

Understanding Electric Vehicles Infographic



CONNECTED to SAFETY

Understanding Electric Vehicles

Are you thinking about purchasing, or have you recently purchased an **electric vehicle**? Learn about the different charging options you have and how to **charge your electric vehicle safely**.

HOME CHARGING EVSE

Electric Vehicle Supply Equipment



Before using a charger, ensure the equipment has been listed by a **Nationally Recognized Testing Laboratory (NRTL)**.



Have a **qualified electrician** inspect your home to ensure your electrical system can handle charging.



Ensure both the **charger** and **charging cord** do not have **damage** before use.

LEVEL 1 EVSE CHARGING

Provides charging through a **standard household plug**. 2-5 miles of range per hour.



Ensure your charger or receptacle has **GFCI protection** to prevent accidental shocks and electrocution.



Ensure you are using a **dedicated circuit** to charge your vehicle. The circuit should not provide power to any other appliance.



Use a **manufacturer provided** charging cord.

LEVEL 2 EVSE CHARGING

Provides charging through **specialized 240v charging equipment**. 10 - 60 miles of range per hour.



Must be installed by a **qualified electrician**.



May require an **electrical service upgrade** to install.



Only use **outdoor rated** charging stations outdoors.



Ensure the charging station **cannot come in contact** with the electric vehicle.

Keep the **charging cable off the floor** to avoid tripping hazards and maintain the life of the cord.



LEVEL 3 EVSE CHARGING

Fastest charging option. **Not available** for residential installation.

WARNING

- Electric vehicles have **high voltage** batteries
- All maintenance should be **completed by the manufacturer**
- Avoid contact with **high-voltage orange cables**

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Are you thinking about purchasing, or have you recently purchased an electric vehicle? Learn about the different charging options you have and how to charge your electric vehicle safely.

HOME CHARGING: ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE)

- Before using a charger, ensure the equipment has been listed by a Nationally Recognized Testing Laboratory (NRTL)
- Have a qualified electrician inspect your home to ensure your electrical system can handle charging
- Ensure both the charger and charging cord do not have damage before use

LEVEL 1 EVSE CHARGING

Level 1 provides charging through a standard household plug. 2-5 miles of range per hour charged

- Ensure your charger or receptacle has GFCI protection to prevent accidental shocks and electrocution
- Ensure you are using a dedicated circuit to charge your vehicle. The circuit should not provide power to any other appliance
- Use a manufacturer-provided charging cord

LEVEL 2 EVSE CHARGING

Provides charging through specialized 240v charging equipment. 10 – 60 miles of range per hour charged

- Must be installed by a qualified electrician
- May require an electrical service upgrade to install
- Only use outdoor-rated charging stations outdoors
- Ensure the charging station cannot come in contact with the electrical vehicle
- Keep the charging cable off the floor to avoid tripping hazards and maintain the life of the cord

LEVEL 3 EVSE CHARGING

Fastest charging option. Not available for residential installation

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Source: *Republished with permission from Electrical Safety Foundation International (ESFI)*