

Welcome Iowa Electricians!

What Does Iowa Require?

18-Hours of Continuing Education Required

- The Iowa electrician must complete no less than 18 Continuing Education Units (CEUs) in each three-year license cycle.
- No less than 6 of those 18 CEUs must focus on the most recent Iowa electrical code.
- JADE Learning's two-hour VILT sessions satisfy ALL of Iowa's requirements for electrical continuing education.
- **9 VILT sessions provides you all 18 hours.**



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2023 NEC Changes

Important Changes from the 2023 NEC

6:00 PM Eastern Time

← 5 PM in Iowa

5:45 PM – 6:00 PM Eastern	Registration / Check In
6:00 PM – 7:00 PM Eastern	NEC Chapter 7 with poll questions
7:00 PM – 7:10 PM Eastern	Break
7:10 PM – 8:00 PM Eastern	NEC Chapter 7 continued with poll questions
8:00 PM Eastern	Questions for the instructor?

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700.11 Wiring, Class-2 Powered Emergency Lighting Systems

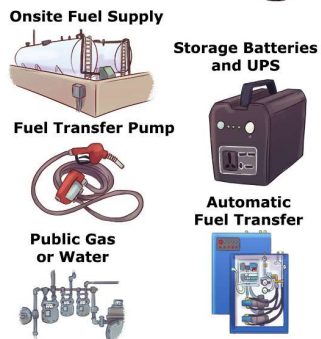
- Section 700.11 is an all-new section for the 2023 NEC.
- This section contains 4 subsections that address different aspects of class-2 emergency lighting control device installations:
 - **(A) General**
 - **(B) Identification**
 - **(C) Separation of Circuits**
 - **(D) Protection**
- The most important things to remember about this section are: **Identify, Separate, Protect**

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700.12(C) Supply Duration

Emergency Power Supply Duration



- Section 700.12(C) was renamed to **Supply Duration** from Storage Battery.
- This section has been expanded to include information on the following:
 - **(1) On-Site Fuel Supply**
 - **(2) Fuel Transfer Pumps**
 - **(3) Public Gas System, Municipal Water System**
 - **(4) Storage Batteries and UPS**
 - **(5) Automatic Fuel Transfer**

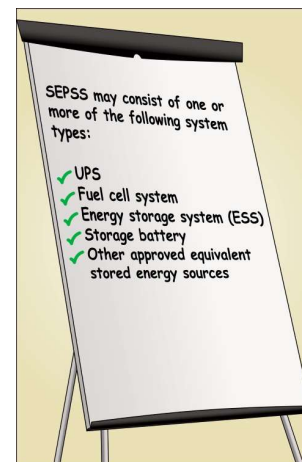
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700.12(E) Stored-Energy Power Supply Systems (SEPSS)

- Section 700.12(E) was renamed in the 2023 NEC to **Stored-Energy Power Supply Systems (SEPSS)**. In the 2020 NEC it was previously named Uninterruptable Power Supplies
- This section also expanded to include more information. The titles of the subsections are:
 - Types
 - Fire Protection, Suppression, Ventilation, and Separation



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701.1 Scope

- Section 701.1 Scope contains the same information as in the 2020 NEC, however, the 2023 NEC **expands to add 2 additional informational notes.**
 - Informational Note 4 addresses what types of systems legally required standby systems are typically installed to serve
 - Informational Note 5 addresses when legally required standby systems are considered level one or level two systems when applying NFPA 110-2019 for more information

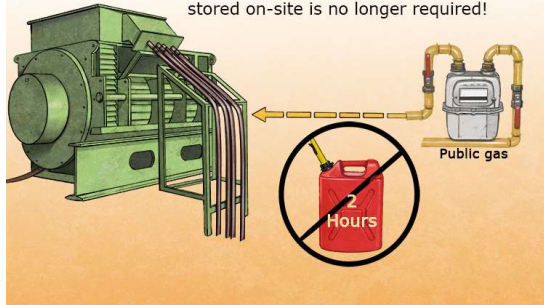
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701.12(C)(3) Public Gas System, Municipal Water Supply

Legally Required Standby Systems

Where a public gas system is approved as the only fuel source, 2 hours of fuel stored on-site is no longer required!



