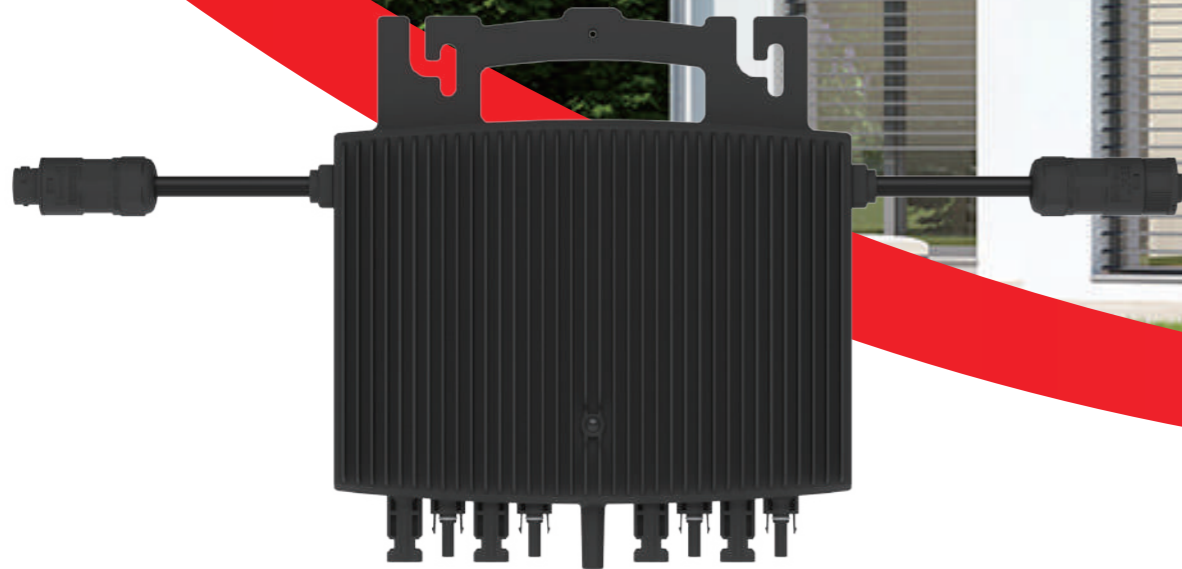


# Microinverter



## Advantages Of Estar MLPE Microinverters



### Intelligence

Component level monitoring - open a new era of efficient operation and maintenance: unattended



### Efficient

Component level MPPT, to eradicate the short plate effect of wooden barrel; Wide working voltage range, extended power generation time and improved power generation efficiency



### Security

DC side voltage is lower than 60V, without DC high voltage;  
The inverter is provided with electrical isolation;  
Enclosure protection grade: IP67

