LENNOX®

# APPLICATION GUIDE

PROVIDING GLOBAL SYSTEM SOLUTIONS

EUROVENT CERTIFIED PERFORMANCE

## ROOFTOP BALTIC

English/06-2003

# APPLICATION GUIDE

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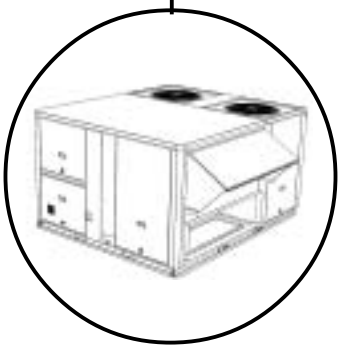


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Due to LENNOX on going commitment to quality, specifications subject to change without notice and without incurring liability

The BALTIC range has been designed to perfectly match light commercial applications, such as, offices, restaurants, shopping outlet-villages, etc.

BALTIC is available in cooling only, heat pump, gas fired or dual fuel (gas fired and heat pump), the BALTIC range operate with environmentally friendly R407C HFC, providing cooling capacities from 20 kW up to 50 kW in 3 different Box sizes.

The BALTIC range as been designed to be very flexible for our customer, it can either be extremely competitive and simple when first cost is the main driver, but many options can be added to make the BALTIC a Premium product.

The BALTIC range is a new generation rooftop where IAQ (Indoor Air Quality) and efficiency of the unit have been looked at in details.

## EASY TO INSTALL AND SERVICE

***PLUG and PLAY Unit***

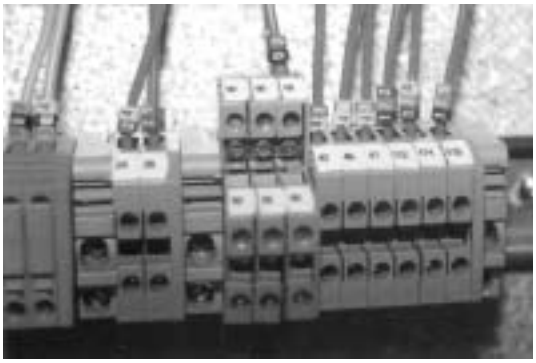
All options are factory installed on the unit, which means that they are ready for use on installation, ensuring that the time spent on site is minimised, reducing the installation effort, which can result in cost savings.
Bottom entry (through the base) for electrical power and gas lines are available as standard.

***Circuit breakers***

To improve the safety of the BALTIC and extend its life, circuit breakers protect against over-loading and over intensity. Maintenance is also improved as there is no requirement to change fuses. The electrical panel is manufactured in accordance with EN60204-1 electrical directive.

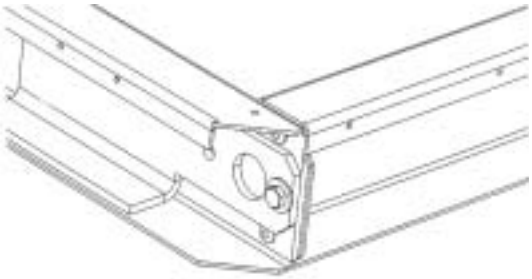
***Numbered wires***

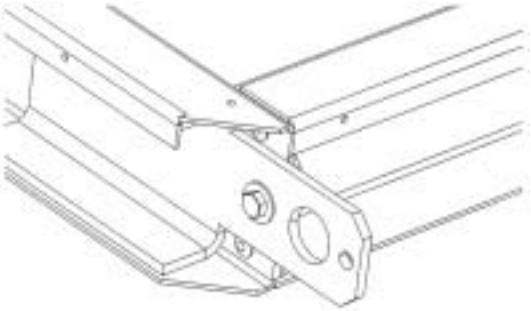
All wires and connectors are numbered as shown on the electrical drawing to facilitate maintenance and diagnostic.



***Handling***

To facilitate handling and to minimise the risk of damage to the units from site lifting and positioning, LENNOX has equipped the BATLIC range with "retractable lifting lugs" at the bottom of the unit.
During transportation, when minimum footprint is required, the 4 "retractable lifting lug", will be folded in the chassis. They can be unfolded for lifting, putting all the lifting equipement away from the casing, therefore reducing risk of damaging the casing. For the same reason, the condenser coils are protected with an "Aquilux" sheet, guarding them against damages that sometimes occur in transit.





***Air flow configuration***

Unless specified otherwise when ordered, the BALTIC rooftops are shipped with downflow configuration and with 100 Pa external static pressure at nominal air flow, and 100% return air. However, the air flow and pressure characteristics can be set up at the factory to your particular project requirements, that will help reducing time spent on site.

***Variable Pulley***

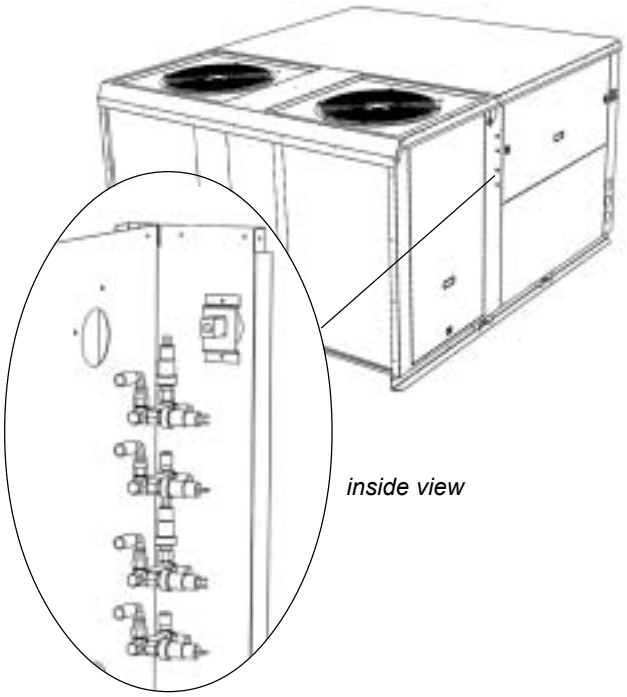
For cases where the actual external static pressure or air flow on a particular project is different from what is specified on an order, LENNOX has enhanced the BALTIC rooftop by providing an adjustable belt and pulley. The installer can easily and quickly adjust the air flow within a 20% window without moving the mounted fan motors. This variable pulley provides flexibility and peace of mind during commissioning.

***Easy to access***

External panels are easily removed providing clear access to all components.

***External access to the pressure gauges***

Measuring the low-pressure and high-pressure on a rooftop is a basic and normal operation that Lennox wanted to make as simple and easy for service technicians.
This is why, remote pressure taps have been made accessible from the outside (on a post), whitout entering the refrigeration section of the unit.



*inside view*

***EU3 / G3 grade - Disposable Filters***
Ensuring easy service and maintenance. On start-up we recommend that you change the throwaway filter for replacable washable filters, with metal frames.

## EXTENDED LIFE CYCLE

***Assembly quality, compliance to PED 97-23, EN 60204-1, CE, made in an ISO 9001v2000 Factory***

What probably makes the difference are those small details which have given LENNOX its reputation.
Electrical components are selected to the highest standards, refrigeration components are generously sized to ensure maximum performance and reliability.
Quality manufacturing procedures together with a culture of continuous improvement at all LENNOX factories, ensure the products are built to the highest standards.
BALTIC complies to EN60204 norms, PED 97-23 directive, is CE compliant and is built in an ISO9001v2000 certified Factory.

AFAQ ISO 9001
AFAQ N° QUAL/2001/15834

EUROVENT CERTIFIED PERFORMANCE

***Stainless Steel fixings and Anticorrosion Coating on the casing (10 years warranty)***

The BALTIC has been designed to ensure that it has a long operational life, which explains the use of anticorrosion coating on the casing. This ALUZINC coating is an aloy made of 55% Aluminium and 45% .
The RAL 9002 powdered polyester paint is UV resistant, protecting the unit from damaging UV rays.
Further resistance is provided on the BALTIC range through the use of stainless steel fixings (A2 Stainless steel) as a standard feature.
These standard features allows LENNOX to offer a 10 year warranty against corrosion.

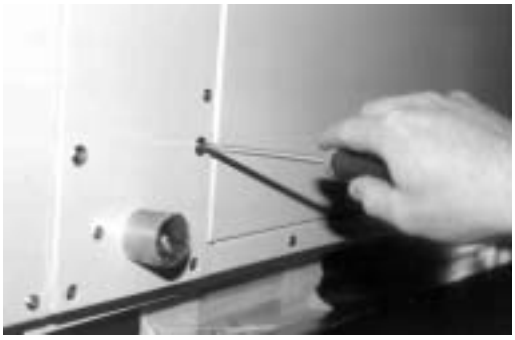
***More reliable refrigeration circuit***

To minimise the risk of leaks, refrigeration circuit has been drastically simplified to reduce the number joints (potential cause of leak). For example a BALTIC BHK40 would have only 28joints, when a typicall rooftop of the same size would have38 joints).

The second inovation of the refrigeration circuit will reduce maintenance time.
All joints and all pipes are located in the refrigeration section. This includes evaporator collector located in the same compartment. Service technician only have one door to open to access the whole circuit.

***Removable Aluminium Drain Pan***

This gives the drain pan a longer life. The underside of the unit is insulated to reduce condensation.
The bent drain traps are shipped in a kit form. Drain pan is sloped to prevent stagnation of water. It is removable with 2 screws. It slides out and can be easily cleaned, preventing growth of bacteria in the drain pan.



## INDOOR AIR QUALITY DOES MATTER

***Fire proof (M0) insulation***

Because, for LENNOX, health and safety issues cannot be compromised, in all rooftops fire insulation (M0 fire Class) is fitted as standard. 65 kg/m3 insulation is mechanically fitted to the unit.
This feature improves the safety of the rooftop against fire, as the specification suggests, the insulation will not burn and smoke is not generated.
Edges of insulation are protected on the edge to perfectly seal the insulation.

***Accurate percentage of fresh air***

Because a fresh air damper curve is not linear, it is not accurate to assume that the percentage of opening of the damper is equal to the percentage of fresh air enterring the building.

However, this linear control of a damper is by far the most used in the industry.
With Indoor air quality and running cost of a building being more important to our customer, Lennox wanted to pilot the % of fresh air more accurately.

The CLIMATICô 50 can now periodically recalibrate the dampers, in calculating the real percentage of fresh air entering the bulding for the each different positions of the damper.

This recalibration is achieved using the return air sensor, the outdoor sensor and supply air sensor. When all heating or cooling elements are off, the percentage of fresh air actually entering the rooftop is the result of the following equation :

$$\text{"\%Fresh Air"} = \frac{(\text{"Supply Air temperature"} - \text{"\% Return Air"} \times \text{"Temperature Return Air"})}{\text{"Temperature Fresh air"}}$$

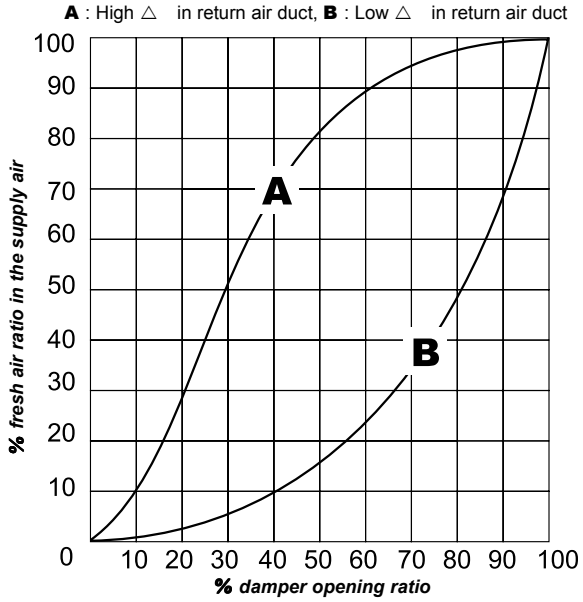
For example, CLIMATICô 50 would accurately adjust the damper position to get 20% fresh air and not 30% or 10%.

Therefore, this feature either saves a lot of energy cost by not bringing more fresh air than needed or makes sure that air quality is at the expected level.

This allows CLIMATICô 50 to send an alarm when damper can not be calibrated (faulty damper )

**Specific case of high pressure drop in the return air duct :**
The problem becomes even more critical, when the return air duct pressure drop is greater than 50 Pa.

In this case, due to the difficulty of the return air to go back to the rooftop, it is usual to have a lot more fresh air entering the building than wanted, resulting in high running cost.




## RUNNING COST

***Scroll compressors / Refrigeration Circuits***

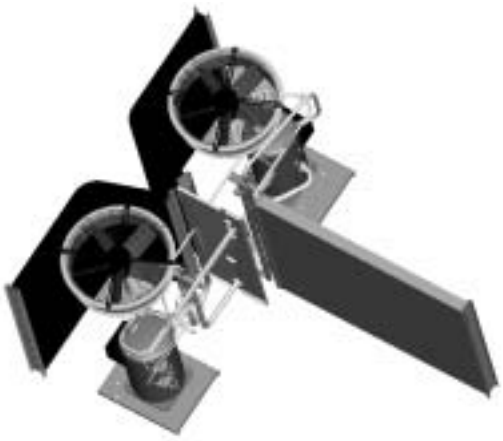
Copeland Scroll compressors is used on the BALTIC for maximum efficiency and reliability, having overload protection and crankcase heaters.
Multiple refrigerant circuits (starting from size 30) comprising compressors, condenser coils and direct-drive condenser fans, evaporator coil and belt-driven Centrifugal Indoor fans, expansion valves, high capacity dryers, high pressure switches, low pressure switches, full refrigerant charge. In addition you will find check valves, defrost control, reversing valve on BHK heat pump models.

***Thermostatic Expansion Valves***

As it is important that the units operate as efficiently as possible and achieve maximum performance at any running condition, the thermostatic expansion valves optimise the superheat of the rooftop and, therefore, its overall performance efficiency.

***Alternate defrost***

Because, this new rooftop has been designed to reduce life cycle cost, the alternate defrost is a standard feature with 2 circuits heat pump rooftops.
When one circuit is in defrost the other is still running in heat-pump mode reducing the use of costly electric heater.
This unique feature on the market place for small rooftop makes the BALTIC a pionneer in terms of low life cycle cost.



***Dynamic defrost (under patent INPI 91.033.063)***

BALTIC is featuring the "dynamic defrost" concept.
Typical rooftop starts defrost cycle when the outside temperature is bellow a certain value and repeat the cycle periodically.
This results sometimes in starting an expensive defrost cycle when it is very cold outside but very dry, in other words when the coil is not frozen.
After many test in the Lennox laboratories, it was found that it is possible to exactly know if the coil is frozen, by analysing the temperature difference between the coil and the outside temperature.

With this built-in feature of the CLIMATICô 50, Lennox insures to start a defrost cycle only when necessary, hence saving energy.

## CONTROL

### *CLIMATICô ô 50 Software (RT50)*

The new generation of microprocessor based control, CLIMATICô 50 will equip the BALTIC rooftop range.
It inherits 15 years of technology and field operating experience from its predecessors the CLIMATICô1 and CLIMATICô 2.

LENNOX has found the latest hardware technology available on the market place and developped a software specifically designed for rooftop applications, maximising the LENNOX rooftops efficiency and performance.

CLIMATICô 50 has been thought to be more user-friendly than CLIMATICô 2 and easier to understand. However CLIMATICô 50 has been designed to be as powerfull and even more flexible.

CLIMATICô 50 provides flexibility and the ability to control multiple rooftops on a single job site.

Enhanced with a 16 bit processor at 14Mhz and a 2 Megabytes flash memory, CLIMATICô 50 has been designed to save energy and to extend the operational life of the BALTIC product range. It will, for example, optimise the running time of each compressor, automatically switch between compressors from those that start first and have an anti short-cycle program. It is able to control 34 fault signals and manage security algorithms generating various fault signals.

In terms of comfort, CLIMATICô 50 provides an innovative PI control.

CLIMATICô 50 looks at difference between set point and room temperature and calculate the time needed to reach the set point and determines the capacity required.

This innovative control, will garanty a better temperature accuracy, while saving energy in not bringing the full capacity when not needed.

As cooling is often not the only requirement, hot water coils or electric heaters can be provided with proportional control and heat pump with multi step regulation is available as well.

As a standard feature, CLIMATICô50 provides 4 scheduling time zones per day on 7 days. This allows energy consumption management according to the building use.
On each of the 4 time zones, heating set point, cooling set point, minimum fresh air, humidity set point high and up, and even the different authorisations for cooling and heating can be adjusted.
CLIMATICô 50 provides a choice of different remote displays depending on customer requirement and application of the system.

As a standard feature, it is possible to set alarms (adjustable value low and high) on room temperature and humidity.

***Step of heating priority***

Unique feature on the market, CLIMATICô 50 allows the user to decide which heating element will come first.
This works perfectly on dual fuel unit, it is possible to pioritize heat pump mode down to an adjustable set point (for example 0∞C) and switch to gas fired mode below this value.
This gives the benefits of the excellent heat pump COP when outside temperature is not too cold and allows to use gas heating when temperature is lower.

***Flexibility***

CLIMATICô offers incredible flexibility. For example, advanced user can go in the heart of the regulation in deciding reactivity of the PI algorythm or by setting supply temperature limits .They might even decide to authorize or not some heating or cooling device depending of the outside temperature.

***Automatic summer/winter time change***

CLIMATICô 50 offers an automatic time switch from winter to summer. This had always been a problem in the past for customer to keep there rooftop at the right time, jeopardising all their effort to optimize energy consumption by smart scheduling.

***Noise reduction feature***

During unoccupied timezone, BALTIC rooftop will work on half of its capacity by using only half of the compressors and half of the condensing fans (For double circuits rooftops).
Therefore it may cycle more often but would be quieter when running.
This option is very often used at night when capacity needed is lower and when noise matters more.

***Last 16 faults stored in the mother board***

Part of the new features of CLIMATICô50 is the storage in the main mother board of the last 16 faults with time, date and fault code. This can be seen with DS50 Service Display or Climalink Climalook.. even if those were not connected when the fault occurred.

***Staggered start feature***

If there is a power shortage, units will not restart at the same time. To make this feature available, units have to be addressed with a different number between 1 and 12. The unit will start a number of minutes after power return depending on its address (Address * 10 seconds).

Example, unit number 3 will start 30 seconds after power is back.
This is a very important feature to avoid peaks of current.

***Inter unit link***

Rooftop can now be connected together (up to 12) via a double shielded pair of wire (not supplied by Lennox) and use different running modes, as explained bellow, with no cost increase.

1 : Master slave mode "total" : The master gives the ventilation order, its set point and its room temperature/humidity to all other rooftops.

2 : Master slave mode "temperature": The master gives the ventilation order and its room temperature/humidity to all other rooftops, but they have their own set point.

3 : Master slave mode "average" : The master gives the ventilation order and theroom temperature/humidity used by all rooftop is the average of all rooftop, each rooftop has its own set point.

4 : Master slave mode "cooling/heating" : All roofotp are stand-alone but the slaves have to have the same running mode as the master (Cooling or heating).

5 : Back-up mode : One rooftop is the back-up unit and will operate if any of the other rooftop has a failure.

6 : Rolling Back-up mode : Same as above, except the "back-up" unit will be different each tuesday.

On top of that, the outside temperature/humidity given to all rooftop can either be the average of rooftop or be the external humidity/temperature of the master, making possible the use of a single "weather station" for the whole site.

***Available dry contact (4 Output /2 Input)***

As a standard features, an ON/OFF and a RESET Input dry contacts are available as well as a GENERAL FAULT output.
On top of this, 2 programmable logical input and 1 programmable logical ouput are available for the customer.
Input can, for example, be programmed to disable compressor or electric heater or receive a running status from any devices from the customer.
Ouput could be programmed to energize any customer device or send different fault information.

## OPTIONS

**ROOFCURB AND AIRFLOW**

***Non adjustable, non assembled roofcurb***

A sturdy mounting frame mates to the single package unit and provides an automatic weatherproof sealed rooftop installation. Shipped knocked down for ease of shipping and handling, it is easily field assembled.

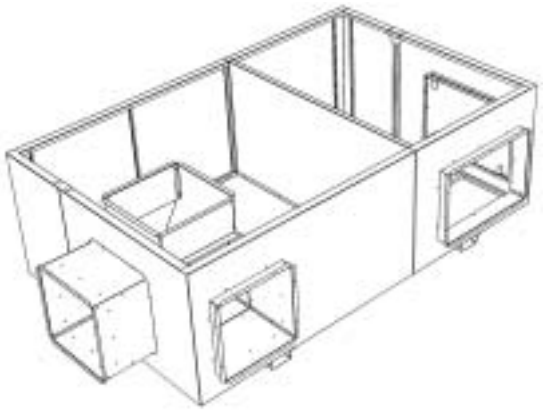
***Adjustable Roofcurb***

Aluzinc construction with mounting flange in 25/10∞ plate.

This adjustable roofcurb can be installed on a roof with up to 4-5% slope in all directions enabling the BALTIC to be adapted to most roof profiles.
Each roofcurb has its supply and return openings specifically designed to ensure that resistance and hence pressure drop through the curb is minimised.
This may allow a smaller supply fan to be selected due to the fact that there may be less resistance through the unit and the roof mounting frame, compared to more traditional roof mounting frames.

***Multidirectional flow roofcurb***

Made of the same material as the rooftop, it has a 10 years warranty against corrosion and it is fitted with flanges.
It is a necessary option when customer wants to have horizontal return and horizontal supply on the same side of the rooftop. It is also required with exhaust fan or gravity exhaust damper combined with horizontal flow configuration.



***Horizontal / vertical Air Flow***

Lennox believes that rooftops should be adaptable to specific design requirements, this is why a variety of downflow return and supply, horizontal supply and return or a mix of both are offered.

***Drive Kit up to 500 Pa (400Pa on size 20, 25, 30 and 35)***

As all systems are different, it is useful to have the ability to adapt to different air flow conditions and this can be achieved through the selection of various choices of motors and drives that can provide up to 500Pa at nominal air flow. This means that commissioning on site can be done easily and quickly, helping you to keep your installation costs to a minimum.

***Air Sock Control***

The use of air socks for space conditioning allows high air volumes to be distributed at low velocity and is becoming a common feature in many applications. To accommodate this trend , Airsock control is offered which allows the air socks to be progressively filled with air on start up. BALTIC has been enhanced with an electronic device to soft start the fan. It takes 1 minute to go from 0% of air to full air flow.

**FRESH AIR AND EXHAUST AIR**

***Economiser***

"Free cooling" is provided through the use of fresh air where appropriate rather than cooling the return air. The use of an economiser is the easiest and most efficient way to modulate fresh volumes and reduce running costs for a rooftop application, as well as improving air quality. Fully controlled by the CLIMATICô 50, it is also able to ensure that minimum fresh air is provided in line with Indoor Air Quality Regulations. Economiser operates using a "sensible" control. It is possible to prevent the economiser from supplying air below a certain temperature (adjustable set point, 10∞C as default).

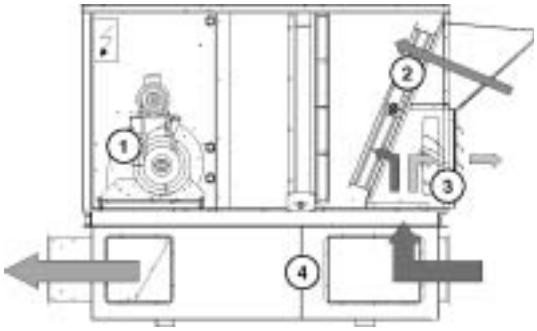
The economiser is factory fitted and tested, prior to shipment and includes 2 dampers operating from a 24V actuator. It includes a rain hood factory fitted. Hood will be folded during transportation to limit risk of damage and is unfolded on site.

***Gravity exhaust damper***

Installed with economiser assembly, gravity exhaust damper relief pressure when outside air is being introduced in the system. It is a cheap and smart way to avoid overpressure in a building.
**NOTE :** When horizontal flow configuration is required, the multidirectional roofcurb must be installed.

***Power Exhaust Fan***

Installed with economiser assembly, it provides exhaust air pressure relief when high levels of outside air are being introduced in the system.
Interlocked to run when return air dampers are being closed and supply air blower is in operation. The extraction fan runs when outdoor air dampers are at least 50% open (adjustable). It is also overload protected. A gravity exhaust damper is supplied with this option to prevent air from entering the unit during shutdown.




**INDOOR AIR QUALITY**

***Analogic Blower On sensor and dirty filter indication***

A differential pressure sensor measures the pressure drop across the evaporator coil and filters. If this pressure drop is above 50Pa, the rooftop is considered to be operating. The exact pressure drop can be seen through the Intelligent CLIMATICô 50 board. This option further improves security and reliability of the BALTIC rooftops. It prevents overheating of any device if the fan belt is broken.
Using the same pressure sensor as the "Blower On Sensor", pressure drop information is interpreted by the CLIMATICô 50 board to determine whether the filter is dirty or not. This information is available with all CLIMATICô 50 controllers.
The set point between "dirty" and "clean" is fully adjustable by the installer/users. (Default value is approximately 250Pa)

***Panel filters with metal frames and disposable filter media (EU4 / G4)***

When units are installed in an environment when it is expected that filters will be changed more frequently than usual, it is advisable that the end user includes metallic frame with washable filter (classified EU4/G4) media. This is a more cost-effective answer to disposable filters.

***Indoor Air Quality Sensor***

Indoor air quality is controlled from the CLIMATICô 50 board. A VOC (Volatile Organic Component) sensor will detect the amount of CO2 in the air between 0 and 2000PPM. (This obviously varies depending upon space occupancy levels). The VOC sensor will then send a proportional signal (0-20mA) to the CLIMATICô 50 controller which will then modulate the percentage of fresh air accordingly. This feature allows you to match minimum fresh air requirements with occupancy levels (number of m3/h of fresh air per person) optimising operating efficiency and energy consumption. Depending upon the fresh air requirements of your particular application, this option can offer payback within a few months. Note that this feature is installed inconjunction with the economiser option. This option is supplied loose, it has to be wired with a 1 pair shielded twisted 0,5 mm2.

**HEATING OPTIONS**

***Electric Heater***

The electric heater comprises of shielded resistance heaters, which are smooth stainless steel tubes 6 W/cm2 capacity.
High temperature limit control offers overload protection and is set to 90∞C and located at less than 150mm after electric heaters. This is provided as a standard feature on the electric heater, with the electric power supply cables made of reticulated silicon rubber, resistant to temperatures up to 200∞C. For any rooftop unit size, three sizes of electric heater are available, S (standard), M (Medium) and H (high).

**BALTIC 20 and 25 have :**
Standard heat : 12 kW , 2 stages
Medium Heat : 24 kW , 2 stages
High Heat : 36 kW, Fully modulating (Triac)

**BALTIC 30, 35 have :**
Standard heat : 24 kW , 2 stages
Medium Heat : 36 kW , 2 stages
High Heat : 48 kW, Fully modulating (Triac)

**BALTIC 40, 45, 50 have :**
Standard heat : 27 kW , 2 stages
Medium Heat : 45 kW , 2 stages
High Heat : 54 kW, Fully modulating (Triac)

Capacity of the high heat heater can be limited electronically to an exact value through the CLIMATICô 50.
To reduce installation time and hence cost, electric heaters are always factory fitted, fully wired and tested, prior to shipment.

***Hot Water Coil***

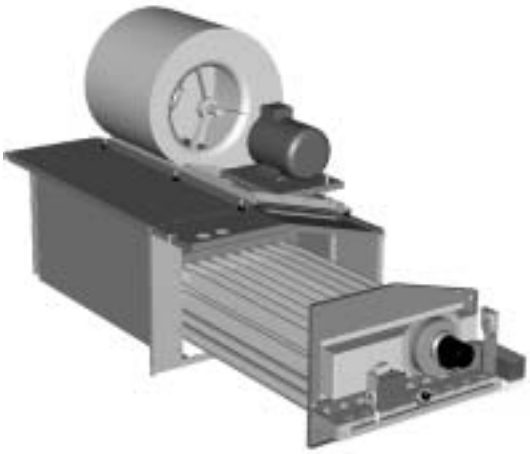
Hot water coils are of a 1 (standard heat) or 2 rows (high heat) configuration and offer fully modulating control through the use of a 3 way valve. The hot water coil, connections and valves are all tested at pressure of 30 bars. Frost protection is provided by forcing the opening the 3 way valve when supply temperature from hot water coil falls below 8∞C and by stopping the outdoor fan when that supply temperature falls below 6∞C.
Hot water coils are always factory fitted, wired and fully tested, prior to shipment.

### *93% high efficiency Gas Burner Option*

Lennox is proud to introduce the first high efficiency gas burner available on rooftop in Europe with 93% efficiency.
The standard gas burner is designed to work with 20 mbar (with an operating range of 13-26 Mbar) .

Gas module offer 2 stages of control. This assists in improving space comfort levels by avoiding large supply air temperature deviations.

The aluminized steel tube heat exchanger is designed to offer maximum heat transfer efficiency.
If required, an expansion device can be provided in the BALTIC allowing it to operate with gas pressures of up to 300 mbar. A "propane gas" option at 37 mbar is also available.
Gas fired rooftop can not be installed inside a technical room.



## TREATMENT OPTIONS

### *Customised colour*

The unit can be supplied in various colours to suit any application or requirement. The units colour must, however, be identified with a RAL number.

### *Anti-Corrosion Protection*

Where the units are installed in potentially aggressive environments, which can often be the case for example in coastal or manufacturing environments, it is often a requirement that the coils are specially treated to protect them against the corrosive effects . "Blygold", is known for being one of the most efficient protective coatings and it is available on the condensing, evaporator and/or on the hot water coils.

## ELECTRICAL OPTIONS

### *Fire-Stat*

This is a thermostat that provides a signal when the temperature in the airstream is above an adjustable set point (70∞C standard).

### *Disconnect Switch*

Main disconnect switch is lockable to increase safety around the rooftop unit.
Switching off the unit whith the disconnect switch will reset all. Disconnect switch will be sized accordingly to the option picked with the unit.

### *Smoke Detector*

Located downstream of the filter, the ionic head of the smoke detector can detect any type of smoke. When this occurs the unit will stop operating, the return air damper will be fully closed and the fresh air damper will fully open while sending an alarm signal to the unit.
In accordance with the European norm, it is also compliant with the French regulation on public buildings.

**CONTROL OPTIONS**

***DC 50 : Comfort Display***

This is a remote controller for non-technical customer. It has been wanted to aesthetically fit inside a room and be very easy to use.

This graphical display gives information such as running mode of the unit, status of the fan, set point, % of fresh air, outside air temperature.

Customer can change the scheduling of the different time zone, can modify temperature set point and % of fresh air for each zone. Customer can also overide the scheduling in either changing the set point for 3 hours or in forcing the rooftop to unoccupied mode for 1 to 7 days. ON/OFF key is also available.

DC50 Comfort display, shows faults number when rooftop is in the failure mode. Customer can reset fault thanks to a combination of keys.

Time and day of the rooftop can be seen and modified easily through the DC50.

***DS 50 : Service Display***

This new service display controller is a plug and play feature, but can as well be remotely installed. (Maximum 1000 meters). This allows service personal to set up to 90 settings, read up to 125 variables, up to 45 faults and read the history of the last 16 faults.

This controller has been designed to be very user friendly, with 6 different keys, a 4 lignes display and this controller includes scrolling menus, true language (no codes) will be in English or an other alternate language.

***TCB (Thermostat Control Board)***

This board has been developped for any customer who wants to take over the control of the unit. With 6 logical inputs (Compressor stage 1 and stage 2, heating step 1 and 2, 4 way valves and fan), this board will replace the control algorythm. However CLIMATICô 50 controller will stay in charge of all safety algorythm, defrost operation or free cooling operation. All Input are volt free contact.
This is the perfect board, to have BALTIC rooftop managed by a zoning system, a universal thermostat or even a BMS system.

***Communication interface***

Electronic board needed for Climalink or Climalook use. One board required per rooftop.

***CLIMALINK 2***

Made-of a computer technology based central unit, a communication interface (via RS485) and a modem. Climalink allows a remote
access of a network of 12 rooftops via modem.
Climalink is installed in the building and has its own telephone number. Anywhere in the world, any computer equiped with a modem and Internet explorer 5 can then access most of the information on the rooftop installation.
The entrance screen gives an access to 9 different languages (French, Italian, English, Spanish, Portugese, Tcheck, Dutch, German and Polish).
General Screen :
A general screen shows 12 rooftops with their supply and room temperature and their status.
Clicking on a rooftop will take the user to the main page, with access to the appoximatively 25 set points and variables. Enough to know if the rooftop is working properly and to adjust comfort level of the building (temperature set points, fresh air, humidity.etc). All faults on this specific rooftop would be highlighted and detailed with date and time. They can all be reset.
For most of the variables, history graphs are available.

Service and scheduling screens:
Most advanced users (different access codes) can acess to the "service" page which allows a comprehensive check of the unit and the adjustment of most of the units parameters. Service technicians which will be able to do remote diagnostic which save them unnecessary trips to the site.

Scheduling screen makes the programming of the different time zones very user-friendly. All 4 zones are shown on the same screen with all their set points. Any scheduling done on a rooftop can be copied to the other rooftops very easily. This is a major time saving during start-up of a site.
Climalink can also do "global commande" (Macrocommandes), this feature allows to apply to all rooftops a given action like set point adjustment, time adjustment.
An "history" screen gives a view of all actions which occurred on the rooftop (fault, reset, access.etc) with time and date information.
Finally, "access" screen allows access management. It is possible to assign different users with a different access level (basic,

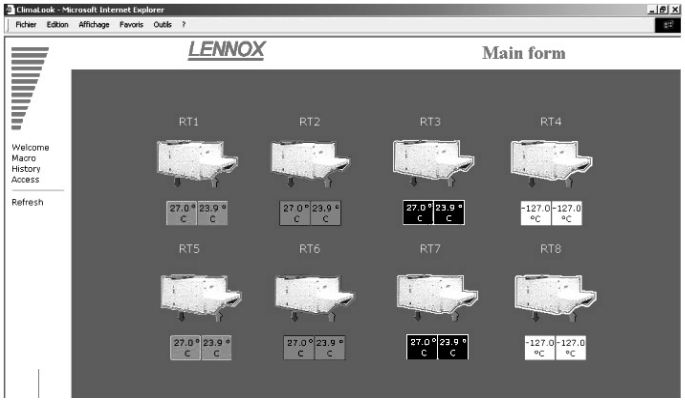
advanced or supervisor), protected with passwords.

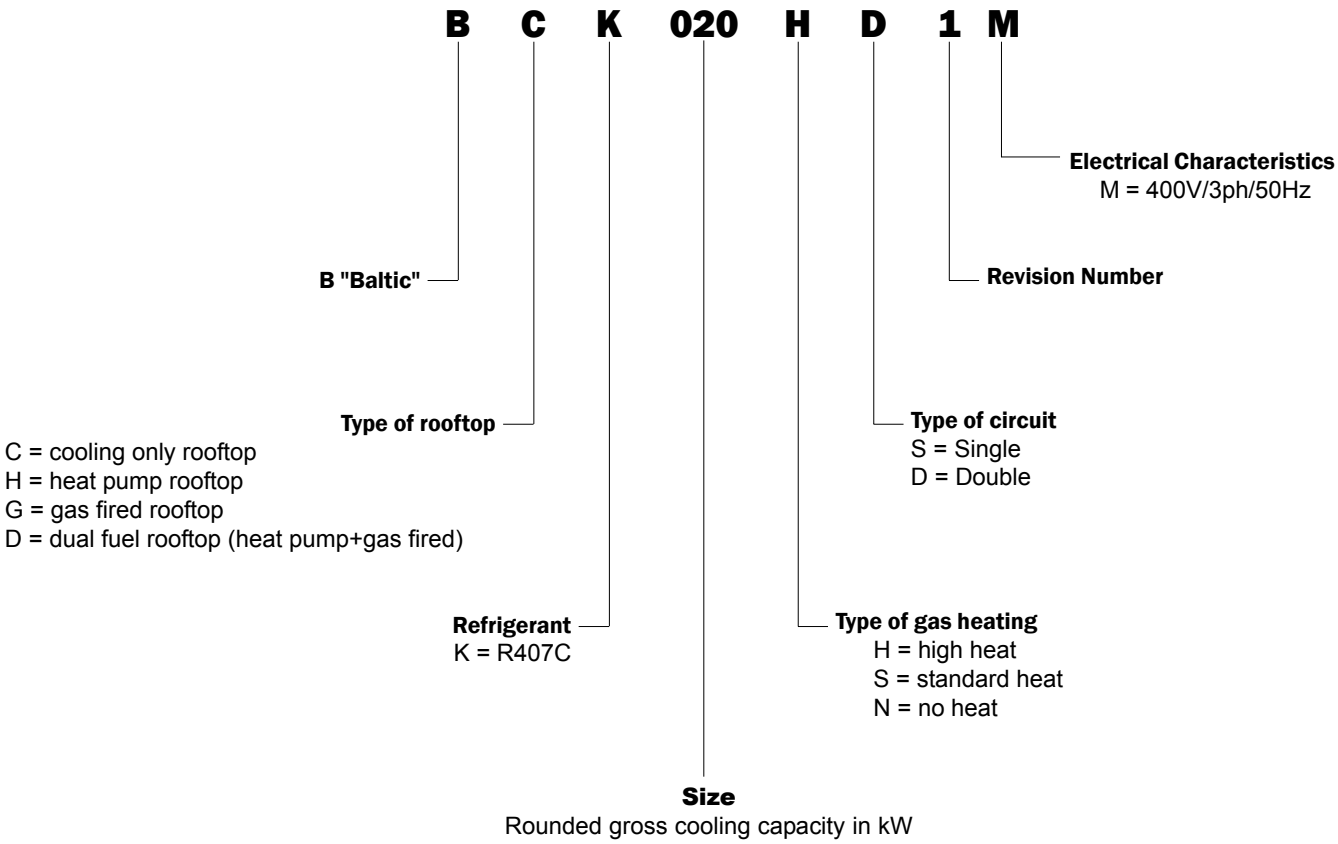
***CLIMALOOK 2***

Climalook has exactly the same possibilities as the Climalink, but allows local access on top of Climalink remote access. It includes a 15' TFT flat screen, a mouse and a numeric keypad. With Climalook, people can have permanent access to their installation while they are on site but also when away.

***CLIMALOOK 3 (compatibility between CLIMATICô 50 and CLIMATICô 2)***

Climalook3 is the same as Climalook2 but could work with 8 rooftops equiped with CLIMATICô 2 (Flexy, Linea on site) and 12 rooftops equiped with CLIMATICô 50 (BALTIC).




B C K 020 H D 1 M
Electrical Characteristics
M = 400V/3ph/50Hz
Revision Number
B "Baltic"
Type of rooftop
C = cooling only rooftop
H = heat pump rooftop
G = gas fired rooftop
D = dual fuel rooftop (heat pump+gas fired)
Type of circuit
S = Single
D = Double
Refrigerant
K = R407C
Type of gas heating
H = high heat
S = standard heat
N = no heat
Size
Rounded gross cooling capacity in kW

# GENERAL DATA

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop ***BGK*** = Cooling only with gas fired heating***BDK*** = Heat pump rooftop with gas fired heating

*Table 3.1*

| | | SIZE | | 020 | 025 | 030 | 035 |
|---|---|---|---|---|---|---|---|
| | **Performance** | | | | | | |
| | Nominal Airflow | m3/h | | 3600 | 4500 | 5400 | 6300 |
| ***Performances*** | **Cooling BCK-BGK** | | | | | | |
| | Gross Cooling capacity (1) | KW | | 19,8 | 24,3 | 31,2 | 34,6 |
| | Power input BCK | kW | | 8.0 | 10,9 | 13,6 | 16,1 |
| | Power Input BGK | kW | | 8,2 | 11,5 | 14,3 | 16,8 |
| | Full load amps | A | | 18,4 | 23,1 | 32 | 37,3 |
| | Direct start up amps ratio Id / Ia | - | | 5,7 | 5,5 | 3,0 | 3,3 |
| | COP gross BCK (2) | - | | 2,5 | 2,2 | 2,3 | 2,1 |
| | COP net global BCK (3) | - | | 2,4 | 2,2 | 2,2 | 2,1 |
| | COP net global BGK (3) | - | | 2,3 | 2,0 | 2,1 | 2,0 |
| | **Cooling BHK-BDK** | | | | | | |
| | Gross Cooling capacity (1) | KW | | 19,6 | 23,9 | 30,9 | 34,3 |
| | Power input BHK | kW | | 8,0 | 10,9 | 13,6 | 16,1 |
| | Power Input BDK | kW | | 8,2 | 11,5 | 14,3 | 16,8 |
| | COP gross BHK (2) | - | | 2,5 | 2,2 | 2,3 | 2,1 |
| | COP net global BHK (3) | - | | 2,4 | 2,1 | 2,2 | 2,1 |
| | COP net global BDK (3) | - | | 2,3 | 2,0 | 2,1 | 2,0 |
| | **Heating BHK-BDK** | | | | | | |
| | Net heating capacity (1) | kW | | 18,3 | 23,4 | 30,2 | 33,4 |
| | Power input BHK | kW | | 6,8 | 9,1 | 11,5 | 12,9 |
| | Power input BDK | kW | | 7,0 | 9,7 | 12,1 | 13,5 |
| | COP gross BHK (2) | - | | 2,6 | 2,5 | 2,6 | 2,5 |
| | COP net global BHK (4) | - | | 2,7 | 2,6 | 2,6 | 2,6 |
| | COP net global BDK (4) | - | | 2,6 | 2,4 | 2,5 | 2,5 |
| | **Heating - gaz fired** | | | | | | |
| | Heating capacity | kW | S / H | 18.6 / 30,7 | 18.6 / 30,7 | 18.2 / 42,8 | 18.2 / 42,8 |
| | Input (small heat / high heat) | kW | S / H | 20 / 33 | 20 / 33 | 20 / 46 | 20 / 46 |
| | Thermal efficiency | % | H | 93 | 93 | 93 | 93 |
| ***Refrigerant data*** | **Refrigeration circuit** | | | | | | |
| | Nb of Circuits / Compressor type | nb / type | | 1 / ZR81 Scroll | 1 / ZR11 Scroll | 2 / ZR72 Scroll | 2 / ZR81 Scroll |
| | Expansion | nb / type | | 1 / TXV | 1 / TXV | 2 / TXV | 2 / TXV |
| | Refrigerant charge per circuit Clim / PAC | kg | | 3 | 3 | 4 | 4 |
| ***Ventilation data*** | **Coils** | | | | | | |
| | Indoor Coil : Face area / nb of rows / Fin per inch | m2 / nb / FPI | | 0.63 / 3 / 14 | 0.63 / 3 / 14 | 0.87 / 3 / 14 | 0.87 / 3 / 14 |
| | Outdoor Coil : Face area / nb of rows / Fin per inch | m2 / nb / FPI | | 1.1 / 2 / 16 | 1.1 / 2 / 16 | 1.5 / 2 / 16 | 1.5 / 2 / 16 |
| | **Ventilation data** | | | | | | |
| | Nominal Airflow | m3/h | | 3600 | 4500 | 5400 | 6300 |
| | Minimum Airflow | m3/h | | 2900 | 3600 | 4300 | 5000 |
| | Maximum Airflow | m3/h | | 4300 | 5400 | 6500 | 7600 |
| | External static pressure nom / max | Pa | | 100 / 400 | 100 / 400 | 100 / 400 | 100 / 400 |
| | **Indoor fan (Centrifugal fan BCK/BHK)** | | | | | | |
| | Number / Drive type | type | | 1 / AT 12-9 S | 1 / AT 12-9 S | 1 / AT 15-11 S | 1 / AT 15-11 S |
| | Number of motor | nb | | 1 | 1 | 1 | 1 |
| | Mechanical Power (1) | kW | | 0,75 | 0,75 | 0,75 | 1,10 |
| | Rotation speed | RPM | | 703 | 785 | 624 | 684 |
| | **Indoor fan (Centrifugal fan BGK/BDK S)** | | | | | | |
| | Number / Drive type | type | | 1 / AT 12-9 S | 1 / AT 12-9 S | 1 / AT 15-11 S | 1 / AT 15-11 S |
| | Number of motor | nb | | 1 | 1 | 1 | 1 |
| | Mechanical Power gas -S (1) | kW | | 0,75 | 1,10 | 1,10 | 1,50 |
| | Rotation speed | RPM | | 852 | 978 | 744 | 827 |
| | **Outdoor fan (axial)** | | | | | | |
| | Number | nb | | 2 | 2 | 2 | 2 |
| | Nominal Airflow | m3/h | | 7680 | 7680 | 11225 | 11225 |
| | Motor power | kW | | 0,5 | 0,5 | 1,1 | 1,1 |
| | Rotation speed | RPM | | 1430 | 1430 | 1320 | 1320 |
| | **Filter (furnished standard)** | | | | | | |
| | Efficiency / filter class / Eurovent | type | | 80-85 % / G3 | 80-85 % / G3 | 80-85 % / G3 | 80-85 % / G3 |
| | Nb of filter | nb | | 2 | 2 | 2 + 2 | 2 + 2 |
| | Filter size | mm x mm | | 497x624x45 | 497x624x45 | 395x497 + 497x497 | 395x497 + 497x497 |
| ***Physical data*** | **Dimension** | | | | | | |
| | Length (STD / GAZ) footprint without fresh air hood | mm | | 2000 | 2000 | 1850 | 1850 |
| | Height | mm | | 1220 | 1220 | 1220 | 1220 |
| | Width footprint without fresh air hood | mm | | 1360 | 1360 | 1880 | 1880 |
| | Weight standard unit BCK | kg | | 377 | 428 | 501 | 503 |
| | Weight gas unit BGK | kg | S | 419 | 472 | 567 | 572 |
| | | kg | H | 431 | 484 | 586 | 591 |
| | **Acoustic at 100 Pa** | | | | | | |
| | Outside sound power on standard unit (1) | dB(A) | | 81,0 | 81,8 | 80,4 | 80,6 |
| | Indoor blower outlet sound power on standard unit (1) | dB(A) | | 75,4 | 79,8 | 75,7 | 79,0 |
| | Outside sound power on GAS unit (1) | dB(A) | | 81,1 | 82,1 | 80,5 | 80,9 |
| | Indoor blower outlet sound power on GAS unit (1) | dB(A) | | 77,9 | 82,6 | 77,9 | 81,3 |
| | **Construction** | | | | | | |
| | Casing material | | | Aluzinc | Aluzinc | Aluzinc | Aluzinc |
| | Min Casing thickness | cm | | 0,10 | 0,10 | 0,10 | 0,10 |
| | Painting | type/RAL | | polyester / 9002 | polyester / 9002 | polyester / 9002 | polyester / 9002 |
| | Insulation Class | type | | M0 | M0 | M0 | M0 |
| ***Operating limits*** | **Cooling mode operating limits** | | | | | | |
| | Max. Outdoor temp. at Indoor 27∞C DB / 19∞C WB | ∞C | | 45 | 43 | 44 | 42 |
| | Min. Outdoor temp. at Indoor 20∞C DB | ∞C | | 14 | 11 | 11 | 10 |
| | Max. entering Indoor coil temp. at Outdoor 40∞C DB | ∞C | | 35 | 35 | 35 | 35 |
| | Min. entering Indoor coil temp. at Outdoor 35∞C DB | ∞C | | 20 | 22 | 22 | 21 |
| | **Heat pump mode operating limits** | | | | | | |
| | Min. Outdoor temp. at Indoor 20∞C DB | ∞C | | -10 | -7 | -10 | -8 |
| | Min. entering Indoor coil temp. at Outdoor 7∞C DB | ∞C | | 10 | 8 | 8 | 8 |

(1) All data are at Eurovent condition at 400V/3Ph/50Hz+N.Gross cooling capacity with 35∞C DB outdoor, 27∞C indoor. Net heating capacity with 7∞C DB outdoor, 20∞ C indoor. (2)Gross COP = Gross capacity / unit power input (compressor + con. fan + supply fan + control) (3) Net COP cooling = (Gross cooling capacity - fan motor heat) / unit power input (compressor + con. fan + supply fan + control) (4)Net COP heating = (Gross heating capacity + fan motor heat) / unit power input (compressor + con. fan + supply fan + contol).

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop ***BGK*** = Cooling only with gas fired heating***BDK*** = Heat pump rooftop with gas fired heating

*Table 3.2*

| | | SIZE | | 040 | 045 | 050 |
|---|---|---|---|---|---|---|
| ***Performances*** | **Performance** | | | | | |
| | Nominal Airflow | m3/h | | 7200 | 8100 | 9000 |
| | **Cooling BCK-BGK** | | | | | |
| | Gross Cooling capacity (1) | KW | | 40,2 | 44,2 | 47,7 |
| | Power input BCK | kW | | 16,7 | 19,2 | 22,1 |
| | Power Input BGK | kW | | 17,4 | 20,2 | 23,3 |
| | Full load amps | A | | 40,4 | 44,0 | 48,1 |
| | Direct start up amps ratio Id / Ia | - | | 3,1 | 3,4 | 3,2 |
| | COP gross BCK (2) | - | | 2,4 | 2,3 | 2,2 |
| | COP net global BCK (3) | - | | 2,3 | 2,2 | 2,1 |
| | COP net global BGK (3) | - | | 2,2 | 2,1 | 1,9 |
| | **Cooling BHK-BDK** | | | | | |
| | Gross Cooling capacity (1) | KW | | 39,7 | 43,7 | 47,3 |
| | Power input BHK | kW | | 16,7 | 19,2 | 22,1 |
| | Power Input BDK | kW | | 17,4 | 20,2 | 23,2 |
| | COP gross BHK (2) | - | | 2,4 | 2,3 | 2,1 |
| | COP net global BHK (3) | - | | 2,3 | 2,2 | 2,0 |
| | COP net global BDK (3) | - | | 2,2 | 2,1 | 1,9 |
| | **Heating BHK-BDK** | | | | | |
| | Net heating capacity (1) | kW | | 38,8 | 42,7 | 47,3 |
| | Power input BHK | kW | | 14,4 | 16,2 | 18,3 |
| | Power input BDK | kW | | 15,1 | 17,2 | 19,4 |
| | COP gross BHK (3) | - | | 2,6 | 2,5 | 2,5 |
| | COP net global BHK (4) | - | | 2,7 | 2,6 | 2,6 |
| | COP net global BDK (4) | - | | 2,6 | 2,5 | 2,4 |
| | **Heating - gaz fired** | | | | | |
| | Heating capacity | kW | S / H | 30,7 / 55,8 | 30,7 / 55,8 | 30,7 / 55,8 |
| | Input (small heat / high heat) | kW | S / H | 33 / 60 | 33 / 60 | 33 / 60 |
| | Thermal efficiency | % | H | 93 | 93 | 93 |
| ***Refrigerant data*** | **Refrigeration circuit** | | | | | |
| | Nb of Circuits / Compressor type | nb / type | | 2 / ZR90 Scroll | 2 / ZR90 + ZR11 Scroll | 2 / ZR11 Scroll |
| | Expansion | nb / type | | 2 / TXV | 2 / TXV | 2 / TXV |
| | Refrigerant charge per circuit Clim / PAC | kg | | 5,5 | 5,5 | 5,7 |
| ***Ventilation data*** | **Coils** | | | | | |
| | Indoor Coil : Face area / nb of rows / Fin per inch | m2 / nb / FPI | | 1.25 / 3 / 14 | 1.25 / 3 / 14 | 1.25 / 3 / 14 |
| | Outdoor Coil : Face area / nb of rows / Fin per inch | m2 / nb / FPI | | 2.2 / 2 / 16 | 2.2 / 2 / 16 | 2.2 / 2 / 16 |
| | **Ventilation data** | | | | | |
| | Nominal Airflow | m3/h | | 7200 | 8100 | 9000 |
| | Minimum Airflow | m3/h | | 5800 | 6500 | 7200 |
| | Maximum Airflow | m3/h | | 8600 | 9700 | 10800 |
| | External static pressure nom / max | Pa | | 100 / 500 | 100 / 500 | 100 / 500 |
| | **Indoor fan (Centrifugal fan BCK/BHK)** | | | | | |
| | Number / Drive type | type | | 1 / AT 15-15 S | 1 / AT 15-15 S | 1 / AT 15-15 S |
| | Number of motor | nb | | 1 | 1 | 1 |
| | Mechanical Power (1) | kW | | 1,10 | 1,50 | 2,20 |
| | Rotation speed | RPM | | 614 | 655 | 692 |
| | **Indoor fan (Centrifugal fan BGK/BDK S)** | | | | | |
| | Number / Drive type | type | | 1 / AT 15-15 S | 1 / AT 15-15 S | 1 / AT 15-15 S |
| | Number of motor | nb | | 1 | 1 | 1 |
| | Mechanical Power gas -S (1) | kW | | 1,50 | 2,20 | 3,00 |
| | Rotation speed | RPM | | 771 | 835 | 896 |
| | **Outdoor fan (axial)** | | | | | |
| | Number | nb | | 2 | 2 | 2 |
| | Nominal Airflow | m3/h | | 14350 | 14350 | 14350 |
| | Motor power | kW | | 1,1 | 1,1 | 1,1 |
| | Rotation speed | RPM | | 1320 | 1320 | 1320 |
| | **Filter (furnished standard)** | | | | | |
| | Efficiency / filter class / Eurovent | type | | 80-85 % / G3 | 80-85 % / G3 | 80-85 % / G3 |
| | Nb of filter | nb | | 4 | 4 | 4 |
| | Filter size | mm x mm | | 497 x 624 x 45 | 497 x 624 x 45 | 497 x 624 x 45 |
| ***Physical data*** | **Dimension** | | | | | |
| | Length (STD / GAZ) footprint without fresh air hood | mm | | 1850 | 1850 | 1850 |
| | Height | mm | | 1220 | 1220 | 1220 |
| | Width footprint without fresh air hood | mm | | 2200 | 2200 | 2200 |
| | Weight standard unit BCK | kg | | 626 | 630 | 638 |
| | Weight gas unit BGK | kg | S | 709 | 718 | 723 |
| | | kg | H | 730 | 739 | 744 |
| | **Acoustic at 100 Pa** | | | | | |
| | Outside sound power on standard unit (1) | dB(A) | | 81,2 | 81,4 | 81,8 |
| | Indoor blower outlet sound power on standard unit (1) | dB(A) | | 75,8 | 78,2 | 80,4 |
| | Outside sound power on GAS unit (1) | dB(A) | | 81,3 | 81,7 | 82,2 |
| | Indoor blower outlet sound power on GAS unit (1) | dB(A) | | 78,7 | 81,3 | 83,7 |
| | **Construction** | | | | | |
| | Casing material | | | Aluzinc | Aluzinc | Aluzinc |
| | Min Casing thickness | cm | | 0,10 | 0,10 | 0,10 |
| | Painting | type/RAL | | polyester / 9002 | polyester / 9002 | polyester / 9002 |
| | Insulation Class | type | | M0 | M0 | M0 |
| ***Operating limits*** | **Cooling mode operating limits** | | | | | |
| | Max. Outdoor temp. at Indoor 27∞C DB / 19∞C WB | ∞C | | 45 | 43 | 42 |
| | Min. Outdoor temp. at Indoor 20∞C DB | ∞C | | 13 | 10 | 10 |
| | Max. entering Indoor coil temp. at Outdoor 40∞C DB | ∞C | | 35 | 35 | 35 |
| | Min. entering Indoor coil temp. at Outdoor 35∞C DB | ∞C | | 20 | 20 | 20 |
| | **Heat pump mode operating limits** | | | | | |
| | Min. Outdoor temp. at Indoor 20∞C DB | ∞C | | -9 | -8 | -7 |
| | Min. entering Indoor coil temp. at Outdoor 7∞C DB | ∞C | | 8 | 8 | 8 |

(1) All data are at Eurovent condition at 400V/3Ph/50Hz+N.Gross cooling capacity with 35∞C DB outdoor, 27∞C indoor. Net heating capacity with 7∞C DB outdoor, 20∞ C indoor. (2)Gross COP = Gross capacity / unit power input (compressor + con. fan + supply fan + control) (3) Net COP cooling = (Gross cooling capacity - fan motor heat) / unit power input (compressor + con. fan + supply fan + control) (4)Net COP heating = (Gross heating capacity + fan motor heat) / unit power input (compressor + con. fan + supply fan + contol).

