



Lexus First EV, the UX 300e

14 January 2020

- First product developed under the Lexus Electrified strategy
- Lexus's first battery-electric vehicle (BEV) embodies the essential driving refinement and quality of the Lexus brand
- Legendary Lexus reliability inherited from a heritage of hybrid electrification technology
- New model maintains the distinctive design and high functionality of the original UX compact SUV

Lexus has been a pioneer in vehicle electrification technology since introducing the RX 400h in 2005, taking an industry lead in creating vehicles that deliver both performance and environmental efficiency. At the 2019 Tokyo Motor Show, the company unveiled its global electrification strategy, Lexus Electrified, targeting a fundamental leap in vehicle performance, handling, control and driver enjoyment.

In particular, Lexus Electrified technology enables integrated control of powertrain, steering, suspension and brakes, realising the full potential of the motor control technology that has been nurtured in Lexus's HVs (hybrid vehicles). With this technology, driving force can be controlled to provide the ideal vehicle posture in each driving situation. Lexus continues to strive to make vehicles that are safer and enjoyable to drive.

As the first production model under the Lexus Electrified banner, the all-electric UX 300e has been developed for excellent on-road performance. Lexus engineers preserved the distinctive design and convenience characteristics of the UX compact SUV, while focusing on the opportunities to build on the performance advantages that are unique to EVs. The UX 300e's high-output motor provides natural yet brisk acceleration and its high-capacity batteries, located directly beneath the cabin floor, secure a low centre of gravity and allow for an optimal driving range for a compact urban vehicle (249 miles/400km in the correlated NEDC cycle, corresponding to a more than 186-mile/300km target range in the WLTP cycle). Making use of the latest connectivity technology, the UX 300e maximises the advantages of an EV while at the same time delivering driving performance and convenience – true to the Lexus "yet" philosophy.

The UX 300e is scheduled to go on sale in selected European markets from the second half of 2020 and in the UK from January 2021.

Principal features

Lexus has always focused on providing distinctive driving performance and that remains true in its development of its first battery-electric vehicle (BEV). Taking the signature refined

driving performance of the UX as their starting point, engineers were able to leverage the qualities of the new electric drivetrain to further enhance the vehicle's on-road performance. At the same time, the UX 300e has one of the quietest cabins in its class, building on Lexus's excellent record of sound management.

The Drive Mode Select function allows the driver to manage smooth acceleration and deceleration according to the driving situation. They can feel the powerful acceleration and instant torque delivery of the EV powertrain as they press the throttle pedal and use the paddle shifts in a manner similar to engine braking, through four levels of deceleration regeneration – all the while experiencing a natural on-road feel.

The vehicle's low centre of gravity supports excellent dynamic performance, thanks to both the motor and battery being located beneath the vehicle body, and optimum front/rear weight distribution.

The high performance of the GA-C platform is enhanced with additional bracing and optimisation of shock absorber damping force to match the dynamic changes that come with electrification.

While EVs are naturally quiet, the UX 300e goes further by adding insulation beyond just that for the battery, suppressing external noises such as wind or gravel that would otherwise be noticeable in the absence of an engine and transmission. This focus on sound management creates a comfortable and tranquil cabin environment.

Lexus reliability and hybrid heritage

In developing the UX 300e, Lexus made use of the knowledge it has gained in developing its industry-leading hybrid systems, applying the same level of quality and ease of operation it has achieved with all its vehicles in the past. The engineering team has delivered outstanding battery reliability and adopted the latest connectivity technology to maximise the car's everyday usability and smartphone-based functionality.

The efficiency of the motor, inverter, gears and high-capacity battery was maximised, again with the benefit of the experience Lexus gained in developing hybrid vehicles.

The batteries are equipped with a temperature management system that operates at low and high ambient temperatures. Reliability is further increased through the use of multiple monitoring systems to regulate charging and prevent issues such as overcharging.

The UX 300e offers the latest in connected car technology. By linking to a smartphone using the LexusLink app, drivers can check battery charge and driving range. Charging controls are included, such as a timer which indicates when a full charge will be reached, and a charging schedule according to when the vehicle is next expected to be driven or when energy prices are low. The app also allows the owner to remotely control the climate of the car.

Motor specifications

Location	Front
Model	4KM
Max. output (kW)	150

300

Max. torque (Nm)

Lithium-ion

54.3

Correlated NEDC cycle: 249/400

WLTP cycle: □186/300 (target)

Max. 6.6

Max. 50

Battery specifications

Type

Capacity (kWh)

Driving range (miles/km)

Standard (AC) charge (KW)

Quick (DC) charge* (kW)

Distinctive design and high functionality

Lexus carried over the distinctive styling and high functionality of the UX compact SUV to the new UX 300e, developing new aerodynamic wheel designs and an underbody cover. Locating the shift-by-wire system on the centre console contributes to the simplicity and functionality of the interior.

True to Lexus's prioritisation of new, advanced safety technologies and quickly making them available to customers, the UX 300e is equipped with Lexus Safety System+, helping in the prevention of accidents, injuries and fatalities. At the same time, the development of driver assistance systems helps reduce driver stress and promote a more natural and safe driving experience.

UX 300e key technical specifications

DIMENSIONS & WEIGHT

Overall length (mm) 4,495

Overall width (mm) 1,840

Overall height (mm) 1,545

Wheelbase (mm) 2,640

Loadspace volume (rear seats upright, to luggage cover, l) 367

Loadspace volume (rear seats upright, to roof, l) 486

PERFORMANCE

Battery capacity (kWh)	54.3
Cruising range - NEDC correlated (miles/km)	249/400
Cruising range - WLTP (miles/km - target)	186/300
System output (kW)	150
System torque (Nm)	300
0-62mph acceleration (sec)	7.5
Max. speed (mph)	99.5

CHARGING

Charging speed - AC (kW)	6.6
Charging speed - DC (kW)	50
Charging time - AC (hours)	7* (200V/30A, estimated value)
Charging time - DC (0-80%, minutes)	50* (max. 125A, estimated value)

* Dependent on battery temperature, usage history, charging stand (charger) and operating voltage.

ENDS