Moderation 4160

Industrial, complete with base plate, provided with silk screened terminal board and with 4mm safety sockets.

Modes:
- **Motor**: self, series and compound
- **Generator**: self, compound and externally excited

Nominal voltage: 220Vdc

Excitation voltage: 220Vdc

Nominal power:
- 1100W (as motor)
- 1000W (as generator)

Other power on request

Nominal speed: 3000 rpm

**General**

Compound machine works as motor or as generator.

Modes:
- Generator: self, compound & externally excited.

As compound motor, if supplied with constant voltage, runs at constant speed.

This machine is used when a constant speed is required in the application; typical use of this machine are machine tools, pumps and for rolling mills.

As indicated on the silk screened terminal board, the machine windings are:
1. A1-A2 rotor winding (Armature)
2. D1-D2 series winding
3. E1-E2 excitation winding

- With coupling cog for easy engagement with other machines.
- Protection against thermal overload
- All connections on 4mm safety sockets included thermal contact.
- Manual explaining theory and practice for laboratory experiments

**Didactical purpose**

- Measurement of the windings resistance
- Unload test of the motor
- Direct test of the motor
- External characteristic determination for a DC generator
- Regulation characteristic determination for a DC generator

**Options**

Depending on the specific requirements of the application the machine can be provided with two shaft ends, with other power values and can be designed with the appropriate number of poles in order to have the required nominal speed. (MOD.4160-4: 4 poles DC compound machine 1500 rpm).

**Accessories**

A full range of accessories are available like electromagnetic brakes, powder brakes, measuring modules such as voltmeter, ammeter, power meter, connection cables and power supplies.

- Starting rheostat
  - MOD.4010
- Excitation rheostat
  - MOD.4012
- Connection lead
  - MOD.4196
- Speed control with SCR for DC machine
  - MOD.4230