# **FlexSeT™ Switchboards**

# **Utility CTs Installation Guide**

## **Instruction Bulletin**

TME9377200 05/2025





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## **Safety Information**

Read these instructions carefully and examine the equipment to become familiar with the device before attempting to install, operate, service, or maintain it. The following special messages may appear throughout this user guide 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.

#### AA DANGER

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

#### **AWARNING**

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

#### **A** 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.

**NOTE:** Provides additional information to clarify or simplify a procedure.

#### **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.

Electrical equipment should be transported, stored, installed, and operated only in the environment for which it is designed.

## **Validity Note**

This instruction bulletin is valid for Public Utility for Canada (PUC) Utility Compartment Kits in the Canadian region only.

For product compliance with environmental directives such as RoHS, REACH, PEP, and EOLI, go to https://www.se.com/ww/en/about-us/sustainability/environmental-data-program/.

For technical characteristics of the physical modules described in this bulletin, go to www.se.com.

The technical characteristics presented in this bulletin should be the same as those that appear online. Content may be revised over time to improve clarity and accuracy. If a difference between the information contained in this bulletin and online information is seen, use the online information.

## **Safety Precautions**

Read and understand the following precautions before performing any procedures in this guide.

#### **▲** DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E or CSA Z462 or local equivalent.
- This equipment must be installed and serviced only by qualified personnel.
- Service only after reading and understanding all of the instructions contained in this bulletin.
- Turn off all power supplying this equipment before working on or inside equipment.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume all circuits are live until they are de-energized, tested, and tagged. Pay particular attention to the design of the power system. Consider all sources of power, including the possibility of backfeeding.
- Always use a properly rated voltage sensing device to confirm power is off.
- Install, operate, and maintain the equipment for it to function properly. Neglecting fundamental installation and maintenance requirements may lead to personal injury, as well as damage to equipment or other property.
- Inspect installation area and remove any tools and objects left inside the equipment.
- Replace all devices, doors, and covers before turning on power to this
  equipment.
- All instructions in this manual assume that the customer has taken these measures before performing maintenance or testing.

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 <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.

## **Qualified Personnel**

Only appropriately trained persons who are familiar with, and understand the content of this guide, and all other related product documentation are authorized to work on and with this product.

The qualified person must be able to detect possible hazards that may arise from modifying parameter values and generally from mechanical, electrical, or electronic equipment. The qualified person must be familiar with the standards, provisions, and regulations for the prevention of industrial accidents, which must be observed when designing and implementing the system.

The use and application of the information contained in this guide requires expertise in the design and programming of automated control systems. Only the user, the machine builder, or the integrator, can be aware of all the conditions and factors present during installation, setup, operation, and maintenance of the machine or process, and can therefore determine the automation and associated equipment and the related safeties and interlocks which can be effectively and properly used.

When selecting automation and control equipment (and any other related equipment or software) for a particular application, applicable local, regional, or national standards and/or regulations must also be considered.

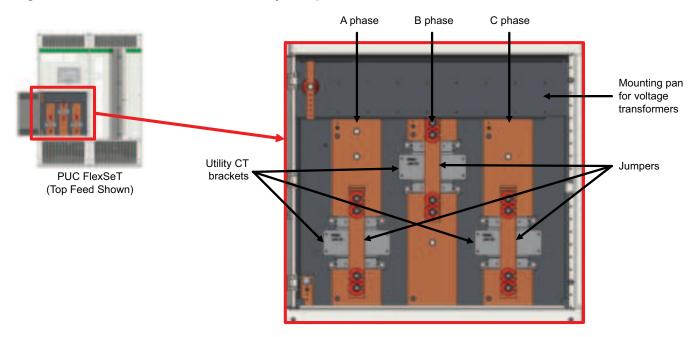
Pay particular attention to adhere to any safety information, electrical requirements, and normative standards that apply to the machine or process in the use of this equipment.

# Installation of Utility Current Transformers on FlexSeT PUC Switchboards

This bulletin contains instructions for installing utility current transformer devices on FlexSeT Public Utility Compartment (PUC) Switchboard manufactured by Schneider Electric. Read and understand document number JYT1078000 FlexSeT Switchboards Instruction Bulletin before performing any of the instructions provided in this document.

