510

AWT200 智能 DTU

AWT200 Intelligent DTU

安装使用说明书 V1.0

Installation & Operation Manual V1.0

Acrel Co.,Ltd

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申　　明

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一、 概述

1. Overview

AWT200 数据通讯网关应用于各种终端设备的数据采集与数据分析。实现设备的监测、控制、计算，为系统与设备之间建立通讯纽带，实现双向的数据通讯。实时监测并及时发现异常数据，同时自身根据用户规则进行逻辑判断，极大的节省了人力和通讯成本。

AWT200 data communication gateway is used in various terminal equipment data acquisition and data analysis, to realize the monitoring, control and calculation of the equipment, to establish a communication link between the system and the equipment, to achieve two-way data communication. Real-time monitoring and timely discovery of abnormal data, at the same time according to the user rules to make logical judgment, greatly saving manpower and communication costs.

二、 产品型号

2. Product Model

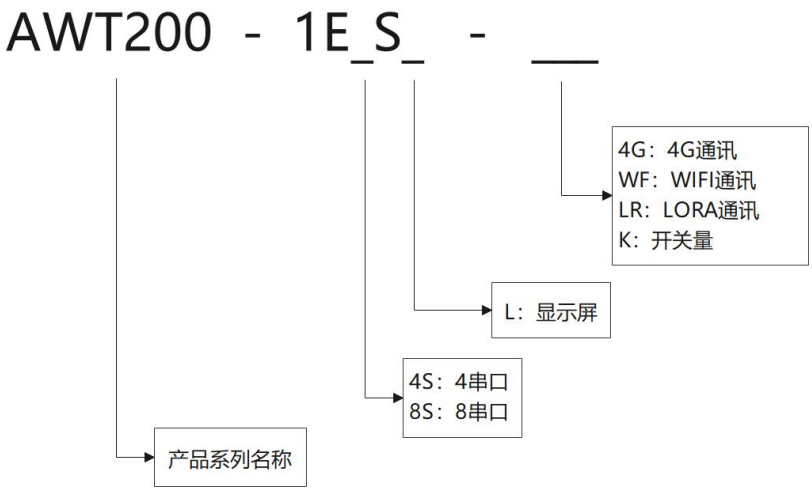


图 1

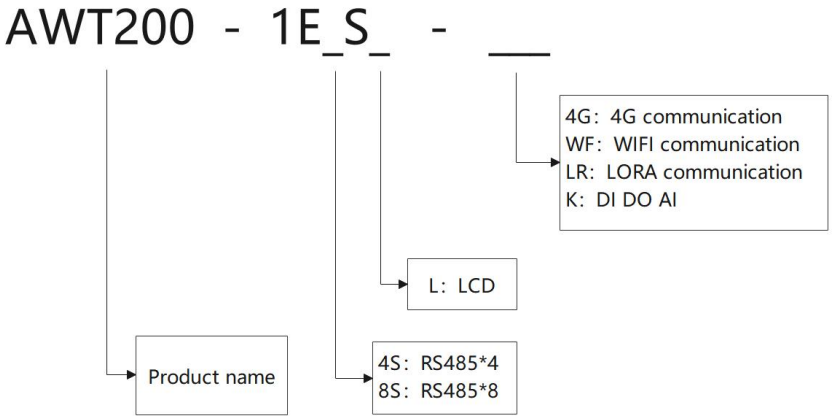


Figure 1

三、 功能特点

3. Function Features

1、支持现场免调试，自适应抄表

2、最大支持 1 万个点位的集中采集

3、大容量存储，支持断点续传

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4、配套管理工具，方便系统配置与维护

5、强大的通讯能力，最多支持 8 路串口、LoRa、以太网、4G、WIFI

6、自带开关量和模拟量输入

7、1.2 寸点阵显示屏及按键

8、支持多种物联网主流通讯协议

9、支持数据逻辑运算及处理

1) Support on-site debugging free, adaptive meter reading
2) The maximum support for centralized collection of 10,000 points
3) Large capacity storage, support resumable breakpoint
4) Supporting management tools, convenient system configuration and maintenance
5) Strong communication ability, up to support 8 serial ports, LoRa, Ethernet, 4G, WIFI
6) With switch quantity and analog quantity input
7) 1.2 inch dot-matrix display screen and buttons
8) Support a variety of mainstream IoT communication protocols
9) Support data logical operation and processing

四、 典型应用

4. Typical Application

AWT200 主动采集现场终端设备的数据信息，进行解析和分析后通过多种通讯方式上传至本地系统或者云端系统，可实现数据远程无线接入网络。

AWT200 takes the initiative to collect data information of on-site terminal devices, analyzes，then uploads them to the local system or cloud system through various communication methods to realize remote wireless data access to the network.

