

# HEATING NEEDS

The following calculations are only for total heating of buildings and houses.

How to use the tables in this section:

## 1. SINGLE FAMILY HOUSE – DETACHED TWO STORIES

- a) Find the city nearest to you or a place that has equivalent climate.
- b) Choose the type of house that will be heated.
- c) The W/sqft ( $W/m^2$ ) tells you how much power needs to be installed.
- d) The kWh/sqft ( $kWh/m^2$ ) tells you the consumption of electricity per year so that you can pre-calculate cost and savings.

## 2. OTHER BUILDINGS

To estimate installed power and electrical consumption for other buildings, multiply by the following factors the values taken from the Heating Needs guide for a single house.

	Installed Wattage	Consumption kWh
Attached house	0.8	0.7
Nursing home	0.6	0.5
Office building	0.6	0.5
School building	0.7	0.5
Sports center	0.7	0.5
Swimming pool building	0.7	1.0
Warehouse	1.3	1.2

## 3. ROOM HEATING – MINIMUM COVERAGE

Even if the room heating requirements are less, the spacing between the strips of elements must not exceed 12 inches (30 cm), i.e. 50% coverage, giving you a power of 3.5 W/sqft ( $38 W/m^2$ ). With this spacing you will feel a difference of temperature in the floor; if necessary place the heating elements with the recommended spacing in more essential places.

## 4. WALL HEATING

Although wall heating is not as efficient as floor heating, it is a good radiant alternative. Install wall heating along the perimeters of the house. You will need to install 12% more power than with STEP Warmfloor™.