ENGINEERING
TOMORROW

Data Sheet

# FH PEXa Pipes

## Application

The Danfoss PEXa pipe is a high quality foor heating pipe with an EVOH oxygen barrier made in Spain. All layers are permanently bonded with each other during the production process.

PEX-a (peroxide) pipes give greater flexibility than PEX pipes cross-linked by other systems.

They can be cold bent and curved very easily and without special tools, saving joints and installation time.

The EVOH oxygen anti-diffusion barrier is a thin layer of ethylene vinyl alcohol copolymer which prevents permeability of the pipe to oxygen diffusion. This construction eliminates problems with addition of oxygen to the flow water and the resulting corrosion of metal parts in the installation, extending the working life of the whole installation.

5-layer piping made of cross-linked polyethylene and produced by the peroxide method, with oxygen anti-diffusion barrier, according to the requirements of European standard EN 1264-4. Pipe cross linking degree >70 % according to ISO 15875.

## Ordering

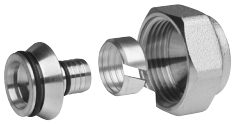
| Product | Size (mm) | Length (m) | Code no. |
|---|---|---|---|
| FH PEX-A pipe EVOH 5-layer | 16 x 2,00 | 400 | **088X0872** |
| FH PEX-A pipe EVOH 5-layer | 16 x 2,00 | 600 | **088X0873** |
| FH PEX-A pipe EVOH 5-layer | 18 x 2,00 | 240 | **088X0874** |
| FH PEX-A pipe EVOH 5-layer | 18 x 2,00 | 600 | **088X0875** |
| FH PEX-A pipe EVOH 5-layer | 20 x 2,00 | 400 | **088X0877** |

## Accessories

| Product | Connection | Size | Code no. |
|---|---|---|---|
|  | Screw coupling | 16,0 × 2,0 mm | **088X1030** |
| | | 20,0 × 2,0 mm | **088X1031** |
|  | Press coupling “TH” jaw profile. | 16,0 × 2,0 mm | **088X1032** |
| | | 18,0 × 2,0 mm | **088X1033** |
| | | 20,0 × 2,0 mm | **088X1034** |

** We recommend to use compatible “TH” jaws profile from the suppliers: Novopress, Rems and Klauke.*

## Accessories

| Product | Connection | Size | Code no. |
|---|---|---|---|
|  external thread | G ½" A, external thread | 14,0 × 2,0 mm | **013G4144** |
| | | 16,0 × 2,0 mm | **013G4146** |
|  internal thread | G ¾", internal thread | 14,0 × 2,0 mm | **013G4154** |
| | | 16,0 × 2,0 mm | **013G4156** |
| | | 16,0 × 2,2 mm | **013G4163** |
| | | 18,0 × 2,0 mm | **013G4158** |
| | | 20,0 × 2,0 mm | **013G4160** |

## Technical specifications

| | | |
|---|---|---|
| Materials | PEXa / EVOH | |
| Max. working pressure at same temperature over 50 years | 20 °C | 15 bar |
| | 40 °C | 10 bar |
| | 60 °C | 8 bar |
| | 70 °C | 7 bar |
| Max. flow temperature (Short term) | 110 °C | |
| Max. working temperature | 95 °C | |
| Oxygen barrier | EVOH | |
| Linear expansion coefficient | 0,026 mm/m°K | |
| Thermal conductivity | λ = 0,35 - 0,38 W/m·K | |
| Oxygen-tightness according to DIN 4726 | 0,08 g/m3 × d | |
| Colour | Natural | |
| Roughness | 0,007 mm | |

