

4.2.02-15 Switch-on behaviour of a capacitor and an inductivity with FG-Module



What you can learn about ...

- Charging
- Discharging
- Time constant
- Exponential function
- Half life

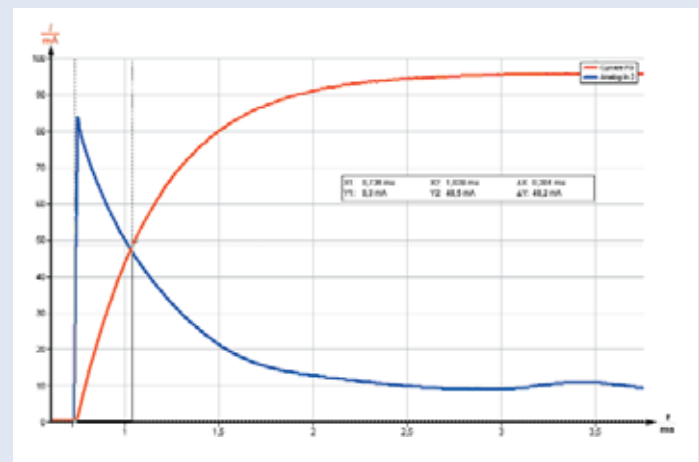
Principle:
To measure the course of current strength and voltage in a capacitance/inductivity in the instant of switching on. The capacitance/inductivity is determined from the measurement curve.

What you need:

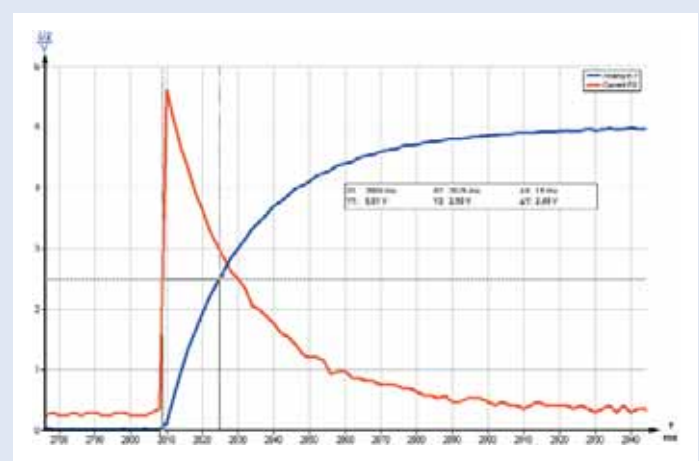
Cobra3 BASIC-UNIT	12150.00	1
Power supply 12V/2A	12151.99	2
Data cable 2 x SUB-D, plug/socket, 9 pole	14602.00	1
Software Cobra3 PowerGraph	14525.61	1
Measuring module Function Generator	12111.00	1
Connection box	06030.23	1
On/Off switch	06034.01	1
Carbon resistor 220 Ω, 1W, G1	39104.64	1
Carbon resistor 470 Ω, 1W, G1	39104.15	1
Electrolyte capacitors non-polarised, G1, 47 μF	39105.45	1
Coil, 900 turns	06512.01	1
Connecting cable, 4 mm plug, 32 A, red, l = 25 cm	07360.01	3
Connecting cable, 4 mm plug, 32 A, blue, l = 25 cm	07360.04	1
Connecting cable, 4 mm plug, 32 A, red, l = 50 cm	07361.01	1
Connecting cable, 4 mm plug, 32 A, blue, l = 50 cm	07361.04	2

Complete Equipment Set, Manual on CD-ROM included
Switch-on behaviour of a capacitor and an inductivity with FG-Module P2420215

- Tasks:**
1. To measure the course of current strength and voltage in a capacitance in the instant of switching on. The capacitance is determined from the measurement curve.
 2. To measure the course of current strength and voltage in inductivity in the instant of switching on. The inductivity is determined from the measurement curve.



The course of the voltage and the current intensity during a switching on process in a coil.



The course of the voltage and the current intensity during a switching on process in a capacitance.