

VTSYIQI DZF-3Q

VTSYIQI DZF-3Q Three Phase Power Quality Analyzer Meter

Instruction Manual

Model: DZF-3Q (UPC: 647904228088)

1. INTRODUCTION

This manual provides essential information for the safe and effective operation of the VTSYIQI DZF-3Q Three Phase Power Quality Analyzer Meter. This integrated test equipment is designed for three-phase, multifunctional field testing, offering intelligent and simple operation. It features a large LCD display, high resolution, and a bilingual English interface, housed in an anti-vibration structure.

The analyzer is equipped with diverse functions including testing, capture, monitoring, record storage, alarm, and screenshot capabilities, making it a comprehensive tool for power quality assessment.

2. SAFETY INFORMATION

Always read and understand all safety warnings and operating instructions before using this device.

- **Electrical Hazard:** This device measures electrical parameters. Improper use can result in electric shock, injury, or death. Always follow standard electrical safety procedures.
- **Disconnect Power:** Before opening the battery cover or connecting/disconnecting test leads, ensure the tester is shut down and disconnected from all power sources.
- **Insulation:** The device features double insulation and comes with a vibration-proof insulating sleeve for enhanced safety. Always ensure the sleeve is properly fitted during operation.
- **Operating Environment:** Use the device within the specified operating temperature and humidity ranges: -10 °C to 40 °C, below 80% relative humidity.
- **Battery Safety:** This instrument uses a rechargeable battery. If the battery indicator turns red, charge the battery promptly to avoid data loss or device shutdown. For prolonged storage, charge the battery once every three months to prevent damage.
- **Qualified Personnel:** Only qualified personnel should operate and service this equipment.

3. PRODUCT OVERVIEW

The VTSYIQI DZF-3Q Power Quality Analyzer is a portable, handheld device designed for comprehensive electrical measurements.



Figure 3.1: Front view of the VTSYIQI DZF-3Q Power Quality Analyzer, showing the display, function buttons (F1-F6), navigation keys, and measurement mode buttons.

3.1. Components

- **Main Unit:** The analyzer itself, featuring a 5.6-inch LCD display.
- **Current Clamp Sensors:** Four clamp sensors for AC current measurement (10mA to 10.0A range).
- **Test Leads:** For voltage connections.
- **Power Adapter:** For charging the internal battery.
- **USB Cable:** For data transfer.
- **Carrying Bag:** For portability and protection.

