LIEBHERR

# Design Guide

## Fully Integrated Models 24" and 48"

Release 04 2018

# Welcome

Liebherr is one of the World's leading Manufacturers of Premium Refrigeration. For more than 60 years, Liebherr has specialized in developing and manufacturing first class refrigerators and freezers as well as wine cabinets. We focus on performance and efficiency as well as keeping food fresher longer.

Produced in Austria and Germany, Liebherr has a full line of premium models tailored specifically for the North American marketplace to fit any design vision you have for your kitchen.

Our freestanding stainless models are sleek centerpieces that make a definite statement. Our built-in models are perfect for designs that call for units that slide into cabinet surrounds. And our fully-integrated models become one with your kitchen design, hidden seamlessly behind your custom cabinetry.

High quality materials, perfectly detailed finishes, precise electronic control systems, elite cooling components, variable speed compressors and the latest production processes ensure energy efficiency and performance for years to come.

Our superior products offer premium quality, cutting edge design and innovative features that fit with your busy lifestyle.

## LIEBHERR WARRANTY PLAN

**FULL TWO YEAR WARRANTY** - For two years from the date of original purchase, your Liebherr Warranty covers all parts and labor to repair or replace any part of the product which proves to be defective in materials or workmanship.

**FULL FIVE YEAR WARRANTY** - For five years from the date of original purchase, your Liebherr Warranty covers all parts and labor to repair or replace any components that prove to be defective in materials or workmanship in the sealed system. The "Sealed System" means only the compressor, condenser, evaporator, drier and all connecting tubing.

**LIMITED 6TH THROUGH 12TH YEAR WARRANTY** - From the 6th through 12th year from the date of original purchase, your Liebherr Warranty covers all parts that prove to be defective in materials or workmanship in the sealed system (parts only).

**Customer Service**
If your appliance is not working properly, or if the temperature display reads "F0" to "F9 ", please call the numbers listed below.

Give the **fault number displayed**, together with the
**Type Designation,**
**Service Number** and
**Appliance Number (Serial Number)**
from the model plate, to ensure prompt, accurate servicing. The model plate is located inside the appliance.

Leave the appliance door closed until the customer service technician arrives to minimize any further cold loss.

### For Service and Parts in the U.S.:

**PlusOne Solutions, Inc.**
3501 Quadrangle Blvd, Suite 120
Orlando, FL 32817

Toll Free: **1-866-LIEBHER or**
**1-866-543-2437**

**Service-appliances.us@liebherr.com**
**www.liebherr-appliances.com**

### For Service and Parts in Canada:

**Euro-Parts Canada**
39822 Belgrave Road,
BELGRAVE, Ontario, N0G 1E0

Phone: (519) 357-3320
Fax: (519) 357-1326
Toll Free: **1-888-LIEBHER or**
**1-888-543-2437**

**www.euro-parts.ca**

### Need help?

For design related inquiries not addressed in this Design Guide please email **install.americas@liebherr.com**

# Contents

## General Remarks


**I. Safety Warnings** ..... **7**

**II. Electrical Requirements & Safety** ..... **8**

**III. IceMaker (if equipped)** ..... **8**

**IV. Area Requirements** ..... **9**

**V. Safety Regulations** ..... 9


## Fully Integrated Models 24" and 48" Models


**24" Model: HC 1030, HC 1030PC, HC 1050B, HC 1050PC, HC 1070, HC 1080, HC 1021, HCB 1060** ... 10

Ventilation Requirements ..... 14
Kitchen Cabinet Base Grille ..... 15
Location Of The Electrical Outlet ..... 15
Unit Dimensions ..... 16
Kitchen Cabinet Doors ..... 17
Definition of the Door Panel Heights ..... 18

**HC 1030, HC 1030PC, HC 1050B, HC 1050PC, HC 1070, HC 1080, HC 1021,HCB 1060** ..... 19

Kitchen cabinet setup for the water filter ..... 20

**24" Model: HC 1000B, HC 1001B** ..... 22

Ventilation Requirements ..... 24
Kitchen Cabinet Base Grille ..... 25
Location Of The Electrical Outlet ..... 25
Unit Dimensions ..... 26
Kitchen Cabinet Doors ..... 27
Definition of the Door Panel Heights ..... 28
HC 1000B, HC 1001B ..... 29

**24" and 48" Models: HF 861 / HRB 1120, SBS 19H1** ..... 30

Ventilation Requirements ..... 32
Kitchen Cabinet Base Grille ..... 33
Location Of The Electrical Outlet ..... 33
Unit Dimensions ..... 34
Kitchen cabinet setup for the water filter ..... 35
Kitchen Cabinet Doors ..... 36
Definition of the Door Panel Heights ..... 37
HF 861 / HRB 1120 ..... 37

**24" Model: HC 700B** ..... 38

Ventilation Requirements ..... 39
Kitchen Cabinet Base Grille ..... 40
Location Of The Electrical Outlet ..... 40
Unit Dimensions ..... 41

Kitchen Cabinet Doors ..... 42
Definition of the Door Panel Heights ..... 43
HC 700B ..... 43

# I. Safety Warnings

**PLEASE READ AND FOLLOW THESE INSTRUCTIONS**

This design guide contains Warning and Caution statements. This information is important for safe and efficient installation.

This design guide is not replacing the use and care manual which contains important information on how to use Liebherr appliances.

Always read and follow all Warning and Caution statements!

⚠ DANGER

indicates a hazardous situation, which if not avoided, will result in death or serious injury.

⚠ WARNING

indicates a hazardous situation, which if not avoided, could result in death or serious injury.

⚠ CAUTION

indicates a hazardous situation, which if not avoided, will result in minor or moderate injury.

**NOTICE**

indicates a hazardous situation, which if not avoided, could result in damage to property.

NOTE

indicates useful advice and tips.

Make sure incoming voltage is the same as the unit rating.

To reduce the risk of fire, electric shock, or personal injury, the installation work and electrical wiring must be done by a qualified electrician in accordance with all applicable codes and standards, including fire rated construction.

### To the Installer

It is very important that the guidelines and instructions are followed in this design guide to ensure proper installation and operation of the unit. The Installation Guidelines section contains important information for making sure the installation is correct. Read and understand all the information and installation guidelines in this manual before the unit is installed.

It is also very important to **know** the Safety Information.

## II. Electrical Requirements & Safety

Circuit has to be grounded and protected by a circuit breaker or fuse.

Single installation:
- 115 volt
- 60 hz
- 15 amp

Side-by-side installation:
- 115 volt
- 60 hz
- 20 amp

We recommend using a dedicated circuit for each appliance to prevent circuit overload and the chance of interruption to the appliance.

The appliances are equipped with a three-prong (grounding) polarized plug for protection against possible shock hazards.

Comply with the National Electrical Code as well as local codes and ordinances when installing the receptacle.

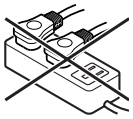
⚠ DANGER

**Do not ground to a gas pipe. Check with a qualified electrician if you are not sure the appliance is properly grounded. Do not have a fuse in the neutral or grounding circuit.**

⚠ DANGER

**Electrocution hazard.**
**Electrical Grounding Required.**
- **Do not remove the round grounding prong from the plug.**
- **Do not use a two-prong grounding adapter.**

- **Do not use an extension cord to connect power to the unit.**
- **Do not use a power cord that is frayed or damged.**
- **Do not use a power strip.**



**Failure to follow these instructions may result in fire, electrical shock or death.**

## III. IceMaker (if equipped)

The icemaker is located in the freezer compartment. The appliance must be level for the icemaker to function properly.
If you have hard water, we recommend you install a water softener. Also, a filter must be installed if the water contains solids such as sand. All equipment and devices used to supply the water to the appliance must comply with the current regulations for your geographical area.

### Safety Instructions and Warnings

- Do not attach the water source while the appliance is connected to an electrical outlet.
- The water quality must comply with the drinking water regulations for the geographical area where the appliance is located.
- The icemaker is designed exclusively to make ice cubes in quantities needed by a household and may only be operated with water appropriate for this purpose.
- All repairs and work on the icemaker may only be done by customer service personnel or other trained personnel.

Appliances with water connection:

- The water pressure must be between 21.8-87.0 psi (1.5-6 bar). Use a 1/4" OD copper line (not supplied) to connect the water supply to the solenoid valve.
- A shut-off valve, must be installed between the hose line and the main water supply so that the water supply can be stopped if necessary. Do not install the shut-off valve behind the refrigeration unit.
- The connection to the water supply may only be made by a trained and licensed plumber.
- The manufacturer cannot accept liability for damage caused by equipment or water lines between the solenoid valve and the water supply.

Appliances with water tank:

- Fill the water tank with cold potable water only. Never use fluids containing sugar such as soft drinks, fruit-juices etc..
- Through the use of filtered, decarbonized water, drinking water with the best possible flavor is achieved, and this can be used for problem-free production of ice cubes. This water quality can be achieved using a table water filter of the kind available in trade retail outlets.

## IV. Area Requirements

Verify the following:

- Floors can support refrigerator's weight plus approximately 1200 pounds (544 kg) of food weight. Not all Liebherr products are designed for 1200 pounds (544 kg) of food. Some units are smaller and total weights may vary.
- Finished kitchen floor height is level. Refrigerator must be shimmed to the floor level, or levelled, to make sure, air vents are not obstructed.
- Remove anything attached to the rear or side walls that can obstruct refrigerator opening.
- Cutout dimensions are accurate.
- Electrical outlet is in correct location.

Do not install this unit next to any other refrigerator or freezer except another Liebherr model. Liebherr models are designed to allow side by side installation. They are equipped with a heating system to eliminate condensation when units are installed side by side. Installing this unit next to any other refrigerator or freezer can cause condensation or cause damage to the Liebherr unit.

**NOTICE**

**To protect the refrigerator from possible damage, allow the appliance to stand 1/2 to 1 hour in place before turning the electricity on. This allows the refrigerant and system lubrication to reach equilibrium.**

## V. Safety Regulations

The appliance complies with UL250 and CAN/CSA-C 22,2 No. 63-93 (HF 851, HRB 1110) and respectively CAN/CSA-C22.2 No. 60335-1-11, 60335-2-24-06 and UL 60335-1, UL 60335-2-24 (HC 1070, HC 1000B, HC 1001B, HRB 1120) and is designed to cool, freeze, store food as well as make ice (if equipped). It is designed as a household appliance. If used commercially, the relevant regulations on commercial use must be observed.

The appliance is set to operate within specific ambient temperature limits according to its climate rating. These temperature limits should not be exceeded. The correct climate rating for your appliance is indicated on the model plate.

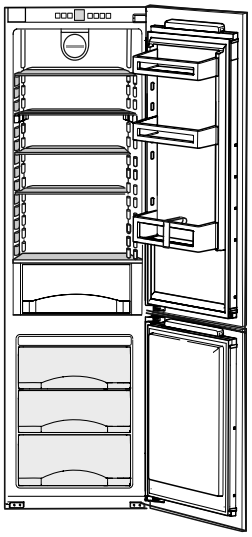
This is explained as follows:

| Climate Rating | Set for Ambient Temperatures of |
|---|---|
| SN | 50°F to 90°F (10°C to 32°C) |
| N | 61°F to 90°F (16°C to 32°C) |
| ST | 61°F to 101°F (16°C to 38°C) |
| T | 61°F to 110°F (16°C to 43°C) |
| SN-ST | 50°F to 101°F (10°C to 38°C) |
| SN-T | 50°F to 110°F (10°C to 43°C) |

Refrigerant circuits are tested for leaks.

## 24" Model: HC 1030, HC 1030PC, HC 1050B, HC 1050PC, HC 1070, HC 1080, HC 1021, HCB 1060

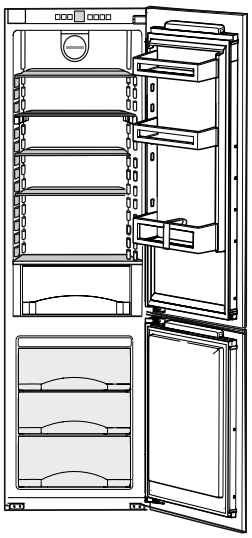
Integrated units are the most stylish option available - they're totally out of sight, fully concealed behind a cabinet door. Installed in a tall kitchen cupboard, the refrigerator door simply opens in unison with the cupboard door.



