EM-CP-PP-ETH - AC charging controller

2902802

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EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

Commercial data

Item number	2902802
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	XWBRBA
GTIN	4046356681032
Weight per piece (including packing)	322.8 g
Weight per piece (excluding packing)	260 g
Customs tariff number	85371098
Country of origin	DE

Technical data

Product properties

Product type	AC charging controller
Product family	CHARX control advanced
Charging standard	Type 2
Charging mode	Mode 3, Case B + C
Operating mode	Stand-Alone
	Client
Modem for communication present	no
Number of charging points	1

Electrical properties

Type of charging current	AC 3-phase

Supply

Supply voltage	230 V
Supply voltage range	110 V AC ... 240 V AC (nominal voltage range)
	95 V AC ... 264 V AC
Current consumption	max. 40 mA
Nominal power consumption	< 1 W (No-load)
Frequency range	45 Hz ... 65 Hz

Input data

Digital

Number of digital inputs	4
Frequency range	50 Hz ... 60 Hz
Nominal current I_N	≤ 8 mA
Nominal input voltage U_N	24 V
Input voltage range U1	-3 V ... 5 V (Off)
Input voltage range U2	15 V ... 30 V (On)

Output data

Digital

Output name	4 digital outputs
Connection technology	Screw connection
Maximum output voltage	30 V
Maximum output current	0.2 A (Total current for all outputs; internally supplied)
Maximum output current per channel	0.6 A (Per output; externally supplied)

Digital

Output name	Relay output $V_{1.2}$
Maximum switching voltage	250 V AC

Max. switching current	2 A

Switching

Output name	Relay output $C_{1.2}$
Minimum switching power	1500 VA
Maximum switching voltage	250 V AC (External supply)
Max. switching current	2 A

Switching

Output name	Relay output $R_{1.3}$ and $R_{2.4}$
Minimum switching power	180 VA
Maximum switching voltage	30 V AC/DC (External supply)
Max. switching current	2 A

Connection data

Screw connection

Conductor cross-section rigid	0.2 mm² ... 4 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 12

Interfaces

Interface	Ethernet (1x)

RS-485

Interface	RS-485 2-wire
Bus system	RS-485
Connection method	Screw connection
Number of interfaces	1
Number of supported devices	1
Transmission speed range	2.4 kbps ... 19.2 kbps (adjustable)

Ethernet

Interface	Ethernet
Bus system	RJ45
Connection method	RJ45 jack
Number of interfaces	1
Serial transmission speed	10/100 Mbps
Transmission length	max. 100 m (with shielded, twisted-pair data cable)
Protocols supported	Modbus/TCP
Locking release in the event of mains failure	With EM-EV-CLR-12V locking release module (Item No. 2903246) as an option

Dimensions

Charging controller

Width	71.6 mm

Height	90 mm
Depth	61 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection (Module)	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	30 % ... 95 % (non-condensing)

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Low Voltage Directive	Conformance with LV directive 2006/95/EC
Noise immunity	EN 61000-6-2
Housing	DIN 43880

