ACR10R



General

The rail-type multifunction electrical instrument with external Rogowski coil and split-core current transformer is applicable for the energy-saving reconstruction project in high energy consumption industries including the smelting, iron and steel, welding and semi-conductor industry. It is also suitable for applications such as the power monitoring of grid-connected cabinet for distributed photovoltaic power cabinet and energy demand management. It boasts of no need of bus removal, easy connection and safe construction, saving reconstruction cost and raising efficiency for the user. It integrates the measurements of all electric parameters (including single-phase or three-phase current, voltage, active power, reactive power, apparent power, frequency and power factor) and comprehensive energy monitoring and examination management. Meanwhile, it also has various peripheral interfaces for the user to choose: the RS485 communication interface with MODBUS-RTU protocol can meet the need of online communication management; the interfaces with switch input and relay output can realize the remote signalling and remote control of the circuit breaker switch. It is very suitable for real-time power monitoring system with an LCD display and the panel buttons to realize the setting and control of parameters.

Model Description

ACR □ - □ □ □

- E-Single-phase
- T-External open current transformer
- Open current transformer model:
  D10-Φ10mm，80A；D16-Φmm
  D24-Φ24mm，200A;D36-Φ36mm
- IOR-Rail-type installation
- ACR series grid electrical instruments

Function

Function \ Model		ACR10R-DxxTE
Measurement Parameters	Single-phase current	■
	Single-phase voltage	■
	Single-phase (active power, reactive power, power factor)	■
	Three-phase (active energy, reactive energy)	■

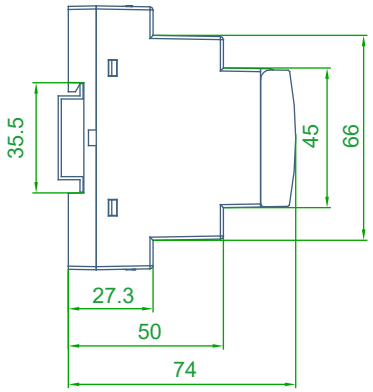
Note:1.“■”refers to standard function, the standard configuration for above instruments is 1 channel RS485 communication.

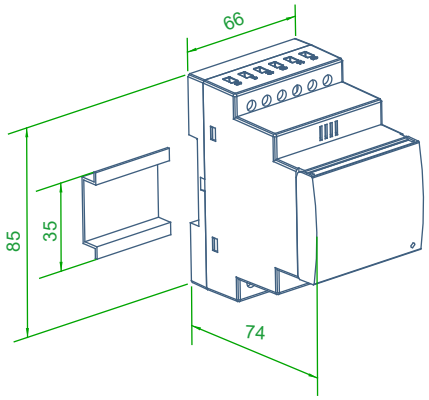
Technical parameter

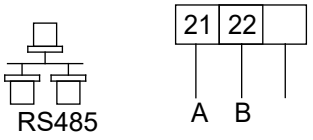
Technical parameters		Indicators
Input	Grid	Single-phase,
	Frequency	45～65Hz
	Voltage	Rated voltage: AC 100V, 400V
		Overload: 1.2 times the rated voltage(continuous); 2 times the rated voltage lasting for 1 second
		Power consumption: less then 0.2VA
	Current	Rated current: 10A，20A，40A，80A，120A，200A etc. (for details see product specifications)
		Overload: 1.2 times the rated current(continuous); 10 times the rated current lasting for 1 second
		Power consumption: less then 0.2VA
Output	Communication	RS485 interface, Modbus-RTU
	Display	LCD
Measurement precision		Voltage: 0.2 level, current, power Active energy: 0.5 level,0.01Hz frequency, Reactive energy: 1 level
Power supply		AC85～265V or DC100～350V; power consumption ≤10VA
Safety	Power frequency withstand voltage	AC2kV 1 min between power supply // current input// voltage input and communication AC2kV 1 min between each pair of combinations among power supply, urrent input and voltage input.
	Insulating resistor	Input,output terminal to housing >100MΩ
Environment		Working temperature: -10℃～+55℃; storage temperature: -20℃～+70℃ Relative humidity:5%～95%，non-condensing; altitude:≤2500m

