

# Smart Energy Meter User Manual



**Korins Inc.**

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## Smart energy meter function

**Use:** Used for measuring power saving devices in factories, buildings, and processes

**Measurement items:** 3-phase 3-wire, 3-phase 4-wire power measurement  
(V, A, Hz, P, Q, S, Wh, Varh, Vah, P.F)

**Current clamp:**100A, 200A, 500A, 1000A selectable

**Data Logging:** Create CSV files on a monthly basis and save them at 15-minute intervals.

**Flash Memory:** Saved at hourly intervals, 365-day data report function.

**Scanning mode:** Displays 10 menus sequentially for 30 seconds.

**Connected sensors:** temperature, humidity, pressure.

## How to connect

### Single Phase

To connect single-phase power, make the RST terminal common among the four RSTN terminals at the bottom left and connect 220V to the remaining N terminal. If you wire is reversed the - value appears when output. In this case, change the wiring.

Additionally, - value is displayed even if the direction of the current sensor is reversed.



### How to connect CT sensor

When connecting, press until you hear a click to secure it. check the current direction by looking at the direction of the arrow in front of the current measurement sensor.

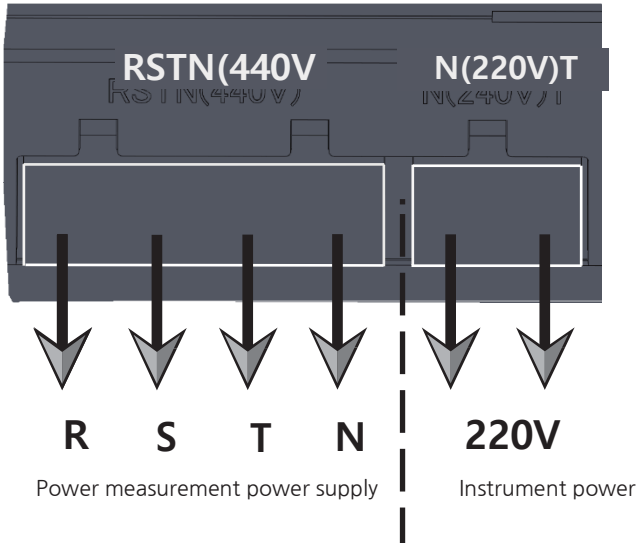
## How to connect

### Three phases

Connect power to the 4-pin terminal on the bottom left (R, S, T, N from the left)

In case of 3-phase 3-wire type, there is no need to connect the N terminal at 4 pins.

Connect 220V power to NT terminal.



Connect the prepared current clamp to the current clamp terminal on top. (100A 200A 500A 1000A selected when ordering)

If the current clamp direction is wrong, the power factor will be negative.

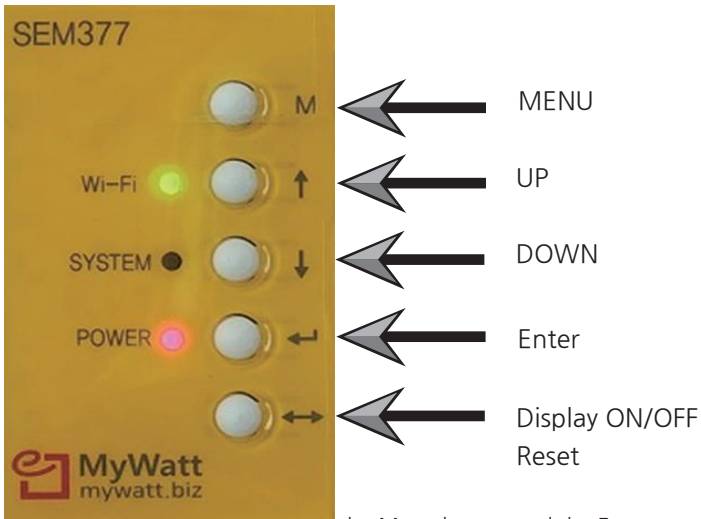
If the power factor is -, the active power value cannot be measured.

