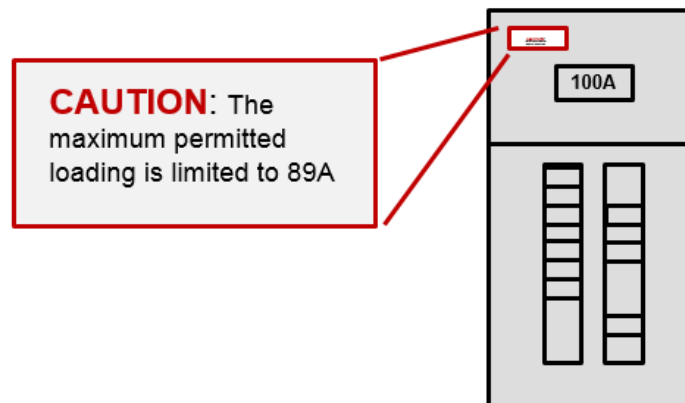


Section 4: Conductors

4-004 Size of conductors

(22) Notwithstanding Rule 4-006, and Rule 8-200(1)(b), 3-wire 120/240 V and 120/208 V service conductors for single dwellings and feeder conductors supplying single dwelling units of row housing, apartment, or similar buildings and terminating on equipment having a conductor termination temperature of not less than 75°C shall be permitted to be sized in accordance with Table 39, and such equipment shall have a permanent, legible caution marking field applied adjacent to the fused switch or circuit breaker nameplate to indicate the maximum calculated load from Table 39.



Section 4: Conductors

4-022 Installation of identified conductor

(2) **(NEW)** The identified conductor shall be installed at each location of a manual or automatic control device for the control of permanently installed luminaires at a branch circuit outlet.



*All cable #14/2 NMD

**Having the identified conductor available at the switching outlet allows for the use of smart dimmers and electronic low voltage switches.*

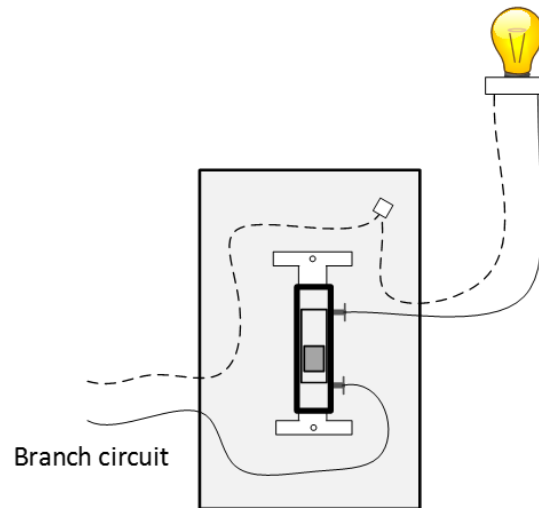
**“Dead-end” switching no longer permitted for lighting-unless an appropriate number of conductors are brought down to the switch*

** 3 & 4 way switches require an identified conductor at each switch location*

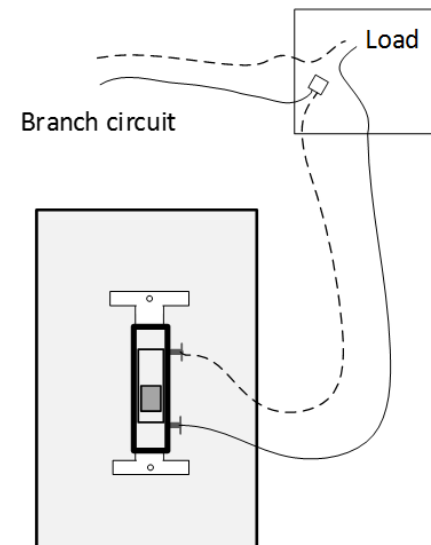
Section 4: Conductors (cont'd)

