

MULTIMETER EPM-07 / EPM-07S

Programming the Turn Number:

The menu is available for CT-25 adapted devices. User enter the turn number, which is the number of how many but the current cable has rounded into the CT-25. Numbers can be selected between 1-20. Greater the number of turn means greater the sensitivity.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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Voltage Transformer Ratio Setup

In this menu, voltage transformer ratio is set between 0000.1 - 4000.0.

Note: If the voltage transformer is not used between the system and EPM-07/S, voltage transformer ratio is entered as 1.0000. For the system and EPM-07/S, Voltage transformer ratio is entered between 0.1000 and 4.0000.

Reactive Energy Calculation Method Setting

Three different methods exist for reactive energy calculation in EPM-07/S. Brief information about these methods are explained in below table. Related values which must be entered in the menu are also indicated in the table in order to select reactive power calculation method for mechanical and digital energy/meters.

Mechanical Counter (Analog system)	Digital Energy Meter (Digital system)	Reactive Energy	Description
0	1	90° relation of voltage vector and multiply with current	It is the most preferred reactive power calculation method
2	3	$\sqrt{3} \cdot I_a \cdot S(\text{VA})$	It is the value of the multiplication of I_a and S values up to 99 milliwatts. This calculation method is mostly preferred for vector analysis.
4	5	$\sqrt{3} \cdot P$	Power Triangle Method: According to this method: $Q = \sqrt{3} \cdot P$ (Q: Reactive power, S: Apparent power, P: Active power)

- Press SET button for 3 seconds (It's Fo menu is displayed)
- Press SET button (It's Fo Cr menu is displayed)
- By using UP-DOWN buttons, find "CAL CL" menu. **CRL** **CLL**
- Press SET button.
- By using UP-DOWN buttons, select energy calculation method.
- Press SET button.
- Press SET button one by one until "SAU E SET YES" is displayed.
- Press ESC button or choose "no" option instead of "YES" option by using UP-DOWN buttons. New data will be cancelled and previous value will be activated.

Demand Time Setup:

In this menu, demand time is set between 1 - 60 minutes.

DE

Press SET button for 3 seconds (It's Fo menu is displayed)

By using UP-DOWN buttons find "DE Tr" menu.

Press SET button (First digit blinks) **DE** **Tr**

By using UP-DOWN buttons, enter the value to the first digit.

Press SET button (Second digit blinks)

By using UP-DOWN buttons, enter the value to the second digit.

Press SET button, "DE Tr" is displayed. (Data is entered but is not activated yet. For activating the new data please follow the below steps)

Press ESC button one by one until (SAU E SET YES) is displayed.

Press SET button. When "SAU E SET YES" is displayed, if you press ESC button or choose "no" option instead of "YES" option by using UP-DOWN buttons, new data will be cancelled and previous value will be activated.

Monitoring and Erasing of minimum, maximum and

EF In this menu, values of min., max. or energy counters are erased. It saves the instantaneously measured min. and max. values of **FUNCTIONS** **EF** **FUNCTIONS** **EF** **FUNCTIONS**

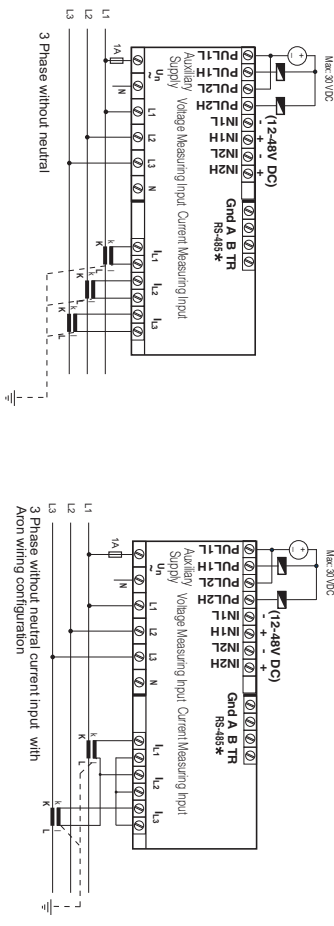
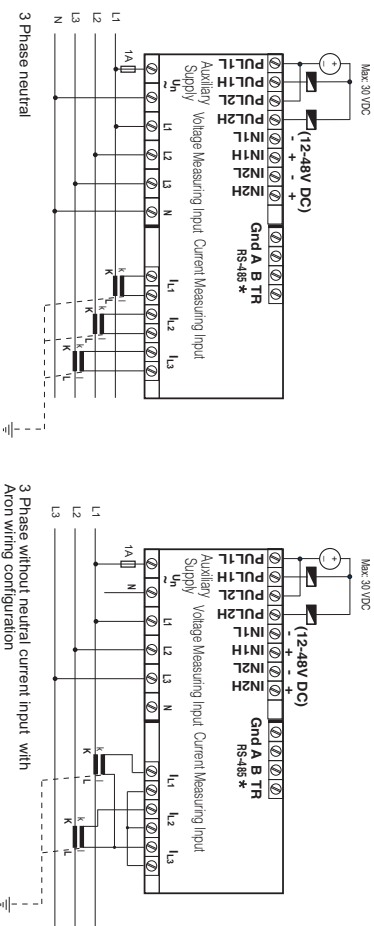
Note: Measured electrical parameters which are saved to the memory are not affected from the electric interruptions in the changes min. and max. values of all parameters or energy counter values are erased at the same time.