(When connected in the opposite direction, "Rotate Clamp" is displayed at the top of the LCD window)

### Caution

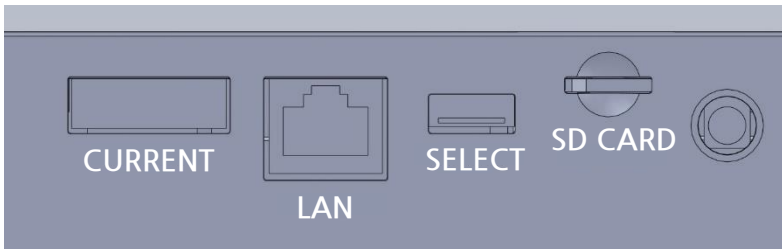
When installing the instrument, you must wear gloves and connect the power line to the spare breaker in the distribution board. In this case, be sure to cut off the power with the breaker before connecting the power line. Once the connection is complete, restore the breaker and connect the power. This order must be followed to prevent sparks from the 380V power supply and ensure safe wiring of the instrument. If there is no spare breaker in the distribution board, turn off the power supply breaker (e.g. air conditioner or light) that is not used frequently, then wire it and restore power to the breaker when completed.

## How to connect



\*You can perform a factory reset by pressing the Menu button and the Enter Button simultaneously for about 10 seconds. (CT scaling and WiFi reset may be required in this case)

\*Press the 5th button once to turn the display on/off. Instrument reset function when pressed for more than 3 seconds.



Current: Current sensor connection terminal

LAN: Wired Internet connection terminal

Select switch: No.1 Power reset

No.2: Select 220V, 380V display (reboot the device after change)

No.3 WiFi reset button for 330 model

SD Card Slot: Saves power data at 15-minute intervals

Real - Time Power			
Active Power(P)		326.7 W	
Total Power		2,053 KWh	
Voltage	221.4 V	Current	2.58 A
PF	0.573	Freq	60.0Hz
2022- 4-23 13:18:37		CH 01	3P 01



If the power measurement value is abnormal, please check the 3P section.

When you press the Enter button, it switches sequentially to 3P > L1 > L2 > L3.

## How to reset the instrument

1. If the instrument uses the latest version of firmware, pressing the instrument's "button 5" for more than 10 seconds will activate the instrument's soft switch and turn the power back on.
2. If it is an older firmware that does not support the above functions, download "PIANO SW, number 1", upload it again, and RESET.  
In this case, the SOFT SWITCH will operate and the power will turn back on.
3. Never attempt to remove or remove the instrument's wiring connector. If you remove the 380V power connector, a 380V electric spark will occur, burning the instrument's PCB and completely damaging the instrument.

Energy1	Wi-Fi
Energy2	LAN
Cost	Clock
T&H	Language
Pressure	Charge
Compare	Rate
Trend	Sensor
Chart	Auto Scroll
Graph	
Timer	
Alarm	
RS-485	
RF	

Menu: 18 menus appear

Energy1: Check voltage, current, power factor, frequency, active power, and active power amount

Energy2: Check active power, active power, reactive power, reactive power and apparent power

Cost: Displays today's/this week's electricity rate

T&H: Temperature and humidity sensor measurement

Pressure: Pressure measurement

Compare: Today/yesterday, this week/last week, current month/last month usage comparison

Lost Energy: Measuring wasted energy

Chart: Displays electricity usage and amount by hour/day/month

Graph: Bar graph display of day/week/month/year

Timer: Display accumulated amount and amount during the period by setting the start time and end time

Alarm: Hi/Low alarm setting possible (sensor terminal 3V output)

RS-485: Baud Rate and ID Settings

RF: In preparation

Wi-Fi: For WiFi Pairing settings

LAN: Check settings

Clock: Time setting (time must be adjusted when purchasing an instrument)

