

ET 512

Air compressor test unit



Learning objectives/experiments

- functional test of a piston compressor
 - ▶ pressure rise in the tank as function of time
 - ▶ active power of the drive motor as a function of pressure

Specification

- [1] test unit for a small industrial compressor
- [2] 1-cylinder compressor
- [3] pressure vessel with valve for draining
- [4] display at switch cabinet to indicate active power

Technical data

Drive motor

- power consumption: 0,25kW
- speed: 1410min⁻¹

Compressor

- power consumption: 0,7kW
- max. pressure: 10bar
- intake capacity: 115L/min

Pressure vessel

- capacity: 10L
- max. pressure load: 10bar

Measuring ranges

- manometer: 0...16bar
- stopwatch: 0...9h59min59s 99/100

230V, 50Hz, 1 phase
 120V, 60Hz, 1 phase
 LxWxH: 770x540x560mm
 Weight: approx. 50kg

Scope of delivery

- 1 test unit
- 1 stopwatch
- 1 manual

Description

- test unit for a small industrial compressor
- checking the characteristic curve

The experimental unit contains all the essential components of a compressor system.

The compressor to be tested is a single-stage single-cylinder machine. During the functional test the efficiency of the compressor is investigated against the increasing pressure in the tank over time.

The active power of the drive motor is displayed on the switch cabinet. A stopwatch is supplied for time-related measurements.

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Optional accessories

020.30009 WP 300.09 Laboratory trolley