*Table 3.3*

| SIZE | | | 020 | 025 | 030 | 035 |
|---|---|---|---|---|---|---|
| **Nominal Airflow** | m3/h | | 3600 | 4500 | 5400 | 6300 |
| **Heating - electric** | | | | | | |
| Type of modulation | | | Staged S & M Triac on H | Staged S & M Triac on H | Staged S & M Triac on H | Staged S & M Triac on H |
| Heating capacity available | kW | S (2) | 12 | 12 | 24 | 24 |
| Heating capacity available | kW | M (2) | 24 | 24 | 36 | 36 |
| Heating capacity available | kW | H (2) | 36 | 36 | 48 | 48 |
| Amps S / M / H | A | | 17 / 33 / 50 | 17 / 33 / 50 | 33 / 50 / 67 | 33 / 50 / 67 |
| **Heating - hot watter coil** | | | | | | |
| Heating capacity available (1) | kW | S (2) | 23,6 | 26,6 | 34,2 | 37,1 |
| Heating capacity available (1) | kW | H (2) | 38,5 | 38,5 | 49,0 | 53,5 |
| **Filter** | | | | | | |
| Efficiency (gravimetric) / class EN779 / Eurovent | type | | 90% / G4 / EU4 | 90% / G4 / EU4 | 90% / G4 / EU4 | 90% / G4 / EU4 |
| Nb of filter | nb | | 2 | 2 | 2 + 2 | 2 + 2 |
| Filter size | mm | | 497x624x50 | 497x624x50 | 395x497x50 + 497x497x50 | 395x497x50 + 497x497x50 |
| Fire class | type | | M1 | M1 | M1 | M1 |

**Note :**
(1) Condition Entering water 90∞C, Leaving water 70∞C, Entering air 20∞C, S = Standart heat, H = High heat
(2) not available with BDK and BGK version
(3) All data at eurovent condition at 400V/3Ph/50Hz

Table 3.4

| SIZE | | | 040 | 045 | 050 |
|---|---|---|---|---|---|
| **Nominal Airflow** | m3/h | | 7200 | 8100 | 9000 |
| **Heating - electric** | | | | | |
| Type of modulation | | | Staged S & M Triac on H | Staged S & M Triac on H | Staged S & M Triac on H |
| Heating capacity available | kW | S (2) | 27 | 27 | 27 |
| Heating capacity available | kW | M (2) | 45 | 45 | 45 |
| Heating capacity available | kW | H (2) | 54 | 54 | 54 |
| Amps S / M / H | A | | 38 / 63 / 75 | 38 / 63 / 75 | 38 / 63 / 75 |
| **Heating - hot watter coil** | | | | | |
| Heating capacity available (1) | kW | S (2) | 46,8 | 49,8 | 52,6 |
| Heating capacity available (1) | kW | H (2) | 66,5 | 71,2 | 75,5 |
| **Filter** | | | | | |
| Efficiency (gravimetric) / class EN779 / Eurovent | type | | 90% / G4 / EU4 | 90% / G4 / EU4 | 90% / G4 / EU4 |
| Nb of filter | nb | | 4 | 4 | 4 |
| Filter size | mm | | 497x624x50 | 497x624x50 | 497x624x50 |
| Fire class | type | | M1 | M1 | M1 |

**Note :**
(1) Condition Entering water 90∞C, Leaving water 70∞C, Entering air 20∞C, S = Standart heat, H = High heat
(2) not available with BDK and BGK version
(3) All data at eurovent condition at 400V/3Ph/50Hz

### Step 1 : Input

Calculate the total and sensible loads of the area to be conditioned at design conditions.

A. Total cooling load in kW
B. Summer design condition
C. Air flow needed, percentage of fresh air and external static pressure (to overcome system losses, eg ductwork, diffusers.)
D. Accessories needed

### Step 2 : Cooling Capacity

A. Preselect the equipment using ëgeneral dataí in tables 3.1-3.2 to find units close to the required capacity.

B. Size the equipment using the ëcooling performanceí in tables 4.1-4.21 to match the cooling loads at design conditions.

C. To establish the net capacity, the supply fan motor power should be subtracted.
Review the indoor fan performance in tables 5.1-5.14 with the required air flow and static pressure. (Do not forget to add the pressure drop for accessories in table 5.19)

### Step 3 : Heating Capacity

A. Heat pump (*)
The selection procedure is the same as that undertaken for cooling.
Preselect equipment in ìGeneral dataî in tables 3.1-3.2.
Obtain the gross heating capacity at design condition (winter conditions) from tables 4.2-4.20.
Obtain the net capacity by adding the supply fan power (selected above) to the gross capacity.

B. Other Heating
Select hot water coil in tables 4.22-4.24, electric heater in table 4.25, and gas burner in table 4.26.

*(*) : This procedure doesn't take into account the impact of defrost in the heating performance. Depending on the outdoor moisture and temperature condition, the defrost operation might reduce the heat pump capacity.*

### Step 4 : Electrical data

Data from tables 6.1-6.2

A. Heat pump unit or humidity control pack.
Pa = P(Unit+Delta kit indoor optional+Extraction fan+Electric heater+gas)
Ia = Ia(Unit+Delta kit indoor optional+Extraction fan+Electric heater+gas)
Id/Ia(base) = Tables 6.1-6.2
Id=Ia(base) x Id/Ia(base)+Ia(Delta kit indoor optional+Extraction fan+Electric heater+gas)

B. Cooling unit
P1, Ia1 (summer operation) = P, Ia(Unit+Delta kit indoor optional+Extraction fan)
P2 (winter operation) = P(0,3+kit indoor std+Delta kit indoor optional+Extraction fan+Electric heater)
Ia2 (winter operation) = Ia(0,75+kit indoor std+Delta kit indoor optional+Extraction fan+Electric heater)

Pa = max (P1; P2)
Ia = max (Ia1;Ia2)

Id/Ia(base)=Tables 6.1-6.2
Id=Ia(base) x Id/Ia(base)+Ia(Delta kit indoor optional+Extraction fan+Electric heater+gas)

***EXAMPLE***

### *Step 1*

*A. 32kW*
*B. 35∞C outdoor temperature, 24∞C DB, 19∞C WB entering air condition (room return air)*
*C. 6 300 m³/h at 200Pa*
*D. Economiser and 36 kW electric heater.*

### *Step 2*

*A. Table 3.1 shows that BCK 035 will give 34,6 kW gross at nominal operating conditions.*

*B. Table 4.12 shows that a BCK 035 has a gross cooling capacity of 34,0 kW.*

*C. Table 5.19 shows that economiser and 36 kW electric heater will add 23 + 88 Pa to the external static specified, giving a total of 311 Pa.*
*The table 5.6 shows that fan drive kit ëk8í (2,2 kW) is required for a BCK 035 providing 6 300 m³/h at 300 Pa.*
*The net capacity is therefore 34,0 kW - 2,2 kW = 31,8 kW*

### *Step 4*

*A. Table 6.1 shows that an BCK 035 (cooling unit) With 36 kW Electric heater + KIT '8'*
*Ia1=36,4+2,3=38,7 A*
*P1=18,4+1,3=19,7 kW*

*Ia2=0,75+2,5+2,3+50=55,55 A*
*P2=0,3+1,4+1,3+36=39,0 kW*

*P2>P1 so P=P2=39,0 kW*
*Ia2>Ia1 so Ia=Ia2=55,5 A*

*Id/Ia=3,3*
*Id=36,4x3,3+2,3+50=172,4 A*

# COOLING CAPACITY AND ABSORBED POWER

**020 SINGLE CIRCUIT**

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.1*

| BHK / BDK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 45∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 2 900 m³/h | 16∞C | 21∞C | 18,3 | 12,2 | 4,4 | 17,5 | 11,8 | 5,0 | 16,7 | 11,5 | 5,6 | 15,9 | 11,1 | 6,2 | 14,9 | 10,7 | 7,0 |
| | | 24∞C | 18,6 | 15,1 | 4,5 | 17,8 | 14,7 | 5,0 | 17,0 | 14,3 | 5,6 | 16,1 | 13,9 | 6,3 | 15,2 | 13,4 | 7,0 |
| | | 27∞C | 18,9 | 17,8 | 4,5 | 18,1 | 17,5 | 5,0 | 17,3 | 17,1 | 5,6 | 16,5 | 16,5 | 6,3 | 15,7 | 15,7 | 7,0 |
| | | 30∞C | 19,7 | 19,7 | 4,5 | 19,0 | 19,0 | 5,1 | 18,3 | 18,3 | 5,7 | 17,5 | 17,5 | 6,4 | 16,7 | 16,7 | 7,1 |
| | 19∞C | 24∞C | 20,1 | 12,2 | 4,6 | 19,3 | 11,8 | 5,1 | 18,4 | 11,4 | 5,7 | 17,5 | 11,0 | 6,4 | 16,5 | 10,6 | 7,1 |
| | | 27∞C | 20,4 | 15,1 | 4,6 | 19,6 | 14,7 | 5,1 | 18,7 | 14,3 | 5,7 | 17,8 | 13,9 | 6,4 | 16,8 | 13,4 | 7,1 |
| | | 30∞C | 20,7 | 17,8 | 4,6 | 19,9 | 17,5 | 5,2 | 19,0 | 17,1 | 5,8 | 18,1 | 16,6 | 6,4 | 17,1 | 16,2 | 7,2 |
| | | 33∞C | 21,1 | 20,4 | 4,7 | 20,3 | 20,1 | 5,2 | 19,5 | 19,5 | 5,8 | 18,7 | 18,7 | 6,5 | 17,8 | 17,8 | 7,2 |
| | 22∞C | 27∞C | 22,0 | 12,1 | 4,7 | 21,1 | 11,7 | 5,3 | 20,2 | 11,3 | 5,9 | 19,2 | 10,9 | 6,5 | 18,2 | 10,6 | 7,2 |
| | | 30∞C | 22,3 | 15,0 | 4,7 | 21,4 | 14,6 | 5,3 | 20,5 | 14,2 | 5,9 | 19,5 | 13,9 | 6,5 | 18,4 | 13,5 | 7,3 |
| | | 33∞C | 22,7 | 17,7 | 4,8 | 21,8 | 17,4 | 5,3 | 20,8 | 17,0 | 5,9 | 19,8 | 16,6 | 6,6 | 18,8 | 16,2 | 7,3 |
| | | 36∞C | 23,1 | 20,3 | 4,8 | 22,2 | 20,0 | 5,3 | 21,2 | 19,7 | 5,9 | 20,2 | 19,3 | 6,6 | 19,1 | 18,9 | 7,4 |
| Nominal Air flow 3 600 m³/h | 16∞C | 21∞C | 19,2 | 13,4 | 4,5 | 18,4 | 13,1 | 5,0 | 17,6 | 12,7 | 5,6 | 16,6 | 12,3 | 6,3 | 15,6 | 11,8 | 7,0 |
| | | 24∞C | 19,6 | 16,8 | 4,5 | 18,7 | 16,4 | 5,1 | 17,9 | 16,0 | 5,7 | 16,9 | 15,5 | 6,3 | 15,9 | 15,0 | 7,1 |
| | | 27∞C | 20,0 | 20,0 | 4,6 | 19,3 | 19,3 | 5,1 | 18,5 | 18,5 | 5,7 | 17,7 | 17,7 | 6,4 | 16,8 | 16,8 | 7,1 |
| | | 30∞C | 21,1 | 21,1 | 4,7 | 20,4 | 20,4 | 5,2 | 19,6 | 19,6 | 5,8 | 18,8 | 18,8 | 6,5 | 17,9 | 17,9 | 7,2 |
| | 19∞C | 24∞C | 21,1 | 13,4 | 4,7 | 20,2 | 13,0 | 5,2 | 19,3 | 12,6 | 5,8 | 18,3 | 12,2 | 6,4 | 17,2 | 11,8 | 7,2 |
| | | 27∞C | 21,4 | 16,8 | 4,7 | 20,5 | 16,4 | 5,2 | **19,6** | **16,0** | **5,8** | 18,6 | 15,6 | 6,5 | 17,5 | 15,1 | 7,2 |
| | | 30∞C | 21,8 | 20,1 | 4,7 | 20,9 | 19,7 | 5,2 | 20,0 | 19,3 | 5,8 | 18,9 | 18,8 | 6,5 | 17,9 | 17,9 | 7,3 |
| | | 33∞C | 22,5 | 22,5 | 4,8 | 21,7 | 21,7 | 5,3 | 20,9 | 20,9 | 5,9 | 20,0 | 20,0 | 6,6 | 19,1 | 19,1 | 7,4 |
| | 22∞C | 27∞C | 23,1 | 13,3 | 4,8 | 22,1 | 12,9 | 5,3 | 21,1 | 12,5 | 5,9 | 20,1 | 12,2 | 6,6 | 19,0 | 11,8 | 7,3 |
| | | 30∞C | 23,4 | 16,7 | 4,8 | 22,5 | 16,3 | 5,4 | 21,5 | 16,0 | 5,9 | 20,4 | 15,6 | 6,6 | 19,3 | 15,1 | 7,3 |
| | | 33∞C | 23,8 | 20,0 | 4,9 | 22,9 | 19,6 | 5,4 | 21,8 | 19,3 | 6,0 | 20,8 | 18,8 | 6,7 | 19,6 | 18,4 | 7,4 |
| | | 36∞C | 24,2 | 23,1 | 4,9 | 23,3 | 22,8 | 5,4 | 22,3 | 22,3 | 6,0 | 21,4 | 21,4 | 6,7 | - | - | - |
| Maximum Air flow 4 300 m³/h | 16∞C | 21∞C | 19,9 | 14,5 | 4,6 | 19,1 | 14,1 | 5,1 | 18,1 | 13,8 | 5,7 | 17,1 | 13,3 | 6,3 | 16,1 | 12,9 | 7,1 |
| | | 24∞C | 20,3 | 18,4 | 4,6 | 19,4 | 18,0 | 5,1 | 18,5 | 17,5 | 5,7 | 17,5 | 17,0 | 6,4 | 16,3 | 16,3 | 7,1 |
| | | 27∞C | 21,1 | 21,1 | 4,6 | 20,3 | 20,3 | 5,2 | 19,4 | 19,4 | 5,8 | 18,6 | 18,6 | 6,5 | 17,6 | 17,6 | 7,2 |
| | | 30∞C | 22,3 | 22,3 | 4,8 | 21,5 | 21,5 | 5,3 | 20,7 | 20,7 | 5,9 | 19,8 | 19,8 | 6,6 | 18,9 | 18,9 | 7,3 |
| | 19∞C | 24∞C | 21,9 | 14,5 | 4,7 | 20,9 | 14,1 | 5,2 | 19,9 | 13,7 | 5,8 | 18,9 | 13,3 | 6,5 | 17,7 | 12,9 | 7,2 |
| | | 27∞C | 22,2 | 18,4 | 4,8 | 21,3 | 18,0 | 5,3 | 20,3 | 17,6 | 5,9 | 19,2 | 17,1 | 6,5 | 18,1 | 16,6 | 7,3 |
| | | 30∞C | 22,6 | 22,2 | 4,8 | 21,7 | 21,7 | 5,3 | 20,8 | 20,8 | 5,9 | 19,8 | 19,8 | 6,6 | 18,9 | 18,9 | 7,3 |
| | | 33∞C | 23,7 | 23,7 | 4,9 | 22,9 | 22,9 | 5,4 | 22,0 | 22,0 | 6,0 | 21,1 | 21,1 | 6,7 | 20,1 | 20,1 | 7,5 |
| | 22∞C | 27∞C | 23,9 | 14,4 | 4,9 | 22,9 | 14,0 | 5,4 | 21,8 | 13,6 | 6,0 | 20,7 | 13,3 | 6,6 | 19,5 | 12,9 | 7,4 |
| | | 30∞C | 24,3 | 18,3 | 4,9 | 23,3 | 18,0 | 5,4 | 22,2 | 17,6 | 6,0 | 21,1 | 17,1 | 6,7 | 19,9 | 16,7 | 7,4 |
| | | 33∞C | 24,7 | 22,2 | 4,9 | 23,7 | 21,8 | 5,5 | 22,6 | 21,4 | 6,1 | 21,5 | 20,9 | 6,7 | 20,2 | 20,2 | 7,5 |
| | | 36∞C | 25,3 | 25,3 | 5,0 | 24,4 | 24,4 | 5,5 | - | - | - | - | - | - | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1 kW

Condensing fan Pa (all) : 0,48 kW

# HEATING CAPACITY AND ABSORBED POWER

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.2*

| BHK / BDK | Outdoor air temp. | | 20∞C | | 15∞C | | 10∞C | | 7∞C | | 5∞C | | 0∞C | | -5∞C | | -10∞C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature - dry bulb | | | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA |
| Minimum air flow 2 900 m³/h | | 11∞C | 25,1 | 5,0 | 22,2 | 4,6 | 19,5 | 4,3 | 17,9 | 4,1 | 16,9 | 4,0 | 14,6 | 3,7 | 12,4 | 3,5 | - | - |
| | | 14∞C | 24,8 | 5,3 | 21,9 | 4,9 | 19,2 | 4,6 | 17,7 | 4,4 | 16,7 | 4,2 | 14,4 | 3,9 | 12,3 | 3,7 | 10,4 | 3,5 |
| | | 17∞C | 24,5 | 5,7 | 21,7 | 5,2 | 19,0 | 4,9 | 17,5 | 4,7 | 16,5 | 4,5 | 14,3 | 4,2 | 12,2 | 3,9 | 10,3 | 3,7 |
| | | 20∞C | 24,2 | 6,0 | 21,4 | 5,6 | 18,8 | 5,2 | 17,3 | 5,0 | 16,4 | 4,8 | 14,1 | 4,5 | 12,1 | 4,2 | 10,3 | 4,0 |
| | | 23∞C | 23,9 | 6,5 | 21,1 | 6,0 | 18,6 | 5,5 | 17,1 | 5,3 | 16,2 | 5,1 | 14,0 | 4,8 | 12,0 | 4,5 | 10,2 | 4,3 |
| | | 26∞C | 23,6 | 6,9 | 20,9 | 6,4 | 18,3 | 5,9 | 16,9 | 5,6 | 16,0 | 5,5 | 13,8 | 5,1 | 11,9 | 4,8 | 10,1 | 4,5 |
| Nominal air flow 3 600 m³/h | | 11∞C | 25,5 | 4,6 | 22,5 | 4,3 | 19,7 | 4,0 | 18,2 | 3,8 | 17,2 | 3,7 | 14,8 | 3,5 | - | - | - | - |
| | | 14∞C | 25,2 | 4,9 | 22,3 | 4,5 | 19,5 | 4,2 | 18,0 | 4,1 | 17,0 | 4,0 | 14,6 | 3,7 | 12,4 | 3,5 | - | - |
| | | 17∞C | 24,9 | 5,2 | 22,0 | 4,8 | 19,3 | 4,5 | 17,8 | 4,3 | 16,8 | 4,2 | 14,4 | 4,0 | 12,3 | 3,7 | 10,4 | 3,6 |
| | | 20∞C | 24,6 | 5,5 | 21,7 | 5,2 | 19,1 | 4,8 | **17,5** | **4,6** | 16,6 | 4,5 | 14,3 | 4,2 | 12,2 | 4,0 | 10,3 | 3,8 |
| | | 23∞C | 24,3 | 5,9 | 21,5 | 5,5 | 18,8 | 5,1 | 17,3 | 4,9 | 16,4 | 4,8 | 14,1 | 4,5 | 12,1 | 4,3 | 10,2 | 4,1 |
| | | 26∞C | 24,0 | 6,3 | 21,2 | 5,9 | 18,6 | 5,5 | 17,1 | 5,3 | 16,2 | 5,1 | 14,0 | 4,8 | 12,0 | 4,6 | 10,2 | 4,4 |
| Maximum air flow 4 300 m³/h | | 11∞C | 25,9 | 4,3 | 22,8 | 4,0 | 20,0 | 3,8 | 18,4 | 3,6 | 17,3 | 3,5 | - | - | - | - | - | - |
| | | 14∞C | 25,5 | 4,6 | 22,5 | 4,3 | 19,7 | 4,0 | 18,1 | 3,9 | 17,1 | 3,8 | 14,7 | 3,6 | - | - | - | - |
| | | 17∞C | 25,2 | 4,9 | 22,3 | 4,6 | 19,5 | 4,3 | 17,9 | 4,1 | 16,9 | 4,0 | 14,6 | 3,8 | 12,4 | 3,6 | 10,4 | 3,5 |
| | | 20∞C | 24,9 | 5,2 | 22,0 | 4,9 | 19,3 | 4,6 | 17,7 | 4,4 | 16,7 | 4,3 | 14,4 | 4,1 | 12,3 | 3,9 | 10,3 | 3,7 |
| | | 23∞C | 24,6 | 5,5 | 21,7 | 5,2 | 19,0 | 4,9 | 17,5 | 4,7 | 16,5 | 4,6 | 14,2 | 4,4 | 12,1 | 4,2 | 10,2 | 4,0 |
| | | 26∞C | 24,3 | 5,9 | 21,5 | 5,5 | 18,8 | 5,2 | 17,3 | 5,0 | 16,3 | 4,9 | 14,1 | 4,7 | 12,0 | 4,5 | 10,1 | 4,4 |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1 kW

Condensing fan Pa (all) : 0,48 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**020 SINGLE CIRCUIT**

***BCK*** = Cooling only rooftop ***BGK*** = Cooling only rooftop with gas fired heater

*Table 4.3*

| BCK / BGK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 45∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 2 900 m³/h | 16∞C | 21∞C | 18,4 | 12,3 | 4,4 | 17,7 | 11,9 | 5,0 | 16,9 | 11,5 | 5,6 | 16,1 | 11,2 | 6,3 | 15,3 | 10,8 | 7,0 |
| | | 24∞C | 18,7 | 15,1 | 4,5 | 18,0 | 14,8 | 5,0 | 17,3 | 14,4 | 5,6 | 16,4 | 14,0 | 6,3 | 15,5 | 13,5 | 7,0 |
| | | 27∞C | 19,1 | 17,9 | 4,5 | 18,4 | 17,5 | 5,0 | 17,6 | 17,1 | 5,6 | 16,7 | 16,7 | 6,3 | 16,0 | 16,0 | 7,0 |
| | | 30∞C | 19,8 | 19,8 | 4,5 | 19,2 | 19,2 | 5,1 | 18,5 | 18,5 | 5,7 | 17,7 | 17,7 | 6,4 | 17,0 | 17,0 | 7,1 |
| | 19∞C | 24∞C | 20,2 | 12,2 | 4,6 | 19,4 | 11,8 | 5,1 | 18,6 | 11,5 | 5,7 | 17,7 | 11,1 | 6,4 | 16,8 | 10,7 | 7,1 |
| | | 27∞C | 20,5 | 15,1 | 4,6 | 19,7 | 14,7 | 5,1 | 18,9 | 14,3 | 5,7 | 18,0 | 14,0 | 6,4 | 17,1 | 13,5 | 7,1 |
| | | 30∞C | 20,9 | 17,8 | 4,6 | 20,1 | 17,5 | 5,2 | 19,3 | 17,1 | 5,8 | 18,4 | 16,7 | 6,4 | 17,4 | 16,2 | 7,2 |
| | | 33∞C | 21,3 | 20,5 | 4,7 | 20,5 | 20,1 | 5,2 | 19,7 | 19,7 | 5,8 | 18,9 | 18,9 | 6,5 | 18,1 | 18,1 | 7,2 |
| | 22∞C | 27∞C | 22,1 | 12,2 | 4,7 | 21,2 | 11,8 | 5,3 | 20,4 | 11,4 | 5,9 | 19,4 | 11,0 | 6,5 | 18,4 | 10,7 | 7,3 |
| | | 30∞C | 22,4 | 15,0 | 4,7 | 21,6 | 14,7 | 5,3 | 20,7 | 14,3 | 5,9 | 19,8 | 13,9 | 6,5 | 18,8 | 13,5 | 7,3 |
| | | 33∞C | 22,8 | 17,8 | 4,8 | 22,0 | 17,4 | 5,3 | 21,1 | 17,0 | 5,9 | 20,1 | 16,7 | 6,6 | 19,1 | 16,3 | 7,3 |
| | | 36∞C | 23,2 | 20,3 | 4,8 | 22,4 | 20,0 | 5,3 | 21,4 | 19,7 | 5,9 | 20,5 | 19,3 | 6,6 | 19,5 | 18,9 | 7,4 |
| Nominal Air flow 3 600 m³/h | 16∞C | 21∞C | 19,3 | 13,5 | 4,5 | 18,6 | 13,1 | 5,0 | 17,7 | 12,7 | 5,6 | 16,9 | 12,3 | 6,3 | 15,9 | 11,9 | 7,0 |
| | | 24∞C | 19,7 | 16,8 | 4,5 | 18,9 | 16,4 | 5,1 | 18,1 | 16,0 | 5,7 | 17,2 | 15,6 | 6,3 | 16,3 | 15,1 | 7,1 |
| | | 27∞C | 20,1 | 20,1 | 4,6 | 19,4 | 19,4 | 5,1 | 18,7 | 18,7 | 5,7 | 17,9 | 17,9 | 6,4 | 17,1 | 17,1 | 7,1 |
| | | 30∞C | 21,2 | 21,2 | 4,7 | 20,5 | 20,5 | 5,2 | 19,8 | 19,8 | 5,8 | 19,0 | 19,0 | 6,5 | 18,2 | 18,2 | 7,2 |
| | 19∞C | 24∞C | 21,2 | 13,4 | 4,7 | 20,3 | 13,0 | 5,2 | 19,5 | 12,6 | 5,8 | 18,5 | 12,3 | 6,5 | 17,5 | 11,9 | 7,2 |
| | | 27∞C | 21,6 | 16,8 | 4,7 | 20,7 | 16,4 | 5,2 | **19,8** | **16,0** | **5,8** | 18,9 | 15,6 | 6,5 | 17,9 | 15,1 | 7,2 |
| | | 30∞C | 22,0 | 20,0 | 4,7 | 21,1 | 19,7 | 5,2 | 20,2 | 19,2 | 5,9 | 19,3 | 18,8 | 6,5 | 18,2 | 18,2 | 7,3 |
| | | 33∞C | 22,6 | 22,6 | 4,8 | 21,9 | 21,9 | 5,3 | 21,1 | 21,1 | 5,9 | 20,2 | 20,2 | 6,6 | 19,3 | 19,3 | 7,4 |
| | 22∞C | 27∞C | 23,1 | 13,3 | 4,8 | 22,2 | 12,9 | 5,3 | 21,3 | 12,6 | 5,9 | 20,3 | 12,2 | 6,6 | 19,2 | 11,9 | 7,3 |
| | | 30∞C | 23,5 | 16,7 | 4,8 | 22,6 | 16,3 | 5,4 | 21,7 | 16,0 | 6,0 | 20,7 | 15,6 | 6,6 | 19,6 | 15,2 | 7,4 |
| | | 33∞C | 24,0 | 20,0 | 4,9 | 23,1 | 19,6 | 5,4 | 22,1 | 19,2 | 6,0 | 21,1 | 18,8 | 6,7 | 20,0 | 18,4 | 7,4 |
| | | 36∞C | 24,4 | 23,1 | 4,9 | 23,5 | 22,8 | 5,4 | 22,5 | 22,4 | 6,0 | 21,6 | 21,6 | 6,7 | 20,6 | 20,6 | 7,5 |
| Maximum Air flow 4 300 m³/h | 16∞C | 21∞C | 20,0 | 14,5 | 4,6 | 19,2 | 14,1 | 5,1 | 18,3 | 13,8 | 5,7 | 17,4 | 13,3 | 6,3 | 16,4 | 12,9 | 7,1 |
| | | 24∞C | 20,5 | 18,3 | 4,6 | 19,6 | 17,9 | 5,1 | 18,7 | 17,5 | 5,7 | 17,8 | 17,0 | 6,4 | 16,8 | 16,5 | 7,1 |
| | | 27∞C | 21,2 | 21,2 | 4,6 | 20,4 | 20,4 | 5,2 | 19,6 | 19,6 | 5,8 | 18,8 | 18,8 | 6,5 | 17,9 | 17,9 | 7,2 |
| | | 30∞C | 22,4 | 22,4 | 4,8 | 21,6 | 21,6 | 5,3 | 20,9 | 20,9 | 5,9 | 20,0 | 20,0 | 6,6 | 19,2 | 19,2 | 7,3 |
| | 19∞C | 24∞C | 21,9 | 14,4 | 4,7 | 21,0 | 14,1 | 5,2 | 20,1 | 13,7 | 5,8 | 19,1 | 13,3 | 6,5 | 18,0 | 12,9 | 7,2 |
| | | 27∞C | 22,4 | 18,3 | 4,7 | 21,5 | 17,9 | 5,3 | 20,5 | 17,5 | 5,9 | 19,5 | 17,1 | 6,5 | 18,4 | 16,6 | 7,3 |
| | | 30∞C | 22,8 | 22,1 | 4,8 | 21,9 | 21,7 | 5,3 | 21,0 | 21,0 | 5,9 | 20,1 | 20,1 | 6,6 | 19,1 | 19,1 | 7,4 |
| | | 33∞C | 23,8 | 23,8 | 4,9 | 23,0 | 23,0 | 5,4 | 22,2 | 22,2 | 6,0 | 21,3 | 21,3 | 6,7 | 20,4 | 20,4 | 7,5 |
| | 22∞C | 27∞C | 23,9 | 14,4 | 4,9 | 23,0 | 14,0 | 5,4 | 22,0 | 13,6 | 6,0 | 20,9 | 13,3 | 6,6 | 19,8 | 12,9 | 7,4 |
| | | 30∞C | 24,4 | 18,3 | 4,9 | 23,4 | 17,9 | 5,4 | 22,4 | 17,5 | 6,0 | 21,3 | 17,1 | 6,7 | 20,2 | 16,7 | 7,4 |
| | | 33∞C | 24,9 | 22,1 | 4,9 | 23,9 | 21,7 | 5,5 | 22,9 | 21,3 | 6,1 | 21,8 | 20,9 | 6,7 | 20,7 | 20,4 | 7,5 |
| | | 36∞C | 25,4 | 25,4 | 5,0 | 24,6 | 24,6 | 5,5 | 23,7 | 23,7 | 6,1 | - | - | - | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1 kW

Condensing fan Pa (all) : 0,48 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**025 SINGLE CIRCUIT**

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.4*

| BHK BDK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 43∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 3 600 m³/h | 16∞C | 21∞C | 22,5 | 15,0 | 6,8 | 21,6 | 14,5 | 7,5 | 20,6 | 14,0 | 8,4 | 19,6 | 13,6 | 9,3 | 19,0 | 13,3 | 9,8 |
| | | 24∞C | 22,9 | 18,5 | 6,8 | 21,9 | 18,0 | 7,5 | 20,9 | 17,5 | 8,4 | 19,9 | 17,0 | 9,3 | 19,3 | 16,7 | 9,9 |
| | | 27∞C | 23,2 | 21,8 | 6,8 | 22,2 | 21,3 | 7,6 | 21,2 | 20,8 | 8,4 | 20,2 | 20,2 | 9,3 | 19,7 | 19,7 | 9,9 |
| | | 30∞C | 24,1 | 24,1 | 6,9 | 23,2 | 23,2 | 7,7 | 22,3 | 22,3 | 8,5 | 21,4 | 21,4 | 9,5 | 20,9 | 20,9 | 10,0 |
| | 19∞C | 24∞C | 24,6 | 14,9 | 7,0 | 23,6 | 14,4 | 7,7 | 22,5 | 13,9 | 8,6 | 21,4 | 13,5 | 9,5 | 20,8 | 13,2 | 10,1 |
| | | 27∞C | 25,0 | 18,4 | 7,0 | 23,9 | 17,9 | 7,7 | 22,8 | 17,4 | 8,6 | 21,8 | 17,0 | 9,5 | 21,1 | 16,7 | 10,1 |
| | | 30∞C | 25,4 | 21,8 | 7,0 | 24,3 | 21,3 | 7,8 | 23,2 | 20,8 | 8,6 | 22,1 | 20,3 | 9,5 | 21,4 | 20,0 | 10,1 |
| | | 33∞C | 25,8 | 24,9 | 7,0 | 24,7 | 24,4 | 7,8 | 23,7 | 23,7 | 8,7 | 22,8 | 22,8 | 9,6 | 22,2 | 22,2 | 10,2 |
| | 22∞C | 27∞C | 26,8 | 14,7 | 7,1 | 25,7 | 14,3 | 7,9 | 24,6 | 13,8 | 8,7 | 23,4 | 13,4 | 9,7 | 22,7 | 13,1 | 10,3 |
| | | 30∞C | 27,2 | 18,3 | 7,2 | 26,1 | 17,8 | 7,9 | 24,9 | 17,3 | 8,8 | 23,8 | 16,9 | 9,7 | 23,1 | 16,6 | 10,3 |
| | | 33∞C | 27,6 | 21,6 | 7,2 | 26,5 | 21,2 | 7,9 | 25,3 | 20,7 | 8,8 | 24,1 | 20,2 | 9,7 | 23,4 | 19,9 | 10,3 |
| | | 36∞C | 28,1 | 24,7 | 7,2 | 26,9 | 24,3 | 8,0 | 25,7 | 23,8 | 8,8 | 24,5 | 23,4 | 9,8 | - | - | - |
| Nominal Air flow 4 500 m³/h | 16∞C | 21∞C | 23,6 | 16,5 | 6,9 | 22,6 | 16,0 | 7,6 | 21,5 | 15,5 | 8,4 | 20,5 | 15,0 | 9,4 | 19,8 | 14,8 | 9,9 |
| | | 24∞C | 24,0 | 20,6 | 6,9 | 22,9 | 20,0 | 7,6 | 21,9 | 19,5 | 8,5 | 20,8 | 19,0 | 9,4 | 20,1 | 18,6 | 10,0 |
| | | 27∞C | 24,5 | 24,5 | 6,9 | 23,5 | 23,5 | 7,7 | 22,5 | 22,5 | 8,5 | 21,6 | 21,6 | 9,5 | 21,0 | 21,0 | 10,1 |
| | | 30∞C | 25,7 | 25,7 | 7,0 | 24,8 | 24,8 | 7,8 | 23,8 | 23,8 | 8,7 | 22,9 | 22,9 | 9,6 | 22,3 | 22,3 | 10,2 |
| | 19∞C | 24∞C | 25,8 | 16,3 | 7,1 | 24,7 | 15,8 | 7,8 | 23,5 | 15,4 | 8,7 | 22,4 | 14,9 | 9,6 | 21,7 | 14,7 | 10,2 |
| | | 27∞C | 26,2 | 20,5 | 7,1 | 25,0 | 20,0 | 7,8 | **23,9** | **19,5** | **8,7** | 22,7 | 19,0 | 9,6 | 22,0 | 18,7 | 10,2 |
| | | 30∞C | 26,6 | 24,5 | 7,1 | 25,4 | 23,9 | 7,9 | 24,3 | 23,4 | 8,7 | 23,1 | 22,9 | 9,7 | 22,4 | 22,4 | 10,3 |
| | | 33∞C | 27,4 | 27,4 | 7,2 | 26,3 | 26,3 | 7,9 | 25,3 | 25,3 | 8,8 | 24,3 | 24,3 | 9,8 | - | - | - |
| | 22∞C | 27∞C | 28,0 | 16,2 | 7,2 | 26,9 | 15,7 | 8,0 | 25,7 | 15,2 | 8,8 | 24,4 | 14,8 | 9,8 | - | - | - |
| | | 30∞C | 28,5 | 20,4 | 7,3 | 27,3 | 19,9 | 8,0 | 26,1 | 19,4 | 8,9 | 24,8 | 18,9 | 9,8 | - | - | - |
| | | 33∞C | 28,9 | 24,4 | 7,3 | 27,7 | 23,9 | 8,0 | 26,5 | 23,4 | 8,9 | 25,2 | 22,9 | 9,9 | - | - | - |
| | | 36∞C | 29,4 | 28,1 | 7,3 | 28,2 | 27,6 | 8,1 | 27,0 | 27,0 | 8,9 | 25,8 | 25,8 | 9,9 | - | - | - |
| Maximum Air flow 5 400 m³/h | 16∞C | 21∞C | 24,5 | 17,8 | 6,9 | 23,3 | 17,3 | 7,7 | 22,2 | 16,8 | 8,5 | 21,1 | 16,3 | 9,4 | 20,4 | 16,0 | 10,0 |
| | | 24∞C | 24,9 | 22,5 | 7,0 | 23,7 | 21,9 | 7,7 | 22,6 | 21,4 | 8,5 | 21,4 | 20,8 | 9,5 | 20,7 | 20,4 | 10,1 |
| | | 27∞C | 25,7 | 25,7 | 7,0 | 24,7 | 24,7 | 7,8 | 23,7 | 23,7 | 8,6 | 22,7 | 22,7 | 9,6 | 22,0 | 22,0 | 10,2 |
| | | 30∞C | 27,1 | 27,1 | 7,2 | 26,1 | 26,1 | 7,9 | 25,1 | 25,1 | 8,8 | 24,1 | 24,1 | 9,7 | 23,5 | 23,5 | 10,3 |
| | 19∞C | 24∞C | 26,7 | 17,6 | 7,1 | 25,5 | 17,2 | 7,9 | 24,3 | 16,7 | 8,7 | 23,1 | 16,3 | 9,6 | 22,3 | 16,0 | 10,2 |
| | | 27∞C | 27,1 | 22,4 | 7,1 | 25,9 | 21,9 | 7,9 | 24,7 | 21,4 | 8,7 | 23,4 | 20,9 | 9,7 | 22,7 | 20,5 | 10,3 |
| | | 30∞C | 27,6 | 27,1 | 7,2 | 26,3 | 26,3 | 7,9 | 25,2 | 25,2 | 8,8 | 24,1 | 24,1 | 9,8 | 23,5 | 23,5 | 10,4 |
| | | 33∞C | 28,8 | 28,8 | 7,3 | 27,7 | 27,7 | 8,1 | 26,6 | 26,6 | 8,9 | 25,5 | 25,5 | 9,9 | - | - | - |
| | 22∞C | 27∞C | 29,0 | 17,5 | 7,3 | 27,7 | 17,0 | 8,0 | 26,5 | 16,6 | 8,9 | 25,2 | 16,2 | 9,8 | - | - | - |
| | | 30∞C | 29,5 | 22,3 | 7,3 | 28,2 | 21,8 | 8,1 | 26,9 | 21,4 | 8,9 | 25,6 | 20,9 | 9,9 | - | - | - |
| | | 33∞C | 30,0 | 27,0 | 7,4 | 28,7 | 26,5 | 8,1 | 27,3 | 25,9 | 9,0 | 26,0 | 25,4 | 10,0 | - | - | - |
| | | 36∞C | 30,6 | 30,6 | 7,4 | 29,5 | 29,5 | 8,2 | 28,3 | 28,3 | 9,1 | 27,1 | 27,1 | 10,0 | - | - | - |

Control Pa (BC/BH) : 0,7 kW Control Pa (BG/BD) : 0,9 kW Condensing fan Pa (all) : 0,48 kW
Supply fan Pa (BC/BH) : 1,00 kW Supply fan Pa (BG/BD): 1,45 kW

# HEATING CAPACITY AND ABSORBED POWER

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.5*

| BHK BDK | Outdoor air temp. | | 20∞C | | 15∞C | | 10∞C | | 7∞C | | 5∞C | | 0∞C | | -5∞C | | -7∞C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA |
| Minimum air flow 3 600 m³/h | Entering air temperature - dry bulb | 11∞C | 31,4 | 7,2 | 27,9 | 6,8 | 24,7 | 6,4 | 22,9 | 6,2 | 21,7 | 6,0 | 19,0 | 5,7 | 16,5 | 5,4 | - | - |
| | | 14∞C | 31,1 | 7,6 | 27,6 | 7,2 | 24,5 | 6,8 | 22,7 | 6,6 | 21,5 | 6,4 | 18,8 | 6,0 | 16,4 | 5,7 | 15,5 | 5,6 |
| | | 17∞C | 30,7 | 8,1 | 27,4 | 7,7 | 24,2 | 7,2 | 22,5 | 7,0 | 21,3 | 6,8 | 18,7 | 6,4 | 16,3 | 6,1 | 15,4 | 5,9 |
| | | 20∞C | 30,4 | 8,7 | 27,1 | 8,1 | 24,0 | 7,7 | 22,3 | 7,4 | 21,2 | 7,2 | 18,6 | 6,8 | 16,2 | 6,4 | 15,4 | 6,3 |
| | | 23∞C | 30,1 | 9,2 | 26,8 | 8,7 | 23,8 | 8,1 | 22,1 | 7,8 | 21,0 | 7,6 | 18,5 | 7,2 | 16,2 | 6,8 | 15,3 | 6,6 |
| | | 26∞C | 29,8 | 9,8 | 26,6 | 9,2 | 23,6 | 8,6 | 21,9 | 8,3 | 20,8 | 8,1 | 18,3 | 7,6 | 16,1 | 7,1 | 15,3 | 7,0 |
| Nominal air flow 4 500 m³/h | | 11∞C | 31,8 | 6,6 | 28,3 | 6,3 | 25,0 | 5,9 | 23,2 | 5,7 | 22,0 | 5,6 | 19,2 | 5,3 | - | - | - | - |
| | | 14∞C | 31,5 | 7,0 | 28,0 | 6,7 | 24,8 | 6,3 | 22,9 | 6,1 | 21,8 | 6,0 | 19,0 | 5,7 | 16,5 | 5,4 | 15,6 | 5,3 |
| | | 17∞C | 31,2 | 7,5 | 27,7 | 7,1 | 24,5 | 6,7 | 22,7 | 6,5 | 21,6 | 6,3 | 18,9 | 6,0 | 16,4 | 5,7 | 15,5 | 5,6 |
| | | 20∞C | 30,8 | 7,9 | 27,4 | 7,5 | 24,3 | 7,1 | **22,5** | **6,9** | 21,4 | 6,7 | 18,7 | 6,4 | 16,3 | 6,1 | 15,4 | 6,0 |
| | | 23∞C | 30,5 | 8,4 | 27,2 | 8,0 | 24,1 | 7,5 | 22,3 | 7,3 | 21,2 | 7,1 | 18,6 | 6,8 | 16,2 | 6,5 | 15,4 | 6,3 |
| | | 26∞C | 30,2 | 9,0 | 26,9 | 8,5 | 23,8 | 8,0 | 22,1 | 7,7 | 21,0 | 7,6 | 18,5 | 7,2 | 16,2 | 6,8 | 15,3 | 6,7 |
| Maximum air flow 5 400 m³/h | | 11∞C | 32,2 | 6,2 | 28,6 | 5,9 | 25,3 | 5,6 | 23,4 | 5,5 | 22,2 | 5,3 | - | - | - | - | - | - |
| | | 14∞C | 31,9 | 6,6 | 28,3 | 6,3 | 25,0 | 6,0 | 23,1 | 5,8 | 22,0 | 5,7 | 19,1 | 5,4 | 16,6 | 5,2 | 15,6 | 5,1 |
| | | 17∞C | 31,5 | 7,0 | 28,0 | 6,7 | 24,8 | 6,3 | 22,9 | 6,2 | 21,8 | 6,1 | 19,0 | 5,8 | 16,5 | 5,5 | 15,5 | 5,5 |
| | | 20∞C | 31,2 | 7,4 | 27,7 | 7,1 | 24,5 | 6,7 | 22,7 | 6,6 | 21,6 | 6,4 | 18,8 | 6,2 | 16,4 | 5,9 | 15,5 | 5,8 |
| | | 23∞C | 30,9 | 7,9 | 27,5 | 7,5 | 24,3 | 7,2 | 22,5 | 7,0 | 21,4 | 6,8 | 18,7 | 6,5 | 16,3 | 6,3 | 15,4 | 6,2 |
| | | 26∞C | 30,5 | 8,4 | 27,2 | 8,0 | 24,1 | 7,6 | 22,3 | 7,4 | 21,2 | 7,3 | 18,6 | 7,0 | 16,2 | 6,7 | 15,3 | 6,6 |

Control Pa (BC/BH) : 0,7 kW Control Pa (BG/BD) : 0,9 kW Condensing fan Pa (all) : 0,48 kW
Supply fan Pa (BC/BH) : 1,00 kW Supply fan Pa (BG/BD): 1,45 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**025 SINGLE CIRCUIT**

***BCK*** = Cooling only rooftop ***BGK*** = Cooling only rooftop with gas fired heater

*Table 4.6*

| BCK / BGK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 43∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 3 600 m³/h | 16∞C | 21∞C | 22,8 | 15,1 | 6,8 | 21,8 | 14,6 | 7,5 | 20,9 | 14,2 | 8,4 | 20,0 | 13,8 | 9,3 | 19,4 | 13,5 | 9,9 |
| | | 24∞C | 23,1 | 18,6 | 6,8 | 22,2 | 18,1 | 7,6 | 21,3 | 17,6 | 8,4 | 20,3 | 17,1 | 9,3 | 19,8 | 16,9 | 9,9 |
| | | 27∞C | 23,5 | 21,9 | 6,8 | 22,6 | 21,4 | 7,6 | 21,7 | 20,9 | 8,4 | 20,7 | 20,4 | 9,4 | 20,1 | 20,1 | 9,9 |
| | | 30∞C | 24,3 | 24,3 | 6,9 | 23,4 | 23,4 | 7,7 | 22,6 | 22,6 | 8,5 | 21,8 | 21,8 | 9,5 | 21,3 | 21,3 | 10,1 |
| | 19∞C | 24∞C | 24,8 | 15,0 | 7,0 | 23,8 | 14,5 | 7,7 | 22,8 | 14,1 | 8,6 | 21,8 | 13,6 | 9,5 | 21,2 | 13,4 | 10,1 |
| | | 27∞C | 25,2 | 18,5 | 7,0 | 24,2 | 18,0 | 7,8 | 23,2 | 17,5 | 8,6 | 22,2 | 17,1 | 9,5 | 21,6 | 16,8 | 10,1 |
| | | 30∞C | 25,6 | 21,8 | 7,0 | 24,6 | 21,3 | 7,8 | 23,6 | 20,9 | 8,6 | 22,6 | 20,4 | 9,6 | 22,0 | 20,1 | 10,2 |
| | | 33∞C | 26,1 | 24,9 | 7,1 | 25,1 | 24,5 | 7,8 | 24,0 | 24,0 | 8,7 | 23,1 | 23,1 | 9,6 | 22,6 | 22,6 | 10,3 |
| | 22∞C | 27∞C | 27,0 | 14,9 | 7,2 | 25,9 | 14,4 | 7,9 | 24,9 | 13,9 | 8,8 | 23,8 | 13,5 | 9,7 | 23,2 | 13,3 | 10,3 |
| | | 30∞C | 27,4 | 18,4 | 7,2 | 26,4 | 17,9 | 7,9 | 25,3 | 17,4 | 8,8 | 24,2 | 17,0 | 9,7 | 23,6 | 16,7 | 10,3 |
| | | 33∞C | 27,9 | 21,7 | 7,2 | 26,8 | 21,2 | 8,0 | 25,7 | 20,8 | 8,8 | 24,6 | 20,3 | 9,8 | - | - | - |
| | | 36∞C | 28,3 | 24,8 | 7,2 | 27,2 | 24,3 | 8,0 | 26,1 | 23,9 | 8,9 | 25,0 | 23,5 | 9,8 | - | - | - |
| Nominal Air flow 4 500 m³/h | 16∞C | 21∞C | 23,9 | 16,5 | 6,9 | 22,9 | 16,1 | 7,6 | 21,9 | 15,6 | 8,5 | 20,9 | 15,2 | 9,4 | 20,3 | 14,9 | 9,9 |
| | | 24∞C | 24,3 | 20,6 | 6,9 | 23,3 | 20,1 | 7,7 | 22,3 | 19,6 | 8,5 | 21,3 | 19,1 | 9,4 | 20,7 | 18,8 | 10,0 |
| | | 27∞C | 24,7 | 24,5 | 6,9 | 23,8 | 23,8 | 7,7 | 22,9 | 22,9 | 8,5 | 22,0 | 22,0 | 9,5 | 21,4 | 21,4 | 10,1 |
| | | 30∞C | 25,9 | 25,9 | 7,1 | 25,0 | 25,0 | 7,8 | 24,1 | 24,1 | 8,7 | 23,3 | 23,3 | 9,6 | 22,7 | 22,7 | 10,2 |
| | 19∞C | 24∞C | 26,0 | 16,4 | 7,1 | 24,9 | 15,9 | 7,8 | 23,9 | 15,5 | 8,7 | 22,8 | 15,1 | 9,6 | 22,2 | 14,8 | 10,2 |
| | | 27∞C | 26,4 | 20,5 | 7,1 | 25,4 | 20,0 | 7,9 | **24,3** | **19,5** | **8,7** | 23,2 | 19,1 | 9,6 | 22,6 | 18,8 | 10,2 |
| | | 30∞C | 26,9 | 24,4 | 7,1 | 25,8 | 23,9 | 7,9 | 24,7 | 23,4 | 8,8 | 23,7 | 22,9 | 9,7 | 23,0 | 22,6 | 10,3 |
| | | 33∞C | 27,6 | 27,6 | 7,2 | 26,6 | 26,6 | 8,0 | 25,6 | 25,6 | 8,8 | 24,7 | 24,7 | 9,8 | - | - | - |
| | 22∞C | 27∞C | 28,2 | 16,2 | 7,2 | 27,1 | 15,8 | 8,0 | 26,0 | 15,4 | 8,8 | 24,8 | 14,9 | 9,8 | - | - | - |
| | | 30∞C | 28,7 | 20,4 | 7,3 | 27,6 | 19,9 | 8,0 | 26,4 | 19,5 | 8,9 | 25,3 | 19,0 | 9,8 | - | - | - |
| | | 33∞C | 29,2 | 24,3 | 7,3 | 28,1 | 23,9 | 8,1 | 26,9 | 23,4 | 8,9 | 25,7 | 22,9 | 9,9 | - | - | - |
| | | 36∞C | 29,7 | 28,1 | 7,4 | 28,6 | 27,6 | 8,1 | 27,4 | 27,2 | 9,0 | 26,3 | 26,3 | 9,9 | - | - | - |
| Maximum Air flow 5 400 m³/h | 16∞C | 21∞C | 24,7 | 17,8 | 6,9 | 23,6 | 17,3 | 7,7 | 22,5 | 16,9 | 8,5 | 21,5 | 16,4 | 9,4 | 20,9 | 16,1 | 10,0 |
| | | 24∞C | 25,1 | 22,4 | 7,0 | 24,1 | 21,9 | 7,7 | 23,0 | 21,4 | 8,6 | 21,9 | 20,8 | 9,5 | 21,3 | 20,5 | 10,1 |
| | | 27∞C | 25,9 | 25,9 | 7,0 | 24,9 | 24,9 | 7,8 | 24,0 | 24,0 | 8,7 | 23,0 | 23,0 | 9,6 | 22,4 | 22,4 | 10,2 |
| | | 30∞C | 27,3 | 27,3 | 7,2 | 26,3 | 26,3 | 7,9 | 25,4 | 25,4 | 8,8 | 24,4 | 24,4 | 9,8 | 23,9 | 23,9 | 10,4 |
| | 19∞C | 24∞C | 26,8 | 17,6 | 7,1 | 25,7 | 17,2 | 7,9 | 24,6 | 16,8 | 8,7 | 23,5 | 16,3 | 9,7 | 22,8 | 16,1 | 10,3 |
| | | 27∞C | 27,3 | 22,4 | 7,2 | 26,2 | 21,9 | 7,9 | 25,1 | 21,4 | 8,8 | 23,9 | 20,9 | 9,7 | 23,2 | 20,6 | 10,3 |
| | | 30∞C | 27,9 | 26,9 | 7,2 | 26,7 | 26,4 | 8,0 | 25,5 | 25,5 | 8,8 | 24,5 | 24,5 | 9,8 | - | - | - |
| | | 33∞C | 29,0 | 29,0 | 7,3 | 27,9 | 27,9 | 8,1 | 26,9 | 26,9 | 9,0 | 25,9 | 25,9 | 9,9 | - | - | - |
| | 22∞C | 27∞C | 29,2 | 17,5 | 7,3 | 28,0 | 17,1 | 8,1 | 26,8 | 16,7 | 8,9 | 25,6 | 16,2 | 9,9 | - | - | - |
| | | 30∞C | 29,7 | 22,3 | 7,3 | 28,5 | 21,8 | 8,1 | 27,3 | 21,3 | 9,0 | 26,1 | 20,9 | 9,9 | - | - | - |
| | | 33∞C | 30,2 | 26,9 | 7,4 | 29,0 | 26,4 | 8,2 | 27,8 | 25,9 | 9,0 | 26,6 | 25,4 | 10,0 | - | - | - |
| | | 36∞C | 30,9 | 30,9 | 7,4 | 29,7 | 29,7 | 8,2 | 28,6 | 28,6 | 9,1 | 27,5 | 27,5 | 10,1 | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,00 kW
Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1,45 kW
Condensing fan Pa (all) : 0,48 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**030 DOUBLE CIRCUIT**

