YORK AIR-CONDITIONING PRODUCTS

# Residential & Light Commercial 2011

YORK®

Johnson Controls

**On the cover...**

This shape's lines are taken from the ultra-modern building shape of the Montreal Biodome. Building Efficiency provides all heating and air conditioning controls to deliver safe and comfortable conditions for the facility's different inhabitants - ranging from Antarctic temperatures for the penguins to hot and humid conditions for the tropical plants.

YORK AIR-CONDITIONING PRODUCTS

# A more comfortable, safe and sustainable world

Johnson Controls

# Our Vision

**A more comfortable, safe and sustainable world**

# Our Values

**Integrity**
**Customer Satisfaction**
**Employee Engagement**
**Innovation**
**Sustainability**

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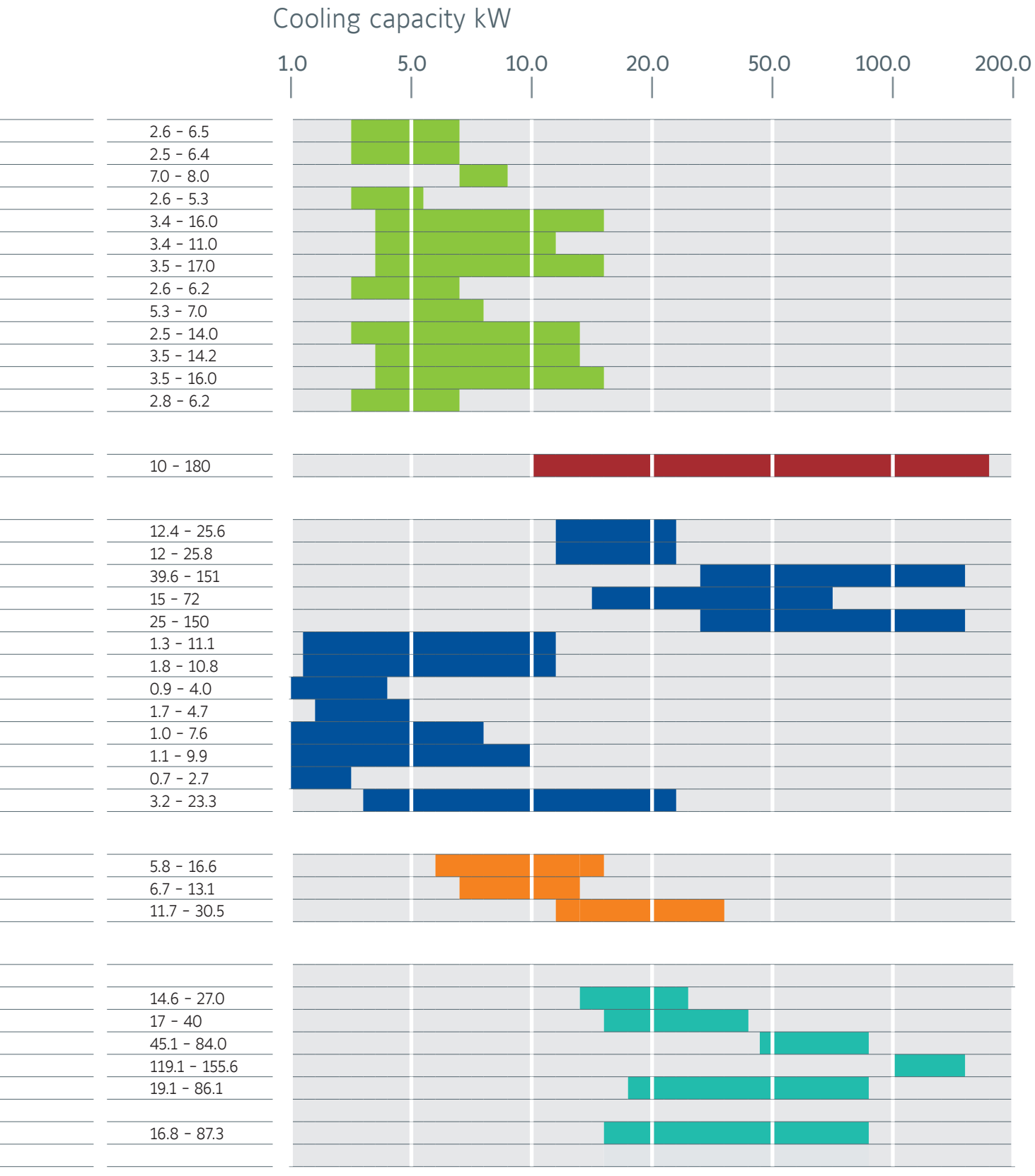
# Catalogue Content

