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# AWT200 智能 DTU

## AWT200 Intelligent DTU

安装使用说明书 V1.0

Installation & Operation Manual V1.0

Acrel Co.,Ltd

# 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

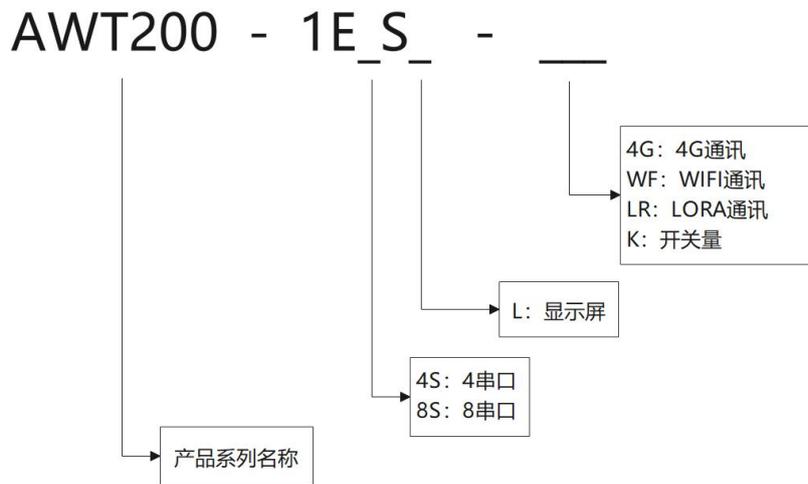


图 1

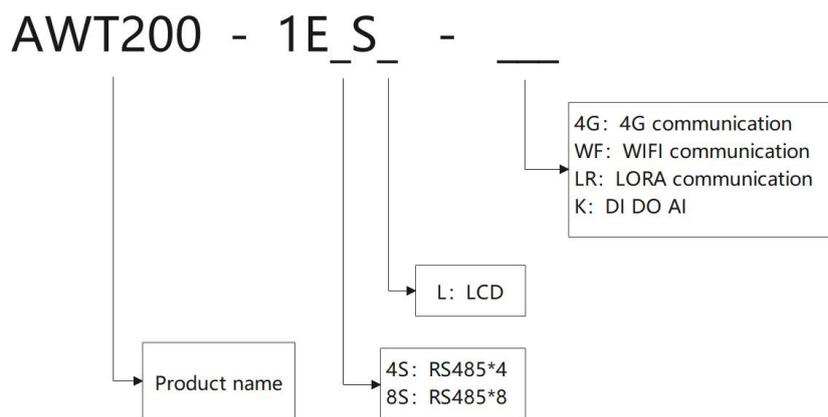


Figure 1

## 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

- 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.