HC 1030

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 395 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9,4 cu ft (267 L) |
| Refrigerator: | 7,0 cu ft (199 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges: | right / reversable |

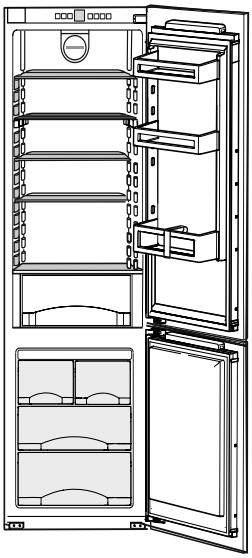
- Automatic refrigerator and freezer compartment defrosting
- LED light
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



HC 1030 PC

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 395 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9,4 cu ft (267 L) |
| Refrigerator: | 7,0 cu ft (199 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges: | right / reversable |

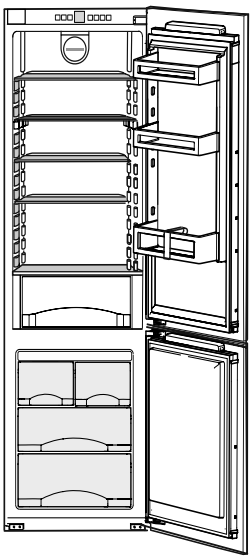
- Automatic refrigerator and freezer compartment defrosting
- LED light
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



HC 1050B

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 475 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9,3 cu ft (264 L) |
| Refrigerator: | 6,9 cu ft (196 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges: | right / reversable |

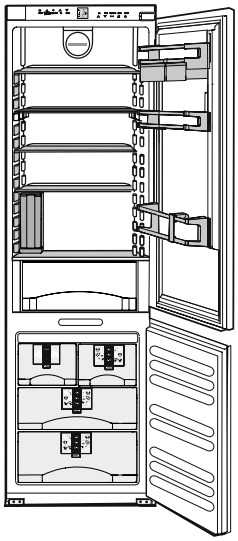
- Automatic refrigerator and freezer compartment defrosting
- LED light
- IceMaker with fixed water connection
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



HC 1050 PC

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 475 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9,3 cu ft (264 L) |
| Refrigerator: | 6,9 cu ft (196 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges: | right / reversable |

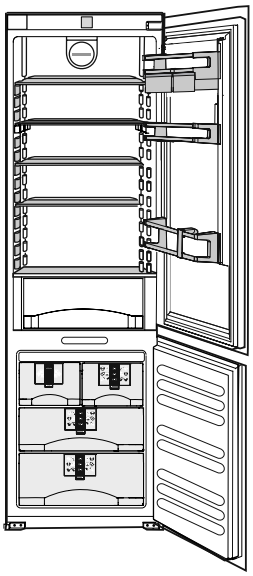
- Automatic refrigerator and freezer compartment defrosting
- LED light
- IceMaker with fixed water connection
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



## HC 1070

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 475 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9,3 cu ft (264 L) |
| Refrigerator: | 6,9 cu ft (196 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges: | right / reversable |

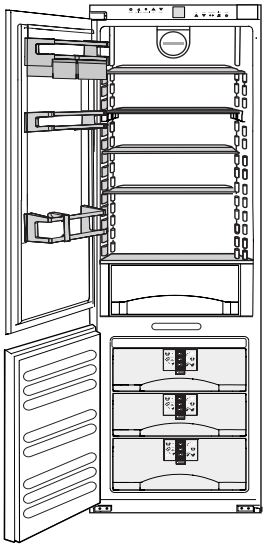
- Automatic refrigerator and freezer compartment defrosting
- LED light column
- HC 1070 with soft closing system
- IceMaker with water tank
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



## HC 1080

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 475 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9,3 cu ft (264 L) |
| Refrigerator: | 6,9 cu ft (196 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges: | right / reversable |

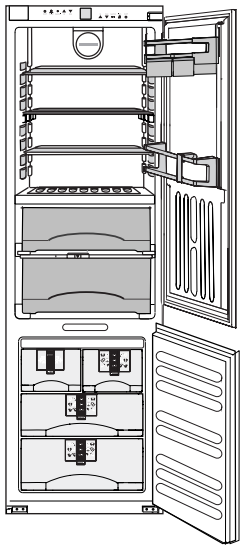
- Automatic refrigerator and freezer compartment defrosting
- LED light column
- HC 1080 with soft closing system
- IceMaker with fixed water connection
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



HC 1021

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 395 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9.4 cu ft (267 L) |
| Refrigerator: | 7.0 cu ft (199 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges: | left / reversable |

- Automatic refrigerator and freezer compartment defrosting
- LED light column
- HC 1021 with soft closing system
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



HCB 1060

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 475 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 8.7 cu ft (247 L) |
| Refrigerator: | 3.9 cu ft (111 L) |
| BioFresh: | 2.4 cu ft (68 L) |
| Freezer: | 2.4 cu ft (68 L) |
| Climate Rating: | SN-ST |
| Door hinges: | right / reversable |

- Automatic refrigerator and freezer compartment defrosting
- LED light column
- HCB 1060 with soft closing system
- BioFresh safes with SoftTelescopic
- IceMaker with fixed water connection
- Height-adjustable feet at front and levelling rails
- Changeable door gasket

## Ventilation Requirements

This is a fully integrated refrigerator-freezer which means that it is fully enclosed by a kitchen cabinet. This type of cabinet must be carefully constructed using the correct dimensions and it must provide suitable ventilation to ensure proper appliance operation.

**NOTICE**

**If the following ventilation dimensions are not observed the compressor will be damaged.**

### Kitchen Cabinet Airflow

1. The following ventilation dimensions must be observed:

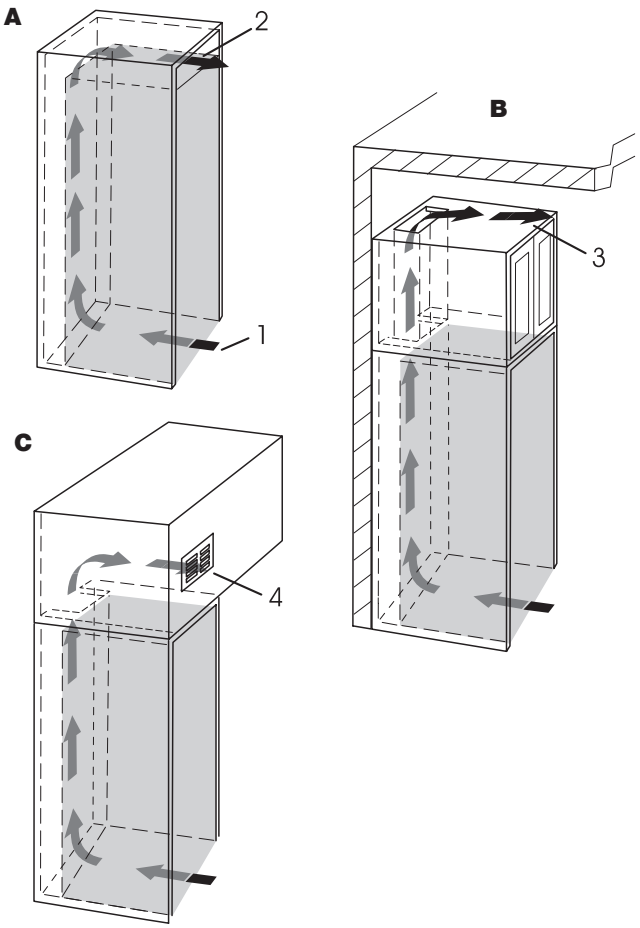
   There must be a ventilation space at least 31 in.² (200 cm²) at the airflow inlet (1) and at the airflow outlet (2).

   The top ventilation space can be directed in one of the following ways:

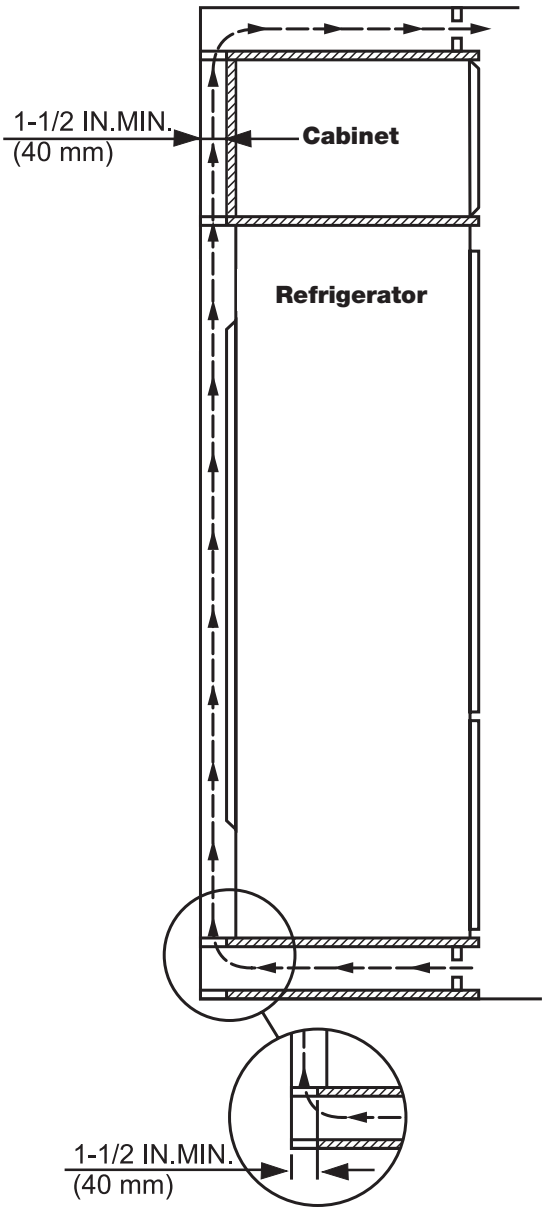
   A) Directly over the appliance (2) with either an optional factory air vent or custom made one.

   B) Above the cabinet and below the ceiling (3).

   C) Through a vent installed in a soffit (4).




**B - Side view**



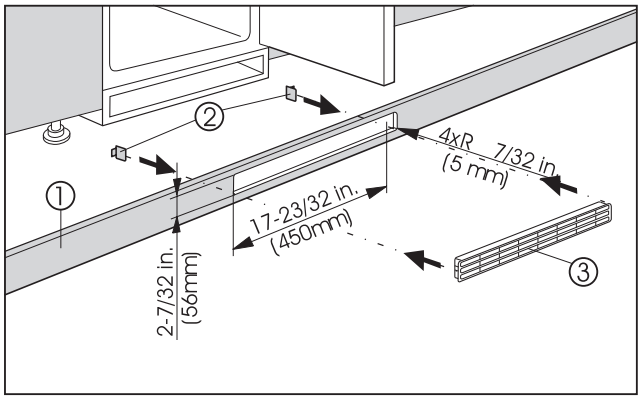

A minimum space of 1 1/2" is required when a cabinet is built above and/or underneath.

## Kitchen Cabinet Base Grille

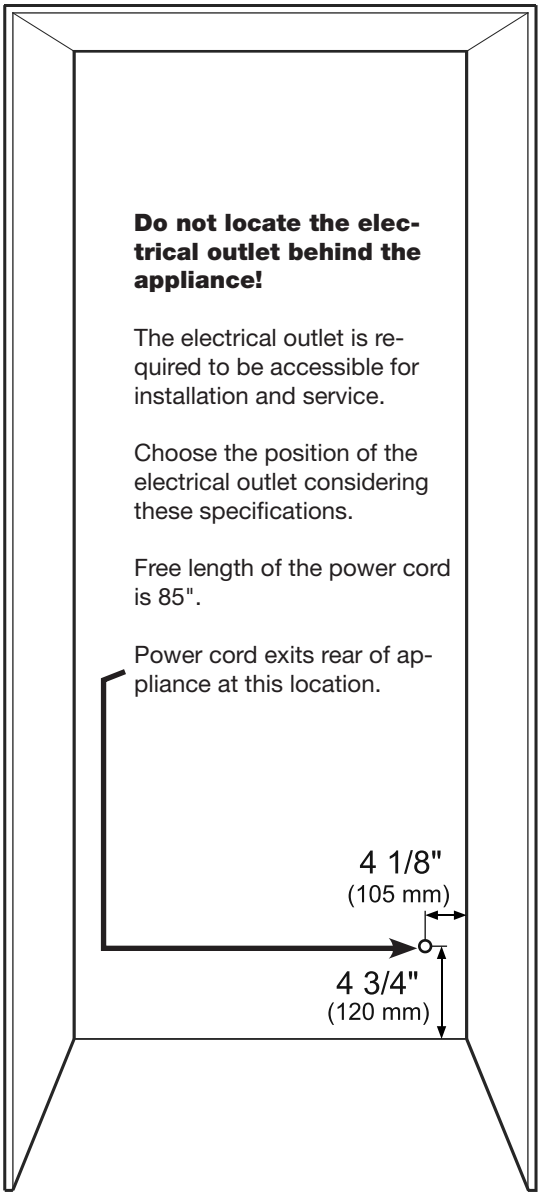
Ventilation through the cabinet base at the bottom can be achieved by installing the provided ventilation grille (3) or via a ventilation opening of at least 31 in.² (200 cm²).

