

# PowerLogic™ HDPM6000 Series CT Models for High Accuracy and Split-Core Variants (20A – 4000A)

For Use with the HDPM6000 Power Quality Metering System

## Installation Guide

Z208152-0C  
08/2021



# Safety Information

## Important 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 potential 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 potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### **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.

## 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.

## Safety Precautions

Installation, wiring, testing and service must be performed in accordance with all local and national electrical codes.

### **DANGER**

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

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E in the USA or applicable local standards.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying equipment before working on or inside the equipment.
- Product may use multiple voltage/power sources. Disconnect all sources of power before servicing.
- Always use a properly rated voltage sensing device to confirm power is off.
- Do not depend on this product for voltage indication.
- Current transformer secondaries must be shorted or connected to a burden at all times.
- Products rated for basic insulation must be installed on insulated conductors.
- Replace all doors, covers, and protective devices before powering the equipment.
- Install device in an appropriate electrical and fire enclosure per local regulations.
- This product is not intended for life or safety applications.

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

### **WARNING**

#### **RISK OF INJURY OR EQUIPMENT DAMAGE**

Do not apply current transducers to circuits having a phase-to-phase voltage greater than their voltage rating unless adequate additional insulation is applied between the primary conductor and the current transducers.

**Failure to follow these instructions may result in injury, fire, or equipment damage.**

Schneider Electric assumes no responsibility for damage of equipment or personal injury caused by products operated on circuits above their published ratings.

## Introduction

Schneider Electric PowerLogic High Accuracy and Split-Core Current Transducers (CTs) provide secondary voltage AC proportional to the primary (sensed) current. For use with the HDPM6000 platform only, these CTs provide a means to transform electrical service amperages to a voltage compatible with monitoring equipment.

These CTs range from 20A to 4000A voltage ratings with 0.2% to 1% accuracy.

## Ordering Information

| Model Number     | Description                                            | Accuracy |
|------------------|--------------------------------------------------------|----------|
| <b>SUN2</b>      |                                                        |          |
| METSEHDPM20A12H  | 20A, High Accuracy Split-Core CT, 12' lead             | 0.2%     |
| METSEHDPM20A30H  | 20A, High Accuracy Split-Core CT, 30' lead             | 0.2%     |
| <b>SUN3</b>      |                                                        |          |
