

# EV-RCM-C2-AC30-DC6 - Differential current monitoring



1622451

<https://www.phoenixcontact.com/us/products/1622451>

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The residual current module is used for AC and DC residual current detection in AC charging points. The higher-level safety equipment (e.g., residual current circuit breaker) is protected against potential DC residual currents. A 1 or 2-channel product version is available.



## Commercial data

Item number	1622451
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	XWBRYA
GTIN	4055626040608
Weight per piece (including packing)	476.7 g
Weight per piece (excluding packing)	443 g
Country of origin	DE

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## Technical data

### Product properties

Product type	Residual current monitoring module
Product family	CHARX control basic
Application	Residual current monitoring module (RCM) for AC charging controllers for private applications (EU/CN)
Operating elements	Test/reset button; 2 status LEDs
Number of charging points	1
Charging standard	Type 2
Charging mode	Mode 3

### System properties

Charging controllers	
Number of charging points	1

### Electrical properties

Type of charging current	AC 3-phase
Current consumption	< 1 W
Power consumption	< 5 VA
Reload function	3 switch-on attempts at intervals of 15 min.

### Measuring current transducer

Connection method	Connector
Supply	via RCM module
Diameter of measuring coil	15 mm

### Measuring range: Residual current

Rated frequency $f_n$	$\leq 2000$ Hz
Nominal differential current	$\pm 300$ mA (Peak)
Measuring range	50 A (45 Hz ... 50 Hz)
Residual current $I_{\Delta n}$	30 mA
	6 mA
Rated current $I_n$	32 A
Tripping time for $I_{\Delta n}$	< 180 ms
Response time for $2 \times I_{\Delta n}$	< 70 ms
Tripping time for $5 \times I_{\Delta n}$	< 20 ms
Tripping time for $I_N$	< 500 ms

### Supply

Supply voltage range	100 V AC ... 240 V AC (nominal voltage range)
Max. current consumption	22 mA
Nominal power consumption	< 0.5 W (No-load)
Frequency range	45 Hz ... 60 Hz

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## Input data

Digital

Description of the input	Plug-in; front
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## Output data

Switching

Output name	Alarm relay 1 $I_{\Delta n}$ : AC and DC residual currents
	Alarm relay 2 $I_{\Delta n}$ : AC and DC residual currents
Maximum switching voltage	250 V
Max. switching current	5 A (1 N/O contact each)
Number of contacts as N/O contacts	1
Note regarding the switch contact	Quiescent current
Switching cycles	10000

## Connection data

Conductor connection

Connection method	Spring-cage connection
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 14

## Interfaces

Others

Number of interfaces	2 (Measuring transducer)
Transmission length	max. 100 m (with shielded, twisted-pair data cable)
Number of interfaces	2 (Error/Reset)

## Dimensions

Width	36 mm
Height	90 mm
Depth	70.50 mm

## Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (Terminal blocks)
	IP30 (Inserts)
Ambient temperature (operation)	-25 °C ... 80 °C
Climatic class	according to IEC 60271-1 / -2 / -3

## Approvals

Conformity/Approvals

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Conformance

CE-compliant

## Standards and regulations

Standards

Standards/regulations

IEC 61851-1

## Mounting

Mounting position

any

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## Classifications

### ECLASS

ECLASS-13.0	27144703
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### ETIM

ETIM 9.0	EC002889
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### UNSPSC

UNSPSC 21.0	39121800
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## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-10
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

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