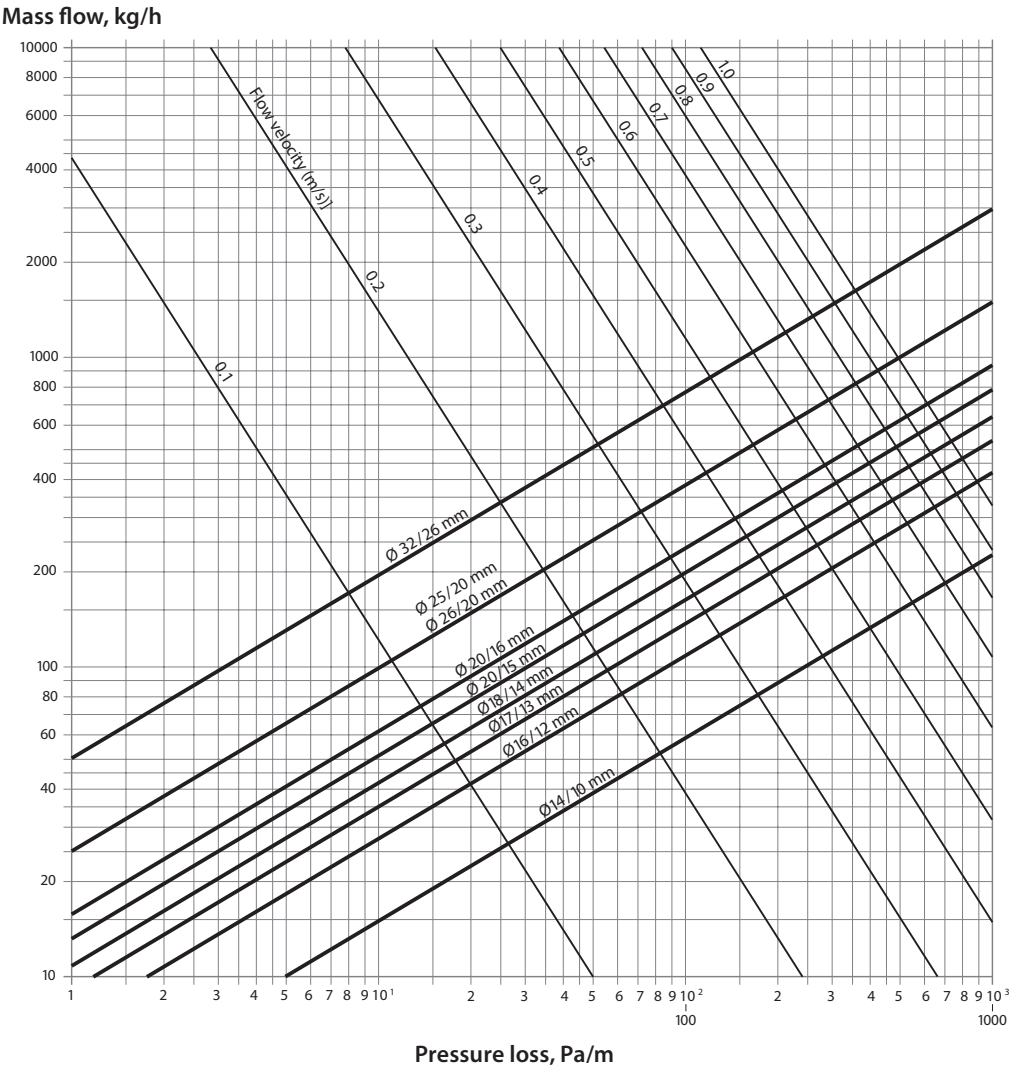
## Minimum bending radius with bending springs

| Pipe dimension | Manual pipe bender radius |
|---|---|
| 16 mm | 80 mm (5 × outside diameter) |
| 20 mm | 100 mm (5 × outside diameter) |
| 25 mm | 125 mm (5 × outside diameter) |