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.7*

| BHK / BDK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 44∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 4 300 m³/h | 16∞C | 21∞C | 28,9 | 18,8 | 8,3 | 27,7 | 18,2 | 9,3 | 26,5 | 17,6 | 10,4 | 25,2 | 17,0 | 11,6 | 24,2 | 16,5 | 12,6 |
| | | 24∞C | 29,4 | 23,0 | 8,3 | 28,1 | 22,3 | 9,3 | 26,8 | 21,7 | 10,4 | 25,6 | 21,1 | 11,6 | 24,5 | 20,6 | 12,6 |
| | | 27∞C | 29,8 | 26,9 | 8,4 | 28,5 | 26,3 | 9,3 | 27,2 | 25,7 | 10,4 | 25,9 | 25,0 | 11,7 | 24,9 | 24,4 | 12,7 |
| | | 30∞C | 30,5 | 30,5 | 8,4 | 29,4 | 29,4 | 9,4 | 28,2 | 28,2 | 10,5 | 27,1 | 27,1 | 11,8 | 26,2 | 26,2 | 12,8 |
| | 19∞C | 24∞C | 31,6 | 18,7 | 8,6 | 30,3 | 18,1 | 9,6 | 28,9 | 17,4 | 10,7 | 27,6 | 16,9 | 11,9 | 26,5 | 16,4 | 12,9 |
| | | 27∞C | 32,1 | 22,9 | 8,6 | 30,7 | 22,2 | 9,6 | 29,4 | 21,6 | 10,7 | 28,0 | 21,0 | 11,9 | 26,9 | 20,5 | 12,9 |
| | | 30∞C | 32,5 | 26,9 | 8,6 | 31,2 | 26,2 | 9,6 | 29,8 | 25,6 | 10,7 | 28,4 | 25,0 | 11,9 | 27,3 | 24,5 | 13,0 |
| | | 33∞C | 33,0 | 30,6 | 8,7 | 31,6 | 30,0 | 9,6 | 30,2 | 29,4 | 10,8 | 28,8 | 28,8 | 12,0 | 27,8 | 27,8 | 13,1 |
| | 22∞C | 27∞C | 34,5 | 18,6 | 8,8 | 33,1 | 17,9 | 9,8 | 31,6 | 17,3 | 10,9 | 30,2 | 16,7 | 12,1 | 29,0 | 16,3 | 13,2 |
| | | 30∞C | 35,0 | 22,8 | 8,8 | 33,5 | 22,1 | 9,8 | 32,1 | 21,5 | 10,9 | 30,6 | 20,9 | 12,1 | - | - | - |
| | | 33∞C | 35,5 | 26,7 | 8,9 | 34,0 | 26,1 | 9,8 | 32,5 | 25,5 | 10,9 | 31,0 | 24,9 | 12,2 | - | - | - |
| | | 36∞C | 36,0 | 30,4 | 8,9 | 34,5 | 29,8 | 9,9 | 33,0 | 29,3 | 11,0 | 31,5 | 28,7 | 12,2 | - | - | - |
| Nominal Air flow 5 400 m³/h | 16∞C | 21∞C | 30,6 | 20,7 | 8,5 | 29,2 | 20,1 | 9,4 | 27,9 | 19,5 | 10,5 | 26,5 | 18,9 | 11,7 | 25,4 | 18,4 | 12,7 |
| | | 24∞C | 31,1 | 25,6 | 8,5 | 29,7 | 25,0 | 9,5 | 28,3 | 24,3 | 10,5 | 26,9 | 23,6 | 11,7 | 25,8 | 23,1 | 12,8 |
| | | 27∞C | 31,5 | 30,4 | 8,5 | 30,1 | 29,7 | 9,5 | 28,8 | 28,8 | 10,6 | 27,5 | 27,5 | 11,8 | 26,6 | 26,6 | 12,9 |
| | | 30∞C | 32,8 | 32,8 | 8,7 | 31,6 | 31,6 | 9,6 | 30,4 | 30,4 | 10,8 | 29,2 | 29,2 | 12,0 | 28,2 | 28,2 | 13,0 |
| | 19∞C | 24∞C | 33,4 | 20,5 | 8,7 | 31,9 | 19,9 | 9,7 | 30,5 | 19,3 | 10,8 | 29,0 | 18,7 | 12,0 | 27,8 | 18,3 | 13,0 |
| | | 27∞C | 33,9 | 25,5 | 8,8 | 32,4 | 24,9 | 9,7 | **30,9** | **24,2** | **10,8** | 29,4 | 23,6 | 12,0 | 28,2 | 23,1 | 13,1 |
| | | 30∞C | 34,4 | 30,3 | 8,8 | 32,9 | 29,7 | 9,8 | 31,4 | 29,0 | 10,9 | 29,9 | 28,3 | 12,1 | 28,7 | 27,7 | 13,2 |
| | | 33∞C | 34,9 | 34,9 | 8,8 | 33,6 | 33,6 | 9,8 | 32,3 | 32,3 | 10,9 | 31,0 | 31,0 | 12,2 | - | - | - |
| | 22∞C | 27∞C | 36,3 | 20,4 | 9,0 | 34,8 | 19,7 | 9,9 | 33,2 | 19,1 | 11,0 | 31,7 | 18,6 | 12,2 | - | - | - |
| | | 30∞C | 36,9 | 25,4 | 9,0 | 35,3 | 24,7 | 9,9 | 33,7 | 24,1 | 11,0 | 32,1 | 23,5 | 12,3 | - | - | - |
| | | 33∞C | 37,4 | 30,1 | 9,0 | 35,8 | 29,5 | 10,0 | 34,2 | 28,9 | 11,1 | 32,6 | 28,3 | 12,3 | - | - | - |
| | | 36∞C | 37,9 | 34,7 | 9,1 | 36,3 | 34,1 | 10,0 | 34,7 | 33,5 | 11,2 | 33,1 | 32,9 | 12,4 | - | - | - |
| Maximum Air flow 6 500 m³/h | 16∞C | 21∞C | 31,8 | 22,4 | 8,6 | 30,3 | 21,8 | 9,5 | 28,9 | 21,2 | 10,6 | 27,4 | 20,5 | 11,8 | 26,2 | 20,0 | 12,8 |
| | | 24∞C | 32,3 | 28,1 | 8,6 | 30,8 | 27,4 | 9,5 | 29,3 | 26,7 | 10,6 | 27,8 | 25,9 | 11,9 | 26,6 | 25,3 | 12,9 |
| | | 27∞C | 33,0 | 33,0 | 8,7 | 31,7 | 31,7 | 9,6 | 30,4 | 30,4 | 10,7 | 29,0 | 29,0 | 12,0 | 28,0 | 28,0 | 13,1 |
| | | 30∞C | 34,7 | 34,7 | 8,8 | 33,4 | 33,4 | 9,8 | 32,1 | 32,1 | 10,9 | 30,8 | 30,8 | 12,2 | - | - | - |
| | 19∞C | 24∞C | 34,7 | 22,2 | 8,8 | 33,1 | 21,6 | 9,8 | 31,6 | 21,0 | 10,9 | 30,0 | 20,4 | 12,1 | 28,7 | 19,9 | 13,2 |
| | | 27∞C | 35,2 | 28,0 | 8,9 | 33,7 | 27,3 | 9,8 | 32,1 | 26,6 | 10,9 | 30,5 | 26,0 | 12,1 | - | - | - |
| | | 30∞C | 35,8 | 33,6 | 8,9 | 34,2 | 32,9 | 9,9 | 32,6 | 32,1 | 11,0 | 30,9 | 30,9 | 12,2 | - | - | - |
| | | 33∞C | 36,9 | 36,9 | 9,0 | 35,5 | 35,5 | 10,0 | 34,1 | 34,1 | 11,1 | 32,7 | 32,7 | 12,4 | - | - | - |
| | 22∞C | 27∞C | 37,8 | 22,0 | 9,1 | 36,1 | 21,4 | 10,0 | 34,4 | 20,8 | 11,1 | 32,7 | 20,2 | 12,3 | - | - | - |
| | | 30∞C | 38,3 | 27,8 | 9,1 | 36,7 | 27,2 | 10,0 | 35,0 | 26,6 | 11,1 | 33,3 | 25,9 | 12,4 | - | - | - |
| | | 33∞C | 38,9 | 33,4 | 9,1 | 37,2 | 32,8 | 10,1 | 35,5 | 32,1 | 11,2 | 33,8 | 31,4 | 12,5 | - | - | - |
| | | 36∞C | 39,5 | 38,8 | 9,2 | 37,8 | 37,8 | 10,1 | 36,3 | 36,3 | 11,3 | 34,8 | 34,8 | 12,6 | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,0 kW
Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1,45 kW
Condensing fan Pa (all) : 1,11 kW

# HEATING CAPACITY AND ABSORBED POWER

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.8*

| BHK / BDK | Outdoor air temp. | | 20∞C | | 15∞C | | 10∞C | | 7∞C | | 5∞C | | 0∞C | | -5∞C | | -10∞C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature - dry bulb | | | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA |
| Minimum air flow 4 300 m³/h | | 11∞C | 41,0 | 9,4 | 36,5 | 8,8 | 32,3 | 8,2 | 29,9 | 7,8 | 28,4 | 7,6 | 24,8 | 7,1 | 21,5 | 6,6 | 18,5 | 6,2 |
| | | 14∞C | 40,6 | 10,0 | 36,1 | 9,3 | 32,0 | 8,7 | 29,6 | 8,3 | 28,1 | 8,1 | 24,5 | 7,5 | 21,3 | 7,0 | 18,3 | 6,6 |
| | | 17∞C | 40,1 | 10,7 | 35,7 | 9,9 | 31,6 | 9,2 | 29,3 | 8,8 | 27,8 | 8,6 | 24,3 | 8,0 | 21,1 | 7,5 | 18,1 | 7,0 |
| | | 20∞C | 39,7 | 11,4 | 35,3 | 10,6 | 31,2 | 9,8 | 28,9 | 9,4 | 27,5 | 9,1 | 24,0 | 8,5 | 20,8 | 7,9 | 18,0 | 7,5 |
| | | 23∞C | 39,2 | 12,1 | 34,9 | 11,2 | 30,9 | 10,4 | 28,6 | 10,0 | 27,2 | 9,7 | 23,7 | 9,0 | 20,6 | 8,4 | 17,8 | 7,9 |
| | | 26∞C | 38,7 | 12,9 | 34,5 | 11,9 | 30,5 | 11,1 | 28,3 | 10,6 | 26,8 | 10,2 | 23,5 | 9,5 | 20,4 | 8,9 | - | - |
| Nominal air flow 5 400 m³/h | | 11∞C | 41,8 | 8,6 | 37,2 | 8,0 | 32,9 | 7,5 | 30,4 | 7,2 | 28,9 | 7,0 | 25,2 | 6,6 | - | - | - | - |
| | | 14∞C | 41,3 | 9,1 | 36,8 | 8,5 | 32,5 | 8,0 | 30,1 | 7,7 | 28,5 | 7,5 | 24,9 | 7,0 | 21,5 | 6,6 | 18,5 | 6,2 |
| | | 17∞C | 40,8 | 9,7 | 36,3 | 9,0 | 32,1 | 8,5 | 29,8 | 8,1 | 28,2 | 7,9 | 24,6 | 7,5 | 21,3 | 7,0 | 18,3 | 6,6 |
| | | 20∞C | 40,4 | 10,3 | 35,9 | 9,6 | 31,8 | 9,0 | **29,4** | **8,6** | 27,9 | 8,4 | 24,3 | 7,9 | 21,1 | 7,5 | 18,1 | 7,1 |
| | | 23∞C | 39,9 | 10,9 | 35,5 | 10,2 | 31,4 | 9,5 | 29,1 | 9,2 | 27,6 | 8,9 | 24,1 | 8,4 | 20,9 | 7,9 | 17,9 | 7,6 |
| | | 26∞C | 39,4 | 11,6 | 35,1 | 10,8 | 31,0 | 10,1 | 28,7 | 9,7 | 27,2 | 9,5 | 23,8 | 8,9 | 20,6 | 8,4 | 17,7 | 8,0 |
| Maximum air flow 6 500 m³/h | | 11∞C | 42,4 | 8,0 | 37,7 | 7,5 | 33,3 | 7,1 | 30,8 | 6,8 | 29,2 | 6,6 | 25,4 | 6,3 | - | - | - | - |
| | | 14∞C | 41,9 | 8,5 | 37,3 | 8,0 | 32,9 | 7,5 | 30,4 | 7,2 | 28,9 | 7,1 | 25,1 | 6,7 | 21,7 | 6,3 | - | - |
| | | 17∞C | 41,4 | 9,0 | 36,8 | 8,4 | 32,5 | 8,0 | 30,1 | 7,7 | 28,5 | 7,5 | 24,8 | 7,1 | 21,4 | 6,7 | 18,3 | 6,4 |
| | | 20∞C | 41,0 | 9,5 | 36,4 | 9,0 | 32,2 | 8,5 | 29,8 | 8,2 | 28,2 | 8,0 | 24,6 | 7,6 | 21,2 | 7,2 | 18,1 | 6,9 |
| | | 23∞C | 40,5 | 10,1 | 36,0 | 9,5 | 31,8 | 9,0 | 29,4 | 8,7 | 27,9 | 8,5 | 24,3 | 8,1 | 21,0 | 7,7 | 17,9 | 7,4 |
| | | 26∞C | 40,0 | 10,8 | 35,5 | 10,1 | 31,4 | 9,6 | 29,0 | 9,2 | 27,5 | 9,0 | 24,0 | 8,6 | 20,7 | 8,2 | 17,8 | 7,9 |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,0 kW
Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1,45 kW
Condensing fan Pa (all) : 1,11 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions **XXX**

# COOLING CAPACITY AND ABSORBED POWER

**030 DOUBLE CIRCUIT**

***BCK*** = Cooling only rooftop ***BGK*** = Cooling only rooftop with gas fired heater

*Table 4.9*

| BCK BGK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 44∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 4 300 m³/h | 16∞C | 21∞C | 29,1 | 18,9 | 8,4 | 27,9 | 18,3 | 9,3 | 26,7 | 17,7 | 10,4 | 25,5 | 17,1 | 11,6 | 24,6 | 16,7 | 12,6 |
| | | 24∞C | 29,6 | 23,0 | 8,4 | 28,4 | 22,4 | 9,3 | 27,2 | 21,8 | 10,4 | 26,0 | 21,2 | 11,6 | 25,0 | 20,7 | 12,7 |
| | | 27∞C | 30,0 | 27,0 | 8,4 | 28,8 | 26,4 | 9,4 | 27,6 | 25,8 | 10,5 | 26,4 | 25,1 | 11,7 | 25,4 | 24,6 | 12,7 |
| | | 30∞C | 30,7 | 30,7 | 8,5 | 29,6 | 29,6 | 9,4 | 28,5 | 28,5 | 10,6 | 27,4 | 27,4 | 11,8 | 26,6 | 26,6 | 12,9 |
| | 19∞C | 24∞C | 31,8 | 18,7 | 8,6 | 30,5 | 18,1 | 9,6 | 29,2 | 17,5 | 10,7 | 27,9 | 16,9 | 11,9 | 26,9 | 16,5 | 12,9 |
| | | 27∞C | 32,2 | 22,9 | 8,6 | 30,9 | 22,3 | 9,6 | 29,7 | 21,7 | 10,7 | 28,4 | 21,1 | 11,9 | 27,3 | 20,6 | 13,0 |
| | | 30∞C | 32,7 | 26,9 | 8,7 | 31,4 | 26,3 | 9,6 | 30,1 | 25,7 | 10,7 | 28,8 | 25,1 | 12,0 | 27,8 | 24,6 | 13,0 |
| | | 33∞C | 33,2 | 30,6 | 8,7 | 31,9 | 30,0 | 9,7 | 30,6 | 29,4 | 10,8 | 29,3 | 28,9 | 12,0 | 28,3 | 28,3 | 13,1 |
| | 22∞C | 27∞C | 34,6 | 18,5 | 8,8 | 33,2 | 17,9 | 9,8 | 31,8 | 17,3 | 10,9 | 30,4 | 16,7 | 12,1 | - | - | - |
| | | 30∞C | 35,1 | 22,8 | 8,9 | 33,7 | 22,1 | 9,8 | 32,3 | 21,5 | 10,9 | 30,9 | 21,0 | 12,1 | - | - | - |
| | | 33∞C | 35,6 | 26,7 | 8,9 | 34,2 | 26,1 | 9,9 | 32,8 | 25,6 | 11,0 | 31,4 | 25,0 | 12,2 | - | - | - |
| | | 36∞C | 36,2 | 30,4 | 8,9 | 34,7 | 29,9 | 9,9 | 33,3 | 29,3 | 11,0 | 31,9 | 28,8 | 12,3 | - | - | - |
| Nominal Air flow 5 400 m³/h | 16∞C | 21∞C | 30,7 | 20,7 | 8,5 | 29,4 | 20,1 | 9,4 | 28,1 | 19,5 | 10,5 | 26,8 | 18,9 | 11,7 | 25,8 | 18,5 | 12,8 |
| | | 24∞C | 31,3 | 25,7 | 8,5 | 29,9 | 25,0 | 9,5 | 28,6 | 24,4 | 10,6 | 27,3 | 23,7 | 11,8 | 26,3 | 23,2 | 12,8 |
| | | 27∞C | 31,8 | 30,4 | 8,6 | 30,5 | 29,7 | 9,5 | 29,1 | 29,0 | 10,6 | 27,9 | 27,9 | 11,8 | 27,0 | 27,0 | 12,9 |
| | | 30∞C | 33,0 | 33,0 | 8,7 | 31,8 | 31,8 | 9,7 | 30,7 | 30,7 | 10,8 | 29,5 | 29,5 | 12,0 | 28,6 | 28,6 | 13,1 |
| | 19∞C | 24∞C | 33,5 | 20,5 | 8,7 | 32,1 | 19,8 | 9,7 | 30,7 | 19,3 | 10,8 | 29,3 | 18,7 | 12,0 | 28,2 | 18,2 | 13,1 |
| | | 27∞C | 34,0 | 25,5 | 8,8 | 32,6 | 24,8 | 9,7 | **31,2** | **24,2** | **10,8** | 29,8 | 23,6 | 12,1 | 28,7 | 23,1 | 13,1 |
| | | 30∞C | 34,6 | 30,3 | 8,8 | 33,2 | 29,6 | 9,8 | 31,7 | 29,0 | 10,9 | 30,3 | 28,3 | 12,1 | 29,2 | 27,8 | 13,2 |
| | | 33∞C | 35,1 | 34,8 | 8,9 | 33,9 | 33,9 | 9,8 | 32,6 | 32,6 | 11,0 | 31,3 | 31,3 | 12,2 | - | - | - |
| | 22∞C | 27∞C | 36,4 | 20,2 | 9,0 | 34,9 | 19,6 | 9,9 | 33,4 | 19,0 | 11,0 | 31,9 | 18,4 | 12,2 | - | - | - |
| | | 30∞C | 37,0 | 25,3 | 9,0 | 35,5 | 24,7 | 10,0 | 34,0 | 24,1 | 11,1 | 32,5 | 23,5 | 12,3 | - | - | - |
| | | 33∞C | 37,6 | 30,1 | 9,1 | 36,1 | 29,5 | 10,0 | 34,5 | 28,9 | 11,1 | 33,0 | 28,3 | 12,4 | - | - | - |
| | | 36∞C | 38,2 | 34,6 | 9,1 | 36,6 | 34,1 | 10,1 | 35,1 | 33,5 | 11,2 | 33,6 | 32,9 | 12,4 | - | - | - |
| Maximum Air flow 6 500 m³/h | 16∞C | 21∞C | 31,9 | 22,3 | 8,6 | 30,5 | 21,7 | 9,5 | 29,1 | 21,1 | 10,6 | 27,7 | 20,5 | 11,8 | 26,5 | 20,0 | 12,9 |
| | | 24∞C | 32,5 | 28,0 | 8,6 | 31,0 | 27,3 | 9,6 | 29,6 | 26,6 | 10,7 | 28,2 | 25,9 | 11,9 | 27,1 | 25,3 | 12,9 |
| | | 27∞C | 33,2 | 33,2 | 8,7 | 31,9 | 31,9 | 9,6 | 30,6 | 30,6 | 10,8 | 29,3 | 29,3 | 12,0 | 28,3 | 28,3 | 13,1 |
| | | 30∞C | 34,9 | 34,9 | 8,9 | 33,6 | 33,6 | 9,8 | 32,4 | 32,4 | 10,9 | 31,1 | 31,1 | 12,2 | - | - | - |
| | 19∞C | 24∞C | 34,7 | 22,0 | 8,8 | 33,2 | 21,4 | 9,8 | 31,7 | 20,8 | 10,9 | 30,2 | 20,2 | 12,1 | 29,0 | 19,8 | 13,2 |
| | | 27∞C | 35,3 | 27,8 | 8,9 | 33,8 | 27,2 | 9,8 | 32,3 | 26,5 | 10,9 | 30,8 | 25,8 | 12,2 | - | - | - |
| | | 30∞C | 35,9 | 33,4 | 8,9 | 34,4 | 32,7 | 9,9 | 32,9 | 32,0 | 11,0 | 31,4 | 31,3 | 12,2 | - | - | - |
| | | 33∞C | 37,1 | 37,1 | 9,0 | 35,7 | 35,7 | 10,0 | 34,3 | 34,3 | 11,1 | 33,0 | 33,0 | 12,4 | - | - | - |
| | 22∞C | 27∞C | 37,7 | 21,7 | 9,1 | 36,1 | 21,1 | 10,0 | 34,5 | 20,5 | 11,1 | 32,9 | 20,0 | 12,3 | - | - | - |
| | | 30∞C | 38,4 | 27,6 | 9,1 | 36,8 | 27,0 | 10,1 | 35,2 | 26,4 | 11,2 | 33,5 | 25,7 | 12,4 | - | - | - |
| | | 33∞C | 39,0 | 33,3 | 9,2 | 37,4 | 32,6 | 10,1 | 35,8 | 32,0 | 11,2 | 34,2 | 31,3 | 12,5 | - | - | - |
| | | 36∞C | 39,7 | 38,7 | 9,2 | 38,0 | 38,0 | 10,2 | 36,6 | 36,6 | 11,3 | 35,1 | 35,1 | 12,6 | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,0 kW
Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1,45 kW
Condensing fan Pa (all) : 1,11 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**035 DOUBLE CIRCUIT**

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.10*

| BHK / BDK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 42∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 5 000 m³/h | 16∞C | 21∞C | 32,2 | 21,2 | 9,7 | 30,8 | 20,5 | 10,9 | 29,3 | 19,7 | 12,3 | 27,7 | 19,0 | 13,8 | 27,1 | 18,7 | 14,4 |
| | | 24∞C | 32,7 | 26,0 | 9,8 | 31,3 | 25,3 | 10,9 | 29,8 | 24,5 | 12,3 | 28,2 | 23,8 | 13,8 | 27,5 | 23,4 | 14,4 |
| | | 27∞C | 33,2 | 30,6 | 9,8 | 31,8 | 29,9 | 11,0 | 30,2 | 29,1 | 12,3 | 28,6 | 28,3 | 13,8 | 27,9 | 27,9 | 14,4 |
| | | 30∞C | 34,1 | 34,1 | 9,9 | 32,9 | 32,9 | 11,1 | 31,6 | 31,6 | 12,5 | 30,2 | 30,2 | 14,0 | 29,6 | 29,6 | 14,7 |
| | 19∞C | 24∞C | 35,3 | 21,1 | 10,1 | 33,8 | 20,3 | 11,3 | 32,2 | 19,6 | 12,6 | 30,4 | 18,9 | 14,1 | 29,7 | 18,6 | 14,7 |
| | | 27∞C | 35,8 | 25,9 | 10,1 | 34,3 | 25,2 | 11,3 | 32,6 | 24,5 | 12,6 | 30,9 | 23,7 | 14,1 | 30,2 | 23,4 | 14,8 |
| | | 30∞C | 36,3 | 30,5 | 10,2 | 34,8 | 29,8 | 11,4 | 33,1 | 29,1 | 12,7 | 31,4 | 28,3 | 14,2 | 30,6 | 28,0 | 14,8 |
| | | 33∞C | 36,9 | 34,8 | 10,3 | 35,3 | 34,2 | 11,4 | 33,6 | 33,5 | 12,8 | 32,1 | 32,1 | 14,3 | 31,5 | 31,5 | 14,9 |
| | 22∞C | 27∞C | 38,5 | 21,0 | 10,5 | 36,9 | 20,2 | 11,6 | 35,2 | 19,4 | 13,0 | 33,4 | 18,8 | 14,4 | 32,6 | 18,5 | 15,1 |
| | | 30∞C | 39,1 | 25,9 | 10,5 | 37,5 | 25,1 | 11,7 | 35,7 | 24,4 | 13,0 | 33,9 | 23,7 | 14,5 | 33,1 | 23,4 | 15,1 |
| | | 33∞C | 39,7 | 30,4 | 10,5 | 38,0 | 29,7 | 11,7 | 36,3 | 29,0 | 13,0 | 34,4 | 28,3 | 14,5 | 33,6 | 28,0 | 15,2 |
| | | 36∞C | 40,3 | 34,6 | 10,6 | 38,6 | 34,0 | 11,8 | 36,8 | 33,4 | 13,1 | 34,9 | 32,7 | 14,7 | 34,1 | 32,4 | 15,3 |
| Nominal Air flow 6 300 m³/h | 16∞C | 21∞C | 34,0 | 23,4 | 9,9 | 32,5 | 22,6 | 11,1 | 30,9 | 21,9 | 12,4 | 29,1 | 21,2 | 13,9 | 28,4 | 20,9 | 14,5 |
| | | 24∞C | 34,5 | 29,0 | 10,0 | 33,0 | 28,3 | 11,1 | 31,4 | 27,5 | 12,5 | 29,6 | 26,7 | 13,9 | 28,9 | 26,3 | 14,6 |
| | | 27∞C | 35,1 | 34,5 | 10,0 | 33,6 | 33,6 | 11,2 | 32,1 | 32,1 | 12,5 | 30,5 | 30,5 | 14,1 | 29,9 | 29,9 | 14,7 |
| | | 30∞C | 36,7 | 36,7 | 10,2 | 35,4 | 35,4 | 11,4 | 33,9 | 33,9 | 12,8 | 32,4 | 32,4 | 14,3 | 31,8 | 31,8 | 14,9 |
| | 19∞C | 24∞C | 37,2 | 23,2 | 10,3 | 35,6 | 22,5 | 11,5 | 33,8 | 21,8 | 12,8 | 32,0 | 21,0 | 14,3 | 31,2 | 20,8 | 14,9 |
| | | 27∞C | 37,8 | 29,0 | 10,3 | 36,1 | 28,2 | 11,5 | **34,3** | **27,5** | **12,8** | 32,5 | 26,7 | 14,3 | 31,7 | 26,3 | 15,0 |
| | | 30∞C | 38,3 | 34,5 | 10,4 | 36,7 | 33,7 | 11,6 | 34,9 | 33,0 | 12,9 | 33,0 | 32,1 | 14,4 | 32,2 | 31,7 | 15,1 |
| | | 33∞C | 39,2 | 39,2 | 10,5 | 37,7 | 37,7 | 11,7 | 36,1 | 36,1 | 13,1 | 34,5 | 34,5 | 14,6 | 33,8 | 33,8 | 15,2 |
| | 22∞C | 27∞C | 40,6 | 23,0 | 10,7 | 38,8 | 22,3 | 11,8 | 37,0 | 21,6 | 13,1 | 35,0 | 20,9 | 14,6 | 34,2 | 20,6 | 15,2 |
| | | 30∞C | 41,2 | 28,9 | 10,7 | 39,4 | 28,1 | 11,9 | 37,5 | 27,4 | 13,2 | 35,5 | 26,6 | 14,7 | 34,7 | 26,3 | 15,3 |
| | | 33∞C | 41,8 | 34,4 | 10,8 | 40,0 | 33,7 | 11,9 | 38,1 | 32,9 | 13,3 | 36,1 | 32,1 | 14,8 | - | - | - |
| | | 36∞C | 42,4 | 39,6 | 10,9 | 40,6 | 38,9 | 12,0 | 38,7 | 38,2 | 13,4 | 36,8 | 36,8 | 14,9 | - | - | - |
| Maximum Air flow 7 600 m³/h | 16∞C | 21∞C | 35,3 | 25,3 | 10,1 | 33,7 | 24,6 | 11,2 | 31,9 | 23,9 | 12,5 | 30,1 | 23,1 | 14,0 | 29,3 | 22,7 | 14,6 |
| | | 24∞C | 35,9 | 31,8 | 10,1 | 34,2 | 31,0 | 11,3 | 32,5 | 30,2 | 12,6 | 30,6 | 29,3 | 14,1 | 29,8 | 28,9 | 14,7 |
| | | 27∞C | 36,9 | 36,9 | 10,2 | 35,4 | 35,4 | 11,4 | 33,8 | 33,8 | 12,8 | 32,2 | 32,2 | 14,3 | 31,5 | 31,5 | 14,9 |
| | | 30∞C | 38,8 | 38,8 | 10,5 | 37,4 | 37,4 | 11,7 | 35,8 | 35,8 | 13,0 | 34,2 | 34,2 | 14,5 | 33,5 | 33,5 | 15,2 |
| | 19∞C | 24∞C | 38,6 | 25,1 | 10,4 | 36,9 | 24,4 | 11,6 | 35,0 | 23,7 | 12,9 | 33,0 | 23,0 | 14,4 | 32,2 | 22,7 | 15,0 |
| | | 27∞C | 39,2 | 31,8 | 10,5 | 37,5 | 31,0 | 11,7 | 35,6 | 30,2 | 13,0 | 33,6 | 29,4 | 14,5 | 32,7 | 29,0 | 15,1 |
| | | 30∞C | 39,9 | 38,2 | 10,6 | 38,1 | 37,4 | 11,8 | 36,1 | 36,1 | 13,1 | 34,3 | 34,3 | 14,6 | 33,6 | 33,6 | 15,2 |
| | | 33∞C | 41,3 | 41,3 | 10,7 | 39,8 | 39,8 | 11,9 | 38,1 | 38,1 | 13,3 | 36,3 | 36,3 | 14,8 | - | - | - |
| | 22∞C | 27∞C | 42,1 | 24,9 | 10,8 | 40,3 | 24,2 | 12,0 | 38,3 | 23,5 | 13,3 | 36,2 | 22,8 | 14,8 | - | - | - |
| | | 30∞C | 42,8 | 31,7 | 10,9 | 40,9 | 31,0 | 12,0 | 38,9 | 30,2 | 13,4 | 36,8 | 29,4 | 14,8 | - | - | - |
| | | 33∞C | 43,5 | 38,2 | 10,9 | 41,5 | 37,4 | 12,1 | 39,5 | 36,6 | 13,5 | 37,4 | 35,8 | 15,0 | - | - | - |
| | | 36∞C | 44,1 | 44,1 | 11,0 | 42,4 | 42,4 | 12,2 | 40,6 | 40,6 | 13,6 | 38,7 | 38,7 | 15,1 | - | - | - |

Control Pa (BC/BH) : 0,7 kW Control Pa (BG/BD) : 0,9 kW Condensing fan Pa (all) : 1,11 kW
Supply fan Pa (BC/BH) : 1,45 kW Supply fan Pa (BG/BD): 1,9 kW

# HEATING CAPACITY AND ABSORBED POWER

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.11*

| BHK / BDK | Outdoor air temp. | | 20∞C | | 15∞C | | 10∞C | | 7∞C | | 5∞C | | 0∞C | | -5∞C | | -8∞C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA |
| Minimum air flow 5 000 m³/h | Entering air temperature - dry bulb | 11∞C | 45,8 | 10,5 | 40,5 | 9,7 | 35,6 | 9,0 | 32,8 | 8,6 | 31,0 | 8,3 | 26,8 | 7,7 | 23,0 | 7,1 | - | - |
| | | 14∞C | 45,3 | 11,2 | 40,1 | 10,4 | 35,2 | 9,6 | 32,5 | 9,1 | 30,8 | 8,9 | 26,6 | 8,2 | 22,8 | 7,7 | 20,7 | 7,3 |
| | | 17∞C | 44,8 | 12,0 | 39,7 | 11,1 | 34,9 | 10,2 | 32,2 | 9,8 | 30,5 | 9,5 | 26,4 | 8,8 | 22,7 | 8,2 | 20,6 | 7,9 |
| | | 20∞C | 44,4 | 12,8 | 39,3 | 11,8 | 34,6 | 10,9 | 31,9 | 10,4 | 30,2 | 10,1 | 26,2 | 9,4 | 22,5 | 8,8 | 20,5 | 8,4 |
| | | 23∞C | 43,9 | 13,8 | 38,9 | 12,7 | 34,2 | 11,7 | 31,6 | 11,1 | 29,9 | 10,8 | 25,9 | 10,0 | 22,3 | 9,4 | 20,3 | 9,0 |
| | | 26∞C | 43,5 | 14,8 | 38,5 | 13,6 | 33,9 | 12,5 | 31,3 | 11,9 | 29,6 | 11,5 | 25,7 | 10,7 | 22,2 | 10,0 | 20,2 | 9,6 |
| Nominal air flow 6 300 m³/h | | 11∞C | 46,4 | 9,5 | 41,1 | 8,9 | 36,1 | 8,3 | 33,3 | 7,9 | 31,4 | 7,7 | 27,1 | 7,2 | - | - | - | - |
| | | 14∞C | 46,0 | 10,2 | 40,7 | 9,5 | 35,7 | 8,8 | 32,9 | 8,4 | 31,1 | 8,2 | 26,9 | 7,7 | 23,0 | 7,2 | 20,9 | 6,9 |
| | | 17∞C | 45,5 | 10,8 | 40,3 | 10,1 | 35,4 | 9,4 | 32,6 | 9,0 | 30,8 | 8,7 | 26,7 | 8,2 | 22,8 | 7,7 | 20,7 | 7,4 |
| | | 20∞C | 45,0 | 11,6 | 39,8 | 10,7 | 35,0 | 10,0 | **32,3** | **9,6** | 30,6 | 9,3 | 26,4 | 8,7 | 22,7 | 8,2 | 20,6 | 8,0 |
| | | 23∞C | 44,6 | 12,4 | 39,4 | 11,5 | 34,7 | 10,7 | 32,0 | 10,2 | 30,3 | 10,0 | 26,2 | 9,3 | 22,5 | 8,8 | 20,5 | 8,6 |
| | | 26∞C | 44,1 | 13,2 | 39,1 | 12,3 | 34,3 | 11,4 | 31,7 | 10,9 | 30,0 | 10,6 | 26,0 | 10,0 | 22,4 | 9,4 | 20,3 | 9,2 |
| Maximum air flow 7 600 m³/h | | 11∞C | 47,0 | 8,9 | 41,6 | 8,3 | 36,5 | 7,8 | 33,6 | 7,5 | 31,7 | 7,3 | - | - | - | - | - | - |
| | | 14∞C | 46,5 | 9,5 | 41,1 | 8,8 | 36,1 | 8,3 | 33,2 | 8,0 | 31,4 | 7,8 | 27,1 | 7,3 | 23,1 | 6,9 | 20,9 | 6,7 |
| | | 17∞C | 46,1 | 10,1 | 40,7 | 9,4 | 35,7 | 8,8 | 32,9 | 8,5 | 31,1 | 8,3 | 26,8 | 7,8 | 22,9 | 7,4 | 20,7 | 7,2 |
| | | 20∞C | 45,6 | 10,7 | 40,3 | 10,0 | 35,4 | 9,4 | 32,6 | 9,1 | 30,8 | 8,9 | 26,6 | 8,4 | 22,7 | 7,9 | 20,6 | 7,7 |
| | | 23∞C | 45,1 | 11,4 | 39,9 | 10,7 | 35,0 | 10,0 | 32,3 | 9,7 | 30,5 | 9,5 | 26,4 | 9,0 | 22,6 | 8,5 | 20,5 | 8,4 |
| | | 26∞C | 44,6 | 12,2 | 39,5 | 11,4 | 34,7 | 10,7 | 32,0 | 10,4 | 30,2 | 10,1 | 26,1 | 9,6 | 22,4 | 9,2 | 20,3 | 9,0 |

Control Pa (BC/BH) : 0,7 kW Control Pa (BG/BD) : 0,9 kW Condensing fan Pa (all) : 1,11 kW
Supply fan Pa (BC/BH) : 1,45 kW Supply fan Pa (BG/BD): 1,9 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**035 DOUBLE CIRCUIT**

***BCK*** = Cooling only rooftop ***BGK*** = Cooling only rooftop with gas fired heater

*Table 4.12*

| BCK / BGK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 42∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 5 000 m³/h | 16∞C | 21∞C | 32,3 | 21,2 | 9,8 | 31,0 | 20,5 | 10,9 | 29,6 | 19,8 | 12,3 | 28,1 | 19,1 | 13,8 | 27,5 | 18,8 | 14,4 |
| | | 24∞C | 32,9 | 26,0 | 9,8 | 31,6 | 25,3 | 11,0 | 30,1 | 24,6 | 12,3 | 28,6 | 23,9 | 13,8 | 28,0 | 23,6 | 14,4 |
| | | 27∞C | 33,4 | 30,6 | 9,9 | 32,1 | 29,9 | 11,0 | 30,7 | 29,2 | 12,4 | 29,1 | 28,4 | 13,9 | 28,5 | 28,1 | 14,5 |
| | | 30∞C | 34,3 | 34,3 | 9,9 | 33,1 | 33,1 | 11,1 | 31,9 | 31,9 | 12,5 | 30,5 | 30,5 | 14,0 | 30,0 | 30,0 | 14,7 |
| | 19∞C | 24∞C | 35,3 | 21,0 | 10,1 | 33,9 | 20,3 | 11,3 | 32,4 | 19,6 | 12,6 | 30,8 | 18,9 | 14,1 | 30,1 | 18,6 | 14,8 |
| | | 27∞C | 35,9 | 25,9 | 10,2 | 34,5 | 25,2 | 11,3 | 32,9 | 24,5 | 12,7 | 31,3 | 23,8 | 14,2 | 30,6 | 23,5 | 14,8 |
| | | 30∞C | 36,5 | 30,5 | 10,2 | 35,1 | 29,9 | 11,4 | 33,5 | 29,1 | 12,7 | 31,8 | 28,4 | 14,2 | 31,2 | 28,1 | 14,9 |
| | | 33∞C | 37,1 | 34,8 | 10,3 | 35,6 | 34,2 | 11,5 | 34,1 | 33,5 | 12,8 | 32,5 | 32,5 | 14,3 | 31,9 | 31,9 | 15,0 |
| | 22∞C | 27∞C | 38,6 | 20,9 | 10,5 | 37,0 | 20,1 | 11,6 | 35,4 | 19,4 | 13,0 | 33,7 | 18,7 | 14,5 | 32,9 | 18,4 | 15,1 |
| | | 30∞C | 39,2 | 25,8 | 10,5 | 37,7 | 25,1 | 11,7 | 36,0 | 24,4 | 13,0 | 34,2 | 23,7 | 14,5 | 33,5 | 23,4 | 15,1 |
| | | 33∞C | 39,9 | 30,4 | 10,6 | 38,3 | 29,7 | 11,7 | 36,6 | 29,1 | 13,1 | 34,8 | 28,3 | 14,6 | 34,1 | 28,0 | 15,2 |
| | | 36∞C | 40,5 | 34,6 | 10,6 | 38,9 | 34,0 | 11,8 | 37,2 | 33,4 | 13,2 | 35,4 | 32,7 | 14,7 | 34,6 | 32,4 | 15,3 |
| Nominal Air flow 6 300 m³/h | 16∞C | 21∞C | 34,1 | 23,3 | 10,0 | 32,6 | 22,6 | 11,1 | 31,1 | 21,9 | 12,4 | 29,5 | 21,2 | 13,9 | 28,8 | 20,9 | 14,5 |
| | | 24∞C | 34,7 | 29,0 | 10,0 | 33,3 | 28,3 | 11,2 | 31,7 | 27,5 | 12,5 | 30,1 | 26,7 | 14,0 | 29,4 | 26,4 | 14,6 |
| | | 27∞C | 35,3 | 34,5 | 10,1 | 33,9 | 33,7 | 11,3 | 32,4 | 32,4 | 12,6 | 31,0 | 31,0 | 14,1 | 30,4 | 30,4 | 14,7 |
| | | 30∞C | 36,9 | 36,9 | 10,2 | 35,6 | 35,6 | 11,4 | 34,2 | 34,2 | 12,8 | 32,8 | 32,8 | 14,3 | 32,2 | 32,2 | 15,0 |
| | 19∞C | 24∞C | 37,2 | 23,0 | 10,3 | 35,6 | 22,3 | 11,5 | 34,0 | 21,6 | 12,8 | 32,2 | 20,9 | 14,3 | 31,5 | 20,6 | 14,9 |
| | | 27∞C | 37,9 | 28,9 | 10,4 | 36,3 | 28,1 | 11,5 | **34,6** | **27,4** | **12,9** | 32,8 | 26,6 | 14,4 | 32,1 | 26,3 | 15,0 |
| | | 30∞C | 38,5 | 34,4 | 10,4 | 36,9 | 33,7 | 11,6 | 35,2 | 32,9 | 13,0 | 33,5 | 32,1 | 14,5 | 32,7 | 31,7 | 15,1 |
| | | 33∞C | 39,3 | 39,3 | 10,5 | 37,9 | 37,9 | 11,7 | 36,4 | 36,4 | 13,1 | 34,8 | 34,8 | 14,6 | 34,2 | 34,2 | 15,3 |
| | 22∞C | 27∞C | 40,6 | 22,8 | 10,7 | 38,9 | 22,1 | 11,8 | 37,1 | 21,4 | 13,2 | 35,2 | 20,7 | 14,6 | 34,4 | 20,4 | 15,3 |
| | | 30∞C | 41,3 | 28,7 | 10,7 | 39,6 | 28,0 | 11,9 | 37,8 | 27,3 | 13,2 | 35,9 | 26,5 | 14,7 | 35,1 | 26,2 | 15,3 |
| | | 33∞C | 42,0 | 34,3 | 10,8 | 40,3 | 33,6 | 12,0 | 38,4 | 32,9 | 13,3 | 36,5 | 32,1 | 14,8 | - | - | - |
| | | 36∞C | 42,7 | 39,5 | 10,9 | 41,0 | 38,8 | 12,1 | 39,1 | 38,1 | 13,4 | 37,2 | 37,2 | 14,9 | - | - | - |
| Maximum Air flow 7 600 m³/h | 16∞C | 21∞C | 35,3 | 25,1 | 10,1 | 33,8 | 24,4 | 11,2 | 32,1 | 23,7 | 12,5 | 30,3 | 22,9 | 14,0 | 29,6 | 22,6 | 14,6 |
| | | 24∞C | 36,0 | 31,7 | 10,1 | 34,5 | 30,9 | 11,3 | 32,8 | 30,1 | 12,6 | 31,0 | 29,2 | 14,1 | 30,3 | 28,8 | 14,7 |
| | | 27∞C | 37,0 | 37,0 | 10,2 | 35,6 | 35,6 | 11,4 | 34,1 | 34,1 | 12,8 | 32,5 | 32,5 | 14,3 | 31,9 | 31,9 | 14,9 |
| | | 30∞C | 38,9 | 38,9 | 10,5 | 37,5 | 37,5 | 11,7 | 36,1 | 36,1 | 13,0 | 34,5 | 34,5 | 14,5 | 33,9 | 33,9 | 15,2 |
| | 19∞C | 24∞C | 38,6 | 24,8 | 10,4 | 36,9 | 24,1 | 11,6 | 35,1 | 23,4 | 12,9 | 33,2 | 22,7 | 14,4 | 32,4 | 22,4 | 15,0 |
| | | 27∞C | 39,3 | 31,6 | 10,5 | 37,6 | 30,8 | 11,7 | 35,8 | 30,0 | 13,0 | 33,9 | 29,2 | 14,5 | 33,1 | 28,8 | 15,1 |
| | | 30∞C | 40,1 | 38,0 | 10,6 | 38,3 | 37,3 | 11,8 | 36,5 | 36,4 | 13,1 | 34,7 | 34,7 | 14,6 | 34,0 | 34,0 | 15,3 |
| | | 33∞C | 41,5 | 41,5 | 10,8 | 39,9 | 39,9 | 12,0 | 38,3 | 38,3 | 13,3 | 36,6 | 36,6 | 14,8 | - | - | - |
| | 22∞C | 27∞C | 42,0 | 24,5 | 10,8 | 40,2 | 23,8 | 12,0 | 38,3 | 23,1 | 13,3 | 36,3 | 22,4 | 14,8 | - | - | - |
| | | 30∞C | 42,8 | 31,4 | 10,9 | 41,0 | 30,6 | 12,0 | 39,1 | 29,9 | 13,4 | 37,0 | 29,1 | 14,9 | - | - | - |
| | | 33∞C | 43,6 | 38,0 | 11,0 | 41,7 | 37,2 | 12,1 | 39,8 | 36,4 | 13,5 | 37,8 | 35,6 | 15,0 | - | - | - |
| | | 36∞C | 44,4 | 44,2 | 11,1 | 42,6 | 42,6 | 12,2 | 40,9 | 40,9 | 13,6 | 39,1 | 39,1 | 15,1 | - | - | - |

Control Pa (BC/BH) : 0,7 kW Control Pa (BG/BD) : 0,9 kW Condensing fan Pa (all) : 1,11 kW
Supply fan Pa (BC/BH) : 1,45 kW Supply fan Pa (BG/BD): 1,9 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**040 DOUBLE CIRCUIT**

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.13*

| BHK / BDK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 45∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 5 800 m³/h | 16∞C | 21∞C | 37,4 | 24,6 | 10,6 | 35,8 | 23,8 | 11,8 | 34,1 | 23,1 | 13,1 | 32,4 | 22,3 | 14,5 | 30,7 | 21,5 | 15,9 |
| | | 24∞C | 37,9 | 30,3 | 10,6 | 36,3 | 29,4 | 11,8 | 34,6 | 28,6 | 13,1 | 32,9 | 27,8 | 14,5 | 31,2 | 26,9 | 16,0 |
| | | 27∞C | 38,4 | 35,6 | 10,6 | 36,8 | 34,8 | 11,8 | 35,1 | 33,9 | 13,1 | 33,4 | 33,0 | 14,5 | 31,8 | 31,8 | 16,1 |
| | | 30∞C | 39,6 | 39,6 | 10,7 | 38,2 | 38,2 | 11,9 | 36,8 | 36,8 | 13,2 | 35,3 | 35,3 | 14,7 | 33,8 | 33,8 | 16,3 |
| | 19∞C | 24∞C | 40,9 | 24,3 | 10,9 | 39,1 | 23,6 | 12,0 | 37,4 | 22,8 | 13,3 | 35,6 | 22,1 | 14,8 | 33,8 | 21,4 | 16,3 |
| | | 27∞C | 41,4 | 30,1 | 10,9 | 39,7 | 29,3 | 12,0 | 37,9 | 28,5 | 13,4 | 36,1 | 27,8 | 14,8 | 34,2 | 27,0 | 16,3 |
| | | 30∞C | 42,0 | 35,5 | 10,9 | 40,2 | 34,7 | 12,1 | 38,4 | 34,0 | 13,4 | 36,6 | 33,1 | 14,9 | 34,7 | 32,3 | 16,4 |
| | | 33∞C | 42,6 | 40,5 | 10,9 | 40,8 | 39,8 | 12,1 | 39,1 | 39,1 | 13,4 | 37,6 | 37,6 | 15,0 | 36,0 | 36,0 | 16,6 |
| | 22∞C | 27∞C | 44,6 | 24,0 | 11,1 | 42,7 | 23,3 | 12,3 | 40,9 | 22,5 | 13,6 | 39,0 | 21,9 | 15,0 | 37,0 | 21,2 | 16,6 |
| | | 30∞C | 45,2 | 29,8 | 11,1 | 43,3 | 29,1 | 12,3 | 41,4 | 28,3 | 13,6 | 39,5 | 27,6 | 15,0 | 37,5 | 26,9 | 16,6 |
| | | 33∞C | 45,8 | 35,2 | 11,1 | 43,9 | 34,5 | 12,3 | 42,0 | 33,8 | 13,6 | 40,0 | 33,1 | 15,1 | 38,1 | 32,3 | 16,7 |
| | | 36∞C | 46,4 | 40,2 | 11,2 | 44,5 | 39,6 | 12,4 | 42,6 | 38,9 | 13,7 | 40,6 | 38,2 | 15,2 | 38,6 | 37,4 | 16,8 |
| Nominal Air flow 7 200 m³/h | 16∞C | 21∞C | 39,3 | 27,0 | 10,7 | 37,5 | 26,2 | 11,9 | 35,8 | 25,4 | 13,2 | 34,0 | 24,6 | 14,6 | 32,1 | 23,8 | 16,1 |
| | | 24∞C | 39,8 | 33,6 | 10,7 | 38,1 | 32,8 | 11,9 | 36,3 | 31,9 | 13,2 | 34,4 | 31,0 | 14,6 | 32,6 | 30,0 | 16,1 |
| | | 27∞C | 40,4 | 39,9 | 10,8 | 38,8 | 38,8 | 11,9 | 37,2 | 37,2 | 13,3 | 35,6 | 35,6 | 14,7 | 34,0 | 34,0 | 16,3 |
| | | 30∞C | 42,5 | 42,5 | 10,9 | 40,9 | 40,9 | 12,1 | 39,4 | 39,4 | 13,5 | 37,8 | 37,8 | 14,9 | 36,3 | 36,3 | 16,5 |
| | 19∞C | 24∞C | 42,9 | 26,7 | 11,0 | 41,0 | 25,9 | 12,2 | 39,1 | 25,2 | 13,5 | 37,2 | 24,5 | 14,9 | 35,3 | 23,7 | 16,4 |
| | | 27∞C | 43,5 | 33,4 | 11,0 | 41,6 | 32,7 | 12,2 | **39,7** | **31,9** | **13,5** | 37,8 | 31,0 | 14,9 | 35,8 | 30,2 | 16,5 |
| | | 30∞C | 44,1 | 39,9 | 11,0 | 42,2 | 39,1 | 12,2 | 40,3 | 38,2 | 13,6 | 38,3 | 37,3 | 15,0 | 36,3 | 36,3 | 16,6 |
| | | 33∞C | 45,2 | 45,2 | 11,1 | 43,5 | 43,5 | 12,3 | 41,9 | 41,9 | 13,7 | 40,2 | 40,2 | 15,2 | 38,5 | 38,5 | 16,8 |
| | 22∞C | 27∞C | 46,7 | 26,2 | 11,2 | 44,8 | 25,5 | 12,4 | 42,8 | 24,9 | 13,7 | 40,7 | 24,2 | 15,2 | 38,6 | 23,5 | 16,7 |
| | | 30∞C | 47,4 | 33,1 | 11,3 | 45,4 | 32,4 | 12,4 | 43,4 | 31,7 | 13,7 | 41,3 | 30,9 | 15,2 | - | - | - |
| | | 33∞C | 48,0 | 39,6 | 11,3 | 46,0 | 38,9 | 12,5 | 44,0 | 38,2 | 13,8 | 41,9 | 37,4 | 15,3 | - | - | - |
| | | 36∞C | 48,7 | 45,7 | 11,4 | 46,7 | 45,0 | 12,5 | 44,6 | 44,3 | 13,9 | 42,8 | 42,8 | 15,4 | - | - | - |
| Maximum Air flow 8 600 m³/h | 16∞C | 21∞C | 40,7 | 29,1 | 10,8 | 38,8 | 28,4 | 11,9 | 36,9 | 27,6 | 13,2 | 35,0 | 26,8 | 14,7 | 33,0 | 25,9 | 16,2 |
| | | 24∞C | 41,3 | 36,7 | 10,8 | 39,4 | 35,8 | 12,0 | 37,5 | 34,9 | 13,3 | 35,5 | 33,9 | 14,7 | 33,5 | 32,9 | 16,3 |
| | | 27∞C | 42,5 | 42,5 | 10,9 | 40,9 | 40,9 | 12,1 | 39,2 | 39,2 | 13,4 | 37,5 | 37,5 | 14,9 | 35,8 | 35,8 | 16,5 |
| | | 30∞C | 44,8 | 44,8 | 11,1 | 43,2 | 43,2 | 12,3 | 41,5 | 41,5 | 13,7 | 39,9 | 39,9 | 15,1 | 38,2 | 38,2 | 16,7 |
| | 19∞C | 24∞C | 44,5 | 28,8 | 11,1 | 42,5 | 28,1 | 12,2 | 40,4 | 27,4 | 13,6 | 38,4 | 26,6 | 15,0 | 36,3 | 25,9 | 16,6 |
| | | 27∞C | 45,1 | 36,6 | 11,1 | 43,1 | 35,8 | 12,3 | 41,0 | 35,0 | 13,6 | 39,0 | 34,1 | 15,1 | 36,9 | 33,1 | 16,7 |
| | | 30∞C | 45,8 | 44,0 | 11,2 | 43,7 | 43,2 | 12,3 | 41,8 | 41,8 | 13,6 | 40,0 | 40,0 | 15,2 | 38,1 | 38,1 | 16,8 |
| | | 33∞C | 47,6 | 47,6 | 11,3 | 45,9 | 45,9 | 12,5 | 44,1 | 44,1 | 13,9 | 42,3 | 42,3 | 15,4 | - | - | - |
| | 22∞C | 27∞C | 48,4 | 28,3 | 11,3 | 46,3 | 27,7 | 12,5 | 44,2 | 27,0 | 13,8 | 42,0 | 26,4 | 15,3 | - | - | - |
| | | 30∞C | 49,1 | 36,2 | 11,4 | 47,0 | 35,5 | 12,5 | 44,8 | 34,8 | 13,9 | 42,6 | 34,0 | 15,3 | - | - | - |
| | | 33∞C | 49,8 | 43,8 | 11,4 | 47,7 | 43,1 | 12,6 | 45,5 | 42,3 | 13,9 | 43,3 | 41,4 | 15,4 | - | - | - |
| | | 36∞C | 50,7 | 50,7 | 11,4 | 48,8 | 48,8 | 12,7 | 46,9 | 46,9 | 14,0 | 45,0 | 45,0 | 15,6 | - | - | - |

Entering air temperature

Control Pa (BC/BH) : 0,7 kW Control Pa (BG/BD) : 0,9 kW Condensing fan Pa (all) : 1,1 kW
Supply fan Pa (BC/BH) : 1,45 kW Supply fan Pa (BG/BD): 1,9 kW

# HEATING CAPACITY AND ABSORBED POWER

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.14*

| BHK / BDK | Outdoor air temp. | | 20∞C | | 15∞C | | 10∞C | | 7∞C | | 5∞C | | 0∞C | | -5∞C | | -9∞C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA |
| Minimum air flow 5 800 m³/h | Entering air temperature - dry bulb | 11∞C | 52,7 | 11,8 | 46,9 | 11,1 | 41,5 | 10,4 | 38,4 | 10,0 | 36,5 | 9,8 | 31,8 | 9,2 | 27,5 | 8,6 | - | - |
| | | 14∞C | 52,1 | 12,5 | 46,4 | 11,8 | 41,0 | 11,1 | 38,0 | 10,6 | 36,1 | 10,4 | 31,5 | 9,7 | 27,3 | 9,2 | 24,2 | 8,7 |
| | | 17∞C | 51,5 | 13,3 | 45,8 | 12,5 | 40,6 | 11,7 | 37,6 | 11,3 | 35,7 | 11,0 | 31,2 | 10,3 | 27,1 | 9,7 | 24,0 | 9,3 |
| | | 20∞C | 50,8 | 14,1 | 45,3 | 13,2 | 40,1 | 12,4 | 37,2 | 11,9 | 35,3 | 11,6 | 30,9 | 10,9 | 26,9 | 10,3 | 23,9 | 9,8 |
| | | 23∞C | 50,1 | 15,0 | 44,7 | 14,0 | 39,6 | 13,1 | 36,8 | 12,6 | 34,9 | 12,3 | 30,6 | 11,5 | 26,6 | 10,8 | 23,7 | 10,3 |
| | | 26∞C | 49,5 | 15,9 | 44,1 | 14,8 | 39,1 | 13,9 | 36,3 | 13,3 | 34,5 | 13,0 | 30,3 | 12,1 | 26,4 | 11,4 | 23,6 | 10,8 |
| Nominal air flow 7 200 m³/h | | 11∞C | 53,6 | 10,9 | 47,7 | 10,3 | 42,1 | 9,7 | 39,0 | 9,4 | 36,9 | 9,2 | 32,1 | 8,6 | - | - | - | - |
| | | 14∞C | 52,9 | 11,5 | 47,1 | 10,9 | 41,6 | 10,3 | 38,5 | 9,9 | 36,6 | 9,7 | 31,8 | 9,2 | 27,5 | 8,7 | 24,3 | 8,3 |
| | | 17∞C | 52,3 | 12,2 | 46,5 | 11,5 | 41,2 | 10,9 | 38,1 | 10,5 | 36,2 | 10,3 | 31,5 | 9,7 | 27,3 | 9,2 | 24,2 | 8,8 |
| | | 20∞C | 51,6 | 12,9 | 46,0 | 12,2 | 40,7 | 11,5 | **37,7** | **11,2** | 35,8 | 10,9 | 31,2 | 10,3 | 27,1 | 9,8 | 24,0 | 9,4 |
| | | 23∞C | 51,0 | 13,7 | 45,4 | 12,9 | 40,2 | 12,2 | 37,3 | 11,8 | 35,4 | 11,5 | 30,9 | 10,9 | 26,9 | 10,3 | 23,9 | 9,9 |
| | | 26∞C | 50,3 | 14,5 | 44,8 | 13,7 | 39,7 | 12,9 | 36,8 | 12,5 | 35,0 | 12,2 | 30,6 | 11,5 | 26,6 | 10,9 | 23,7 | 10,5 |
| Maximum air flow 8 600 m³/h | | 11∞C | 54,3 | 10,2 | 48,3 | 9,7 | 42,6 | 9,2 | 39,4 | 8,9 | 37,3 | 8,7 | 32,4 | 8,3 | - | - | - | - |
| | | 14∞C | 53,7 | 10,8 | 47,7 | 10,3 | 42,1 | 9,8 | 38,9 | 9,4 | 36,9 | 9,3 | 32,1 | 8,8 | 27,6 | 8,3 | 24,3 | 8,0 |
| | | 17∞C | 53,0 | 11,5 | 47,1 | 10,9 | 41,6 | 10,3 | 38,5 | 10,0 | 36,5 | 9,8 | 31,8 | 9,3 | 27,4 | 8,9 | 24,2 | 8,6 |
| | | 20∞C | 52,3 | 12,1 | 46,6 | 11,5 | 41,2 | 11,0 | 38,1 | 10,6 | 36,1 | 10,4 | 31,5 | 9,9 | 27,2 | 9,5 | 24,0 | 9,2 |
| | | 23∞C | 51,7 | 12,9 | 46,0 | 12,2 | 40,7 | 11,6 | 37,7 | 11,3 | 35,7 | 11,1 | 31,2 | 10,5 | 27,0 | 10,1 | 23,9 | 9,8 |
| | | 26∞C | 51,0 | 13,6 | 45,4 | 12,9 | 40,2 | 12,3 | 37,2 | 11,9 | 35,3 | 11,7 | 30,8 | 11,2 | 26,7 | 10,7 | 23,7 | 10,4 |

Control Pa (BC/BH) : 0,7 kW Control Pa (BG/BD) : 0,9 kW Condensing fan Pa (all) : 1,1 kW
Supply fan Pa (BC/BH) : 1,45 kW Supply fan Pa (BG/BD): 1,9 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**040 DOUBLE CIRCUIT**

