

## ANLY APR-3

# ANLY APR-3 Phase Detection Relay User Manual

Model: APR-3

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient use of the ANLY APR-3 Phase Detection Relay. The APR-3 is designed for under phase detection, phase failure, and phase sequence monitoring in industrial electrical systems. It is a crucial component for ensuring the safety and optimal performance of your equipment by protecting against common power supply anomalies.

## 2. SAFETY INFORMATION

**WARNING:** Electrical shock hazard. Installation and maintenance should only be performed by qualified personnel. Disconnect all power before working on the relay or connected equipment.

- Always follow local electrical codes and regulations.
- Ensure proper grounding of all equipment.
- Do not operate the relay if it is damaged or has been exposed to moisture.
- Verify correct voltage and current ratings before connection.

## 3. PRODUCT OVERVIEW

The ANLY APR-3 is a robust and reliable relay designed for general purpose usage in various industrial applications. It features premium materials and excellent finishing, ensuring durability and consistent performance. This relay is specifically engineered to detect under phase conditions, phase failures, and incorrect phase sequences, providing critical protection for sensitive machinery and systems.



Figure 3.1: Front panel of the ANLY APR-3 Phase Reversal Relay. This image displays the front panel of the ANLY APR-3 Phase Reversal Relay. Key information visible includes the brand 'ANLY', product type 'PHASE REVERSAL RELAY', model 'APR-3', electrical rating '5A 250VAC', frequency '50Hz', and a voltage indicator for '380 VAC'.

Key features include:

- Under phase detection
- Phase failure detection
- Phase sequence monitoring
- CE certified for quality assurance
- Designed for general purpose industrial applications

## 4. SETUP AND INSTALLATION

Proper installation is critical for the reliable operation of the APR-3 relay. Refer to the wiring diagram provided with the product packaging for specific connection details. The following are general steps:

1. **Mounting:** Securely mount the relay in a suitable enclosure, ensuring adequate ventilation and protection from environmental factors.
2. **Power Connection:** Connect the main power supply lines to the designated terminals on the relay. Ensure phase sequence is correct if applicable to your setup.
3. **Load Connection:** Connect the controlled load or control circuit to the relay's output contacts.
4. **Verification:** Double-check all wiring connections for tightness and correctness before applying power.

## 5. OPERATING INSTRUCTIONS

Once installed and powered, the ANLY APR-3 relay operates automatically to monitor the phase conditions. The relay will activate its output contacts based on the detected phase status (under phase, phase failure, or incorrect sequence).

- **Normal Operation:** When all phases are within acceptable parameters and the sequence is correct, the relay's status indicator (if present) will show normal operation, and the output contacts will be in their default state (e.g., closed for normal operation).
- **Fault Detection:** Upon detection of an under phase, phase failure, or incorrect phase sequence, the relay will trip, changing the state of its output contacts to signal the fault and protect the connected equipment.
- **Reset:** Depending on the model, the relay may automatically reset once the fault condition is cleared, or it may

require a manual reset. Refer to the product's specific datasheet for reset behavior.

## 6. MAINTENANCE

The ANLY APR-3 relay is designed for low maintenance. However, periodic checks can help ensure its longevity and reliable performance.

- **Visual Inspection:** Regularly inspect the relay for any signs of physical damage, discoloration, or loose connections.
- **Cleaning:** Keep the relay and its enclosure clean and free from dust and debris. Use a dry, soft cloth for cleaning. Do not use solvents or abrasive cleaners.
- **Connection Checks:** Periodically verify that all terminal connections are secure and tight.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges.

## 7. TROUBLESHOOTING

If the ANLY APR-3 relay is not functioning as expected, consider the following common issues:

- **Relay Not Activating:**
  - Check input power supply voltage and phase sequence.
  - Verify all wiring connections are correct and secure.
  - Ensure the relay's rating matches the system voltage.
- **False Trips:**
  - Check for unstable power supply or transient voltage fluctuations.
  - Ensure proper grounding and shielding to prevent electrical noise interference.
- **No Indication Lights:**
  - Confirm power is supplied to the relay.
  - Inspect for internal damage (if safe to do so, or consult a professional).

If problems persist, contact customer support or a qualified electrician.

