Data sheet

Electric Motor Test Bench

Performance Features

- Detection of torque, angle/speed, tension and current
- Determination of the mechanical and electrical performance and efficiency
- Control of the test bench through a central USB port
- Program for evaluation and graphical representation on the PC (LabVIEW)
- Overlapping test sequences
- Saving of test results in EXCEL or database
- Create and print the report after each test

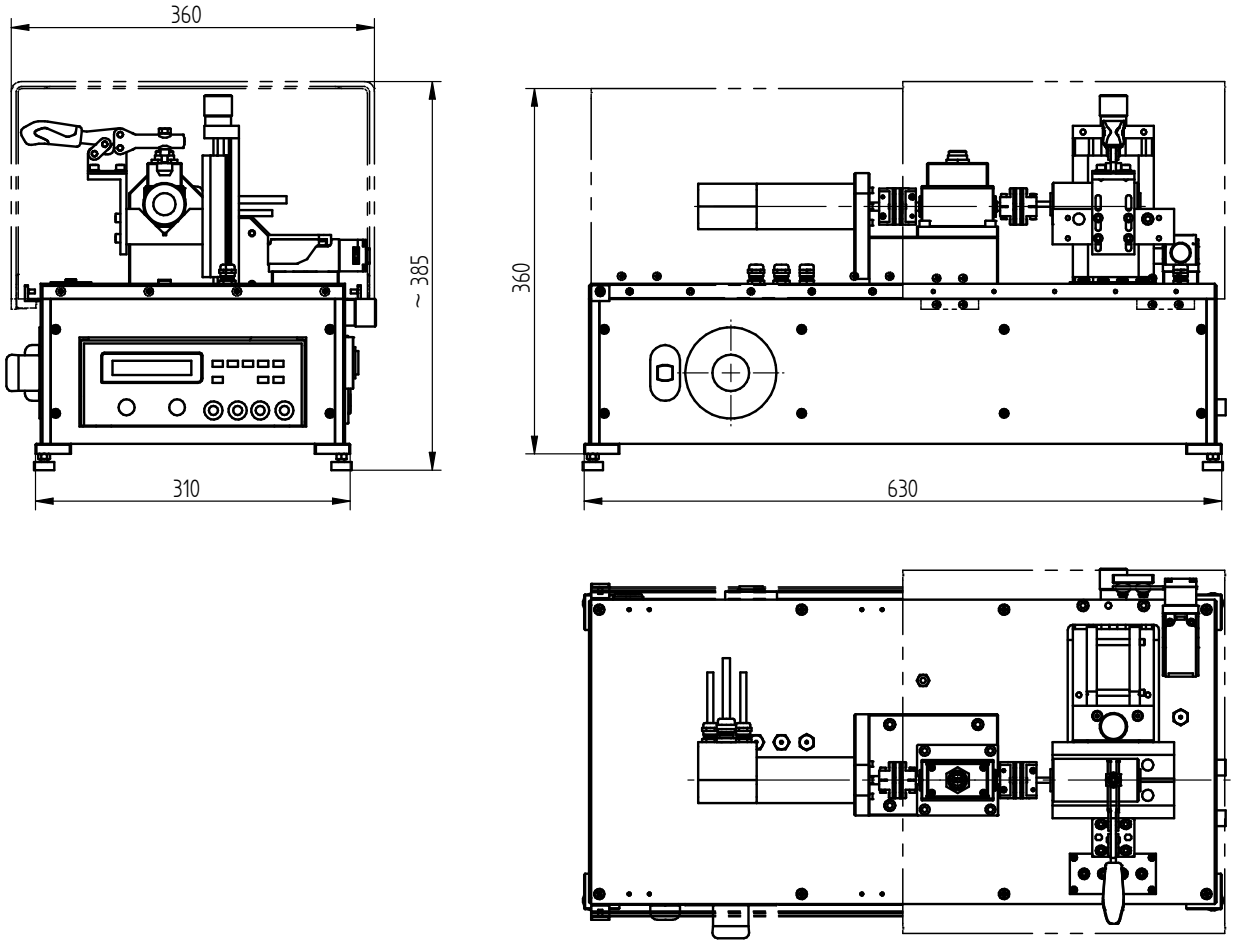
Description

The flexible test bench concept MP-520 allows functional testing of different types of small DC electric motors.
In addition, the test bench can be modified to test brush-less DC motors (BLDC) and stepper motors.

