

ATUUKOPC KWS-303L

ATUUKOPC KWS-303L 8-in-1 TFT Color Screen Dual Phase AC Meter Instruction Manual

Model: KWS-303L

1. INTRODUCTION

The ATUUKOPC KWS-303L is an advanced 8-in-1 TFT Color Screen Dual Phase AC Meter designed for comprehensive monitoring of electrical parameters. This device integrates voltage, current, power, frequency, power factor, active energy, timing, and temperature measurements into a single unit, providing real-time data on a clear 0.96-inch TFT color screen. It is suitable for a wide range of applications, including high and low voltage distribution cabinets, factories, warehouses, commercial spaces, and residential settings.

This manual provides detailed instructions for the installation, operation, and maintenance of your KWS-303L AC Meter to ensure optimal performance and longevity.

2. PRODUCT OVERVIEW

The KWS-303L meter offers a robust set of features for electrical monitoring:

- **0.96-inch TFT Color Screen:** Provides a wide viewing angle and clear readings, even in low-light conditions.
- **8-in-1 Electrical Parameters:** Simultaneously displays voltage, current, power, frequency, power factor, active energy, timing, and temperature.
- **Standard Guide Rail Installation:** Designed for easy, screw-free installation using buckle fixation on standard guide rails.
- **Mobile Remote Control:** The KWS-303L model supports smart remote control functionality, allowing for remote monitoring and control via a mobile phone application.
- **Wide Application Range:** Suitable for various industrial, commercial, and residential electrical systems.



Figure 1: Front view of the ATUUKOPC KWS-303L AC Meter, shown alongside similar models, displaying various electrical parameters on its TFT color screen.

MOBILE REMOTE CONTROL

EASY READING, EVEN IN DARK ROOMS.



Figure 2: Overview of key features including flame retardant material, rail mounting, compact size, convenient operation, TFT color screen, copper terminal block, high sensitivity, and suitability for energy monitoring. (Image shows KWS-303WF variant)

3. SPECIFICATIONS

Parameter	Value
Voltage Range	AC 85~290V
Current Range	0~40A
Power Range	0~12KW
Timing Range	99 days
Electric Energy Range	0~9999KWH
Temperature Range	-20~150°C
Frequency Range	50~60HZ

Parameter	Value
Power Factor	0.00~1.00PF
Product Size	82 x 50 x 24mm

Note: All specifications are subject to change without prior notice.

4. SETUP AND INSTALLATION

The KWS-303L meter is designed for standard guide rail installation, ensuring a secure and straightforward setup process. Always ensure power is disconnected before beginning installation.

- 1. Safety First:** Before any electrical work, turn off the main power supply at the circuit breaker to prevent electric shock.
- 2. Mounting Location:** Select a suitable location within your distribution cabinet or electrical panel that has a standard DIN rail.
- 3. Mounting the Meter:** Align the meter's mounting clips with the DIN rail. Press the meter firmly onto the rail until the clips engage and secure the device. No screws are required for this step.
- 4. Wiring Connections:**
 - Connect the Neutral (N) wire to the 'N' terminal on the meter.
 - Connect the Live (L) wire to the 'L' terminal on the meter.
 - Ensure all connections are tight and secure to prevent loose contacts and potential hazards.
- 5. Temperature Sensor (NTC):** If applicable, connect the NTC temperature sensor to the designated NTC terminals for temperature monitoring.
- 6. Power On:** Once all connections are verified and secure, restore power to the circuit. The meter's TFT screen should illuminate and begin displaying readings.

STANDARD GUIDE CARD SLOT

STANDARD GUIDE RAIL INSTALLATION, NO SCREWS,
FASTENER FIXED, CONVENIENT INSTALLATION.

