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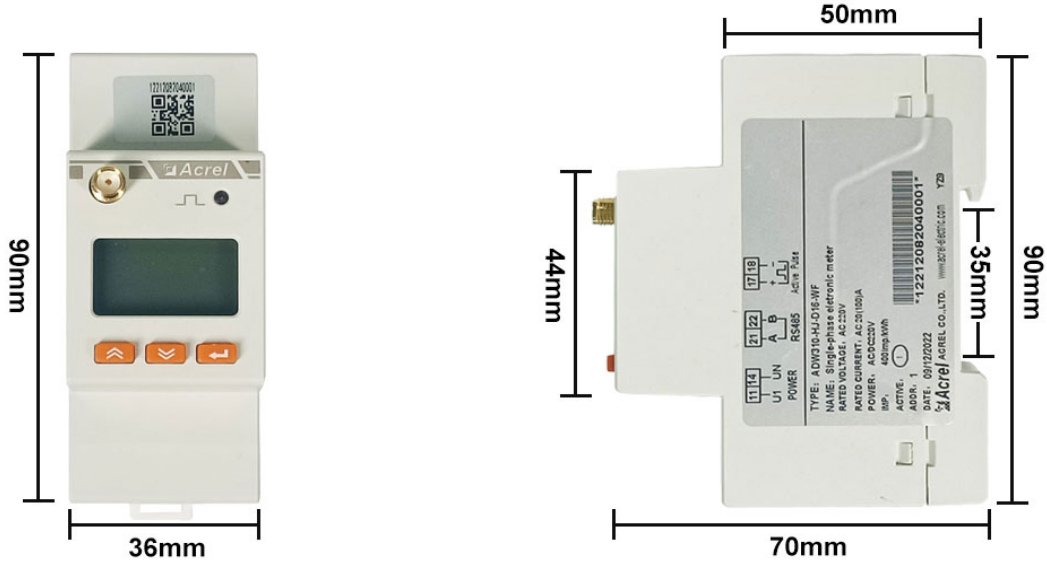
0. Installation Dimension

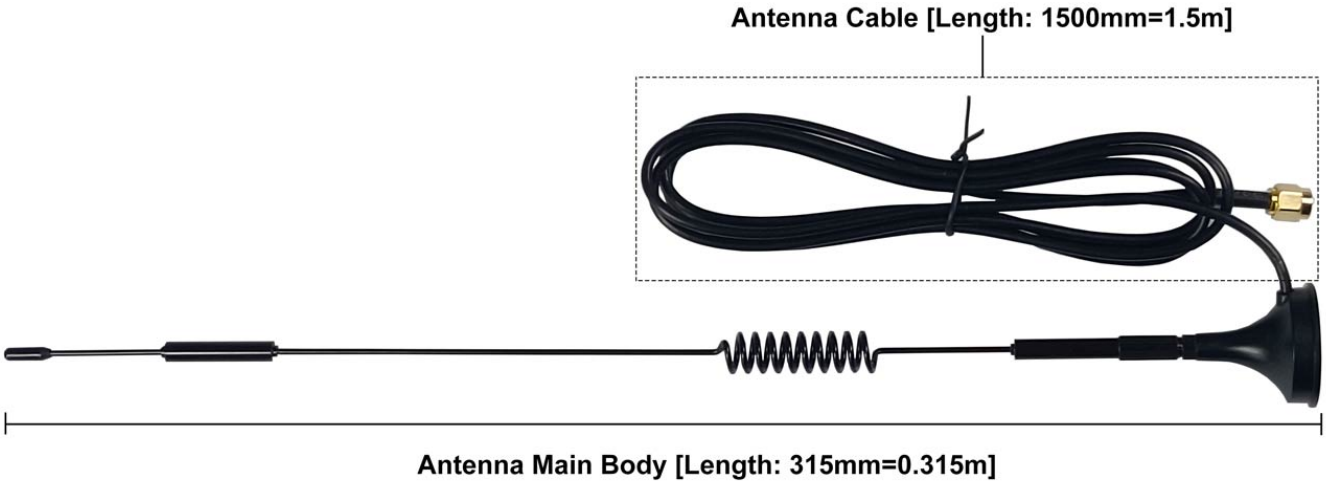
Dimension of necessary hardware including:

(1) ADW310-Dxx/4GHW 1-phase 4G Wireless Energy Meter (Main Body+Terminal Block+Antenna)

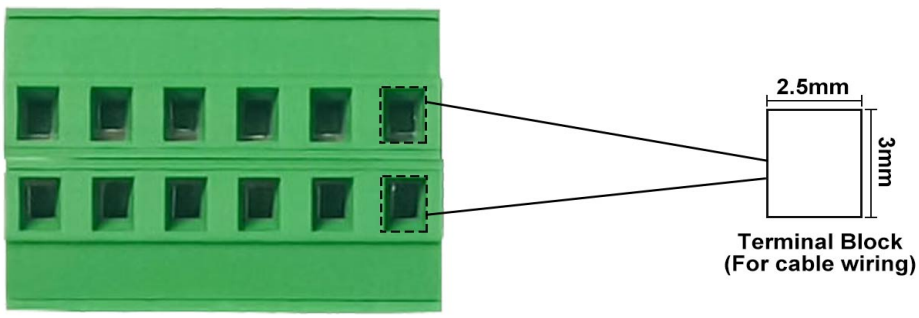
(2) AKH-0.66/K K-Ø Series Current Transformer (Main Body + Output Cable)



(1) Dimension of Main Body of ADW310-Dxx/4GHW [Without Terminal Block]



(1) Dimension of 4G Antenna of ADW310-Dxx/4GHW



(1) Dimension of Terminal Block of ADW310 Series

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0. Installation Dimension

Dimension of necessary hardware including:

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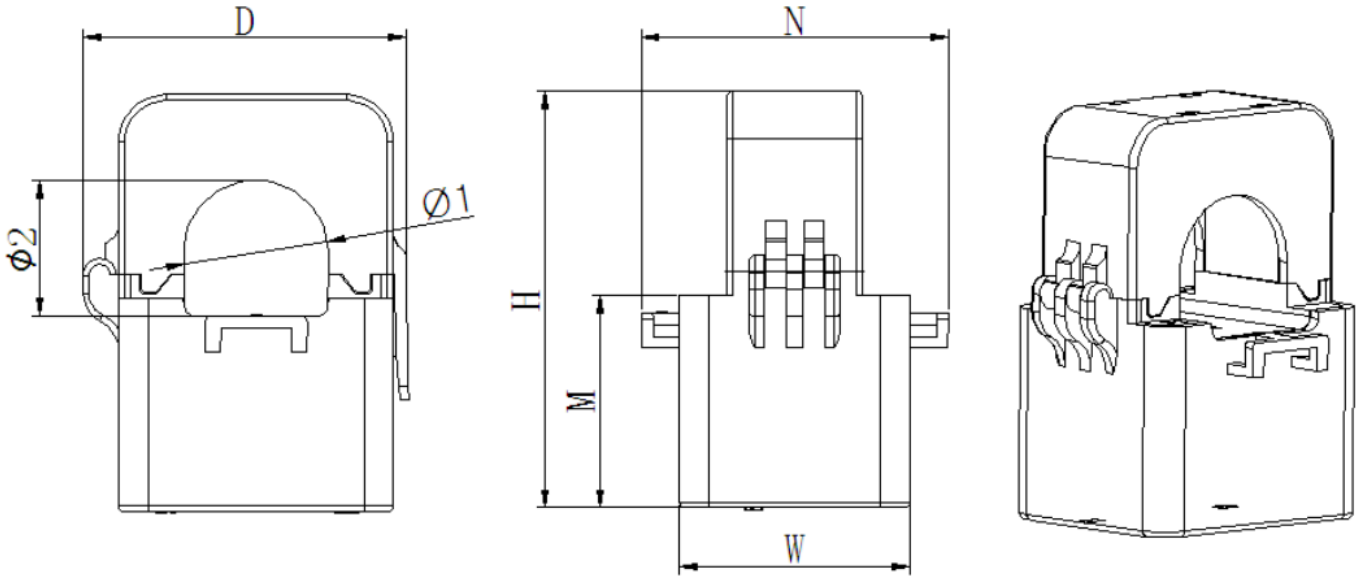
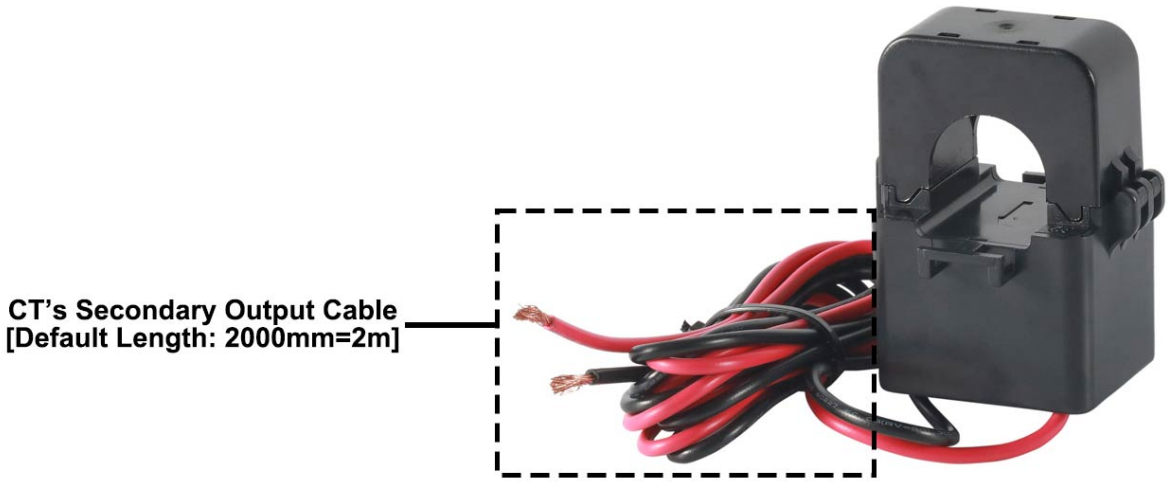
(2) AKH-0.66/K K-Ø Series Current Transformer (Main Body + Output Cable)



Specification	Dimensions (mm)					Perforation size (mm)		Tolerance (mm)
	W	H	D	M	N	Φ1	Φ2	
AKH-0.66/K-∅ 10N	27	44	32	25	36	10	9	±1
AKH-0.66/K-∅ 16N	31	50	36	27	42	16	17	

(2) Dimension of Main Body of AKH-0.66/K K-Ø Series



(2) Dimension of Secondary Output Cable of AKH-0.66/K K-Ø Series

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1. Wiring Illustration

Only 2 parts of wiring are necessary for ADW310-Dxx/4GHW 1-phase 4G Wireless Energy Meter.

(1) Voltage Input: Use PIN 11, 14 on ADW310-Dxx/4GHW for 1-phase voltage signal input. [This voltage signal input will also serve as power supply of ADW310-Dxx/4GHW]

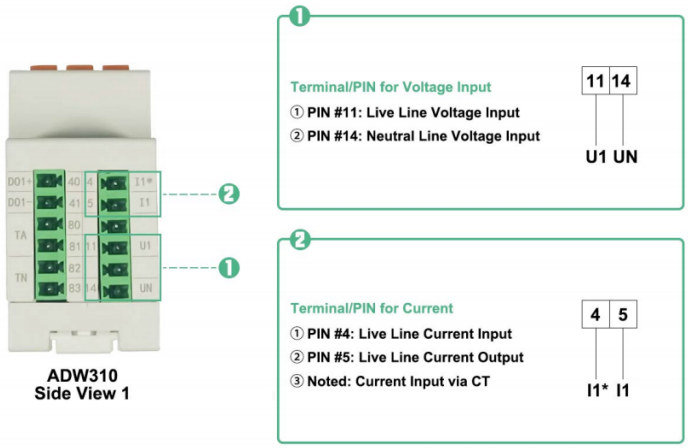
(2) Current input: Use PIN 4,5 on ADW310-Dxx/4GHW with paired CT for 1-phase current input wiring.

