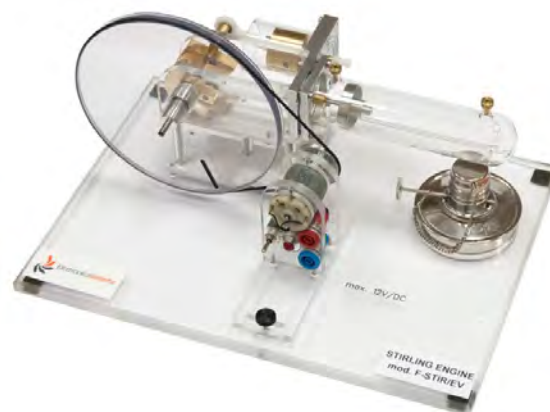# STIRLING ENGINE
Mod. F-STIR/EV

DESCRIPTION

This transparent Stirling engine is used to study Stirling cycle as heat engine, as heat pump and as refrigerating machine, from a qualitative point of view. Cylinder and piston are made of heat-resisting glass for high temperatures; the power cylinder, the flywheel and the transmission case are made of acrylic glass. This always ensures a very good observation of motion sequences. The driving shafts are provided with ball bearings and they are made of hard steel. Connecting rods are made of strong plastic resin. It also includes an alcohol burner with adjustable wick for heating.

The built-in engine-generator unit provided with pulley for two-stage belt enables to convert the output mechanical energy into electric energy. It is provided with a switch to light a built-in lamp or to supply electric energy for setting a heat pump or a refrigerating machine at work according to the direction of Stirling engine.

TRAINING PROGRAM

- Operation of a Stirling Engine as a heat engine
- Operation of a Stirling Engine as a heat pump
- Operation of a Stirling Engine as a refrigerator

TECHNICAL SPECIFICATIONS

- Power of Stirling engine: 1.5 W
- Minimum speed: 1000 r.p.m.
- Flywheel: Ø 140 mm
- Piston: Ø 25 mm
- Piston stroke: 24 mm
- Gas volume: 32 cm³ - 44 cm³
- Engine-generator unit: 12 Vdc max.
- Two-stage pulley: Ø 30 mm, Ø 19 mm
- Dimensions: 300 x 220 x 160 mm
- Weight: 1.6 kg
- Alcohol burner of metal with knurled-head screw for sliding the wick and with flame-extinguishing cap:
   - Content: 60 ml
   - Dimensions: 55 mm x 65 mm Ø
   - Weight: approx. 50 g

REQUIRED (NOT INCLUDED)
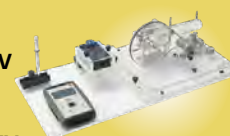0-30 VDC / 0-5A POWER SUPPLY UNIT mod. AQL-5A

SUPPLIED WITH
THEORETICAL - EXPERIMENTAL HANDBOOK

OPTIONAL

- EVLAB DATALOGGER mod. EV2010/EV including SOFTWARE EVLAB WORKSPACE mod. SW-F-STIR/EV
- 1 gas pressure sensor mod. EVS-16/EV
- 1 motion sensor mod. EVS-33/EV
- 2 thermocouples mod. EVS-06/EV
- 1 support for Stirling motor mod. F-STIR-B/EV

- PERSONAL COMPUTER