

Instructions:

Fee \$65

1. Print these pages.
2. Circle the correct answers and transfer them to the [answer sheet](#).
3. Page down to the last page for the [verification forms](#) and mailing instructions.
4. Use the included 2014 NEC Definitions as your reference materials starting on page 35.

Course: 17012 2014 NEC Definitions

This course is valid for these credentials:

Credential Description	Cred Code	Credit Hours
Registered/Beginner Electrician	BE	8.0
Commercial Electrical Inspector	CEI	8.0
Industrial Journeyman Electrician	IJE	8.0
Journeyman Electrician	JE	8.0
Master Electrician	ME	8.0
Residential Journeyman Electrician	RJE	8.0
Residential Master Electrician	RME	8.0
UDC-Electrical Inspector	UEI	8.0

2014 NEC Definitions

1. Scope. This article contains only those definitions essential to the proper application of this *Code*. It is not intended to include commonly defined _____ from related codes and standards.
 - a. general terms
 - b. technical terms
 - c. both a & b
 - d. none of the above
2. Scope. In general, only those terms that are used in _____ are defined in Article 100.
 - a. 1 article
 - b. 2 articles
 - c. more than 2 articles
 - d. both b & c
3. Part II contains definitions applicable only to articles and parts of articles specifically covering installations and equipment operating at over _____ volts, nominal.
 - a. 120
 - b. 240
 - c. 600
 - d. 1000
4. Connected to establish electrical continuity and conductivity defines _____.
 - a. Bonded
 - b. Bonding Conductor or Jumper
 - c. Bonding Jumper, Equipment
 - d. Bonding Jumper, Main
 - e. Bonding Jumper, System
5. A reliable conductor to ensure the required electrical conductivity between metal parts required to be electrically connected defines _____.
 - a. Bonded
 - b. Bonding Conductor or Jumper
 - c. Bonding Jumper, Equipment
 - d. Bonding Jumper, Main
 - e. Bonding Jumper, System

6. The connection between two or more portions of the equipment grounding conductor defines_____.
- a. Bonded
 - b. Bonding Conductor or Jumper
 - c. Bonding Jumper, Equipment
 - d. Bonding Jumper, Main
 - e. Bonding Jumper, System
7. The connection between the grounded circuit conductor and the equipment grounding conductor at the service defines_____.
- a. Bonded
 - b. Bonding Conductor or Jumper
 - c. Bonding Jumper, Equipment
 - d. Bonding Jumper, Main
 - e. Bonding Jumper, System
8. The connection between the grounded circuit conductor and the supply-side bonding jumper, or the equipment grounding conductor, or both, at a separately derived system defines_____.
- a. Bonded
 - b. Bonding Conductor or Jumper
 - c. Bonding Jumper, Equipment
 - d. Bonding Jumper, Main
 - e. Bonding Jumper, System
9. The circuit conductors between the final overcurrent device protecting the circuit and the outlet(s) defines_____.
- a. Branch Circuit
 - b. Branch Circuit, Appliance
 - c. Branch Circuit, General-Purpose
 - d. Branch Circuit, Individual
 - e. Branch Circuit, Multiwire
10. A branch circuit that supplies energy to one or more outlets to which appliances are to be connected and that has no permanently connected luminaires that are not a part of an appliance defines_____.
- a. Branch Circuit
 - b. Branch Circuit, Appliance.
 - c. Branch Circuit, General-Purpose
 - d. Branch Circuit, Individual
 - e. Branch Circuit, Multiwire
11. A branch circuit that supplies two or more receptacles or outlets for lighting and appliances defines_____.
- a. Branch Circuit
 - b. Branch Circuit, Appliance
 - c. Branch Circuit, General-Purpose
 - d. Branch Circuit, Individual
 - e. Branch Circuit, Multiwire
12. A branch circuit that supplies only one utilization equipment defines_____.
- a. Branch Circuit
 - b. Branch Circuit, Appliance
 - c. Branch Circuit, General-Purpose
 - d. Branch Circuit, Individual
 - e. Branch Circuit, Multiwire
13. A branch circuit that consists of two or more ungrounded conductors that have a voltage between them, and a grounded conductor that has equal voltage between it and each ungrounded conductor of the circuit and that is connected to the neutral or grounded conductor of the system defines_____.
- a. Branch Circuit
 - b. Branch Circuit, Appliance

- c. Branch Circuit, General-Purpose
 - d. Branch Circuit, Individual
 - e. Branch Circuit, Multiwire
14. Admitting close approach; not guarded by locked doors, elevation, or other effective means defines_____.
- a. Accessible (as applied to equipment)
 - b. Accessible (as applied to wiring methods)
 - c. Accessible, Readily (Readily Accessible)
 - d. Isolated (as applied to location)
15. Capable of being removed or exposed without damaging the building structure or finish or not permanently closed in by the structure or finish of the building defines_____.
- a. Accessible (as applied to equipment)
 - b. Accessible (as applied to wiring methods)
 - c. Accessible, Readily (Readily Accessible)
 - d. Isolated (as applied to location)
16. Capable of being reached quickly for operation, renewal, or inspections without requiring those to whom ready access is requisite to actions such as to use tools, to climb over or remove obstacles, or to resort to portable ladders, and so forth defines_____.
- a. Accessible (as applied to equipment)
 - b. Accessible (as applied to wiring methods)
 - c. Accessible, Readily (Readily Accessible)
 - d. Isolated (as applied to location)
17. Not readily accessible to persons unless special means for access are used defines_____.
- a. Accessible (as applied to equipment)
 - b. Accessible (as applied to wiring methods)
 - c. Accessible, Readily (Readily Accessible)
 - d. Isolated (as applied to location)
18. Acceptable to the authority having jurisdiction defines_____.
- a. Approved
 - b. Authority Having Jurisdiction (AHJ)
 - c. Identified (as applied to equipment)
 - d. Listed
 - e. Labeled
19. An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure defines_____.
- a. Approved
 - b. Authority Having Jurisdiction (AHJ)
 - c. Identified (as applied to equipment)
 - d. Listed
 - e. Labeled
20. Recognizable as suitable for the specific purpose, function, use, environment, application, and so forth, where described in a particular *Code* requirement defines_____.
- a. Approved
 - b. Authority Having Jurisdiction (AHJ)
 - c. Identified (as applied to equipment)
 - d. Listed
 - e. Labeled
21. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose defines_____.
- a. Approved

- b. Authority Having Jurisdiction (AHJ)
- c. Identified (as applied to equipment)
- d. Listed
- e. Labeled

22. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner defines_____.

- a. Approved
- b. Authority Having Jurisdiction (AHJ)
- c. Identified (as applied to equipment)
- d. Listed
- e. Labeled

23. An area including a basin with one or more of the following: a toilet, a urinal, a tub, a shower, a bidet, or similar plumbing fixtures defines_____.

- a. Bathroom
- b. Kitchen
- c. Appliance
- d. Cooking Unit
- e. Clothes Closet.

24. An area with a sink and permanent provisions for food preparation and cooking defines_____.

- a. Bathroom
- b. Kitchen
- c. Appliance.
- d. Cooking Unit
- e. Clothes Closet.

25. Utilization equipment, generally other than industrial, that is normally built in standardized sizes or types and is installed or connected as a unit to perform one or more functions such as clothes washing, air-conditioning, food mixing, deep frying, and so forth defines_____.

- a. Bathroom
- b. Kitchen
- c. Appliance
- d. Cooking Unit
- e. Clothes Closet.

26. Counter-Mounted. A cooking appliance designed for mounting in or on a counter and consisting of one or more heating elements, internal wiring, and built-in or mountable controls defines_____.

- a. Bathroom
- b. Kitchen
- c. Appliance
- d. Cooking Unit
- e. Clothes Closet.

27. A non-habitable room or space intended primarily for storage of garments and apparel defines_____.

- a. Bathroom
- b. Kitchen
- c. Appliance
- d. Cooking Unit
- e. Clothes Closet.

28. A structure that stands alone or that is cut off from adjoining structures by fire walls with all openings therein protected by approved fire doors defines_____.

- a. Building
- b. Structure
- c. Guest Room

- d. Guest Suite
 - e. Garage
29. That which is built or constructed defines_____.
- a. Building
 - b. Structure
 - c. Guest Room
 - d. Guest Suite
 - e. Garage
30. An accommodation combining living, sleeping, sanitary, and storage facilities within a compartment defines_____.
- a. Building
 - b. Structure
 - c. Guest Room
 - d. Guest Suite
 - e. Garage
31. An accommodation with two or more contiguous rooms comprising a compartment, with or without doors between such rooms, that provides living, sleeping, sanitary, and storage facilities defines_____.
- a. Building
 - b. Structure
 - c. Guest Room
 - d. Guest Suite
 - e. Garage
32. A building or portion of a building in which one or more self-propelled vehicles can be kept for use, sale, storage, rental, repair, exhibition, or demonstration purposes defines_____.
- a. Building
 - b. Structure
 - c. Guest Room
 - d. Guest Suite
 - e. Garage
33. A building that consists solely of one dwelling unit defines_____.
- a. Dwelling, One-Family
 - b. Dwelling, Two-Family
 - c. Dwelling, Multifamily
 - d. Dwelling Unit
34. A building that consists solely of two dwelling units defines_____.
- a. Dwelling, One-Family
 - b. Dwelling, Two-Family
 - c. Dwelling, Multifamily
 - d. Dwelling Unit
35. A building that contains three or more dwelling units defines_____.
- a. Dwelling, One-Family
 - b. Dwelling, Two-Family
 - c. Dwelling, Multifamily
 - d. Dwelling Unit
36. A single unit, providing complete and independent living facilities for one or more persons, including permanent provisions for living, sleeping, cooking, and sanitation defines _____.
- a. Dwelling, One-Family
 - b. Dwelling, Two-Family
 - c. Dwelling, Multifamily
 - d. Dwelling Unit
37. An enclosure that is designed for either surface mounting or flush mounting and is provided with a frame, mat, or trim in which a swinging door or doors are or can be hung defines_____.
- a. Cabinet

- b. Enclosed
- c. Enclosure
- d. Equipment
- e. Cutout Box

38. Surrounded by a case, housing, fence, or wall(s) that prevents persons from accidentally contacting energized parts defines_____.

- a. Cabinet
- b. Enclosed
- c. Enclosure
- d. Equipment
- e. Cutout Box

39. The case or housing of apparatus, or the fence or walls surrounding an installation to prevent personnel from accidentally contacting energized parts or to protect the equipment from physical damage defines_____.

- a. Cabinet
- b. Enclosed
- c. Enclosure
- d. Equipment
- e. Cutout Box

40. A general term, including fittings, devices, appliances, luminaires, apparatus, machinery, and the like used as a part of, or in connection with, an electrical installation defines_____.

- a. Cabinet
- b. Enclosed
- c. Enclosure
- d. Equipment
- e. Cutout Box

41. An enclosure designed for surface mounting that has swinging doors or covers secured directly to and telescoping with the walls of the box proper defines_____.

- a. Cabinet
- b. Enclosed
- c. Enclosure
- d. Equipment
- e. Cutout Box

42. Without live parts exposed to a person on the operating side of the equipment defines_____.

- a. Dead Front
- b. Exposed (as applied to live parts)
- c. Exposed (as applied to wiring methods)
- d. Externally Operable

43. Capable of being inadvertently touched or approached nearer than a safe distance by a person defines_____.

- a. Dead Front
- b. Exposed (as applied to live parts)
- c. Exposed (as applied to wiring methods)
- d. Externally Operable

44. On or attached to the surface or behind panels designed to allow access defines_____.

- a. Dead Front
- b. Exposed (as applied to live parts)
- c. Exposed (as applied to wiring methods)
- d. Externally Operable

45. Capable of being operated without exposing the operator to contact with live parts defines_____.

- a. Dead Front
- b. Exposed (as applied to live parts)
- c. Exposed (as applied to wiring methods)

- d. Externally Operable
46. Constructed so that moisture will not enter the enclosure under specified test conditions defines_____.
- a. Watertight
 - b. Weatherproof
 - c. Rainproof
 - d. Raintight
 - e. Location, Damp
47. Constructed or protected so that exposure to the weather will not interfere with successful operation defines_____.
- a. Watertight
 - b. Weatherproof
 - c. Rainproof
 - d. Raintight
 - e. Location, Damp
48. Constructed, protected, or treated so as to prevent rain from interfering with the successful operation of the apparatus under specified test conditions defines_____.
- a. Watertight
 - b. Weatherproof
 - c. Rainproof
 - d. Raintight
 - e. Location, Damp
49. Constructed or protected so that exposure to a beating rain will not result in the entrance of water under specified test conditions defines_____.
- a. Watertight
 - b. Weatherproof
 - c. Rainproof
 - d. Raintight
 - e. Location, Damp
50. Locations protected from weather and not subject to saturation with water or other liquids but subject to moderate degrees of moisture defines_____.
- a. Watertight
 - b. Weatherproof
 - c. Rainproof
 - d. Raintight
 - e. Location, Damp
51. A location not normally subject to dampness or wetness. A location classified as dry may be temporarily subject to dampness or wetness, as in the case of a building under construction defines_____.
- a. Location, Dry
 - b. Location, Wet
 - c. Dust tight
 - d. Duty, Continuous
 - e. Duty, Intermittent
52. Installations underground or in concrete slabs or masonry in direct contact with the earth; in locations subject to saturation with water or other liquids, such as vehicle washing areas; and in unprotected locations exposed to weather defines_____.
- a. Location, Dry
 - b. Location, Wet
 - c. Dust tight
 - d. Duty, Continuous
 - e. Duty, Intermittent
53. Constructed so that dust will not enter the enclosing case under specified test conditions defines_____.