Language: In preparation

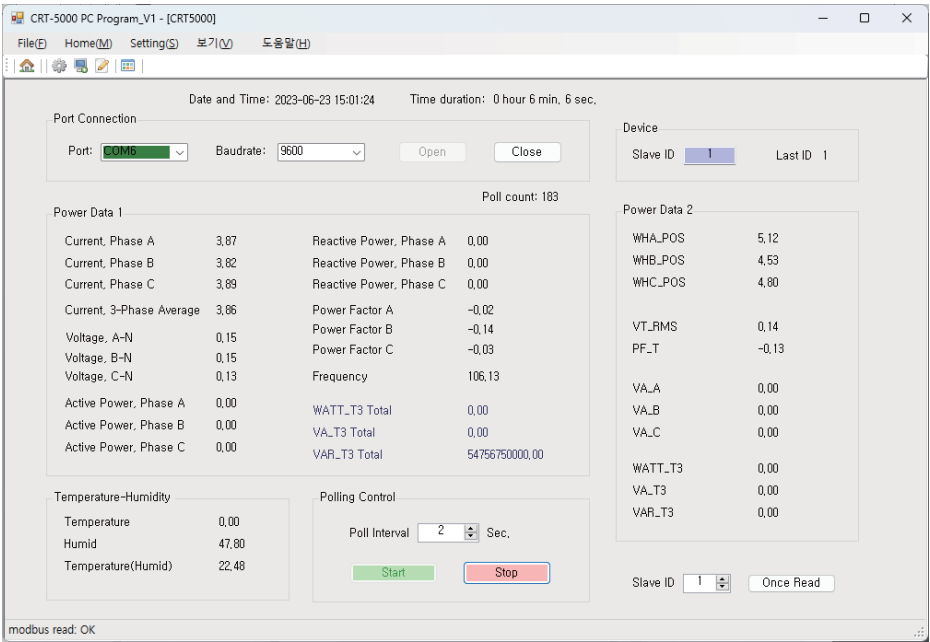
Charge Rate: Power unit price input function

Sensor: Check various sensor values

Auto Scroll: Sequential display of 13 menus (menu selection and scroll interval setting possible)

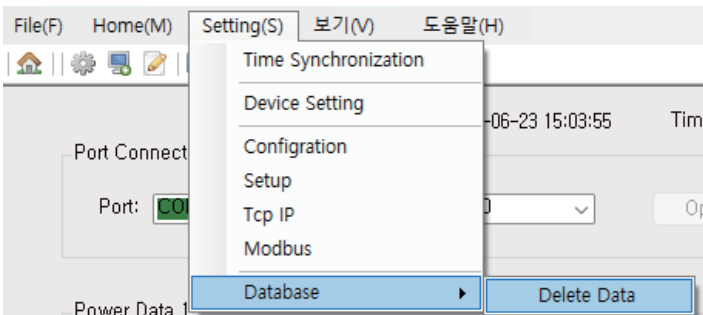
Admin: CT/PT ratio adjustment function (equipment power reboot after adjustment)

Soft Download: [www.mywatt.biz/download/485soft.zip](http://www.mywatt.biz/download/485soft.zip)



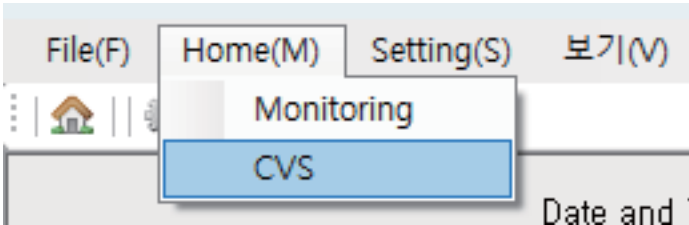
Using PC software, you can view 30 items of data at once, and this data can be saved as desired at intervals of at least 2 seconds.

If you want to delete data that has already been saved when using PC software, select Setting > Database > Delete Data and the saved data will be deleted.





When you want to check the saved file, select Home > CSV to view it in Excel file format.



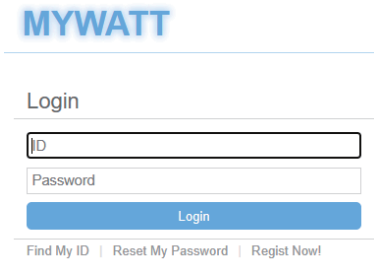
## SD-Card

It is saved every 15 minutes, and one file is saved per month. The saved time is saved as the instrument time.

When connected to the Internet, the time is automatically synchronized.

The Web Cloud Service site address is as follows.

**Web Cloud Server “ [www.mywatt.xyz](http://www.mywatt.xyz) ”**



MYWATT

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Login

ID

Password

Login

[Find My ID](#) | [Reset My Password](#) | [Register Now](#)

Click the Register Now button below the Login button and register as a member.

