

FR2020B Large-diameter three-phase digital phase voltmeter



I. Product Introduction

FR2020B Large-diameter three-phase digital phase voltmeter, 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 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.

FR2020B Large-diameter three-phase digital phase voltmeter 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.

FR2020B Large-diameter three-phase digital phase voltmeter is composed of a host, current clamp, test line and protective cover, and stores 400 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

1. Range and Accuracy error

Classification	Range	Resolution	Intrinsic error
Voltage	AC 0.00V~600V	0.01V	$\pm 0.5FS$
Current	AC 0.0mA~1000A	0.1mA	$\pm 0.5FS$
Phase	0.0° ~360°	0.1°	$\pm 1^\circ$
Active power	0.0W~600kW	0.1W	$\pm (3\%rdg+3dgt)$
Reactive power	0.0VAR~600kVAR	0.1VAR	$\pm (3\%rdg+3dgt)$
Apparent power	0.0VA~600kVA	0.1VA	$\pm (3\%rdg+3dgt)$
Frequency	45Hz~65Hz	0.01Hz	$\pm 0.5Hz$
Power factor	-1~+1	0.001	± 0.03

2. General specifications

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
Current range	AC 0.0mA~1000A
Phase range	0.0° ~360.0°
Frequency range	45.00Hz~65.00Hz
Active power range	0.0W~600kW
Reactive power range	0.0W~600kVAR
Apparent power range	0.0W~600kVA
Power factor range	-1~+1
Current vector sum	0mA~3000A
Insolution	Voltage: AC 0.01V
	Current: AC 0.1mA
	Phase: 0.1°
	Frequency: 0.01Hz
	Active power: 0.1W
	Reactive power: 0.1VAR
	Apparent power: 0.1VA
	Power factor: 0.001
Current vector sum: 1mA	
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	400 groups
Silicone protective sleeve	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	Hose: 380g(including battery)
	Large diameter current clamp: 440g×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 ≥100MΩ
Structure	Housing insulation
Suitable for safety regulations	IEC61010-1 CAT III 600V, IEC61010-031, IEC61326, pollution level 2

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
Test line	4PCS(yellow, green, red, black each one)
Charger	1PC
Manual, certificate	1SET



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