



# Installation Manual



Midea	Midea iEasyEnergy Solution
1 iEasyEnergy Super Advisor	3
1.1 Introduction	3
1.2 Operation Instructions	3
2 Check List of System	16
3 System Installation Introduction	17
4 System Water Circuit Connection	18
4.1 Heat Pump	19
4.2 Thermal Storage Tank	19
5 System Communication Cables Connection	20
5.1 M-Master	21
5.2 Hybrid Inverter	21
5.3 Heat Pump: User Interface	23
5.4 EV Charger	23
6 System Electrical Wiring	24
6.1 Hybrid Inverter	25
6.2 Battery	28
6.3 Heat Pump	30
6.4 EV Charger	31
7 Hybrid Inverter Commissioning	32
7.1 APP Quick Installation	32
7.2 APP Quick Settings	33
8 M-Master Commissioning	36
8.1 Items Required	36
8.2 Steps Overview	36
8.3 System Version	44
9 iEasyEnergy APP Commissioning	46
9.1 Preparation	46
9.2 Download	46
9.3 Privacy Policy, Software License and User Service Agreer	nent 46
9.4 Account and Login	46
9.5 Device Connection	47

### **Midea** 1 iEasyEnergy Super Advisor

### **1.1 Introduction**

iEasyEnergy is mainly designed to help distributors and installers design Midea energy solutions and automatically generate analysis reports. It automatically outputs energy consumption data and curves based on application scenarios despite the lack of weather information such as light, shadow, and temperature, and outputs multiple solutions based on user needs and compares the economic benefits of these solutions by using the self-developed AI algorithm models, contributing to business expansion and growth.

### 1.1.1 Procedures

The whole process includes four steps:

### 1) Step 1: Select your desired energy solution from three options

• First Solution: Energy Independence

Select the first solution when PV, hybrid inverters, batteries, heat pumps, and hot water tanks are required to help you achieve energy independence.

Second Solution: Energy Security

Select the second solution when PV, hybrid inverters, batteries, and heat pumps are required. This solution excludes hot water tanks.

• Third Solution: Basic Green Energy

Select the third solution when PV, hybrid inverters, heat pumps, and hot water tanks are required. This solution excludes batteries.

### 2) Step 2: Enter information such as the geographical location.

Enter the geographical location and roof area of the project as well as the single-phase/three-phase power supply information of the local power grid.

### 3) Step 3: Enter your household information and other basic information.

Enter your household information for us to automatically estimate your energy consumption and recommend heat pumps and water tanks to you if needed.

4) Step 4: Enter the electricity price and on-grid price for us to calculate the economic benefits.

### **1.2 Operation Instructions**

### 1.2.1 Signup

Open https://ieasyenergy.mideaibp.com/ in your browser.

Click "Sign up now" on the home page to enter your information for review and approval by the background administrator. Upon approval, your signup is successful and you can use the software.

Note: After submitting your information, you can contact the technical supporter to accelerate the approval.



	User detail	
	* Language	
	English	~
	* Country	* City
	Select	✓ Select ✓
Midea iEasyEnergy Super Advisor	* Invitation Code	* User Name
Redefine your energy world	* Email	* Email Verification Code
Account & Password to Login		5 Send
	* First name	* Surname
×	Company Info + Company	* Job
		~
I have read and accepted the <u>Privacy Policy</u> . Forget your password?	Password	
rorgor your password.	* Password	* Password confirmation
Login		
Don't have an account?Sigh up now!	✓ The password length ✓ The password contai	6-20 s two of the following combinations of at least three characters:
<b>_</b>	✓ At least one lowercas ✓ At least one uppercas	:e letter se letter
	✓ At least one number	
		control the Drivery Policy

- 1) Input your username and password then login.
- 2) If you don't have a account, please register.
- 3) Input necessary register info. and click "register" to request the authorization. (Invitation code: 20220401)

Note: After being authorized, you will get an email reply, and then you're able to use Super Advisor Selection Software.

Midea IEaryEnergy Super Advisor	nglish v			C kkji
Project Name Please Input	Project Status	Please Selec   Solution Please Select	Address Please Input	Reset Que Unfold ~
New Project		-	_	
Project Name	Project Sc	Share	× ner E-ma C	peration
		* User Mail	2	
		* Link information	Constitution	
		https://ieasyenergy.midealop.com	Copy share	
		* Invitation Code	Constitution	
		80748035		
			Cancel Save	

- 1) It's also available to share the link with customers and invite them to use Super Advisor together.
- 2) Input the customers' mail address.
- Click "send" button and customer will get the share link, then customer can access to the login and register page by clicking the link.

### 1.2.2 Password Forgotten

Click "Forgot your password". In the displayed page, enter your account name and email. A verification code will be sent to the email to verify your identity. Enter the new password and click "Confirm".





	English ~	Forgot your password?	×
		* User Name	
Midea iEasyEnergy Super Advisor		* Email	
Redefine your energy world			Send
Account & Password to Login		* Email Verification Code	
<u> </u>			
۵		* Password	
I have read and accepted the Privacy Policy.			
Login		* Password confirmation	
Don't have an account?Sigh up now!			
		Cancel	Confirm

### 1.2.3 Home Page

Upon login, a list of all model selection projects created under your account will be displayed.

roject N	Name Please Input	Project Stat	Please Select	Solution Please S	elect ~	Address P	lease Input		Reset	Unit Pric
ustome	Please Input	E-mail Pl	ease Input	Initial Creation Time	🗐 Start Tim	ne -	End Time			Energy Log Out
pdated	d Time 🔲 Start Ti	ime -	End Time							
⊖ Ne	ew Project									
	Project Name	Project Status	Solution	Address		Customer	E-mail	Actions		
	Maggie's energy solution	Install $\checkmark$	First Solution	Germany Berlin crlos		Maggie	zhouly58@midea.com	View Ed	it Delete	
	Maggie Test Solution1	Design ~	First Solution	Germany Koln Gorzow		Maggie	zhouly58@midea.com	View Ed	it Delete	

### (1) Navigation bar

You can switch the language through the top navigation bar, and edit your personal data by clicking the profile. Also, the software



features unit price and energy price setting and logout.

### (2)Project management

Videa

Items for filtering query results are located above the project list. You can filter the query results by the Project Name, Project Status,

Project Name	Please	Input	Project S	tatus	Please Select 🗸	Solution	Please	Select		Address	Plea	ase Input	Reset	Query	Fold ^
Customer Ple	ease Inp	ut	E-mail	Please	Input	Initial Cre	ation Tin	me 🗇	Start 1	ime	-	End Time			
Updated Time		Start Time	-		End Time										

Solution, Address, Customer, E-mail, Initial Creation Time, and Updated Time.

The project list covers information about the created projects, including

• Project Name: name of the model selection project



- Project Status: status of the project. You can click it to change the status
- Solution: type of the selected model selection solution
- Address: geographical location of the model selection project
- Customer: name of the project's customer
- E-mail: email of the project's customer
- Initial Creation Time: time when the project was initially created
- Updated Time: time when the most recent edition/change occurred
- Operation: The "View" option only enables you to check the project information, and does not allow you to edit it. Click "Edit" to edit the project information; Click "Delete" to delete the project.

### 1.2.4 New project

Click "New Project" on the home page to create a new project.

