STUDENT EXPERIMENT KIT SYSTEM
ELECTRICITY AND MAGNETISM

› CONTENTS:

1 Set of Experiment Leads
1 Bar Magnet, 65x16x5 mm approx.
1 Horseshoe Magnet, ALNICO, flat
1 Resistor Board
1 Transformer Core, 20x20 mm
1 Tightening Screw
1 Coil, 200/400/600 windings
1 Coil, 400/400/800 windings
2 Current Branches (plug-in components)
1 Potentiometer, 100 Ω (plug-in component)
1 Switch (plug-in component)
1 Capacitor, 4700 µF (plug-in component)
1 Capacitor, 10 µF (plug-in component)
1 Resistor, 33 Ω (plug-in component)
1 Resistor, 47 Ω (plug-in component)
1 Resistor, 1 kΩ (plug-in component)
1 NTC-resistor, 100 Ω (plug-in component)
2 Lamp Sockets, E10 (plug-in components)
1 Storage Box with 1 Set of Threads with Washer, 2 Threaded Bushes, 2 Threaded Pins, 2 Paper Clips, 2 Aluminium Electrodes, constantan wire
50 g of Iron Filings
50 m of Chrome/Nickel Wire, 0.2 mm
50 m of Iron Wire, 0.2 mm
1 Tea Candle

Set of equipment for carrying out 41 student experiments on electricity and magnetism. In a tough plastic box containing a foam insert with cut-outs for the equipment and featuring a transparent lid. Includes CD with experiment instructions. The experiments are set up and performed in a space saving fashion but are still clearly laid out on the SEK base plate (1000789).
1008532

SEK Power Supply
AC/DC power supply for SEK electricity and magnetism kit (1008532).
• Voltage limitation to 25 V AC and 60 V DC
• Safety transformer conforming to EN 61558-2-6
• Safe isolation between power supply and output circuits
Voltages: 1.5/ 3.0/ 4.5/ 6.0 V AC/DC

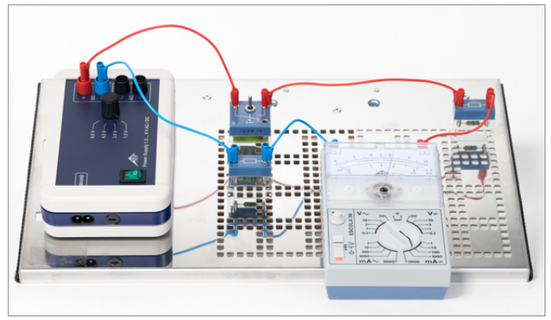
SEK Power Supply (230 V, 50/60 Hz) 1021686
or
SEK Power Supply (115 V, 50/60 Hz) 1021687

› CD-ROM CONTAINING ALL DIFFERENT SETS OF INSTRUCTIONS IS INCLUDED!

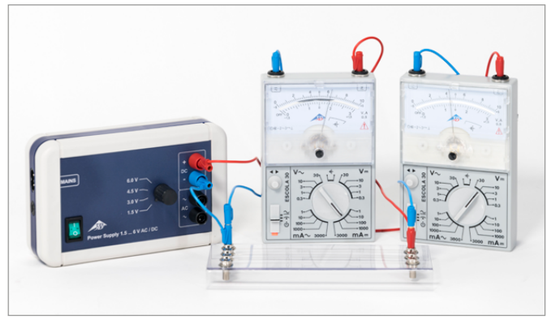
INCLUDES 41 EXPERIMENTS ON THE SUBJECT OF ELECTRICITY AND MAGNETISM:
• Closed circuits
• Conductors and insulators
• Circuits with no branches
• Circuits with branches
• Current in a circuit with no branches
• Current in a circuit with branches
• Initial voltage and terminal voltages
• Voltage in a circuit with no branches
• Voltage in a circuit with branches
• Voltage dividers
• Ohm's law
• Temperature dependence of a resistor (iron wire)
• Current-voltage diagram for a light bulb
• Current-voltage diagram for a thermistor
• Law of resistance
• Resistance in a circuit with no branches
• Resistance in a circuit with branches
• Resistance and voltage in a circuit with no branches
• Resistance and current in a circuit with branches
• Voltage dividers with and without a load
• Voltage-time diagram for charging and discharging of a capacitor
• Current-time diagram for charging and discharging of a capacitor
• Relationship between charge and voltage
• Capacitor in the DC and AC circuit (response)
• Test bodies in a magnetic field
• Magnetic poles
• Magnetic field of a horseshoe magnet and a bar magnet
• Magnetic dipoles
• A coil used as a magnet
• Forces in the magnetic field of a coil
• Induction due to relative motion
• Induction due to changes in magnetic field
• Induction law
• Ohmic resistance in AC and DC circuits
• Capacitors in AC and DC circuits (resistance)
• Coils in AC and DC circuits
• How a transformer works
• Voltage and number of windings for a transformer with no load
• Transformer under load
• Transformer under heavy load
• Thermoelectricity

Equipment Electricity:
1008532 SEK Electricity and Magnetism
1000789 SEK Base Plate
1013526 Analogue Multimeter ESCOLA 30
1021686 SEK Power Supply (230 V, 50/60 Hz)
or
1021687 SEK Power Supply (115 V, 50/60 Hz)

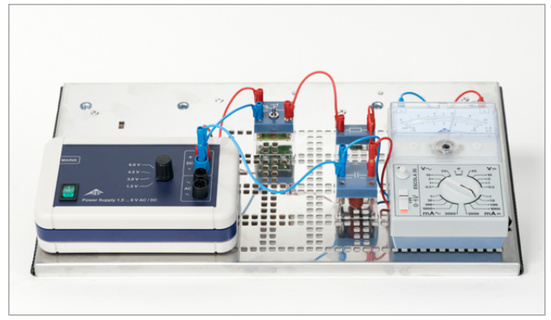
PLEASE ASK FOR QUANTITY DISCOUNTS ON CLASS SETS OF 8 PIECES OR MORE.



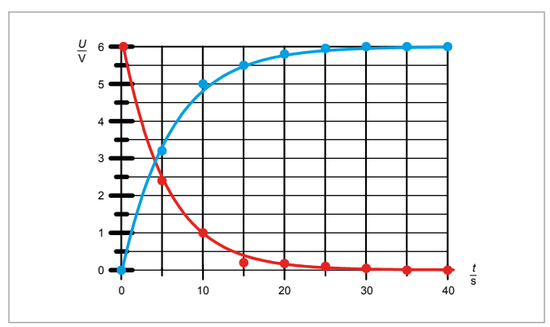
Electric current in circuits with no branches



Laws of resistance



Charging and discharging of a capacitor (voltage)



Capacitor: charging (blue) and discharging (red)