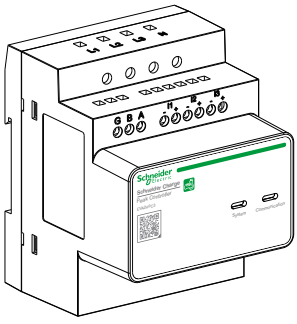
Schneider Charge - EVA2HPC3

Anti-Tripping Module for Three Phase Installation

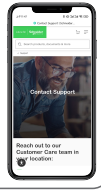
BQT5080401-02_EN



EVA2HPC3

Current threshold: 16/20/25/32/40/50 A

Customer Care Center



Safety

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining the suitability or reliability of these products for specific user applications.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

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All pertinent state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When devices are used for applications with technical safety requirements, the relevant instructions must be followed.

Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operating results.

Failure to observe this information can result in injury or equipment damage.

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Safety

⚠ 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.

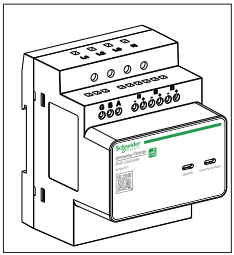
⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result** in minor or moderate injury.

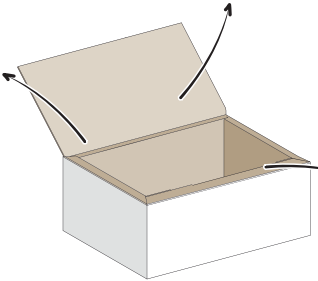
NOTICE

NOTICE is used to address practices not related to physical injury.

1 Contents







2 Description

2.1 Specified Use

NOTICE
The following points should be followed This anti-tripping module is designed for use with the Schneider Charge or the EVlink Home charging station. Do not use it with other electrical devices. **Failure to follow these instructions can result in tripping or equipment damage.**

■ The anti-tripping module limits the maximum power draw of the charging station to maintain the continuity of the home electrical power supply under all conditions. In some cases, the module completely stops the charging.
■ The anti-tripping module senses the total current drawn by the local installation and, depending on the maximum current threshold set by the user, reduces the current drawn by the charging station.
■ **It is mandatory to perform the pairing of this anti-tripping module with the Schneider Charge charging station.** See Section 6. In the 200-meter (656 ft) cable length range under the same transformer, this allows up to six pairs of devices to work simultaneously (using power line communication) on the same L1 line.
■ Skip section 6 if the anti-tripping module is installed and used with an EVlink Home charging station.
■ When installing and connecting the anti-tripping module, **check** that you comply with local regulations.

2.2 About This Manual

■ This instruction sheet applies to the three-phase anti-tripping module for the three-phase charging station only.
■ This instruction sheet is written for electricians and customers.

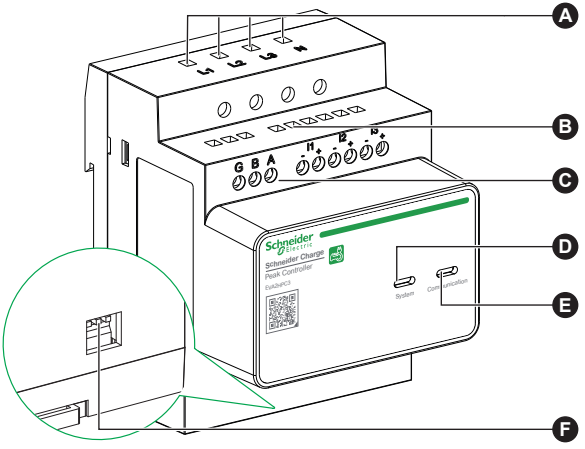
2.3 Dimension and Weight

Anti-tripping module	
Dimensions (W/H/D)	72 x 89 x 75 mm (2.83 x 3.5 x 2.95 in)
Compatibility	4 modules wide
Weight	180 g (0.39 lb)
Mounting type	DIN rail

