

# Residential System Sizing Calculation

## Summary

Project Title:  
Harlow Residence

, FL

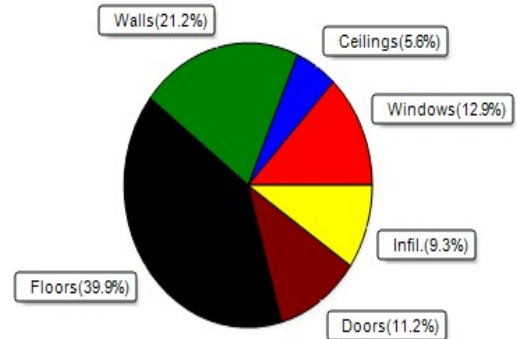
3/25/2024

|                                                                                                       |                   |                                       |                    |
|-------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|--------------------|
| Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(100 ft.) Temp Range(M) |                   |                                       |                    |
| Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)                    |                   |                                       |                    |
| Winter design temperature(TMY3 99%)                                                                   | 30 F              | Summer design temperature(TMY3 99%)   | 94 F               |
| Winter setpoint                                                                                       | 70 F              | Summer setpoint                       | 75 F               |
| Winter temperature difference                                                                         | 40 F              | Summer temperature difference         | 19 F               |
| <b>Total heating load calculation</b>                                                                 | <b>31017 Btuh</b> | <b>Total cooling load calculation</b> | <b>21106 Btuh</b>  |
| Submitted heating capacity                                                                            | % of calc Btuh    | Submitted cooling capacity            | % of calc Btuh     |
| Total (Electric Heat Pump)                                                                            | 154.8 48000       | Sensible (SHR = 0.75)                 | 197.8 36000        |
| Heat Pump + Auxiliary(0.0kW)                                                                          | 154.8 48000       | Latent                                | 413.2 12000        |
|                                                                                                       |                   | <b>Total (Electric Heat Pump)</b>     | <b>227.4 48000</b> |

## WINTER CALCULATIONS

Winter Heating Load (for 2439 sqft)

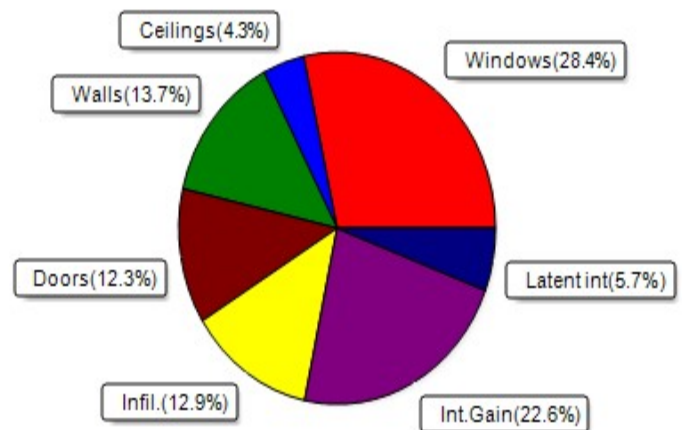
| Load component                  | Load              |
|---------------------------------|-------------------|
| Window total 385 sqft           | 4004 Btuh         |
| Wall total 2378 sqft            | 6578 Btuh         |
| Door total 188 sqft             | 3459 Btuh         |
| Ceiling total 2439 sqft         | 1727 Btuh         |
| Floor total 2439 sqft           | 12366 Btuh        |
| Infiltration 66 cfm             | 2883 Btuh         |
| Duct loss                       | 0 Btuh            |
| <b>Subtotal</b>                 | <b>31017 Btuh</b> |
| Ventilation Ex:0 cfm; Sup:0 cfm | 0 Btuh            |
| <b>TOTAL HEAT LOSS</b>          | <b>31017 Btuh</b> |



