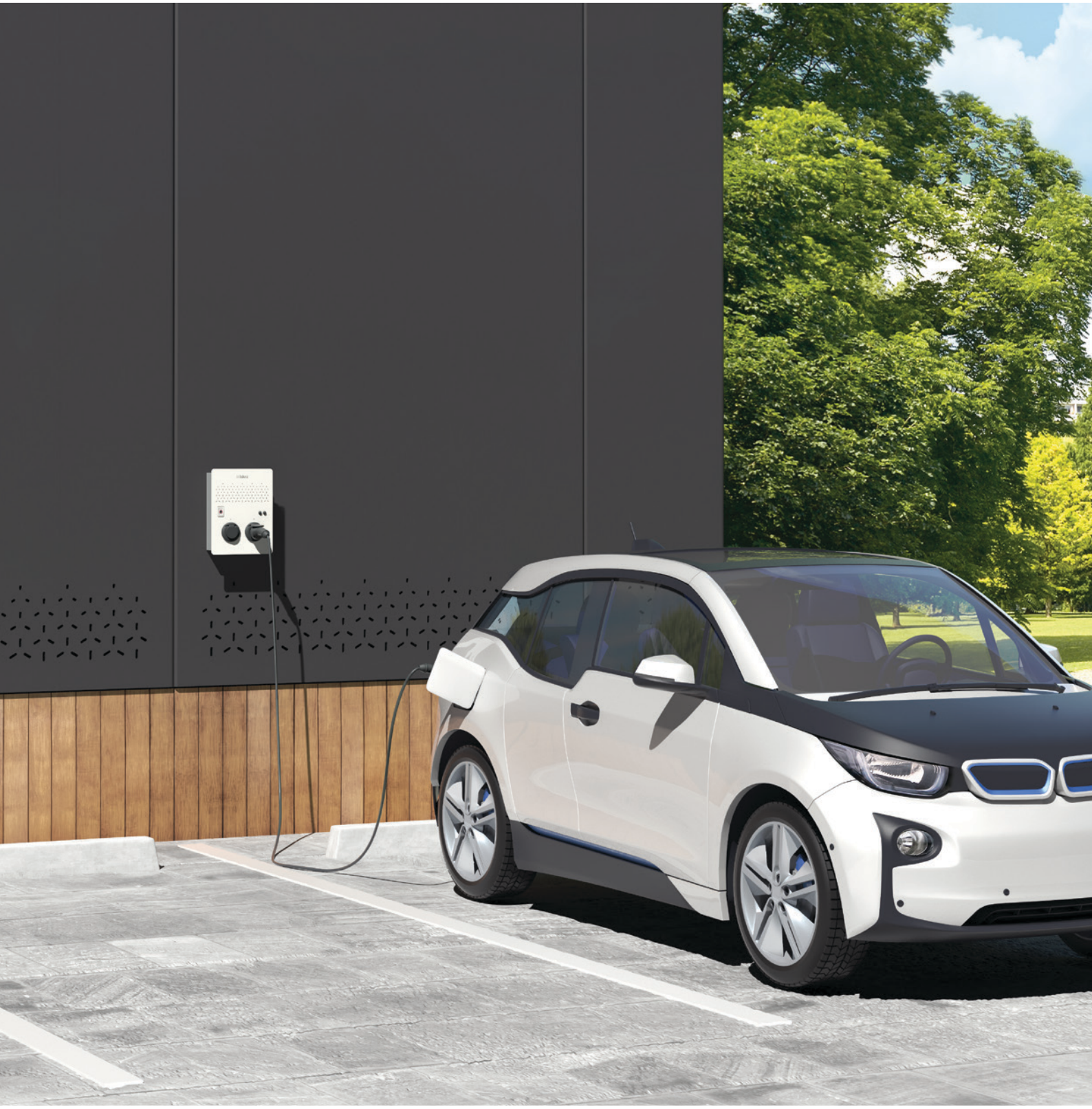
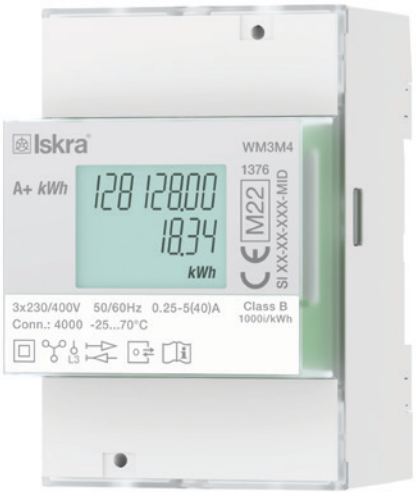
Iskra