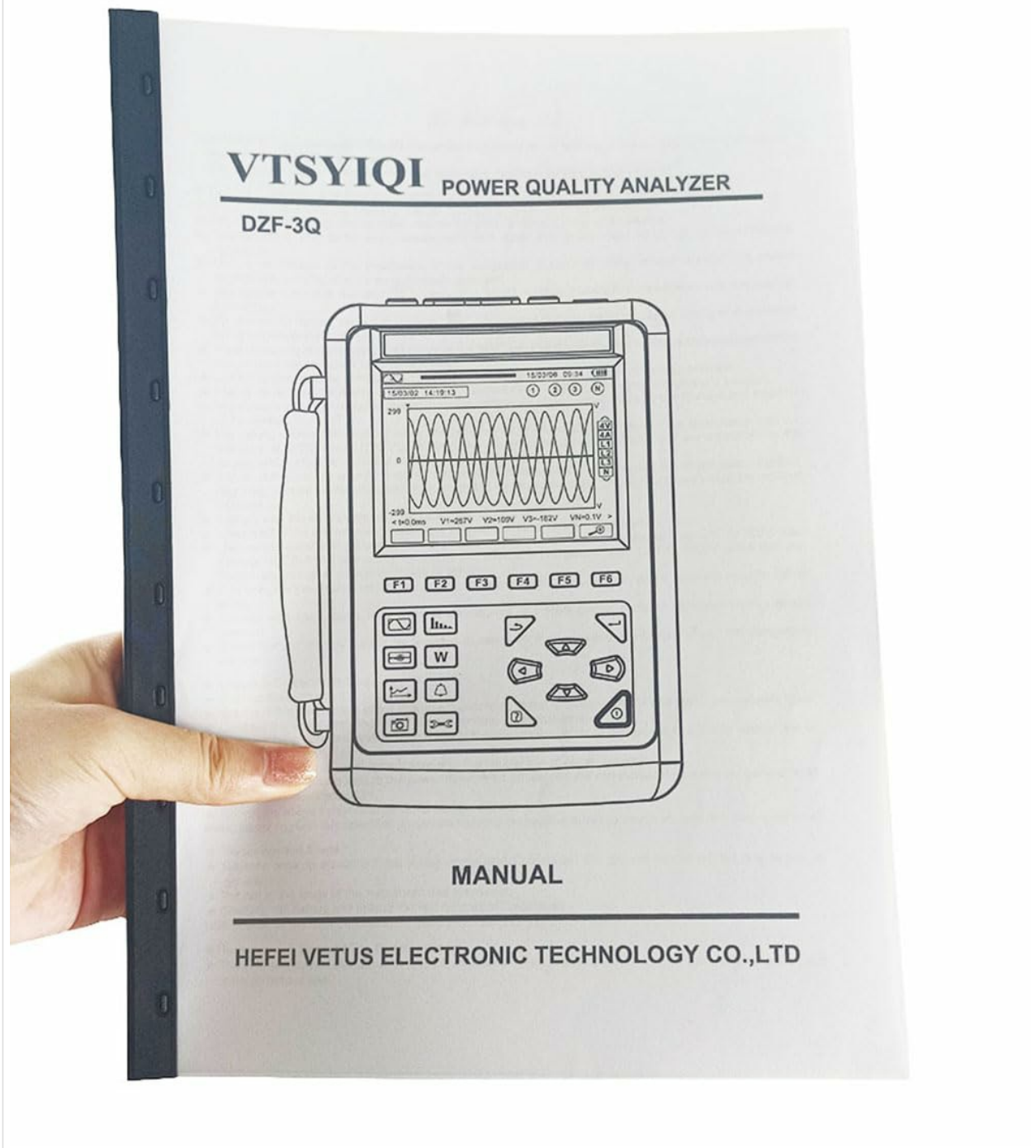


Figure 3.2: The complete VTSYIQI DZF-3Q Power Quality Analyzer kit.

3.2. Interface and Ports

The device features multiple input ports for connecting current clamps and voltage leads, along with a power input and USB port for connectivity.



Figure 3.3: Top panel of the analyzer with connection ports.

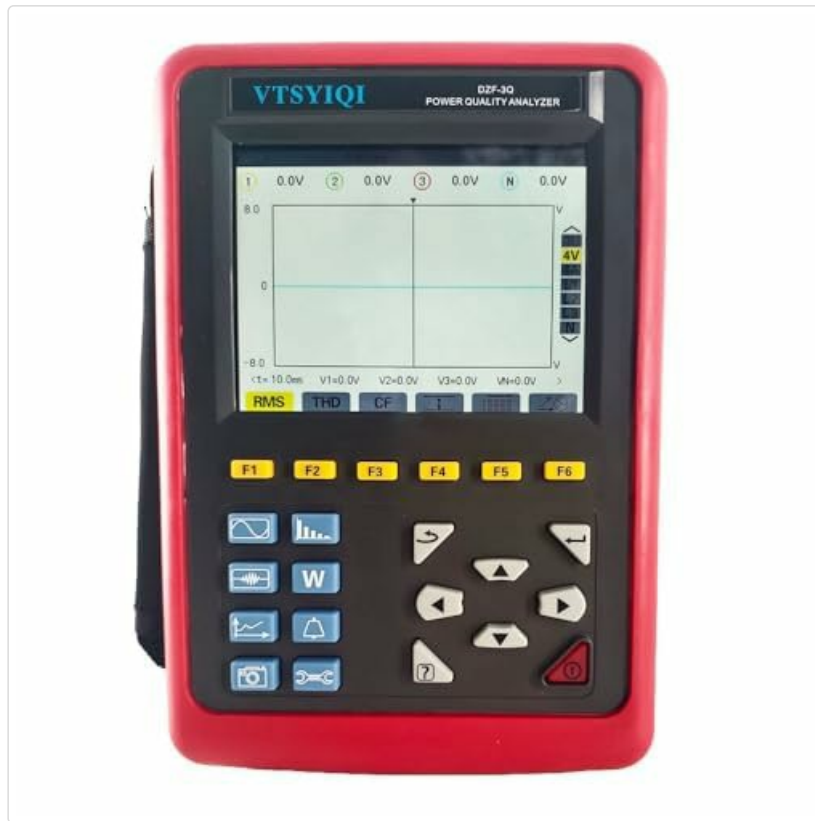


Figure 3.4: Current clamp sensors.

