

## ARTICLE 1.1 — DEFINITIONS

**Ampacity.** The 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.

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

**Automatic.** Self-acting, operating by its own mechanism when actuated by some impersonal influence, as, for example, a change in current, pressure, temperature, or mechanical configuration.

**Bonding (Bonded).** The permanent joining of metallic parts to form an electrically conductive path that ensures electrical continuity and the capacity to conduct safely any current likely to be imposed.

**Bonding 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 equipment grounding conductor 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 (lighting fixtures) 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.

**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.

**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.

*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 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.

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

**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.

**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.

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

**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 that is intended to carry or control but not utilize electric energy.

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

**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.

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

**Electrical Practitioner, Licensed.** One who has undergone training in electrical engineering and has complied with the requirements of Republic Act 7920 or otherwise known as the New Electrical Engineering Law.

**Electrical Practitioner, Non-Licensed.** An electrical practitioner that has not complied with the requirements of RA 7920 or a qualified person with relevant education and experience to enable him or her to perceive risks and to avoid hazards which electricity can create.]

**Energized.** Electrically connected to a source of voltage.

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

**Explosionproof Apparatus.** Apparatus 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.

**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.

**Ground.** A conducting connection, whether intentional or accidental, between an electrical circuit or equipment and the earth or to some conducting body that serves in place of the earth.

**Grounded.** Connected to earth or to some conducting body that serves in place of the earth.

**Grounded, Effectively.** Intentionally connected to earth through a ground connection or connections of sufficiently low impedance and having sufficient current-carrying capacity to prevent the buildup of voltages that may result in undue hazards to connected equipment or to persons.

**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.

FPN: Class A ground-fault circuit interrupters trip when the current to ground has a value in the range of 4 mA to 6 mA. For further information, see UL 943, Standard for Ground-Fault Circuit Interrupters.

**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.** A conductor used to connect equipment or the grounded circuit of a wiring system to a grounding electrode or electrodes.

**Grounding Conductor, Equipment.** The conductor used to connect the non-current-carrying metal parts of equipment, raceways, and other enclosures to the system grounded conductor, the grounding electrode conductor, or both, at the service equipment or at the source of a separately derived system.

**Grounding Electrode.** A device that establishes an electrical connection to the earth.

**Grounding Electrode Conductor.** The conductor used to connect the grounding electrode(s) to the equipment grounding conductor, to the grounded conductor, or to both, at the service, at each building or structure where supplied by a feeder(s) or branch circuit(s), or at the source of a separately derived 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.

**Handhole Enclosure.** An enclosure identified 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.

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

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

FPN: 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.

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

**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, a luminaire (lighting fixture), or a pendant cord lighting fixture), or a pendant cord terminating in a lampholder.

**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 the equipment, material, or services either meets appropriate designated standards or has been tested and found suitable for a specified purpose.

**Live Parts.** Conductor or conductive part intended to be energized in normal use.

**Location, Damp.** Locations protected from weather and not subject to saturation with water or other liquids but subject to moderate degrees of moisture. 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 under ground 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 lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and ballast (where applicable), and to connect the lamps to the power supply.

**Metal-Enclosed Power Switchgear.** A switchgear assembly completely enclosed on all sides and top with sheet metal (except for ventilating openings and inspection windows) 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.

**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 freestanding raceway designed to hold conductors and receptacles, assembled in the field or at the factory.

**Nonautomatic.** Action requiring personal intervention for its control. As applied to an electric controller, nonautomatic control does not necessarily imply a manual controller, but only that personal intervention is necessary.

**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.

**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.

**Raceway.** An enclosed channel of metal or nonmetallic materials designed expressly for holding wires, cables, or busbars, with additional functions as permitted in this Code. Raceways include, but are not limited to, rigid metal conduit, rigid nonmetallic conduit, intermediate metal conduit, liquidtight flexible conduit, flexible metallic tubing, flexible metal conduit, electrical nonmetallic tubing, electrical metallic tubing, underfloor raceways, cellular concrete floor raceways, cellular metal floor raceways, surface raceways, wireways, and busways.

**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 electric circuit that controls any other circuit through a relay or an equivalent device.

**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 Drop.** The overhead service conductors from the last pole or other aerial support to and including the splices, if any, connecting to the service-entrance conductors at the building or other structure.

**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.

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

**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 service conductors between the street main, including any risers at a pole or other structure or from transformers, and the first point of connection to the service-entrance conductors in a terminal box or meter or other enclosure, inside or outside the building wall. 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 Point.** The point of connection between the facilities of the serving utility and the premises wiring.

**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 electric circuit that energizes signaling equipment.

**Solar Photovoltaic System.** The total components and subsystems that, in combination, convert solar energy into electrical energy suitable for connection to a utilization load.

**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, Isolating.** A switch intended for isolating an electric 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. Switchboards are generally accessible from the rear as well as from the front and are not intended to be installed in cabinets.

**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.

**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.

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

**Volatile Flammable Liquid.** A flammable liquid having a flash point below 38°C, 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 at 38°C 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.



**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). The actual voltage at which a circuit operates can vary from the nominal within a range that permits satisfactory operation of equipment.

**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.

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