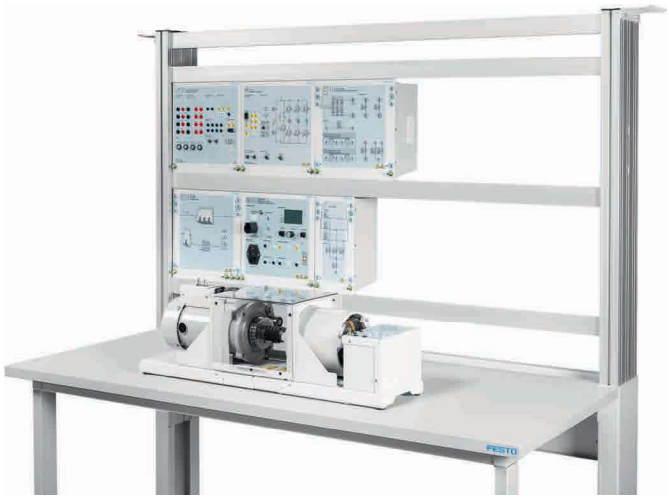
AC Variable-Speed Drives

TP 8015-6



Equipment Set TP 8015-6

220 – 240 V, 50 Hz	**8223527**

The most important components at a glance:

1x Squirrel-Cage Induction Machine	595064
1x Rectifier and Filtering Inductors Capacitors	8136516
1x Three-Phase AC Filter	8166653
1x Three-Phase AC 400 V DC 230 V Power Supply	594825
1x IGBT Chopper/Inverter	8167609
1x 24V AC Power Supply (Wall Mount)	793290
1x Four-Quadrant Dynamometer Motor	595062
1x 4-Quadrant Power Supply and Dynamometer Controller	595028
1x Data Acquisition and Control Interface DACI-2 (note 1)	594499
1x Protective Guard – Face-to-Face	794194

Notes:

(1) The Chopper/Inverter function set must also be activated (sold separately, order no. 581453)

Necessary accessories, also order:

1x Coupling Face-to-Face	792271
1x Connection Lead Set and Grounding Kit	595916
1x Three-Phase AC Power Supply and Safety Unit	594826
1x Mobile Frameline, complete model without energy duct **or**	8075133
1x Tabletop Workstation (DIN A4) **or**	8153360
1x Tabletop Double-Sided Workstation	8158409

Note: A computer with a Windows 7/8/10 operating system is also required.

Use power electronics to control the speed and torque, as well as the frequency and voltage supplied to induction motors.

This training package provides hands-on experience with three-phase, variable-frequency induction-motor drives that use IGBTs as switching elements to improve power efficiency and reduce power consumption.

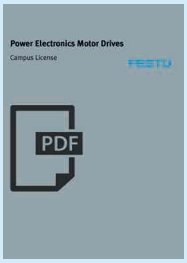
The training package contains the necessary equipment to perform the practical learning activities of the "Three-Phase Motor Drives" course available on Festo LX (subscription required) or as a campus license (sold separately).

Learners connect modules following step-by-step instruction to study topics such as three-phase motor drive, variable-frequency induction-motor drive, motor drive with constant V/F ratio, and more.

The four-quadrant power supply and dynamometer controller apply braking to the four-pole squirrel-cage induction motor while rectifying the 3-phase AC supply to provide DC for the IGBT. The IGBT chopper/inverter then converts the DC into power for the induction motor and manages the speed at the required torque level. The Data Acquisition and Control Interface (DACI) allows users to monitor and adjust parameters for the chopper/inverter functions.

Recommended Learning Material

Workbooks (→ page 162)



Campus license:

en	8228874

Notes: The campus license "Power Electronics Motor Drives" includes the student and instructor manuals of the following workbooks: "Three-Phase Motor Drives", "DC Motor Drives", and "Three-Phase Induction Motor Starters", Printed workbooks are available upon request.

Courses on Festo LX:

- → Three-Phase Motor Drives
- → DC Motor Drives
- → Three-Phase Induction Motor Starters