



ATU Series Monitoring Touchscreen Products

Specification Document

Declare

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The Company reserves the right to modify the product specifications described in this manual without prior notice. Before placing an order, please consult your local agent for the latest specifications of this product.

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ATU173 Product Description

product function

- ★ Real-time monitoring: Continuously tracks electrical parameters including voltage, current, power, and power factor across all circuits. Dynamically monitors the on/off status of circuit breakers, disconnectors, and grounding switches in distribution circuits, along with related fault and alarm signals.
- ★ Electric parameter query: In the primary distribution diagram, you can directly view detailed electric parameters of the circuit, including three-phase current, three-phase voltage, total active power, total reactive power, total power factor, and forward active energy. Additionally, you can view 24-hour phase current trend curves.
- ★ Run Report: Query operational parameters of specific circuits or devices at designated times. The report should display electrical parameter information including current, voltage, power factor, active power, reactive power, and active energy.
- ★ Real-time Alarm: The system can issue alerts for remote signal changes such as opening/closing operations of circuit breakers, disconnectors, and grounding switches in distribution circuits, as well as protection actions and fault tripping events. It features real-time voice alarm functionality to deliver audible alerts for all events. Alarm methods include pop-up windows, graphic element flashing, and voice alerts.
- ★ Historical event query: Capable of storing and managing records of remote signal position changes, protection actions, accident tripping events, as well as voltage, current, power, and power factor exceedance events. This facilitates users in historical tracing of system events and alarms, along with query statistics and accident analysis.

product features

LCD display: 17.3-inch TFT LCD screen with resolution of 1920×1080

CPU motherboard: Intel N97

Memory: 8GB

Storage device: 512GB solid-state drive

Touchscreen: Capacitive

Interfaces: 6 × RS485, 2 × USB3.0, 2 × USB2.0, 2 × LAN, 1 × HDMI, 8 × DI, 6 × DO

*For multiple RS485 connections, you can optionally equip with an Aport serial port server or an ANet intelligent gateway.



Touchscreen specifications

Type: 10-point capacitive touchscreen

Transmittance: ≥85%

Control: USB port

Surface hardness: Mohs hardness 7 H

LCD Screen Specifications

Display type: 17.3-inch TFT LCD screen

Resolution: 1920×1080

Brightness: 250 cd/m²

Operating temperature: -10 to 50°C

Backlight lifespan: 30,000 hours

size of product

Structure: All-metal structure

Color: Matte silver

Installation: Embedded

Power supply: 12VDC

External dimensions: 430.5 × 271 × 66 mm

Opening size: 418.5 × 259 mm

Net weight: 3.59 kg

application environment

Operating temperature: -10 to 50°C

Storage temperature: -20 to 60°C

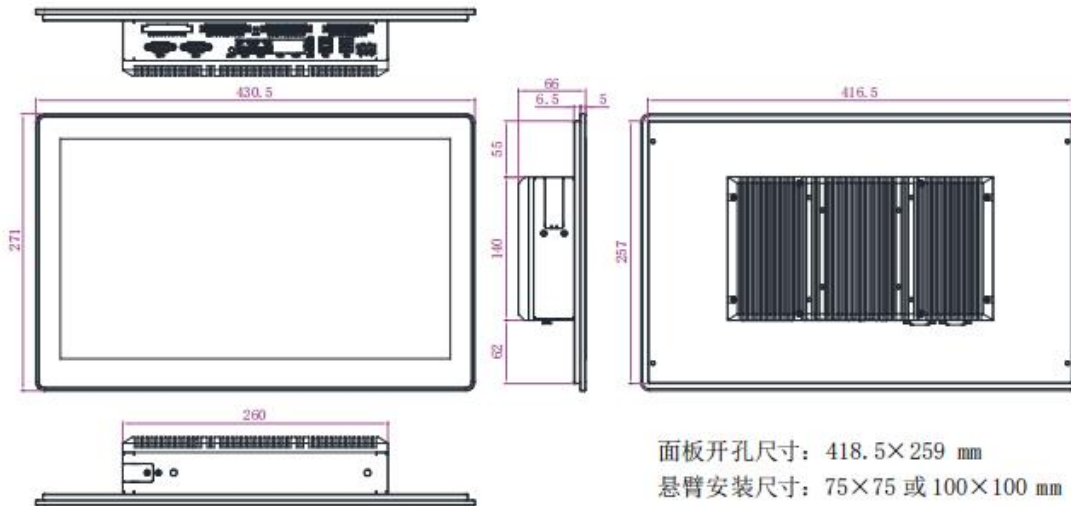
Relative humidity: 5–90% with no condensation