| METSEHDPM75A12H  | 75A, High Accuracy Split-Core CT, 12' lead             | 0.2%     |
| METSEHDPM75A4H   | 75A, High Accuracy Split-Core CT, 30' lead             | 0.2%     |
| METSEHDPM150A12H | 150A, High Accuracy Split-Core CT, 12' lead            | 0.2%     |
| METSEHDPM150A30H | 150A, High Accuracy Split-Core CT, 30' lead            | 0.2%     |
| <b>SUN4</b>      |                                                        |          |
| METSEHDPM300A12H | 300A, High Accuracy Split-Core CT, 12' lead            | 0.2%     |
| METSEHDPM300A30H | 300A, High Accuracy Split-Core CT, 30' lead            | 0.2%     |
| METSEHDPM400A12H | 400A, High Accuracy Split-Core CT, 12' lead            | 0.2%     |
| METSEHDPM400A30H | 400A, High Accuracy Split-Core CT, 30' lead            | 0.2%     |
| <b>SUS4</b>      |                                                        |          |
| METSEHDPM150A12  | 150A, Split-Core CT, 12' lead                          | 0.5%     |
| METSEHDPM150A30  | 150A, Split-Core CT, 30' lead                          | 0.5%     |
| METSEHDPM150A60  | 150A, Split-Core CT, 60' lead                          | 0.5%     |
| METSEHDPM150A5   | 150A, Split-Core CT, HDPM6000S, 5" lead with connector | 0.5%     |
| METSEHDPM150A16  | 150A, Split-Core CT, HDPM6000B, 16" lead               | 0.5%     |
| METSEHDPM300A12  | 300A, Split-Core CT, 12' lead                          | 0.5%     |
| METSEHDPM300A30  | 300A, Split-Core CT, 30' lead                          | 0.5%     |
| METSEHDPM300A60  | 300A, Split-Core CT, 60' lead                          | 0.5%     |
| METSEHDPM300A5   | 300A, Split-Core CT, HDPM6000S, 5" lead with connector | 0.5%     |
| METSEHDPM300A16  | 300A, Split-Core CT, HDPM6000B 16" lead                | 0.5%     |
| METSEHDPM400A12  | 400A, Split-Core CT, 12' lead                          | 0.5%     |
| METSEHDPM400A30  | 400A, Split-Core CT, 30' lead                          | 0.5%     |
| METSEHDPM400A60  | 400A, Split-Core CT, 60' lead                          | 0.5%     |
| METSEHDPM400A5   | 400A, Split-Core CT, HDPM6000S, 5" lead with connector | 0.5%     |
| METSEHDPM400A16  | 400A, Split-Core CT, HDPM6000B 16" lead                | 0.5%     |
| METSEHDPM600A12  | 600A, Split-Core CT, 12' lead                          | 0.5%     |
| METSEHDPM600A30  | 600A, Split-Core CT, 30' lead                          | 0.5%     |
| METSEHDPM600A60  | 600A, Split-Core CT, 60' lead                          | 0.5%     |
| METSEHDPM600A5H  | 600A, Split-Core CT, HDPM6000S, 5" lead with connector | 0.5%     |
| METSEHDPM600A16H | 600A, Split-Core CT, HDPM6000B 16" lead                | 0.5%     |
| <b>SUSF</b>      |                                                        |          |
| METSEHD150A12    | 150A, Split-Core CT, 1"x1", 12' lead                   | 1%       |
| METSEHD150A30    | 150A, Split-Core CT, 1"x1", 30' lead                   | 1%       |
| METSEHD150A60    | 150A, Split-Core CT, 1"x1", 60' lead                   | 1%       |
| METSEHD300A12    | 300A, Split-Core CT, 1"x1", 12' lead                   | 1%       |
| METSEHD300A30    | 300A, Split-Core CT, 1"x1", 30' lead                   | 1%       |

