Tesla Model 3

208 KW ELECTRIC RWD AUTOMATIC

2022 | ★ ★ ★ ★ ★ | **98%**

GREENER CHOICE
LCA

10.0
/10
**Clean Air
Index**

9.6
/10
**Energy Efficiency
Index**

9.8
/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

Tesla only produces battery electric vehicles. Accordingly, Model 3 scores the maximum index of 10 in this part of the assessment as it doesn't emit any polluting exhaust gases.

9.6 /10 ⚡ Energy Efficiency Tests

		Laboratory Test		Energy	
10.0 /10		Cold Test	🟢 →	16.5	kWh/100 km
10.0 /10		Warm Test	🟢 →	15.9	kWh/100 km
9.8 /10		Highway	🟢 →	21.1	kWh/100 km
8.8 /10		Cold Ambient Test	🟡 →	28.5	kWh/100 km

	Consumption	Driving Range
Average	17.9 kWh/100 km	390 km
Worst-case	28.5 kWh/100 km	241 km

🔘 n.a.	🟢 good	🟡 adequate	🟠 marginal	🟤 weak	🔴 poor

Comments

Model 3 impresses with a very high energy efficiency, not only in the Cold and Warm WLTC+ laboratory tests but also in the challenging Highway Test. Here, the small frontal area and the aerodynamic shape work to the vehicle's advantage. At a winterly -7°C, however, consumption increases by 72% and the driving range is reduced to 241 km. In "normal" real world driving, figures below 16 kWh/100 km and ranges of up to 450 km can be expected. The measured charging/ discharging efficiency from the charging socket to battery output is 89%, using Green NCAP's method of 11 kW AC charging.

9.8 /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	🟢	🟢	🟢
9.3/10	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. The vehicle's production is not yet included in the assessment due to the implicit limitations of generic data about global supply chains. Since the Model 3 is a purely electric car, its assessed GHG emissions originate only from the upstream processes of electricity supply – ca. 45-80 g CO_2-eq./km. Thanks to its low energy consumption and the relatively low GHG of EU electricity production, the Tesla scores a very high 9.8/10.

Our Verdict

Tested here is Tesla Model 3 with a declared battery capacity of 60 kWh, single motor and rear wheel drive. With its power of 208 kW it attracts a young and sporty audience. Despite its relatively high mass – typical for electric vehicles – Model 3 demonstrates very low energy consumption figures and proves it has been designed with a special focus on efficiency and driving range. Indeed, in the Highway Test, the small Tesla gets the highest score of all Green NCAP tested vehicles so far, with a very impressive 21.1 kWh/100 km. Under cold winter conditions (WLTC+ test at -7°C), however, the consumption is increased by 72% and this limits the driving range significantly due to high demand for cabin heating and battery protection management strategies. The measured usable battery capacity of 61 kWh meets the declared value and allows a range of ca. 450 km under standard real-world conditions and moderate climatization demand.

Higher energy efficiency in cold weather conditions and further reduction of charging losses (tests consider 11 kW AC charging), would help the vehicle boost its sustainability result even more.

The absence of polluting exhaust gas emissions, the high energy efficiency and the relatively low greenhouse gas emissions of European average electricity production grant the Tesla an impressive Average Score of 98% and a well-deserved 5 Green stars.

Disclaimer ⧉

Specification

Tested Car
LRW3E7FR0NC56xxxx

Publication Date	**Vehicle Class**	**Tyres**	**Emissions Class**
11 2022	Large Family Car	235/45 R18	Euro 6 AX
Mass	**Engine Size**	**System Power/Torque**	**Declared CO$_2$**
1,760 kg	n.a.	208 kW/353 Nm	n.a.
Declared Battery Capacity	**Declared Driving Range**	**Declared Consumption**	
60.0 kWh	Overall 491 km	14.4 kWh/100 km	
	City 603 km		

Heating Concept
Waste heat + Heat pump

green
ncap ∞

Think before you print