## Classification according to service conditions

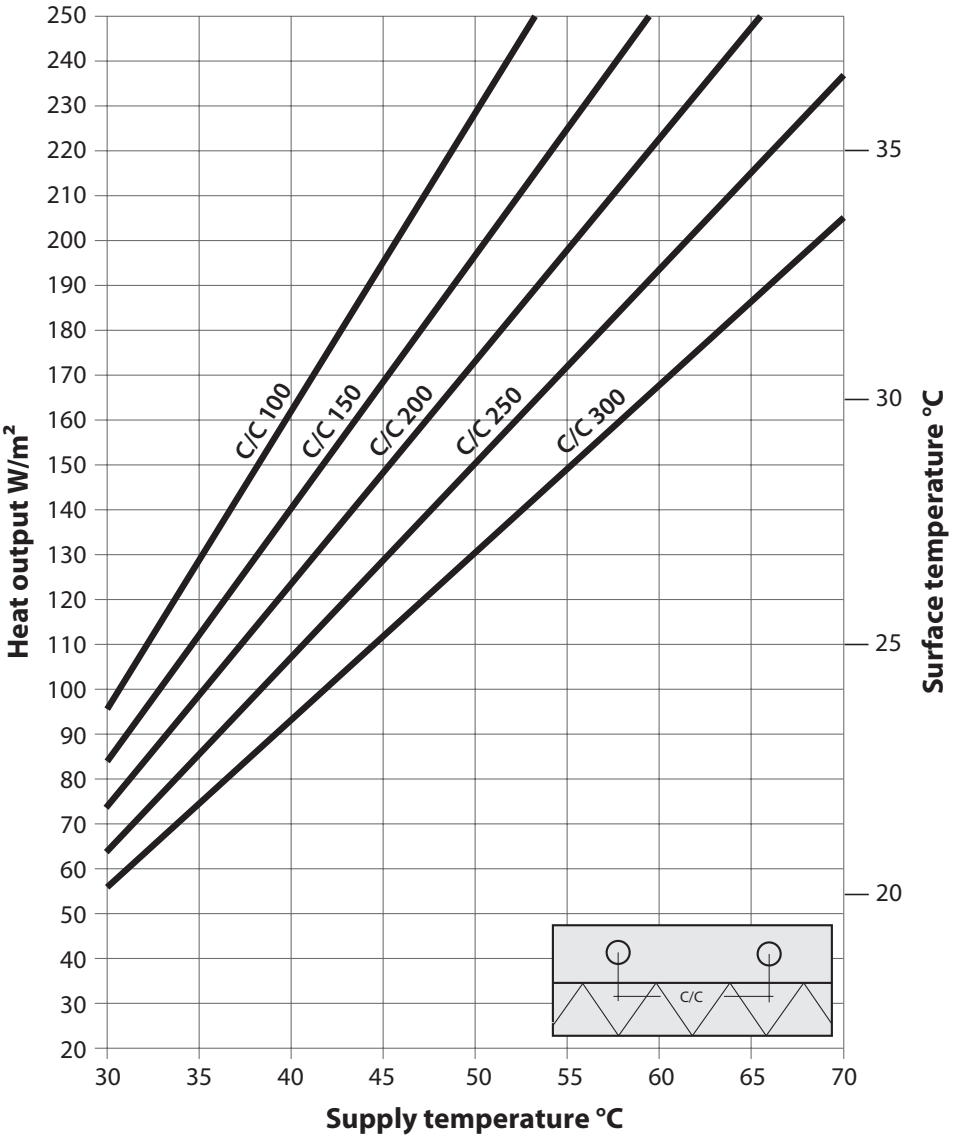
| Application class | Application | Type of temperature | Temperature (°C) | Time (years) |
|---|---|---|---|---|
| 1 | Hot water (60 °C) | Design temperature | 60 | 49 |
| | | Maximum design temperature | 80 | 1 |
| | | Malfunction temperature | 95 | 100 hours |
| 2 | Hot water (70 °C) | Design temperature | 70 | 49 |
| | | Maximum design temperature | 80 | 1 |
| | | Malfunction temperature | 95 | 100 hours |
| 4 | Radiant floor heating and low temperature radiators | Design temperature | 20 | 2.5 |
| | | Design temperature | 40 | 20 |
| | | Design temperature | 60 | 25 |
| | | Maximum design temperature | 70 | 2.5 |
| | | Malfunction temperature | 100 | 100 hours |
| 5 | High temperature radiators | Design temperature | 20 | 14 |
| | | Design temperature | 60 | 25 |
| | | Design temperature | 80 | 10 |
| | | Maximum design temperature | 90 | 1 |
| | | Malfunction temperature | 100 | 100 hours |