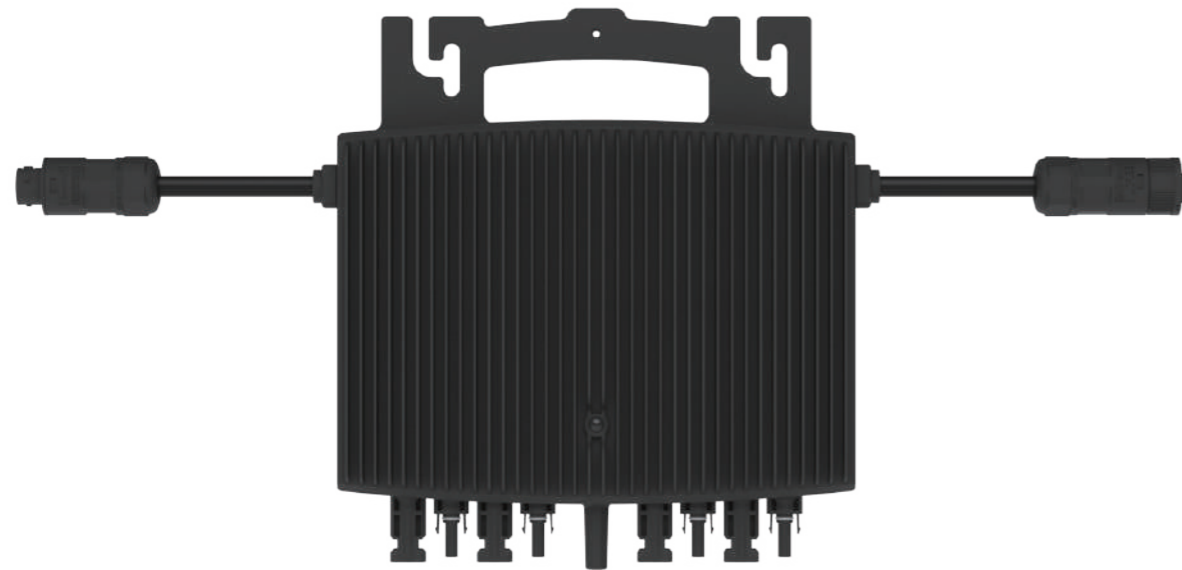


### Reliable

Distributed architecture, no single point of failure, higher system reliability

**Harvest the Yield for EACH of Your PV Modules  
Estar MLPE (Module-level Power Electronics)**

# Microinverter 4 in 1 unit



## HERF-1200 / HERF-1600 / HERF-1800



High CEC Efficiency 96.5%



Easy installation, Plug click connection



External strong communication with DCU



Compliant with European/US/Asia/Aus grid standard and certification

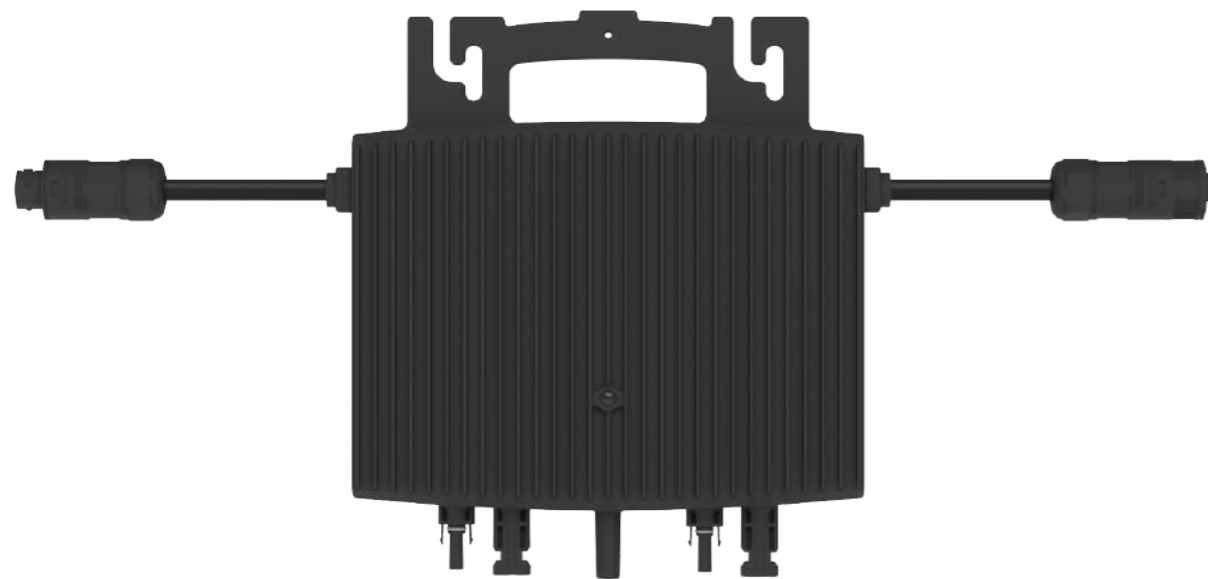
	HERF-1200	HERF-1600	HERF-1800
<b>Input Data (DC)</b>			
Recommended module power (W)	240~420+	300~540+	370~670+
Peak power MPPT voltage range (V)	16~48	16~48	16~48
Start-up voltage (V)		22	
Operating voltage range (V)		16~60	
Maximum input voltage (V)		60	
Maximum input current (A)	4x13	4x13.5	4x14
No. of MPPTs		2	
No. of Inputs per MPPT		2	
<b>Output Data (AC)</b>			
Rated output power (VA)	1200	1600	1800
Rated output current (A)	5.22	6.96	7.83
Nominal output voltage/range (V)		230/180-270	
Nominal frequency/range (V)		50/45-55	
Power factor(adjustable)		0.8 leading..0.8 lagging	
Total harmonic distortion		<3%	
Maximum units per branch	6*	4*	4*
<b>Efficiency</b>			
CEC peak efficiency		96.50%	
Nominal MPPT efficiency		99.50%	
Night power consumption (mW)		<50	
<b>Mechanical Data</b>			
Ambient temperature range (°C)		-40~+65	
Dimensions (W×H×D mm)		275×204.5×41.6	
Weight (kG)		4.9	
Enclosure rating		IP67	
Cooling		Natural convection	
<b>Features</b>			
Communication		Wireless_2.4G	
Isolation Type		High Frequency Transformers (Galvanically Isolated)	
Monitoring		Monitoring System	
Compliance		EN 50549-1: 2019, VDE-R-N 4105: 2018	