## 8. SPECIFICATIONS

Attribute	Value
Model Number	APR-3
Manufacturer	Generic (ANLY)
Part Number	GG920365_40004584690
Material	Premium Material
Operating Voltage	380 VAC (as per product label)
Contact Rating	5A 250VAC (as per product label)
Frequency	50Hz (as per product label)

Attribute	Value
Power Source (Internal Logic)	DC (as per product description)
Usage	General Purpose
Item Package Quantity	1
ASIN	B0CLHDYY9H
Date First Available	20 October 2023
Certification	CE

9. WARRANTY AND SUPPORT

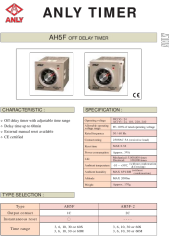

Your ANLY APR-3 relay comes with a **12-month warranty** from the date of purchase. This warranty covers manufacturing defects and ensures a full refund or replacement for any quality issues.

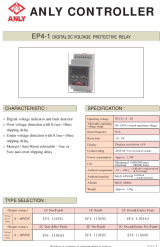
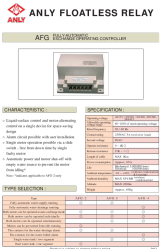
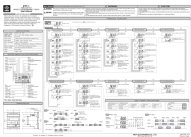
For any issues, damaged items, or incorrect products, please contact our customer service team through the platform where you made your purchase. We are committed to providing prompt assistance and the best possible solution to ensure your complete satisfaction.

We offer a wide range of industrial electrical equipment and are dedicated to providing top-tier products and unmatched customer service. Browse our catalog for other solutions to power and control your industrial systems efficiently and reliably.

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Related Documents - APR-3

	<p><a href="#">ANLY AH5F Off Delay Timer: Technical Specifications and Features</a></p> <p>Comprehensive details on the ANLY AH5F and AH5F-2 off-delay timers, including characteristics, electrical and mechanical specifications, type selection, connection diagrams, timing charts, and dimensional drawings. Features CE certification and adjustable time ranges up to 60 minutes.</p>
	<p><a href="#">ANLY AG4Q-H Series Exchange Relay Datasheet</a></p> <p>Technical specifications, wiring diagrams, timing diagrams, and dimensions for the ANLY AG4Q-H, AG4Q-H3, AG4Q-HC, and AG4Q-HS exchange relays. Features include automatic or manual operation modes, input signal options, and contact ratings.</p>

