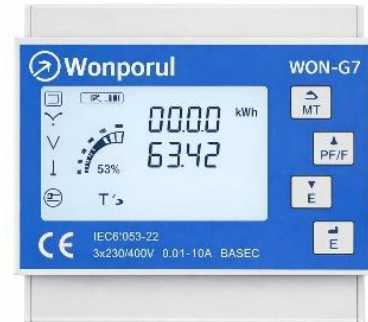


WON- G7- WIFI Meter

The Won-G7-WiFi series is a three-phase multifunctional energy meter that measures key electrical parameters such as voltage, current, power, power factor, harmonics, and bidirectional active/reactive energy.

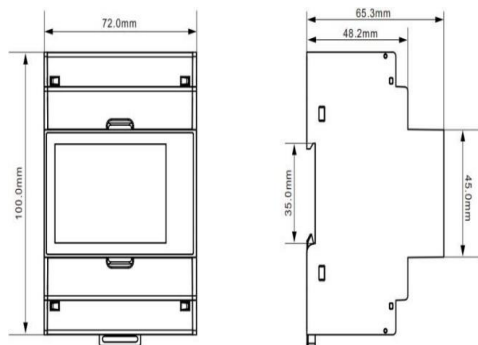
It supports 1P2W, 2P3W, 3P3W, and 3P4W systems, features RS485 communication (up to 38,400 bps) with Modbus and DLT645 protocols, and includes built-in Wi-Fi for wireless monitoring. A large LCD display with touch buttons and password protection ensures easy operation and secure data management.



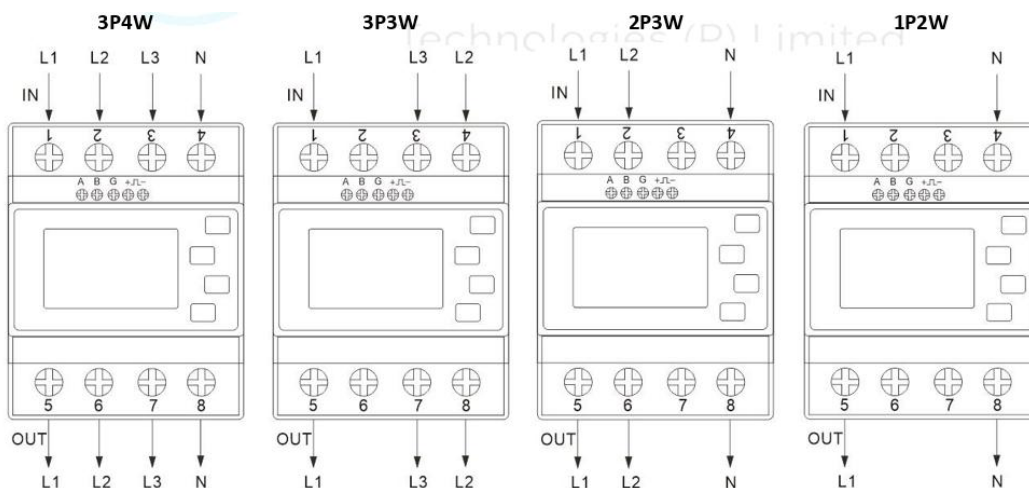
Product Features

- THD: Voltage THD and Current THD.
- Bidirectional Energy Measurement: Import/Export Active Energy, Import/Export Reactive Energy.
- Meter Running Time and Load Running Time Measurement.
- Pulse output, RS485 communication with highest baud rate 38400bps.
- Wireless Communication: Wi-Fi.
- Available Protocol: Modbus RTU, DL/T645-2007.
- Large-screen LCD display with configurable white backlit interval.
- Touch-Button: Improve the performance of buttons and reduce the operation error.
- LCD refresh time: 1 second, supporting manually or automatically scroll display (configurable).

