NEO WAVE®

OverView

AQS117

Smart Air Quality Controller

The **AQS117** is an intelligent air quality controller with integrated environmental sensors (PM2.5, CO_2, formaldehyde, TVOC, temperature, humidity). It supports RS485 (Modbus RTU) and controls 3-speed fans & dampers, ideal for smart buildings, offices, and industrial spaces.

Features

- **6-in-1 Sensor** – Monitors PM2.5, CO_2, formaldehyde, TVOC, temp & humidity.
- **Fan Control** – Adjusts 3-speed (low/med/high) AC220V fans & damper switches.
- **Touchscreen Display** – 2.8" screen shows real-time air quality status.
- **3 Modes** – Auto, manual, and timed operation.
- **Alerts & Maintenance** – Filter life reminder & fault alarms.
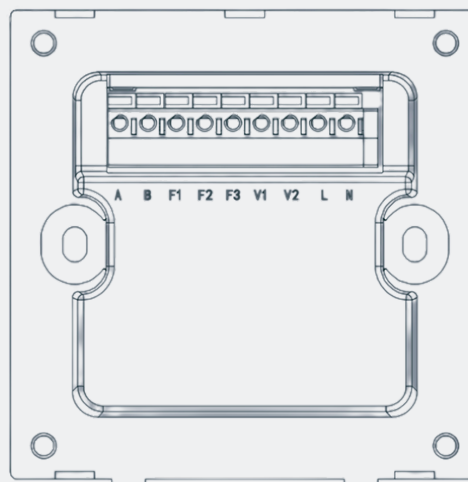- **Customizable** – Supports tailored solutions for clients.

Applications

- **Smart Buildings** – Offices, hospitals, schools.
- **Homes & Communities** – Fresh air system control.
- **Public Spaces** – Supermarkets, subways, malls.

Electrical Description

A :	RS485 A
B :	RS485 B
F1 :	Fan low-speed mode
F2 :	Fan medium-speed mode
F3 :	Fan high-speed mode
V1 :	Valve closed
V2 :	Valve open
L :	Live wire (AC220V)
N :	Neutral wire

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Dimensions
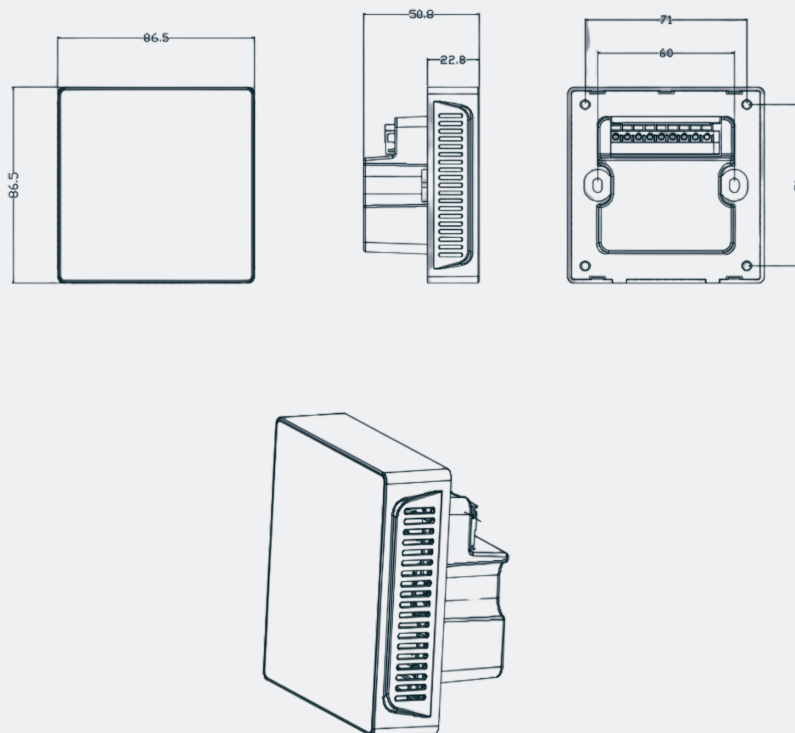
Specifications

Specification parameters

Type	Range	Resolution	Accuracy	Lifetime (in air)
Temperature	-40℃~125℃	0.1℃	±0.5℃	10 years
Humidity	0%RH~99%RH	0.1%RH	±3%RH	10 years
PM2.5	0~1000 μg/m³	1 μg/m³	±10% of reading	≥40,000 hours
CO2	400~5000 ppm	1 ppm	±(50 ppm + 3% of reading)	10 years
HCHO	0~1500 μg/m³	1 μg/m³	±10% of reading	2 years
TVOC	0~5000 μg/m³	1 μg/m³	±10% of reading	10 years

Table 1

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Specifications

Specification parameters

Detection Type	See Table 1 for details
Operating Voltage	AC version: AC 110-220V
Control Power	≤200W (fan load)
Output Interface	Three-speed fan (F1/F2/F3), damper (V1/V2)
Filter Life Reminder	1~9999 hours, with over-limit alarm
Standby Power	≤3.0W
Preheating Time	3 minutes
Output Method	RS485 (WiFi optional)
Communication Protocol	Modbus RTU
Display Screen	4-inch full touchscreen
Reference Dimensions	86x86x22.8mm
Material	ABS housing
Installation Method	Wall-mounted
Operating Temperature	-10℃ to 50℃
Operating Humidity	0%RH to 95%RH (non-condensing)
Storage Temperature	-30℃ to 60℃
Storage Humidity	0%RH to 99%RH (non-condensing)

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