

# aroTHERM plus

## Air source heat pump



### Overview

The next generation aroTHERM plus has been fine-tuned and optimised to deliver our most efficient air source heat pump yet.

Thanks to our unique safety concept, the new aroTHERM plus has never been so simple to site and install. The protective zone around the heat pump has been significantly reduced, giving you unprecedented flexibility. The range is available in 3.5, 5, 7, 10\* and 12kW\* output sizes at 230v to suit varied installation requirements. Supporting the new aroTHERM plus is a brand-new VWZ AI with a user-friendly semi-touch interface that offers intuitive control, mirroring the familiar design of our boilers.

Our extensive uniSTOR range of high recovery cylinders suits all property types and water demands, making it the perfect partner for the aroTHERM plus.

### Features & benefits



#### Super quiet operation

The aroTHERM plus is the quietest air-to-water heat pump in our portfolio. With a particularly low noise level of only 44 dB(A), it offers an advantage when choosing the installation location.



#### Maximum flexibility. Minimum protection zones

The new standard in heat pump technology. Our new safety concept, Flexible Space Function (FSF), provides greater siting options around the home. This allows you to install the aroTHERM plus in tighter areas where space is a minimum. Under windows, next to doors, our new FSF unlocks more installation opportunities than ever before.



#### Best performance, better for the environment

R290 enables high flow temperatures of up to 75°C. At the same time, the low GWP of only 0.02\*\*, makes it particularly climate-friendly for your customers.



#### Up to 7-year extended guarantee

The brand-new aroTHERM plus comes with a 7-year extended guarantee when registered with a Vaillant cylinder on myREWARDS, so you can offer your customers an additional benefit: long-term system reliability and peace of mind.



#### Blends in perfectly with UK housing stock

Discreet and timeless. The new anthracite casing retains the distinctive look of our award-winning predecessor, perfect for the retrofit market.

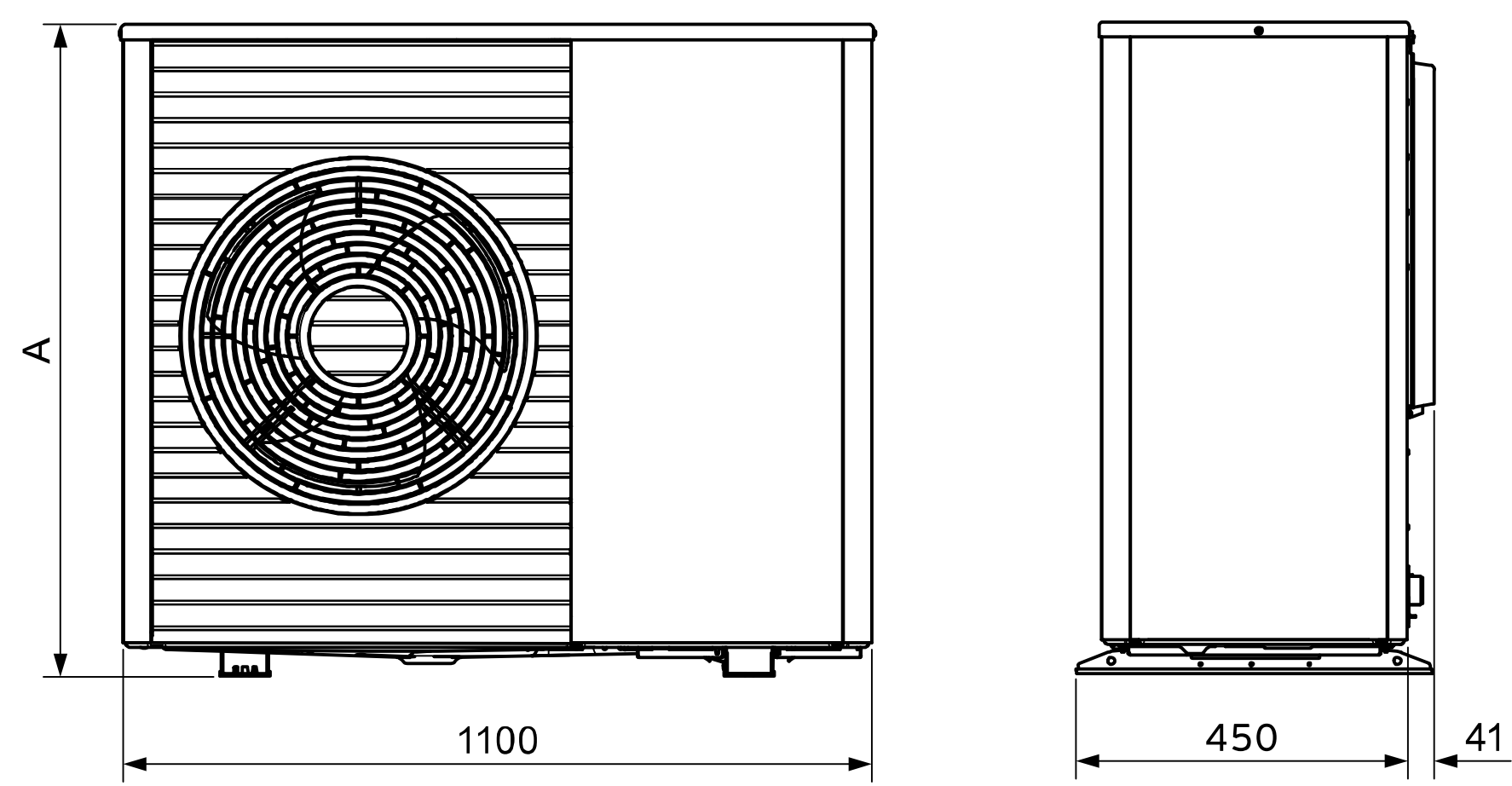
\* Also available in 400v.