Switching outlets

4-022 (2)
Lighting

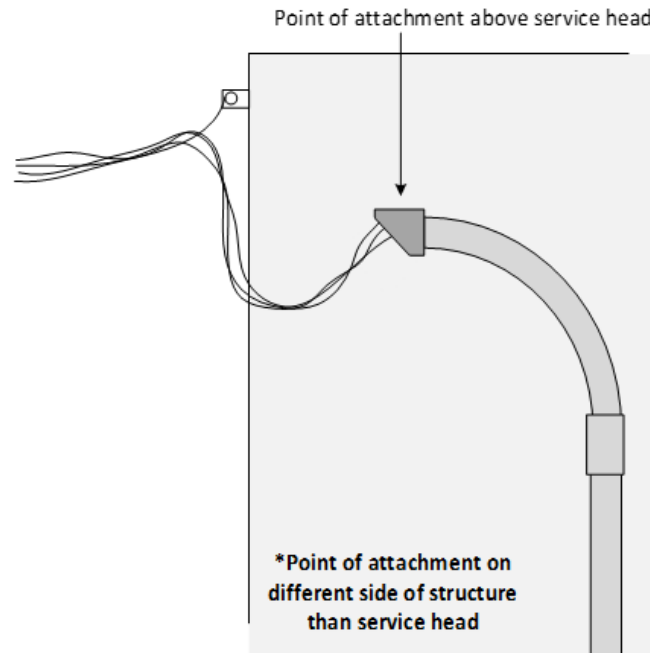


4-030 (2)
Non-lighting loads
(Garburator, exhaust fan, switched receptacle)

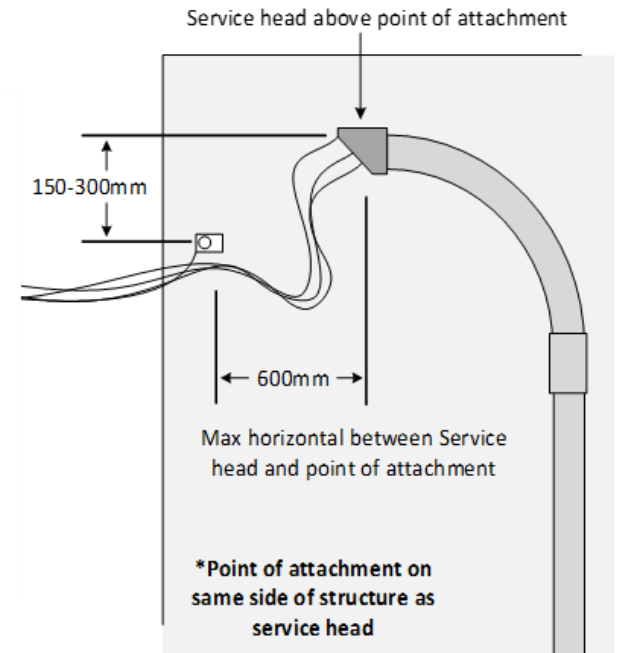


Section 6: Services

6-112(2) (NEW) & 6-116(b) (NEW)