***BCK*** = Cooling only rooftop ***BGK*** = Cooling only rooftop with gas fired heater

*Table 4.15*

| BCK / BGK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 45∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 5 800 m³/h | 16∞C | 21∞C | 37,7 | 24,7 | 10,6 | 36,2 | 23,9 | 11,7 | 34,7 | 23,2 | 13,0 | 33,1 | 22,5 | 14,5 | 31,5 | 21,8 | 15,9 |
| | | 24∞C | 38,2 | 30,4 | 10,6 | 36,6 | 29,6 | 11,7 | 35,1 | 28,8 | 13,0 | 33,5 | 28,0 | 14,5 | 31,9 | 27,2 | 15,9 |
| | | 27∞C | 38,7 | 35,6 | 10,6 | 37,1 | 34,7 | 11,8 | 35,5 | 33,9 | 13,1 | 34,0 | 33,0 | 14,5 | 32,3 | 32,1 | 16,0 |
| | | 30∞C | 40,0 | 40,0 | 10,7 | 38,6 | 38,6 | 11,9 | 37,2 | 37,2 | 13,2 | 35,8 | 35,8 | 14,7 | 34,5 | 34,5 | 16,2 |
| | 19∞C | 24∞C | 41,3 | 24,4 | 10,9 | 39,7 | 23,6 | 12,0 | 38,0 | 22,9 | 13,3 | 36,3 | 22,3 | 14,8 | 34,6 | 21,6 | 16,3 |
| | | 27∞C | 41,8 | 30,3 | 10,9 | 40,1 | 29,5 | 12,0 | 38,4 | 28,7 | 13,3 | 36,7 | 28,0 | 14,8 | 35,0 | 27,2 | 16,3 |
| | | 30∞C | 42,3 | 35,6 | 10,9 | 40,6 | 34,8 | 12,1 | 38,9 | 34,0 | 13,4 | 37,2 | 33,2 | 14,8 | 35,5 | 32,3 | 16,4 |
| | | 33∞C | 42,9 | 40,4 | 10,9 | 41,2 | 39,6 | 12,1 | 39,5 | 38,8 | 13,5 | 38,1 | 38,1 | 14,9 | 36,6 | 36,6 | 16,5 |
| | 22∞C | 27∞C | 45,1 | 24,0 | 11,1 | 43,3 | 23,2 | 12,3 | 41,5 | 22,6 | 13,6 | 39,7 | 21,9 | 15,0 | 37,8 | 21,3 | 16,6 |
| | | 30∞C | 45,6 | 30,1 | 11,1 | 43,8 | 29,3 | 12,3 | 42,0 | 28,6 | 13,6 | 40,1 | 27,8 | 15,0 | 38,3 | 27,1 | 16,6 |
| | | 33∞C | 46,1 | 35,5 | 11,1 | 44,3 | 34,8 | 12,3 | 42,5 | 34,0 | 13,6 | 40,6 | 33,2 | 15,1 | 38,8 | 32,4 | 16,7 |
| | | 36∞C | 46,7 | 40,4 | 11,2 | 44,9 | 39,6 | 12,4 | 43,0 | 38,9 | 13,7 | 41,2 | 38,1 | 15,2 | 39,3 | 37,2 | 16,8 |
| Nominal Air flow 7 200 m³/h | 16∞C | 21∞C | 39,6 | 27,0 | 10,7 | 37,9 | 26,3 | 11,9 | 36,3 | 25,5 | 13,2 | 34,6 | 24,8 | 14,6 | 32,9 | 24,1 | 16,0 |
| | | 24∞C | 40,1 | 33,6 | 10,7 | 38,5 | 32,7 | 11,9 | 36,8 | 31,8 | 13,2 | 35,1 | 31,0 | 14,6 | 33,3 | 30,1 | 16,1 |
| | | 27∞C | 40,7 | 39,6 | 10,8 | 39,0 | 38,6 | 11,9 | 37,6 | 37,6 | 13,3 | 36,1 | 36,1 | 14,7 | 34,6 | 34,6 | 16,3 |
| | | 30∞C | 42,8 | 42,8 | 10,9 | 41,3 | 41,3 | 12,1 | 39,8 | 39,8 | 13,5 | 38,4 | 38,4 | 14,9 | 36,9 | 36,9 | 16,4 |
| | 19∞C | 24∞C | 43,3 | 26,8 | 11,0 | 41,5 | 26,0 | 12,2 | 39,7 | 25,3 | 13,5 | 37,9 | 24,6 | 14,9 | 36,1 | 23,9 | 16,4 |
| | | 27∞C | 43,9 | 33,5 | 11,0 | 42,1 | 32,7 | 12,2 | **40,2** | **31,9** | **13,5** | 38,4 | 31,1 | 14,9 | 36,5 | 30,3 | 16,5 |
| | | 30∞C | 44,4 | 39,7 | 11,0 | 42,6 | 38,9 | 12,2 | 40,8 | 38,0 | 13,5 | 38,9 | 37,1 | 15,0 | 37,1 | 36,1 | 16,6 |
| | | 33∞C | 45,6 | 45,6 | 11,1 | 44,0 | 44,0 | 12,3 | 42,3 | 42,3 | 13,7 | 40,7 | 40,7 | 15,2 | 39,1 | 39,1 | 16,7 |
| | 22∞C | 27∞C | 47,2 | 26,3 | 11,2 | 45,3 | 25,6 | 12,4 | 43,3 | 25,0 | 13,7 | 41,4 | 24,3 | 15,2 | 39,4 | 23,7 | 16,7 |
| | | 30∞C | 47,8 | 33,4 | 11,2 | 45,8 | 32,6 | 12,4 | 43,9 | 31,8 | 13,7 | 41,9 | 31,1 | 15,2 | 39,9 | 30,3 | 16,8 |
| | | 33∞C | 48,4 | 39,7 | 11,3 | 46,4 | 38,9 | 12,5 | 44,5 | 38,1 | 13,8 | 42,5 | 37,3 | 15,3 | - | - | - |
| | | 36∞C | 49,0 | 45,5 | 11,3 | 47,1 | 44,7 | 12,5 | 45,1 | 43,8 | 13,9 | 43,1 | 42,9 | 15,4 | - | - | - |
| Maximum Air flow 8 600 m³/h | 16∞C | 21∞C | 41,0 | 29,2 | 10,8 | 39,2 | 28,4 | 11,9 | 37,4 | 27,6 | 13,2 | 35,6 | 26,8 | 14,6 | 33,8 | 26,1 | 16,1 |
| | | 24∞C | 41,6 | 36,5 | 10,8 | 39,8 | 35,6 | 12,0 | 38,0 | 34,6 | 13,3 | 36,1 | 33,7 | 14,7 | 34,3 | 32,7 | 16,2 |
| | | 27∞C | 42,8 | 42,8 | 10,9 | 41,2 | 41,2 | 12,1 | 39,6 | 39,6 | 13,4 | 38,0 | 38,0 | 14,9 | 36,4 | 36,4 | 16,4 |
| | | 30∞C | 45,1 | 45,1 | 11,1 | 43,6 | 43,6 | 12,3 | 42,0 | 42,0 | 13,6 | 40,4 | 40,4 | 15,1 | 38,9 | 38,9 | 16,6 |
| | 19∞C | 24∞C | 44,8 | 28,9 | 11,1 | 42,9 | 28,2 | 12,2 | 41,0 | 27,5 | 13,5 | 39,0 | 26,8 | 15,0 | 37,1 | 26,0 | 16,5 |
| | | 27∞C | 45,4 | 36,5 | 11,1 | 43,5 | 35,7 | 12,3 | 41,6 | 34,8 | 13,6 | 39,6 | 33,9 | 15,0 | 37,6 | 33,0 | 16,6 |
| | | 30∞C | 46,1 | 43,6 | 11,1 | 44,1 | 42,7 | 12,3 | 42,2 | 41,7 | 13,7 | 40,5 | 40,5 | 15,2 | 38,8 | 38,8 | 16,8 |
| | | 33∞C | 48,0 | 48,0 | 11,3 | 46,3 | 46,3 | 12,5 | 44,6 | 44,6 | 13,8 | 42,9 | 42,9 | 15,3 | - | - | - |
| | 22∞C | 27∞C | 48,8 | 28,6 | 11,3 | 46,8 | 27,9 | 12,5 | 44,7 | 27,2 | 13,8 | 42,6 | 26,5 | 15,3 | - | - | - |
| | | 30∞C | 49,4 | 36,5 | 11,3 | 47,4 | 35,7 | 12,5 | 45,3 | 34,9 | 13,8 | 43,2 | 34,1 | 15,3 | - | - | - |
| | | 33∞C | 50,1 | 43,7 | 11,4 | 48,1 | 42,9 | 12,6 | 46,0 | 42,0 | 13,9 | 43,9 | 41,1 | 15,4 | - | - | - |
| | | 36∞C | 50,9 | 50,4 | 11,5 | 49,3 | 49,3 | 12,6 | 47,5 | 47,5 | 14,0 | 45,6 | 45,6 | 15,5 | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,45 kW
Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 1,9 kW
Condensing fan Pa (all) : 1,1 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions **XXX**

# COOLING CAPACITY AND ABSORBED POWER

**045 DOUBLE CIRCUIT**

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.16*

| BHK / BDK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 43∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 6 500 m³/h | 16∞C | 21∞C | 41,1 | 27,3 | 12,2 | 39,4 | 26,4 | 13,5 | 37,6 | 25,6 | 15,0 | 35,8 | 24,7 | 16,6 | 34,6 | 24,2 | 17,6 |
| | | 24∞C | 41,7 | 33,6 | 12,2 | 39,9 | 32,7 | 13,5 | 38,1 | 31,8 | 15,0 | 36,3 | 30,9 | 16,6 | 35,2 | 30,3 | 17,7 |
| | | 27∞C | 42,3 | 39,6 | 12,2 | 40,5 | 38,7 | 13,5 | 38,7 | 37,7 | 15,1 | 36,8 | 36,7 | 16,7 | 35,9 | 35,9 | 17,8 |
| | | 30∞C | 43,8 | 43,8 | 12,3 | 42,2 | 42,2 | 13,7 | 40,6 | 40,6 | 15,2 | 39,0 | 39,0 | 16,9 | 38,0 | 38,0 | 18,0 |
| | 19∞C | 24∞C | 45,0 | 27,0 | 12,5 | 43,1 | 26,2 | 13,8 | 41,1 | 25,3 | 15,3 | 39,2 | 24,5 | 17,0 | 38,0 | 24,1 | 18,0 |
| | | 27∞C | 45,6 | 33,5 | 12,5 | 43,7 | 32,6 | 13,8 | 41,7 | 31,7 | 15,4 | 39,8 | 30,9 | 17,0 | 38,6 | 30,3 | 18,1 |
| | | 30∞C | 46,2 | 39,5 | 12,5 | 44,3 | 38,6 | 13,9 | 42,3 | 37,8 | 15,4 | 40,3 | 36,8 | 17,1 | 39,1 | 36,3 | 18,2 |
| | | 33∞C | 46,9 | 45,0 | 12,6 | 44,9 | 44,2 | 14,0 | 43,2 | 43,2 | 15,5 | 41,5 | 41,5 | 17,2 | 40,4 | 40,4 | 18,3 |
| | 22∞C | 27∞C | 49,0 | 26,6 | 12,8 | 47,0 | 25,8 | 14,1 | 44,9 | 25,0 | 15,7 | 42,8 | 24,3 | 17,3 | 41,6 | 23,8 | 18,4 |
| | | 30∞C | 49,7 | 33,2 | 12,8 | 47,6 | 32,3 | 14,2 | 45,6 | 31,5 | 15,7 | 43,5 | 30,7 | 17,3 | - | - | - |
| | | 33∞C | 50,4 | 39,2 | 12,8 | 48,3 | 38,4 | 14,2 | 46,2 | 37,6 | 15,7 | 44,1 | 36,8 | 17,4 | - | - | - |
| | | 36∞C | 51,1 | 44,7 | 12,9 | 49,0 | 44,0 | 14,3 | 46,9 | 43,2 | 15,8 | 44,7 | 42,4 | 17,5 | - | - | - |
| Nominal Air flow 8 100 m³/h | 16∞C | 21∞C | 43,2 | 29,9 | 12,3 | 41,3 | 29,1 | 13,6 | 39,4 | 28,3 | 15,1 | 37,4 | 27,4 | 16,8 | 36,2 | 26,9 | 17,8 |
| | | 24∞C | 43,8 | 37,4 | 12,3 | 41,9 | 36,5 | 13,7 | 39,9 | 35,5 | 15,2 | 38,0 | 34,5 | 16,8 | 36,7 | 33,9 | 17,8 |
| | | 27∞C | 44,6 | 44,6 | 12,4 | 42,9 | 42,9 | 13,7 | 41,1 | 41,1 | 15,3 | 39,4 | 39,4 | 17,0 | 38,3 | 38,3 | 18,0 |
| | | 30∞C | 46,8 | 46,8 | 12,6 | 45,1 | 45,1 | 14,0 | 43,4 | 43,4 | 15,5 | 41,7 | 41,7 | 17,2 | 40,7 | 40,7 | 18,3 |
| | 19∞C | 24∞C | 47,2 | 29,6 | 12,7 | 45,1 | 28,8 | 14,0 | 43,1 | 28,0 | 15,5 | 41,0 | 27,2 | 17,1 | 39,7 | 26,7 | 18,2 |
| | | 27∞C | 47,8 | 37,2 | 12,7 | 45,8 | 36,3 | 14,0 | **43,7** | **35,5** | **15,5** | 41,6 | 34,6 | 17,2 | 40,3 | 34,0 | 18,3 |
| | | 30∞C | 48,5 | 44,4 | 12,7 | 46,4 | 43,5 | 14,1 | 44,3 | 42,6 | 15,6 | 42,2 | 41,5 | 17,3 | 40,9 | 40,9 | 18,4 |
| | | 33∞C | 49,9 | 49,9 | 12,8 | 48,0 | 48,0 | 14,2 | 46,2 | 46,2 | 15,8 | 44,3 | 44,3 | 17,5 | - | - | - |
| | 22∞C | 27∞C | 51,4 | 29,1 | 13,0 | 49,2 | 28,4 | 14,3 | 47,0 | 27,6 | 15,8 | 44,7 | 26,9 | 17,5 | - | - | - |
| | | 30∞C | 52,1 | 36,9 | 13,0 | 49,9 | 36,1 | 14,3 | 47,7 | 35,3 | 15,8 | 45,4 | 34,5 | 17,5 | - | - | - |
| | | 33∞C | 52,8 | 44,1 | 13,0 | 50,6 | 43,3 | 14,4 | 48,3 | 42,5 | 15,9 | 46,1 | 41,6 | 17,6 | - | - | - |
| | | 36∞C | 53,5 | 50,8 | 13,1 | 51,3 | 50,1 | 14,5 | 49,2 | 49,2 | 16,0 | 47,2 | 47,2 | 17,7 | - | - | - |
| Maximum Air flow 9 700 m³/h | 16∞C | 21∞C | 44,7 | 32,4 | 12,4 | 42,7 | 31,5 | 13,7 | 40,6 | 30,6 | 15,2 | 38,5 | 29,8 | 16,9 | 37,2 | 29,2 | 17,9 |
| | | 24∞C | 45,4 | 40,9 | 12,5 | 43,3 | 39,9 | 13,8 | 41,2 | 38,9 | 15,3 | 39,1 | 37,8 | 16,9 | 37,8 | 37,1 | 18,0 |
| | | 27∞C | 46,9 | 46,9 | 12,6 | 45,0 | 45,0 | 13,9 | 43,2 | 43,2 | 15,5 | 41,3 | 41,3 | 17,2 | 40,2 | 40,2 | 18,2 |
| | | 30∞C | 49,3 | 49,3 | 12,8 | 47,5 | 47,5 | 14,2 | 45,7 | 45,7 | 15,7 | 43,9 | 43,9 | 17,4 | - | - | - |
| | 19∞C | 24∞C | 48,8 | 32,0 | 12,8 | 46,7 | 31,2 | 14,1 | 44,4 | 30,4 | 15,6 | 42,2 | 29,6 | 17,3 | 40,8 | 29,1 | 18,3 |
| | | 27∞C | 49,5 | 40,7 | 12,8 | 47,3 | 39,8 | 14,1 | 45,1 | 38,9 | 15,7 | 42,8 | 37,9 | 17,3 | 41,5 | 37,3 | 18,4 |
| | | 30∞C | 50,3 | 49,0 | 12,9 | 48,1 | 48,1 | 14,2 | 46,1 | 46,1 | 15,7 | 44,1 | 44,1 | 17,5 | - | - | - |
| | | 33∞C | 52,4 | 52,4 | 13,0 | 50,5 | 50,5 | 14,4 | 48,6 | 48,6 | 16,0 | 46,6 | 46,6 | 17,7 | - | - | - |
| | 22∞C | 27∞C | 53,2 | 31,5 | 13,1 | 50,8 | 30,7 | 14,4 | 48,5 | 30,0 | 15,9 | 46,1 | 29,3 | 17,6 | - | - | - |
| | | 30∞C | 53,9 | 40,4 | 13,1 | 51,6 | 39,6 | 14,5 | 49,2 | 38,8 | 16,0 | 46,8 | 37,9 | 17,7 | - | - | - |
| | | 33∞C | 54,7 | 48,9 | 13,2 | 52,3 | 48,0 | 14,5 | 49,9 | 47,1 | 16,1 | 47,5 | 46,1 | 17,8 | - | - | - |
| | | 36∞C | 55,9 | 55,9 | 13,3 | 53,8 | 53,8 | 14,6 | - | - | - | - | - | - | - | - | - |

Entering air temperature

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,9 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 2,7 kW

Condensing fan Pa (all) : 1,1 kW

# HEATING CAPACITY AND ABSORBED POWER

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.17*

| BHK / BDK | Outdoor air temp. | | 20∞C | | 15∞C | | 10∞C | | 7∞C | | 5∞C | | 0∞C | | -5∞C | | -8∞C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA |
| Minimum air flow 6 500 m³/h | Entering air temperature - dry bulb | 11∞C | 57,5 | 13,1 | 51,1 | 12,4 | 45,2 | 11,6 | 41,9 | 11,2 | 39,7 | 10,9 | 34,7 | 10,3 | 30,1 | 9,7 | - | - |
| | | 14∞C | 56,9 | 13,9 | 50,6 | 13,1 | 44,8 | 12,3 | 41,5 | 11,9 | 39,4 | 11,6 | 34,4 | 10,9 | 29,9 | 10,3 | 27,4 | 9,9 |
| | | 17∞C | 56,2 | 14,8 | 50,1 | 13,9 | 44,3 | 13,1 | 41,1 | 12,6 | 39,0 | 12,3 | 34,1 | 11,6 | 29,7 | 10,9 | 27,2 | 10,6 |
| | | 20∞C | 55,6 | 15,7 | 49,5 | 14,8 | 43,9 | 13,9 | 40,7 | 13,4 | 38,6 | 13,0 | 33,9 | 12,3 | 29,5 | 11,6 | 27,1 | 11,2 |
| | | 23∞C | 55,0 | 16,7 | 49,0 | 15,7 | 43,4 | 14,7 | 40,3 | 14,1 | 38,3 | 13,8 | 33,6 | 12,9 | 29,3 | 12,2 | 27,0 | 11,8 |
| | | 26∞C | 54,4 | 17,8 | 48,5 | 16,6 | 43,0 | 15,5 | 39,9 | 14,9 | 37,9 | 14,5 | 33,3 | 13,6 | 29,2 | 12,8 | 26,9 | 12,3 |
| Nominal air flow 8 100 m³/h | | 11∞C | 58,4 | 12,1 | 51,9 | 11,5 | 45,8 | 10,8 | 42,4 | 10,5 | 40,2 | 10,2 | 35,0 | 9,7 | - | - | - | - |
| | | 14∞C | 57,7 | 12,8 | 51,3 | 12,1 | 45,4 | 11,5 | 42,0 | 11,1 | 39,8 | 10,9 | 34,8 | 10,3 | 30,1 | 9,7 | 27,5 | 9,4 |
| | | 17∞C | 57,1 | 13,6 | 50,8 | 12,9 | 44,9 | 12,2 | 41,6 | 11,8 | 39,5 | 11,5 | 34,5 | 10,9 | 29,9 | 10,4 | 27,4 | 10,1 |
| | | 20∞C | 56,4 | 14,4 | 50,2 | 13,7 | 44,4 | 12,9 | **41,2** | **12,5** | 39,1 | 12,2 | 34,2 | 11,6 | 29,7 | 11,0 | 27,2 | 10,7 |
| | | 23∞C | 55,8 | 15,3 | 49,7 | 14,5 | 44,0 | 13,7 | 40,8 | 13,2 | 38,7 | 12,9 | 33,9 | 12,2 | 29,5 | 11,6 | 27,1 | 11,3 |
| | | 26∞C | 55,2 | 16,3 | 49,1 | 15,3 | 43,5 | 14,5 | 40,4 | 14,0 | 38,4 | 13,7 | 33,7 | 12,9 | 29,4 | 12,3 | 27,0 | 11,9 |
| Maximum air flow 9 700 m³/h | | 11∞C | 59,1 | 11,4 | 52,5 | 10,8 | 46,3 | 10,3 | 42,8 | 9,9 | 40,6 | 9,7 | - | - | - | - | - | - |
| | | 14∞C | 58,4 | 12,1 | 51,9 | 11,5 | 45,8 | 10,9 | 42,4 | 10,6 | 40,2 | 10,3 | 35,0 | 9,8 | 30,2 | 9,4 | 27,5 | 9,1 |
| | | 17∞C | 57,8 | 12,8 | 51,3 | 12,1 | 45,3 | 11,5 | 42,0 | 11,2 | 39,8 | 11,0 | 34,7 | 10,5 | 30,0 | 10,0 | 27,4 | 9,8 |
| | | 20∞C | 57,1 | 13,5 | 50,8 | 12,9 | 44,9 | 12,2 | 41,5 | 11,9 | 39,4 | 11,7 | 34,4 | 11,1 | 29,8 | 10,7 | 27,3 | 10,4 |
| | | 23∞C | 56,5 | 14,4 | 50,2 | 13,7 | 44,4 | 13,0 | 41,1 | 12,6 | 39,0 | 12,4 | 34,1 | 11,8 | 29,6 | 11,4 | 27,1 | 11,1 |
| | | 26∞C | 55,8 | 15,2 | 49,7 | 14,5 | 44,0 | 13,8 | 40,7 | 13,4 | 38,7 | 13,1 | 33,8 | 12,5 | 29,4 | 12,0 | 27,0 | 11,8 |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,9 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 2,7 kW

Condensing fan Pa (all) : 1,1 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**045 DOUBLE CIRCUIT**

***BCK*** = Cooling only rooftop ***BGK*** = Cooling only rooftop with gas fired heater

*Table 4.18*

| BCK / BGK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 43∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 6 500 m³/h | 16∞C | 21∞C | 41,4 | 27,1 | 12,2 | 39,7 | 26,3 | 13,5 | 38,1 | 25,5 | 15,0 | 36,4 | 24,8 | 16,6 | 35,3 | 24,4 | 17,6 |
| | | 24∞C | 41,9 | 33,6 | 12,2 | 40,3 | 32,7 | 13,5 | 38,6 | 31,8 | 15,0 | 36,9 | 31,0 | 16,6 | 35,8 | 30,5 | 17,6 |
| | | 27∞C | 42,5 | 39,4 | 12,2 | 40,8 | 38,5 | 13,5 | 39,1 | 37,5 | 15,0 | 37,4 | 36,6 | 16,7 | 36,3 | 36,0 | 17,7 |
| | | 30∞C | 44,0 | 44,0 | 12,3 | 42,5 | 42,5 | 13,7 | 41,0 | 41,0 | 15,2 | 39,5 | 39,5 | 16,9 | 38,6 | 38,6 | 17,9 |
| | 19∞C | 24∞C | 45,3 | 26,7 | 12,5 | 43,5 | 25,9 | 13,8 | 41,7 | 25,1 | 15,4 | 39,8 | 24,4 | 17,0 | 38,7 | 24,0 | 18,0 |
| | | 27∞C | 45,9 | 33,5 | 12,5 | 44,0 | 32,6 | 13,8 | 42,2 | 31,8 | 15,4 | 40,4 | 30,9 | 17,0 | 39,2 | 30,4 | 18,1 |
| | | 30∞C | 46,5 | 39,5 | 12,5 | 44,6 | 38,6 | 13,9 | 42,8 | 37,7 | 15,4 | 40,9 | 36,8 | 17,1 | 39,8 | 36,3 | 18,1 |
| | | 33∞C | 47,1 | 44,8 | 12,6 | 45,3 | 43,9 | 14,0 | 43,4 | 42,9 | 15,5 | 42,0 | 42,0 | 17,2 | 41,0 | 41,0 | 18,3 |
| | 22∞C | 27∞C | 49,4 | 26,0 | 12,8 | 47,4 | 25,3 | 14,2 | 45,5 | 24,6 | 15,7 | 43,5 | 23,9 | 17,3 | 42,3 | 23,5 | 18,4 |
| | | 30∞C | 49,9 | 33,1 | 12,8 | 48,0 | 32,3 | 14,2 | 46,0 | 31,5 | 15,7 | 44,0 | 30,7 | 17,3 | - | - | - |
| | | 33∞C | 50,6 | 39,4 | 12,8 | 48,6 | 38,5 | 14,2 | 46,6 | 37,7 | 15,7 | 44,6 | 36,8 | 17,4 | - | - | - |
| | | 36∞C | 51,2 | 44,8 | 12,9 | 49,3 | 43,9 | 14,3 | 47,3 | 43,1 | 15,8 | 45,3 | 42,2 | 17,5 | - | - | - |
| Nominal Air flow 8 100 m³/h | 16∞C | 21∞C | 43,4 | 29,8 | 12,3 | 41,6 | 29,0 | 13,6 | 39,8 | 28,2 | 15,1 | 38,0 | 27,4 | 16,8 | 36,9 | 26,9 | 17,8 |
| | | 24∞C | 44,1 | 37,1 | 12,3 | 42,2 | 36,2 | 13,7 | 40,4 | 35,3 | 15,2 | 38,6 | 34,4 | 16,8 | 37,5 | 33,8 | 17,8 |
| | | 27∞C | 44,7 | 43,8 | 12,4 | 42,9 | 42,8 | 13,7 | 41,4 | 41,4 | 15,3 | 39,8 | 39,8 | 16,9 | 38,8 | 38,8 | 18,0 |
| | | 30∞C | 47,0 | 47,0 | 12,6 | 45,4 | 45,4 | 14,0 | 43,8 | 43,8 | 15,5 | 42,2 | 42,2 | 17,2 | 41,2 | 41,2 | 18,2 |
| | 19∞C | 24∞C | 47,4 | 29,4 | 12,7 | 45,5 | 28,6 | 14,0 | 43,5 | 27,8 | 15,5 | 41,6 | 27,1 | 17,1 | 40,4 | 26,6 | 18,2 |
| | | 27∞C | 48,1 | 37,1 | 12,7 | 46,1 | 36,2 | 14,0 | **44,2** | **35,3** | **15,5** | 42,2 | 34,4 | 17,2 | 41,0 | 33,9 | 18,2 |
| | | 30∞C | 48,8 | 44,1 | 12,7 | 46,8 | 43,1 | 14,1 | 44,8 | 42,1 | 15,6 | 42,8 | 41,1 | 17,3 | 41,6 | 40,5 | 18,4 |
| | | 33∞C | 50,1 | 50,1 | 12,8 | 48,3 | 48,3 | 14,2 | 46,5 | 46,5 | 15,7 | 44,8 | 44,8 | 17,5 | - | - | - |
| | 22∞C | 27∞C | 51,6 | 28,8 | 13,0 | 49,5 | 28,0 | 14,3 | 47,5 | 27,3 | 15,8 | 45,3 | 26,6 | 17,5 | - | - | - |
| | | 30∞C | 52,3 | 36,8 | 13,0 | 50,2 | 36,0 | 14,3 | 48,1 | 35,2 | 15,8 | 46,0 | 34,3 | 17,5 | - | - | - |
| | | 33∞C | 53,0 | 44,1 | 13,0 | 50,9 | 43,2 | 14,4 | 48,8 | 42,3 | 15,9 | 46,7 | 41,3 | 17,6 | - | - | - |
| | | 36∞C | 53,8 | 50,4 | 13,1 | 51,6 | 49,5 | 14,5 | 49,5 | 48,6 | 16,0 | 47,6 | 47,6 | 17,7 | - | - | - |
| Maximum Air flow 9 700 m³/h | 16∞C | 21∞C | 44,9 | 32,2 | 12,4 | 43,0 | 31,3 | 13,7 | 41,1 | 30,5 | 15,2 | 39,1 | 29,7 | 16,9 | 37,9 | 29,2 | 17,9 |
| | | 24∞C | 45,6 | 40,4 | 12,5 | 43,7 | 39,4 | 13,8 | 41,7 | 38,4 | 15,3 | 39,8 | 37,4 | 16,9 | 38,6 | 36,8 | 18,0 |
| | | 27∞C | 47,0 | 47,0 | 12,6 | 45,3 | 45,3 | 13,9 | 43,5 | 43,5 | 15,5 | 41,8 | 41,8 | 17,1 | 40,7 | 40,7 | 18,2 |
| | | 30∞C | 49,5 | 49,5 | 12,8 | 47,8 | 47,8 | 14,2 | 46,1 | 46,1 | 15,7 | 44,4 | 44,4 | 17,4 | - | - | - |
| | 19∞C | 24∞C | 49,0 | 31,8 | 12,8 | 47,0 | 31,1 | 14,1 | 44,9 | 30,3 | 15,6 | 42,8 | 29,5 | 17,3 | 41,5 | 29,1 | 18,3 |
| | | 27∞C | 49,8 | 40,5 | 12,8 | 47,7 | 39,5 | 14,1 | 45,6 | 38,6 | 15,7 | 43,5 | 37,7 | 17,3 | - | - | - |
| | | 30∞C | 50,6 | 48,4 | 12,9 | 48,5 | 47,3 | 14,2 | 46,3 | 46,3 | 15,8 | 44,5 | 44,5 | 17,5 | - | - | - |
| | | 33∞C | 52,7 | 52,7 | 13,0 | 50,8 | 50,8 | 14,4 | 48,9 | 48,9 | 16,0 | 47,1 | 47,1 | 17,7 | - | - | - |
| | 22∞C | 27∞C | 53,3 | 31,3 | 13,1 | 51,1 | 30,6 | 14,4 | 48,9 | 29,9 | 15,9 | 46,7 | 29,2 | 17,6 | - | - | - |
| | | 30∞C | 54,1 | 40,4 | 13,1 | 51,9 | 39,5 | 14,5 | 49,6 | 38,6 | 16,0 | 47,4 | 37,7 | 17,7 | - | - | - |
| | | 33∞C | 54,9 | 48,5 | 13,2 | 52,7 | 47,6 | 14,5 | 50,4 | 46,6 | 16,1 | 48,2 | 45,6 | 17,8 | - | - | - |
| | | 36∞C | 56,1 | 56,1 | 13,2 | 54,1 | 54,1 | 14,6 | 52,0 | 52,0 | 16,2 | - | - | - | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 1,9 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 2,7 kW

Condensing fan Pa (all) : 1,1 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

# COOLING CAPACITY AND ABSORBED POWER

**050 DOUBLE CIRCUIT**

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.19*

| BHK / BDK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 42∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 7 200 m³/h | 16∞C | 21∞C | 44,6 | 29,7 | 13,7 | 42,7 | 28,8 | 15,3 | 40,8 | 27,9 | 17,0 | 38,8 | 27,0 | 18,8 | 38,0 | 26,6 | 19,5 |
| | | 24∞C | 45,2 | 36,7 | 13,8 | 43,3 | 35,7 | 15,3 | 41,3 | 34,7 | 17,0 | 39,3 | 33,8 | 18,8 | 38,5 | 33,3 | 19,6 |
| | | 27∞C | 45,9 | 43,3 | 13,8 | 43,9 | 42,3 | 15,3 | 41,9 | 41,3 | 17,0 | 40,0 | 40,0 | 18,9 | 39,3 | 39,3 | 19,7 |
| | | 30∞C | 47,5 | 47,5 | 13,9 | 45,8 | 45,8 | 15,5 | 44,1 | 44,1 | 17,3 | 42,4 | 42,4 | 19,2 | 41,7 | 41,7 | 20,0 |
| | 19∞C | 24∞C | 48,7 | 29,4 | 14,1 | 46,6 | 28,5 | 15,7 | 44,6 | 27,6 | 17,4 | 42,5 | 26,8 | 19,2 | 41,6 | 26,4 | 20,0 |
| | | 27∞C | 49,4 | 36,5 | 14,2 | 47,3 | 35,6 | 15,7 | 45,2 | 34,6 | 17,4 | 43,1 | 33,7 | 19,3 | 42,2 | 33,3 | 20,1 |
| | | 30∞C | 50,1 | 43,1 | 14,2 | 48,0 | 42,2 | 15,7 | 45,8 | 41,3 | 17,5 | 43,7 | 40,3 | 19,4 | 42,8 | 39,9 | 20,2 |
| | | 33∞C | 50,8 | 49,4 | 14,3 | 48,6 | 48,5 | 15,8 | 46,9 | 46,9 | 17,5 | 45,0 | 45,0 | 19,5 | 44,2 | 44,2 | 20,3 |
| | 22∞C | 27∞C | 53,0 | 29,1 | 14,5 | 50,8 | 28,2 | 16,0 | 48,6 | 27,3 | 17,7 | 46,4 | 26,5 | 19,6 | 45,5 | 26,1 | 20,4 |
| | | 30∞C | 53,8 | 36,1 | 14,5 | 51,6 | 35,3 | 16,1 | 49,3 | 34,4 | 17,8 | 47,1 | 33,5 | 19,7 | 46,1 | 33,2 | 20,5 |
| | | 33∞C | 54,6 | 42,8 | 14,6 | 52,3 | 41,9 | 16,1 | 50,0 | 41,1 | 17,8 | 47,7 | 40,2 | 19,8 | 46,8 | 39,9 | 20,6 |
| | | 36∞C | 55,3 | 48,9 | 14,6 | 53,0 | 48,2 | 16,2 | 50,7 | 47,4 | 17,9 | 48,3 | 46,6 | 19,9 | 47,4 | 46,2 | 20,7 |
| Nominal Air flow 9 000 m³/h | 16∞C | 21∞C | 46,8 | 32,6 | 13,9 | 44,7 | 31,7 | 15,4 | 42,6 | 30,8 | 17,1 | 40,5 | 29,9 | 19,0 | 39,7 | 29,5 | 19,7 |
| | | 24∞C | 47,5 | 40,8 | 14,0 | 45,4 | 39,8 | 15,5 | 43,3 | 38,8 | 17,2 | 41,1 | 37,7 | 19,0 | 40,3 | 37,3 | 19,8 |
| | | 27∞C | 48,3 | 48,3 | 14,0 | 46,5 | 46,5 | 15,6 | 44,6 | 44,6 | 17,3 | 42,7 | 42,7 | 19,2 | 41,9 | 41,9 | 20,0 |
| | | 30∞C | 50,8 | 50,8 | 14,3 | 49,0 | 49,0 | 15,8 | 47,1 | 47,1 | 17,6 | 45,3 | 45,3 | 19,5 | 44,5 | 44,5 | 20,3 |
| | 19∞C | 24∞C | 51,0 | 32,3 | 14,3 | 48,8 | 31,4 | 15,9 | 46,6 | 30,5 | 17,6 | 44,3 | 29,7 | 19,4 | 43,4 | 29,3 | 20,2 |
| | | 27∞C | 51,8 | 40,6 | 14,4 | 49,6 | 39,7 | 15,9 | **47,3** | **38,7** | **17,6** | 45,0 | 37,8 | 19,5 | 44,1 | 37,3 | 20,3 |
| | | 30∞C | 52,5 | 48,6 | 14,4 | 50,3 | 47,6 | 16,0 | 48,0 | 46,6 | 17,7 | 45,6 | 45,5 | 19,6 | 44,7 | 44,7 | 20,4 |
| | | 33∞C | 54,0 | 54,0 | 14,5 | 52,0 | 52,0 | 16,1 | 50,0 | 50,0 | 17,9 | 48,0 | 48,0 | 19,8 | 47,2 | 47,2 | 20,7 |
| | 22∞C | 27∞C | 55,5 | 31,8 | 14,7 | 53,2 | 31,0 | 16,2 | 50,8 | 30,1 | 17,9 | 48,4 | 29,3 | 19,8 | 47,4 | 29,0 | 20,6 |
| | | 30∞C | 56,3 | 40,2 | 14,7 | 54,0 | 39,4 | 16,3 | 51,5 | 38,5 | 18,0 | 49,1 | 37,6 | 19,9 | - | - | - |
| | | 33∞C | 57,1 | 48,2 | 14,8 | 54,7 | 47,4 | 16,3 | 52,3 | 46,5 | 18,1 | 49,8 | 45,6 | 20,0 | - | - | - |
| | | 36∞C | 57,9 | 55,8 | 14,9 | 55,4 | 55,0 | 16,4 | 53,2 | 53,2 | 18,2 | 51,1 | 51,1 | 20,1 | - | - | - |
| Maximum Air flow 10 800 m³/h | 16∞C | 21∞C | 48,4 | 35,2 | 14,1 | 46,2 | 34,3 | 15,5 | 44,0 | 33,4 | 17,2 | 41,7 | 32,5 | 19,1 | 40,8 | 32,1 | 19,8 |
| | | 24∞C | 49,1 | 44,6 | 14,1 | 46,9 | 43,6 | 15,6 | 44,6 | 42,5 | 17,3 | 42,3 | 41,4 | 19,2 | 41,4 | 40,9 | 20,0 |
| | | 27∞C | 50,8 | 50,8 | 14,2 | 48,8 | 48,8 | 15,8 | 46,8 | 46,8 | 17,5 | 44,8 | 44,8 | 19,4 | 44,0 | 44,0 | 20,2 |
| | | 30∞C | 53,5 | 53,5 | 14,5 | 51,5 | 51,5 | 16,1 | 49,6 | 49,6 | 17,9 | 47,6 | 47,6 | 19,8 | 46,8 | 46,8 | 20,6 |
| | 19∞C | 24∞C | 52,8 | 34,9 | 14,5 | 50,4 | 34,0 | 16,0 | 48,1 | 33,2 | 17,7 | 45,6 | 32,3 | 19,6 | 44,7 | 31,9 | 20,3 |
| | | 27∞C | 53,6 | 44,5 | 14,5 | 51,2 | 43,5 | 16,0 | 48,8 | 42,5 | 17,7 | 46,3 | 41,5 | 19,7 | 45,4 | 41,1 | 20,5 |
| | | 30∞C | 54,4 | 53,7 | 14,6 | 52,0 | 52,0 | 16,1 | 49,9 | 49,9 | 17,8 | 47,7 | 47,7 | 19,8 | 46,8 | 46,8 | 20,6 |
| | | 33∞C | 56,8 | 56,8 | 14,8 | 54,7 | 54,7 | 16,4 | 52,6 | 52,6 | 18,2 | 50,5 | 50,5 | 20,1 | - | - | - |
| | 22∞C | 27∞C | 57,4 | 34,3 | 14,8 | 54,9 | 33,5 | 16,4 | 52,4 | 32,8 | 18,1 | 49,8 | 32,0 | 20,0 | - | - | - |
| | | 30∞C | 58,3 | 44,1 | 14,9 | 55,7 | 43,3 | 16,4 | 53,2 | 42,4 | 18,1 | 50,6 | 41,5 | 20,1 | - | - | - |
| | | 33∞C | 59,1 | 53,5 | 15,0 | 56,5 | 52,6 | 16,5 | 54,0 | 51,7 | 18,3 | 51,3 | 50,6 | 20,2 | - | - | - |
| | | 36∞C | 60,4 | 60,4 | 15,1 | 58,1 | 58,1 | 16,6 | 55,9 | 55,9 | 18,4 | 53,6 | 53,6 | 20,4 | - | - | - |

Entering air temperature

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 2,7 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 3,65 kW

Condensing fan Pa (all) : 1,1 kW

# HEATING CAPACITY AND ABSORBED POWER

***BHK*** = Heat pump rooftop ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.20*

| BHK / BDK | Outdoor air temp. | | 20∞C | | 15∞C | | 10∞C | | 7∞C | | 5∞C | | 0∞C | | -5∞C | | -7∞C | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA | PT | PA |
| Minimum air flow 7 200 m³/h | Entering air temperature - dry bulb | 11∞C | 62,9 | 14,3 | 56,0 | 13,5 | 49,5 | 12,8 | 45,8 | 12,3 | 43,5 | 12,0 | 38,0 | 11,3 | 33,0 | 10,7 | - | - |
| | | 14∞C | 62,3 | 15,2 | 55,4 | 14,4 | 49,0 | 13,6 | 45,4 | 13,1 | 43,1 | 12,8 | 37,7 | 12,1 | 32,9 | 11,4 | 31,0 | 11,2 |
| | | 17∞C | 61,6 | 16,2 | 54,9 | 15,3 | 48,6 | 14,4 | 45,0 | 13,9 | 42,8 | 13,6 | 37,5 | 12,8 | 32,7 | 12,1 | 30,9 | 11,8 |
| | | 20∞C | 61,0 | 17,2 | 54,3 | 16,2 | 48,1 | 15,3 | 44,6 | 14,7 | 42,4 | 14,4 | 37,2 | 13,5 | 32,5 | 12,8 | 30,8 | 12,5 |
| | | 23∞C | 60,4 | 18,3 | 53,8 | 17,2 | 47,7 | 16,2 | 44,3 | 15,6 | 42,1 | 15,2 | 37,0 | 14,3 | 32,4 | 13,5 | 30,7 | 13,2 |
| | | 26∞C | 59,8 | 19,5 | 53,3 | 18,3 | 47,3 | 17,1 | 43,9 | 16,5 | 41,8 | 16,0 | 36,8 | 15,0 | 32,2 | 14,2 | 30,6 | 13,8 |
| Nominal air flow 9 000 m³/h | | 11∞C | 63,8 | 13,3 | 56,7 | 12,6 | 50,1 | 11,9 | 46,4 | 11,5 | 44,0 | 11,3 | 38,4 | 10,7 | - | - | - | - |
| | | 14∞C | 63,1 | 14,1 | 56,1 | 13,3 | 49,6 | 12,6 | 45,9 | 12,2 | 43,6 | 12,0 | 38,1 | 11,3 | 33,1 | 10,8 | 31,2 | 10,6 |
| | | 17∞C | 62,4 | 14,9 | 55,5 | 14,1 | 49,1 | 13,4 | 45,5 | 13,0 | 43,2 | 12,7 | 37,8 | 12,0 | 32,9 | 11,5 | 31,1 | 11,3 |
| | | 20∞C | 61,8 | 15,8 | 55,0 | 15,0 | 48,7 | 14,2 | **45,1** | **13,8** | 42,9 | 13,5 | 37,5 | 12,8 | 32,7 | 12,2 | 30,9 | 12,0 |
| | | 23∞C | 61,2 | 16,8 | 54,5 | 15,9 | 48,2 | 15,1 | 44,7 | 14,6 | 42,5 | 14,3 | 37,3 | 13,5 | 32,5 | 12,9 | 30,8 | 12,7 |
| | | 26∞C | 60,6 | 17,9 | 53,9 | 16,9 | 47,8 | 15,9 | 44,4 | 15,4 | 42,2 | 15,1 | 37,0 | 14,3 | 32,4 | 13,6 | 30,7 | 13,3 |
| Maximum air flow 10 800 m³/h | | 11∞C | 64,5 | 12,5 | 57,3 | 11,9 | 50,6 | 11,3 | 46,8 | 10,9 | 44,3 | 10,7 | 38,6 | 10,2 | - | - | - | - |
| | | 14∞C | 63,8 | 13,2 | 56,7 | 12,6 | 50,1 | 12,0 | 46,3 | 11,6 | 43,9 | 11,4 | 38,3 | 10,9 | 33,2 | 10,4 | 31,3 | 10,2 |
| | | 17∞C | 63,1 | 14,0 | 56,1 | 13,3 | 49,6 | 12,7 | 45,9 | 12,3 | 43,5 | 12,1 | 38,0 | 11,6 | 33,0 | 11,1 | 31,1 | 10,9 |
| | | 20∞C | 62,5 | 14,9 | 55,5 | 14,2 | 49,1 | 13,5 | 45,5 | 13,1 | 43,2 | 12,9 | 37,7 | 12,3 | 32,8 | 11,8 | 30,9 | 11,7 |
| | | 23∞C | 61,8 | 15,8 | 55,0 | 15,0 | 48,6 | 14,3 | 45,1 | 13,9 | 42,8 | 13,7 | 37,4 | 13,1 | 32,6 | 12,6 | 30,8 | 12,4 |
| | | 26∞C | 61,2 | 16,7 | 54,4 | 15,9 | 48,2 | 15,2 | 44,7 | 14,7 | 42,4 | 14,5 | 37,2 | 13,9 | 32,4 | 13,3 | 30,7 | 13,2 |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 2,7 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 3,65 kW

Condensing fan Pa (all) : 1,1 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions **XXX**

# COOLING CAPACITY AND ABSORBED POWER

**050 DOUBLE CIRCUIT**

***BCK*** = Cooling only rooftop ***BGK*** = Cooling only rooftop with gas fired heater

*Table 4.21*

| BCK / BGK | Outdoor air temperature | | 25∞C | | | 30∞C | | | 35∞C | | | 40∞C | | | 42∞C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entering air temperature | wet bulb | dry bulb | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA | PT | PS | PA |
| Minimum air flow 7 200 m³/h | 16∞C | 21∞C | 44,7 | 29,3 | 13,8 | 43,0 | 28,4 | 15,3 | 41,2 | 27,6 | 17,0 | 39,4 | 26,8 | 18,8 | 38,6 | 26,5 | 19,5 |
| | | 24∞C | 45,3 | 36,4 | 13,8 | 43,5 | 35,5 | 15,3 | 41,7 | 34,6 | 17,0 | 39,9 | 33,7 | 18,8 | 39,1 | 33,3 | 19,6 |
| | | 27∞C | 45,9 | 42,9 | 13,8 | 44,1 | 41,9 | 15,3 | 42,2 | 40,9 | 17,0 | 40,4 | 39,9 | 18,9 | 39,6 | 39,5 | 19,6 |
| | | 30∞C | 47,5 | 47,5 | 13,9 | 45,9 | 45,9 | 15,5 | 44,3 | 44,3 | 17,2 | 42,7 | 42,7 | 19,1 | 42,0 | 42,0 | 19,9 |
| | 19∞C | 24∞C | 48,9 | 28,7 | 14,2 | 47,0 | 27,9 | 15,7 | 45,0 | 27,2 | 17,4 | 43,1 | 26,4 | 19,3 | 42,3 | 26,1 | 20,0 |
| | | 27∞C | 49,6 | 36,2 | 14,2 | 47,6 | 35,4 | 15,7 | 45,7 | 34,5 | 17,4 | 43,7 | 33,7 | 19,3 | 42,9 | 33,3 | 20,1 |
| | | 30∞C | 50,2 | 42,9 | 14,2 | 48,2 | 42,0 | 15,7 | 46,2 | 41,1 | 17,5 | 44,2 | 40,2 | 19,4 | 43,4 | 39,8 | 20,1 |
| | | 33∞C | 50,8 | 48,8 | 14,3 | 48,8 | 47,9 | 15,8 | 47,1 | 47,1 | 17,5 | 45,4 | 45,4 | 19,5 | 44,7 | 44,7 | 20,3 |
| | 22∞C | 27∞C | 53,2 | 27,9 | 14,5 | 51,1 | 27,2 | 16,0 | 49,0 | 26,5 | 17,8 | 46,9 | 25,8 | 19,6 | 46,1 | 25,5 | 20,4 |
| | | 30∞C | 53,9 | 35,7 | 14,5 | 51,8 | 34,9 | 16,1 | 49,7 | 34,1 | 17,8 | 47,6 | 33,4 | 19,7 | 46,8 | 33,0 | 20,5 |
| | | 33∞C | 54,7 | 42,7 | 14,6 | 52,5 | 41,8 | 16,1 | 50,4 | 41,0 | 17,8 | 48,2 | 40,2 | 19,8 | 47,4 | 39,8 | 20,6 |
| | | 36∞C | 55,4 | 48,7 | 14,7 | 53,2 | 47,9 | 16,2 | 51,0 | 47,1 | 18,0 | 48,9 | 46,2 | 19,9 | 48,0 | 45,8 | 20,7 |
| Nominal Air flow 9 000 m³/h | 16∞C | 21∞C | 46,9 | 32,3 | 13,9 | 45,0 | 31,4 | 15,4 | 43,0 | 30,6 | 17,1 | 41,1 | 29,7 | 19,0 | 40,3 | 29,4 | 19,7 |
| | | 24∞C | 47,6 | 40,4 | 14,0 | 45,6 | 39,4 | 15,5 | 43,7 | 38,4 | 17,2 | 41,7 | 37,5 | 19,0 | 40,9 | 37,1 | 19,8 |
| | | 27∞C | 48,2 | 47,8 | 14,0 | 46,5 | 46,5 | 15,5 | 44,8 | 44,8 | 17,3 | 43,0 | 43,0 | 19,2 | 42,3 | 42,3 | 20,0 |
| | | 30∞C | 50,8 | 50,8 | 14,3 | 49,0 | 49,0 | 15,8 | 47,3 | 47,3 | 17,6 | 45,6 | 45,6 | 19,5 | 44,9 | 44,9 | 20,3 |
| | 19∞C | 24∞C | 51,2 | 31,8 | 14,3 | 49,1 | 31,0 | 15,9 | 47,0 | 30,2 | 17,6 | 44,9 | 29,4 | 19,4 | 44,1 | 29,1 | 20,2 |
| | | 27∞C | 51,9 | 40,3 | 14,4 | 49,8 | 39,4 | 15,9 | **47,7** | **38,5** | **17,6** | 45,6 | 37,6 | 19,5 | 44,7 | 37,2 | 20,3 |
| | | 30∞C | 52,7 | 48,0 | 14,4 | 50,5 | 47,0 | 16,0 | 48,4 | 46,1 | 17,7 | 46,2 | 45,0 | 19,6 | 45,4 | 44,6 | 20,4 |
| | | 33∞C | 54,0 | 54,0 | 14,5 | 52,1 | 52,1 | 16,1 | 50,3 | 50,3 | 17,9 | 48,4 | 48,4 | 19,8 | 47,6 | 47,6 | 20,7 |
| | 22∞C | 27∞C | 55,6 | 31,0 | 14,7 | 53,4 | 30,3 | 16,2 | 51,2 | 29,6 | 17,9 | 48,9 | 28,9 | 19,8 | 48,0 | 28,6 | 20,6 |
| | | 30∞C | 56,4 | 39,9 | 14,7 | 54,2 | 39,1 | 16,3 | 51,9 | 38,3 | 18,0 | 49,7 | 37,4 | 19,9 | - | - | - |
| | | 33∞C | 57,2 | 47,9 | 14,8 | 55,0 | 47,0 | 16,4 | 52,7 | 46,1 | 18,1 | 50,4 | 45,2 | 20,0 | - | - | - |
| | | 36∞C | 58,0 | 55,0 | 14,9 | 55,7 | 54,1 | 16,5 | 53,4 | 53,2 | 18,2 | 51,4 | 51,4 | 20,1 | - | - | - |
| Maximum Air flow 10 800 m³/h | 16∞C | 21∞C | 48,5 | 35,0 | 14,1 | 46,4 | 34,1 | 15,6 | 44,3 | 33,2 | 17,2 | 42,2 | 32,3 | 19,1 | 41,4 | 32,0 | 19,8 |
| | | 24∞C | 49,2 | 44,0 | 14,1 | 47,2 | 43,0 | 15,6 | 45,0 | 41,9 | 17,3 | 42,9 | 40,9 | 19,2 | 42,1 | 40,4 | 20,0 |
| | | 27∞C | 50,7 | 50,7 | 14,2 | 48,8 | 48,8 | 15,8 | 47,0 | 47,0 | 17,5 | 45,1 | 45,1 | 19,4 | 44,4 | 44,4 | 20,2 |
| | | 30∞C | 53,4 | 53,4 | 14,5 | 51,6 | 51,6 | 16,1 | 49,8 | 49,8 | 17,8 | 47,9 | 47,9 | 19,7 | 47,2 | 47,2 | 20,5 |
| | 19∞C | 24∞C | 52,9 | 34,6 | 14,5 | 50,7 | 33,8 | 16,0 | 48,4 | 33,0 | 17,7 | 46,2 | 32,2 | 19,6 | 45,3 | 31,9 | 20,4 |
| | | 27∞C | 53,7 | 44,1 | 14,5 | 51,5 | 43,2 | 16,0 | 49,2 | 42,2 | 17,8 | 46,9 | 41,2 | 19,7 | 46,0 | 40,8 | 20,5 |
| | | 30∞C | 54,5 | 52,8 | 14,6 | 52,3 | 51,8 | 16,1 | 50,0 | 50,0 | 17,8 | 48,0 | 48,0 | 19,8 | 47,2 | 47,2 | 20,6 |
| | | 33∞C | 56,8 | 56,8 | 14,8 | 54,8 | 54,8 | 16,4 | 52,8 | 52,8 | 18,1 | 50,8 | 50,8 | 20,1 | - | - | - |
| | 22∞C | 27∞C | 57,4 | 33,9 | 14,8 | 55,1 | 33,2 | 16,3 | 52,7 | 32,5 | 18,1 | 50,3 | 31,8 | 20,0 | - | - | - |
| | | 30∞C | 58,3 | 43,9 | 14,9 | 55,9 | 43,0 | 16,4 | 53,5 | 42,2 | 18,1 | 51,1 | 41,3 | 20,1 | - | - | - |
| | | 33∞C | 59,2 | 52,9 | 15,0 | 56,8 | 52,0 | 16,5 | 54,4 | 51,0 | 18,3 | 51,9 | 50,0 | 20,2 | - | - | - |
| | | 36∞C | 60,3 | 60,3 | 15,0 | 58,2 | 58,2 | 16,6 | 56,1 | 56,1 | 18,4 | 53,9 | 53,9 | 20,4 | - | - | - |