\*\* R290 has a 10-year GWP of 0.02, much lower than the traditionally assumed value of 3.

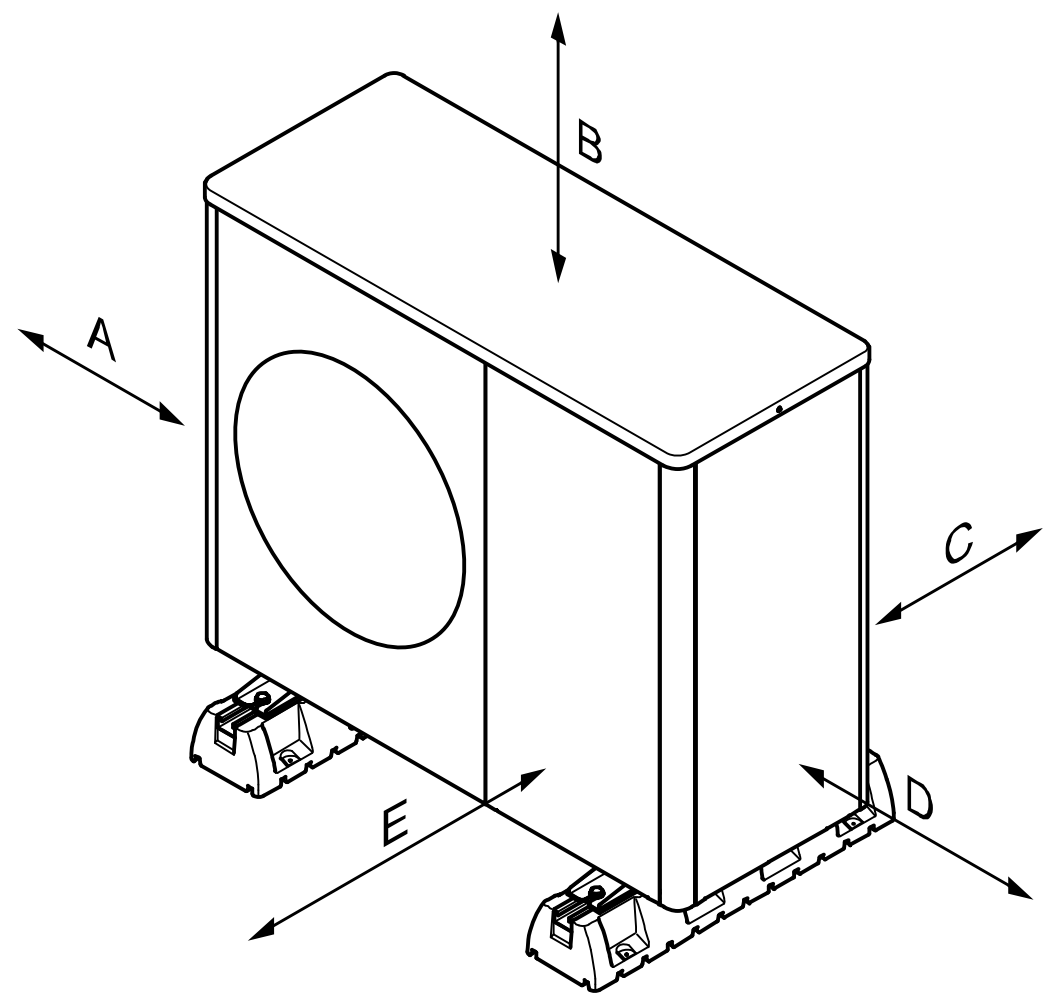
| Technical data                                                                                          | Unit           | 3.5kW                                                                                 | 5kW  | 7kW                 | 10kW<br>(230V)    | 12kW<br>(230V) | 10kW<br>(400V)                      | 12kW<br>(400V) |
|---------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------|------|---------------------|-------------------|----------------|-------------------------------------|----------------|
| General                                                                                                 |                |                                                                                       |      |                     |                   |                |                                     |                |
| Dimensions (H x W x D)                                                                                  | mm             | 765 x 1100 x 450                                                                      |      | 965 x 1100<br>x 450 | 1480 x 1100 x 450 |                |                                     |                |
| Weight, ready for operation                                                                             | kg             | 114                                                                                   |      | 132                 | 196               |                | 211                                 |                |
| Connection, heating circuit                                                                             |                | G 1 1/4"                                                                              |      |                     |                   |                |                                     |                |
| Rated voltage                                                                                           |                | 230 V (+10%/-15%), 50 Hz, 1~/N/PE                                                     |      |                     |                   |                | 400 V (+10%/-15%),<br>50 Hz,3~/N/PE |                |
| Rated current, maximum                                                                                  | A              | 15.2                                                                                  |      | 15.5                | 25                |                | 14                                  |                |
| Fuse size                                                                                               | A              | 16                                                                                    |      |                     | 25                |                | 16                                  |                |
| Fuse type                                                                                               |                | Characteristic B, slow-blow, singlepole switching                                     |      |                     |                   |                |                                     |                |
| RCD type                                                                                                |                | Type B rated to 20kHz or greater and with a minimum trigger point of 150mA above 1kHz |      |                     |                   |                |                                     |                |
| eBUS (2-core communication cable)                                                                       | mm²            | 0.75                                                                                  |      |                     |                   |                |                                     |                |
| Maximum length eBUS cable (polarity sensitive)                                                          | m              | 50                                                                                    |      |                     |                   |                |                                     |                |
| IP rating                                                                                               |                | IPX4                                                                                  |      |                     |                   |                |                                     |                |
| Fan power consumption                                                                                   | W              | 40                                                                                    |      |                     | 50                |                |                                     |                |
| Fan quantity                                                                                            |                | 1                                                                                     |      |                     | 2                 |                |                                     |                |
| Fan air flow, maximum                                                                                   | m³/h           | 2300                                                                                  |      |                     | 5100              |                |                                     |                |
| Heating pump, power consumption                                                                         | W              | 2 - 50                                                                                |      |                     | 3 - 87            |                |                                     |                |
| Heating circuit                                                                                         |                |                                                                                       |      |                     |                   |                |                                     |                |
| Heating water temperature, minimum/<br>maximum                                                          | °C             | 20 - 75                                                                               |      |                     |                   |                |                                     |                |
| Basic length of the heating water<br>pipe, maximum, between the outdoor<br>unit and indoor unit         | m              | 20                                                                                    |      |                     |                   |                |                                     |                |
