ADF400L Series multi user electric energy meter

General

The ADF400L series multi-user electric energy meter can achieve up to 12 three-phase or 36 single-phase direct access measurement or 12 three-phase mutual inductor access measurement, a hybrid of direct access and mutual inductor access through module combination measurement method. This series of electric energy meters are popular among communities, schools, enterprises, etc. due to their high accuracy, centralized installation, centralized management, high installation flexibility, and non-interference.



Product Specifications

■ Model Description

ADF400L - □ H □ S □ D □ - □

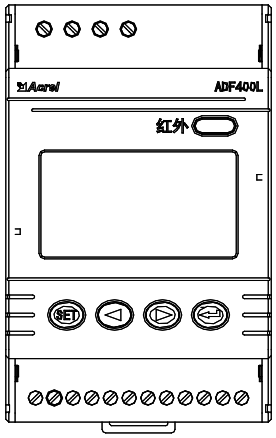
- Optional function: none、CE、IC、K、*C(Up to 3 channels)
- Control type: none: metering type; Y: prepaid type
- Single-phase circuit: up to 36 (multiple of 3) circuits
- Three-phase circuit: up to 12 circuits
- Three mutual inductor access loop: up to 12 (multiple of 2) channels

Note：1、The product consists of main module, direct access module and transformer access module；

2、The product leaves the factory according to the module combination method；

3、The maximum combination of products can achieve 12 three-phase measurements (3 single-phase can be converted into 1 three-phase loop)；

■ Product Module Description



Main module

1、Three-phase 3*220/380V power supply to provide working power for the back-end measurement module；

2、Man-machine interface: LCD and button programming;

3、Infrared communication；

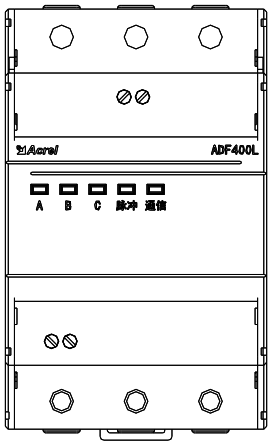
4、RF card swiping (IC function)；

5、2 RS485 network communication (*C function)；

6、RS485 communication for No. 3 extended wireless module (RJ45 connection mode)；

7、Up to 2DI/2DO (K function)；

8、Up to 1 Ethernet communication (CE function)；

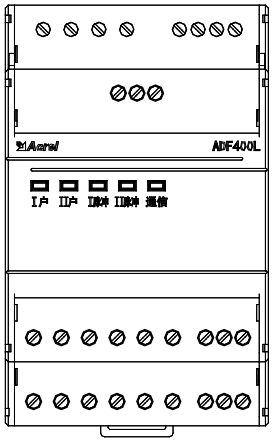


Direct access to the measurement module

1、It can realize one-way three-phase 3*10 (80) measurement or three-way single-phase 10 (80) A measurement;

2、1 active energy pulse output;

3、Three-phase working status, pulse and communication status LED indication;



Transformer access measurement module

1、Two-way three-phase 3*1 (6) A measurement can be realized;

2、2 active energy pulse output;

3、2 three-phase working status, pulse and communication status LED indication;

4、Up to 4DI/4DO function (K function);

Product Functions

■ Prepaid

Function	Function description
Energy metering	Total active energy, forward and reverse active energy, multi-rate active energy measurement
Electricity measurement	U、I
	P、Q、S、PF、F
LCD display	8-digit segment LCD display, backlight display
Button programming	Key programmable communication, number of loops, single three-phase mode, external control mode and other parameters
Pulse output	Active pulse output
Multiple rate	Support 4 time zones, 2 time slots, 14 daily time slots, 4 rates
	Date, time, day of the week
Main module	Infrared communication
Communication	Up to 3 channels of communication: RS485 interface，Also support Modbus
Prepaid agreement (remote, radio frequency card)	Cost control (including forward active power and reverse active power)
	Time control
	Negative control (malignant load identification)
	Strong control
Recharge record	20 Article

■ Metering type

Function	Function description
Display method	LCD（Field）
Energy metering	Active energy metering（Forward and reverse），Reactive power measurement（Forward and reverse）
Electricity measurement	Voltage, current (zero sequence current), power factor, frequency, active power, reactive power, apparent power
Harmonic function	Total harmonic content, sub-harmonic content (2～31 times)
Three-phase unbalance	Voltage and current unbalance
DI/DO	Main module 2DI2DO
	Transformer access to the slave module 2DI4DO (direct access to the slave module without)
LED Instructions	Pulse light indication
Communication	Infrared communication
	RS485 interface (main module) supports MODBUS
Historical power	Historical Electricity in Last December

Technical Parameter

Technical Parameter / Model		ADF400L-□H□S□D(Y)- □
Auxiliary power	Voltage	Three-phase 3*220V/380V power supply (for single-phase power supply, short-circuit terminals 1, 2, and 3 on the instrument)
	Power consumption	≤10W
Voltage input	Rated voltage	3×220/380V、3×57.7/100V、
	Reference frequency	50Hz
Current input	Input Current	3×1(6)A(Instrument transformer access), 3*10 (80) (direct access)
	Starting current	1‰Ib
Measuring performance	Measurement accuracy	0.5s level
	Clock accuracy	≤0.5s/d
Pulse	Pulse output	Each three-phase metering module has 1 active energy pulse
	Pulse Width	80ms±20ms
	Pulse constant	3×1(6)A specification 6400 imp/kWh
		3×10(80)A specification 400 imp/kWh
Switch	Main module	Main module 2DI+2DO，Among them, DI is dry contact input
	Slave module	Transformer access slave module 4DI+4DO，Among them, DI is 220V wet contact input
Communication	Infrared interface	Infrared communication
	RS485 interface	MODBUS-RTU
	Ethernet interface	Modbus-TCP、TCP/IP
Surroundings	Temperature	Operating temperature：-20℃~+60℃， storage temperature：-30℃~+70℃
	Humidity	≤95%RH，No condensation, no corrosive gas place
	Altitude	≤2000m