After completing membership registration, click the “Account” button at the top right of the homepage.

Click Device management > Add. Device button at the bottom.

Enter the S/N number of the device (S/N registered in another ID cannot be registered)

You must set the country to synchronize the time to local time.

After completing the input, click the “SAVE” button to register the device.

## How to connect LAN and LTE ROUTER

Please register as a member on the website and then register your equipment first. Connect the LAN cable or router to the device first.

Set the time on your device before 1 hour, then turn the device off and on again.

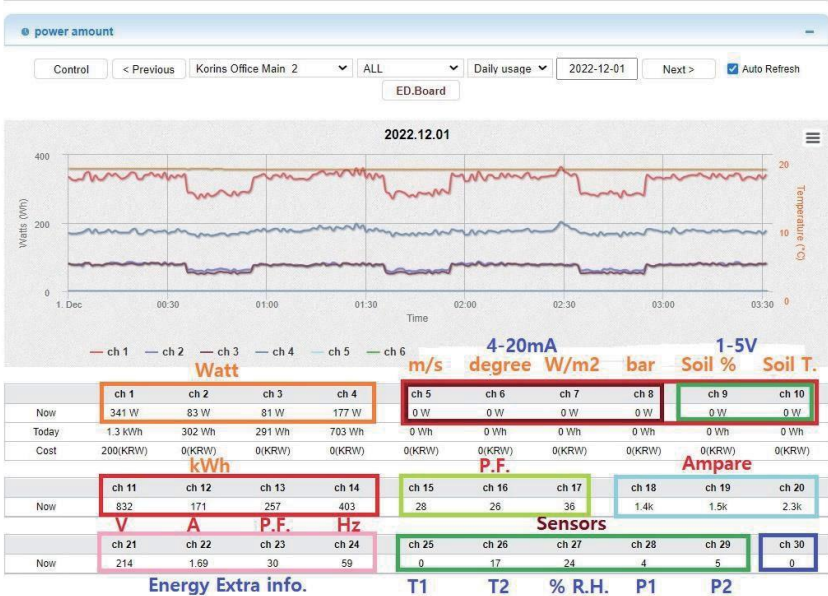
Afterwards, check whether the time on the instrument is automatically synchronized.

If synchronization occurs, you are properly connected to the server.

# Web Cloud Service

You can check the graph changes with the Graph button at the top.

korins's power usage.



## Realtime

Request 1 hour of stored wattage data from the meter.

You can check the requested 1-hour power consumption data on the web page.

UserID korins Date/Time 2023-01-14 11:2 MYWATT - Chrome

주요 요약 | http://mywatt.xyz/365days/daily\_list.php?i\_idx=428&t\_sn=220112&search\_y=2023&search\_m=1#

S/N ID번호	Application 응용	Request 데이터요청	Download 요청다운로드	01
220301	SEM388_220301	request	download	
220707	SEM388_220707	request	download	12,203.78 kWh
220624	LG-WL-HV336_220624	request	download	16,101.59 kWh
169842	SEM370_169842	request	download	
220907	LG-WL_220907	request	download	12.36 kWh
220909	sem375_220909	request	download	24,426.38 kWh
101164	SEM378_101164	request	download	
220620	SEM386_220620	request	download	
210912	SEM377_210912	request	download	
211032	sem380_211032	request	download	
220112	SEM388_220112	request	download	44,775.55 kWh
220114	SEM388_220114	request	download	867.05 kWh

[SN : 220112] 2023년 1월 - 365Day Daily / Hourly energy consumption

일자 Day	총 전력(kWh) Total	최대(kWh) Max	최소(kWh) Min	평균(kWh) Avg
2023-01-01	7,802.91	873.98	139.04	325.12
2023-01-02	4,622.05	846.18	38.37	192.59
2023-01-03	5,026.18	964.19	56.90	209.42
2023-01-04	6,031.26	873.98	47.68	209.84
2023-01-05	3,541.54	166.88	139.04	147.56
2023-01-06	3,969.25	648.99	93.95	165.39
2023-01-07	8,518.08	883.26	139.04	354.92
2023-01-08	4,261.73	993.25	48.90	177.57
2023-01-09	2,092.56	676.80	139.07	200.50

Hourly Energy

시간 Hour	총 전력(kWh) Total
00	
01	
02	
03	
04	
05	
06	
07	

### Model equipped with WiFi module

Please download the Mywatt30 App from the Smart Store. Sign up and log in through the App.