Waterproof: The front panel meets the IP65 protection rating.

related software

Operating system: Supports Windows 10, Linux, and other operating systems

External Dimensions



ATU156 Product Description

product function

- ★ Real-time monitoring: Continuously tracks electrical parameters including voltage, current, power, and power factor across all circuits. Dynamically monitors the on/off status of circuit breakers, disconnectors, and grounding switches in distribution circuits, along with related fault and alarm signals.
- ★ Electric parameter query: In the primary distribution diagram, you can directly view detailed electric parameters of the circuit, including three-phase current, three-phase voltage, total active power, total reactive power, total power factor, and forward active energy. Additionally, you can view 24-hour phase current trend curves.
- ★ Run Report: Query operational parameters of specific circuits or devices at designated times. The report should display electrical parameter information including current, voltage, power factor, active power, reactive power, and active energy.
- ★ Real-time Alarm: The system can issue alerts for remote signal changes such as opening/closing operations of circuit breakers, disconnectors, and grounding switches in distribution circuits, as well as protection actions and fault tripping events. It features real-time voice alarm functionality to deliver audible alerts for all events. Alarm methods include pop-up windows, graphic element flashing, and voice alerts.
- ★ Historical event query: Capable of storing and managing records of remote signal position changes, protection actions, accident tripping events, as well as voltage, current, power, and power factor exceedance events. This facilitates users in historical tracing of system events and alarms, along with query statistics and accident analysis.

product features

LCD display: 15.6-inch TFT LCD screen with resolution of 1920×1080

CPU motherboard: Intel N97

Memory: 8GB

Storage device: 512GB solid-state drive

Touchscreen: Capacitive

Interfaces: 6 × RS485, 2 × USB3.0, 2 × USB2.0, 2 × LAN, 1 × HDMI, 8 × DI, 6 × DO

*For multiple RS485 connections, you can optionally equip with an Aport serial port server or an ANet intelligent gateway.