## SUMMER CALCULATIONS

Summer Cooling Load (for 2439 sqft)

| Load component                        | Load              |
|---------------------------------------|-------------------|
| Window total 385 sqft                 | 6001 Btuh         |
| Wall total 2378 sqft                  | 2895 Btuh         |
| Door total 188 sqft                   | 2594 Btuh         |
| Ceiling total 2439 sqft               | 905 Btuh          |
| Floor total                           | 0 Btuh            |
| Infiltration 49 cfm                   | 1027 Btuh         |
| Internal gain                         | 4780 Btuh         |
| Duct gain                             | 0 Btuh            |
| Sens.Ventilation Ex:0 cfm; Sup:0 cfm  | 0 Btuh            |
| Blower Load                           | 0 Btuh            |
| <b>Total sensible gain</b>            | <b>18202 Btuh</b> |
| Latent gain(ducts)                    | 0 Btuh            |
| Latent gain(infiltration)             | 1704 Btuh         |
| Latent gain(ventilation)              | 0 Btuh            |
| Latent gain(internal/occupants/other) | 1200 Btuh         |
| <b>Total latent gain</b>              | <b>2904 Btuh</b>  |
| <b>TOTAL HEAT GAIN</b>                | <b>21106 Btuh</b> |



8th Edition

EnergyGauge® System Sizing

PREPARED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

3-25-24

# System Sizing Calculations - Summer

## Residential Load - Whole House Component Details

Project Title:  
Harlow Residence

, FL

3/25/2024

Reference City: Gainesville, FL (Defaults)  
Humidity difference: 51gr.

Temperature Difference: 19.0F(TMY3 99%)  
Summer Setpoint: 75 °F (Required Manual J default)