When using the provided ventilation grille (3), please proceed as follows:

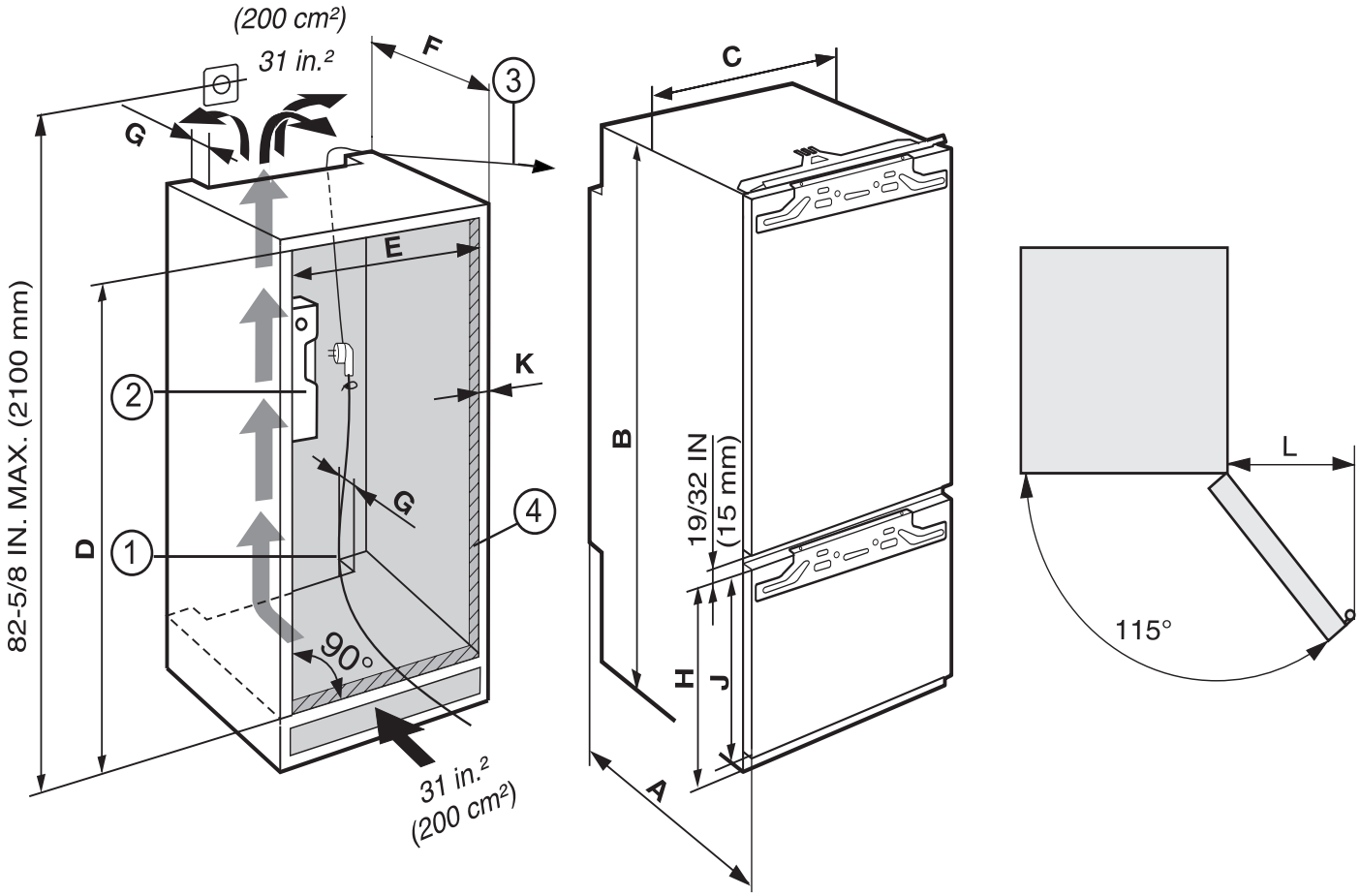
- In the cabinet base, cut out a ventilation opening that is 17-23/32 in. (450 mm) in width and 2-7/32 in. (56 mm) in height.
- Insert ventilation (3) grille into the cabinet base cut-out (1).
- From the back side, slide the snap-fits (2) into the grille until the hooks make contact with the cabinet base.
- Completely mount cabinet base (with ventilation grille and snap-fits) to kitchen cabinet.




## Location Of The Electrical Outlet



## Unit Dimensions




| | |
|---|---|
| A | 21-7/16" (544 mm) |
| B | 69-11/16" (1770 mm) |
| C | 22" (559 mm) |
| D | 69-3/4" - 70-3/8" (1772 - 1788 mm) |
| E | min 22 1/16" (560 mm) |
| | max 22-3/4" (578 mm) |
| F | 21-5/8" (550 mm) |
| G | 1-5/8" (40 mm) |
| H | 27-3/8" (695 mm) |
| J | 24-3/4" (629 mm) |
| K | max. 3/4" (19 mm) |
| L | 9-21/32" (245 mm) |

① Power cord

② Level

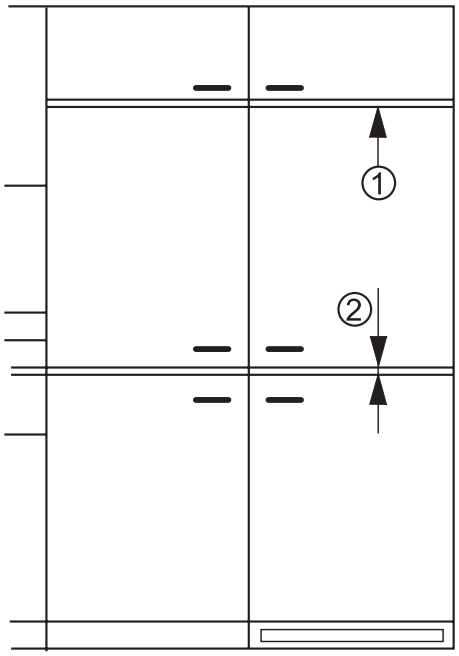
③ Fish line for power cord

④ 3" of the cabinet needs to be finished as it can be seen when th door is open

**In the case of side-by-side installation, two appliances next to one another, build the appliances into separate kitchen units.**

## Kitchen Cabinet Doors

Designing the Kitchen Cabinet Doors




You will need two doors for the kitchen cabinet, one on top for the refrigerator compartment, and one on the bottom for the freezer compartment. In general, the doors have these characteristics:

- The width of the cabinet doors depends on the kitchen style and the size of the gaps between the door panels of the cabinetry. Generally, a 1/8” vertical gap between the cabinet doors is recommended.
- The doors should be at least 5/8 in. (16 mm) thick to allow the connecting rails to be fastened to them. The maximum thickness of the door panel can be 3/4 in. (19mm).
- With both doors closed, there should be a minimum of 1/8 in. (3 mm) between the upper and lower doors (2). Also, there should be a 1/8 in. (3 mm) clearance between the upper door and the cabinet door (1) above it (if any).
- The top edge of the upper door (1) and lower door (2) should be even with the doors of adjoining cabinet(s), if any.
- The position of the joint between the kitchen cabinet doors must be level with the position of the joint between the appliance doors (2).
- Check the installation dimensions according to Section "Unit Dimensions".
- Before assembling the cabinet door, make sure that the permitted weight for the cabinet doors is not exceeded. If permitted weight is exceeded damage to hinges may occur.

| | Maximum weight of cabinet door |
|---|---|
| Fridge compartment door with BioFresh | 39.5 lbs (18 kg) |
| Fridge compartment door without BioFresh door | 37.5 lbs (17 kg) |
| Freezer compartment door | 26.5 lbs (12 kg) |

## Definition of the Door Panel Heights

1. Start with the lower door of the freezer compartment:
   The freezer door height is 24-24/32" (629 mm). In order to cover the lower part of the appliance, increase the height of the panel to 27-3/8" (695 mm).

2. To cover the face side of the floor board (a) add the thickness of the floor board (usually 3/4" (19 mm)).
   Thus, the minimum height of the freezer door panel is:
   27-3/8" + 3/4" = 28-1/8"
   (695 mm + 19 mm = 714 mm)

3. Without door panels on the unit, there is a gap of 19/32“ (15mm) between the hinge on the freezer door and the hinge on the refrigerator door.
   After the installation of the cabinet doors, the gap between the two doors will only be around 1/8” (3mm).

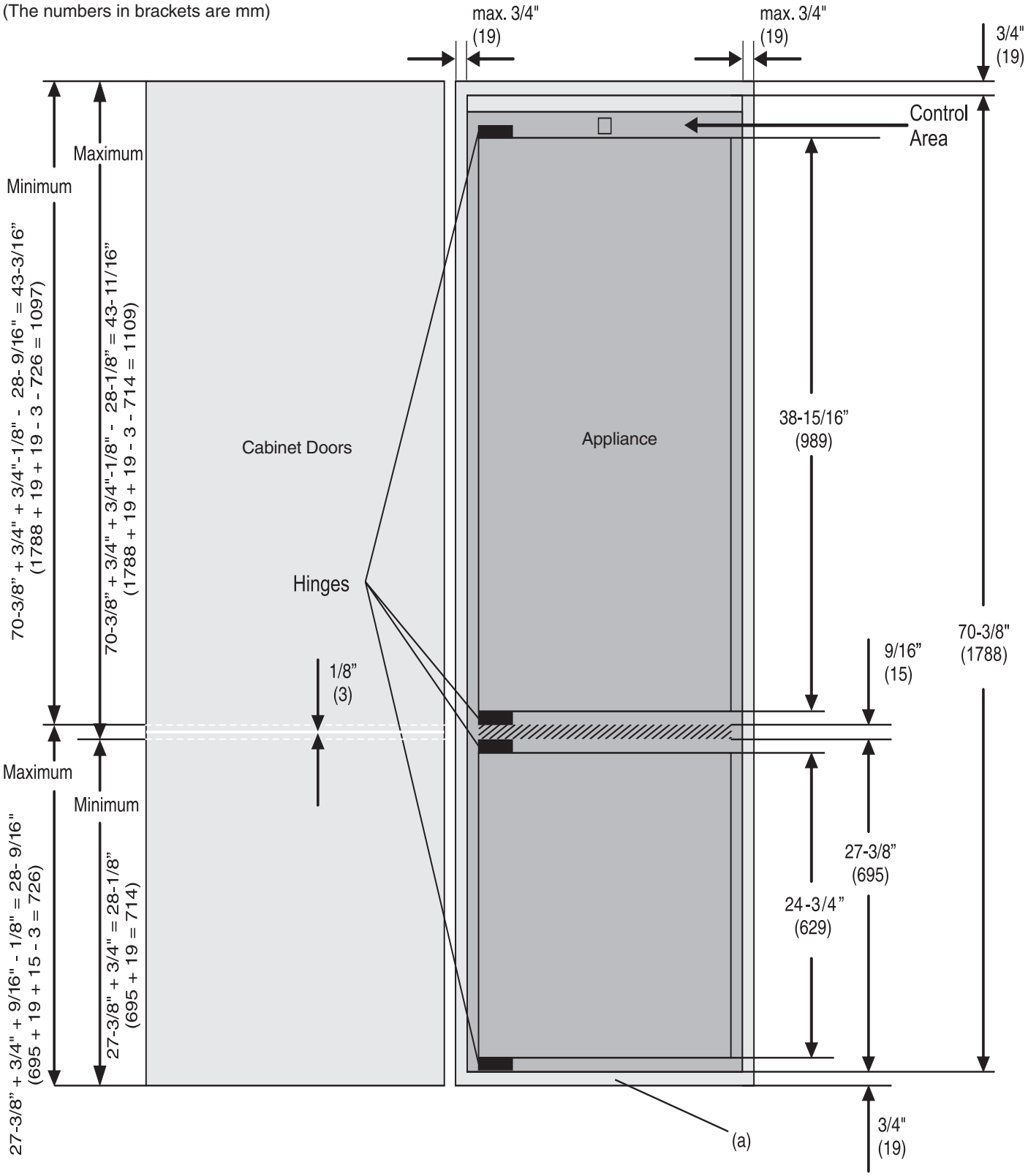
4. If there is other furniture standing close to the refrigerator cabinet (See also previous page) this furniture typically has a gap between two drawers or two doors. Depending on your kitchen, these gaps are approximately 1/8" (3 mm) wide.

5. In this case, the maximum height of the freezer door panel is:
   27-3/8" + 3/4" + 9/32" - 1/8" = 28-19/32"
   (695 mm + 19 mm + 15 mm - 3 mm = 726 mm)
   Where as the minimum height of the freezer door panel is:
   27-3/8" + 3/4" = 28-1/8"
   (695 mm + 19 mm = 714 mm)
   Of course, the final door height depends on the gap position of the cabinets that stand to the left and right of the refrigerator cabinet.

6. The height of the refrigerator door panel is:
   The total opening of the cabinet (i.e. 70-3/8" (1788 mm)) plus the thickness of the top as well as the floor board (usually 3/4" (19 mm)) minus the height of the freezer door panel (xxx" (xxx mm)) and subtract the width of the gap (approximately 1/8" (3 mm)):
   70-3/8" + 3/4" + 3/4" - xxx" - 1/8" = 71-3/4" - xxx"
   (1788 mm + 19 mm + 19 mm - xxx mm - 3 mm = 1823mm – xxx mm)

## HC 1030, HC 1030PC, HC 1050B, HC 1050PC, HC 1070, HC 1080, HC 1021,HCB 1060

(The numbers in brackets are mm)



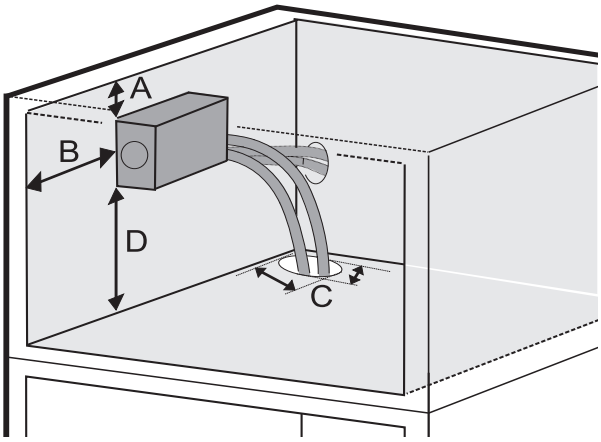

(a) The base of the cabinet can be thickened to raise the the top of the lower door panel to counter height. Lower panel will have to be increased in length by the same amount.

The gap between refrigerator and freezer door must lie within the crosshatched area.

## Kitchen cabinet setup for the water filter

The water filter module can be purchased from your Liebherr retailer or distributor for the models HC 1050B, HC 1080 and HCB 1060.

It should be installed near the appliance in the cabinet, for example, in the adapter cabinet above the appliance. To connect the filter to the appliance, it may be necessary to make an opening (C) in the floor of the adapter cabinet through which the hoses will be routed.
The maximum length of the water hose is 98-7/16 “ (2.5 m).
The filter cover must be installed during assembly to leave sufficient space around the filter module.




