

ADF300L 系列多用户计量箱
ADF300L series multi-user metering box

安装使用说明书 V1.3
Installation and operation instruction V1.3

申 明

Declaration

版权所有，未经本公司之书面许可，此手册中任何段落，章节内容均不得被摘抄、拷贝或以任何形式复制、传播，否则一切后果由违者自负。

本公司保留一切法律权利。

All rights reserved. Without the written permission of the company, the contents of any paragraphs and chapters in this manual shall not be copied, copied or reproduced or disseminated in any form. Otherwise, all consequences shall be borne by the violator.

The company reserves all legal rights.

本公司保留对手册所描述之产品规格进行修改的权利，恕不另行通知。订货前，请垂询当地代理商以获悉本产品的新规格。

The company reserves the right to modify the specifications described in this manual without prior notice. Before ordering, please consult your local agent for new specification

目录

1 概述 Overview.....	1
2 产品规格 Products model.....	1
3 技术参数 Technical parameters.....	1
3.1 电气特性 Electrical characteristics.....	1
3.2 机械特性 Mechanical characteristics.....	2
4 主要功能 Main functions.....	3
5 外形及安装尺寸（单位：mm） Outline and installation dimensions.....	3
5.1 使用注意事项 Precautions.....	3
5.2 产品尺寸 Product Size.....	4
6 接线与安装 Wiring and installation.....	5
7 功能说明 Function Description.....	6
7.1 有功电能计量 Active energy measurement.....	6
7.2 继电器控制（仅限预付费型） Relay control (prepaid type only).....	6
8 显示说明 Display Description.....	7
8.1 显示举例 Display example.....	7
9 通信说明 Communication Description.....	8
9.1 通信协议 Communication protocol.....	8
9.2 MODBUS 通信地址说明 MODBUS communication address description.....	8
9.3 MODBUS 通信地址表 Correspondence address table.....	9
10 常见故障排查 Common fault troubleshooting.....	21

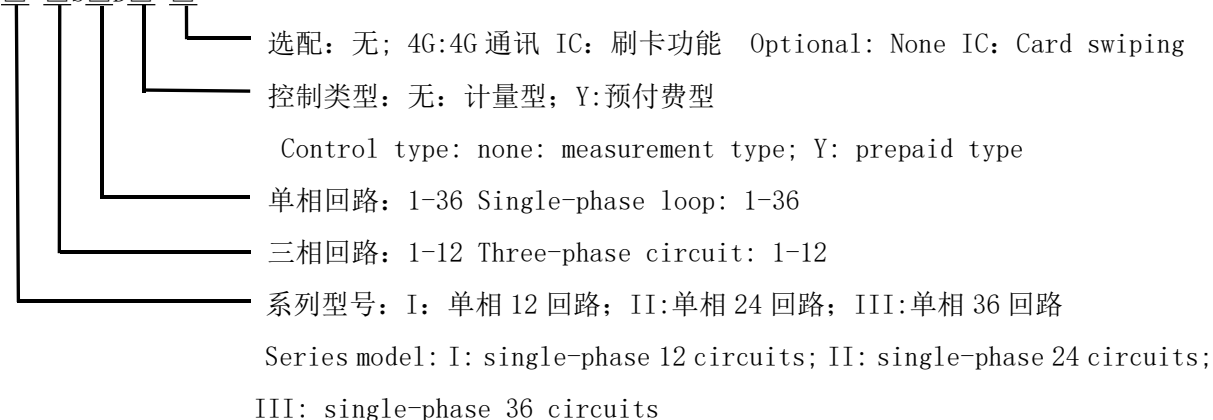
1 概述 Overview

ADF300L 系列多用户计量箱最大可以计量 12 路三相或者 36 路单相，又可以支持多路单三混合安装。该系列计量箱因准确度高、集中安装、集中管理、互不干扰等优势深受小区、学校、企业等的青睐。计量箱符合国标 GB/T 17215.321-2008。

The ADF300L series multi-user metering box can measure up to 12 three-phase or 36 single-phase, and can also support multi-channel single three mixed installation. This series of measuring boxes are favored by communities, schools, and enterprises due to their advantages such as high accuracy, centralized installation, centralized management, and non-interference. The measuring box conforms to the national standard GB / T 17215.321-2008.

2 产品规格 Products model

ADF300L-□-□S□D□-□



3 技术参数 Technical parameters

3.1 电气特性 Electrical characteristics

表 1 电气特性 Electrical characteristics

技术参数 Technical Parameters		型号 model		
		ADF300L-I	ADF300L-II	ADF300L-III
电压输入 Voltage input	额定电压 Rated voltage	3×220/380V		
	参比频率 Reference frequency	50Hz		
	功耗 Power consumption	<20VA		
电能计量 Energy measurement		总有功电能计量、总无功电能计量 (反向计入正向) Total active energy measurement, total reactive energy measurement (Reversely counted in the forward direction)		
电量测量 Electricity measurement		U、I、P、Q、S、PF、F		
显示 display		8 位段式 LCD 显示、背光显示 8-segment LCD display, backlight display		
开关量 Switch		8 路开关量输出 8 switching outputs		
电流输入 Current input	输入电流 Input Current	最大 3*200A maximum	最大 3*250A maximum	最大 3*250A maximum
	输出电流 Output	10(60)A		

	Current	
	起 动 电 流 Starting current	4%I _b
测量性能 Measuring performance	测量精度 measurement accuracy	1 级 Level 1
脉冲 pulse	脉冲输出 Pulse output	1 路有功脉冲输出 1 active pulse output
	脉冲宽度 Pulse Width	80ms±20ms
	脉 冲 常 数 Pulse constant	1600 imp/kWh
通信 Communication	接口 interface	红外通讯 Infrared communication
	接口 interface	2 路 RS485 (通讯线需要屏蔽双绞线) 2 RS485 (communication line needs shielded twisted pair)
	协议 protocol	MODBUS-RTU、DL/T 645-07
环境 environment	温度 temperature	工作温度: -20℃~+60℃, 存储温度: -30℃~+70℃ Working temperature: -20 °C ~ + 60 °C, storage temperature: -30 °C ~ + 70 °C
	湿度 humidity	≤95%RH, 不结露, 无腐蚀性气体场所 No condensation, no corrosive gas
	海拔 altitude	≤2000m

