

NEC 625 2011 Compliance Notes.

6/27/2011 Rev 1.0

When it comes to what is acceptable or not, it is up to the inspector and possibly a local professional engineer. These notes explain why we believe this design meets the requirements.

We recommend you pick your components, plan your project and discuss it with your local inspectors or an electrician before you buy parts to avoid after construction changes and unforeseen requirements.

- 625.1 Scope: Explains this is for charging electric vehicles is.
- 625.2 Definitions: explains the terminology to be used.
- 625.3 Some numbers are not used and this is one.
- 625.4 Voltages: voltages 120, 120/240, 208Y/120, and 120 are all this design is intended to be used with.
- 625.5 Listed: All Electrical materials, devices, fittings and equipment that connects to the power line are listed or labeled.
- 625.9 Wiring Methods
 - 625.9.A Polarization: The J1772 connectors are polarized.
 - 625.9.B Noninterchangeability: The J1772 connectors are not compatible with anything else.
 - 625.9.C Construction and Installation: The J1772 connectors are off when not connected, touch safe and everything is in a listed box.
 - 625.9.D Unintentional Disconnection: The J1772 connectors have a latch.
 - 625.9.E Grounding Pole: The J1772 connectors have a ground pin.
 - 625.9.F Grounding Pole Requirements: The J1772 connectors ground pin mates first and separates last.
- 625.13 Supply Equipment: only 120 volt units may get power via a plug, all others must be hard wired.
- 625.14 Rating: the circuit breaker, wires, relay must be rated for 125% of the maximum load (use 80% rule).
- 625.15 Markings: Must be labeled "for use with electric Vehicles" and "Ventilation not required".
- 625.16 Means of coupling: are conductive via J1772.
- 625.17 Cable: the J1772 UL listed cable and connector set use approved EV type cable.
- 625.18 Interlock: The J1772 Pilot signal must be controlled to enable power out of the EVSE control box.

- 625.19 Automatic Denerization of Cable: The differing lengths of service loop on the cable in the EVSE along with the quick disconnect on the Pilot signal make sure power is off and ground breaks last.
- 625.21 Overcurrent: This being a home based design the GFI circuit breaker prevents overcurrent.
- 625.22 Personal Protection System: The GFI breaker provides this protection.
- 625.21 Overcurrent: This being a home based design the GFI circuit breaker is the disconnect.
- 625.25 Loss of Primary Source: The EVSE is powered by the line and the relay would drop out. This is not intended for Interactive use.
- 625.26 Interactive Systems: This is not intended for interactive use, but if so, see articles 702 and 705.
- 625.28 Hazardous locations: This is not suitable for a hazardous location.
- 625.29 Indoor Sites: Location. Cable storage height or 18-48 inches above floor. Only for applications where no ventilation is needed.
- 625.30 Outdoor Sites: Location. Cable storage height or 24-48 inches above parking surface. Enclosure must be suitable for location.