## Pressure loss

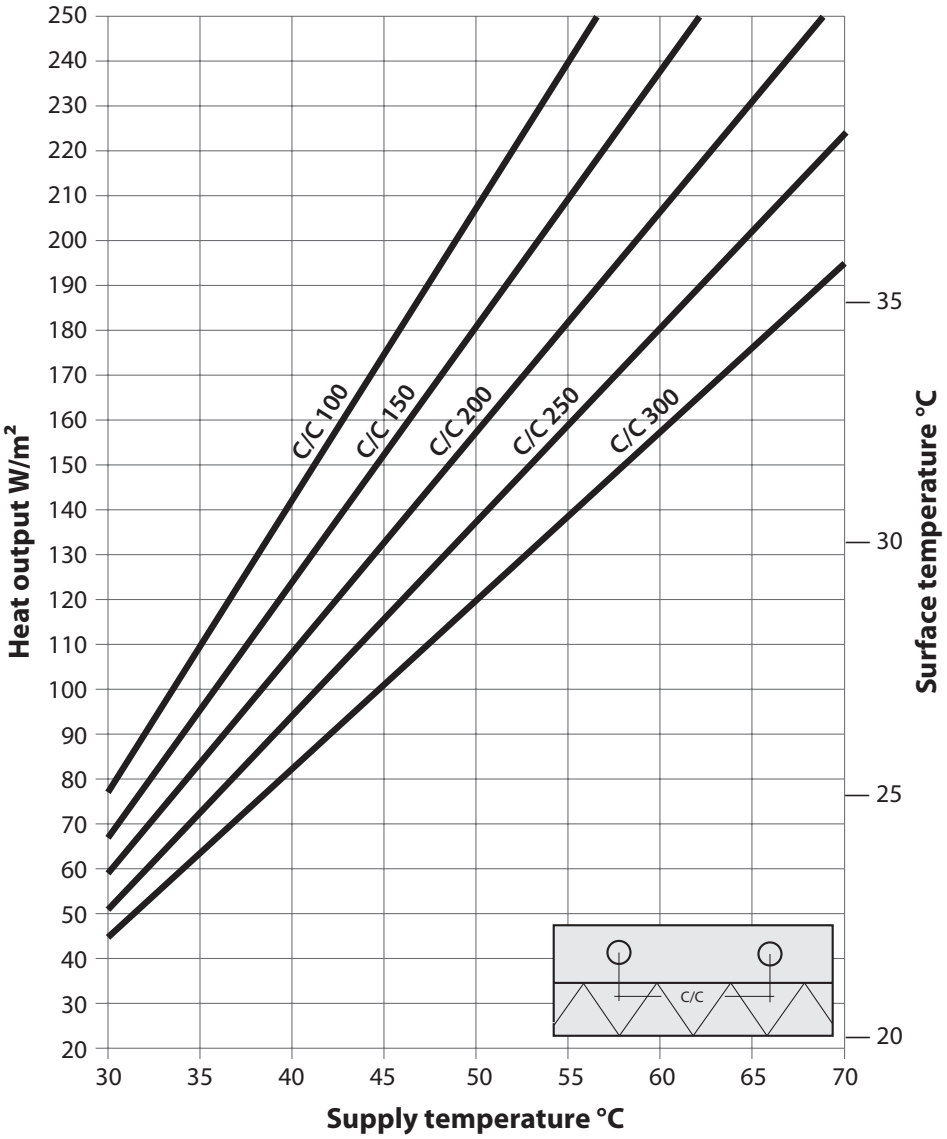



Water temperature: 40 °C.

