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AC charging controller - CHARX SEC-3150 - 1138965

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CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4063151080389

Technical data

Product definition

Type	Embedded Linux system
Standards/regulations	IEC 61851-1
	ISO 15118
Charging standard	IEC 61851-1
	ISO/IEC 15118
Charging mode	Mode 3, Case B + C
Conformance	CE-compliant

Dimensions

Height	121 mm
Width	37.6 mm
Depth	85.00 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

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Technical data

Ambient conditions

Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above mean sea level)
Air pressure (storage/transport)	58 kPa ... 106 kPa (up to 4500 m above mean sea level)
Degree of protection	IP20
Degree of pollution	2 in acc. with IEC 60664-1
Overvoltage category	III
Shock (operation)	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test specification	15g, 11 ms period, half-sine shock pulse
Vibration (operation)	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test specification	5g, 10...150 Hz, 2.5 h, in XYZ direction

Device supply

Supply voltage	12 V DC
Supply voltage range	11.4 V DC ... 12.6 V DC
Max. current consumption	2 A (Stand-alone operation)
No-load current	< 200 mA (without external loads)

System data

Operating system	Linux
Processor	Arm® Cortex®-A7 Single-Core Processor
RAM	512 Mbyte (RAM)
Data storage	8 GByte (eMMC)
User interface	Web-based management
Security functions	IP, port, protocol

Data interfaces

Interface	Ethernet
Number	2
Connection method	RJ45 jack
Number of MAC addresses	2
Transmission speed	10/100 Mbps
Transmission length	100 m
Operating mode	WAN/LAN
	LAN/LAN
Protocols supported	OCPP 1.6J
	Modbus/TCP
	MQTT
	HTTP
	HTTPS
Interface	Configuration and diagnostics
Number	1
Connection method	Micro-USB type C
Protocols supported	RNDIS

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Data interfaces

Interface	Energy meter
Bus system	RS-485
Transmission speed	9.6 kbps ... 115.2 kbps (Automatic setting in accordance with the selected energy meter)
Interface	RFID readers
Bus system	RS-485
Transmission speed	9.6 kbps ... 115.2 kbps (Automatic setting in accordance with the selected RFID reader)
Interface	CHARX control modular system bus
Number	1
Connection method	DIN rail bus connectors

Wireless interfaces

Interface	Cellular communication
Interface description	GSM / GPRS / EDGE / LTE (FDD)
Frequency	800 MHz (LTE B20)
	900 MHz (LTE B8)
	1800 MHz (LTE B3)
	900 MHz (GSM/GPRS/EDGE)
	1800 MHz (GSM/GPRS/EDGE)
Antenna	50 Ω impedance SMA antenna socket
Note	You will find a suitable antenna in the accessories are for this item
SIM card	Micro SIM (3FF)
LTE	CAT1
Country support	Europe
Protocols supported	OCPP 1.6J

Function interfaces

Interface	Vehicle interface
Communication protocol	IEC 61851-1
	ISO 15118
	GB/T 18487
Proximity	IEC 61851-1
	GB/T 18487
Charging cases	Mode 3, Case B + C
Control voltage	± 12 V (Locking actuator)
Rated current	2 A
Locking release in the event of mains failure	Integrated release function of the locking actuator for disconnection of Infrastructure Plug and Infrastructure Socket Outlet
Interface	Residual current detection
Sensor supply voltage	12 V DC
Error state signal level	12 V (Different terminal points)
	0 V (Different terminal points)

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Function interfaces

Test & Reset signal level	12 V
Interface	Temperature monitoring
Sensor type	Pt 1000
	PTC chain
Tripping characteristic	configurable
Interface	Contactor control
Interface description	Floating switch contact
Switching voltage	max. 250 V AC (Necessary for ISO 15118 communication)
	max. 30 V DC
Rated current	2 A
Interrupting rating	max. 1500 VA

Inputs

Description of the input	Digital input
Number inputs	4
Nominal input voltage U_N	12 V
Input voltage range	0 V ... 3 V (Off)
	9 V ... 15 V (On)
Function	configurable

Outputs

Output name	Digital output
Number outputs	4
Operating mode	High-Side (Output switched to internal 12 V voltage)
	Low-Side (Output switched to GND potential)
Output voltage	12 V (High-side operation)
	$\leq$ 12 V (Low-side operation)
Output current	max. 600 mA
Function	configurable

