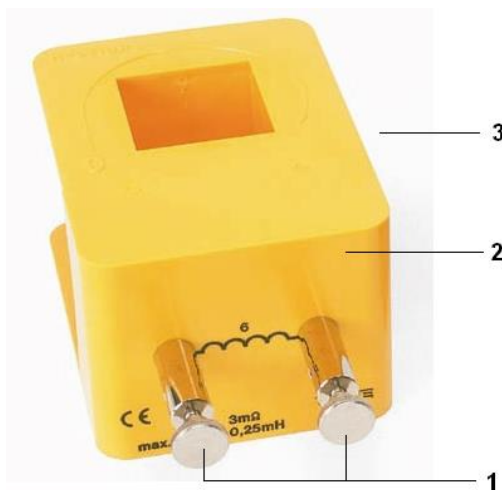


High Current Coil D for Nail Fusing Experiment 1000984

Instruction sheet

06/15 ALF



- 1 Screw terminals (for attaching nail)
- 2 Plastic case
- 3 Air vents

1. Safety instructions

The safety of operators and of the high-voltage coil itself can only be guaranteed when it is used according to the instructions.

- Carry out the experiment on a heat-resistant surface. The melted part of the nail naturally falls downwards due to gravity.
- Only use nails with heads that fit into the screw terminals.
- After the experiment allow the remains of the nails to cool down for at least 5 minutes.
- Do not cover air vents.
- Any modifications to the transformer set-up must be made with the primary voltage switched off.
- Do not open the coil case.
- Do not allow the equipment to come into contact with liquids.

2. Description

The coil with 6-turn winding acts as a high current coil for nail melting experiments.

Coil made of impact-resistant plastic with two screw terminals for attaching nails. The characteristic properties of the coil (no. of winding turns, maximum long-term current, effective resistance and inductance) are specified on the case.

3. Technical data

Winding turns:	6
DC resistance:	3 mΩ
Max. current for long-term use:	60 A
Inductance:	0.25 mH
Diameter of screw terminal opening:	4 mm
Dimensions:	120x90x70 mm
Opening for iron core:	42x42 mm
Weight:	0.6 kg approx.

4. Accessories

Transformer core D	1000976
Mains coil D @230 V or	1000987
Mains coil D @115 V	1000986
Set of 20 nails	1000983

5. Melting experiment

Caution: The melted part of the nail naturally falls downwards due to gravity.

- Assemble the transformer as in Fig.1 and place it on a heat-resistant surface.
- Place a nail into the openings provided and secure it with the knurled screws.
- Mount the mains coil and switch it on.
- The nail starts to glow because of the high current and gravity causes it to bend downwards.
- After the experiment, allow the remains of the nail to cool down for at least 5 minutes.

6. Storage, cleaning and disposal

- Keep the coil in a clean, dry and dust-free place.
- Do not clean the coil with volatile solvents or abrasive cleaners.
- Use a soft, damp cloth to clean it.
- The packaging should be disposed of at local recycling points.
- Should you need to dispose of the coil itself, never throw it away in normal domestic waste. Local regulations for the disposal of electrical equipment will apply.

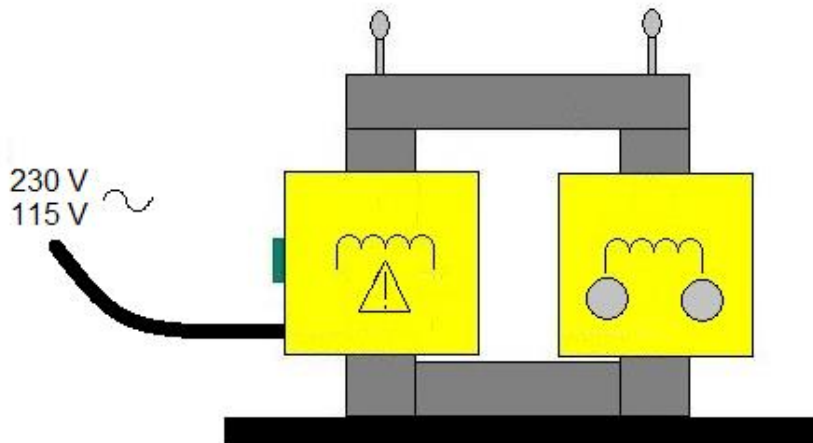
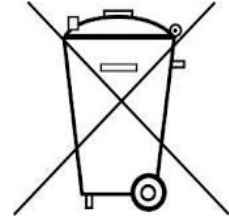


Fig.1 Experimental set-up