Touchscreen specifications

Type: 10-point capacitive touchscreen

Transmittance: ≥85%

Control: USB port

Surface hardness: Mohs hardness 7 H

LCD Screen Specifications

Display type: 15.6-inch TFT LCD screen

Resolution: 1920×1080

Brightness: 250 cd/m²

Operating temperature: -10 to 50°C

Backlight lifespan: 30,000 hours

size of product

Structure: All-metal structure

Color: Matte silver

Installation: Embedded

Power supply: 12VDC

External dimensions: 392×247×66mm

Opening size: 379×234mm

Net weight: 3.34 kg

application environment

Operating temperature: -10 to 50°C

Storage temperature: -20 to 60°C

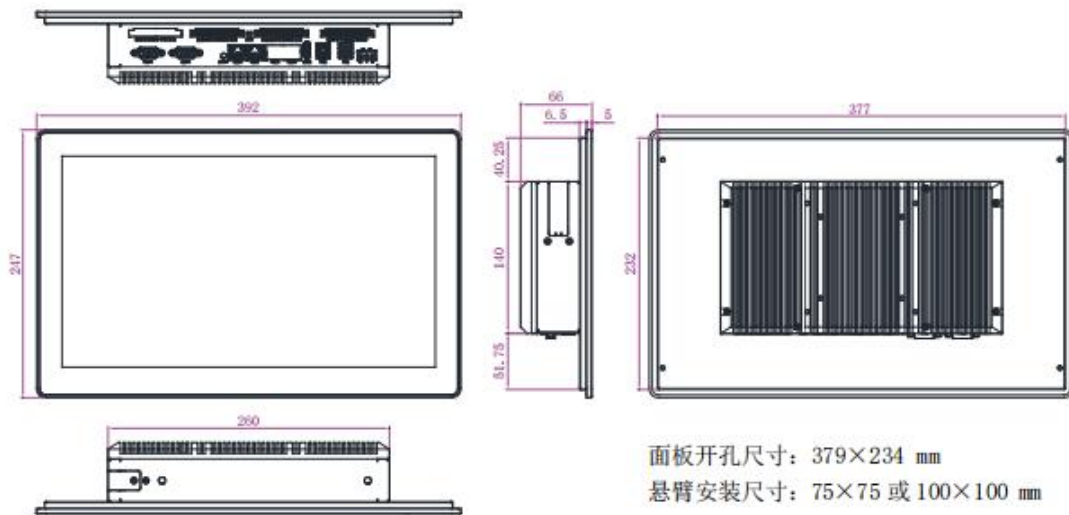
Relative humidity: 5–90% with no condensation

Waterproof: The front panel meets the IP65 protection rating.

related software

Operating system: Supports Windows 10, Linux, and other operating systems

External Dimensions



ATU133 Product Description

product function

- ★ Real-time monitoring: Continuously tracks electrical parameters including voltage, current, power, and power factor across all circuits. Dynamically monitors the on/off status of circuit breakers, disconnectors, and grounding switches in distribution circuits, along with related fault and alarm signals.
- ★ Electric parameter query: In the primary distribution diagram, you can directly view detailed electric parameters of the circuit, including three-phase current, three-phase voltage, total active power, total reactive power, total power factor, and forward active energy. Additionally, you can view 24-hour phase current trend curves.
- ★ Run Report: Query operational parameters of specific circuits or devices at designated times. The report should display electrical parameter information including current, voltage, power factor, active power, reactive power, and active energy.
- ★ Real-time Alarm: The system can issue alerts for remote signal changes such as opening/closing operations of circuit breakers, disconnectors, and grounding switches in distribution circuits, as well as protection actions and fault tripping events. It features real-time voice alarm functionality to deliver audible alerts for all events. Alarm methods include pop-up windows, graphic element flashing, and voice alerts.
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product features

LCD display: 13.3-inch TFT LCD screen with resolution of 1920×1080

CPU motherboard: Intel N97

Memory: 8GB

Storage device: 512GB solid-state drive

Touchscreen: Capacitive

Interfaces: 6 × RS485, 2 × USB3.0, 2 × USB2.0, 2 × LAN, 1 × HDMI, 8 × DI, 6 × DO

*For multiple RS485 connections, you can optionally equip with an Aport serial port server or an ANet intelligent gateway.