NOT PERMITTED

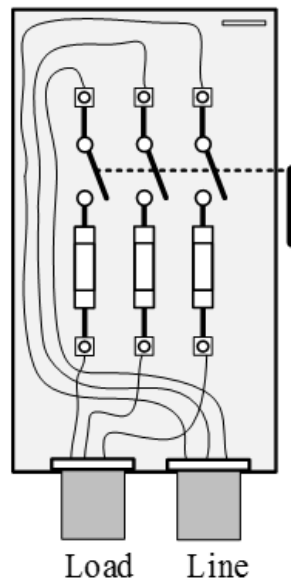


PERMITTED

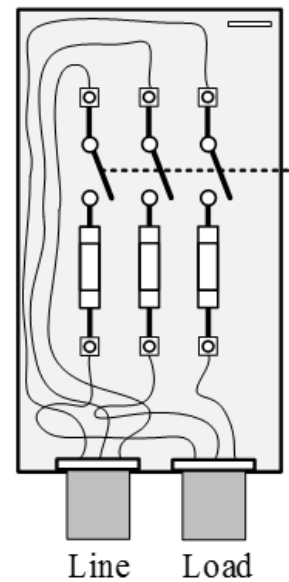
Section 6: Services

6-212(3) (NEW) Wiring space in enclosures

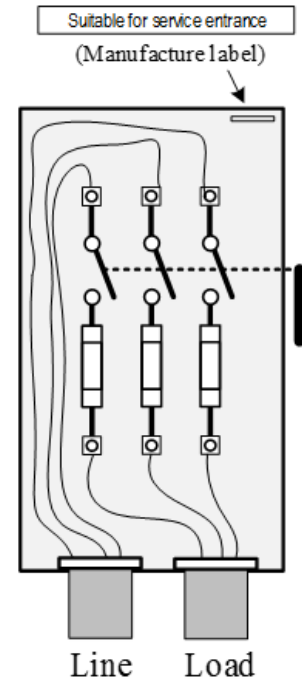
Disconnect rated for service entrance
(Line conductors are service conductors)