Products for electric vehicle charging stations



Innovative. Smart. Sustainable.

iskra.eu

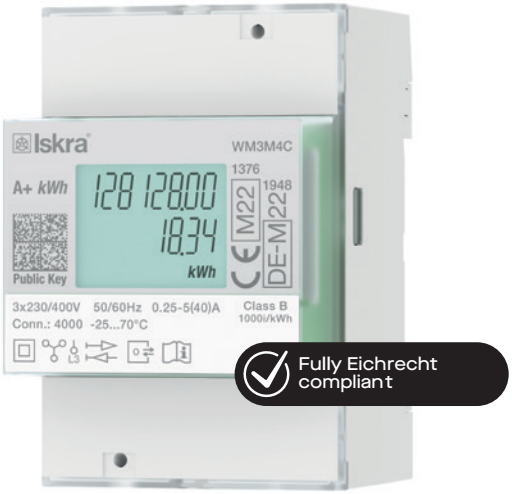


WM3M4
Energy meter

Class B active energy
Class 2 reactive energy

Benefits

- Bi-directional metering
- MID approval
- 3-phase / 1-phase connection
- Multiple parameter measurements
- 40 A @ 70 °C
- 3 DIN modules



WM3M4C
Energy meter

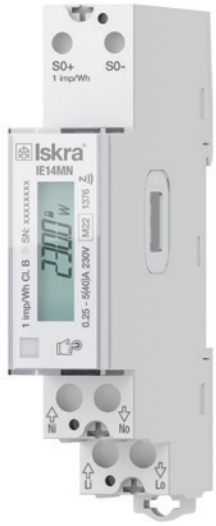
Class B active energy
Class 2 reactive energy

Benefits

- German Eichrecht compliant
- Bi-directional metering
- MID approval
- 3-phase / 1-phase connection
- Multiple parameter measurements
- Digital signature for a charging event
- 40 A @ 70 °C
- Public key QR-code
- 3 DIN modules

The **WM3M4 & WM3M4C** energy meters are intended for energy measurements in the three-phase and single-phase electrical charger stations. The WM3M4C energy meter features **high temperature** operation and **digital signing** for a charging event, whereas WM3M4 features only **high temperature** operation. Both meters measure energy directly in 4-wire networks according to the principle of fast sampling of voltage and current signals.

A built-in **microprocessor** calculates power, energy, current, voltage, power factor, power angle, frequency, harmonics of THD voltage and THD current harmonics. WM3M4C meter can detect and log events relevant for charging via RS485 communication. Thus the meter can produce relevant **digital signature** for a charging event.



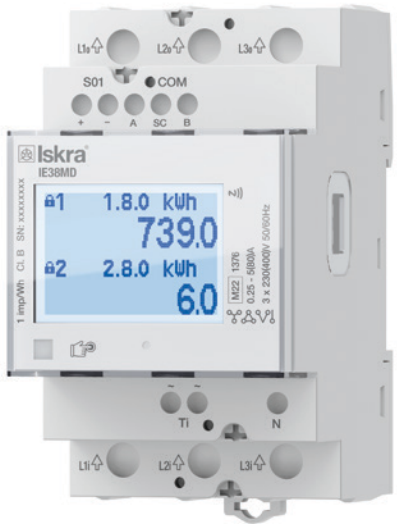
IE14xx series Energy meter

Class B active energy
Class 2 reactive energy

Benefits

- 40 A direct connection
- Bi-directional metering
- MID approval
- 1-phase per module
- Multiple parameter measurements
- S0, MBUS or MODBUS
- Side IR for add-ons
- NFC
- 1 DIN module

