

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 relatively 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 utilises 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. 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 87.0 kWh	Declared Driving Range Overall 500 km City 674.3 km	Declared Consumption 20.5 kWh/100 km	

Heating Concept

Waste heat & PTC & Heat pump



Think before you print