

ELPAN® PLANNING

The heating needs of a room vary, but a rule of thumb is to take the formula: length x width x height x 25, and this gives the watt consumption needed for the room if it has ordinary insulation.

Example

For a room measuring 4.0 m x 5.0 m (S = 20 m²), and 2.75 m high, the watt consumption is:

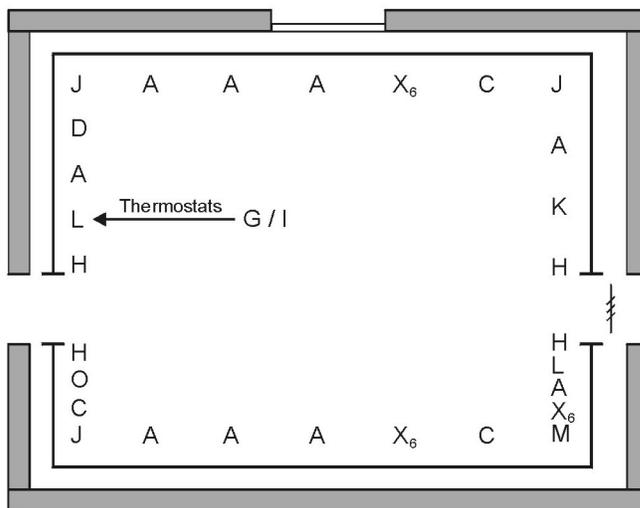
$$Q = 4.0 \times 5.0 \times 2.75 \times 25 = 1375 \text{ W} \times 3,41 = 4689 \text{ BTU/hr}$$

Heat consumption per sq foot is:

$$q = Q : S = 1375 : 20 = 68,8 \text{ W/m}^2 \times 0,317 = 21,8 \text{ BTU/hr/sq foot}$$

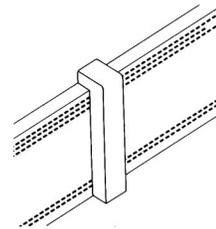
The Elpan heating system is based on the thermal encirclement principle, which means you, should aim to fit the heating panels along the four walls of the room, except for door apertures and other places where it is not possible.

Outline example of fitting in a room.



The Elpan panels produce the following outputs:

Type	Measurements in inches	Watts	BTU/hr
A	47,24 x 4,9 x 0,71	150	580
B	47,24 x 4,9 x 0,71	120	409
C	33,46 x 4,9 x 0,71	110	375
D	15,75 x 4,9 x 0,71	40	136



The distance brackets will provide a space between the panels and any furniture or other objects. This will insure that heat will be disbursed away from the panel. Maximum of 1 piece per foot.

- Elpan is always fitted clockwise.
- Thermostat on the wall has to be mounted 4,9 feet above floor and 220 – 240 V connected to the L connection box.
- We supply two different kinds of thermostats: G – manual thermostat, which can manage 2400 W or I – digital thermostat with night/day reduction and weekly dial, which can manage maximum 2400 W. Two or more thermostats could be used for bigger rooms and spaces when heat consumption more than 8184 BTU/hr (2400 W). Thermostats operating rate is 41° - 86° F.
- Sometimes is not necessary to connect Elpan panels to each other or use electric corners J. Then we can use flexible connector X₃ (4" – 12") or X₆ (8" – 23") and inside corner M or outside corner N (see example of fitting).
- When all Elpan panels are mounted we have to cut blank panel E and cover open spaces.
Remember: cover open spaces after the system is heated completely, because the panels can be enlarged when they are warmed up.
- Carpets should never cover any part of the heating panel. The ventilation holes must not be blocked.

Conversion factors:

$$1 \text{ BTU/hr} = 0,293 \text{ W/m}^2$$

$$1 \text{ BTU/sq foot/hr} = 3,15 \text{ W/m}^2$$

$$1 \text{ W} = 3,41 \text{ BTU/hr}$$

$$1 \text{ W/m}^2 = 0,317 \text{ BTU/sq foot/hr}$$

Remember that you save 20 – 25 % in heating costs in the years to come because of the thermal encirclement principle.