Maintain the dimensions shown in Fig. so that the filter can be replaced and the cover can be removed.

**(A) 13/16in (20mm)**

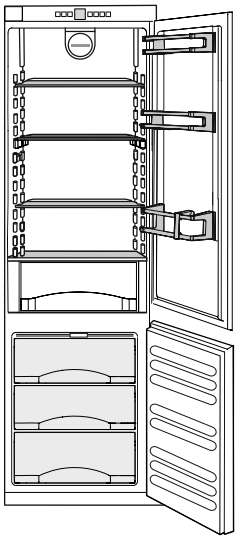
**(B) 3-15/16in (100mm)**

**(C) 1-3/16in. x 3/8in. ( 30mm x10mm)**

**(D) min. 4in (100mm)**

## 24" Model: HC 1000B, HC 1001B

Integrated units are the most stylish option available - they're totally out of sight, fully concealed behind a cabinet door. Installed in a tall kitchen cupboard, the refrigerator door simply opens in unison with the cupboard door.



HC 1000B / HC 1001B

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 395 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 9,4 cu ft (267 L) |
| Refrigerator: | 7,0 cu ft (199 L) |
| Freezer: | 2,4 cu ft (68 L) |
| Climate Rating: | SN-T |
| Door hinges HC 1000B: | right / reversable |
| Door hinges HC 1001B: | left / reversable |

- Automatic refrigerator and freezer compartment defrosting
- HC 1000B with Sliding system and LED-lighting
- Height-adjustable feet at front and levelling rails

## Ventilation Requirements

This is a fully integrated refrigerator-freezer which means that it is fully enclosed by a kitchen cabinet. This type of cabinet must be carefully constructed using the correct dimensions and it must provide suitable ventilation to ensure proper appliance operation.

**NOTICE**

**If the following ventilation dimensions are not observed the compressor will be damaged.**

### Kitchen Cabinet Airflow

1. The following ventilation dimensions must be observed:

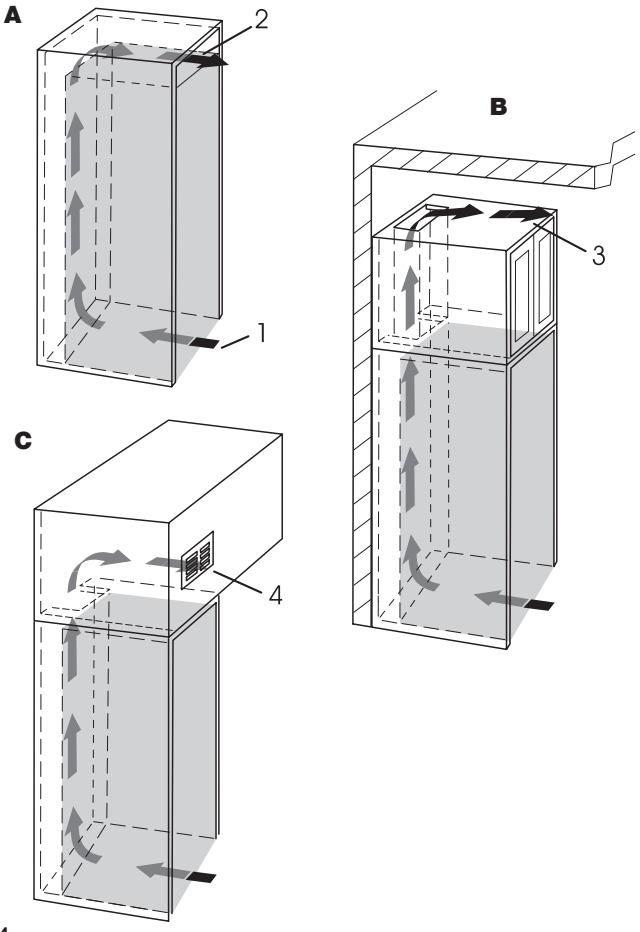
   There must be a ventilation space at least 31 in.² (200 cm²) at the airflow inlet (1) and at the airflow outlet (2).

   The top ventilation space can be directed in one of the following ways:

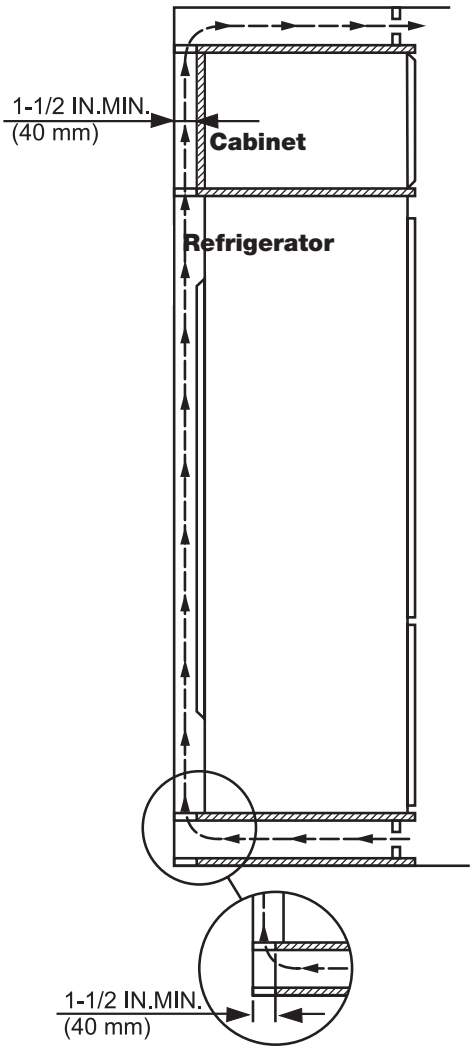
   A) Directly over the appliance (2) with either an optional factory air vent or custom made one.

   B) Above the cabinet and below the ceiling (3).

   C) Through a vent installed in a soffit (4).




**B - Side view**



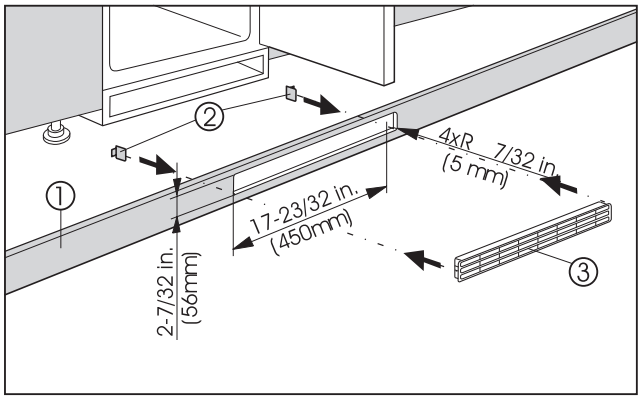

A minimum space of 1 1/2" is required when a cabinet is built above and/or underneath.

## Kitchen Cabinet Base Grille

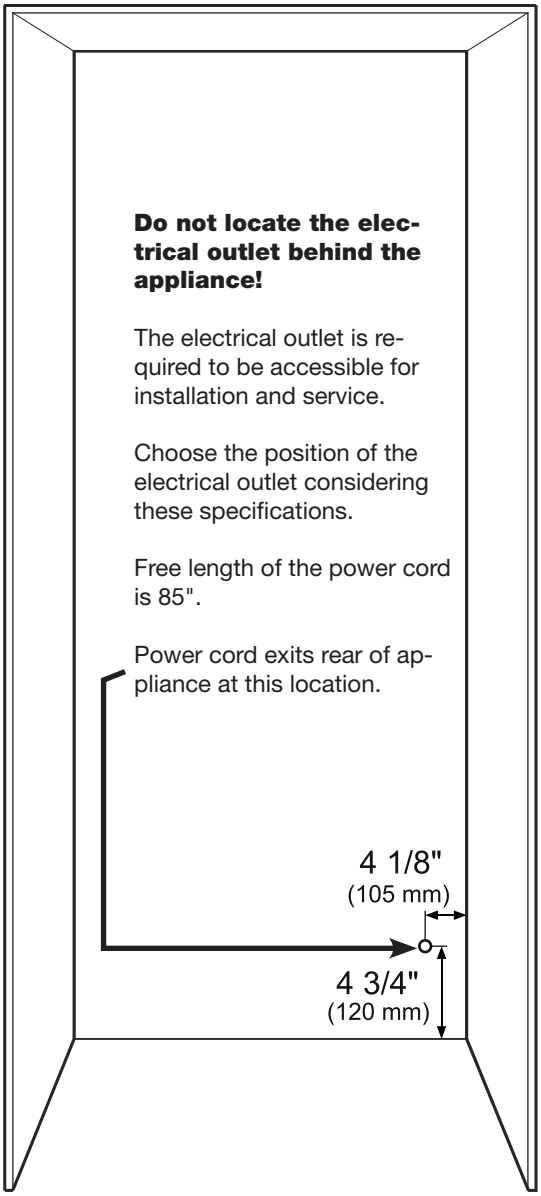
Ventilation through the cabinet base at the bottom can be achieved by installing the provided ventilation grille (3) or via a ventilation opening of at least 31 in.² (200 cm²).

When using the provided ventilation grille (3), please proceed as follows:

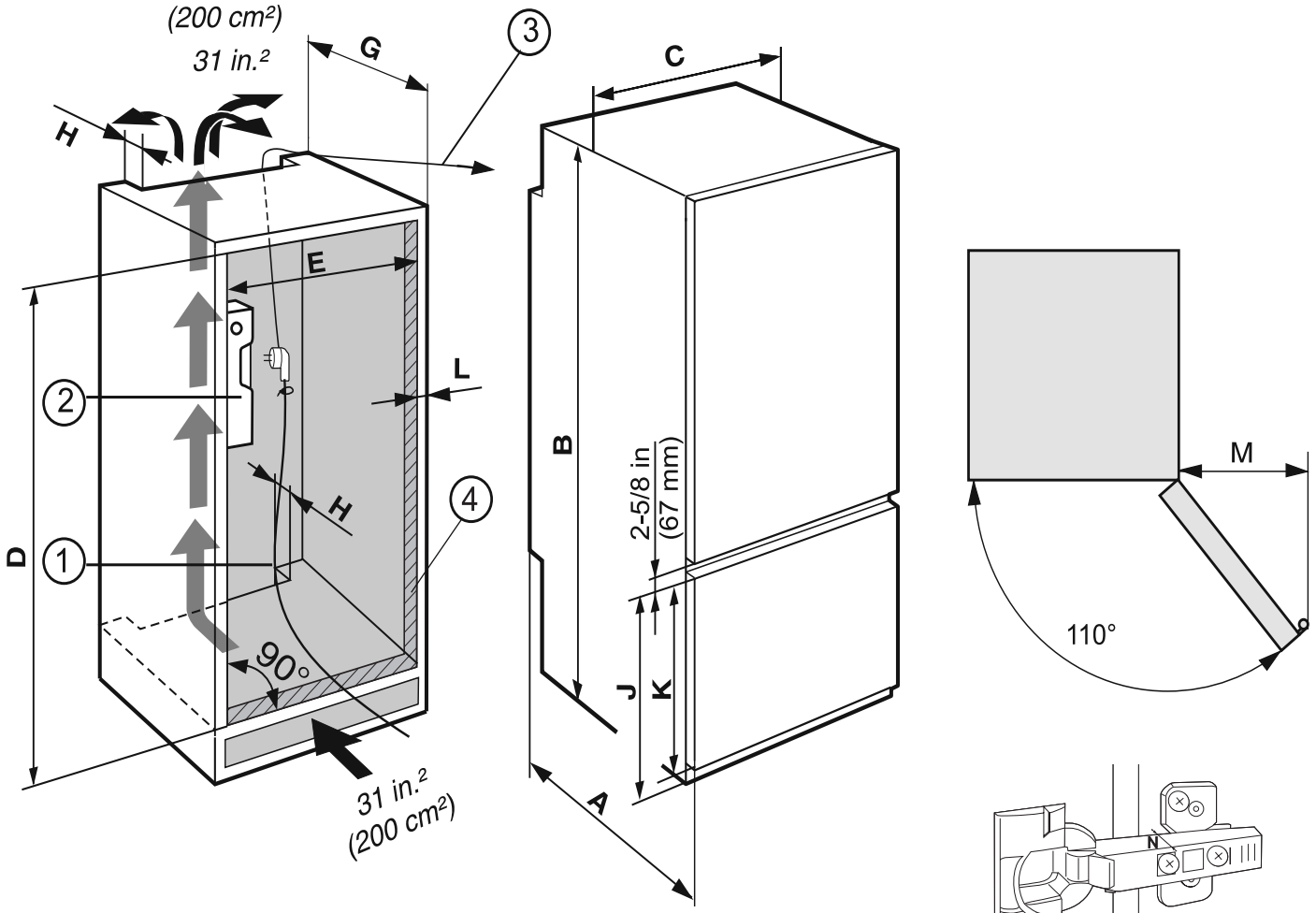
- In the cabinet base, cut out a ventilation opening that is 17-23/32 in. (450 mm) in width and 2-7/32 in. (56 mm) in height.
- Insert ventilation (3) grille into the cabinet base cut-out (1).
- From the back side, slide the snap-fits (2) into the grille until the hooks make contact with the cabinet base.
- Completely mount cabinet base (with ventilation grille and snap-fits) to kitchen cabinet.