NOT PERMITTED



NOT PERMITTED



PERMITTED

Section 8: Demand Factors

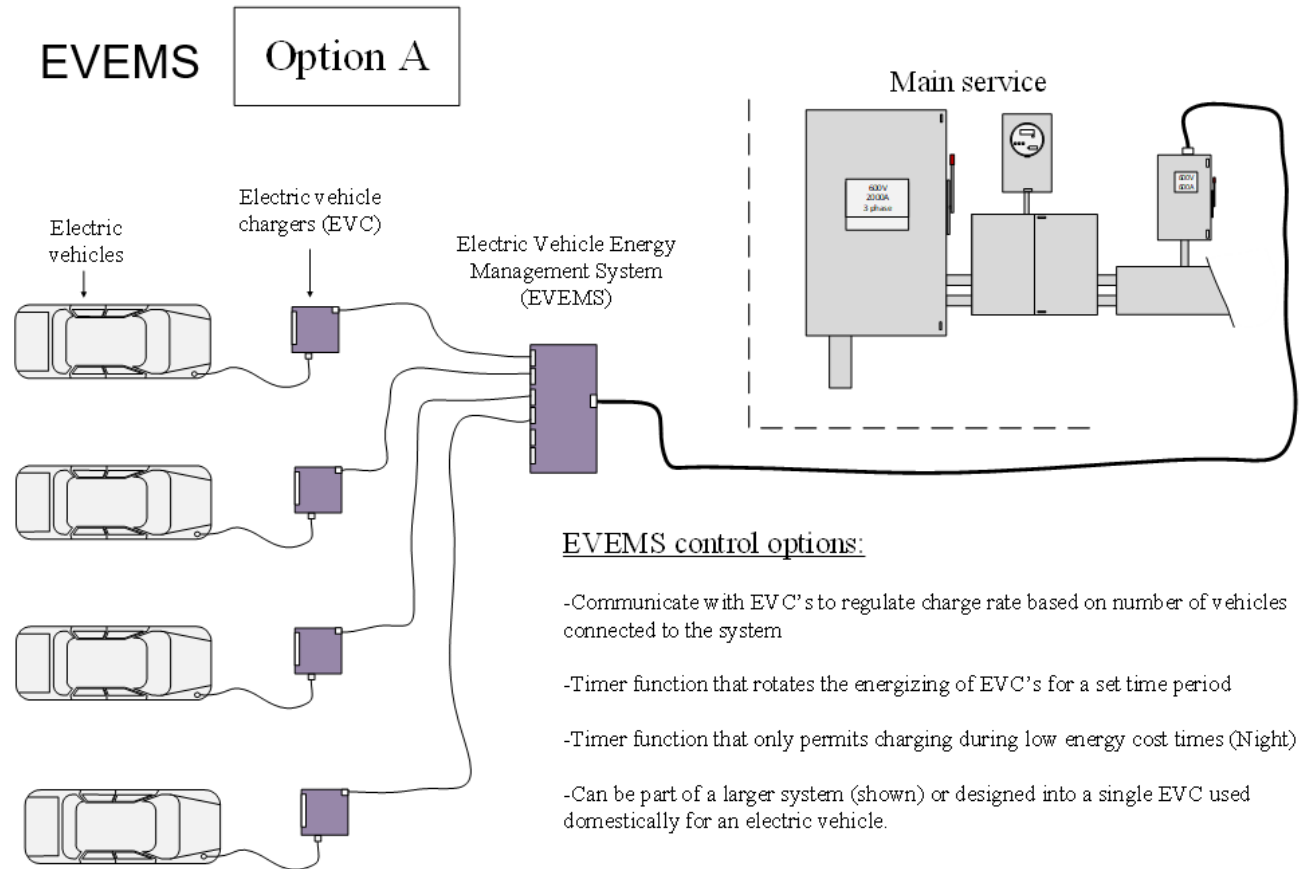
8-002 Special terminology

Electric Vehicle Energy Management System (NEW)

A means of controlling electric vehicle supply equipment loads through the process of connecting, disconnecting, increasing, or reducing electric power to loads and consisting of any of the following: a monitor(s), communications equipment, a controller(s), a timer(s) and other applicable device(s).

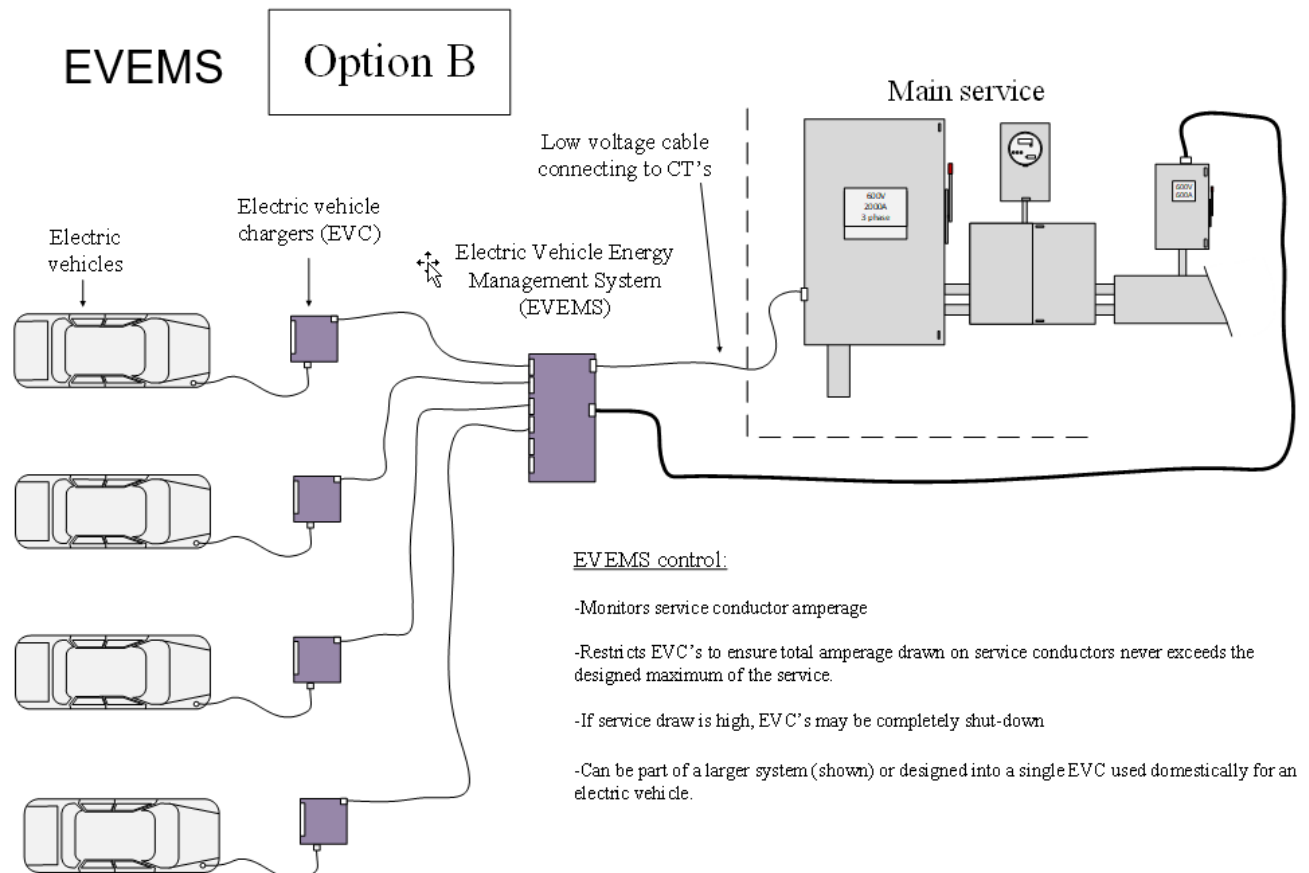
**EVEMS (Electric Vehicle Energy Management System).*

