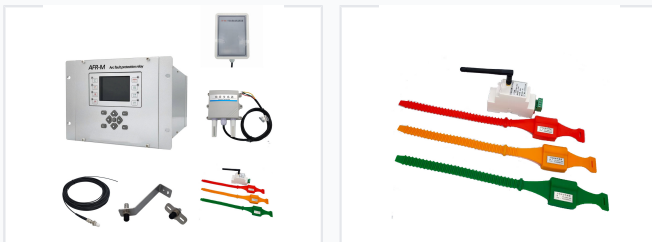


# Arc Flash Protection Relay with Arc Fault Detection

The arc flash protection relay is designed to protect electrical networks from arc flash incidents. It uses smoke, current, and arc sensing to quickly detect busbar arc flashes.



## ADDITIONAL IMAGES



## Overview

### Advanced Arc Flash Protection

The AFR-M Busbar Arc Flash Protection Relay is a high-performance safety solution designed for low-voltage (LV) and medium-voltage (MV) electrical networks. It utilizes a sophisticated three-trip criteria—combining smoke, current, and arc sensing—to ensure rapid and reliable detection of busbar arc flashes. This integrated approach significantly minimizes damage to equipment and enhances personnel safety by disconnecting power supplies before electrical fires can escalate.

## Key Features

### System Capabilities

- Complete digital design with simplified operating principles
- Double criterion logic (over-current and arc) for high reliability
- Optical fiber transmission for superior electromagnetic interference resistance
- Programmable trip exit logic for customized protection schemes
- Comprehensive fault information recording for post-event analysis
- Fast exit tripping to minimize total fault clearing time

## Technical Power Specifications

### Rated Current

**5 A**

Primary Rated Current

**1 A**

Secondary Rated Current

**Power Supply Range**

AC/DC 85 ~ 265V

**Device Consumption**

8 W

## Arc Detection & Inputs



High-speed optical fiber sensor for rapid arc fault detection in medium and low voltage switchgear.

Arc Signal Channels	12-48 channels (optional)
Sensor & Light Detection	Optical Fiber, Visible Light, UV Light

## Output & Isolation

### Output Parameters

Parameter	Specification
Operating Voltage	AC 250V / 8A
Input Method	Passive contact
Isolation Method	Photoelectric isolation
Isolation Voltage	2500V

Relay Output Channels	9
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## Applications

### Application Areas

Power Substations • Wind Farms • Photovoltaic Stations • Thermal Power Plants • Transformer Protection • DC Systems • Switchgear Cabinets

## Measurement Precision

### Accuracy & Tolerance

- Protection current tolerance:  $\pm 2\%$
- Protection frequency tolerance: 0.1Hz
- Current input consumption:  $\leq 5VA$