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# Minisplit Inverter Systems

HIGH WALL UNITS

MULTISPLITS FREE COMBINATION

CASSETTE, FLOOR/CEILING & BLOWER UNITS

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# efficient comfort

## HIGH EFFICIENCY INVERTER RANGE

The High Wall inverter air conditioners have been designed thinking about comfort and sustainability. Comfort as the ultimate technology of DC Inverter compressor installed in these units is able to achieve performances of 4.20 COP in heating and cooling mode, the temperature variations in the room are minimized and the noise level is lower. The active carbon electrostatic filter improves the air quality and thanks to the motorized louver system, the air is distributed equally in the room.

Sustainable because the high efficiency of the unit results in a very low energy consumption, one of the most efficient in the market, the materials used are recyclable and free of hazardous substances, all together makes this unit the appropriate choice for conditioning your home.


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# advanced technology

## HIGH WALL INVERTER RANGE

The High Wall inverter air conditioners have been designed thinking about comfort and sustainability. Comfort as the ultimate technology of DC Inverter compressor installed in these units is able to achieve performances of 3.69 COP in heating mode and 3.40 EER in cooling mode, the temperature variations in the room are minimized and the noise level is lower. The active carbon electrostatic filter improves the air quality and thanks to the motorized louver system, the air is distributed equally in the room.

Sustainable because the high efficiency of the unit results in a very low energy consumption, one of the most efficient in the market, the materials used are recyclable and free of hazardous substances, all together makes this unit the appropriate choice for conditioning your home.