### Component Loads for Whole House

| Window | Type*                     |            |    |      |         | Overhang    |            | Window Area(sqft) |        |          | HTM    |          | Load |      |      |
|--------|---------------------------|------------|----|------|---------|-------------|------------|-------------------|--------|----------|--------|----------|------|------|------|
|        | Panes                     | SHGC       | U  | InSh | IS Ornt | Len         | Hgt        | Gross             | Shaded | Unshaded | Shaded | Unshaded |      |      |      |
| 1      | 2 NFRC                    | 0.20, 0.26 | No | No   | N       | 1.5ft       | 1.3ft      | 30.0              | 0.0    | 30.0     | 9      | 9        | 274  | Btuh |      |
| 2      | 2 NFRC                    | 0.20, 0.26 | No | No   | N       | 1.5ft       | 1.3ft      | 15.0              | 0.0    | 15.0     | 9      | 9        | 137  | Btuh |      |
| 3      | 2 NFRC                    | 0.20, 0.26 | No | No   | S       | 1.5ft       | 1.3ft      | 16.0              | 16.0   | 0.0      | 9      | 11       | 146  | Btuh |      |
| 4      | 2 NFRC                    | 0.20, 0.26 | No | No   | E       | 1.5ft       | 1.3ft      | 20.0              | 0.0    | 20.0     | 9      | 24       | 484  | Btuh |      |
| 5      | 2 NFRC                    | 0.20, 0.26 | No | No   | S       | 1.5ft       | 1.3ft      | 40.0              | 40.0   | 0.0      | 9      | 11       | 366  | Btuh |      |
| 6      | 2 NFRC                    | 0.20, 0.26 | No | No   | W       | 1.5ft       | 1.3ft      | 24.0              | 0.0    | 24.0     | 9      | 24       | 581  | Btuh |      |
| 7      | 2 NFRC                    | 0.20, 0.26 | No | No   | S       | 1.5ft       | 1.3ft      | 48.0              | 48.0   | 0.0      | 9      | 11       | 439  | Btuh |      |
| 8      | 2 NFRC                    | 0.20, 0.26 | No | No   | E       | 1.5ft       | 1.3ft      | 24.0              | 0.0    | 24.0     | 9      | 24       | 581  | Btuh |      |
| 9      | 2 NFRC                    | 0.20, 0.26 | No | No   | S       | 1.5ft       | 1.3ft      | 40.0              | 40.0   | 0.0      | 9      | 11       | 366  | Btuh |      |
| 10     | 2 NFRC                    | 0.20, 0.26 | No | No   | W       | 1.5ft       | 1.3ft      | 20.0              | 0.0    | 20.0     | 9      | 24       | 484  | Btuh |      |
| 11     | 2 NFRC                    | 0.20, 0.26 | No | No   | W       | 1.5ft       | 1.3ft      | 6.0               | 0.0    | 6.0      | 9      | 24       | 145  | Btuh |      |
| 12     | 2 NFRC                    | 0.20, 0.26 | No | No   | W       | 1.5ft       | 1.3ft      | 30.0              | 0.0    | 30.0     | 9      | 24       | 727  | Btuh |      |
| 13     | 2 NFRC                    | 0.20, 0.26 | No | No   | N       | 1.5ft       | 1.3ft      | 18.0              | 0.0    | 18.0     | 9      | 9        | 165  | Btuh |      |
| 14     | 2 NFRC                    | 0.20, 0.26 | No | No   | E       | 1.5ft       | 1.3ft      | 18.0              | 0.0    | 18.0     | 9      | 24       | 436  | Btuh |      |
| 15     | 2 NFRC                    | 0.20, 0.26 | No | No   | S       | 1.5ft       | 1.3ft      | 18.0              | 18.0   | 0.0      | 9      | 11       | 165  | Btuh |      |
| 16     | 2 NFRC                    | 0.20, 0.26 | No | No   | W       | 1.5ft       | 1.3ft      | 18.0              | 0.0    | 18.0     | 9      | 24       | 436  | Btuh |      |
|        | Excursion                 |            |    |      |         |             |            |                   |        |          |        |          | 68   | Btuh |      |
|        | Window Total              |            |    |      |         |             |            | 385 (sqft)        |        |          |        |          |      | 6001 | Btuh |
| Walls  | Type                      |            |    |      |         | U-Value     | R-Value    | Area(sqft)        |        |          | HTM    |          | Load |      |      |
|        |                           |            |    |      |         |             | Cav/Sheath |                   |        |          |        |          |      |      |      |
| 1      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 156.7             |        |          | 1.0    |          | 161  | Btuh |      |
| 2      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 133.3             |        |          | 1.0    |          | 137  | Btuh |      |
| 3      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 134.0             |        |          | 1.0    |          | 137  | Btuh |      |
| 4      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 113.3             |        |          | 1.0    |          | 116  | Btuh |      |
| 5      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 225.0             |        |          | 1.0    |          | 231  | Btuh |      |
| 6      | Frame - Wood - Adj        |            |    |      |         | 0.09        | 13.0/0.0   | 256.0             |        |          | 1.7    |          | 432  | Btuh |      |
| 7      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 117.3             |        |          | 1.0    |          | 120  | Btuh |      |
| 8      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 156.7             |        |          | 1.0    |          | 161  | Btuh |      |
| 9      | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 126.7             |        |          | 1.0    |          | 130  | Btuh |      |
| 10     | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 36.0              |        |          | 1.0    |          | 37   | Btuh |      |
| 11     | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 127.3             |        |          | 1.0    |          | 131  | Btuh |      |
| 12     | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 36.0              |        |          | 1.0    |          | 37   | Btuh |      |
| 13     | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 126.7             |        |          | 1.0    |          | 130  | Btuh |      |
| 14     | Concrete Blk,Hollow - Ext |            |    |      |         | 0.06        | 13.0/0.0   | 400.7             |        |          | 1.0    |          | 411  | Btuh |      |
| 15     | Frame - Wood - Ext        |            |    |      |         | 0.09        | 13.0/0.0   | 64.0              |        |          | 2.3    |          | 145  | Btuh |      |
| 16     | Frame - Wood - Ext        |            |    |      |         | 0.09        | 13.0/0.0   | 52.0              |        |          | 2.3    |          | 118  | Btuh |      |
| 17     | Frame - Wood - Ext        |            |    |      |         | 0.09        | 13.0/0.0   | 64.0              |        |          | 2.3    |          | 145  | Btuh |      |
| 18     | Frame - Wood - Ext        |            |    |      |         | 0.09        | 13.0/0.0   | 52.0              |        |          | 2.3    |          | 118  | Btuh |      |
|        | Wall Total                |            |    |      |         |             |            | 2378 (sqft)       |        |          |        |          |      | 2895 | Btuh |
| Doors  | Type                      |            |    |      |         | Area (sqft) |            |                   | HTM    |          | Load   |          |      |      |      |
|        |                           |            |    |      |         |             |            |                   |        |          |        |          |      |      |      |
| 1      | Insulated - Exterior      |            |    |      |         | 96.0        |            |                   | 13.8   |          | 1325   | Btuh     |      |      |      |
| 2      | Insulated - Exterior      |            |    |      |         | 20.0        |            |                   | 13.8   |          | 276    | Btuh     |      |      |      |
| 3      | Insulated - Garage        |            |    |      |         | 24.0        |            |                   | 13.8   |          | 331    | Btuh     |      |      |      |
| 4      | Insulated - Exterior      |            |    |      |         | 48.0        |            |                   | 13.8   |          | 662    | Btuh     |      |      |      |
|        | Door Total                |            |    |      |         | 188 (sqft)  |            |                   |        |          | 2594   | Btuh     |      |      |      |

