

Item No.: CO4204-3A

Course - Power engineering: Photovoltaics

Includes:

Experiment board with:

- 4 Monocrystalline solar modules, 6 V/40 mA
- 1 Rechargeable solar battery, 12V/1.2 Ah
- Integrated micro controlled charger regulator, discharge and overload protection
- 12 V PC fan and 12 V LED lamp for use as fixed loads
- Variable load for recording characteristics
- Dimmable 120 W reflector lamp
- CD ROM with Labsoft browser and course software



Course contents:

- Function and principle of solar cells
- Meaning of terms "solar radiation" and "solar constant"
- Various types of solar cell
- Manufacturing of solar cells
- Connection of solar cells
- Recording characteristic for a solar cell
- Determine the Maximum Power Point (MPP)
- Dependence of I and V from temperature, illumination and angle of incidence
- Design of a rechargeable solar cell
- Storage of energy in a solar cell
- Various types of solar plant
- Design of an insular network with solar cells
- Course duration: 4.5 h approx.