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Schneider Electric SESA12088 I-Line Plug-In Units Communications Box with Modbus Interface Module for Low Voltage Circuit Breakers Instructions

SESA12088 I-Line Plug-In Units Communications Box with Modbus Interface Module for Low Voltage Circuit Breakers Instructions

Instruction Bulletin
45124-116-02
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Contents

SESA12088 I-Line Plug-In Units Communications Box with Modbus Interface Module for Low Voltage Circuit Breakers

Replaces
I-Line™ Plug-In Units Communications Box with Modbus™ Interface Module (IFM) for Low Voltage Circuit Breakers
Retain for future use.

Safety Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of hazards or to call attention to information that clarifies or simplifies a procedure.


The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.


This is the safety alert symbol. It is used to alert you to personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
Modbus™ Interface Module (IFM)


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


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


CAUTION
CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE
NOTICE is used to address practices not related to physical injury. The safety alert symbol is not used with this signal word.
Please Note
Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.
A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to
recognize and avoid the hazards involved.

Introduction

This bulletin contains instructions for installing an I-Line™ Plug-In Unit Communications Box with a Modbus™ Interface Module (IFM) manufactured by Schneider Electric™.

Safety Precautions

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

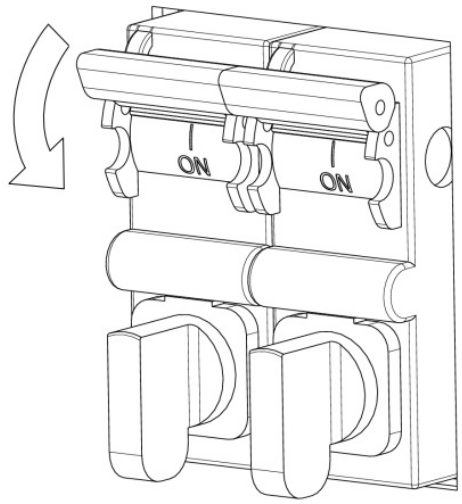
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, NOM-029-STPS2011, and CSA Z462.
- This plug-in unit must be installed and serviced only by qualified electrical personnel.
- Follow the safety label instructions on the equipment and inside this bulletin.
- Turn off all power to the busway before installing or removing this plug-in unit.
- Turn off all power to the busway before working on the line side of the plug-in unit and/or inside the control power compartment of the communications box.
- Always use a properly rated voltage sensing device to confirm the power is off.
- Turn off the plug-in unit before opening or working inside the enclosure.
- Do not install the plug-in unit without a circuit breaker installed.
- Do not install, operate, or remove the plug-in unit with the cover open or removed.
- Install only 3-pole devices on 3-pole busway and only 4-pole devices on 4-pole busway.
- Use a continuity tester or 1000 Vdc maximum megohmmeter to ensure phase-to-phase, phase-to-neutral, and ground isolation.
- Before closing the door or replacing the cover-mechanism, carefully inspect the switch area to ensure no tools or objects have been left on or inside the equipment.

Failure to follow these instructions will result in death or serious injury.

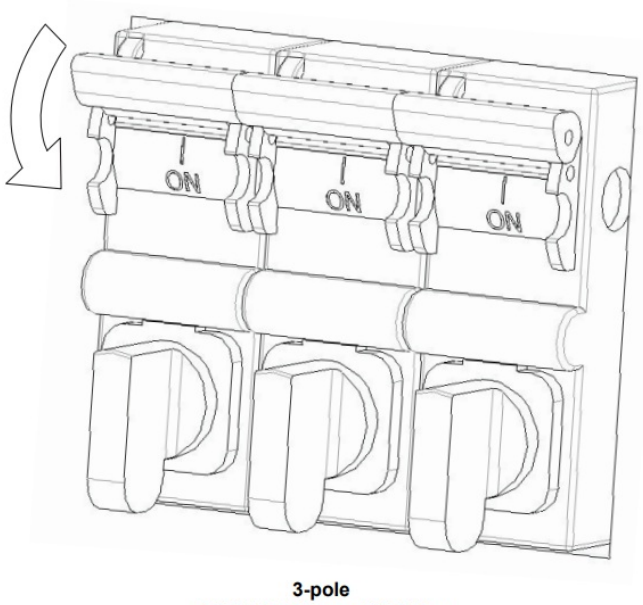
WARNING: This product can expose you to chemicals including Nickel compounds, which are known to the State of California to cause cancer, and Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to **www.P65Warnings.ca.gov.**

Installation

1. Turn off all power to the busway before installing, removing, or working on this equipment.
2. Switch the fused disconnect in the communications box to the OFF (O) position (Figure 1).
   Figure 1 : Switching Fused Disconnect to the OFF (O) Position
3.