## Location Of The Electrical Outlet



## Unit Dimensions




| | |
|---|---|
| A | 21-7/16" (544 mm) |
| B | 69-11/16" (1770 mm) |
| C | 21-1/4" (540 mm) |
| D | 69-3/4" - 70-3/8" (1772 - 1788 mm) |
| E | min 22 1/8" (562 mm) |
| | max 22-3/4" (578 mm) |
| G | 21-5/8" (550 mm) |
| H | 1-5/8" (40 mm) |
| J | 26-3/8" (669 mm) |
| K | 24-3/4" (629 mm) |
| L | max. 3/4" (19 mm) |
| M | 6-11/16" (170 mm) |
| N | max 7/8” (22 mm) |

① Power cord

② Level

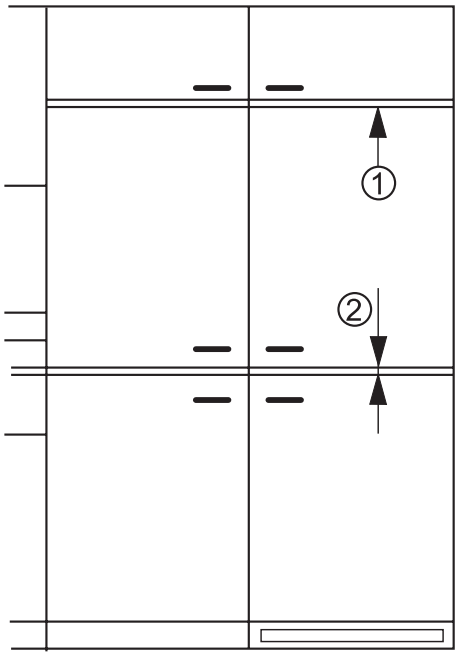
③ Fish line for power cord

④ 3" of the cabinet needs to be finished as it can be seen when th door is open.

**In the case of side-by-side installation, two appliances next to one another, build the appliances into separate kitchen units.**

## Kitchen Cabinet Doors

Designing the Kitchen Cabinet Doors




You will need two doors for the kitchen cabinet, one on top for the refrigerator compartment, and one on the bottom for the freezer compartment. In general, the doors have these characteristics:

- The width of the cabinet doors depends on the kitchen style and the size of the gaps between the door panels of the cabinetry. Generally, a 1/8” vertical gap between the cabinet doors is recommended.
- The doors should be at least 5/8 in. (16 mm) thick to allow the connecting rails to be fastened to them. The maximum thickness of the door panel can be 3/4 in. (19mm).
- With both doors closed, there should be a minimum of 1/8 in. (3 mm) between the upper and lower doors (2). Also, there should be a 1/8 in. (3 mm) clearance between the upper door and the cabinet door (1) above it (if any).
- The top edge of the upper door (1) and lower door (2) should be even with the doors of adjoining cabinet(s), if any.
- The position of the joint between the kitchen cabinet doors must be level with the position of the joint between the appliance doors (2).
- Adjust the door alignment before installing the appliance. It is impossible to adjust the door with the appliance installed.
- Check the installation dimensions according to Section "Unit Dimensions".

## Definition of the Door Panel Heights

1. Start with the lower door of the freezer compartment:
   The freezer door height is 26-1/8" (663 mm). In order to cover the lower part of the appliance, increase the height of the panel to 26-3/8" (669 mm).

2. To cover the face side of the floor board (a) add the thickness of the floor board (usually 3/4" (19 mm)).
   Thus, the minimum height of the freezer door panel is:
   26-3/8" + 3/4" = 27-1/8"
   (669 mm + 19 mm = 688 mm)

3. Without door panels on the unit, there is a gap of 2 5/8“ (67mm) between the freezer door and the refrigerator door. After the installation of the cabinet doors, the gap between the two doors will only be around 1/8” (3mm).

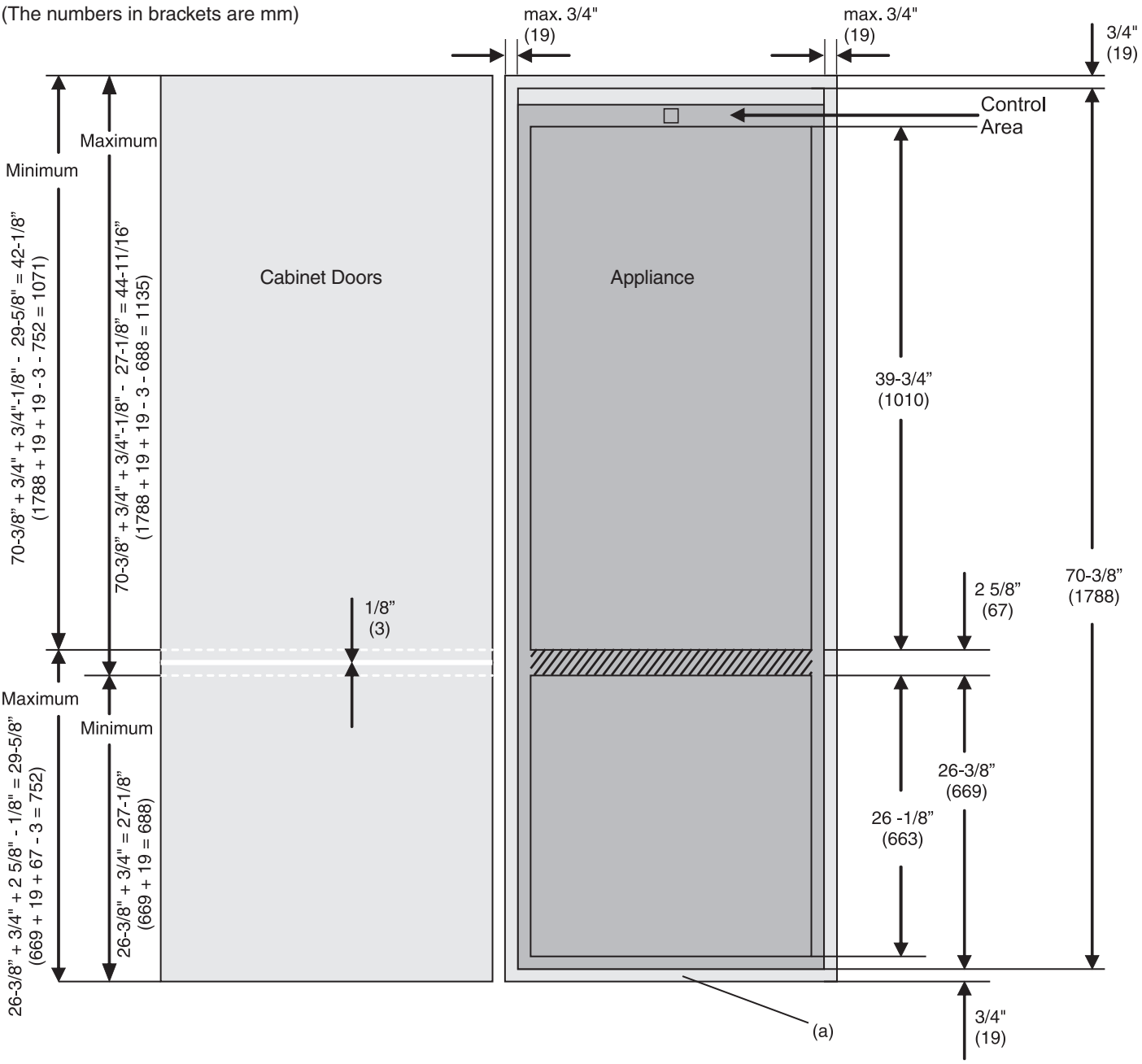
4. If there is other furniture standing close to the refrigerator cabinet (See also previous page) this furniture typically has a gap between two drawers or two doors. Depending on your kitchen, these gaps are approximately 1/8" (3 mm) wide.

5. In this case, the maximum height of the freezer door panel is:
   26-3/8" + 3/4" + 2-5/8" - 1/8" = 29-5/8"
   (669 mm + 19 mm + 67 mm - 3 mm = 752 mm)
   Where as the minimum height of the freezer door panel is:
   26-3/8" + 3/4" = 27-1/8"
   (669 mm + 19 mm = 688 mm)
   Of course, the final door height depends on the gap position of the cabinets that stand to the left and right of the refrigerator cabinet.

6. The height of the refrigerator door panel is:
   The total opening of the cabinet (i.e. 70-3/8" (1788 mm)) plus the thickness of the top as well as the floor board (usually 3/4" (19 mm)) minus the height of the freezer door panel (xxx" (xxx mm)) and subtract the width of the gap (approximately 1/8" (3 mm)):
   70-3/8" + 3/4" + 3/4" - xxx" - 1/8" = 71-3/4" - xxx"
   (1788 mm + 19 mm + 19 mm - xxx mm - 3 mm = 1823mm – xxx mm)

## HC 1000B, HC 1001B

(The numbers in brackets are mm)

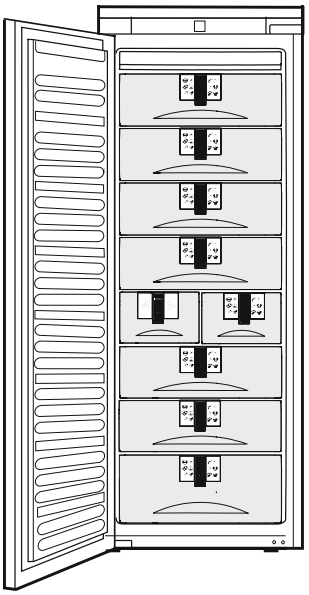



(a) The base of the cabinet can be thickened to raise the the top of the lower door panel to counter height. Lower panel will have to be increased in length by the same amount.

The gap between refrigerator and freezer door must lie within the crosshatched area.

## 24" and 48" Models: HF 861 / HRB 1120, SBS 19H1

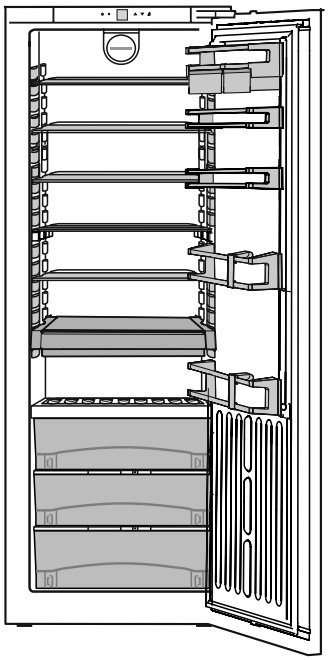
Integrated units are the most stylish option available - they're totally out of sight, fully concealed behind a cabinet door. Installed in a tall kitchen cupboard, the refrigerator door simply opens in unison with the cupboard door.



HF 861

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 439 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 7.8 cu ft (220 L) |
| Climate Rating: | SN-T |
| Door hinges: | left / reversable |

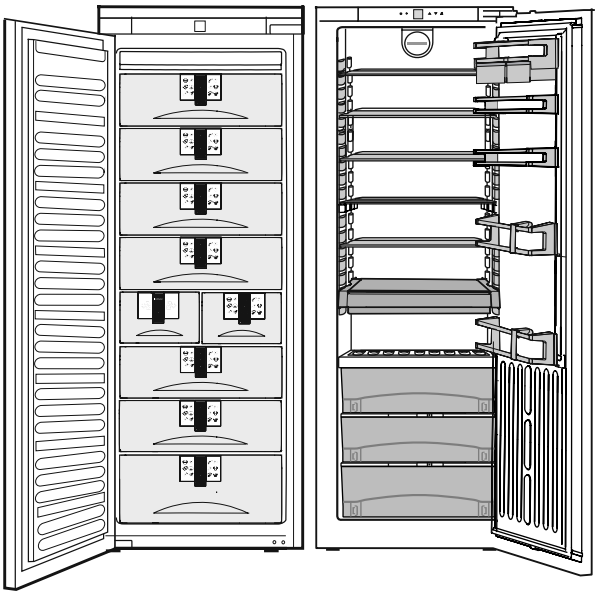
- Automatic freezer defrosting
- With soft closing system
- IceMaker with fixed water connection
- Height-adjustable feet at the front
- Changeable door gasket



HRB 1120

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 283 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 10,8 cu ft (308 L) |
| Refrigerator: | 7,6 cu ft (216 L) |
| BioFresh: | 3,3 cu ft (92 L) |
| Climate Rating: | SN-ST |
| Door hinges: | right / reversable |

- With soft closing system
- LED light column at both sides
- BioFresh safes with SoftTelescopic
- Height-adjustable feet at front and levelling rails
- Changeable door gasket



SBS 19H1 (HF 861 & HRB 1120)

| | |
|---|---|
| Energy Supply: | 115V/60Hz |
| Total capacity: | 18.6 cu ft (528 L) |
| Refrigerator: | 7.6 cu ft (216 L) |
| BioFresh: | 3.3 cu ft (92 L) |
| Freezer: | 7.8 cu ft (220 L) |
| Ice cube capacity: | 1.8 lb/24h |
| Ice cube stock: | 3.3 lb |
| Climate Rating: | SN-T/SN-ST |
| Door hinges: | left / right |

- Automatic freezer defrosting
- Automatic IceMaker can be switched off
- With soft closing system and LED-lighting
- Height-adjustable feet at the front
- Changeable door gasket

## Ventilation Requirements

This is a fully integrated refrigerator-freezer which means that it is fully enclosed by a kitchen cabinet. This type of cabinet must be carefully constructed using the correct dimensions and it must provide suitable ventilation to ensure proper appliance operation.