\*1 Products marked with asterisks (\*) use 10AWG cables, others use 12AWG cables.

\*2 Nominal voltage/frequency range can be changed due to the requirements of local power department.

\*3 Refer to local requirements for exact number of microinverters per branch.

## Microinverter 2 in 1 unit



## HERF-600 / HERF-800 / HERF-1000



High CEC Efficiency 96.5%



Easy installation, Plug click connection



External strong communication with DCU



Compliant with European/US/Asia/Aus grid standard and certification

	HERF-600	HERF-800	HERF-1000
<b>Input Data (DC)</b>			
Recommended module power (W)	240-420+	300-540+	370-670+
Peak power MPPT voltage range (V)	16-48	16-48	16-48
Start-up voltage (V)		22	
Operating voltage range (V)		16-60	
Maximum input voltage (V)		60	
Maximum input current (A)	2×13	2×13.5	2×14.5
No. of MPPTs		2	
No. of Inputs per MPPT		2	
<b>Output Data (AC)</b>			
Rated output power (VA)	600	800	980
Rated output current (A)	2.61	3.48	4.26
Nominal output voltage/range (V)		230/180-270	
Nominal frequency/range (V)		50/45-55	
Power factor(adjustable)		0.8 leading..0.8 lagging	
Total harmonic distortion		<3%	
Maximum units per branch	9	7	5
<b>Efficiency</b>			
CEC peak efficiency		96.50%	
Nominal MPPT efficiency		99.50%	
Night power consumption (mW)		<50	
<b>Mechanical Data</b>			
Ambient temperature range (°C)		-40~+65	
Dimensions (W×H×D mm)		260×197.5×35.6	
Weight (kG)		3.9	
Enclosure rating		IP67	
Cooling		Natural convection	
<b>Features</b>			
Communication		Wireless_2.4G	
Isolation Type		High Frequency Transformers (Galvanically Isolated)	
Monitoring		Monitoring System	
Compliance		EN 50549-1: 2019, VDE-R-N 4105: 2018	

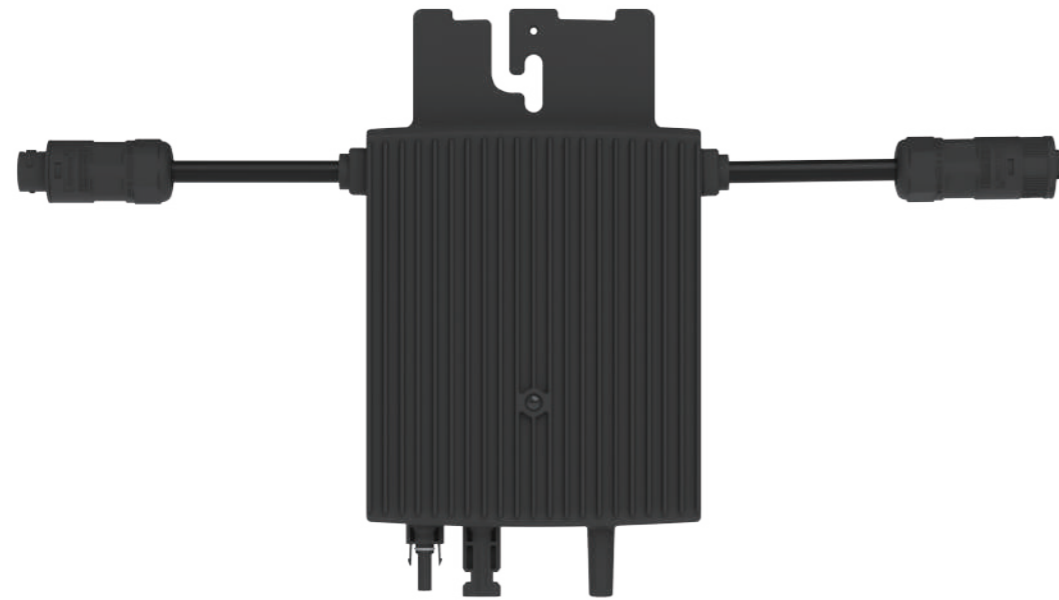
\*1 Products marked with asterisks (\*) use 10AWG cables, others use 12AWG cables.

