



Electrical Load Calculation Residential

Master Requirement ELE 101

Building Department: 604-990-2480, building@dnv.org

Note: For Single Family dwellings and Single Family dwellings with secondary suites all applicable lines must be filled in. For multifamily dwellings, additional information may be requested by your electrical inspector.

Purpose

Prior to the issuance of an electrical permit where one or more of the following is being installed, a Load Calculation sheet must be completed by the Electrical Contractor and provided to the Electrical Department for approval:

- Air Conditioner
- Car Charger
- Heat Pump
- Hot Tub

Permit Details

Address: _____

Electrical Permit Number: _____ Building Permit Number: _____

Electrical Contractor: _____

Service Details

Service Orientation: Overhead Underground

Existing Service Characteristics: Volts: _____ Amps: _____ Phase: 1 3

Upgrading Service Yes No If yes _____

New Service Characteristics: Volts _____ Amps _____

Dwelling 1 Unit Size

5000 watts for the first 90 m²

1000 watts for each 90 m² or portion thereof

Electric space heating loads first 10,000 W at 100%; balance at 75%

Section 1

1	m ²
2	W
3	W
4	W

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Any electric range plus cooking equipment (6000 W at 100%, remainder at 40%) (CEC 8-200 (a)(iv)) or gas List cooking equipment _____	5	W
Air conditioning / Heat Pump (CEC 8-200 (a)(iii)) at 100%	6	W
Tankless water heater or electric pool/spa/hot tub water heater at 100%	7	W
Electric vehicle charging equipment (CEC 8-200 (a)(vi)) at 100%	8	W
Specify Demand sharing or Load monitoring used _____		
Any additional loads (CEC 8-200 (a)(vii)), dryers, etc. at 25% List Loads _____	9	W
Subtotal watts without electric heat	10	
** (CEC 8-200(1)) Greater of A or B	11	W

Section 2

Dwelling 2 Unit Size

3500 watts for the first 45 m²

1500 watts for the second 45 m² or portion thereof

1000 watts for each 90 m² or portion thereof

Electric space heating loads first 10,000 W at 100%, balance at 75%

Any electric range (CEC 8-200 (a)(iv))

Or Gas range

If no range, list cooking equipment (6000 W at 100%, remainder at 40%)

Air conditioning / Heat Pump (CE 8 200 (a)(iii)) at 100%

Any additional loads (CEC 8-200 (a)(vii)), dryers, etc. at 25%

List Loads _____

1	m ²
2	W
3	W
4	W
5	W
6	W
7	W
8	W
9	W
10	W
Subtotal watts without electric heat	11
** (CEC 8-200(1)) Greater of A or B	12

Section 3

100% of the Calculated Load in the Unit Having the Heaviest Load excluding electric heat

Plus 65% of the Sum of the Calculated Load in the Next Unit excluding electric heat

Total Electric space heating loads (as permitted in CEC Section 62) from both units. First 10,000 Watts at 100% of electric base board heat (CEC Section 62)

The balance of the connected heating load at 75% (CEC Section 62)

Subtotal watts with electric heat

****Total Watts**

1	W
2	W
3	W
4	W
5	W
6	W

**** If the greater of A or B is B, then B must be carried forward as the calculated.**

Note:

For buildings where the unit is 80 m sq or more:	For buildings where units are less than 80 m sq
a. 100 amps is the minimum allowed ampacity used in the calculation	a. 60 amps is the minimum allowed ampacity used in the calculation
b. If the calculated load exceeds 100 amps, the calculated load must be used	b. If the calculated load exceeds 60 amps, the calculated must be used.
<i>For Heat Pump/AC Units – when sharing the circuit with electric heat, the Heat Pump /AC Load must be equal or less than the Electric Heat Load <u>and</u> be interlocked, not removed.</i>	

The personal information collected on this form is done so pursuant to the Community Charter and/or the Local Government Act and in accordance with the Freedom of Information and Protection of Privacy Act. The personal information collected herein will be used only for the purpose of processing this application or request and for no other purpose unless its release is authorized by its owner, the information is part of a record series commonly available to the public, or is compelled by a Court or an agent duly authorized under another Act. Further information may be obtained by speaking with The District of North Vancouver's Manager of Administrative Services at 604-990-2207 or at 355 West Queens Road, North Vancouver.