**NOTICE**

**If the following ventilation dimensions are not observed the compressor will be damaged.**

### Kitchen Cabinet Airflow

1. The following ventilation dimensions must be observed:

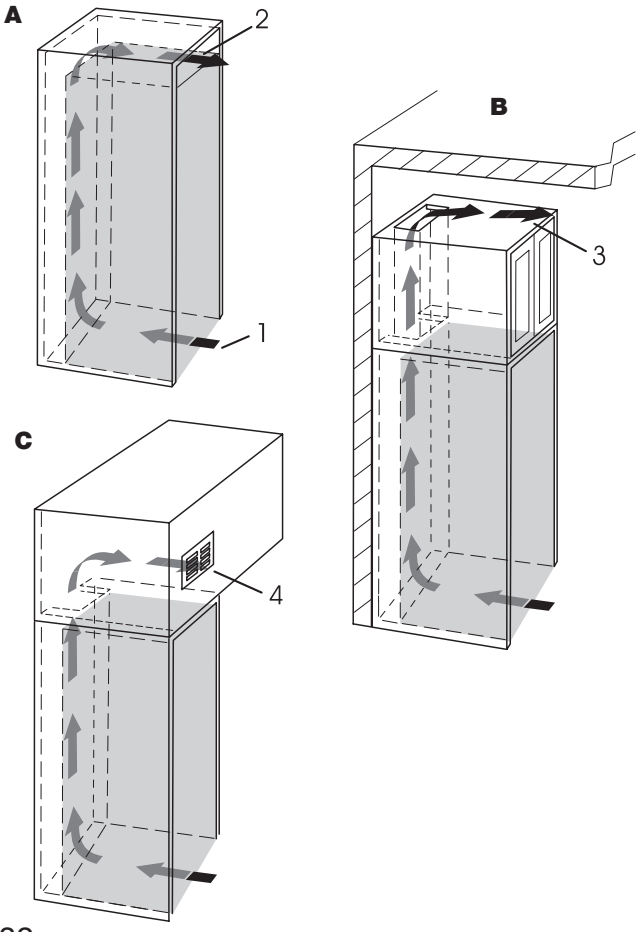
   There must be a ventilation space at least 31 in.² (200 cm²) at the airflow inlet (1) and at the airflow outlet (2).

   The top ventilation space can be directed in one of the following ways:

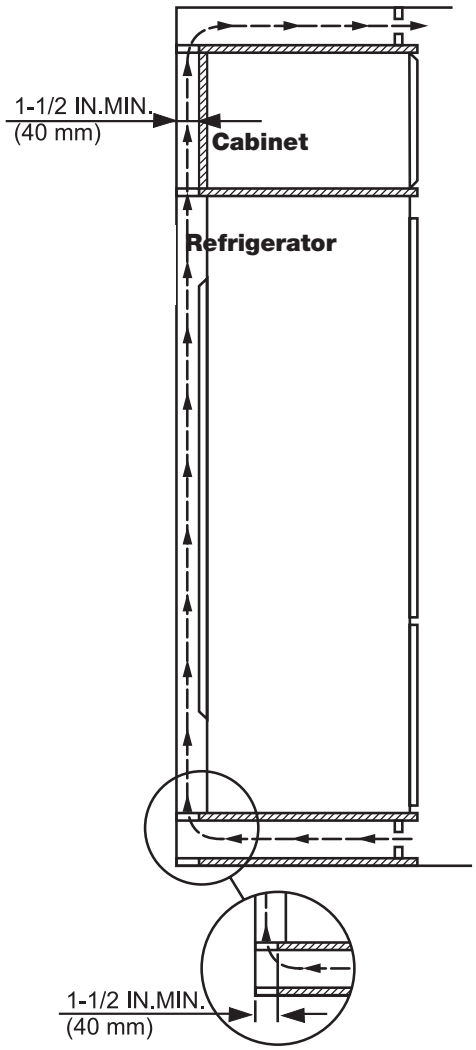
   A) Directly over the appliance (2) with either an optional factory air vent or custom made one.

   B) Above the cabinet and below the ceiling (3).

   C) Through a vent installed in a soffit (4).




**B - Side view**



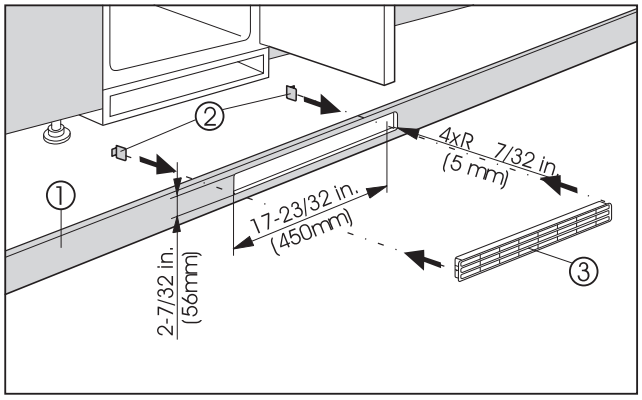

A minimum space of 1 1/2" is required when a cabinet is built above and/or underneath.

## Kitchen Cabinet Base Grille

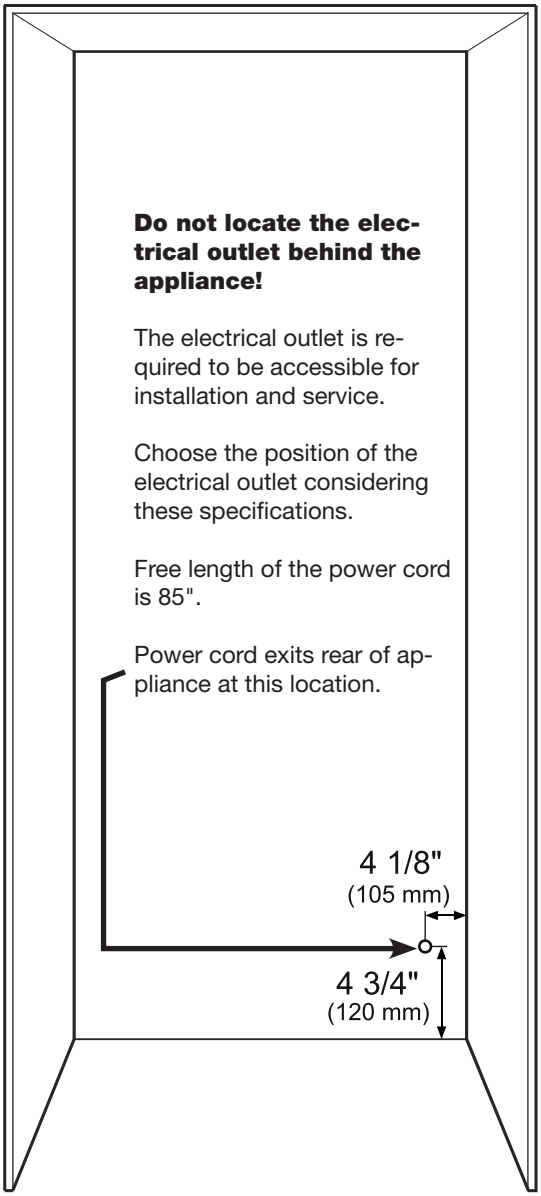
Ventilation through the cabinet base at the bottom can be achieved by installing the provided ventilation grille (3) or via a ventilation opening of at least 31 in.² (200 cm²).

When using the provided ventilation grille (3), please proceed as follows:

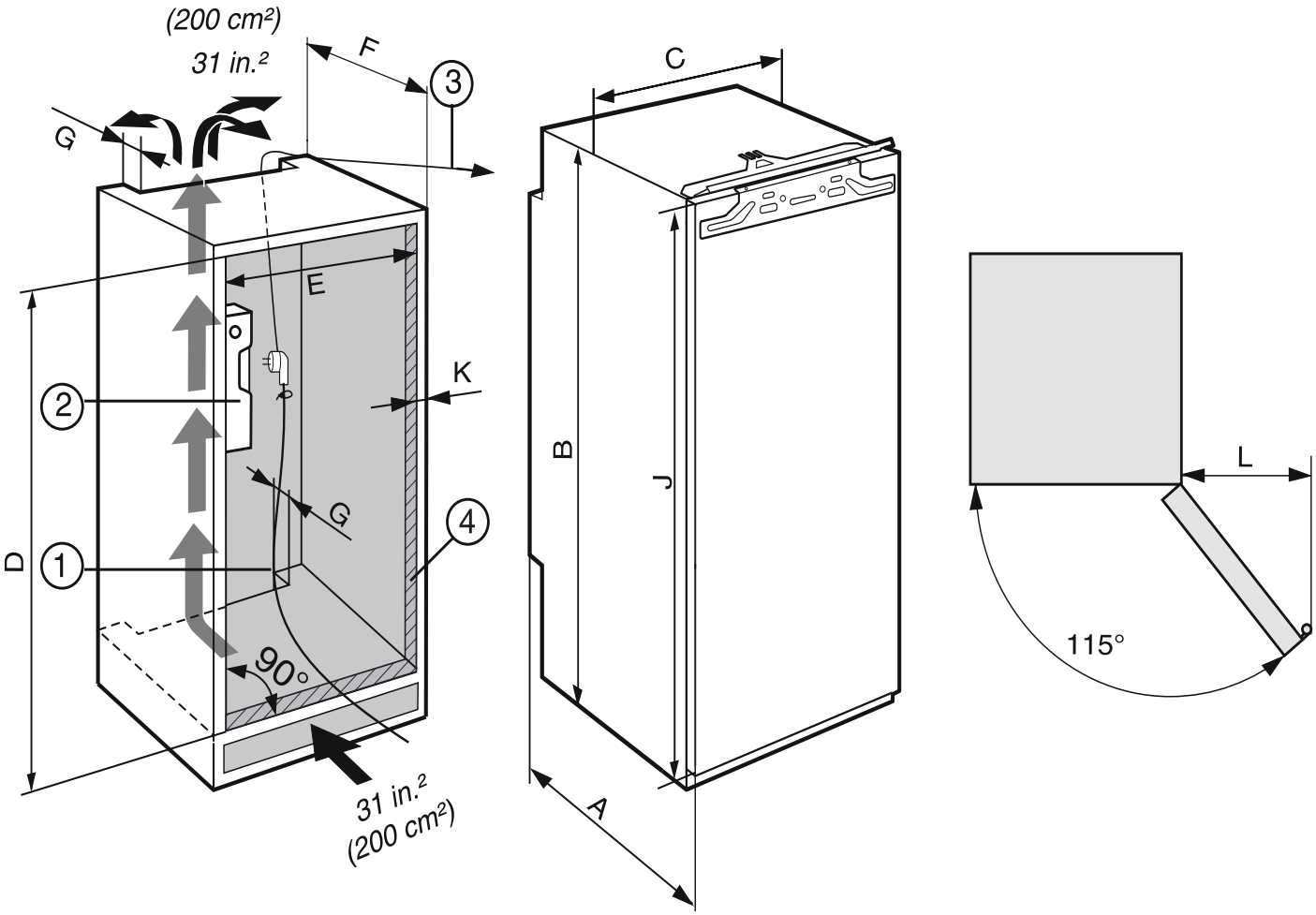
- In the cabinet base, cut out a ventilation opening that is 17-23/32 in. (450 mm) in width and 2-7/32 in. (56 mm) in height.
- Insert ventilation (3) grille into the cabinet base cut-out (1).
- From the back side, slide the snap-fits (2) into the grille until the hooks make contact with the cabinet base.
- Completely mount cabinet base (with ventilation grille and snap-fits) to kitchen cabinet.




## Location Of The Electrical Outlet



## Unit Dimensions




| | |
|---|---|
| A | 21-7/16" (544 mm) |
| B | 69-11/16" (1770mm) |
| C | 22" (559 mm) |
| D | 69-3/4" - 70-3/8" (1772 - 1788 mm) |
| E | min 22 1/16" (560 mm) |
| | max 22-3/4" (578 mm) |
| F | 21-5/8" (550 mm) |
| G | 1-5/8" (40 mm) |
| J | 66-1/2" (1689,9 mm) |
| K | max. 3/4" (19 mm) |
| L | 9-21/32" (245 mm) |

① Power cord

② Level

③ Fish line for power cord

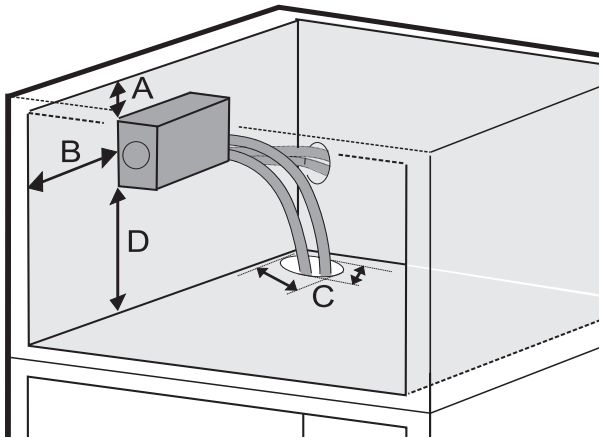
④ 3" of the cabinet needs to be finished as it can be seen when th door is open.

**In the case of side-by-side installation, two appliances next to one another, build the appliances into separate kitchen units.**

## Kitchen cabinet setup for the water filter

The water filter module is supplied with the appliance (only available for HF 861).

It should be installed near the appliance in the cabinet, for example, in the adapter cabinet above the appliance. To connect the filter to the appliance, it may be necessary to make an opening (C) in the floor of the adapter cabinet through which the hoses will be routed.
The maximum length of the water hose is 98-7/16 “ (2.5 m).
The filter cover must be installed during assembly to leave sufficient space around the filter module.




Maintain the dimensions shown in Fig. so that the filter can be replaced and the cover can be removed.