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# Microinverter

## Single unit



## HERF-300 / HERF-400 / HERF-500



High CEC Efficiency 96.5%



Easy installation, Plug click connection



External strong communication with DCU



Compliant with European/US/Asia/Aus grid standard and certification

	HERF-300	HERF-400	HERF-500
<b>Input Data (DC)</b>			
Recommended module power (W)	240-420+	300-540+	370-670+
Peak power MPPT voltage range (V)	16-48	16-48	16-48
Start-up voltage (V)		22	
Operating voltage range (V)		16-60	
Maximum input voltage (V)		60	
Maximum input current (A)	13	13.5	14.5
No. of MPPTs		1	
No. of Inputs per MPPT		1	
<b>Output Data (AC)</b>			
Rated output power (VA)	300	400	490
Rated output current (A)	1.3	1.74	2.13
Nominal output voltage/range (V)		230/180-270	
Nominal frequency/range (V)		50/45-55	
Power factor(adjustable)		0.8 leading..0.8 lagging	
Total harmonic distortion		<3%	
Maximum units per branch	19	14	11
<b>Efficiency</b>			
CEC peak efficiency		96.50%	
Nominal MPPT efficiency		99.50%	
Night power consumption (mW)		<50	
<b>Mechanical Data</b>			
Ambient temperature range (°C)		-40~+65	
Dimensions (W×H×D mm)		165×197×31.1	
Weight (kG)		2.35	
Enclosure rating		IP67	
Cooling		Natural convection	
<b>Features</b>			
Communication		Wireless_2.4G	
Isolation Type		High Frequency Transformers (Galvanically Isolated)	
Monitoring		Monitoring System	
Compliance		EN 50549-1: 2019, VDE-R-N 4105: 2018	

\*1 Products marked with asterisks (\*) use 10AWG cables, others use 12AWG cables.

\*2 Nominal voltage/frequency range can be changed due to the requirements of local power department.

\*3 Refer to local requirements for exact number of microinverters per branch.

## Microinverter Accessories



Name	Function	Applicable Models
1 AC Female Connector	AC female connector is provided to make AC end cable or AC extension cable.	ALL
2 AC Male Connector	AC male connector is provided to make AC end cable or AC extension cable.	ALL
3 AC Female End Cap	IP67 female end cap is provided to seal AC female connector of microinverter.	ALL
4 AC Male End Cap	IP67 male end cap is provided to seal AC male connector of microinverter.	ALL