Section 8: Demand Factors (cont'd)



**Maximum load (output) rating provided by the EVEMS will determine the demand taken towards branch circuit, feeder and service loads, as opposed to adding all the vehicle charging stations together that are supplied by the EVEMS. (See App B.)*

Section 8: Demand Factors (cont'd)



**This type of EVEMS will add ZERO demand towards the main service.*

**EVEMS systems (that monitor service conductor amperage) can be supplied from existing electrical infrastructure without upgrading the service.*

Section 8: Demand Factors

8-106 Use of demand factors

(Deleted subrule)

~~(1) The size of conductors and switches computed in accordance with the Section shall be the minimum used except that, if the smaller standard size in common use as an ampacity not more than 5% less than this minimum, the smaller size conductor shall be permitted.~~

*The “5% rule” has now been deleted from the CE Code; this caused all the Subrules to move.

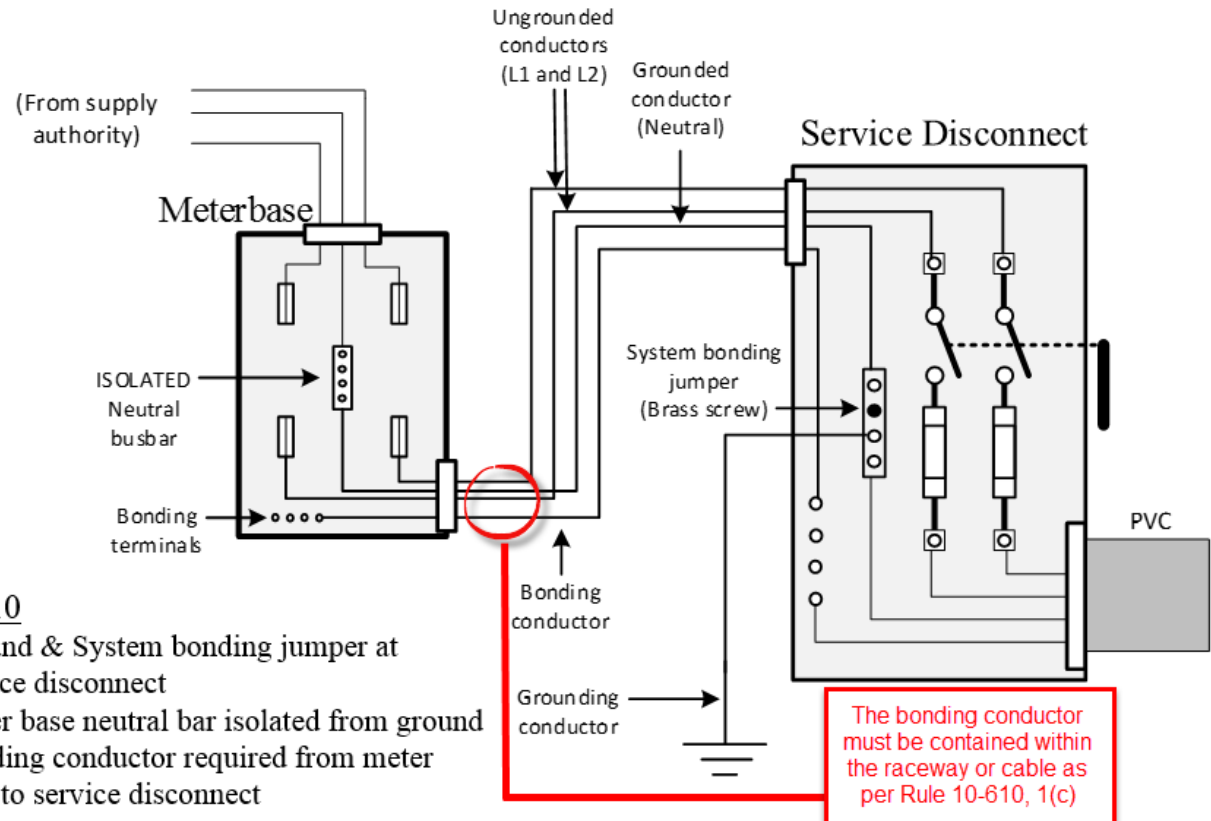
Because of this deletion, 8-200 1)a)iii) and 8-202 1)a)iv) refer to the wrong Subrule.

