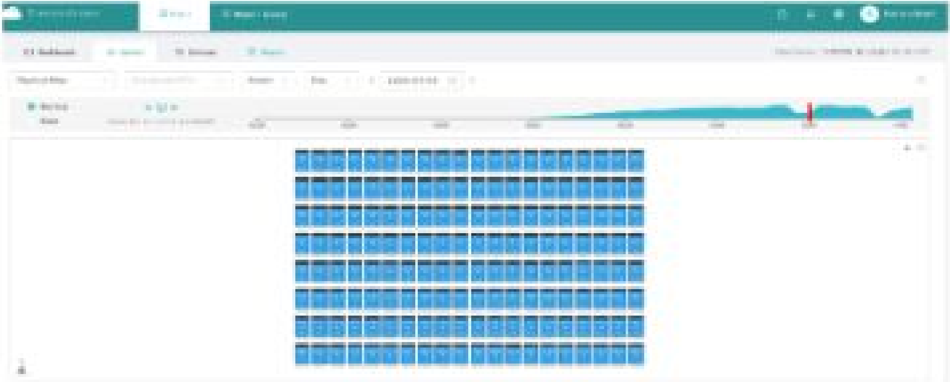
- Visual data on your energy production and usage
- In-depth analysis to monitor where your energy usage is going
- Simple interface that makes managing and monitoring consumption easy

- **Check on individual solar panels**
- **Track your monthly and lifetime energy production**
- **Proactive alerts to warn you of any issues**

- See your environmental impact in one quick glance
- Monitor production over time and track the performance of your system
- Compare solar panel performance side-by-side

- **Change settings with a simple click**
- **Monitor multiple plants from the same dashboard**
- **Generate custom reports for you and your customers**

What we provide | S-Miles platform

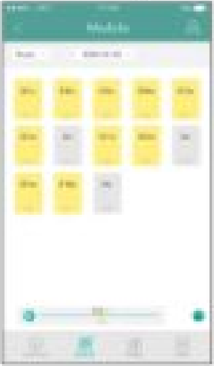


What we provide | S-Miles platform

Energy flows

Powered ratio

Historical Data



Modular Data

Energy Storage

Hoymiles high-performing next-generation hybrid inverters come with single-phase series and three-phase series, featuring a wide operating power range from 3–12kW. The intelligent EMS function supports self-consumption mode, economic mode, and backup mode for multi-scenario applications.

Rapid Shutdown Device

When installed with and receiving a "permission to operate" signal from Hoymiles Transmitter, HRSD starts proper operation of the PV system.

In case of emergency, the PV system would enter module-level rapid shutdown mode by simply disconnecting the AC power of the Transmitter or using an external initiator, bringing your PV system to safety in 30s.

Transmitter

Hoymiles' Transmitter comes with a stand-alone version and a kit version and is used with HRSD to complete the Hoymiles rapid shutdown solution.

When paired with Hoymiles rapid shutdown HRSD and powered on, HT10 sends a "permission to operate" signal to HRSD, to make PV modules connected in series and then connect to a string inverter, thus producing power.

Location:	Capacity:	Completion:	Further info:
Bystrzyca, Poland	7kW	2019.09.11	Residential, 5 pcs of MI-1200

WALTZ

Location:
Wolfville,
Nova Scotia

Completion:
2020.06.15

Capacity:
94.33KW

Further info:
Hotel Roof Project,
26 pcs of MI-300,
26 pcs of MI-600,
52 pcs of MI-1200

Location:	Capacity:	Completion:	Further info:
Morocco	60kW	2019.09.11	Commercial, 52 pcs of MI-1200

Location:
Sheet Harbour, Canada

Capacity:
35.1kW

Completion:
2021.02.14

Number info
23 pcs of MI-1500

Location:
Central Missouri, US

Capacity:
281 kW

Completion:
2020.08

Further info:
Farm Project,
186 pcs of MI-1200

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Location:
Bangkok, Thailand

Capacity:
350W

Completion:
2018

Further info:
Solar Farm,
MI-600

TALK TO US

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