- Section 701.12(C)(3) has been revised in the 2023 NEC.
 - First, notice the words “Prime movers” in the 2020 NEC have been replaced with “**sources**” in the 2023 NEC for clarity.
 - Additionally, the following requirement from the 2020 NEC has been removed:
 - Means shall be provided for automatically transferring one fuel supply to another where dual fuel supplies are used.
 - Lastly, the following sentence was added to the Exception:
 - ***Where a public gas system is approved, the requirements of 701.12(C)(1) shall not apply***

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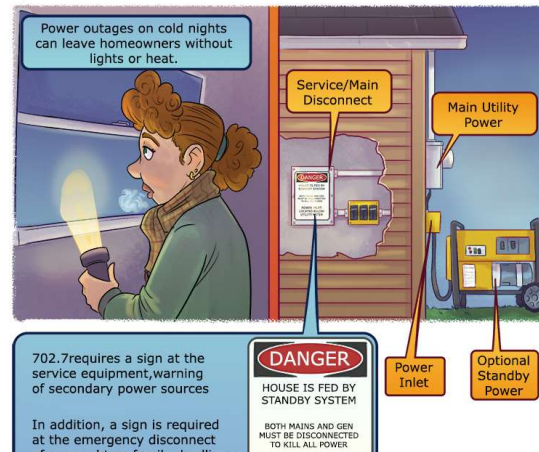
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Article 702 Optional Standby Systems

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702.7(A) Standby

- In the 2023 NEC, section 702.7(A) was updated to provide more specific requirements for standby equipment signage
 - First, the requirement was updated that the sign shall be **placed at equipment**, instead of at service-entrance equipment as in the 2020 NEC.
 - Previously in the 2020 NEC, the requirements were separated into one- and two- family dwellings and commercial and industrial installations.
 - The 2023 NEC updates commercial and industrial installations to installations **other than one- and two- family dwellings** to be more inclusive.
 - Lastly, the requirements for one- and two-family dwellings remain the same, but the section referenced has been updated to 445.19(C)



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702.12(B) Portable Generators 15kw or Less