The meters IE14 and IE14M (MID certified) are intended for **energy measurements** in a single-phase electrical power network, and can be used in residential, industrial and utility applications. Meters measure energy directly in **2-wire networks** according to the principle of fast sampling of voltage and current signals. They are equipped with a **capacitive touch button** that allows the user to scroll measurements and the menu, make settings, ... and **backlight** for better visibility. A **built-in microprocessor** calculates energy and other electrical quantities from the measured signals. It also controls LCD, LED, IR communication, and optional extensions.



IE38xx series Energy meter

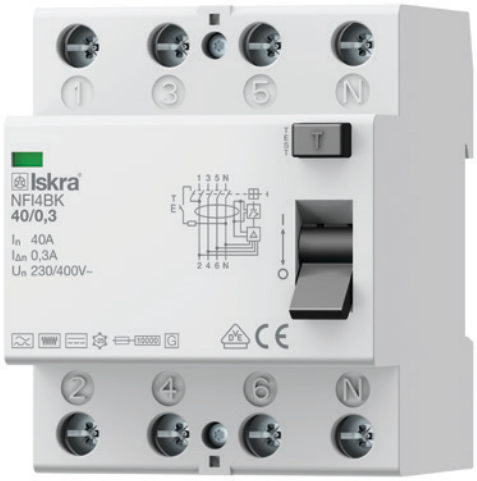
Class B active energy
Class 2 reactive energy

Benefits

- 80 A direct connection
- Bi-directional metering
- MID approval
- 3-phase / 1-phase connection
- Multiple parameter measurements
- Matrix LCD
- Alarm function
- RTC
- Side IR for add-ons
- NFC
- 3 DIN modules
- 80 A @ 70 °C
- Tariff input & S01, S02 or M/BUS or MODBUS

The meters IE38Mx are intended for **energy measurements** in three-phase electrical power network and can be used in residential, industrial and utility applications. Meter **measures energy** directly in 3-wire and 4-wire networks according to the principle of fast sampling of voltage and current signals.

A **built-in microprocessor** calculates energy and other electrical quantities from the measured signals. It also controls LCD, LED, IR communication and optional extensions.



NFI4BK

RCCB Type A up to 125 A
RCCB Type B up to 80 A

Type A is sensitive to AC and is pulsating direct residual current. Rated currents are from 16 A to 125 A.

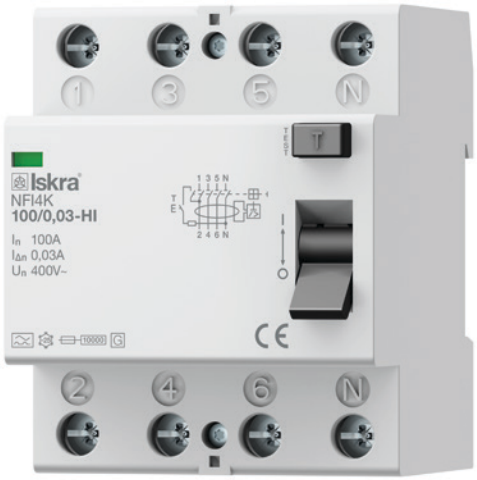
Type B ensures the same tripping as type A together with smooth DC residual currents, residual DC currents that may result from rectifying circuits and high frequency AC residual currents. Tripping conditions for frequencies up to 1 kHz are defined.

Benefits

- Short circuit capacity **10 kA**
- Special type for ambient temperature **-35 °C**
- RCCBs with left N-pole **on request**
- Suitable as **isolator**
- Rated currents **up to 125 A**

Residual current circuit breakers (RCCB) are used for **protection** against indirect contact, fire protection and additional protection against direct contact.

With types AC, A, B, F, G, S and short-circuit capacity 10 kA, we can cover all our customers' needs. We can deliver RCCB product in **2-pole or 4-pole versions** with residual operational currents of 10 mA, 30 mA, 100 mA, 300 mA and 500 mA. The most common types for **EV charging stations** are types A and B.



