Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

Eaton Bussmann 40035-1119

User Manual for Eaton Bussmann PVS-R Series Solar Fuses

Model: 40035-1119

1. Introduction

This manual provides essential information for the safe and effective use of Eaton Bussmann PVS-R Series Solar Fuses. These fuses are specifically designed for the protection of photovoltaic (PV) systems, ensuring the safety and longevity of solar installations by providing reliable overcurrent protection.
The PVS-R Series fuses are fast-acting, non-indicating cartridge fuses, engineered to meet the demanding requirements of solar applications, including high DC voltage ratings and robust construction.

2. Safety Information

WARNING: Electrical shock hazard. Always disconnect power before installing, removing, or servicing fuses. Only qualified personnel should perform installation and maintenance procedures.

- Ensure all power sources are de-energized and locked out before working on any electrical circuit.
- Use appropriate personal protective equipment (PPE), including insulated gloves and eye protection.
- Verify the voltage and current ratings of the fuse match the circuit requirements. Using an incorrectly rated fuse can lead to equipment damage or fire.
- Do not bypass or tamper with fuses. Fuses are critical safety devices.
- Refer to local and national electrical codes (e.g., National Electrical Code - NEC) for proper installation practices.

3. Product Overview

The Eaton Bussmann PVS-R Series Solar Fuse is a high-performance cartridge fuse designed for photovoltaic applications. It features a cylindrical body style and is classified as Class RK5, offering excellent current-limiting capabilities and high interrupt ratings.

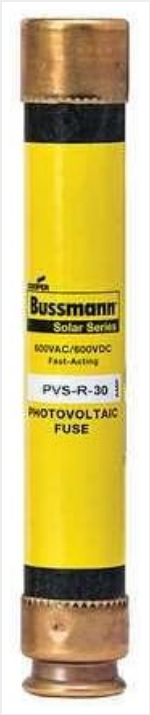


Figure 1: Eaton Bussmann PVS-R Series 30A Solar Fuse. This image shows a yellow cylindrical fuse with brass end caps. The label on the fuse indicates "Bussmann Solar Series", "600VAC/600VDC Fast-Acting", "PVS-R-30", and "PHOTOVOLTAIC FUSE".

Key Features:

- **Current Rating:** 30 Amperes
- **Voltage Rating:** 600V AC, 600V DC
- **Fuse Class:** RK5
- **Action:** Fast-Acting
- **Body Style:** Cylindrical, Rejection Type
- **Interrupt Rating:** 200kA at 600V AC, 20kA at 600V DC
- **Material:** Fiberglass body, Copper elements
- **Standards:** UL Std. 248-12, Class RK5, UL Listed, Guide JFGA, File E335324, Photovoltaic to UL 2579, CSA Component Certified C22.2

4. Setup and Installation

Proper installation is crucial for the safe and effective operation of the fuse. Always ensure that the fuse is installed in a compatible fuse holder or disconnect switch designed for its voltage and current ratings, and physical dimensions.

1. **De-energize Circuit:** Before beginning any work, ensure that the photovoltaic system and all associated circuits are completely de-energized and verified with a voltage tester.
2. **Select Correct Fuse:** Confirm that the replacement fuse (PVS-R-30) matches the required current and voltage ratings for the specific PV circuit.
3. **Inspect Fuse Holder:** Ensure the fuse holder is clean, free of corrosion, and in good condition.
4. **Install Fuse:** Carefully insert the fuse into the fuse holder. Ensure it is seated firmly and correctly to establish proper electrical contact.
5. **Re-energize Circuit:** Once the fuse is securely installed and all safety precautions are observed, the circuit can be re-energized.

For detailed wiring diagrams and system-specific installation instructions, refer to your solar inverter and system component manuals, and consult with a qualified electrician.

5. Operating Principles

The Eaton Bussmann PVS-R Series Solar Fuse functions as a sacrificial device designed to protect electrical circuits from overcurrent conditions. When the current flowing through the circuit exceeds the fuse's rated amperage for a specified duration, the internal element of the fast-acting fuse melts, creating an open circuit and interrupting the flow of electricity. This rapid interruption prevents damage to sensitive photovoltaic equipment, wiring, and other components that could be caused by short circuits, overloads, or ground faults within the solar array.

6. Maintenance

Fuses are generally maintenance-free components. However, periodic inspection of the fuse and its holder is recommended as part of a routine electrical system check-up.

- **Visual Inspection:** Check for any signs of physical damage, discoloration, or corrosion on the fuse body or end caps.
- **Fuse Holder Condition:** Ensure the fuse holder contacts are clean and provide a secure connection.
- **Replacement:** If a fuse has blown, it must be replaced with a fuse of the exact same type, voltage, and current rating (PVS-R Series, 30A, 600V AC/DC). Never attempt to repair a blown fuse.

7. Troubleshooting

If a circuit protected by a PVS-R Series fuse loses power, it is highly probable that the fuse has operated (blown) due to an overcurrent condition. Since these are non-indicating fuses, visual confirmation of a blown fuse is not possible without removal and testing.

1. **Isolate Circuit:** Immediately de-energize the affected circuit and verify zero voltage before proceeding.
2. **Identify Cause:** Before replacing the fuse, it is critical to identify and rectify the cause of the overcurrent. Common causes include:
    - Short circuits
    - Overloaded circuits
    - Faulty equipment
    - Ground faults
3. **Test Fuse:** Remove the suspected fuse and test its continuity with a multimeter. A blown fuse will show an open circuit (infinite resistance).
4. **Replace Fuse:** Only replace the fuse with an identical Eaton Bussmann PVS-R Series 30A 600V fuse after the fault has been cleared.
5. **Monitor:** After replacement, carefully monitor the circuit for any recurrence of the fault.

If the fuse continues to blow after replacement, consult a qualified electrician to diagnose and repair the underlying electrical issue.

8. Specifications

Attribute	Value
Brand	Eaton Bussmann
Model Number	40035-1119

Attribute	Value
Current Rating	30 Amps
Voltage Rating	600 Volts AC/DC
Fuse Class	RK5
Action	Fast-Acting
Body Style	Cylindrical, Rejection
Interrupt Rating (AC)	200kA at 600V AC
Interrupt Rating (DC)	20kA at 600V DC
Fuse Size (L x Dia)	5 in L x 13/16 in dia
Material	Fiberglass body, Copper elements
Mounting Type	Through-Hole Mount
Standards Met	UL Std. 248-12, Class RK5, UL Listed, UL 2579, CSA C22.2
UPC	797201454922
Package Quantity	6

9. Warranty and Support

For information regarding product warranty, please refer to the official Eaton Bussmann website or contact their customer support directly. Eaton Bussmann stands behind the quality and reliability of its products.

For technical assistance, product inquiries, or to report an issue, please contact Eaton Bussmann customer service. Always provide the model number (40035-1119) and product name (PVS-R Series Solar Fuse) when seeking support.

Manufacturer: EATON BUSSMANN

© 2024 Eaton Bussmann. All rights reserved.
This manual is for informational purposes only. Specifications are subject to change without notice.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B0962NKDSD

More documents and user manuals: **https://manuals.plus/**