Current sensor	
Dimensions (W/H/D)	48 x 30 x 32 mm (1.88 x 1.18 x 1.25 in)
Sensor cable	1 m (3.2 ft) long with 1.2 mm² (16 AWG) wires

2 Description

2.4 Description



A	Power supply terminals	L1 connects to phase 1, L2 connects to phase 2, L3 connects to phase 3, and N connects to Neutral cable.
		If applying a system with no Neutral, see section 5.1.
B	Current sensor terminals	I1-, I2-, and I3- connect to the black wire of the current transformer. I1+, I2+, and I3+ connect to the red wire of the current transformer.
C	Monitoring terminals	Unsupported.
D	System status indicator	Green: the module is correctly monitoring and controlling the charging station power.
		Red or red blinking: see section 10 troubleshooting.
E	Communication mode indicator	Green constant: communicating with Schneider Charge via PLC (Power Line Communication). Green blinking: communication with EVlink Home via PLC.
F	Configuration switch	Allows pairing with a Schneider Charge and defines the maximum current for installation by setting the position of the three DIP switches.

3 Characteristics

3.1 General Data

- Electrical Characteristics
  - Supply voltage: 220-240 V AC (+/- 10%)
  - Frequency: 50/60 Hz (+/- 10%)
  - Rated power: 5 W
  - Current transformer sampling current: 1 to 100 A
  - Polling interval: 1 s
  - Communication protocol: PLC (Power Line Communication)
- Environmental Conditions
  - Indoor use
  - Altitude: 0 - 2000 m
  - Relative humidity: 5% to 95%
  - Nominal Temperature: -30 to +50 °C (-22 to +122 °F)
  - Overvoltage category: III
  - Pollution degree: 2
  - Insulation degree: Reinforced Insulation
- Standards
  - EN 61010-1: 2010, EN 61326-1: 2013

3.2 Storage

- Ensure that the anti-tripping module and its accessories are stored indoors in a dry and ventilated conditions where the:
  - temperature does not exceed -40 to +85 °C (-40 to +185 °F)
  - monthly relative humidity does not exceed 90%
  - atmosphere is free of corrosive and explosive gases

3.3 Operation

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- The anti-tripping mudule housing shall be sealed
- You shall respect local installation regulations.

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

3.4 Environment

- Compliant with RoHS directive (2011/65/EU and 2015/863 EU)
- Compliant with REACH (EU regulation 1907/2006)

4 Electrical Diagram

⚠ ⚠ DANGER

FIRE HAZARD

■ Protect the module with the appropriate circuit breaker

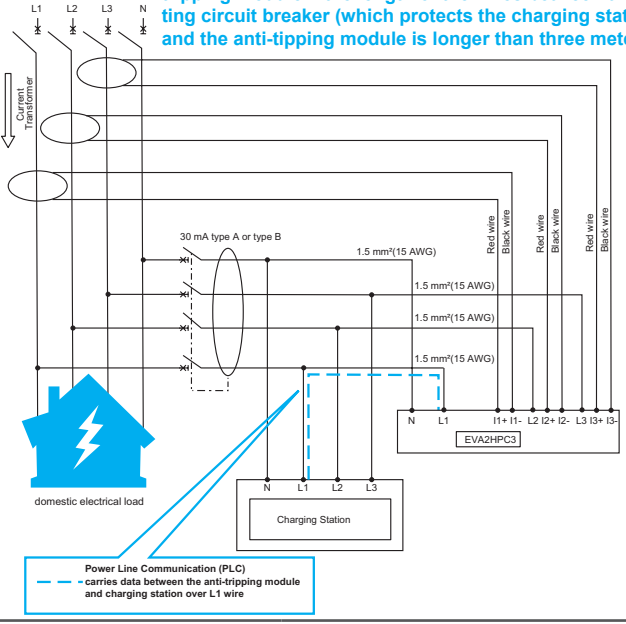
Failure to follow these instructions will result in death or serious injury.