NFI4K
High Immunity

RCCB Type A up to 125 a
RCCB Type B up to 80 a

Transient resistant RCCB type A for EV application
High immunity against unwanted tripping at current harmonic components

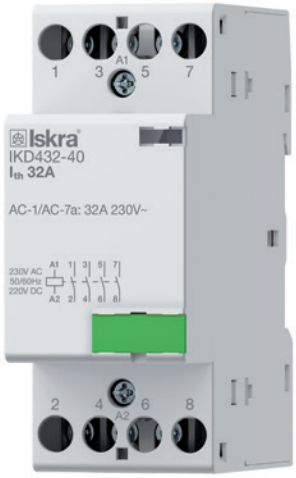
Benefits

- Transient resistant type A RCCB for EV application
- High immunity against unwanted tripping at current harmonic components (e.g. frequency converters)
- High immunity against unwanted tripping at current impulses (e.g. a large number of fluorescent lamps, transient switching effects) or in the case of mounting under extremely critical conditions (e.g. impulse-shaped leakage currents at longer cables, storm damage, computers, x-ray devices, etc.)
- Short-time delayed RCCBs with minimum non-actuating time 10 ms (type G acc. to ÖVE E 8601)
- High resistance against surge currents of shape 8/20 µs (up to 3 kA); reliable operation is assured also in case of strong making currents
- Sensitive to residual sinusoidal alternating and residual pulsating direct currents – type A
- Rated currents up to 100 A
- Rated residual current 30 mA
- Two- and four-pole types available

Residual current circuit breakers (RCCB) are used for **protection** against indirect contact, fire protection and additional protection against direct contact.With types AC, A, B, F, G, S and short-circuit capacity 10 kA, we can cover all our customers' needs. We can deliver RCCB product in **2-pole or 4-pole versions** with residual operational currents of 10 mA, 30 mA, 100 mA, 300 mA and 500 mA.

The most common types for **EV charging stations** are types A and B.

IKD432-40

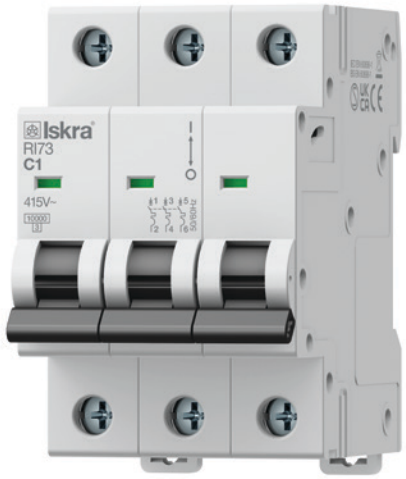


Benefits

- **No inrush current** (with AC/DC coils)
- **RFI suppression** (using filters)
- **Special version:** 2-pole 32 A contactor in 1 module, manual control
- **Extremely long mechanical endurance** (up to 10 million)
- **Switching motors** of up to 15 kW

Installation contactors are the **most flexible** switching devices in all types of applications. In electronic systems, they provide reliable, safe and efficient **management** of electrical equipment. They are mainly used for **switching small motors** (up to 15 kW), electrical heating, lightning and other electronic equipment, and are integrated in **EV charging stations**. We have 2-pole and 4-pole versions of up to 63 A, with an AC or AC/DC coil inside. Because of AC/DC coils, contactors are **silent** (hum-free) and without inrush current.

If electrical equipment is sensitive to RFI interferences, they can be reduced with type **KNB filters** (optional)



RI7x

RI71	single pole
RI72	two pole
RI73	three pole
RI74	four pole
RI71N	single pole + neutral pole
RI73N	three pole + neutral pole

Benefits

- Protection against both overload and short circuit, function of isolation
- High short circuit capacity: I_{cn} = I_{cs} = 10 kA with Energy Limiting Class 3
- Contact position indicator
- 35 mm DIN rail mounting and screw mounting
- Full range accessories are available

Iskra d.o.o.
Stegne 21, 1000 Ljubljana
Slovenia, EU