**(A) 13/16in (20mm)**

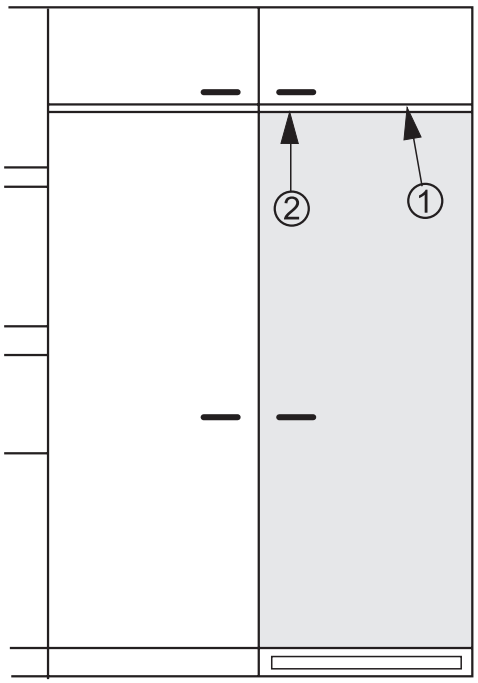
**(B) 3-15/16in (100mm)**

**(C) 1-3/16in. x 3/8in. ( 30mm x10mm)**

**(D) min. 4in (100mm)**

## Kitchen Cabinet Doors

Designing the Kitchen Cabinet Door




You will need one door for the kitchen cabinet. In general, the door has these characteristics:

- The width of the cabinet door depends on the kitchen style and the size of the gaps between the door panels of the cabinetry. Generally, a 1/8 in. (3 mm) vertical gap between the door panels is recommended.
- The door should be at least 5/8 in. (16 mm) thick to allow the connecting rails to be fastened to it. The maximum thickness of the door panel can be 3/4 in. (19mm).
- With closed door, there should be a minimum of 1/8 in. (3 mm) between the refrigerator door and the cabinet door (2) above it (if any).
- The top edge of the door (1) should be even with the doors of adjoining cabinet(s), if any.
- Check the installation dimensions according to Section "Unit Dimensions".
- Before assembling the cabinet door, make sure that the permitted weight for the cabinet door is not exceeded. If permitted weight is exceeded damage to hinges may occur.

| | Maximum weight of cabinet door |
|---|---|
| Fridge door | 57 lbs (26 kg) |
| Freezer door | 57 lbs (26 kg) |

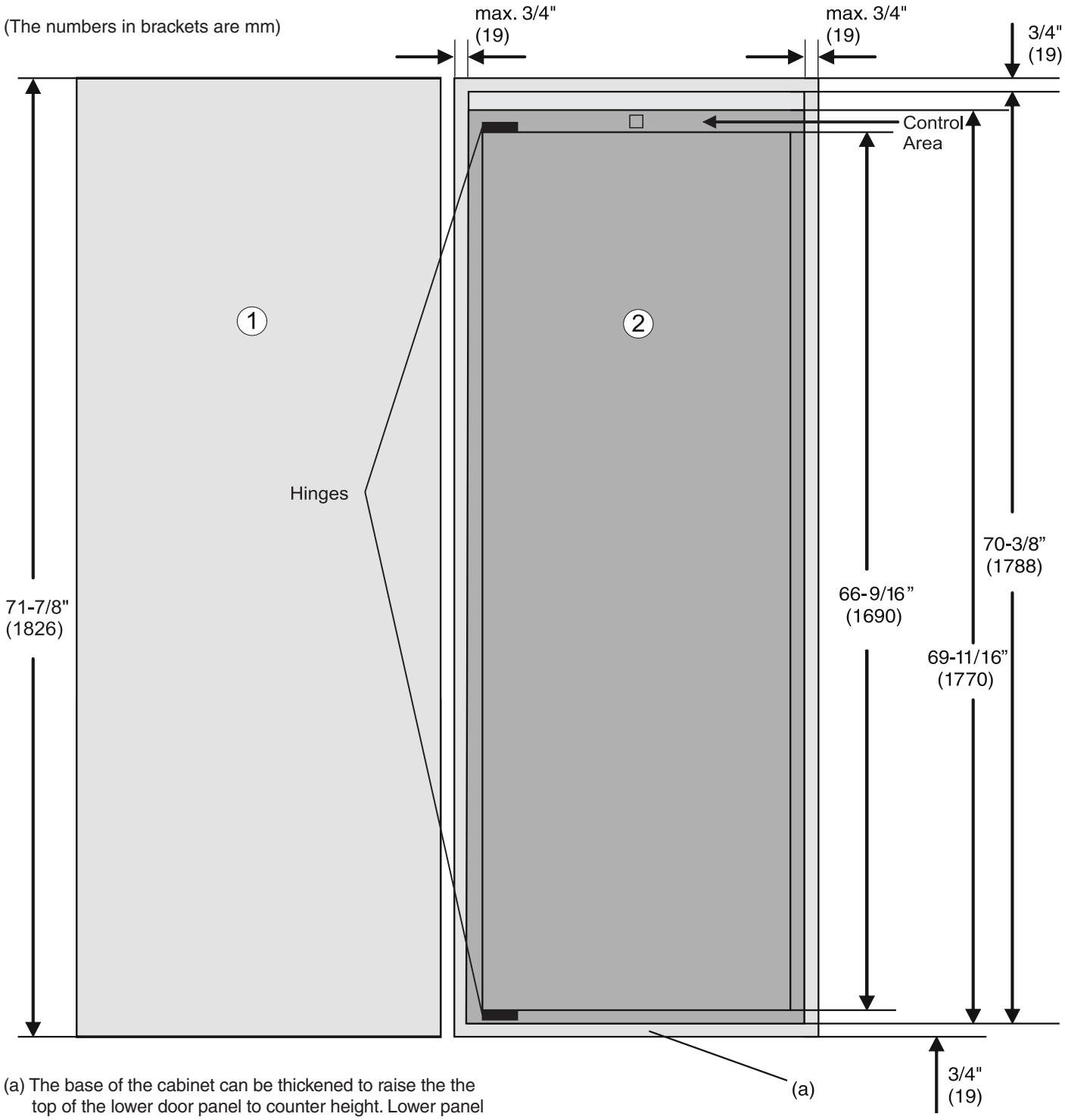
## Definition of the Door Panel Heights

1 Cabinet door
2 Appliance door

The height of the cabinet door is calculated as follows:
Total cabinet height (i. e., 70-3/8 in. (1788 mm)) plus the thickness of the cover plate and floor plate Fig. 9 (a) (usually 3/4 in. (19 mm)): 70-3/8 in. + 3/4 in. + 3/4 in. = 71-7/8 in. ( 1788 mm + 19 mm + 19 mm = 1826 mm )

## HF 861 / HRB 1120

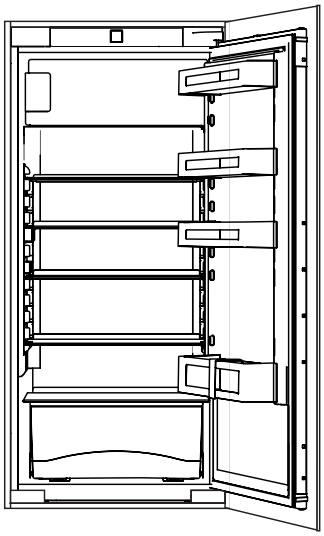
(The numbers in brackets are mm)




(a) The base of the cabinet can be thickened to raise the the top of the lower door panel to counter height. Lower panel will have to be increased in length by the same amount.

## 24" Model: HC 700B

Integrated units are the most stylish option available - they're totally out of sight, fully concealed behind a cabinet door. Installed in a tall kitchen cupboard, the refrigerator door simply opens in unison with the cupboard door.



HC 700B

| | |
|---|---|
| Energy Star: | certified |
| Energy consumption p. a.: | 340 kWh |
| Energy Supply: | 115V/60Hz |
| Total capacity: | 7.1 cu ft (201 L) |
| Refrigerator: | 6.5 cu ft (185 L) |
| Freezer: | 0.6 cu ft (16 L) |
| Climate Rating: | SN-T |
| Door hinges: | right / reversable |

- Automatic refrigerator compartment defrosting
- HC 700B with LED-lighting
- Height-adjustable feet at front and levelling rails
- Changeable door gasket

## Ventilation Requirements

This is a fully integrated refrigerator-freezer which means that it is fully enclosed by a kitchen cabinet. This type of cabinet must be carefully constructed using the correct dimensions and it must provide suitable ventilation to ensure proper appliance operation.

**NOTICE**

**If the following ventilation dimensions are not observed the compressor will be damaged.**

### Kitchen Cabinet Airflow

1. The following ventilation dimensions must be observed:

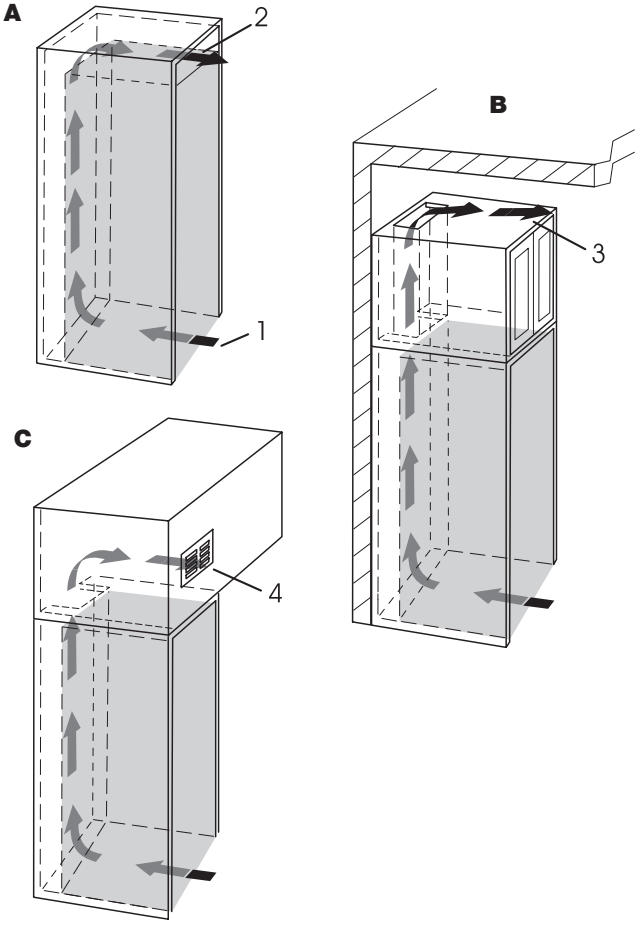
   There must be a ventilation space at least 31 in.² (200 cm²) at the airflow inlet (1) and at the airflow outlet (2).

   The top ventilation space can be directed in one of the following ways:

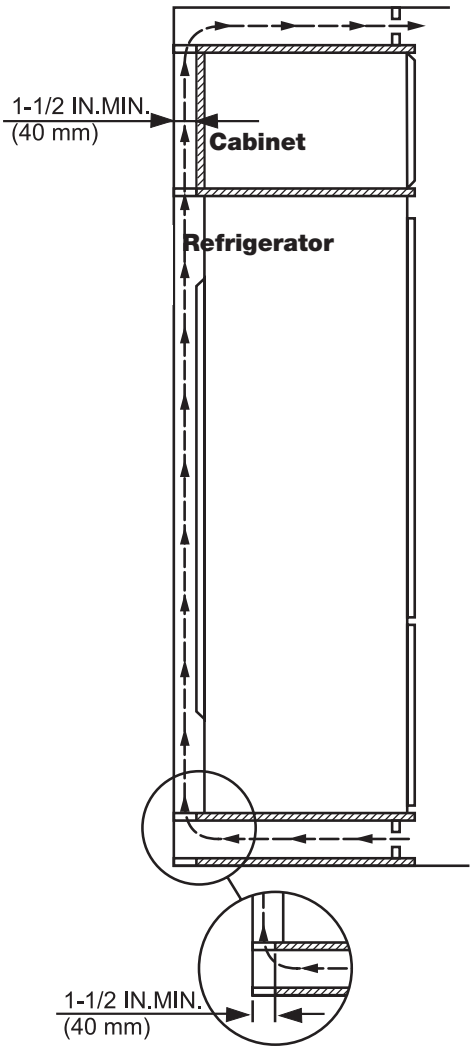
   A) Directly over the appliance (2) with either an optional factory air vent or custom made one.

   B) Above the cabinet and below the ceiling (3).

   C) Through a vent installed in a soffit (4).




**B - Side view**

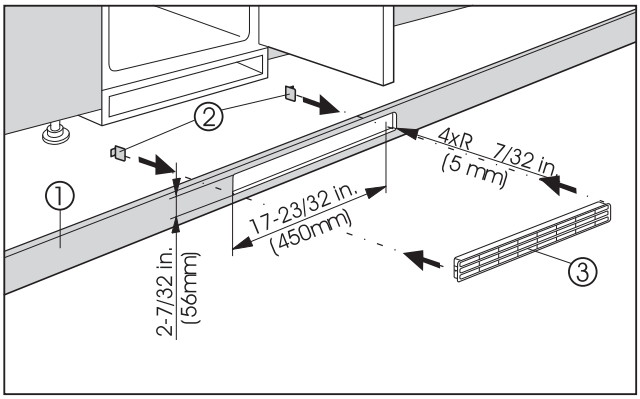



A minimum space of 1 1/2" is required when a cabinet is built above and/or underneath.