- a. Location, Dry
 - b. Location, Wet
 - c. Dust tight
 - d. Duty, Continuous
 - e. Duty, Intermittent
54. Operation at a substantially constant load for an indefinitely long time defines_____.
- a. Location, Dry
 - b. Location, Wet
 - c. Dust tight
 - d. Duty, Continuous
 - e. Duty, Intermittent
55. Operation for alternate intervals of (1) load and no load; or (2) load and rest; or (3) load, no load, and rest defines_____.
- a. Location, Dry
 - b. Location, Wet
 - c. Dust tight
 - d. Duty, Continuous
 - e. Duty, Intermittent
56. Intermittent operation in which the load conditions are regularly recurrent defines_____.
- a. Duty, Periodic
 - b. Duty, Short-Time
 - c. Duty, Varying
 - d. Electric Sign
 - e. Electric-Discharge Lighting
57. Operation at a substantially constant load for a short and definite, specified time defines_____.
- a. Duty, Periodic
 - b. Duty, Short-Time
 - c. Duty, Varying
 - d. Electric Sign
 - e. Electric-Discharge Lighting
58. Operation at loads, and for intervals of time, both of which may be subject to wide variation defines_____.
- a. Duty, Periodic
 - b. Duty, Short-Time
 - c. Duty, Varying
 - d. Electric Sign
 - e. Electric-Discharge Lighting
59. A fixed, stationary, or portable selfcontained, electrically illuminated utilization equipment with words or symbols designed to convey information or attract attention defines_____.
- a. Duty, Periodic
 - b. Duty, Short-Time
 - c. Duty, Varying
 - d. Electric Sign
 - e. Electric-Discharge Lighting
60. Systems of illumination utilizing fluorescent lamps, high-intensity discharge (HID) lamps, or neon tubing defines_____.
- a. Duty, Periodic
 - b. Duty, Short-Time
 - c. Duty, Varying
 - d. Electric Sign
 - e. Electric-Discharge Lighting
61. A string of outdoor lights that is suspended between two points defines_____.
- a. Festoon Lighting
 - b. Luminaire

- c. Outline Lighting
 - d. Lighting Outlet
 - e. Lighting Track (Track Lighting)
62. A complete lighting unit consisting of a light source such as a lamp or lamps, together with the parts designed to position the light source and connect it to the power supply. It may also include parts to protect the light source or the ballast or to distribute the light. A lampholder itself is not a luminaire defines_____.
- a. Festoon Lighting
 - b. Luminaire
 - c. Outline Lighting
 - d. Lighting Outlet
 - e. Lighting Track (Track Lighting)
63. An arrangement of incandescent lamps, electric-discharge lighting, or other electrically powered light sources to outline or call attention to certain features such as the shape of a building or the decoration of a window defines_____.
- a. Festoon Lighting
 - b. Luminaire
 - c. Outline Lighting
 - d. Lighting Outlet
 - e. Lighting Track (Track Lighting)
64. An outlet intended for the direct connection of a lampholder or luminaire defines_____.
- a. Festoon Lighting
 - b. Luminaire
 - c. Outline Lighting
 - d. Lighting Outlet
 - e. Lighting Track (Track Lighting)
65. A manufactured assembly designed to support and energize luminaires that are capable of being readily repositioned on the track. Its length can be altered by the addition or subtraction of sections of track defines_____.
- a. Festoon Lighting
 - b. Luminaire
 - c. Outline Lighting
 - d. Lighting Outlet
 - e. Lighting Track (Track Lighting)
66. A manually operated device used in conjunction with a transfer switch to provide a means of directly connecting load conductors to a power source and of disconnecting the transfer switch defines_____.
- a. Switch, Bypass Isolation
 - b. Switch, General-Use
 - c. Switch, General-Use Snap
 - d. Device
67. A switch intended for use in general distribution and branch circuits. It is rated in amperes, and it is capable of interrupting its rated current at its rated voltage defines_____.
- a. Switch, Bypass Isolation
 - b. Switch, General-Use
 - c. Switch, General-Use Snap
 - d. Device
68. A form of general-use switch constructed so that it can be installed in device boxes or on box covers, or otherwise used in conjunction with wiring systems recognized by this Code defines_____.
- a. Switch, Bypass Isolation
 - b. Switch, General-Use
 - c. Switch, General-Use Snap
 - d. Device

69. A unit of an electrical system, other than a conductor, that carries or controls electric energy as its principal function.

- a. Switch, Bypass Isolation
- b. Switch, General-Use
- c. Switch, General-Use Snap
- d. Device

70. A switch intended for isolating an electrical circuit from the source of power. It has no interrupting rating, and it is intended to be operated only after the circuit has been opened by some other means defines_____.

- a. Switch, Isolating
- b. Switch, Motor-Circuit
- c. Switch, Transfer
- d. Handhole Enclosure

71. A switch rated in horsepower that is capable of interrupting the maximum operating overload current of a motor of the same horsepower rating as the switch at the rated voltage defines_____.

- a. Switch, Isolating
- b. Switch, Motor-Circuit
- c. Switch, Transfer
- d. Handhole Enclosure

72. An automatic or nonautomatic device for transferring one or more load conductor connections from one power source to another defines_____.

- a. Switch, Isolating
- b. Switch, Motor-Circuit
- c. Switch, Transfer
- d. Handhole Enclosure

73. An enclosure for use in underground systems, provided with an open or closed bottom, and sized to allow personnel to reach into, but not enter, for the purpose of installing, operating, or maintaining equipment or wiring or both defines_____.

- a. Switch, Isolating
- b. Switch, Motor-Circuit
- c. Switch, Transfer
- d. Handhole Enclosure

74. A receptacle is a contact device installed at the outlet for the connection of an attachment plug. A single receptacle is a single contact device with no other contact device on the same yoke. A multiple receptacle is two or more contact devices on the same yoke defines_____.

- a. Receptacle
- b. Receptacle Outlet
- c. Remote-Control Circuit
- d. Attachment Plug (Plug Cap) (Plug)

75. An outlet where one or more receptacles are installed.

Outlet. A point on the wiring system at which current is taken to supply utilization equipment.

- a. Receptacle
- b. Receptacle Outlet
- c. Remote-Control Circuit
- d. Attachment Plug (Plug Cap) (Plug)

76. Any electrical circuit that controls any other circuit through a relay or an equivalent device defines_____.

- a. Receptacle
- b. Receptacle Outlet
- c. Remote-Control Circuit
- d. Attachment Plug (Plug Cap) (Plug)

77. A device that, by insertion in a receptacle, establishes a connection between the conductors of the attached flexible cord and the conductors connected permanently to the receptacle defines_____.

- a. Receptacle

- b. Receptacle Outlet
- c. Remote-Control Circuit
- d. Attachment Plug (Plug Cap) (Plug)

78. An enclosed channel of metallic or nonmetallic materials designed expressly for holding wires, cables, or busbars, with additional functions as permitted in this *Code* defines_____.

- a. Raceway
- b. Fitting
- c. Conduit Body
- d. Substation

79. An accessory such as a locknut, bushing, or other part of a wiring system that is intended primarily to perform a mechanical rather than an electrical function defines_____.

- a. Raceway
- b. Fitting
- c. Conduit Body
- d. Substation

80. A separate portion of a conduit or tubing system that provides access through a removable cover(s) to the interior of the system at a junction of two or more sections of the system or at a terminal point of the system. Boxes such as FS and FD or larger cast or sheet metal boxes are not classified as conduit bodies defines_____.

- a. Raceway
- b. Fitting
- c. Conduit Body
- d. Substation

81. An enclosed assemblage of equipment (e.g., switches, interrupting devices, circuit breakers, buses, and transformers) through which electric energy is passed for the purpose of distribution, switching, or modifying its characteristics defines_____.

- a. Raceway
- b. Fitting
- c. Conduit Body
- d. Substation

82. A device intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected defines_____.

- a. Arc-Fault Circuit Interrupter (AFCI)
- b. Ground-Fault Circuit Interrupter (GFCI)
- c. Ground-Fault Protection of Equipment
- d. Surge Arrester

83. A device intended for the protection of personnel that functions to deenergize a circuit or portion thereof within an established period of time when a current to ground exceeds the values established for a Class A device defines_____.

- a. Arc-Fault Circuit Interrupter (AFCI)
- b. Ground-Fault Circuit Interrupter (GFCI)
- c. Ground-Fault Protection of Equipment
- d. Surge Arrester

84. A system intended to provide protection of equipment from damaging line-to-ground fault currents by operating to cause a disconnecting means to open all ungrounded conductors of the faulted circuit. This protection is provided at current levels less than those required to protect conductors from damage through the operation of a supply circuit overcurrent device defines_____.

- a. Arc-Fault Circuit Interrupter (AFCI)
- b. Ground-Fault Circuit Interrupter (GFCI)
- c. Ground-Fault Protection of Equipment
- d. Surge Arrester

85. A protective device for limiting surge voltages by discharging or bypassing surge current; it also prevents continued flow of follow current while remaining capable of repeating these functions defines_____.
- a. Arc-Fault Circuit Interrupter (AFCI)
 - b. Ground-Fault Circuit Interrupter (GFCI)
 - c. Ground-Fault Protection of Equipment
 - d. Surge Arrester
86. A protective device for assembly as an integral part of a motor or motorcompressor that, when properly applied, protects the motor against dangerous overheating due to overload and failure to start defines_____.
- a. Thermal Protector (as applied to motors).
 - b. Thermally Protected (as applied to motors).
 - c. Short-Circuit Current Rating.
 - d. Signaling Circuit.
87. The words *Thermally Protected* appearing on the nameplate of a motor or motor-compressor indicate that the motor is provided with a thermal protector defines_____.
- a. Thermal Protector (as applied to motors).
 - b. Thermally Protected (as applied to motors).
 - c. Short-Circuit Current Rating.
 - d. Signaling Circuit.
88. The prospective symmetrical fault current at a nominal voltage to which an apparatus or system is able to be connected without sustaining damage exceeding defined acceptance criteria defines_____.
- a. Thermal Protector (as applied to motors).
 - b. Thermally Protected (as applied to motors).
 - c. Short-Circuit Current Rating.
 - d. Signaling Circuit.
89. Any electrical circuit that energizes signaling equipment defines_____.
- a. Thermal Protector (as applied to motors).
 - b. Thermally Protected (as applied to motors).
 - c. Short-Circuit Current Rating.
 - d. Signaling Circuit.
90. Power conversion equipment that provides a means of adjusting the speed of an electric motor defines_____.
- a. Adjustable Speed Drive
 - b. Adjustable Speed Drive System
 - c. Automatic
 - d. Ampacity
91. A combination of an adjustable speed drive, its associated motor(s), and auxiliary equipment defines_____.
- a. Adjustable Speed Drive
 - b. Adjustable Speed Drive System
 - c. Automatic
 - d. Ampacity
92. Performing a function without the necessity of human intervention defines_____.
- a. Adjustable Speed Drive
 - b. Adjustable Speed Drive System
 - c. Automatic
 - d. Ampacity
93. The maximum current, in amperes, that a conductor can carry continuously under the conditions of use without exceeding its temperature rating defines_____.
- a. Adjustable Speed Drive
 - b. Adjustable Speed Drive System
 - c. Automatic

d. Ampacity

94. One who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid the hazards involved defines_____.

- a. Qualified Person
- b. Special Permission
- c. Askarel
- d. Volatile Flammable Liquid
- e. Ventilated

95. The written consent of the authority having jurisdiction defines_____.

- a. Qualified Person
- b. Special Permission
- c. Askarel
- d. Volatile Flammable Liquid
- e. Ventilated

96. A generic term for a group of nonflammable synthetic chlorinated hydrocarbons used as electrical insulating media defines_____.

- a. Qualified Person
- b. Special Permission
- c. Askarel
- d. Volatile Flammable Liquid
- e. Ventilated

97. A flammable liquid having a flash point below 38°C (100°F), or a flammable liquid whose temperature is above its flash point, or a Class II combustible liquid that has a vapor pressure not exceeding 276 kPa (40 psia) at 38°C (100°F) and whose temperature is above its flash point defines_____.

- a. Qualified Person
- b. Special Permission
- c. Askarel
- d. Volatile Flammable Liquid
- e. Ventilated

98. Provided with a means to permit circulation of air sufficient to remove an excess of heat, fumes, or vapors defines_____.

- a. Qualified Person
- b. Special Permission
- c. Askarel
- d. Volatile Flammable Liquid
- e. Ventilated

99. Interconnected battery subsystems consisting of one or more storage batteries and battery chargers, and can include inverters, converters, and associated electrical equipment.

- a. Battery System
- b. Electric Power Production and Distribution Network
- c. Electronically Actuated Fuse
- d. Energized

100. Power production, distribution, and utilization equipment and facilities, such as electric utility systems that deliver electric power to the connected loads, that are external to and not controlled by an interactive system defines_____.

- a. Battery System
- b. Electric Power Production and Distribution Network
- c. Electronically Actuated Fuse
- d. Energized

101. An overcurrent protective device that generally consists of a control module that provides current-sensing, electronically derived time–current characteristics, energy to initiate tripping, and an

interrupting module that interrupts current when an overcurrent occurs. Such fuses may or may not operate in a current-limiting fashion, depending on the type of control selected defines_____.

