X-Limiter Full-Range Current-Limiting Fuse
Installation Instructions
DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY

The information, recommendations, descriptions and safety notations in this document are based on Eaton Corporation’s (“Eaton”) experience and judgment and may not cover all contingencies. If further information is required, an Eaton sales office should be consulted. Sale of the product shown in this literature is subject to the terms and conditions outlined in appropriate Eaton selling policies or other contractual agreement between Eaton and the purchaser.

THERE ARE NO UNDERSTANDINGS, AGREEMENTS, WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, OTHER THAN THOSE SPECIFICALLY SET OUT IN ANY EXISTING CONTRACT BETWEEN THE PARTIES. ANY SUCH CONTRACT STATES THE ENTIRE OBLIGATION OF EATON. THE CONTENTS OF THIS DOCUMENT SHALL NOT BECOME PART OF OR MODIFY ANY CONTRACT BETWEEN THE PARTIES.

In no event will Eaton be responsible to the purchaser or user in contract, in tort (including negligence), strict liability or otherwise for any special, indirect, incidental or consequential damage or loss whatsoever, including but not limited to damage or loss of use of equipment, plant or power system, cost of capital, loss of power, additional expenses in the use of existing power facilities, or claims against the purchaser or user by its customers resulting from the use of the information, recommendations and descriptions contained herein. The information contained in this manual is subject to change without notice.
Contents

DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY ........................................ II
SAFETY FOR LIFE ........................................................................................................ IV
SAFETY INFORMATION ................................................................................................ IV
  Safety Instructions ....................................................................................................... iv
PRODUCT INFORMATION ......................................................................................... 1
  Introduction .................................................................................................................. 1
  Acceptance and initial inspection .................................................................................. 1
  Handling and storage ..................................................................................................... 1
  Standards ....................................................................................................................... 1
INSTALLATION PROCEDURE ....................................................................................... 2
Safety for life

Eaton’s Cooper Power series products meet or exceed all applicable industry standards relating to product safety. We actively promote safe practices in the use and maintenance of our products through our service literature, instructional training programs, and the continuous efforts of all Eaton employees involved in product design, manufacture, marketing and service.

We strongly urge that you always follow all locally approved safety procedures and safety instructions when working around high-voltage lines and equipment and support our “Safety For Life” mission.

Safety information

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians, who are familiar with this equipment should install, operate and service it.

A competent technician has these qualifications:

• Is thoroughly familiar with these instructions.
• Is trained in industry-accepted high- and low-voltage safe operating practices and procedures.
• Is trained and authorized to energize, de-energize, clear, and ground power distribution equipment.
• Is trained in the care and use of protective equipment such as flash clothing, safety glasses, face shield, hard hat, rubber gloves, clampstick, hotstick, etc.

Following is important safety information. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings.

Hazard Statement Definitions

This manual may contain four types of hazard statements:

⚠️ DANGER
Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠️ WARNING
Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠️ CAUTION
Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

⚠️ CAUTION
Indicates a hazardous situation which, if not avoided, may result in equipment damage only.
Product information

Introduction
Full-range fuses are designed to clear a wide range of currents. They should be properly selected for the specific application at hand by properly trained personnel.

Read this manual first
Read and understand the contents of this manual and follow all locally approved procedures and safety practices before installing or operating this equipment.

Additional information
These instructions cannot cover all details or variations in the equipment, procedures, or process described nor provide directions for meeting every possible contingency during installation, operation, or maintenance. For additional information, contact your representative.

Acceptance and initial inspection
Each fuse is in good condition when accepted by the carrier for shipment. Upon receipt, inspect the shipping container for signs of damage. Unpack the fuse and inspect it thoroughly for damage incurred during shipment. If damage is discovered, file a claim with the carrier immediately.

Handling and storage
Be careful during handling and storage of the fuse to minimize the possibility of damage. If the fuse is to be stored for any length of time prior to installation, provide a clean, dry storage area.

Standards
ISO 9001 Certified Quality Management System

Figure 1. X-Limiter full-range current-limiting fuse
Installation procedure

1. X-Limiter fuses may be used as replacement fuses or in original equipment. Replace fuses of equal size and rating only. In three-phase applications, each phase must be re-fused with fuses of equal size, rating, and manufacture. If fuses of different manufacturers are intermixed between phases, simultaneous clearing of three-phase faults cannot be guaranteed.

2. X-Limiter fuses may be mounted in a variety of configurations. Follow the instructions of the mounting equipment for proper fit and connection.

3. The maximum rated design voltage of the fuse should not be exceeded in any application.

For further information regarding this fuse or its application, contact supervisory personnel or contact your Eaton representative.

Table 1. X-Limiter clip-style fuse dimensional information (see figure 2 for dimensional drawings.)

<table>
<thead>
<tr>
<th>Voltage (kV)</th>
<th>Current (A)</th>
<th>Dimensions – inches (mm)</th>
<th>Weight lbs (kg)</th>
<th>Mounting code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>4.3 *</td>
<td>10-100</td>
<td>10.0 (254)</td>
<td>2.13 (54)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>5.5 *</td>
<td>10-75</td>
<td>10.0 (254)</td>
<td>2.13 (54)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>8.3 **</td>
<td>10-40</td>
<td>10.11 (257)</td>
<td>2.15 (55)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>8.3 *</td>
<td>50 DW</td>
<td>10.0 (254)</td>
<td>2.13 (54)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>8.3 *</td>
<td>50-140</td>
<td>14.69 (373)</td>
<td>3.16 (80)</td>
<td>1.19 (30)</td>
</tr>
<tr>
<td>15.5 **</td>
<td>10-40</td>
<td>14.37 (365)</td>
<td>2.15 (55)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>15.5 *</td>
<td>50 DW</td>
<td>14.31 (363)</td>
<td>2.13 (54)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>15.5 *</td>
<td>50-125</td>
<td>17.5 (444)</td>
<td>3.16 (80)</td>
<td>1.19 (30)</td>
</tr>
<tr>
<td>23 **</td>
<td>10-40</td>
<td>17.21 (437)</td>
<td>2.15 (55)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>23 *</td>
<td>50 DW</td>
<td>17.13 (435)</td>
<td>2.13 (54)</td>
<td>1.0 (25)</td>
</tr>
<tr>
<td>23 *</td>
<td>50-100</td>
<td>27.37 (695)</td>
<td>3.16 (80)</td>
<td>1.19 (30)</td>
</tr>
</tbody>
</table>
Figure 2. X-Limiter full-range current-limiting clip-style fuse dimensions. (See table 1 for dimensions)

Table 2. X-Limiter hinge-style fuse dimensional information (see figure 3 for dimensional drawings.)

<table>
<thead>
<tr>
<th>Fuse rating</th>
<th>Dimensions – inches (mm)</th>
<th>Weight lbs (kg)</th>
<th>Mounting code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage (kV)</td>
<td>Current (A)</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>15.5**</td>
<td>60-100</td>
<td>4.37 (111)</td>
<td>2.13 (54.1)</td>
</tr>
</tbody>
</table>

** Consists of X-Limiter unitized fuse (parallel fuses) (see Figure 3 for dimensional drawing).

Figure 3. X-Limiter full-range current-limiting unitized fuse details and dimensions. (See table 2 for dimensions)