

PowerLogic™ Low Voltage Current Transducers (LVCTs)

Installation Guide

1 VAC and 0.333 VAC LVCTs
Z205398-0H
04/2022

Split-Core Models



Note: A subset of models shown.



Solid-Core Models



Note: A subset of models shown.

NOTE: Do not use the product if it is damaged. Contact Schneider Electric customer care representative for support.

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 an hazardous situation which, if not avoided, **will result in** death or serious injury. / **DANGER** indique un danger immédiat qui, s’il n’est pas évité, entraînera la mort ou des blessures graves.

WARNING / AVERTISSEMENT

WARNING indicates an hazardous situation which, if not avoided, **could result in** death or serious injury. / **AVERTISSEMENT** indique un danger potentiel qui, s’il n’est pas évité, pourrait entraîner la mort ou des blessures graves.

CAUTION / ATTENTION

CAUTION indicates an hazardous situation which, if not avoided, **could result in** minor or moderate injury. / **ATTENTION** indique un danger potentiel qui, s’il n’est pas évité, pourrait entraîner des blessures légères ou de gravité moyenne.

NOTICE / AVIS

NOTICE is used to address practices not related to physical injury. / **NOTE** concerne des questions non liées à des blessures corporelles.

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.

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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 / RISQUE D'ÉLECTROCUTION, D'EXPLOSION OU D'ARC ÉLECTRIQUE

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E in the USA or applicable local standards. / Portez un équipement de protection individuelle (EPI) approprié et observez les règles de sécurité en matière de travaux électriques. Consultez la norme NFPA 70E aux États-Unis ou les normes locales applicables.
- This equipment must only be installed and serviced by qualified electrical personnel. / Cet équipement ne doit être installé et entretenu que par du personnel qualifié.
- Turn off all power supplying equipment before working on or inside the equipment. / Coupez toutes les équipements d'alimentation électrique avant de travailler sur ou dans l'équipement.
- Product may use multiple voltage/power sources. Disconnect ALL sources before servicing. / Le produit est susceptible d'utiliser plusieurs sources de tension, d'alimentation. Déconnectez TOUTES les sources avant toute intervention d'entretien.
- Use a properly rated voltage sensing device to confirm that power is off. DO NOT depend on this product for voltage indication. / Utilisez un dispositif de détection de tension adéquat afin de vérifier que l'alimentation est bien coupée. NE considérez PAS ce produit comme un indicateur de tension.
- Current transformer secondaries must be shorted or connected to a burden at all times. / Les secondaires de transformateur de courant doivent être en permanence mis en court-circuit ou raccordés à une charge.
- Products rated only for basic insulation must be installed on insulated conductors. / Les produits n'étant conçus que pour une isolation nominale, doivent être installés sur des conducteurs isolés.
- Replace all doors, covers and protective devices before powering the equipment. / Remplacez toutes les portes, tous les capots et dispositifs de protection avant de mettre l'équipement sous tension.
- This product must be installed inside a suitable fire and electrical enclosure. / Cet appareil doit être installé à l'intérieur d'une armoire offrant une protection contre les risques électriques et d'incendie.
- This product is not intended for life or safety applications. / Ce produit n'est pas conçu pour les applications de sécurité.

Failure to follow these instructions will result in death or serious injury. / Le non-respect de ces instructions est susceptible d'entraîner la mort ou des blessures graves.