# Acrel-EIoT能源物联网云平台

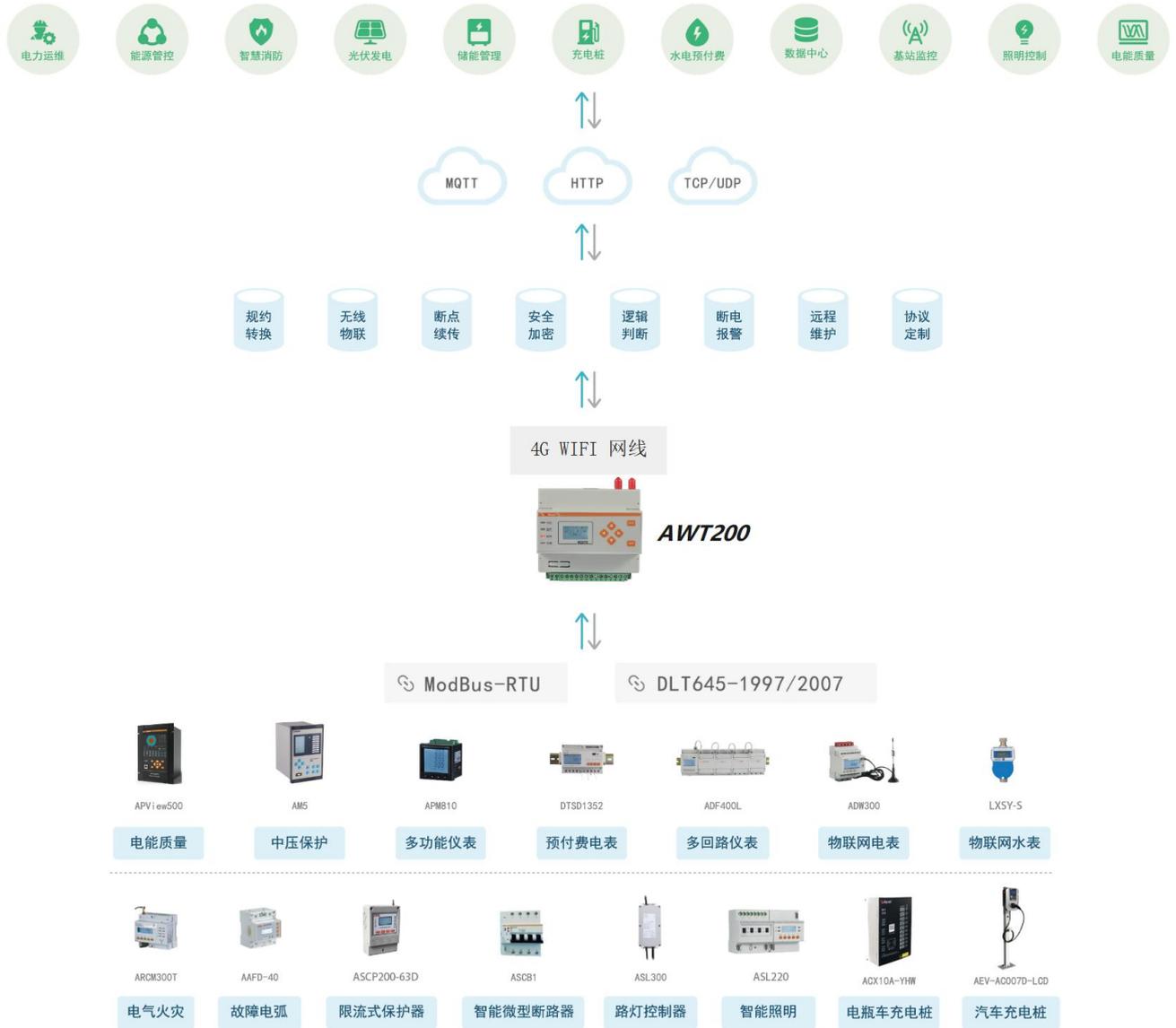


图 2

# Acrel-EIOT Energy IOT Cloud Platform

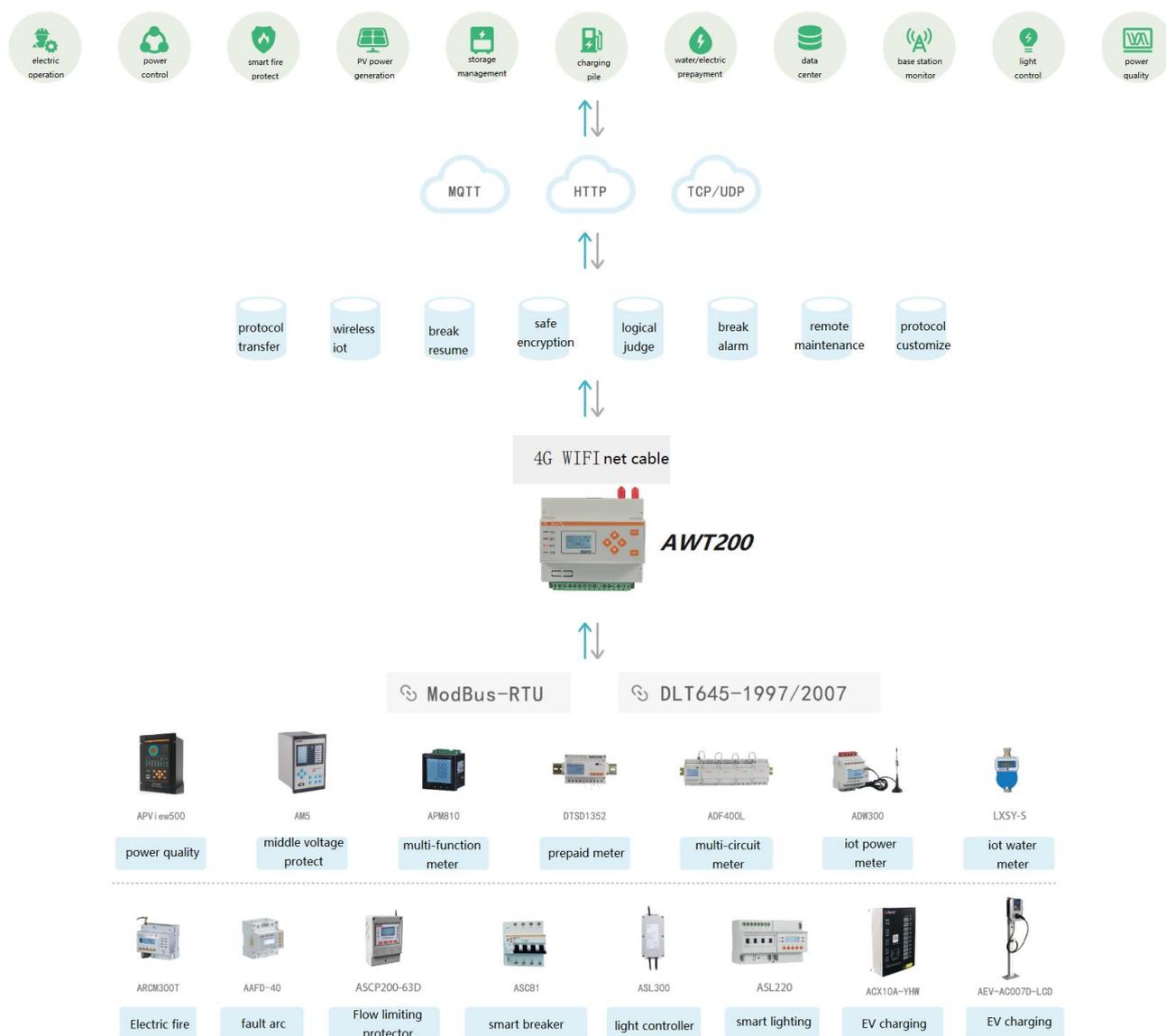


Figure 2

## 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

存储 Storage	8G TF 卡 8G TF Card		
<b>通信接口 Communication Interface</b>			
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		
<b>串口参数 Serial Port Parameter</b>			
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
<b>软件 Software</b>			
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		
<b>工作模式 Working mode</b>			
TCP 服务器, TCP 客户端, UDP 服务器, UDP 客户端 TCP server, TCP client, UDP server, UDP client			
<b>电源要求 Power Requirements</b>			
电源 Power Supply	DC 12-24V (配电源适配器) (Power Adapter)		
<b>环境要求 Environment</b>			
操作温度 Operating Temperature	-20°C~+55°C		
储存温度 Storage Temperature	-40°C~+85°C		
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