Midea iEasyEnerg Super Advisor	y English	~				
Project Name Plea	ise Input	Project S	Status	Please Se	lect 🗸	Solution
Customer Please I Updated Time	nput Start Time	E-mail	Please	e Input End Time		Initial Creat
New Project						
Solution	Address				Customer	E-mail
First Solution	Germany Berlin	A				



### 1.2.4.1 Solution Selection

The software provides three solutions. You can choose a preferred solution based on your needs. Click your desired solution, and then click "Next" to start the next step of the model selection process.

oject	Name Please Input	Projec	t Status	Select Solution		^	Input	Reset Query Unfold
0 1	lew Project			C Energy Independence	Energy Security	Basic Green Energ >		
	Project Name	Project Status	Soluti	First Solution Solution with PV, Hybrid Inverter, H solution for the maximum self-suffi	leat pump, ESS System an ciency	d Hot water tank.The best		Operation
	Meikong	Install 🗠	Energ Indep					View Edit Download Delete
	Aaa	Design ~	Energ	PV Module	Inverter			View Edit Download Delete
	LY-0905V1	Design ~	Energ		œ			View Edit Download Delete
	frankfruit test	Design ~	Basic Energ		Battery			View Edit Delete
	Berlin 90sqm 2p		Energ Indep			ĩ		View Edit Download Delete
	11	Design ~	Energ Indep		Heat Pump	Water tank		View Edit Download Delete
	London ESS		Energ					View Edit Delete
	and a		Energ			Next		I.,,

- First Solution: We recommend this solution as it will achieve Energy independence. It includes PV, hybrid inverters, batteries, heat pumps and hot water tanks.
- Second Solution: This solution includes PV, hybrid inverters, batteries, and heat pumps. Unlike the first solution, the second one does not include any hot water tank. Therefore, no water tank will be recommended.
- Third Solution: This solution includes PV, hybrid inverters, heat pumps, and hot water tanks. Unlike the first solution, the third one does not include a hot battery. Therefore, no battery will be recommended.



### 1.2.4.2 Location Information



Midea EasyEnergy E	English $\sim$			[7] 🧐 test2
< Return				
1 Location info	2 Energy requirements	3 Energy Price	4 Proposal	5 Report Back Next
Project Info.				Fold 🗸
* Project Name	Project Status	Customer	E-mail	
Please Input	Please Select ~	Please Input	Please Input	
Installation Info.  * Installation Geographical Loca Country/Reg ~ City  * Age Of Building	v Street	1	<u>1111</u>	Fold 🗸
Please Select		100 A		
* Rooftop Info.			Europ	
Roof1 : Area(m <sup>3</sup> ) Please Inpu	Direction 0° 0°		Luiop	Sec. Auto
New Roof			1. Part - Tour	
* Power Supply		ALC: NOT		
Please Select	~			and a second
Altitude Global Irradiatio	n (kWh/m².Year)			

Enter basic information such as the project name, project status, contact, and project location.

Installation Geographical Location

Our light database contains the year-round sunshine data of all parts of the world. After you select the country and city, the average year-round percentage of possible sunshine, wind speed and ambient temperature data of the city will be displayed at the bottom of the screen.

Rooftop Info

Enter the available roof area of the building to receive the energy system. This data affects the maximum number of PV modules to be installed. If the roof faces a different direction, add a new roof by clicking "New Roof" and set the orientation and area of the roof.

Power Supply

We will recommend a hybrid inverter that is compatible with the power supply.

### 1.2.4.3 Energy Requirement

Enter your household information and other basic information as well as the energy self-sufficiency rate you expect to achieve through the entire energy solution.

1) Expected energy self-suffi: the expected percentage of the power supplied by the entire energy solution to the total power consumption of your family, including three classes:

- High self-suffi: 70%, 80%, 90%, and 100%
- Middle self-suffi: 60% and 70%
- Low self-suffi: 20%, 30%, and 40%



* Expected energy	/ self-s	uffi										
Select the energy self-sufficiency rate that you'd like the solution to meet. you can have a multi selection, and we will recommand you different solution.												
		-								-		
🗹 High self-suffi	APX	70%	$\sim$	🗹 Middle self-suffi	APX	50%	$\sim$	🗌 Low self-suffi	APX	20%	$\sim$	

Your selection from the three classes will affect the recommended model in the "Proposal" step. If you select "High self-suffi" and "Middle self-suffi", we will provide you with two solutions that meet the two energy self-sufficiency rates in the "Proposal" step.

- 2) Household info: information about your family members, based on which we will estimate the annual power consumption data of your family.
- 3) Estimated annual energy consumption: data estimated based on the household information, which can be adjusted as required
- 4) Room area: area of your living space, which affects the selection of heat pumps.
- 5) Estimated max. load: maximum electrical load, which affects the selection of inverters and batteries
- 6) Type of heat pump installation: whether the heat pumps are newly installed or renovated
- 7) Heat pump unit need: the purpose of the heat pumps, to heat or cool or supply hot water

When you select the second solution, you do not need hot water tanks by default, and we will not recommend any water tanks to you.

- 8) Heat pump unit type: type of heat pump. We will recommend heat pumps based on the type you select.
- 9) Annual Basic Usage Estimation and Annual Thermal Usage Estimation: These are the basic annual energy consumption



and heat energy data and distribution of your family estimated based on the above information.

After you enter the above information, the Heat Pump Selection screen will display the models and parameters of all heat pumps recommended by us while the Hot water tank selection screen will show those of all hot water tanks recommended by us.





When you select the second solution, we will not recommend any water tanks to you.

Summary: estimated power consumption.

Annual Basic Usage Estimation is the basic power consumption data of your family and Annual Thermal Usage Estimation is the converted power consumption data. If heat energy is provided by heat pumps, the power consumption required is generally 1/3 of the heat energy. Therefore, the overall power consumption needs are calculated based on the sum of Annual Basic Usage Estimation and 1/3 of Annual Thermal Usage Estimation

summary		
994.76 ***	1449.43 kwh _	<b>2444.18</b> kwh
Electrical energy requiremens of the household load per year	Electric energy requirements of the heat pump per year	Electrical energy requirements per year in total
Estimated daily domestic hot water energy consumption: 5.95 We have a selection for you	kWh Estimated daily hotel water volume sonsumption: 1	17.01 L
MT-5270WE30 Size: 270L		
С <u><u><u></u></u>, <u></u>, <u></u>, <u></u>, <u></u>, <u></u>, <u></u>, <u></u>, <u></u>, </u>		$\mathbf{>}$

### 1.2.4.4 Set Energy Price

Analyze the economic benefits of the entire solution based on information such as the electricity price.

Midea EasyEnergy English ~				🖸 🍚 test1
< Return				
<ul> <li>Location info</li> </ul>	<ul> <li>Energy requirements</li> </ul>	Energy Price	4 Proposal — 5 Report	t Back Next
* Please Select Currency Euro	√ €		Restore my preferences	Save as my preferences
Energy Price				Fold $\checkmark$
* Electricity Scheme Basic Electricity Price Peak-va	alley Electricity Price			
* Electricity Price	* On-grid Price	* Gas Price	* Carbon Dioxide Emission Factor	
0.49 C/kWh	0.10 C/kWh	0.22 C/w/h	200.00 g co <sub>s</sub> /kwh	
Subsidy Price				Fold $\checkmark$
Subsidy Amount	Installation Cost			
0.00 €	0.00 €			

#### 1) Basic Electricity Price

If there is only one local electricity price (non-price), change the mode.

2) Peak-valley Electricity Price



If the local electricity price is tiered based on time (including peak and valley prices), select this mod

Guidea was have being and the second	🖸 🛛 🚭 testi
< Return	
Cocation info Cocation info Energy requirements B Energy Price & Proposal S Report	Back Next
Set Peak-waley dectricity price  Peak-valey dectricity price  One Day Type	
One Day Type	
Weekday & meekands 7 Days Type	

3) Save as my preferences: for saving the settings. With this option enabled, you can click "Restore as my preferences" to use the settings in the future.

4) Restore as my preferences: for using the settings saved previously.