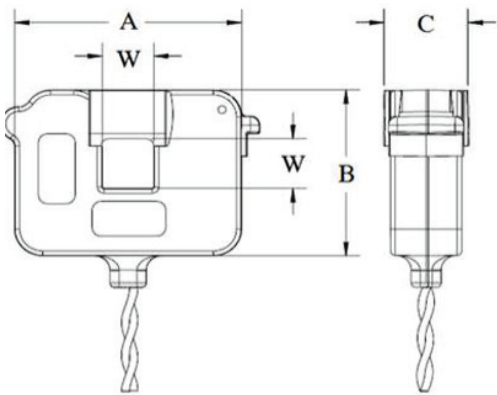
| Model Number     | Description                                 | Accuracy |
|------------------|---------------------------------------------|----------|
| METSEHD300A60    | 300A, Split-Core CT, 1"x1", 60' lead        | 1%       |
| METSEHD300A12L   | 300A, Split-Core CT, 2"x2", 12' lead        | 1%       |
| METSEHD300A30L   | 300A, Split-Core CT, 2"x2", 30' lead        | 1%       |
| METSEHD300A60L   | 300A, Split-Core CT, 2"x2", 60' lead        | 1%       |
| METSEHD400A12    | 400A, Split-Core CT, 1.25"x1.25", 12' lead  | 1%       |
| METSEHD400A30    | 400A, Split-Core CT, 1.25"x1.25", 30' lead  | 1%       |
| METSEHD400A60    | 400A, Split-Core CT, 1.25"x1.25", 60' lead  | 1%       |
| METSEHD400A12L   | 400A, Split-Core CT, 2.5"x2.5", 12' lead    | 1%       |
| METSEHD400A30L   | 400A, Split-Core CT, 2.5"x2.5", 30' lead    | 1%       |
| METSEHD400A60L   | 400A, Split-Core CT, 2.5"x2.5", 60' lead    | 1%       |
| METSEHD600A12    | 600A, Split-Core CT, 3"x 3", 12' lead       | 1%       |
| METSEHD600A30    | 600A, Split-Core CT, 3" x 3", 30' lead      | 1%       |
| METSEHD600A60    | 600A, Split-Core CT, 3" x 3", 60' lead      | 1%       |
| METSEHD800A12    | 800A, Split-Core CT, 4"x 4", 12' lead       | 1%       |
| METSEHD800A30    | 800A, Split-Core CT, 4" x 4", 30' lead      | 1%       |
| METSEHD800A60    | 800A, Split-Core CT, 4" x 4", 60' lead      | 1%       |
| METSEHD1000A12   | 1000A, Split-Core CT, 4"x 4", 12' lead      | 1%       |
| METSEHD1000A30   | 1000A, Split-Core CT, 4" x 4", 30' lead     | 1%       |
| METSEHD1200A12   | 1200A, Split-Core CT, 4"x 6", 12' lead      | 1%       |
| METSEHD1200A30   | 1200A, Split-Core CT, 4" x 6", 30' lead     | 1%       |
| METSEHD1600A12   | 1600A, Split-Core CT, 4"x 6", 12' lead      | 1%       |
| METSEHD1600A30   | 1600A, Split-Core CT, 4" x 6", 30' lead     | 1%       |
| METSEHD1600A12L  | 1600A, Split-Core CT, 4.5"x 4.5", 12' lead  | 1%       |
| METSEHD1600A30L  | 1600A, Split-Core CT, 4.5" x 4.5", 30' lead | 1%       |
| METSEHD2000A12   | 2000A, Split-Core CT, 4"x 6", 12' lead      | 1%       |
| METSEHD2000A30   | 2000A, Split-Core CT, 4" x 6", 30' lead     | 1%       |
| METSEHD2000A12L  | 2000A, Split-Core CT, 6"x 3", 12' lead      | 1%       |
| METSEHD2000A30L  | 2000A, Split-Core CT, 6" x 3", 30' lead     | 1%       |
| METSEHD3000A12   | 3000A, Split-Core CT, 4"x 4", 12' lead      | 1%       |
| METSEHD3000A30   | 3000A, Split-Core CT, 4" x 4", 30' lead     | 1%       |
| METSEHD3000A12L  | 3000A, Split-Core CT, 4"x 6", 12' lead      | 1%       |
| METSEHD3000A30L  | 3000A, Split-Core CT, 4" x 6", 30' lead     | 1%       |
| METSEHD3000A12XL | 3000A, Split-Core CT, 5"x 12", 12' lead     | 1%       |
| METSEHD3000A30XL | 3000A, Split-Core CT, 5" x 12", 30' lead    | 1%       |
| METSEHD4000A12   | 4000A, Split-Core CT, 5"x 12", 12' lead     | 1%       |
| METSEHD4000A30   | 4000A, Split-Core CT, 5" x 12", 30' lead    | 1%       |