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Project Title: Climate:FL\_GAINESVILLE\_REGIONAL\_A  
Harlow Residence

, FL

3/25/2024

|                      |                                                                         |             |               |                     |      |            |
|----------------------|-------------------------------------------------------------------------|-------------|---------------|---------------------|------|------------|
| <b>Ceilings</b>      | Type/Color/Surface                                                      | U-Value     | R-Value       | Area(sqft)          | HTM  | Load       |
| 1                    | SnglAsmb w airsp/Light/Metal                                            | 0.018       | 30.0/30.0     | 2439.0              | 0.37 | 905 Btuh   |
|                      | Ceiling Total                                                           |             |               | 2439 (sqft)         |      | 905 Btuh   |
| <b>Floors</b>        | Type                                                                    |             | R-Value       | Size                | HTM  | Load       |
| 1                    | Slab On Grade                                                           |             | 0.0           | 2439 (ft-perimeter) | 0.0  | 0 Btuh     |
|                      | Floor Total                                                             |             |               | 2439.0 (sqft)       |      | 0 Btuh     |
|                      | Envelope Subtotal:                                                      |             |               |                     |      | 12395 Btuh |
| <b>Infiltration</b>  | Type                                                                    | Average ACH | Volume(cuft)  | Wall Ratio          | CFM= | Load       |
|                      | Natural                                                                 | 0.12        | 24390         | 1                   | 49.3 | 1027 Btuh  |
| <b>Internal gain</b> |                                                                         | Occupants   | Btuh/occupant | Appliance           |      | Load       |
|                      |                                                                         | 6           | X 230         | +                   | 3400 | 4780 Btuh  |
|                      | Sensible Envelope Load:                                                 |             |               |                     |      | 18202 Btuh |
| <b>Duct load</b>     | Extremely sealed, Supply(R6.0-Condi), Return(R6.0-Condi) (DGM of 0.000) |             |               |                     |      | 0 Btuh     |
|                      | Sensible Load All Zones                                                 |             |               |                     |      | 18202 Btuh |

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Project Title: Climate:FL\_GAINESVILLE\_REGIONAL\_A  
Harlow Residence

, FL

3/25/2024

### WHOLE HOUSE TOTALS

|                                   |                                                           |                   |
|-----------------------------------|-----------------------------------------------------------|-------------------|
| Whole House<br>Totals for Cooling | <b>Sensible Envelope Load All Zones</b>                   | <b>18202 Btuh</b> |
|                                   | Sensible Duct Load                                        | 0 Btuh            |
|                                   | <b>Total Sensible Zone Loads</b>                          | <b>18202 Btuh</b> |
|                                   | Sensible ventilation (Ex:0 cfm; Sup:0 cfm)                | 0 Btuh            |
|                                   | Blower                                                    | 0 Btuh            |
|                                   | <b>Total sensible gain</b>                                | <b>18202 Btuh</b> |
|                                   | Latent infiltration gain (for 51 gr. humidity difference) | 1704 Btuh         |
|                                   | Latent ventilation gain                                   | 0 Btuh            |
|                                   | Latent duct gain                                          | 0 Btuh            |
|                                   | Latent occupant gain (6.0 people @ 200 Btuh per person)   | 1200 Btuh         |
|                                   | Latent other gain                                         | 0 Btuh            |
|                                   | <b>Latent total gain</b>                                  | <b>2904 Btuh</b>  |
|                                   | <b>TOTAL GAIN</b>                                         | <b>21106 Btuh</b> |

### EQUIPMENT

|                 |   |            |
|-----------------|---|------------|
| 1. Central Unit | # | 48000 Btuh |
|-----------------|---|------------|