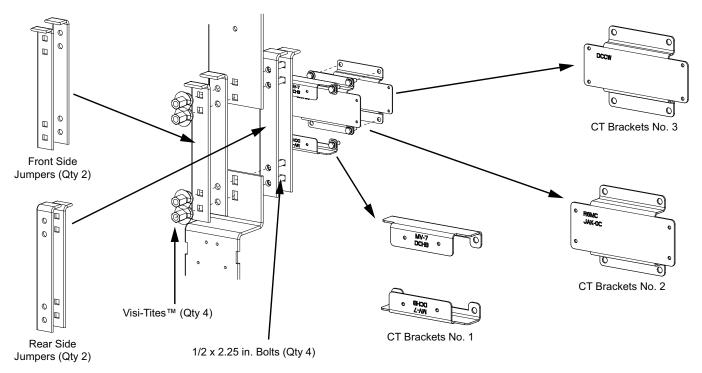
The utility current transformer devices are to be installed in the utility compartment of the FlexSeT PUC Switchboard, as shown in the FlexSeT PUC Switchboard Utility Compartment.

Figure 1 - FlexSeT PUC Switchboard Utility Compartment



Inside the utility compartment a set of mounting brackets and other components are provided for the installation of the different types of utility CTs on the three phases (A, B, and C). Become familiar with these components by looking at Utility CT's Mounting Components and Jumpers Inside the Utility Compartment of a FlexSeT PUC Switchboard, page 10.

Figure 2 - Utility CT's Mounting Components and Jumpers Inside the Utility Compartment of a FlexSeT PUC Switchboard (same components on each phase)



Refer to Utility Current Transformers Installation Steps, page 11 for the specific steps to follow for the installation of each type of utility CT on each phase (A, B, and C).

**NOTE:** Depending on the CT type, some of the pre-installed components will not be required, as mentioned in the corresponding steps.

**Table 1 - Utility Current Transformers Installation Steps** 

СТ Туре	Mounting Bracket Required <sup>1</sup>	Installation Steps for All Phases (A, B, and C) <sup>2</sup>	Final Assembly Views
MV-7 and DCHB	<b>√</b> Bracket No. 1	<ol> <li>Remove and discard the two front and the two rear jumpers by removing the four Visi-Tite™ nuts and ½ x 2.25 in. bolts, retain this hardware for reuse in Step 3.</li> <li>Use four ¼-20 x 0.5 in. screws to attach the CT to the CT bracket No. 1 and tighten securely.</li> <li>Reinstall the four ½ x 2.25 in. bolts and Visi-Tite nuts removed in Step 1. Torque each Visi-Tite nut until the outer nut breaks off, discard the broken nuts and red tags. If the outer nuts are already broken off, torque the bolts to 60–70 lbs-ft. (81–95 N•m).</li> </ol>	ISO View Front View
JAK-0C and R6MC	<b>√</b> Bracket No. 2	<ol> <li>Remove the two front and the two rear jumpers, as well as the four Visi-Tite nuts and ½ x 2.25 in. bolts, retain them for reuse in Step 4.</li> <li>Remove and discard the two CT brackets No. 1 by removing the four 5/16 x 1 in. bolts and washers (discard this hardware).</li> <li>Use four ¼20 x 0.5 in. screws to attach the CT to the CT bracket No. 2 and tighten securely.</li> <li>Reinstall the two front and the two rear jumpers, as well as the four ½ x 2.25 in. bolts and Visi-Tite nuts removed in Step 1. Torque each Visi-Tite nut until the outer nut breaks off, discard the broken nuts and red tags. If the outer nuts are already broken off, torque the bolts to 60–70 lbs-ft. (81–95 N•m).</li> </ol>	ISO View Front View
DCCW	Bracket No. 3	<ol> <li>Remove the two front and the two rear jumpers, as well as the four Visi-Tite nuts and ½ x 2.25 in. bolts, retain them for reuse in Step 6.</li> <li>Remove and discard the two CT brackets No. 1 by removing the four 5/16 x 1 in. bolts and washers (discard this hardware).</li> <li>Remove and discard the CT bracket No. 2 by removing the four 5/16 x 1 in. bolts and washers (retain this hardware for reuse in Step 4).</li> <li>Attach the CT bracket No. 3 by reinstalling the four 5/16 x 1 in. bolts and washers, torque bolts to 12–13 lbs-ft. (16–18 N•m).</li> <li>Use four ½–20 x 0.5 in. screws to attach the CT to the CT bracket No. 3 and tighten securely.</li> <li>Reinstall the two front and the two rear jumpers, as well as the four ½ x 2.25 in. bolts and Visi-Tite nuts removed in Step 1. Torque each Visi-Tite nut until the outer nut breaks off, discard the broken nuts and red tags. If the outer nuts are already broken off, torque the bolts to 60–70 lbs-ft. (81–95 N•m).</li> </ol>	ISO View Front View

Each bracket has an engraved mark to indicate the type of CT that it is used for.

See Utility CT's Mounting Components and Jumpers Inside the Utility Compartment of a FlexSeT PUC Switchboard (same components on each phase), page 10 for a visual reference of each component.