| Maximum static height difference<br>between outdoor unit and the highest<br>point in the heating system | m              | 18                                                                                    |      |                     | 13                |                |                                     |                |
| Minimum operating pressure                                                                              | bar            | 0.5                                                                                   |      |                     |                   |                |                                     |                |
| Maximum operating pressure                                                                              | bar            | 2.5                                                                                   |      |                     |                   |                |                                     |                |
| Minimum volume flow                                                                                     | l/h            | 430                                                                                   |      | 605                 | 1075              |                |                                     |                |
| Maximum volume flow                                                                                     | l/h            | 860                                                                                   |      | 1205                | 2065              |                |                                     |                |
| Water volume, in the outdoor unit                                                                       | l              | 1.5                                                                                   |      | 2.0                 | 4.5               |                |                                     |                |
| Minimum open water volume                                                                               | l              | 15                                                                                    |      | 20                  | 45                |                |                                     |                |
| Refrigerant circuit                                                                                     |                |                                                                                       |      |                     |                   |                |                                     |                |
| Fluid type                                                                                              |                | R290                                                                                  |      |                     |                   |                |                                     |                |
| Fluid fill quantity                                                                                     | kg             | 0.6                                                                                   |      | 0.9                 | 1.3               |                |                                     |                |
| Refrigerant, Global Warming Potential<br>(GWP)                                                          |                | 0.02                                                                                  |      |                     |                   |                |                                     |                |
| CO <sub>2</sub> equivalent                                                                              | t              | 0.000012                                                                              |      | 0.000018            | 0.000026          |                |                                     |                |
| Permissible operating pressure                                                                          | bar            | 31.5                                                                                  |      |                     |                   |                |                                     |                |
| Compressor type                                                                                         |                | Rotary piston                                                                         |      |                     | Scroll compressor |                |                                     |                |
| Compressor oil type                                                                                     |                | Specific polyalkylene glycol (PAG)                                                    |      |                     |                   |                |                                     |                |
| Compressor, control                                                                                     |                | Electronic                                                                            |      |                     |                   |                |                                     |                |
| Noise emissions, heating mode                                                                           |                |                                                                                       |      |                     |                   |                |                                     |                |
| Sound Power Level atA7/W55<br>(ErP / outdoor)                                                           | dB(A)          | 44.1                                                                                  | 44.3 | 46.8                | 50                |                |                                     |                |
| Efficiency                                                                                              |                |                                                                                       |      |                     |                   |                |                                     |                |
| Energy efficiency class 35°C                                                                            | (A+++<br>to F) | A+++                                                                                  |      |                     |                   |                |                                     |                |
| Energy efficiency class 55°C                                                                            | (A+++<br>to F) | A++                                                                                   |      |                     | A+++              |                |                                     |                |

\* 490mm (including back plate and mounting brackets).

