

DC poli-excitation machine

SHUNT/SERIES/COMPOUND

MOD.4165

Technical specifications

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

Modes:

Motor: self, series, compound and externally excited.

Generator: self, compound and externally excited.

Nominal voltage:
220Vdc

Excitation voltage:
up to 220Vdc

Nominal power:
1100W (as motor)
1000W (as generator)
(Other power on request : up to 9kW)

Nominal speed:
3000 rpm
(Mod.4165-4: 1500 rpm)

Dimensions: (LxPxH)
35x18x25cm

Weight:
10 kg

Shaft H:
90 mm



Using this special DC machine, it is possible to realize all the scheduled connections like: series, compound and shunt.

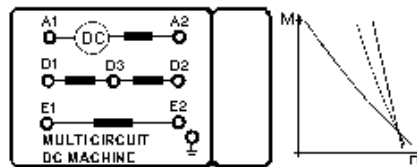
It also allows to study the behaviour of the partial series excitation.

This machine is often used in the didactical field.

- Manual explaining theory and practice for laboratory experiments.
- Imprinted terminal boards with the synoptic.
- All connections on 4 mm safety sockets included thermal contact.

As indicated on the silk screened terminal board, the machine windings are:

- 1 - A1-A2 rotor winding
- 2 - D1-D2 series winding 100%
- 3 - D1-D3 series winding 80%
- 4 - D2-D3 series winding 20%
- 5 - E1-E2 excitation winding



- Base plate with four rubber feet.
- With coupling cog for easy engagement with other machine.
- Protection against thermal overload.

Didactical purpose

- Measurement of the windings resistance
- Measurement of the mechanical losses and the iron losses
- Measurement of the conventional efficiency
- Magnetizing characteristic of a DC generator
- Regulation characteristic of a DC generator
- Direct test for external characteristic
- Speed control in the DC motor

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.4165-4: 4 poles DC poli-excitation machine 1500 rpm).

Accessories:

A full range of accessories and options 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 leads set
MOD.4196



Speed control with SCR for DC machine
MOD.4230