Specifications

|                                   |                                                    |
|-----------------------------------|----------------------------------------------------|
| Output at Rated Current           | 0.25VAC                                            |
| Accuracy                          | 0.2% (SUN2/SUN3/SUN4), 0.5% (SUS4) and 1% (SUSF)   |
| Operating Temperature Range       | -40 to 55 °C (-40 to 131 °F)                       |
| Storage Temperature Range         | -50 to +70 °C (-58 to 158 °F)                      |
| Frequency Range                   | 50/60 Hz                                           |
| Leads                             | B/W twisted pair 18 AWG, AWM, UL1015, 600V, 105 °C |
| Max. Voltage L-N Sensed Conductor | 600 VAC                                            |
| Altitude of Operation             | 2000 m max.                                        |
| Humidity Range                    | 0 to 95% non-condensing                            |
| Continuous current rating factor  | 1                                                  |
| Installation Category             | Cat III, Pollution Degree 2                        |
| Agency Approvals                  | UL2808, CE                                         |

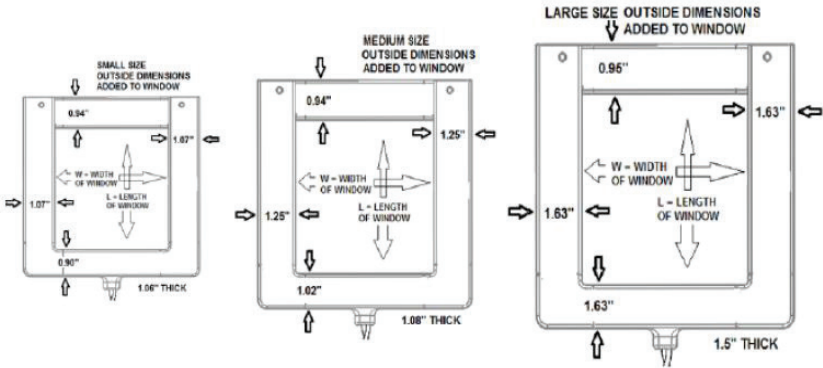
Dimensions

SUN2, SUN3, SUN4 & SUS4



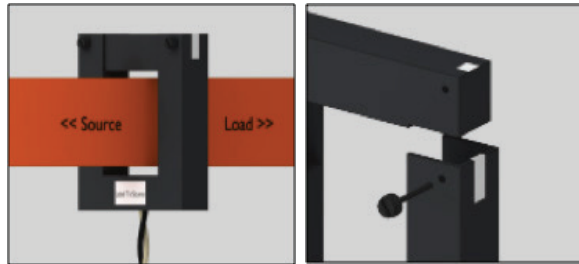
| Model | W Window           | A Dimension       | B Dimension        | C Dimension                        |
|-------|--------------------|-------------------|--------------------|------------------------------------|
| SUN2  | 0.4 in (10.17 mm)  | 2.4 in (60.69 mm) | 1.65 in (41.91 mm) | 0.85 to 1.1 in (21.58 to 27.94 mm) |
| SUN3  | 0.7 in (17.80 mm)  | 3.0 in (76.19 mm) | 2.4 in (60.96 mm)  | 1.1 in (27.94 mm)                  |
| SUN4  | 1.25 in (31.75 mm) | 3.3 in (83.81 mm) | 3.1 in (78.74 mm)  | 1.3 in (31.04 mm)                  |
| SUS4  | 1.25 in (31.75 mm) | 3.3 in (83.81 mm) | 3.1 in (78.74 mm)  | 1.3 in (31.04 mm)                  |

SUSF



## Busbar and Phase Orientation

- The white mark ensures orientation every time the top is attached.
- Typically, the white mark is on the top right side when looking at the product label.
- Refer to label for correct CT orientation.



## Proper Size and Fitting

- The window of the CT should be big enough to fit the busbar without excess space.
- A split-core CT should not be oversized around the bus/conductor, resulting in an inaccurate/bad reading.
- The busbar should also be in the center of the CT window to allow the coils to energize evenly.



## Installation

Installation must be performed by a qualified electrician. Turn off and lock out power to the primary circuit before installing these CTs. Use a properly rated voltage sensing device to confirm that power is off.

In any application where fault currents can exceed 20 times the rated current of the CT, use wire ties or similar fasteners to secure both sides of the I-bar to the CT housing.

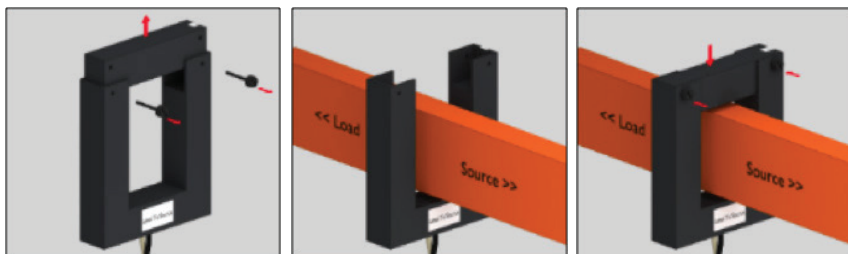
### NOTICE

#### INCORRECT POLARITY

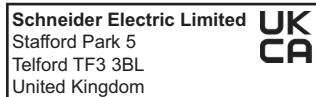
Align CT arrow to point in the direction of the power flow.

**Failure to follow this instruction can result in incorrect readings.**

- Remove the screws (or push-pins) from the CT and take the top off.
- Slide the body of the CT over the busbar.
- Refer to label for correct CT orientation.
- Re-attach the top to the body of the CT, using the white mark to orient how the top will fit.
- Place the screws/push-pins back to secure the top to the CT.
- Once the CT is installed onto the busbar, terminate the leads to the metering device prior to turning on the power.



Schneider Electric  
12345 SW Leveton Drive  
Tualatin, OR 97062 USA  
+1-503-598-4564  
schneider-electric.com



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