For erasing the values of min. and max. or energy counter, in the measurement mode:

- Press SET button for 3 seconds (It's Fo menu is displayed)
- By using UP-DOWN buttons, find "ES Er" menu. **ES** **Er**
- Press SET button. ("ES Er" menu is displayed)
- By using UP-DOWN buttons, select which parameter you want to reset. **ES** **Er** **HL**
- Press SET button. **ES** **Er** **HL**
- By using UP-DOWN buttons, if you want to delete the parameter select "YES" option otherwise select "no" option. **ES** **Er** **HL**
- Press SET button, ("ES Er" is displayed)
- Press ESC button one by one until (SAU E SET YES) is displayed.
- Press SET button. When "SAU E SET YES" is displayed, if you press ESC button or choose "no" option instead of "YES" option by using UP-DOWN buttons, new data will be cancelled and previous value will be activated.

MULTIMETER EPM-07 / EPM-07S

PK 26 Box Connection Diagram



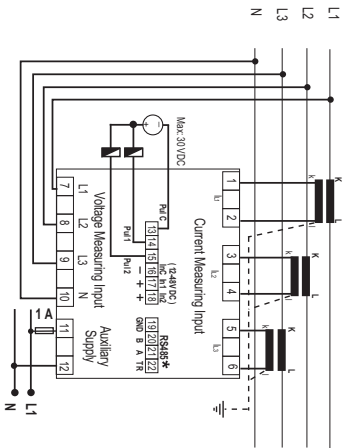
*Available only for EPM-07S

Note: For CT-25 models:

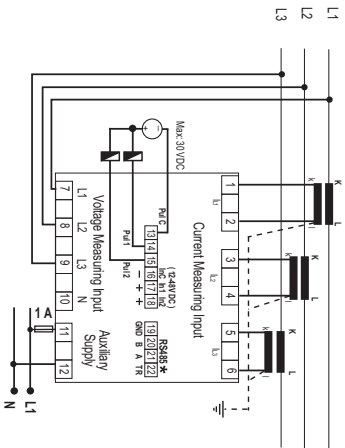
k: When CT-25 is used, Red cable is connected to k terminal.

l: When CT-25 is used, Black cable is connected to l terminal.

PR 19 Box Connection Diagram



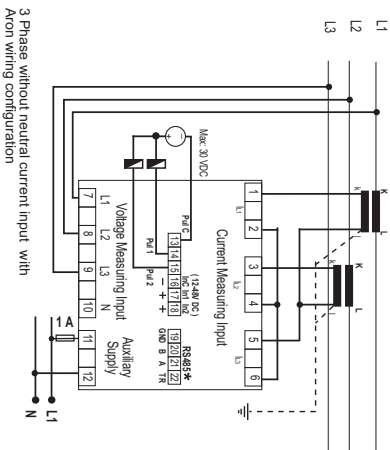
3 Phase neutral



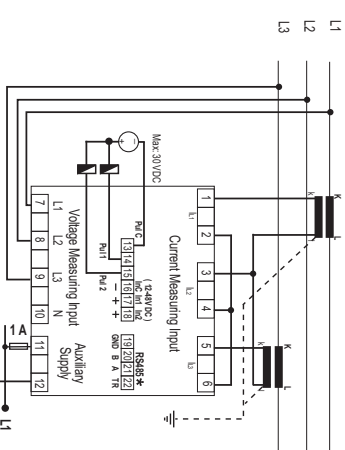
3 Phase without neutral

*Available only for EPM-07S

Note: For CT-25 models:
K: When CT-25 is used, Red cable is connected to k terminal.
I: When CT-25 is used, Black cable is connected to I terminal.



