2022

Tesla Model 3

208 kW electric RWD automatic

10.0 /10	9.6 /10	9.8 /10
Clean Air Index	Energy Efficiency Index	Greenhouse Gas Index

10.0 /10 Clean Air Tests

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

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 Weighted Overall Index of 9.8 out of 10 and a well-deserved 5 Green stars.

Disclaimer

Specfications

Publication Date	Tested Car	Tyres	Emissions Class
11 2022	LRW3E7FR0NC56xxxx	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 City 603 km	14.4 kWh/100 km