

BYD SEAL U

DESIGN ELECTRIC FWD AUTOMATIC

2024



93%



10.0 
/10

**Clean Air
Index**

8.9 
/10

**Energy Efficiency
Index**

9.1 
/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 SEAL U naturally scores the full 10 points in the Clean Air part of the assessment.

Energy Efficiency Tests



Laboratory Test

Energy

9.9/10	Cold Test		→	20.9 kWh/100 km
9.9/10	Warm Test		→	20.4 kWh/100 km
8.4/10	Highway		→	31.5 kWh/100 km
7.6/10	Cold Ambient Test		→	36.6 kWh/100 km

Consumption

Driving Range

Average	24.3 kWh/100 km	423 km
Worst-case	36.6 kWh/100 km	270 km



n.a.



good



adequate



marginal



weak



poor

Comments

The BYD SEAL U is a large luxurious SUV and its consumption values are higher compared to those of smaller EVs but still in the expected range for this vehicle type. In the standard WLTC+ Lab Tests, the recorded values are around 20.5 kWh/100 km considering the charging losses. In the Highway Test and in the -7°C Cold Ambient Test the energy demand increases to 31.5 and 36.6 kWh/100 km, respectively. The thermal system uses a heat pump and a PTC heater to provide comfortable cabin temperatures, while the heat pump can also work to condition the battery and utilizes waste heat from the motor.

9.1

/10

Greenhouse Gases Tests



Greenhouse gases

CO₂

N₂O

CH₄

10.0/10 Cold Test



10.0/10 Warm Test



8.8/10 Highway



8.0/10 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 SEAL U originate only from the upstream processes of electricity supply – ca. 58 g CO₂-eq./km in the Warm Lab Test and reaching 103 g CO₂-eq./km in the Cold Ambient Test. The amount of upstream GHG emissions depends on the consumption and on the GHG intensity of the electricity used. Lower CO₂ energy mix increases the environmental advantages of EVs.

Our Verdict

Examined here is the BYD SEAL U Design. This is the third vehicle from this Chinese brand to be tested by Green NCAP. The car is a large SUV offering a high level of comfort and 500 km driving range as type approved in the WLTP cycle. This range is possible thanks to a battery with 86 kWh usable capacity and the official consumption of 20.5 kWh/100 km, a figure confirmed by Green NCAP's tests. Green NCAP reveals the vehicle's consumption values in demanding situations not covered by homologation, such as the high-load highway cycle and the -7°C Cold Ambient Test. Both scenarios are particularly challenging for a large SUV, as the high aerodynamic drag takes its toll on motorway consumption, and the spacious cabin combined with high comfort demand requires more energy for heating. Naturally, the SEAL U consumption results are higher, but still in the expected range. The vehicle was also tested in real-world driving on the street, where it recorded 21 kWh/100 km at 24°C ambient temperature on dry road. BYD could further improve the efficiency of the onboard charger. With 11 kW charging, some 88-89% of the recharged energy withdrawn from the charging socket is normally available at the output of the battery, while Green NCAP measured approx. 87% with the SEAL U. Overall, the vehicle receives an Average Score of 93% and 5 Green Stars.

Disclaimer [↗](#)

Specification

Tested Car

LGXCE4CBXP025xxxx

Publication Date 09 2024	Vehicle Class Small SUV	Tyres 235/50R19	Emissions Class AX
Mass 2,147 kg	Engine Size n.a.	System Power/Torque 160 kW/330 Nm	Declared CO₂ n.a.
Declared Battery Capacity 86.1 kWh	Declared Driving Range Overall 500 km City 674.3 km	Declared Consumption 205 kWh/100 km	

Heating Concept

Waste heat & PTC & Heat pump



Think before you print