■ Connect the anti-tripping module to the distribution board using wires with a cross-sectional area greater than or equal to 1.5 mm² (15 AWG) but no longer than 30 meters (98 ft).

■ Connect the anti-tripping module to the distribution board via the screw terminals N and L1, L2, L3, where L1, L2, L3 are for three live wires and N is for the neutral wire (see diagram below). If using a system without Neutral, please see section 5.1.

■ Connect the anti-tripping module to the current sensor using wires with a cross-sectional area greater than or equal to 1.0 mm² (17 AWG) but no longer than 10 meters (33 ft).

Add a 2A circuit breaker for dedicated protection of the anti-tripping module if the length of the wires between the existing circuit breaker (which protects the charging station) and the anti-tipping module is longer than three meters.



5 Anti-tripping Module Installation

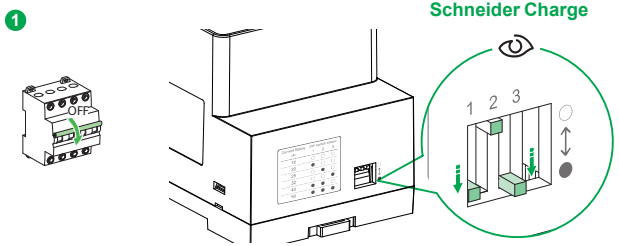
⚠⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

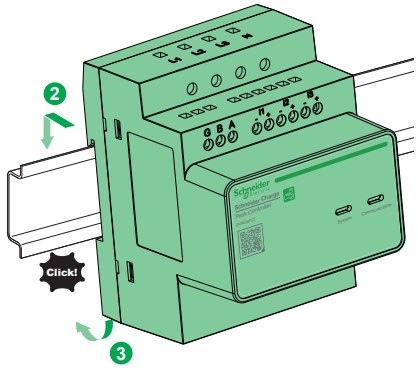
- Turn off the electrical power supply before starting work.
- Use a voltage tester of the appropriate rating.

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

- **Before mounting the module on a DIN rail.**
  - ☐ if a Schneider Charge is installed, set the DIP switch position to enter the pairing mode.
  - ☐ if an EVlink Home is installed, set the DIP switch position to configure the maximum current for installation. See section 7.



- Pull the tab at the module's rear to unlock the clip.
- After mounting the module on a DIN rail, push the tab at the module's rear to lock the clip.



5 Anti-tripping Module Installation

5.1 Anti-Tripping Module Wiring

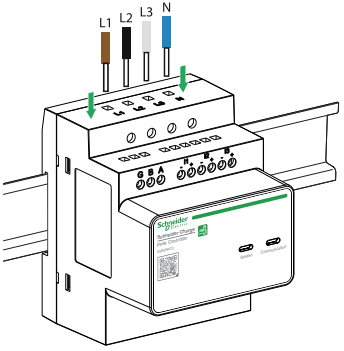
NOTICE

INOPERABLE EQUIPMENT

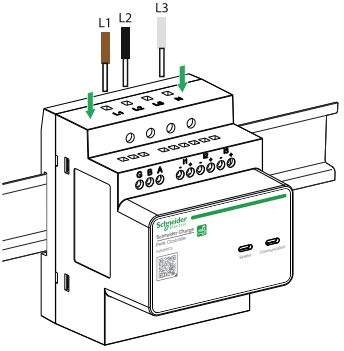
- Respect the wiring phases order

Failure to follow these instructions can result in equipment damage.

