

Induction in a Moving Current-loop (Measure the induced voltage in a conductor made into a loop as it moves through a magnetic field)

Specifications:

Operating voltage: 2 – 12 V DC Frame coil: approx.
185x125 mm² Total dimensions: approx. 585x200x55 mm³

Contents:

1 Induction apparatus with retractable magnetic plate 1
Frame coil 1 Rolling conductor loop

DC Power Supply 20 V, 5 A (230 V, 50/60 Hz)

Universal power supply with digital current and voltage display. Output voltage and output current are continuously adjustable. The device can be used as a constant voltage source with current limiting or as a constant current source with voltage limiting.

Specifications:

Universal power supply with digital current and voltage display. Output voltage and output current are continuously adjustable.

DC output: 0-20 V, 0-5 A Output power: 100 W Stability
under full load $\leq 0,01\% + 5 \text{ mV}$, $\leq 0,2\% + 5 \text{ mA}$
Residual ripple $\leq 1 \text{ mV}$, 3 mA Display: 2 x 3 digit LED
Terminals: 4 mm safety sockets Dimensions: approx.
130x150x300 mm³ Weight: approx. 4.7 kg

Analogue Multimeter ESCOLA 100

Specifications:

Direct and alternating voltage: 0.1 – 600 V, 9 ranges each
Direct and alternating current: 0.1 mA – 3000
mA, 11 ranges each
Internal resistance: 1 MW
Long term maximum voltage: 600 V
Instrument category: CAT III, 600 V
(DIN EN 61010-1:2010, 61010-2-033:2012)

Set of 15 Safety Experiment Leads, 75 cm

Specifications:

Wire cross-section: 2.5 mm²
Continuous current: max. 32 A
Plug and jack: 4 mm (nickel-plated)
Set of 15 patch cords, 75 cm long, 5 of each color in red, black and blue.

Mechanical Cumulative Stopwatch

Specifications:

Measuring range: 15 min
Scale accuracy: 1/10 s
Diameter: 55 mm

Measurement Amplifier U (230 V, 50/60 Hz)

Specifications:

Input resistance: 10 kohm
Output resistance: 300 ohm
Offset voltage drift: 0; 101; 102; 103;
104; 105
Tolerance for gain factors: 23°C ... 40°C
Storage temperature: -20 ... 70°C
Relative humidity: 3 approx.

Measurement and frequency ranges (relative to 1 V output voltage)

Gain Input voltage Current through
RShunt = 100 ohm Frequency 100 1 V 10 mA 0 ... 25
kHz 101 100 mV 1 mA 0 ... 25 kHz 102 10 mV 100 μA 0
... 25 kHz 103 1 mV 10 μA 0 ... 20 kHz 104 100 μV 1
 μA 0 ... 7 kHz 105 10 μV 100 nA 0 ... 7 kHz
Cut-off frequency for switchable low-pass filter
Time constant Cut-off frequency 0.0 s See Table 1 0.1
s 1.6 Hz 0.3 s 0.5 Hz 1.0 s 0.16 Hz 3.0 s 0.05 Hz