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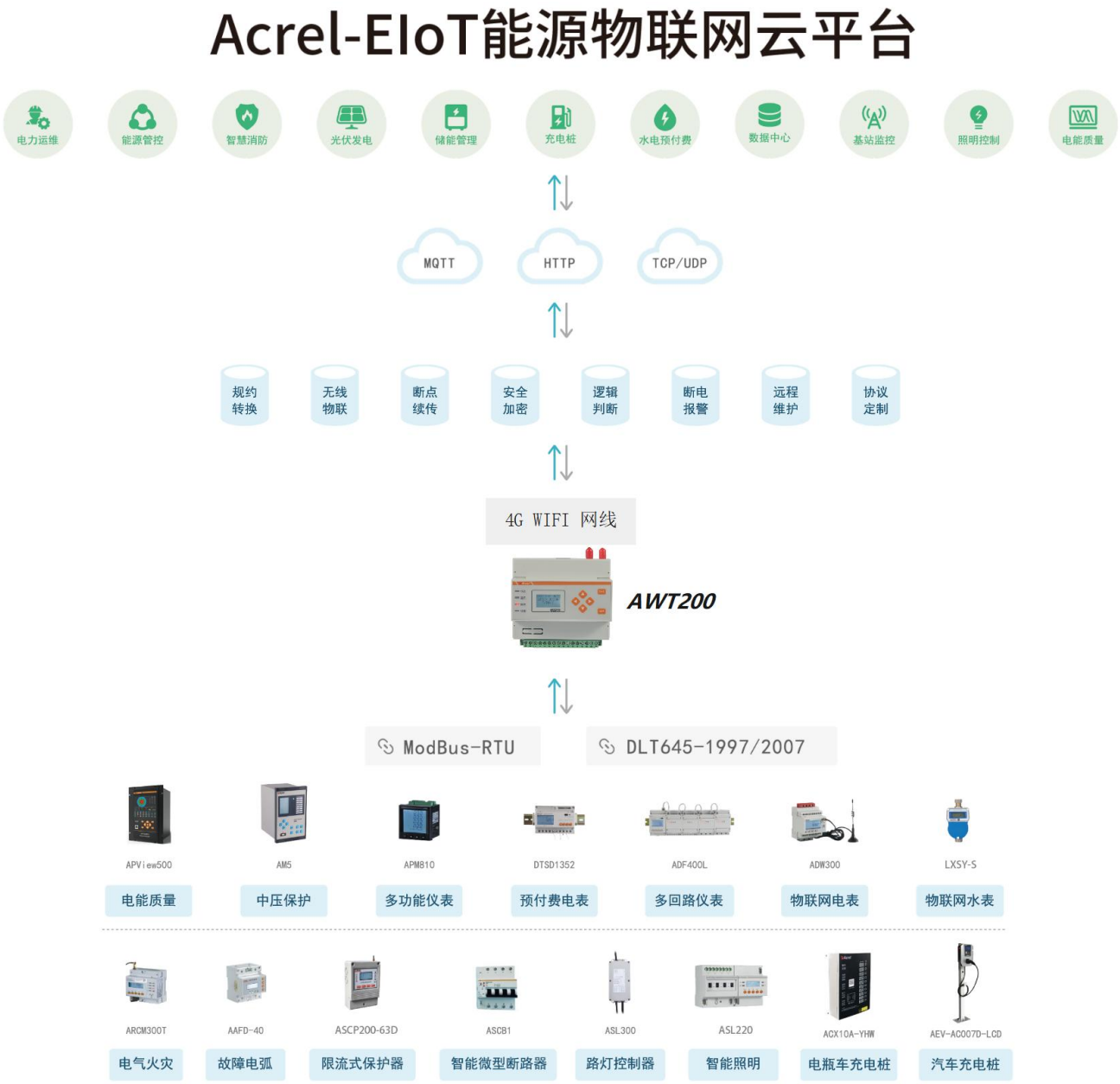