Noted #1: Make sure the antenna of ADW310-Dxx/4GHW was covered by stable 4G signal received from local 4G Telecom Tower.

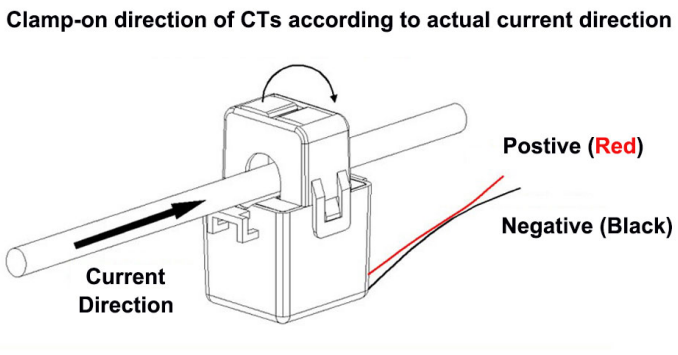
Noted #2: Make sure before you power up the ADW310 for the first time installation at least, you need to insert the 4G SIM card in ADW310-Dxx/4GHW first.

Noted #3: If you are using APN 4G SIM card instead of normal 4G SIM card, need to inform Acrel contact person to preset the APN configuration in ADW310-Dxx/4GHW in advance while in factory manufacturing stage.

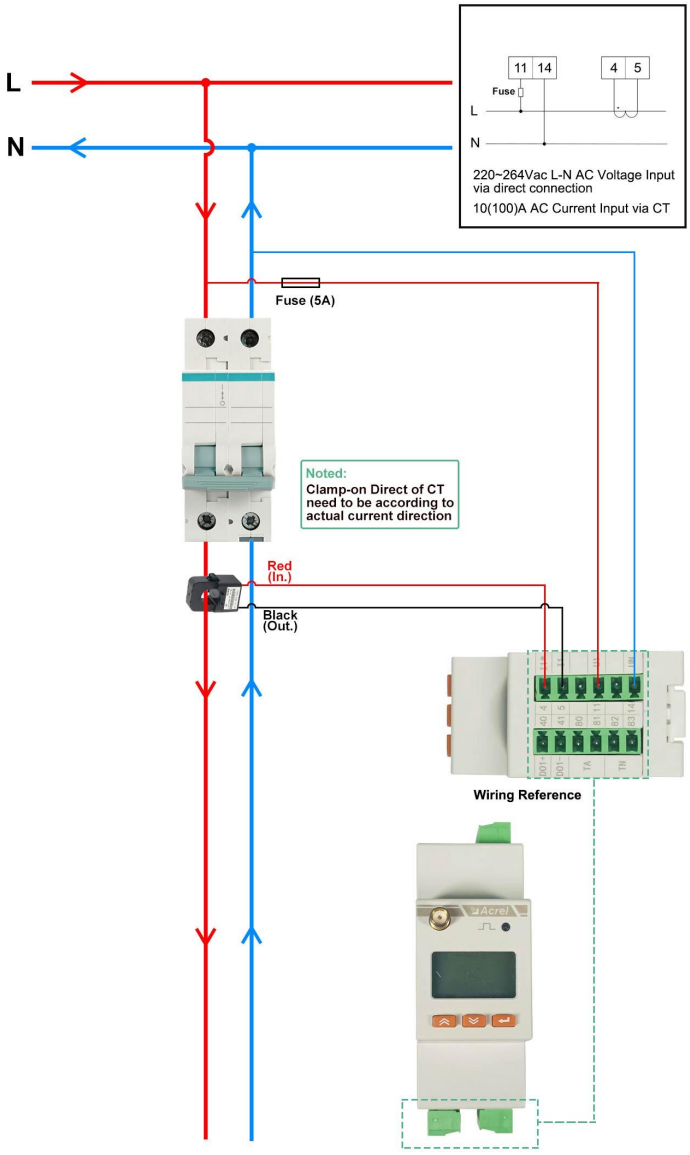
Noted #4: The clamp-on direction of CTs must be according to the actual current direction.



PIN Overview of ADW310



Noted for Clamp-on direction of CTs



Current&Voltage Input Wiring of ADW310

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2. System Operation

After correctly installing, wiring and powering up the Acrel devices, there are 4 steps to bind these devices with Acrel System before formally using the system:

(1) Step 1 - Download IoT EMS APP on your Mobile Phone;

(2) Step 2 - Register and login your own account.

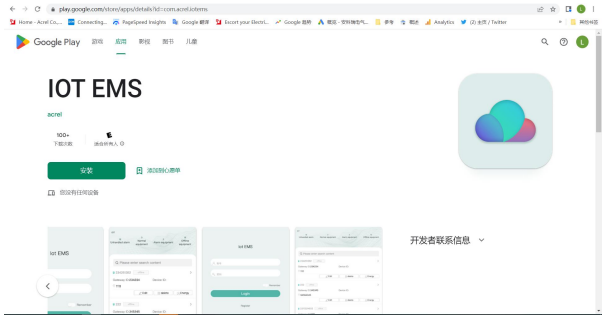
(3) Step 3 - Create a new Project

(4) Step 4 - Add devices to your new Project (Recommend to add by using APP)

Extra Noted: Acrel IoT EMS APP (for Mobile) and IoT EMS WEB (for PC) share the same data and account, once add the devices using APP, we can check the data on either computer using IoT EMS WEB or on mobile phone using IoT EMS APP.