## Wireless Communication for Both Microinverter & Cloud

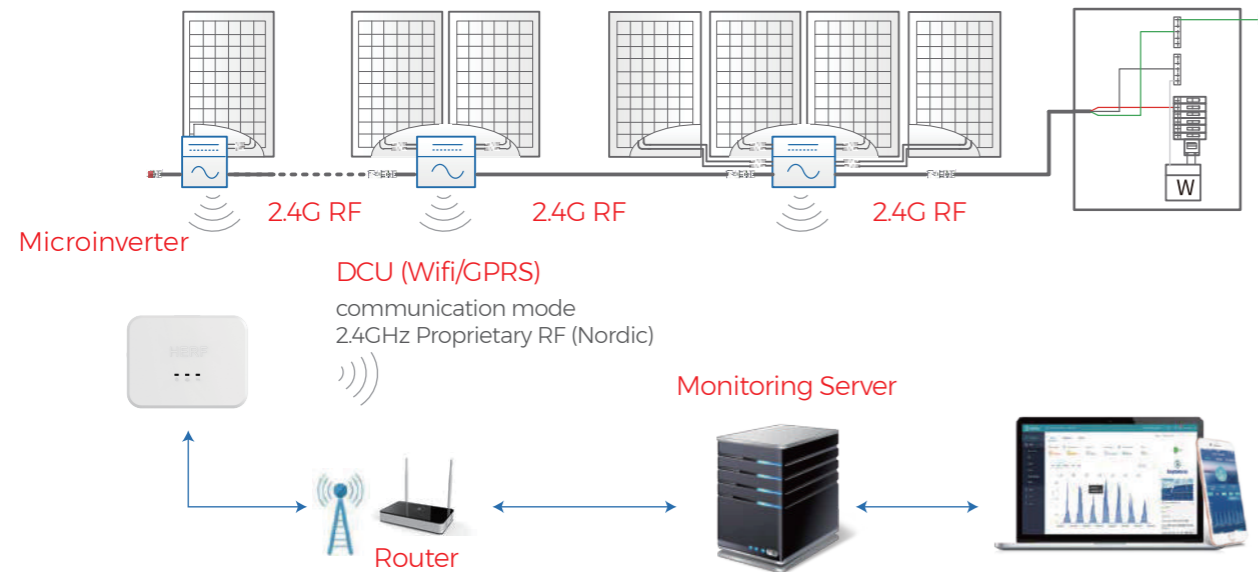


DCU	
<b>Communication to Microinverter<sup>1</sup></b>	
Type	2.4G RF
Maximum distance (open space)	200m
Monitoring data limit from solar panels	99 <sup>2</sup>
<b>Communication to Cloud</b>	
Signal	WIFI(802.11b/g/n) <sup>2</sup> /Ethernet
Sample rate	Per 15 minutes
<b>Communication to Meter</b>	
Signal	RS485
Maximum distance (RS485 cable)	500m
<b>Interaction</b>	
LED	LED Indicator×3 - RUN, Cloud, MI
APP	Local APP
<b>Power Supply (Adapter)</b>	
Type	External adapter
Adapter input voltage/frequency	100 to 240V AC / 50 or 60Hz
Adapter output voltage/current	5V/2A
Power consumption	2.5W (typical), 5W (maximum)
<b>Mechanical Data</b>	
Ambient temperature (°C)	-20~+55
Dimensions (W×H×D mm)	200×101×29
Weight (kG)	0.28
Installation options	Wall mounting/Desktop mounting
<b>Features</b>	
Compliance	EN60950-1, EN61000-3-2, EN61000-3-3, EN301489, EN300328, EN300440, RCM

<sup>1</sup> If the DCU installation location is inside the metal box or under the metal/concrete roof, extended antenna will be suggested.

<sup>2</sup> Depending on the installation environment, please refer to user manual for more details.

# 3rd Generation Monitoring Platform



## How to set up a monitoring system?

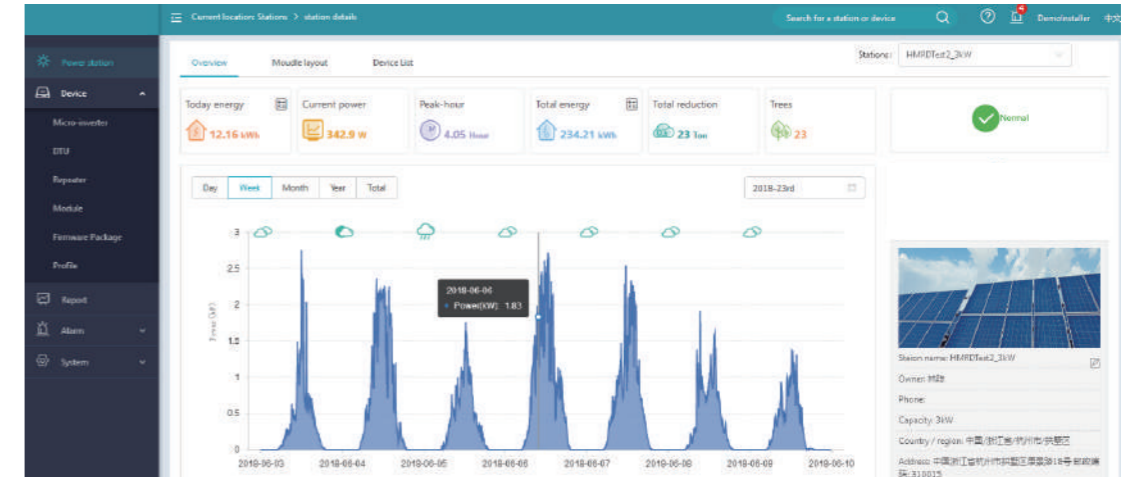
Download and access the monitoring application easily with the use of your Smartphone/Pad; each PV monitoring station will be setup in **3 easy steps**



