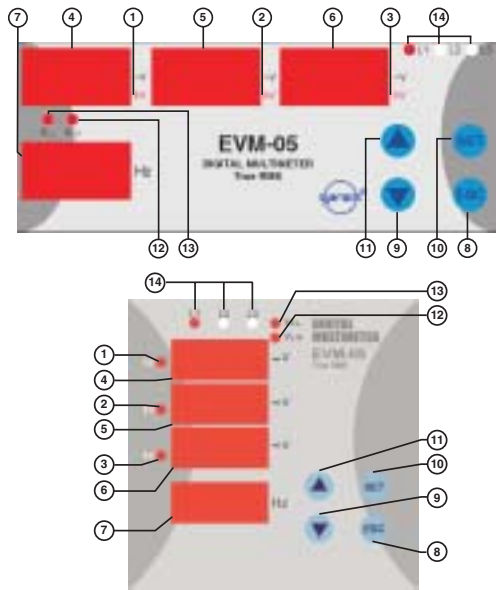


DIGITAL MULTIMETER EVM-05



- 1,2,3...kV LEDs of displays: If these LEDs turn on, the unit of voltage is kV
- 4... Display of L-1 Phase:It shows L-1 phase-neutral voltage and L1-L2 phase-phase voltage.
- 5... Display of L-2 Phase:It shows L-2 phase-neutral voltage and L2-L3 phase-phase voltage.
- 6... Display of L-3 Phase:It shows L-3 phase-neutral voltage and L3-L1 phase-phase voltage.
- 7... Frequency Display:The frequency is measured from L-1 phase
- 8... ESC Button
- 9... DOWN Button
- 10...SET Button
- 11...UP Button
- 12...V L-N LED: Phase-Neutral Voltage
- 13...V L-L LED: Phase-Phase Voltage
- 14...Phase LEDs:The LEDs turn on when all phases are connected to the system and correct phase sequence.

Precautions For Installation And Safe Use

- Failure to follow those instructions will result in death or serious injury.
- Disconnect all power before working on equipment.
- When the device connected to the network, do not remove the front panel
- Do not try to clean the device with solvent or the like.Only clean the device with dried cloth.
- Verify correct terminal connections when wiring.
- Electrical equipment should be serviced only by your component seller.
- Only for rack panel mounting.
- The fuse should be used F type and should be 1A
- No responsibility is assured by ENTES A.S or any of its subsidiaries for any consequences arising out of the use of this material.

General Information

EVM-05 is designed to measure the phase-phase voltage, phase-neutral voltage and the frequency of system.

Application of EVM-05

- 1-) It can measure voltage for each phase and frequency in 3 phase systems with neutral and without neutral.
- 2-) You can observe the existence of phases by following the L1-L2-L3 LEDs on the device.
- 3-) Min and max. values measured are recorded and displayed.
- 4-) It warns the user through LED caution by turning on and off when there is a false phase sequence.
- 5-) Voltage transformer ratio can be adjusted between 1 ... 2000.
- 6-) A password can be arranged from pin menu in order to prevent change of the setting by unauthorized person.

Specific Functions of Buttons:

While the device shows the Instantaneous value, pressing:

- :Displays max. Phase-phase voltage, while VL-L LED is on.
Displays max. Phase-neutral voltage, while VL-N LED is on.
- :Displays min. Phase-phase voltage, while VL-L LED is on.
Displaying min. Phase-neutral voltage, while VL-N LED is on.
- Provides transition between VL-L and VL-N voltages.

VOLTAGE TRANSFORMER RATIO:

Utr

The menu that the voltage transformer ratio is adjusted. You can adjust the value between 1...2000. If the voltage transformer is not used, the ratio is selected 1.

For example; voltage transformer ratio :34500/100
:345 is set.



Press SET button for 3 secs. (Utr Menü is displayed)

Press SET button

Enter 1st digit value by scrolling UP/DOWN buttons (If you set 1st digit value incorrect, you can set again by pressing ESC button.)

Enter 2nd digit value by scrolling UP/DOWN buttons (If you set 2nd digit value incorrect, you can set again by pressing ESC button.)