Select the Menu button > WiFi Mode > Setup button on the instrument.

Select SEM370\_(instrument SN) from the WiFi list on your smartphone and connect.

Password required to connect to the device: **korins1234**

Click the Add Device button in the Mywatt30 App on your smartphone. After selecting WiFi, enter the SSID and Password to connect, and then click the Next button.

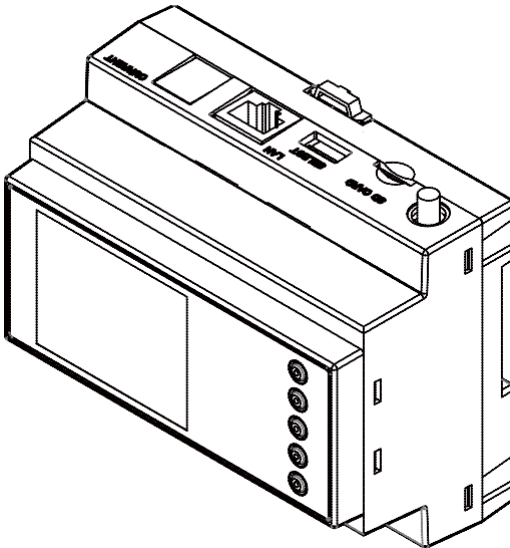
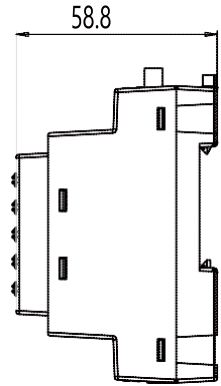
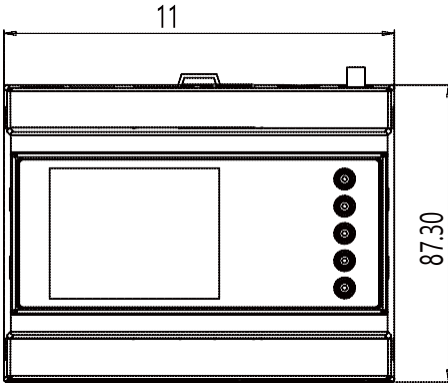
The pairing process is underway.

The WiFi LED on the device blinks and then changes to On status. Error (02) appears on the smartphone, but the connection is normal.

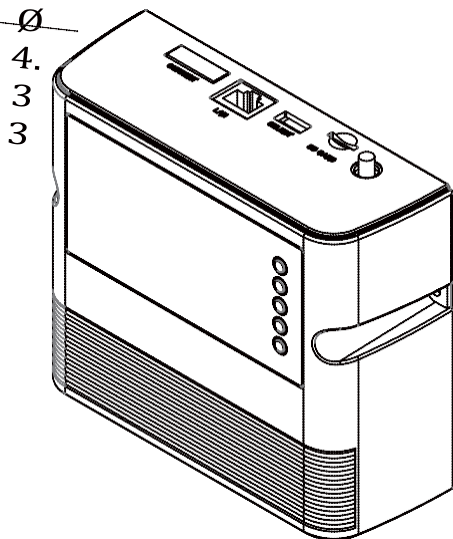
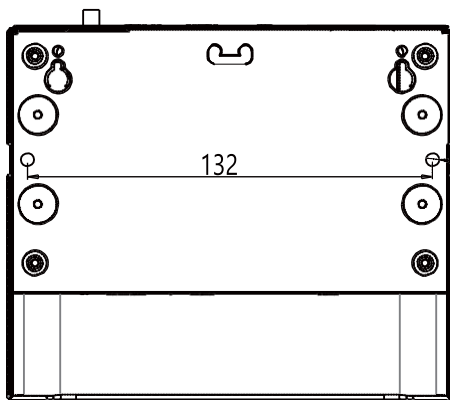
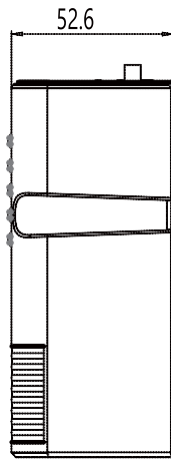
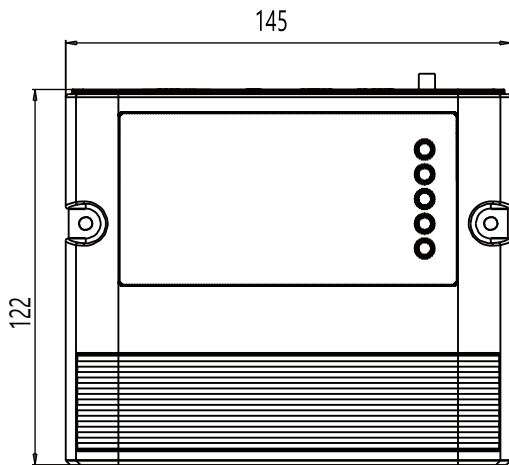
\* If the smartphone WiFi is connected to another location during setup, setup is not possible. (The connection may be disconnected with a message saying that there is "Internet may not be available"  
In this case, you must select to "Always connect" maintain connection.