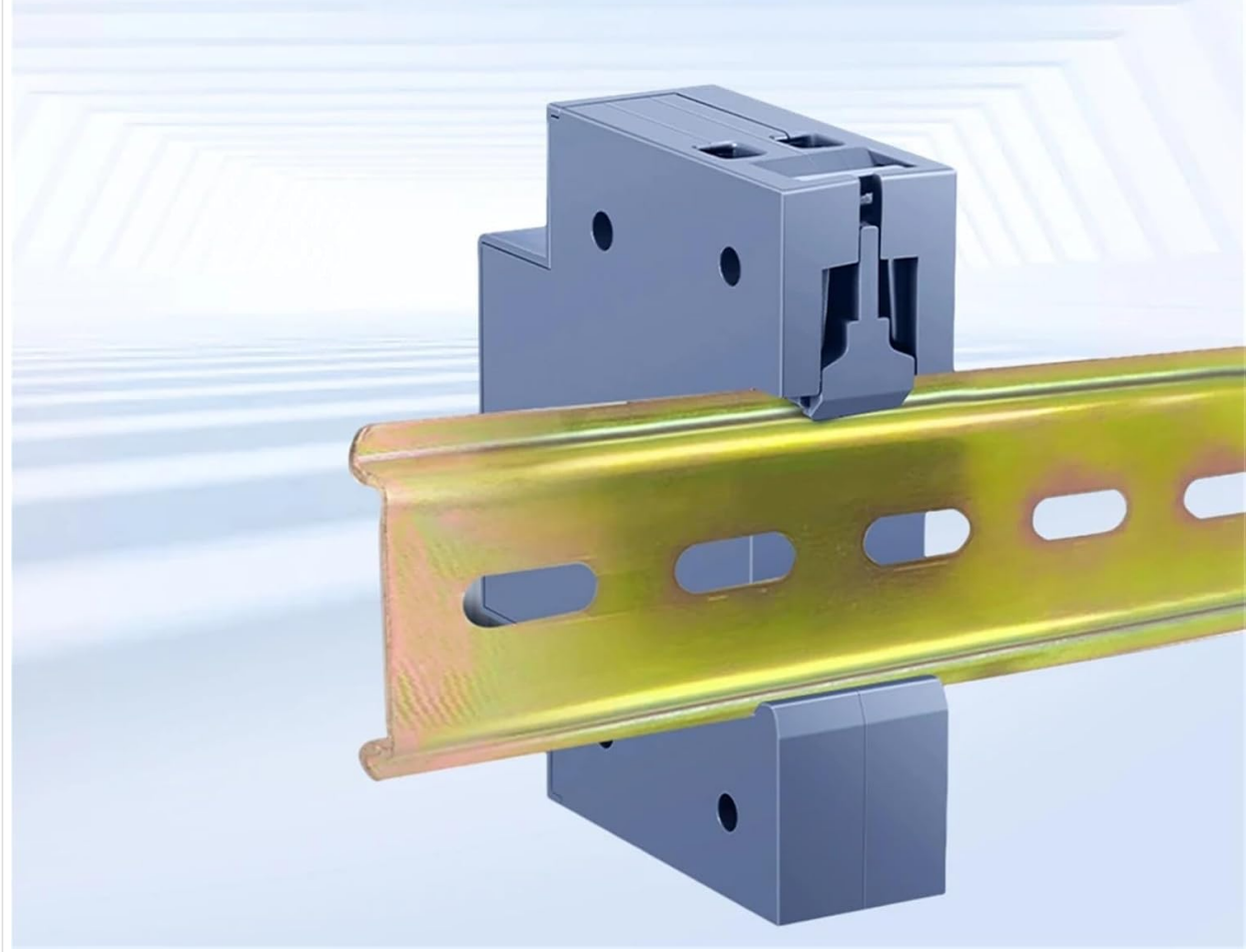


Figure 3: Illustration of the standard guide rail installation method for the AC meter, showing how it clips onto a DIN rail.

5. OPERATING INSTRUCTIONS

The KWS-303L meter is designed for intuitive operation, displaying all key parameters on its color screen. The device features control buttons for interaction.

5.1. Screen Display

Upon powering on, the 0.96-inch TFT color screen will display the following parameters simultaneously:

- **Voltage (V):** Real-time AC voltage.
- **Current (A):** Real-time AC current.
- **Power (W):** Real-time active power consumption.
- **Frequency (Hz):** AC line frequency.
- **Power Factor (PF):** Indication of electrical efficiency.
- **Active Energy (KWH):** Accumulated energy consumption.
- **Timing (Days/Hours/Minutes):** Operational time of the device.
- **Temperature (°C):** Measured temperature (if NTC sensor is connected).

NEW INTELLIGENT UPGRADE

COMPREHENSIVE ANALYSIS OF CORE FUNCTIONS,
POWERFUL FUNCTIONS ARE NOT ONLY HERE











 FLAME RETARDANT PC FUEL RETARDANT	 RAIL MOUNTING HIGHLY VERSATILE
 COMPACT SIZE CAN BE INSTALLED IN THE DISTRIBUTION BOX	 CONVENIENT OPERATION SIMPLE WIRING
 0.96" COLOR SCREEN HIGH CLARITY	 COPPER TERMINAL BLOCK HIGHLY CONDUCTIVE
 HIGH SENSITIVITY ACCURATE MEASUREMENT	 FAMILY EXPENSES BEAUTIFUL

Figure 4: View of the 0.96-inch TFT color screen, showing clear display of voltage, current, power, energy, timing, power factor, frequency, and temperature. (Image shows KWS-303WF, KWS-303L, and KWS-303 variants)

5.2. Button Functions

The meter typically includes buttons for navigation and control. Refer to the specific button labels on your device for exact functions.