Touchscreen specifications

Type: 10-point capacitive touchscreen

Transmittance: ≥85%

Control: USB port

Surface hardness: Mohs hardness 7 H

LCD Screen Specifications

Display type: 13.3-inch TFT LCD screen

Resolution: 1920×1080

Brightness: 250 cd/m²

Operating temperature: -10 to 50°C

Backlight lifespan: 30,000 hours

size of product

Structure: All-metal structure

Color: Matte silver

Installation: Embedded

Power supply: 12V DC

External dimensions: 339×216×66mm

Opening size: 327×204mm

Net weight: 2.79 kg

application environment

Operating temperature: -10 to 50°C

Storage temperature: -20 to 60°C

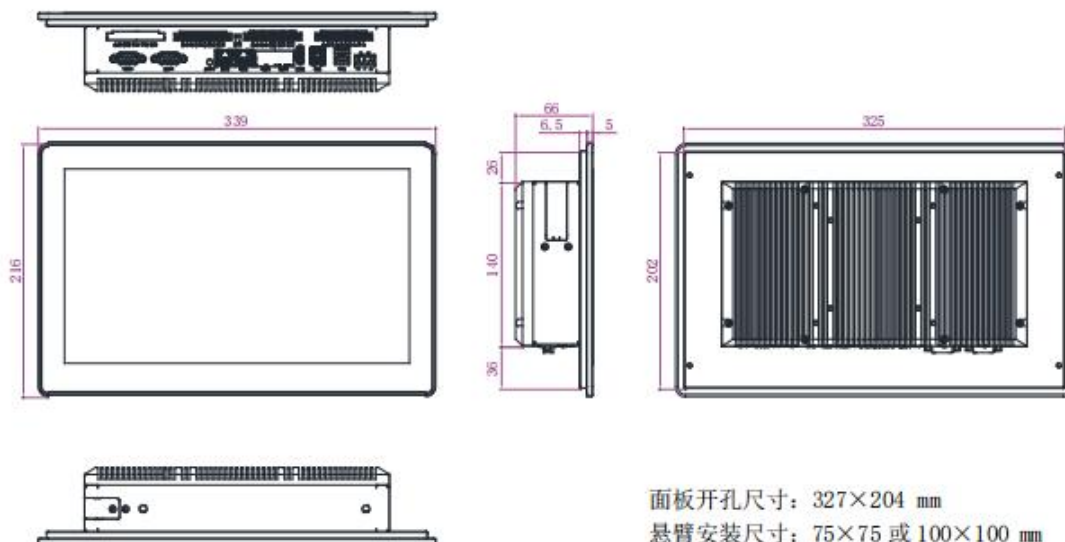
Relative humidity: 5–90% with no condensation

Waterproof: The front panel meets the IP65 protection rating.

related software

Operating system: Supports Windows 10, Linux, and other operating systems

External Dimensions



ATU1 16 Product Description

product function

- ★ Real-time monitoring: Continuously tracks electrical parameters including voltage, current, power, and power factor across all circuits. Dynamically monitors the on/off status of circuit breakers, disconnectors, and grounding switches in distribution circuits, along with related fault and alarm signals.
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product features

LCD display: 11.6-inch TFT LCD screen with resolution of 1920×1080

CPU motherboard: Intel N97

Memory: 8GB

Storage device: 512GB solid-state drive

Touchscreen: Capacitive

Interfaces: 6 × RS485, 2 × USB3.0, 2 × USB2.0, 2 × LAN, 1 × HDMI, 8 × DI, 6 × DO

*For multiple RS485 connections, you can optionally equip with an Aport serial port server or an ANet intelligent gateway.



