REGIONAL MUNICIPALITY OF WOOD BUFFALO

SINGLE FAMILY DWELLING

ELECTRICAL LOAD CALCULATION FORM

Fillable calculation form | CE Code Rule 8-200

Electrical Permit	Dwelling Address	Area	Unit
20XX-EP-000XXXX			m²

Converted Area (m²)

Enter area in square metres or square feet. The form converts square feet to square metres for the CE Code calculation.

CE CODE LOAD CALCULATION

CE Code	Load Description	Input W	Applied W
8-200(1)(a)(i)	A basic load of 5000 W for the first 90 m² of living area (see CE Code 8-110); plus		
8-200(1)(a)(ii)	an additional 1000 W for each 90 m² or portion thereof in excess of each 90 m²; plus		
8-200(1)(a)(iii)	any electric space-heating loads (Section 62); plus		
8-200(1)(a)(iii)	air-conditioning loads with a demand factor of 100%. See CE Code 8-106(4); plus		
8-200(1)(a)(iv)	Single electric range: 6000 W + 40% of the amount that exceeds 12 kW; plus		
8-200(1)(a)(v)	electric tankless water heaters or water heaters for steamers, swimming pools, hot tubs, or spas. 100% (pumps go in Other Loads section); plus		
8-200(1)(a)(vi)	electric vehicle charging equipment loads. 100%; plus		
8-200(1)(a)(vii)	additional loads over 1500 W: if electric range provided take extra loads @25% or, if no electric range is provided, take additional loads @100% of nameplate, up to 6000 W, then the balance at 25%		

OTHER LOADS OVER 1,500 W

	TOTAL APPLIED W	

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Demand result, service selection, verification and guidance

DEMAND RESULT

Total Calculated Demand Load

Calculated Demand

SERVICE SELECTION

Main Breaker

Select...

Meter Base

Select...

Conductor Size

Select...

Type

Select...

Material

Al

Ampacity

Selection Check

COMPLETED BY

I verify that the information provided in this form is complete and accurate.

Name

Certification

Select...

Certification No.

Email

Phone

Date

ATCO SERVICE AVAILABILITY

If the calculated demand requires an increase to the existing electrical service, contact ATCO at

electricftmcmurraysiterep@atco.cul.ca to confirm the increased service size is available.

NOTES

1. A load shedding device can typically be used to reduce the total load by toggling the two heaviest loads on the same breaker.
2. An Electric Vehicle Energy Management System (EVEMS) can be used to eliminate the load of a hot tub, EV charger, A/C, or other heavy load from the calculated demand. See CE Code 8-500.
3. If either of the above options is used, this must be noted in the Description of Work on the permit application.
4. The greater of the heating or A/C load may be used where the systems are interlocked to prevent simultaneous operation. See CE Code 8-106(3).
5. For technical inquiries, email inspections@rmwb.ca. Your questions will be forwarded to an Electrical SCO.

Regional Municipality of Wood Buffalo

SINGLE FAMILY DWELLING

ELECTRICAL LOAD CALCULATION FORM

Completed sample | Non-fillable

Electrical Permit	Dwelling Address	Area
2026-EP-000000	100 Fort McMurray Blvd	1,991 ft² = 185.0 m²

COMPLETED CALCULATION SAMPLE

Basic load	**5,000 W**
Additional area load	**2,000 W**
Electric heating	**1,500 W**
Air conditioning	**3,500 W**
Range demand	**6,000 W**
Water heater / hot tub / spa	**7,500 W**
EV charging	**0 W**
Other loads applied	**1,875.0 W**

OTHER LOADS SAMPLE

Dryer	6,000 W	**1,500 W**
Hot tub pumps	1,500 W	**375 W**
	TOTAL APPLIED W	**1,875.0 W**

DEMAND RESULT AND SERVICE SAMPLE

Total	Demand	Breaker	Meter Base
27,375.0 W	**114.1 A**	**125 A**	**200 A**

Conductor	Type	Material	Ampacity
2/0 AWG	**ACWU90**	**Al**	**135 A**

SELECTION CHECK | No rating conflicts identified

Completed By: Alex Example | Journeyperson Electrician | J-000000 | 2026-10-27