Noise emission

Standards/regulations	EN 61000-6-3

Standards and regulations

Standards

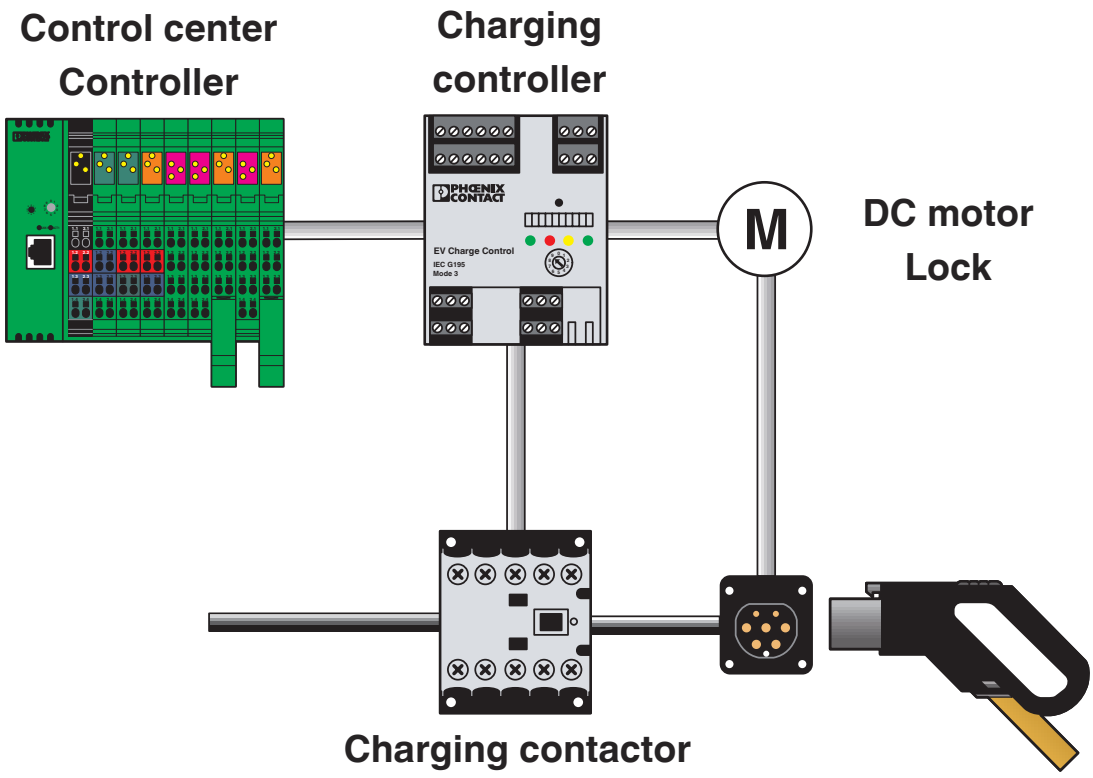
Standards/regulations	IEC 61851-1

Mounting

Mounting type	DIN rail mounting
Mounting position	any

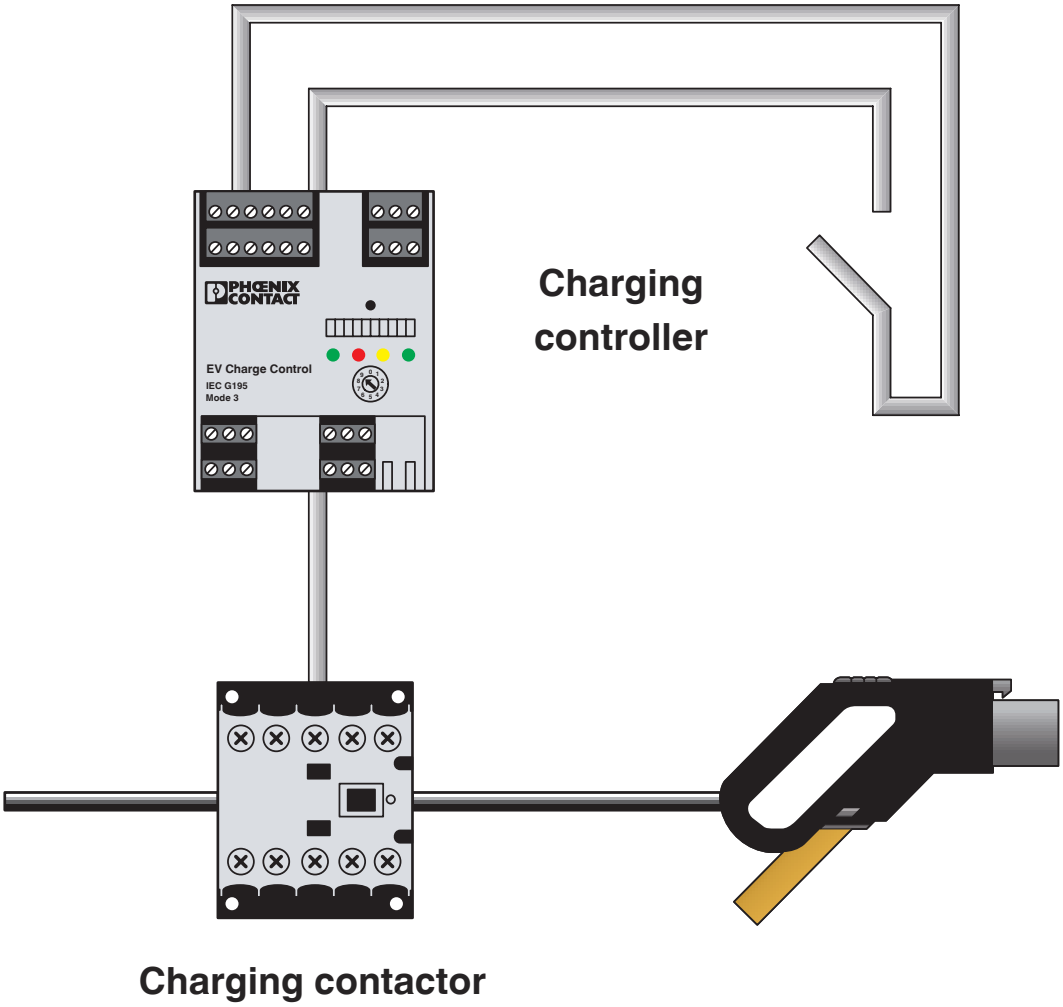
Drawings

Application drawing



EV Charge Control interacting with a central controller

Application drawing



Simple charging point with permanently connected cable

Classifications

ECLASS

ECLASS-13.0	27144703
ECLASS-15.0	27144703

ETIM

ETIM 10.0	EC002889

UNSPSC

UNSPSC 21.0	39121800

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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