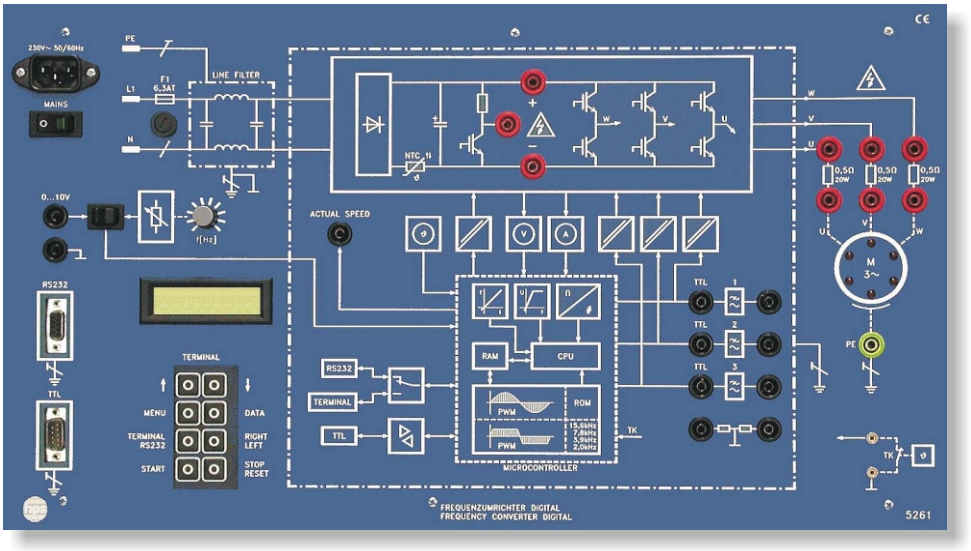
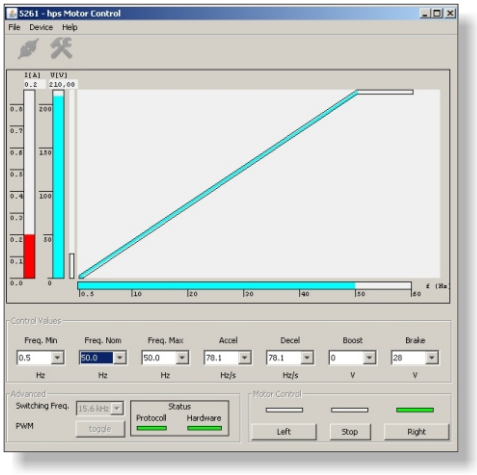
Frequency Converter

Type 5261





V/f diagram of the Frequency Converter

- **For three-phase induction motors of 100 W ... 1 kW**
- **Four-quadrant operation**
- **Control and parameter assignment by the incorporated terminal or an external PC (RS 232 interface)**
- **Protection against overcurrent, overvoltage and undervoltage, excess temperature, short-circuit and earth fault**
- **Simple control and parameter assignment by means of menu-driven Terminal program**

Software for the Frequency Converter

- V/f diagram of the Frequency Converter
- Travel diagram
- Display for current and voltage
- Display for brake voltage and boost
- Simultaneous display of all parameters
- Display of working temperAture
- Works with: Windows XP / VISTA / 7 -32/64 bit

With the Frequency Converter hps SystemTechnik offers a training system to conduct experiments in the field of automatic monitoring and control of the speed of three-phase induction motors.

The following **parameters**can be set through an easy-to-use menu or PC:

- Minimum and maximum frequency / set frequency
- Acceleration and deceleration ramp
- Starting voltage / braking voltage / voltage / current
- Direction of rotation: right / left
- Modulation modes: sine, trapezoidal
- Modulation frequency

Accessories Recommended

- Experiment manual: „Frequency Converter – Digital“ (Type V 0022)
- Three-Phase Induction Motor, e. g. Type 2707.1
- Load, three lamps and one switch (Type 5512)
- Isolation Amplifier (Type 8630)
- Universal Power Supply (Type 2740.1)
- Storage oscilloscope
- PC (IBM-compatible) / software: 5261 EVGB
- Connecting lead, RS 232 (Type 9102.50)
- DC Brake Unit (Type 2718)

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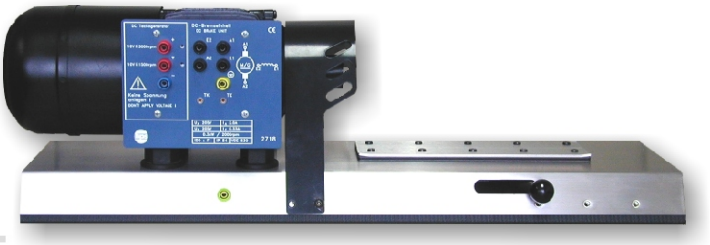
Control Engineering / Power Electronics

Frequency Converter

Type 5261

DC Brake Unit (Type 2718)



Technical data of the Frequency Converter

Mains connection (single-phase)
- Voltage: 230 V AC; +/-10 %
- Power consumption: max. 6.3 A
- Mains frequency: 48 Hz ... 400 Hz

Output
- Output voltage: 3 x 220 V; 0.5 ... 120 Hz
- Output current: max. 4.5 A

Braking and acceleration ramp
- 11.5 Hz/s ... 588.1 Hz/s

Pulse width modulation (PWM)
- Frequency: 2.0 kHz; 3.9 kHz; 7.8 kHz; 15.6 kHz

Protection against
- Overvoltage and undervoltage
- Overcurrent
- Excess temperature of the power unit and Motor
- Short-circuit and earth fault

SUB-D plug (9-pin)
- To connect TTL levels (0 ... 5 V) for externel control of the Frequency Converter

Other
- Electrical isolation of the control unit
- Braking resistor: 150 / 50 W
- Inputs: set point frequency through built-in potentiometer or external voltage 0 ... 10 V

Mechanical Data

The front panel of the Frequency Converter Digital is made of 5 mm thick laminate, matt blue in colour with white printing representing the built-in function groups.
The rear of the Board is protected with a grey powder-coated metal cover.

Dimensions / Weight
- 532 x 297 x 165 (w x h x d) / Approx. 6.2 kg

The DC Brake Unit has been designed for applications in the field of drive engineering, e. g. for experiments with a three-phase induction motor and a frequency converter.

It can be used as a motor together with the Universal Power Supply (Type 2740.1) or as a generator with the Load (Type 5512).

The DC Brake Unit consists of a shunt-wound DC machine with integrated DC tachogenerator mounted on a base. The base accomodates and mechanically connects the experimental machines, e. g. a Three-Phase Induction Motor (Type 2707.1).

The hps experimental machines are equipped with 4 machine feet. They are slipped on the Brake Unit and fixed with a single-lever quick-action clamping device.

Accessories included: Coupling Collar (Type 2718.5)

Technical data of the DC Brake Unit

Shunt-Wound DC Machine
- Armature voltage and current: 205 V / 2 A;
- Field voltage and current: 205 V / 0.33 A
- Power: 0.3 kW (at 2000 rpm)
- Protection through thermal contact

DC tachogenerator
- Output 1: 10 V (at 1500 rpm)
- Output 2: 10 V (at 3000 rpm)

General
- Material of the base: stainless steel, brushed
- Dimensions: 710 x 220 x 250 mm (w x h x d)
- Weight: 13.7 kg

Subject to technical modifications.