图 2

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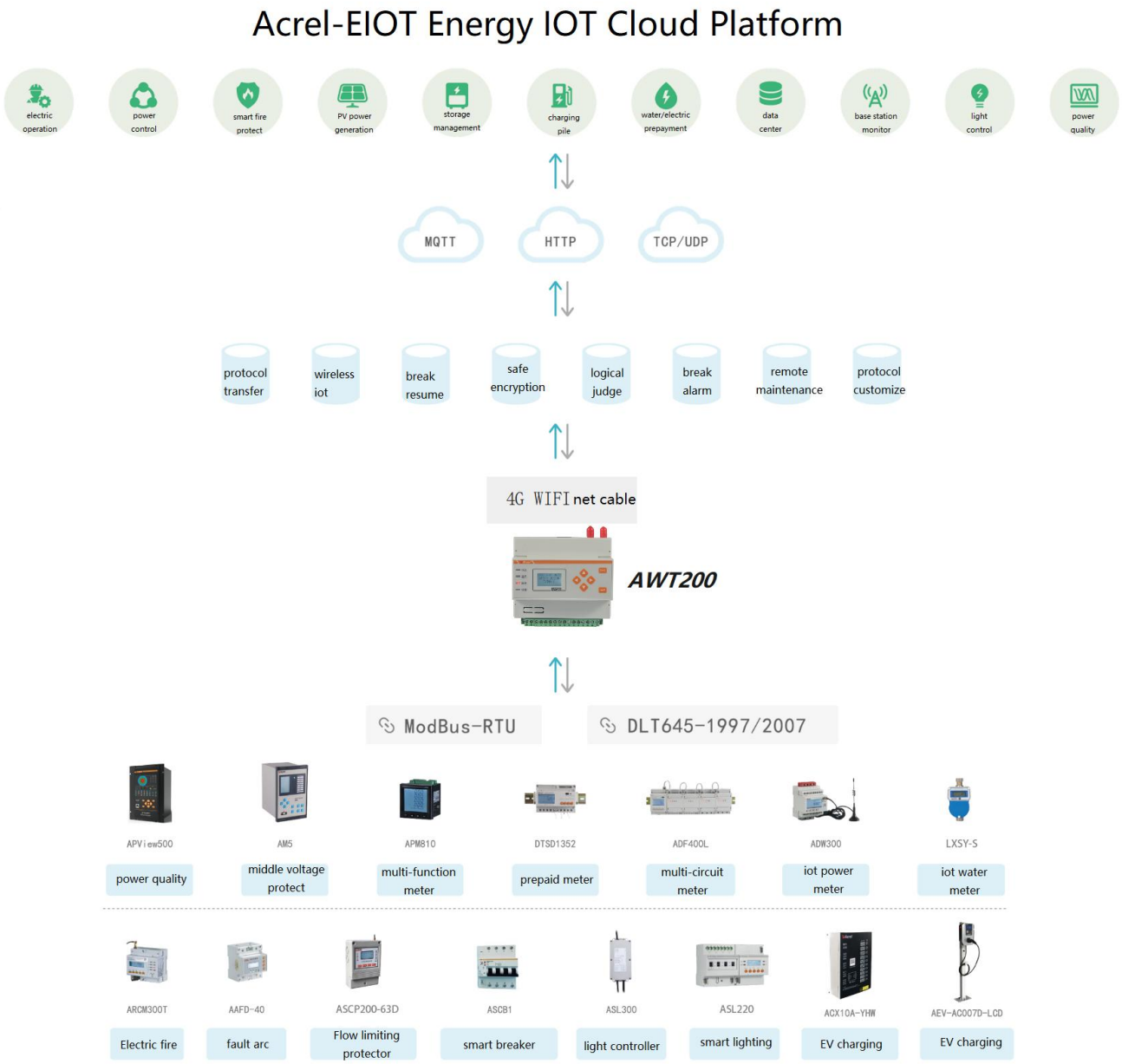


Figure 2

五、 技术参数

5. Technical Parameter

外形 Shape	
接口 Interface	RS485：接线端子 AI/DI/DO：接线端子 RS485: wiring terminal AI/DI/DO: wiring terminal
尺寸 Size	6 模（108mmX88mmX70mm）导轨，阻燃 ABS 材料 6-mold (108mmX88mmX70mm) din-rail, flame retardant ABS material
性能 Performance	
处理器 Processor	M4 内核 M4 Kernel
主频 Frequency	168MHZ

