PROTECTION AND CONTROL

IDA-EV

RCCB protection for charging points

What is the appropriate protection for EV chargers?

Electric mobility presents a new paradigm for electricity specialists.

As the number of electric vehicles on the roads increases, there will be a greater need for charging points, with residual current protection being vital to ensure that facilities and people alike are kept safe.

The use of this type of device in public spaces and by non-specialised personnel requires adequate residual current protection.

Fault currents of up to 6 mAdc can be present while charging electric vehicles. Given this possibility, a conventional Type AC or A RCCB would not be able to operate correctly, as it could lead to unwanted trips or, in the worst case, stop protecting altogether.

IDA-EV guarantees adequate protection for EV charging facilities and satisfies the new **IEC 62955** standard.
Since it is a Type A RCCB with current monitoring of up to 6 mAdc, it guarantees the correct selectivity of the RCCBs installed upstream, avoiding having to replace them.

AC protection
Sinusoidal alternating current

Type A protection
Sinusoidal alternating current
Pulsating alternating current

IDA-EV

RCCB
protection for charging points

IDA-EV is a 6mA DC type-A RCCB designed to provide protection for electric vehicle charging points.

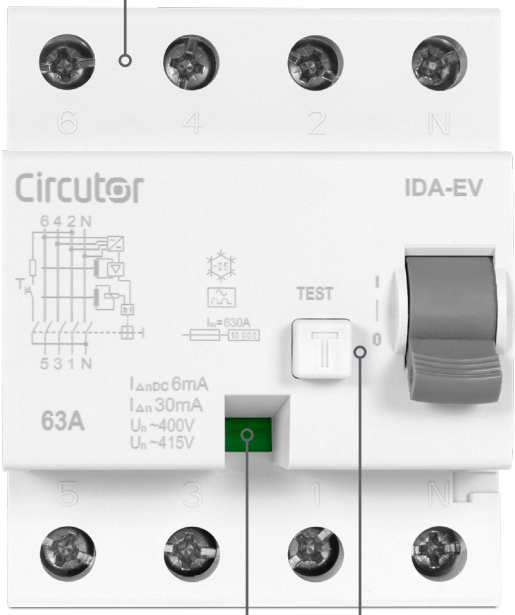
- 40 A and 63 A gauges
- Three-phase or single-phase connection

This switch provides protection for the type-A RCCB that may be installed upstream.

- ☑ Residual current protection for EV chargers approved as a single device as per **IEC 62955**
- ☑ Easy installation on DIN rail
- ☑ Protects the RCCB upstream
- ☑ Provides protection as per **ITC-52** and **IEC 60364-7-722** for electric vehicle charging stations
- ☑ Withstands extreme weather conditions. Expanded operating temperature range from -25 to 65 °C.