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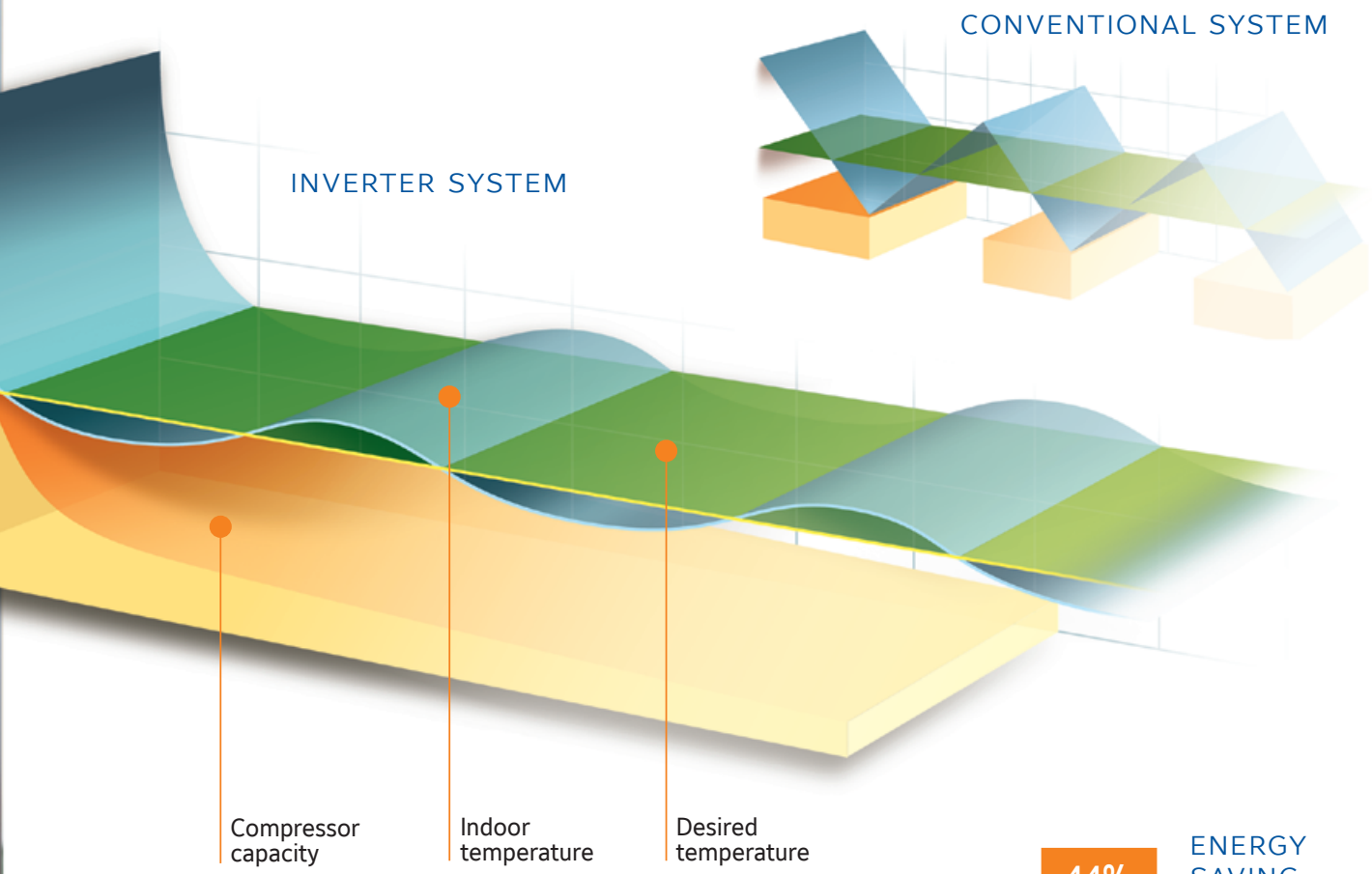