Dimensions and clearances

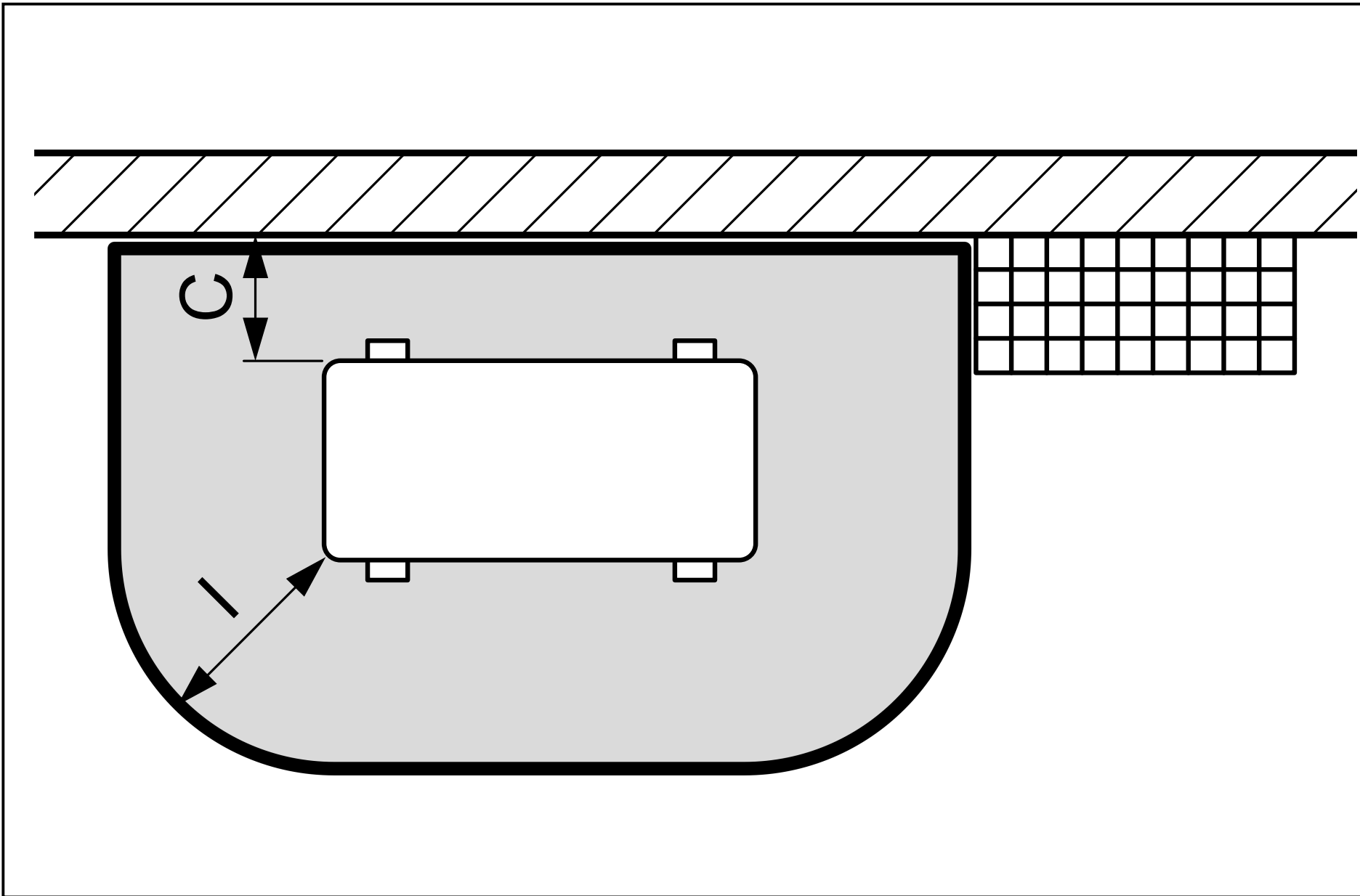