WARNING / AVERTISSEMENT

RISK OF INJURY OR EQUIPMENT DAMAGE / RISQUE DE BLESSURE OU DE DÉTÉRIORATION DE L'ÉQUIPEMENT

- 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. / N'utilisez pas ces TC sur des circuits dont la tension entre phases est supérieure à la tension nominale indiquée, sauf si une isolation supplémentaire adéquate a été ajoutée entre le conducteur primaire et les transducteurs de courant.
- To reduce the risk of electric shock, always open or disconnect circuit from power-distribution system (or service) of building before installing or servicing current transformers. / Pour réduire le risque d'électrocution, toujours ouvrir ou déconnecter le circuit du système de distribution électrique (ou du service) du bâtiment avant toute installation ou intervention sur des transformateurs de courant.
- The current transformers may not be installed in equipment where they exceed 75 percent of the wiring space of any cross-sectional area within the equipment. / Les transformateurs de courant ne doivent pas être installés dans un équipement où ils dépasseraient 75 % de l'espace de câblage d'une section de l'équipement.
- Restrict installation of current transformer in an area where it would block ventilation openings. / Éviter l'installation du transformateur de courant dans un emplacement où il bloquerait les ouvertures d'aération.
- Restrict installation of current transformer in area of breaker arc venting. / Éviter l'installation du transformateur de courant dans une zone d'échappement d'arc électrique d'organe de coupure.
- Not suitable for Class 2 wiring methods and Not intended for connection to Class 2 equipment. / Ne convient pas aux méthodes de câblage de Classe 2 et n'est pas destiné au raccordement d'équipements de Classe 2.
- Secure current transformer and route conductors so that they do not directly contact live terminals or bus (optional). / Fixer le transformateur de courant en position et faire passer les conducteurs de sorte qu'ils ne soient pas en contact direct avec les bornes sous tension ni avec le bus (facultatif).

Failure to follow these instructions may result in injury, fire or equipment damage. / Le non-respect de ces instructions peut entraîner un risque de blessure, d'incendie ou de détérioration de l'équipement.

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 low voltage current transducers (LVCTs) provide secondary voltage AC proportional to the primary (sensed) current. For use with power meters, data loggers, chart recorders, and other instruments, LVCTs provide a cost-effective means to transform electrical service amperages to a voltage compatible with monitoring equipment.

LVCTs are available in split-core and solid-core models. Split-core models are available with 0.333 VAC and 1 VAC output versions. Solid-core models are available with only 0.333 VAC output.

Part Number Information

Split-Core

Part Number	Max. Rated Current	CT Output Range
LVCT00050S	50 A	0 to 0.333 V
LVCT00101S	100 A	0 to 0.333 V
LVCT00201S	200 A	0 to 0.333 V
LVCT00102S	100 A	0 to 0.333 V
LVCT00202S	200 A	0 to 0.333 V
LVCT00302S	300 A	0 to 0.333 V
LVCT00403S	400 A	0 to 0.333 V
LVCT00603S	600 A	0 to 0.333 V
LVCT00803S	800 A	0 to 0.333 V
LVCT00804S	800 A	0 to 0.333 V
LVCT01004S	1000 A	0 to 0.333 V
LVCT01204S	1200 A	0 to 0.333 V
LVCT01604S	1600 A	0 to 0.333 V
LVCT02004S	2000 A	0 to 0.333 V
LVCT02404S	2400 A	0 to 0.333 V

UL2808 Split-Core

Part Number	Max. Rated Current	CT Output Range
METSECTLV2010U	100 A	0.333 VAC
METSECTLV2020U	200 A	0.333 VAC
METSECTLV2030U	300 A	0.333 VAC
METSECTLV2040U	400 A	0.333 VAC
METSECTLV3060U	600 A	0.333 VAC
METSECTLV3080U	800 A	0.333 VAC
METSECTLV4080U	800 A	0.333 VAC
METSECTLV4100U	1000 A	0.333 VAC
METSECTLV4120U	1200 A	0.333 VAC
METSECTLV4160U	1600 A	0.333 VAC
METSECTLV4200U	2000 A	0.333 VAC
METSECTLV4240U	2400 A	0.333 VAC

Solid-Core

Part Number	Max. Rated Current	CT Output Range
LVCT20050S	50 A	0 to 0.333 V
LVCT20100S	100 A	0 to 0.333 V
LVCT20202S	200 A	0 to 0.333 V
LVCT20403S	400 A	0 to 0.333 V