\*Key: Window types (Panels - Number and type of panes of glass)  
(SHGC - Shading coefficient of glass as SHGC numerical value)  
(U - Window U-Factor)  
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))  
- For Blinds: Assume medium color, half closed  
For Draperies: Assume medium weave, half closed  
For Roller shades: Assume translucent, half closed  
(IS - Insect screen: none(N), Full(F) or Half(½))  
(Ornt - compass orientation)



Version 8

# System Sizing Calculations - Winter

## Residential Load - Whole House Component Details

Project Title:  
Harlow Residence  
Building Type: User

, FL

3/25/2024

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 °F (TMY3 99%)  
Winter Setpoint: 70 °F (Required Manual J default)

### Component Loads for Whole House

| Window       | Panes/Type      | Frame | U       | Orientation         | Area(sqft)  | X | HTM= | Load      |
|--------------|-----------------|-------|---------|---------------------|-------------|---|------|-----------|
| 1            | 2, NFRC 0.20    | Vinyl | 0.26    | N                   | 30.0        |   | 10.4 | 312 Btuh  |
| 2            | 2, NFRC 0.20    | Vinyl | 0.26    | N                   | 15.0        |   | 10.4 | 156 Btuh  |
| 3            | 2, NFRC 0.20    | Vinyl | 0.26    | S                   | 16.0        |   | 10.4 | 166 Btuh  |
| 4            | 2, NFRC 0.20    | Vinyl | 0.26    | E                   | 20.0        |   | 10.4 | 208 Btuh  |
| 5            | 2, NFRC 0.20    | Vinyl | 0.26    | S                   | 40.0        |   | 10.4 | 416 Btuh  |
| 6            | 2, NFRC 0.20    | Vinyl | 0.26    | W                   | 24.0        |   | 10.4 | 250 Btuh  |
| 7            | 2, NFRC 0.20    | Vinyl | 0.26    | S                   | 48.0        |   | 10.4 | 499 Btuh  |
| 8            | 2, NFRC 0.20    | Vinyl | 0.26    | E                   | 24.0        |   | 10.4 | 250 Btuh  |
| 9            | 2, NFRC 0.20    | Vinyl | 0.26    | S                   | 40.0        |   | 10.4 | 416 Btuh  |
| 10           | 2, NFRC 0.20    | Vinyl | 0.26    | W                   | 20.0        |   | 10.4 | 208 Btuh  |
| 11           | 2, NFRC 0.20    | Vinyl | 0.26    | W                   | 6.0         |   | 10.4 | 62 Btuh   |
| 12           | 2, NFRC 0.20    | Vinyl | 0.26    | W                   | 30.0        |   | 10.4 | 312 Btuh  |
| 13           | 2, NFRC 0.20    | Vinyl | 0.26    | N                   | 18.0        |   | 10.4 | 187 Btuh  |
| 14           | 2, NFRC 0.20    | Vinyl | 0.26    | E                   | 18.0        |   | 10.4 | 187 Btuh  |
| 15           | 2, NFRC 0.20    | Vinyl | 0.26    | S                   | 18.0        |   | 10.4 | 187 Btuh  |
| 16           | 2, NFRC 0.20    | Vinyl | 0.26    | W                   | 18.0        |   | 10.4 | 187 Btuh  |
| Window Total |                 |       |         |                     | 385.0(sqft) |   |      | 4004 Btuh |
| Walls        | Type            | Ornt. | Ueff.   | R-Value<br>(Cav/Sh) | Area        | X | HTM= | Load      |
| 1            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 157         |   | 2.56 | 402 Btuh  |
| 2            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 133         |   | 2.56 | 342 Btuh  |
| 3            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 134         |   | 2.56 | 344 Btuh  |
| 4            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 113         |   | 2.56 | 291 Btuh  |
| 5            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 225         |   | 2.56 | 577 Btuh  |
| 6            | Frame - Wood    | - Adj | (0.089) | 13.0/0.0            | 256         |   | 3.55 | 909 Btuh  |
| 7            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 117         |   | 2.56 | 301 Btuh  |
| 8            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 157         |   | 2.56 | 402 Btuh  |
| 9            | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 127         |   | 2.56 | 325 Btuh  |
| 10           | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 36          |   | 2.56 | 92 Btuh   |
| 11           | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 127         |   | 2.56 | 326 Btuh  |
| 12           | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 36          |   | 2.56 | 92 Btuh   |
| 13           | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 127         |   | 2.56 | 325 Btuh  |
| 14           | Conc Blk,Hollow | - Ext | (0.064) | 13.0/0.0            | 401         |   | 2.56 | 1027 Btuh |
| 15           | Frame - Wood    | - Ext | (0.089) | 13.0/0.0            | 64          |   | 3.55 | 227 Btuh  |
| 16           | Frame - Wood    | - Ext | (0.089) | 13.0/0.0            | 52          |   | 3.55 | 185 Btuh  |
| 17           | Frame - Wood    | - Ext | (0.089) | 13.0/0.0            | 64          |   | 3.55 | 227 Btuh  |
| 18           | Frame - Wood    | - Ext | (0.089) | 13.0/0.0            | 52          |   | 3.55 | 185 Btuh  |
| Wall Total   |                 |       |         |                     | 2378(sqft)  |   |      | 6578 Btuh |