Touchscreen specifications

Type: 10-point capacitive touchscreen

Transmittance: ≥85%

Control: USB port

Surface hardness: Mohs hardness 7 H

LCD screen specifications

Display type: 11.6-inch TFT LCD screen

Resolution: 1920×1080

Brightness: 250 cd/m²

Operating temperature: -10 to 50°C

Backlight lifespan: 30,000 hours

size of product

Structure: All-metal structure

Color: Matte silver

Installation: Embedded

Power supply: 12VDC

External dimensions: 294×181×66mm

Opening size: 283×170mm

Net weight: 2.65 kg

application environment

Operating temperature: -10 to 50°C

Storage temperature: -20 to 60°C

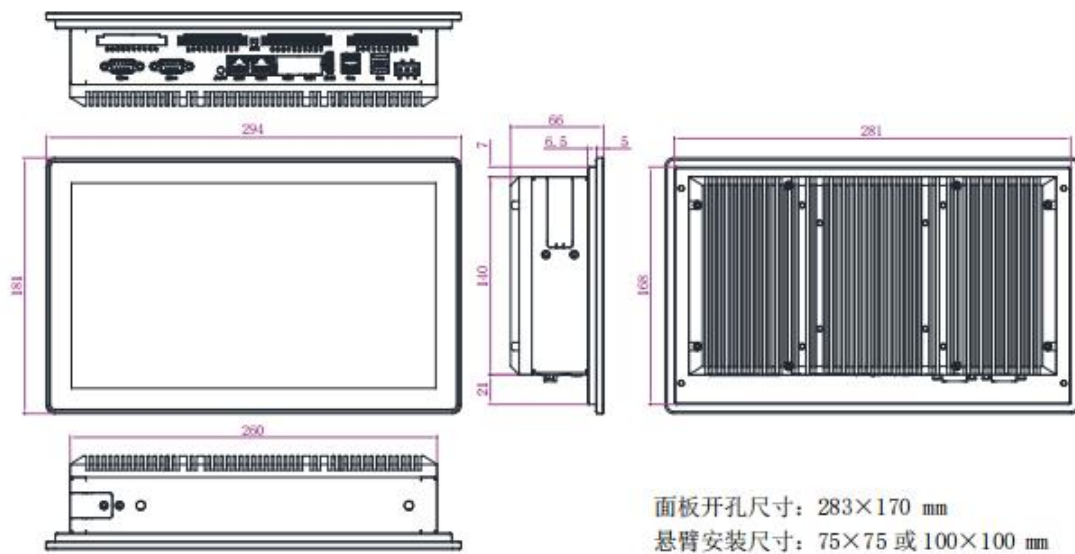
Relative humidity: 5–90% with no condensation

Waterproof: The front panel meets the IP65 protection rating.

related software

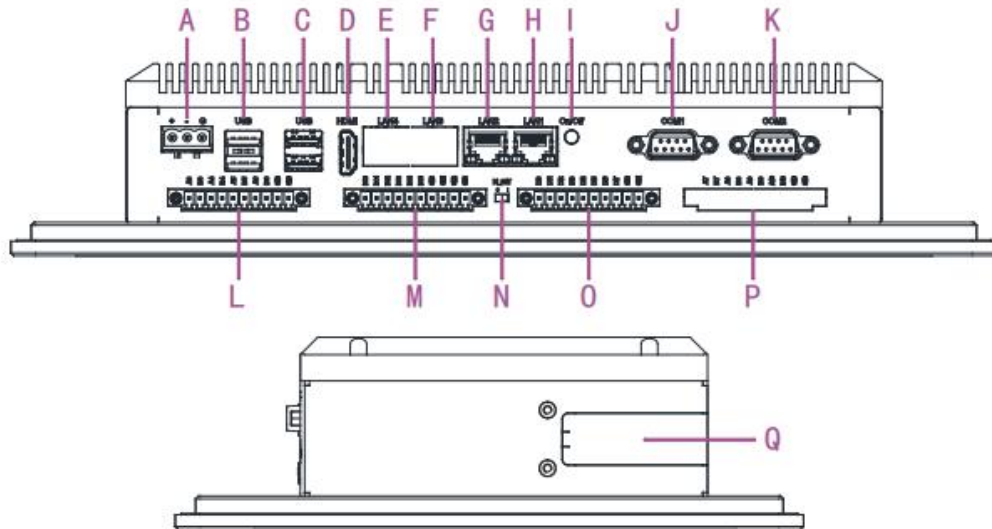
Operating system: Supports Windows 10, Linux, and other operating systems

External Dimensions



Appendix

Interface View



- | | | | |
|-------------|-------------|----------------------|---------------|
| A. DC In | E. LAN4(可选) | I. Power Button | M. DO(继电器输出) |
| B. 2×USB2.0 | F. LAN1(可选) | J. COM1(RS232/RS485) | N. DI信号选择 |
| C. 2×USB3.0 | G. LAN2 | K. COM2(RS485) | O. DI(数字量输入) |
| D. HDMI | H. LAN1 | L. COM3~COM6(RS485) | P. 预留 |
| | | | Q. 1×内置USB2.0 |

power input

DC In	引脚号	信号名称	内容
	1	+	12V DC +
	2	-	12V DC -
	3	G	接地

Serial port definition

As RS485:

