

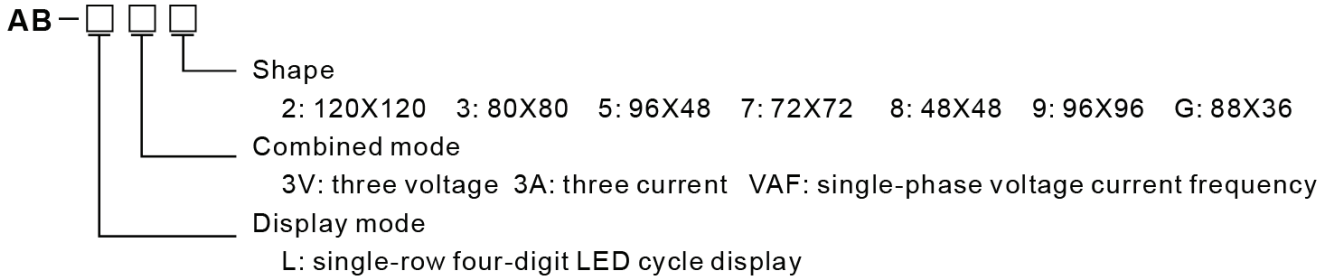
**OPERATION MANUAL OF
3V 3A VAF COMBINED
CYCLE DISPLAY METER**

OPERATION MANUAL OF 3V 3A VAF COMBINED METER V15.1/L

Chapter 1 General Introduction

This series combined meters are , which is used in the real-time measurement and indication of three phase voltage, three phase current or single-phase voltage current frequency.

Chapter 2 Model and definition



Chapter 3 Technical Parameters

3.1 Measuring range(Continued overload 1.2 times)

Voltage: Direct measurement AC 100V, 220V/380V or 500V

External voltage transformer AC */100V

Current: Direct measurement AC 1A or 5A

External voltage transformer AC */1A or */5A

Frequency: 45 ~ 65Hz Sinusoidal wave

3.2 Accuracy rate: class 0.5 (voltage and current) , class 0.1 (frequency)

3.3 Sampling rate: 1.5 times/s

3.4 Input circuit consumption : both voltage and current < 0.5VA

3.5 Display resolution: min. 0.1V(voltage), the decimal point shift automatically, V/kV switch automatically ; min 0.001A(current), the decimal point shift automatically, A/kA switch automatically ; frequency 0.01Hz

3.6 Auxiliary power supply: 220V±15% 50/60Hz , < 3VA (can customize other power supply)

3.7 Working environment: places which is free of gas corruption with temperature -10 ~ 50°C humidity ≤85%RH

Chapter 4 Program

4.1 Key explanations

Set SET key : Under the measuring display mode, it can enter the programming mode by pressing SET key for 2s(enter directly only when codE=0(default)), otherwise need to enter the right password to enter the programming code.)

Under the programming mode, pressing SET key once can switch to the next menu.

Pressing this key for 2s can quit the programming mode.

◀ SHIFT key : Under the measuring display mode, it can switch between the cycle display and fixed display by pressing SHIFT key for 2s.

Under the programming mode, pressing SHIFT key once can move the cursor to the left one.

▼ DOWN key : Under the measuring display mode, pressing this key one time can back to the previous menu. Under the programming mode, pressing DOWN key once will decrease the parameter values of menu.

▲ UP key : Under the measuring display mode, pressing this key one time can switch to the next menu. Under the programming mode, pressing UP key once will increase the parameter value of menu

4.2 Menu explanations(different menus according to different combined meters)

Serial code	Parameter code	Parameter name	Setting range	Explanations
	<i>Pt</i>	Voltage transformer ratio Pt	1.0~3200.0	Pt=primary value of voltage transformer÷secondary value. For example, 10kV/100V voltage transformer(Pt=100.0). When input directly(without PT), Pt=1.0.
	<i>nEt</i>	Input network nEt	<i>n3.3</i> <i>n3.4</i>	n3.3: 3-phase 3-wire n3.4:3-phase 4-wire
1	<i>Ct</i>	Current transformer ratio Ct	1~9999	Ct=primary side value of current transformer ratio ÷ secondary side value. For example 100/5A current transformer(Ct= 20). When without current transformer (input directly), Ct=1
3	<i>codE</i>	Programming password codE	0~9999	CodE is for setting the programming code.If codE=0, Under the measuring display mode, it can enter the programming mode directly by pressing SET key for 2s. Otherwise it will prompt the password window and can enter the programming code only upon the right password.

Chapter 5 Installation and wiring

5.1 Shape and hole cutout dimension

Instrument shape	Panel dimension		Case dimension			Hole cutout dimension	
	W	H	W	H	D	W	H
120×120	120	120	110	110	80	112	112
80×80	80	80	75	75	80	76	76
96×48	96	48	90	44	80	92	45
72×72	72	72	67	67	80/50	68	68
48×48	48	48	44	44	70	45	45
96×96	96	96	91	91	80/50	92	92

