

Single-phase PEN Fault Protection. Compliant with IET 01:2024 M1b3t including the protective conductor trip current of 21 mA.

PRODUCT ADVISORY NOTICE

This product must be installed by a **competent person** in compliance with the latest edition of the IET Wiring Regulations BS 7671 and all applicable Building Regulations.



This device has been designed and tested in full compliance with IET 01:2024 (Category M1b3t). It incorporates protective conductor disconnection at 21 mA to provide conformity with current PEN fault protection requirements for EV charging and associated installations.

Important Safety Information:

- Once installed, this device operates on a **live mains supply** (230V or higher) and features an **automatic reset function** following a complete power failure.
- Always **isolate or disconnect the power supply** to this device and any equipment connected to it before carrying out any maintenance or modifications.

Failure to follow these instructions may result in serious injury or damage.

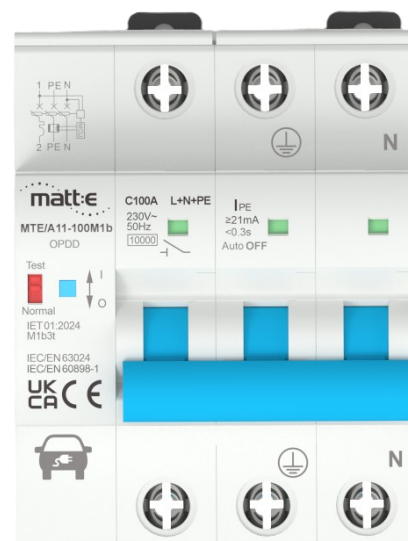
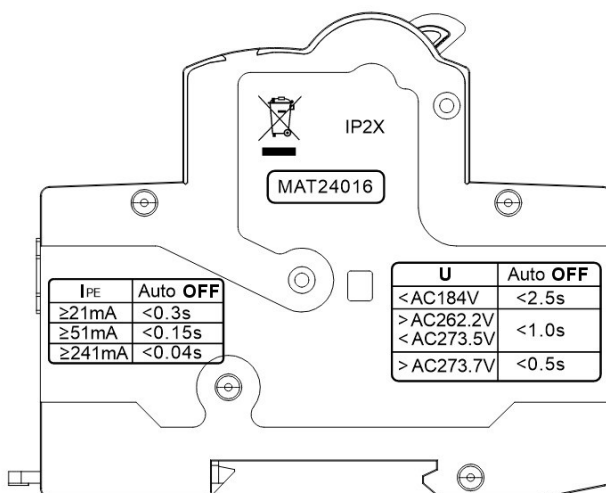
Installation Instructions

Enclosure Requirements

The device must be installed in a suitable enclosure appropriate for the installation location: For **indoor use**, the enclosure must have a minimum protection rating of **IP41**. For **outdoor use**, the enclosure must have a minimum protection rating of **IP44**.

Electrical Connections

Connect the **supply** cabling (**L**, **N**, and **E**) to the **top** terminals on the device.
Connect the **load** cabling (**L**, **N**, and **E**) to the **bottom** terminals on the device.



...Simplifying EV connection

Operation Instructions

Startup

When the supply voltage is switched on, the device will monitor the incoming supply for approximately 20s to ensure it is within the specified range (184V ~ 262.2V), and the protective conductor current is below the 21 mA trip threshold as defined in IET 01:2024 M1b3t. During this period the device will not be able to be switch on.

Once all is confirmed to be stable and within range, the device will energise and connect the load.

Fault Detection

If the device detects a fault condition, either high or low line voltage or excessive current on the CPC, or via the MCB functions, the device will disconnect the Line, Neutral, and Protective Earth conductors from the load.

Manual Reset

After a detected fault condition, the device will not automatically reset. To reset the device simply turn the MCB back to the on position. The device will only reset if it is safe to do so.

Auto Reset

In the event of a complete power failure (voltage below 30V) and once power is restored and remains within the specified parameters for a continuous period of 20 seconds. the device will automatically reset and reconnect the load.

Testing Procedure

The device is equipped with a manual test button labelled Test/Normal.

To initiate the test slide the test switch to the Test position. The device will simulate a fault condition and isolate the supply to the load and prove functionality of the auto reset function.

Once the test is complete, slide the test switch back to the Normal position.

Failure to do this will not impair the devices ability to isolate the load if a fault is detected. However it will not auto reset after a power failure.

Maintenance Recommendation

matt:e recommends performing this test every 6 months to ensure operation.

MTE/A 11-100M1b3t

Single-phase PEN Fault Protection with additional 21mA detection on the protective conductor



Standard	BS EN 60898-1 BS EN 63024 IET:01, 2024 M1b3t
Certification	UKCA, CE
Pol.	1P+N+PE
Rated current (A)	1~100
Protective conductor trip current (PE)	21 mA (IET 01:2024 M1b3t)
Rated voltage Ue (V)	230
Rated insulation voltage (V) Ui	500
Rated working frequency (Hz)	50
Rated Impulse Withstand voltage (kV) Uimp	10kV
Rated short circuit capacity Icn, 230V/400V (IEC/EN 60898)	10kA
Rated limit short circuit breaking ability Icu, 230V/400V	25KA (IEC/EN 60947-2)
Rated running short circuit breaking capability Ics, 230V/400V	75%Icn (IEC/EN 60947-2)
Overvoltage class	IV
Pollution levels	3
Transient tripping characteristics	C (5In~10)
Ambient air temperature range	-25°C - +40°C
Mechanical life	20000
Electrical life	10000
Protection grade	Circuit breaker body Installed in the distribution box
	IP2X IP41 indoor / IP44 outdoor
Warranty	1 Year

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