

FR2020 Three-phase digital phase voltmeters



I. Product Introduction

FR2020 three-phase digital phase volt-ampere meter, also known as multi-function three-phase digital phase volt-ampere meter, is a high-quality, multi-functional, high-precision, intelligent, portable handheld measuring instrument designed for on-site measurement of voltage, current, power, power factor, frequency, and phase. Widely used in electrical energy measurement, electricity inspection, power inspection, power meter and relay protection, differential detection, start-up test, industrial and mining enterprises, scientific research institutions and other departments. Instrument testing is precise, fast, simple, stable and reliable.

FR2020 three-phase digital phase volt-ampere meter has the ability to directly measure the AC voltage, AC current, the phase between voltage, between currents and the phase between voltage and current, it also has other measurement judgment functions, judge the inductive current and capacitive circuit, check the transformer wiring group, check whether the power meter is wired correctly. It is the ideal instrument for checking the use of power and performing secondary circuit inspection.

FR2020 three-phase digital phase volt-ampere meter is composed of a host, current clamp, test line and protective cover, and stores 500 sets of data at the same time, and has a data static storage function. With historical data read, consult, save, report, print and other functions.

II. Technical Specification

Function	Measure three-phase AC voltage, current, voltage phase, current phase, voltage and current phase, frequency, phase sequence, active power, reactive power, apparent power, power factor, current vector sum, judging the transformer wiring group, inductive, capacitive circuit, test secondary circuit and busbar protection system, read out the phase relationship between the CTs of the differential protection groups, check the correctness of the wiring of the watt-hour meter, repair the line equipment, etc.
Power	3.7V lithium rechargeable battery
Power consumption	Max 50mA
Display mode	LCD color display, 72×55mm

Instrument size	W/H/T: 187*119*48mm		
Voltage range	AC 0.00V~600V	Resolution: 0.01V	Accuracy: $\pm 0.5\%$ FS
Current range	AC 0.0mA~20.0A	Resolution: 0.1mA	Accuracy: $\pm 0.5\%$ FS
Phase range	0.0° ~360.0°	Resolution: 0.1°	Accuracy: $\pm 1^\circ$
Frequency range	45.00Hz~65.00Hz	Resolution: 0.01Hz	Accuracy: $\pm 0.5\%$ Hz
Active power range	0.0W~12kW	Resolution: 0.1W	Accuracy: $\pm (3\%rdg+3dgt)$
Reactive power range	0.0W~12kVAR	Resolution: 0.1VAR	Accuracy: $\pm (3\%rdg+3dgt)$
Apparent power range	0.0W~12kVA	Resolution: 0.1VA	Accuracy: $\pm (3\%rdg+3dgt)$
Power factor range	-1~+1	Resolution: 0.001	Accuracy: ± 0.03
Current vector sum	0mA~60.0A		
Phase sequence	Normal phase: U1、U2、U3 or I1、I2、I3 cursor blinks from left to right Opposition: U1、U2、U3 or I1、I2、I3 cursor blinks from right to left		
Detection rate	About 2 second/time		
Data hold	Press HOLD key to hold data during test, "HOLD" symbol display		
Data storage	500 groups		
Silicone protective cover	Have		
USB interface	USB interface, uploading data to a computer for analysis of management data		
Automatic shut-down	About 15 minutes after power on, the meter will automatically shut down to reduce battery consumption		
Backlight function	Yes, suitable for dark places and night use		
Voltage detection	When the battery voltage is lower than 3.2V, the battery voltage is low and the symbol indicates, prompting timely charging		
Instrument weight	Host: 380g(including battery)		
	Tip-shaped current clamp: 180g×3		
	Test line: 190g		
Voltage test line length	1.5m		
Current clamp line length	2m		
Working temperature and humidity	-10℃~40℃; below 80%Rh		
Storage temperature and humidity	-10℃~60℃; below 70%Rh		
Input impedance	Test voltage input impedance is: 1MΩ		
Pressure resistance	The withstand voltage of 1000V/50Hz sine wave AC voltage between the instrument circuit and the housing lasts 1 minute		
Insulation	Between instrument line and housing $\geq 100M\Omega$		
Structure	Housing insulation		

Suitable for safety regulations	IEC61010-1 CAT III 600V, IEC61010-031, IEC61326, pollution level 2
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III、Accessories

Phase voltmeter	1PC
Current clamp	3PCS
USB communication line	1PC
Monitoring software (CD-ROM)	1PC
Instrument box	1PC
3.7V lithium rechargeable battery(internal)	1PC
Charger	1PC
Test line	4PCS(yellow, green, red, black each 1)
Manual, certificate	1SET



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