Dimension



Wiring Diagram



Electrical Specifications

Accuracy	Voltage/Current	Class 0.5, Refer to IEC 61557-12
	Active Power	Class 1 / Class 0.5, Refer to IEC 61557-12
	Reactive Power	Class 2, Refer to IEC 61557-12
	Apparent Power	Class 1, Refer to IEC 61557-12
	Active Energy	Class 1 / Class 0.5S, Refer to IEC 62053-21/22, IEC 61557-12
	Reactive Energy	Class 2, Refer to IEC 62053-23; Class 2, Refer to IEC 61557-12
	Power Factor	Class 1, Refer to IEC 61557-12
	Frequency	Class 0.2, Refer to IEC 61557-12
Data Upgrading Rate	1s (Optional: 100ms)	
Voltage Input	Rated Voltage	3x230VAC(L-N)/400VAC(L-L)
	Voltage Input	Measurement Range:85 ~ 276 VAC(L-N), 85 ~ 480 VAC(L-L)
	Frequency	45 ~ 65 Hz
	Overload Capacity	2x Rated Voltage by lasting 1s
Current Input	Current Input	0.15 ~ 100 A, Rated 5A
	Overload Capacity	30x Max. Current by lasting 0.01s
Pulse Output	Pulse Type	Open collector optocoupler
	Pulse Constant	Configuration: 400(Default), 100, 10,1imp/kWh(kVArh)
	Pulse Width	Configuration: 60, 100(Default), 200ms
	Pulse Output Type	Configuration: Import/Export/Total active/Total Reactive kWh
	Class	Class A, Refer to IEC 62053-31
	Voltage Input	5 ~ 27 VDC
Pulse Light	Pulse constant:400imp/kWh	
Power Consumption Class	Self-Consumption Per Phase	Voltage Circuit: <2W/10VA.
		Current Circuit: <1VA

Mechanical Specifications

IP Class	LCD display: IP51(Indoor); Whole meter: IP30
Installation	TH35-7.5 DIN Rail
Flammability Class	UL 94 V-0
Utilization Category	UC2

Environmental Specifications

Operation Temperature	-25 ~ +55°C
Storage Temperature	-40 ~ +80°C
Humidity	<90%, no condensing
Pollution Degree	2
Altitude	<2000m
Vibration Frequency	Range: 10~150Hz, Refer to IEC 60068-2-6

Electromagnetic Compatibility

Electrostatic Discharge	Refer to IEC 61000-4-2 ⁽¹⁾ , Level 4
Immunity to radiated fields	Refer to IEC 61000-4-3 ⁽¹⁾ , Level 3
Immunity to Electrical fast transients	Refer to IEC 61000-4-4 ⁽¹⁾ , Level 4
Immunity to surges	Refer to IEC 61000-4-5 ⁽¹⁾ Level 4
Immunity to Conducted Disturbances	Refer to IEC 61000-4-6 ⁽¹⁾ , Level 3
Immunity to magnetic Field	Refer to IEC 61000-4-8 ⁽¹⁾
Immunity to Voltage dips	Refer to IEC 61000-4-11 ⁽¹⁾
Radiated Emissions	EN55011, Class B

Conducted Emissions	EN55011, Class B
Harmonic Emissions	Refer to IEC61000-3-2 ⁽¹⁾
(1): The Experimental test is carried out according to the grade requirements of Industrial Grade Products in IEC 61326-1	
Safety Specifications	
Installation Degree	CAT III, Refer to IEC 61010-1
Overvoltage Degree	CAT III, Refer to IEC 61010-1
Insulation	AC withstand voltage: 4kVAC by lasting 1 minute Pulse withstand voltage: 6kVAC - 1.2/50μS waveform
Insulation Degree	Double insulation, Refer to IEC 61010-1
Communication Specifications	
Interface and Protocol	2-Wire RS485; Modbus RTU(Default), DL/T645-2007(Optional)
Baud rate	1200, 2400, 4800, 9600(Default), 19200, 38400 bps
Parity	None (Default), Even, Odd
Stop Bit	1(Default), 2
Response Time	<100ms
Bus Type	Semi-duplex
Distance	Max. 1000m
Bus Load	Max. 64pcs
Wireless Communication	Wi-Fi
Terminals and Connection Cable	
Comm and Pulse Terminals	Wire Diameter: 6 ~ 14 AWG Torque: 0.4 Nm. (Max.)
Measurement Input Terminals	Wire Diameter: 14 ~ 4 AWG Torque: 4 Nm. (Max.)
Temperature Rating of Connection Cable	23°C±2°C