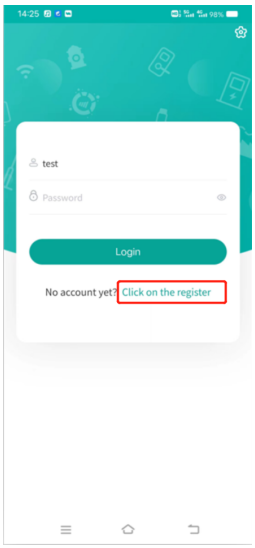
(1) Download IoT EMS APP:

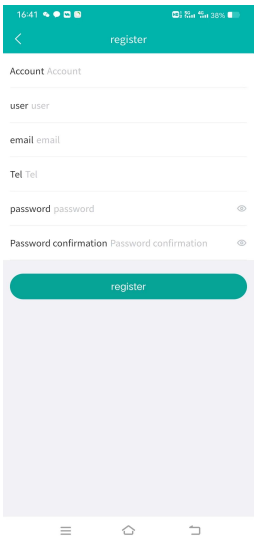
- Download Link (Android): https://play.google.com/store/apps/details?id=com.acrel.iotems
- Download (IOS): Search IoT EMS

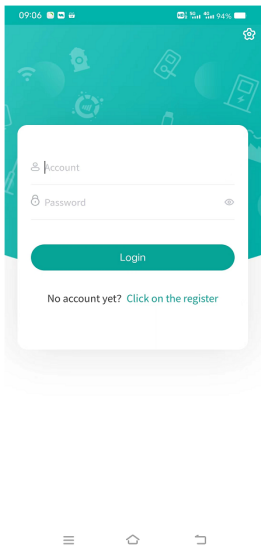


(2) Register your own Account:

- Click on register
- Enter related information for registering account
- Login with your new account by entering "Account" and " Password" you just set







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(1) Step 1 - Download IoT EMS APP on your Mobile Phone;

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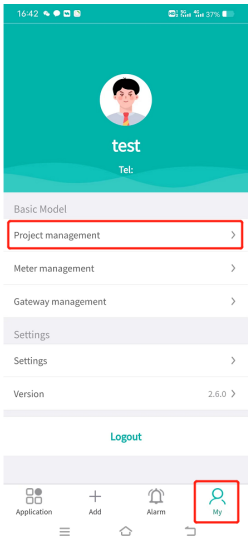
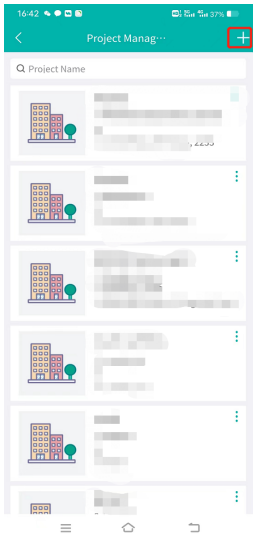
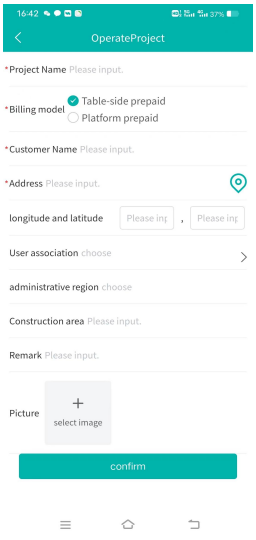
Extra Noted: Acrel IoT EMS APP (for Mobile) and IoT EMS WEB (for PC) Share the same data and account, once add the devices using APP, we can check the data on IoT EMS WEB on PC.

(3) Creat a new Project:

- "My" → "Project management"
- Click "+" icon on the right top
- Choose "Platform prepaid" and fill in other information marked by *

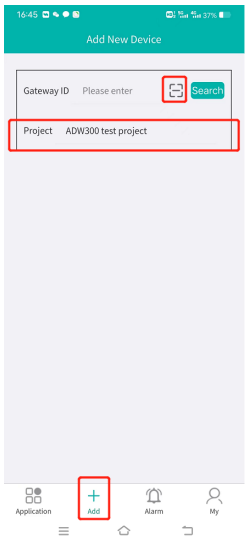


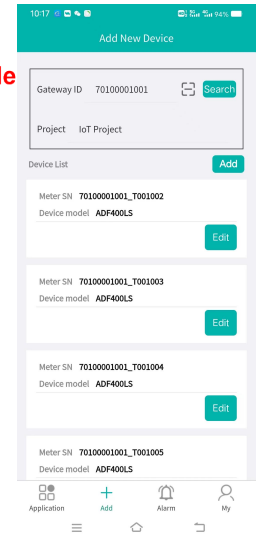




(2) Add Devices to Project:

- Enter "Add" interface
- Select "Project"
- Click "QR Code" scanning icon - Scan the QR Code on ADW310
- Automatically recognize the devices type and SN code





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3. Acrel IoT Energy Monitoring System (Partail Introduction)

Acrel IoT Energy Monitoring System could be access in 2 different ways:

(1) Access through WEB on your computer.