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

, FL

Project Title:  
Harlow Residence  
Building Type: User

3/25/2024

|                           |                                                                 |             |           |                  |            |            |
|---------------------------|-----------------------------------------------------------------|-------------|-----------|------------------|------------|------------|
| Doors<br>1<br>2<br>3<br>4 | Type                                                            | Storm Ueff. |           | Area X           | HTM=       | Load       |
|                           | Insulated - Exterior, n                                         | (0.460)     |           | 96               | 18.4       | 1766 Btuh  |
|                           | Insulated - Exterior, n                                         | (0.460)     |           | 20               | 18.4       | 368 Btuh   |
|                           | Insulated - Garage, n                                           | (0.460)     |           | 24               | 18.4       | 442 Btuh   |
|                           | Insulated - Exterior, n                                         | (0.460)     |           | 48               | 18.4       | 883 Btuh   |
|                           | Door Total                                                      |             |           | 188(sqft)        |            | 3459Btuh   |
| Ceilings<br>1             | Type/Color/Surface                                              | Ueff.       | R-Value   | Area X           | HTM=       | Load       |
|                           | Single as/L/Metal                                               | (0.018)     | 30.0/30.0 | 2439             | 0.71       | 1727 Btuh  |
|                           | Ceiling Total                                                   |             |           | 2439(sqft)       |            | 1727Btuh   |
| Floors<br>1               | Type                                                            | Ueff.       | R-Value   | Size X           | HTM=       | Load       |
|                           | Slab On Grade                                                   | (1.180)     | 0.0       | 262.0 ft(perim.) | 47.2       | 12366 Btuh |
|                           | Floor Total                                                     |             |           | 2439 sqft        |            | 12366 Btuh |
|                           | Envelope Subtotal:                                              |             |           |                  |            | 28134 Btuh |
| Infiltration              | Type                                                            | Wholehouse  | ACH       | Volume(cuft)     | Wall Ratio | CFM=       |
|                           | Natural                                                         |             | 0.16      | 24390            | 1.00       | 65.7       |
|                           |                                                                 |             |           |                  |            | 2883 Btuh  |
| Duct load                 | Extremely sealed, R6.0, Supply(Con), Return(Con) (DLM of 0.000) |             |           |                  |            | 0 Btuh     |
| All Zones                 | Sensible Subtotal All Zones                                     |             |           |                  |            | 31017 Btuh |

### WHOLE HOUSE TOTALS

| Totals for Heating | Subtotal Sensible Heat Loss                       | 31017 Btuh |
|--------------------|---------------------------------------------------|------------|
|                    | Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm) | 0 Btuh     |
|                    | Total Heat Loss                                   | 31017 Btuh |

### EQUIPMENT

|                       |   |            |
|-----------------------|---|------------|
| 1. Electric Heat Pump | # | 48000 Btuh |
|-----------------------|---|------------|

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Project Title:  
Harlow Residence  
Building Type: User

, FL

3/25/2024

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)  
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)  
U - (Window U-Factor)  
HTM - (ManualJ Heat Transfer Multiplier)



Version 8