

Equipment set TP 1410: Servo brake and drive system



Electric drive technology

Modern drives are characterised by the bringing together of electrical and mechanical components to create complete systems.

With rotating electric machines in particular, the basic principles of the individual components along with the system approach and practicality play a crucial role.

Enclosed in a compact housing, this equipment set incorporates a complete, flexible and convenient load and drive system, which is used to analyse the systems to be examined in different load situations.

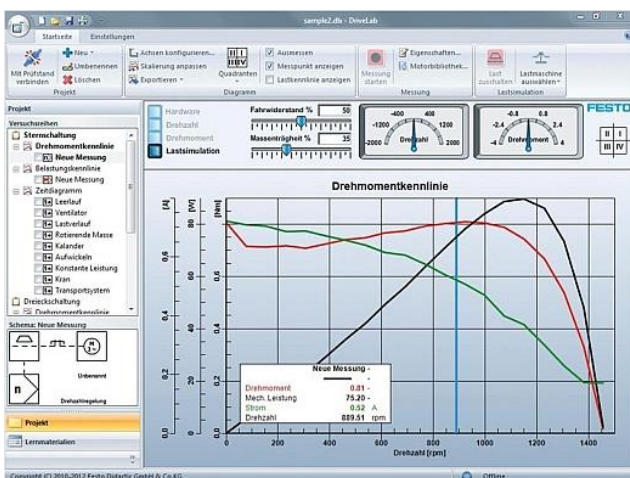
The unique didactic concept makes a clear distinction between the unit under test and the load. The practical quick-change system makes it easy to set up and change the machines to be examined. The unit under test circuits are created using reliable and flexible A4 EduTrainer® modules.

Simple tests such as the recording of a characteristic curve can be performed manually with the brake system, with no need for a PC and software. Measured values, characteristics and function mode are shown on the integrated display.

The convenient **DriveLab** software provides a wide range of options.

With the electric teaching machines, virtually all electric circuits and drives that exist in industry, in trade and in the home can be explained practically and effectively.

The range of drives includes systems of varying degrees of complexity, including single-phase and three-phase drives, DC drives and modern servo drives.



The convenient and intuitive **DriveLab** software supports the automatic recording of machine characteristic curves, the parameterisation of a static load and the simulation of load models for the examination of drives under realistic conditions. The comparison and optimisation of different drive concepts can be carried out in the form of project exercises. Sample configurations provide a quick and easy-to-understand introduction.

Different load models

- Inert load
- Pump/fan
- Hoist drive
- Calendar
- Winder drive
- Lathe
- Traversing drive

System requirements

- PC with Windows 7 or higher
- CD-ROM drive
- USB connection

Scope of delivery

- Servo brake and drive system
- Transparent shaft cover
- Coupling sleeve
- DriveLab software
- USB connecting cable

Technical data

- Input voltage: 1 AC/110 – 230 V, 50 – 60 Hz
- Control console housing with rubber feet for use in the desk
- Connection via 4 mm safety connector
- Integrated EMC filter
- Integrated braking resistor

Training content

- Electric drive technology components
- DC drives
- AC drives
- Three-phase drives
- Special purpose machines
- Actuation with contact
- Frequency converters
- Communication technology

Also order:

Workbooks

The exercises in the workbooks contain concrete, realistic projects with problem descriptions, parameters and project tasks.

The workbooks contain:

- Sample solutions
- Educational instructions
- Multimedia CD-ROM with graphics
- Worksheets for learners

The worksheets support the learner in the information and planning phase as well as with execution, monitoring and documentation.

All the exercises require the learner to complete, evaluate and document them independently