Specifications

Split-Core

Type	Description
Output at Rated Current	0.333 VAC or 1 VAC outputs available (see Part Number Information for specifics)
Accuracy	1% from 10% to 100% of rated current (specified with the conductor(s) centered through the CT window)
Frequency Range	50/60 Hz
Leads	LVCT00050S, LVCT00101S, LVCT00201S: 22 AWG, 6 ft. (1.8 m) standard length. All other split-core models: 18AWG, 6 ft. (1.8 m) standard length
Operating Temperature Range	LVCT00050S, LVCT00101S, LVCT00201S: 0° to 70°C (32° to 158°F) All other split-core models: -15° to 60°C (5° to 140°F)
Storage Temperature Range	LVCT00050S, LVCT00101S, LVCT00201S: -40° to 105°C (-40° to 221°F) All other split-core models: -40° to 70°C (-40° to 158°F)
Humidity Range	0-95% noncondensing
Max. Voltage L-N Sensed Conductor	LVCT00050S: 300 VAC (basic insulation rating), 150 VAC (reinforced insulation rating) All other split-core models: 600 VAC (basic insulation rating), 300 VAC (reinforced insulation rating)
Altitude of Operation	3 km max.
Mounting Location	Not suitable for wet locations. For indoor use only.
Approvals	EN61010-1; UL61010-1
Installation Category	Cat. III, pollution degree 2

UL2808 Split-Core

Type	Description
Output at Rated Current	0.333 VAC
Accuracy	These CTs meet or exceed accuracy requirements specified in IEC 61869-2, Table 201, Class 1.
Frequency Range	50/60 Hz
Leads	16 AWG, 20 ft. (6.1 m) standard length
Operating Temperature Range	-15° to 60°C (5° to 140°F)
Storage Temperature Range	-40° to 70°C (-40° to 158°F)
Humidity Range	0-95% noncondensing
Max. Voltage L-N Sensed Conductor	600 VAC
Altitude of Operation	2 km max.
Mounting Location	Not suitable for wet locations. For indoor use only.
Approvals	UL2808
Installation Category	Cat III, pollution degree 2

Solid-Core

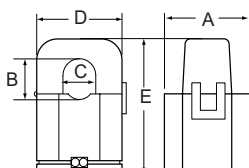
Type	Description
Output at Rated Current	0.333 VAC
Accuracy	±0.5% from 5%-120% of rated current (specified with the conductor(s) centered through the CT window)
Frequency Range	50/60 Hz
Leads	22 AWG, 6 ft. (1.8 m) standard length
Operating Temperature Range	-40° to 85°C (-40° to 185°F)
Storage Temperature Range	-50° to 105°C (-58° to 221°F)
Humidity Range	0-95% noncondensing
Max. Voltage L-N Sensed Conductor	600 VAC (basic insulation rating), 300 VAC (reinforced insulation rating)
Altitude of Operation	3 km max.
Mounting Location	Not suitable for wet locations. For indoor use only.
Approvals	EN61010-1; UL61010-1
Installation Category	Cat III, pollution degree 2

Dimensions

Split-Core

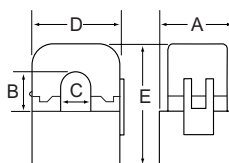
LVCT00050S Only

A = 1.0" (25 mm)
B = 0.5" (13 mm)
C = 0.4" (10 mm)
D = 0.9" (23 mm)
E = 1.6" (41 mm)



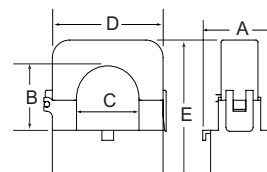
LVCT00101S Only

A = 1.2" (31 mm)
B = 0.8" (20 mm)
C = 0.7" (18 mm)
D = 1.6" (41 mm)
E = 2.1" (53 mm)



LVCT00201S Only

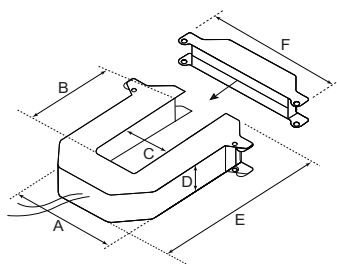
A = 1.5" (38 mm)
B = 1.25" (32 mm)
C = 1.25" (32 mm)
D = 2.5" (64 mm)
E = 2.8" (71 mm)



