

## CT 300.04

### Two-cylinder petrol engine for CT 300



#### Description

##### ■ engine for use in CT 300 test stand

In conjunction with the CT 300 test stand, which includes a drive and brake unit, the four-stroke petrol engine CT 300.04 is highly suitable for use in teaching the fundamentals of engine functioning and measurement.

The engine used here is an air-cooled two-cylinder four-stroke petrol engine with external carburation. The engine is started, run in passive mode and slowed down by an electric motor mounted in the CT 300 unit. The brake unit is connected by way of a elastic claw coupling.

The engine is prepared for measurement of the cylinder pressure for indication, and additionally includes a sensor to measure the exhaust gas temperature. The sensor, ignition cut-off and fuel supply are connected to the CT 300 test stand.

The full load and partial load characteristic curves of the engine are plotted in experiments.

#### Learning objectives/experiments

- plotting of torque and power curves
- determination of specific fuel consumption
- determination of volumetric efficiency and lambda (fuel-air ratio)
- energy balance
- determination of the frictional power of the engine (in passive mode)

#### Specification

- [1] air-cooled two-cylinder four-stroke petrol engine for installation in the CT 300 test stand
- [2] engine mounted on base plate
- [3] force transmission to brake via elastic claw coupling
- [4] engine complete with fuel hose and exhaust gas temperature sensor
- [5] fuel hose with self-sealing quick-release coupling

#### Technical data

Air-cooled two-cylinder petrol engine

- displacement: 480cm<sup>3</sup>
- bore: 68mm
- stroke: 66mm
- power output: approx. 11,9kW at 3600min<sup>-1</sup>

LxWxH: 700x350x700mm

Weight: approx. 60kg

#### Scope of delivery

- 1 engine, complete with all connections and supply lines
- 1 manual

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### Required accessories

063.30000	CT 300	Engine test stand, 11kW
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### Optional accessories

063.15902	CT 159.02	Exhaust gas analysing unit
063.30001	CT 300.01	Exhaust gas calorimeter for CT 300
063.30009	CT 300.09	Electronic engine indicating system for CT 300
with		
063.30017	CT 300.17	Pressure transducer and TDC sensor for CT 300.04