Control Pa (BC/BH) : 0,7 kW
Supply fan Pa (BC/BH) : 2,7 kW

Control Pa (BG/BD) : 0,9 kW
Supply fan Pa (BG/BD): 3,65 kW

Condensing fan Pa (all) : 1,1 kW

**PT** Total cooling / heating capacity in kW **PS** Sensible cooling capacity in kW **PA** Compressor absorbed power

Data according to Eurovent standard conditions ***XXX***

***BCK*** = Cooling only unit
***BHK*** = Heat pump rooftop

**RETURN AIR AT 20°C**

*Table 4.22*

| D water temperature | | | 90-70 | | | | 80-60 | | | | 70-50 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***SIZE*** | Type(1) | Air flow | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h |
| ***20*** | S | 2 900 M³/h | 20,9 | 24,5 | 21,4 | 0,9 | 16,8 | 19,4 | 17,2 | 0,7 | 12,7 | 14,4 | 13,0 | 0,6 |
| | H | | 29,6 | 36,3 | 30,3 | 1,3 | 24,1 | 29,0 | 24,7 | 1,1 | 18,6 | 21,9 | 19,0 | 0,8 |
| | S | 3 600 M³/h | 23,6 | 27,8 | 19,4 | 1,0 | 18,9 | 22,0 | 15,6 | 0,8 | 14,3 | 16,3 | 11,8 | 0,6 |
| | H | | 33,7 | 41,8 | 27,8 | 1,5 | 27,4 | 33,3 | 22,6 | 1,2 | 21,1 | 25,0 | 17,4 | 0,9 |
| | S | 4 300 M³/h | 25,9 | 30,7 | 17,9 | 1,1 | 20,8 | 24,2 | 14,3 | 0,9 | 15,7 | 17,9 | 10,8 | 0,7 |
| | H | | 37,4 | 46,8 | 25,8 | 1,6 | 30,4 | 37,2 | 21,0 | 1,3 | 23,4 | 27,9 | 16,1 | 1,0 |
| ***25*** | S | 3 600 M³/h | 23,6 | 27,8 | 19,4 | 1,0 | 18,9 | 22,0 | 15,6 | 0,8 | 14,3 | 16,3 | 11,8 | 0,6 |
| | H | | 33,7 | 41,8 | 27,8 | 1,5 | 27,4 | 33,3 | 22,6 | 1,2 | 21,1 | 25,0 | 17,4 | 0,9 |
| | S | 4 500 M³/h | 26,6 | 31,5 | 17,5 | 1,2 | 21,3 | 24,8 | 14,0 | 0,9 | 16,0 | 18,4 | 10,6 | 0,7 |
| | H | | 38,4 | 48,2 | 25,3 | 1,7 | 31,2 | 38,2 | 20,6 | 1,4 | 24,0 | 28,6 | 15,8 | 1,0 |
| | S | 5 400 M³/h | 29,1 | 34,8 | 16,0 | 1,3 | 23,3 | 27,4 | 12,8 | 1,0 | 17,5 | 20,2 | 9,6 | 0,8 |
| | H | | 42,5 | 53,9 | 23,3 | 1,9 | 34,5 | 42,6 | 18,9 | 1,5 | 26,4 | 31,9 | 14,5 | 1,2 |
| ***30*** | S | 4 300 M³/h | 30,2 | 35,8 | 20,8 | 1,3 | 24,3 | 28,4 | 16,8 | 1,1 | 18,5 | 21,2 | 12,8 | 0,8 |
| | H | | 42,8 | 53,4 | 29,5 | 1,9 | 34,9 | 42,6 | 24,1 | 1,5 | 27,0 | 32,2 | 18,6 | 1,2 |
| | S | 5 400 M³/h | 34,2 | 40,9 | 18,8 | 1,5 | 27,5 | 32,4 | 15,1 | 1,2 | 20,9 | 24,1 | 11,5 | 0,9 |
| | H | | 49,0 | 62,0 | 26,9 | 2,2 | 39,9 | 49,3 | 21,9 | 1,7 | 30,8 | 37,1 | 16,9 | 1,3 |
| | S | 6 500 M³/h | 37,7 | 45,4 | 17,2 | 1,7 | 30,3 | 35,8 | 13,8 | 1,3 | 22,9 | 26,6 | 10,5 | 1,0 |
| | H | | 54,4 | 69,7 | 24,8 | 2,4 | 44,3 | 55,3 | 20,2 | 1,9 | 34,1 | 41,5 | 15,6 | 1,5 |
| ***35*** | S | 5 000 M³/h | 32,8 | 39,1 | 19,5 | 1,4 | 26,4 | 31,0 | 15,7 | 1,2 | 20,0 | 23,1 | 11,9 | 0,9 |
| | H | | 46,8 | 59,0 | 27,8 | 2,1 | 38,1 | 47,0 | 22,6 | 1,7 | 29,5 | 35,4 | 17,5 | 1,3 |
| | S | 6 300 M³/h | 37,1 | 44,6 | 17,5 | 1,6 | 29,8 | 35,2 | 14,0 | 1,3 | 22,6 | 26,2 | 10,6 | 1,0 |
| | H | | 53,5 | 68,4 | 25,2 | 2,4 | 43,5 | 54,3 | 20,5 | 1,9 | 33,5 | 40,7 | 15,8 | 1,5 |
| | S | 7 600 M³/h | 40,8 | 49,5 | 15,9 | 1,8 | 32,8 | 39,0 | 12,8 | 1,4 | 24,8 | 28,9 | 9,7 | 1,1 |
| | H | | 59,3 | 76,8 | 23,1 | 2,6 | 48,2 | 60,8 | 18,8 | 2,1 | 37,1 | 45,4 | 14,5 | 1,6 |
| ***40*** | S | 5 800 M³/h | 41,6 | 23,6 | 21,3 | 1,8 | 33,7 | 18,4 | 17,3 | 1,5 | 25,9 | 13,6 | 13,3 | 1,1 |
| | H | | 58,4 | 38,6 | 29,9 | 2,6 | 47,9 | 30,1 | 24,5 | 2,1 | 37,3 | 22,1 | 19,1 | 1,6 |
| | S | 7 200 M³/h | 46,8 | 27,2 | 19,3 | 2,1 | 37,9 | 21,2 | 15,6 | 1,7 | 29,1 | 15,5 | 12,0 | 1,3 |
| | H | | 66,5 | 45,6 | 27,4 | 2,9 | 54,4 | 35,3 | 22,4 | 2,4 | 42,3 | 25,8 | 17,4 | 1,8 |
| | S | 8 600 M³/h | 51,4 | 30,5 | 17,7 | 2,3 | 41,7 | 23,6 | 14,4 | 1,8 | 31,9 | 17,2 | 11,0 | 1,4 |
| | H | | 73,6 | 52,1 | 25,4 | 3,2 | 60,2 | 40,2 | 20,8 | 2,6 | 46,8 | 29,2 | 16,1 | 2,0 |
| ***45*** | S | 6 500 M³/h | 44,3 | 25,4 | 20,2 | 2,0 | 35,9 | 19,8 | 16,4 | 1,6 | 27,6 | 14,6 | 12,6 | 1,2 |
| | H | | 62,6 | 42,2 | 28,6 | 2,8 | 51,3 | 32,7 | 23,4 | 2,2 | 39,9 | 24,0 | 18,2 | 1,7 |
| | S | 8 100 M³/h | 49,8 | 29,4 | 18,3 | 2,2 | 40,4 | 22,8 | 14,8 | 1,8 | 30,9 | 16,6 | 11,3 | 1,3 |
| | H | | 71,2 | 49,8 | 26,1 | 3,1 | 58,2 | 38,5 | 21,3 | 2,6 | 45,2 | 28,0 | 16,6 | 2,0 |
| | S | 9 700 M³/h | 54,7 | 32,9 | 16,7 | 2,4 | 44,3 | 25,4 | 13,5 | 1,9 | 33,9 | 18,5 | 10,4 | 1,5 |
| | H | | 78,7 | 56,9 | 24,1 | 3,5 | 64,3 | 43,8 | 19,7 | 2,8 | 49,9 | 31,7 | 15,3 | 2,2 |
| ***50*** | S | 7 200 M³/h | 46,8 | 27,2 | 19,3 | 2,1 | 37,9 | 21,2 | 15,6 | 1,7 | 29,1 | 15,5 | 12,0 | 1,3 |
| | H | | 66,5 | 45,6 | 27,4 | 2,9 | 54,4 | 35,3 | 22,4 | 2,4 | 42,3 | 25,8 | 17,4 | 1,8 |
| | S | 9 000 M³/h | 52,6 | 31,4 | 17,4 | 2,3 | 42,6 | 24,3 | 14,1 | 1,9 | 32,6 | 17,7 | 10,8 | 1,4 |
| | H | | 75,5 | 53,9 | 24,9 | 3,3 | 61,7 | 41,5 | 20,4 | 2,7 | 47,9 | 30,1 | 15,8 | 2,1 |
| | S | 10 800 M³/h | 57,7 | 35,1 | 15,9 | 2,5 | 46,7 | 27,1 | 12,8 | 2,0 | 35,7 | 19,7 | 9,8 | 1,6 |
| | H | | 83,4 | 61,5 | 22,9 | 3,7 | 68,1 | 47,2 | 18,7 | 3,0 | 52,8 | 34,1 | 14,5 | 2,3 |

(1) S = Standard Heat, H = High heat
(2) pressure drop = internal coil + 3 way valve
All dat calculated for water without glycol

Note : 10 kPa=1mCe

Correction factor to get data for 82 - 71 from 90 - 70

| ***SIZE*** | Heating capacity kW | Pressure drop kPa | Water flow rate Kg/s |
|---|---|---|---|
| ***020-025*** | 0,98 | 1,87 | 1,77 |
| ***030-035*** | 0,97 | 1,90 | 1,76 |
| ***040-045-050*** | Consult us | | |

***BCK*** = Cooling only unit
***BHK*** = Heat pump rooftop

**RETURN AIR AT 10°C**

*Table 4.23*

| D water temperature | | | 90-70 | | | | 80-60 | | | | 70-50 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***SIZE*** | Type(1) | Air flow | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h |
| ***20*** | S | 2 900 M³/h | 25,1 | 29,7 | 24,8 | 1,1 | 20,9 | 24,4 | 20,7 | 0,9 | 16,8 | 19,3 | 16,6 | 0,7 |
| | H | | 35,4 | 44,1 | 35,0 | 1,6 | 29,8 | 36,4 | 29,5 | 1,3 | 24,2 | 29,0 | 24,0 | 1,1 |
| | S | 3 600 M³/h | 28,3 | 33,7 | 22,5 | 1,2 | 23,6 | 27,6 | 18,8 | 1,0 | 18,8 | 21,8 | 15,0 | 0,8 |
| | H | | 40,3 | 50,9 | 32,2 | 1,8 | 33,9 | 41,9 | 27,0 | 1,5 | 27,5 | 33,3 | 21,9 | 1,2 |
| | S | 4 300 M³/h | 31,1 | 37,3 | 20,8 | 1,4 | 25,9 | 30,5 | 17,3 | 1,1 | 20,7 | 24,0 | 13,8 | 0,9 |
| | H | | 44,7 | 57,0 | 29,8 | 2,0 | 37,6 | 46,9 | 25,1 | 1,6 | 30,4 | 37,1 | 20,3 | 1,3 |
| ***25*** | S | 3 600 M³/h | 28,3 | 33,7 | 22,5 | 1,2 | 23,6 | 27,6 | 18,8 | 1,0 | 18,8 | 21,8 | 15,0 | 0,8 |
| | H | | 40,3 | 50,9 | 32,2 | 1,8 | 33,9 | 41,9 | 27,0 | 1,5 | 27,5 | 33,3 | 21,9 | 1,2 |
| | S | 4 500 M³/h | 31,9 | 38,2 | 20,3 | 1,4 | 26,5 | 31,3 | 16,9 | 1,2 | 21,2 | 24,6 | 13,5 | 0,9 |
| | H | | 45,9 | 58,7 | 29,3 | 2,0 | 38,6 | 48,2 | 24,6 | 1,7 | 31,2 | 38,2 | 19,9 | 1,4 |
| | S | 5 400 M³/h | 35,0 | 42,3 | 18,6 | 1,5 | 29,1 | 34,5 | 15,4 | 1,3 | 23,2 | 27,1 | 12,3 | 1,0 |
| | H | | 50,8 | 65,7 | 27,0 | 2,2 | 42,6 | 53,9 | 22,6 | 1,9 | 34,5 | 42,5 | 18,3 | 1,5 |
| ***30*** | S | 4 300 M³/h | 36,2 | 43,5 | 24,1 | 1,6 | 30,2 | 35,7 | 20,2 | 1,3 | 24,3 | 28,2 | 16,2 | 1,1 |
| | H | | 51,1 | 65,0 | 34,1 | 2,3 | 43,1 | 53,6 | 28,7 | 1,9 | 35,0 | 42,7 | 23,4 | 1,5 |
| | S | 5 400 M³/h | 40,9 | 49,7 | 21,8 | 1,8 | 34,2 | 40,8 | 18,2 | 1,5 | 27,4 | 32,1 | 14,6 | 1,2 |
| | H | | 58,5 | 75,6 | 31,1 | 2,6 | 49,2 | 62,2 | 26,2 | 2,2 | 40,0 | 49,3 | 21,2 | 1,7 |
| | S | 6 500 M³/h | 45,1 | 55,2 | 19,9 | 2,0 | 37,6 | 45,2 | 16,6 | 1,6 | 30,2 | 35,5 | 13,3 | 1,3 |
| | H | | 64,9 | 85,1 | 28,7 | 2,9 | 54,7 | 69,9 | 24,1 | 2,4 | 44,4 | 55,3 | 19,6 | 1,9 |
| ***35*** | S | 5 000 M³/h | 39,3 | 47,5 | 22,5 | 1,7 | 32,8 | 39,0 | 18,8 | 1,4 | 26,3 | 30,8 | 15,1 | 1,1 |
| | H | | 55,9 | 71,9 | 32,1 | 2,5 | 47,1 | 59,2 | 27,0 | 2,1 | 38,3 | 47,0 | 22,0 | 1,7 |
| | S | 6 300 M³/h | 44,4 | 54,2 | 20,2 | 2,0 | 37,0 | 44,4 | 16,9 | 1,6 | 29,7 | 34,9 | 13,5 | 1,3 |
| | H | | 63,8 | 83,5 | 29,1 | 2,8 | 53,7 | 68,6 | 24,5 | 2,4 | 43,6 | 54,2 | 19,9 | 1,9 |
| | S | 7 600 M³/h | 48,8 | 60,1 | 18,4 | 2,2 | 40,7 | 49,2 | 15,4 | 1,8 | 32,6 | 38,6 | 12,3 | 1,4 |
| | H | | 70,7 | 93,8 | 26,7 | 3,1 | 59,5 | 76,9 | 22,5 | 2,6 | 48,3 | 60,7 | 18,2 | 2,1 |
| ***40*** | S | 5 800 M³/h | 49,6 | 29,2 | 24,6 | 2,2 | 41,7 | 23,7 | 20,6 | 1,8 | 33,8 | 18,4 | 16,7 | 1,5 |
| | H | | 69,7 | 48,5 | 34,5 | 3,1 | 58,9 | 39,1 | 29,2 | 2,6 | 48,2 | 30,4 | 23,8 | 2,1 |
| | S | 7 200 M³/h | 55,9 | 33,8 | 22,3 | 2,5 | 46,9 | 27,3 | 18,7 | 2,1 | 37,9 | 21,1 | 15,1 | 1,7 |
| | H | | 79,2 | 57,4 | 31,6 | 3,5 | 67,0 | 46,1 | 26,7 | 2,9 | 54,7 | 35,6 | 21,8 | 2,4 |
| | S | 8 600 M³/h | 61,4 | 37,9 | 20,5 | 2,7 | 51,5 | 30,5 | 17,2 | 2,3 | 41,6 | 23,6 | 13,9 | 1,8 |
| | H | | 87,7 | 65,7 | 29,2 | 3,9 | 74,1 | 52,7 | 24,7 | 3,2 | 60,4 | 40,5 | 20,2 | 2,6 |
| ***45*** | S | 6 500 M³/h | 52,9 | 31,6 | 23,3 | 2,3 | 44,4 | 25,5 | 19,6 | 1,9 | 35,9 | 19,8 | 15,9 | 1,6 |
| | H | | 74,6 | 53,0 | 32,9 | 3,3 | 63,1 | 42,7 | 27,8 | 2,8 | 51,6 | 33,0 | 22,8 | 2,2 |
| | S | 8 100 M³/h | 59,5 | 36,5 | 21,1 | 2,6 | 49,9 | 29,4 | 17,7 | 2,2 | 40,3 | 22,8 | 14,3 | 1,8 |
| | H | | 84,7 | 62,8 | 30,0 | 3,7 | 71,6 | 50,4 | 25,4 | 3,1 | 58,5 | 38,8 | 20,7 | 2,5 |
| | S | 9 700 M³/h | 65,3 | 41,0 | 19,3 | 2,9 | 54,7 | 32,9 | 16,2 | 2,4 | 44,2 | 25,4 | 13,1 | 1,9 |
| | H | | 93,7 | 71,9 | 27,7 | 4,1 | 79,1 | 57,5 | 23,4 | 3,5 | 64,5 | 44,1 | 19,1 | 2,8 |
| ***50*** | S | 7 200 M³/h | 55,9 | 33,8 | 22,3 | 2,5 | 46,9 | 27,3 | 18,7 | 2,1 | 37,9 | 21,1 | 15,1 | 1,7 |
| | H | | 79,2 | 57,4 | 31,6 | 3,5 | 67,0 | 46,1 | 26,7 | 2,9 | 54,7 | 35,6 | 21,8 | 2,4 |
| | S | 9 000 M³/h | 62,8 | 39,1 | 20,0 | 2,8 | 52,7 | 31,4 | 16,8 | 2,3 | 42,6 | 24,3 | 13,6 | 1,9 |
| | H | | 89,9 | 68,0 | 28,7 | 4,0 | 75,9 | 54,5 | 24,2 | 3,3 | 62,0 | 41,8 | 19,8 | 2,7 |
| | S | 10 800 M³/h | 68,9 | 43,8 | 18,3 | 3,0 | 57,7 | 35,2 | 15,3 | 2,5 | 46,6 | 27,1 | 12,4 | 2,0 |
| | H | | 99,3 | 77,9 | 26,4 | 4,4 | 83,8 | 62,1 | 22,3 | 3,7 | 68,3 | 47,5 | 18,1 | 3,0 |

(1) S = Standard Heat, H = High heat

(2) pressure drop = internal coil + 3 way valve

All dat calculated for water without glycol

Note : 10 kPa=1mCe

Correction factor to get data for 82 - 71 from 90 - 70

| ***SIZE*** | Heating capacity kW | Pressure drop kPa | Water flow rate Kg/s |
|---|---|---|---|
| ***020-025*** | 0,98 | 1,90 | 1,78 |
| ***030-035*** | 0,98 | 1,91 | 1,77 |
| ***040-045-050*** | Consult us | | |

All selections with return air temperature at 20∞C.

***BCK*** = Cooling only unit
***BHK*** = Heat pump rooftop

**RETURN AIR AT 0°C**

*Table 4.24*

| D water temperature | | | 90-70 | | | | 80-60 | | | | 70-50 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***SIZE*** | Type(1) | Air flow | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h | Heating capacity kW | Pressure drop (2) kPa | D temp air | Water flow rate m³/h |
| ***20*** | S | 2 900 M³/h | 29,4 | 35,1 | 28,1 | 1,3 | 25,2 | 29,6 | 24,0 | 1,1 | 20,9 | 24,3 | 20,0 | 0,9 |
| | H | | 41,4 | 52,4 | 39,5 | 1,8 | 35,7 | 44,3 | 34,1 | 1,6 | 30,0 | 36,5 | 28,6 | 1,3 |
| | S | 3 600 M³/h | 33,1 | 39,9 | 25,5 | 1,5 | 28,3 | 33,6 | 21,8 | 1,2 | 23,5 | 27,5 | 18,1 | 1,0 |
| | H | | 47,1 | 60,5 | 36,3 | 2,1 | 40,6 | 51,1 | 31,2 | 1,8 | 34,1 | 42,0 | 26,2 | 1,5 |
| | S | 4 300 M³/h | 36,4 | 44,1 | 23,4 | 1,6 | 31,1 | 37,1 | 20,0 | 1,4 | 25,8 | 30,3 | 16,6 | 1,1 |
| | H | | 52,2 | 67,9 | 33,6 | 2,3 | 45,0 | 57,2 | 28,9 | 2,0 | 37,7 | 46,9 | 24,3 | 1,6 |
| ***25*** | S | 3 600 M³/h | 33,1 | 39,9 | 25,5 | 1,5 | 28,3 | 33,6 | 21,8 | 1,2 | 23,5 | 27,5 | 18,1 | 1,0 |
| | H | | 47,1 | 60,5 | 36,3 | 2,1 | 40,6 | 51,1 | 31,2 | 1,8 | 34,1 | 42,0 | 26,2 | 1,5 |
| | S | 4 500 M³/h | 37,3 | 45,3 | 22,9 | 1,6 | 31,9 | 38,1 | 19,6 | 1,4 | 26,4 | 31,1 | 16,3 | 1,2 |
| | H | | 53,6 | 69,8 | 33,0 | 2,4 | 46,1 | 58,9 | 28,4 | 2,0 | 38,7 | 48,3 | 23,8 | 1,7 |
| | S | 5 400 M³/h | 40,9 | 50,1 | 21,0 | 1,8 | 34,9 | 42,0 | 17,9 | 1,5 | 28,9 | 34,3 | 14,8 | 1,3 |
| | H | | 59,2 | 78,3 | 30,4 | 2,6 | 51,0 | 65,8 | 26,1 | 2,2 | 42,7 | 53,9 | 21,9 | 1,9 |
| ***30*** | S | 4 300 M³/h | 42,3 | 51,5 | 27,2 | 1,9 | 36,3 | 43,4 | 23,3 | 1,6 | 30,2 | 35,6 | 19,5 | 1,3 |
| | H | | 59,7 | 77,3 | 38,4 | 2,6 | 51,5 | 65,4 | 33,1 | 2,3 | 43,3 | 53,9 | 27,9 | 1,9 |
| | S | 5 400 M³/h | 47,9 | 58,8 | 24,5 | 2,1 | 41,0 | 49,6 | 21,0 | 1,8 | 34,1 | 40,5 | 17,5 | 1,5 |
| | H | | 68,2 | 90,0 | 35,0 | 3,0 | 58,8 | 76,0 | 30,2 | 2,6 | 49,4 | 62,4 | 25,3 | 2,2 |
| | S | 6 500 M³/h | 52,7 | 65,4 | 22,5 | 2,3 | 45,1 | 55,0 | 19,2 | 2,0 | 37,6 | 44,9 | 16,0 | 1,6 |
| | H | | 75,7 | 101,5 | 32,3 | 3,3 | 65,3 | 85,5 | 27,8 | 2,9 | 54,8 | 70,0 | 23,4 | 2,4 |
| ***35*** | S | 5 000 M³/h | 45,9 | 56,3 | 25,4 | 2,0 | 39,4 | 47,4 | 21,8 | 1,7 | 32,8 | 38,8 | 18,1 | 1,4 |
| | H | | 65,2 | 85,6 | 36,1 | 2,9 | 56,3 | 72,2 | 31,2 | 2,5 | 47,3 | 59,4 | 26,2 | 2,1 |
| | S | 6 300 M³/h | 51,9 | 64,3 | 22,8 | 2,3 | 44,4 | 54,1 | 19,5 | 1,9 | 37,0 | 44,2 | 16,2 | 1,6 |
| | H | | 74,4 | 99,5 | 32,7 | 3,3 | 64,2 | 83,8 | 28,2 | 2,8 | 53,9 | 68,7 | 23,7 | 2,3 |
| | S | 7 600 M³/h | 57,1 | 71,3 | 20,8 | 2,5 | 48,8 | 59,9 | 17,8 | 2,1 | 40,6 | 48,8 | 14,8 | 1,8 |
| | H | | 82,5 | 112,0 | 30,0 | 3,6 | 71,1 | 94,1 | 25,9 | 3,1 | 59,6 | 77,0 | 21,7 | 2,6 |
| ***40*** | S | 5 800 M³/h | 57,9 | 35,3 | 27,7 | 2,6 | 49,9 | 29,4 | 23,8 | 2,2 | 41,8 | 23,7 | 20,0 | 1,8 |
| | H | | 81,2 | 59,4 | 38,8 | 3,6 | 70,3 | 49,2 | 33,6 | 3,1 | 59,4 | 39,6 | 28,3 | 2,6 |
| | S | 7 200 M³/h | 65,2 | 40,9 | 25,1 | 2,9 | 56,1 | 33,9 | 21,6 | 2,5 | 47,0 | 27,3 | 18,1 | 2,0 |
| | H | | 92,3 | 70,5 | 35,5 | 4,1 | 79,8 | 58,2 | 30,7 | 3,5 | 67,4 | 46,7 | 25,9 | 2,9 |
| | S | 8 600 M³/h | 71,5 | 46,0 | 23,0 | 3,2 | 61,5 | 38,1 | 19,8 | 2,7 | 51,5 | 30,6 | 16,6 | 2,2 |
| | H | | 102,1 | 80,9 | 32,9 | 4,5 | 88,3 | 66,6 | 28,4 | 3,9 | 74,4 | 53,2 | 24,0 | 3,2 |
| ***45*** | S | 6 500 M³/h | 61,7 | 38,2 | 26,3 | 2,7 | 53,1 | 31,7 | 22,6 | 2,3 | 44,5 | 25,6 | 18,9 | 1,9 |
| | H | | 86,9 | 65,0 | 37,0 | 3,8 | 75,2 | 53,8 | 32,0 | 3,3 | 63,5 | 43,2 | 27,0 | 2,8 |
| | S | 8 100 M³/h | 69,4 | 44,2 | 23,7 | 3,1 | 59,6 | 36,6 | 20,4 | 2,6 | 49,9 | 29,4 | 17,1 | 2,2 |
| | H | | 98,7 | 77,3 | 33,7 | 4,4 | 85,4 | 63,7 | 29,2 | 3,7 | 72,0 | 50,9 | 24,6 | 3,1 |
| | S | 9 700 M³/h | 76,1 | 49,7 | 21,7 | 3,4 | 65,4 | 41,1 | 18,7 | 2,9 | 54,7 | 32,9 | 15,6 | 2,4 |
| | H | | 109,0 | 88,6 | 31,1 | 4,8 | 94,3 | 72,8 | 26,9 | 4,1 | 79,5 | 58,1 | 22,7 | 3,5 |
| ***50*** | S | 7 200 M³/h | 65,2 | 40,9 | 25,1 | 2,9 | 56,1 | 33,9 | 21,6 | 2,5 | 47,0 | 27,3 | 18,1 | 2,0 |
| | H | | 92,3 | 70,5 | 35,5 | 4,1 | 79,8 | 58,2 | 30,7 | 3,5 | 67,4 | 46,7 | 25,9 | 2,9 |
| | S | 9 000 M³/h | 73,2 | 47,4 | 22,5 | 3,2 | 63,0 | 39,2 | 19,4 | 2,8 | 52,7 | 31,4 | 16,2 | 2,3 |
| | H | | 104,7 | 83,7 | 32,2 | 4,6 | 90,5 | 68,9 | 27,8 | 4,0 | 76,3 | 55,0 | 23,5 | 3,3 |
| | S | 10 800 M³/h | 80,2 | 53,2 | 20,6 | 3,5 | 68,9 | 43,9 | 17,7 | 3,0 | 57,7 | 35,1 | 14,8 | 2,5 |
| | H | | 115,5 | 96,0 | 29,6 | 5,1 | 99,8 | 78,8 | 25,6 | 4,4 | 84,1 | 62,7 | 21,6 | 3,7 |

(1) S = Standard Heat, H = High heat
(2) pressure drop = internal coil + 3 way valve
All dat calculated for water without glycol

Note : 10 kPa=1mCe

Correction factor to get data for 82 - 71 from 90 - 70

| ***SIZE*** | Heating capacity kW | Pressure drop kPa | Water flow rate Kg/s |
|---|---|---|---|
| ***020-025*** | 0,98 | 1,92 | 1,78 |
| ***030-035*** | 0,98 | 1,94 | 1,78 |
| ***040-045-050*** | Consult us | | |

All selections with return air temperature at 20∞C.

## ELECTRIC HEATER

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop

*Table 4.25*

| ***SIZE*** | Available capacity kW | Number of Stages | Temperature rise at nominal air flow |
|---|---|---|---|
| ***020*** | 12 | 2 stages | stage 1 → 5,2∞C<br>stage 2 → 10,4∞C |
| | 24 | 2 stages | stage 1 → 10,4∞C<br>stage 2 → 20,9∞C |
| | 36 | 0 - 100% | 50% → 15,7∞C<br>100% → 31,3∞C |
| ***025*** | 12 | 2 stages | stage 1 → 4,2∞C<br>stage 2 → 8,4∞C |
| | 24 | 2 stages | stage 1 → 8,4∞C<br>stage 2 → 16,7∞C |
| | 36 | 0 - 100% | 50% → 12,5∞C<br>100% → 25,1∞C |
| ***030*** | 24 | 2 stages | stage 1 → 7∞C<br>stage 2 → 13,9∞C |
| | 36 | 2 stages | stage 1 → 10,4∞C<br>stage 2 → 20,9∞C |
| | 48 | 0 - 100% | 50% → 13,9∞C<br>100% → 27,9∞C |

*Table 4.47*

| ***SIZE*** | Available capacity kW | Number of Stages | Temperature rise at nominal air flow |
|---|---|---|---|
| ***035*** | 24 | 2 stages | stage 1 → 6∞C<br>stage 2 → 11,9∞C |
| | 36 | 2 stages | stage 1 → 9∞C<br>stage 2 → 17,9∞C |
| | 48 | 0 - 100% | 50% → 11,9∞C<br>100% → 23,9∞C |
| ***040*** | 27 | 2 stages | stage 1 → 3,9∞C<br>stage 2 → 11,8∞C |
| | 45 | 2 stages | stage 1 → 7,8∞C<br>stage 2 → 19,6∞C |
| | 54 | 0 - 100% | 50% → 11,8∞C<br>100% → 23,5∞C |
| ***045*** | 27 | 2 stages | stage 1 → 3,4∞C<br>stage 2 → 10,4∞C |
| | 45 | 2 stages | stage 1 → 7,0∞C<br>stage 2 → 17,4∞C |
| | 54 | 0 - 100% | 50% → 10,4∞C<br>100% → 20,9∞C |
| ***050*** | 27 | 2 stages | stage 1 → 3,1∞C<br>stage 2 → 9,4∞C |
| | 45 | 2 stages | stage 1 → 6,3∞C<br>stage 2 → 15,7∞C |
| | 54 | 0 - 100% | 50% → 9,4∞C<br>100% → 18,8∞C |

## GAS BURNER

***BGK*** = Cooling only rooftop with gas fired heater ***BDK*** = Heat pump rooftop with gas fired heater

*Table 4.26*

| ***SIZE*** | | Gas Power Input kW | Heating capacity kW | Power abs. Electrical kW | Number of stages |
|---|---|---|---|---|---|
| ***020*** | Standard heat | 20 | 18,6 | 0,2 | 2 |
| | High heat | 33 | 30,7 | 0,2 | 2 |
| ***025*** | Standard heat | 20 | 18,6 | 0,2 | 2 |
| | High heat | 33 | 30,7 | 0,2 | 2 |
| ***030*** | Standard heat | 20 | 18,6 | 0,2 | 2 |
| | High heat | 46 | 42,8 | 0,2 | 2 |
| ***035*** | Standard heat | 20 | 18,6 | 0,2 | 2 |
| | High heat | 46 | 42,8 | 0,2 | 2 |
| ***040*** | Standard heat | 33 | 30,7 | 0,2 | 2 |
| | High heat | 60 | 55,8 | 0,2 | 2 |
| ***045*** | Standard heat | 33 | 30,7 | 0,2 | 2 |
| | High heat | 60 | 55,8 | 0,2 | 2 |
| ***050*** | Standard heat | 33 | 30,7 | 0,2 | 2 |
| | High heat | 60 | 55,8 | 0,2 | 2 |

**!** If temperature entering gas burner section is below -5∞C, the life expectancy of the gas burner can be significantly affected due to corrosive condensation.

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop

*Table 5.1*

| ***020 STD*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 2900 | K1 | 1*0.8 | 631 | K2 | 1*0.8 | 718 | K3 | 1*0.8 | 800 | K4 | 1*0.8 | 877 | K4 | 1*0.8 | 951 | K5 | 1*0.8 | 1020 | K6 | 1*1.1 | 1087 |
| 3133 | K1 | 1*0.8 | 654 | K2 | 1*0.8 | 736 | K3 | 1*0.8 | 814 | K4 | 1*0.8 | 889 | K5 | 1*0.8 | 959 | K5 | 1*0.8 | 1027 | K6 | 1*1.1 | 1092 |
| 3367 | K2 | 1*0.8 | 678 | K2 | 1*0.8 | 756 | K3 | 1*0.8 | 830 | K4 | 1*0.8 | 902 | K5 | 1*0.8 | 970 | K5 | 1*0.8 | 1036 | K7 | 1*1.1 | 1098 |
| **3600** | K2 | 1*0.8 | 703 | K3 | 1*0.8 | 777 | K3 | 1*0.8 | 848 | K4 | 1*0.8 | 917 | K5 | 1*0.8 | 983 | K7 | 1*1.1 | 1046 | K7 | 1*1.1 | 1107 |
| 3833 | K2 | 1*0.8 | 730 | K3 | 1*0.8 | 800 | K4 | 1*0.8 | 868 | K4 | 1*0.8 | 934 | K6 | 1*1.1 | 997 | K7 | 1*1.1 | 1058 | K7 | 1*1.1 | 1117 |
| 4067 | K2 | 1*0.8 | 758 | K3 | 1*0.8 | 824 | K4 | 1*0.8 | 889 | K6 | 1*1.1 | 952 | K6 | 1*1.1 | 1013 | K7 | 1*1.1 | 1072 | K7 | 1*1.1 | 1130 |
| 4300 | K3 | 1*0.8 | 786 | K3 | 1*0.8 | 849 | K6 | 1*1.1 | 911 | K6 | 1*1.1 | 972 | K7 | 1*1.1 | 1030 | K7 | 1*1.1 | 1088 | K8 | 1*1.5 | 1143 |

*Table 5.2*

| ***025 STD*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 3600 | K1 | 1*0.8 | 684 | K1 | 1*0.8 | 758 | K2 | 1*0.8 | 830 | K3 | 1*0.8 | 899 | K3 | 1*0.8 | 966 | K4 | 1*1.1 | 1030 | K4 | 1*1.1 | 1091 |
| 3900 | K1 | 1*0.8 | 716 | K2 | 1*0.8 | 786 | K2 | 1*0.8 | 853 | K3 | 1*0.8 | 919 | K5 | 1*1.1 | 982 | K4 | 1*1.1 | 1043 | K4 | 1*1.1 | 1103 |
| 4200 | K1 | 1*0.8 | 750 | K2 | 1*0.8 | 815 | K6 | 1*1.1 | 879 | K6 | 1*1.1 | 941 | K5 | 1*1.1 | 1002 | K4 | 1*1.1 | 1060 | K7 | 1*1.5 | 1117 |
| **4500** | K2 | 1*0.8 | 785 | K8 | 1*1.1 | 847 | K6 | 1*1.1 | 907 | K5 | 1*1.1 | 966 | K5 | 1*1.1 | 1023 | K7 | 1*1.5 | 1079 | K7 | 1*1.5 | 1134 |
| 4800 | K8 | 1*1.1 | 821 | K6 | 1*1.1 | 880 | K6 | 1*1.1 | 937 | K9 | 1*1.5 | 992 | K7 | 1*1.5 | 1047 | K7 | 1*1.5 | 1101 | K7 | 1*1.5 | 1153 |
| 5100 | K8 | 1*1.1 | 858 | K6 | 1*1.1 | 913 | K9 | 1*1.5 | 968 | K9 | 1*1.5 | 1021 | K7 | 1*1.5 | 1073 | K7 | 1*1.5 | 1124 | K10 | 1*2.2 | 1174 |
| 5400 | K12 | 1*1.5 | 896 | K9 | 1*1.5 | 948 | K9 | 1*1.5 | 1000 | K7 | 1*1.5 | 1051 | K11 | 1*2.2 | 1100 | K10 | 1*2.2 | 1149 | K13 | 1*2.2 | 1198 |

*Table 5.3*

| ***030 STD*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 4300 | K1 | 1*0.8 | 546 | K3 | 1*0.8 | 612 | K3 | 1*0.8 | 678 | K4 | 1*1.1 | 743 | K5 | 1*1.1 | 807 | K5 | 1*1.1 | 869 | K5 | 1*1.1 | 912 |
| 4667 | K2 | 1*0.8 | 570 | K3 | 1*0.8 | 632 | K3 | 1*0.8 | 692 | K4 | 1*1.1 | 753 | K5 | 1*1.1 | 813 | K5 | 1*1.1 | 872 | K6 | 1*1.5 | 929 |
| 5033 | K3 | 1*0.8 | 596 | K3 | 1*0.8 | 654 | K4 | 1*1.1 | 710 | K4 | 1*1.1 | 766 | K5 | 1*1.1 | 822 | K8 | 1*1.5 | 878 | K6 | 1*1.5 | 932 |
| **5400** | K3 | 1*0.8 | 624 | K7 | 1*1.1 | 677 | K4 | 1*1.1 | 730 | K4 | 1*1.1 | 783 | K8 | 1*1.5 | 835 | K6 | 1*1.5 | 887 | K6 | 1*1.5 | 939 |
| 5767 | K7 | 1*1.1 | 652 | K7 | 1*1.1 | 702 | K4 | 1*1.1 | 752 | K8 | 1*1.5 | 801 | K8 | 1*1.5 | 850 | K6 | 1*1.5 | 899 | K10 | 1*2.2 | 948 |
| 6133 | K7 | 1*1.1 | 680 | K9 | 1*1.5 | 728 | K9 | 1*1.5 | 775 | K8 | 1*1.5 | 822 | K8 | 1*1.5 | 868 | K10 | 1*2.2 | 914 | K10 | 1*2.2 | 960 |
| 6500 | K9 | 1*1.5 | 710 | K9 | 1*1.5 | 755 | K8 | 1*1.5 | 800 | K11 | 1*2.2 | 844 | K10 | 1*2.2 | 888 | K10 | 1*2.2 | 931 | K10 | 1*2.2 | 975 |

*Table 5.4*

| ***035 STD*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 5000 | K1 | 1*0.8 | 587 | K2 | 1*1.1 | 645 | K2 | 1*1.1 | 702 | K3 | 1*1.1 | 758 | K3 | 1*1.1 | 815 | K4 | 1*1.5 | 870 | K5 | 1*1.5 | 925 |
| 5433 | K2 | 1*1.1 | 618 | K2 | 1*1.1 | 672 | K3 | 1*1.1 | 725 | K3 | 1*1.1 | 777 | K4 | 1*1.5 | 829 | K5 | 1*1.5 | 881 | K5 | 1*1.5 | 932 |
| 5867 | K2 | 1*1.1 | 651 | K2 | 1*1.1 | 701 | K6 | 1*1.5 | 750 | K4 | 1*1.5 | 799 | K4 | 1*1.5 | 847 | K5 | 1*1.5 | 895 | K7 | 1*2.2 | 943 |
| **6300** | K2 | 1*1.1 | 684 | K6 | 1*1.5 | 732 | K6 | 1*1.5 | 778 | K4 | 1*1.5 | 823 | K8 | 1*2.2 | 868 | K7 | 1*2.2 | 913 | K7 | 1*2.2 | 958 |
| 6733 | K6 | 1*1.5 | 719 | K6 | 1*1.5 | 763 | K8 | 1*2.2 | 807 | K8 | 1*2.2 | 849 | K7 | 1*2.2 | 892 | K7 | 1*2.2 | 934 | K7 | 1*2.2 | 976 |
| 7167 | K9 | 1*2.2 | 754 | K8 | 1*2.2 | 796 | K8 | 1*2.2 | 837 | K8 | 1*2.2 | 877 | K7 | 1*2.2 | 917 | K7 | 1*2.2 | 957 | K10 | 1*3.0 | 997 |
| 7600 | K8 | 1*2.2 | 789 | K8 | 1*2.2 | 829 | K8 | 1*2.2 | 868 | K7 | 1*2.2 | 907 | K10 | 1*3.0 | 945 | K10 | 1*3.0 | 982 | K10 | 1*3.0 | 1020 |

**P** Fan motor power in kW

Highlighted value correspond to nominal conditions

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop

*Table 5.5*

| ***040 STD*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 5800 | K1 | 1*0.8 | 551 | K3 | 1*1.1 | 625 | K3 | 1*1.1 | 696 | K4 | 1*1.5 | 762 | K5 | 1*1.5 | 825 |
| 6267 | K2 | 1*0.8 | 571 | K3 | 1*1.1 | 642 | K3 | 1*1.1 | 709 | K4 | 1*1.5 | 772 | K5 | 1*1.5 | 833 |
| 6733 | K11 | 1*1.1 | 592 | K3 | 1*1.1 | 659 | K4 | 1*1.5 | 723 | K4 | 1*1.5 | 784 | K9 | 1*2.2 | 843 |
| **7200** | K3 | 1*1.1 | 614 | K8 | 1*1.5 | 678 | K4 | 1*1.5 | 739 | K5 | 1*1.5 | 798 | K9 | 1*2.2 | 855 |
| 7667 | K3 | 1*1.1 | 638 | K8 | 1*1.5 | 698 | K4 | 1*1.5 | 757 | K9 | 1*2.2 | 813 | K9 | 1*2.2 | 868 |
| 8133 | K8 | 1*1.5 | 662 | K4 | 1*1.5 | 720 | K13 | 1*2.2 | 776 | K9 | 1*2.2 | 830 | K9 | 1*2.2 | 882 |
| 8600 | K8 | 1*1.5 | 687 | K13 | 1*2.2 | 742 | K9 | 1*2.2 | 795 | K9 | 1*2.2 | 847 | K12 | 1*3.0 | 898 |

| ***040 STD*** | 350 | | | 400 | | | 450 | | | 500 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 5800 | K5 | 1*1.5 | 884 | K6 | 1*2.2 | 941 | K7 | 1*2.2 | 996 | K7 | 1*2.2 | 1048 |
| 6267 | K6 | 1*2.2 | 891 | K6 | 1*2.2 | 946 | K7 | 1*2.2 | 999 | K7 | 1*2.2 | 1051 |
| 6733 | K6 | 1*2.2 | 899 | K6 | 1*2.2 | 953 | K7 | 1*2.2 | 1005 | K10 | 1*3.0 | 1055 |
| **7200** | K6 | 1*2.2 | 909 | K6 | 1*2.2 | 961 | K10 | 1*3.0 | 1012 | K10 | 1*3.0 | 1060 |
| 7667 | K6 | 1*2.2 | 920 | K12 | 1*3.0 | 971 | K10 | 1*3.0 | 1020 | K10 | 1*3.0 | 1068 |
| 8133 | K12 | 1*3.0 | 933 | K12 | 1*3.0 | 982 | K10 | 1*3.0 | 1030 | K10 | 1*3.0 | 1076 |
| 8600 | K12 | 1*3.0 | 947 | K12 | 1*3.0 | 995 | K10 | 1*3.0 | 1041 | K14 | 1*4.0 | 1086 |

*Table 5.6*

| ***045 STD*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 6500 | K1 | 1*0.8 | 577 | K2 | 1*1.1 | 647 | K2 | 1*1.1 | 712 | K3 | 1*1.5 | 775 | K4 | 1*2.2 | 835 |
| 7033 | K2 | 1*1.1 | 602 | K2 | 1*1.1 | 667 | K3 | 1*1.5 | 730 | K3 | 1*1.5 | 789 | K4 | 1*2.2 | 847 |
| 7567 | K2 | 1*1.1 | 628 | K8 | 1*1.5 | 690 | K3 | 1*1.5 | 749 | K4 | 1*2.2 | 806 | K4 | 1*2.2 | 861 |
| **8100** | K8 | 1*1.5 | 655 | K3 | 1*1.5 | 713 | K10 | 1*2.2 | 770 | K4 | 1*2.2 | 824 | K4 | 1*2.2 | 877 |
| 8633 | K8 | 1*1.5 | 683 | K10 | 1*2.2 | 738 | K10 | 1*2.2 | 792 | K4 | 1*2.2 | 844 | K12 | 1*3.0 | 894 |
| 9167 | K10 | 1*2.2 | 712 | K10 | 1*2.2 | 764 | K4 | 1*2.2 | 815 | K12 | 1*3.0 | 865 | K9 | 1*3.0 | 913 |
| 9700 | K10 | 1*2.2 | 741 | K10 | 1*2.2 | 791 | K12 | 1*3.0 | 840 | K12 | 1*3.0 | 887 | K9 | 1*3.0 | 934 |

| ***045 STD*** | 350 | | | 400 | | | 450 | | | 500 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 6500 | K5 | 1*2.2 | 892 | K5 | 1*2.2 | 946 | K5 | 1*2.2 | 999 | K6 | 1*3.0 | 1050 |
| 7033 | K5 | 1*2.2 | 902 | K5 | 1*2.2 | 955 | K6 | 1*3.0 | 1006 | K6 | 1*3.0 | 1055 |
| 7567 | K5 | 1*2.2 | 914 | K9 | 1*3.0 | 965 | K6 | 1*3.0 | 1015 | K6 | 1*3.0 | 1063 |
| **8100** | K9 | 1*3.0 | 928 | K9 | 1*3.0 | 977 | K6 | 1*3.0 | 1025 | K6 | 1*3.0 | 1072 |
| 8633 | K9 | 1*3.0 | 943 | K9 | 1*3.0 | 991 | K6 | 1*3.0 | 1037 | K11 | 1*4.0 | 1083 |
| 9167 | K9 | 1*3.0 | 961 | K6 | 1*3.0 | 1007 | K11 | 1*4.0 | 1051 | K11 | 1*4.0 | 1095 |
| 9700 | K13 | 1*4.0 | 979 | K11 | 1*4.0 | 1024 | K11 | 1*4.0 | 1067 | K11 | 1*4.0 | 1109 |

**P** Fan motor power in kW

Highlighted value correspond to nominal conditions

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop

*Table 5.7*

| ***050 STD*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 7200 | K1 | 1*1.1 | 602 | K2 | 1*1.5 | 666 | K3 | 1*1.5 | 728 | K3 | 1*1.5 | 787 | K4 | 1*2.2 | 844 |
| 7800 | K2 | 1*1.5 | 631 | K2 | 1*1.5 | 691 | K3 | 1*1.5 | 750 | K4 | 1*2.2 | 806 | K4 | 1*2.2 | 860 |
| 8400 | K2 | 1*1.5 | 661 | K8 | 1*2.2 | 718 | K8 | 1*2.2 | 773 | K4 | 1*2.2 | 826 | K4 | 1*2.2 | 878 |
| **9000** | K8 | 1*2.2 | 692 | K8 | 1*2.2 | 746 | K4 | 1*2.2 | 798 | K4 | 1*2.2 | 849 | K10 | 1*3.0 | 898 |
| 9600 | K8 | 1*2.2 | 724 | K8 | 1*2.2 | 775 | K10 | 1*3.0 | 824 | K10 | 1*3.0 | 873 | K6 | 1*3.0 | 920 |
| 10200 | K8 | 1*2.2 | 757 | K10 | 1*3.0 | 805 | K10 | 1*3.0 | 852 | K10 | 1*3.0 | 898 | K11 | 1*4.0 | 943 |
| 10800 | K10 | 1*3.0 | 790 | K10 | 1*3.0 | 836 | K10 | 1*3.0 | 881 | K11 | 1*4.0 | 925 | K11 | 1*4.0 | 968 |

| ***050 STD*** | 350 | | | 400 | | | 450 | | | 500 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 7200 | K5 | 1*2.2 | 899 | K5 | 1*2.2 | 951 | K6 | 1*3.0 | 1002 | K7 | 1*3.0 | 1051 |
| 7800 | K5 | 1*2.2 | 912 | K6 | 1*3.0 | 963 | K7 | 1*3.0 | 1012 | K7 | 1*3.0 | 1060 |
| 8400 | K6 | 1*3.0 | 928 | K6 | 1*3.0 | 977 | K7 | 1*3.0 | 1024 | K9 | 1*4.0 | 1070 |
| **9000** | K6 | 1*3.0 | 946 | K6 | 1*3.0 | 993 | K9 | 1*4.0 | 1038 | K9 | 1*4.0 | 1083 |
| 9600 | K6 | 1*3.0 | 966 | K9 | 1*4.0 | 1011 | K9 | 1*4.0 | 1055 | K9 | 1*4.0 | 1097 |
| 10200 | K11 | 1*4.0 | 987 | K9 | 1*4.0 | 1030 | K9 | 1*4.0 | 1073 | K12 | 1*5.5 | 1114 |
| 10800 | K9 | 1*4.0 | 1010 | K9 | 1*4.0 | 1052 | K14 | 1*5.5 | 1092 | K12 | 1*5.5 | 1132 |

**P** Fan motor power in kW

Highlighted value correspond to nominal conditions

***BGK*** = Gas fired rooftop ***BDK*** = Dual fuel rooftop (heat pump + gas fired)

*Table 5.8*

| ***020 GAS*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 2900 | K1 | 1*0.8 | 746 | K1 | 1*0.8 | 826 | K2 | 1*0.8 | 902 | K2 | 1*0.8 | 974 | K3 | 1*0.8 | 1043 | K3 | 1*0.8 | 1108 | K4 | 1*1.1 | 1170 |
| 3133 | K1 | 1*0.8 | 780 | K1 | 1*0.8 | 856 | K2 | 1*0.8 | 928 | K2 | 1*0.8 | 997 | K3 | 1*0.8 | 1063 | K5 | 1*1.1 | 1126 | K4 | 1*1.1 | 1187 |
| 3367 | K1 | 1*0.8 | 816 | K2 | 1*0.8 | 888 | K2 | 1*0.8 | 956 | K3 | 1*0.8 | 1023 | K5 | 1*1.1 | 1086 | K5 | 1*1.1 | 1147 | K4 | 1*1.1 | 1206 |
| **3600** | K1 | 1*0.8 | 852 | K2 | 1*0.8 | 921 | K2 | 1*0.8 | 986 | K5 | 1*1.1 | 1049 | K5 | 1*1.1 | 1110 | K4 | 1*1.1 | 1169 | K4 | 1*1.1 | 1226 |
| 3833 | K2 | 1*0.8 | 890 | K7 | 1*1.1 | 955 | K5 | 1*1.1 | 1017 | K5 | 1*1.1 | 1078 | K5 | 1*1.1 | 1137 | K4 | 1*1.1 | 1193 | K6 | 1*1.5 | 1248 |
| 4067 | K7 | 1*1.1 | 928 | K5 | 1*1.1 | 990 | K5 | 1*1.1 | 1050 | K5 | 1*1.1 | 1108 | K6 | 1*1.5 | 1164 | K6 | 1*1.5 | 1219 | K6 | 1*1.5 | 1272 |
| 4300 | K5 | 1*1.1 | 968 | K5 | 1*1.1 | 1027 | K5 | 1*1.1 | 1084 | K8 | 1*1.5 | 1139 | K6 | 1*1.5 | 1194 | K6 | 1*1.5 | 1247 | K6 | 1*1.5 | 1298 |

*Table 5.9*

| ***025 GAS*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 3600 | K1 | 1*0.8 | 834 | K1 | 1*0.8 | 903 | K1 | 1*0.8 | 969 | K2 | 1*1.1 | 1033 | K2 | 1*1.1 | 1095 | K2 | 1*1.1 | 1154 | K3 | 1*2.2 | 1211 |
| 3900 | K1 | 1*0.8 | 881 | K4 | 1*1.1 | 945 | K4 | 1*1.1 | 1008 | K2 | 1*1.1 | 1068 | K2 | 1*1.1 | 1127 | K3 | 1*2.2 | 1183 | K5 | 1*1.5 | 1238 |
| 4200 | K4 | 1*1.1 | 929 | K4 | 1*1.1 | 989 | K2 | 1*1.1 | 1048 | K2 | 1*1.1 | 1106 | K5 | 1*1.5 | 1161 | K5 | 1*1.5 | 1216 | K5 | 1*1.5 | 1268 |
| **4500** | K4 | 1*1.1 | 978 | K2 | 1*1.1 | 1035 | K6 | 1*1.5 | 1091 | K6 | 1*1.5 | 1145 | K5 | 1*1.5 | 1198 | K5 | 1*1.5 | 1250 | K7 | 1*2.2 | 1301 |
| 4800 | K6 | 1*1.5 | 1028 | K6 | 1*1.5 | 1082 | K6 | 1*1.5 | 1135 | K5 | 1*1.5 | 1187 | K7 | 1*2.2 | 1237 | K7 | 1*2.2 | 1287 | K7 | 1*2.2 | 1335 |
| 5100 | K6 | 1*1.5 | 1079 | K6 | 1*1.5 | 1130 | K3 | 1*2.2 | 1181 | K7 | 1*2.2 | 1230 | K7 | 1*2.2 | 1278 | K7 | 1*2.2 | 1325 | K8 | 1*3.0 | 1372 |
| 5400 | K3 | 1*2.2 | 1131 | K3 | 1*2.2 | 1180 | K7 | 1*2.2 | 1227 | K7 | 1*2.2 | 1274 | K7 | 1*2.2 | 1320 | K8 | 1*3.0 | 1365 | K8 | 1*3.0 | 1410 |

*Table 5.10*

| ***030 GAS*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 4300 | K1 | 1*0.8 | 641 | K2 | 1*1.1 | 706 | K2 | 1*1.1 | 771 | K3 | 1*1.1 | 834 | K3 | 1*1.1 | 895 | K4 | 1*1.5 | 954 | K4 | 1*1.5 | 1011 |
| 4667 | K2 | 1*1.1 | 674 | K2 | 1*1.1 | 734 | K3 | 1*1.1 | 794 | K3 | 1*1.1 | 854 | K4 | 1*1.5 | 911 | K4 | 1*1.5 | 968 | K4 | 1*1.5 | 1022 |
| 5033 | K2 | 1*1.1 | 708 | K2 | 1*1.1 | 765 | K3 | 1*1.1 | 821 | K5 | 1*1.5 | 876 | K4 | 1*1.5 | 931 | K4 | 1*1.5 | 984 | K6 | 1*2.2 | 1036 |
| **5400** | K2 | 1*1.1 | 744 | K3 | 1*1.1 | 796 | K5 | 1*1.5 | 849 | K4 | 1*1.5 | 901 | K4 | 1*1.5 | 952 | K6 | 1*2.2 | 1003 | K7 | 1*2.2 | 1053 |
| 5767 | K5 | 1*1.5 | 781 | K5 | 1*1.5 | 830 | K5 | 1*1.5 | 879 | K8 | 1*2.2 | 928 | K6 | 1*2.2 | 976 | K6 | 1*2.2 | 1025 | K7 | 1*2.2 | 1072 |
| 6133 | K5 | 1*1.5 | 818 | K5 | 1*1.5 | 864 | K8 | 1*2.2 | 911 | K8 | 1*2.2 | 957 | K6 | 1*2.2 | 1003 | K7 | 1*2.2 | 1048 | K7 | 1*2.2 | 1093 |
| 6500 | K8 | 1*2.2 | 856 | K8 | 1*2.2 | 900 | K8 | 1*2.2 | 944 | K6 | 1*2.2 | 987 | K6 | 1*2.2 | 1031 | K9 | 1*3.0 | 1074 | K10 | 1*3.0 | 1117 |

*Table 5.11*

| ***035 GAS*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 5000 | K1 | 1*1.1 | 698 | K1 | 1*1.1 | 755 | K1 | 1*1.1 | 811 | K2 | 1*1.5 | 867 | K3 | 1*1.5 | 922 | K3 | 1*1.5 | 976 | K4 | 1*2.2 | 1029 |
| 5433 | K1 | 1*1.1 | 740 | K1 | 1*1.1 | 792 | K2 | 1*1.5 | 844 | K3 | 1*1.5 | 896 | K3 | 1*1.5 | 947 | K4 | 1*2.2 | 998 | K4 | 1*2.2 | 1048 |
| 5867 | K2 | 1*1.5 | 783 | K2 | 1*1.5 | 831 | K3 | 1*1.5 | 880 | K5 | 1*2.2 | 928 | K4 | 1*2.2 | 976 | K4 | 1*2.2 | 1023 | K4 | 1*2.2 | 1070 |
| **6300** | K2 | 1*1.5 | 827 | K5 | 1*2.2 | 872 | K5 | 1*2.2 | 917 | K5 | 1*2.2 | 962 | K4 | 1*2.2 | 1007 | K4 | 1*2.2 | 1051 | K6 | 1*3.0 | 1095 |
| 6733 | K5 | 1*2.2 | 871 | K5 | 1*2.2 | 914 | K5 | 1*2.2 | 956 | K4 | 1*2.2 | 998 | K6 | 1*3.0 | 1040 | K6 | 1*3.0 | 1082 | K8 | 1*3.0 | 1124 |
| 7167 | K5 | 1*2.2 | 917 | K5 | 1*2.2 | 957 | K9 | 1*3.0 | 996 | K6 | 1*3.0 | 1036 | K6 | 1*3.0 | 1076 | K8 | 1*3.0 | 1115 | K8 | 1*3.0 | 1154 |
| 7600 | K9 | 1*3.0 | 963 | K9 | 1*3.0 | 1001 | K6 | 1*3.0 | 1038 | K6 | 1*3.0 | 1075 | K8 | 1*3.0 | 1113 | K10 | 1*4.0 | 1150 | K10 | 1*4.0 | 1187 |

**P** Fan motor power in kW

Highlighted value correspond to nominal conditions

***BGK*** = Gas fired rooftop ***BDK*** = Dual fuel rooftop (heat pump + gas fired)

*Table 5.12*

| ***040 GAS*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 5800 | K1 | 1*1.1 | 671 | K2 | 1*1.1 | 739 | K3 | 1*1.5 | 803 | K3 | 1*1.5 | 864 | K4 | 1*2.2 | 921 |
| 6267 | K2 | 1*1.1 | 703 | K3 | 1*1.5 | 767 | K3 | 1*1.5 | 828 | K4 | 1*2.2 | 886 | K4 | 1*2.2 | 942 |
| 6733 | K9 | 1*1.5 | 737 | K3 | 1*1.5 | 797 | K8 | 1*2.2 | 855 | K4 | 1*2.2 | 911 | K4 | 1*2.2 | 964 |
| **7200** | K3 | 1*1.5 | 771 | K8 | 1*2.2 | 829 | K8 | 1*2.2 | 884 | K4 | 1*2.2 | 937 | K10 | 1*3.0 | 988 |
| 7667 | K8 | 1*2.2 | 806 | K8 | 1*2.2 | 861 | K4 | 1*2.2 | 914 | K10 | 1*3.0 | 965 | K7 | 1*3.0 | 1014 |
| 8133 | K8 | 1*2.2 | 842 | K4 | 1*2.2 | 894 | K10 | 1*3.0 | 945 | K10 | 1*3.0 | 993 | K7 | 1*3.0 | 1041 |
| 8600 | K8 | 1*2.2 | 879 | K10 | 1*3.0 | 928 | K10 | 1*3.0 | 976 | K7 | 1*3.0 | 1023 | K11 | 1*4.0 | 1069 |

| ***040 GAS*** | 350 | | | 400 | | | 450 | | | 500 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 5800 | K5 | 1*2.2 | 977 | K5 | 1*2.2 | 1030 | K5 | 1*2.2 | 1081 | K6 | 1*3.0 | 1130 |
| 6267 | K5 | 1*2.2 | 995 | K5 | 1*2.2 | 1047 | K7 | 1*3.0 | 1096 | K6 | 1*3.0 | 1144 |
| 6733 | K5 | 1*2.2 | 1016 | K7 | 1*3.0 | 1065 | K6 | 1*3.0 | 1113 | K6 | 1*3.0 | 1160 |
| **7200** | K7 | 1*3.0 | 1038 | K7 | 1*3.0 | 1086 | K6 | 1*3.0 | 1133 | K11 | 1*4.0 | 1178 |
| 7667 | K7 | 1*3.0 | 1062 | K6 | 1*3.0 | 1108 | K11 | 1*4.0 | 1153 | K11 | 1*4.0 | 1197 |
| 8133 | K11 | 1*4.0 | 1087 | K11 | 1*4.0 | 1132 | K11 | 1*4.0 | 1175 | | No kit | |
| 8600 | K11 | 1*4.0 | 1113 | K11 | 1*4.0 | 1157 | K11 | 1*4.0 | 1199 | | No kit | |

*Table 5.13*

| ***045 GAS*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 6500 | K1 | 1*1.5 | 717 | K1 | 1*1.5 | 779 | K2 | 1*2.2 | 838 | K3 | 1*2.2 | 895 | K3 | 1*2.2 | 950 |
| 7033 | K1 | 1*1.5 | 755 | K1 | 1*1.5 | 814 | K2 | 1*2.2 | 870 | K3 | 1*2.2 | 924 | K3 | 1*2.2 | 976 |
| 7567 | K2 | 1*2.2 | 795 | K2 | 1*2.2 | 850 | K3 | 1*2.2 | 903 | K3 | 1*2.2 | 955 | K6 | 1*3.0 | 1005 |
| **8100** | K2 | 1*2.2 | 835 | K3 | 1*2.2 | 887 | K6 | 1*3.0 | 938 | K6 | 1*3.0 | 987 | K4 | 1*3.0 | 1035 |
| 8633 | K2 | 1*2.2 | 877 | K6 | 1*3.0 | 926 | K6 | 1*3.0 | 974 | K4 | 1*3.0 | 1021 | K8 | 1*4.0 | 1067 |
| 9167 | K6 | 1*3.0 | 919 | K6 | 1*3.0 | 966 | K8 | 1*4.0 | 1012 | K8 | 1*4.0 | 1056 | K8 | 1*4.0 | 1100 |
| 9700 | K6 | 1*3.0 | 961 | K8 | 1*4.0 | 1006 | K8 | 1*4.0 | 1050 | K8 | 1*4.0 | 1093 | K7 | 1*4.0 | 1134 |

| ***045 GAS*** | 350 | | | 400 | | | 450 | | | 500 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 6500 | K3 | 1*2.2 | 1002 | K4 | 1*3.0 | 1053 | K5 | 1*3.0 | 1102 | K5 | 1*3.0 | 1149 |
| 7033 | K4 | 1*3.0 | 1027 | K4 | 1*3.0 | 1075 | K5 | 1*3.0 | 1123 | K5 | 1*3.0 | 1168 |
| 7567 | K4 | 1*3.0 | 1053 | K4 | 1*3.0 | 1100 | K7 | 1*4.0 | 1145 | K7 | 1*4.0 | 1190 |
| **8100** | K4 | 1*3.0 | 1081 | K7 | 1*4.0 | 1126 | K7 | 1*4.0 | 1170 | No kit | | |
| 8633 | K7 | 1*4.0 | 1111 | K7 | 1*4.0 | 1154 | K7 | 1*4.0 | 1197 | No kit | | |
| 9167 | K7 | 1*4.0 | 1143 | K9 | 1*5.5 | 1184 | No kit | | | No kit | | |
| 9700 | K9 | 1*5.5 | 1175 | No kit | | | No kit | | | No kit | | |

Highlighted value correspond to nominal conditions

**P** Fan motor power in kW

***BGK*** = Gas fired rooftop ***BDK*** = Dual fuel rooftop (heat pump + gas fired)

*Table 5.14*

| ***050 GAS*** | **100** | | | 150 | | | 200 | | | 250 | | | 300 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 7200 | K1 | 1*2.2 | 760 | K1 | 1*2.2 | 818 | K1 | 1*2.2 | 874 | K2 | 1*2.2 | 927 | K2 | 1*2.2 | 979 |
| 7800 | K1 | 1*2.2 | 804 | K1 | 1*2.2 | 859 | K2 | 1*2.2 | 911 | K3 | 1*3.0 | 962 | K4 | 1*3.0 | 1011 |
| 8400 | K1 | 1*2.2 | 850 | K3 | 1*3.0 | 901 | K3 | 1*3.0 | 950 | K3 | 1*3.0 | 998 | K4 | 1*3.0 | 1045 |
| **9000** | K3 | 1*3.0 | 896 | K3 | 1*3.0 | 944 | K3 | 1*3.0 | 991 | K7 | 1*4.0 | 1037 | K7 | 1*4.0 | 1081 |
| 9600 | K3 | 1*3.0 | 943 | K7 | 1*4.0 | 989 | K7 | 1*4.0 | 1033 | K7 | 1*4.0 | 1076 | K6 | 1*4.0 | 1119 |
| 10200 | K7 | 1*4.0 | 991 | K7 | 1*4.0 | 1034 | K7 | 1*4.0 | 1076 | K8 | 1*5.5 | 1117 | K8 | 1*5.5 | 1158 |
| 10800 | K7 | 1*4.0 | 1039 | K8 | 1*5.5 | 1080 | K8 | 1*5.5 | 1120 | K8 | 1*5.5 | 1160 | K8 | 1*5.5 | 1198 |

| ***050 GAS*** | 350 | | | 400 | | | 450 | | | 500 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air flow | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM | **Kit** | P | RPM |
| 7200 | K4 | 1*3.0 | 1029 | K4 | 1*3.0 | 1077 | K5 | 1*3.0 | 1124 | K6 | 1*4.0 | 1169 |
| 7800 | K4 | 1*3.0 | 1058 | K5 | 1*3.0 | 1105 | K6 | 1*4.0 | 1150 | K6 | 1*4.0 | 1193 |
| 8400 | K7 | 1*4.0 | 1090 | K6 | 1*4.0 | 1135 | K6 | 1*4.0 | 1178 | | No kit | |
| **9000** | K6 | 1*4.0 | 1124 | K6 | 1*4.0 | 1167 | | No kit | | | No kit | |
| 9600 | K8 | 1*5.5 | 1160 | | No kit | | | No kit | | | No kit | |
| 10200 | K8 | 1*5.5 | 1198 | | No kit | | | No kit | | | No kit | |
| 10800 | | No kit | | | No kit | | | No kit | | | No kit | |

**!** The pressure drop difference between Standard Heat and High Heat gas burners being negligeable, these tables can be used for both.