All Other Split-Core Models

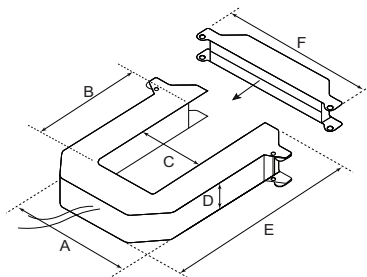
100 - 300 Amp

A = 3.8" (97 mm)
B = 1.5" (38 mm)
C = 1.3" (33 mm)
D = 1.1" (28 mm)
E = 3.9" (99 mm)
F = 4.8" (122 mm)



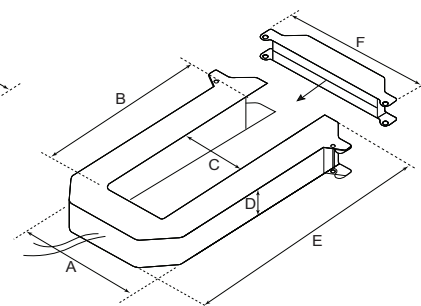
400 - 800 Amp

A = 4.9" (125 mm)
B = 2.9" (74 mm)
C = 2.5" (64 mm)
D = 1.1" (28 mm)
E = 5.3" (135 mm)
F = 5.9" (150 mm)



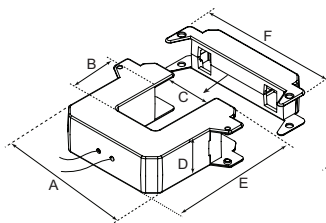
800 - 2400 Amp

A = 4.9" (125 mm)
B = 5.5" (140 mm)
C = 2.5" (64 mm)
D = 1.1" (28 mm)
E = 8.1" (206 mm)
F = 5.9" (150 mm)

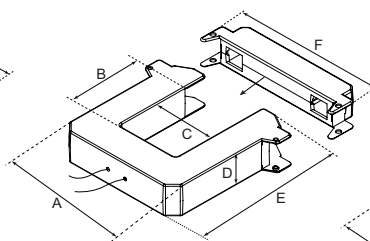


UL2808 Split-Core Models**UL2808 100 - 400 Amp**

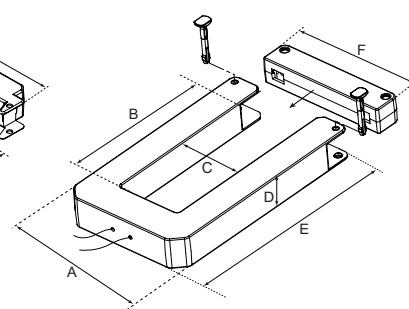
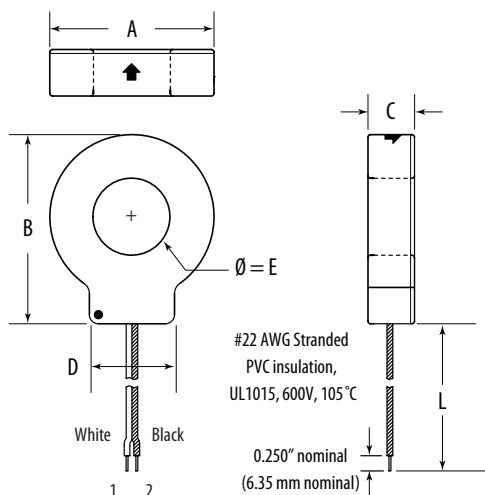
A = 3.23" (82 mm)
 B = 1.4" (36 mm)
 C = 1.4" (36 mm)
 D = 1.12" (28 mm)
 E = 3.25" (83 mm)
 F = 4.12" (105 mm)

**UL2808 600 - 800 Amp**

A = 4.95" (126 mm)
 B = 2.9" (74 mm)
 C = 2.46" (63 mm)
 D = 1.2" (31 mm)
 E = 5.36" (136 mm)
 F = 5.83" (148 mm)

**UL2808 800 - 2400 Amp**

A = 4.91" (125 mm)
 B = 5.73" (146 mm)
 C = 2.47" (63 mm)
 D = 1.16" (30 mm)
 E = 8.12" (206 mm)
 F = 4.91" (125 mm)

