BYD DOLPHIN

DESIGN ELECTRIC FWD AUTOMATIC

2024 ★★★★★ 98%

10.0 /10
Clean Air Index

9.6 /10
Energy Efficiency Index

9.9 /10
Greenhouse Gas Index

10.0 /10 Clean Air Tests

	Laboratory Test	NMHC	NO_x	NH_3	CO	PN
10.0/10	Cold Test	●	●	●	●	●
10.0/10	Warm Test	●	●	●	●	●
10.0/10	Highway	●	●	●	●	●
10.0/10	Cold Ambient Test	●	●	●	●	●
	Road Test					
10.0/10	On-Road Drive	●	●	●	●	●
5.0/5	On-Road Short Trip	●	●	●	●	●
8.0/8	On-Road Heavy Load	●	●	●	●	●
5.0/5	On-Road Light Load	●	●	●	●	●
2.0/2	Congestion	●	●	●	●	●

● n.a. ● good ● adequate ● marginal ● weak ● poor

Comments

With no tailpipe emissions, the electric BYD DOLPHIN naturally scores the full 10 points in the Clean Air part of the assessment.

9.6 /10 Energy Efficiency Tests

	Laboratory Test	Energy		
10.0/10	Cold Test		→	17.1 kWh/100 km
10.0/10	Warm Test		→	16.7 kWh/100 km
9.4/10	Highway		→	24.1 kWh/100 km
9.2/10	Cold Ambient Test		→	25.6 kWh/100 km

	Consumption	Driving Range
Average	19.3 kWh/100 km	365 km
Worst-case	25.6 kWh/100 km	268 km

n.a. good adequate marginal weak poor

Comments

The BYD DOLPHIN shows low consumption values in all tests. In the standard WLTC+ Lab Tests, the recorded values are around 17 kWh/100 km considering the charging losses. Very low energy demand is measured also in the Highway Test and in the -7°C Cold Ambient Test: 24.1 and 25.6 kWh/100 km, respectively. A noteworthy contributor to the good figures in cold conditions is the complex heating system, using a PTC heater, heat pump and waste heat from powertrain components. The On-Road Drive was performed at around 6°C and the DOLPHIN needed about 20 kWh/100 km, leading to a range of around 340 km.

9.9 /10 Greenhouse Gases Tests

	Greenhouse gases	CO_2	N_2O	CH_4
10.0/10	Cold Test	●	●	●
10.0/10	Warm Test	●	●	●
10.0/10	Highway	●	●	●
9.7/10	Cold Ambient Test	●	●	●

n.a. good adequate marginal weak poor

Comments

The Greenhouse Gas (GHG) Index is based on a Well-to-Wheel+ approach, meaning that the GHG emissions related to the supply of energy are added to those of the tailpipe. Following this approach, the estimated GHG emissions of the fully electric DOLPHIN originate only from the upstream processes of electricity supply – ca. 47 g CO_2-eq./km in the Warm Lab Test and reaching 72 g CO_2-eq./km in the Cold Ambient Test. Thanks to its efficient electric powertrain and heating concept and the relatively low GHG of EU electricity production, the DOLPHIN closely misses the top result but scores 9.9/10.

Our Verdict

One of the newest offerings of the Chinese brand BYD is the all-electric BYD DOLPHIN. A hatchback with a maximum power of 150 kW and a declared usable battery capacity of 60.5 kWh. This allows the vehicle to have an average driving range (measured by Green NCAP procedures) of 365 km. The car demonstrates its potential in short urban trips with a driving range of around 480 km. The vehicle is equipped with the same heating and air-conditioning system as its stablemate, the ATTO 3, recently tested by Green NCAP. At the battery capacity test the vehicle was charged up to 100% SOC with a 11 kW charging power in 6h and 15 minutes. The recharged energy of 68.4 kWh and the usable battery energy of 58.3 kWh gives a grid-to-battery output efficiency of 85%. By improving the performance in the charging process, the DOLPHIN would obtain even better results, considering that the average energy consumption of ca. 17 kWh/100 km in the standard WLTC+ test is creditable enough and close to the officially declared value. Overall, BYD DOLPHIN gets an Average Score of 98% and very well deserved 5 Green Stars, thanks to its high efficiency.

Disclaimer

Specification

Tested Car
LC0CE4CB9P033xxxx

Publication Date	Vehicle Class	Tyres	Emissions Class
02 2024	Small Family Car	205/50 R17	Euro 6 AX

Mass	Engine Size	System Power/Torque	Declared CO_2
1,658 kg	n.a.	150 kW/310 Nm	n.a.

Declared Battery Capacity	Declared Driving Range	Declared Consumption
60.5 kWh	Overall 427 km City 559 km	15.9 kWh/100 km

Heating Concept
Waste heat & PTC & Heat pump