5) Click "Energy Price" below the profile in the top navigation bar to enter the information, and click "Restore as my preferences" to use the settings.

### 1.2.4.5 Select PV Module

Select your desired model of PV modules. Then, we will estimate the number of the modules based on your selection and the roof area as well as energy consumption needs.

Midea Mitter Employer					C	test1
< Return						
Location info	Select PV Module			×	Report Ba	ick Next
We have a recommendation for you,	Mode					
High self-suffi Middle self-su	Manufacturer	Mode	Rating			
	Aiko	AIKO-A440-MAH54Mb	440 W	Select		
PV Arrays	Aiko	AIKO-A445-MAH54Mb	445 W	Select		Fold 🗸
Reselect PV Arrays	Aiko	AIKO-A450-MAH54Mb	450 W	Select		
Array Name	Aiko	AIKO-A590-MAH72Mb	590 W	Select	rientation/Mounting 1	ype
PV Array 1	Aiko	AIKO-A595-MAH72Mb	595 W	Select		
	Aiko	AIKO-A600-MAH72Mb	600 W	Select		
Inverter	Aiko	AIKO-A450-MAH54Mw	450 W	Select		Fold 🗸
	Aiko	AIKO-A455-MAH54Mw	455 W	Select		
Model				< 1 >	ency	
Please Select						
Peak Power: 0.00 kWp	Nominal Power	Ratio: 0%				

### 1.2.4.6 Proposal

Model recommendations, including the annual power output of your selected solution, the on-grid power price, and the achievable energy self-sufficiency rate.



 PV arrays: the number of recommended PV modules to be installed on each roof and the peak power of each module. Orientation/Mounting type is the roof information entered in the first step of model selection.

Midea IEasyEnergy Super Advisor	English $\sim$					C	🕒 te
Return							
✓ Location info –		Energy requirements	—— 🗸 Energy Price —	4 Proposal	5 Report	Back	Next
'e have a recommendation	n for you, you d	an add a customized scheme					
High self-suffi Mid	ldle self-suffi	Low self-suffi					
PV Arrays							Fold 🗸
Array Name		Manufactor/PV Model	Number of PV Modules	Peak Power	Orientation/Mou	unting type	
Roof 1	Ľ	Aiko / AIKO-A440-MAH54Mb	9	3.96 kWp	Azimuth Angle:	0° Tilt Angl	e: 30°
Roof 2	ß	Aiko / AIKO-A440-MAH54Mb	0	0.00 kWp	Azimuth Angle:	270° Tilt Ar	igle: 30°
Roof 3	Ľ	Aiko / AIKO-A440-MAH54Mb	0	0.00 kWp	Azimuth Angle:	90° Tilt Ang	gle: 30°
Inverter							Fold 🗸
		and the first of the					

2) Inverter: recommended inverter. When more than one inverter is available, you can switch between or among them.

Inverter				Fold $\checkmark$
Model ME-HT12H	Single/ Three phase V Three-Phase	Maxi AC Power 12 kW	Maxi. Efficiency 98%	
ME-HT12H ME-HT15H	Nominal Power Ratio: 303.03%			

Comparison of parameters between the inverter and battery

- Nominal Power Ratio: ratio of the peak power of the PV modules to the maximum AC power of the inverter, ranging from 100% to 110%.
- Inverter efficiency: efficiency of the inverter
- Annual Energy Yield: estimated annual power output of the entire model selection solution
- Spec. Energy Yield: value of Annual Energy Yield/Inverter AC Power



• Full Load Hours: power generation time of the inverter at full load

Model	Single/ Three phase		Maxi AC Power		Maxi. Efficiency
ME-HT12H	<ul> <li>Three-Phase</li> </ul>		12 kW		98%
Peak Power: 14.40 kWp	Nominal Power Ratio: 120.	.00%			
Performance					
Nominal Power Ratio: 120.00%		_			
0%	0	200%	Annual Energy Yield:	13717.53 kWh	
Inverter Efficiency: 98%		_	Spec. Energy Yield: Full Load Hours:	952.61 kWh/kWp 1143.13 h	
90%		100%			
PV/Inverter Compatible					
Parameter	Inverter		Roof 1		Roof 2
Max.DC input power	18 kW		0.6 kW		0.6 kW
Min.DC voltage	235 V		45.43 V		45.43 V

- 3) Battery: recommended battery model. When more than one inverter is available, you can switch between or among them.
- 4) Enter the price of each device on the Price info screen. The generated model selection report will include calculated payback time.
- 5) Click "Unit Price" under the profile on the navigation bar to maintain the price information of all devices.



After completing maintenance, click "Restore as my preferences" to automatically use the price information of the corresponding device written in "Unit Price".

Price Inf	io.				Fold 🗸
Restore	my preferences				
Code	Equipment	Model	Number	Price	
1	PV Arrays	AIKO-A440-MAH54Mb	9		€
2	Inverter	ME-HT12H	1		€
3	Battery	ME-B25H	1		€
4	Energy Management	KONG M-Master	1		€
5	Heat pump	MHC-V12W/D2RN8-BER90	1		€
6	Hot water tank	MT-S270WE30	1		€
				Total P	rice: <b>0.00</b> ¢

### 1.2.5 Report



When model selection solutions are provided for different energy self-efficiency rates, you can select one or more solutions that use a report

### require a report.

Restore	my preferences			
Code	Equipment	Please select the report range for output $ imes$	Number	Price
1	PV Arrays	Multiple Options Available	2	0
2	Inverter	<ul> <li>High self-suffi</li> <li>Middle self-suffi</li> <li>Low self-suffi</li> </ul>	1	0
3	Battery		1	0
4	Energy Management	Cancel * Confirm	1	0
5	Heat pump	MHC-V12W/D2RN8-BER90	1	0
6	Hot water tank	MT-S270WE30	1	0

Download PDF: A model selection report will be generated in PDF format.

Share: Enter the email of the person to share the report with. Then, the model selection report will be sent to the email address.

Upload Logo: You can upload the logo of your company, which will be shown in the PDF report.

The report includes the following information:

- Project information: project name and address
- Summary: annual power output of the model selection solution, self power consumption, on-grid power price, energy selfsufficiency rate, and energy self-consumption ratio
- Your solution: recommended device models, quantities, and parameters
- Economic analysis: estimated benefits to be brought by the entire solution, that is, comparisons between electricity cost before the use of the solution and after the use of the solution
- Renewable: percentage of Renewable energy in the entire solution and the decrease of carbon emission after the use of the solution