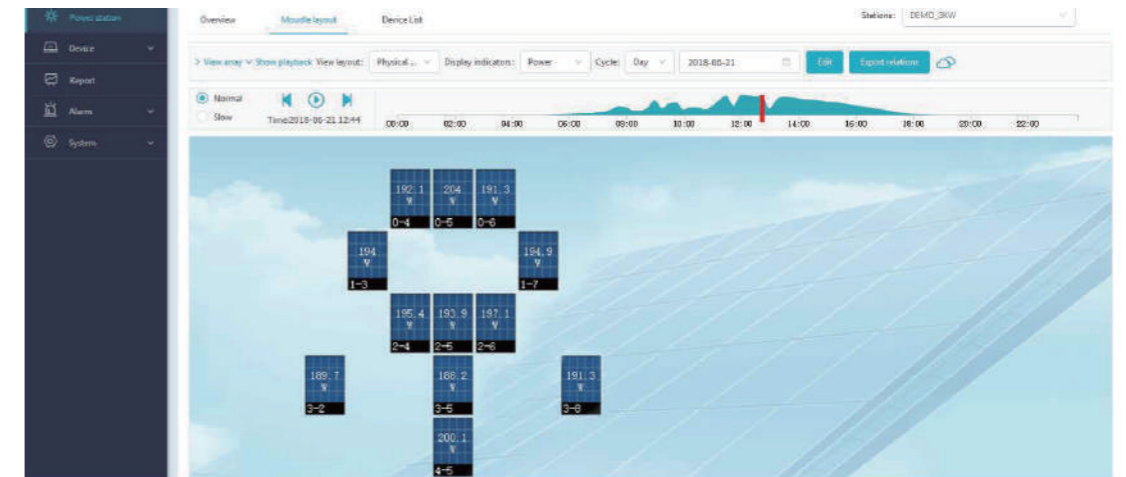
 **Privacy protection of personal information**  
Compliant with GDPR (the General Data Protection Regulation) of EU


## Key features of 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	Station Name	Dealer	Installer	Connected DTU	Connected repeater	Hardware item number	hardware version	Alarm status	Action
13008802999	Offline CustomDemo_2k	共	Installer-Demo	10F0333255	5				Restart   Firmware upgrades   Delete   Move
13466665555	Offline CustomDemo_2k	共	Installer-Demo	10F0333555	5			Normal	Restart   Firmware upgrades   Move
13004160015	Offline CustomDemo_2k	共	Installer-Demo	10F1310035	04	18031602179	H0.0.0	Normal	Restart   Firmware upgrades   Move
13004160025	Offline CustomDemo_2k	共	Installer-Demo	10F1310035	04	18031602179	H0.0.0	Normal	Restart   Firmware upgrades   Move
13004160004	Offline CustomDemo_2k	共	Installer-Demo	10F1310035	04	18031602179	H0.0.0	Normal	Restart   Firmware upgrades   Move

# | Global Applications

## 🌐 Asia



Residential Project in Indonesia 6kW



Residential Project in Malaysia 3kW



Residential Project in Philippines 3kW



Residential Project in Indonesia 6kW



Residential Project in Philippines 3kW

## 🌐 Africa



Industrial Project in South Africa 158kW



# | Global Applications

## 🌐 Europe



Residential Project in Sweden 10kW



Commercial Project in Estonia 63.6kW



Residential Project in Poland 3kW



Residential Project in Sweden 10kW

## 🌐 North America



Residential Project in USA 10kW



Residential Project in Mexico 5kW

## 🌐 South America



Gas Station Project in Brazil 26kW



Residential Project in Argentina 5kW