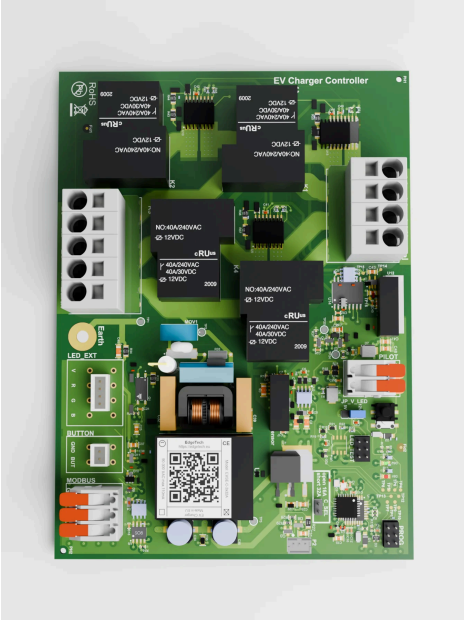
EVSE-C-3X32A SHIPPED

Edge EV Charger controller

AC charge controller board for one Mode 3 charge point, up to 3×32 A (22 kW), with integrated relay drive, per-phase current and voltage metering, and Modbus RTU control. The board inside most EdgeTech-based chargers since 2021.



The charge controller board, 168 × 122 mm

IN SHORT

One board, one charge point. The EVSE-C-3x32A talks to the car over the control pilot, switches the charging current with its own relays, measures current and voltage on each phase, and reports everything over Modbus RTU. Put it in an enclosure with an MCB, an RCD and (for DC leakage) the EVSE-X-DCD module, and you have a Mode 3 AC charger.

It runs on its own, at a static limit of 16 A or 32 A. Connected to a site controller it becomes a dynamically limited charge point: the controller writes a new current limit every second, and the board falls back to a safe state if those writes stop.

PRICE	€ 125 excl. VAT · € 151.25 incl. VAT
CAD	STEP and drawing: edgetech.eu/cad/evse-c-3x32a.step

KEY FACTS

SPECIFICATION	VALUE
Charging	IEC 61851-1 Mode 3, 1-phase or 3-phase, 6–32 A continuous, max 3×32 A (22 kW)
Advertised maximum	16 A without jumper, 32 A with jumper; remotely limited per second over Modbus (register 0x0201)
Microcontroller	8-bit microcontroller, 16 MHz, bare-metal C firmware
Metering	On-board per-phase current and voltage measurement, session and lifetime energy in 1/256 kWh steps. Not MID certified.
Switching	Relays on the board switch the charging current, so no separate contactor is needed; stuck-relay detection; earth, neutral and L1 self-test at every boot
Fieldbus	Modbus RTU slave over RS485, 9600 8N1 (19200 with EVSE-SC-02), factory address 1 (answers only after a state change)
Bus cable	3 × 0.75 mm² multi-core (stranded). No solid-core cable and no raw Ethernet cable in the terminals; Ethernet only with RJ45 connectors (adapter board on request)
Failsafe	No Modbus message for 2 s → safe mode; internal temperature 62 °C → limit to 10 A, higher → charging off
DC leakage protection	6 mA DC-to-PE sensor (EVSE-X-DCD, IEC 62955) included with every controller; trip reported as error bit 5 (value 32)
Cable and lock	Fixed cable or Type 2 socket; PP resistor read for cable rating; lock port for the EVSE-X-CL cable lock driver, with lock/unlock feedback
Signalling	Onboard RGB LED or addressable LED strip (36 LEDs); CP disconnect for EV wake-up per IEC 61851-23 Ed. 2
Supply	90–300 V AC, 50 Hz, 3 W
Dimensions	168 × 122 × 25 mm
Enclosure rating	IP00 (bare board, for installation in an enclosure), Class I
CE	Declaration 2022-001 EVSE-C-01: LVD 2014/35/EU, EMC 2014/30/EU, RoHS 2011/65/EU. Updated declaration to EN IEC 61851-1:2019 and EN IEC 61851-21-2:2021 soon
Made in	Europe
evcc	Works with evcc: official evcc device "Edgetech Smart EVSE", template maintained by EdgeTech. evcc talks to the charge controller over RS485 and does the load balancing and solar charging itself; no site controller needed

Test it in your project: info@edgetech.eu

Full specifications: edgetech.eu/electronics/evse-c-3x32a