Press SET button

Enter 3rd digit value by scrolling UP/DOWN buttons (If you set 3rd digit value incorrect, you can set again by pressing ESC button.)

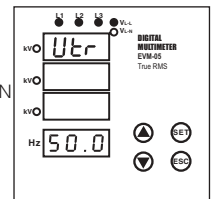
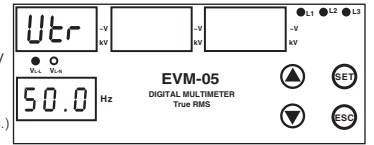
Press SET button

Enter 4th digit value by scrolling UP/DOWN buttons (If you set 4th digit value incorrect, you can set again by pressing ESC button.)

Press SET button after you enter the value

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

Press SET button while SAU SET YES is displayed.



CONNECTION TYPE OF SYSTEM

Con

The menu that is selected the connection type of system. Two connection type is defined in the device.

Con S tAr

If the system is 3 phases with neutral, we should select the Star connection.

Con DE LtA

If the system is 3 phases without neutral, we should select the Delta connection.

SETTING THE CONNECTION TYPE OF SYSTEM



Press SET button for 3 secs. (Utr Menü is displayed)

Find Con menu by scrolling UP/DOWN buttons.

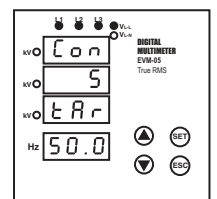
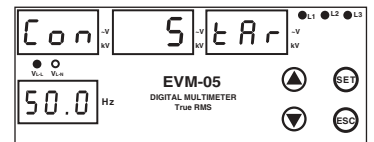
Press SET button (Con STAR is displayed)

Select connection type by scrolling UP/DOWN buttons

Press SET button (Con is displayed)

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

Press SET button while SAU SET YES is displayed.

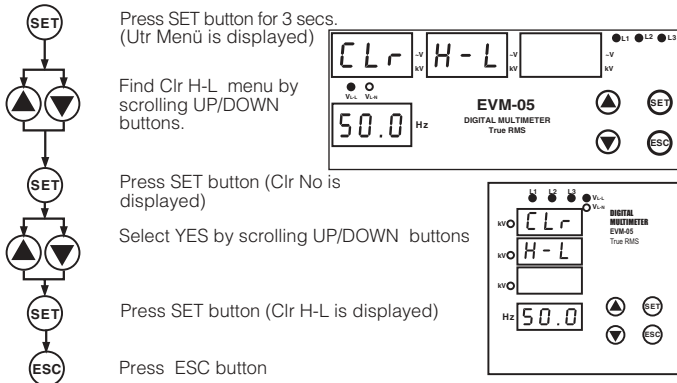


DIGITAL MULTIMETER EVM-05

CLEARING MINIMUM AND MAXIMUM VOLTAGES

CLr
H-L

The menu that is cleared the min. and max values measured.



USER PASSWORD MENU

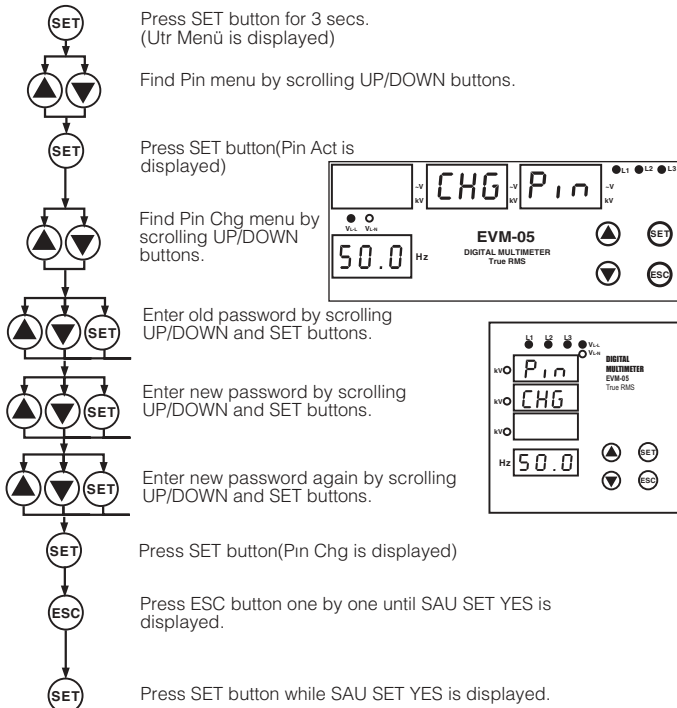
Pin

The menu that is defined the user password and activated the user password. It is prevented to change the settings of the device by unauthorized people by activating password. If you want to use this function of device, you should activate the user password. Pin menu contains 2 sub-menus.