**P** Fan motor power in kW

Highlighted value correspond to nominal conditions

# OUTDOOR NOISE LEVEL

## 100 Pa

### Spectrum per otave band (dBa)

*Table 5.15*

| BCK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Total sound Power dB(A) | Sound pressure at 10 meters dB (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20NS** | 37 | 60 | 71 | 73 | 75 | 76 | 70 | 61 | 81 | 50 |
| **25NS** | 41 | 61 | 78 | 74 | 76 | 78 | 70 | 61 | 82 | 51 |
| **30ND** | 47 | 67 | 69 | 75 | 75 | 73 | 70 | 62 | 80 | 49 |
| **35ND** | 47 | 67 | 69 | 76 | 75 | 73 | 70 | 60 | 81 | 50 |
| **40ND** | 44 | 64 | 66 | 73 | 78 | 76 | 69 | 61 | 81 | 50 |
| **45ND** | 44 | 64 | 66 | 73 | 77 | 77 | 70 | 61 | 81 | 50 |
| **50ND** | 45 | 64 | 67 | 72 | 77 | 78 | 70 | 61 | 82 | 51 |

| BGK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Total sound Power dB(A) | Sound pressure at 10 meters dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20SS** | 40 | 61 | 72 | 73 | 75 | 77 | 70 | 61 | 81 | 50 |
| **25SS** | 44 | 62 | 72 | 74 | 76 | 78 | 70 | 61 | 82 | 51 |
| **30SD** | 47 | 67 | 69 | 75 | 75 | 73 | 70 | 62 | 80 | 49 |
| **35SD** | 48 | 67 | 70 | 76 | 76 | 73 | 70 | 61 | 81 | 50 |
| **40SD** | 45 | 64 | 66 | 73 | 78 | 76 | 69 | 61 | 81 | 50 |
| **45SD** | 46 | 64 | 67 | 73 | 78 | 77 | 70 | 61 | 82 | 51 |
| **50SD** | 47 | 65 | 68 | 73 | 78 | 78 | 71 | 61 | 82 | 51 |

## 400 Pa

### Spectrum per otave band (dBa)

*Table 5.16*

| BCK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Total sound Power dB(A) | Sound pressure at 10 meters dB (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20NS** | 44 | 62 | 72 | 74 | 76 | 77 | 70 | 62 | 81 | 50 |
| **25NS** | 47 | 63 | 72 | 74 | 77 | 78 | 71 | 62 | 82 | 51 |
| **30ND** | 48 | 67 | 70 | 76 | 75 | 74 | 70 | 63 | 81 | 50 |
| **35ND** | 49 | 67 | 70 | 76 | 76 | 74 | 71 | 61 | 81 | 50 |
| **40ND** | 46 | 65 | 67 | 74 | 78 | 76 | 70 | 62 | 82 | 51 |
| **45ND** | 47 | 65 | 68 | 73 | 78 | 77 | 70 | 62 | 82 | 51 |
| **50ND** | 48 | 66 | 69 | 73 | 78 | 78 | 71 | 62 | 82 | 51 |

| BGK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Total sound Power dB(A) | Sound pressure at 10 meters dB (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20SS** | 46 | 63 | 72 | 74 | 76 | 77 | 71 | 62 | 82 | 51 |
| **25SS** | 49 | 65 | 73 | 75 | 77 | 79 | 72 | 63 | 83 | 52 |
| **30SD** | 49 | 67 | 70 | 76 | 76 | 74 | 71 | 63 | 81 | 50 |
| **35SD** | 50 | 68 | 71 | 76 | 77 | 75 | 71 | 62 | 82 | 51 |
| **40SD** | 48 | 65 | 68 | 74 | 78 | 77 | 70 | 62 | 82 | 51 |
| **45SD** | 49 | 66 | 69 | 74 | 78 | 78 | 71 | 63 | 83 | 52 |
| **50SD** | 50 | 67 | 71 | 74 | 79 | 79 | 72 | 63 | 83 | 52 |

All data is given at nominal airflow.

# INDOOR NOISE LEVEL

## 100 Pa

### Spectrum per otave band (dBa)

*Table 5.17*

| BCK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Supply air Total sound Power dB(A) | Return air Total sound Power dB (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20NS** | 45 | 57 | 65 | 70 | 70 | 68 | 64 | 57 | 75 | 71 |
| **25NS** | 50 | 61 | 70 | 74 | 75 | 73 | 68 | 61 | 80 | 75 |
| **30ND** | 46 | 57 | 66 | 70 | 71 | 68 | 64 | 57 | 76 | 71 |
| **35ND** | 49 | 61 | 69 | 73 | 74 | 72 | 68 | 60 | 79 | 74 |
| **40ND** | 46 | 57 | 66 | 70 | 71 | 69 | 64 | 57 | 76 | 71 |
| **45ND** | 48 | 60 | 68 | 73 | 73 | 71 | 67 | 60 | 78 | 74 |
| **50ND** | 51 | 62 | 70 | 75 | 76 | 73 | 69 | 62 | 80 | 76 |

| BGK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Supply air Total sound Power dB(A) | Return air Total sound Power dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20SS** | 48 | 59 | 68 | 72 | 73 | 71 | 66 | 59 | 78 | 73 |
| **25SS** | 53 | 64 | 73 | 77 | 78 | 75 | 71 | 64 | 83 | 78 |
| **30SD** | 48 | 59 | 68 | 72 | 73 | 71 | 66 | 59 | 78 | 73 |
| **35SD** | 51 | 63 | 71 | 76 | 76 | 74 | 70 | 63 | 81 | 77 |
| **40SD** | 49 | 60 | 69 | 73 | 74 | 71 | 67 | 60 | 79 | 74 |
| **45SD** | 51 | 63 | 71 | 76 | 76 | 74 | 70 | 63 | 81 | 77 |
| **50SD** | 54 | 65 | 74 | 78 | 79 | 76 | 72 | 65 | 84 | 79 |

## 400 Pa

### Spectrum per otave band (dBa)

*Table 5.18*

| BCK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Supply air Total sound Power dB(A) | Return air Total sound Power dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20NS** | 52 | 64 | 72 | 76 | 77 | 75 | 71 | 64 | 82 | 77 |
| **25NS** | 55 | 66 | 75 | 79 | 80 | 78 | 73 | 66 | 85 | 80 |
| **30ND** | 52 | 63 | 71 | 76 | 77 | 74 | 70 | 63 | 81 | 77 |
| **35ND** | 54 | 65 | 73 | 78 | 79 | 76 | 72 | 65 | 83 | 79 |
| **40ND** | 52 | 64 | 72 | 77 | 77 | 75 | 71 | 64 | 82 | 78 |
| **45ND** | 54 | 65 | 74 | 78 | 79 | 76 | 72 | 65 | 84 | 79 |
| **50ND** | 55 | 67 | 75 | 80 | 80 | 78 | 74 | 67 | 85 | 81 |

| BGK BDK | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Supply air global sound Power dB(A) | Return air global sound Power dB(A) |
|---|---|---|---|---|---|---|---|---|---|---|
| **20SS** | 54 | 66 | 74 | 78 | 79 | 77 | 73 | 65 | 84 | 79 |
| **25SS** | 57 | 69 | 77 | 82 | 82 | 80 | 76 | 69 | 87 | 83 |
| **30SD** | 54 | 65 | 73 | 78 | 79 | 76 | 72 | 65 | 83 | 79 |
| **35SD** | 56 | 67 | 76 | 80 | 81 | 78 | 74 | 67 | 86 | 81 |
| **40SD** | 54 | 66 | 74 | 79 | 79 | 77 | 73 | 66 | 84 | 80 |
| **45SD** | 56 | 68 | 76 | 80 | 81 | 79 | 75 | 68 | 86 | 82 |
| **50SD** | 58 | 70 | 78 | 82 | 83 | 81 | 77 | 69 | 88 | 83 |

All data is given at nominal airflow.

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop ***BGK*** = Cooling only rooftop with gas fired heating ***BDK*** = Heat pump rooftop with gas fired heating

*Table 5.19*

| SIZE | Airflow | Economiser (Pa) | EU4 Filters (Pa) | Hot water coil (Pa) S | Hot water coil (Pa) H | Electric heater (Pa) S | Electric heater (Pa) M | Electric heater (Pa) H | roofcurb (Pa) | Multi-directional (Pa) |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2900 | 8 | 0 | 22 | 31 | 37 | 38 | 40 | 16 | 23 |
| ***020*** | 3600 | 13 | 6 | 32 | 46 | 55 | 57 | 59 | 24 | 35 |
| | 4300 | 18 | 12 | 43 | 61 | 76 | 79 | 81 | 35 | 50 |
| | 3600 | 13 | 6 | 32 | 46 | 55 | 57 | 59 | 24 | 35 |
| ***025*** | 4500 | 20 | 14 | 46 | 66 | 83 | 85 | 88 | 38 | 55 |
| | 5400 | 28 | 25 | 63 | 89 | 117 | 120 | 123 | 55 | 79 |
| | 4300 | 11 | 1 | 29 | 40 | 42 | 45 | 47 | 19 | 18 |
| ***030*** | 5400 | 17 | 8 | 43 | 59 | 63 | 66 | 69 | 29 | 28 |
| | 6500 | 24 | 15 | 59 | 80 | 89 | 93 | 96 | 42 | 41 |
| | 5000 | 14 | 5 | 37 | 51 | 55 | 58 | 61 | 25 | 24 |
| ***035*** | 6300 | 23 | 14 | 56 | 76 | 84 | 88 | 91 | 39 | 38 |
| | 7600 | 33 | 24 | 77 | 105 | 119 | 123 | 127 | 58 | 56 |
| | 5800 | 18 | 0 | 35 | 46 | 50 | 53 | 57 | 16 | 23 |
| ***040*** | 7200 | 28 | 6 | 51 | 67 | 74 | 78 | 82 | 25 | 35 |
| | 8600 | 40 | 12 | 70 | 91 | 101 | 106 | 111 | 36 | 51 |
| | 6500 | 23 | 3 | 43 | 56 | 61 | 65 | 69 | 20 | 29 |
| ***045*** | 8100 | 36 | 10 | 63 | 82 | 91 | 95 | 100 | 32 | 45 |
| | 9700 | 51 | 18 | 87 | 113 | 126 | 131 | 137 | 46 | 64 |
| | 7200 | 28 | 6 | 51 | 67 | 74 | 78 | 82 | 25 | 35 |
| ***050*** | 9000 | 44 | 14 | 76 | 99 | 110 | 115 | 120 | 39 | 55 |
| | 10 800 | 63 | 25 | 105 | 136 | 154 | 160 | 166 | 56 | 80 |

***BCK*** = Cooling only rooftop ***BHK*** = Heat pump rooftop ***BGK*** = Gas fired rooftop ***BDK*** = Dual fuel rooftop (heat pump + gas fired)

*Table 6.1*

| ***BCK / BHK SIZE*** | | ***020*** | | ***025*** | | ***030*** | | ***035*** | | ***040*** | | ***045*** | | ***050*** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | P | FLA | P | FLA | P | FLA | P | FLA | P | FLA | P | FLA | P | FLA |
| Basic Unit cooling | R407C | 9,5 | 18,4 | 12,8 | 22,6 | 16,2 | 31,5 | 18,4 | 36,4 | 21,1 | 40,4 | 23,7 | 44,0 | 26,6 | 48,1 |
| Direct start up amps | Id/Ia | 5,7 | | 5,5 | | 3,0 | | 3,3 | | 3,1 | | 3,4 | | 3,2 | |
| Kit indoor standard | | 1,0 | 2,0 | 1,0 | 2,0 | 1,0 | 2,0 | 1,4 | 2,5 | 1,4 | 2,5 | 1,9 | 3,4 | 2,7 | 4,8 |
| Outdoor fan standard | | 0,5 | 1,9 | 0,5 | 1,9 | 1,3 | 5,6 | 1,3 | 5,6 | 1,6 | 6,6 | 1,6 | 6,6 | 1,6 | 6,6 |
| Electric heater | S | 12 | 17 | 12 | 17 | 24 | 33 | 24 | 33 | 27 | 38 | 27 | 38 | 27 | 38 |
| | M | 24 | 33 | 24 | 33 | 36 | 50 | 36 | 50 | 45 | 63 | 45 | 63 | 45 | 63 |
| | H | 36 | 50 | 36 | 50 | 48 | 67 | 48 | 67 | 54 | 75 | 54 | 75 | 54 | 75 |
| Drive Kits | K 1 | 0 | 0 | -0,4 | -0,5 | 0 | 0 | -0,9 | -1,4 | -0,4 | -0,5 | -0,9 | -1,4 | -1,2 | -2,3 |
| | K 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0,4 | -0,5 | -0,4 | -0,9 | -0,8 | -1,4 |
| | K 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0,8 | -1,4 |
| | K 4 | 0 | 0 | 0,4 | 0,5 | 0,4 | 0,5 | 0,4 | 0,9 | 0,4 | 0,9 | 0,8 | 1,4 | 0 | 0 |
| | K 5 | 0 | 0 | 0,4 | 0,5 | 0,4 | 0,5 | 0,4 | 0,9 | 0,4 | 0,9 | 0,8 | 1,4 | 0 | 0 |
| | K 6 | 0,4 | 0,5 | 0,4 | 0,5 | 0,9 | 1,4 | 0,4 | 0,9 | 1,2 | 2,3 | 1,7 | 3,1 | 0,9 | 1,7 |
| | K 7 | 0,4 | 0,5 | 0,9 | 1,4 | 0,4 | 0,5 | 1,2 | 2,3 | 1,2 | 2,3 | -0,4 | -0,9 | 0,9 | 1,7 |
| | K 8 | 0,9 | 1,4 | 0,4 | 0,5 | 0,9 | 1,4 | 1,2 | 2,3 | 0,4 | 0,9 | 0 | 0 | 0 | 0 |
| | K 9 | 0,4 | 0,5 | 0,9 | 1,4 | 0,9 | 1,4 | 1,2 | 2,3 | 1,2 | 2,3 | 1,7 | 3,1 | 2,1 | 3,5 |
| | K 10 | - | - | 1,7 | 2,8 | 1,7 | 2,8 | 2,2 | 4 | 2,2 | 4 | 0,8 | 1,4 | 0,9 | 1,7 |
| | K 11 | - | - | 1,7 | 2,8 | 1,7 | 2,8 | - | - | 0 | 0 | 2,9 | 4,9 | 2,1 | 3,5 |
| | K 12 | - | - | 0,9 | 1,4 | - | - | - | - | 2,2 | 4 | 1,7 | 3,1 | 3,7 | 6,1 |
| | K 13 | - | - | 1,7 | 2,8 | - | - | - | - | 1,2 | 2,3 | 2,9 | 4,9 | 0,9 | 1,7 |
| | K 14 | - | - | - | - | - | - | - | - | 3,3 | 5,8 | - | - | 3,7 | 6,1 |
| Extraction fan | | 0,2 | 0,8 | 0,2 | 0,8 | 0,2 | 0,8 | 0,2 | 0,8 | 0,3 | 1,6 | 0,3 | 1,6 | 0,3 | 1,6 |

P=Max Absorbed Power in kW

FLA=Full Load Amps in Amp.

Id/Ia=Startup Amps/Full load amps

*Table 6.2*

| ***BGK / BDK SIZE*** | | ***020*** | | ***025*** | | ***030*** | | ***035*** | | ***040*** | | ***045*** | | ***050*** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | P | FLA | P | FLA | P | FLA | P | FLA | P | FLA | P | FLA | P | FLA |
| Basic Unit cooling | R407C | 9,5 | 18,4 | 13,3 | 23,1 | 16,6 | 32,0 | 18,9 | 37,3 | 21,6 | 41,3 | 24,5 | 45,4 | 27,5 | 49,8 |
| Direct start up amps | Id/Ia | 5,7 | | 5,5 | | 3,0 | | 3,3 | | 3,1 | | 3,4 | | 3,2 | |
| Kit indoor standard | | 1,0 | 2,0 | 1,5 | 2,5 | 1,5 | 2,5 | 1,9 | 3,4 | 1,9 | 3,4 | 2,7 | 4,8 | 3,7 | 6,5 |
| Outdoor fan standard | | 0,5 | 1,9 | 0,5 | 1,9 | 1,3 | 5,6 | 1,3 | 5,6 | 1,6 | 6,6 | 1,6 | 6,6 | 1,6 | 6,6 |
| Drive Kits | K 1 | 0,0 | 0,0 | -0,5 | -0,5 | -0,5 | -0,5 | -2,2 | -4,0 | -0,5 | -0,9 | -0,8 | -1,4 | -1,0 | -1,7 |
| | K 2 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | -0,5 | -0,9 | 0,0 | 0,0 | -1,0 | -1,7 |
| | K 3 | 0,0 | 0,0 | 1,3 | 2,3 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| | K 4 | 0,5 | 0,5 | 0,0 | 0,0 | 0,5 | 0,9 | 0,8 | 1,4 | 0,8 | 1,4 | 1,0 | 1,7 | 0,0 | 0,0 |
| | K 5 | 0,5 | 0,5 | 0,5 | 0,9 | 0,5 | 0,9 | 0,8 | 1,4 | 0,8 | 1,4 | 1,0 | 1,7 | 0,0 | 0,0 |
| | K 6 | 0,9 | 1,4 | 0,5 | 0,9 | 1,3 | 2,3 | 1,8 | 3,1 | 1,8 | 3,1 | 1,0 | 1,7 | 1,2 | 1,8 |
| | K 7 | 0,5 | 0,5 | 1,3 | 2,3 | 1,3 | 2,3 | 0,8 | 1,4 | 1,8 | 3,1 | 2,1 | 3,5 | 1,2 | 1,8 |
| | K 8 | 0,9 | 1,4 | 2,2 | 4,0 | 1,3 | 2,3 | 1,8 | 3,1 | 0,8 | 1,4 | 2,1 | 3,5 | 2,8 | 4,4 |
| | K 9 | - | - | - | | 2,2 | 4,0 | 1,8 | 3,1 | 0,0 | 0,0 | 3,7 | 6,1 | 1,2 | 1,8 |
| | K 10 | - | - | - | | 2,2 | 4,0 | 2,9 | 4,9 | 1,8 | 3,1 | - | - | - | - |
| | K 11 | - | - | - | | - | - | - | - | 2,9 | 4,9 | - | - | - | - |
| Extraction fan | | 0,2 | 0,8 | 0,2 | 0,8 | 0,2 | 0,8 | 0,2 | 0,8 | 0,3 | 1,6 | 0,3 | 1,6 | 0,3 | 1,6 |
| Gas (2 stages) | | | | | | | | | | | | | | | |
| Gas S | kW | 15 | | 15 | | 20 | | 20 | | 30 | | 30 | | 30 | |
| Gas H | kW | 30 | | 30 | | 40 | | 40 | | 60 | | 60 | | 60 | |

P=Max Absorbed Power in kW

FLA=Full Load Amps in Amp.

Id/Ia=Startup Amps/Full load amps

***BCK*** = Cooling only rooftop

- Fully modulating electric heater (TRIAC)
- Staged electric heater
- Hot water coil
- -
- Economiser
- Extraction fan
- -
- Firestat
- Smoke detector
- -
- DS50
- DC50
- CO2 sensor
- Air sock control
- -
- -
- -
- -
- -
- -
- -
- -
- -
- TCB
- -
- -
- Main switch
- Air pressostat

***BHK*** = Heat pump rooftop

- Heat pump
- Fully modulating electric heater (TRIAC)
- Staged electric heater
- Hot water coil
- -
- Economiser
- Extraction fan
- -
- Firestat
- Smoke detector
- -
- DS50
- DC50
- CO2 sensor
- Air sock control
- -
- -
- -
- -
- -
- -
- Dynamic defrost
- -
- -
- TCB
- -
- -
- Main switch
- Air pressostat

***BGK*** = Cooling only rooftop with with gas fired heating

- -
- -
- -
- Gas burner
- Economiser
- Extraction fan
- -
- Firestat
- Smoke detector
- -
- DS50
- DC50
- CO2 sensor
- Air sock control
- -
- -
- -
- -
- -
- -
- -
- -
- -
- TCB
- -
- -
- Main switch
- Air pressostat

***BDK*** = Heat pump rooftop with gas fired heater

- Heat pump
- -
- -
- Gas burner
- Economiser
- Extraction fan
- -
- Firestat
- Smoke detector
- -
- DS50
- DC50
- CO2 sensor
- Air sock control
- -
- -
- -
- -
- -
- -
- Dynamic defrost
- -
- -
- TCB
- -
- -
- Main switch
- Air pressostat

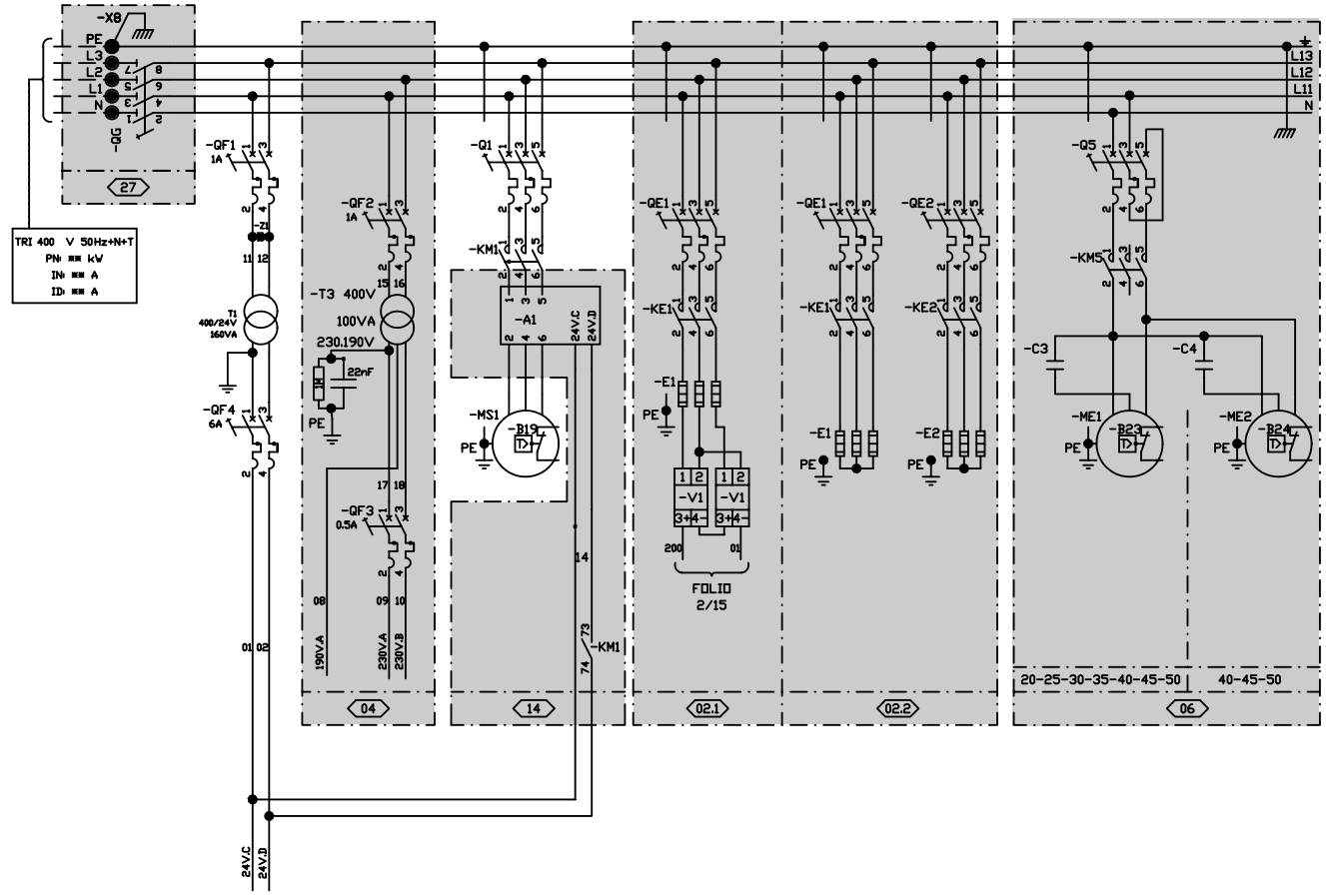
WARNING : ONLY ONE HEATING INPUT CAN BE INSTALLED

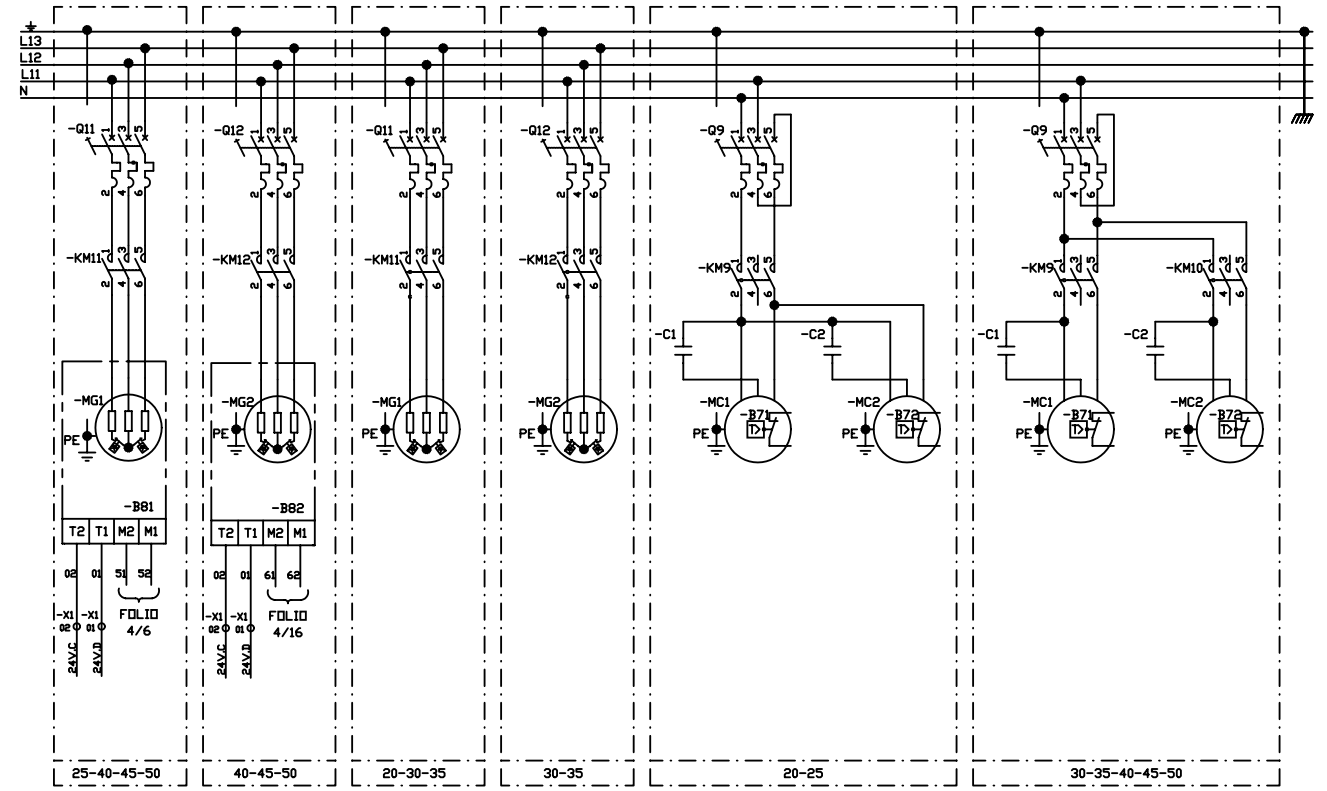
## DIAGRAM REFERENCE LEGEND

| | |
|---|---|
| -A1 | Soft starter |
| -B2 | Smoke detection head |
| -B4 | Gas manifold ionisation probe |
| -B6 | Gas manifold ignition electrode |
| -B13 | Dirty air filter pressure switch / air flow rate |
| -B14 | Hot water battery antifreeze thermostat |
| -B16 | Fire thermostat |
| -B17 | Gas manifold smoke minimum gas pressure switch |
| -B19 | Blower fan motor -MS1-MS2 stoptherme |
| -B21 | Gas manifold extraction air pressure switch |
| -B23-B24 | Extraction fan motor -ME1-ME2 stoptherme |
| -B25-B26 | Electric battery -E1-E2 safety klixon |
| -B29 | Gas manifold air flow rate safety klixon |
| -B32 | Gas manifold flashback safety klixon |
| -B41-B42 | Compressor -MG1-MG2 high pressure safety switch |
| -B45 | Gas manifold 1 / gas manifold 2 regulation klixon |
| -B51-B52 | Compressor -MG1-MG2 low pressure safety switch |
| -B61-B62 | Compressor -MG1-MG2 high pressure control switch |
| -B71-B72 | Condenser -MC1-MC2 fan motor stoptherme |
| -B81-B82 | Scroll compressor -MG1-MG2 protection module |
| -BE50 | Climatic 50 extension board |
| -BG10 | CO2 sensor |
| -BH10 | Regulation hygrometry probe |
| -BH11 | External hygrometry probe |
| | |
| -BT10 | Regulation temperature probe |
| -BT11 | External temperature probe |
| -BT12 | Blower temperature probe |
| -BT17 | Return air sensor |
| -BT91-BT92 | Defrost temperature sensor compressor 1-2 |
| -BM50 | Climatic 50 |
| BX 50 | Multiplexer Climatic 50 |
| -C1-C2-C3-C4 | Condensator |
| -E1-E2 | Heater -E1-E2 |
| -E11 | Smoke detector printed circuit |
| -E14 | Burner control box |
| -EF47 | Gaz burner printed circuit |
| -F1 | Secondary circuit -T1 128VA / 24V protection fuse |
| -KA31 | Gas burner fault relay |
| -KE1-KE2 | Heater -E1-E2 contactor |
| -KM1 | Blower fan motor -MS1-MS2 contactor |
| -KM5 | Extraction fan motor -ME1-ME2 contactor |
| -KM9-KM10 | Condenser 1 / condenser 2 fan motor contactor |
| -KM11-KM12 | Compressor -MG1-MG2 contactor |
| -MC1-MC2 | Condenser -MC1-MC2 fan motor |
| -ME1-ME2 | Extraction fan motor -ME1-ME2 contactor |
| -MG1-MG2 | Compressor -MG1-MG2 contactor |
| -MR1 | Economiser damper motor |
| -MR3 | Fresh air damper motor |
| | |
| -MS1 | Blower fan motor -MS1-MS2 |
| -Q1 | Blower fan motor -MS1-MS2 protection |
| -Q5 | Extraction fan motor -ME1-ME2 protection |
| -Q9 | Condenser -MC1-MC2 fan motor protection |
| -Q11-Q12 | Compressor -MG1-MG2 protection |
| -QF1 | Primary circuit protection -T1 |
| -QF2 | Primary circuit protection -T3 |
| -QF3 | Secondary circuit protection -T3 |
| -QG | Main switch |
| -QE1-QE2 | Heater -E1-E2 protection |
| | |
| -T1 | Control circuit transformer 400v / 24v |
| -T3 | Burner power supply transformer 400 / 230v |
| | |
| -TCB | control thermostat |
| | |
| UF | Cooling unit |
| UT | Air treatment unit |
| | |
| -V1 | Electric heater static contactor |
| | |
| -YV2 | Hot water 3-way valve |
| -YV11-YV12 | Compressor -MG1-MG2 cycle reversing valve |
| -YV31 | Burner gas solenoid valve |
| -YV41 | Gas manifold safety solenoid valve |
| -YV51 | Gas manifold main solenoid valve |
| | |
| -Z* | Capacity resistance circuit |

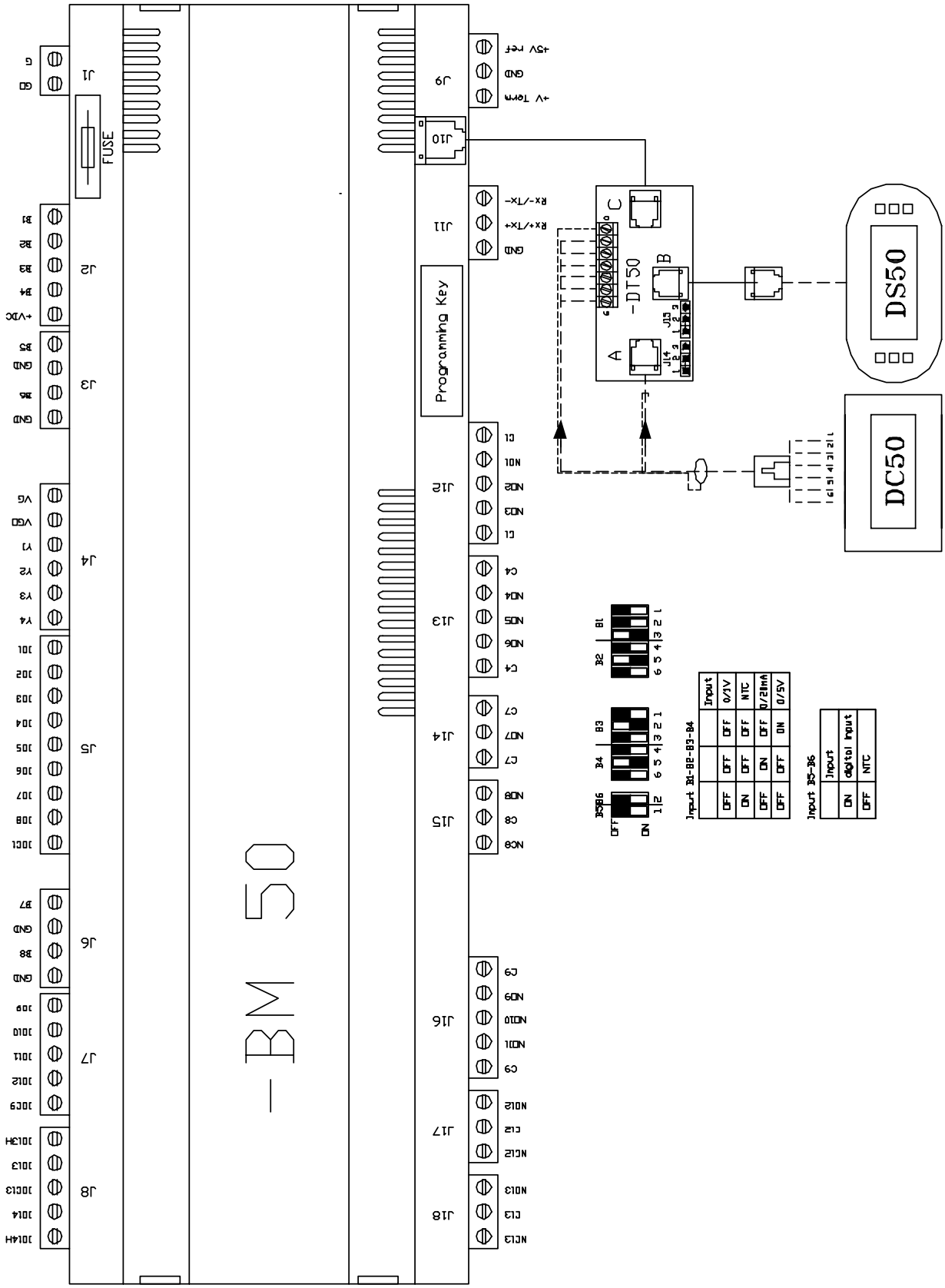
***BCK*** = Cooling only unit
***BHK*** = Heat pump unit
***BGK*** = Cooling only unit with gas fired heating
***BDK*** = Heat pump unit with gas fired heating

**MAIN CURRENT DIAGRAM TRI / 400V / 50Hz + N + T**

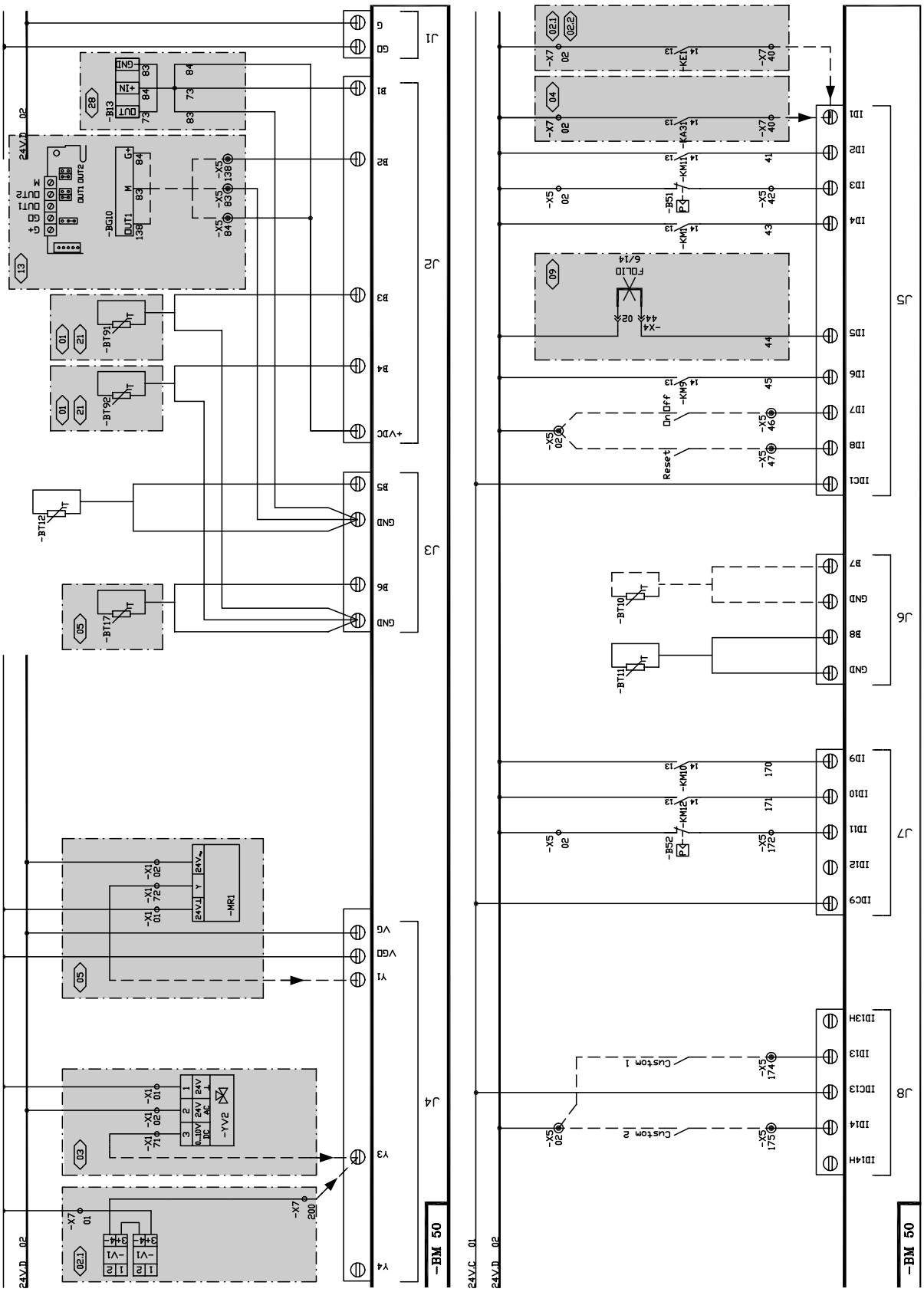


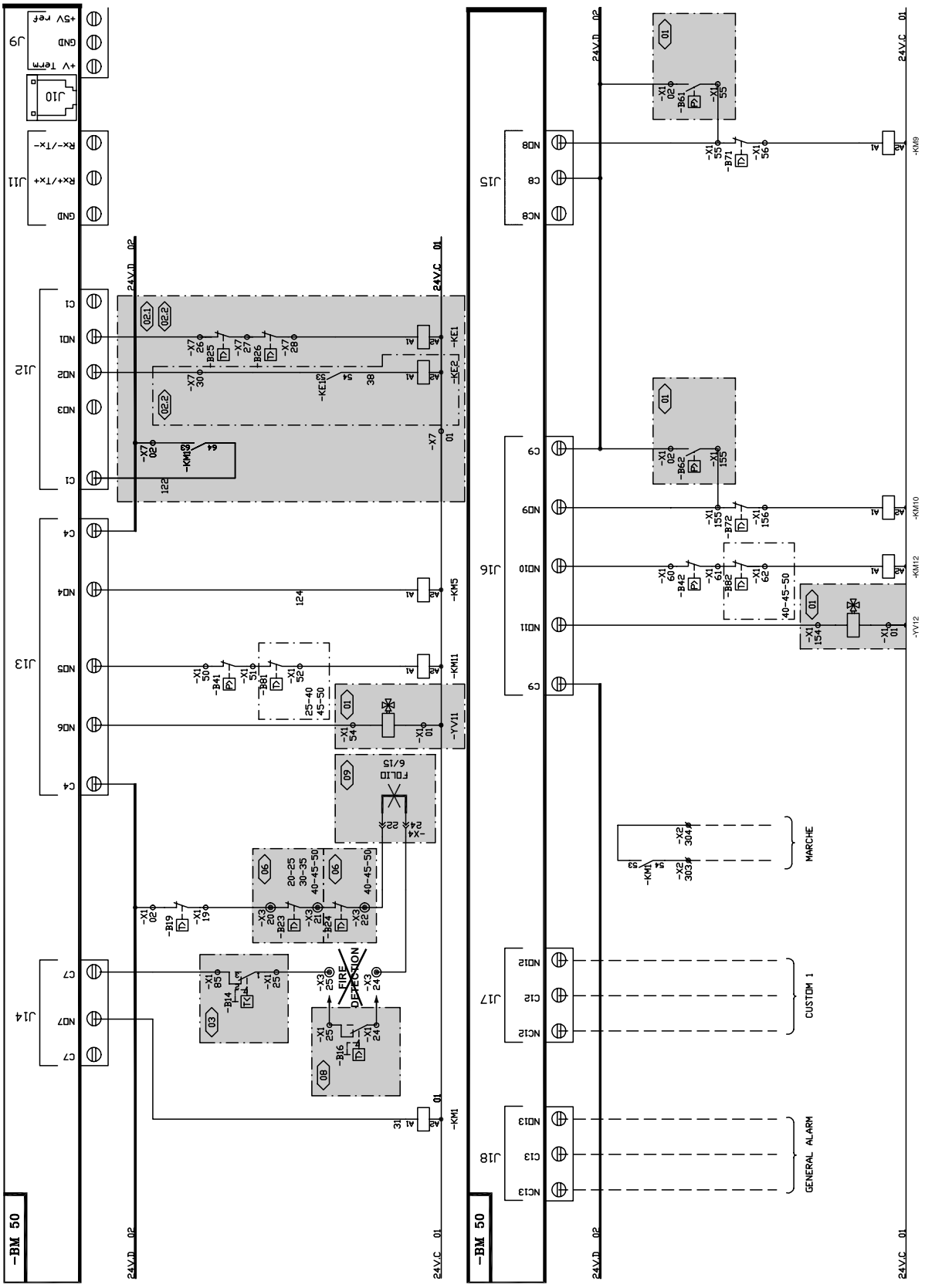
**CLIMATIC 50 CONTROLLER**



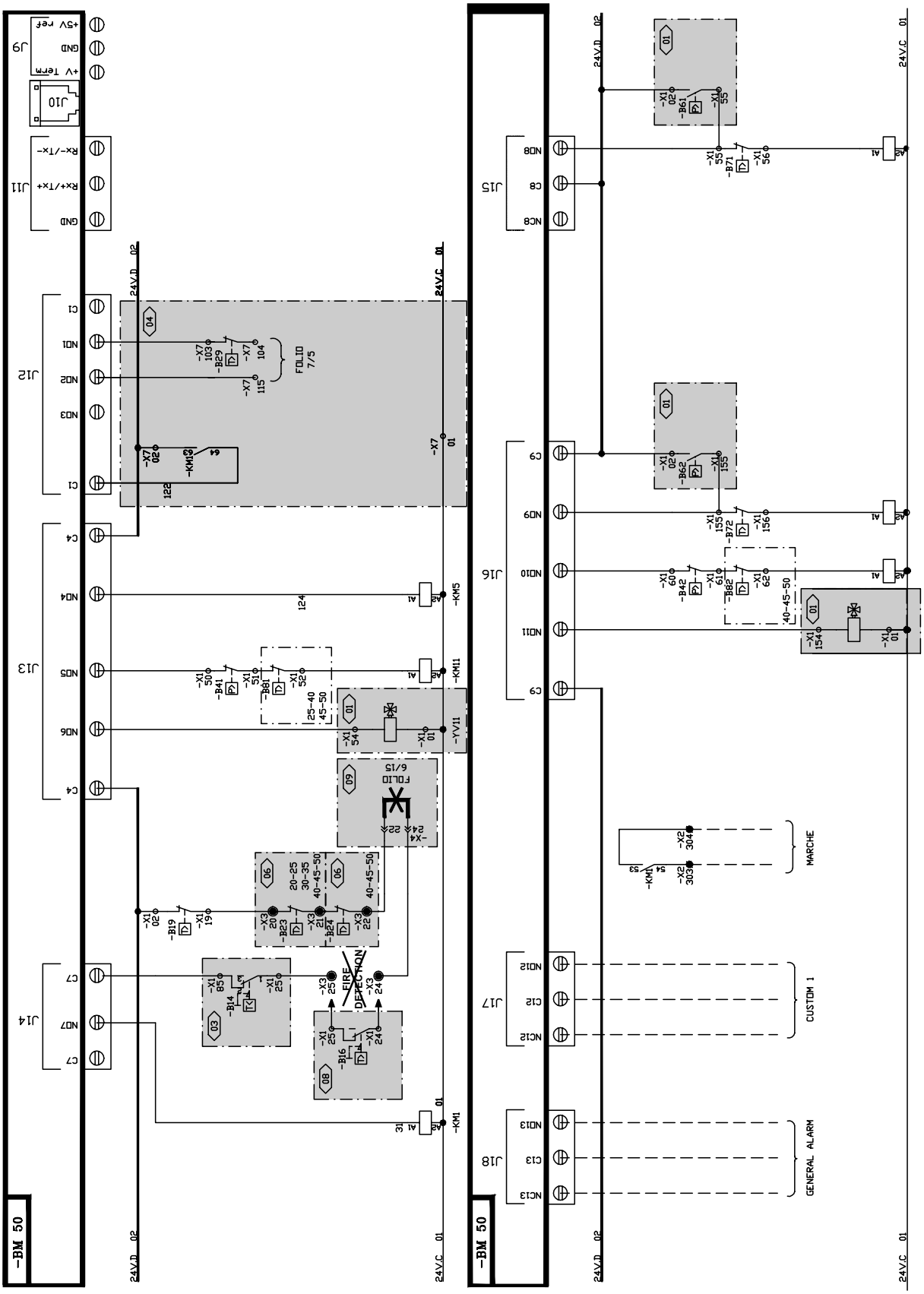
## CLIMATIC 50 INPUT BCK / BHK / BGK / BDK