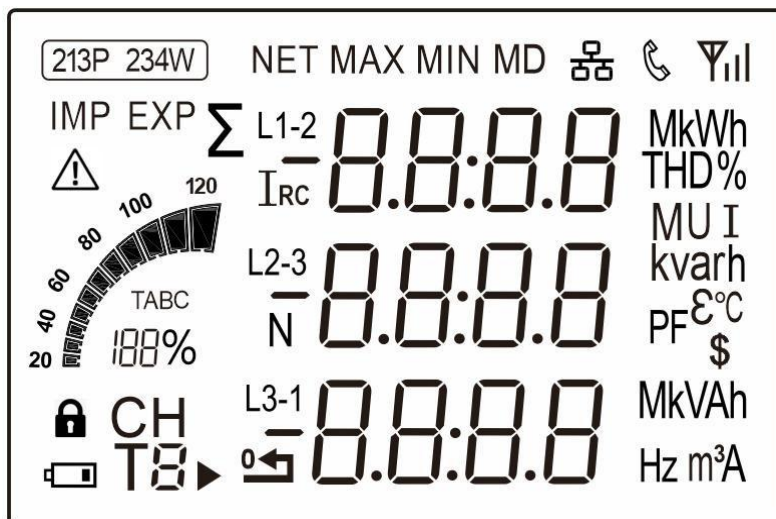
Operation

1.Button Definition

Button	Short-Press	Long-Press
	1.On main display: to check voltage, current, and so on. 2. On setting display or Aux. Display: to exist or return to previous menu.	On main displays: to enter the aux. displays.
	1.On main display: to check power factors, Max. Demand, and so on. 2. On setting display or Aux. Display: to page up or add value.	None
	1. On main display: to check power. 2. On setting display or Aux. Display: to page down or reduce value.	None
	1. On main display: to check energy and time. 2. On setting display: to move right.	1.On main display: to enter setting mode. 2.On setting display: to enter setting mode or to confirm.

Note: Long Press means the button is pressed longer than 3s, otherwise it's a Short Press.

2.Full View of Display



3.Display

After a short press, the following displays will be showed.			
L1 230.0 L2 230.0 L3 230.0 V	Phase-to-Neutral Voltage Note: not available under 3P3W	L1-2 400.0 L2-3 400.0 L3-1 400.0 V	Phase-to-Phase Voltage
L1 5.000 L2 5.000 L3 5.000 A	Current	L1 03.06 THD% L2 02.78 U L3 04.35	Phase-to-neutral Voltage THD
L1-2 02.74 THD% L2-3 03.80 U L3-1 00.00	Phase-to-Phase Voltage THD Note: only available under 3P3W	L1 03.56 THD% L2 02.45 I L3 01.87	Current THD

After a short press, the following displays will be showed.			
Σ 0.500 PF 50.00 Hz	Total Power Factor and Frequency	L1 0.500 L2 0.500 PF L3 0.500	Power Factor of Each Phase

MD L1 5.000 L2 5.000 L3 5.000 A	Max. Current Demand of Each Phase	MD Σ 3.680 kW 5.702 kvar 3.598 kVA	Max. Demand of Total Active Power/Reactive Power/Apparent Power
▼ P After a short press, the following displays will be showed			
L1 0.575 kW L2 0.575 L3 0.575	Active Power of Each Phase	L1 0.996 L2 0.996 kvar L3 0.996	Reactive Power of Each Phase
L1 1.150 L2 1.150 L3 1.150 kVA	Apparent Power of Each Phase	Σ 1.725 kW 2.988 kvar 3.450 kVA	Total Active Power/Reactive Power/Apparent Power
↩ E After a short press, the following displays will be showed			
Σ 0000 kWh 30.10	Total kWh	IMP 0000 kWh 15.05	Import kWh
EXP 0000 kWh 15.05	Export kWh	Σ 0023 63.49 kvarh	Total kVarh
IMP 0023 00.26 kvarh	Import kVarh	EXP 0000 63.23 kvarh	Export kVarh