Access port: https://iot.acrel-eem.com/

(2) Access through APP on your mobile phone

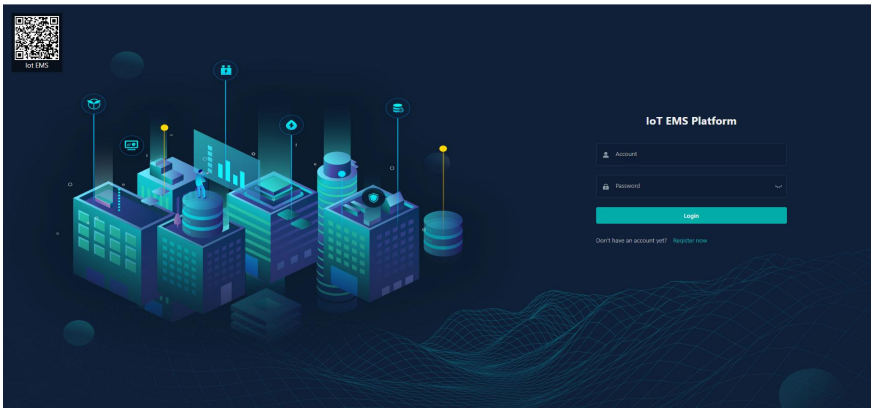
Download Link: https://play.google.com/store/apps/details?id=com.acrel.iotems

(1) WEB Accesss (Computer):

Access Port: https://iot.acrel-eem.com/

Account Name: (Enter yours)

Account Password: (Enter yours)

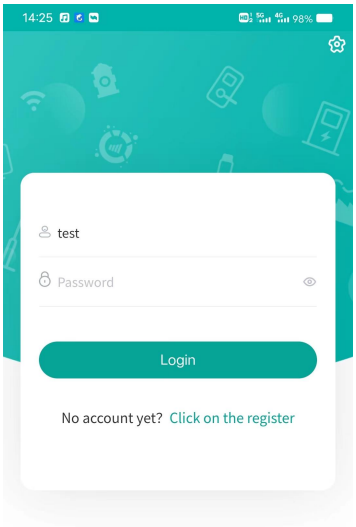


(2) APP Accesss (Mobile):

Download Link: https://play.google.com/store/apps/details?id=com.acrel.iotems

Account Name: (Enter yours)

Account Password: (Enter yours)



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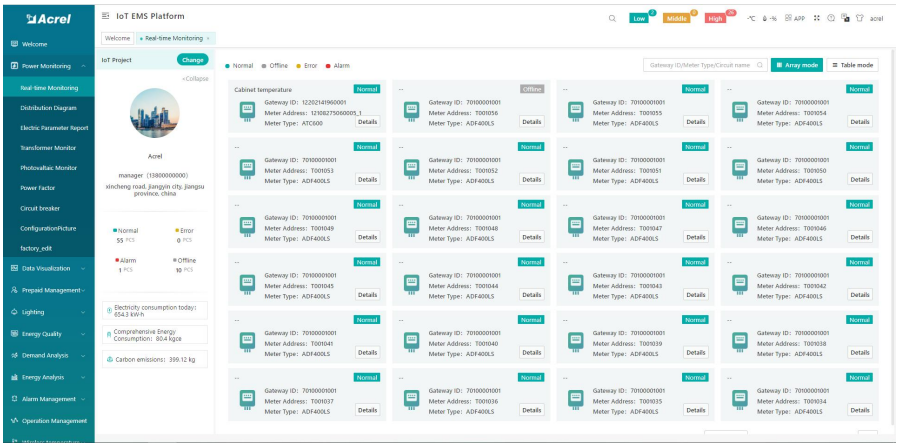
3. Acrel IoT Energy Monitoring System (Partail Introduction)

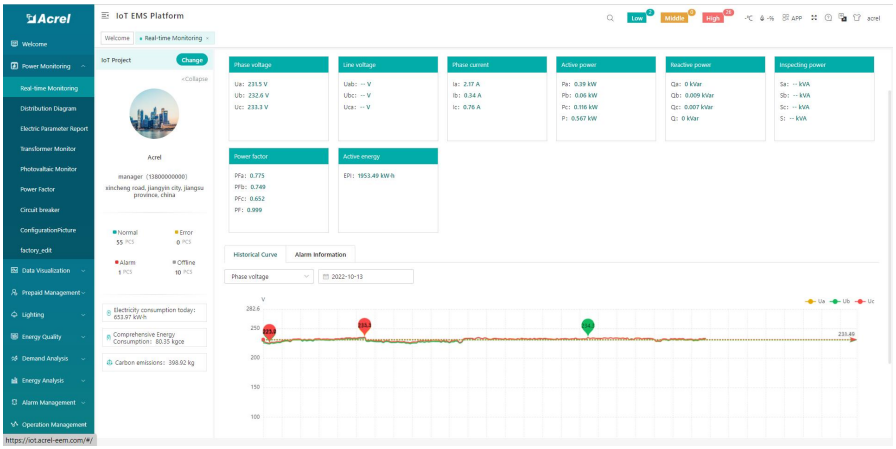
Main Function of WEB side System:

(1) Devices List (2) History Curve (3) Electricity Parameters Report (4) Energy Consumption Report (Daily, Monthly, Yearly) (5) User Report

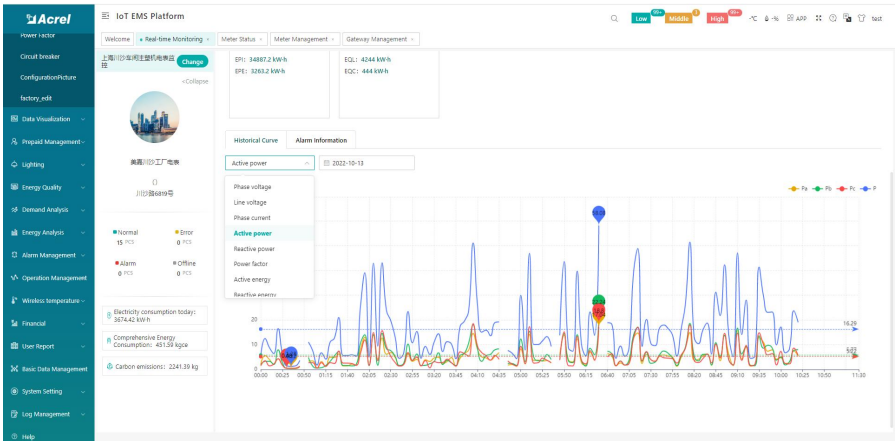
(1) Devices List: Showing the overall devices connected to Acrel System and were bond to certain project. SN code, Online-Offline status, devices model and other necessary information will be shown here.



(2) History Curve: Showing the daily history data curve of all the data that could be collected and upload by energy meter or other basic metering devices.