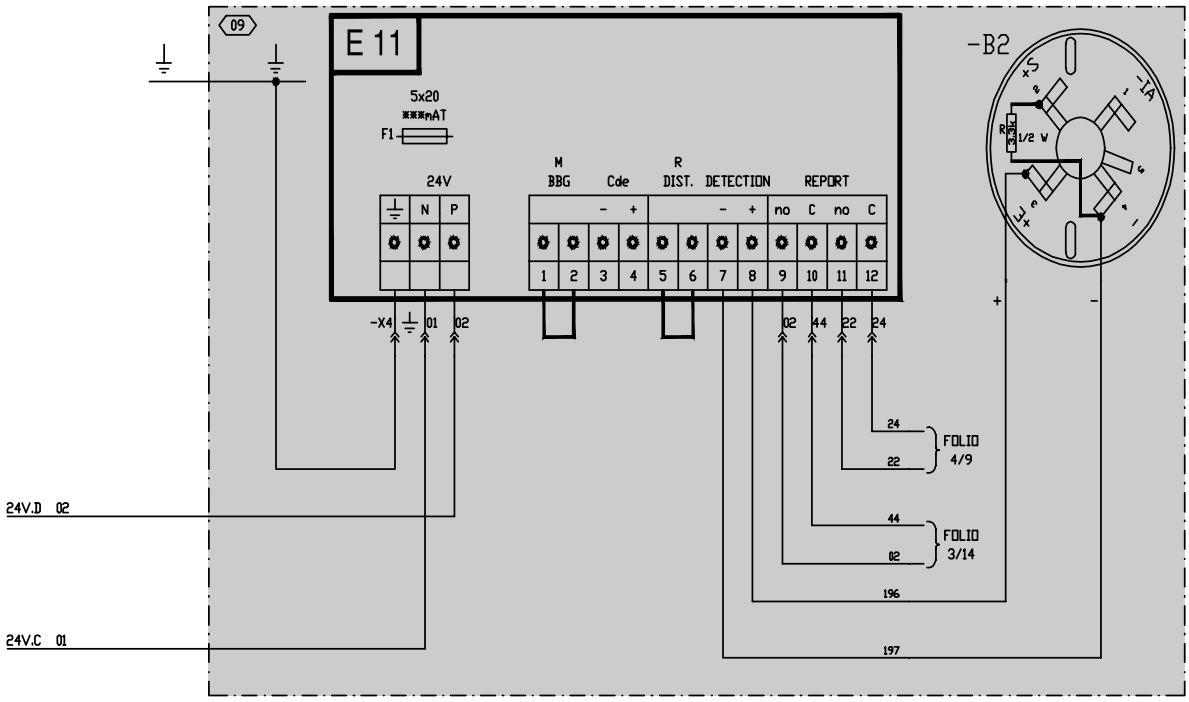
## CLIMATIC 50 OUTPUT BCK / BHK



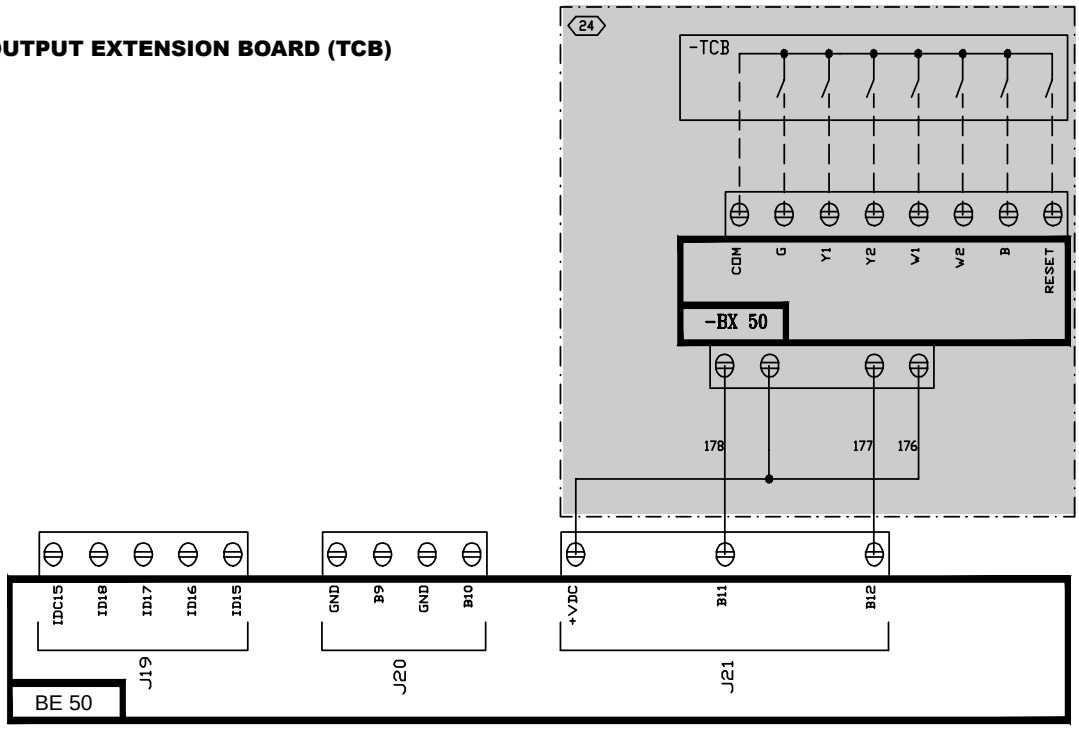
## CLIMATIC 50 OUTPUT BGK / BDK



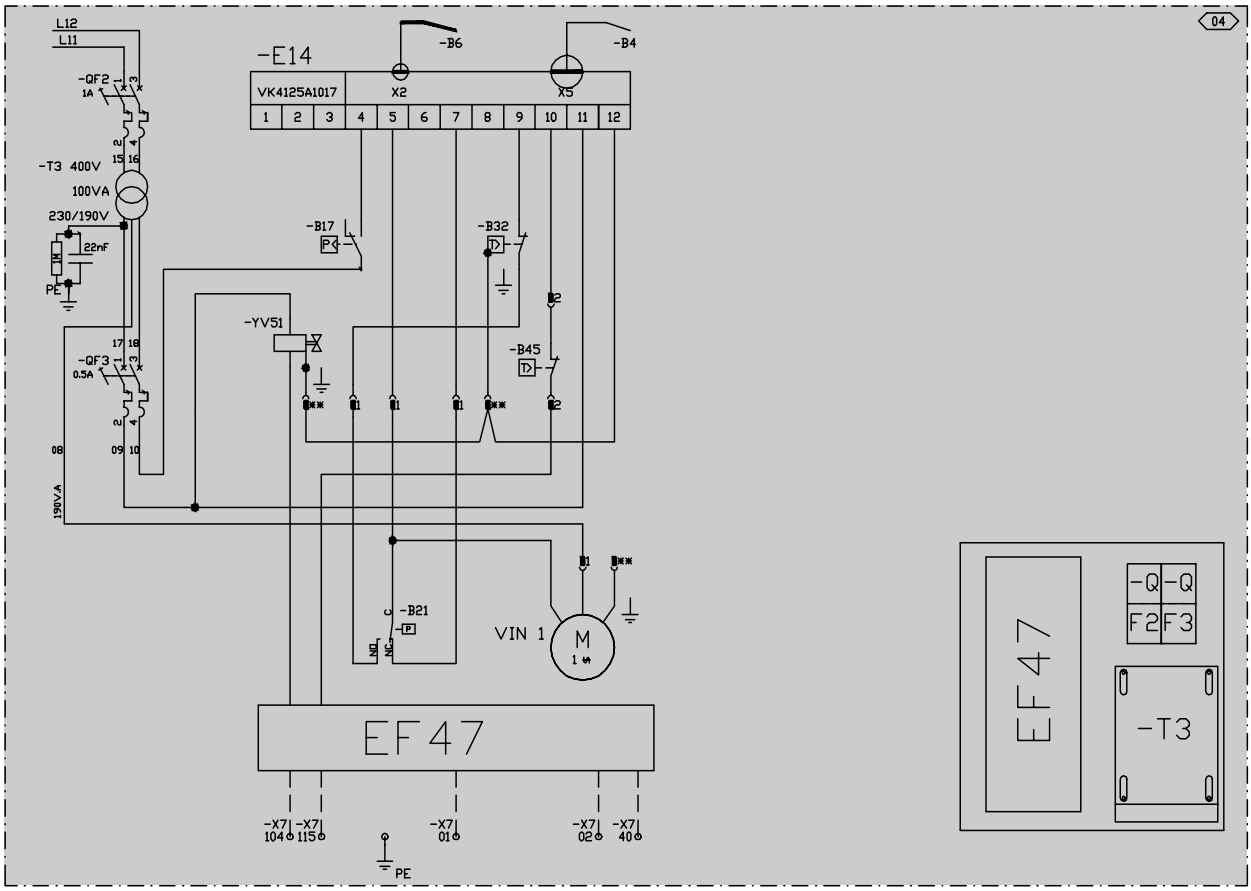
**DAD SMOKE DETECTOR**



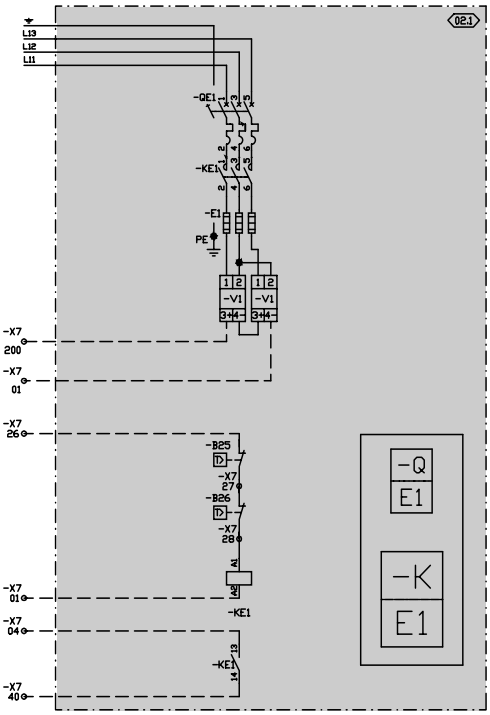

**INPUT - OUTPUT EXTENSION BOARD (TCB)**



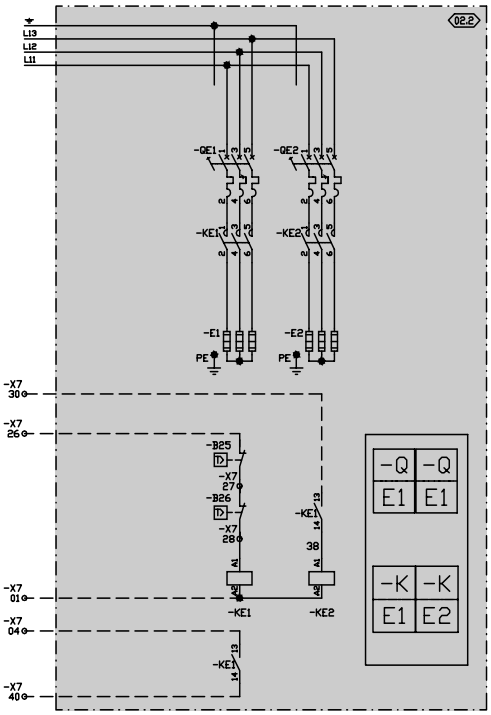
## WIRING DIAGRAM GAS BURNER 15 / 20 / 30 / 40 / 60 Kw




## FULLY MODULATING ELECTRIC HEATER




## STAGED ELECTRIC HEATER



A : Freezed Input / Output

## STANDARD

B : Customized Input / Output

**Logical Output Board** (2 outputs : 1 freezed, 1 customized)

A **1** - Alarm, General

B **2** - Customized (choose 1 output between those 5 possibilities)

- Alarm, Filters
- Alarm, Blower
- Alarm, Compressors
- Alarm, Heaters
- Free, for BMS

**Logical Input Board** (4 inputs : 2 freezed, 2 customized)

A **1** - ON/OFF

A **2** - Reset alarm

B **3** & **4** - Customized (choose, for each input (2) between those 7 possibilities)

- Disable, Compressors & Heaters
- Disable, Compressors
- Disable, Heaters
- Disable, Cooling
- Disable, Heating
- Fault contact, Humidifier
- Free, for BMS

## HUMIDITY CONTROL OR TCB

**Logical Output Board** (4 outputs : 0 freezed, 4 customized)

B **1 to 4** - Customized (choose, for each input (4) between those 5 possibilities)

- Alarm, Filters
- Alarm, Blower
- Alarm, Compressors
- Alarm, Heaters
- Free, for BMS

**Logical Input Board** (4 outputs: 0 freezed, 4 customized)

B **1 to 4** - Customized (choose, for each input (4) between those 7 possibilities)

- Disable, Compressors & Heaters
- Disable, Compressors
- Disable, Heaters
- Disable, Cooling
- Disable, Heating
- Fault contact, Humidifier
- Free, for BMS

**Analogue Input Board** (4 outputs: 0 freezed, 4 customized)

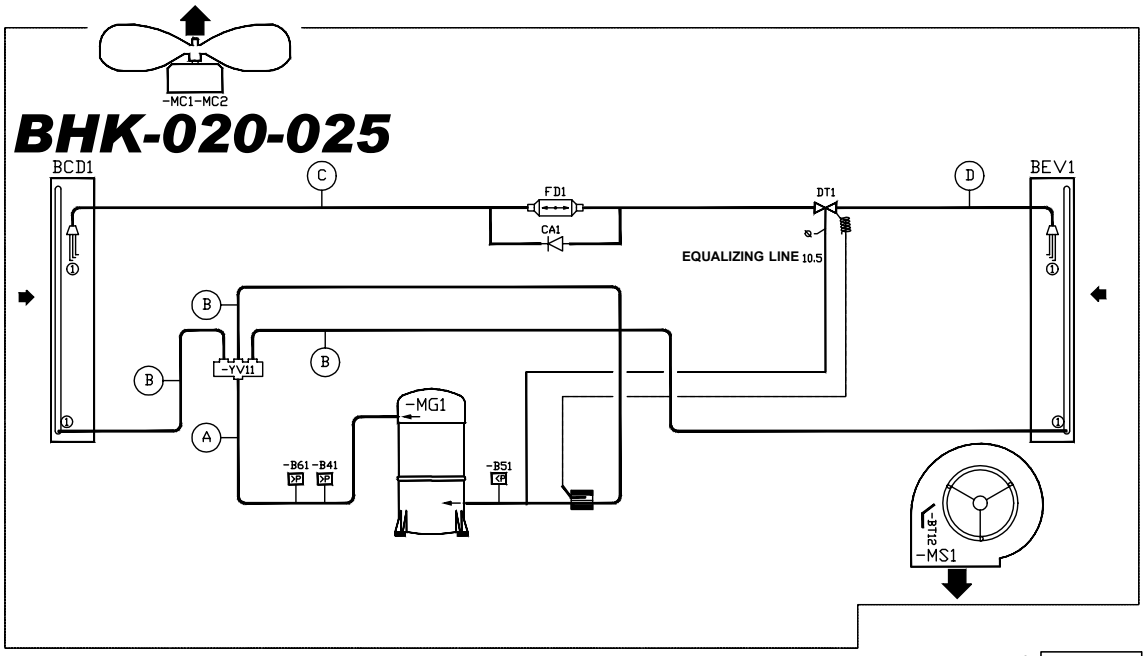
B 1 to 4 - Customized (choose, for each input (4) between those 4 possibilities)

-Override room temp set point 0-10∞C (0-10V)
-Override fresh air set point 0-100%
-Free temperature (NTC probe)
-Free relative humidity (4-20mA)

BCD : Condenser coil
BEC : Hot water coil
BEV1 : Evaporator coil
BT12 : Blower temperature sensor
B14 : Hot water coil antifreeze thermostat
B41 : Compressor -MG1 high pressure safety switch
B42 : Compressor -MG2 high pressure safety switch
B51 : Compressor -MG1 low pressure safety switch
B52 : Compressor -MG2 low pressure safety switch
B61 : HP switch control for defrost
B62 : HP switch control for defrost

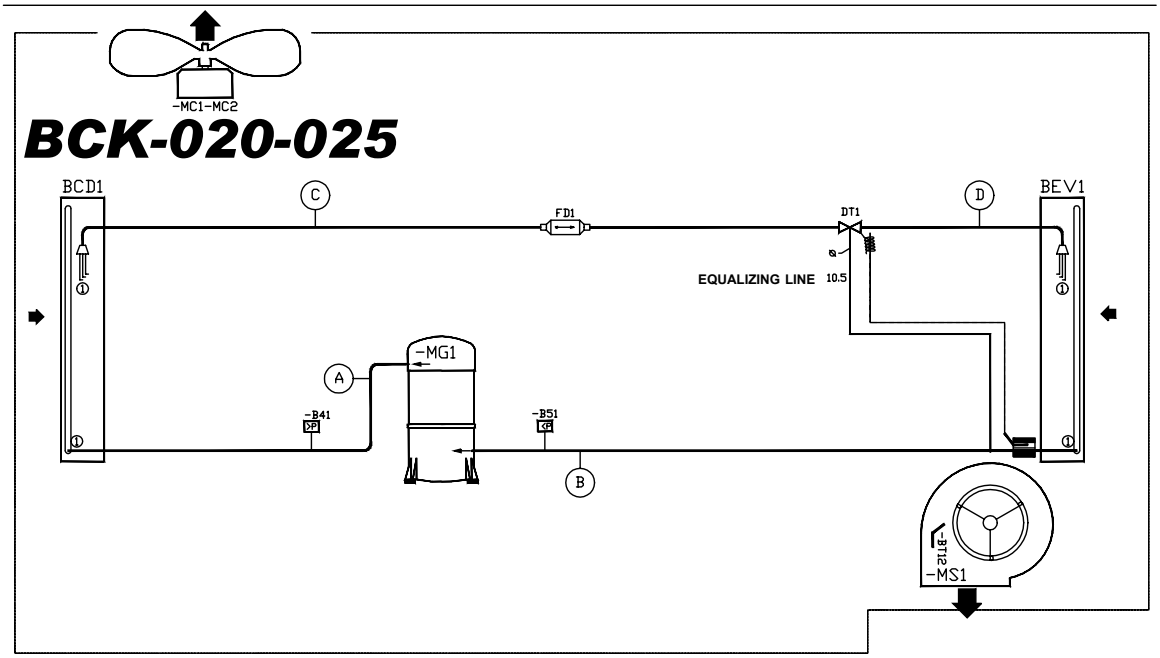
CA : Check valve
DT : Thermostatic expansion valve
FD : Filter drier
MC1 - MC2 : Condenser - MC1 - MC2 fan motor
MG1 - MG2 : Compressor
MG1 - MG2 : Contactor
MS1 : Blower fan motor MS1
VAM : Manual check valve
VRM : Manual control valve
YV2 : Hot water 3-way valve

## BHK-020-025



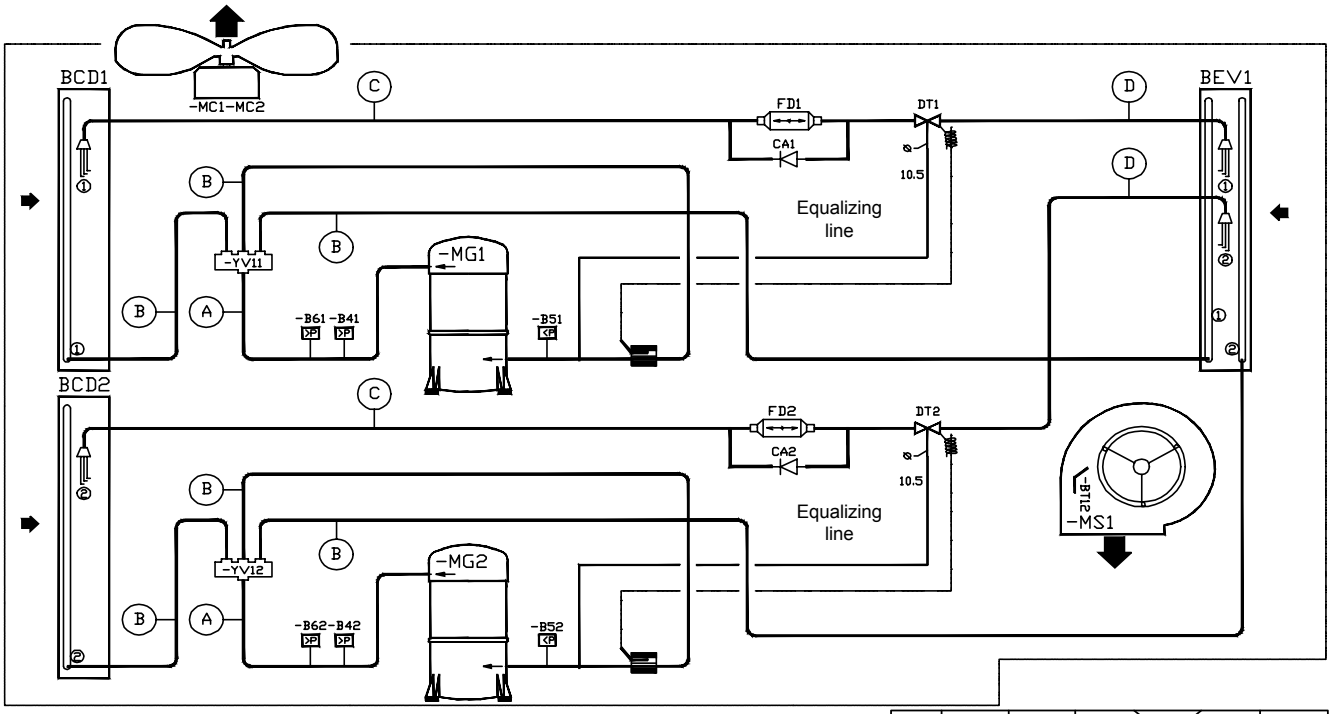

| PIPE DIAMETERS | 20/25 |
|---|---|
| D | 5/8" |
| C | 1/2" |
| B | 1"1/8 |
| A | 7/8" |

## BCK-020-025



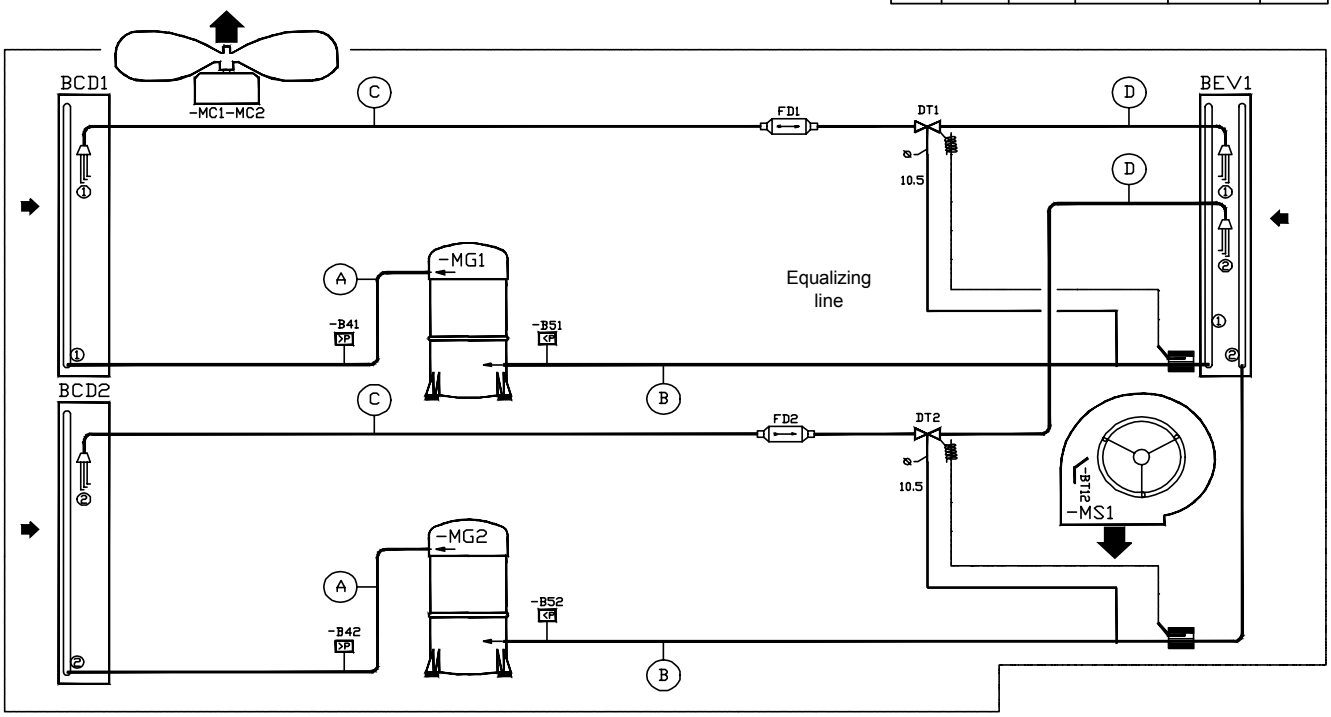

| PIPE DIAMETERS | 20 | 25 |
|---|---|---|
| D | 5/8" | 5/8" |
| C | 1/2" | 1/2" |
| B | 7/8" | 1"1/8 |
| A | 7/8" | 7/8" |

# BHK-030-035-040-045-050

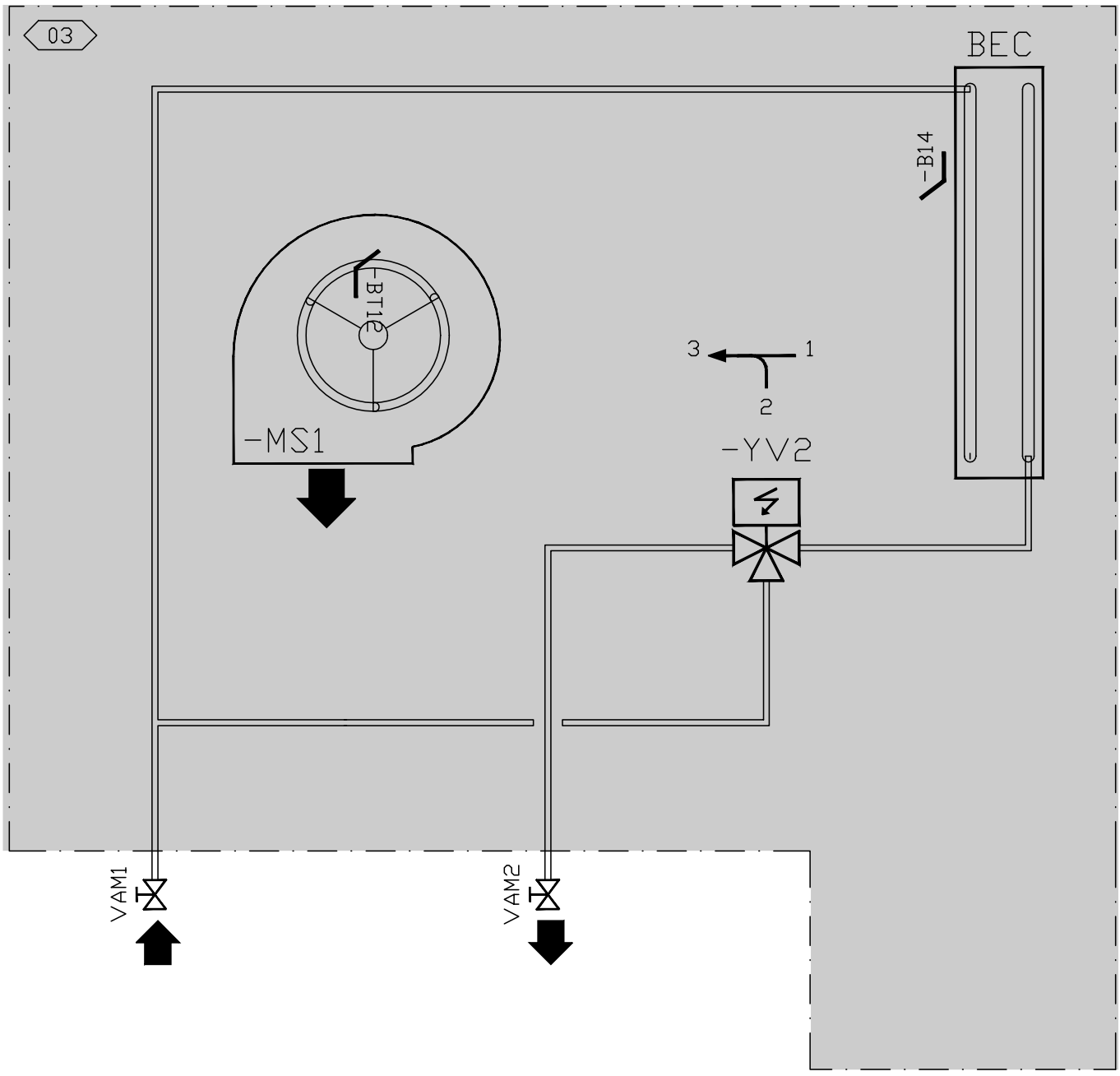



| Pipe Diameters | 30/35 | 40 | -MG1 45 -MG2 | | 50 |
|---|---|---|---|---|---|
| D | 5/8" | 5/8" | 5/8" | 7/8" | 7/8" |
| C | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" |
| B | 7/8" | 1"1/8 | 1"1/8 | 1"1/8 | 1"1/8 |
| A | 5/8" | 7/8" | 7/8" | 7/8" | 7/8" |

# BCK-030-035-040-045-050

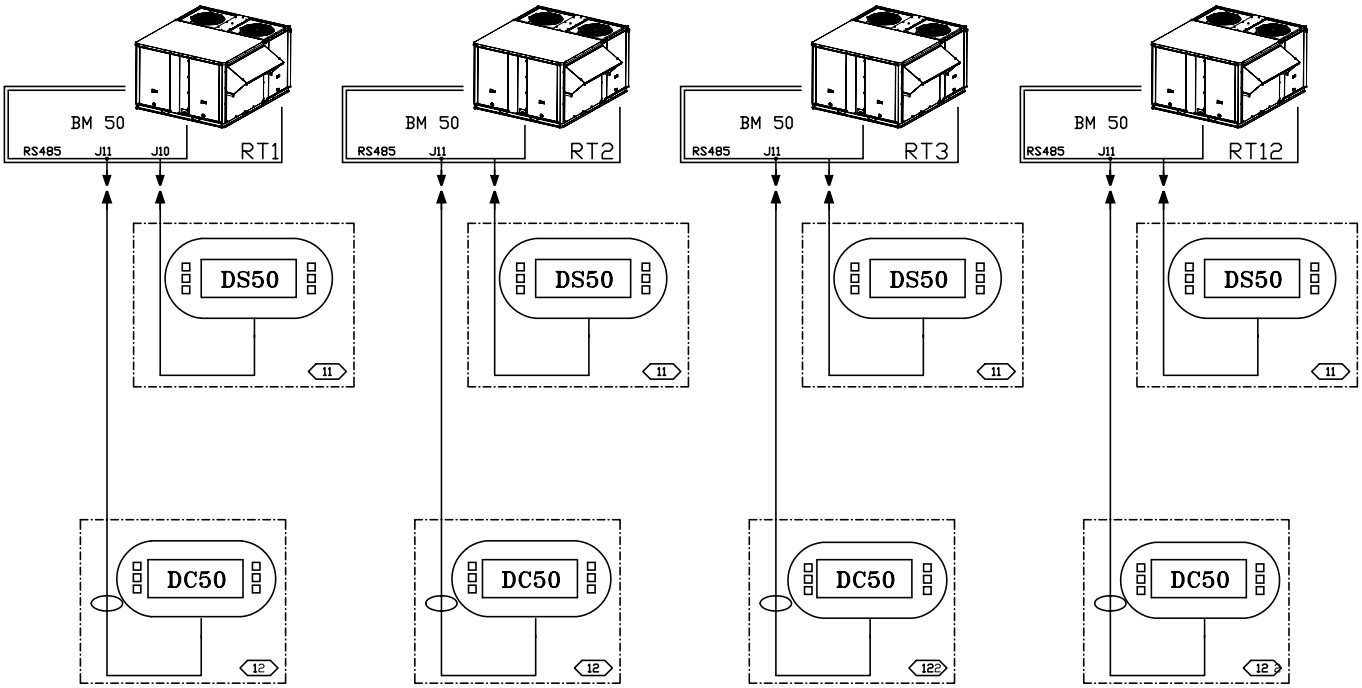



| Pipe Diameters | 30/35 | 40 | -MG1 45 -MG2 | | 50 |
|---|---|---|---|---|---|
| D | 5/8" | 5/8" | 5/8" | 7/8" | 7/8" |
| C | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" |
| B | 7/8" | 1"1/8 | 1"1/8 | 1"1/8 | 1"1/8 |
| A | 5/8" | 7/8" | 7/8" | 7/8" | 7/8" |

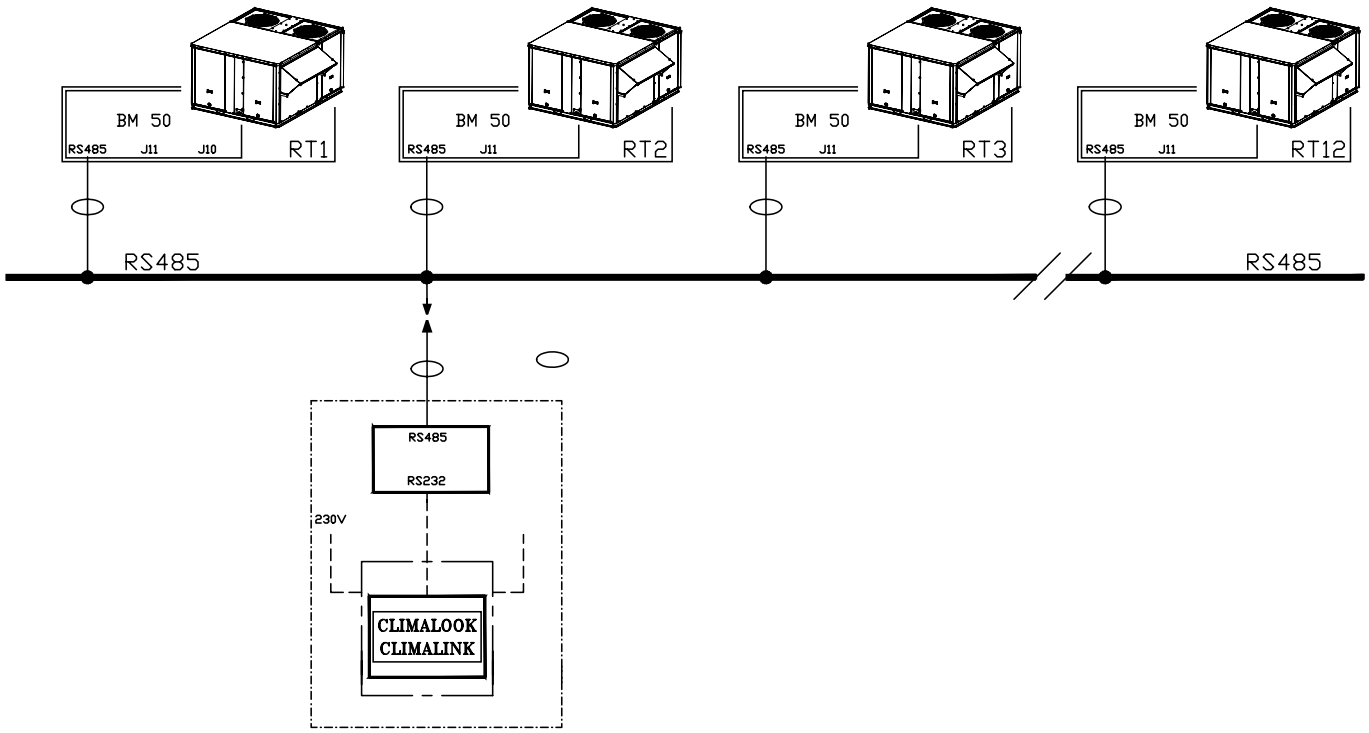



| Pipe Internal diameters (DN) | | |
|---|---|---|
| | ϕS | ϕH |
| B020 | 20 | 20 |
| B025 | 20 | 20 |
| B030 | 20 | 20 |
| B035 | 20 | 20 |
| B040 | 25 | 25 |
| B045 | 25 | 25 |
| B050 | 25 | 25 |

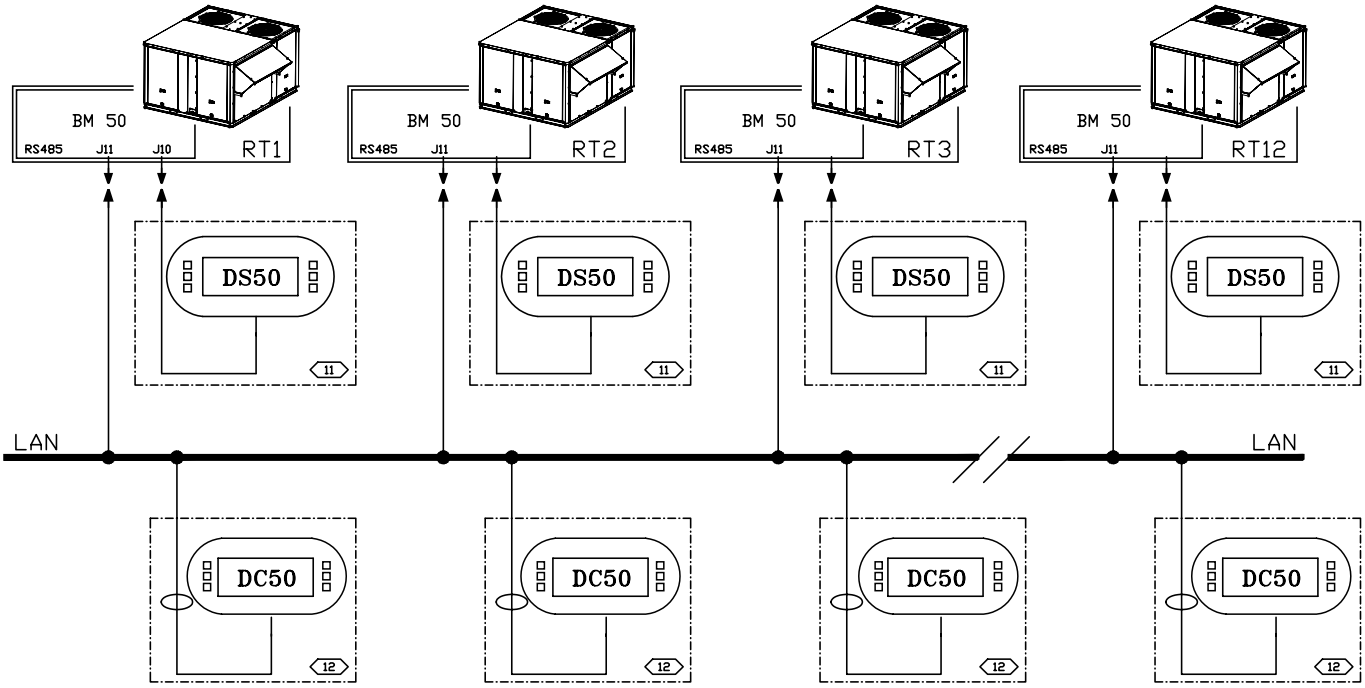
**DS 50 : SERVICE DISPLAY / DC 50 : COMFORT DISPLAY**



**CLIMALINK / CLIMALOOK**



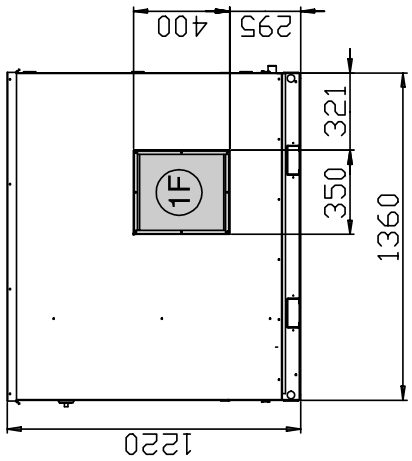
**MASTER / SLAVE**

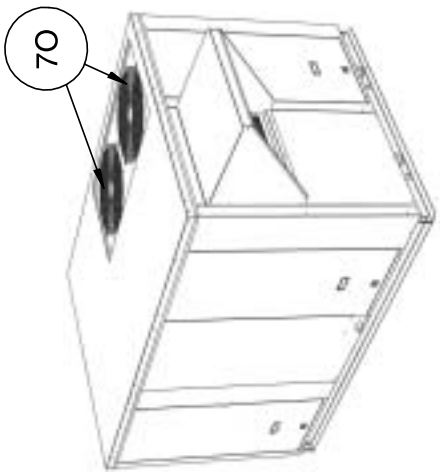


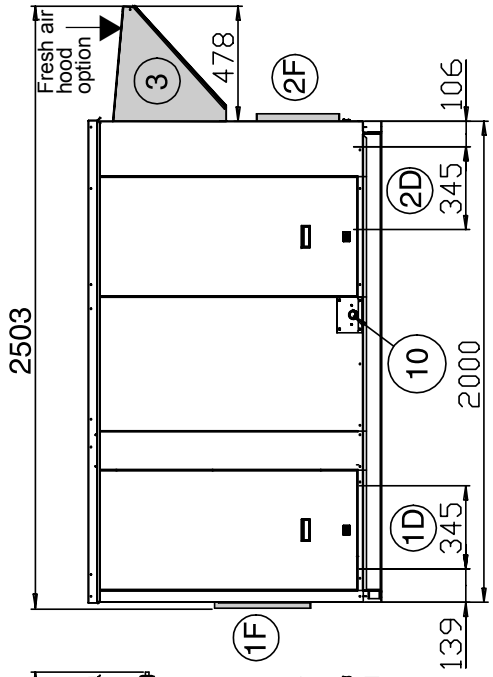
**BCK BHK** **020** **025**

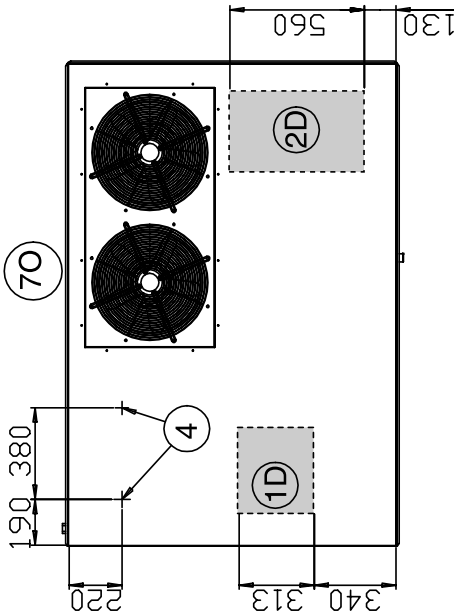
## WITH OPTIONS

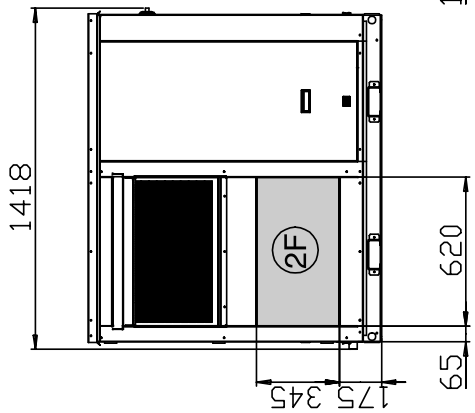
***( Return and supply opening shown on this drawing do not apply to BCK/BHK with electric heater or hot water coil )***

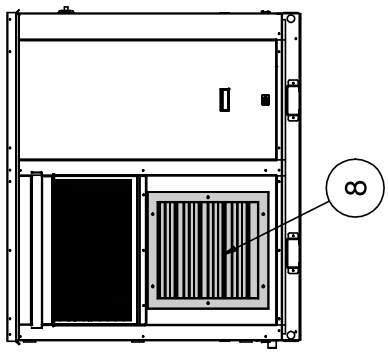


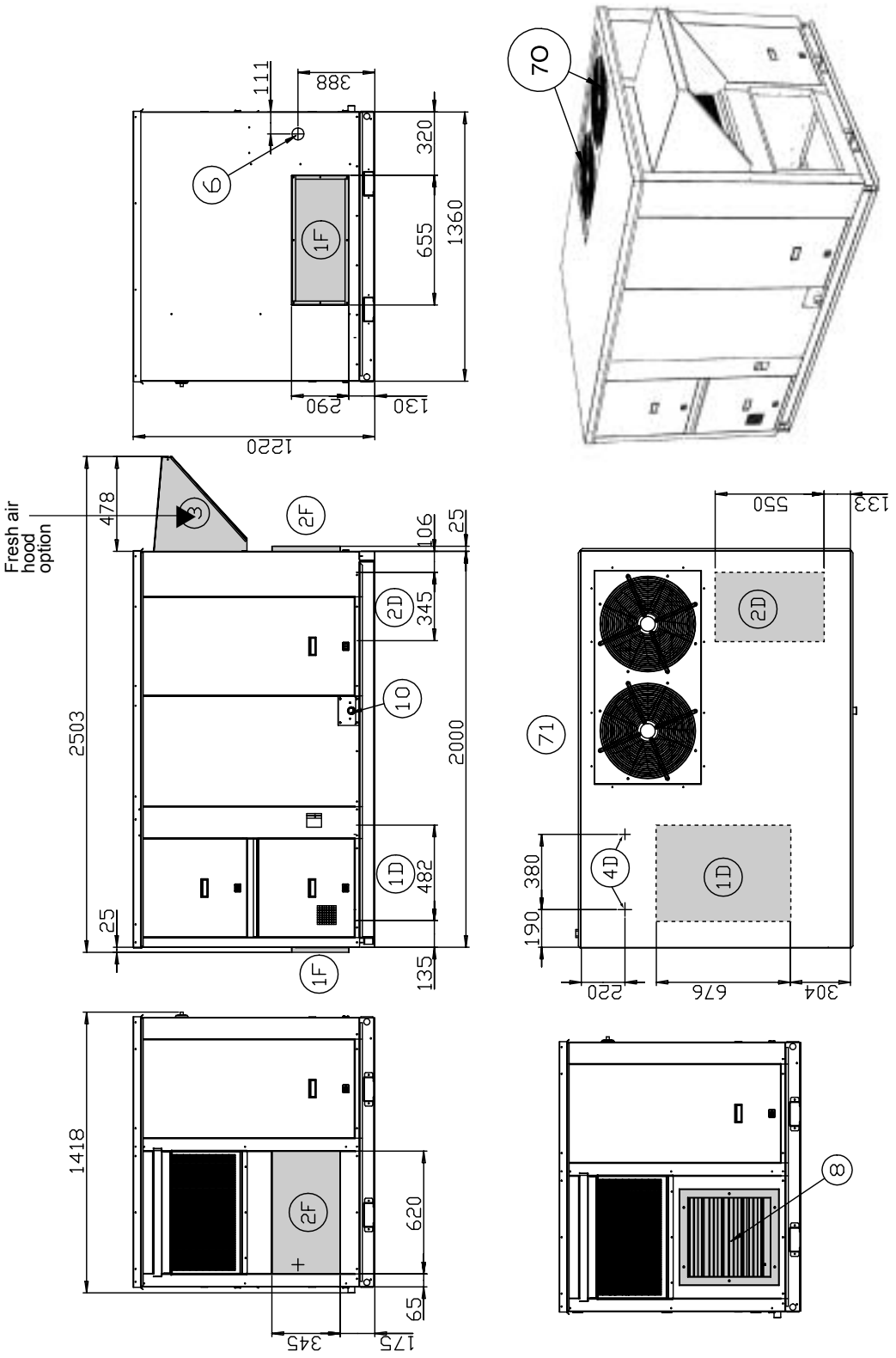




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1D | DOWN SUPPLY AIR | 3 | FRESH AIR | 5D | DOWN HOT WATER ENTRY | 8 | EXTRACTION |
| 1F | FRONT SUPPLY AIR | 4F | FRONT MAIN POWER ENTRY | 6 | GAS SUPPLY INLET | 9 | SMOKE OUTLET |
| 2D | DOWN RETURN AIR | 4D | DOWN MAIN POWER ENTRY | 7I | OUTDOOR COIL INLET | 10 | CONDENSATE DRAINAGE |
| 2F | FRONT RETURN AIR | 5F | FRONT HOT WATER ENTRY | 7O | OUTDOOR COIL OUTLET | | |

**BGK BDK** **020** **025**

## WITH OPTIONS

***( Return and supply opening shown on this drawing do apply to BCK/BHK with electric heater or hot water coil )***

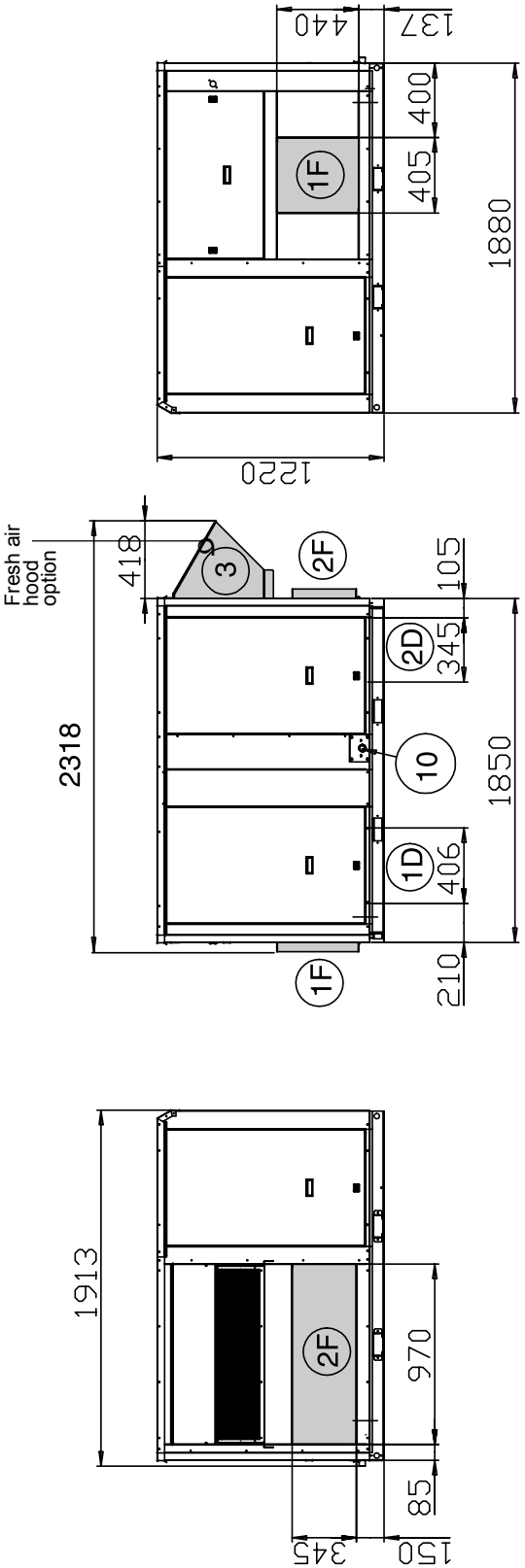


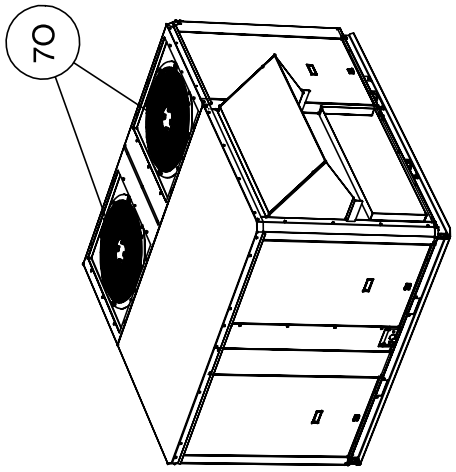

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1D | DOWN SUPPLY AIR | 3 | FRESH AIR | 5D | DOWN HOT WATER ENTRY | 8 | EXTRACTION |
| 1F | FRONT SUPPLY AIR | 4F | FRONT MAIN POWER ENTRY | 6 | GAS SUPPLY INLET | 9 | SMOKE OUTLET |
| 2D | DOWN RETURN AIR | 4D | DOWN MAIN POWER ENTRY | 7I | OUTDOOR COIL INLET | 10 | CONDENSATE DRAINAGE |
| 2F | FRONT RETURN AIR | 5F | FRONT HOT WATER ENTRY | 7O | OUTDOOR COIL OUTLET | | |

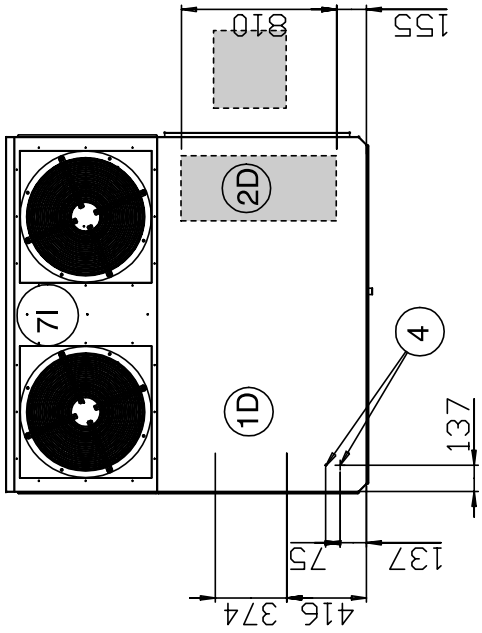
**BCK BHK** **030** **035**

## WITH OPTIONS

***( Return and supply opening shown on this drawing do not apply to BCK/BHK with electric heater or hot water coil )***



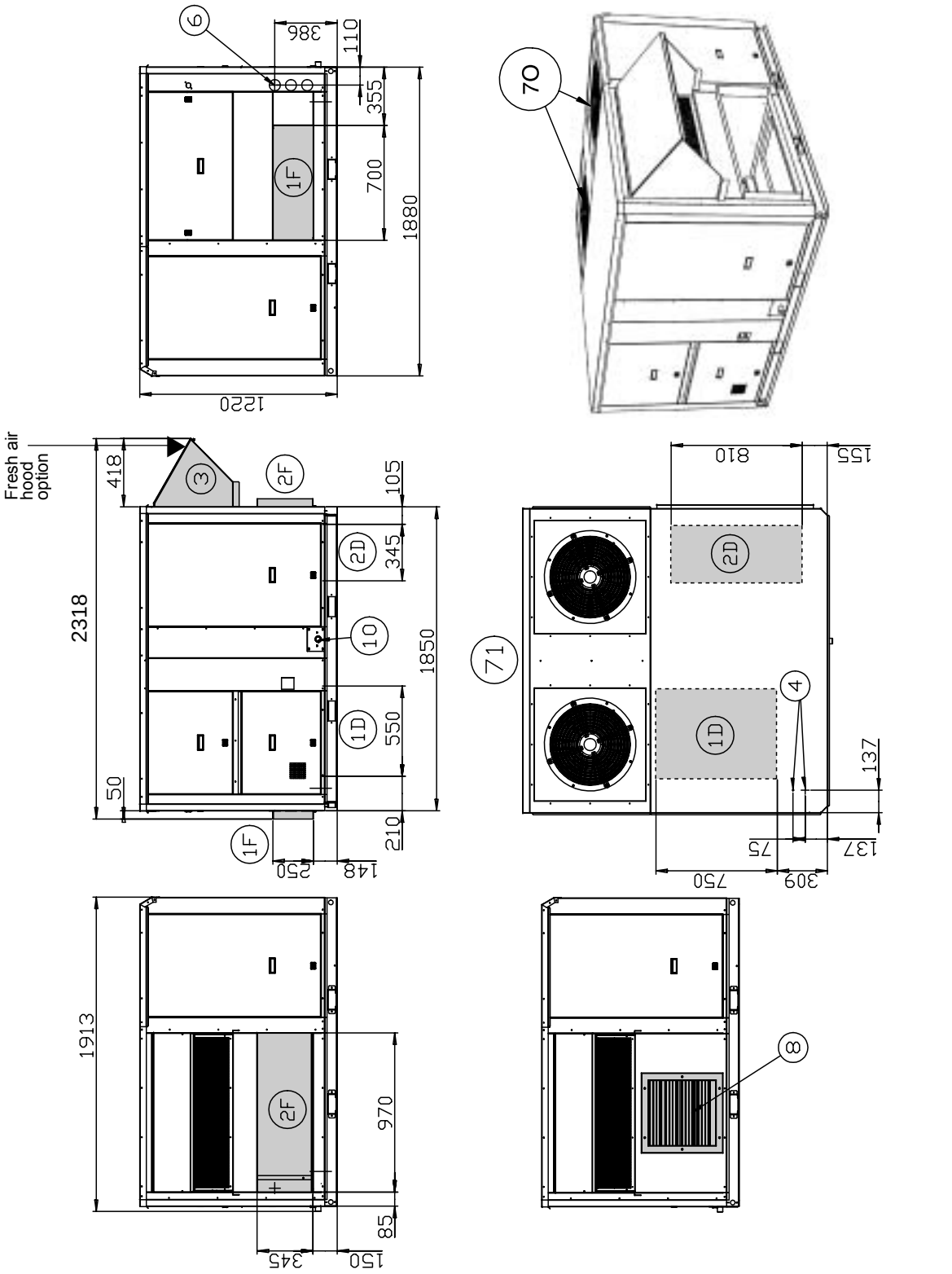




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1D | DOWN SUPPLY AIR | 3 | FRESH AIR | 5D | DOWN HOT WATER ENTRY | 8 | EXTRACTION |
| 1F | FRONT SUPPLY AIR | 4F | FRONT MAIN POWER ENTRY | 6 | GAS SUPPLY INLET | 9 | SMOKE OUTLET |
| 2D | DOWN RETURN AIR | 4D | DOWN MAIN POWER ENTRY | 7I | OUTDOOR COIL INLET | 10 | CONDENSATE DRAINAGE |
| 2F | FRONT RETURN AIR | 5F | FRONT HOT WATER ENTRY | 7O | OUTDOOR COIL OUTLET | | |

**BGK BDK** **030** **035**

## WITH OPTIONS

***( Return and supply opening shown on this drawing do apply to BCK/BHK with electric heater or hot water coil )***

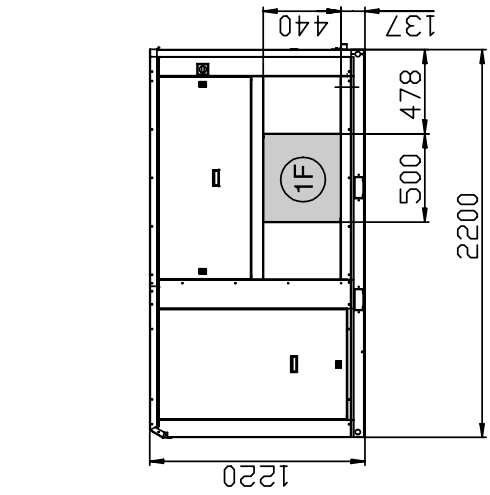


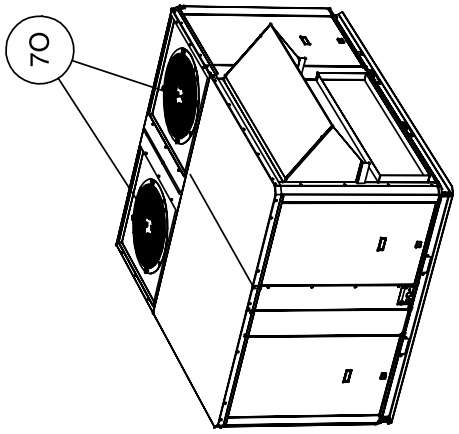

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1D | DOWN SUPPLY AIR | 3 | FRESH AIR | 5D | DOWN HOT WATER ENTRY | 8 | EXTRACTION |
| 1F | FRONT SUPPLY AIR | 4F | FRONT MAIN POWER ENTRY | 6 | GAS SUPPLY INLET | 9 | SMOKE OUTLET |
| 2D | DOWN RETURN AIR | 4D | DOWN MAIN POWER ENTRY | 7I | OUTDOOR COIL INLET | 10 | CONDENSATE DRAINAGE |
| 2F | FRONT RETURN AIR | 5F | FRONT HOT WATER ENTRY | 7O | OUTDOOR COIL OUTLET | | |