230V AC 3-Phase



230V AC 3-Phase No Neutral



Wire	Distribution board - anti-tripping module	Anti-tripping module - current sensor
Diameter	4 x 1.5 mm² (15 AWG)	6 x 1 mm² (17 AWG)
Length	< 30 m (98 ft)	< 10 m (32 ft)

5 Anti-tripping Module Installation

5.2 Current Sensor Installation

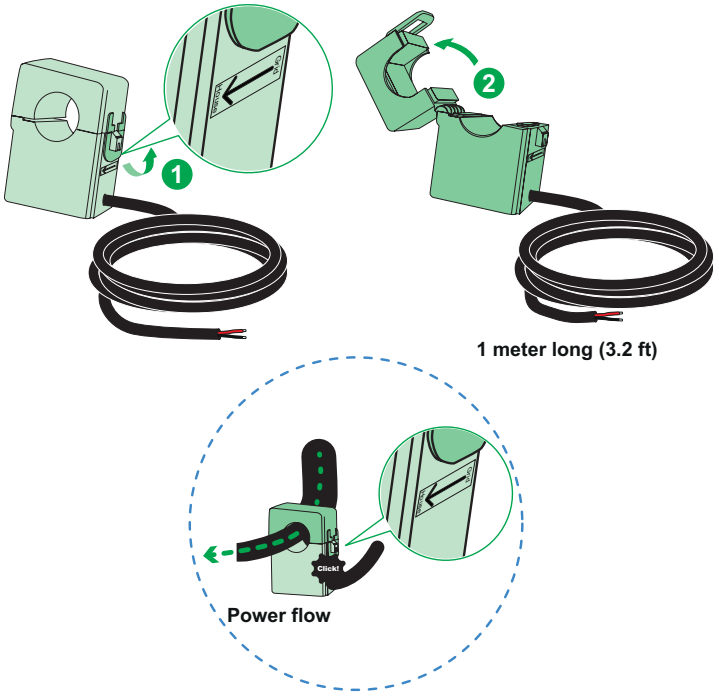
⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Turn off the electrical power supply before connecting or disconnecting the current sensor.
- Do not leave any wires unconnected.

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

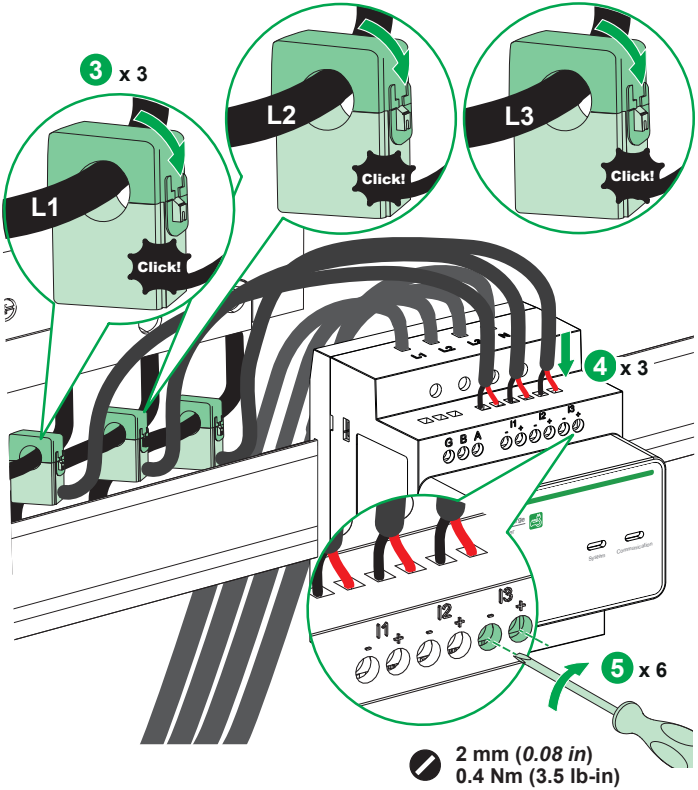
■ **Make sure the arrow on the current transformer is consistent with the flow of power from the grid.**



5 Anti-tripping Module Installation

5.2 Current Sensor Installation

■ Check the phase order of the wiring and check that the current transformer is clipped on the L1/L2/L3 wire.



