| Title | | Dave Home, | | 0000, 1101 | - | | | | | |
|--|--|---|--------------------------------|-------------------|-----------------------|---|------------------------------|--------------------------|--|--|
| Design outd | | 5 | Degrees | | | | ature expected in a "normal" | | | |
| Temperatur | | | | | | year <u>more</u> Heating Degree Days <u>more</u> | | | | |
| | ating Degree Days 7060 | | Degree | Degree F - day | | Degree | ore | | | |
| Natural (| Gas | | | | | | | | | |
| O Fuel Oil | | 1.00 | \$'s Per | Therm | 93 | | Furnace | Efficiency (%) more | | |
| Propane Electricity | | | | | | | | | | |
| | value Inputs | | | | | | | | | |
| Alea allu K | | nter the area a | nd R value | for each c | eiling are | a in the h | ouse that | t is exposed to outside | | |
| | Ceilings Enter the area and R value for each ceiling area in the house that is exposed to outside temperatures. Help on R values | | | | | | | | | |
| Ceilings | Area | | | UA | | Design | Loss | Yearly Heat Loss | | |
| | (sqft) | Rvalue | | (BTU/hr-l | F) | (BTU/h | | (million BTU/yr) | | |
| Ceiling 1 | 2250 | 30 | | 75 | | 4875 | | 12.7 | | |
| Ceiling 2 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Ceiling 3 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Ceiling 4 | 0 | 0 | | 0 | | 0 | | 0 | | |
| | × | | for each wa | | he house | | xposed to | o outside temperatures | | |
| A/ - 11 - | | le window and | | | | | , | Por atal of | | |
| Walls | Area | Proluc | | UA | | Design | | Yearly Heat Loss | | |
| | (sqft) | Rvalue | | (BTU/hr-l | | | | (million BTU/yr) | | |
| wall 1 | 1980 | 25 | | 79.2 | | 5148 | | 13.4 | | |
| wall 2 | 594 | 15.8 | | 37.6 | | 2444 | | 6.4 | | |
| wall 3 | 1386 | 18 | | 77 | | 5005 | | 13 | | |
| wall 4 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Windows | Enter the area and R value for each group of windows or doors having the same R value. | | | | | | | | | |
| & | (U = 1/R, so a window listed with a U of 0.33 has an R value of 3) | | | | | | | | | |
| Doors | Area | Rvalue | | UA | - | Design | | Yearly Heat Loss | | |
| Croup 1 | (sqft) 139 | 3 | | (BTU/hr-l 46.3 | -) | (BTU/h 3012 | r) | (million BTU/yr) 7.9 | | |
| Group 1 Group 2 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Group 2 Group 3 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Group 3 Group 4 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Group 4 | | • | Entor the | | value fo | | or area ir | , v | | |
| | | Floors - Wood Joist Type Enter the area and R value for each floor area in the house that is exposed to outside temperatures. Estimating R Value for crawl spaces | | | | | | | | |
| Floors | Area | | | UA | | Design | | Yearly Heat Loss | | |
| | (sqft) | Rvalue | | (BTU/hr-l | F) | (BTU/h | | (million BTU/yr) | | |
| Floor 1 | 0 | 0 | | 0 | , | 0 | 1 | 0 | | |
| Floor 2 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Floor 3 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Floor 4 | 0 | 0 | | 0 | | 0 | | 0 | | |
| | Slab on Grad | le Floors He | at loss fror | n slab on q | rade floo | rs is prim | arily depe | endent on the length of | | |
| | | | | | | | | alue per foot of | | |
| Slabs | perimeter. E | stimating effec | tive R Valu | e for slabs | | | | 2 | | |
| | Perimeter (ft) | | per ft of | UA | and the second second | | Loss | Yearly Heat Loss | | |
| | | / perimet | er (1) | (BTU/hr-l | F) | (BTU/h | r) | (million BTU/yr) | | |
| Full Slab | 220 | 7 | | 31 | | 2043 | | 5.3 | | |
| Infiltration | ceiling height Typical Air C 0.33 very 0.5 tight | | our: or health struction | | pace of t | he house | cubic fee | et (floor area times the | | |
| | House Volun | | nges per | UA | | Design | Loss | Yearly Heat Loss | | |
| | (cubic ft) | hour | | (BTU/hr-l | F) | (BTU/h | | (million BTU/yr) | | |
| Whole | 40500 | .1575 | | 115 | | 7463 | | 19.5 | | |
| House | | | | | | | | | | |