3 Phase without neutral current input with Avon wiring configuration

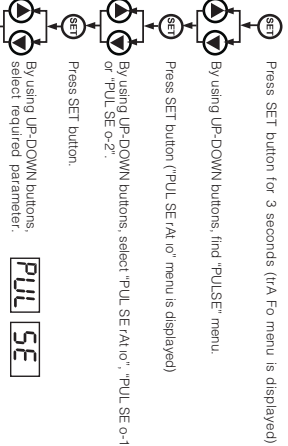


3 Phase without neutral current input with Avon wiring configuration

Pulse Menu

In this menu, three parameters can be selected: *PUL SE fA, *PUL SE o-1*, *PUL SE o-2*.
PUL SE fA io: Pulse ratio can be set as:
1, 10, 100 (W/VArh); 1, 10, 100 (kWh/kVAh); 1 kWh/MVAh.

PUL SE o-1: If this parameter is selected, in every increase in output 1, one pulse is counted. Output 1 parameter can be set as: EA (Inductive AC) (Export/Import), A-I (Active Import), A-E (Active Export), EA (Inductive Capacitive), I-L (Reactive Inductive), I-C (Reactive Capacitive).
PUL SE o-2: If this parameter is selected, in every increase in output 2, one pulse is counted. Output 2 parameter can be set as: EA (Inductive AC) (Export/Import), A-I (Active Import), A-E (Active Export), EA (Inductive Capacitive), I-L (Reactive Inductive), I-C (Reactive Capacitive).

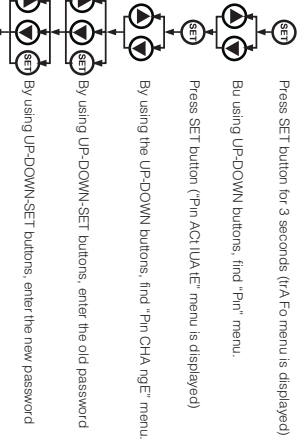


User password Setup:

You must define and activate a 4 digit user password for preventing device settings from the illegal usage. There are 2 sub menu under the "Pn" menu.

Changing of User Password:

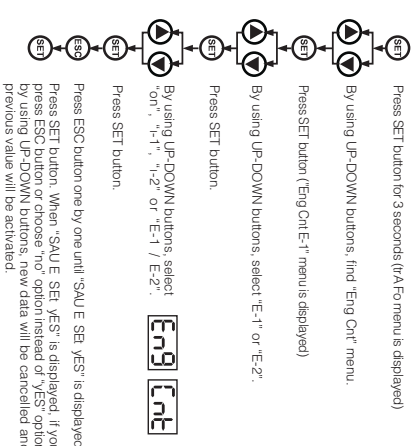
This menu is used to change the user password.
P n **CH** **9**
0000
n **9**
9
To change the user password, in the monitoring mode:



Energy Counter (Eng Cnt) Menu

EPM-07/07S has 2 energy counters:
Eng 9 Energy counter 1 (E-1), Energy counter 2 (E-2).
Cnt E-1 / E-2 have 4 parameters:
On/Off parameter: Activate E-1 / E-2 counters for energy counting without depending on any parameter.
E-1: Activate E-1/E-2 counters when digit input 1 is on (=1).
E-2: Activate E-1/E-2 counters when digit input 2 is on (=1).
E-1: E-2 does not count when E-2* is activated. (Only for E-1).
E-1: E-2 does not count when E-1* is activated. (Only for E-2).

Note: Counting status is undefined if E-2 is selected on E-1 and if E-1 is selected on E-2. When the status is defined as above, both energy counters count while digital input is not on (=1), but if either one or both digital inputs are on (=1) then counters will not count.



Activating the user password:

This menu is used for activating the user password. After the user password is activated, while the instant values are observed, user password is required in order to enter to the menu. If the wrong user password is entered, user can not enter to the menu.
Note: Factory default value of user password is "0000"