 <p><b>ANLY CONTROLLER</b> EP4-1 DIGITAL DC VOLTAGE PROTECTIVE RELAY</p> <p><b>CHARACTERISTICS:</b></p> <ul style="list-style-type: none"><li>High precision digital voltage protection</li><li>Wide voltage range: 0V to 500V DC</li><li>Highly accurate: ±0.1% FS</li><li>Adjustable delay time: 0.1s to 10s</li><li>Adjustable reset time: 0.1s to 10s</li><li>Adjustable hysteresis: 0.1V to 10V</li><li>Adjustable output current: 0.1A to 10A</li><li>Adjustable output voltage: 0.1V to 10V</li><li>Adjustable output power: 0.1W to 10W</li><li>Adjustable output frequency: 0.1Hz to 10Hz</li><li>Adjustable output phase: 0.1° to 10°</li><li>Adjustable output duty cycle: 0.1% to 10%</li><li>Adjustable output waveform: 0.1V to 10V</li></ul> <p><b>TYPE SELECTION:</b></p> <table><thead><tr><th>Model</th><th>Rated Voltage (V)</th><th>Rated Current (A)</th><th>Rated Power (W)</th><th>Rated Frequency (Hz)</th><th>Rated Phase (°)</th><th>Rated Duty Cycle (%)</th><th>Rated Waveform (V)</th></tr></thead><tbody><tr><td>EP4-1</td><td>0-500</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td></tr></tbody></table>	Model	Rated Voltage (V)	Rated Current (A)	Rated Power (W)	Rated Frequency (Hz)	Rated Phase (°)	Rated Duty Cycle (%)	Rated Waveform (V)	EP4-1	0-500	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	<p><a href="#">ANLY EP4-1 Digital DC Voltage Protective Relay</a></p> <p>Detailed technical specifications, characteristics, type selection guide, connection diagram, timing chart, and dimensions for the ANLY EP4-1 Digital DC Voltage Protective Relay, designed for over and under voltage protection.</p>
Model	Rated Voltage (V)	Rated Current (A)	Rated Power (W)	Rated Frequency (Hz)	Rated Phase (°)	Rated Duty Cycle (%)	Rated Waveform (V)										
EP4-1	0-500	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10										
 <p><b>ANLY FLOATLESS RELAY</b> AFG FULLY-AUTOMATIC EXCHANGE CONTROLLER</p> <p><b>CHARACTERISTICS:</b></p> <ul style="list-style-type: none"><li>High precision digital voltage protection</li><li>Wide voltage range: 0V to 500V DC</li><li>Highly accurate: ±0.1% FS</li><li>Adjustable delay time: 0.1s to 10s</li><li>Adjustable reset time: 0.1s to 10s</li><li>Adjustable hysteresis: 0.1V to 10V</li><li>Adjustable output current: 0.1A to 10A</li><li>Adjustable output voltage: 0.1V to 10V</li><li>Adjustable output power: 0.1W to 10W</li><li>Adjustable output frequency: 0.1Hz to 10Hz</li><li>Adjustable output phase: 0.1° to 10°</li><li>Adjustable output duty cycle: 0.1% to 10%</li><li>Adjustable output waveform: 0.1V to 10V</li></ul> <p><b>TYPE SELECTION:</b></p> <table><thead><tr><th>Model</th><th>Rated Voltage (V)</th><th>Rated Current (A)</th><th>Rated Power (W)</th><th>Rated Frequency (Hz)</th><th>Rated Phase (°)</th><th>Rated Duty Cycle (%)</th><th>Rated Waveform (V)</th></tr></thead><tbody><tr><td>AFG</td><td>0-500</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td></tr></tbody></table>	Model	Rated Voltage (V)	Rated Current (A)	Rated Power (W)	Rated Frequency (Hz)	Rated Phase (°)	Rated Duty Cycle (%)	Rated Waveform (V)	AFG	0-500	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	<p><a href="#">ANLY AFG Series Floatless Relay: Fully-Automatic Exchange Operating Controller Datasheet</a></p> <p>Technical specifications, characteristics, and connection diagrams for the ANLY AFG series floatless relays, designed for fully-automatic exchange operation of pumps and water level control.</p>
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AFG	0-500	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10										
 <p><b>ANLY TIMER</b> ATDV TWIN ANALOGUE TIMER</p> <p><b>CHARACTERISTICS:</b></p> <ul style="list-style-type: none"><li>High precision digital voltage protection</li><li>Wide voltage range: 0V to 500V DC</li><li>Highly accurate: ±0.1% FS</li><li>Adjustable delay time: 0.1s to 10s</li><li>Adjustable reset time: 0.1s to 10s</li><li>Adjustable hysteresis: 0.1V to 10V</li><li>Adjustable output current: 0.1A to 10A</li><li>Adjustable output voltage: 0.1V to 10V</li><li>Adjustable output power: 0.1W to 10W</li><li>Adjustable output frequency: 0.1Hz to 10Hz</li><li>Adjustable output phase: 0.1° to 10°</li><li>Adjustable output duty cycle: 0.1% to 10%</li><li>Adjustable output waveform: 0.1V to 10V</li></ul> <p><b>TYPE SELECTION:</b></p> <table><thead><tr><th>Model</th><th>Rated Voltage (V)</th><th>Rated Current (A)</th><th>Rated Power (W)</th><th>Rated Frequency (Hz)</th><th>Rated Phase (°)</th><th>Rated Duty Cycle (%)</th><th>Rated Waveform (V)</th></tr></thead><tbody><tr><td>ATDV</td><td>0-500</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td><td>0.1-10</td></tr></tbody></table>	Model	Rated Voltage (V)	Rated Current (A)	Rated Power (W)	Rated Frequency (Hz)	Rated Phase (°)	Rated Duty Cycle (%)	Rated Waveform (V)	ATDV	0-500	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	<p><a href="#">ANLY ATDV Twin Analogue Timer Specifications and Features</a></p> <p>Explore the ANLY ATDV Twin Analogue Timer, featuring customized CMOS IC for accuracy, independent ON-OFF adjustments, multiple time ranges, and dual voltage compatibility. This document details specifications, type selection, connection diagrams, timing charts, and dimensions.</p>
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ATDV	0-500	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10										
 <p><b>ANLY ET7-1 Twin Output Weekly Programmable Timer User Manual</b></p>	<p><a href="#">ANLY ET7-1 Twin Output Weekly Programmable Timer User Manual</a></p> <p>Comprehensive user manual for the ANLY ET7-1 Twin Output Weekly Programmable Timer, detailing specifications, functions, operating procedures, and communication interfaces.</p>																