Din-way type : long 88 × wide 36 × high 60

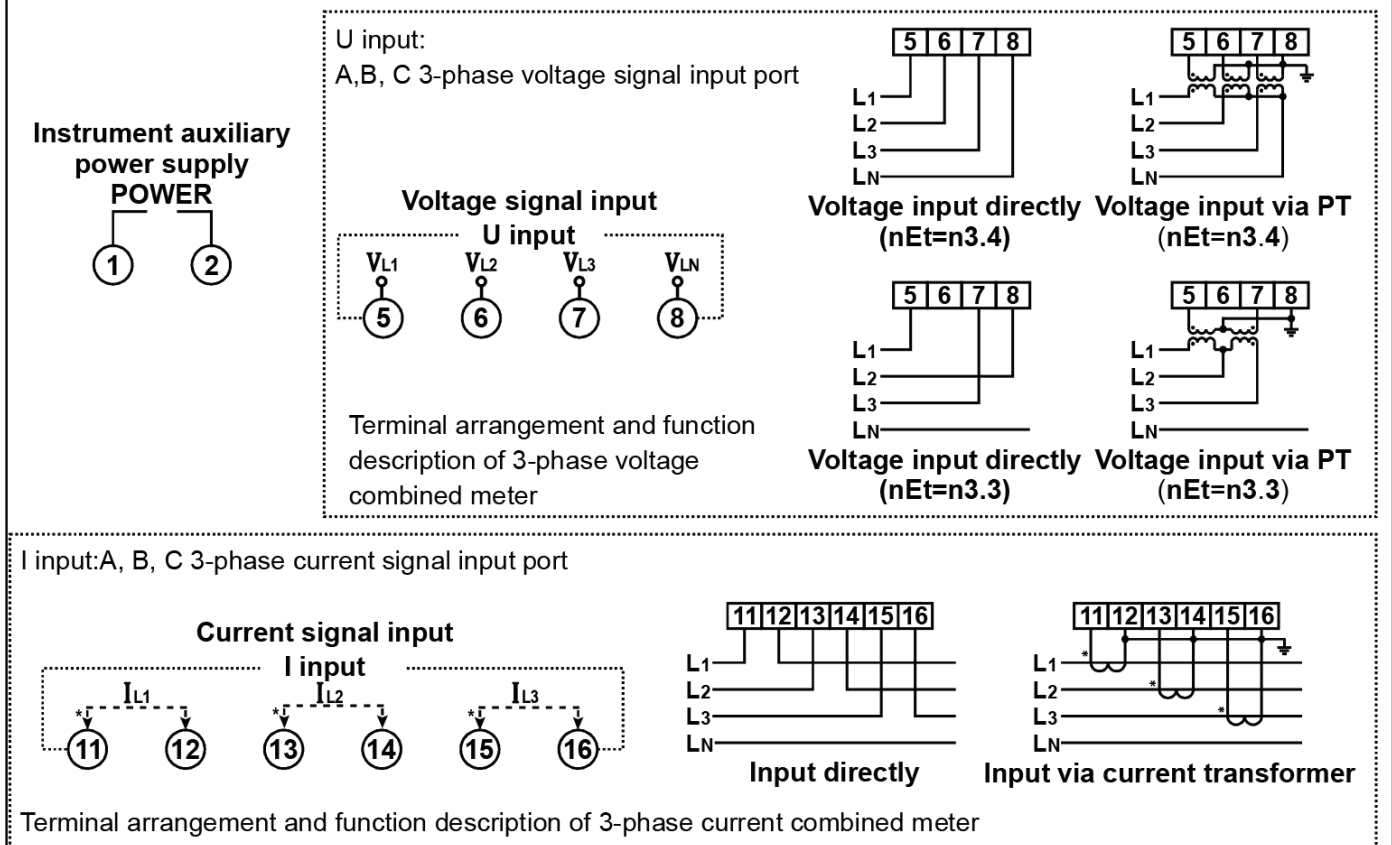
5.2 Method of installation

Choose the corresponding hole cutout dimension according to the instrument dimension from the table above, make a hole in the installation screen, insert the instruments into the hole, place the two clamping pieces into the clamping holder and push and tighten them by hand.

5.3 Description of Wiring and terminal

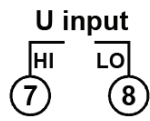
(Attention: If it is not the same with the wiring schema of the instrument case, please accord to the one of instrument case.)

POWER: Auxiliary power input port, default AC 220V ± 15%, 50/60Hz,if you need other specification, please tell us when ordering

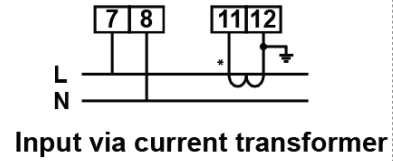
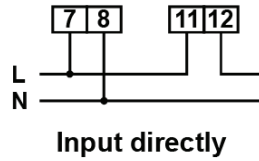
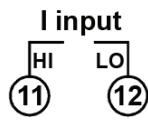


U input: voltage signal input port
I input: current signal input port

Voltage signal input



Current signal input



Terminal arrangement and function description of single-phase voltage current frequency combined meter

Chapter 6. Cautions

- 6.1 Please confirm if the power supply, input signal and each terminal wiring of the meter are correct and reliable before applying the power.
- 6.2 The instrument must be preheated for 15 minutes to guarantee the precision of measurement.
- 6.3 The instrument should not be rapped, knocked and vibrate excessively and its using environment should meet the technical requirements.
- 6.4 The meter has been calibrated according to the measuring range required by the customer upon order. The user should check again if the measuring range of the meter is fit with the specifications of the transformer or shunt and set the measuring range again if not.
- 6.5 Please enter the password "5643" if you forget the programming password.

Chapter 7. 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°C and not less than -40°C and relative humidity ≤ 85%