Displays of Kwh

For Won-G7-Wifi series, the significant digit is displayed according to the value of the rule^{energy} is as below:

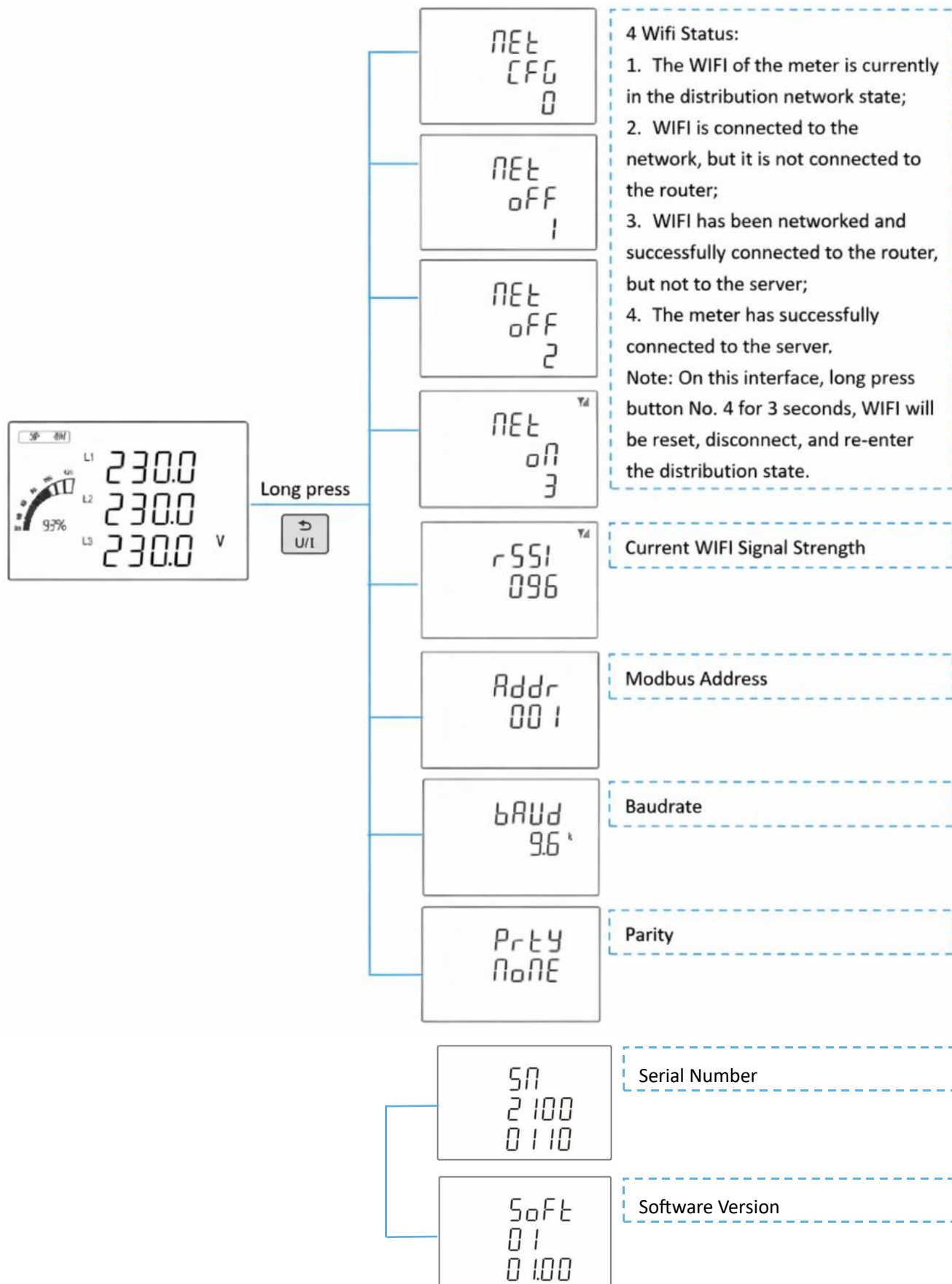
0.0 kWh/kVarh→999999.99 kWh/kVarh→1000000.0 kWh/kVarh→9999999.9 kWh/kVarh→0.00 kWh/kVarh
1.0