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存储 Storage	8G TF 卡 8G TF Card		
通信接口 Communication Interface			
以太网 Ethernet	10M/100M * 1，电气隔离 Electrical Isolation		
串口 Serial Port	RS485*（4/8）：485A、485B、GND，电气隔离 Electrical Isolation		
串口参数 Serial Port Parameter			
波特率 Baud Rate	1200~115200bps	验位 Check Bit	无、奇、偶 None,Odd,Even
数据位 Data Bit	7～8 位 Bits	流控 Flow Control	无流控 No Flow Control
软件 Software			
IP 方式 IP Mode	IPV4、IPV6		
协议 Protocol	TCP、UDP、HTTP、DHCP		
配置方式 Configuration Mode	Windows 桌面软件、WEB 浏览器、远程调试 Windows Desktop Software, WEB Browser, Remote Debugging		
通信方式 Communication Mode	TCP/IP 直接通讯、RS485、LORA TCP/IP direct communication、RS485、LORA		
通信协议 Protocol	Modbus RTU、Modbus TCP、MQTT		
固件升级 Firmware upgrade	Windows 桌面软件、WEB 浏览器、串口升级 Windows Desktop Software, WEB Browser, Serial port upgrade		
工作模式 Working mode			
TCP 服务器, TCP 客户端，UDP 服务器, UDP 客户端 TCP server, TCP client, UDP server, UDP client			
电源要求 Power Requirements			
电源 Power Supply	DC 12-24V （配电源适配器）（Power Adapter）		
环境要求 Environment			
操作温度 Operating Temperature	-20℃~+55℃		
储存温度 Storage Temperature	-40℃～+85℃		
湿度范围 Humidity Range	<95%RH，不结露 No Condensation		

六、 安装与接线

6. Installation and Wiring

外形尺寸

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Dimension and cut-out size

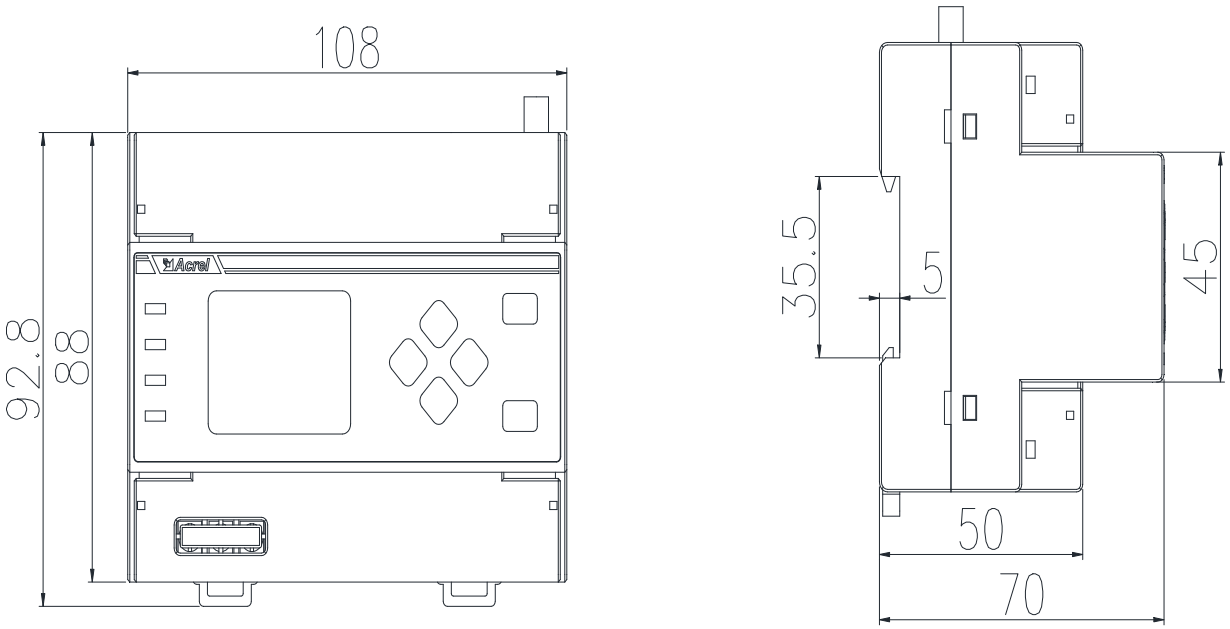


图 3 Figure 3

安装方式

AWT200 数据通讯网关均采用 35mm 标准导轨安装方式。

Installation Method

AWT200 data communication gateway adopts 35mm standard guide rail installation mode.

