

Design Indoor Cooling Temp. : 72 °F

Design Indoor Heating Temp. : 70 °F

Design Outdoor Cooling Temp. : 90 °F

Design Outdoor Heating Temp. : -16 °F

Temp. Difference Cooling : 18°F

Area: Bismark Airport, ND

Temp. Difference Heating : 86° F

Indoor Humidity: 50 Grains difference: -1

Front Door Orientation South

Whole House Load Calculator

TD:Cool:18°F Heat:86°F	Sq. ft. - types 1 and 2		shading	Sq. ft.- types 1 and 2		shading	Sq. ft.- types 1 and 2			Sq. ft.	
Outside Wall: North	1:440	2:	Windows x	1:50	2:	Glass Doors x	1:20	2:	Doors		
Outside Wall: South	1:440	2:	Windows U ▼	1:80	2:	Glass Doors U ▼	1:20	2:	Doors		
Outside Wall: E & W	1:350	2:	Windows U ▼	1:	2:	Glass Doors U ▼	1:	2:	Doors		
Outside Wall: NE & NW	1:	2:	Windows x	1:	2:	Glass Doors x	1:	2:	Doors		
Outside Wall: SE & SW	1:	2:	Windows U ▼	1:	2:	Glass Doors U ▼	1:	2:	Doors		
Sky Lights	N:	S:	E-W:	NE-NW:	SE-SW:						
Floor - (linear ft. if slab)	1:	2:	Basement	Walls-above grade:460	below grade:430	sq. ft.					
Ceiling	1:1200	2:	Basement	Floor --1120	width 27 to 25 ▼	feet below grade:4 ft. ▼					
Number of: Appliances	1	Fireplaces 0 ▼									
Number of People	5	Fresh air	recommended: 83cfm →	60	CFM						
Conditioned - Sq. ft.:	2350	Cubic. Ft.:	17000	Construction:	very tight ▼	Duct system:					
Calculate Load		Total Btu's Cooling 10397		Sensible Load 9397		Latent Load 1000		Total Btu's Heating 26840			

Btu breakdown

	Sensible	Latent	Heating
walls	580		4376
windows	2691		4919
ceilings	1080		1858
doors	0		0
floors	0		0
appliances	1200		
people	1150	1000	
glass doors	917		1445
skylights	0		0
basement walls	361		4776
basement floor	0		1445
infiltration	313	0	2742
fresh air	1105	0	5279
duct load	0	0	0
Totals	9397	1000	26840

Structure types

Outside Walls 1: Siding or Stucco R21 insulation w/R6 board
 Outside Walls 2:
 Windows 1: Low E or triple pane no internal shade
 Windows 2:
 Glass Doors 1: triple pane glass door
 Glass Doors 2:
 Floors 1: Concrete slab R-10 edge insulation
 Floor 2: closed or vented crawl tile no insulation
 Ceiling 1: Ceiling under attic space R-56
 Ceiling 2:
 Doors:
 Skylights:
 Basement Walls: block brick or concrete - R21 insulation
 Basement Floor: R3 or higher insulation
 Win ht.: 4' 0" Overhang: 2.5' Top to overhang: 1.5'