Electric Heaters Calculation Procedure

EI_CLI_CAL_Electric_Heaters_Calculation_VentDepot US

How to determine wattage requirements:

1. Measure the size of the room(s) or area you intend to heat for square footage.
2. Find your location on the map above. This determines your basic heating zone.
3. The chart shown below the map lists insulation values based on the effectiveness of the insulation presently in your home or location. Find your heating zone on the chart and the approximate wattage per square foot you will need.
4. Multiply the total number of square feet you intend to heat by the approximate wattage per square foot you just obtained. This will determine your total heating requirement in watts for the room.
5. Now choose the heater (s) with wattage equal to what you need.

Note: Above figures are based on 15% total window and door openings in outside walls and 3/4 total air changes per hour. If you do not have storm doors and windows, add 30% to the watts per square foot (multiply by 1.3).

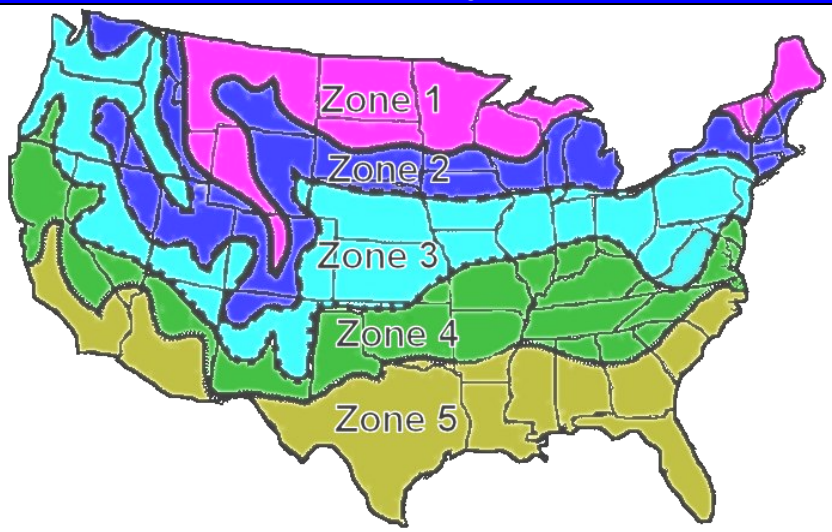
Sample Calculation:

Example = 10' x 12" room in Zone 3 with FHA standard insulation
Determine room square footage: 10' x 12' = 120 sq. ft.
Zone 3 with FHA standard insulation requires 8.2 watts per sq. ft.
Multiply square footage of room to be heated by the approximate wattage per square foot required.
120 sq. ft x 8.2 watts = 984 watts required.
From this calculation it can be reasoned that a 1000 watt heater would be required.
Please note: your heating estimate may need to be increased due to strong winds, high altitudes, or other unusual conditions in your area.

R No. Insulation Effectiveness Table

*"R" values are industry standards for insulation effectiveness	**Recommended**	**FHA Standard**	**Minimum**
	*R-24 Ceiling R-13 Walls R-24 Floor	*R-19 Ceiling R-11 Walls R-11 Floor	(Not Recommended) *R-11 Ceiling R-7 Floor
Zone	**Approximate Wattage Need Per Square Foot**		
1	8.6	10.0	14.6
2	7.7	9.0	13.1
3	7.1	8.2	12.0
4	6.4	7.4	10.8
5	6.0	7.0	10.2

Electric Heating Zones



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