3.2 机械特性 Mechanical characteristics

表 2 机械特性 (单位: mm) Mechanical characteristics

机械特性 Mechanical characteristics	ADF300L-I	ADF300L-II	ADF300L-III
外形尺寸 (长×宽×高) Dimensions (Length × Width × Height)	332×376×132	492×376×132	672×376×132
最大接线能力 (柔性电缆) Maximum wiring capacity (Flexible cable)	电压进线电缆 (截面长方形) 为 25mm×9mm 电压出线电缆 (截面圆形) 为 25mm ² Voltage incoming cable (rectangular cross-section) is 25mm × 9mm Voltage outcoming cable (circular cross-section) is 25mm ²		
安装方式 Installation method	壁挂, 使用 4 个 M8 的螺丝固定 Wall-mounted, fixed with 4 M8 screws		

4 主要功能 Main functions

表 3 主要功能 Main functions

型号 model	类型 Type	最多用户 Most users	反窃电 Anti- stealing	远程 抄表 Remote meter reading	远程 控制 remote control	定时 控制 Timing control	强控 控制 Strong control	过载 保护 Overload protection	用电量查 询 Power consumption query	剩余电 量查询 Inquiry of remaining battery
ADF300L-I	计量型 Metering	4S 或 12D 4S or 12D	√	√					√	
	预付费型 Prepaid	4SY 或 12DY 4S or 12Y	√	√	√	√	√	√	√	√
ADF300L-II	计量型 Metering	8S 或 24D 8S or 24D	√	√					√	
	预付费型 Prepaid	8S 或 24DY 8S Or 24DY	√	√	√	√	√	√	√	√
ADF300L-III	计量型 Metering	12S 或 36D 12S or36D	√	√					√	
	预付费型 Prepaid	12SY Or 36DY	√	√	√	√	√	√	√	√

5 外形及安装尺寸 (单位: mm) Outline and installation dimensions

5.1 使用注意事项 Precautions

ADF300L 系列多用户计量箱使用进线需与配套塑壳断路器配合使用, 出线与配套微型断路器配合使用; 出线端子采用双螺丝拧紧, 严禁仅使用一只螺丝拧紧固定。

The ADF300L series multi-user metering box uses the incoming line to be used in conjunction with the matching molded case circuit breaker, and the outgoing line is used in conjunction with the matching miniature circuit breaker; the outgoing terminal is tightened with double screws, and it is strictly prohibited to use only one screw to fix it.