	Mi	dea 🕺	Project \ddress	Case Frankfurt Frankfurt, Germany				
Control being by the service of the	7496	6.65 kwh	7565.91	3782.73	3 kwh 37	83.18 kwh	50.46%	50.00%
Aus of volume   Image: Second wolume   Image: Second wolume  <	Estimated A Consumptic	on	Generation	Self-consumption	On-gri	d Power	self-suffi.quota	self-consump.quot
<ul> <li>Formation of the series of the</li></ul>	our solutio	on						
	ł	PV array Model: AIK Number: 12 Power: 7.20 Installation / Angle: 15°,	O-A600-MAH72Mw 2 JokWp Angle: Azimuth Angle: 10°.	Inverter Model: ME-HT10H Single/ Three phase: Three- Phase Number: 1 Maxi AC Power: 10kW	2000 	Battery Model: ME-B25H Capacity: 25.50 kWh Number: 1 Maxi. Charging Power: 16 kW Maxi. Discharging Power: 16 kW		Heat pump Model: MHC-V10W/D2N8- BER80 Number: 1 Heating Capacity: 15.08kW Type: Mono(ODU)
conomy analysize tata saving for 10 years approx. Performed and the formed and		Hot water Model: MT Number: 1 Size: 190L	tank 📼	Number: 1		iEasyEnergy App		
taking for 10 years approx. L29G3322.5 c Taking to 11 11 50 c 1 35539 5 c 1 11 12 28 k/h 1 10 10 2 k/h 1 10 10 1 k/h 1 1	conomy ar	nalysize						
YearBeforeAfterSavings131111.90 €1856.396 €94.03 %031111.8.96 €1856.959 €94.03 %DetailsEnergyBeforeAfterSavingsInvestment costs0.00 €700 €1800.00 kWh3713.92 kWh-106.33 %Grant amount0.00 €Total fleetcrical energy consumption20141.28 kWh0.00 kWh100.03 %Annual return29533.25 €Self-consumption20141.28 kWh0.00 kWh100.00 %Annual return0.00 yearsGrid fleed-in3782.73 kWh-enewableenewableSelf-sufficiency50.46%50.46%50.46%	otal saving f	for 10 years appro	ж.	<b>296332.55</b> .	€ € 250,000 250,000 200,000			
$\frac{1}{10}  \frac{31111.90}{31111.896} \left( \begin{array}{c} 1856.86 \\ 84.03 \\ 1856.85 \\ 1850.05 \\ 1800.00 \\ Wh \\ 3713.92 \\ Wh \\ 3713.92 \\ Wh \\ 106.33 \\ 100.00 \\ 3762.73 \\ Wh \\ 100.00 \\ 3762.73 \\ Wh \\ 100.00 \\ 3762.73 \\ Wh \\ 100.00 \\ $	Year	Before	After	Savings	150,000			
10       31118.96 C       18563.59 C       94.03 % <ul> <li></li></ul>	1	31111.90 €	1856.96 €	94.03 %	50.000			
Details       Energy       Before       After       Savings         nvestment costs       0.00 €       Total electrical energy consumption       1800.00 kWh       3713.92 kWh       -106.33 %         stant amount       0.00 €       Total fuel energy consumption       20141.26 kWh       0.00 kWh       100.00 %         vanual return       29633.25 €       Self-consumption       20141.26 kWh       0.00 kWh       100.00 %         vanual return       29633.25 €       Grid feed-in       3783.18 kWh       -       -         vanual return       0.00 years       Grid feed-in       3783.18 kWh       -       -         sterewable       Self-sufficiency       50.46%       Solution       Cole mission       Solutiones	0	311118.96 €	18569.59 €	94.03 %	0 1 2	3 4 5 6 7	8 9 10	Time period in years
nvestment costs 0.00 € Total electrical energy consumption 1800.00 kWh 3713.92 kWh -106.33 % irant amount 0.00 €	Details			Energy	Before	After	Savings	
Grant amount       0.00 €         Total fuel energy consumption       20141.28 kWh       0.00 kWh       100.00 %         Annual return       29633.25 €       Self-consumption       3782.73 kWh         Amoritzation time       0.00 years       Grid feed-in       3783.18 kWh         enewable       CO: emissions         50.46%       Self-sufficiency       CO: emissions       Co: la troness	investment	costs	0.00 €	Total electrical energy consumption	1800.00 kWh	3713.92 kWh	-106.33 %	
Total fuel energy consumption       20141.26 kWh       0.00 kWh       100.00 %         Annual return       29633.25 €       Self-consumption       3782.73 kWh         Annotization time       0.00 years       Grid feed-in       3783.18 kWh         enewable       Self-sufficiency       CO2 emissions       CO3 in termes         50.46%       50.46%       50.46%       100.00 %	Grant amou	unt	0.00 €					
Annual return     29633.25 €     Self-consumption     3782.73 kWh       Amortization time     0.00 years     Grid feed-in     3783.18 kWh				Total fuel energy consumption	20141.26 kWh	0.00 kWh	100.00 %	
Amortization time     0.00 years     Grid feed-in     3783.18 kWh       enewable     Self-sufficiency     CO2 emissions     CO3 in tomes       50.46%     50.46%     50.46%     1	Annual retu	im	29633.25 €	Self-consumption		3782.73 kWh		
enewable enewable energies share Self-sufficiency CO2 emissions CO2 in torres	Amortizatio	on time	0.00 years	Grid feed-in		3783.18 kWh		
Self-sufficiency CO2 emissions CO3 in tones	enewable							
50.46%	Renewable e	energies share		Self-sufficiency	со	emissions CO2 in tonnes		
		50.46%	)	50.46%		12 1 08 06 04		
						0.2		

\*Important: The yield values displayed are estimates. They are determined mathematically. Midea accepts no responsibility for the real yield value which can deviate from the yield values displayed here. Reasons for deviations are various external conditions, such as soiling of the PV modules or fluctuations in the efficiency of the PV modules.



# 2 Check List of System

Main Components	Note	Compatible Units				
		R290 M Thermal Arctic HT Series	MHC-V4(6/8/10/12/14/16)WD2N7 MHC-V12(14/16)WD2RN7			
Heat Pump	Necessary	M Thermal Arctic Series	MHC-V4(6/8/10/12/14/16)W/D2N8-B MHC-V12(14/16)W/D2RN8-B MHA-V4(6/8/10/12/14/16)W/D2N8-B MHA-V12(14/16)W/D2RN8-B			
		M Thermal Power Series	MHC-V5(7/9/12/14/16)WD2N8-C MHC-V12(14/16)WD2RN8-C			
		ME-HS5L-A;				
Hybrid Inverter	Necessary	ME-HS5L~MEHS6L;				
		ME-HT6H~ME-HT15H;				
Detter	Decommend	High Voltage	MEB10H~ME25H			
Ballery	Recommand	Low Voltage	MEB5L~MEB30L			
M-Master	Necessary	MDG44-B1	rw23			
Thermal storage tank	Recommand	TSW Series				
EV Charger	Recommand	7/11/22 Wallbox				
* Refer to the report of Super Advisor selection software for specific model information.						



# 3 System Installation Introduction

Refer to the respective user manuals and conduct trial runs to ensure that each individual equipment can operate normally. Once confirmed, turn off the power and proceed with the system installation.

System diagram is shown as below, and water circuit connection, communication cables connection and electrical wiring will be illustrated detailly later.

System Diagram (For reference only, the actual installation scenario may vary)





# **4 System Water Circuit Connection**



### Note:

Except for Cable to T5 sensor port on Main control PCB, accessories else needs to be purchased on-site.



### 4.1 Heat Pump



а	Water OUTLEI (connection with screws, male, 1" for 4/6 kW units and 1 1/4" for 8-16 kW unit
b	Water INLET (connection with screws, male, 1" for 4/6 kW units and 1 1/4" for 8-16 kW units)
	Y-shaped strainer (delivered with the unit) (2 screws for connection, female, 1" for 4/6 kW
С	units and 1 1/4" for 8-16 kW units)
d	Thread seal tape
е	Extension pipe (recommended, with the length depending on the field conditions)
f	Safety valve outlet (hose, φ16mm)
g	Drain hose (supplied on the site)

### 4.2 Thermal Storage Tank





# **5 System Communication Cables Connection**



Note:

- 1. Please keep the length of the shielding wire within 500 meters to ensure communication quality.
- 2. The shielding wire access line sequence is for reference only. If it does not match the actual unit installation, please refer to the relevant instructions.
- 3. As wires shown above, except for the three wires connected to the battery, the rest need to be purchased on site.



### 5.1 M-Master



# 5.2 Hybrid Inverter







# 5.3 Heat Pump: User Interface



### 5.4 EV Charger

Model	EV Charger connects with M-Master
7/11/22kW	
	Chides SHLD AB



# **6 System Electrical Wiring**



### Note:

- 1. As wires shown above, except for CT and the three wires connected to the battery, the rest need to be purchased on site.
- 2. The wiring is for reference only. If there are too many wires connected to one terminal, please use an external wiring socket.



