



MAIN FEATURES

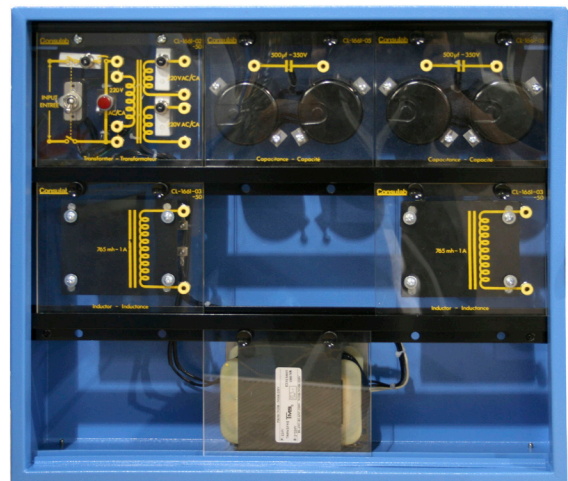
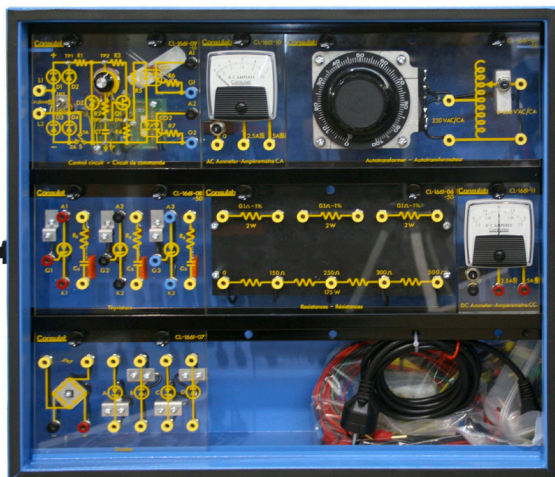
- Study the function of the main static converters:
- Rectifiers (diodes, thyristors)
- Gradator
- Inverter
- Sturdy housing
- Quick and easy component through the use of banana plug patch cords

GENERAL DESCRIPTION

The CL-1661 trainer was designed to help students learn power electronics. It comes in a two section sturdy cabinet. Each of these sections comprises of standard components mounted on Moduponents® -- clear plastic plates enabling the student to quickly design operating circuits. Deals with various matters related to power electronics. The CL-1661 trainer mixes basic knowledge with experiments in order to provide the student with a sure path for learning. By eliminating routine handling, it helps develop good judgement, initiative, and synthetization capabilities. The CL-1661 contains eleven (11) Moduponents®. Schematics and specifications are silk-printed on the back of the clear plastic panel and can be interchanged in a two-section sturdy cabinet.

The CL-1661 contains:

- One (1) mounting and storing cabinet;
- One (1) set of Moduponent® boards;
- One (1) student manual.



LIST OF MODUPONENTS® INCLUDED IN THE CL-1661-00 (60 Hz)

- One (1) CL-1661-01 Autotransformer
- One (1) CL-1661-02 Transformer 120/120V AC
- One (1) CL-1661-03 Inductance 160 mH, 2 A
- One (1) CL-1661-04 Inductance 320 mH, 1 A
- Two (2) CL-1661-05 Capacitor board, 500 μ F, 350V AC
- One (1) CL-1661-06 Resistance board
- One (1) CL-1661-07 Diodes and rectifier bridge
- One (1) CL-1661-08 Thyristor board
- One (1) CL-1661-09 Command board
- One (1) CL-1661-10 AC Ammeter (0-5 A)
- One (1) CL-1661 11 DC Ammeter (5-0-5 A)
- One (1) CL-1011-01 Mounting and storing case
- One (1) CL-1012-02 Wiring kit
- One (1) CL-1661-95 Student Manual

LIST OF MODUPONENTS® INCLUDED IN THE CL-1661-50 (50 Hz)

- One (1) CL-1661-01-50 Autotransformer
- One (1) CL-1661-02-50 Transformer 220/220 VAC
- Two (2) CL-1661-03-50 765 mH, 1 A
- Two (2) CL-1661-05-50 Capacitor board, 500 μ F, 350V AC
- One (1) CL-1661-06-50 Resistance board
- One (1) CL-1661-07 Diodes and rectifier bridge
- One (1) CL-1661-08-50 Thyristor board
- One (1) CL-1661-09-50 Command board
- One (1) CL-1661-10 AC Ammeter (0-5 A)
- One (1) CL-1661 11 DC Ammeter (5-0-5 A)
- One (1) CL-1011-01 Mounting and storing case
- One (1) CL-1012-02 Wiring kit
- One (1) CL-1661-50-95 Student Manual

OPTIONAL EQUIPMENT

- One (1) CL-214 1/3 HP DC motor
- One (1) CL-213 1/3 HP squirrel cage motor
- One (1) CL-1007 Coupling
- One (1) CL-418 Wattmeter/Varmeter
- One (1) CL-1010-03 Design board
- One (1) CL-231 Prony brake
- One (1) Oscilloscope

LIST OF EXPERIMENTS

The student manual consists of fifteen (15) experiments dealing with:

1. Study of a half wave single-phase rectifier driving a resistive load.
2. Study of a full wave single phase rectifier driving a resistive load.
3. Study of a half wave single phase rectifier driving a resistive and inductive load.
4. Study of an inductive circuitry with free wheeling diode.
5. Study of the current in a RL load driven by a full wave single phase bridge.
6. Study of a stable current.
7. Study of a rectifier supplying electro motive force (EMF).
8. Study of the control circuitry.
9. Study of the thyristor in a resistive circuitry.
10. Study of a RL load driven by a thyristor.
11. Study the operation of a single phase gradator.
12. Study of a DC speed controller.
13. Study the electrical parameters of a direct current equipment.
14. Study the functioning of a nonautonomous inverter.
15. Study of the reversibility of rotary equipment

SPECIFICATIONS

Power:	120V AC, 60 Hz or 220V AC, 50 Hz
Isolation:	Power transformer, 1 kVA
Dimensions:	53 x 47 x 31 cm (22.4 x 18.5 x 12.2 in)
Weight :	40 kg (88 lb)