COM1/2	引脚号	信号名称	内容
	1	485+	RS485+
	2	485-	RS485-
	3		
	4		
	5	GND	GND
	6		
	7		
	8		
	9		

As RS232:

COM1	引脚号	信号名称	内容
	1		
	2	RXD	RS232 RXD 接收数据
	3	TXD	RS232 TXD 发送数据
	4		
	5	GND	GND
	6		
	7		
	8		
	9		

Terminal RS485:

COM3-6	引脚号	信号名称	内容
	1	A3	COM3:RS485+
	2	B3	COM3:RS485-
	3	A4	COM4:RS485+
	4	B4	COM4:RS485-
	5	A5	COM5:RS485+
	6	B5	COM5:RS485-
	7	A6	COM6:RS485+
	8	B6	COM6:RS485-
	9	GND	GND
	10	GND	GND

Network port definition


LAN1/2	引脚号	信号名称	内容
	1	TX_D1+	Tranceive Data1+ (发信号+)
	2	TX_D1-	Tranceive Data1- (发信号+)
	3	RX_D2+	Receive Data2+ (收信号+)
	4	BI_D3+	Bi-directional Data3+ (双向信号)
	5	BI_D3-	Bi-directional Data3- (双向信号)
	6	RX_D2-	Receive Data2- (收信号-)
	7	BI_D4+	Bi-directional Data4+ (双向信号)
	8	BI_D4-	Bi-directional Data4- (双向信号)

DI definition

8 The device supports digital signal input with both active and passive configurations, where the pin assignments correspond to the following signals:

DI 输入	引脚号	信号名称	内容
	1	DI0	GPIO 地址: 0xA00 bit5
	2	DI1	GPIO 地址: 0xA02 bit3
	3	DI2	GPIO 地址: 0xA05 bit5
	4	DI3	GPIO 地址: 0xA07 bit4
	5	DI4	GPIO 地址: 0xA07 bit0
	6	DI5	GPIO 地址: 0xA07 bit1
	7	DI6	GPIO 地址: 0xA07 bit2
	8	DI7	GPIO 地址: 0xA07 bit3
	9	CM0	无源公共端
	10	CM1	有源公共端

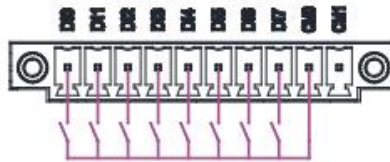
DI Wiring Instructions

DI 信号选择	信号名称	内容
DI_SET 0 I 	0	拨码在 0 的位置，有源方案
	I	拨码在 I 的位置，无源方案

For active signal input, both NPN and PNP configurations are supported, with CM1 serving as the common terminal. The wiring is illustrated in the figure below:



When receiving passive signals, only one wiring configuration is required, with CM0 serving as the common terminal, as illustrated in the diagram below.

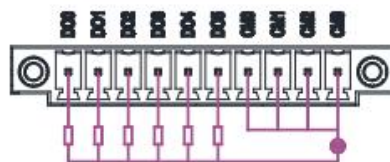


DO definition

6 Road relay output, dry contact, 30VDC/250VAC.

DO 输出	引脚号	信号名称	内容
	1	DO0	GPIO 地址: 0xA00 bit1
	2	DO1	GPIO 地址: 0xA00 bit6
	3	DO2	GPIO 地址: 0xA03 bit7
	4	DO3	GPIO 地址: 0xA07 bit5
	5	DO4	GPIO 地址: 0xA07 bit7
	6	DO5	GPIO 地址: 0xA07 bit6
	7	CM0	公共端
	8	CM1	公共端
	9	CM2	公共端
	10	CM3	公共端

Refer to the following diagram for DO wiring:



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