5.2 产品尺寸 Product Size

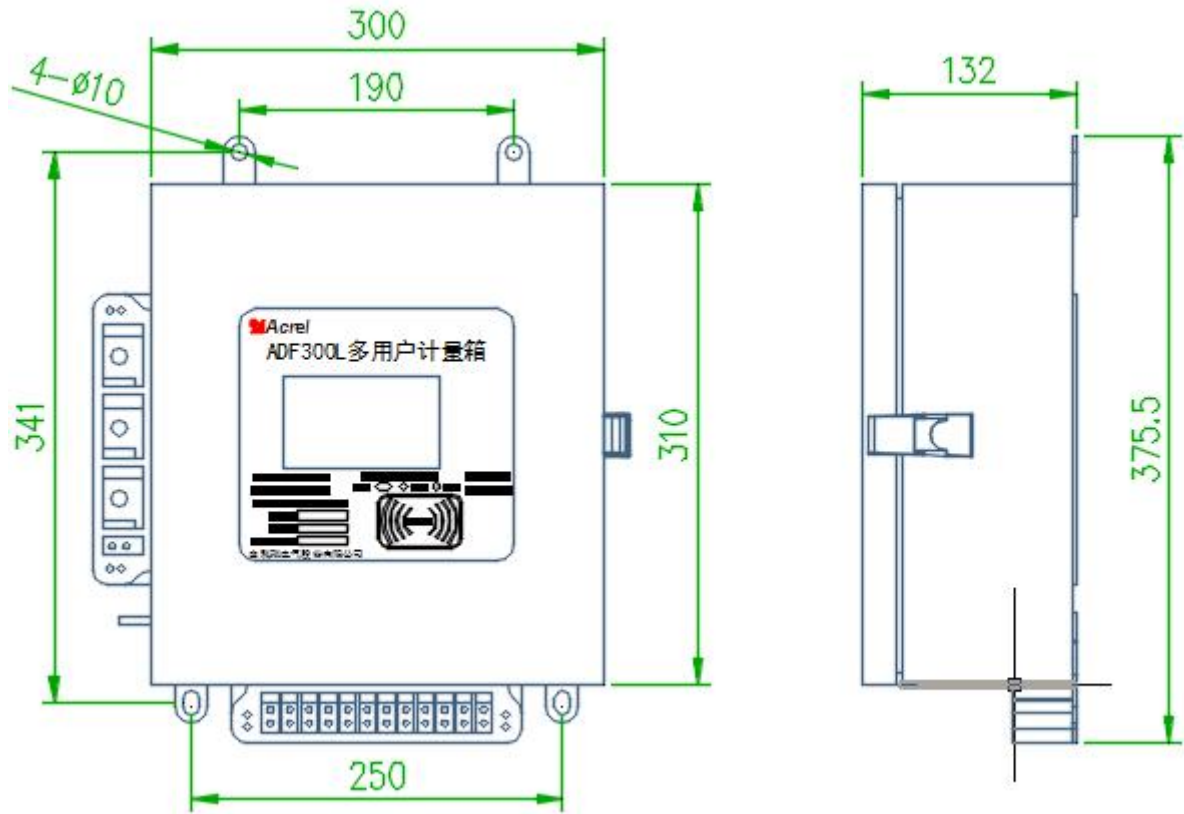


图 1 ADF300L-I 尺寸

Figure 1 ADF300L-I size

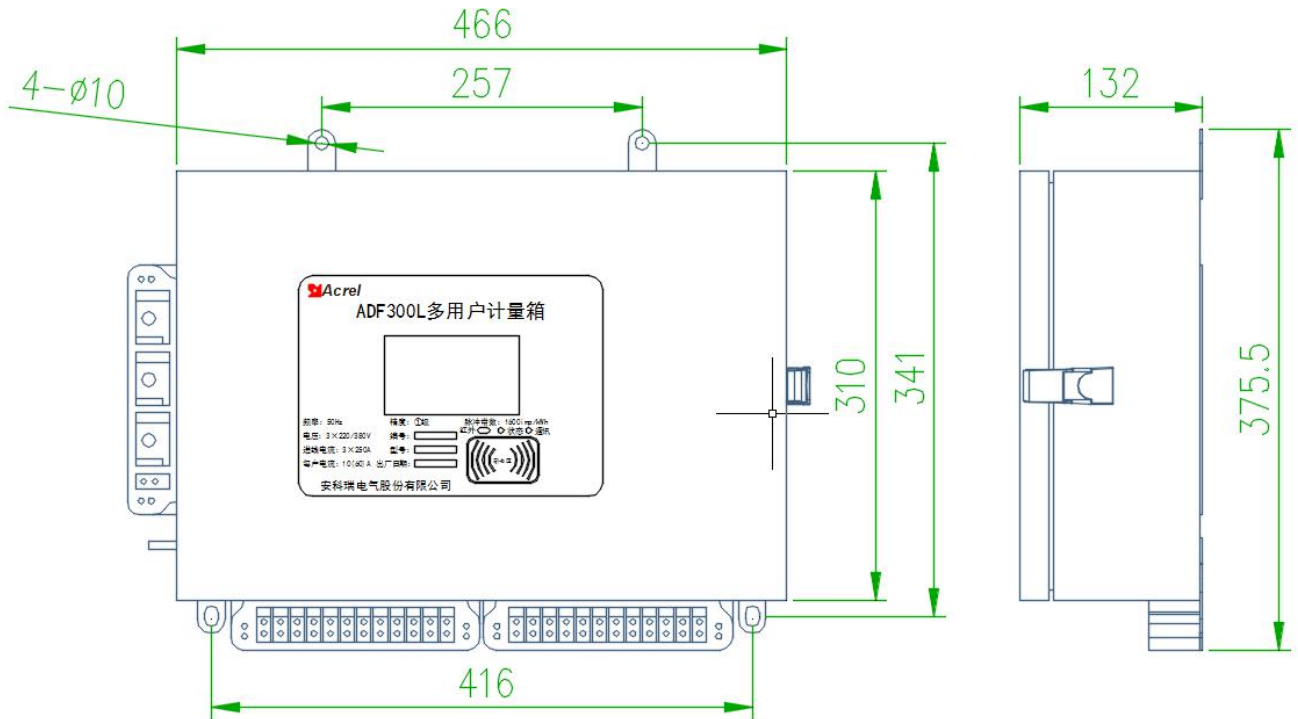


图 2 ADF300L-II 尺寸

Figure 2 ADF300L-II size

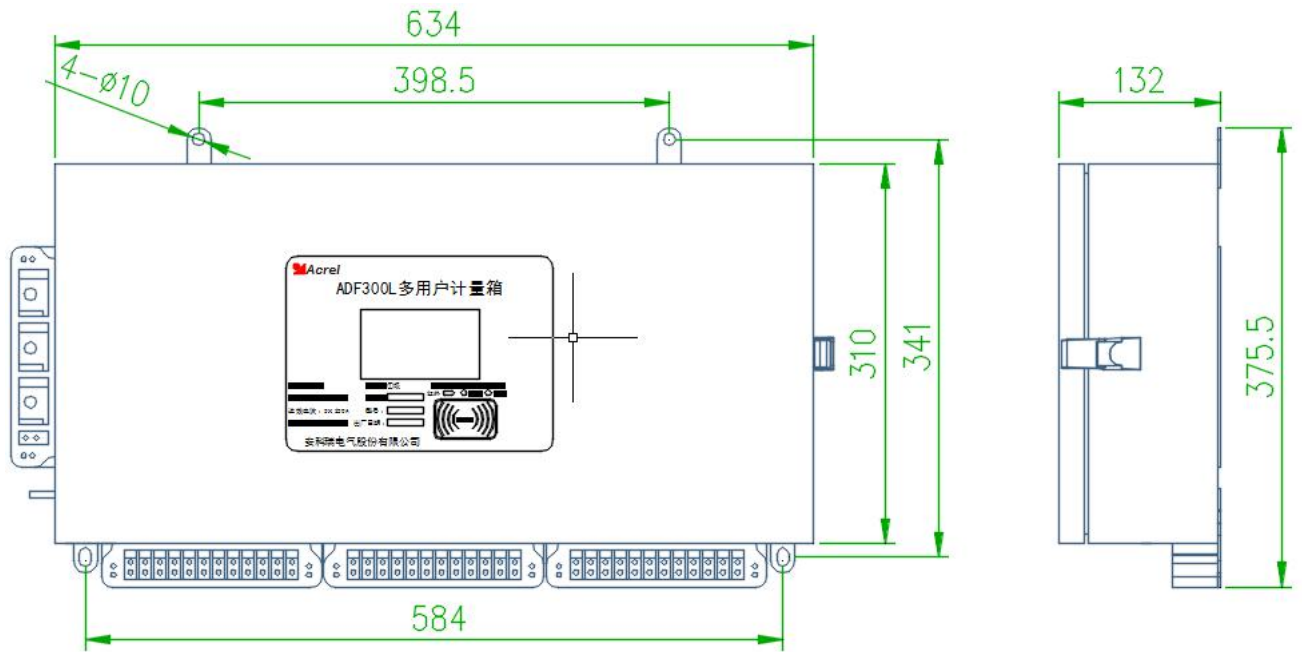


图 3 ADF300L-III 尺寸

Figure 3 ADF300L-III size

6 接线与安装 Wiring and installation

- ADF300L 系列多用户计量箱垂直悬挂在悬挂处，并用四个 M8 螺钉拧紧固定。
- ADF300L series multi-user metering box is hung vertically at the hanging place, and fastened with four M8 screws
- 注意接地线与箱子之间接触良好。
- Note that the ground wire is in good contact with the box.