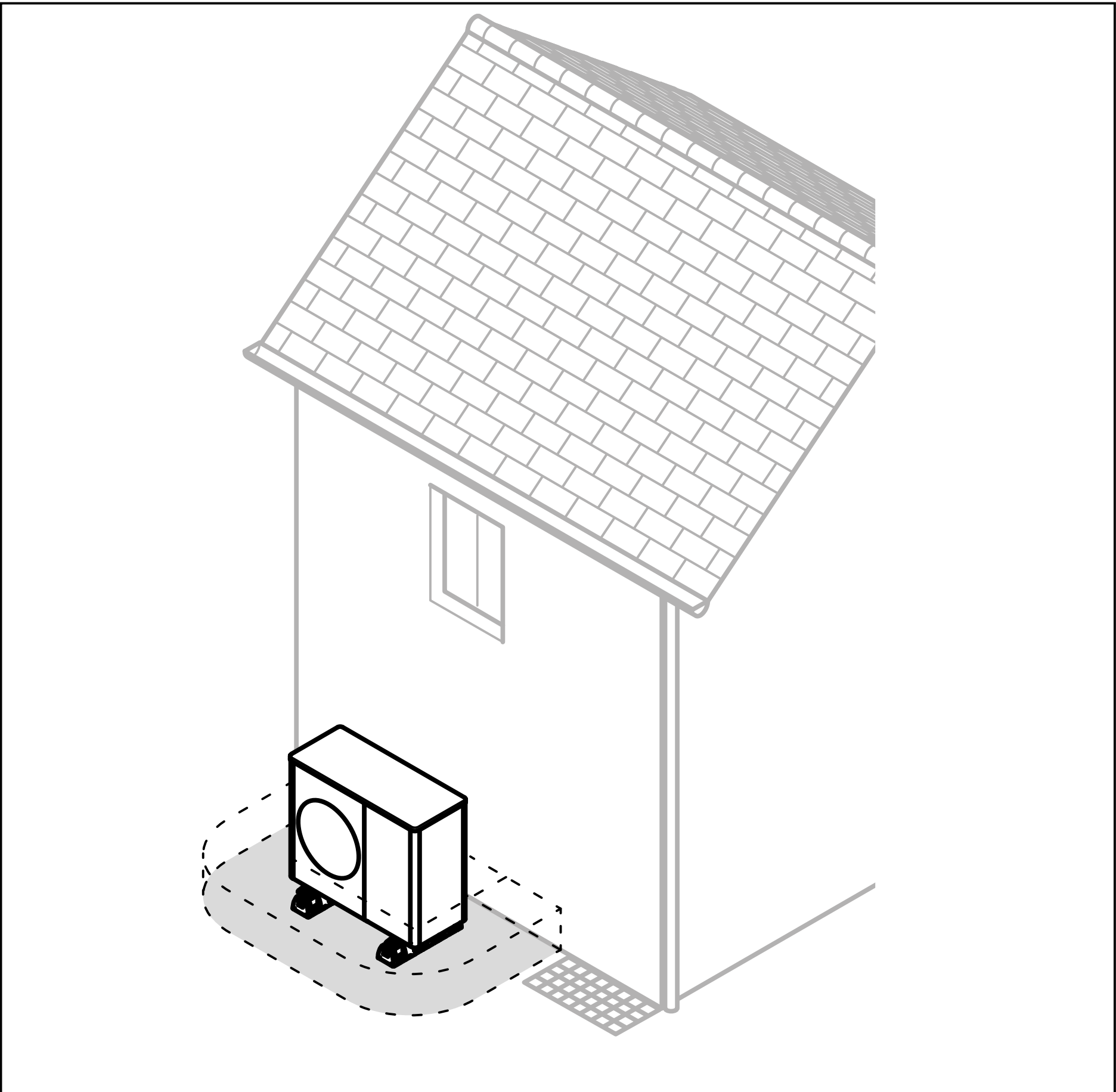