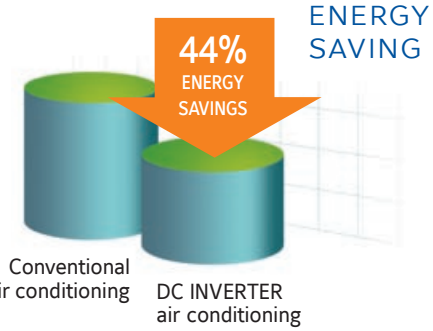
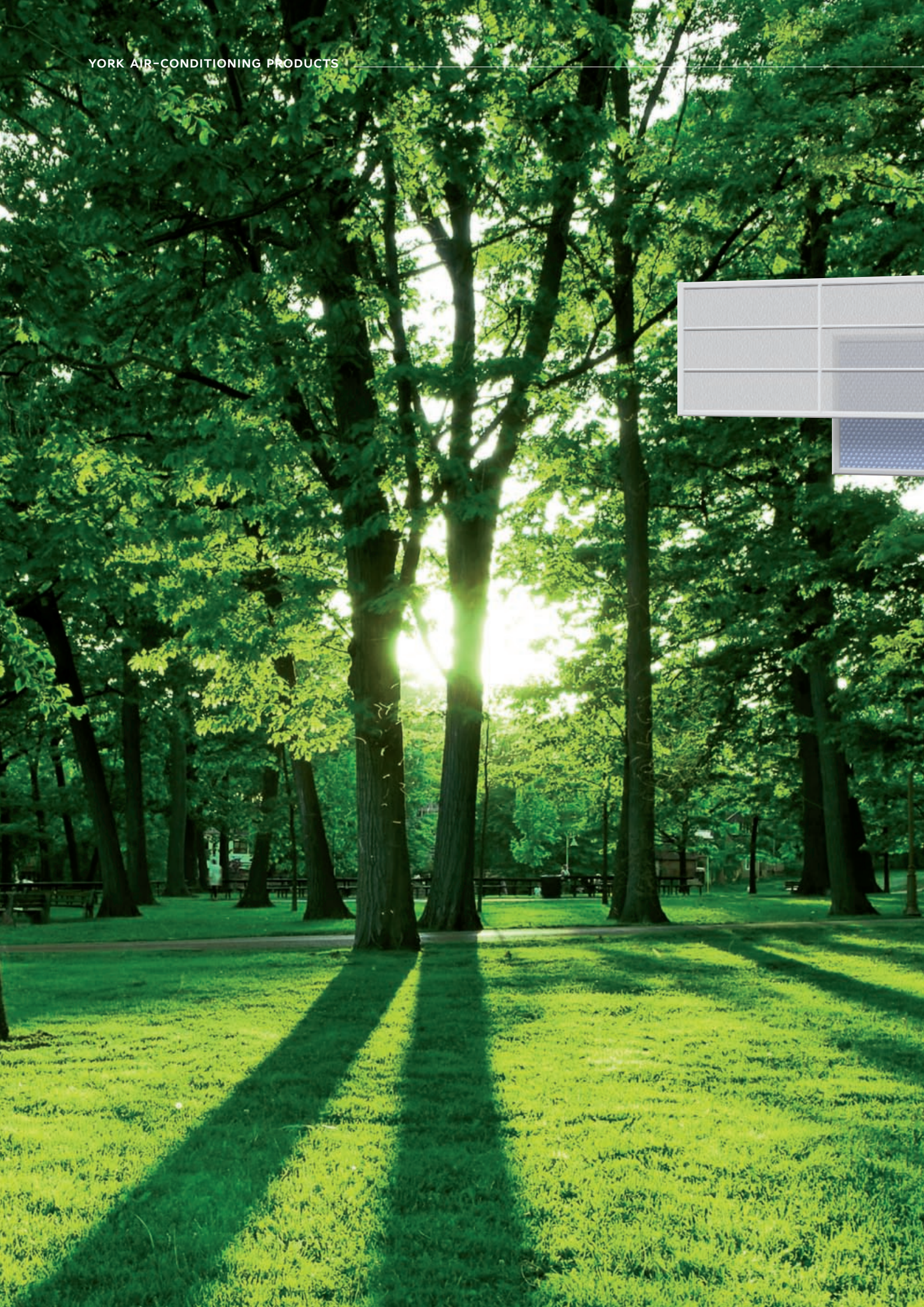
# INVERTER SYSTEM
# HIGHER EFFICIENCY AND COMFORT