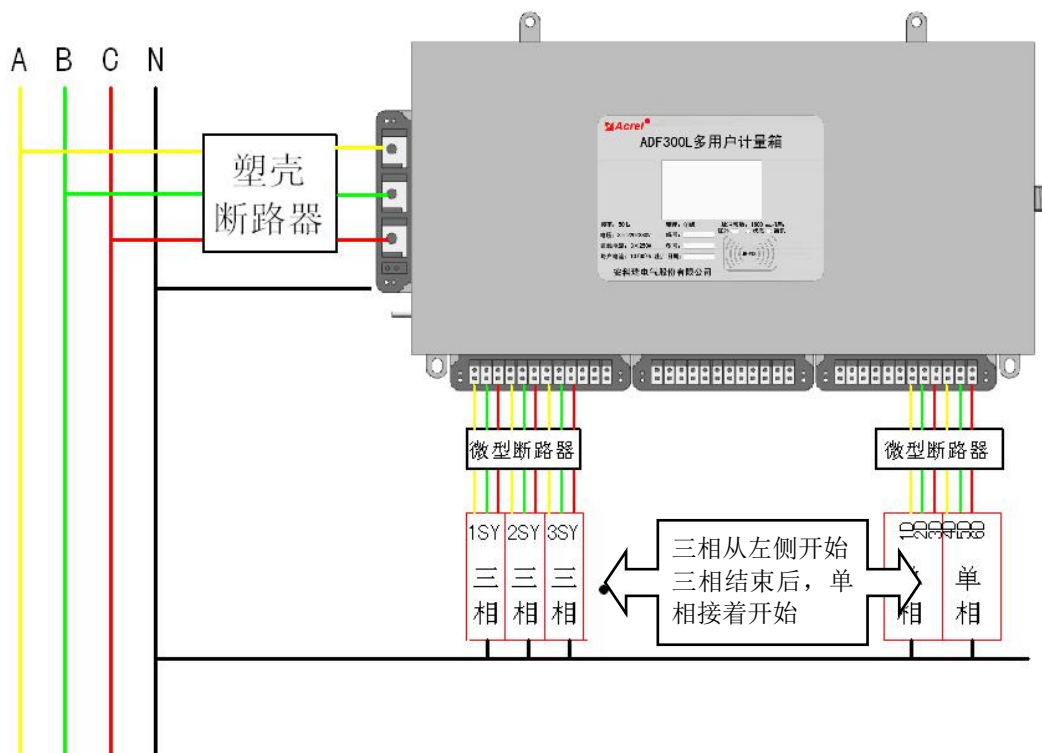


图 4 接线示意图 Figure 4 Wiring diagram

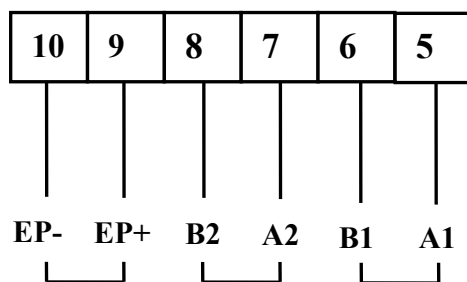


图 5 侧面端子接线

Figure 5 Side terminal wiring

7 功能说明 Function Description

7.1 有功电能计量 Active energy measurement

每块计量板均可计量每一用户总用电量，且反向计入正向。

Each metering board can measure the total electricity consumption of each user, and the reverse is included in the positive direction.

7.2 继电器控制（仅限预付费型）Relay control (prepaid type only)

7.2.1 无费关断（预付费控制）No-charge shutdown (prepaid control)

当用户用电时，递增用户总用电量，并递减计量用户剩余电量。当用户剩余电量为 0 时，电能表自动拉闸断电，只有用户购电后才可恢复用电。

When the user uses electricity, the user's total power consumption is incremented, and the user's remaining power is decremented. When the user's remaining power is 0, the energy meter automatically turns off the power, and the power can only be restored after the user purchases the power.

7.2.2 定时断电（时控）Timed power off (time control)

多用户电能表可对用户用电进行时间控制，电能表通过后台管理软件，设定自动断电、上电时间，方便对用户的用电管理。

The multi-user energy meter can control the time of the user's electricity. The energy meter can set the automatic power-off and power-on time through the background management software to facilitate the management of the user's electricity.

7.2.3 超负荷断电（负控）

Overload power off (negative control)

多用户电能表可设置用户的最大负荷功率，当用户的实际功率大于设定值时，计量箱自动切断该户供电电路，功率未超过最大负荷功率设定值，并且客户有恶性负载识别需求，计量箱可自动判断，如判断是恶性负载，则切断该用户供电，一段时间后(可设定)，可自动恢复供电，当恢复次数超过设定值时，不能自动恢复供电，用户必须手动清零恢复次数方可供电。

The multi-user energy meter can set the user's maximum load power. When the user's actual power is greater than the set value, the metering box automatically cuts off the household power supply circuit, the power does not exceed the maximum load power setting value, and the customer has a vicious load identification requirement, The metering box can be automatically judged. If it is judged as a vicious load, the power supply of the user is cut off. After a period of time (settable),

the power supply can be automatically restored. When the number of recovery exceeds the set value, the power supply cannot be automatically restored. The power can only be supplied after zero recovery times.

7.2.4 强制断电 (强控) Forced power off (strong control)

多用户计量箱可以由后台管理系统今次那个强制断电、送电控制、使管理中心可以及时的处理突发事件。

注意：以上四种控制中，当强控打开时，其它控制均无效。

The multi-user metering box can be controlled by the background management system for forced power off and power transmission, so that the management center can handle emergencies in a timely manner.

Note: In the above four controls, when the strong control is turned on, the other controls are invalid.

8 显示说明 Display Description

8.1 显示举例 Display example



图 6

Figure 6



图 7

Figure 7

图 6 用户 1 为三相跳闸用户，用电量 200 kWh，剩余金额为负 100 元；

Figure 6 User 1 is a three-phase trip user, the power consumption is 200 kWh, and the remaining

amount is minus 100 yuan;

图7 用户2为单相未跳闸用户，用电量200 kWh，剩余金额为100元。

Figure 7 User 2 is a single-phase non-tripped user, the power consumption is 200 kWh and a remaining amount of 100 yuan.

9 通信说明 Communication Description

9.1 通信协议 Communication protocol

本电能表采用 MODBUS-RTU 协议及 DL/T645 规约。具体协议格式请参照相关协议标准，此处不再赘述。当复费率功能 F 未选用时，对应的复费率数据项无意义。

This electric energy meter adopts MODBUS-RTU protocol and DL / T645 protocol. For the specific protocol format, please refer to the relevant protocol standards, which will not be repeated here. When the multiple rate function F is not selected, the corresponding multiple rate data item is meaningless.

使用 Modbus 协议进行通讯时，读数据功能码为 03H，写数据功能码为 10H。

When using Modbus protocol for communication, the function code for reading data is 03H and the function code for writing data is 10H.

