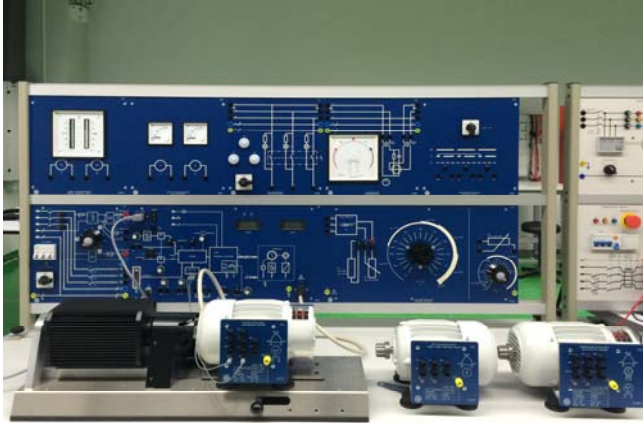


Electrical Machines Laboratory



Model	<ul style="list-style-type: none">- Synchronous Machine Type 2711- Three-Phase Induction Motor Type 2707- Brake Unit Type 2719- Control Unit Type 2730- Universal Power Supply Type 2740.1- Universal Resistor Type 2750- Synchronisation Type 2289- Synchronoscope Type 2288
Producer	hps SystemTechnik
Installation	2016
Location	EAT 76

Information

Electrical machines laboratory is composed of control unit, brake unit, universal power supply, universal resistor, electrical machines, synchronisation and synchronoscope. This laboratory is capable of training and plotting characteristics of electrical machines whose dimensions are around 280 x 160 x 215 mm (w x h x d).

Specification

Synchronous Machine Type 2711

Power: 0.3 kW; speed: 1500 rpm at 50 Hz; $\cos \varphi$: 0.97; excitation current: 0.95 A;
star connection: 400 V/0.66 A; delta connection: 230 V/1.44 A;
dimensions: 280 x 160 x 215 mm (w x h x d); weight: 8.3 kg

Three-Phase Induction Motor Type 2707

Power: 0.37 kW; speed: 1400 rpm at 50 Hz; $\cos \varphi$: 0.72;
star connection: 692 V/0.58 A; delta connection: 400 V/1 A;
dimensions: 250 x 160 x 215 mm (w x h x d); weight: 7.1 kg

Brake Unit Type 2719

Three-phase induction machine

- Power: 400 W (at 50 Hz) and 700 W (at 87 Hz)
- Protection through internal thermal contact
- With double cantilever beam, full-bridge strain gage and shielded amplifier module.
- Speed measurement 15 - 3600 rpm
- Dimensions / weight: 680 x 220 x 240 mm (w x h x d) / 15.1 kg

Control Unit Type 2730

- Mains connection: 220 ... 230 V AC; 50 ... 60 Hz
- Working range of the Control Unit: 0.5 ... 120 Hz in both directions
- Frequency converter
- RPM display
- Torque display
- Dimensions: 532 x 297 x 185 mm (w x h x d)

Universal Power Supply Type 2740.1

- Mains connection, three-phase: 380 ... 415 V AC
- Outputs, three-phase: with phase pilot lamp and safety switch, 3-pole (6 A)
- Fixed DC: 200 V / 4 A (at 230 V mains) for field current supply of DC machines, with pilot lamp
- DC, continuously adjustable: 0 ... 250 V/4 A
- Dimensions: 266 x 297 x 195 mm (w x h x d)

Universal Resistor Type 2750

Ring rheostat, 500 W

- With protection series resistor: 1.8 /150 W
 - With 5-step winding: 1.8 ... 11 /4.6 A, 11 ... 32 /3.5 A, 32 ... 56 /2.4 A, 56 ... 140 /1.7 A, 140 ... 1 k /0.6 A
- Ring rheostat, 100 W (field rheostat)
- 0 ... 1.5 k , with 2-step winding and q-contact
 - Steps: 0 ... 450 /0.5 A, 450 ... 1.5 k /0.25 A

Synchronisation Type 2289

For synchronisation of a generator to the mains.

- For three-phase connection: 220 V ... 240 V AC/380 V ... 415 V AC; 50 ... 60 Hz
- Indication through three lamps

Synchroscope Type 2288

For synchronisation of a generator to the mains. Rated Voltage is 230 V AC/400 V AC; 50 ... 60 Hz.