- a. Battery System
- b. Electric Power Production and Distribution Network
- c. Electronically Actuated Fuse
- d. Energized

102. Electrically connected to, or is, a source of voltage defines_____.

- a. Battery System
- b. Electric Power Production and Distribution Network
- c. Electronically Actuated Fuse
- d. Energized

103. A system comprised of multiple power sources. These power sources could include photovoltaic, wind, micro-hydro generators, engine-driven generators, and others, but do not include electric power production and distribution network systems. Energy storage systems such as batteries, flywheels, or superconducting magnetic storage equipment do not constitute a power source for the purpose of this definition. The energy regenerated by an overhauling (descending) elevator does not constitute a power source for the purpose of this definition defines_____.

- a. Hybrid System
- b. Photovoltaic (PV) System
- c. Separately Derived System
- d. Service

104. The total components and subsystem that, in combination, convert solar energy into electric energy suitable for connection to a utilization load defines_____.

- a. Hybrid System
- b. Photovoltaic (PV) System
- c. Separately Derived System
- d. Service

105. An electrical source, other than a service, having no direct connection(s) to circuit conductors of any other electrical source other than those established by grounding and bonding connections defines_____.

- a. Hybrid System
- b. Photovoltaic (PV) System
- c. Separately Derived System
- d. Service

106. The conductors and equipment for delivering electric energy from the serving utility to the wiring system of the premises served defines_____.

- a. Hybrid System
- b. Photovoltaic (PV) System
- c. Separately Derived System
- d. Service

107. Service conductors made up in the form of a cable defines_____.

- a. Service Cable
- b. Service Conductors
- c. Service Conductors, Overhead
- d. Service Conductors, Underground
- e. Service Drop

108. The conductors from the service point to the service disconnecting means.

- a. Service Cable
- b. Service Conductors
- c. Service Conductors, Overhead
- d. Service Conductors, Underground
- e. Service Drop

109. The overhead conductors between the service point and the first point of connection to the service-entrance conductors at the building or other structure defines_____.

- a. Service Cable
- b. Service Conductors
- c. Service Conductors, Overhead
- d. Service Conductors, Underground
- e. Service Drop

110. The underground conductors between the service point and the first point of connection to the service-entrance conductors in a terminal box, meter, or other enclosure, inside or outside the building wall defines_____.

- a. Service Cable
- b. Service Conductors
- c. Service Conductors, Overhead
- d. Service Conductors, Underground
- e. Service Drop

111. The overhead conductors between the utility electric supply system and the service point defines_____.

- a. Service Cable
- b. Service Conductors
- c. Service Conductors, Overhead
- d. Service Conductors, Underground
- e. Service Drop

112. The service conductors between the terminals of the service equipment and a point usually outside the building, clear of building walls, where joined by tap or splice to the service drop or overhead service conductors defines_____.

- a. Service-Entrance Conductors, Overhead System
- b. Service-Entrance Conductors, Underground System
- c. Service Equipment.
- d. Service Lateral
- e. Service Point

113. The service conductors between the terminals of the service equipment and the point of connection to the service lateral or underground service conductors.

- a. Service-Entrance Conductors, Overhead System
- b. Service-Entrance Conductors, Underground System
- c. Service Equipment.
- d. Service Lateral
- e. Service Point

114. The necessary equipment, usually consisting of a circuit breaker(s) or switch(es) and fuse(s) and their accessories, connected to the load end of service conductors to a building or other structure, or an otherwise designated area, and intended to constitute the main control and cutoff of the supply defines_____.

- a. Service-Entrance Conductors, Overhead System
- b. Service-Entrance Conductors, Underground System
- c. Service Equipment.
- d. Service Lateral
- e. Service Point

115. The underground conductors between the utility electric supply system and the service point defines_____.

- a. Service-Entrance Conductors, Overhead System
- b. Service-Entrance Conductors, Underground System
- c. Service Equipment.
- d. Service Lateral
- e. Service Point

116. The point of connection between the facilities of the serving utility and the premises wiring defines_____.

- a. Service-Entrance Conductors, Overhead System

- b. Service-Entrance Conductors, Underground System
 - c. Service Equipment.
 - d. Service Lateral
 - e. Service Point
117. A power supply used to provide alternating current power to a load for some period of time in the event of a power failure defines_____.
- a. Uninterruptible Power Supply
 - b. Utility-Interactive Inverter
 - c. Utilization Equipment
 - d. Hermetic Refrigerant Motor-Compressor
118. An inverter intended for use in parallel with an electric utility to supply common loads that may deliver power to the utility defines_____.
- a. Uninterruptible Power Supply
 - b. Utility-Interactive Inverter
 - c. Utilization Equipment
 - d. Hermetic Refrigerant Motor-Compressor
119. Equipment that utilizes electric energy for electronic, electromechanical, chemical, heating, lighting, or similar purposes defines_____.
- a. Uninterruptible Power Supply
 - b. Utility-Interactive Inverter
 - c. Utilization Equipment
 - d. Hermetic Refrigerant Motor-Compressor
120. A combination consisting of a compressor and motor, both of which are enclosed in the same housing, with no external shaft or shaft seals, with the motor operating in the refrigerant defines_____.
- a. Uninterruptible Power Supply
 - b. Utility-Interactive Inverter
 - c. Utilization Equipment
 - d. Hermetic Refrigerant Motor-Compressor
121. Not connected to ground or to a conductive body that extends the ground connection defines_____.
- a. Ungrounded
 - b. Voltage, Nominal
 - c. Voltage to Ground
 - d. Voltage (of a circuit)
122. A nominal value assigned to a circuit or system for the purpose of conveniently designating its voltage class (e.g., 120/240 volts, 480Y/277 volts, 600 volts) defines_____.
- a. Ungrounded
 - b. Voltage, Nominal
 - c. Voltage to Ground
 - d. Voltage (of a circuit)
123. For grounded circuits, the voltage between the given conductor and that point or conductor of the circuit that is grounded; for ungrounded circuits, the greatest voltage between the given conductor and any other conductor of the circuit defines_____.
- a. Ungrounded
 - b. Voltage, Nominal
 - c. Voltage to Ground
 - d. Voltage (of a circuit)
124. The greatest root-mean-square (rms) (effective) difference of potential between any two conductors of the circuit concerned defines_____.
- a. Ungrounded
 - b. Voltage, Nominal
 - c. Voltage to Ground
 - d. Voltage (of a circuit)

125. A large single panel, frame, or assembly of panels on which are mounted on the face, back, or both, switches, overcurrent and other protective devices, buses, and usually instruments. These assemblies are generally accessible from the rear as well as from the front and are not intended to be installed in cabinets defines_____.

- a. Switchboard
- b. Panelboard
- c. Switchgear
- d. Coordination (Selective)
- e. Motor Control Center

126. A single panel or group of panel units designed for assembly in the form of a single panel, including buses and automatic overcurrent devices, and equipped with or without switches for the control of light, heat, or power circuits; designed to be placed in a cabinet or cutout box placed in or against a wall, partition, or other support; and accessible only from the front defines_____.

- a. Switchboard
- b. Panelboard
- c. Switchgear
- d. Coordination (Selective)
- e. Motor Control Center

127. An assembly completely enclosed on all sides and top with sheet metal (except for ventilating openings and inspection windows) and containing primary power circuit switching, interrupting devices, or both, with buses and connections. The assembly may include control and auxiliary devices. Access to the interior of the enclosure is provided by doors, removable covers, or both defines_____.

- a. Switchboard
- b. Panelboard
- c. Switchgear
- d. Coordination (Selective)
- e. Motor Control Center

128. Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the selection and installation of overcurrent protective devices and their ratings or settings for the full range of available overcurrents, from overload to the maximum available fault current, and for the full range of overcurrent protective device opening times associated with those overcurrents defines_____.

- a. Switchboard
- b. Panelboard
- c. Switchgear
- d. Coordination (Selective)
- e. Motor Control Center

129. An assembly of one or more enclosed sections having a common power bus and principally containing motor control units defines_____.

- a. Switchboard
- b. Panelboard
- c. Switchgear
- d. Coordination (Selective)
- e. Motor Control Center

130. An electric power production system that is operating in parallel with and capable of delivering energy to an electric primary source supply system defines_____.

- a. Interactive System
- b. Control Circuit
- c. Controller
- d. Disconnecting Means
- e. Interrupting Rating

131. The circuit of a control apparatus or system that carries the electric signals directing the performance of the controller but does not carry the main power current defines_____.
- Interactive System
 - Control Circuit
 - Controller
 - Disconnecting Means
 - Interrupting Rating
132. A device or group of devices that serves to govern, in some predetermined manner, the electric power delivered to the apparatus to which it is connected defines_____.
- Interactive System
 - Control Circuit
 - Controller
 - Disconnecting Means
 - Interrupting Rating
133. A device, or group of devices, or other means by which the conductors of a circuit can be disconnected from their source of supply defines_____.
- Interactive System
 - Control Circuit
 - Controller
 - Disconnecting Means
 - Interrupting Rating
134. The highest current at rated voltage that a device is identified to interrupt under standard test conditions defines_____.
- Interactive System
 - Control Circuit
 - Controller
 - Disconnecting Means
 - Interrupting Rating
135. Any current in excess of the rated current of equipment or the ampacity of a conductor. It may result from overload, short circuit, or ground fault defines_____.
- Overcurrent Protective Device, Branch-Circuit
 - Overcurrent Protective Device, Supplementary
 - Overload
 - Disconnecting Means
 - Overcurrent
136. A device capable of providing protection for service, feeder, and branch circuits and equipment over the full range of overcurrents between its rated current and its interrupting rating. Such devices are provided with interrupting ratings appropriate for the intended use but no less than 5000 amperes defines_____.
- Overcurrent Protective Device, Branch-Circuit
 - Overcurrent Protective Device, Supplementary
 - Overload
 - Premises Wiring (System)
 - Overcurrent
137. A device intended to provide limited overcurrent protection for specific applications and utilization equipment such as luminaires and appliances. This limited protection is in addition to the protection provided in the required branch circuit by the branch-circuit overcurrent protective device defines_____.
- Overcurrent Protective Device, Branch-Circuit
 - Overcurrent Protective Device, Supplementary
 - Overload
 - Premises Wiring (System)

138. Operation of equipment in excess of normal, full-load rating, or of a conductor in excess of rated ampacity that, when it persists for a sufficient length of time, would cause damage or dangerous overheating. A fault, such as a short circuit or ground fault, is not an overload defines_____.
- Overcurrent Protective Device, Branch-Circuit
 - Overcurrent Protective Device, Supplementary
 - Overload
 - Premises Wiring (System)
139. Interior and exterior wiring, including power, lighting, control, and signal circuit wiring together with all their associated hardware, fittings, and wiring devices, both permanently and temporarily installed. This includes (a) wiring from the service point or power source to the outlets or (b) wiring from and including the power source to the outlets where there is no service point. Such wiring does not include wiring internal to appliances, luminaires, motors, controllers, motor control centers, and similar equipment defines_____.
- Overcurrent Protective Device, Branch-Circuit
 - Overcurrent Protective Device, Supplementary
 - Overload
 - Premises Wiring (System)
140. A device that provides a means for connecting intersystem bonding conductors for communications systems to the grounding electrode system defines_____.
- Intersystem Bonding Termination
 - Hoistway
 - Grounding Conductor, Equipment (EGC)
 - Grounding Electrode
 - Grounding Electrode Conductor
141. Any shaftway, hatchway, well hole, or other vertical opening or space in which an elevator or dumbwaiter is designed to operate defines_____.
- Intersystem Bonding Termination
 - Hoistway
 - Grounding Conductor, Equipment (EGC)
 - Grounding Electrode
 - Grounding Electrode Conductor
142. The conductive path(s) that provides a ground-fault current path and connects normally non-current-carrying metal parts of equipment together and to the system grounded conductor or to the grounding electrode conductor, or both defines_____.
- Intersystem Bonding Termination
 - Hoistway
 - Grounding Conductor, Equipment (EGC)
 - Grounding Electrode
 - Grounding Electrode Conductor
143. A conducting object through which a direct connection to earth is established defines_____.
- Intersystem Bonding Termination
 - Hoistway
 - Grounding Conductor, Equipment (EGC)
 - Grounding Electrode
 - Grounding Electrode Conductor
144. A conductor used to connect the system grounded conductor or the equipment to a grounding electrode or to a point on the grounding electrode system defines_____.
- Intersystem Bonding Termination
 - Hoistway
 - Grounding Conductor, Equipment (EGC)
 - Grounding Electrode
 - Grounding Electrode Conductor
145. Energized conductive components defines_____.
- Live Parts

- b. Guarded
- c. Explosionproof Equipment
- d. Sealable Equipment
- e. Nonlinear Load

146. Covered, shielded, fenced, enclosed, or otherwise protected by means of suitable covers, casings, barriers, rails, screens, mats, or platforms to remove the likelihood of approach or contact by persons or objects to a point of danger defines_____.

- a. Live Parts
- b. Guarded
- c. Explosionproof Equipment
- d. Sealable Equipment
- e. Nonlinear Load

147. Equipment enclosed in a case that is capable of withstanding an explosion of a specified gas or vapor that may occur within it and of preventing the ignition of a specified gas or vapor surrounding the enclosure by sparks, flashes, or explosion of the gas or vapor within, and that operates at such an external temperature that a surrounding flammable atmosphere will not be ignited thereby defines_____.

- a. Live Parts
- b. Guarded
- c. Explosionproof Equipment
- d. Sealable Equipment
- e. Nonlinear Load

148. Equipment enclosed in a case or cabinet that is provided with a means of sealing or locking so that live parts cannot be made accessible without opening the enclosure defines_____.

- a. Live Parts
- b. Guarded
- c. Explosionproof Equipment
- d. Sealable Equipment
- e. Nonlinear Load

149. A load where the wave shape of the steady-state current does not follow the wave shape of the applied voltage defines_____.