6 Pairing Steps with Schneider Charge

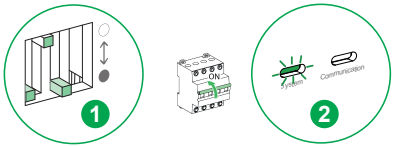
NOTICE

The following points should be followed

- Pairing is mandatory with Schneider Charge.
  - Skip this step if an EVlink Home charging station is installed.
  - Do not power off during the pairing process; otherwise, it will cause paring failure and the anti-tripping function will not be activated successfully.

Failure to follow these instructions can result in tripping or equipment damage.

6.1 Activate the Pairing Mode of the Anti-Tripping Module

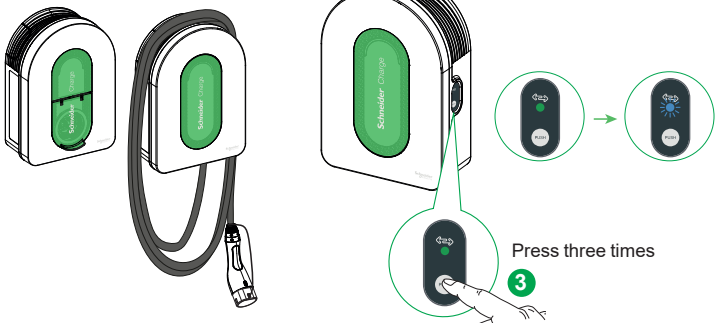


1. Confirm the DIP switch is set to pairing mode.
2. Power on the device, the system LED (System), and communication LED (Communication).

Then activate the pairing mode of the charging station (see section 6.2).

6.2 Activate the Pairing Mode of the Charging Station

EVH5●●●N●



- When the side LED is solid green, the pairing mode is available. Otherwise the charging station needs to be restarted.

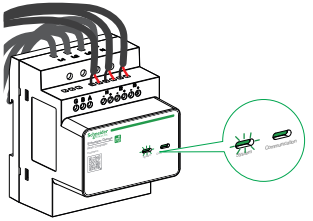
3. The pairing mode can be activated by pressing the side button three times. The side LED will then blink blue.

6.3 Pairing Completion

EVH5●●●N●



■ Side LED turns to solid green.

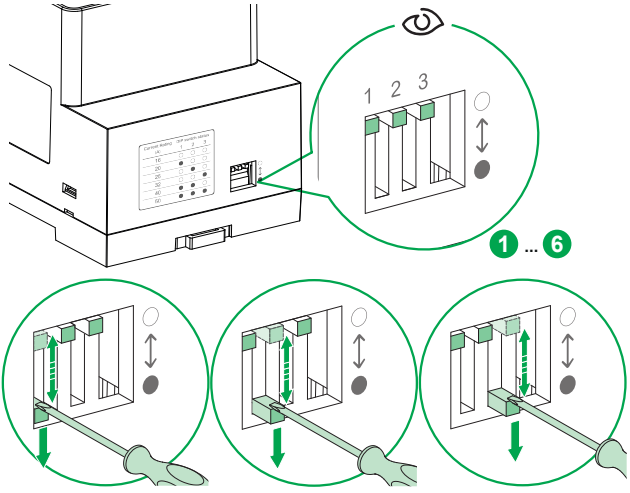


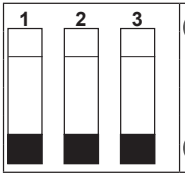
Pairing completed in one minute

■ The System indicator light blinks green. And the Communication indicator light is solid green.

■ **The device is now paired. Please set the maximum current value (just beneath or equal to the current rating of the home's electrical installation) by changing the position of the DIP switches (see section 7). The light indicators are solid green.**

7 Configuring





Current Rating (A)	DIP switch status 1	2	3
16	○	○	○
20	●	○	○
25	○	●	○
32	○	○	●
40	●	●	○
50	●	●	●

■ Set the maximum current value (16/20/25/32/40/50 A) just beneath or equal to the Current Rating of the home's electrical installation by changing the position of the DIP switches.