## Dimension and cut-out size

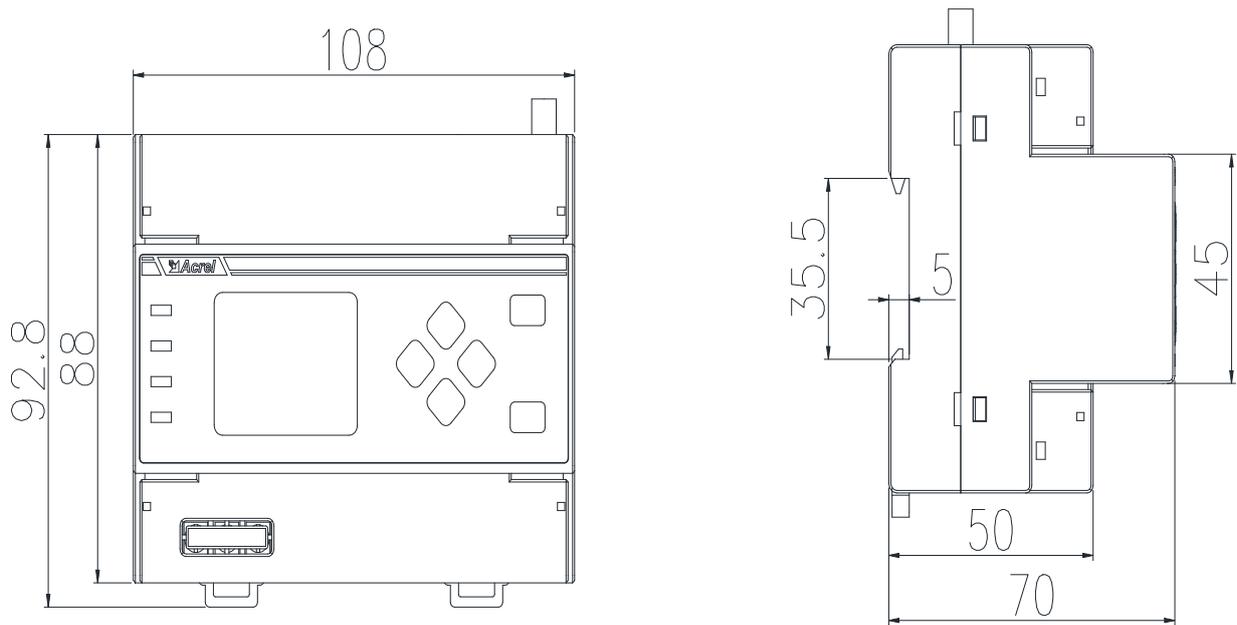


图 3 Figure 3

### 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

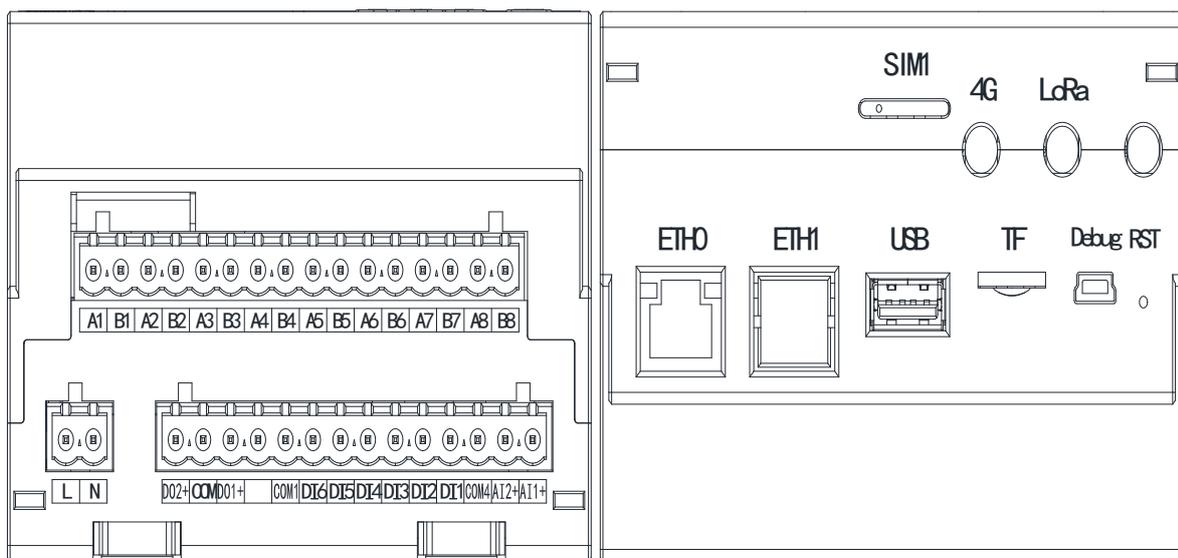


图 4

## 七、 面板灯定义

### 7. Panel Light Definition



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

说明书修订记录

Specification revision record

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