

Maintain Arc Resistant Ratings when Close Coupled with 3rd Party Equipment

Publication 1500-AT002A-EN-P

Introduction

This document outlines the basic requirements and responsibilities regarding close coupling arc resistant equipment from 3rd party suppliers⁽¹⁾ with Rockwell Automation ArcShield™ Medium Voltage Motor Control Centers (MVMCCs).

The Rockwell Automation ArcShield MVMCC may be close coupled to arc resistant equipment from other suppliers while maintaining the original arc resistant rating with the requirement that any such connection must adhere to the guidelines provided in publication [1500-AT003 -EN-P](#).

Close coupled means that only the main power bus is directly connected between the ArcShield MVMCC and the 3rd party equipment, and that this buswork shares a common air space. Close coupling may also include the coupling of two different arc gas release systems (plenums), but only after a full engineering evaluation.

Overview

1. The ArcShield MVMCC cannot be modified in any way without written permission from Rockwell Automation.
2. The 3rd party equipment must have a minimum type 2 accessibility rating when tested at a voltage of 7200 and a maximum current of 40 kA or 50 kA⁽²⁾ for 500 ms, per IEEE C37.20.7. A type 2B accessibility rating is preferred.
3. If the 3rd party equipment has an arc resistant rating higher than the ArcShield products, the 3rd party must relabel their product for the lower rating of 40 kA or 50 kA⁽²⁾ for 500 ms.
4. The overall combined system arc resistant rating, per IEEE C37.20.7, will be Type 2 or Type 2B accessibility at a maximum 7200V at either 40 kA or 50 kA⁽²⁾ for 500 ms.

(1) Typically switchgear or loadbreak switches.

(2) Not available on all configurations.

5. The 3rd party supplier is responsible for maintaining the arc resistant rating of their equipment, including any transition section(s) and the sealing of the physical connection between their transition section to the ArcShield MVMCC.
6. The ArcShield MVMCC must be installed per the instructions contained within the applicable Rockwell Automation Arc Resistant MVMCC user manual.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Publication 1500-UM055 -EN-P	Provides installation, maintenance, and general operating procedures for Medium Voltage Controllers, 200/400A Two-High Cabinet, Standard and Arc-Resistant Enclosure
Publication 1512A-UM100 -EN-P	Provides installation, maintenance, and general operating procedures for Medium Voltage Controllers, 400A One-High Cabinet, Standard and Arc-Resistant Enclosure
Publication 1512A-UM102 -EN-P	Provides installation, maintenance, and general operating procedures for Medium Voltage Controllers, 800A One-High Cabinet, Standard and Arc-Resistant Enclosure
Publication 1560E-UM051 -EN-P	Provides installation, commissioning, maintenance, and general operating procedures for Medium Voltage SMC™ Flex Motor Controllers, Bulletin 1503E, 1560E and 1562E
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

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Online: www.ab.com/mvb

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