9.2 MODBUS 通信地址说明 MODBUS communication address description

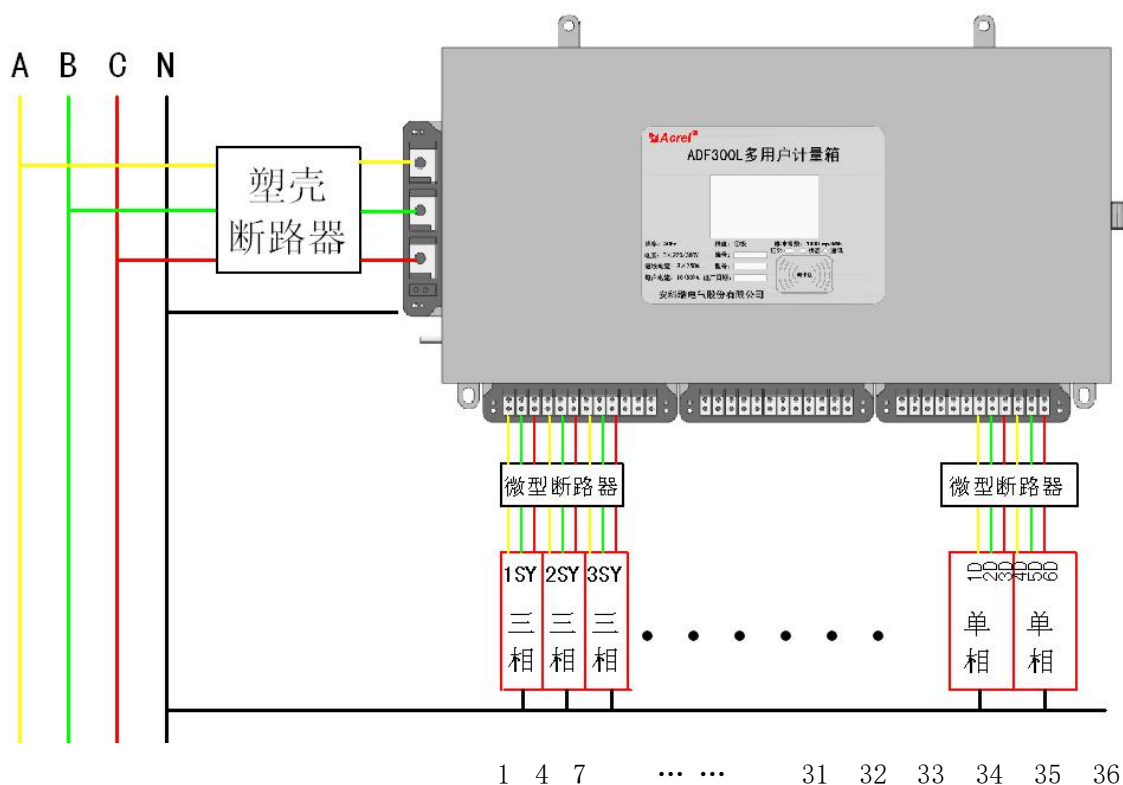


图8 通讯地址示意

Figure 8 Communication address

如图8: As shown in Figure 8:

对于36路计量箱，假设箱号为N，则每一回路地址从左往右依次为(N, N+1, N+2, ... N+35)，箱号可通过通讯设置。

For the 36-channel metering box, assuming that the box number is N, the address of each loop

is (N, N + 1, N + 2, ... N + 35) from left to right, and the box number can be set by communication.

连接到同一总线上的箱号必须不同，且箱号的取值为（1、 37 、 73....）；

Box numbers connected to the same bus must be different, and the value of the box number should be (1, 37, 73 ...)

左边三户为三相，通讯地址依次为 1、 4 、 7(箱号为 1)；

The three households on the left are three-phase, and the communication addresses are 1, 4, 7 (box number is 1);

右边六户为单相，通讯地址从左到右依次为 31、 32、 33、 34、 35、 36。

The six households on the right are single-phase, and the communication addresses are 31, 32, 33, 34, 35, 36 from left to right.

9.3 MODBUS 通信地址表 Correspondence address table

表 4 通讯地址表 Correspondence address table

起始地址 starting address	数据项 data item	R/W	长度 length	基准单位 Benchmark unit	备注 Remarks
0x0300	单相电压 Single-phase voltage	R	2	0.1V	U（无符号整型，下同）
0x0301	单相电流 Single-phase current	R	2	0.01A	U
0x0302	单相有功功率 Single-phase active power	R	2	0.001kW	I（有符号整型，下同）
0x0303	单相无功功率 Single-phase reactive power	R	2	0.001kvar	I
0x0304	单相功率因数 Single-phase power factor	R	2	0.001	I
0x0305	单相频率 Single-phase frequency	R	2	0.01Hz	U
0x0306	单相有功电能 Single-phase active energy	R	4	0.01kWh	U
0x0307					
0x0308	单相无功电能 Single-phase reactive energy	R	4	0.01kvarh	U
0x0309					
0x030A	单相剩余电能 Single-phase residual energy	R	4	0.01 kWh	I
0x030B					
0x030C	单相总购电量 Single-phase total power	R	4	0.01 kWh	U
0x030D					
0x030E	单相购电次数 Number of single-phase power purchases	R	2	/	U

0x030F	单相基础电量 Single-phase basic power	R	4	0.01 kWh	U
0x0310	单相状态字 Single-phase status word	R	2	/	U
0x0311	单相基础电量 Single-phase basic power	R	4	0.01 kWh	I
0x0312	单相基础电量 Single-phase basic power	R	4	0.01 kWh	I
0x0313	单相基础电量 Single-phase basic power	R	4	0.01 kWh	I
0x0314	保留 retaining	R	2	/	U
0x033F	A相电压 A Phase voltage	R	2	0.1V	U
0x0340	B相电压 B Phase voltage	R	2	0.1V	U
0x0341	C相电压 C Phase voltage	R	2	0.1V	U
0x0342	A相电流 A Phase current	R	2	0.01A	U
0x0343	B相电流 B Phase current	R	2	0.01A	U
0x0344	C相电流 C Phase current	R	2	0.01A	U
0x0345	总有功功率 Total active power	R	2	1W	I
0x0346	A相有功功率 A Phase active power	R	2	0.001kW	I
0x0347	B相有功功率 B Phase active power	R	2	0.001kW	I
0x0348	C相有功功率 C Phase active power	R	2	0.001kW	I
0x0349	总无功功率 Total reactive power	R	2	0.001kvar	I
0x034A	A相无功功率 A Phase reactive power	R	2	0.001kvar	I
0x034B	B相无功功率 B Phase reactive power	R	2	0.001kvar	I
0x034C	C相无功功率 C Phase reactive power	R	2	0.001kvar	I
0x034D	总功率因数 Total power factor	R	2	0.001	I
0x034E	A相功率因数 A Phase power factor	R	2	0.001	I
0x034F	B相功率因数 B Phase power factor	R	2	0.001	I
0x0350	C相功率因数 C Phase power factor	R	2	0.001	I