**Solid-Core**

Model	L	A	B	C	D	E
LVCT20050S	6'	1.3"	1.5"	0.7"	0.8"	0.4"
LVCT20100S	(1.8 m)	(33 mm)	(38 mm)	(18 mm)	(20 mm)	(10 mm)
LVCT20202S	6'	2.3"	2.6"	0.7"	1.2"	1.0"
	(1.8 m)	(58 mm)	(66 mm)	(18 mm)	(31 mm)	(25 mm)
LVCT20403S	6'	2.8"	3.2"	1.0"	1.4"	1.25"
	(1.8 m)	(71 mm)	(81 mm)	(25 mm)	(36 mm)	(32 mm)

Installation

Split-Core

1. Turn off and lock out power to the primary circuit before installing these current transducers.
2. Use a properly rated voltage sensing device to confirm that power is off.
3. Connect the transducer output leads to the meter inputs. The white wire is the X1 lead.
4. Release the clasp on one side of the CT and open it on the hinge. Check the core ends on both sections of the CT to ensure there is no rust or debris in the closure areas.
5. Wrap the CT around the primary lead. A label on the product indicates the source side.
6. Close the CT until the clasp clicks into place to ensure that the contact surfaces are firmly seated.

WARNING / AVERTISSEMENT

RISK OF INJURY OR EQUIPMENT DAMAGE / RISQUE DE BLESSURE OU DE DÉTÉRIORATION DE L'ÉQUIPEMENT

- Secure the I-bar to U-bar so that it remains in place. Close the CT with a suitable cable tie. / Fixer la barre en I à la barre en U de sorte qu'elle reste fermement en place. Fermer le TC à l'aide d'un serre-câble adapté.

Failure to follow these instructions may result in injury, fire or equipment damage. / Le non-respect de ces instructions peut entraîner un risque de blessure, d'incendie ou de détérioration de l'équipement.

Note: With the exception of the LVCT00050S, LVCT00101S, and LVCT00201S models, the split-core devices have a detachable I-bar. If the I-bar is removed, re-orient it according to the markings on the core surface, then re-attach it. 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.

Note: The CTs except UL2808 require a single cable tie to secure the I-bar. Make sure to use the hole provided for cable tie. The UL2808 100 - 400 A and UL2808 600 - 800 A CTs require a double cable tie. The UL2808 800 - 2400 A CTs have a push-pin to secure the I-bar and no cable tie is required.

7. Reconnect power to the panel.

Solid-Core

1. Turn off and lock out power to the primary circuit before installing these current transducers.
2. Use a properly rated voltage sensing device to confirm that power is off.
3. Connect the transducer output leads to the meter inputs. The white wire is the X1 lead.
4. Route the primary conductor through the center of the CT and complete the conductor connections. A label on the product indicates the source side.
5. Reconnect power to the panel.

China ROHS Certificate

The "Administrative Measures for the Restriction of Hazardous Substances in Electric Appliance and Electronic Products" requires this document to be shipped with all PowerLogic™ LVCT products to the People's Republic of China. Purchasers in other countries may disregard.

Les "Administrative Measures for the Restriction of Hazardous Substances in Electric Appliances and Electronic Products" exige que ce document soit transporté avec tous les produits de PowerLogic™ LVCT en République Populaire de Chine. Les acheteurs des autres pays peuvent le négliger.

Las "Administrative Measures for the Restriction of Hazardous Substances in Electric Appliances and Electronic Products" requiere que este documento sea enviado con todos los productos PowerLogic™ LVCT a la República Popular de China. Los usuarios en otros países pueden ignorar este documento.

Product/ Produit/ Producto: PowerLogic™ LVCT

产品系列: 电力量度器仪及配件



部件名称 / Part Name	产品中有毒有害物质或元素的名称及含量 / Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 / Metal parts	O	O	O	O	O	O
塑料部件 / Plastic parts	O	O	O	O	O	O
电子线路板 / PCBA	X	O	O	O	O	O

本表格依据SJ/T11364的规定编制。

O = 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

X = 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。

This table is made according to SJ/T 11364.

O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.

X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572.

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

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