

AACHEN, OCTOBER 2020

fka GmbH
FEV Europe GmbH

BENCHMARK PROGRAM VW ID.3 FIRST EDITION



VW ID.3



- Volkswagens' first dedicated battery electric vehicle (BEV)
 - Specific platform for pure electric vehicles (VW MEB¹⁾)
 - Optimized vehicle dynamics
 - Design for high volume segments at optimized cost

- Advanced drivetrain technology
 - Up to 150 kW power and 310 Nm torque
 - Up to 77 kWh HV Lithium-Ion battery²⁾
 - Up to 125 kW DC charging power
 - Permanent magnet synchronous e-machine (PMSM) at rear axle

- Advanced safety features
 - Automated distance control (ACC)
 - Lane keeping assistant
 - Lane change assistant
 - Parking assistant

1) German: Modularer E-Antriebs-Baukasten

2) VW ID.3 Pro S



fka and FEV carry out a comprehensive benchmarking program of the first edition Volkswagen ID.3



FUNCTIONAL BENCHMARK

Module 1

MICRO BENCHMARK

- Summary of vehicle specifications¹⁾
- Vehicle overview and photo documentation
- On-road cycle simulation of drive traces (NEDC, FTP75, and RDE)
- Charging tests
- Initial performance and energy consumption tests

Mandatory entry module!

Module 2

ADAS FUNCTIONS

- Comprehensive ADAS functions testing
- Automated distance control (ACC)
- Lane keeping assistant
- Lane change assistant
- Parking assistant

Module 3

VEHICLE DYNAMICS & ACOUSTICS / NVH

- Driving tests
- Inertia parameters
- k&c analysis
- Vehicle dynamics
- Interior & exterior noise

Module 4

DRIVETRAIN & E/E

- Energy consumption
- Control strategy
- Efficiency electric drive
- Topology of cooling circuit
- HV & LV voltage stability

DESIGN BENCHMARK

Module 5

TEARDOWN & DESIGN STUDY

- Vehicle teardown & documentation
- Detailed teardown incl. BOM and photo documentation plus basic 3D scan
 - HV battery
 - EDU (transmission & electric motor)
 - Power electronics
 - Inverter
 - DC/DC converter
 - Onboard charger



km/h
0
PARK
265 km

10:14
12.5 °C
Telefon
Radio/Medien
Navigation
Fahrzeug
Ambientlicht
Hilfe
Setup

AUTO
FRONT
MODE
MAX
REAR
REAR

D/B
N
R
OK
VIEW

15T

AIRBAG

15T



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