

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.

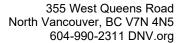
Purpose

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:				
Upgrading Service ☐ Yes ☐ No If yes				
New Service Characteristics: Volts Amps				
		Section 1		
Dwelling 1 Unit Size	1	m ²		
5000 watts for the first 90 m ²	2	W		
1000 watts for each 90 m ² or portion thereof	3	W		
Electric space heating loads first 10,000 W at 100%; balance at 75%	4	W		

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Any electric range plus cooking equipment (6000 W at 100%, remainder	5	W
at 40%) (CEC 8-200 (a)(iv)) or gas		
List cooking equipment		
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%	9	W
List Loads		
Subtotal watts without electric heat	10	
** (CEC 8-200(1)) Greater of A or B	11	W
		Canting 2
Duralling 2 Unit Size	1	Section 2
Dwelling 2 Unit Size 3500 watts for the first 45 m ²	2	
		W
1500 watts for the second 45 m ² or portion thereof	3	W
1000 watts for each 90 m ² or portion thereof	4	W
Electric space heating loads first 10,000 W at 100%, balance at 75%	5	W
Any electric range (CEC 8-200 (a)(iv))	6	W
Or Gas range	7	W
If no range, list cooking equipment (6000 W at 100%, remainder at 40%)	8	W
Air conditioning / Heat Pump (CE 8 200 (a)(iii)) at 100%	9	W
Any additional loads (CEC 8-200 (a)(vii)), dryers, etc. at 25%	10	W
List Loads	11	
Subtotal watts without electric heat	11	W
** (CEC 8-200(1)) Greater of A or B	12	W
		Section 3
100% of the Calculated Load in the Unit Having the Heaviest Load excluding electric heat	1	W
Plus 65% of the Sum of the Calculated Load in the Next Unit excluding	2	W
electric heat		
Total Electric space heating loads (as permitted in CEC Section 62) from	3	W
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)	4	W
Subtotal watts with electric heat	5	W
**Total Watts	6	W

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



Note:

Fo	For buildings where the unit is 80 m sq or more: For buildings where units are less than 80 m	
a.	100 amps is the minimum allowed ampacity	a. 60 amps is the minimum allowed ampacity
	used in the calculation	used in the calculation
b.	If the calculated load exceeds 100 amps, the	b. If the calculated load exceeds 60 amps, the
	calculated load must be used	calculated must be used.

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.

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