Auxiliary Display

When it's on the main display, long press  to enter the interfaces of auxiliary displays.

Short press  and  to scroll. Short press  to return to main display.

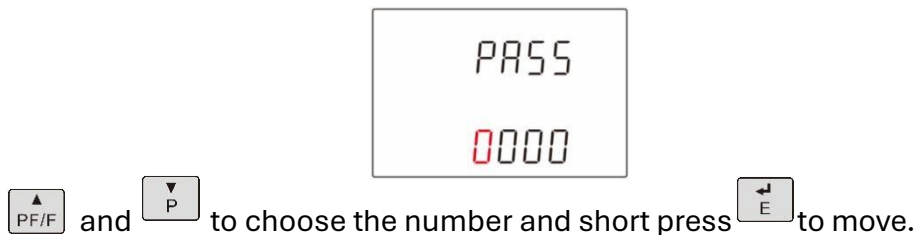
If there is no button operation longer than 1min, the meter will go back to main display automatically.



Settings

1. Password Settings

On the main display, long press  to input the password. (Default:1000)



After inputting a password, long press  to confirm. If the password is correct, the meter will enter setting.

Under the password input display, short press  to go back to main display. Also, if there is no button operation longer than 1 min, the meter will go back to main display automatically short press mode.

2.Communication Settings

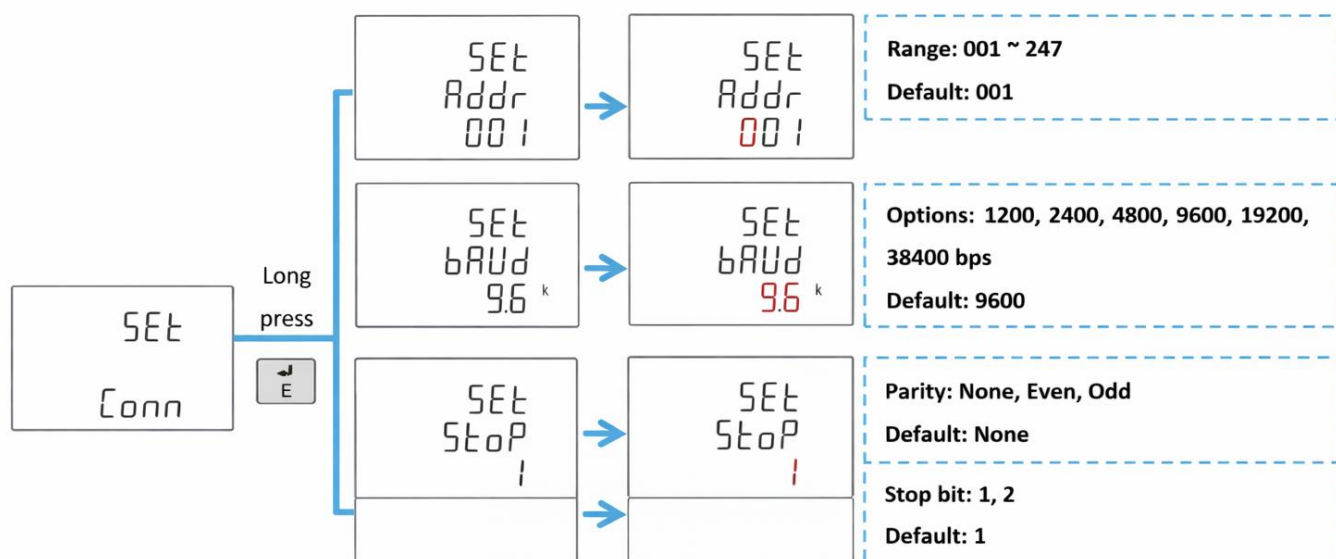
Communication settings include Modbus address, baud rate, parity, stop bit.