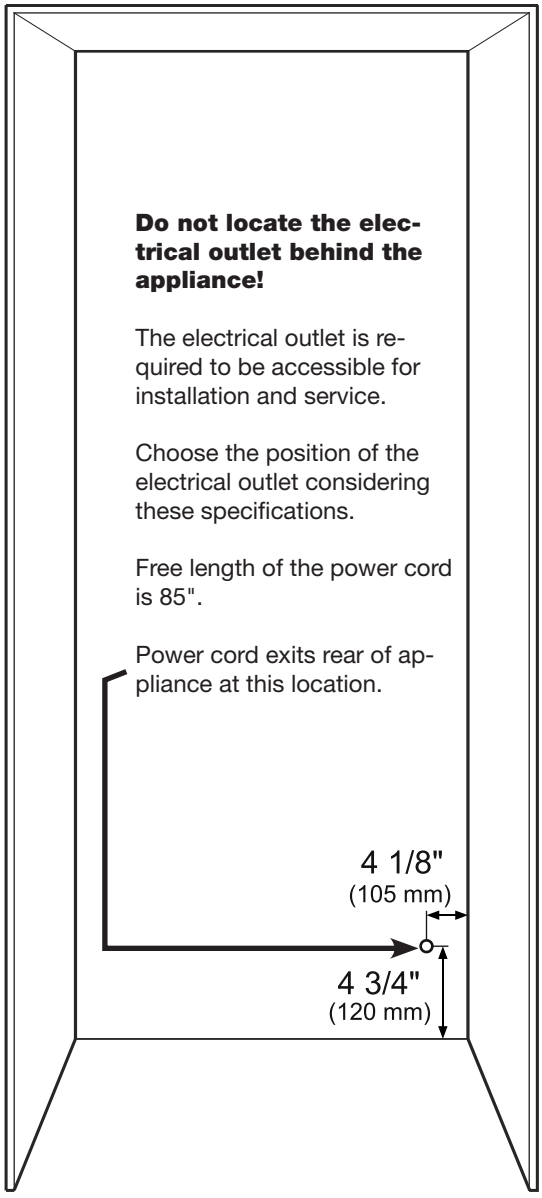
## Kitchen Cabinet Base Grille

Ventilation through the cabinet base at the bottom can be achieved by installing the provided ventilation grille (3) or via a ventilation opening of at least 31 in.² (200 cm²).

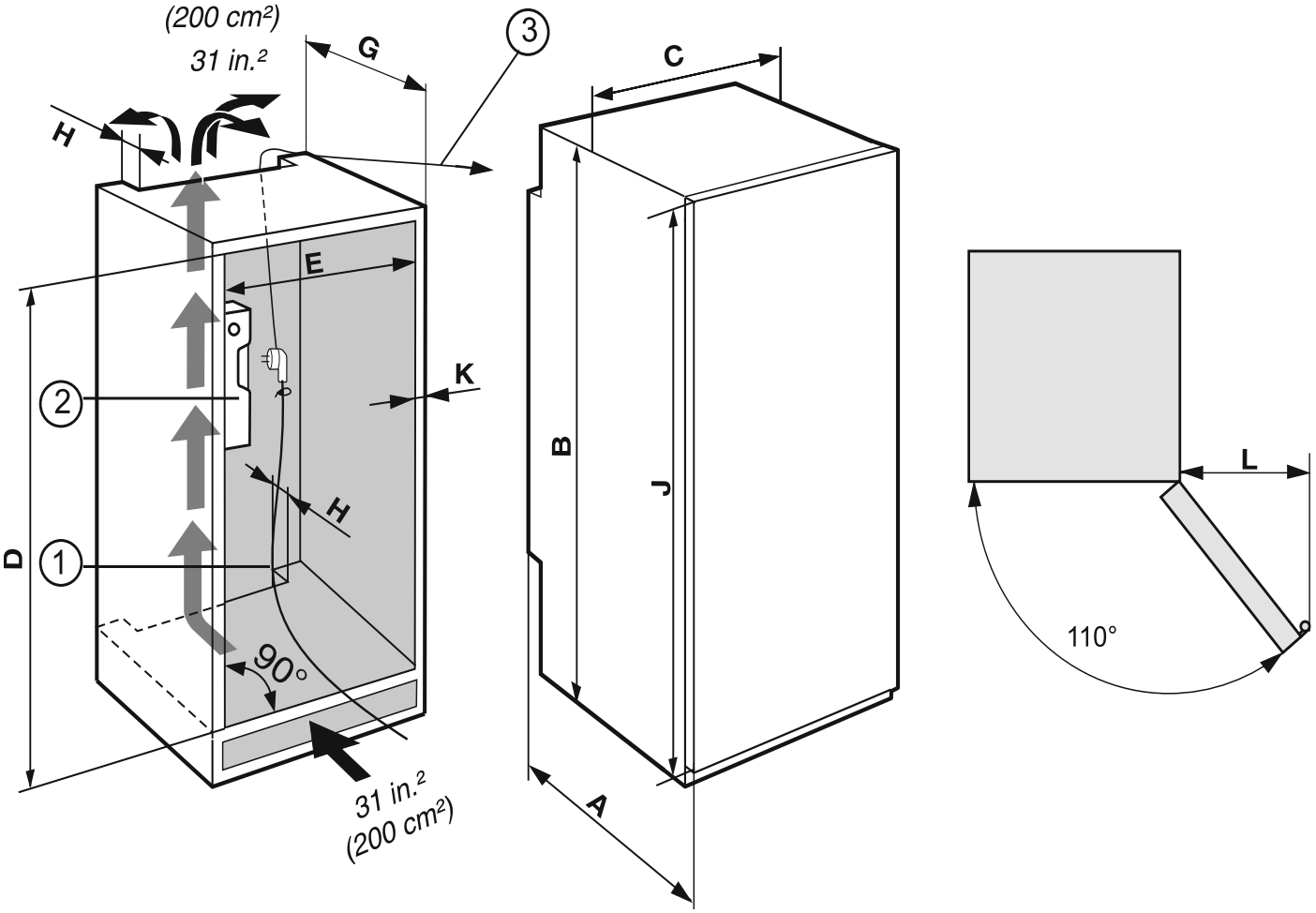
When using the provided ventilation grille (3), please proceed as follows:
- In the cabinet base, cut out a ventilation opening that is 17-23/32 in. (450 mm) in width and 2-7/32 in. (56 mm) in height.
- Insert ventilation (3) grille into the cabinet base cut-out (1).
- From the back side, slide the snap-fits (2) into the grille until the hooks make contact with the cabinet base.
- Completely mount cabinet base (with ventilation grille and snap-fits) to kitchen cabinet.




## Location Of The Electrical Outlet



## Unit Dimensions




| | |
|---|---|
| A | 21-7/16" (544 mm) |
| B | 47-15/16" (1218 mm) |
| C | 21-1/4" (540 mm) |
| D | 48" - 48-5/8" (1220 - 1236 mm) |
| E | min 22" (560 mm)<br>max 22-3/4" (578 mm) |
| G | 21-5/8" (550 mm) |
| H | 1-5/8" (40 mm) |
| J | 45-1/16" (1145 mm) |
| K | max. 3/4" (19 mm) |
| L | 6-11/16" (170 mm) |

① Power cord

② Level

③ Fish line for power cord

④ 3" of the cabinet needs to be finished as it can be seen when th door is open.

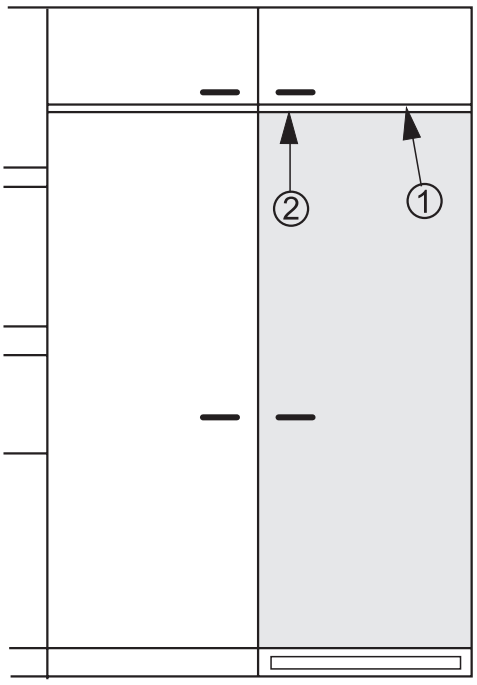
**In the case of side-by-side installation, two appliances next to one another, build the appliances into separate kitchen units.**

## Kitchen Cabinet Doors

Designing the Kitchen Cabinet Doors

You will need one door for the kitchen cabinet. In general, the door has these characteristics:

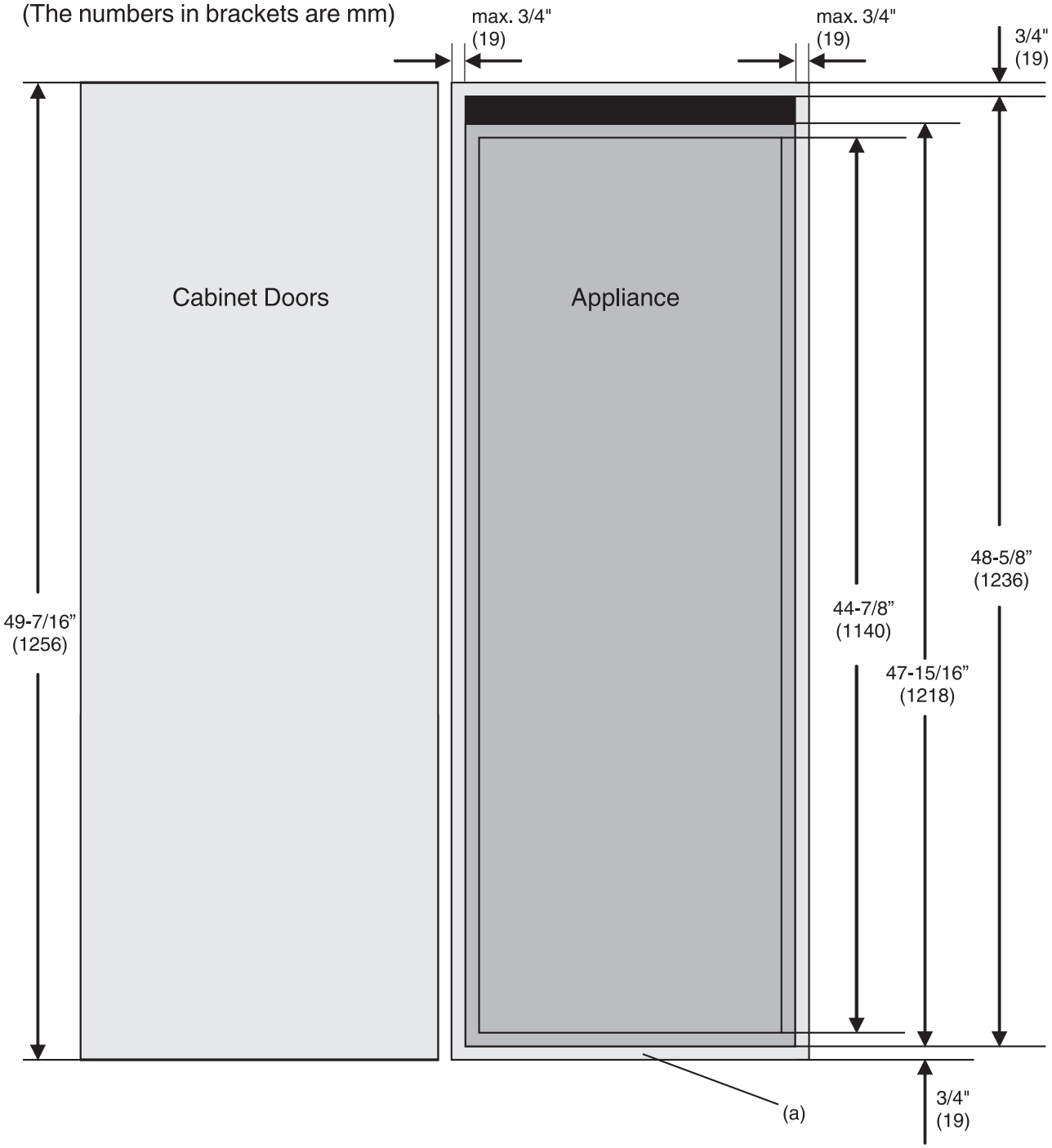
- The width of the cabinet door depends on the kitchen style and the size of the gaps between the door panels of the cabinetry. Generally, a 1/8” (3mm) vertical gap between the door panels recommended.
- The door should be at least 5/8 in. (16 mm) thick to allow the connecting rails to be fastened to it. The maximum thickness of the door panel can be 3/4 in. (19mm).
- With closed door, there should be a minimum of 1/8 in. (3 mm) between the refrigerator and cabinet door (2) above it (if any).
- The top edge of the door (1) should be even with the doors of adjoining cabinet(s), if any.
- Adjust the door alignment before installing the appliance. It is impossible to adjust the door with the appliance installed.
- Check the installation dimensions according to Section "Unit Dimensions".



## Definition of the Door Panel Heights

Total height of the cabinet (i.e. 49 7/16 in. (1256 mm)) plus thickness of the cover and floor plate Fig. 3 (a) (normally 3/4 in. (19 mm)):
70 3/8 in. + 3/4 in. + 3/4 in. = 47 15/16 in. ( 1218 mm + 19 mm + 19 mm = 1256 mm )

## HC 700B




(a) The base of the cabinet can be thickened to raise the the top of the lower door panel to counter height. Lower panel will have to be increased in length by the same amount.

LIEBHERR

# Design Guide

Release 04 2018