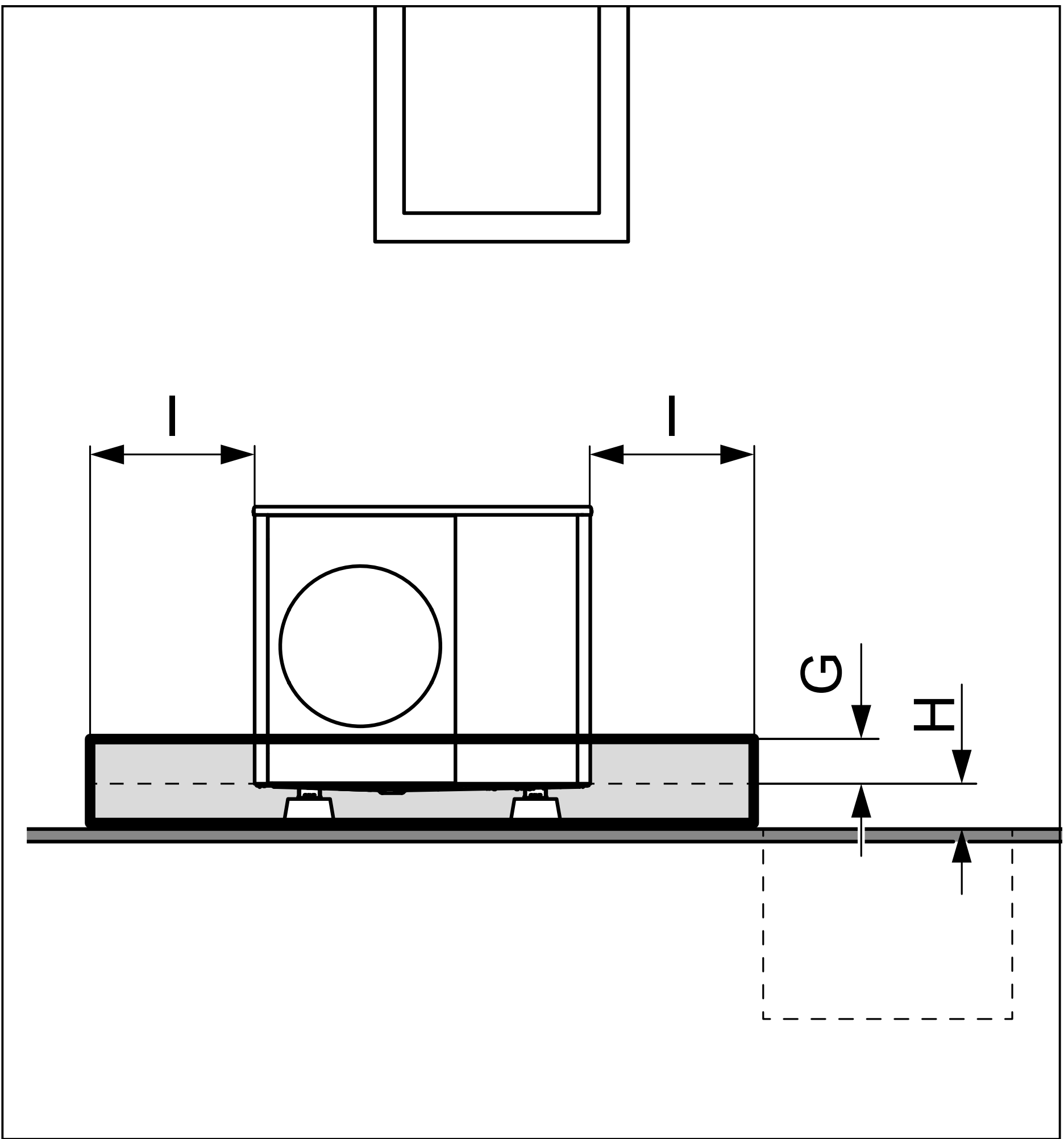
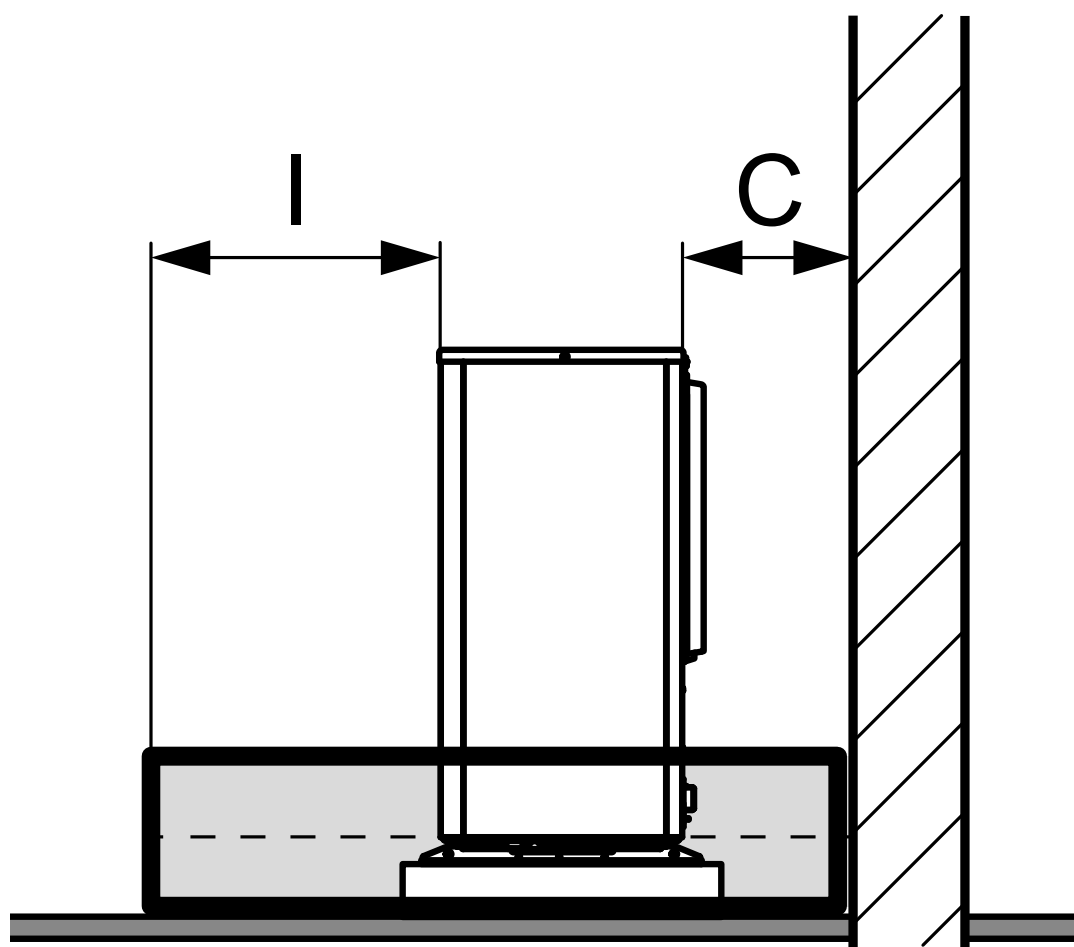