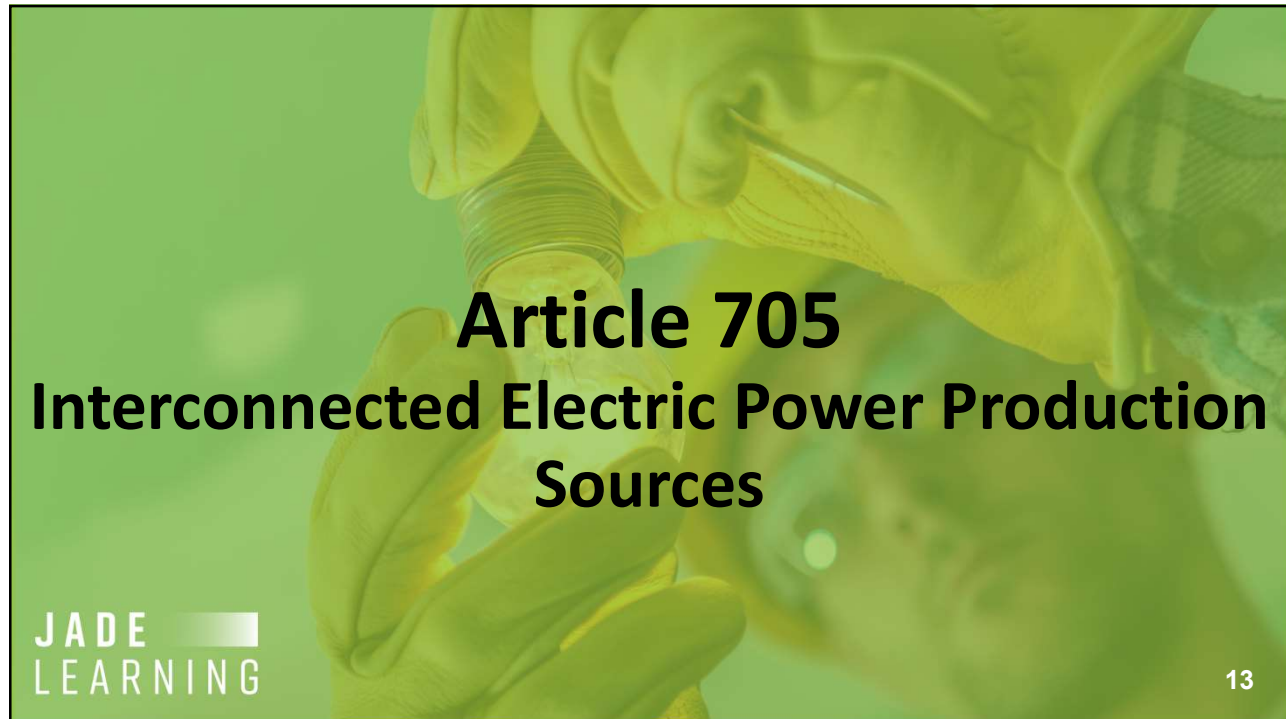


- Section 702.12(B) in the 2023 NEC adds to the requirement that was previously in the 2020 NEC.
- Now, it specifies that **the flanged inlet or other cord-and-plug-type connection shall be located outside the building or structure.**

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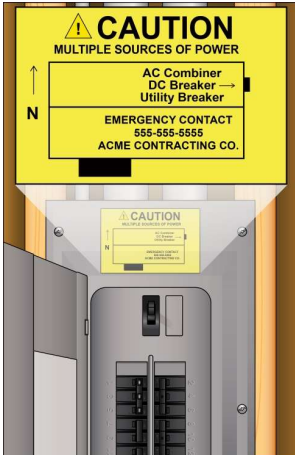
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705.10 Identification of Power Sources

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- The primary change in the 2023 NEC for section 705.10 is that it now includes **labels**, instead of just permanent plaques and directories
- The information in the 2023 NEC remains primarily the same as the 2020 NEC, but is reorganized into requirements (1), (2), and (3).
- Requirement (2) is new to add the **requirement to include emergency phone numbers for off-site emergency telephone numbers**

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Article 724

Class 1 Power-Limited Circuits and Class 1 Power-Limited Remote Control and Signaling Circuits

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Article 724 Class 1 Power-Limited Circuits and Class 1 Power-Limited Remote Control and Signaling Circuits

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- Article 724 is an all-new article for the 2023 NEC.
- Previously, in the 2020 NEC, Article 725 covered all Class 1, Class 2, and Class 3 Remote Control, Signaling, and Power Limited Circuits
- Now, in the 2023 NEC, **Class 1 is split into a separate article from Class 2 and 3, Article 724.**

Class 1 non-power limited circuits	Class 1 power limited circuits, RC, and Signaling	Classes 2 & 3 power limited circuits
Chaps 1-4 300.2-300.25	Article 724	Article 725

● Class 1 circuits shall be supplied from a source with a rated output of not more than 30 volts and 1000 volt-amperes.

● Class 1 Power limited Remote Control and Signaling circuits may be 600 volts.

● Overcurrent protection is required for Class 1 circuits supplied by other than transformers.

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Article 725 Class 2 and Class 3 Power-Limited Circuits


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Article 725 Class 2 and Class 3 Power-Limited Circuits

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The diagram shows a utility shed with a furnace on the left and an air conditioner on the right. A callout box labeled '24 volt Class 2 wiring' points to the wiring connecting the two units. Labels 'Furnace' and 'Air Conditioner' are placed below their respective units.