**Table 1 - Utility Current Transformers Installation Steps (Continued)** 

СТ Туре	Mounting Bracket Required <sup>3</sup>	Installation Steps for All Phases (A, B, and C) <sup>4</sup>	Final Assembly Views
DCEW and R6L and JAD-0C	X	<ol> <li>Remove the two front and the two rear jumpers, as well as the four Visi-Tite nuts and ½ x 2.25 in. bolts, retain them for reuse in Step 4.</li> <li>Remove and discard all the CT brackets No. 1, No. 2 and No. 3 by removing all 5/16 x 1 in. bolts and washers (discard this hardware).</li> <li>Use four ¼–20 x 0.5 in. screws to attach the CT to the back panel and tighten securely.</li> <li>Reinstall the two front and the two rear jumpers, as well as the four ½ x 2.25 in. bolts and Visi-Tite nuts removed in Step 1. Torque each Visi-Tite nut until the outer nut breaks off, discard the broken nuts and red tags. If the outer nuts are already broken off, torque the bolts to 60–70 lbs-ft. (81–95 N•m).</li> </ol>	ISO View Front View
DCEW-HQ	X	<ol> <li>Remove the two front and the two rear jumpers, as well as the four Visi-Tite nuts and ½ x 2.25 in. bolts, retain them for reuse in Step 5.</li> <li>Remove and discard the two CT brackets No. 1 by removing the four 5/16 in. bolts and washers (discard this hardware).</li> <li>Remove and discard the CT brackets No. 2 and No. 3 by removing the four 5/16 x 1 in. bolts and washers (retain this hardware for reuse in Step 4).</li> <li>Use the four 5/16 x 1 in. bolts and washers to attach the CT to the back panel, torque bolts to 12–13 lbs-ft. (16-18 Nm).</li> <li>Reinstall the two front and the two rear jumpers, as well as the four ½ x 2.25" bolts and Visi-Tite nuts removed in step 1. Torque each Visi-Tite nut until the outer nut breaks off, discard the broken nuts and red tags. If the outer nuts are already broken off, torque the bolts to 60-70 Lbs-ft. (81–95 N•m).</li> </ol>	ISO View Front View
IRH-10	X	<ol> <li>Remove the two front and the two rear jumpers, as well as the four Visi-Tite nuts and ½ x 2.25 in. bolts, retain them for reuse in Step 5.</li> <li>Remove and discard the two CT brackets No. 1 by removing the four 5/16 in. bolts and washers (discard this hardware).</li> <li>Remove and discard the CT brackets No. 2 and No. 3 by removing the four 5/16 x 1 in. bolts and washers (retain this hardware for reuse in Step 4).</li> <li>Use the four 5/16 x 1 in. bolts and washers to attach the CT to the back panel, torque bolts to 12–13 lbs-ft. (16–18 N•m).</li> <li>Reinstall the two front and the two rear jumpers, as well as the four ½ x 2.25 in. bolts and Visi-Tite nuts removed in Step 1. Torque each Visi-Tite nut until the outer nut breaks off, discard the broken nuts and red tags. If the outer nuts are already broken off, torque the bolts to 60–70 lbs-ft. (81–95 N•m).</li> </ol>	ISO View Front View

Each bracket has an engraved mark to indicate the type of CT that it is used for.

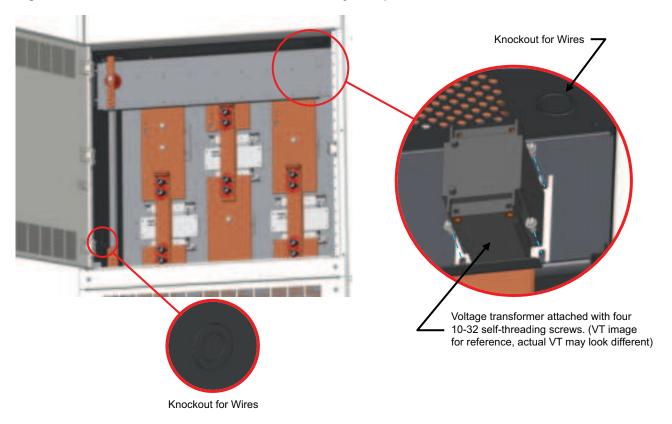
See Utility CT's Mounting Components and Jumpers Inside the Utility Compartment of a FlexSeT PUC Switchboard (same components on each phase), page 10 for a visual reference of each component.

# **Voltage Transformers**

Inside the utility compartment a mounting pan is provided for the installation of up to four voltage transformers.

Wires of the CTs and VTs can be routed out of the utility compartment by using any of the two knockouts provided, one located on the mounting pan for voltage transformers, and the other located on the sidewall.

Figure 3 - Knockouts and VT Installation on the Utility Compartment



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As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

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