Connection data

Connection technology	pluggable
	Push-in technology
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section	0.25 mm² ... 1.5 mm² (with ferrules)
Conductor cross section AWG	24 ... 16
Stripping length	8 mm
	10 mm (for contactor control)

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1

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Classifications

eCl@ss

eCl@ss 11.0	27144703
eCl@ss 9.0	27144703

ETIM

ETIM 7.0	EC002889

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC	EAC	RU*DE*01.B.85589/21

Accessories

Accessories

Antenna

Antenna - PSI-GSM/UMTS-QB-ANT - 2313371

GSM UMTS antenna, with omnidirectional characteristic, 2 m antenna cable with SMA round connector

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Cable set

Cable set - CHARX SEC JST-RCM-CBL - 1360462

CHARX control modular, Cable set, Cables with plug-in contact at one end, 4-pos., Exclusively for connecting the EV-RCM-6DC-WAT residual current sensor - 1309697 to modules in the CHARX control modular charging controller family, length: 0.4 m

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Accessories

Infrastructure socket outlet

Set - EV-T2M3SO12-3P-P-SET - 1164422

CHARX connect, Set, Combination of infrastructure charging socket, protective cover, and rear protective cap for strain relief and touch protection, rear protective cover screw connection, with temperature sensors, with LED status indicator within the protective cover, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 3-position, Rear panel mounting, M5 thread, Premium with LED cover, "PHOENIX CONTACT" logo

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Set - EV-T2M3SO12-4P-P-SET - 1164423

CHARX connect, Set, Combination of infrastructure charging socket, protective cover, and rear protective cap for strain relief and touch protection, rear protective cover screw connection, with temperature sensors, with LED status indicator within the protective cover, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 4-position, Rear panel mounting, M5 thread, Premium with LED cover, "PHOENIX CONTACT" logo

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Set - EV-T2M3SO12-3P-BL-SET - 1268358

CHARX connect, Set, Combination of infrastructure charging socket, protective cover, and rear protective cap for strain relief and touch protection, rear protective cover screw connection, with LED status indicator within the protective cover, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 3-position, Rear panel mounting, M5 thread, Basic with LED cover, "PHOENIX CONTACT" logo

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Set - EV-T2M3SO12-4P-BL-SET - 1268355

CHARX connect, Set, Combination of infrastructure charging socket, protective cover, and rear protective cap for strain relief and touch protection, rear protective cover screw connection, with LED status indicator within the protective cover, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 4-position, Rear panel mounting, M5 thread, Basic with LED cover, "PHOENIX CONTACT" logo

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Set - EV-T2M3SO12-3P-B-SET - 1164420

CHARX connect, Set, Combination of infrastructure charging socket, protective cover, and rear protective cap for strain relief and touch protection, rear protective cover screw connection, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 3-position, Rear panel mounting, M5 thread, Basic, "PHOENIX CONTACT" logo

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Accessories

Set - EV-T2M3SO12-4P-B-SET - 1164417

CHARX connect, Set, Combination of infrastructure charging socket, protective cover, and rear protective cap for strain relief and touch protection, rear protective cover screw connection, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 4-position, Rear panel mounting, M5 thread, Basic, "PHOENIX CONTACT" logo

Residual current monitoring module

Differential current monitoring - EV-RCM-6DC-WAT - 1309697

The residual current monitoring module is used for AC and DC residual current detection in AC charging points. The higher-level safety equipment (e.g., residual current device) is protected against potential DC residual currents.

Differential current monitoring - EV-RCM-6DC-WAT-X10 - 1309695

The residual current monitoring module is used for AC and DC residual current detection in AC charging points. The higher-level safety equipment (e.g., residual current device) is protected against potential DC residual currents.

RFID device

RFID device - EV-RFID-ELT-PCB - 1309772

RFID card reader for connection to CHARX control modular charging controllers

RFID device - EV-RFID-ELT-PCB-X10 - 1309752

RFID card reader for connection to CHARX control modular charging controllers

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Accessories

RFID device - EV-RFID-ELT-IP65 - 1309687

RFID card reader for connection to CHARX control modular charging controllers