Should be 8-106(3) not 8-106(4)

This will be in a CE Code Errata by CSA as soon as released.

Section 10: Grounding & Bonding

Grounding at Service Panel



10-210

- *Ground & System bonding jumper at service disconnect
- *Meter base neutral bar isolated from ground
- *Bonding conductor required from meter base to service disconnect

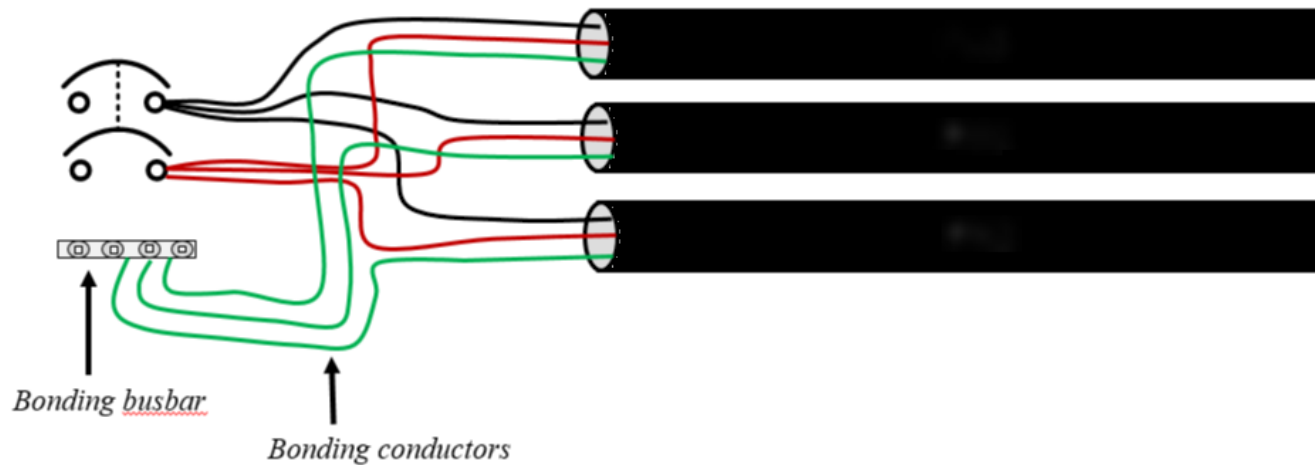
Currently no single gang meterbases are available with a grounding termination point on the neutral busbar, the grounding must be completed in the service disconnect.

Section 10: Grounding & Bonding

Equipment Bonding

10-602 Conductors in parallel runs (NEW)

Where conductors are installed in parallel in separate cables, raceways, or bus, a bonding conductor shall be installed with each group of parallel conductors.