Grid Connection/EPS Connection						
Model	ME-HT6H	ME-HT8H	ME-HT10H	ME-HT12H	ME-HT15H	
Cable(mm <sup>2</sup> )	4-6	4-6	4-6	6-10	6-10	
Micro-Breaker(A)	20	20	32	32	32	
Battery connection						
Model	ME-HT6H	ME-HT8H	ME-HT10H	ME-HT12H	ME-HT15H	
Voltage	e Nominal voltage of DC breaker should be larger thanmaximum voltage of battery					
Current(A)	Current(A) 63					
Cable(mm <sup>2</sup> )	10					

Note: Before connecting to the battery, install a non-polarized DC circuit breaker to ensure that the inverter can be safely disconnected during maintenance.





Grid Connection/EPS Connection								
Model	ME-HS3L ME-HS3R6L ME-HS4L ME-HS4R6L ME-HS5L ME-HS6L							
Cable(mm <sup>2</sup> )	4	4	4	6	6	6		
Micro-Breaker(A) 20 20 20 32					32	32		
Battery connection								
Model	ME-HS3L ME-HS3R6L ME-HS4L ME-HS4R6L ME-HS5L ME-HS6L							
Cable(mm <sup>2</sup> )	Cable(mm <sup>2</sup> ) ≥25							
Micro-Breaker(A) 125								
Note: Before connecting to battery, please install a nonpolarized DC(125A) breaker to make sure inverter can be securely disconnected during maintenance								



Grid Connection/EPS Connection					
Model	ME-HS5L-A ME-HS6L-A				
Cable(mm <sup>2</sup> )	8-14(Grid); 4-6(EPS)				
Micro-Breaker(A)	50				
Battery connection					
Model	ME-HS5L-A ME-HS6L-A				
Cable(mm <sup>2</sup> ) 25					
Micro-Breaker(A)	150				
Note: Before connecting to battery, please install a separate DC breaker (150A; not equipped) betweeninverter and battery. This					

ensure the inverter can be security disconnected during maintenance.



# 6.2 Battery

Model	Battery connects with Hybrid inverter					
ME-B5H~ ME-B25H						
1	HV DC Out Terminal	BAT+/BAT- termical to PCS for charging and discharging				
2	4G COM	Reserved				
3	Communication port	Commnuication port to PCS				
4	24V DC Power Port	External DC Power source for PDU(Power distribution unit) when battery has insufficient electirity. (For after-sales services)				
5	Power Breaker	Turn on/off PDU				
6	Ē	Ground terminal				



Model	Battery connects with Hybrid inverter					
ME-B10L~ ME-B30L						
1	Negative Terminal	BAT- termical to PCS				
2	Negative Terminal	BAT- termical to PCS (Reserved)				
3	Positive Terminal	BAT+ termical to PCS				
4	Positive Terminal	BAT+ termical to PCS (Reserved)				
5	Communication port	Commnuication port to PCS				
6	Power Breaker	Turn on/off PDU				
7	Ē	Ground terminal				



Single Phase	1Phase with backup heater	Three Phase	3Phase with backup heater
			Image: substrain the substrain th
	Ÿ		
Note: For Heat Pump with IBH,	refer to connection diagram as b	From Grid Bi-direction meter Bi-direction meter Communication Communicat	IFI Router/Fan/ escent lamp



# 6.4 EV Charger

Model	EV Charger connects with M-Master
7/11/22kW	



# 7 Hybrid Inverter Commissioning

### 7.1 APP Quick Installation

- 1 Download and install the app "SLOARMAN Smart" on your mobile phone, which is available on APP Store and Google Play.
- 2 Connect the inverter to the WIFI adapter first, and ensure that the COM and READY leds on the right of the WIFI adapter are blinking





3 Open the APP and go to the main interface of the APP. Click "Local Mode", make sure your Bluetooth is enabled, scan the QR code on the WIFI adapter or manually enter the serial number to connect to the WIFI adapter.

Me	<b>1</b> 999
Midea Kong Jerry	>
Local Mode	>
• Settings	>
➔ Online Service	>
🙆 Feedback	>
About SOLARMAN Smart	>
Plant	Me



4 After the connection is successful, the COM indicator is steady on and the READY indicator is blinking



09:24	*	\$ 922 📾 "hil "hil 💷	14:59	- <b>\$</b> - <b>\$</b> 9.55 ₪	1 Sil 'Sil 💷
÷	Connect the d	evice	<	Local Mode	
			Monitoring & Co	onfiguration	
C			14 Solar		2
			111 Grid		*
	Connecting		11 Battery		>
Please ensure the Logger is normally powered on		11 Load		>	
			11 Other		>
			H Inversion		>
			TH BMS		>
			TH GEN		>
			TH DEBUG		>
			Logger SN: Connection Bluetooth	3504681356 status: connected	
	= 0				0

When this page is displayed, it means that the connection is successful and the equipment is in normal working condition, and the inverter parameters can be monitored through the software.

### 7.2 APP Quick Settings

After steps above has finished, There are 5 steps need to set up quickly in field via APP, and then start to work.

Step 1: Grid Choose Grid Std according to local power grid Step 2: Battery type (Normally no need to change) Choose LFP Step 3: Work Mode Choose SELFCONSUME Step 4: PV input mode Choose INDEPENDENT Step 5:Anti Reverse (change to Enable, if not sell power to Grid) Choose Enable



### 7.2.1 Grid Settings

You need to enter a password to access the grid Settings screen. The default password is 00000

Grid Std : This interface is used to select Grid standard. (Choose Grid Std according to local power grid)

10:44	* 200	न्त्र 🖬 दें। दें। 🤅	Ð	10:44	\$ 2.00	🗟 🖬 🏭 🖬 🔅	Ð
	Grid Settings		C	<	Grid Settings		C
Parallel 3Phas	e Grid Settings	Battery Set	Bat	Parallel 3Phase	Grid Settings	Battery Set	Bat
				Grid Std		CN	>
				Vac Min		150.0 V	>
				Vac Max		280.0 V	>
	Enter the passwo	rd	1	Fac Min		55.00 Hz	>
The encry you enter	ption function can be us the correct password	ed only after		Fac Max		65.00 Hz	>
00000				Grid Power Scale		25 %	>
Can	cel	Confirm	۰.	Grid Set		Single Phase	>
	2018 - P						
					-	~	

Grid Std	1:AU-Australia	240V/415V 50Hz
-> AU	2:AU-W-Western Australia	240V/415V 50Hz
AU-W	3:NZ-New Zealand	240V/415V 50Hz
NZ	4:UK-United Kingdom	230V 50Hz
UK	5:PK	230V 50Hz
VDE	6:KR-Korea	220V/380V 60Hz
KR	7:PHI-Philippines	110V/220V 60Hz
PHI	8:CN-China	220V/380V 50Hz
CN	9:US-CA-America	120V/240V208V/240V 60Hz
US-CA	10:THAIL	220/380V 50Hz
THAIL	11:ZA	230V 50Hz
SA	12:CUSTOM-User defined	-
CUSTOM	13:POL	230V/380V 50Hz
POL	14·EN50540	217V/220V/240V
EN50549	14.EN00049	380V/400V 50HZ/60Hz
VDE4105	15:VDE4105-Germany	230V/380V 50Hz
JPN	16:Japan	110V/190V/60Hz
ITA	17:Italy	230V/380V/50Hz
SLO	18: Slovenia	230V/380V/50Hz
CZE	19: Czech Republic	230V/380V/50Hz
SWE	20: Sweden	230V/380V/50Hz
HU	21: Hungary	230V/380V/50HZ
SK	22: Slovakia	230V/380V/50HZ

Note: If none of the above options are available, please consult your dealer.



