



# All-New Ford Focus Electric

The all-new Focus Electric is one of five new electrified vehicles Ford is set to deliver. Below are the components that will make up the zero-emissions, gas-free Focus Electric.

## 1 MOTOR CONTROLLER

Monitors the motor's state and uses this information along with driver pedal demand to manage the electric signals that drive the motor.

## 2 HIGH-VOLTAGE ELECTRIC HVAC COMPRESSOR

Is specifically designed for electric vehicle applications, drawing energy directly from the main battery pack.

## 3 ELECTRIC WATER PUMPS

Circulate coolant for the motor, inverters, battery and climate control system.

## 4 TRACTION MOTOR

Performs the conversion between electrical and mechanical power. Electric motors have efficiencies three times higher than that of a standard gasoline engine, minimizing energy loss and heat generation.

## 5 ELECTRIC POWER STEERING

Is tuned to deliver the same driving dynamics as the gasoline-powered Focus.

## 6 TRANSMISSION

Has the identical role as in a gasoline vehicle; however, it has different design considerations due to the higher rpm range available from the electric motor and increased emphasis on efficient and silent operation. The transmission is a single-speed unit.

## 7 MODULAR POWERTRAIN CRADLE

Isolates the powertrain from the vehicle body, reducing noise and vibrations.

## 8 ELECTRIC VACUUM PUMP

Provides energy-efficient power-assisted braking.

## 9 HIGH-VOLTAGE ELECTRIC COOLANT HEATER AND CONTROLLER

Specifically designed for electric vehicle application, using energy-efficient technology to heat and circulate coolant. Heat also may be circulated to the battery to optimize performance.

## 10 POWERTRAIN CONTROL MODULE

Monitors and controls each vehicle system, and manages energy and mechanical power being delivered to the wheels to maximize range.

## 11 BATTERY PACK

Total energy capacity of 23 kWh with liquid coolant for thermal management; includes control module that manages temperature and state of charge.

## 12 AC CHARGER

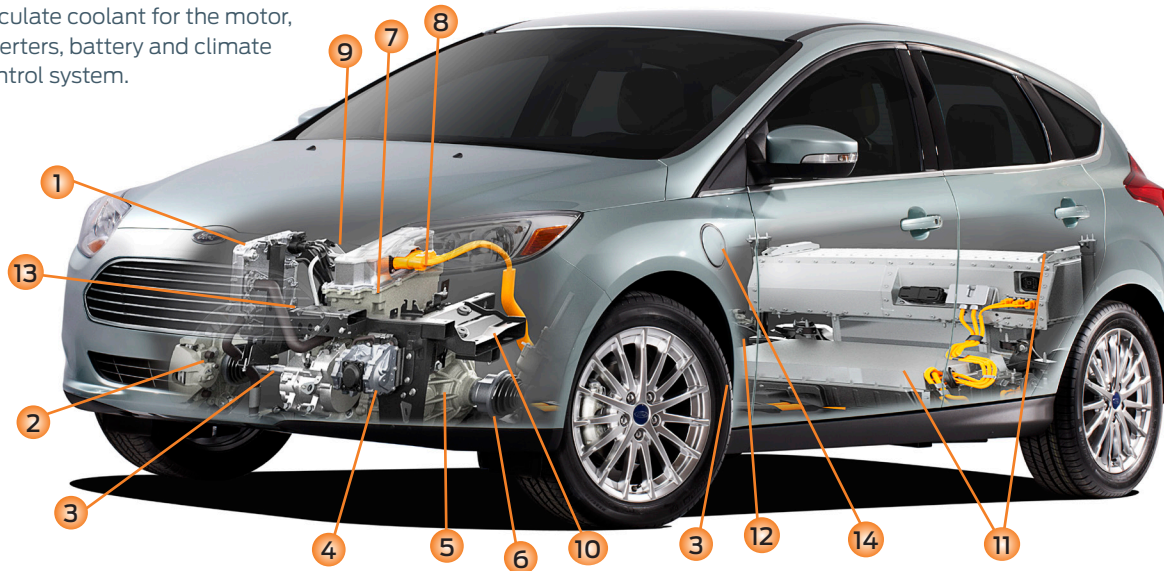
Converts the AC electricity from the power grid to DC voltage required by the battery. A full battery charge can be completed in four hours and the vehicle will accommodate both 120V and 240V power sources.

## 13 DC-DC CONVERTER

Allows the vehicle's main battery pack to charge the onboard 12V battery to power various vehicle accessories (headlights, etc.).

## 14 CHARGE PORT LIGHT RING

Standard SAE J1772 plug interface for charging. External state of charge indicator.



### FOCUS ELECTRIC FACTS

**Final assembly location:** Michigan Assembly Plant, Wayne, Mich.

**Battery cell manufacturer:** Battery pack assembled in Michigan. Cells from LG Chem

**Battery system:** Lithium-ion, liquid-cooled/heated, recyclable

**Total battery capacity:** 23 kWh

**Estimated cost to fully charge vehicle:** \$2 to \$3 (based on nationwide average cost of \$0.10 per kWh)

**Torque:** 188 lb.-ft./250 Nm

**Horsepower:** 141 hp/107 kW

**Wheel size:** 17-inch