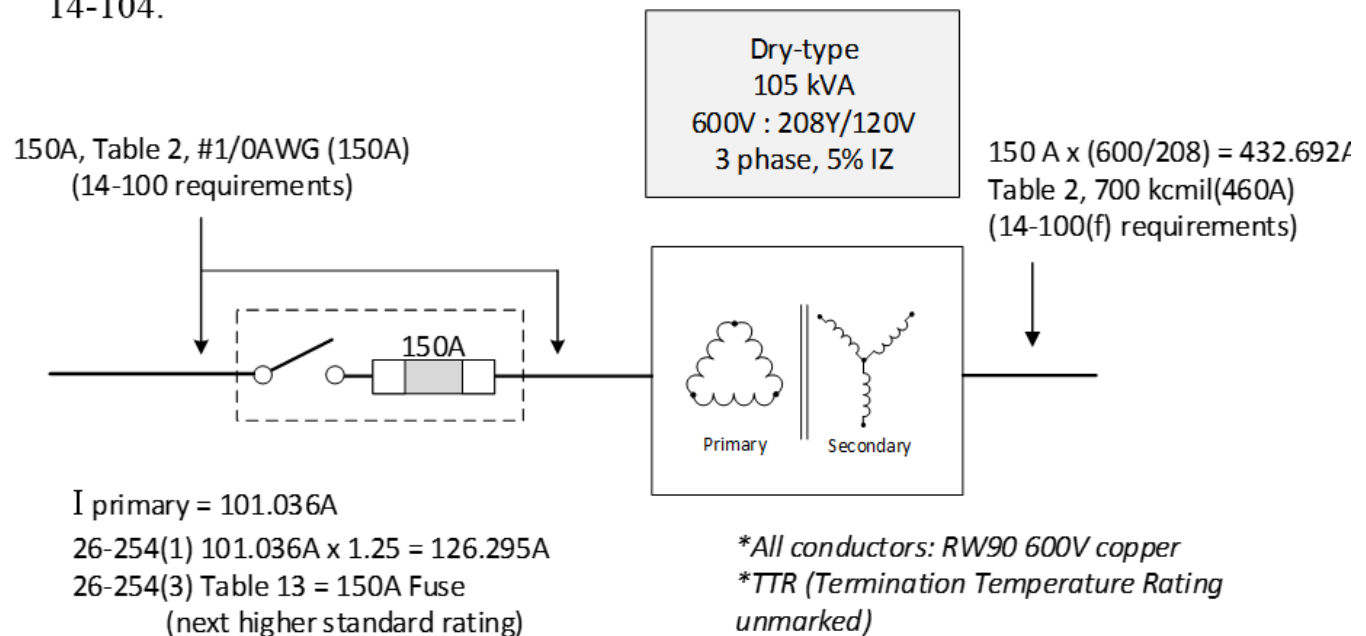


All raceways regardless of material now require a bonding conductor when installed in parallel

Section 26: Installation Of Electrical Equipment

26-256 Conductor size for transformers

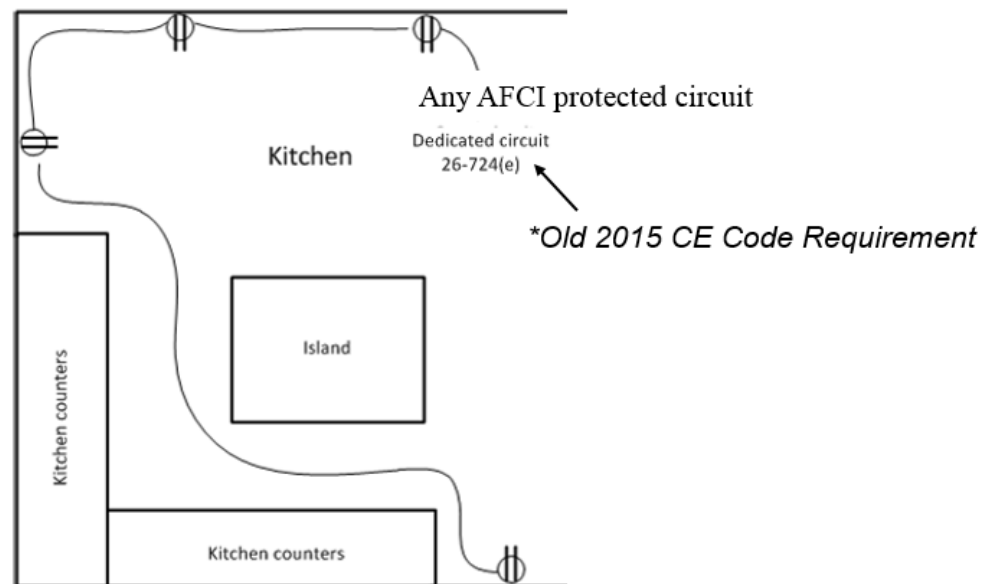
(4) **(NEW)** Where the transformer overcurrent protection is selected in accordance with Rules 26-250 (1) or (2) or 26-254 (3), the primary and secondary conductors connected to transformer shall be protected in accordance with Rules 14-100 and 14-104.