2-pole
480 Vac



3-pole
480 Y/277 Vac and 600 Vac

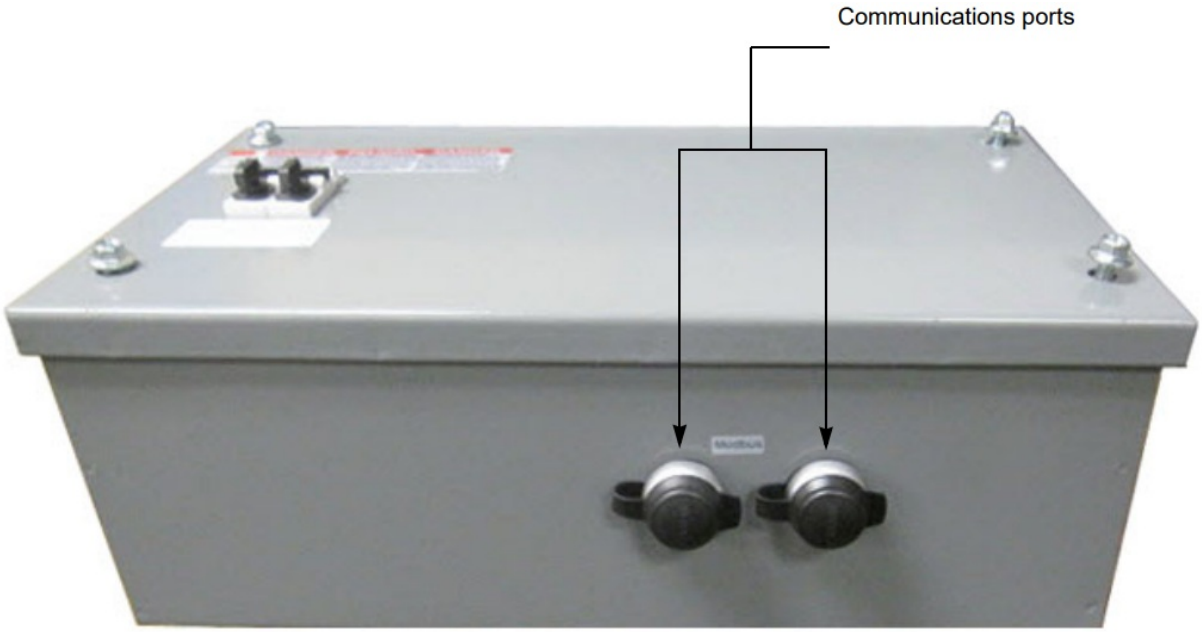
Install the plug-in unit onto the busway according to the Schneider Electric instruction bulletin provided with the unit (45123-680-01 or 45225-773-01).

4. Plug-in units with communications boxes may be daisy chained together using a shielded Cat5e Ethernet cable with RJ-45 plugs.

   NOTE: Communications ports are located on the bottom of the communications box (Figure 2).

   For details, refer to instruction bulletin Z208128-0B, PowerLogic™ HDPM6000 Installation Guide: se.com/us/en/download/document/Z208128-0B

   Figure 2 : Location of Communications Ports



5. A Modbus, two-wire terminator (catalog no. VW3A8306R) must be installed at the end of the Modbus daisy chain of plug-in units (Figure 3).

