Chapter 1.General Introduction

1.1 Usage

This digital display UIF combined meters are a new generation of programmable intelligent instruments, which are mainly used in the real-time measurement and indication on the voltage, current and frequency of electric wiring and display the virtual value of voltage a, current and frequency through three-row nixietube at the same time.

1.2 Features

- Adopt SMT product techniques, compact circuit, high reliability;
- AC sampling, RMS measuring mode, wave distortion doesn't effect the accuracy rate;
- Display multiply power is programmable and apply to transformer with several specifications.
- Setting function of digital filtering time
- Unique method of installation, can complete the installment easily without tool;
- With performance of intelligent meters, price of common meters, high cost performance.

Chapter 2. Product specification

Unit: mm

Instrument type	Panel dimension		Case dimension			Hole cutout dimension	
	W	H	W	H	D	W	H
AOB294Z-9X4-UIF	96	96	91	91	80	92	92

Chapter 3 Technical Parameters

3.1 Measuring display range of voltage:
Direct measurement: AC 0~500V
Additional installment: AC 0~9999kV
(Any value/100V potential transformer additional)

3.2 Measuring display range of current:
Direct measurement: AC 0~5A
Additional installment: AC 0~9999A
(Any value/5A current transformer additional)

3.3 Measuring display range of frequency: 40~70Hz

3.4 Accuracy rating: ±0.5%FS±two digits

3.5 Sampling rate: adjustable

3.6 Display Mode: three-row four-bit LED nixietube display

3.7 Display resolution: last one digit

3.8 Input circuit consumption: <0.5VA/phase

3.9 Auxiliary power supply: AC 220V or AC110V

3.10 Auxiliary supply consumption: <5VA

3.11 Operational environment: places free of gas corruption with temperature of -10~50℃, and relative humidity≤85%RH.

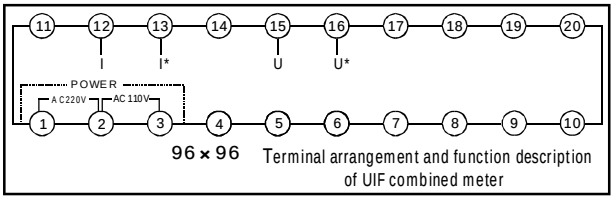
Chapter 4 Installment and connection

4.1 Method of installation

Choose the corresponding hole cutout dimension according to the instrument dimension from the table above, open a hole in the installation screen, embed instruments into the hole, put the two clamping pieces into the clamping groove, push and tighten it by hand.

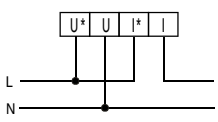
4.2 Description of Wiring and terminal

(Attention: If it is not the same with the wiring schema of the instrument case, please accord to the one of instrument case.)

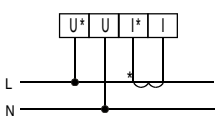


Terminal arrangement and function description of UIF combined meter

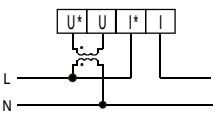
4.3 Signal input mode



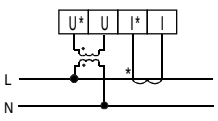
Input directly
(When voltage≤500V, current≤5A)



Input through CT
(When voltage≤500V, current>5A)