\* Only 2.4Ghz Wifi can be connected. (5Ghz WiFi is not supported.)

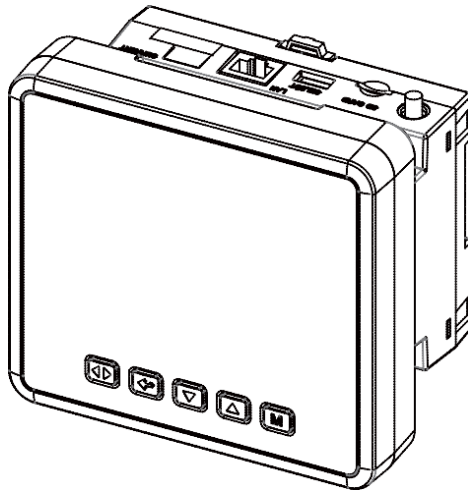
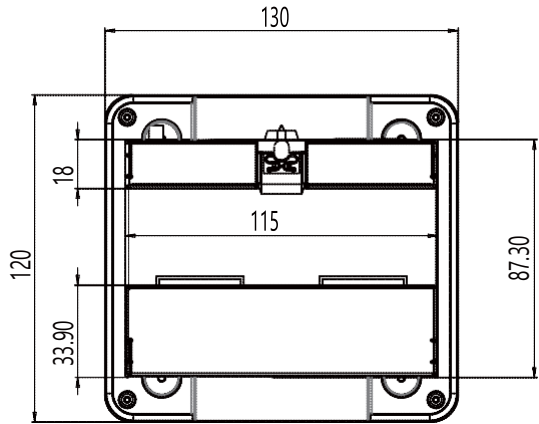
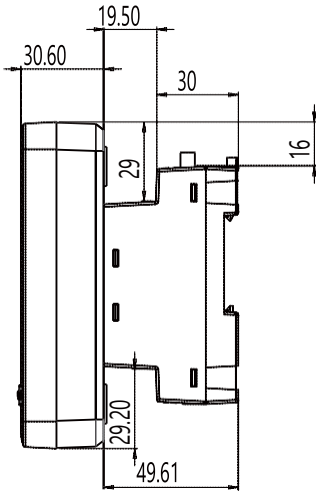
SEM330/370 Size



# SEM375/377 사이즈



# SEM380 사이즈



# Smart energy meter product specifications

Item	Contents
Measurement items	Voltage, current, power factor, frequency, active power, reactive power, apparent power
Measurement menu	Daily / weekly / monthly / annual graph and table display, yesterday / today comparison graph, daily / monthly electricity usage and amount
Wired communication	RS-485, LAN,
wireless communication	WIFI
Sensor measures	Temperature, humidity, pressure
Data logger	SD-CARD, internal FLASH memory
Cloud service	graph, year/month/day/hour data display
Software	365-day data report, RS-485 communication



R-R-KsF-SEM370

Power meter software and manual download site

<http://energyeye.kr/file>



Website: <http://energyeye.kr>

Cloud page: <http://mywatt.xyz>

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