- a. Live Parts
- b. Guarded
- c. Explosionproof Equipment
- d. Sealable Equipment
- e. Nonlinear Load

150. A general term for a complete subassembly of parts and devices for field conversion of utilization equipment defines_____.

- a. Plenum
- b. Power Outlet
- c. Charge Controller
- d. marked outlet
- e. Retrofit Kit

151. A compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system defines_____.

- a. Plenum
- b. Power Outlet
- c. Charge Controller
- d. marked outlet

152. An enclosed assembly that may include receptacles, circuit breakers, fuseholders, fused switches, buses, and watt-hour meter mounting means; intended to supply and control power to mobile homes, recreational vehicles, park trailers, or boats or to serve as a means for distributing power required to operate mobile or temporarily installed equipment defines_____.

- a. Plenum

- b. Power Outlet
 - c. Charge Controller
 - d. marked outlet
153. Equipment that controls dc voltage or dc current, or both, and that is used to charge a battery or other energy storage device defines_____.
- a. Plenum
 - b. Power Outlet
 - c. Charge Controller
 - d. marked outlet
154. The conductor connected to the neutral point of a system that is intended to carry current under normal conditions defines_____.
- a. Neutral Conductor
 - b. Neutral Point
 - c. Multioutlet Assembly
 - d. Feeder
155. The common point on a wye-connection in a polyphase system or midpoint on a single-phase, 3-wire system, or midpoint of a single-phase portion of a 3-phase delta system, or a midpoint of a 3-wire, direct-current system defines_____.
- a. Neutral Conductor
 - b. Neutral Point
 - c. Multioutlet Assembly
 - d. Feeder
156. A type of surface, flush, or freestanding raceway designed to hold conductors and receptacles, assembled in the field or at the factory defines_____.
- a. Neutral Conductor
 - b. Neutral Point
 - c. Multioutlet Assembly
 - d. Feeder
157. All circuit conductors between the service equipment, the source of a separately derived system, or other power supply source and the final branch-circuit overcurrent device defines_____.
- a. Neutral Conductor
 - b. Neutral Point
 - c. Multioutlet Assembly
 - d. Feeder
158. Requiring human intervention to perform a function defines_____.
- a. Nonautomatic
 - b. Continuous Load
 - c. Show Window
 - d. In Sight From (Within Sight From, Within Sight)
159. A load where the maximum current is expected to continue for 3 hours or more defines_____.
- a. Nonautomatic
 - b. Continuous Load
 - c. Show Window
 - d. In Sight From (Within Sight From, Within Sight)
160. Any window used or designed to be used for the display of goods or advertising material, whether it is fully or partly enclosed or entirely open at the rear and whether or not it has a platform raised higher than the street floor level defines_____.
- a. Nonautomatic
 - b. Continuous Load
 - c. Show Window
 - d. In Sight From (Within Sight From, Within Sight)
161. Where this Code specifies that one equipment shall be “in sight from,” “within sight from,” or “within sight of,” and so forth, another equipment, the specified equipment is to be visible and not more than 15 m (50 ft.) distant from the other defines_____.

- a. Nonautomatic
 - b. Continuous Load
 - c. Show Window
 - d. In Sight From (Within Sight From, Within Sight)
162. The earth defines_____.
- a. Ground
 - b. Ground Fault
 - c. Grounded (Grounding)
 - d. Grounded, Solidly
163. An unintentional, electrically conductive connection between an ungrounded conductor of an electrical circuit and the normally non-current-carrying conductors, metallic enclosures, metallic raceways, metallic equipment, or earth defines_____.
- a. Ground
 - b. Ground Fault
 - c. Grounded (Grounding)
 - d. Grounded, Solidly
164. Connected (connecting) to ground or to a conductive body that extends the ground connection defines_____.
- a. Ground
 - b. Ground Fault
 - c. Grounded (Grounding)
 - d. Grounded, Solidly
165. Connected to ground without inserting any resistor or impedance device defines_____.
- a. Ground
 - b. Ground Fault
 - c. Grounded (Grounding)
 - d. Grounded, Solidly
166. A system or circuit conductor that is intentionally grounded defines_____.
- a. Grounded Conductor
 - b. Effective Ground-Fault Current Path
 - c. Ground-Fault Current Path
 - d. Concealed
167. An intentionally constructed, low-impedance electrically conductive path designed and intended to carry current underground-fault conditions from the point of a ground fault on a wiring system to the electrical supply source and that facilitates the operation of the overcurrent protective device or ground-fault detectors defines_____.
- a. Grounded Conductor
 - b. Effective Ground-Fault Current Path
 - c. Ground-Fault Current Path
 - d. Concealed
168. An electrically conductive path from the point of a ground fault on a wiring system through normally non-current-carrying conductors, equipment, or the earth to the electrical supply source defines_____.
- a. Grounded Conductor
 - b. Effective Ground-Fault Current Path
 - c. Ground-Fault Current Path
 - d. Concealed
169. Rendered inaccessible by the structure or finish of the building defines_____.
- a. Grounded Conductor
 - b. Effective Ground-Fault Current Path
 - c. Ground-Fault Current Path
 - d. Concealed

170. Cable Routing Assembly. A single channel or connected multiple channels, as well as associated fittings, forming a structural system that is used to support and route communications wires and cables, optical fiber cables, data cables associated with information technology and communications equipment, Class 2 and Class 3 cables, and powerlimited fire alarm cables defines_____.

- a. Cable Routing Assembly
- b. Communications Equipment
- c. Communications Raceway
- d. Concealed

171. The electronic equipment that performs the telecommunications operations for the transmission of audio, video, and data, and includes power equipment (e.g., dc converters, inverters, and batteries), technical support equipment (e.g., computers), and conductors dedicated solely to the operation of the equipment defines_____.

- a. Cable Routing Assembly
- b. Communications Equipment
- c. Communications Raceway
- d. Concealed

172. An enclosed channel of nonmetallic materials designed expressly for holding communications wires and cables, typically communications wires and cables and optical fiber and data (Class 2 and Class 3) in plenum, riser, and general-purpose applications defines_____.

- a. Cable Routing Assembly
- b. Communications Equipment
- c. Communications Raceway
- d. Concealed

173. Rendered inaccessible by the structure or finish of the building defines_____.

- a. Cable Routing Assembly
- b. Communications Equipment
- c. Communications Raceway
- d. Concealed

174. A conductor having no covering or electrical insulation whatsoever defines_____.

- a. Conductor, Bare
- b. Conductor, Covered
- c. Conductor, Insulated
- d. Copper-Clad Aluminum Conductors
- e. Connector, Pressure (Solderless)

175. A conductor encased within material of composition or thickness that is not recognized by this Code as electrical insulation defines_____.

- a. Conductor, Bare
- b. Conductor, Covered
- c. Conductor, Insulated
- d. Copper-Clad Aluminum Conductors
- e. Connector, Pressure (Solderless)

176. A conductor encased within material of composition and thickness that is recognized by this Code as electrical insulation defines_____.

- a. Conductor, Bare
- b. Conductor, Covered
- c. Conductor, Insulated
- d. Copper-Clad Aluminum Conductors
- e. Connector, Pressure (Solderless)

177. Conductors drawn from a copper-clad aluminum rod, with the copper metallurgically bonded to an aluminum core, where the copper forms a minimum of 10 percent of the cross-sectional area of a solid conductor or each strand of a stranded conductor defines_____.

- a. Conductor, Bare
- b. Conductor, Covered
- c. Conductor, Insulated

- d. Copper-Clad Aluminum Conductors
- e. Connector, Pressure (Solderless)

178. A device that establishes a connection between two or more conductors or between one or more conductors and a terminal by means of mechanical pressure and without the use of solder defines _____.

- a. Conductor, Bare
- b. Conductor, Covered
- c. Conductor, Insulated
- d. Copper-Clad Aluminum Conductors
- e. Connector, Pressure (Solderless)

179. Circuit Breaker. A device designed to open and close a circuit by nonautomatic means and to open the circuit automatically on a predetermined overcurrent without damage to itself when properly applied within its _____.

- a. listing
- b. marking
- c. labeling
- d. rating

180. A qualifying term indicating that the circuit breaker can be set to trip at various values of current, time, or both, within a predetermined range defines _____.

- a. Adjustable (as applied to circuit breakers)
- b. Instantaneous Trip (as applied to circuit breakers)
- c. Inverse Time (as applied to circuit breakers)
- d. Nonadjustable (as applied to circuit breakers)
- e. Setting (of circuit breakers)

181. A qualifying term indicating that no delay is purposely introduced in the tripping action of the circuit breaker defines _____.

- a. Adjustable (as applied to circuit breakers)
- b. Instantaneous Trip (as applied to circuit breakers)
- c. Inverse Time (as applied to circuit breakers)
- d. Nonadjustable (as applied to circuit breakers)
- e. Setting (of circuit breakers)

182. A qualifying term indicating that there is purposely introduced a delay in the tripping action of the circuit breaker, which delay decreases as the magnitude of the current increases defines _____.

- a. Adjustable (as applied to circuit breakers)
- b. Instantaneous Trip (as applied to circuit breakers)
- c. Inverse Time (as applied to circuit breakers)
- d. Nonadjustable (as applied to circuit breakers)
- e. Setting (of circuit breakers)

183. A qualifying term indicating that the circuit breaker does not have any adjustment to alter the value of the current at which it will trip or the time required for its operation defines _____.

- a. Adjustable (as applied to circuit breakers)
- b. Instantaneous Trip (as applied to circuit breakers)
- c. Inverse Time (as applied to circuit breakers)
- d. Nonadjustable (as applied to circuit breakers)
- e. Setting (of circuit breakers)

184. The value of current, time, or both, at which an adjustable circuit breaker is set to trip defines _____.

- a. Adjustable (as applied to circuit breakers)
- b. Instantaneous Trip (as applied to circuit breakers)
- c. Inverse Time (as applied to circuit breakers)
- d. Nonadjustable (as applied to circuit breakers)
- e. Setting (of circuit breakers)

185. Surge-Protective Device (SPD). A protective device for limiting transient voltages by diverting or limiting surge current; it also prevents continued flow of follow current while remaining capable of repeating these functions and is designated as follows: _____: Permanently connected SPDs intended for installation between the secondary of the service transformer and the line side of the service disconnect overcurrent device.

- a. Type 1
- b. Type 2
- c. Type 3
- d. Type 4

186. Surge-Protective Device (SPD). A protective device for limiting transient voltages by diverting or limiting surge current; it also prevents continued flow of follow current while remaining capable of repeating these functions and is designated as follows: _____: Permanently connected SPDs intended for installation on the load side of the service disconnect overcurrent device, including SPDs located at the branch panel.

- a. Type 1
- b. Type 2
- c. Type 3
- d. Type 4

187. Surge-Protective Device (SPD). A protective device for limiting transient voltages by diverting or limiting surge current; it also prevents continued flow of follow current while remaining capable of repeating these functions and is designated as follows: _____: Point of utilization SPDs.

- a. Type 1
- b. Type 2
- c. Type 3
- d. Type 4

188. Surge-Protective Device (SPD). A protective device for limiting transient voltages by diverting or limiting surge current; it also prevents continued flow of follow current while remaining capable of repeating these functions and is designated as follows: _____: Component SPDs, including discrete components, as well as assemblies.

- a. Type 1
- b. Type 2
- c. Type 3
- d. Type 4

189. Industrial Control Panel. An assembly of two or more components consisting of one of the following:

- a. power circuit components only, such as motor controllers, overload relays, fused disconnect switches, and circuit breakers.
- b. control circuit components only, such as push buttons, pilot lights, selector switches, timers, switches, and control relays.
- c. a combination of power and control circuit components. These components, with associated wiring and terminals, are mounted on, or contained within, an enclosure or mounted on a subpanel. The industrial control panel does not include the controlled equipment.
- d. all of the above

II. Over 600 Volts, Nominal

190. Part II contains definitions applicable only to the articles and parts of articles specifically covering installations and equipment operating at _____, nominal.

- a. up to 600 volts
- b. over 600 volts
- c. up to 600 amperes
- d. over 600 amperes

191. An overcurrent protective device that generally consists of a control module that provides current sensing, electronically derived time–current characteristics, energy to initiate tripping, and an

interrupting module that interrupts current when an overcurrent occurs. Electronically actuated fuses may or may not operate in a current-limiting fashion, depending on the type of control selected defines _____.

- a. Electronically Actuated Fuse
- b. Fuse
- c. Multiple Fuse
- d. Switching Device

192. An overcurrent protective device with a circuit opening fusible part that is heated and severed by the passage of overcurrent through it defines _____.

- a. Electronically Actuated Fuse
- b. Fuse
- c. Multiple Fuse
- d. Switching Device

193. An assembly of two or more single-pole fuses defines _____.

- a. Electronically Actuated Fuse
- b. Fuse
- c. Multiple Fuse
- d. Switching Device

194. A device designed to close, open, or both, one or more electrical circuits defines _____.

- a. Electronically Actuated Fuse
- b. Fuse
- c. Multiple Fuse
- d. Switching Device

195. A fuse with provision for controlling discharge circuit interruption such that no solid material may be exhausted into the surrounding atmosphere defines _____.

- a. Controlled Vented Power Fuse
- b. Expulsion Fuse Unit (Expulsion Fuse)
- c. Nonvented Power Fuse
- d. Power Fuse Unit
- e. Vented Power Fuse

196. A vented fuse unit in which the expulsion effect of gases produced by the arc and lining of the fuseholder, either alone or aided by a spring, extinguishes the arc defines _____.