Section 26: Installation of Electrical Equipment

26-654 Branch Circuit for dwelling units and 26-724(d)(vi)

**The requirement to have kitchen receptacles (along usable wall space) supplied from a dedicated circuit has been removed. These receptacles can now be supplied from any general (AFCI protected) circuit within the dwelling.*



Section 32: Smoke & CO2 Alarms

32-200 Installation of smoke alarms and carbon monoxide alarms in dwelling units

The following requirements shall apply to the installation of permanently connected smoke alarms and carbon monoxide alarms in dwelling units:

- (a) except as permitted by Item (e), smoke alarms and carbon monoxide alarms shall be supplied from a lighting circuit, or from a circuit that supplies a mix of lighting and receptacles, and in any case shall not be installed where the circuit is protected by a ground fault interrupter or arc-fault circuit interrupter;
- (b) (No change)
- (c) (No change)
- (d) (No change)
- (e) **(NEW)** Where a smoke alarm or a device that represents a combination of a smoke alarm and a carbon monoxide alarm, have an integral battery as a secondary supply source, such smoke alarm or a combination of a smoke alarm and carbon monoxide alarm shall be permitted to be connected to a GFCI or AFCI protected circuit.

Section 32: Smoke & CO2 Alarms (cont'd)

32-200(e) (NEW) Installation of smoke alarms and carbon monoxide...

- Smoke/carbon monoxide detectors with an “integral battery” may or may not be a consumer replaceable battery depending on the design.
- If a consumer replaceable battery, it must be 10yr rated
- Smoke/carbon monoxide detectors sold in Canada are certified to CAN/ULC-S531 standard, which incorporates a secondary power source.

Smoke alarms and combination type smoke alarms* that include carbon monoxide alarms, certified to CAN/ULC-S531, are required to be connected to a secondary power supply, such as a battery, and have the capacity to supply the maximum intended power to the smoke alarm for no less than 7 days in the standby condition and thereafter be able to operate the smoke alarm for an alarm signal for at least 4 minutes continuously. Even in the event of a tripped AFCI or GFCI, the alarms will continue to operate and will alert the occupant of a tripped circuit.

Section 62: Fixed Electric Heating

62-130 (NEW) Heater controls installed in proximity to sinks, tubs or showers

- (1) A manually operated control for a heating device shall be located not less than 1 m from a sink (wash basin complete with drainpipe), tub, or shower stall, this distance being measured horizontally between the control and the sink, tub or shower stall, without piercing a wall, partition, or similar obstacle.
- (2) Notwithstanding Subrule (1), a manually operated control shall be permitted to be located less than 1 m from a sink (wash basin complete with drainpipe), and not less than 500 mm from a tub or shower stall, provided that it is
 - (a) protected by a ground fault circuit interrupter of the Class A type; or
 - (b) supplied by an extra-low voltage Class 2 circuit.

**Very similar to light switch GFCI protection in bathrooms.*

Section 62: Fixed Electric Heating

62-132 (NEW) Heating devices installed in proximity to sinks, tubs or showers

- (1) A heating device installed less than 1.8 m above the floor, shall not be installed less than 1 m from a sink (wash basin complete with drainpipe), tub, or shower stall, this distance being measured horizontally between the heating device and the sink, tub or shower stall, without piercing a wall, partition, or similar obstacle.
- (2) Notwithstanding Subrule (1), a heating device shall be permitted to be installed less than 1.8 m above the floor and less than 1 m from a sink (wash basin complete with drainpipe), tub or shower stall, provided that it is protected by a ground fault circuit interrupter of the Class A type.