| aroTHERM plus | Unit | Dimension A |
|---------------|------|-------------|
| 3.5kW         | mm   | 765         |
| 5kW           | mm   | 765         |
| 7kW           | mm   | 965         |
| 10kW          | mm   | 1565        |
| 12kW          | mm   | 1565        |



| minimum clearances | Unit | Heating mode | Heating and cooling mode |
|--------------------|------|--------------|--------------------------|
| A                  | mm   | 100          | 100                      |
| B                  | mm   | 1000         | 1000                     |
| C                  | mm   | 200          | 250                      |
| D                  | mm   | 500          | 500                      |
| E                  | mm   | 600          | 600                      |

**Validity:**  
Installation height <400mm



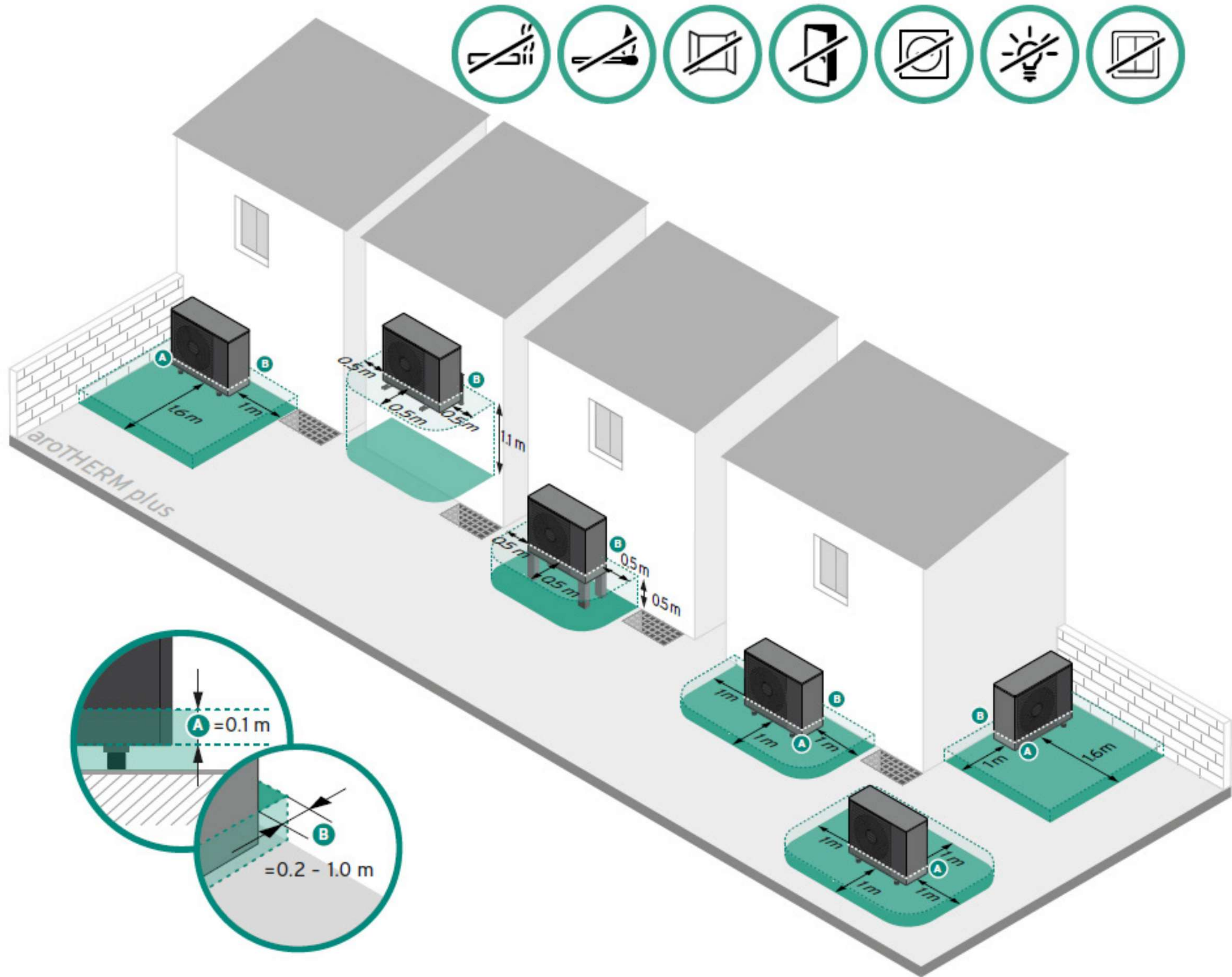
| minimum clearances | With or without base cover |
|--------------------|----------------------------|
| C                  | See table above            |
| G                  | 100mm                      |
| H                  | <400mm                     |
| I                  | 1000mm                     |

**A safe space for carefree operation**

When placing the unit you must be aware of drains and openings.

