

EV charging Controller

AC-EV-CC-AC1-M3-CBC-RCM-ETH-3 G (OCPP) - 1018702

Module 3 for charging electric vehicles according to IEC 61851-1 for B and C charging with integrated DC fault current monitoring, Ethernet communication interface and 3G mobile modem.

Product definition

- Product Type: AC Charge Controller for Private and Industrial Applications (EU / CN)
- Standards / Regulations: IEC 61851-1
- Charging mode: Mode 3, Case B + C
- Number of supported charging points: 1
- Enable blocking when a network failure: Integrated blocker actuator release function to disconnect the infrastructure charging connector and infrastructure charging socket
- Conformity: CE

Dimensions

- Height: 90 mm
- Width: 162 mm
- Depth: 61.00 mm

Device power supply

- Supply voltage: 230 V
- Supply voltage range: 100 - 240 V AC (rated voltage range)
- Power consumption: <3 watts (idle)
- Power consumption: <10 W (maximum)
- Frequency range: 50 - 60 Hz

Range of differential current measurement

- Rated frequency f_n : ≤ 2000 Hz
- Rated differential current: ± 300 mA
- Charge current $I_{\Delta n}$: 30 mA (AC), 6 mA (DC)
- Start time at $I_{\Delta n}$: <180 ms
- Rated current I_n : 32 A (three-phase, 4 x 6 mm²), 48 A (single phase)
- Response time at 2 x $I_{\Delta n}$: <70 ms
- Starting time at 5x $I_{\Delta n}$: <20 ms

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Switching outputs

- Charging contactor control: Relay output C1.2
- Switching power minimum: 4000 VA
- Switching voltage max.: 250 V AC (External power supply)
- Maximum switching current: 16 A
- Locking Actuator Control: Motor Switch Output
- Switching voltage max.: 12 V (Internal power supply)
- Maximum switching current: 1 A (maximum)

Digital outputs

- Control of other functions: 4 digital outputs
- Connection technique: Screw connection
- Maximum output voltage: 30 V
- Maximum output current: 0.2 A (Total current for all outputs, internal power supply)
- Maximum output current per channel: 0.6 A (one output, external power supply)

Inputs

- Number of digital inputs: 5
- Input description: Digital input
- Rated current IN: ≤ 4 mA
- Input nominal voltage UN: 12 V
- Input Voltage Range U1: 0 - 3 V (Off)
- Input voltage range U2: 9 - 15 V (On)

Data interfaces RS-485

- Number of interfaces: 1 (for meter and RFID reader)
- Bus system: RS-485
- Connection type: Screw connection
- Number of supported participants: 2
- Transfer rate: 4.8 - 115.2 kBit / s (setting option)
- Supported Protocols: Modbus / RTU (Master)

Ethernet data interfaces

- Number of interfaces: 1
- Connection type: RJ45 socket
- Transfer rate: 10/100 MBit / s
- Transfer length: 100 m
- Supported protocols: Modbus / TCP

Wireless Interfaces

- Interface Description: HSPA / GSM / SPRS / EDGE Mobile Data Interface for Communication with Superior Control Systems via OCPP 1.6J
- Frequency: 900 MHz (HSPA)

2100 MHz (HSPA)

850 MHz (GSM / GPRS / EDGE)

900 MHz (GSM / GPRS / EDGE)

1800 MHz (GSM / GPRS / EDGE)

1900 MHz (GSM / GPRS / EDGE)

- Impedance: 50 Ω
- Transmit power: 2 W (GSM 850 (Class 4))
 - 2 W (GSM 950 (Class 4))
 - 1 W (GSM 1800 (Class 1))
 - 1 W (GSM 1900 (Class 1))
 - + 24 dBm (UMTS / HSPA (Class 3))
- Antenna connection: 1, SMA (plug)
- SIM card: Micro SIM
- Supported OCPP: 1.6J protocols

Ambient conditions

- Ambient temperature (operation): -25 ° C + 60 ° C
- Ambient temperature (storage / transport): -40 ° C + 85 ° C
- Max. altitude: <2000 m
- Permissible air humidity (operation): 30% - 95% (no condensation)
- Degree of protection: IP20
- Pollution degree: 2 IEC 60664-1
- Overvoltage category: II

Connection data

- Connection type: Screw connection
- Conductor cross section: 0.2 - 2.5 mm²
- Conductor cross section solid: 0.2 - 4 mm²
- AWG line cross section: 24 - 12
- Connection type: Screw connection
- Conductor cross section: 0.2 - 1 mm²
- Conductor cross section solid: 0.14 - 1.5 mm²
- AWG line cross section: 26 - 16

Electromagnetic Compatibility Data

- Electromagnetic Compatibility: Compliance with the 2014/30 / EU Electromagnetic Compatibility Directive
- Spurious radiation: EN 61000-6-3
- Interference immunity: EN 61000-6-2
- Low Voltage Directive: Compliance with NSR 2014/35 / EU
- Case: DIN 43880