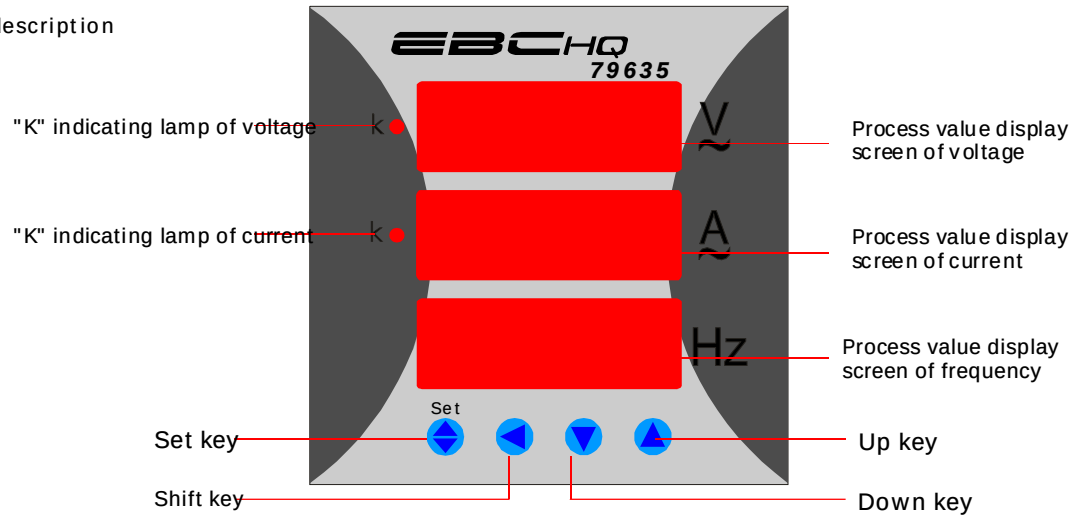
Input through PT
(When voltage>500V, current≤5A)



Input through CT and PT
(When voltage>500V, current>5A)

Chapter 5 Programming and Usage

5.1 Panel description



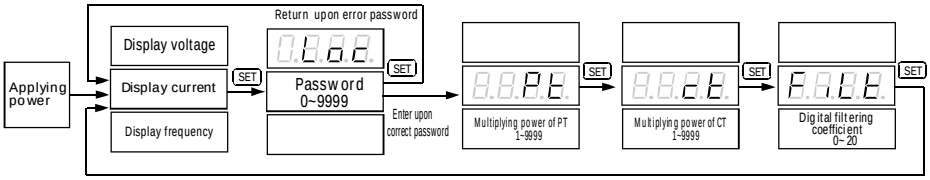
Note: If k indicating lamp is on, the unit has been switched to kA (or kV)

5.2 How to operate

Enter programming status by pressing down SET key. The operational flowchart is as following:

Explanations: 1. Password to enter menu is 503

2. under the parameter display status, the multiplying power of transformer and digital filtering coefficient can be set and it will return to measuring value display status automatically if there is no key action for 60s under the programming status.



5.3、Programming parameter specification

Serial number	Parameter code	Parameter name	Setting range	Description
1	0.0.Pt.	The multiplying power of potential transformer Pt	1 ~ 9999	Setting value of multiplying power= (voltage value of primary circuit of transformer)/ (voltage value of secondary circuit) The multiplying power should be set as 1 when there is no potential transformer.
2	0.0.Ct.	The multiplying power of current transformer Ct	1 ~ 9999	Setting value of multiplying power= (current value of primary circuit of transformer) (current value of secondary circuit. The multiplying power should be set as 1 when there is no current transformer.
3	F.iLt.	Digital filtering coefficient FiLt	0 ~ 20	It is for setting the multiplying power of current transformer in the instrument current input circuit. Setting value of multiplying power= (current value of primary circuit of transformer)/(current value of secondary circuit, after setting, the instrument indicating value will be calculated according to the current value of current transformer's primary circuit and the multiplying power should be set as 1 when there is no current transformer.

5.4、Cautions

5.4.1 Please confirm if the instrument power supply, input signal and each terminal wiring are correct and reliable before applying the power.

5.4.2 The instrument must be preheated for 15 minutes to guarantee the precision of measurement and check.

5.4.3 The instrument should not be rapped, knocked and vibrate excessively and its using environment should meet the technical requirements.

Chapter 6 Packing and Storage

The instrument and accessories with packing should keep storage conditions cool and dry and free of wet and gas corruption with temperature not more than 70℃ and not less than -40℃ , and relative humidity≤85%