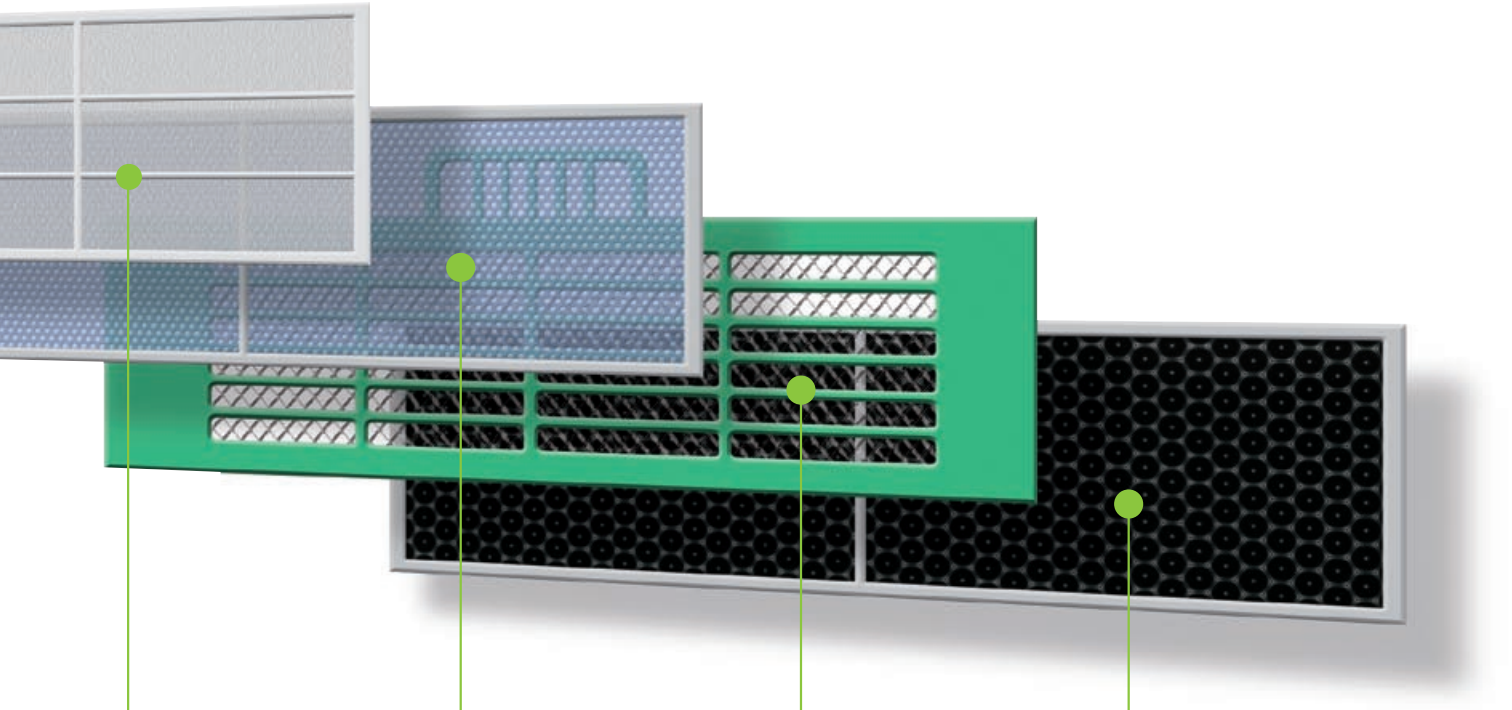




DC Inverter technology regulates the frequency of the compressor which results in many advantages:

- Energy saving by avoiding consumption peaks of the compressor compared to an on-off system. Inverter compressors reduce the frequency and therefore increase the efficiency.
- The variations of the temperature in the room are reduced improving the comfort.
- The setting temperature is achieved faster thanks to the flexibility of the system which allows reaching even 30% more of the nominal capacity.
- The overall performance is more uniform and silent.



# FILTER OPTIONS FOR A CLEAN AND HEALTHY AIR



## STANDARD FILTER

These filters prevent the bigger dust particules to enter the room by creating a barrier against dirtyness and insects.

## SILVER ION FILTER

The Silver ion filter kills bacteria in the air and controls the growth of microbes, such as bacteria, virus, fungi, and spores, by destroying their inner configuration and absorbing the cells elements.

## PLASMA FILTER

The Plasma Dust Collector can generate an ionization zone. The air is converted to plasma as it passes the high voltage ion generator. 95% of the dust, smoke and pollen particles are attracted to the electrostatic filter.

## CARBON ELECTROSTATIC FILTER

Active Carbon Filter eliminates certain kinds of odors such as ammonia (NH3) and deactivates harmful chemical gas such as formaldehyde (HCHO).

## DRY MOULD PROOF

Turn off the unit that contains this function when it is cooling or drying, indoor fan would still operate in low speed to dry the inner components and parts. This action can remain unit inside clean and dry, prevent mould growing and olor.