Instruction: Long press  to enter the setting mode.

Short press  and  to choose. Long press  to enter the exact menu.

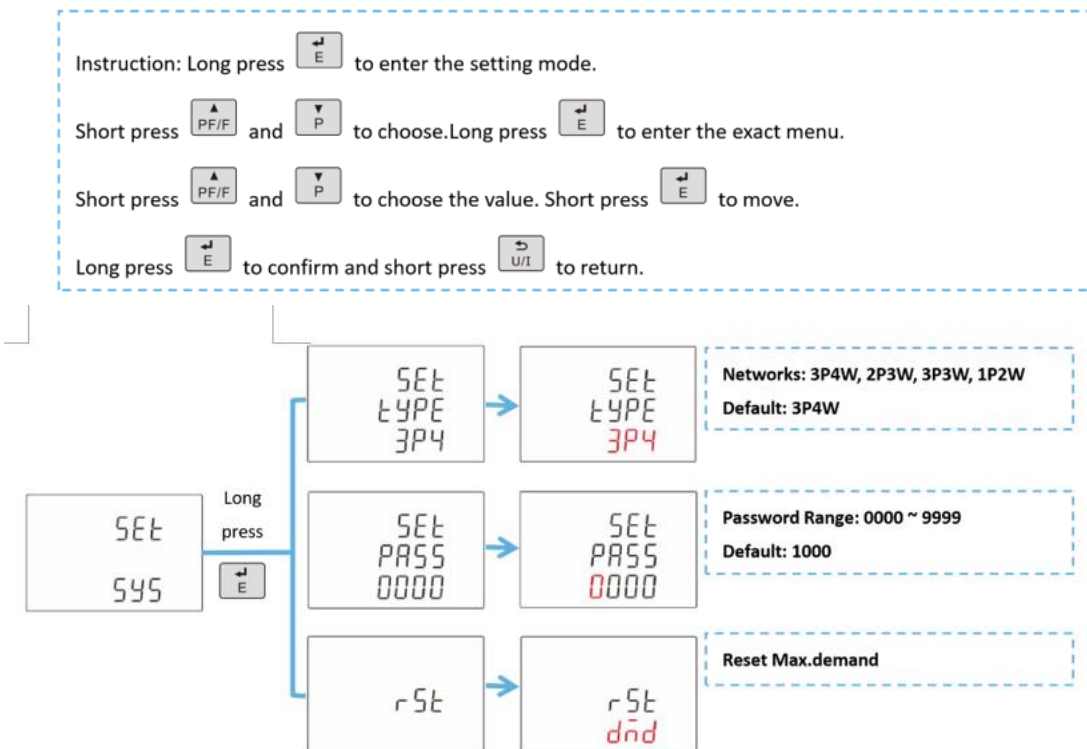
Short press  and  to choose the value. Short press  to move.

Long press  to confirm and short press  to return.



