

Heating System Worksheet

Project Information

Contact Information

Indoor Design Temperature 70

Outdoor Design Temperature

Design Temperature Difference (ΔT) 70

?T = Indoor - Outdoor Design Temp

Conditioned Floor Area 0

Conditioned Volume

**OUTDOOR
DESIGN TEMPERATURES**

Centralia 25

Glazing

Copy Sum of UA from Glazing Schedule

	U-Factor	X	Area	=	UA
R-49	0.027		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
R-38 Advanced	0.026		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
<input style="width: 150px;" type="text"/>			<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>

Single Rafter or Joist Vaulted Ceilings

	U-Factor	X	Area	=	UA
R-38 Vented	0.027		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
<input style="width: 150px;" type="text"/>			<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>

Above Grade Walls

	U-Factor	X	Area	=	UA
R-21	0.056		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
<input style="width: 150px;" type="text"/>			<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>

Floors

	U-Factor	X	Area	=	UA
R-30	0.029		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
<input style="width: 150px;" type="text"/>			<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>

Below Grade Walls

	U-Factor	X	Area	=	UA
2' Depth Walls	0.042		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
3.5' Depth Walls	0.041		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
7' Depth Walls	0.37		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
<input style="width: 150px;" type="text"/>			<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>

Slab Below Grade

	F-Factor	X	Length	=	UA
2' Depth	0.59		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
3.5' Depth	0.64		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
7' Depth	0.57		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
<input style="width: 150px;" type="text"/>			<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>

Slab on Grade

	F-Factor	X	Length	=	UA
R-10 2' perimeter	0.54		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
R-10 Full - Heated	0.55		<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>
<input style="width: 150px;" type="text"/>			<input style="width: 50px;" type="text"/>		<input style="width: 50px;" type="text"/>

Sum of UA

Envelope Heat Load

Sum of UA X ΔT

 Btu / Hour

Air Leakage Heat Load

((Volume X 0.6) X ΔT) X 0.018)

 Btu / Hour

Building Design Heat Load

Air Leakage + Envelope Heat Loss

 Btu / Hour

Building and Duct Heat Load

If ducts are located in unconditioned space: Sum of Building Heat Loss X 1.15
 If ducts are located in conditioned space: Sum of Building Heat Loss X 1

 1

 Btu / Hour

Maximum Heat Equipment Output

Building and Duct Heat Loss X 1.50

150%

 Btu / Hour