

# Test Lead Adapter



## OPERATION MANUAL

### 1. Intended Use

The adapter is three-phase devices with CEE plug. The adapter is easily inserted between the electrical consumer and the socket. The adapter may only be used in the range of the overvoltage category CAT II in AC voltage networks with a nominal voltage of max. 415V / AC which are fused with 16 A and with 32A.

For safety and approval purposes (CE), you must not rebuilt and / or modify this product. If you use the product for purpose other than those described above, the product may be damaged. IN addition, improper use can cause hazards such as short circuiting, fire, electric shock etc. Read the instructions carefully and keep them. make this product available to third parties only together with its operating instructions.

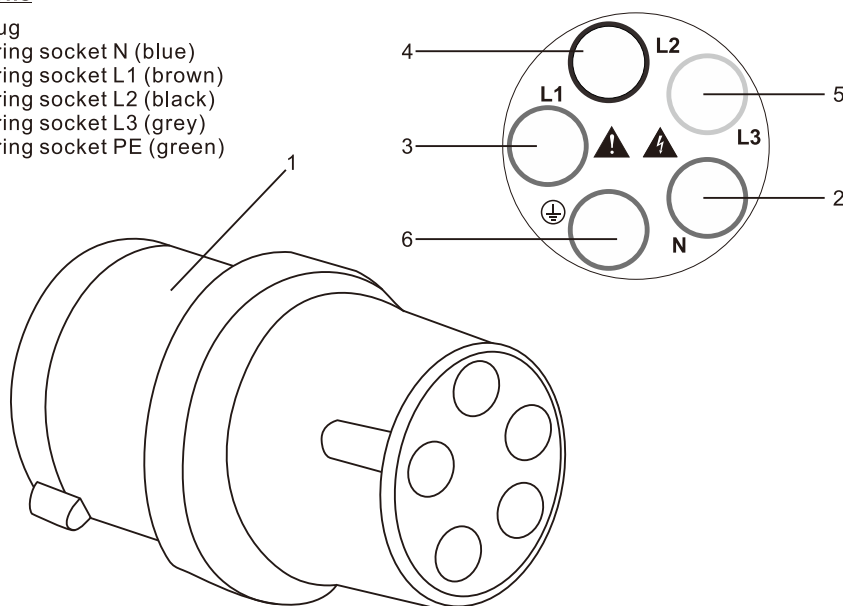
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### 2. Delivery Content

- Measuring adapter with CEE socket and CEE plug
- Operating instructions

### 3. Descriptions

- 1 CEE plug
- 2 Measuring socket N (blue)
- 3 Measuring socket L1 (brown)
- 4 Measuring socket L2 (black)
- 5 Measuring socket L3 (grey)
- 6 Measuring socket PE (green)



### 4. Safety instructions

- ⚠ Read the operating instructions carefully and especially observe the safety information. If you do not follow the safety instructions and information on proper handling in this manual, we assume no liability for any resulting personal injury or damage to property. Such case will invalidate the warranty / guarantee.

#### a) Persons / Product


- The device is not a toy. Keep it out of the reach of children and pets.
- Do not leave packaging material lying around carelessly. These may become dangerous playing material for children.
- Protect the product from extreme temperature, direct sunlight, strong jolts, high humidity, moisture, flammable gases, vapours and solvents.
- Do not place the product under any mechanical stress.
- If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use. safe operation can no longer be guaranteed if the product:
  - i) is visibly damaged
  - ii) is no longer working properly
  - iii) has been stored for extended periods in poor ambient conditions or
  - vi) has been subjected to any serious transport-related stresses
- Please handle the product carefully, jolts, impacts or a fall even from a low height can damage the product.
- Also observe the safety and operating instructions of any other devices which are connected to the product.
- The measuring adapter and the plugs may not be disassembled.
- The voltage and current range specified should not be exceeded.
- The measuring adapter may only be used for current and voltage measurement.
- The user is not allowed to put other items than suitable safety measuring cables in the sockets.
- Current measurement on the measurement sockets is not possible (an attempt would short-circuit the device)!
- The user may not short-circuit the contacts of the measuring adapter.

#### b) Miscellaneous

- Consult an expert when in doubt about operation, safety or connection of the device.
- Maintenance, modifications and repairs are to be performed exclusively by an expert or at a qualified shop.

If you are not sure about the correct connection or use, or if questions arise which are not covered by these operating instructions, please do not hesitate to contact our technical support or another qualified specialist.

5. Operation

 The voltage is measured with voltage measuring devices on the measuring sockets. Only use the measuring adapter for the duration of the measurement. A permanent retention in the mains cable circuit is not permitted.

**CAT II** Overvoltage category **II** for measuring in building installation (e.g. outlets or sub-distribution) This category also covers all smaller categories (e.g. CAT II for measuring electronic devices) .

The five individual inner conductors are freely accessible via the insulated measuring chamber without opening the mains cable at great expense. The measuring chambers are corresponding labeled (L1, L2, L3, N, PE).

Proceed as follows to conduct a measurement

- Plug the measuring adapter between the electrical consumer and power socket. Ensure the firm fit of the power plugs.
- Observe the instruction manual of your multimeter
- If you use a multimeter for voltage measurement proceed in the following order:
  - Connect the safety measuring cables to the digital-multimeter according to the instruction manual.
  - Use only suitable safety measuring cables.
  - Open the cover of the measuring adapter and plug the measuring cables into the sockets on which you want to measure a voltage.
  - Remove the measuring adapter from the power line.


The following measuring values can be determined

Measuring chamber	Reading
L1	Current via phase <b>L1</b>
L2	Current via phase <b>L2</b>
L3	Current via phase <b>L3</b>
N	Current via neutral conductor <b>N</b>
PE	Leakage current (stray current) via earth conductor

6. Maintenance and clearing

- Disconnect the power plug from the socket and disconnect all connected devices before each cleaning.
- Apart from the occasional cleaning the adapter is maintenance free.
- The outside of the housing should only be cleaned with a soft , dry cloth or brush. Never use any aggressive cleaning agents or chemical solutions as they may cause damage to the housing or cause the product to malfunction.

DISPOSAL

 Electronic devices are recyclable waste and must not be disposed of in the household waste. At the end of its service life, dispose of the product according to the relevant statutory regulations.

You thus fulfil your statutory obligations and contribute to the protection of the environment

7. Technical data

Nominal voltage	max. 415 V/AC, 50/60 Hz ( L to L) max. 240 V/AC, 50/60 Hz ( L to N/PE)
Nominal current	max. 16A, ( for MS-TLA16) max. 32A, ( for MS-TLA32)
Operating temperature	0 to 50°C
Operating humidity	< 90% RH (non-condensing)
Storage temperature	0 to +50°C
Storage humidity	< 90% RH (non-condensing)
Overvoltage category	CAT II 240V / 415V 3~, 50/60 Hz 16A (for MS-TLA16); 32A (for MS-TLA32)