

## PA(V)256 Series Single-Phase and Three-Phase Digital Display Ammeter (Voltmeter)

### 1 Overview



PA/V256 series single-phase and three-phase digital display ammeter and voltmeter (hereinafter referred to as the instrument) is a new generation of programmable intelligent instrument, and is widely used in various intelligent power distribution systems such as power monitoring, industrial automation, and switchgear. The instrument is primarily used for the real-time measurement and display of the voltage, current and frequency of the power line, integrating with communication, alarm, analog transmission and switching input, and has advantages of high measurement accuracy, good linearity, long-term operation without adjustment, programmable setting parameters. The product follows the development trend of digitalization, modularization and networking of installed digital display electrical measuring instrument with high cost-performance and simple and practical function combination.

### 2 Product Parameters

Technical parameter		Technical indicator	
Input	Voltage	Rated value	AC 100V、400V、690V
		Overload	Duration: 1.2 times; instantaneous: 2 times / 5s When out of 2 times rated value, the "HHH" overload mark will display
		Power consumption	<1 VA (per phase)
	Current	Rated value	AC 1A, 5A
		Overload	Duration: 1.2 times ; instantaneous: 10 times / 5s When out of 2 times rated value, the "HHH" overload mark will display
		Power consumption	<1 VA (per phase)
Frequency		45Hz~65Hz	
Measurement accuracy	Current	Grade 0.5	
	Voltage	Grade 0.5	
Input function	Switching input	Support 2-circuit passive dry contact input, optocoupler isolation	
Output function	Alarm output	The upper and lower limit alarms are output from the same relay, with contact capacity AC250V/2A, DC30V/2A	
	Analog transmission output	Output spec. 0 ~ 20mA, 4 ~ 20mA optional, grade 0.5, output load ≤ 500Ω	
	Communication	RS485 communication interface, supporting both Modbus-RTU and DL/T 645-2007 dual protocols, baud rates 1200, 2400, 4800, 9600, 19200 optional	
	Display mode	LED digital tube display, the highest resolution is voltmeter 0.1V, ammeter 0.001A, units are automatically switched and decimal points are automatically shifted	
	Display range	Voltmeter: AC 0 ~ 9999kV Ammeter: AC 0 ~ 999.9kA	
Aux. power supply	Range	AC, DC85V ~ 265V or AC220V, 50Hz/60Hz	
	Power consumption	<15VA	
Safety	Power frequency withstand voltage	Input and aux. power supply	> 2kV 50Hz/1min
		Input and output Output and aux. power supply	
	Insulation resistance	Aux. power support, input, and output to the meter housing is > 100MΩ	
Electromagnetic compatibility	Electrostatic discharge immunity	GB/T 17626.2 Grade 4	
	Quick transient pulse train immunity	GB/T 17626.4 Grade 4	
	Surge (impact) immunity	GB/T 17626.5 Grade 4	
	High-frequency electromagnetic field	80MHz ~ 1000MHz, 10V/m	
Ambient temp.	Temperature	Storage and operation: -25°C ~ 55°C	
	Humidity	≤ 93%RH, non-condensation, and no corrosive gas	
	Altitude	≤ 2500m	

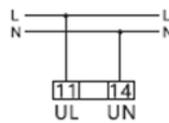
Note: Single-phase meter does not support switching input and analog transmission output functions.

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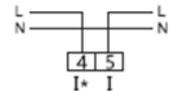
### 3 Outline and Installation Dimensions

Model	A	B	C	D	E	Hole size (W x H)	Remarks
PA/V256 48S	48mm	48mm	45mm	65mm	72mm	46mm×46mm	Suitable for single phase instrument
PA/V256-72S	72mm	72mm	65mm	76mm	83.5mm	66mm×66mm	
PA/V256-80S	80mm	80mm	74mm	76mm	83.5mm	75mm×75mm	
PA/V256-96S	96mm	96mm <td 89mm	76mm	84.5mm	90mm×90mm		
PA/V256-120S	120mm	120mm	110mm	76mm	84.5mm	111mm×111mm	Suitable for single phase instrument

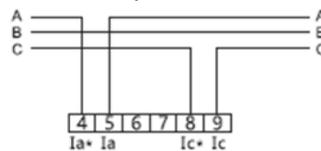
### 4 Wiring Diagram



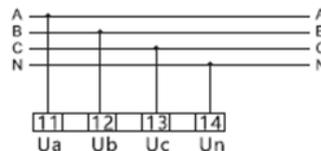
Single-phase voltage directly connected



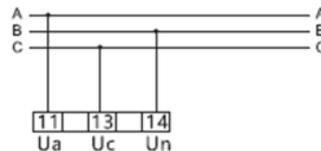
Single-phase current directly connected



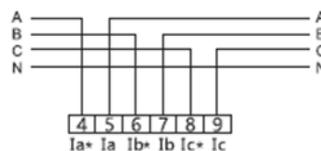
Three-phase three-wire current directly connected



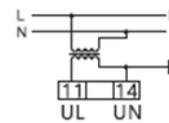
Three-phase three-wire current directly connected



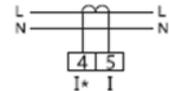
Three-phase three-wire current directly connected



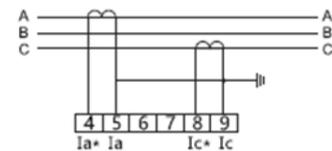
Three-phase three-wire current directly connected



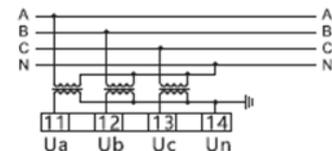
Single-phase voltage connected through the transformer



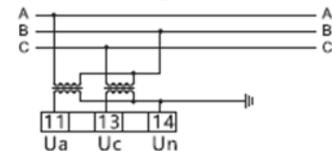
Single-phase current connected through the transformer



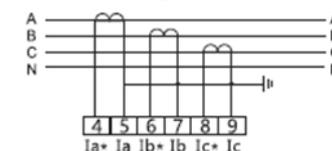
Three-phase three-wire current connected through the transformer



Three-phase three-wire current connected through the transformer



Three-phase three-wire current connected through the transformer



Three-phase three-wire current connected through the transformer

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### 5 Precautions

- 5.1 Before power-on, please confirm that the power supply and input signal of the instrument are within the scope of application again, and that each terminal is connected properly and firmly.
- 5.2 The meter shall be warmed up for 15 minutes to ensure accurate measurement.
- 5.3 The meter shall not be subject to knocks, collisions, and violent vibrations, and the working environment should meet the technical requirements.
- 5.4 The warranty period of the instrument is 24 months. For poor quality of the meter including damage occurred during transportation (excluding unpacking without permission), please contact the company or local dealers directly, and our company will quickly replace it free of charge.

### 6 Ordering Notice

- 6.1 Please specify the model, specification, quantity, auxiliary power supply, and structural form when selecting the instrument.
- 6.2 When RS485 communication function, switching input function, switching output function, and transmitter output function are required, please clearly specify them when ordering. The conventional product has no above functions (multifunctional meter has RS485).