接线说明 Wiring Instruction

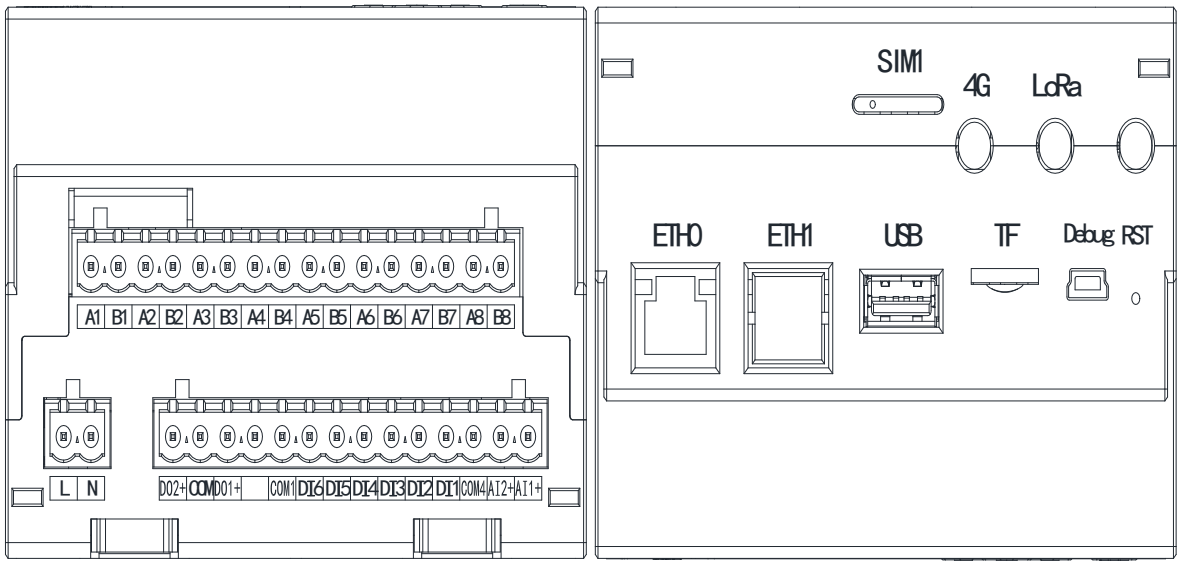


图 4

七、 面板灯定义

7. Panel Light Definition

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各状态指示灯均应采用中文字符标注其功能，指示灯颜色及指示状态具体如下：

状态指示灯（绿色）：快闪（工作正常），慢闪或不亮（异常状态）

通讯指示灯（绿色）：闪烁（与终端设备通讯中）

网络指示灯（红色）：常亮（网络连接状态正常），快闪（与平台通讯中），慢闪（连网中）

报警指示灯（红色）：常亮（发生故障），不亮（无故障发生）

The function of each status indicator should be marked with Chinese characters. The details of indicator color and indicator status are as follows:

Status indicator (green) : Blinking at short intervals (working normally), blinking at long intervals or off (abnormal);

Communication indicator (green) : Blinking (communicating with the terminal device);

Network indicator (red):Steady on (the network connection is normal), blinking at short intervals (communicating with the platform), and blinking at long intervals (connecting to the network);

Alarm indicator (red) : steady on (fault occurs), off (no fault occurs)

八、 用户配置

8. User Configuration

使用配置软件生成配置文件，然后导入到设备中。（详情可参考其他相关配置文档）

新建模板：

Use the configuration software to generate a configuration file and import it to the device. (For details, see other configuration documents.)

