



# INTERNATIONAL® TRUCK EMV™ SERIES

## FREQUENTLY ASKED QUESTIONS: CHARGING

### HOW LONG WILL IT TAKE TO GET MY CHARGING INFRASTRUCTURE IN PLACE?

Each infrastructure installation is different and will have varying time frames and is based on a variety of variables—number of vehicles to charge, local utility rate tariffs and power delivery structure, existing site, and local grid details. The most important step to take is to start planning early. The International Truck team and our charging partners will work closely with each customer to make sure your installation proceeds at the fastest rate while serving your business needs.

### WHAT TYPES OF CHARGERS ARE RECOMMENDED FOR THE INTERNATIONAL TRUCK EMV SERIES?

Minimum requirements for CCS1 (Combined Charging System) DC charging: UL Approved 700 volts or higher output voltage (our vehicles are over 600 volts). DIN70212 and ISO15118-2 protocols supported OCPP 1.6.

- Level 2 AC Chargers
  - Level 2 AC (19.2 kW) - 1772 SAE J1772 standard connection
- DC Fast Charge Chargers
  - DC fast-charge station (up to 125 kW) - Combination CCS1 adapter port

Not all chargers will function properly with an International Truck. Contact the trusted advisors at Intentional Truck to learn more about what charging equipment will be right for your business.

### WHY SHOULD MY IN-HOUSE CHARGERS BE NETWORK-CAPABLE?

Network capable (Internet connected) chargers can receive over-the-air (OTA) updates. This feature has benefits that include improving charging performance, and ensuring your vehicles can be kept on the road. The associated cloud software can help International remotely diagnose most issues that may arise. This functionality is also required to implement scheduled charging, load management, and V2G.

### CAN THE BATTERY BE CHARGED FULLY EVERYDAY WITHOUT CAUSING BATTERY DEGRADATION?

International Truck eMV Series can be fully charged every day because of the use of the chemistry of the batteries. The vehicle has software included that prevents overcharging to improve battery life. Users do not need to do anything special to prevent damage of the battery.

### HOW MUCH DOES INSTALLING A CHARGER COST?

Charger and installation costs will vary, and there are many factors that contribute to the costs. Please reach out to the International Zero Emissions team for more information - [EVChargingTeam@Navistar.com](mailto:EVChargingTeam@Navistar.com)



### HOW LONG DOES IT TAKE TO CHARGE AN INTERNATIONAL TRUCK EMV SERIES?

Charge times will vary depending on the type of charger and external environment. International Truck products have a charging speed of 125kW and a maximum AC charging speed of 19.2 kW. All estimates below are based on room temperature (70°F/21°C) for the 210 kWh battery pack.

- 19.2 kW AC EVSE = 12 hours
- 30 kW DC charger = 7.5 hours
- 60 kW DC charger = 4 hours
- 120 kW DC charger = 2 hours
- Above 120 kW DC charger = 2 hours

### WHAT ARE PUBLIC CHARGING OPTIONS FOR INTERNATIONAL TRUCK EMV SERIES?

The International Truck eMV Series can be charged at some public chargers, but not all chargers have been tested for compatibility. The 600-volt architecture on our vehicles is higher than many vehicles, and not all chargers are compatible.

If a charger will charge an 800-volt vehicle, then it is possible that it will charge the International Truck eMV Series. Apps that are used for finding public charging stations can be filtered to find chargers for electric buses.

Use these filters on charging apps to locate public chargers that are most likely to charge your vehicle:

- Porsche Taycan
- 50 kW minimum charge speed
- CCS connector

Check the PlugShare app to locate a charger: [www.plugshare.com](http://www.plugshare.com)

### IS THERE A MAXIMUM CHARGING RATE ON THE INTERNATIONAL TRUCK EMV SERIES?

Yes, the vehicle have a max charging rate of 125kW

### WHAT IS CONSIDERED THE OPTIMAL TEMPERATURE FOR THE BATTERIES?

The optimal temperature is around 70° F/21°C. The BTMS (Battery Thermal Management System) is designed to maintain optimal temperature when the vehicle is in use or plugged into a charger.