

Electrodynamometer SHUNT EXCITATION D.C. GENERATOR

MOD.3170

Electrodynamometer
Provided with silk screened front panel and with 4mm CE safety sockets.

Nominal voltage: 220V d.c.;

Excitation voltage: up to 200V d.c.

Speed: 1400/3200 rpm;

Power: up to 0,6kW at 3000 rpm;

Coupling type: cog coupling

Dimensions: LxWxH:

35x18x20cm;

Weight: 6,0 kg

Available accessories:

- Load adjustable up to 0,6kw.
- Excitation power supply.
- Encoder for detecting the speed in rpm.
- Load cell or torque meter for detecting the couple.
- Digital instrument for displaying the speed and couple in Kgm or Nm (Mod. 3180C).



Brake and generator with separate excitation, mounted on oscillating frame in order to operate as a brake. The electro-dynamometer is complete with arms, weights, and counterweights, for usage with the classic mechanical scale method, with the graduated measuring rod and weights.

The unit is very versatile and can be used also as DC generator and DC motor.

The torque can be displayed by the optional torque meter MOD.3180C with a load cell or with a torque transducer.

Didactical purpose

This device is used for mechanical and electro-mechanical characteristic test and detection of any motor .

It is possible to detect the torque variation as function of the motor speed (mechanical characteristic of a motor) and the torque, speed, input current, efficiency and power factor as function of the output power (electro-mechanical characteristic). Through this device it's easy to study the DC generator behaviour when loaded and used as a brake.

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.3170-4: 4 poles DC brake generator 1500 rpm).

Accessories



Torque meter
MOD.3180C



Load resistor for DC generator
MOD.3020-R



Rotating torque transducer for torque detection



Field rheostat for DC generator
MOD.3013



- Imprinted terminal boards with the synoptic.
- Base plate with four rubber feet.
- With coupling cog for easy engagement with other machines.
- Protection against thermal overload
- All connections on 4 mm safety sockets included thermal contact.
- Manual explaining theory and practice for laboratory experiments.

There are also available electromagnetic brakes, powder brakes, measuring instruments, connections cables and power supplies.