- Article 725 in the 2020 NEC included Class 1 Power Limited, Remote Control, and Signaling Circuits.
- In the 2023 NEC, Class 1 Power Limited, Remote Control, and Signaling Circuit requirements have been moved to Article 724.
- Coincidentally, **Article 725 now only addresses Class 2 and Class 3 Power-Limited Circuits**

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Article 726

Class 4 Fault-Managed Power Systems

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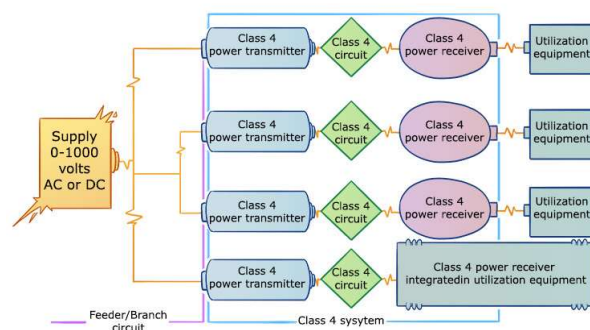
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Article 726 Class 4 Fault-Managed Power Systems

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- Article 726 is an all-new article in the 2023 NEC.
- It contains 3 parts:
 - **Part I General**
 - **Part II Class 4 Circuits**
 - **Part III Listing Requirements**
- This new Article covers class 4 systems capable of reducing or eliminating energy on the circuit conductors whenever a fault is detected.



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750.6 Listing

- In the 2023 NEC, section 750.6 is an all-new section.
- This section gives the ***manufacturer and installers options as to how to comply with new listing requirements*** for energy management systems.





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Article 760 Fire Alarm Systems

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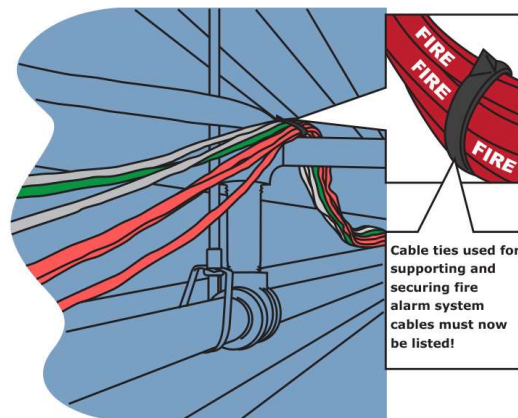
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760.24 Mechanical Execution of Work

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- In the 2023 NEC, section 760.24 remains unchanged except for two related items. These items are:
 - ***Cable ties must now be listed.***
 - The installation must ***comply with section 300.11***, which contains securing and supporting requirements.



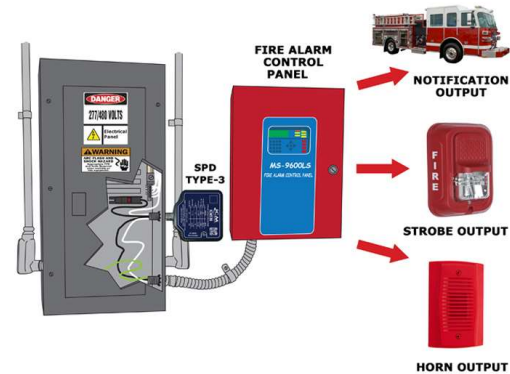
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760.33 Supply-Side Overvoltage Protection

- Section 760.33 is an all-new section in the 2023 NEC.
- It now requires a *listed surge protective-device (SPD)* installed on the supply side of a fire alarm control panel, in accordance with Part II of Article 242.



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THANK YOU FOR ATTENDING!

Questions?

For additional instructor support, please contact
instructor@jadelearning.com

For questions about your continuing education, please
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