2018 CANADIAN ELECTRICAL CODE

SUBJECT: Section 8 – Circuit loading and demand factors

Rule 8-100 Current calculations

120/208 V, 3-wire feeders from a 120/208 V, 3 phase, 4-wire supply

To obtain the voltage divisor for calculating the minimum ampacity of 120/208 V, 3-wire feeders, use the voltage between a phase and the identified conductor (120 V) multiplied by two (120 V x 2 = 240V).

The voltage divisor for calculating the minimum ampacity of the 120/208 V, 3-phase, 4-wire service conductors is, of course, 1.73 x 208 V.

Rule 8-202 Apartment and similar buildings

Calculating Additional Loads in Excess of 1500 W

To determine the minimum ampacity of service conductors or feeder conductors in accordance with Rule 8-202 1)a)vii), the nameplate rating of each load with a rating greater than 1500 W is to be used in the calculations.

Rule 8-400 Branch circuits and feeders supplying heater receptacles for vehicles powered by flammable or combustible fuels

The minimum ampacity of service or feeder conductors for a building should be calculated by using Rules 8-202 to 8-208 as applicable for the type of occupancy, and separately calculating the load for the automobile heater receptacles according to Rule 8-400. These two figures, each with its own demand factor already applied, are then added together to determine the total load.

Where the parking lot receptacles are supplied from individual dwelling units of an apartment or similar multi-family building, the above method of calculating total demand should also be applied. The 75% demand factor in Rule 8-202 3)e) is not to be applied, because a demand factor is included in the load as determined in compliance with Rule 8-400.

For the application of Rule 8-106 3, an automobile heater receptacle load may be considered similar to an "electric space heating" load. In applying this rule, ensure the air conditioning load will not be operated in conjunction with the heating equipment and or with the automobile heater receptacle load.

Issue of this STANDATA is authorized by the Provincial Electrical Administrator

[Original Signed]
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Alberta Government

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