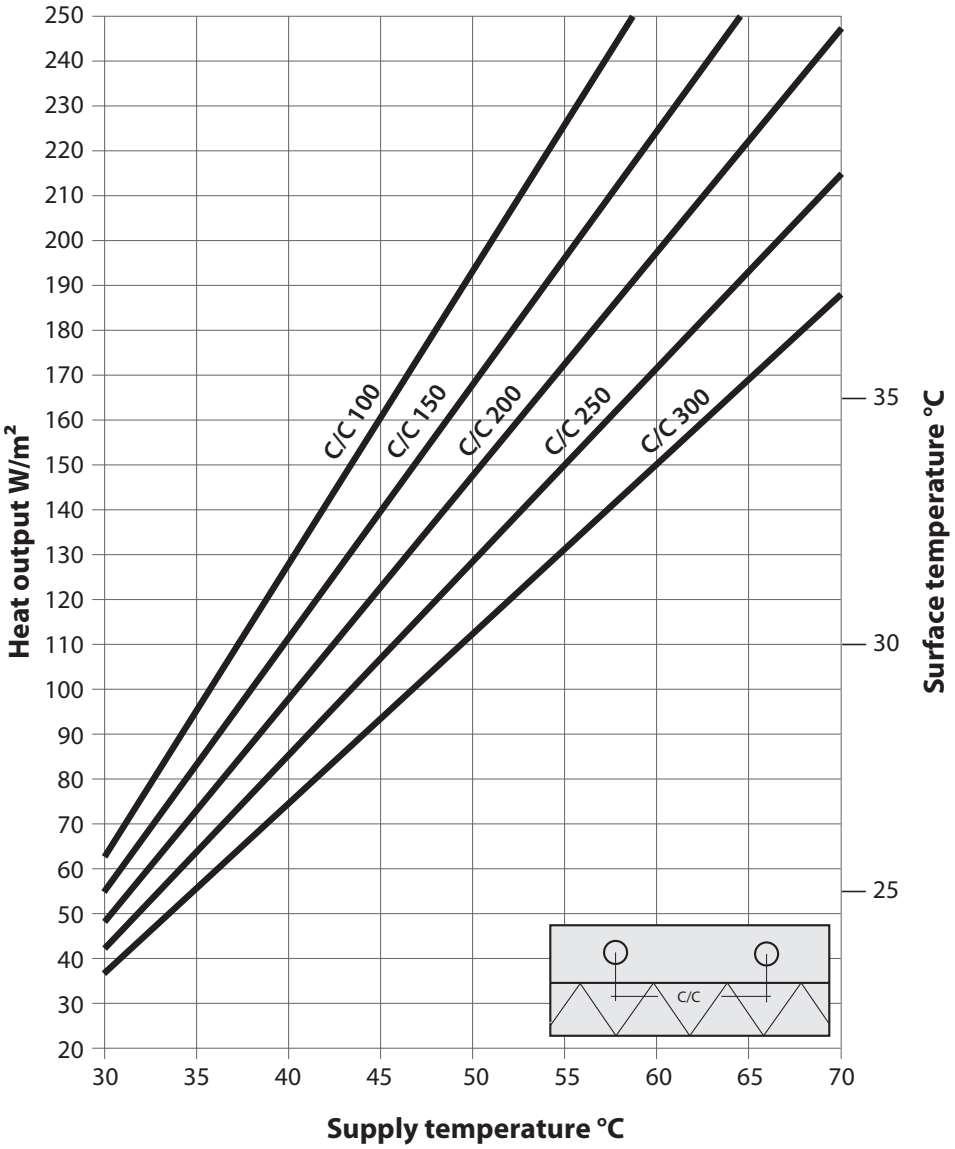
**Heat Output at room temp. 15 °C**



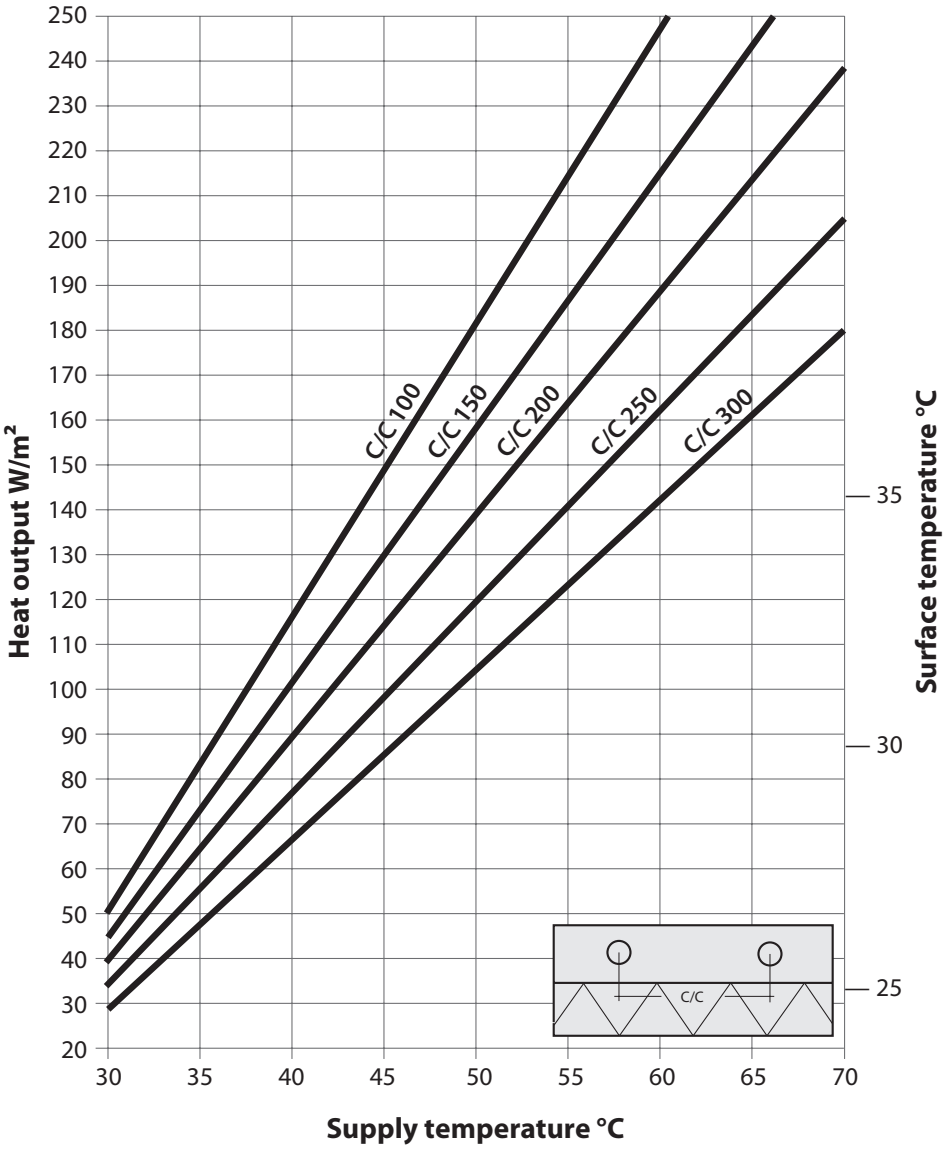