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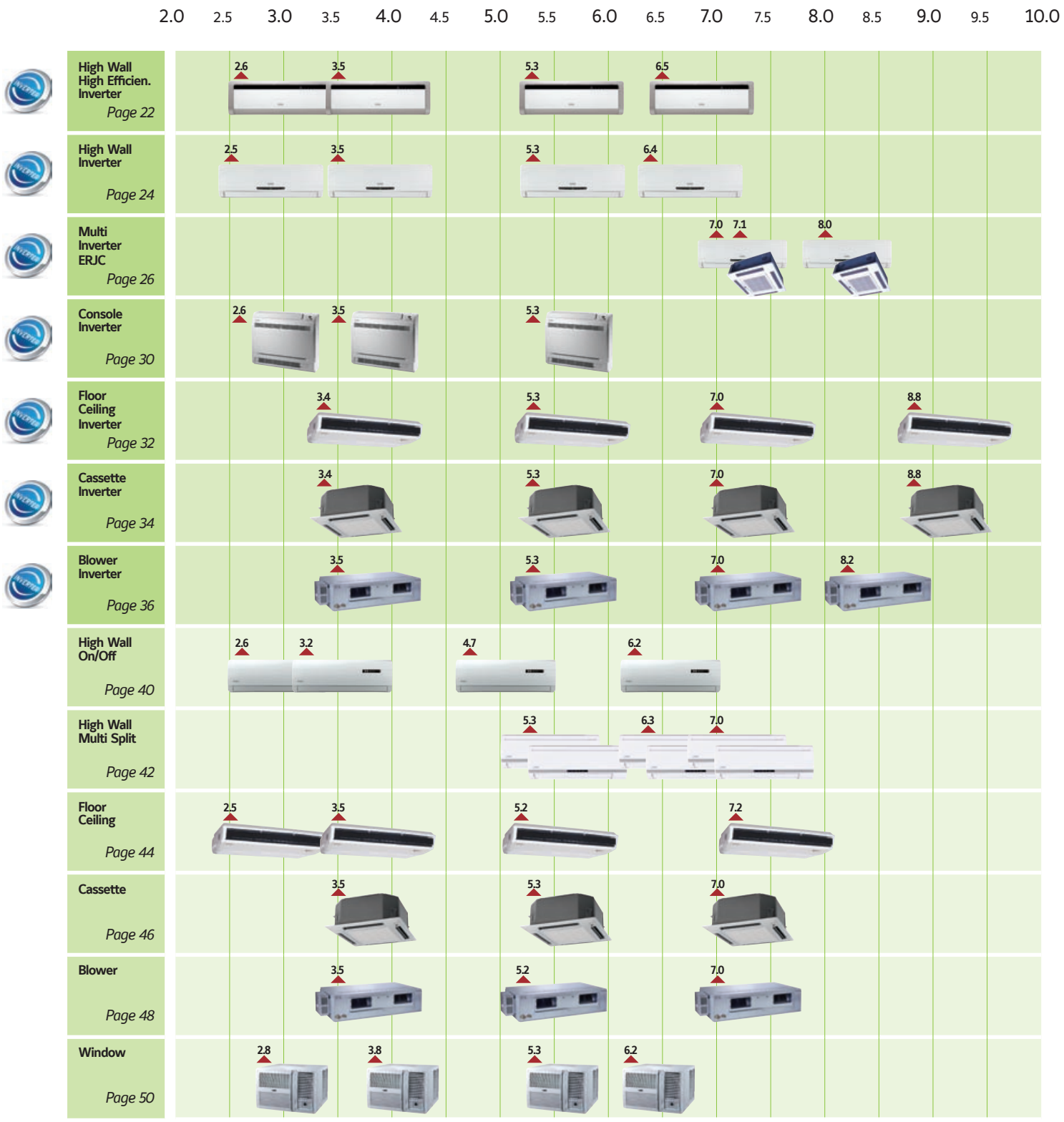
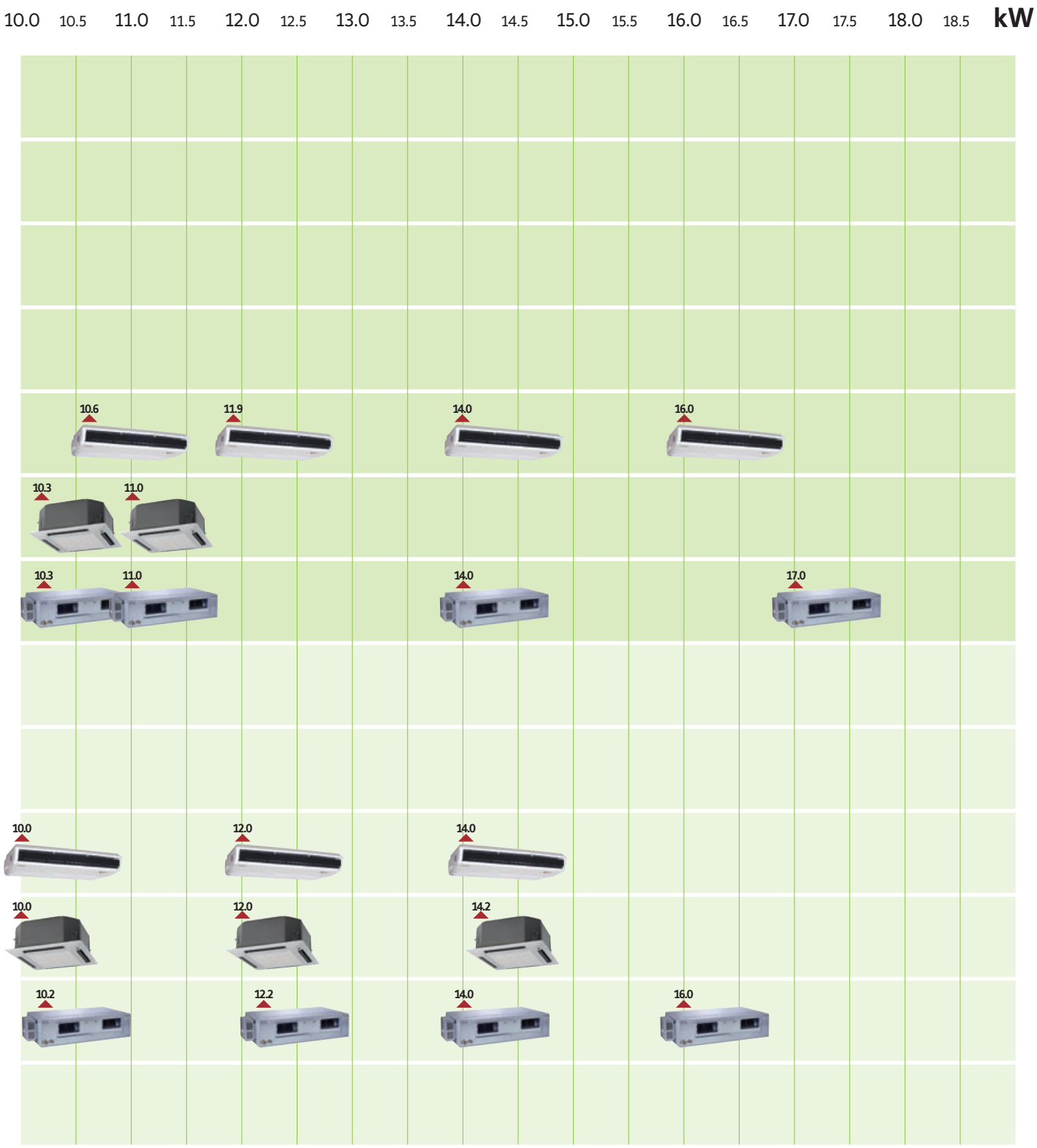
# Range Capacities