Creating a template:

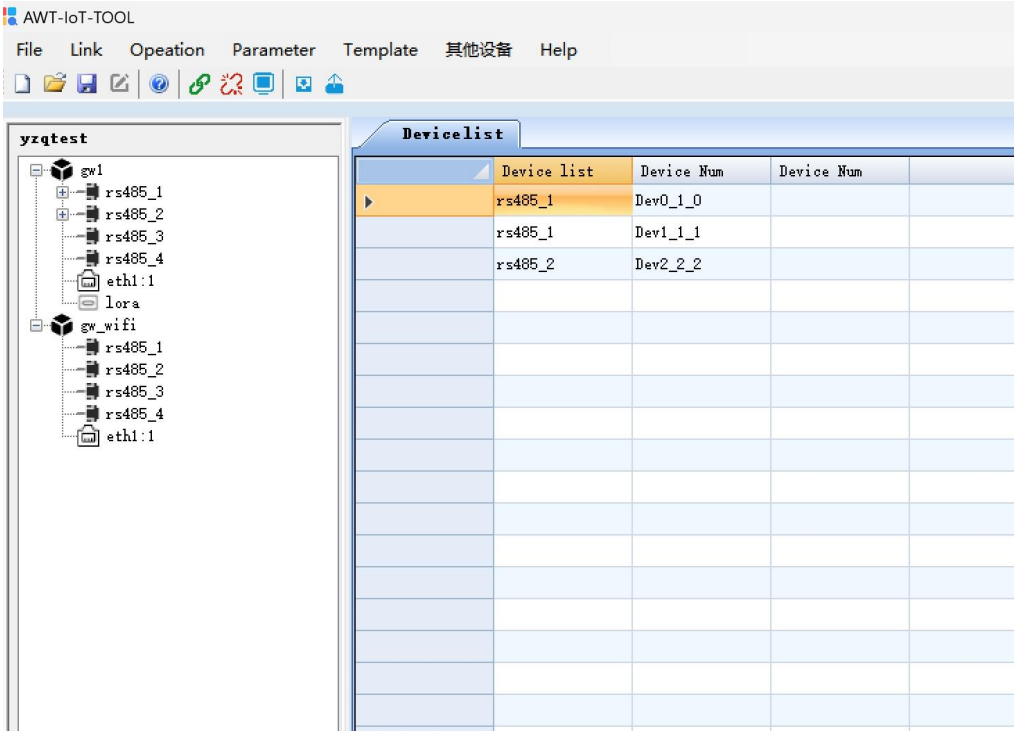


图 5 Figure 5

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设备参数采集列表：

Device parameter collection list:

Devicelist

	Group	Data Name	Unit	Reg_add	Reg_type	Endian
1	1	Ua	V	256	Float	H4H3H2H1
2	1	Ub	V	258	Float	H4H3H2H1
3	1	Uc	V	260	Float	H4H3H2H1
4	1	Uab	V	262	Float	H4H3H2H1
5	1	Ubc	V	264	Float	H4H3H2H1
6	1	Uca	V	266	Float	H4H3H2H1
7	1	Fr	Hz	268	Float	H4H3H2H1
8	1	Ia	A	270	Float	H4H3H2H1
9	1	Ib	A	272	Float	H4H3H2H1
10	1	Ic	A	274	Float	H4H3H2H1
11	1	IN	A	276	Float	H4H3H2H1
12	1	Pa	kw	278	Float	H4H3H2H1
13	1	Pb	kw	280	Float	H4H3H2H1
14	1	Pc	kw	282	Float	H4H3H2H1
15	1	P	kw	284	Float	H4H3H2H1
16	1	Qa	kvar	286	Float	H4H3H2H1
17	1	Qb	kvar	288	Float	H4H3H2H1
18	1	Qc	kvar	290	Float	H4H3H2H1
19	1	Q	kvar	292	Float	H4H3H2H1
20	1	PFa		302	Float	H4H3H2H1
21	1	PFb		304	Float	H4H3H2H1
22	1	PFc		306	Float	H4H3H2H1
23	1	PF		308	Float	H4H3H2H1
24	1	EPI		316	Float	H4H3H2H1
25	1	EPE		324	Float	H4H3H2H1
26	1	EQL		332	Float	H4H3H2H1

图 6 Figure 6

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说明书修订记录

Specification revision record

日期 DATE	旧版本 OLD	新版本 NEW	修改内容 Modified Content
2023.3.13		V1.0	1、第一次修订 1. The first revision

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