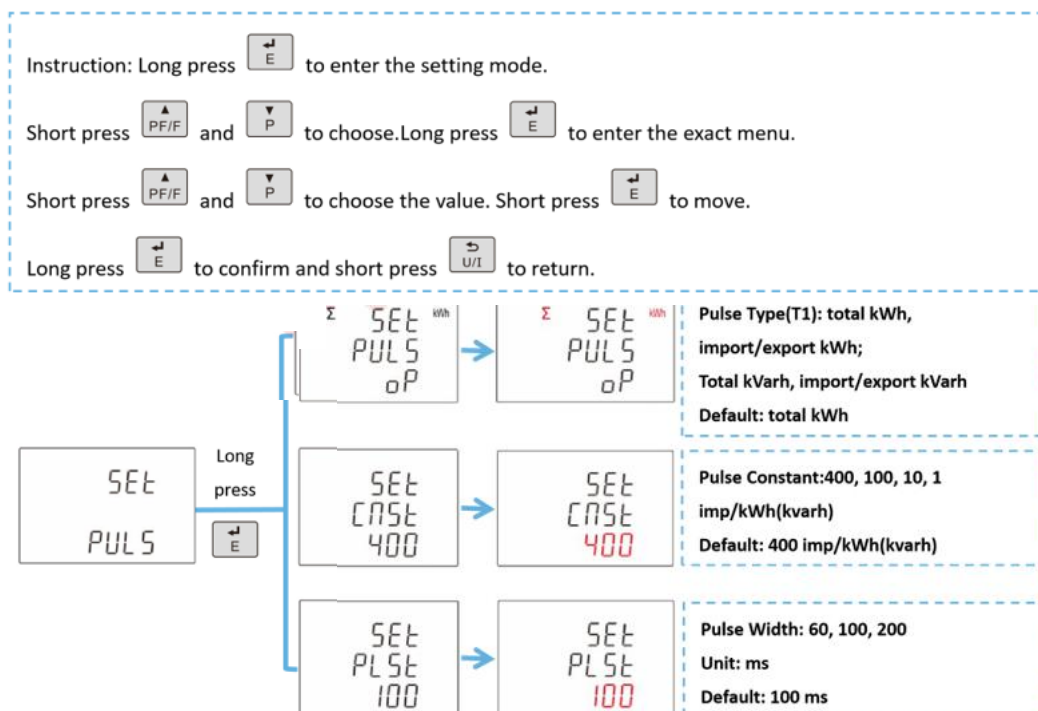
3.System Settings

System settings include networks, password, reset Max.Demand.



4.Pulse Settings

Pulse settings include pulse constant, pulse width, pulse output type.