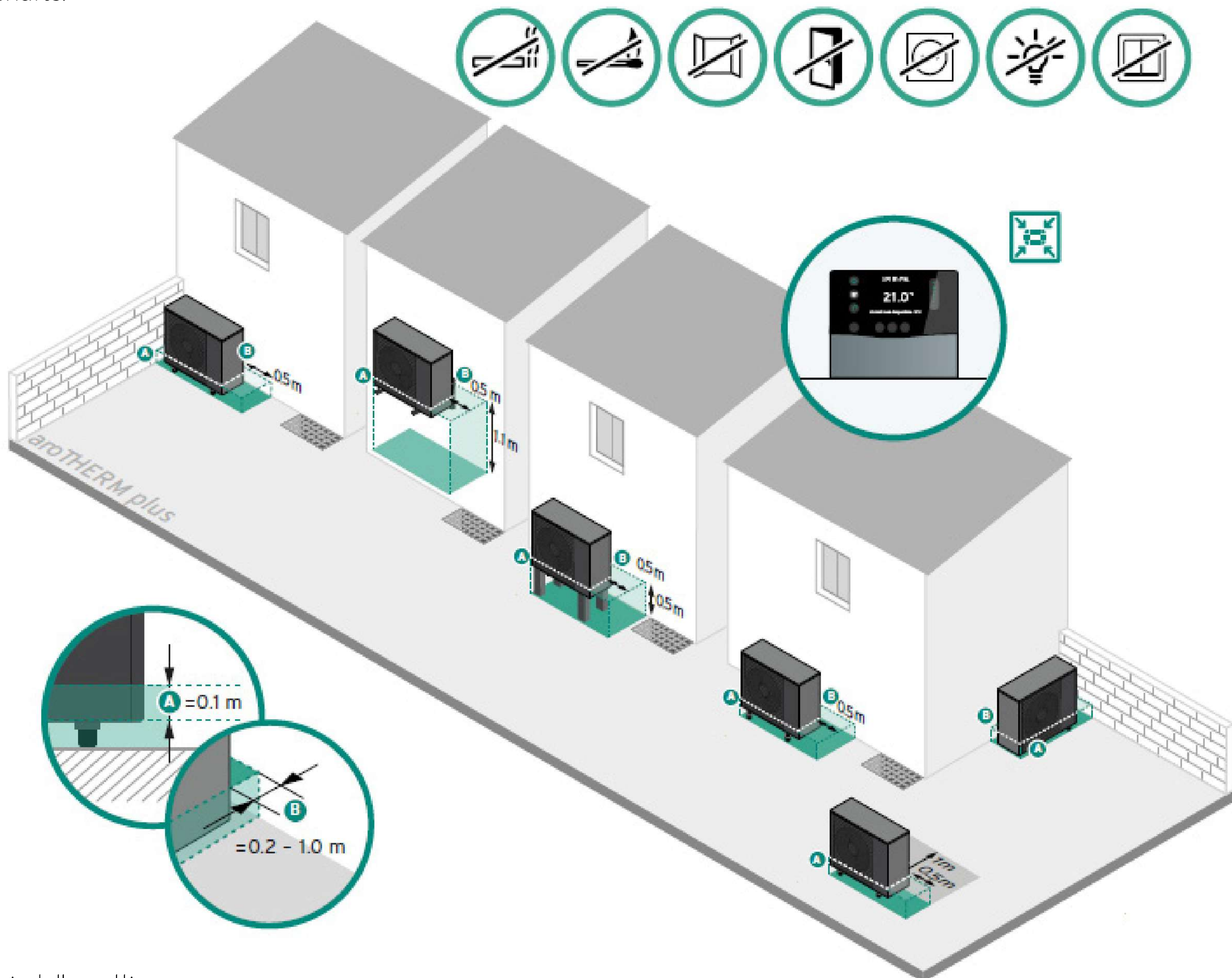
In the unlikely event of a refrigerant leak, the gas needs to be allowed to disperse to stop the risk of gas becoming lit.

Follow the diagrams below to ensure adequate clearance.



**Optimised spacing for safe installation  
(Flexible Space Function activated)**

The Flexible Space Function delivers maximum siting flexibility with the significant reduction of the protection zone. Once activated\*, this allows free positioning near to doors, power outlets, windows or basement shafts.



\*Activated in the installer settings.