### 7.2.2 Battery Set

Bat-Type : Set the type of battery, according to the battery demand can be set DC source (for testing use only), lithium battery, lead-acid battery.

(Choose LFP)

10:45		《 縱 令 📾 制 制 🕮				
<		Battery Set		C		
e	Grid Settings	Battery Set	Battery Energy	Mai		
Di	sChg Power Sca	le	50 %	>		
Ba	at On-Grid DOD		80 %	>		
Ba	at Off-Grid DOD		80 %	>		
Ba	at ChgCurr		50 A	>		
BN	//S Host		CAN	>		
Ba	it EodHyst		15 %	>		
Ba	at Capacity		125 AH	>		
Ab	osorption V		- V	>		
Flo	pat Volts		55.4 V	>		
Ba	it Max		56.0 V	>		
Ba	at Min		44.0 V	>		
Ba	it-Type		Lithum	>		
W	ake Up Enable		Disable	>		
	=	0	$\triangleleft$			

### 7.2.3 Setup

 Work Mode : This interface is used to select the working mode, includes SELFCONSUME, PEAK SHIFT, BAT PRIORITY. The default setting is SELFCONSUME.

(Choose SELFCONSUME)

- 2) Input Mode : Setup of PV Input mode, The default setting is Independent.
  - INDEPENDENT : The default Settings,
  - PARALLEL : This feature is for test use only, not customer use
  - CV : This feature is for test use only, not customer use

### (Choose INDEPENDENT)

Anti- Reverse : Whether Inverter isn't allowed to generate electricity to the Grid, The default option is disable, Enable means that it isn't allowed to generate electricity to the Grid.
 (Choose Enable)

10:47	8	9.00 🔶 💷 🖬 l	ñil (82)
<	Setup		C
r Active control	Setup	Advance	Peakshif
Work Mode		Peak S	hift >
nput Mode		Para	allel >
PS/Backup En		96	
Anti Reverse			
anguage		Chin	ese >
Reset		Ex	ecute
Clear Data		Ex	ecute
Clear Energy		Ex	ecute
Current time	202	3-05-18 10:44	:51 >
Week			4
=	0	4	

ate



# 8 M-Master Commissioning

This Manual, with the M-Master controller, the heat pump MHC-V5WD2N8-C, and the inverter ME-HS5L as examples, provides the process of building an iEasyEnergy system, (Heat Pump, Photovoltaic, and Energy Storage), which can be monitored by iEasyEnergy APP

# Basic information about the device

ltem	Factory default					
IP address	192.168.100.185					
Configuration page address	https://192.168.100.185					
Username	admin					
Password	123AB@ab					
iBuilding server	Overseas server					
Timer	15 min					
Impedance Matching	All closed					
Configuration page language	Subject to the system language (English in case of no matching language)					

### 8.1 Items Required

In order to achieve the above functions, the following items are required:

- 1. M-Master controller
- 2. Heat pump unit that can operate normally and its wired controller
- 3. Hybrid inverter and energy storage and PV modules that can operate normally
- 4. Power supply for normal operation of the M-Master controller (see above)
- 5. Three-conductor shielded cables for connecting the M-Master controller to the heat pump unit and the hybrid inverter
- 6. Ethernet cable
- 7. PC installed with Chrome or Edge browser (for gateway configuration)
- 8. Internet accessible network (Ethernet or Wifi)

### 8.2 Steps Overview

- 1. Connect the communication line
- 2. Power on
- 3. Access to LAN
- 4. Visit the M-Master Configuration page



- 5. Add devices and check connection status
- 6. Access to the Internet
- 7. Bind controllers

### 8.2.1 Step 1 System Commnication Cables Connection

Refer to system commnication cables connection part for details, make sure all cables are connected correctly.

### 8.2.2 Step 2 Power On

Connect the M-Master controller, the heat pump unit, and the inverter unit to the power supply for normal operation. Notes:

The effective power supply range of the M-Master controller is:

AC 24V±20% 50/60Hz 12VA

DC 24V-10/+20% 8W

The electrical and cable connection of the heat pump unit and the inverter unit can be found in the relevant specification.

### 8.2.3 Step 3 Access to LAN

Configure the PC's Ethernet network card with a fixed IP address of 192.168.100.90, and connect the PC to the M-Master controller directly through an Ethernet cable (or through a switch), so as to set the M-Master controller and the PC both in a LAN allowing mutual access.

### 8.2.4 Step 4 Visit M-Master Configuration Page

When the LED "RUN" indicator of the M-Master controller is flashing, visit the Configuration page (https://192.168.100.185) through a browser installed on the PC. Log in with the default username and password on the Login page (see above) In case of a pop-up SSL certificate error page, click Advanced-Continue to 192.168.100.185 (unsafe), or type "thisisunsafe" to visit the page





### 8.2.4.1 Step 5 Add devices

### 8.2.4.2 Add device- M-Master

After login, click "M-Master Configuration" to turn to the "M-Master Configuration" page.

Add devices on the "M-Master Devices" page

- Set Gateway Index to 1
- Fill in the remaining parameters according to the actual situation, and refer to the meanings of the parameters in the table below.

M-Master				
Gateway Index		1	+	
Project Address	Berlin			~
PV min Power(W)	-	100	+	
Charge Max SOC(%)		95		
deltEs Charge(%)		5		
Charge Min SOC(%)		10		
delt Es Discharge(%)		5		
Heat Max Temp.(°C)	-	60	+	
delt Hs Charge(°C)		2		
Heat Min Temp.(°C)		40		
delt Hs Discharge(°C)		2		
Advanced				

Parameter	Description
Gateway Index	Set Gateway Index to 1 Gateway serial number, please ensure that it is different for each gateway if there are multiple gateways in the same project. This parameter affects the SN of the reported device. Please do not modify it arbitrarily after setting it.
Project Address	Project Address
PV min Power(W)	The minimum power generation of PV modules
Charge Max SOC(%)	(Advanced Configuration) The maximum of SOC(State of Charge) while being charged
deltEs Charge(%)	(Advanced Configuration) Battery charging hysteresis
Charge Min SOC(%)	(Advanced Configuration) The minimum of SOC(State of Charge) while being discharged
delt Es Discharge(%)	(Advanced Configuration) Battery discharging hysteresis
Heat Max Temp. (°C)	The maximum temperature for heating the hot water
delt Hs Charge(°C)	(Advanced Configuration) Hysteresis of heating hot water
Heat Min Temp. (°C)	(Advanced Configuration) The minimum temperature for heating the hot water
delt Hs Discharge (°C)	(Advanced Configuration) Hysteresis of releasing hot water
Advanced	Enable advanced configuration



### 8.2.4.3 Add device – Heat Pump

Click Add to add the first device

- Select the Model MHC-V5 (7/9/12/14/16)WD2N8-C in Heating System
- Set Index to 1, Port to BUS1-A1B1, and Slave
- Address to 1, with no operation for SubODU Address
- Fill in the remaining parameters according to the actual situation, and refer to the meanings of the parameters in the table below.

