VAMP 221/321 system in Pix cubicle

Installation guide
01/2014
Contents

1- INTRODUCTION ................................................................. 3
2- POINT SENSOR (VA 1 DA-X TYPE) ........................................... 3
3- POINT SENSOR LOCATION IN PIX CUBICLE .................................... 4
4- CABLE COMPARTMENT ............................................................. 5
  4.1- Point sensor mounting ......................................................... 5
5- BUSBAR COMPARTMENT ............................................................. 6
  5.1- Point sensor mounting ......................................................... 6
  5.2- Busbar compartment arc sensor roof cover ................................. 7
6- CIRCUIT BREAKER COMPARTMENT ............................................ 7
  6.1- Point sensor mounting and cabling ......................................... 7
7- LOW VOLTAGE COMPARTMENT ................................................... 8
  7.1- VAMP 221 central unit mounting (ref : V221-A3AAA) ..................... 8
  7.2 - VAMP 321 central unit mounting (ref : V321 order code to be defined) ......................... 9
  7.3- VAM I/O units Din rail mounting ........................................... 10
  7.4- VAM I/O units flush mounting ............................................. 11
ANNEX : REFERENCE DOCUMENTS ............................................. 12

Revisions

<table>
<thead>
<tr>
<th>Type of revision</th>
<th>date</th>
<th>Written by</th>
</tr>
</thead>
<tbody>
<tr>
<td>First issue</td>
<td>May 13th, 2014</td>
<td>R. Lehto</td>
</tr>
</tbody>
</table>
Installation guide: VAMP221/321 system in PIX

1- Introduction

The aim of this guide is to indicate the appropriate installation rules for the VAMP Arc Flash protection system with point sensors (Central unit + I/O units + point sensors) in PIX Medium Voltage cubicles.

This guide does not take anything away from VAMP technical documents. It is aimed at providing further explanations and additional information on the installation rules that already exist in:

“Operation and configuration instructions – Technical description” Ref : V221/EN M/A016
“VAMP arc flash protection testing manual” Ref VARCTEST/EN M/A001

This document is available through Pi@net intranet site.

These installation rules contribute to guarantee the correct operation and performance levels of VAMP Arc Flash protection system in PIX Medium Voltage cubicles.

2- Point sensor (VA 1 DA-x type)

VA 1 DA-x : x means 6 or 20 meters shielded cable to be specified in the order

Due to the wide detection range of the sensors and the light reflection inside the switchgear, the mounting position is not critical.

Note: If point sensors are used in open compartments (such as Busbar compartment), there should be a point sensor approximately every 5 meters.
3- Point sensor location in PIX cubicle

The point sensors are located to supervise the cable compartment, the bus bar compartment and the circuit-breaker compartment.

- **Busbar compartment point sensor**
  - VA 1 DA-x type

- **Circuit Breaker compartment point sensor**
  - VA 1 DA-x type

- **Cable compartment point sensor**
  - VA 1 DA-x type
4- Cable compartment

4.1- Point sensor mounting

Cable compartment  ARC sensor installation in PIX

Cable compartment point sensor
VA 1 DA-x type
5- Busbar compartment

5.1- Point sensor mounting
Installation guide: VAMP221/321 system in PIX

5.2- Busbar compartment arc sensor roof cover

6- Circuit Breaker compartment

6.1- Point sensor mounting and cabling

Circuit Breaker compartment point sensor
VA 1 DA-x type
7- Low voltage compartment

7.1- VAMP 221 central unit mounting (ref : V221-A3AAA)
Installation guide: VAMP221/321 system in PIX

7.2 - VAMP 321 central unit mounting (ref: V321 order code to be defined)
7.3- VAM I/O units Din rail mounting

VAM12LSE point sensor I/O unit (same mounting for VAM10LSE point sensor I/O unit, VAM4CSE current I/O unit and VAMP4RSE trip multiplier relay)
Installation guide: VAMP221/321 system in PIX

7.4- VAM I/O units flush mounting

VAM12LDSE point sensor I/O unit (same mounting for VAM10LDSE point sensor I/O unit and VAM4CDSE current I/O unit).
Installation guide: VAMP221/321 system in PIX

ANNEX : Reference documents

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>V221/EN M/A016.pdf</td>
<td>Operation and configuration instructions – Technical description</td>
</tr>
<tr>
<td>SMMCARC001.pdf</td>
<td>Mounting and Commissioning Instructions</td>
</tr>
<tr>
<td>NRJED111072EN_VAMP 221 BR.pdf</td>
<td>VAMP221 system commercial brochure</td>
</tr>
<tr>
<td>VARCTEST/EN M/A001.pdf</td>
<td>VAMP arc flash protection testing manual</td>
</tr>
</tbody>
</table>