0x0351	频率 frequency	R	2	0.01Hz	U
0x0352	A相有功电能	R	4	0.01 kWh	U
0x0353	A Phase active energy				
0x0354	B相有功电能	R	4	0.01 kWh	U
0x0355	B Phase active energy				
0x0356	C相有功电能	R	4	0.01 kWh	U
0x0357	C Phase active energy				
0x0358	A相无功电能	R	4	0.01kvarh	U
0x0359	A Phase reactive energy				
0x035A	B相无功电能	R	4	0.01kvarh	U
0x035B	B Phase reactive energy				
0x035C	C相无功电能	R	4	0.01kvarh	U
0x035D	C Phase reactive energy				
0x035E	总有功电能	R	4	0.01 kWh	U
0x035F	Total active energy				
0x0360	总无功电能	R	4	0.01kvarh	U
0x0361	Total reactive energy				
0x0362	剩余金额	R	4	0.01 元	I
0x0363	remaining amount				
0x0364	总购电金额	R	4	0.01 元	U
0x0365	Total power purchase amount				
0x0366	购电次数 Number of power purchases	R	2	/	U
0x0367	基础金额	R	4	0.01 元	U
0x0368	Base amount				
0x0369	运行状态字 Running status word	R	2	/	U
0x036A	基础电量剩余	R	4	0.01 元	U
0x036B	Basic battery remaining				
0x036C	保留 Retaining	R	2	/	U
复费率区 Multiple rate zone					
0x0400	单相有功尖电能	R/W	4	0.01 kWh	U
0x0401	Single-phase active sharp energy				
0x0402	单相有功峰电能	R/W	4	0.01 kWh	U
0x0403	Single-phase active peak energy				

0x0404	单相有功平电能					
0x0405	Single-phase active flat energy	R/W	4	0.01 kWh		U
0x0406	单相有功谷电能					
0x0407	Single-phase active Valley energy	R/W	4	0.01 kWh		U
0x0408	单相无功尖电能					
0x0409	Single-phase reactive sharp energy	R/W	4	0.01k varh		U
0x040A	单相无功峰电能					
0x040B	Single-phase reactive peak energy	R/W	4	0.01k varh		U
0x040C	单相无功平电能					
0x040D	Single-phase reactive flat energy	R/W	4	0.01k varh		U
0x040E	单相无功谷电能					
0x040F	Single-phase reactive Valley energy	R/W	4	0.01k varh		U
0x0430	三相有功尖电能					
0x0431	three-phase active sharp energy	R/W	4	0.01 kWh		U
0x0432	三相有功峰电能					
0x0433	three-phase active peak energy	R/W	4	0.01 kWh		U
0x0434	三相有功平电能					
0x0435	three-phase active flat energy	R/W	4	0.01 kWh		U
0x0436	三相有功谷电能					
0x0437	three-phase active valley energy	R/W	4	0.01 kWh		U
0x0438	三相无功尖电能					
0x0439	three-phase reactive sharp energy	R/W	4	0.01k varh		U
0x043A	三相无功峰电能					
0x043B	three-phase reactive peak energy	R/W	4	0.01kvarh		U
0x043C	三相无功平电能					
0x043D	three-phase reactive flat energy	R/W	4	0.01kvarh		U
0x043E	三相无功谷电能					
0x043F	three-phase reactive valley energy	R/W	4	0.01kvarh		U
预付费区 Prepaid area						
0x0500	单相预付费开关	R/W	2	/		U

	Single-phase prepaid switch				
0x0501	单相尖电价	R/W	4	0.01 元 /kWh	U
0x0502	Single-phase sharp electricity price				
0x0503	单相峰电价				
0x0504	Single-phase peak electricity price				
0x0505	单相平电价				
0x0506	Single-phase flat electricity price				
0x0507	单相谷电价				
0x0508	Single-phase valley electricity price				
0x0509	单相报警金额 1	R/W	4	0.01 元	U
0x050A	Single-phase alarm amount 1				
0x050B	单相报警金额 2	R/W	4	0.01 元	U
0x050C	Single-phase alarm amount 2				
0x050D	单相新购电金额	R/W	4	0.01 元	U
0x050E	Single-phase new power purchase amount				
0x050F	单相购电次数	R/W	2	/	U
0x0510	单相基础金额	R/W	4	0.01 元	U
0x0511	Single phase basic amount				
0x0512	单相预付费开关	R/W	2	/	U
	Single-phase prepaid switch				
0x0536	三相预付费开关	R/W	2	/	
	Three-phase prepaid switch				
0x0537	三相尖电价	R/W	4	0.01 元 /kWh	U
0x0538	Three-phase sharp electricity price				
0x0539	三相峰电价				
0x053A	Three-phase peak electricity price				
0x053B	三相平电价				
0x053C	Three-phase flat electricity price				
0x053D	三相谷电价				
0x053E	Three-phase valley electricity price				

0x053F	三相报警金额 1				
0x0540	Three-phase alarm amount 1	R/W	4	0.01 元	U
0x0541	三相报警金额 2				
0x0542	Three-phase alarm amount 2	R/W	4	0.01 元	U
0x0543	三相新购电金额				
0x0544	Three-phase new power purchase amount	R/W	4	0.01 元	U
0x0545	三相购电次数				
0x0545	Number of three-phase power purchases	R/W	2	/	U
0x0546	三相基础金额				
0x0547	Three-phase basic amount	R/W	4	0.01 元	U
时控区 Time zone					
0x0600	单相时控开关				
0x0600	Single-phase time-controlled switch	R/W	2		U
0x0601	开关 1, 时 1				
0x0601	Switch 1, hour 1				
0x0602	分 1, 开关 2				
0x0602	Minute 1, switch 2				
0x0603	时 2, 分 2				
0x0603	Hour 2, minute 2				
0x0604	开关 3, 时 3				
0x0604	Switch 3, hour 3				
0x0605	分 3, 开关 4				
0x0605	Minute 3, Switch 4				
0x0606	时 4, 分 4				
0x0606	Hour 4, minute 4				
0x0607	开关 5, 时 5				
0x0607	Switch 5, hour 5	R/W	8 x 3		单相工作日时控表 U
0x0608	分 5, 开关 6				
0x0608	minute 5, switch 6				
0x0609	时 6, 分 6				
0x0609	Hour 6, minute 6				
0x060A	开关 7, 时 7				
0x060A	Switch 7, hour 7				
0x060B	分 7, 开关 8				
0x060B	minute 7, switch 8				
0x060C	时 8, 分 8				
0x060C	Hour 8, minute 8				

