

MAZDA CX-60

E-SKYACTIV PLUG-IN HYBRID AWD AUTOMATIC

2023



48%



5.4 
/10

**Clean Air
Index**

5.0 
/10

**Energy Efficiency
Index**

4.1 
/10

**Greenhouse Gas
Index**



Laboratory Test

NMHC

NO_x

NH₃

CO

PN

3.5/10 Cold Test



7.1/10 Warm Test



0.0/10 Highway



Cold Ambient Test

Does not qualify for additional robustness testing



Road Test

6.8/10 On-Road Drive



3.4/5 On-Road Short Trip



On-Road Heavy Load

Does not qualify for additional robustness testing

On-Road Light Load

Does not qualify for additional robustness testing

Congestion

Does not qualify for additional robustness testing



n.a.



good



adequate



marginal



weak



poor

Comments

The Mazda CX-60 fails to impress with aftertreatment of the exhaust gases. In combustion mode, the car generally emitted large quantities of particles, did not sufficiently control NO_x and exceeded NH₃ and CO thresholds. In particular, CO emissions skyrocketed in the Highway Test and in the Cold Ambient Test at -7°C, where particle output also scored negative points. As a result, in both tests the vehicle is penalised to 0 points. The On-Road Heavy Load is started with a fully charged electric battery, but this also doesn't help in this test, and the CX-60 collects only half of the points.

Find out here how the PHEV Cold Test is performed and rated [🔗](#)



Laboratory Test

Energy

6.1/10 Cold Test



3.8/10 Warm Test



1.0/10 Highway



Cold Ambient Test

Does not qualify for additional robustness testing

Consumption

Driving Range

| | Petrol | Electric | | Petrol | Electric | |
|------------|--------|-----------------|--|--------|----------|----|
| Average | 5.3 l | 9.5 kWh /100 km | | 667 | 51 | km |
| Worst-case | 9.6 l | n.a. /100 km | | 521 | On.a. | km |

Consumption in WLTC+ Battery Depleting Cycle: 1.7 l/100 km fuel + 23.2 kWh/100 km electricity



n.a.



good



adequate



marginal



weak



poor

Comments

The tests of the heavy and powerful Mazda SUV resulted in an electric driving range of 51 km (EAER), but if the battery is empty, the CX-60 will consume 7.7 l/100 km petrol on average. In the Highway Test, that figure rises to 9.6 l/100 km. Using only its petrol engine in a Short Trip in the city, the vehicle would need almost 12 l/100 km. In the test with a fully charged battery, the PHEV naturally reduces its fuel consumption but with this car the electric energy demand is still relatively high. In aggressive and sporty driving the car would need about 7 litres and 8 kWh/100 km. In this PHEV case, the rating assumes just 41% usage with a charged battery and 59% as a conventional hybrid vehicle, a ratio that is based on the available electric range, which in Green NCAP's tests did not appear to be as high as officially declared.










Find out here how the PHEV Cold Test is performed and rated [🔗](#)

4.1



Greenhouse Gases Tests

/10

| | <div></div> <div>Greenhouse gases</div> | CO ₂ | N ₂ O | CH ₄ |
|-------------------|---|---|---|---|
| 5.2/10 | Cold Test |  |  |  |
| 1.9/10 | Warm Test |  |  |  |
| 0.0/10 | Highway |  |  |  |
| Cold Ambient Test | | Does not qualify for additional robustness testing | | |



n.a.



good



adequate



marginal



weak



poor

Comments

The CX-60's high voltage battery allows it to complete most everyday trips primarily as an electric vehicle and could be effective in reducing greenhouse gas emissions. If the battery is empty, however, the greenhouse gas figures are those of a normal large petrol SUV. In the cold powertrain start laboratory WLTC+ test, 141 g CO₂/km were emitted at the tailpipe and adding some 37 g CO₂-eq./km from the fuel production and supply, the value increases to 179 g CO₂-eq./km. With a total of 286 g CO₂-eq./km, the Highway Test score no points when tested with an empty battery.

Find out here how the PHEV Cold Test is performed and rated [🔗](#)

Our Verdict

Tested here is the CX-60 PHEV, Mazda's first vehicle available as a Plug-In hybrid. This is large and luxurious SUV, which offers an abundance of power (141 kW ICE + 129 kW EM) and torque. Mazda declared an electric range (EAER) of 63 km, but in Green NCAP's tests with active cabin climatization, only 51 km were measured. In the case of the heavy and sporty Mazda, the hybrid system's success in reducing consumption and emissions is limited by the relatively low electric range and the high energy demand figures in both modes, but especially in pure combustion mode. This is Mazda's most powerful series production car up-to date and it appears as if the electric part of the powertrain is used primarily to boost dynamic performance. With this premise, the modest results in the Energy Efficiency and Greenhouse Gas Indexes are not surprising, but could have been better, if the grid-to-battery-output efficiency was higher than the measured 85.6%. The Clean Air Index received a score of just 5.4/10 due to several issues of the exhaust aftertreatment, but most significantly CO gross exceedance in the Highway and Cold Ambient Test and generally high particle number. Although these more advanced tests were performed, the vehicle's average score drops below the threshold for additional robustness rating and the car is rated only on the standard tests. Overall, the CX-60 Plug-In Hybrid receives an average score of 48% and achieves 2½ Green stars, narrowly missing a third one.

Disclaimer

Specification

Tested Car

JMZKH0HB70111xxx

| Publication Date | Vehicle Class | Tyres | Emissions Class |
|---------------------------|---|-------------------------------|--------------------------|
| 11 2023 | Large SUV | 235/50 R20 | Euro 6d AP |
| Mass | Engine Size | System Power/Torque | Declared CO ₂ |
| 2,071 kg | 2,488 cc | 241 kW/500 Nm | 33 g/km |
| Declared Battery Capacity | Declared Driving Range | Declared Consumption | |
| 17.8 kWh | Overall Electric (WLTP) 63 km City 68 km | 1.5 l/100 km 23 kWh/100 km | |

Heating Concept

Waste heat & PTC



Think before you print