- **"ON/OFF" Button:** Controls the relay function (if equipped) to switch the connected load on or off.
- **"+" Button:** Used for navigating menus or increasing values during settings adjustments.
- **"-" Button:** Used for navigating menus or decreasing values during settings adjustments.
- **"SET" Button (if present):** Typically used to enter settings menus or confirm selections.

5.3. Mobile Remote Control

The KWS-303L model supports smart remote control functionality. This allows you to monitor and potentially control the device from your mobile phone. Please follow these general steps:

1. **App Download:** Download the designated mobile application (e.g., Smart Life, Tuya Smart, or a brand-specific app) from your smartphone's app store.
2. **Account Registration:** Register for an account within the application.

3. **Device Pairing:** Follow the in-app instructions to add and pair your KWS-303L meter. This usually involves putting the meter into pairing mode (refer to the meter's on-screen prompts or a quick start guide if available).
4. **Remote Monitoring & Control:** Once paired, you can view real-time data, historical records, and control the relay function (if applicable) from anywhere with an internet connection.



Figure 5: Example of a mobile phone displaying the remote control interface for an AC meter, showing real-time data and control options. (Image shows KWS-303WF variant)

6. MAINTENANCE

The ATUUKOPC KWS-303L meter is designed for low maintenance. Regular checks can help ensure its continued accuracy and safe operation.

- **Cleaning:** Periodically wipe the meter's screen and casing with a soft, dry cloth. Do not use abrasive cleaners or solvents, as these can damage the display or housing.
- **Connection Checks:** Annually, or if you suspect an issue, visually inspect the wiring connections to ensure they remain tight and free from corrosion. Ensure power is off before inspecting connections.
- **Environmental Conditions:** Ensure the meter operates within its specified temperature and humidity ranges to prevent damage. Avoid exposing the device to direct sunlight, excessive moisture, or extreme

temperatures.

- **Firmware Updates (if applicable):** If the mobile application indicates available firmware updates for the meter, follow the app's instructions carefully to perform the update.

7. TROUBLESHOOTING

If you encounter issues with your KWS-303L meter, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Meter screen is blank.	No power supply; Loose wiring connection.	Check main power supply. Verify 'N' and 'L' wiring connections are secure (ensure power is off before checking).
Incorrect readings (Voltage/Current).	Improper wiring; Faulty sensor.	Double-check wiring against installation instructions. If issue persists, contact support.
Mobile app cannot connect to meter.	Meter not in pairing mode; Wi-Fi issues; Incorrect app.	Ensure meter is in pairing mode. Check Wi-Fi signal strength. Verify correct app is installed. Restart meter and phone.
Relay function not working.	Overload; Internal fault.	Check if the connected load exceeds the meter's current rating. If not, contact support.

If the problem persists after attempting these solutions, please contact ATUUKOPC customer support for further assistance.

8. SAFETY INFORMATION

Please read and understand all safety warnings and instructions before installing or operating the ATUUKOPC KWS-303L AC Meter. Failure to do so may result in electric shock, fire, or serious injury.

- **Qualified Personnel:** Installation and wiring should only be performed by qualified electricians or personnel with appropriate electrical knowledge.
- **Power Disconnection:** Always disconnect the main power supply before performing any installation, wiring, or maintenance on the meter.
- **Voltage Limits:** Do not exceed the specified voltage and current ranges of the device (AC 85-290V, 0-40A).
- **Environmental Conditions:** Do not install the meter in environments with excessive moisture, dust, corrosive gases, or extreme temperatures.
- **Secure Connections:** Ensure all wiring connections are tight and secure to prevent loose contacts, which can cause overheating or arcing.
- **Grounding:** Ensure proper grounding practices are followed in your electrical system.
- **Internal Components:** Do not attempt to open or repair the meter yourself. Refer all servicing to qualified personnel.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official ATUUKOPC website. Keep your purchase receipt as proof of purchase for warranty claims.

For further assistance, you may contact ATUUKOPC customer service through their official channels.