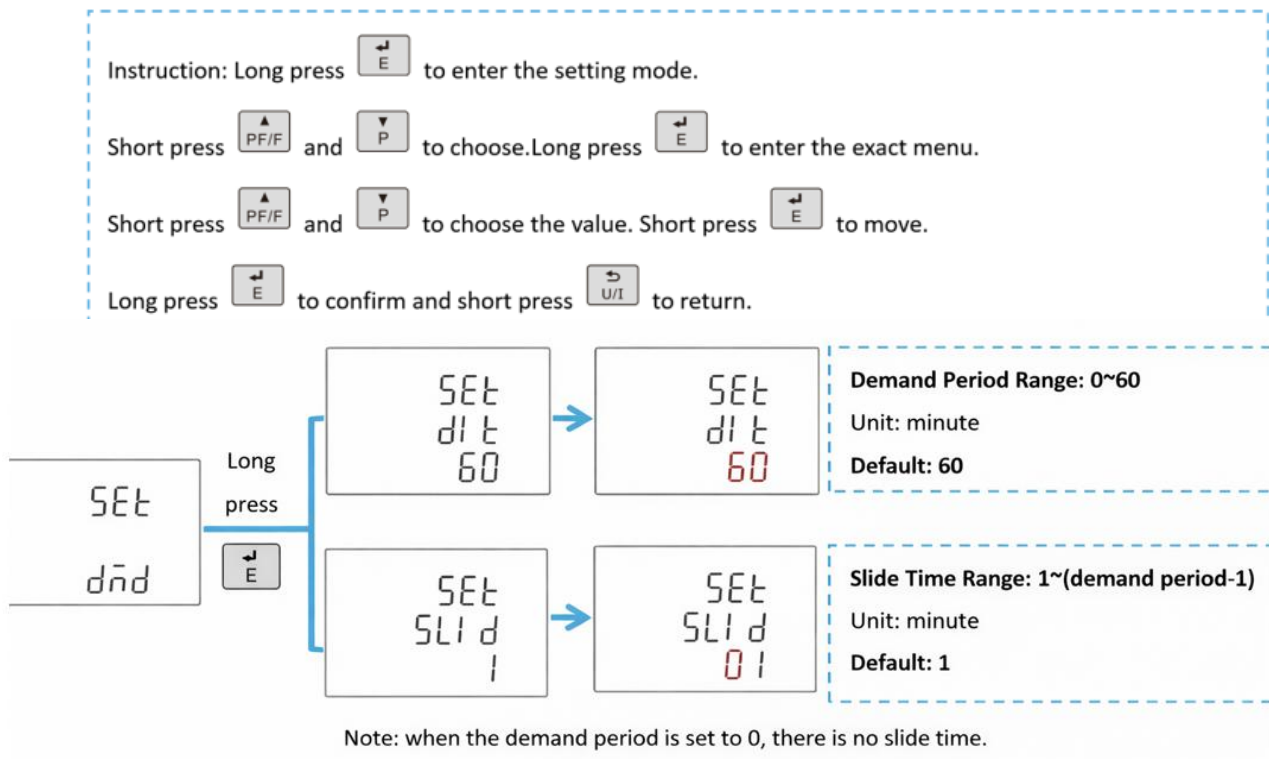


Pulse Output Type

Character on Display	Pulse Output Type	Character on Display	Pulse Output Type	Character on Display	Pulse Output Type
Σ kWh	Total kWh	IMP kWh	Import kWh	EXP kWh	Export kWh
Σ kvarh	Total kVarh	IMP kVarh	Import kVarh	EXP kVarh	Export kVarh

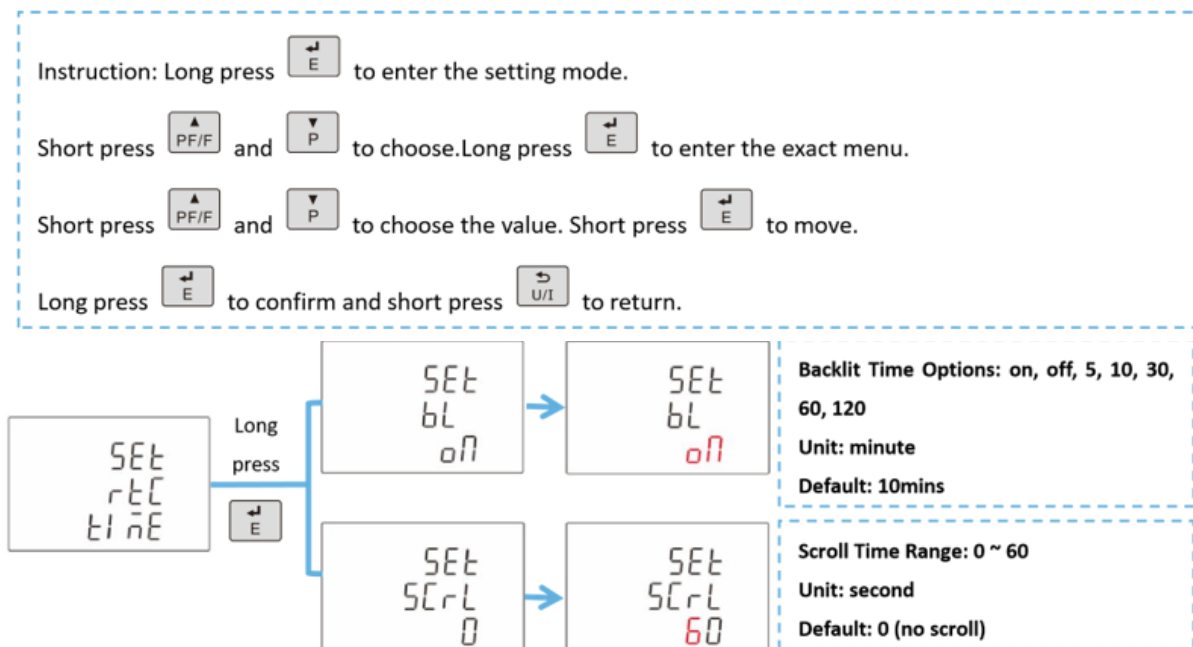
5. Demand Settings

Demand settings include demand period, slide time



6. Time Settings

Time settings include backlit time, scroll time



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