| Internal Heat Gains | These are heat gains from warm bodies, lights, appliances, This is heat that your furnace does not need to provide. If you don't want to account for internal heat gains, enter 0 for the number of occupants Number of Internal Gains Design Loss Yearly Heat Loss | | | | | | | |
|------------------------|---|--|----------|----------|------------------|--|--|--|
| | | | | | | | | |
| | Occupants | | (BTU/hr) | (BTU/hr) | (million BTU/yr) | | | |
| | 2 | | 2189 | -2189 | -19.2 | | | |

| Summary Outpu | uts (see table ab | ove for detail outputs | 5) | | | | | | |
|----------------|--|-------------------------|-------------------------------|---------------------------|---------------------------------|----------------------------|--|--|--|
| Calculate | Click to update Heat Loss results. | | | | | | | | |
| Item | UA (BTU/hr-F) | Design Loss (BTU/hr) | Year Loss (Million BTU/yr) | Fuel Cost (US dollars) | Ten Year Cost 10% infla \$"s | Greenhouse Gas (lb CO2) | | | |
| Ceiling Loss | 75 | 4875 | 12.7 | 137 | 2177 | 1640 | | | |
| Wall Loss | 194 | 12597 | 32.8 | 353 | 5625 | 4237 | | | |
| Window Loss | 46 | 3012 | 7.9 | 84 | 1345 | 1013 | | | |
| Floor Loss | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Slab Loss | 31 | 2043 | 5.3 | 57 | 912 | 687 | | | |
| Infiltration | 115 | 7463 | 19.5 | 209 | 3332 | 2510 | | | |
| Totals | 461 | 29989 | 78.2 | 841 | 13391 | 10087 | | | |
| Internal Gains | Internal heat gains (warm bodies, lights,) supply some of the heat listed above the line below shows approximately the contribution of internal heat gains this is heat that your furnace does NOT have to supply. | | | | | | | | |
| | | -2189 | -19.2 | -206 | -3285 | | | | |