(2) History Curve: By selecting the items of "data" and "electricity parameter", platform can show the history curve of different data and date.



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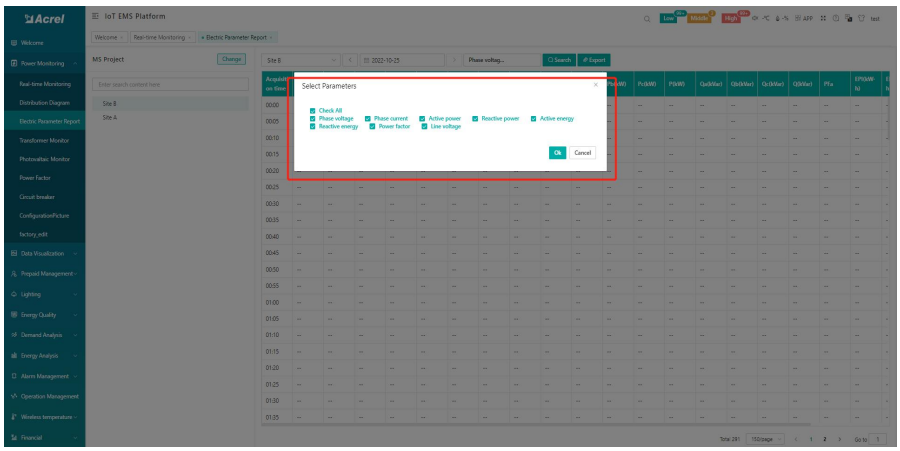
6. Acrel IoT Energy Monitoring System (Partail Introduction)

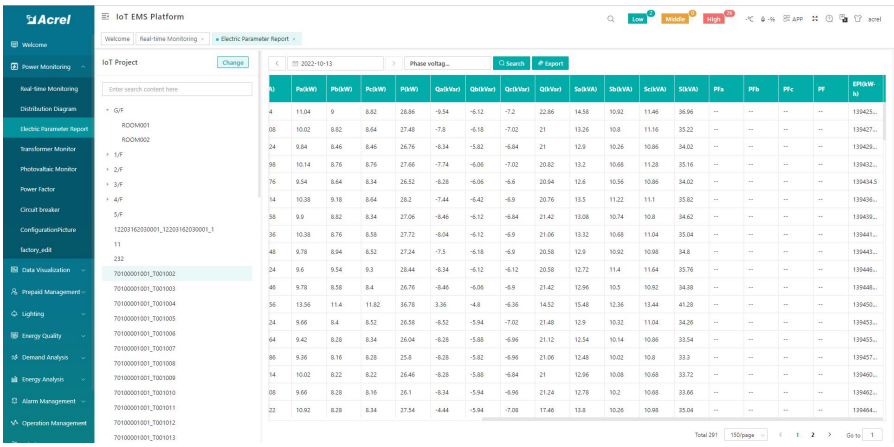
Main Function of WEB side System:

(1) Devices List (2) History Curve (3) Electricity Parameters Report (4) Energy Consumption Report (Daily, Monthly, Yearly) (5) User Report

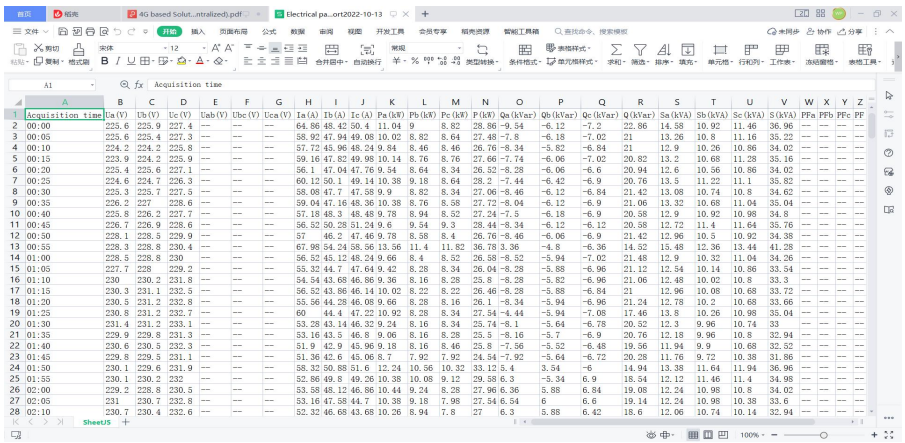
(3) Electricity Parameters Report: Select the "electricity parameters" that you want to show in this report .



(3) Electricity Parameters Report: All the electricity parameters that could be collected by certain energy meter will showed as a report here.



(3) Electricity Parameters Report: Report on platform could be exported in "Excel" format to your computer for a brief storage when accessing the IoT EMS WEB platform.



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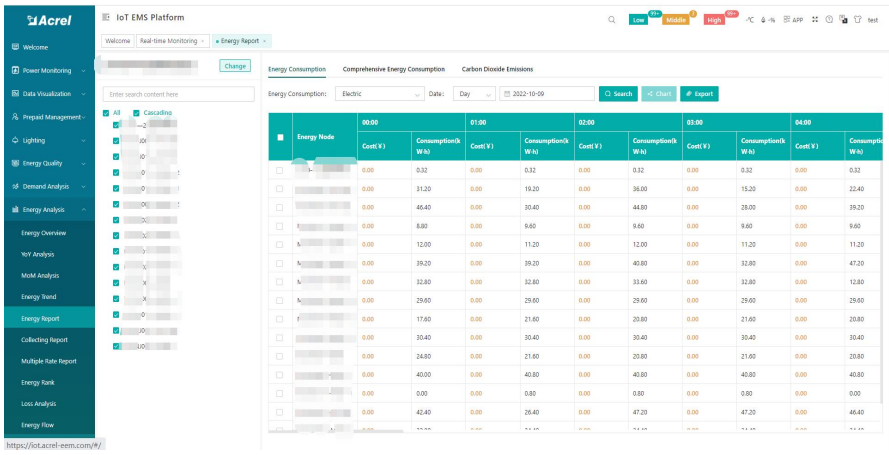
3. Acrel IoT Energy Monitoring System (Partail Introduction)