Device1			Delete
* Model	Heating System / MHC	~	
* Index	- 1 +		
Port	BUS1 - A1B1	$\sim$	
* Slave Address	- 1 +		
SubODU Address	Select		~
Hydraulic Module			
Hydraulic Module Model	Select	$\sim$	
Water Tank			
Water Tank Model	Select	$\sim$	
Meter			

Parameter	Description
Model	PHeat pump model If none applies, please select MD-HP
Index	Device serial number, this parameter affects the SN reported by the device. To maintain device uniqueness, this parameter cannot be changed after it is saved
Port	Correspond with M-Master RS485 communication port
Slave Address	The device's slave address, same as HMI address for BMS of the user interface
SubODU Address	If there are parallel slaves, please select the address of the connected slave
Hydraulic Module	Whether the hydraulic module connected
Hydraulic Module Model	Model of the hydraulic module
Water Tank	Whether Thermal storage tank connected
Water Tank Model	Model of Thermal storage tank
Meter	Whether the electricity meter connected



### 8.2.4.4 Add device – Hybrid Inverter

Click Add to add the second device

- Select the Model ME-HS5L in Hybrid Inverter
- Set Index to 2
- Port to BUS2-A2B2, and Slave Address to 1
- Fill in the remaining parameters according to the actual situation, and refer to the meanings of the parameters in the table below.

Device2		Delete
* Model	Hybrid Inverter / ME-HS 🗸	
* Index	- 2 +	
Port	BUS2 - A2B2 ~	
* Slave Address	- 1 +	
Grid Type	Single Phase $\lor$	
Capacity(kWp)	- 10 +	
PV Temp. Max(°C)	40 +	
PV Temp. Min(°C)	- 85 +	
PV Inclination	- 0 +	
PV Azimuth	- 0 +	
Battery Product Model	Select ~	
Battery Capacity(kWh)	- 40 +	

Parameter	Description
Model	Hybrid inverter model
Index	The equipment serial number, this parameter affects the SN of the reported device. To maintain the uniqueness of the device, this parameter cannot be changed after it is saved
Port	Correspond with M-Master RS485 communication port
Slave Address	The slave address of the device
Grid Type	If there are multiple slave devices connected in parallel, please select the address of the slave device that is connected
Capacity(kWp)	The installed capacity of the photovoltaic system
PV Temp. Max(°C)	The maximum operating temperature of a photovoltaic panel
PV Temp. Min(°C)	The minimum operating temperature of a photovoltaic panel
PV Inclination	The angle between the PV panel and the horizontal surface when PV installed southwards.
PV Azimuth	The angle between the PV panel and south when PV installed eastwards(-)/westwords(+).
Battery Product Model	Model of Battery
Battery Capacity(kWh)	Capacity of the battery



### 8.2.4.5 Add device – EV Charger

Click Add to add the third device,

- · Select the Model MEV-AC07-WIFI in Hybrid Inverter
- Set Index to 3
- · Port to BUS3-A2B3, and Slave Address to 1
- Fill in the remaining parameters according to the actual situation, and refer to the meanings of the parameters in the table below.

Device3					Delete
* Model	Charg	ge / MEV-	AC07-Wif	FI ~	
* Index		3	+		
Port	BUSS	3 - A3B3		$\sim$	
* Slave Address		1	+		
Install Type	Hanging			~	

Parameter	Description
Model	EV Charger model
Index	The equipment serial number, this parameter affects the SN of the reported device. To maintain the uniqueness of the device, this parameter cannot be changed after it is saved
Port	Correspond with M-Master RS485 communication port
Slave Address	The slave address of the device
Install Type	Column or hanging installation

· Click Save to save the current configuration parameters

Midea	M-Master Configuration	0											🛪  admin
M-Master Configuratic	M-Master Contiguration												
(a) Settings	M-Master Gateway SN:	M0PCS60	FB002230	4C									
Tools	12236												
	LEI-COS MAR												
	M-MasterDevices												Save
	Add												
	M-Master				Device1	Device2 Detete							
	Gateway Index	adex – 1 +			* Model	Heating System	/ MHC		* Model Hybrid Inverter / ME-HSS			L	
	Project Address	Berlin			* Index	- t.	+		* index	-	2	+	
	PV min Power(W)	- 10	- 00 +		Port	BUS1 - A181			Port	BUS1 -	A1B1		
	Charge Max SOC(%)				* Slave Address	t	+		* Slave Address		1	+	
	Charan Min SOC(%)				SubODU Address	Select			Grid Type	Single F	hase		
	dell Es Discharge(%)				Hydraulic Module				Capacity(kWp)	-	10	+	
	Heat May Temp (*C)		a +		Hydraulic Module Model	Select			PV Temp. Max("C)	-	40	+	
	near that remp ( C)	- 0	U T		Water Tank				PV Temp. Min("C)		85	+	
	oeit Hs Charge(°C)				Water Tank Model	Select			PV Inclination		0	+	
	Heat Min Temp.("C)	4			Meter				PV Azimuth	-	0	+	
	delt Hs Discharge(°C)								Battery Product Model	Select			
	Advanced								Battery Capacity(KWh)	-	40	+	

### 8.2.4.6 Add device – Check online status

Click "Debug" to enter the "Debug" page.

The communication status and current values of the added devices can be viewed on this page.

- When the Status in the rightmost column is Fault, it indicates that the device communication is abnormal.
- When the Status changes to Normal, it indicates that the device communication is normal.
- The current status of the corresponding device can be viewed in the Precent Value column.



Note: After you configure the devices and click Save, the system initialization will start again. Check the device communication status after about 2 to 3 mins when the system communication becomes stable

Midea	Tools / Debug												XA	8 admin
M-Master Configuratic	M-Master Configuration	× Debug												
	Zigbee Mac	Test Mac	Signal Level	Network Up	Pan ID		Tx Power		Channel	Sig	nal Test			
🕼 Settings 🛛 🗸	DC8E95FFFE138AFD	unknown	0	true	0xCF2	7	7		20			Basic Test		
🖶 Tools 🛛 🗠	Device Instance	Device N	ame	Name		Instance		Тур	pe		value		Type to search	Status
📋 Debug	10101	MD-PVS-	1-2-PVS	loadPower		0		LA	<i>V</i>		0		Edit	Fault
_	10101	MD-PVS-	1-2-PVS	loadReactivePower		1		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	powerFactor		2		AI			0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	pvPower		3		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	packCellAvgTemp		4		AI			0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	packVoltage		5		AI			0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	packCurrent		6		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	batteryChargePower		7		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	dailyBatteryCharge		8		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	totalBatteryDisharge		9		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	dailyBatteryDischarge		10		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	totalBatteryCharge		11		LA	/		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	totalPowerPurchase		12		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	totalPowerGrid		13		LA	V		0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	DSPErrorCode4		14		AI			0		Edit	Fault
	10101	MD-PVS-	1-2-PVS	inverterMode		15		AI			0		Edit	Fault
	20/page ~ <	2 3 4 5	6 ••• 27 >											

### 8.2.5 Step 6 Access the Internet

Click "System Configuration" to enter the "System Configuration" page to access the devices to the network.

Midea	Settings / System Configuration						3,	\land admin
M-Master Configuratic	M-Master Configuration × Debug × System Configuration	tion						
Settings ^	System Time: 2023-09-20 19:49:35							
System Configurat								Edit
8 User Management	Ethernet	Notwork, 266-26	66.366.0 O	ataway Address	102 166 100 1	Physics	Mandy connected	
🕀 Tools 🗸 🗸	IP 700/PDS1 192,100,100,160	Welliaski 200.20	33.233.0 Si	aleilay Audiess:	192, 198, 199, 1	Pilgin	Aready connected	Edit
	WIFI							
	IP: 10.75.22.17	Connect Status: true		SSID:	Smart	ON/OFF:	on	
								Edit
	System Version							
	System Version: 1.5.01.20230913.3							Edit
	System Load							
	CPU Usage: 👄 23%	RAM Used: 351/9	958MB 36%	Disk Used:	895/29167MB 3%	Task Manager		
	Impedance matching							
	BUS1: Impedance matching disable	BUS2: Imped	dance matching disable	BUS3:	Impedance matching disable			
								Edit
	System Operation							
	reboot system							
	Backup And Recovery							
	Export Configuration Import Configuration Get System Log							



Method 1: WiFI Access

In case of Wifi access, click Edit on the WIFI page to enter the searched Wifi list. Select the SSID to be connected and

Edit - WIFI				×
WIFI				
Wifi List	MBT-ZT	۵	((1-	connect
	Guest	6	((;-	connect
	hw_manage_1c60	₿	((r	connect
	hw_manage_3c40	ß	(î:	connect
	MK-001	ß	(ţ;	connect
	Smart	⇔	(t-	connect
	hw_manage_2160	₿	((t-	connect

enter the password to connect.