   Figure 3 : Wire Terminator Installation in Communications Box

Modbus Communication Ports

Two-wire terminator

DANGER

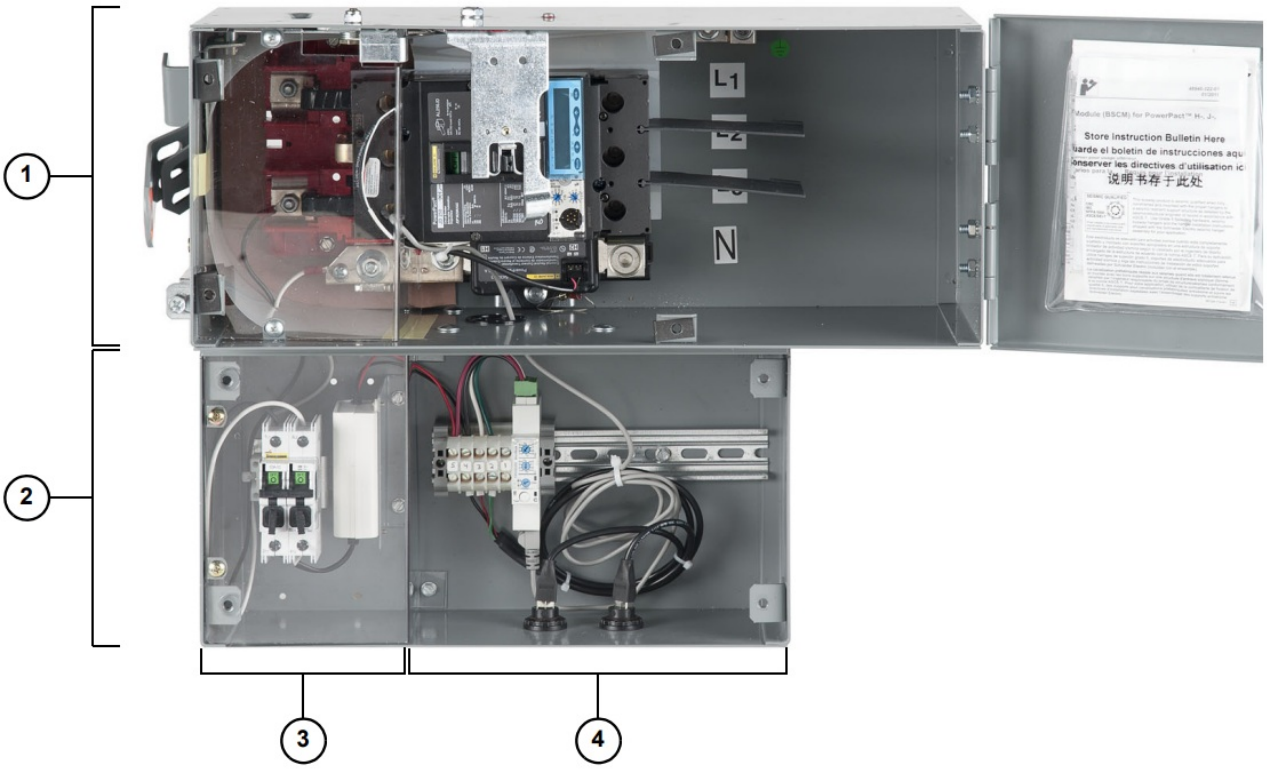
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, NOM-029-STPS2011, or CSA Z462.
- This unit must be installed and serviced only by qualified electrical personnel.
- Turn off all power to the busway before working inside the control power compartment of the communications box.
- Open the fused disconnect before working inside the communications compartment.
- Always use a properly rated voltage sensing device to confirm that the power is off.
- Replace all devices, doors, covers, and barriers before turning on power to this unit.

  Failure to follow these instructions will result in death or serious injury.

6. The fused disconnect will disconnect the line voltage from the power supply to the IFM; disconnecting will remove all voltage from the communications compartment (Figure 4 on page 4).
NOTE: Power is supplied from the line side of the plug-in unit circuit breaker to the fused disconnect, therefore, even with the fused disconnect and/or circuit breaker in the OFF (O) position, there is still power on the line side of the fused disconnect (Figure 4).

Figure 4 : Control Power and Communications Compartments in Communications Box



1. Plug-in Unit
2. Communications Box
3. Control power compartment
4. Communications compartment

7. If access to the IFM is needed, loosen the four screws securing the cover of the communications box and remove the cover (Figure 4).

Figure 5 : Removing Cover of Communications Box

8. Adjust the IFM settings according to instruction bulletin NVE85393, Enerlin'X IFM – Modbus-SL Interface For One Circuit Breaker:
se.com/us/en/download/document/NVE85393
9. Reinstall the cover on the communications box and tighten the four screws (Figure 5).
NOTE: All factory-installed Modbus communications wiring is shielded. The Modbus network must be grounded at the master gateway.
For configuration information on the Maintenance Mode Switch (MMS), refer to instruction bulletin MFR70008:
se.com/us/en/download/document/MFR70008
For configuration information on the Energy Reduction Maintenance Setting (ERMS) System, refer to instruction bulletin NHA67346:
se.com/us/en/download/document/NHA67346

Fuse Replacement

DANGER
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, NOM-029-STPS2011, or CSA Z462.
- This unit must be installed and serviced only by qualified electrical personnel.
- Turn off all power to the busway before working inside the control power compartment of the communications box.
- Always use a properly rated voltage sensing device to confirm that the power is off.
- Replace all devices, doors, covers, and barriers before turning on power to this unit.

Failure to follow these instructions will result in death or serious injury.
To replace the fuse(s) in the fused disconnect of the communications box:

1. Switch the disconnect to the OFF (O) position.
2. Rotate the key-shaped handle below the disconnect handle counterclockwise.
3. Swing the cover towards the disconnect handle (Figure 6).

Figure 6 : Opening Fused Disconnect to Replace Fuses

4. Replace the fuse with the same type fuse and ampere rating.
The fused disconnect will disconnect the line voltage from the power supply to the IFM. It will remove all voltage from the communications compartment.
NOTE: Power is supplied from the line side of the plug-in unit circuit breaker to the fused disconnect. So even with the fused disconnect and/or circuit breaker in the OFF (O) position, there is still power on the line side of the fused disconnect.

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- Energy Reduction Maintenance Setting (ERMS) System Installation and User Guide | Schneider Electric USA
- Enerlin'X IFM - Modbus-SL Interface for One Circuit Breaker - Instruction Sheet | Schneider Electric USA
- Documentation & Software Downloads | Schneider Electric USA

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