- a. Controlled Vented Power Fuse
- b. Expulsion Fuse Unit (Expulsion Fuse)
- c. Nonvented Power Fuse
- d. Power Fuse Unit
- e. Vented Power Fuse

197. A fuse without intentional provision for the escape of arc gases, liquids, or solid particles to the atmosphere during circuit interruption defines _____.

- a. Controlled Vented Power Fuse
- b. Expulsion Fuse Unit (Expulsion Fuse)
- c. Nonvented Power Fuse
- d. Power Fuse Unit
- e. Vented Power Fuse

198. A vented, nonvented, or controlled vented fuse unit in which the arc is extinguished by being drawn through solid material, granular material, or liquid, either alone or aided by a spring defines _____.

- a. Controlled Vented Power Fuse
- b. Expulsion Fuse Unit (Expulsion Fuse)
- c. Nonvented Power Fuse
- d. Power Fuse Unit
- e. Vented Power Fuse

199. A fuse with provision for the escape of arc gases, liquids, or solid particles to the surrounding atmosphere during circuit interruption defines _____.

- a. Controlled Vented Power Fuse
 - b. Expulsion Fuse Unit (Expulsion Fuse)
 - c. Nonvented Power Fuse
 - d. Power Fuse Unit
 - e. Vented Power Fuse
200. A switching device capable of making, carrying, and interrupting currents under normal circuit conditions, and also of making, carrying for a specified time, and interrupting currents under specified abnormal circuit conditions, such as those of short circuit defines _____.
- a. Circuit Breaker
 - b. Cutout
 - c. Disconnecting Means
 - d. Disconnecting (or Isolating) Switch (Disconnecter, Isolator)
201. An assembly of a fuse support with either a fuseholder, fuse carrier, or disconnecting blade. The fuseholder or fuse carrier may include a conducting element (fuse link) or may act as the disconnecting blade by the inclusion of a nonfusible member defines _____.
- a. Circuit Breaker
 - b. Cutout
 - c. Disconnecting Means
 - d. Disconnecting (or Isolating) Switch (Disconnecter, Isolator)
202. A device, group of devices, or other means whereby the conductors of a circuit can be disconnected from their source of supply defines _____.
- a. Circuit Breaker
 - b. Cutout
 - c. Disconnecting Means
 - d. Disconnecting (or Isolating) Switch (Disconnecter, Isolator)
203. A mechanical switching device used for isolating a circuit or equipment from a source of power defines _____.
- a. Circuit Breaker
 - b. Cutout
 - c. Disconnecting Means
 - d. Disconnecting (or Isolating) Switch (Disconnecter, Isolator)
204. A switch capable of making, carrying, and interrupting specified currents defines _____.
- a. Interrupter Switch
 - b. Oil Cutout (Oil-Filled Cutout)
 - c. Oil Switch
 - d. Regulator Bypass Switch
205. A cutout in which all or part of the fuse support and its fuse link or disconnecting blade is mounted in oil with complete immersion of the contacts and the fusible portion of the conducting element (fuse link) so that arc interruption by severing of the fuse link or by opening of the contacts will occur under oil defines _____.
- a. Interrupter Switch
 - b. Oil Cutout (Oil-Filled Cutout)
 - c. Oil Switch
 - d. Regulator Bypass Switch
206. A switch having contacts that operate under oil (or askarel or other suitable liquid) defines _____.
- a. Interrupter Switch
 - b. Oil Cutout (Oil-Filled Cutout)
 - c. Oil Switch
 - d. Regulator Bypass Switch
207. A specific device or combination of devices designed to bypass a regulator defines _____.
- a. Interrupter Switch
 - b. Oil Cutout (Oil-Filled Cutout)
 - c. Oil Switch
 - d. Regulator Bypass Switch

General Informational Notes

208. Adjustable Speed Drive. Informational Note: A variable frequency drive is one type of electronic adjustable speed drive that controls the rotational speed of an ___ electric motor by controlling the frequency and voltage of the electrical power supplied to the motor.
- a. dc
 - b. ac
 - c. both a & b
 - d. none of the above
209. Askarel. Informational Note: Askarels of various compositional types are used. Under _____ conditions, the gases produced, while consisting predominantly of noncombustible hydrogen chloride, can include varying amounts of combustible gases, depending on the askarel type.
- a. load
 - b. fault
 - c. arcing
 - d. all of the above
210. Authority Having Jurisdiction. Informational Note: The phrase “authority having jurisdiction,” or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as _____.
- a. a fire chief
 - b. a fire marshal
 - c. a chief of a fire prevention bureau
 - d. all of the above
211. Circuit Breaker. Informational Note: The _____ opening means can be integral, direct acting with the circuit breaker, or remote from the circuit breaker.
- a. manual
 - b. semi- automatic
 - c. automatic
 - d. none of the above
212. Concealed. Informational Note: Wires in concealed raceways are considered _____, even though they may become accessible by withdrawing them.
- a. assessable
 - b. concealed
 - c. semi-concealed
 - d. semi-assessable
213. Exposed (as applied to live parts. Informational Note: This term applies to parts that are not Suitably _____.
- a. guarded
 - b. isolated
 - c. insulated
 - d. all of the above
214. Garage. Informational Note: For commercial _____, see Article 511.
- a. garages
 - b. repair
 - c. storage
 - d. all of the above
215. Ground-Fault Circuit Interrupter (GFCI). Informational Note: Class A ground-fault circuit interrupters trip when the current to ground is _____ or higher.
- a. 2 mA
 - b. 4 mA
 - c. 6 mA
 - d. none of the above
216. Ground-Fault Circuit Interrupter (GFCI). Informational Note: Class A ground-fault circuit

interrupters do not trip when the current to ground is less than _____.

- a. 2 mA
- b. 4 mA
- c. 6 mA
- d. none of the above

217. Ground-Fault Current Path. Informational Note: Examples of ground-fault current paths are any combination of equipment grounding conductors, metallic raceways, metallic cable sheaths, electrical equipment, and any other electrically conductive material such as _____; steel framing members; stucco mesh; metal ducting; reinforcing steel; shields of communications cables; and the earth itself.

- a. metal
- b. water
- c. gas piping
- d. all of the above

218. Grounding Conductor, Equipment (EGC). Informational Note No. 1: It is recognized that the equipment grounding conductor also performs _____.

- a. grounding
- b. bonding
- c. continuity
- d. none of the above

219. Grounding Conductor, Equipment (EGC). Informational Note No. 2: See _____ for a list of acceptable equipment grounding conductors.

- a. 250.116
- b. 250.117
- c. 250.118
- d. 250.119

220. Identified (as applied to equipment). Informational Note: Some examples of ways to determine suitability of equipment for a specific purpose, environment, or application include investigations by a qualified testing laboratory _____, an inspection agency, or other organizations concerned with product evaluation.

- a. marking
- b. listing
- c. labeling
- d. both b & c

221. Interrupting Rating. Informational Note: Equipment intended to interrupt current at other than fault levels may have its interrupting rating implied in other ratings, such as _____.

- a. horsepower
- b. locked rotor current
- c. both a & b
- d. none of the above

222. Listed. Informational Note: The means for _____ listed equipment may vary for each organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. Use of the system employed by the listing organization allows the authority having jurisdiction to identify a listed product.

- a. approving
- b. marking
- c. labeling
- d. identifying

223. Location, Damp. Informational Note: Examples of such locations include partially protected locations under _____, and like locations, and interior locations subject to moderate degrees of moisture, such as some basements, some barns, and some cold-storage warehouses.

- a. canopies
- b. marquees
- c. roofed open porches
- d. all of the above

224. Neutral Point. Informational Note: At the neutral point of the system, the vectorial sum of the nominal voltages from all other phases within the system that utilize the neutral, with respect to the neutral point, is _____ potential.

- a. even
- b. uneven
- c. zero
- d. none of the above

225. Nonlinear Load. Informational Note: Electronic equipment, electronic/electric-discharge lighting, adjustable-speed drive systems, and similar equipment _____ be nonlinear loads.

- a. shall
- b. may
- c. will
- d. all of the above

226. Overcurrent. Informational Note: A current in excess of rating may be accommodated by certain _____ for a given set of conditions. Therefore, the rules for overcurrent protection are specific for particular situations.

- a. equipment
- b. conductors
- c. both a & b
- d. none of the above

227. Premises Wiring (System). Informational Note: Power sources include, but are _____ to, interconnected or stand-alone batteries, solar photovoltaic systems, other distributed generation systems, or generators.

- a. limited
- b. not limited
- c. may be limited
- d. all of the above

228. Raceway. Informational Note: A raceway is _____ within specific article definitions.

- a. listed
- b. marked
- c. labeled
- d. identified

229. Sealable Equipment. Informational Note: The equipment _____ be operable without opening the enclosure.

- a. may
- b. may not
- c. both a & b
- d. none of the above

230. Service Conductors, Underground. Informational Note: Where there is no terminal box, meter, or other enclosure, the point of connection is considered to be the point of entrance of the service conductors into the _____.

- a. enclosure
- b. panelboard
- c. meter enclosure
- d. building

231. Service-Entrance Conductors, Underground System. Informational Note: Where service equipment is located outside the _____, there may be no service entrance conductors or they may be entirely outside the building.

- a. roof line attic area
- b. basement area
- c. building walls
- d. none of the above

232. Service Point. Informational Note: The service point can be described as the point of demarcation between where the _____.

- a. serving utility ends
- b. the premises wiring begins
- c. both a & b
- d. none of the above

233. Switchgear. Informational Note: All switchgear subject to *NEC* requirements is metal enclosed. Switchgear rated below _____ V or less may be identified as “low-voltage power circuit breaker switchgear.”

- a. 120
- b. 240
- c. 600
- d. 1000

234. Switchgear. Informational Note: Switchgear rated over 1000 V may be identified as _____.

- a. metal-enclosed switchgear
- b. metal-clad switchgear
- c. both a & b
- d. none of the above

235. Thermal Protector (as applied to motors). Informational Note: The thermal protector may consist of _____ sensing elements integral with the motor or motor-compressor and an external control device.

- a. one
- b. more than one
- c. one or more
- d. all of the above

236. Uninterruptible Power Supply. Informational Note: In addition, it may provide a more constant _____ supply to the load, reducing the effects of voltage and frequency variations.

- a. voltage
- b. frequency
- c. both a & b
- d. none of the above

237. Voltage (of a circuit). Informational Note: Some systems, such as 3-phase 4-wire, single-phase 3-wire, and 3-wire direct current, may have various circuits of _____ voltages.

- a. stable
- b. consistent
- c. various
- d. none of the above

238. Voltage, Nominal. Informational Note No. 1: The actual voltage at which a circuit operates can vary from the _____ within a range that permits satisfactory operation of equipment.

- a. minimal
- b. nominal
- c. minor
- d. none of the above

239. Fuse. Informational Note: A fuse comprises all the parts that form a unit capable of performing the prescribed functions. It may or may not be the complete device necessary to connect it into _____.

- a. a ground fault situation
- b. an electrical circuit
- c. a wireway
- d. none of the above

240. Controlled Vented Power Fuse. Informational Note: The fuse is designed so that _____ gases will not ignite or damage insulation in the path of the discharge or propagate a flashover to or between grounded members or conduction members in the path of the discharge.

- a. charge
- b. increase
- c. discharged
- d. none of the above

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<u>1</u>	a b c d e	<u>41</u>	a b c d e	<u>81</u>	a b c d e
<u>2</u>	a b c d e	<u>42</u>	a b c d e	<u>82</u>	a b c d e
<u>3</u>	a b c d e	<u>43</u>	a b c d e	<u>83</u>	a b c d e
<u>4</u>	a b c d e	<u>44</u>	a b c d e	<u>84</u>	a b c d e
<u>5</u>	a b c d e	<u>45</u>	a b c d e	<u>85</u>	a b c d e
<u>6</u>	a b c d e	<u>46</u>	a b c d e	<u>86</u>	a b c d e
<u>7</u>	a b c d e	<u>47</u>	a b c d e	<u>87</u>	a b c d e
<u>8</u>	a b c d e	<u>48</u>	a b c d e	<u>88</u>	a b c d e
<u>9</u>	a b c d e	<u>49</u>	a b c d e	<u>89</u>	a b c d e
<u>10</u>	a b c d e	<u>50</u>	a b c d e	<u>90</u>	a b c d e
<u>11</u>	a b c d e	<u>51</u>	a b c d e	<u>91</u>	a b c d e
<u>12</u>	a b c d e	<u>52</u>	a b c d e	<u>92</u>	a b c d e
<u>13</u>	a b c d e	<u>53</u>	a b c d e	<u>93</u>	a b c d e
<u>14</u>	a b c d e	<u>54</u>	a b c d e	<u>94</u>	a b c d e
<u>15</u>	a b c d e	<u>55</u>	a b c d e	<u>95</u>	a b c d e
<u>16</u>	a b c d e	<u>56</u>	a b c d e	<u>96</u>	a b c d e
<u>17</u>	a b c d e	<u>57</u>	a b c d e	<u>97</u>	a b c d e
<u>18</u>	a b c d e	<u>58</u>	a b c d e	<u>98</u>	a b c d e
<u>19</u>	a b c d e	<u>59</u>	a b c d e	<u>99</u>	a b c d e
<u>20</u>	a b c d e	<u>60</u>	a b c d e	<u>100</u>	a b c d e
<u>21</u>	a b c d e	<u>61</u>	a b c d e	<u>101</u>	a b c d e
<u>22</u>	a b c d e	<u>62</u>	a b c d e	<u>102</u>	a b c d e
<u>23</u>	a b c d e	<u>63</u>	a b c d e	<u>103</u>	a b c d e
<u>24</u>	a b c d e	<u>64</u>	a b c d e	<u>104</u>	a b c d e
<u>25</u>	a b c d e	<u>65</u>	a b c d e	<u>105</u>	a b c d e
<u>26</u>	a b c d e	<u>66</u>	a b c d e	<u>106</u>	a b c d e
<u>27</u>	a b c d e	<u>67</u>	a b c d e	<u>107</u>	a b c d e
<u>28</u>	a b c d e	<u>68</u>	a b c d e	<u>108</u>	a b c d e
<u>29</u>	a b c d e	<u>69</u>	a b c d e	<u>109</u>	a b c d e
<u>30</u>	a b c d e	<u>70</u>	a b c d e	<u>110</u>	a b c d e
<u>31</u>	a b c d e	<u>71</u>	a b c d e	<u>111</u>	a b c d e
<u>32</u>	a b c d e	<u>72</u>	a b c d e	<u>112</u>	a b c d e
<u>33</u>	a b c d e	<u>73</u>	a b c d e	<u>113</u>	a b c d e
<u>34</u>	a b c d e	<u>74</u>	a b c d e	<u>114</u>	a b c d e
<u>35</u>	a b c d e	<u>75</u>	a b c d e	<u>115</u>	a b c d e
<u>36</u>	a b c d e	<u>76</u>	a b c d e	<u>116</u>	a b c d e
<u>37</u>	a b c d e	<u>77</u>	a b c d e	<u>117</u>	a b c d e
<u>38</u>	a b c d e	<u>78</u>	a b c d e	<u>118</u>	a b c d e
<u>39</u>	a b c d e	<u>79</u>	a b c d e	<u>119</u>	a b c d e
<u>40</u>	a b c d e	<u>80</u>	a b c d e	<u>120</u>	a b c d e