**Heat Output at room temp. 18 °C**



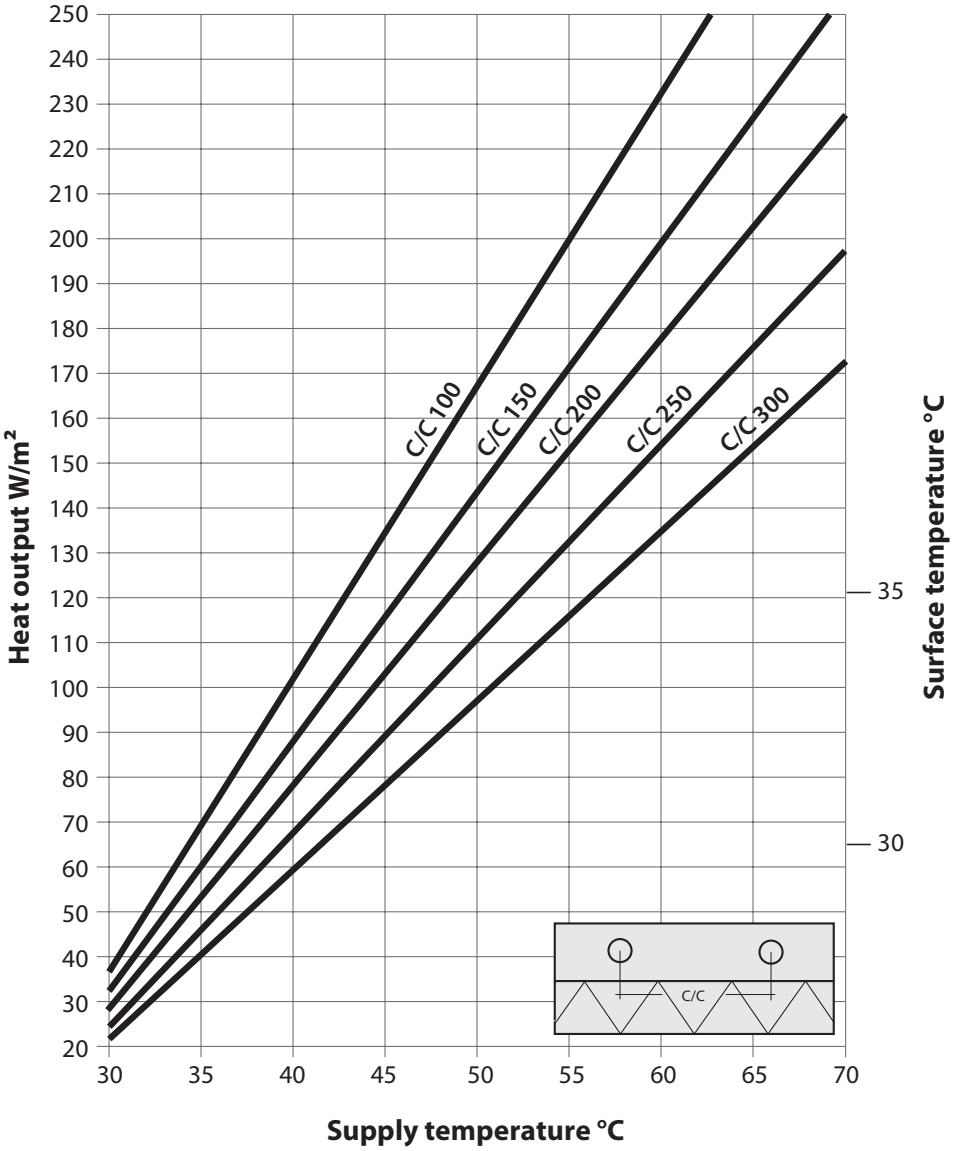
**Heat Output at room temp. 20 °C**



**Heat Output at room temp. 22 °C**



**Heat Output**
**at room temp. 24 °C**




**Danfoss A/S**
Climate Solutions • danfoss.com • +45 7488 2222