Main characteristics

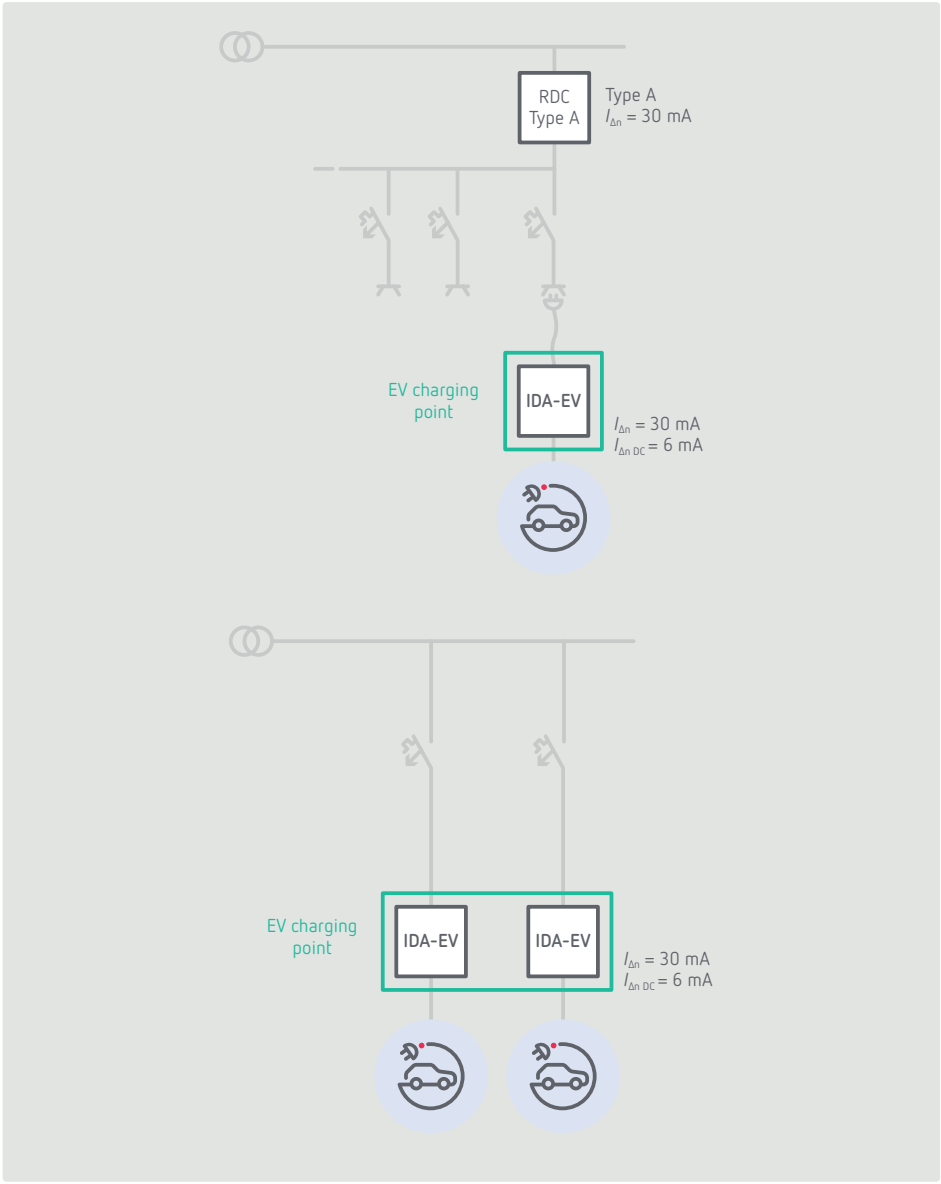
Suitable for both single-phase
and three-phase installations.



TEST Button
to check for proper
trip operation.

Colour indicator
Indicates the actual
position of the contacts,
easily showing the position
of the switch (ON/OFF).

Types of facilities



Applications

IDA-EV is specially designed to protect any electric vehicle charging point with rated currents of 40 A or 63 A, whether three-phase or single-phase:

Electric vehicle charging points, canopies with built-in charging, etc.

Technical specifications

Electrical characteristics	Nominal voltage (Un)	400/415 V AC
	Nominal current (In)	40, 63 A
	Frequency	50/60 Hz*
	Protection capacity (wave type)	AC, pulsating and DC current.
	Rated insulation voltage (Ui)	440 V
	Rated impulse voltage (1.2/50 µs)	4 kV
	Electrical insulation	Distance between contacts > 4 mm
	Differential current sensitivity (IΔn)	30 mA
	DC current trip sensitivity ($I_{\Delta ndc}$)	6 mAdc
	Rated conditional short-circuit current (Icn)	10 kA
	Rated opening capacity (Im)	630 A
	Backup fuse for short-circuit protection	80 A gG
	Minimum operating voltage	80 V
	Operating temperature	-25...65 °C
	Storage temperature	-40...85 °C
	Mechanical life	10,000 cycles
	Electrical life	2,000 cycles
Mechanical characteristics	Frame size	45 mm
	Height	68 mm (DIN rail as per **EN60715**)
	Width	72 mm (4 modules)
	IP protection rating	IP 20
	Installation category	CAT III
	Cable section capacity	1-25 mm^2
	Terminal type	M5 (Pozidrive PZ2)
	Maximum torque	Max 3 Nm
Standards	Device requirements	**IEC/EN 61008**, **IEC 62955**
	Vibration resistance	5g (50, 60 & 500 Hz) **IEC 60068-2-7**
	Shock and impact resistance	**IEC/EN 61008-1**

* Depending on model

References

Type	Code	/dif. (AC)	/dif. (DC)	/n	/cc
IDA-EV-40-30	**P17321.**	30 mA	6 mA	40 A	10 kA
IDA-EV-63-30	**P17322.**	30 mA	6 mA	63 A	10 kA

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