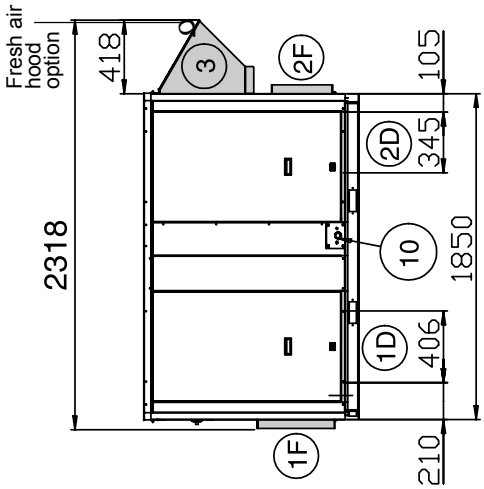
**BCK BHK** **040** **045** **050**

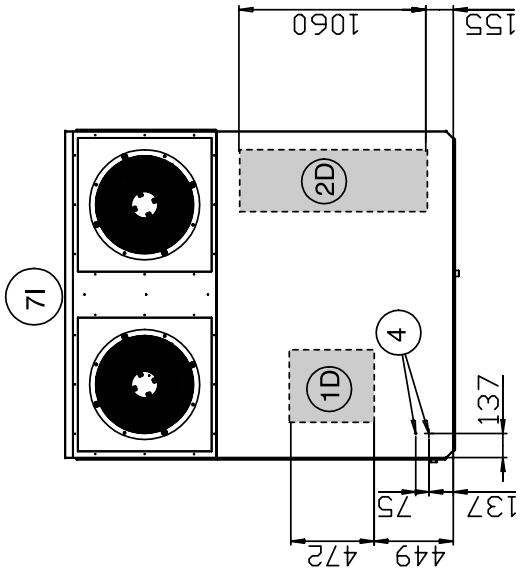
## WITH OPTIONS

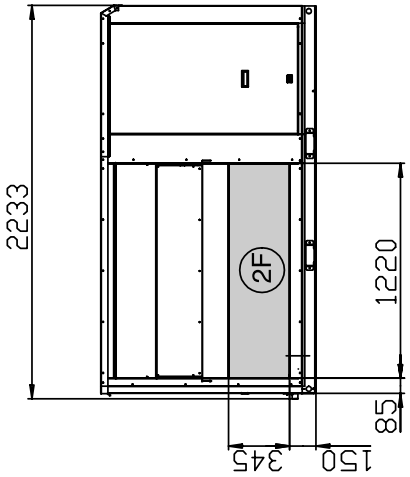
***( Return and supply opening shown on this drawing do not apply to BCK/BHK with electric heater or hot water coil )***

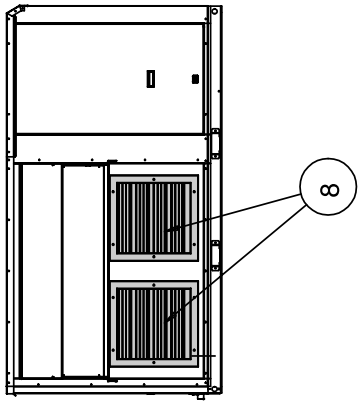


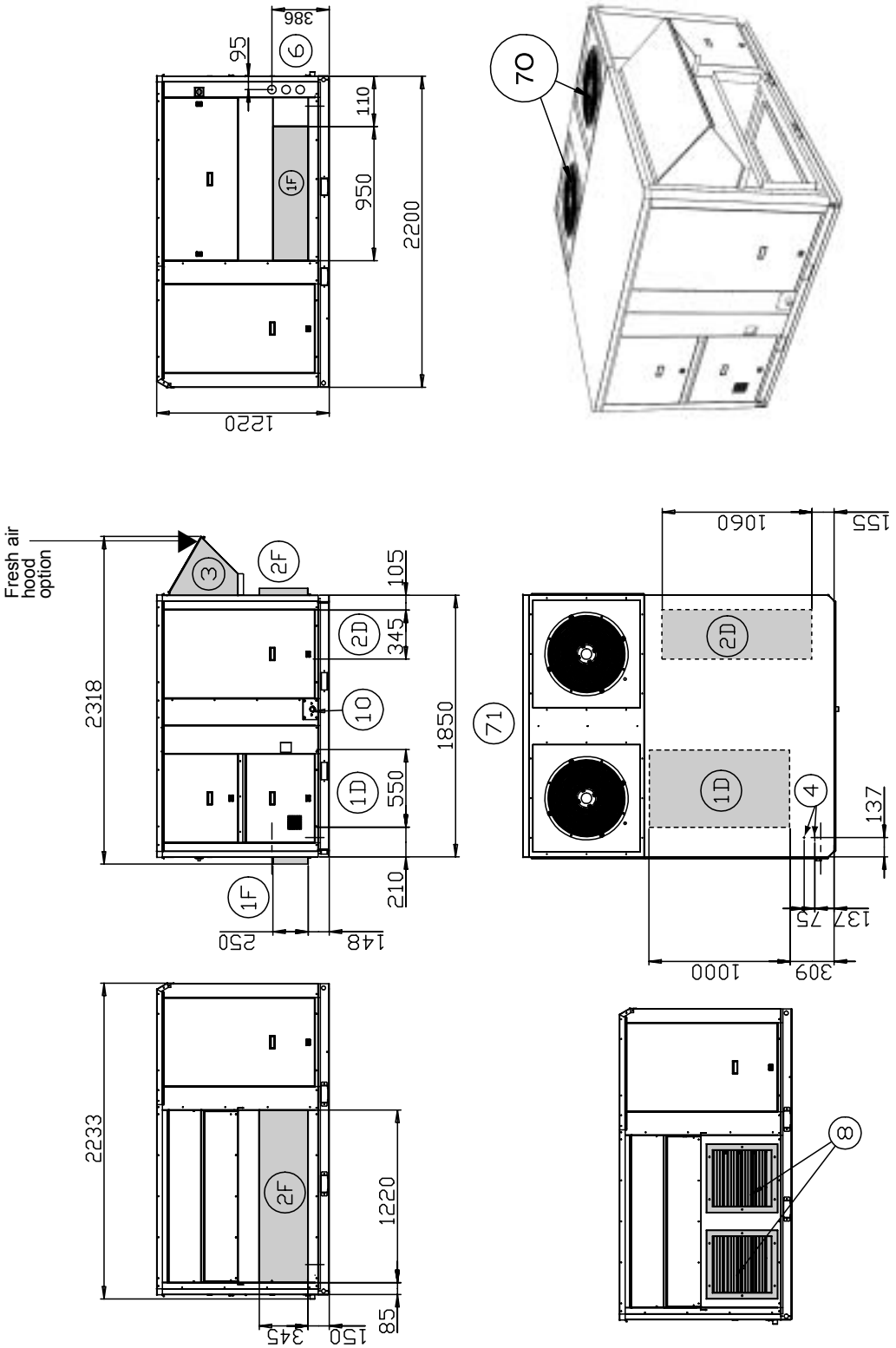




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1D | DOWN SUPPLY AIR | 3 | FRESH AIR | 5D | DOWN HOT WATER ENTRY | 8 | EXTRACTION |
| 1F | FRONT SUPPLY AIR | 4F | FRONT MAIN POWER ENTRY | 6 | GAS SUPPLY INLET | 9 | SMOKE OUTLET |
| 2D | DOWN RETURN AIR | 4D | DOWN MAIN POWER ENTRY | 7I | OUTDOOR COIL INLET | 10 | CONDENSATE DRAINAGE |
| 2F | FRONT RETURN AIR | 5F | FRONT HOT WATER ENTRY | 7O | OUTDOOR COIL OUTLET | | |

**BGK BDK** **040** **045** **050**

## WITH OPTIONS

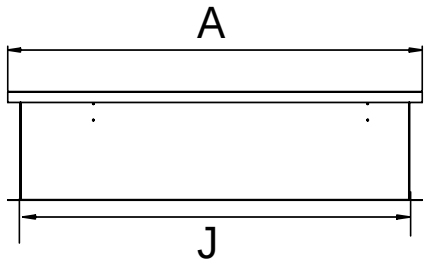
***( Return and supply opening shown on this drawing do apply to BCK/BHK with electric heater or hot water coil )***

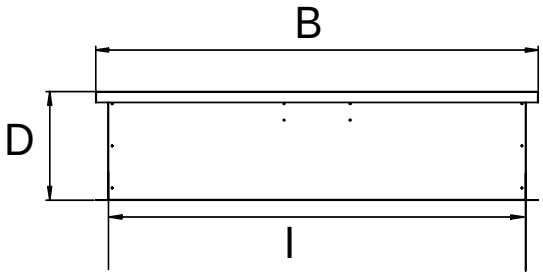


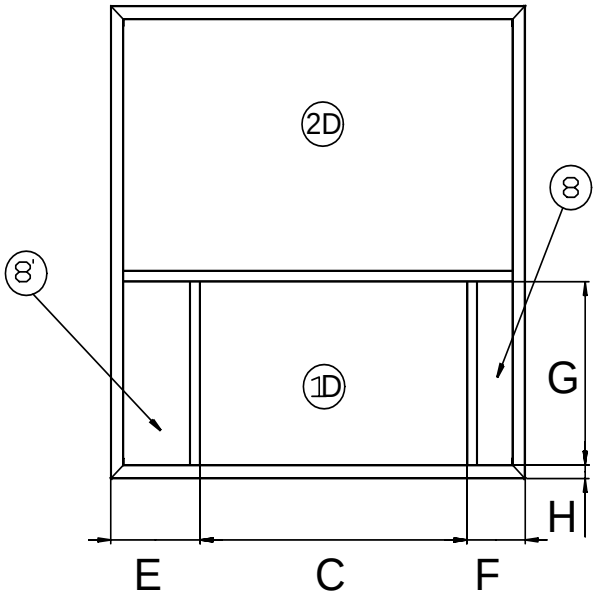

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1D | DOWN SUPPLY AIR | 3 | FRESH AIR | 5D | DOWN HOT WATER ENTRY | 8 | EXTRACTION |
| 1F | FRONT SUPPLY AIR | 4F | FRONT MAIN POWER ENTRY | 6 | GAS SUPPLY INLET | 9 | SMOKE OUTLET |
| 2D | DOWN RETURN AIR | 4D | DOWN MAIN POWER ENTRY | 7I | OUTDOOR COIL INLET | 10 | CONDENSATE DRAINAGE |
| 2F | FRONT RETURN AIR | 5F | FRONT HOT WATER ENTRY | 7O | OUTDOOR COIL OUTLET | | |

**ALL UNITS**

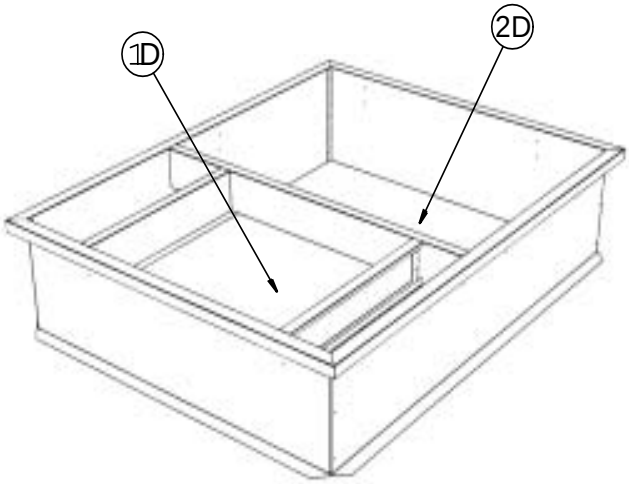
***BCK*** = Cooling only unit
***BHK*** = Heat pump unit
***BGK*** = Cooling only unit with gas fired heating
***BDK*** = Heat pump unit with gas fired heating




Roof opening I x J




1D Down Supply Air

2D Return Air

8 Main Power Entry 030-035-040-045-050

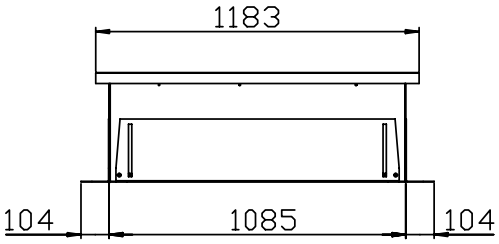
8' Main Power Entry 020-025

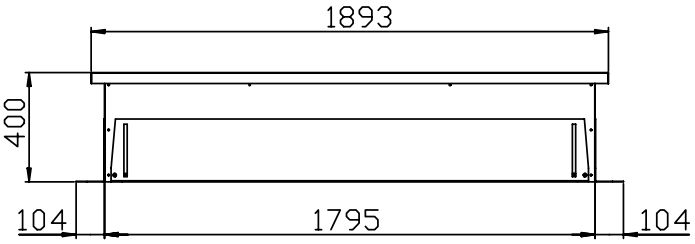
| Type | Taille | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|---|
| All | 020<br>025 | 1183 | 1893 | 691 | 400 | 246 | 246 | 515 | 50 | 1783 | 1083 |
| All | 030<br>035 | 1380 | 1740 | 790 | 400 | 351 | 240 | 675 | 50 | 1640 | 1280 |
| All | 040<br>045<br>050 | 1630 | 1740 | 1050 | 400 | 352 | 229 | 675 | 50 | 1640 | 1530 |

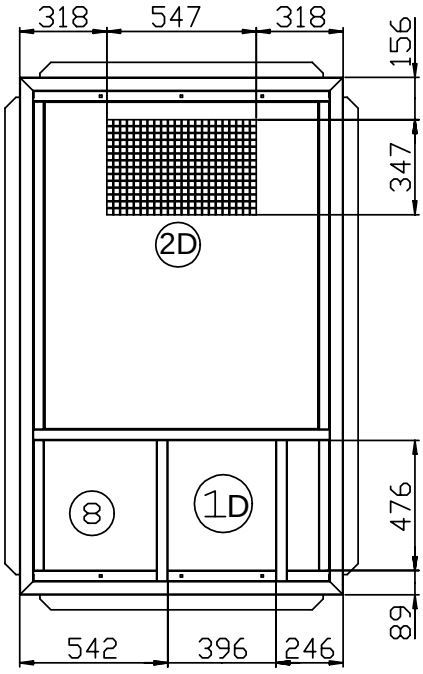
**(*)** Non adjustable, non assembled roofcurb.

**BCK BHK** **020** **025**

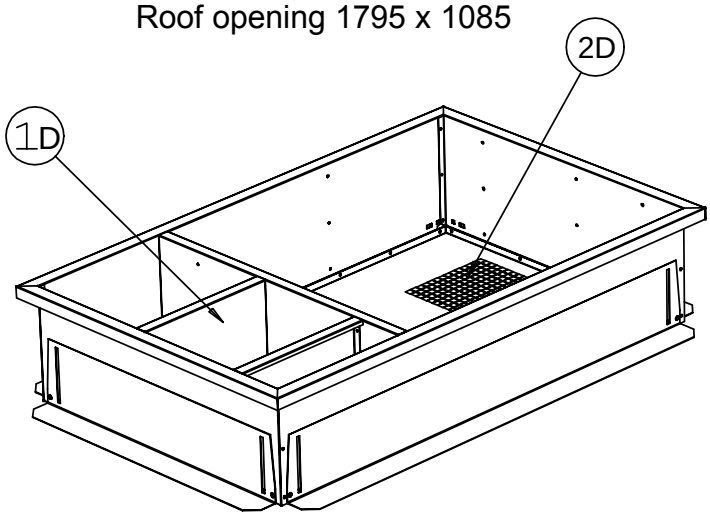
(*) without auxiliary electric heater
without hot water coil.




Roof opening 1795 x 1085



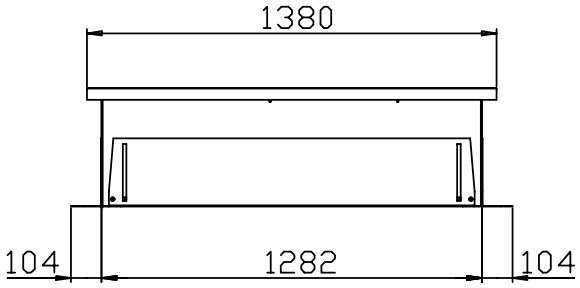

1D Down Supply Air

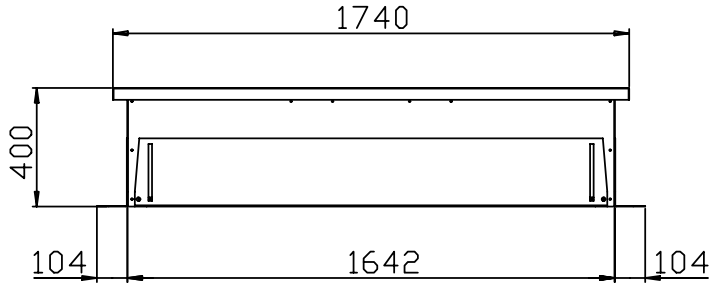
2D Return Air

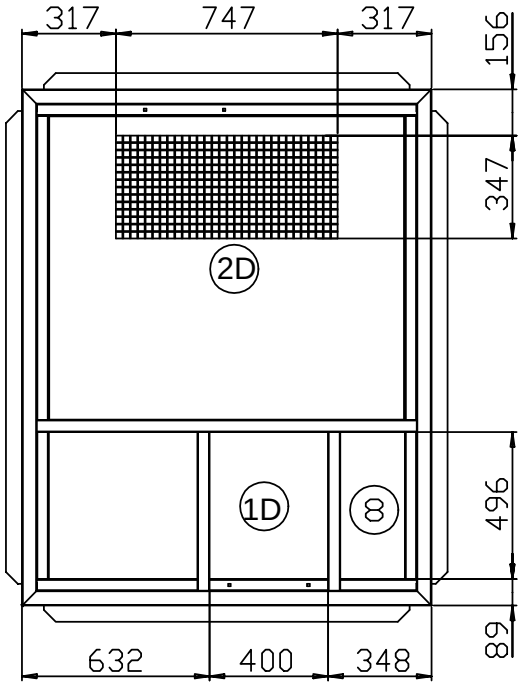
8 Main Power Entry

**BCK BHK** **030** **035**

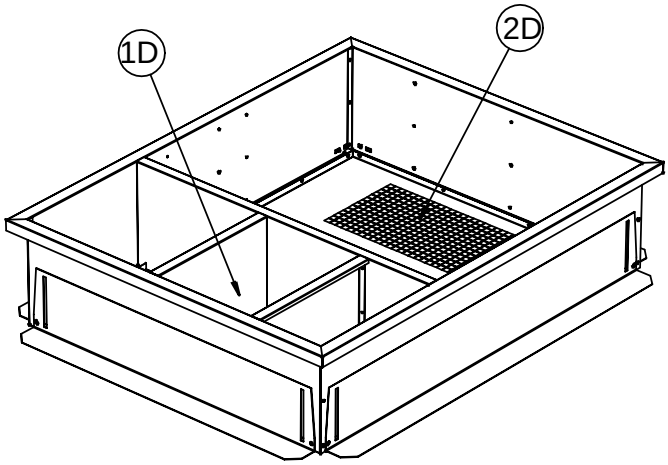
(*) without auxiliary electric heater
without hot water coil.




Roof opening 1642 x 1282



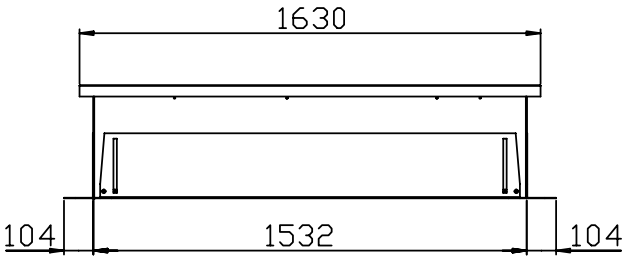

1D Down Supply Air

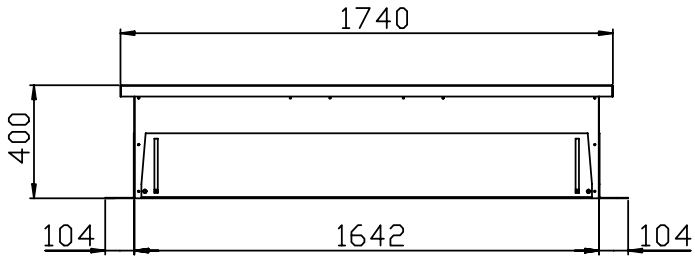
2D Front supply air

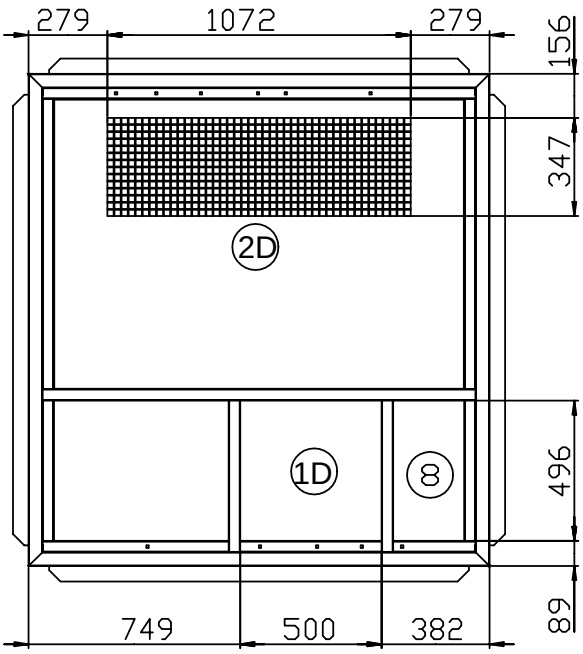
8 Main Power Entry

**BCK BHK** **040** **045** **050**

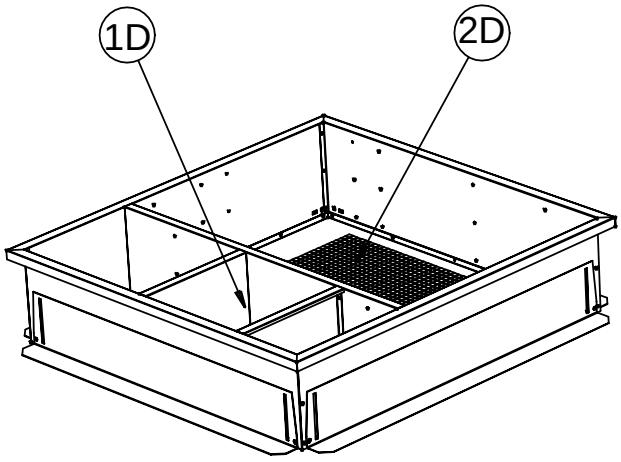
(*) without auxiliary electric heater
without hot water coil.




Roof opening 1642 x 1532



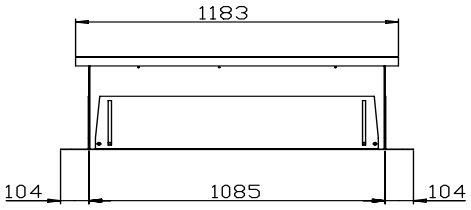

1D Down Supply Air

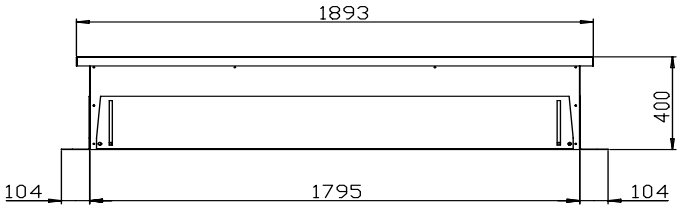
2D Front supply air

8 Main Power Entry

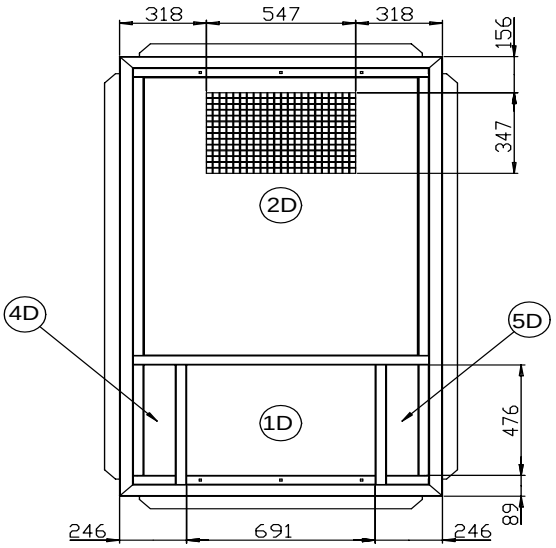
**BGK BDK** **020** **025**

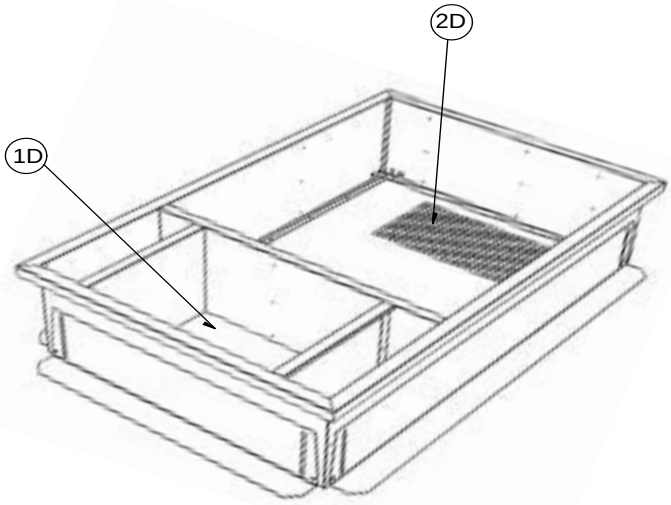
(*) This roofcurb is also necessary for all cooling only or heatpump rooftop with auxiliary electric heater or hot water coil.




Roof opening 1795 x 1085




1D Down Supply Air

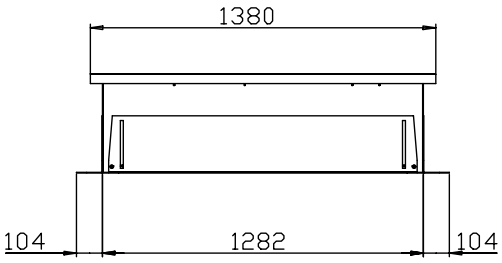
2D DownReturn Air

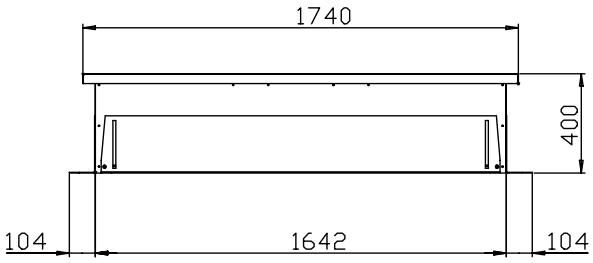
4D Down main power entry

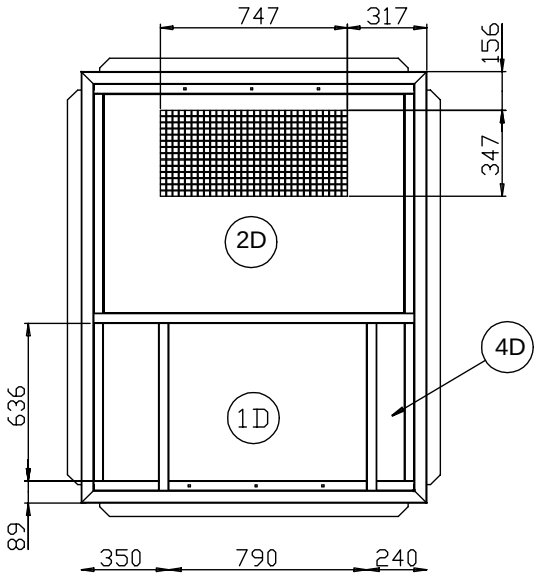
5D Down hot water Entry

**BGK BDK** **030** **035**

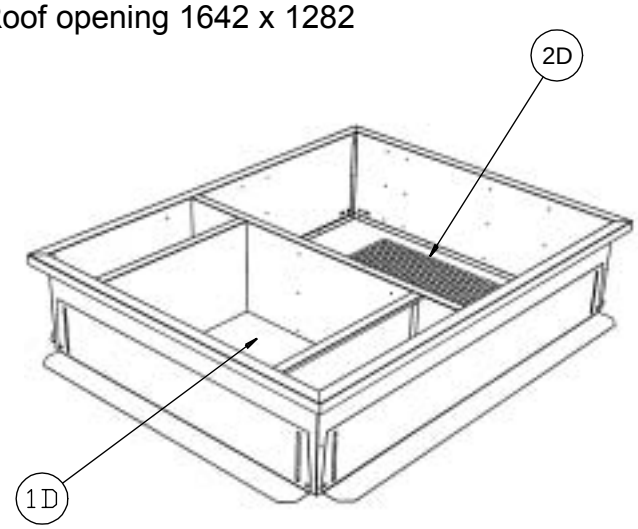
(*) This roofcurb is also necessary for all cooling only or heatpump rooftop with auxiliary electric heater or hot water coil.




Roof opening 1642 x 1282



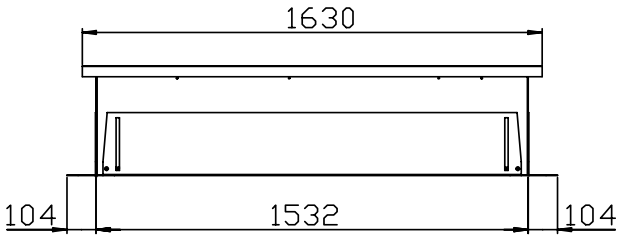

1D Down Supply Air

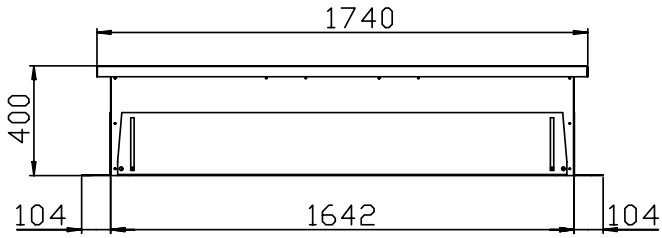
2D DownReturn Air

4D Down main power entry

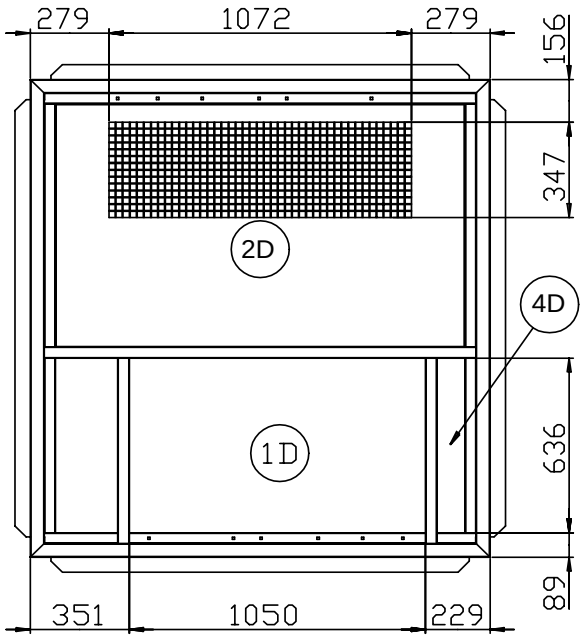
**BGK BDK** **040** **045** **050**

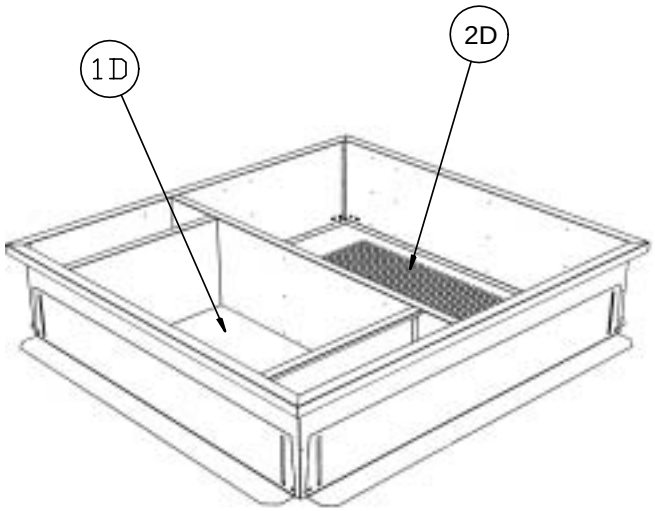
(*) This roofcurb is also necessary for all cooling only or heatpump rooftop with auxiliary electric heater or hot water coil.




Roof opening 1642 x 1532



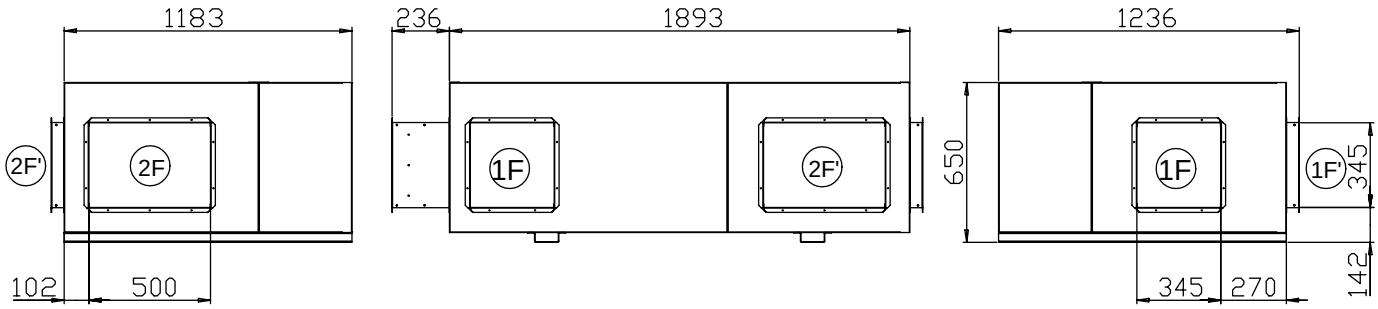

1D Down Supply Air

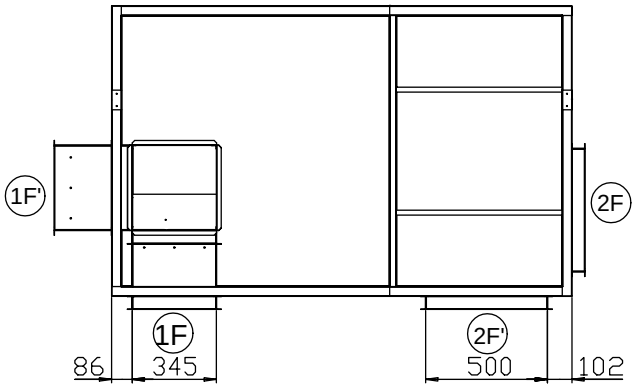
2D DownReturn Air

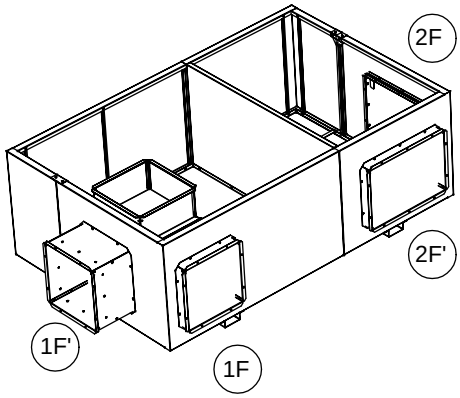
4D Down main power entry

**BCK BHK** **020** **025**

(*) without auxiliary electric heater
without hot water coil.




1F Front supply air

1F' Front supply air

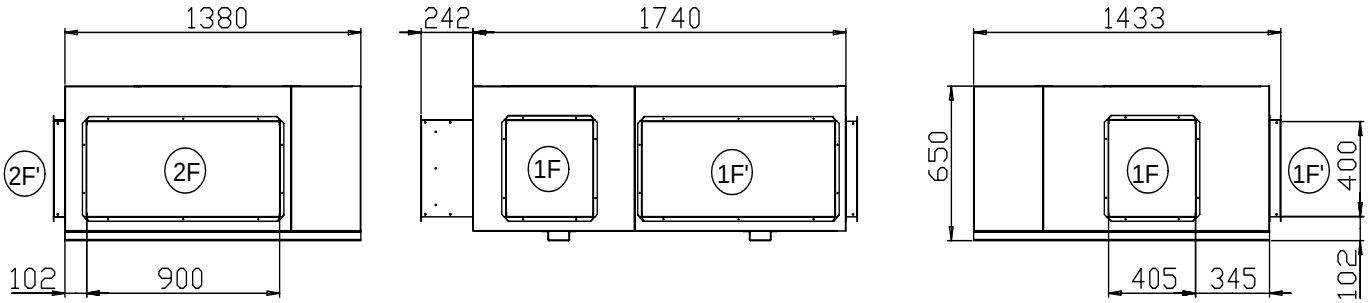
2F Front return air

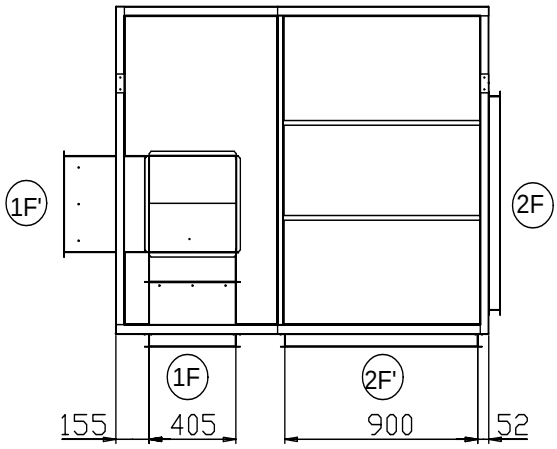
2F' Front return air

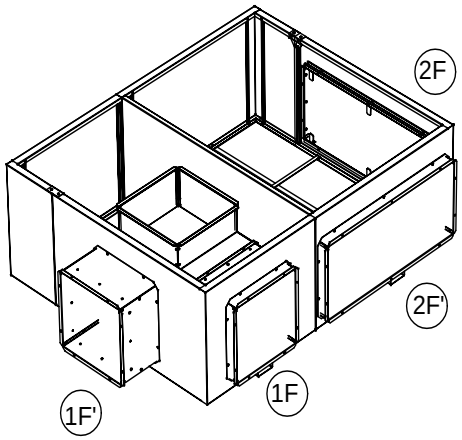
WARNING : ONLY ONE OF THE 4 FOLLOWINGS POSSIBILITIES :
2F - 1F / 2F - 1F'
2F' - 1F / 2F' - 1F'

**BCK BHK** **030** **035**

(*) without auxiliary electric heater
without hot water coil.




1F Front supply air

1F' Front supply air

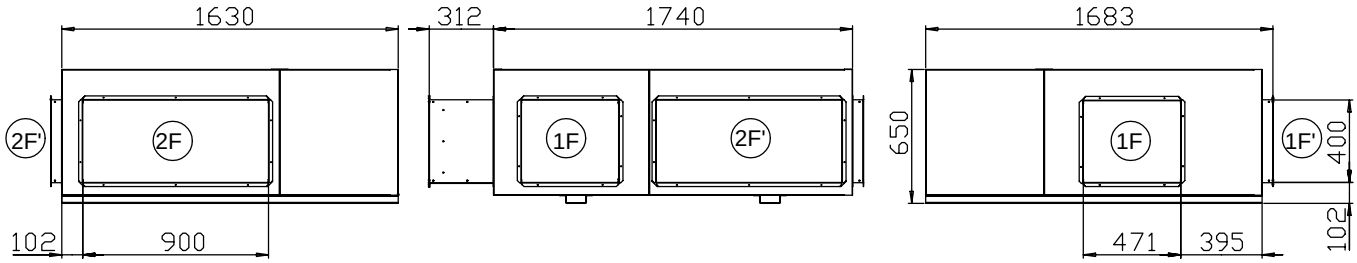
2F Front return air

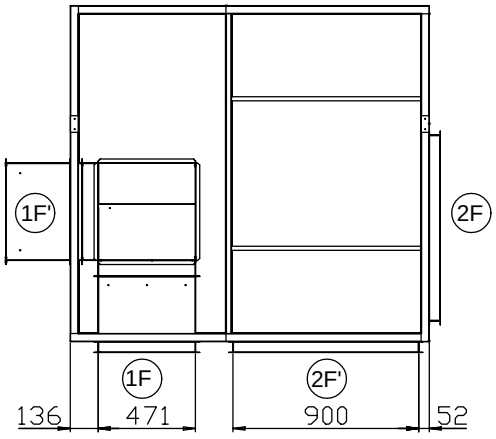
2F' Front return air

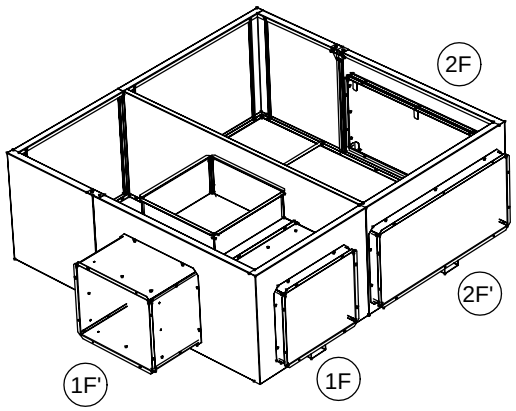
WARNING : ONLY ONE OF THE 4 FOLLOWINGS POSSIBILITIES :
2F - 1F / 2F - 1F'
2F' - 1F / 2F' - 1F'

**BCK BHK** **040** **045** **050**

(*) without auxiliary electric heater
without hot water coil.




1F Front supply air

1F' Front supply air

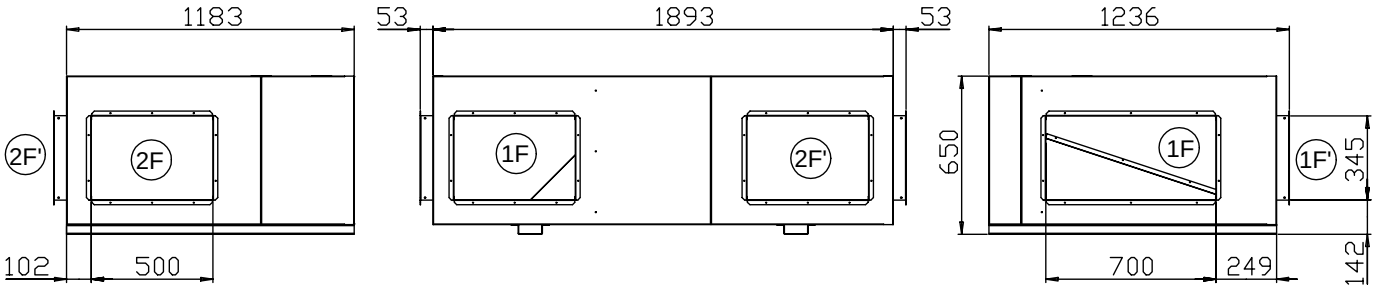
2F Front return air

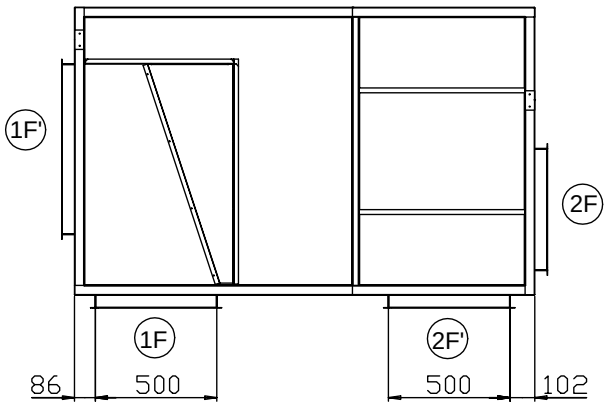
2F' Front return air

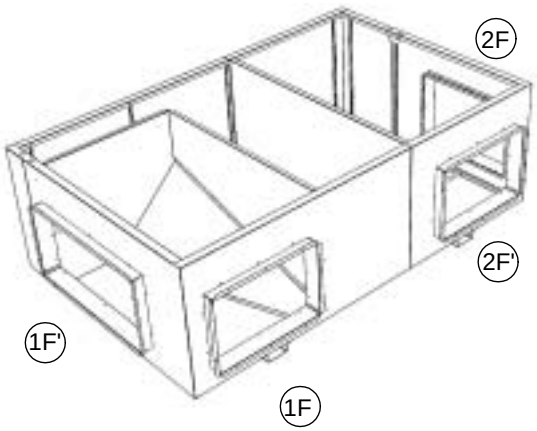
WARNING : ONLY ONE OF THE 4 FOLLOWINGS POSSIBILITIES :
2F - 1F / 2F - 1F'
2F' - 1F / 2F' - 1F'

**BGK BDK** **020** **025**

(*) This roofcurb is also necessary for all cooling only or heatpump rooftop with auxiliary electric heater or hot water coil.




1F Front supply air

1F' Front supply air

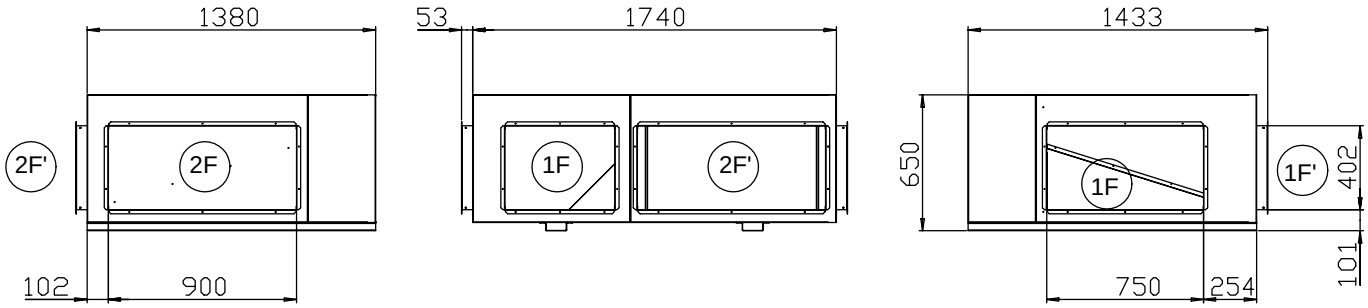
2F Front return air

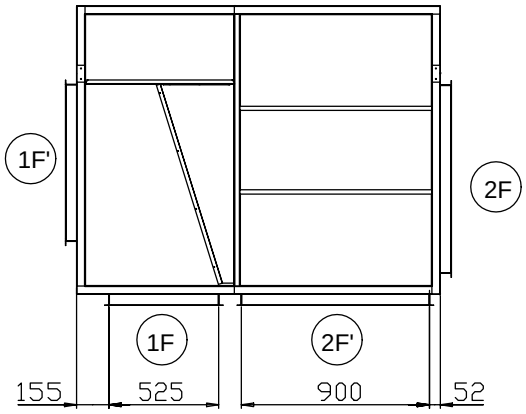
2F' Front return air

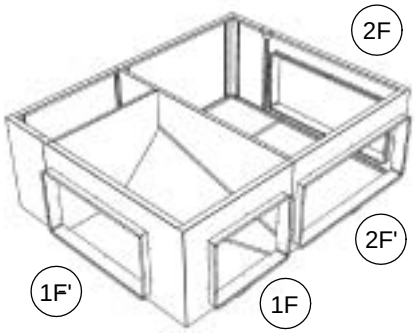
WARNING : ONLY ONE OF THE 4 FOLLOWINGS POSSIBILITIES :
2F - 1F / 2F - 1F'
2F' - 1F / 2F' - 1F'

**BGK BDK** **030** **035**

(*) This roofcurb is also necessary for all cooling only or heatpump rooftop with auxiliary electric heater or hot water coil.




1F Front supply air

1F' Front supply air

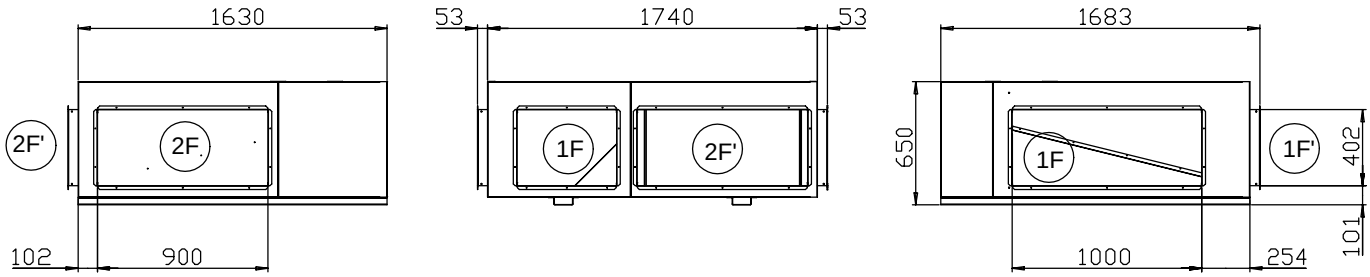
2F Front return air

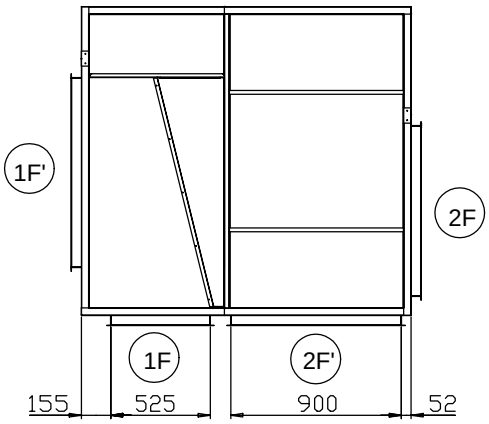
2F' Front return air

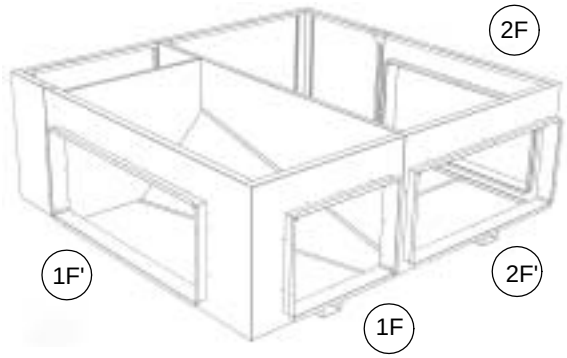
WARNING : ONLY ONE OF THE 4 FOLLOWINGS POSSIBILITIES :
2F - 1F / 2F - 1F'
2F' - 1F / 2F' - 1F'

**BGK BDK** **040** **045** **050**

(*) This roofcurb is also necessary for all cooling only or heatpump rooftop with auxiliary electric heater or hot water coil.




1F Front supply air

1F' Front supply air

2F Front return air

2F' Front return air

WARNING : ONLY ONE OF THE 4 FOLLOWINGS POSSIBILITIES :
2F - 1F / 2F - 1F'
2F' - 1F / 2F' - 1F'

*Table 9.1*

| | 020 | 025 | 030 | 035 | 040 | 045 | 050 |
|---|---|---|---|---|---|---|---|
| **Base** | | | | | | | |
| Base Unit BCK | 377 | 428 | 501 | 503 | 626 | 630 | 638 |
| Base Unit BHK | 380 | 432 | 504 | 507 | 632 | 636 | 644 |
| Base Unit BGK (S) | 419 | 472 | 567 | 572 | 709 | 718 | 723 |
| Base Unit BGK (H) | 431 | 484 | 586 | 591 | 730 | 739 | 744 |
| Base Unit BDK (S) | 422 | 476 | 570 | 576 | 715 | 724 | 729 |
| Base Unit BDK (H) | 434 | 488 | 589 | 595 | 736 | 745 | 750 |
| **Air flow configuration** | | | | | | | |
| Horizontal return, horizontal supply | 4 | 4 | 5 | 5 | 6,5 | 6,5 | 6,5 |
| Horizontal return, downflow supply | 1,5 | 1,5 | 2 | 2 | 2,5 | 2,5 | 2,5 |
| Downflown return, horizontal supply | 3 | 3 | 4 | 4 | 5 | 5 | 5 |
| **Fresh air options** | | | | | | | |
| 0-25% manual fresh air hood | 13 | 13 | 18 | 18 | 23 | 23 | 23 |
| Economiser sensible + hood | 23 | 23 | 28 | 28 | 33 | 33 | 33 |
| **Exhaust air options** | | | | | | | |
| Gravity exhasut damper for downflow return | 24 | 24 | 29 | 29 | 35 | 35 | 35 |
| Power exhaust fan axial + gravity exhaust damper downflow return | 35 | 35 | 39 | 39 | 56 | 56 | 56 |
| **Filtration option** | | | | | | | |
| Eu 4 metallic frame, whashable filter | 4 | 4 | 7 | 7 | 8 | 8 | 8 |
| **Drive kits Standard Units** | | | | | | | |
| K1 | 1 | 1 | 2 | 0 | 0 | -4 | -7 |
| K2 | 0 | 0 | 0 | 0 | -2 | -2 | -5 |
| K3 | -1 | 0 | 0 | 1 | 0 | -1 | -7 |
| K4 | -1 | 2 | 2 | 8 | 1 | 5 | -1 |
| K5 | -1 | 2 | 3 | 9 | 0 | 5 | -1 |
| K6 | 1 | 2 | 2 | 2 | 7 | 8 | 2 |
| K7 | 1 | 4 | 2 | 8 | 6 | -1 | 6 |
| K8 | 3 | 2 | 2 | 8 | 2 | 0 | 0 |
| K9 | 2 | 4 | 3 | 9 | 7 | 8 | 10 |
| K10 | - | 11 | 9 | 11 | 10 | 5 | 5 |
| K11 | - | 10 | 9 | - | 1 | 14 | 8 |
| K12 | - | 4 | - | - | 10 | 8 | 19 |
| K13 | - | 11 | - | - | 11 | 15 | 5 |
| K14 | - | - | - | - | 16 | - | 19 |
| **Drive kits Gas Units** | | | | | | | |
| K1 | 0 | -2 | 0 | -1 | 0 | -6 | -3 |
| K2 | 0 | 0 | 0 | 0 | -1 | 0 | -3 |
| K3 | 0 | 9 | 2 | 7 | 0 | 0 | 0 |
| K4 | 1 | 0 | 8 | 6 | 7 | 3 | 0 |
| K5 | 2 | 1 | 12 | 9 | 6 | 3 | 0 |
| K6 | 3 | 2 | 8 | 9 | 9 | 3 | 2 |
| K7 | 2 | 9 | 8 | 6 | 10 | 5 | 6 |
| K8 | 4 | 11 | 9 | 9 | 7 | 6 | 14 |
| K9 | - | - | 12 | 9 | 1 | 17 | 7 |
| K10 | - | - | 11 | 12 | 9 | - | - |
| K11 | - | - | - | - | 12 | - | - |
| **Heating options versus BCK or BGK** | | | | | | | |
| Electric heater (Standard heat) | 22 | 22 | 43 | 43 | 52 | 52 | 52 |
| Electric heater (Medium heat) | 24 | 24 | 45 | 45 | 55 | 55 | 55 |
| Electric heater (high heat) | 25 | 25 | 47 | 47 | 56 | 56 | 56 |
| Hot water coil (Standard heat) | 30 | 30 | 59 | 59 | 73 | 73 | 73 |
| Hot water coil (High heat) | 35 | 35 | 63 | 63 | 79 | 79 | 79 |
| **Electrical and safety options** | | | | | | | |
| Air sock control | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 | 1,5 |
| **Other Options** | | | | | | | |
| Non Adjustable non assembled roofcurb | 32 | 32 | 33 | 33 | 34 | 34 | 34 |
| Adjustable assembled roofcurb | 73 | 73 | 75 | 75 | 83 | 83 | 83 |
| Multidirectional horizontalflow curb | 81 | 81 | 89 | 89 | 100 | 100 | 100 |

**The weight of the Electric Heater and HWC options must be added to a BCK or BHK base unit. Apart from bases all weights are given as differential.**

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