Application

- Automotive
- Process measuring and control technology
- Research and development
- Energy and environmental technology
- Mechanical engineering

Dimensions in mm



Technical Data

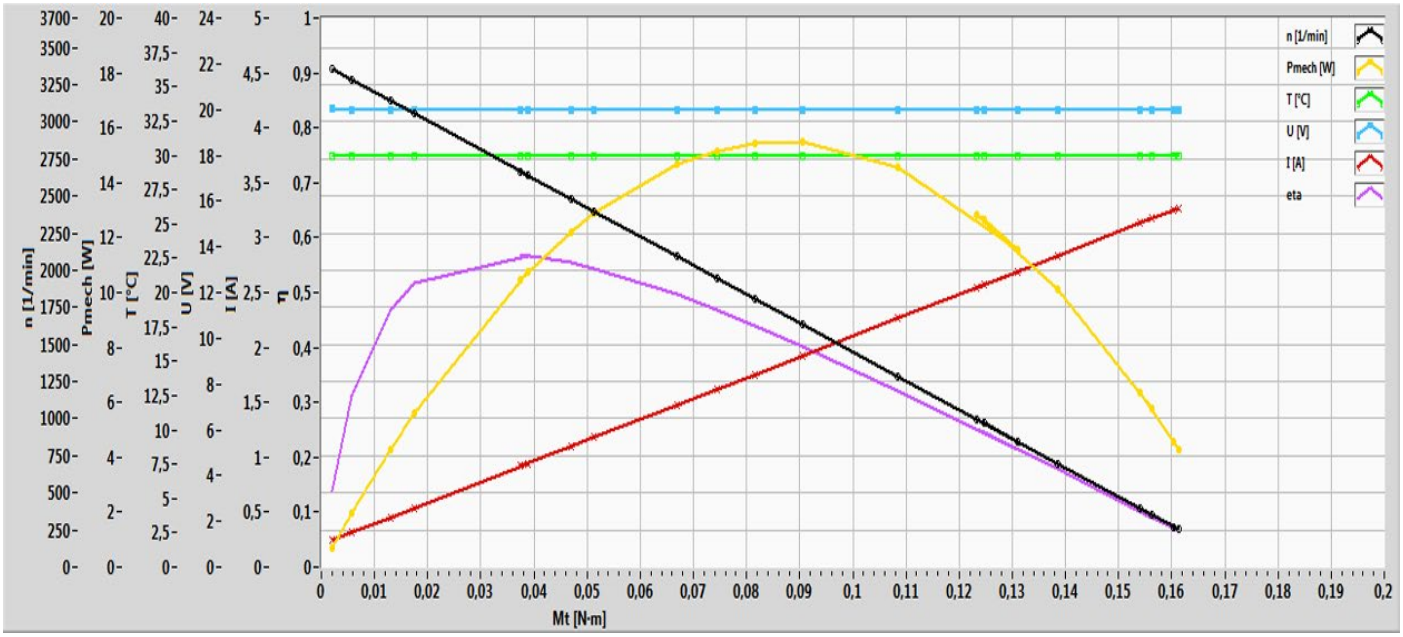
Electric Motor Test Bench	
Supply voltage	230VAC
Idling speed	max. 10000 min^{-1}
Rated torque $\mathbf{M_{nom}}$	max. 0.5 N·m
Holding torque	max. 6 N·m
Rated power	max. 250 W
Operating temperature	5 … 45°C
Weight	ca. 40 kg

Components
Mechanical basic unit
Servomotor with control
High-precision torque and speed sensor
Specimen carrier
Protection cover with safety interlock
Emergency stop circuit
Power supply

Motor Characteristics

The test bench can be used to determine mechanical, electrical and thermal properties, which are illustrated graphically. The following parameters can be displayed:

- Torque/speed curve
- Current/speed curve
- Electrical and mechanical performance
- Efficiency
- Temperature



Test Program

The software for the motor test bench is Windows compatible and supports PC-based measurement data acquisition. The program allows simulation of loads and representation of power curves. The collected and processed data can be saved, displayed numerically and graphically or printed in tabular form. Customized software changes or adaption requests can always be taken into consideration, if desired.

System Requirements for the PC

Here you will find the system requirements and the basic requirements for installing the test program:

- Windows® operating system 7 - 10 32/64 Bit[1]
- LabView Runtime, version 18
- Processor Dual Core from 2.5 GHz
- Memory min. 2 GB, at 64 Bit min. 4 GB
- Port USB 2.0 or higher
- HDD with at least 3 GB free space

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