Method 2: Ethernet Access

In case of Ethernet access, click Edit on the "Ethernet" page for configuration.

Note: The controller does not support DHCP mode. A fixed IP address is required for Ethernet access

Edit - Ethernet		×
IP Address	192.168.100.185	
Netmask	255.255.255.0	
Gateway Address	192.168.100.1	

Submit

Cancel

Midea							Midea	a iEasyEne	rgy Sol	ution
Midea	Settings /	System Configuration								🛪 ጸ admin
M-Master Configuratic	M-Master Configu	uration × Debug ×	System Configur	ation						
নি Settings ০	System Time System Time:	2023-09-20 19:49:35								
Contractor Contractor										Edit
System Configurat	Ethornot									
& User Management	IP Address:	192.168.100.185		Netmask:	255.255.255.0	Gateway Address	: 192.168.100.1	Plugin	Already connected	
🖆 Tools 🛛 🗸										Edit
	WIFI									
	IP:	10.75.22.17		Connect Status:	true	SSID	: Smart	ON/OFF	on	
										Edit
	System Version									
	System Version:	1.5.01.20230913.3								
										Edit
	System Load									
	CPU Usage:	- 23%		RAM Used:	351 / 958MB	Disk Used	: 895 / 29167MB 3%	Task Manager		
	less stars as as at									
	BUS1:	Impedance matching disable	9	BUS2:	Impedance matching disable	BUS3	: Impedance matching disab	ble		
										Edit
	System Operati	on								
	reboot system									
	Rookup And Do	001/07/								
	Export Configuratio	on Import Configuration	Get System Log							
	guida	y a di di di								

### 8.2.6 Step 7 Bind Controllers

Bind the gateway with the iEasyEnergy APP by scanning the QR code through the "M-Master Configuration" of the APP. Please refer to iEasyEnergy instructions for how to use the APP.

M-Master Gateway SN: M0PCS60FB00223D4C	
	6
M-Master Gateway code	iEasyEnergy APP

### 8.3 System Version

The version of the current system can be viewed on the "System Version" page. Click "Edit" to upgrade the system.

System Version	
System Version:	MMaster-
	1.5.01.20230608.0
	Edit

In the pop-up dialog box

- Click "Select the file" to select the upgrade file. A prompt pops up when the upgrade file is correct.
- Click "upgrade", the system will be automatically upgraded after the next reboot
- Click "upgrade and reboot" to upgrade and reboot the system immediately



Note: Do not power off the controller during the upgrade.

Edit - System Version ×					
Firmware version	23.06.08				
Upload firmware	Select the file				
	MDG44-BTW23_202306090921_product_PEHF_1.5.01.202306				
	08.0.bin				
	upgrade upgrade and reboot				

Note: The latest system version is 1.5.01.20230921.0, please kindly note that the system will be upgraded because of optimization, and keep you posted on further notice.



# 9 iEasyEnergy APP Commissioning

### 9.1 Preparation

Before you use the iEasyEnergy App, make sure that the complete suite of the Midea iEasyEnergy Solution with M-Master is installed in your home. Make sure that devices such as heat pumps, batteries, PV, and hybrid inverters have been connected to M-Master and that the devices have been configured and powered on. For more information about the settings of M-Master and its connection methods, see the user manual of M-Master.

### 9.2 Download

If you are using the iEasyEnergy App for the first time, search for iEasyEnergy in the App store on your phone and download the App. This App is available on both iOS and Android devices.

Minimum OS version to support: For Android devices, later than Android 4.4 For iOS devices, later than iOS 9

### 9.3 Privacy Policy, Software License and User Service Agreement

Before you use the iEasyEnergy App, you must read and select I have read through and agree to the Privacy Policy and the Software License and User Service Agreement.

For details about the Privacy Policy and the Software License and User Service Agreement, tap the name of the corresponding file on the login page.



### 9.4 Account and Login

If you are using iEasyEnergy for the first time, tap Sign up in the lower part of the login page to create an account. To create an account, do as follows:

- Enter an email address as your account, read and select I have read through and agree to the Privacy Policy and the Software License and User Service Agreement, and then tap Get a verification code.
- Go to your email inbox to check the verification code, enter the verification code, and tap Next.
- Enter a username, password and confirm password, and tap Finish to complete the sign-up

# Midea

# Midea iEasyEnergy Solution

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Sign up Already have an accourt	nt? Log in	Sign up The verification code Iuzhouyu@sohu.com	has been sent to	Sign up		Welcome to the Midea iEasyEnergy	
Email		Enter the verifica	tion code	Enter password		Email	
Get a verificat	ion code	Ne Dant receive the verification	xt code? .Send again (55)	Confirm the passwo	ord	Password Forgot password? > Log in One wood through head open Service Agreement,	ed to the Privacy ense and lase
	_						ign up

### 9.5 Device Connection

After you log in to and access the App, you can connect devices with the help of customer service personnel or on your own.

- 1) Scan the QR code of M-Master in the prompt that Appears to connect devices to M-Master. The QR code is displayed on the configuration page of M-Master. For details about the QR code, see the user manual of M-Master.
- 2) Verify the SN codes of the devices and tap Confirm pairing to connect the devices to M-Master. If the displayed SN codes are inconsistent with those displayed on M-Master, tap Cancel and contact the customer service to verify the SN codes.
- If the QR code of M-Master has been stored in your phone, you can call the QR code picture from Albums to connect the device to M-Master.







4) After the devices are connected to M-Master, you are prompted to set the electricity price.

This setting helps you customize a running mechanism for your system, improves efficiency of energy use, and reduces costs. This setting can also be configured later on the personal center page.

- 5) After the devices are connected to M-Master, verify that data is successfully uploaded to the cloud.
  - 1. If data fails to upload, check the state of the RUN indicator on M-Master.
    - i. If the RUN indicator is flashing, check whether the Coindicator is flashing.
      - a) If yes, the network connection is normal and data will be uploaded later.
      - b) If no, check whether M-Master is connected to the Internet. For more information about how to connect to M-Master, see the user manual of M-Master.
    - ii. If the RUN indicator is not flashing, contact technical support engineers for help



- 2. If data is successfully uploaded, verify data accuracy.
- Tap the second icon in the lower part of the page to go to the device page and find the heat pump.
- Check the running status of the heat pump, and verify that the running status of the heat pump on the wired controller is consistent with that on the page.
- Tap the entry of the heat pump to set heat pump parameters.

For example, you can select the heating mode and set the temperature to 55°C for Zone 1 and check whether the mode and temperature on the wired controller are consistent with those displayed on the App. If the data is consistent, the verification process is complete.

Note: If the data is inconsistent, verify the installation and connection of the devices.

6) After the verification is complete, you can use the iEasyEnergy App to manage your home devices.



### Midea Building Technologies Division Midea Group

Add.: Midea Headquarters Building, 6 Midea Avenue, Shunde, Foshan, Guangdong, China Postal code: 528311



mbt.midea.com / global.midea.com

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