IXITAB KWS-AC301/KWS-AC300

Instruction Manual

KWS-AC301/KWS-AC300 Digital Power Energy Meter

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the IXITAB KWS-AC301/KWS-AC300 Digital AC Power Energy Meter. This device is designed to accurately measure and display AC voltage, current, active power, energy (kWh), and temperature. It is suitable for monitoring electrical parameters in various AC circuits.

2. Safety Information

WARNING: Electrical shock hazard. Installation and servicing should only be performed by qualified personnel. Failure to follow these instructions may result in serious injury or death.

- Ensure the power supply is disconnected before installation or wiring.
- Do not exceed the specified voltage and current ratings (AC 50-300V, 100A).
- Do not operate the device in wet or damp conditions.
- Keep the device away from flammable materials.
- Verify all connections are secure and correct before applying power.

3. Product Overview

The KWS-AC301/KWS-AC300 meter features a clear digital display for simultaneous monitoring of multiple electrical parameters. It is compact and designed for easy integration into electrical panels or systems.

Figure 3.1: Product image placeholder. This image indicates that a specific product image is not available. The actual product is a compact digital meter designed for AC electrical measurements.

Key features include:

- Real-time measurement of AC Voltage (V), Current (A), Active Power (W), and Energy (kWh).
- Temperature display.
- High accuracy and stability.
- Easy-to-read digital display.

4. Setup and Wiring

Before proceeding, ensure the main power supply is OFF.

1. **Mounting:** Choose a suitable location for the meter, typically within an electrical panel or enclosure, ensuring adequate ventilation.
2. **Voltage Input (L/N):** Connect the AC voltage input wires to the designated L (Live) and N (Neutral) terminals on the meter. Ensure the voltage is within the 50-300V AC range.
3. **Current Transformer (CT) Connection:**
    - Pass the load wire (the wire carrying the current you wish to measure) through the hole of the external current transformer (CT).
    - Connect the two small wires from the CT to the dedicated CT input terminals on the meter. Pay attention to polarity if indicated, though many simple CTs are non-polar for measurement.
4. **Load Connection:** Ensure the load is correctly connected to the circuit being monitored.
5. **Power On:** After all connections are verified and secure, restore power to the circuit. The meter should power on and display readings.

Note: The CT must be connected before applying power to the meter to avoid damage. Do not disconnect the CT while power is applied to the meter.

5. Operating Instructions

Once powered on, the KWS-AC301/KWS-AC300 meter will automatically begin displaying the measured parameters. The display typically cycles through or shows simultaneously:

- **Voltage (V):** Displays the current AC voltage.
- **Current (A):** Displays the current AC amperage flowing through the monitored circuit.
- **Active Power (W):** Displays the instantaneous active power consumed by the load.
- **Energy (kWh):** Accumulates the total energy consumed over time. This value is typically non-volatile and retained even after power loss.
- **Temperature (°C/°F):** Displays the ambient temperature measured by the device.

Some models may include a button for resetting the energy (kWh) reading. If present, press and hold the button for approximately 5 seconds to clear the accumulated energy data. Refer to specific product markings for button functionality.

6. Maintenance

The KWS-AC301/KWS-AC300 meter requires minimal maintenance.

- **Cleaning:** Use a soft, dry cloth to clean the display and casing. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically inspect wiring connections to ensure they remain secure.
- **Storage:** If storing the device for an extended period, keep it in a dry, cool environment, away from direct sunlight and extreme temperatures.

7. Troubleshooting

Problem	Possible Cause	Solution
No display/Meter not powering on	No power supply; incorrect wiring; faulty unit.	Check power connections. Verify L/N wiring. Ensure power is applied. If problem persists, contact support.
Incorrect current reading (0A or very low)	CT not connected; CT connected incorrectly; load wire not passed through CT.	Ensure CT is properly connected to the meter. Verify the load wire passes through the CT. Do not disconnect CT while powered.
Incorrect voltage reading	Incorrect voltage input wiring; voltage outside specified range.	Check L/N voltage input connections. Ensure voltage is within 50-300V AC.
Energy (kWh) not accumulating	No current flow; faulty unit.	Ensure there is an active load drawing current. Verify current reading is non-zero.

8. Specifications

Parameter	Value
Model	KWS-AC301 / KWS-AC300
Operating Voltage Range	AC 50-300V
Current Range	0-100A
Measurement Parameters	Voltage, Current, Active Power, Energy (kWh), Temperature
Package Dimensions	1.18 x 0.79 x 0.39 inches
Item Weight	1.76 ounces
Manufacturer	IXITAB
ASIN	B0CSWFLZFL
Date First Available	January 20, 2024

9. Warranty and Support

This product is manufactured by IXITAB. For warranty information, technical support, or service inquiries, please contact the seller or manufacturer directly through the platform where the product was purchased. Please have your purchase details and product model number (KWS-AC301/KWS-AC300) ready when contacting support.
For further assistance, you may refer to the product listing onAmazon.com.