

## GDCR4000A Digital Double-clamp Phase Volt-ampere Meter



### General Information

- GDCR4000A Digital Double-clamp Phase Volt-ampere Meter is used to simultaneously measure the two channel AC voltage, current, phase between voltage, phase between current, phase between voltage and current, frequency, phase sequence, active power, reactive power, apparent power, power factor, judge transformer connection group, inductive circuit and capacitive circuit, test secondary circuit and differential bus protection system, read the phase relation between CT groups, check meter wiring is correct or not, maintenance line equipment, etc

- It is applicable to electric power, petrochemical, metallurgy, railway, industrial and mining enterprises, scientific research institutions, metrology departments, etc. It is especially suitable for the electric energy billing system and relay protection system, the electric energy measurement, electricity inspection and electric power inspection of the power supply Marketing Department, the installation and connection of the meter, relay protection, differential detection, starting test, substation maintenance of the production and technical department, or the electric power training and skill contest.

Model	Clamp opening	Remarks
GDCR 4000A	Φ8mm	Sharp mouth
GDCR 4200A	35*40mm	Round mouth

### Specification

- **Reference condition & working condition**

Factor	Reference condition	Working condition	Remarks
Ambient temperature	23°C±1°C	-10°C~40°C	-
Ambient temperature	40%~60%	< 80%	-
Signal waveform	Sine wave	Sine wave	β=0.01
Signal frequency	50Hz±1Hz	45Hz~65Hz	-
Working voltage	9V±0.1V	9V±1.5V	-

Current amplitude at measurement of phase frequency and sequence	200mA±3mA	2mA~20A	-
Voltage amplitude at measurement of phase frequency and sequence	100V±10V	10V~600V	-
Current amplitude of measurement of power and power factor	200mA±3mA	20mA~20A	-
Voltage amplitude of measurement of power and power factor	100V±10V	10V~600V	-
External electric field magnetic field	Should be avoided		
Position of test lead under test	Test lead is near the geometric center of the clamp.		

- **General specification**

Power supply	DC9V Alkaline dry battery LR6(1.5V AA size 6pcs)
Measurement range	Voltage: AC 0.00V~600V
	Current: AC 0.0mA~20.0A

(fully automatic)	Phase: 0.0°~360.0°
	Frequency: 45.00Hz~65.00Hz
	Active power: 0.0W~12kW
	Reactive power: 0.0var~12kvar
	Apparent power: 0.0VA~12kVA
	Power factor: -1~+1
Clamp opening	Sharp mouth: $\Phi$ 8mm Round mouth: 35*40mm
Resolution	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
Data storage	1500 groups

Communication	USB port. Data is uploaded to PC via USB port for data analysis and management.
Working current	The Max. power consumption is 135mA when the backlight is turned on, and the battery works continuously for about 6 hours.
	Turn off the backlight and power consumption is 90mA. The battery works continuously for about 9 hours
Display	2.8-inch TFT LCD color screen, display area 58*44mm
Size	196*92*54mm
Detection rate	About 2s/times
Data hold	Press "HOLD" button during test and "HD" symbol appears.
Auto-shut-down	After start-up for about 15 minutes, the meter automatically shuts down to reduce battery consumption.
Backlight	Available. Applicable in the darkness and at night.  Backlight is turned off automatically after five minutes of no operation.
Voltage detection	When the battery voltage is lower than 7.2V, symbol is displayed to remind the replacement of the battery.
Weight	Main unit: 550g (with battery)

	Sharp-mouth current clamp: 170g×2
	Round-mouth current clamp: 185g×2
	Test lead: 250g
Test lead	1.5m
Test lead of current clamp	2m×φ5mm
Working condition	-10°C~40°C; <80%RH
Storage condition	-10°C~60°C; <70%RH
Input impedance	Input impedance of test voltage: 1MΩ
Withstand voltage	Withstand voltage AC 1000V/50Hz (sine wave) between instrument line and shell for 1 minute.
Insulation	Insulation between instrument line and shell ≥100MΩ
Structure	Double insulation, with shock-proof insulation sheath.
Standard compliance	IEC61010-1 CAT III 600V, IEC61010-031, IEC61326, pollution degree 2

- **Basic error and index under reference condition**

Item	Measurement range	Resolution	Basic error
Voltage	AC 0.00V~600V	0.01V	±(0.5%F.S.)
Current	AC 0.0mA~20.0A	0.1mA	±(0.5%F.S.)
Phase	0.0°~360°	0.1°	±1°
Active power (P)	0.0W~12kW	0.1W	±(1.0%F.S.)
Reactive power (Q)	0.0var~12kvar	0.1var	±(1.0%F.S.)
Apparent power (S)	0.0VA~12kVA	0.1VA	±(1.0%F.S.)
Power factor (PF)	-1~+1	0.001	±0.03
Frequency (F)	45Hz~65Hz	0.01Hz	±(1.0%F.S.)

- Note: Phase error under working condition: ±3° within 10mA~20A; ±6° below 10mA