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<u>121</u>	a b c d e	<u>161</u>	a b c d e	<u>201</u>	a b c d e
<u>122</u>	a b c d e	<u>162</u>	a b c d e	<u>202</u>	a b c d e
<u>123</u>	a b c d e	<u>163</u>	a b c d e	<u>203</u>	a b c d e
<u>124</u>	a b c d e	<u>164</u>	a b c d e	<u>204</u>	a b c d e
<u>125</u>	a b c d e	<u>165</u>	a b c d e	<u>205</u>	a b c d e
<u>126</u>	a b c d e	<u>166</u>	a b c d e	<u>206</u>	a b c d e
<u>127</u>	a b c d e	<u>167</u>	a b c d e	<u>207</u>	a b c d e
<u>128</u>	a b c d e	<u>168</u>	a b c d e	<u>208</u>	a b c d e
<u>129</u>	a b c d e	<u>169</u>	a b c d e	<u>209</u>	a b c d e
<u>130</u>	a b c d e	<u>170</u>	a b c d e	<u>210</u>	a b c d e
<u>131</u>	a b c d e	<u>171</u>	a b c d e	<u>211</u>	a b c d e
<u>132</u>	a b c d e	<u>172</u>	a b c d e	<u>212</u>	a b c d e
<u>133</u>	a b c d e	<u>173</u>	a b c d e	<u>213</u>	a b c d e
<u>134</u>	a b c d e	<u>174</u>	a b c d e	<u>214</u>	a b c d e
<u>135</u>	a b c d e	<u>175</u>	a b c d e	<u>215</u>	a b c d e
<u>136</u>	a b c d e	<u>176</u>	a b c d e	<u>216</u>	a b c d e
<u>137</u>	a b c d e	<u>177</u>	a b c d e	<u>217</u>	a b c d e
<u>138</u>	a b c d e	<u>178</u>	a b c d e	<u>218</u>	a b c d e
<u>139</u>	a b c d e	<u>179</u>	a b c d e	<u>219</u>	a b c d e
<u>140</u>	a b c d e	<u>180</u>	a b c d e	<u>220</u>	a b c d e
<u>141</u>	a b c d e	<u>181</u>	a b c d e	<u>221</u>	a b c d e
<u>142</u>	a b c d e	<u>182</u>	a b c d e	<u>222</u>	a b c d e
<u>143</u>	a b c d e	<u>183</u>	a b c d e	<u>223</u>	a b c d e
<u>144</u>	a b c d e	<u>184</u>	a b c d e	<u>224</u>	a b c d e
<u>145</u>	a b c d e	<u>185</u>	a b c d e	<u>225</u>	a b c d e
<u>146</u>	a b c d e	<u>186</u>	a b c d e	<u>226</u>	a b c d e
<u>147</u>	a b c d e	<u>187</u>	a b c d e	<u>227</u>	a b c d e
<u>148</u>	a b c d e	<u>188</u>	a b c d e	<u>228</u>	a b c d e
<u>149</u>	a b c d e	<u>189</u>	a b c d e	<u>229</u>	a b c d e
<u>150</u>	a b c d e	<u>190</u>	a b c d e	<u>230</u>	a b c d e
<u>151</u>	a b c d e	<u>191</u>	a b c d e	<u>231</u>	a b c d e
<u>152</u>	a b c d e	<u>192</u>	a b c d e	<u>232</u>	a b c d e
<u>153</u>	a b c d e	<u>193</u>	a b c d e	<u>233</u>	a b c d e
<u>154</u>	a b c d e	<u>194</u>	a b c d e	<u>234</u>	a b c d e
<u>155</u>	a b c d e	<u>195</u>	a b c d e	<u>235</u>	a b c d e
<u>156</u>	a b c d e	<u>196</u>	a b c d e	<u>236</u>	a b c d e
<u>157</u>	a b c d e	<u>197</u>	a b c d e	<u>237</u>	a b c d e
<u>158</u>	a b c d e	<u>198</u>	a b c d e	<u>238</u>	a b c d e
<u>159</u>	a b c d e	<u>199</u>	a b c d e	<u>239</u>	a b c d e
<u>160</u>	a b c d e	<u>200</u>	a b c d e	<u>240</u>	a b c d e

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Chapter 1 General

ARTICLE 100 Definitions

Scope. This article contains only those definitions essential to the proper application of this *Code*. It is not intended to include commonly defined general terms or commonly defined technical terms from related codes and standards. In general, only those terms that are used in two or more articles are defined in Article 100. Other definitions are included in the article in which they are used but may be referenced in Article 100.

Part I of this article contains definitions intended to apply wherever the terms are used throughout this *Code*. Part II contains definitions applicable only to **articles and parts of articles** specifically covering installations and equipment operating at over 600 volts, nominal.

I. General

Accessible (as applied to equipment). Admitting close approach; not guarded by locked doors, elevation, or other effective means.

Accessible (as applied to wiring methods). Capable of being removed or exposed without damaging the building structure or finish or not permanently closed in by the structure or finish of the building.

Accessible, Readily (Readily Accessible). Capable of being reached quickly for operation, renewal, or inspections without requiring those to whom ready access is requisite **to actions such as to use tools, to climb over or remove obstacles, or to resort to portable ladders, and so forth.**

Adjustable Speed Drive. Power conversion equipment that provides a means of adjusting the speed of an electric motor.

Informational Note: A variable frequency drive is one type of electronic adjustable speed drive that controls the rotational speed of an ac electric motor by controlling the frequency and voltage of the electrical power supplied to the motor.

Adjustable Speed Drive System. A combination of an adjustable speed drive, its associated motor(s), and auxiliary equipment.

Ampacity. The maximum current, in amperes, that a conductor can carry continuously under the conditions of use without exceeding its temperature rating.

Appliance. Utilization equipment, generally other than industrial, that is normally built in standardized sizes or types

and is installed or connected as a unit to perform one or more functions such as clothes washing, air-conditioning, food mixing, deep frying, and so forth.

Approved. Acceptable to the authority having jurisdiction.

Arc-Fault Circuit Interrupter (AFCI). A device intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected.

Askarel. A generic term for a group of nonflammable synthetic chlorinated hydrocarbons used as electrical insulating media.

Informational Note: Askarels of various compositional types are used. Under arcing conditions, the gases produced, while consisting predominantly of noncombustible hydrogen chloride, can include varying amounts of combustible gases, depending on the askarel type.

Attachment Plug (Plug Cap) (Plug). A device that, by insertion in a receptacle, establishes a connection between the conductors of the attached flexible cord and the conductors connected permanently to the receptacle.

Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

Informational Note: The phrase “authority having jurisdiction,” or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

Automatic. Performing a function without the necessity of human intervention.

Bathroom. An area including a basin with one or more of the following: a toilet, a urinal, a tub, a shower, a bidet, or similar plumbing fixtures.

Battery System. Interconnected battery subsystems consisting of one or more storage batteries and battery chargers, and can include inverters, converters, and associated electrical equipment.

Bonded (Bonding). Connected to establish electrical continuity and conductivity.

Bonding Conductor or Jumper. A reliable conductor to ensure the required electrical conductivity between metal parts required to be electrically connected.

Bonding Jumper, Equipment. The connection between two or more portions of the equipment grounding conductor.

Bonding Jumper, Main. The connection between the grounded circuit conductor and the equipment grounding conductor at the service.

Bonding Jumper, System. The connection between the grounded circuit conductor and the supply-side bonding jumper, or the equipment grounding conductor, or both, at a separately derived system.

Branch Circuit. The circuit conductors between the final overcurrent device protecting the circuit and the outlet(s).

Branch Circuit, Appliance. A branch circuit that supplies energy to one or more outlets to which appliances are to be connected and that has no permanently connected luminaires that are not a part of an appliance.

Branch Circuit, General-Purpose. A branch circuit that supplies two or more receptacles or outlets for lighting and appliances.

Branch Circuit, Individual. A branch circuit that supplies only one utilization equipment.

Branch Circuit, Multiwire. A branch circuit that consists of two or more ungrounded conductors that have a voltage between them, and a grounded conductor that has equal voltage between it and each ungrounded conductor of the circuit and that is connected to the neutral or grounded conductor of the system.

Building. A structure that stands alone or that is cut off from adjoining structures by fire walls with all openings therein protected by approved fire doors.

Cabinet. An enclosure that is designed for either surface mounting or flush mounting and is provided with a frame, mat, or trim in which a swinging door or doors are or can be hung.

Cable Routing Assembly. A single channel or connected multiple channels, as well as associated fittings, forming a structural system that is used to support and route communications wires and cables, optical fiber cables, data cables associated with information technology and communications equipment, Class 2 and Class 3 cables, and power-limited fire alarm cables.

Charge Controller. Equipment that controls dc voltage or dc current, or both, and that is used to charge a battery or other energy storage device.

Circuit Breaker. A device designed to open and close a circuit by nonautomatic means and to open the circuit automatically on a predetermined overcurrent without damage to itself when properly applied within its rating.

Informational Note: The automatic opening means can be integral, direct acting with the circuit breaker, or remote from the circuit breaker.

Adjustable (as applied to circuit breakers). A qualifying term indicating that the circuit breaker can be set to trip at various values of current, time, or both, within a predetermined range.

Instantaneous Trip (as applied to circuit breakers). A qualifying term indicating that no delay is purposely introduced in the tripping action of the circuit breaker.

Inverse Time (as applied to circuit breakers). A qualifying term indicating that there is purposely introduced a delay in the tripping action of the circuit breaker, which delay decreases as the magnitude of the current increases.

Nonadjustable (as applied to circuit breakers). A qualifying term indicating that the circuit breaker does not have any adjustment to alter the value of the current at which it will trip or the time required for its operation.

Setting (of circuit breakers). The value of current, time, or both, at which an adjustable circuit breaker is set to trip.

Clothes Closet. A nonhabitable room or space intended primarily for storage of garments and apparel.

Communications Equipment. The electronic equipment that performs the telecommunications operations for the transmission of audio, video, and data, and includes power equipment (e.g., dc converters, inverters, and batteries), technical support equipment (e.g., computers), and conductors dedicated solely to the operation of the equipment.

Communications Raceway. An enclosed channel of non-metallic materials designed expressly for holding communications wires and cables, typically communications wires and cables and optical fiber and data (Class 2 and Class 3) in plenum, riser, and general-purpose applications.

Concealed. Rendered inaccessible by the structure or finish of the building.

Informational Note: Wires in concealed raceways are considered concealed, even though they may become accessible by withdrawing them.

Conductor, Bare. A conductor having no covering or electrical insulation whatsoever.

Conductor, Covered. A conductor encased within material of composition or thickness that is not recognized by this Code as electrical insulation.

Conductor, Insulated. A conductor encased within material of composition and thickness that is recognized by this Code as electrical insulation.

Conduit Body. A separate portion of a conduit or tubing system that provides access through a removable cover(s) to the interior of the system at a junction of two or more sections of the system or at a terminal point of the system.

Boxes such as FS and FD or larger cast or sheet metal boxes are not classified as conduit bodies.

Connector, Pressure (Solderless). A device that establishes a connection between two or more conductors or between one or more conductors and a terminal by means of mechanical pressure and without the use of solder.

Continuous Load. A load where the maximum current is expected to continue for 3 hours or more.

Control Circuit. The circuit of a control apparatus or system that carries the electric signals directing the performance of the controller but does not carry the main power current.

Controller. A device or group of devices that serves to govern, in some predetermined manner, the electric power delivered to the apparatus to which it is connected.

Cooking Unit, Counter-Mounted. A cooking appliance designed for mounting in or on a counter and consisting of one or more heating elements, internal wiring, and built-in or mountable controls.