| Title | | Dave Garage | , Zip Code | 16365, Wa | - | | | | | |
|---------------------------|--|--|------------------------------|----------------|--------------------------------------|-------------------------|----------------------------------|---|--|--|
| Design outd Temperatur | | 5 | Degrees | s F | | | nperature expected in a "normal" | | | |
| Heating Deg | | 7060 | 0 Degree | | year <u>more</u> Heating Degree [| | Davs more | | | |
| Natural (| | /000 | Degree | Degree F - day | | | | <u></u> | | |
| O Fuel Oil | 000 | | | | | | _ | | | |
| O Propane | | 1.00 | \$'s Per | Therm | 93 | | Furnace | Efficiency (%) more | | |
| O Electricit | | | | | | | | | | |
| Area and R | value Inputs | | | | | | | | | |
| | | ter the area a | nd R value | for each c | eiling area | a in the h | nouse that | t is exposed to outside | | |
| Ceilings | temperatures. <u>Help on R values</u> | | | | | | | | | |
| ooningo | Area | Rvalue | | UA | | Design | | Yearly Heat Loss | | |
| | (sqft) | | | (BTU/hr- | F) | (BTU/hr) | | (million BTU/yr) | | |
| Ceiling 1 | 980 | 35 | | 28 | | 1820 | | 4.7 | | |
| Ceiling 2 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Ceiling 3 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Ceiling 4 | 0 | 0 | | 0 | | 0 | | 0 | | |
| | | | | ll area in t | he house | that is e | xposed to | outside temperatures | | |
| Walls | Do not include | window and | door area. | | | | | | | |
| | Area | Rvalue | | UA | - | Design (BTU/h | | Yearly Heat Loss | | |
| | (sqft) | | | | (BTU/hr-F) | | ir) | (million BTU/yr) | | |
| wall 1 | 669 | 25 | | 26.8 | | 1739 | | 4.5 | | |
| wall 2 | 0 | 0 | | 0 | | 0 | | 0 | | |
| wall 3 | 0 | 0 | | 0 | | 0 | | 0 | | |
| wall 4 | 0 | 0 | ar a a a b | · · | 0 | | | | | |
| Windows | Enter the area and R value for each group of windows or doors having the same R value. (U = 1/R, so a window listed with a U of 0.33 has an R value of 3) | | | | | | | | | |
| & | Area | | | UA | | Design | Loss | Yearly Heat Loss | | |
| Doors | (sqft) | Rvalue | | (BTU/hr- | F) | (BTU/h | | (million BTU/yr) | | |
| Group 1 | 240 | 7 | 7 3 | | | 2229 | | 5.8 | | |
| Group 2 | 42 | 3 | | 14 | | 910 | | 2.4 | | |
| Group 3 | 24 | 3 | | 8 | | 520 | | 1.4 | | |
| Group 4 | 0 | 0 | | 0 | | 0 | | 0 | | |
| | | Floors - Wood Joist Type Enter the area and R value for each floor area in the house that is | | | | | | | | |
| Floors | exposed to outside temperatures. Estimating R Value for crawl spaces Area UA Design Loss Yearly Heat Loss | | | | | | | | | |
| 110013 | Area | Rvalue | Rvalue | | | Design Loss (BTU/hr) | | Yearly Heat Loss (million BTU/yr) | | |
| | (sqft) | | | | (BTU/hr-F) | | ır) | | | |
| Floor 1 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Floor 2 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Floor 3 | 0 | 0 | | 0 | | 0 | | 0 | | |
| Floor 4 | 0 | 0 | | 0 | | 0 | | 0 | | |
| | | | | | | | | endent on the length of alue per foot of | | |
| Slabs | perimeter. Est | | | | | lie elle | | alue per loot of | | |
| 01005 | | Rvalue | | UA | | Design | Loss | Yearly Heat Loss | | |
| | Perimeter (ft) | perimete | | (BTU/hr- | F) | (BTU/h | | (million BTU/yr) | | |
| Full Slab | 97.5 | 7 | | 14 | | 905 | , | 2.4 | | |
| Infiltration | House Volume ceiling height) Typical Air Cha 0.33 very tig 0.5 tight r | | ur: r health struction | | pace of th | | cubic fee | et (floor area times the | | |
| | House Volume | | nges per | UA | | Design | Loss | Yearly Heat Loss | | |
| | (cubic ft) | hour | 300 00 | (BTU/hr- | F) | (BTU/h | | (million BTU/yr) | | |
| Whole | | | | | | <u>`</u> | , | | | |
| | 9800 | .7 | | 123 | | 8026 | | 20.9 | | |

| Internal | These are heat gains from warm bodies, lights, appliances, This is heat that your furnace does not need to provide. If you don't want to account for internal heat gains, enter 0 for the number of occupants | | | | | | | |
|----------|---|--|----------------------------|-------------------------|--------------------------------------|--|--|--|
| | Number of Occupants | | Internal Gains (BTU/hr) | Design Loss (BTU/hr) | Yearly Heat Loss (million BTU/yr) | | | |
| | 0 | | 0 | 0 | 0 | | | |

| Summary Outpu | uts (see table ab | ove for detail outputs | 5) | | | | | | |
|----------------|--|-------------------------|-------------------------------|---------------------------|---------------------------------|----------------------------|--|--|--|
| Calculate | Click to update Heat Loss results. | | | | | | | | |
| Item | UA (BTU/hr-F) | Design Loss (BTU/hr) | Year Loss (Million BTU/yr) | Fuel Cost (US dollars) | Ten Year Cost 10% infla \$"s | Greenhouse Gas (lb CO2) | | | |
| Ceiling Loss | 28 | 1820 | 4.7 | 51 | 813 | 612 | | | |
| Wall Loss | 27 | 1739 | 4.5 | 49 | 777 | 585 | | | |
| Window Loss | 56 | 3659 | 9.5 | 103 | 1634 | 1231 | | | |
| Floor Loss | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Slab Loss | 14 | 905 | 2.4 | 25 | 404 | 305 | | | |
| Infiltration | 123 | 8026 | 20.9 | 225 | 3584 | 2700 | | | |
| Totals | 248 | 16150 | 42.1 | 453 | 7211 | 5432 | | | |
| Internal Gains | Internal heat gains (warm bodies, lights,) supply some of the heat listed above the line below shows approximately the contribution of internal heat gains this is heat that your furnace does NOT have to supply. | | | | | | | | |
| | | 0 | 0 | 0 | 0 | | | | |

Notes: Infiltration for Garage is an estimate.

Total Heat Loss for House and Garage = 46139