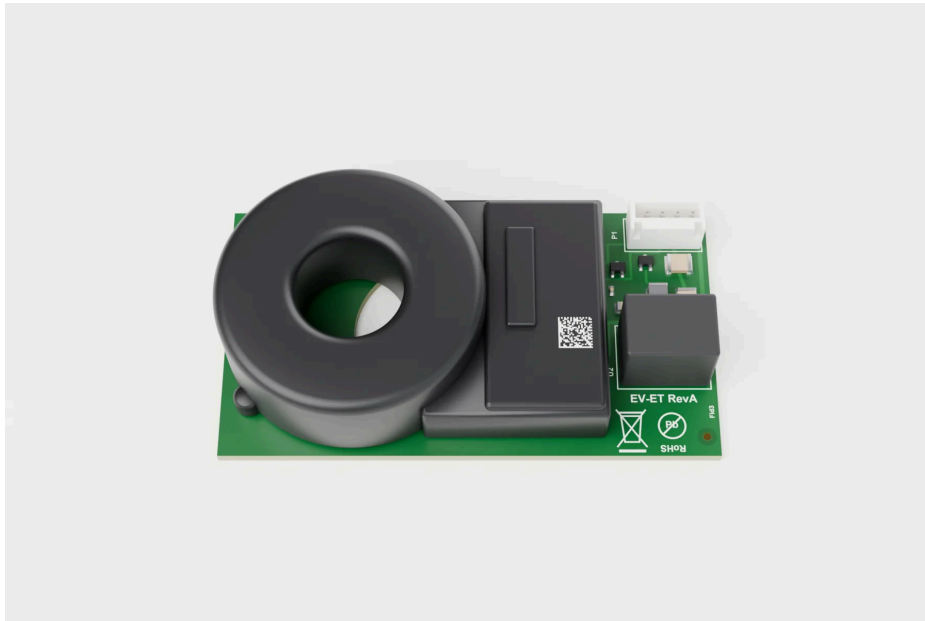


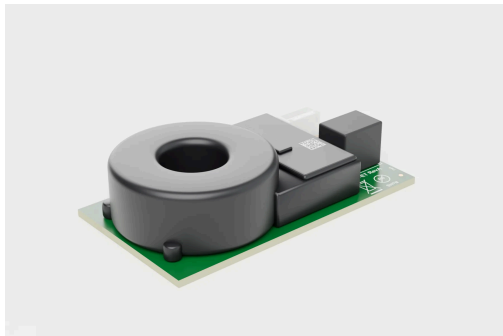
EVSE-X-DCD **SHIPPED**

RDC-DD (DC residual-current detector)

The 6 mA RDC-DD (residual direct current detecting device) A separate product, and standard with every EdgeTech charger, charge controller and DIY kit. It lets a Type A RCD be used upstream instead of a Type B (IEC 62955).



Sensor ring for the phase and neutral conductors, measuring module and 4-pin connector



64 × 35 mm board; the conductors pass through the Ø13.5 ring aperture



Top view

IN SHORT

A residual DC current detector that is delivered with every EVSE-C-3x32A and built into every finished charger. The car's onboard charger can leak DC current back into the installation; a normal Type A RCD does not see it, and its core can even be saturated by it, so that it no longer trips on a normal fault current either. The installation standard (IEC 60364-7-722; in the Netherlands NEN 1010) asks for protection against DC leakage of 6 mA and more: either a Type B RCD, or a Type A RCD together with an RDC-DD to IEC 62955 in the charge point. This module is that RDC-DD.

Not only chargers can leak DC current to PE. Solar and battery inverters without galvanic separation, and some heat-pump drives, can do the same. The installation rule is the same for all of them (IEC 60364-5-53, NEN 1010 clause 531.3.3): choose the residual-current protection by the leakage current the equipment can produce. Where smooth DC can occur, that means a Type B RCD, unless the equipment already has its own DC leakage detection or galvanic separation. For a charge point, the RDC-DD with a Type A RCD is the accepted alternative (IEC 60364-7-722).

The module has no settings. When it trips, the charge controller opens the contactor within about 300 ms, sets error bit 5 (value 32), and the MyCharger app or your own controller sees the fault in the socket status.

PRICE	standard with every charger and charge controller; also sold separately, price on request
CAD	STEP and drawing: edgetech.eu/cad/evse-x-dcd.step

KEY FACTS

SPECIFICATION	VALUE
Standard	IEC 62955 (RDC-DD), 6 mA DC residual current detection
Trip level	> 6 mA DC
Disconnect time	≈ 300 ms, via the charge controller relay
Wiring	Neutral and all phases through the toroid; protective earth stays outside
Dimensions	Board 64 × 35 mm; sensor ring Ø34 mm, 13.75 mm high, conductor aperture Ø13.5 mm; no mounting holes, held by its edges
Configuration	None. No adjustable parameters.
Failsafe	Loss of communication with the charge controller blocks charging; trip reported as error bit 5 (value 32) in the error byte of register 0x0103
When required	Every Mode 3 charge point on a Type A RCD (NEN 1010 / IEC 60364-7-722)
Made in	Europe

Test it in your project: info@edgetech.eu

Full specifications: edgetech.eu/electronics/evse-x-dcd