Coordination (Selective). Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the selection and installation of overcurrent protective devices and their ratings or settings for the full range of available overcurrents, from overload to the maximum available fault current, and for the full range of overcurrent protective device opening times associated with those overcurrents.

Copper-Clad Aluminum Conductors. Conductors drawn from a copper-clad aluminum rod, with the copper metallogically bonded to an aluminum core, where the copper forms a minimum of 10 percent of the cross-sectional area of a solid conductor or each strand of a stranded conductor.

Cutout Box. An enclosure designed for surface mounting that has swinging doors or covers secured directly to and telescoping with the walls of the box proper.

Dead Front. Without live parts exposed to a person on the operating side of the equipment.

Demand Factor. The ratio of the maximum demand of a system, or part of a system, to the total connected load of a system or the part of the system under consideration.

Device. A unit of an electrical system, other than a conductor, that carries or controls electric energy as its principal function.

Disconnecting Means. A device, or group of devices, or other means by which the conductors of a circuit can be disconnected from their source of supply.

Dusttight. Constructed so that dust will not enter the enclosing case under specified test conditions.

Duty, Continuous. Operation at a substantially constant load for an indefinitely long time.

Duty, Intermittent. Operation for alternate intervals of (1) load and no load; or (2) load and rest; or (3) load, no load, and rest.

Duty, Periodic. Intermittent operation in which the load conditions are regularly recurrent.

Duty, Short-Time. Operation at a substantially constant load for a short and definite, specified time.

Duty, Varying. Operation at loads, and for intervals of time, both of which may be subject to wide variation.

Dwelling, One-Family. A building that consists solely of one dwelling unit.

Dwelling, Two-Family. A building that consists solely of two dwelling units.

Dwelling, Multifamily. A building that contains three or more dwelling units.

Dwelling Unit. A single unit, providing complete and independent living facilities for one or more persons, including permanent provisions for living, sleeping, cooking, and sanitation.

Effective Ground-Fault Current Path. An intentionally constructed, low-impedance electrically conductive path designed and intended to carry current under ground-fault conditions from the point of a ground fault on a wiring system to the electrical supply source and that facilitates the operation of the overcurrent protective device or ground-fault detectors.

Electric Power Production and Distribution Network. Power production, distribution, and utilization equipment and facilities, such as electric utility systems that deliver electric power to the connected loads, that are external to and not controlled by an interactive system.

Electric Sign. A fixed, stationary, or portable self-contained, electrically illuminated utilization equipment with words or symbols designed to convey information or attract attention.

Electric-Discharge Lighting. Systems of illumination utilizing fluorescent lamps, high-intensity discharge (HID) lamps, or neon tubing.

Electronically Actuated Fuse. An overcurrent protective device that generally consists of a control module that provides current-sensing, electronically derived time-current characteristics, energy to initiate tripping, and an interrupting module that interrupts current when an overcurrent occurs.

Such fuses may or may not operate in a current-limiting fashion, depending on the type of control selected.

Enclosed. Surrounded by a case, housing, fence, or wall(s) that prevents persons from accidentally contacting energized parts.

Enclosure. The case or housing of apparatus, or the fence or walls surrounding an installation to prevent personnel from accidentally contacting energized parts or to protect the equipment from physical damage.

Informational Note: See Table 110.28 for examples of enclosure types.

Energized. Electrically connected to, or is, a source of voltage.

Equipment. A general term, including fittings, devices, appliances, luminaires, apparatus, machinery, and the like used as a part of, or in connection with, an electrical installation.

Explosionproof Equipment. Equipment enclosed in a case that is capable of withstanding an explosion of a specified gas or vapor that may occur within it and of preventing the ignition of a specified gas or vapor surrounding the enclosure by sparks, flashes, or explosion of the gas or vapor within, and that operates at such an external temperature that a surrounding flammable atmosphere will not be ignited thereby.

Informational Note: For further information, see ANSI/UL 1203-2009, *Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations*.

Exposed (as applied to live parts). Capable of being inadvertently touched or approached nearer than a safe distance by a person.

Informational Note: This term applies to parts that are not suitably guarded, isolated, or insulated.

Exposed (as applied to wiring methods). On or attached to the surface or behind panels designed to allow access.

Externally Operable. Capable of being operated without exposing the operator to contact with live parts.

Feeder. All circuit conductors between the service equipment, the source of a separately derived system, or other power supply source and the final branch-circuit overcurrent device.

Festoon Lighting. A string of outdoor lights that is suspended between two points.

Fitting. An accessory such as a locknut, bushing, or other part of a wiring system that is intended primarily to perform a mechanical rather than an electrical function.

Garage. A building or portion of a building in which one or more self-propelled vehicles can be kept for use, sale, storage, rental, repair, exhibition, or demonstration purposes.

Informational Note: For commercial garages, repair and storage, see Article 511.

Ground. The earth.

Ground Fault. An unintentional, electrically conductive connection between an ungrounded conductor of an electrical circuit and the normally non-current-carrying conductors, metallic enclosures, metallic raceways, metallic equipment, or earth.

Grounded (Grounding). Connected (connecting) to ground or to a conductive body that extends the ground connection.

Grounded, Solidly. Connected to ground without inserting any resistor or impedance device.

Grounded Conductor. A system or circuit conductor that is intentionally grounded.

Ground-Fault Circuit Interrupter (GFCI). A device intended for the protection of personnel that functions to de-energize a circuit or portion thereof within an established period of time when a current to ground exceeds the values established for a Class A device.

Informational Note: Class A ground-fault circuit interrupters trip when the current to ground is 6 mA or higher and do not trip when the current to ground is less than 4 mA. For further information, see UL 943, *Standard for Ground-Fault Circuit Interrupters*.

Ground-Fault Current Path. An electrically conductive path from the point of a ground fault on a wiring system through normally non-current-carrying conductors, equipment, or the earth to the electrical supply source.

Informational Note: Examples of ground-fault current paths are any combination of equipment grounding conductors, metallic raceways, metallic cable sheaths, electrical equipment, and any other electrically conductive material such as metal, water, and gas piping; steel framing members; stucco mesh; metal ducting; reinforcing steel; shields of communications cables; and the earth itself.

Ground-Fault Protection of Equipment. A system intended to provide protection of equipment from damaging line-to-ground fault currents by operating to cause a disconnecting means to open all ungrounded conductors of the faulted circuit. This protection is provided at current levels less than those required to protect conductors from damage through the operation of a supply circuit overcurrent device.

Grounding Conductor, Equipment (EGC). The conductive path(s) that provides a ground-fault current path and connects normally non-current-carrying metal parts of equipment

together and to the system grounded conductor or to the grounding electrode conductor, or both.

Informational Note No. 1: It is recognized that the equipment grounding conductor also performs bonding.

Informational Note No. 2: See 250.118 for a list of acceptable equipment grounding conductors.

Grounding Electrode. A conducting object through which a direct connection to earth is established.

Grounding Electrode Conductor. A conductor used to connect the system grounded conductor or the equipment to a grounding electrode or to a point on the grounding electrode system.

Guarded. Covered, shielded, fenced, enclosed, or otherwise protected by means of suitable covers, casings, barriers, rails, screens, mats, or platforms to remove the likelihood of approach or contact by persons or objects to a point of danger.

Guest Room. An accommodation combining living, sleeping, sanitary, and storage facilities within a compartment.

Guest Suite. An accommodation with two or more contiguous rooms comprising a compartment, with or without doors between such rooms, that provides living, sleeping, sanitary, and storage facilities.

Handhole Enclosure. An enclosure for use in underground systems, provided with an open or closed bottom, and sized to allow personnel to reach into, but not enter, for the purpose of installing, operating, or maintaining equipment or wiring or both.

Hermetic Refrigerant Motor-Compressor. A combination consisting of a compressor and motor, both of which are enclosed in the same housing, with no external shaft or shaft seals, with the motor operating in the refrigerant.

Hoistway. Any shaftway, hatchway, well hole, or other vertical opening or space in which an elevator or dumbwaiter is designed to operate.

Hybrid System. A system comprised of multiple power sources. These power sources could include photovoltaic, wind, micro-hydro generators, engine-driven generators, and others, but do not include electric power production and distribution network systems. Energy storage systems such as batteries, flywheels, or superconducting magnetic storage equipment **do not constitute a power source for the purpose of this definition. The energy regenerated by an overhauling (descending) elevator does not constitute a power source for the purpose of this definition.**

Identified (as applied to equipment). Recognizable as suitable for the specific purpose, function, use, environment, application, and so forth, where described in a particular *Code* requirement.

Informational Note: Some examples of ways to determine suitability of equipment for a specific purpose, environment, or application include investigations by a qualified testing laboratory (listing and labeling), an inspection agency, or other organizations concerned with product evaluation.

In Sight From (Within Sight From, Within Sight). Where this *Code* specifies that one equipment shall be “in sight from,” “within sight from,” or “within sight of,” and so forth, another equipment, the specified equipment is to be visible and not more than 15 m (50 ft) distant from the other.

Industrial Control Panel. An assembly of two or more components consisting of one of the following: (1) power circuit components only, such as motor controllers, overload relays, fused disconnect switches, and circuit breakers; (2) control circuit components only, such as push buttons, pilot lights, selector switches, timers, switches, and control relays; (3) a combination of power and control circuit components. These components, with associated wiring and terminals, are mounted on, or contained within, an enclosure or mounted on a subpanel.

The industrial control panel does not include the controlled equipment.

Interactive System. An electric power production system that is operating in parallel with and capable of delivering energy to an electric primary source supply system.

Interrupting Rating. The highest current at rated voltage that a device is identified to interrupt under standard test conditions.

Informational Note: Equipment intended to interrupt current at other than fault levels may have its interrupting rating implied in other ratings, such as horsepower or locked rotor current.

Intersystem Bonding Termination. A device that provides a means for connecting intersystem bonding conductors for communications systems to the grounding electrode system.

Isolated (as applied to location). Not readily accessible to persons unless special means for access are used.

Kitchen. An area with a sink and permanent provisions for food preparation and cooking.

Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

Lighting Outlet. An outlet intended for the direct connection of a lampholder or luminaire.

Lighting Track (Track Lighting). A manufactured assembly designed to support and energize luminaires that are capable of being readily repositioned on the track. Its length can be altered by the addition or subtraction of sections of track.

Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

Informational Note: The means for identifying listed equipment may vary for each organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. Use of the system employed by the listing organization allows the authority having jurisdiction to identify a listed product.

Live Parts. Energized conductive components.

Location, Damp. Locations protected from weather and not subject to saturation with water or other liquids but subject to moderate degrees of moisture.

Informational Note: Examples of such locations include partially protected locations under canopies, marquees, roofed open porches, and like locations, and interior locations subject to moderate degrees of moisture, such as some basements, some barns, and some cold-storage warehouses.

Location, Dry. A location not normally subject to dampness or wetness. A location classified as dry may be temporarily subject to dampness or wetness, as in the case of a building under construction.

Location, Wet. Installations underground or in concrete slabs or masonry in direct contact with the earth; in locations subject to saturation with water or other liquids, such as vehicle washing areas; and in unprotected locations exposed to weather.

Luminaire. A complete lighting unit consisting of a light source such as a lamp or lamps, together with the parts designed to position the light source and connect it to the power supply. It may also include parts to protect the light source or the ballast or to distribute the light. A lampholder itself is not a luminaire.

Motor Control Center. An assembly of one or more enclosed sections having a common power bus and principally containing motor control units.

Multioutlet Assembly. A type of surface, flush, or free-standing raceway designed to hold conductors and receptacles, assembled in the field or at the factory.

Neutral Conductor. The conductor connected to the neutral point of a system that is intended to carry current under normal conditions.

Neutral Point. The common point on a wye-connection in a polyphase system or midpoint on a single-phase, 3-wire system, or midpoint of a single-phase portion of a 3-phase delta system, or a midpoint of a 3-wire, direct-current system.

Informational Note: At the neutral point of the system, the vectorial sum of the nominal voltages from all other phases within the system that utilize the neutral, with respect to the neutral point, is zero potential.

Nonautomatic. Requiring human intervention to perform a function.

Nonlinear Load. A load where the wave shape of the steady-state current does not follow the wave shape of the applied voltage.

Informational Note: Electronic equipment, electronic/electric-discharge lighting, adjustable-speed drive systems, and similar equipment may be nonlinear loads.

Outlet. A point on the wiring system at which current is taken to supply utilization equipment.

Outline Lighting. An arrangement of incandescent lamps, electric-discharge lighting, or other electrically powered light sources to outline or call attention to certain features such as the shape of a building or the decoration of a window.

Overcurrent. Any current in excess of the rated current of equipment or the ampacity of a conductor. It may result from overload, short circuit, or ground fault.

Informational Note: A current in excess of rating may be accommodated by certain equipment and conductors for a given set of conditions. Therefore, the rules for overcurrent protection are specific for particular situations.

Overcurrent Protective Device, Branch-Circuit. A device capable of providing protection for service, feeder, and branch circuits and equipment over the full range of overcurrents between its rated current and its interrupting rating. Such devices are provided with interrupting ratings appropriate for the intended use but no less than 5000 amperes.

Overcurrent Protective Device, Supplementary. A device intended to provide limited overcurrent protection for specific applications and utilization equipment such as luminaires and appliances. This limited protection is in addition to the protection provided in the required branch circuit by the branch-circuit overcurrent protective device.

Overload. Operation of equipment in excess of normal, full-load rating, or of a conductor in excess of rated ampacity that, when it persists for a sufficient length of time, would cause damage or dangerous overheating. A fault, such as a short circuit or ground fault, is not an overload.