Pin
CHg

The menu that is changed the user password. According to the factory settings, the password is set to 1234.

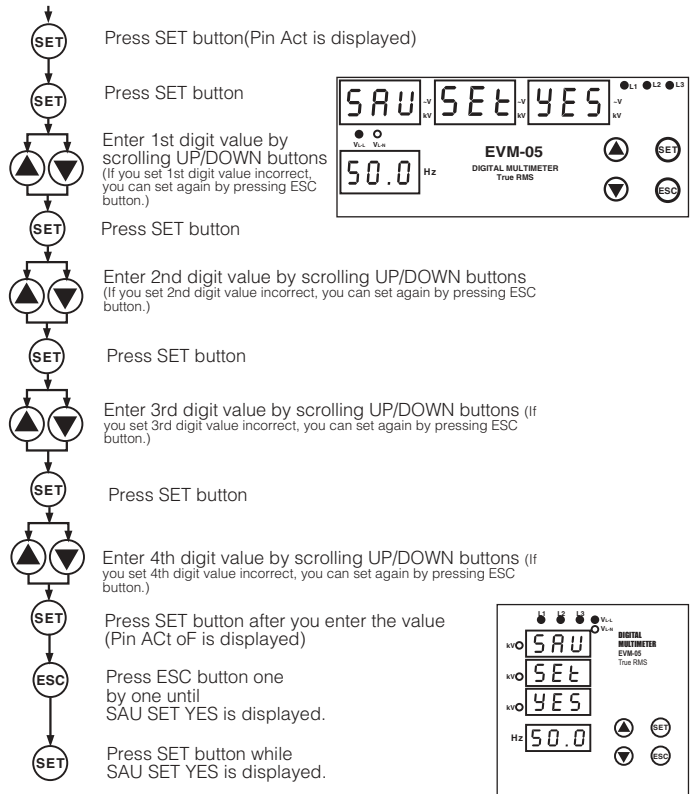
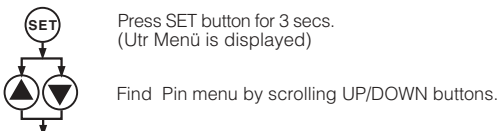
CHANGING USER PASSWORD



Pin
ACT

The menu that the user password is activated. After user password is activated, it will be asked when entered menus. If the user password is entered wrong, the device will not be locked. According to the factory settings, the password is set to 1234.

ACTIVATING USER PASSWORD



TECHNICAL SPECIFICATIONS

Rated Voltage(Un)	: Please look at labels on the device.
Operating Frequency	: 45-65 Hz
Auxiliary Supply Power Consumption	: < 4 VA
Measuring Input Power Consumption	: < 1 VA
Voltage Inputs	: 10-300 VAC (L-N) 10-500 VAC (L-L)
Measurement Range	: 0...400kV
Class	: 1±1 digit [(%10-100) x full scale]
Voltage Transformer Ratio	: 1...4000
Ambient Temperature	: -5 °C; +50 °C
Display	: Red LED Display
Dimensions	: PR-19, PR-16, DIN-6
Equipment Protection Class	: Double Isolation Class II
Box Protection Class	: IP 40
Terminal Protection Class	: IP 00
Box Material	: Nonflammable
Installation	: Panel Mounted (PR-16, PR-19) Rail-Mounted (DIN-6)
Wire Thickness For Terminal Block	: 2.5 mm ²
Weight	: 0.45 kg (PR-19, DIN-6), 0.8 kg (PR-16)
Installation Category	: Class III
Panel Size	: 139x139 mm (PR-16) 91x91 mm (PR-19) 46x107mm (DIN-6)
User Password by Factory Settings	: 1234

