

DESIGN AND CALCULATION

DESIGN GUIDELINES

Maximum recommended spacing between strips of elements

| | | |
|--|--------------|------------|
| Ceramic tile, natural stone, resilient | 2 - 3 inches | 5 - 7.5 cm |
| Hardwood, laminate | 2 - 5 inches | 5 - 13 cm |
| Carpet | 2 - 8 inches | 5 - 20 cm |

Where the heating needs are less than 3.5 W/sqft (38 W/m²), plan the distribution so that the strips of elements do not exceed the recommended spacing to avoid uneven temperatures (i.e., cold spots between the strips of elements).

DESIGN POWER for EP-30-2-24W, 12" (305 mm) wide, at 24V and 68°F (20°C)

| Per linear foot | Per linear meter |
|-----------------|------------------|
| 7.8 Watts | 25.5 Watts |
| 26.6 Btus | 21.9 Kcal |

CURRENT CONSUMPTION for EP-30-2-24W at 24 V and on variable temperatures

| Temp. | 14°F -10°C | 23°F -5°C | 32°F 0°C | 50°F 10°C | 68°F 20°C | 86°F 30°C | 104°F 40°C | 122°F 50°C | 140°F 60°C |
|--------|---------------|--------------|-------------|--------------|--------------|--------------|---------------|---------------|---------------|
| A / ft | 0.39 | 0.38 | 0.37 | 0.35 | 0.32 | 0.29 | 0.25 | 0.22 | 0.20 |
| A / m | 1.28 | 1.25 | 1.21 | 1.15 | 1.06 | 0.92 | 0.82 | 0.72 | 0.66 |

RELATION between **WATTAGE** and **AREA COVERED**

| Wattage | | Area covered with elements | | | Distance between strips of elements | |
|---------|------------------|----------------------------|----|---------------------------|-------------------------------------|-----|
| W/sqft | W/m ² | feet per ft ² | % | meters per m ² | inch | cm |
| 7.18 | 77 | 0.92 | 92 | 3.0 | 1 | 2.5 |
| 6.63 | 71 | 0.85 | 85 | 2.8 | 2 | 5 |
| 6.24 | 67 | 0.80 | 80 | 2.6 | 3 | 8 |
| 5.90 | 64 | 0.75 | 75 | 2.5 | 4 | 10 |
| 5.57 | 60 | 0.70 | 70 | 2.3 | 5 | 13 |
| 4.57 | 49 | 0.60 | 60 | 1.9 | 8 | 20 |
| 3.90 | 42 | 0.50 | 50 | 1.6 | 12 | 30 |