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Dimension







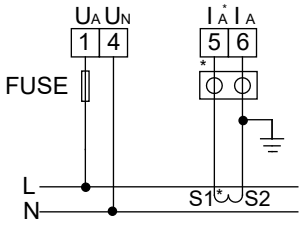
RS485 communication

Operation

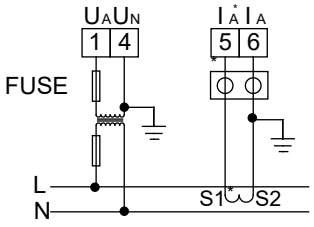
The five buttons of the instrument are FN button, SET button,,,Enter button from left to right.

FN button	RS485 interface, Modbus-RTU
SET button	In the measurement mode, press this button to enter the programming mode. The instrument will indicate entering password. When the correct password is entered, you can set the programming for the instrument; in the programming mode, use it to return to the previous menu
▲	In the measurement mode, it is used to switch display items; In the programming mode, it is used to switch menus of the same level or reduce the units.
▶	In the measurement mode, it can be used to see relevant parameters. For details, see the display menu;In the programming mode, it is used to switch menus of the same level or increase the units.
Enter button	In the programming mode, it is used to confirm the items selected form the menu and the modification of parameters.
button+Enter button	In the programming mode, the combination is used to reduce hundreds
button+Enter button	In the programming mode, the combination is used to increase hundreds

Wiring

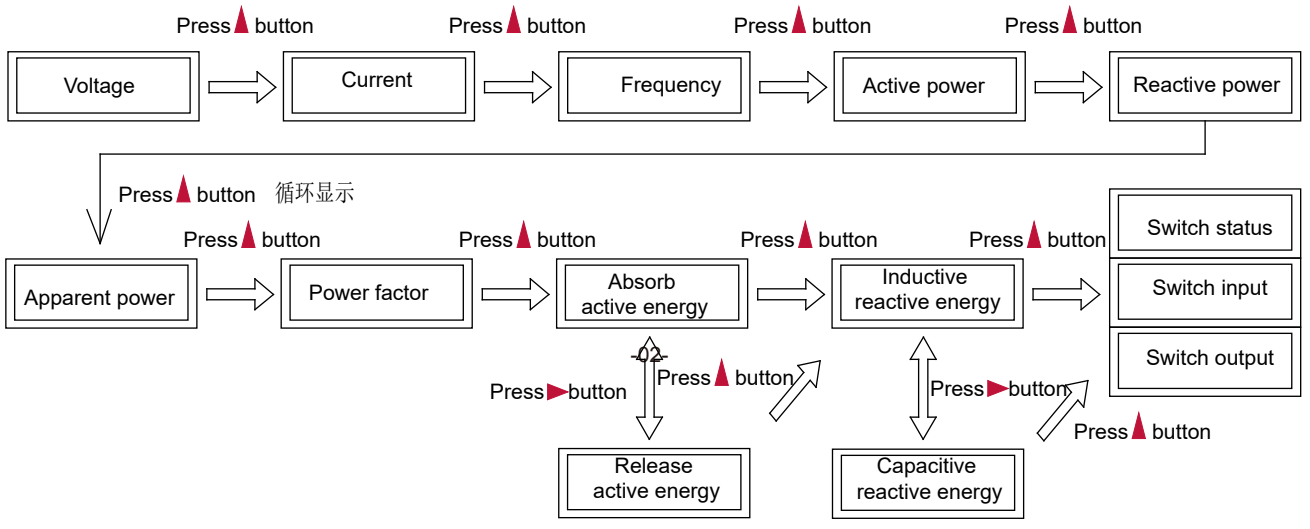


Single-phase 1CT



Single-phase 1PT, 1CT

Operation



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