0x060D	开关 1, 时 1 Switch 1, hour 1				
0x060E	分 1, 开关 2 minute 1, switch 2				
0x060F	时 2, 分 2 Hour 2, minute 2				
0x0610	开关 3, 时 3 Switch 3, hour 3				
0x0611	分 3, 开关 4 minute 3, switch 4				
0x0612	时 4, 分 4 Hour 4, minute 4	R/W	8 x 3	■	单相休息日时控表 U
0x0613	开关 5, 时 5 Switch 5, hour 5				
0x0614	分 5, 开关 6 minute 5, switch 6				
0x0615	时 6, 分 6 Hour 6, minute 6				
0x0616	开关 7, 时 7 Switch 7, hour 7				
0x0617	分 7, 开关 8 minute 7, switch 8				
0x0618	时 8, 分 8 Hour 8, minute 8				
0x0619	单相休息日设置字 Single phase rest day set word	R/W	2	■	U
0x064E	三相时控开关 Three-phase time-controlled switch	R/W	2	■	U
0x064F	开关 1, 时 1 Switch 1, hour 1				
0x0650	分 1, 开关 2 minute 1, switch 2				
0x0651	时 2, 分 2 Hour 2, minute 2				
0x0652	开关 3, 时 3 Switch 3, hour 3				
0x0653	分 3, 开关 4 minute 3, switch 4	R/W	8 x 3	/	三相工作日时控表 U
0x0654	时 4, 分 4 Hour 4, minute 4				
0x0655	开关 5, 时 5 Switch 5, hour 5				
0x0656	分 5, 开关 6 minute 5, switch 6				

0x0657	时 6, 分 6 Hour 6, minute 6				
0x0658	开关 7, 时 7 Switch 7, hour 7				
0x0659	分 7, 开关 8 minute 7, switch 8				
0x065A	时 8, 分 8 Hour 8, minute 8				
0x065B	开关 1, 时 1 Switch 1, hour 1				
0x065C	分 1, 开关 2 Minute 1, switch 2				
0x065D	时 2, 分 2 Hour 2, minute 2				
0x065E	开关 3, 时 3 Switch 3, hour 3				
0x065F	分 3, 开关 4 Minute 3, switch 4				
0x0660	时 4, 分 4 Hour 4, minute 4	R/W	8 x 3		三相休息日时控表 U
0x0661	开关 5, 时 5 Switch 5, hour 5				
0x0662	分 5, 开关 6 Minute 5, switch 6				
0x0663	时 6, 分 6 Hour 6, minute 6				
0x0664	开关 7, 时 7 Switch 7, hour 7				
0x0665	分 7, 开关 8 Minute 7, switch8				
0x0666	时 8, 分 8 Hour 8, minute 8				
0x0667	三相休息日设置字 Three-phase rest day setting word				
负控区 Negative control area					
0x0700	单相负控开关 Single-phase negative control switch	R/W	2	/	U
0x0701	单相最大功率阈值 Single-phase maximum power threshold	R/W	2	0.001kW	U
0x0702	单相有功增量阈值	R/W	2	0.001kW	U

	Single-phase active power increment threshold				
0x0703	单相功率因数阈值 Single-phase power factor threshold	R/W	2	/	U
0x0704	单相负控次数 Single-phase negative control times	R/W	2	/	U
0x0705	单相负控允许次数 Single-phase negative control allowed times	R/W	2	/	U
0x0706	单相负控恢复时间 Single-phase negative control recovery time	R/W	2	10s	U
0x0707	单相失压阈值 Single-phase voltage loss threshold	R/W	2	0.1V	U
0x0718	三相负控开关 Three-phase negative control switch	R/W	2	/	U
0x0719	三相最大功率阈值 Three-phase maximum power threshold	R/W	2	0.001kW	U
0x071A	三相有功增量阈值 Three-phase active power increment threshold	R/W	2	0.001kW	U
0x071B	三相功率因数阈值 Three-phase power factor threshold	R/W	2	/	U
0x071C	三相负控次数 Three-phase negative control times	R/W	2	/	U
0x071D	三相负控允许次数 Three-phase negative control allowed times	R/W	2	/	U
0x071E	三相负控恢复时间 Three-phase negative control recovery time	R/W	2	10s	U
0x071F	三相失压阈值 Three-phase voltage loss threshold	R/W	2	0.1V	U
强控区 Strong control area					
0x0800	单三相类别 Single three-phase	R/W	2	/	0: 三相, 1: 单相 0: three-phase, 1:

	category				single-phase
0x0801	单相强控控制字 Single-phase strong control word	R/W	2	/	高位 1: 打开, 低位 1: 闭合 High bit 1: open, low bit 1: closed
0x0804	三相强控控制字 Three-phase strong control word	R/W	2	/	高位 1: 打开, 低位 1: 闭合 High bit 1: open, low bit 1: closed
系统参数区 System parameter area					
0x0900	地址 1 Address 1	R/W	2	/	0~247
0x0901	波特率 1 Baud rate 1	R/W	2	/	
0x0902	密码 password	R/W	2	/	
0x0903	三相回路数 Number of three-phase circuits	R/W	2	/	0~12
0x0904	单相回路数 Number of single-phase circuits	R/W	2	/	0~36
0x0905	DLT645 地址 1,2 DLT645 Address 1, 2	R/W	2	/	BCD 码
0x0906	DLT645 地址 3,4 DLT645 Address 3, 4	R/W	2	/	BCD 码
0x0907	DLT645 地址 5,6 DLT645 Address 5, 6	R/W	2	/	BCD 码
0x0908	协议选择 Protocol selection	R/W	2	/	Modbus 或者 DLT645 选择 Modbus or DLT645 options
0x0909	强控标记 Strong control mark	R/W	2	/	未启用 Not activated
0x090A	IC 卡是否使能 Whether the IC card is enabled	R/W	2	/	
0x090B	秒/分 Sec / min	R/W	2	/	
0x090C	时/星期 Hour / week	R/W	2	/	
0x090D	日/月 Day / month	R/W	2	/	
0x090E	年/预留 Year / Reservation	R/W	2	/	
0x090F	类型 (单相回路数) Type (number of	R/W	2	/	0:36 1:24 2:12

