

2013 Ford Fusion Energi

Battery Charge Profiles at Different Temperatures



Summary²

The 2013 Ford Fusion Energi battery was charged from charge sustaining mode at 95°F, 72°F, and 20°F. For all temperatures, the charger consumes constant power until the last 15 minutes when power gradually tapers off. In this data set, both the peak power and energy consumed demonstrate a monotonic increase as the temperature rises.

Select Battery Specifications¹

Manufacturer:	Panasonic
Type:	Lithium-Ion (NMC)
Nominal System Voltage:	310.8 V
Rated Pack Energy:	7.6 kWh
Cooling:	Fan Forced Cabin Air

Key Charging Experiment Results

	Peak Power (kW)	Energy Consumed (kWh)
Charge at 95°F	3.75	7.16
Charge at 72°F	3.58	6.89
Charge at 20°F	3.51	6.92

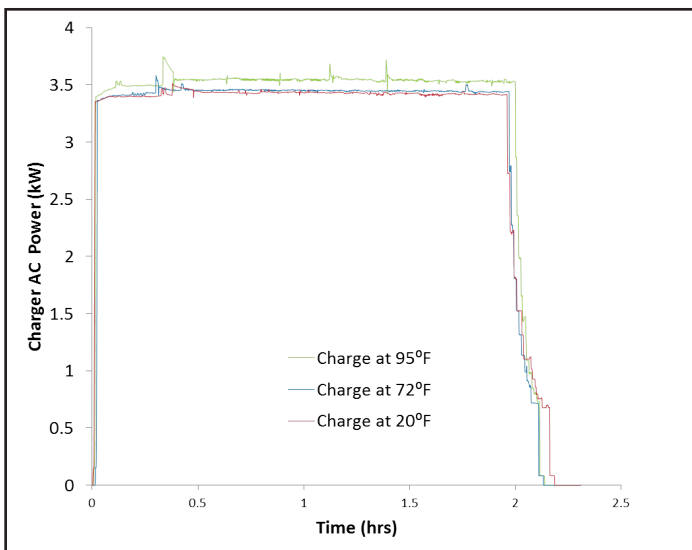


Fig. 1 Ford Fusion Energi charger power consumption during charge

Notes:

- Vehicle specifications were supplied by the manufacturer, measured, or derived from a literature review. For detailed specifications, see Baseline Testing Results available at avt.inl.gov
- The experiments were conducted at Argonne National Laboratory (ANL) for the Advanced Vehicle Testing Activity (AVTA)

As a production vehicle, this vehicle is assumed to meet all Federal Motor Vehicle Safety Standards (FMVSS) for Battery Electric Vehicles.

This information was prepared with the support of the U.S. Department of Energy (DOE) under Award No. DE-EE0005501. However, any opinions, findings, conclusions or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the DOE.