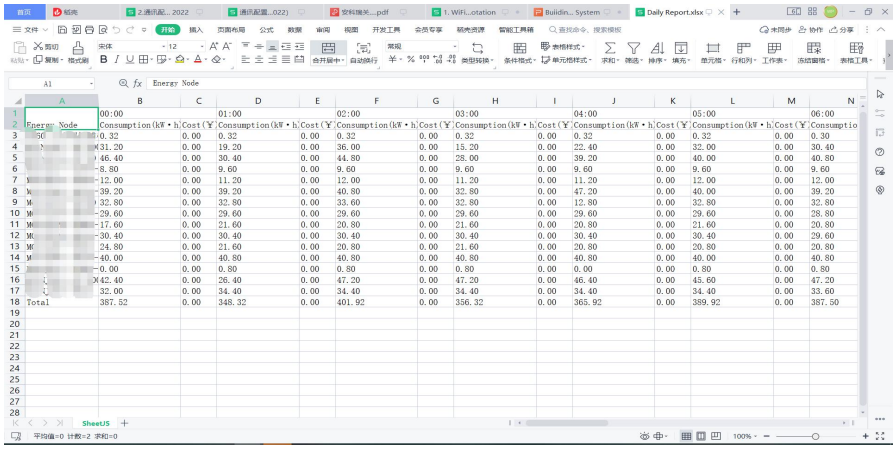
Main Function of WEB side System:

(1) Devices List (2) History Curve (3) Electricity Parameters Report (4) Energy Consumption Report (Daily, Monthly, Yearly) (5) User Report

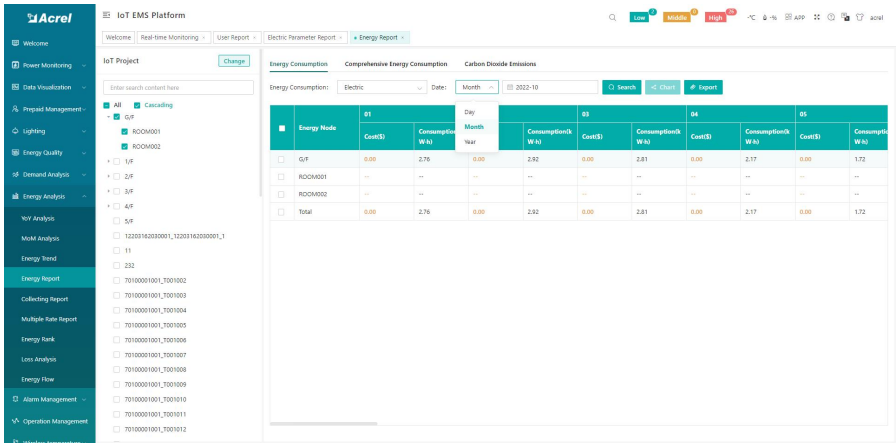
(4) Energy Report (Daily): This Interface show the daily energy consumtion report (calculated by forward active energy)



(4) Energy Report (Daily): This daily energy report could be also export to computer in "Excel" format



(4) Energy Report (Monthly& Yearly): Same as daily energy report, monthly and yearly energy report could be also checked on platform and exported in "Excel" format.



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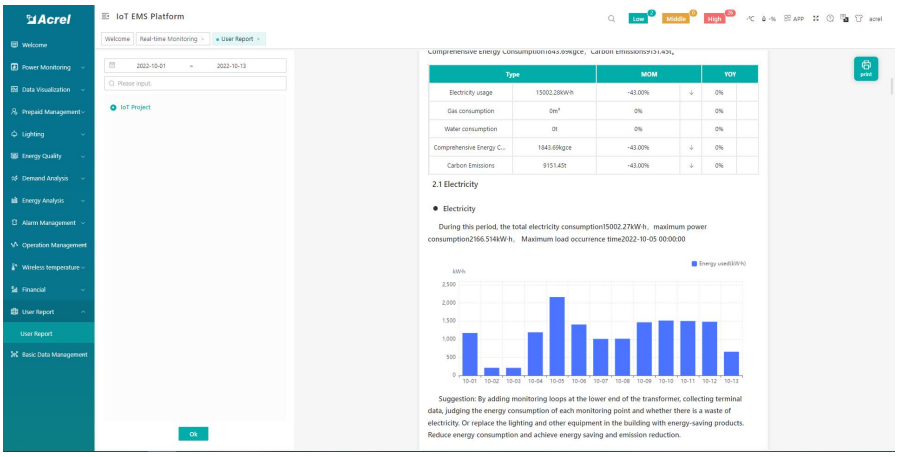
3. Acrel IoT Energy Monitoring System (Partail Introduction)

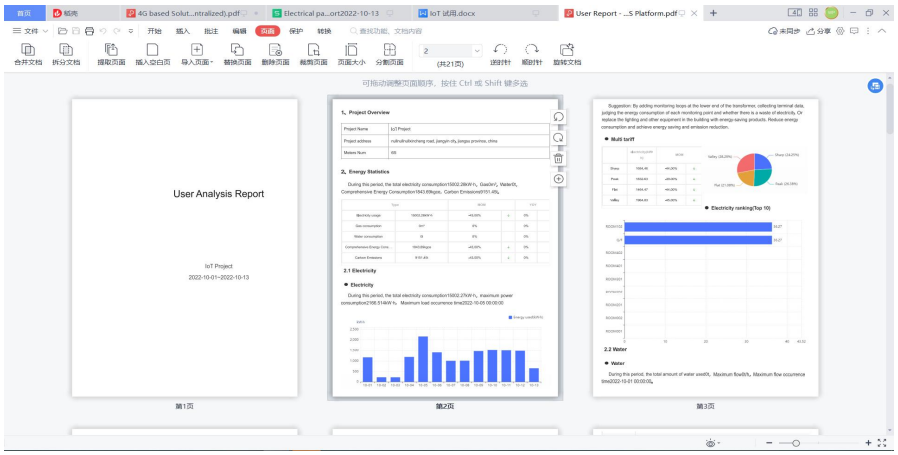
Main Function of WEB side System:

(1) Devices List (2) History Curve (3) Electricity Parameters Report (4) Energy Consumption Report (Daily, Monthly, Yearly) (5) User Report

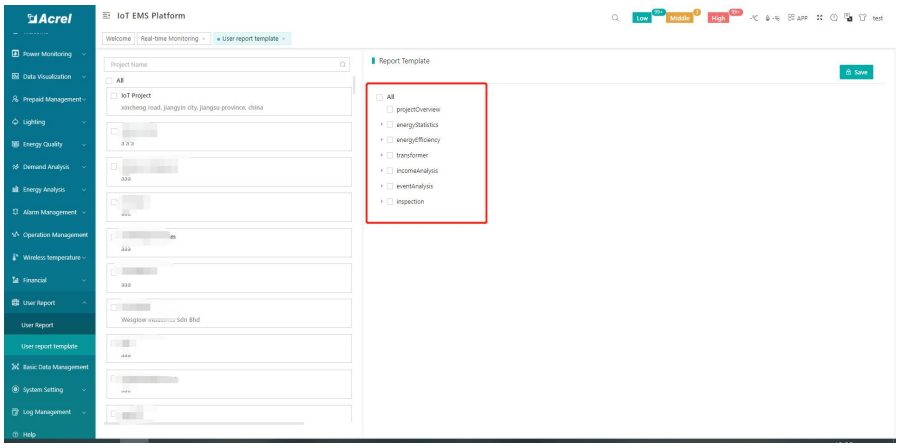
(5) User Report: A comprehensive user report including project overview, energy report, energy analysis and etc could be check on platform



(5) User Report: User report could be exported in "PDF" format into your PC for convenient check and storage.



(5) User Report: User report support template customization in buy-out service of Acrel IoT Energy Monitoirng System.



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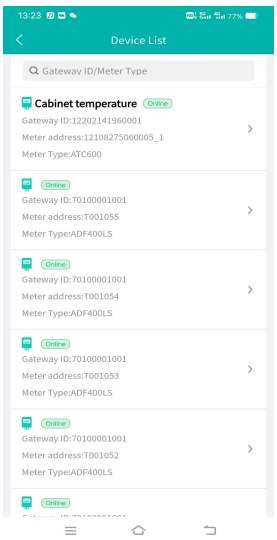
3. Acrel IoT Energy Monitoring System (Partail Introduction)

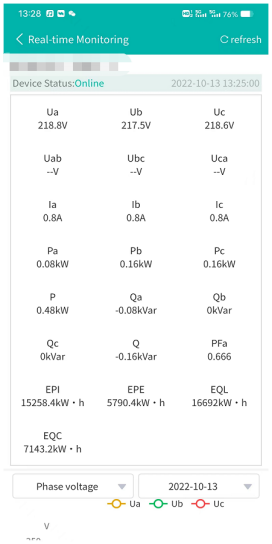
Main Function of APP side System:

(1) Devices List (2) History Curve (3) Electricity Parameters Report (4) Energy Trend (5) Energy Consumption Report (Daily, Monthly, Yearly)

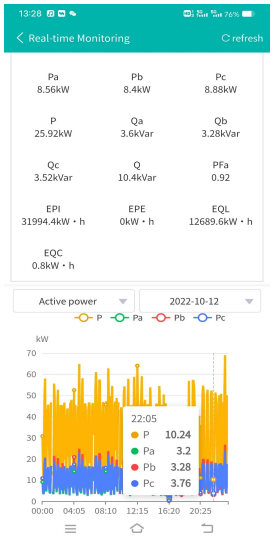
Noted: Since APP side and WEB side of Acrel IoT Energy Monitoring System share the same data, normally recommend our user to add the devices to their account using APP and check the data using WEB platform.



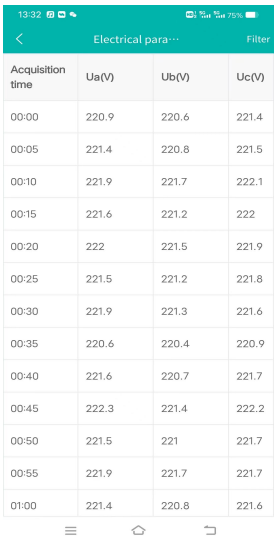
(1) Device List



(2) History Curve

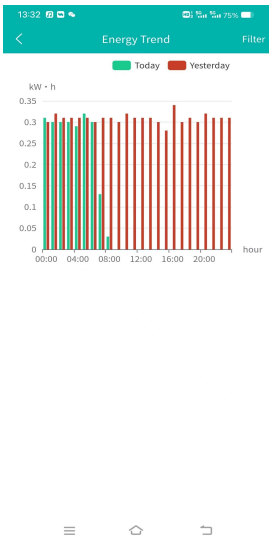


(2) History Curve



Acquisition time	Ua(V)	Ub(V)	Uc(V)
00:00	220.9	220.6	221.4
00:05	221.4	220.8	221.5
00:10	221.9	221.7	222.1
00:15	221.6	221.2	222
00:20	222	221.5	221.9
00:25	221.5	221.2	221.8
00:30	221.9	221.3	221.6
00:35	220.6	220.4	220.9
00:40	221.6	220.7	221.7
00:45	222.3	221.4	222.2
00:50	221.5	221	221.7
00:55	221.9	221.7	221.7
01:00	221.4	220.8	221.6

(3) Parameter Report



(4) Energy Trend

(5) Energy Report