4. SETUP

4.1. Initial Charging

Before first use, fully charge the analyzer's internal battery using the provided power adapter. Connect the adapter to the device's power input port and plug it into a suitable power outlet. The charging indicator will show the charging status.

4.2. Connecting Test Leads and Clamps

1. Ensure the analyzer is powered off before making any connections.
2. Connect the voltage test leads to the corresponding L1/A, L2/B, L3/C, E/GND, and N/D input ports on the top panel of the analyzer.
3. Connect the current clamp sensors to their respective input ports (L1, L2, L3, N). Ensure a secure connection.
4. Attach the current clamps around the conductors to be measured, ensuring they are fully closed.

4.3. Powering On/Off

Press and hold the power button to turn the device on or off. The LCD screen will illuminate upon startup.

5. OPERATING INSTRUCTIONS

The DZF-3Q analyzer offers various measurement modes and functions accessible via the function keys (F1-F6) and navigation buttons.

5.1. Navigating the Interface

- Use the arrow keys to navigate through menus and adjust settings on the 5.6-inch LCD display.
- The F1-F6 buttons correspond to on-screen functions, which may change depending on the active measurement mode.
- The device supports a bilingual English interface for ease of use.

5.2. Measurement Functions

The analyzer supports 4-channel current and voltage measurement, along with power quality analysis.

- **Real-time Measurement:** Select the desired measurement mode (e.g., voltage, current, power, harmonics) to view real-time data on the display.
- **Data Capture:** Use the capture function to record specific events or waveforms.
- **Monitoring:** Set up continuous monitoring for power quality parameters over a period.
- **Record Storage:** Measured data and captured events can be stored in the device's internal memory.
- **Alarm Function:** Configure alarms for specific parameter thresholds. The device will alert when these thresholds are exceeded.
- **Screenshot Function:** Capture the current screen display for documentation.

5.3. Data Transfer

Connect the analyzer to a computer using the provided USB cable to transfer stored data for further analysis and reporting.

6. MAINTENANCE

6.1. Cleaning

Wipe the device exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure no liquids enter the device.

6.2. Battery Care

- Recharge the battery when the low battery indicator appears to prevent unexpected shutdown and data loss.
- For long-term storage, charge the battery at least once every three months to maintain battery health and prevent degradation.

6.3. Storage

Store the analyzer in a clean, dry environment within the specified storage temperature and humidity ranges: - 10 °C to 60 °C, below 70% relative humidity. Use the provided carrying bag for protection during storage and transport.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Connect the power adapter and charge the battery.
No readings displayed.	Test leads or current clamps not properly connected. Incorrect measurement mode selected.	Ensure all connections are secure. Select the appropriate measurement mode.
Inaccurate readings.	Improper connection to the circuit. External interference.	Verify connections according to the circuit type. Ensure proper grounding and minimize interference.
Screen is dim or unreadable in dark environments.	Backlight function is off or set to low brightness.	Activate or adjust the backlight function using the device's controls.
Data transfer fails.	USB cable faulty or not properly connected. Driver issues on PC.	Check USB cable and connections. Install necessary drivers on your computer if prompted.

8. SPECIFICATIONS

Feature	Specification
Brand	VTSYIQI
Model	DZF-3Q
Power Source	Battery
Style	Voltage Tester
Color	Red and black
Dimensions (L x W x H)	25 x 10 x 5 centimeters
Operating Temperature	-10 °C to 40 °C
Operating Humidity	Below 80% RH
Storage Temperature	-10 °C to 60 °C
Storage Humidity	Below 70% RH
Safety Standard	IEC 61010
Current Range	AC 10mA to 10.0A (with sensor)
Display	5.6-inch LCD

Feature	Specification
Features	4-channel current/voltage measurement, automatic shut-down, backlight, transient capture, trend chart recording, alarm, snapshot.

9. WARRANTY AND SUPPORT

9.1. Warranty Information

Please refer to the warranty card included with your product for specific warranty terms and conditions. Manufacturer warranties typically cover defects in materials and workmanship under normal use.

9.2. Customer Support

For technical assistance, troubleshooting, or service inquiries, please contact VTSYIQI customer support. VTSYIQI is committed to providing each customer with the highest standard of service. You may find contact information on the official VTSYIQI website or through your purchase platform.