Panelboard. A single panel or group of panel units designed for assembly in the form of a single panel, including buses and automatic overcurrent devices, and equipped with or without switches for the control of light, heat, or power circuits; designed to be placed in a cabinet or cutout box placed in or against a wall, partition, or other support; and accessible only from the front.

Photovoltaic (PV) System. The total components and sub-system that, in combination, convert solar energy into electric energy suitable for connection to a utilization load.

Plenum. A compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system.

Power Outlet. An enclosed assembly that may include receptacles, circuit breakers, fuseholders, fused switches, buses, and watt-hour meter mounting means; intended to supply and control power to mobile homes, recreational vehicles, park trailers, or boats or to serve as a means for distributing power required to operate mobile or temporarily installed equipment.

Premises Wiring (System). Interior and exterior wiring, including power, lighting, control, and signal circuit wiring together with all their associated hardware, fittings, and wiring devices, both permanently and temporarily installed. This includes (a) wiring from the service point or power source to the outlets or (b) wiring from and including the power source to the outlets where there is no service point.

Such wiring does not include wiring internal to appliances, luminaires, motors, controllers, motor control centers, and similar equipment.

Informational Note: Power sources include, but are not limited to, interconnected or stand-alone batteries, solar photovoltaic systems, other distributed generation systems, or generators.

Qualified Person. One who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid the hazards involved.

Informational Note: Refer to NFPA 70E-2012, *Standard for Electrical Safety in the Workplace*, for electrical safety training requirements.

Raceway. An enclosed channel of metallic or nonmetallic materials designed expressly for holding wires, cables, or bus-bars, with additional functions as permitted in this *Code*.

Informational Note: A raceway is identified within specific article definitions.

Rainproof. Constructed, protected, or treated so as to prevent rain from interfering with the successful operation of the apparatus under specified test conditions.

Raintight. Constructed or protected so that exposure to a beating rain will not result in the entrance of water under specified test conditions.

Receptacle. A receptacle is a contact device installed at the outlet for the connection of an attachment plug. A single receptacle is a single contact device with no other contact device on the same yoke. A multiple receptacle is two or more contact devices on the same yoke.

Receptacle Outlet. An outlet where one or more receptacles are installed.

Remote-Control Circuit. Any electrical circuit that controls any other circuit through a relay or an equivalent device.

Retrofit Kit. A general term for a complete subassembly of parts and devices for field conversion of utilization equipment.

Sealable Equipment. Equipment enclosed in a case or cabinet that is provided with a means of sealing or locking so that live parts cannot be made accessible without opening the enclosure.

Informational Note: The equipment may or may not be operable without opening the enclosure.

Separately Derived System. An electrical source, other than a service, having no direct connection(s) to circuit conductors of any other electrical source other than those established by grounding and bonding connections.

Service. The conductors and equipment for delivering electric energy from the serving utility to the wiring system of the premises served.

Service Cable. Service conductors made up in the form of a cable.

Service Conductors. The conductors from the service point to the service disconnecting means.

Service Conductors, Overhead. The overhead conductors between the service point and the first point of connection to the service-entrance conductors at the building or other structure.

Service Conductors, Underground. The underground conductors between the service point and the first point of connection to the service-entrance conductors in a terminal box, meter, or other enclosure, inside or outside the building wall.

Informational Note: Where there is no terminal box, meter, or other enclosure, the point of connection is considered to be the point of entrance of the service conductors into the building.

Service Drop. The overhead conductors between the utility electric supply system and the service point.

Service-Entrance Conductors, Overhead System. The service conductors between the terminals of the service equipment and a point usually outside the building, clear of building walls, where joined by tap or splice to the service drop or overhead service conductors.

Service-Entrance Conductors, Underground System. The service conductors between the terminals of the service equipment and the point of connection to the service lateral or underground service conductors.

Informational Note: Where service equipment is located outside the building walls, there may be no service-entrance conductors or they may be entirely outside the building.

Service Equipment. The necessary equipment, usually consisting of a circuit breaker(s) or switch(es) and fuse(s) and their accessories, connected to the load end of service conductors to a building or other structure, or an otherwise designated area, and intended to constitute the main control and cutoff of the supply.

Service Lateral. The underground conductors between the utility electric supply system and the service point.

Service Point. The point of connection between the facilities of the serving utility and the premises wiring.

Informational Note: The service point can be described as the point of demarcation between where the serving utility ends and the premises wiring begins. The serving utility generally specifies the location of the service point based on the conditions of service.

Short-Circuit Current Rating. The prospective symmetrical fault current at a nominal voltage to which an apparatus or system is able to be connected without sustaining damage exceeding defined acceptance criteria.

Show Window. Any window used or designed to be used for the display of goods or advertising material, whether it is fully or partly enclosed or entirely open at the rear and whether or not it has a platform raised higher than the street floor level.

Signaling Circuit. Any electrical circuit that energizes signaling equipment.

Special Permission. The written consent of the authority having jurisdiction.

Structure. That which is built or constructed.

Substation. An enclosed assemblage of equipment (e.g., switches, interrupting devices, circuit breakers, buses, and transformers) through which electric energy is passed for the purpose of distribution, switching, or modifying its characteristics.

Surge Arrester. A protective device for limiting surge voltages by discharging or bypassing surge current; it also pre-

vents continued flow of follow current while remaining capable of repeating these functions.

Surge-Protective Device (SPD). A protective device for limiting transient voltages by diverting or limiting surge current; it also prevents continued flow of follow current while remaining capable of repeating these functions and is designated as follows:

Type 1: Permanently connected SPDs intended for installation between the secondary of the service transformer and the line side of the service disconnect overcurrent device.

Type 2: Permanently connected SPDs intended for installation on the load side of the service disconnect overcurrent device, including SPDs located at the branch panel.

Type 3: Point of utilization SPDs.

Type 4: Component SPDs, including discrete components, as well as assemblies.

Informational Note: For further information on Type 1, Type 2, Type 3, and Type 4 SPDs, see UL 1449, *Standard for Surge Protective Devices*.

Switch, Bypass Isolation. A manually operated device used in conjunction with a transfer switch to provide a means of directly connecting load conductors to a power source and of disconnecting the transfer switch.

Switch, General-Use. A switch intended for use in general distribution and branch circuits. It is rated in amperes, and it is capable of interrupting its rated current at its rated voltage.

Switch, General-Use Snap. A form of general-use switch constructed so that it can be installed in device boxes or on box covers, or otherwise used in conjunction with wiring systems recognized by this *Code*.

Switch, Isolating. A switch intended for isolating an electrical circuit from the source of power. It has no interrupting rating, and it is intended to be operated only after the circuit has been opened by some other means.

Switch, Motor-Circuit. A switch rated in horsepower that is capable of interrupting the maximum operating overload current of a motor of the same horsepower rating as the switch at the rated voltage.

Switch, Transfer. An automatic or nonautomatic device for transferring one or more load conductor connections from one power source to another.

Switchboard. A large single panel, frame, or assembly of panels on which are mounted on the face, back, or both, switches, overcurrent and other protective devices, buses, and usually instruments. **These assemblies** are generally accessible from the rear as well as from the front and are not intended to be installed in cabinets.

Switchgear. An assembly completely enclosed on all sides and top with sheet metal (except for ventilating openings and inspection windows) and containing primary power circuit switching, interrupting devices, or both, with buses and connections. The assembly may include control and auxiliary devices. Access to the interior of the enclosure is provided by doors, removable covers, or both.

Informational Note: All switchgear subject to *NEC* requirements is metal enclosed. Switchgear rated below 1000 V or less may be identified as “low-voltage power circuit breaker switchgear.” Switchgear rated over 1000 V may be identified as “metal-enclosed switchgear” or “metal-clad switchgear.” Switchgear is available in non-arc-resistant or arc-resistant constructions.

Thermal Protector (as applied to motors). A protective device for assembly as an integral part of a motor or motor-compressor that, when properly applied, protects the motor against dangerous overheating due to overload and failure to start.

Informational Note: The thermal protector may consist of one or more sensing elements integral with the motor or motor-compressor and an external control device.

Thermally Protected (as applied to motors). The words *Thermally Protected* appearing on the nameplate of a motor or motor-compressor indicate that the motor is provided with a thermal protector.

Ungrounded. Not connected to ground or to a conductive body that extends the ground connection.

Uninterruptible Power Supply. A power supply used to provide alternating current power to a load for some period of time in the event of a power failure.

Informational Note: In addition, it may provide a more constant voltage and frequency supply to the load, reducing the effects of voltage and frequency variations.

Utility-Interactive Inverter. An inverter intended for use in parallel with an electric utility to supply common loads that may deliver power to the utility.

Utilization Equipment. Equipment that utilizes electric energy for electronic, electromechanical, chemical, heating, lighting, or similar purposes.

Ventilated. Provided with a means to permit circulation of air sufficient to remove an excess of heat, fumes, or vapors.

Volatile Flammable Liquid. A flammable liquid having a flash point below 38°C (100°F), or a flammable liquid whose temperature is above its flash point, or a Class II combustible liquid that has a vapor pressure not exceeding 276 kPa (40 psia) at 38°C (100°F) and whose temperature is above its flash point.

Voltage (of a circuit). The greatest root-mean-square (rms) (effective) difference of potential between any two conductors of the circuit concerned.

Informational Note: Some systems, such as 3-phase 4-wire, single-phase 3-wire, and 3-wire direct current, may have various circuits of various voltages.

Voltage, Nominal. A nominal value assigned to a circuit or system for the purpose of conveniently designating its voltage class (e.g., 120/240 volts, 480Y/277 volts, 600 volts).

Informational Note No. 1: The actual voltage at which a circuit operates can vary from the nominal within a range that permits satisfactory operation of equipment.

Informational Note No. 2: See ANSI C84.1-2006, *Voltage Ratings for Electric Power Systems and Equipment (60 Hz)*.

Voltage to Ground. For grounded circuits, the voltage between the given conductor and that point or conductor of the circuit that is grounded; for ungrounded circuits, the greatest voltage between the given conductor and any other conductor of the circuit.

Watertight. Constructed so that moisture will not enter the enclosure under specified test conditions.

Weatherproof. Constructed or protected so that exposure to the weather will not interfere with successful operation.

Informational Note: Rainproof, raintight, or watertight equipment can fulfill the requirements for weatherproof where varying weather conditions other than wetness, such as snow, ice, dust, or temperature extremes, are not a factor.

II. Over 600 Volts, Nominal

Part II contains definitions applicable only to the articles and parts of articles specifically covering installations and equipment operating at over 600 volts, nominal.

The definitions in Part I are intended to apply wherever the terms are used throughout this *Code*. The definitions in Part II are applicable only to articles and parts of articles specifically covering installations and equipment operating at over 600 volts, nominal.

Electronically Actuated Fuse. An overcurrent protective device that generally consists of a control module that provides current sensing, electronically derived time-current characteristics, energy to initiate tripping, and an interrupting module that interrupts current when an overcurrent occurs. Electronically actuated fuses may or may not operate in a current-limiting fashion, depending on the type of control selected.

Fuse. An overcurrent protective device with a circuit-opening fusible part that is heated and severed by the passage of overcurrent through it.

Informational Note: A fuse comprises all the parts that form a unit capable of performing the prescribed functions. It may or may not be the complete device necessary to connect it into an electrical circuit.

Controlled Vented Power Fuse. A fuse with provision for controlling discharge circuit interruption such that no solid material may be exhausted into the surrounding atmosphere.

Informational Note: The fuse is designed so that discharged gases will not ignite or damage insulation in the path of the discharge or propagate a flashover to or between grounded members or conduction members in the path of the discharge where the distance between the vent and such insulation or conduction members conforms to manufacturer's recommendations.

Expulsion Fuse Unit (Expulsion Fuse). A vented fuse unit in which the expulsion effect of gases produced by the arc and lining of the fuseholder, either alone or aided by a spring, extinguishes the arc.

Nonvented Power Fuse. A fuse without intentional provision for the escape of arc gases, liquids, or solid particles to the atmosphere during circuit interruption.

Power Fuse Unit. A vented, nonvented, or controlled vented fuse unit in which the arc is extinguished by being drawn through solid material, granular material, or liquid, either alone or aided by a spring.

Vented Power Fuse. A fuse with provision for the escape of arc gases, liquids, or solid particles to the surrounding atmosphere during circuit interruption.

Multiple Fuse. An assembly of two or more single-pole fuses.

Switching Device. A device designed to close, open, or both, one or more electrical circuits.

Circuit Breaker. A switching device capable of making, carrying, and interrupting currents under normal circuit conditions, and also of making, carrying for a specified time, and interrupting currents under specified abnormal circuit conditions, such as those of short circuit.

Cutout. An assembly of a fuse support with either a fuseholder, fuse carrier, or disconnecting blade. The fuseholder or fuse carrier may include a conducting element (fuse link) or may act as the disconnecting blade by the inclusion of a nonfusible member.

Disconnecting Means. A device, group of devices, or other means whereby the conductors of a circuit can be disconnected from their source of supply.

Disconnecting (or Isolating) Switch (Disconnecter; Isolator). A mechanical switching device used for isolating a circuit or equipment from a source of power.

Interrupter Switch. A switch capable of making, carrying, and interrupting specified currents.

Oil Cutout (Oil-Filled Cutout). A cutout in which all or part of the fuse support and its fuse link or disconnecting blade is mounted in oil with complete immersion of the contacts and the fusible portion of the conducting element

(fuse link) so that arc interruption by severing of the fuse link or by opening of the contacts will occur under oil.

Oil Switch. A switch having contacts that operate under oil (or askarel or other suitable liquid).

Regulator Bypass Switch. A specific device or combination of devices designed to bypass a regulator.