	single-phase circuits)				
0x0910	总单相回路数 Total number of single-phase circuits	R/W	2	/	箱体总回路数（单相）
0x0911	地址 2 Address 2	R/W	2	/	第二路通讯地址
0x0912	波特率 2 Baud rate 2	R/W	2	/	第二路通讯波特率
0x0913	空缺下板控制字 Vacant lower board control word	R/W	2	/	未启用
0x0914	时段 1, 时 1 period 1, hour 1	R/W	14 x 3		复费率时段 1 U
0x0915	分 1, 时段 2 Minute 1, period 2				
0x0916	时 2, 分 2 Hour 2, minute 2				
0x0917	时段 3, 时 3 period 3, hour 3				
0x0918	分 3, 时段 4 Minute 3, period 4				
0x0919	时 4, 分 4 Hour 4, minute 4				
0x091A	时段 5, 时 5 period 5, hour 5				
0x091B	分 5, 时段 6 Minute 5, period 6				
0x091C	时 6, 分 6 Hour 6, minute 6				
0x091D	时段 7, 时 7 period 7, hour 7				
0x091E	分 7, 时段 8 Minute 7, period 8				
0x091F	时 8, 分 8 Hour 8, minute 8				
0x0920	时段 9, 时 9 period 9, hour 9				
0x0921	分 9, 时段 10 Minute 9, period 10				
0x0922	时 10, 分 10 Hour 10, minute 10				
0x0923	时段 11, 时 11 period 11, hour 11				
0x0924	分 11, 时段 12 Minute 11, period 12				
0x0925	时 12, 分 12				

	Hour 12, minute 12			
0x0926	时段 13, 时 13 period 13, hour 13			
0x0927	分 14, 时段 14 Minute 14, period 14			
0x0928	时 14, 分 14 Hour 14, minute 14			
0x0929	时段 1, 时 1 period 1, hour 1	R/W	14 x 3	
0x092A	分 1, 时段 2 Minute 4, period 2			
0x092B	时 2, 分 2 Hour 2, minute 2			
0x092C	时段 3, 时 3 period 3, hour 3			
0x092D	分 3, 时段 4 Minute 3, period 4			
0x092E	时 4, 分 4 Hour 4, minute 4			
0x092F	时段 5, 时 5 period 5, hour 5			
0x0930	分 5, 时段 6 Minute 5, period 6			
0x0931	时 6, 分 6 Hour 6, minute 6			
0x0932	时段 7, 时 7 period 7, hour 7			
0x0933	分 7, 时段 8 Minute 7, period 8			
0x0934	时 8, 分 8 Hour 8, minute 8			
0x0935	时段 9, 时 9 period 9, hour 9			
0x0936	分 9, 时段 10 Minute 9, period 10			
0x0937	时 10, 分 10 Hour 10, minute 10			
0x0938	时段 11, 时 11 Period 11, hour 11			
0x0939	分 11, 时段 12 Minute 11, period 12			
0x093A	时 12, 分 12 Hour 12, minute 12			
0x093B	时段 13, 时 13 Period 13, hour 13			

复费率时段表 2
U

0x093C	分 14, 时段 14 Minute 14, period 14				
0x093D	时 14, 分 14 Hour 14, minute 14				
0x093E	时段表号/日期: 日 Timetable No./Date: Day	R/W	4 x 3		
0x093F	日期: 月/时段表号 Date: Month / Time Table Number				
0x0940	日期: 日/日期: 月 Date: Day / Date: Month				时区表 U
0x0941	时段表号/日期: 日 Timetable No./Date: Day				
0x0942	日期: 月/时段表号 Date: Month / Time Table Number				
0x0943	日期: 日/日期: 月 Date: Day / Date: Month				
0x0944	订单编号 1, 2 Order number 1, 2				U
0x0945	订单编号 3, 4 Order number 3, 4				U
0x0946	背光时间 Backlight time				U

10 常见故障排查 Common fault troubleshooting

- 无法通讯 Unable to communicate

检查通讯线连接是否可靠，485A，485B 是否对应连接；

Check whether the communication cable connection is reliable, and whether 485A and 485B correspond to the connection;

进入菜单设置项观察地址与波特率选项是否设置正确；

Enter the menu setting item and observe whether the address and baud rate options are set correctly;

用万用表测量 485A，485B 口的电压是否为 4V 左右，若改箱体已接入 485 总线，测量时需先将箱体的 485 线与总线脱离。

Use a multimeter to measure whether the voltage of the 485A and 485B ports is about 4V. If the cabinet is connected to the 485 bus, the 485 line of the cabinet must be disconnected from the bus before measuring.

- 仪表测量电压电流不正常

- The instrument measures abnormal voltage and current

检查接线是否正确，接头处是否压紧。

Check whether the wiring is correct and the joints are tight.

- 功率测量不正常

- Power measurement is abnormal

检查进线 ABC 相序是否正确。

Check that the incoming ABC phase sequence is correct.

总部：安科瑞电气股份有限公司

Headquarter: Acrel Co., LTD.

地址：上海市嘉定区育绿路 253 号

Address: No.253 Yulv Road Jiading District, Shanghai, China

电话：0086-21-69158338 0086-21-69156052 0086-21-59156392 0086-21-69156971

TEL. : 0086-21-69158338 0086-21-69156052 0086-21-59156392 0086-21-69156971

传真：0086-21-69158303

Fax: 0086-21-69158303

网址：www.acrel-electric.com

Web-site: www.acrel-electric.com

邮箱：ACREL008@vip.163.com

Email: ACREL008@vip.163.com

邮编：201801

Postcode: 201801

生产基地：江苏安科瑞电器制造有限公司

Manufacturer: Jiangsu Acrel Electrical Manufacturing Co., LTD.

地址：江苏省江阴市南闸街道东盟工业园区东盟路 5 号

Address: No.5 Dongmeng Road, Dongmeng industrial Park, Nanzha Street, Jiangyin City, Jiangsu Province, China

电话：0086-510-86179966

TEL: 0086-510-86179966

传真：0086-510-86179975

Fax: 0086-510-86179975

网址：www.jsacrel.com

Web-site: www.jsacrel.com

邮箱：sales@email.acrel.cn

Email: sales@email.acrel.cn

邮编：214405

Postcode: 214405