Thyristor Power Conversion Circuits

TP 8015-5



Equipment Set TP 8015-5

220 – 240 V, 50 Hz	**8223526**

The most important components at a glance:

1x Resistive Load	594820
1x Rectifier and Filtering Inductors Capacitors	8136516
1x Capacitive Load	594822
1x Three-Phase AC Filter	8166653
1x Three-Phase AC Transformer Bank	594823
1x Three-Phase AC 400 V DC 230 V Power Supply	594825
1x Power Thyristors	8167245
1x 24 V AC Power Supply (Wall Mount)	793290
1x 4-Quadrant Power Supply and Dynamometer Controller	595028
1x Data Acquisition and Control Interface DACI-2 (note 1)	594499

Notes:

(1) The Thyristor control function set must also be activated (sold separately, order no. 581454)

Necessary accessories, also order:

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.

Achieve efficient control of power management with power electronics semiconductors.

This training package provides hands-on experience with power diodes, power thyristors, solid state relays, zero-voltage switching, and various types of power control using thyristor circuits.

The training package contains the necessary equipment to perform the practical learning activities of the “Thyristor Power Electronics” course available on Festo LX (subscription required) or as a campus license (sold separately).

Learners connect modules following step-by-step instructions to study topics such as power diodes, single- and three-phase rectifiers, power thyristors, solid state relays, single- and three-phase AC power control, three-phase thyristor rectifiers/inverters, and more.

The four-quadrant power supply and dynamometer controller manages the AC power that goes to various components based on exercises. The Data Acquisition and Control Interface (DACI) allows users to monitor and adjust parameters that control the power thyristor module.

Recommended Learning Material

Workbooks (→ page 162)



Campus license:

en	8212870

Notes: The campus license “Power Electronics Fundamentals” includes the student and instructor manuals of the following workbooks: “DC Power Electronics”, “Single-Phase AC Power Electronics”, “Three-Phase AC Power Electronics”, and “Thyristor Power Electronics”. Printed workbooks are available upon request.

Courses on Festo LX:

- → DC Power Electronics
- → Single-Phase AC Power Electronics
- → Three-Phase AC Power Electronics
- → Thyristor Power Electronics