8 Aborting the Pairing Process

NOTICE

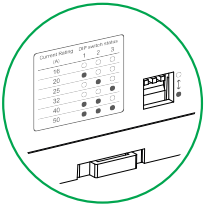
The following points should be followed

■ Pairing is mandatory with Schneider Charge.
  □ Skip this step if an EVlink Home charging station is installed.

■ The anti-tripping function is not available for Schneider Charge when aborting pairing before the pairing is completed.

Failure to follow these instructions can result in uncompleted aborting.

■ Abort the pairing process by changing the position of the DIP switches before the pairing is completed.



■ Abort the pairing process by pressing the side button three times.

■ At this time, the side LED will be solid green. The anti-tripping function is now unavailable for Schneider Charge.



Press three times

9 Unpairing Process

NOTICE

The following points should be followed

■ The Schneider Charge can be individually unpaired and then re-paired with the new anti-tripping module when the paired anti-tripping module is defective and needs to be replace. The same goes for charging stations that need to be replaced.

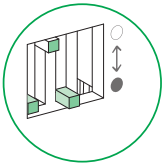
■ The anti-tripping function is not available for Schneider Charge after unpairing.

Failure to follow these instructions can result in uncompleted unpairing.

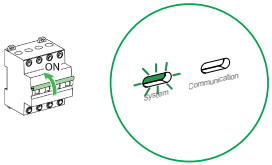
9 Unpairing Process

■ To unpair the anti-tripping module

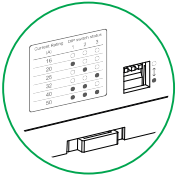
1. Set the DIP switch to pairing mode



2. Restart the anti-tripping module and enter the pairing process (see section 6.1)

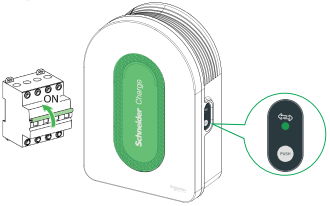


3. Abort the pairing by seting the DIP switch to other current rating before pairing completion

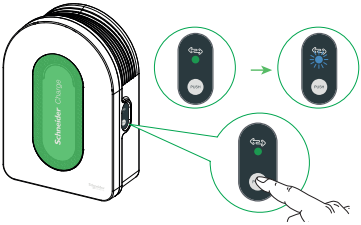


■ To unpair the Schneider Charge

1. Restart the charging station



2. Press three times to enter the pairing mode



3. Press and hold for five seconds to unpair the device



10 Troubleshooting

System Indicator light	Communication Indicator light	Possible causes and corrective measures
Solid Green 	Blinking green 	■ If a Schneider Charge is installed, check if the pairing steps have been done to activate the anti-tripping function (see section 6). ■ If an EVlink Home is installed, it indicates proper working status.
Off 	Off 	Power supply is not properly connected. Verify the wiring (see section 5.1)
Solid red 	Blinking/solid green 	The current draw exceeded the maximum current threshold defined by the user on the module. Check if the maximum current threshold can be increased to just beneath or equal to the current rating of the home's electrical installation (see section 7).
		The module has detected that voltage supply is under or over the designed limit. Verify that the installation's electrical distribution is within 187-264 V AC.
		The DIP switch position is not correct, set the right current (see section 7).
Solid red 	Blinking green 	The DIP switch position is set to pairing mode after power on. Verify that the DIP switch position is set to pairing mode before power on (see section 6.1).
Blinking green 	Solid Green 	The pairing mode is complete but the setting is on hold. Set the DIP switch position to the right current (see section 7).
Blinking red 	Blinking green 	The pairing process is under disturbance; please power off the device and verify pairing later when there is no interference.

11 Recycle



The packaging materials from this equipment can be recycled.
The product and all accessories marked with this symbol are electrical and electronic components that must be disposed of separately from household waste.
Please help protect the environment by disposing of waste in appropriate containers.
Thank you for helping to protect the environment.

12 Warranty

Contractual warranty	18 months

NOTE

NOTE

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France
www.se.com

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