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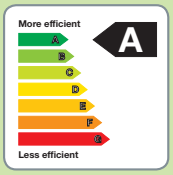
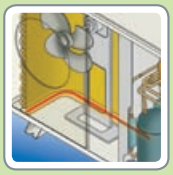
# Main Features




## *EU Energy Label A Class*

With the powerful compressor and optimized refrigerant, the EER can reach EU Energy Label A Class (over 3.2 w/w) or B Class (over 3.0 w/w), greatly reducing the power consumption.



## *Heater Cable*

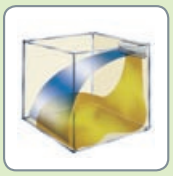
Heater cable prevents ice forming on the outdoor unit. Specially indicated in heat pump mode and low ambient temperature conditions. A thermostat regulates the activation of the heater.

## *Auto-Restart Function*

When the power supply is interrupted and then restored, the air conditioners automatically restore the previous function setting.

## *Turbo Mode*

Press the Turbo button and the A/C will reach the preset temperature in the shortest time.



## *Two-direction Air Vane Tech*

With special structural design and microcomputer control, York air conditioners employs a unique bi-directional rotary air vane technology.

## *Condensate pump*

Made up of a pump and a remote detection unit. The pump absorbs the condensates from the indoor unit and sends it to the draining pipes.


## *Low Ambient Kit*

The air conditioning unit can operate in cooling mode at low ambient temperature conditions. The kit is suitable for special applications such as computer and power station control rooms where cooling is required even in the winter months.

## *Dehumidification*

Independent dehumidification function is usually used in rainy days in springtime or damps areas. The unit will alternately operate in cooling mode or fan only mode, which assures strong dehumidification while not lowering room temperature.

## *Golden Coating Condenser*

The Golden hydrophilic condenser can improve the heating efficiency by accelerating the defrosting process. The unique coating on the condenser can withstand the salty air, rain and other corrosive environtment thus guaranteeing a much longer life span.

## *Sleep Mode*

With Spleep Mode, the air conditioner's set temperature will automatically increase (cooling) or decrease (heating) 1°C per hour for the first two hours then hold steady for the next 5 hours after which the air conditioner will stop operation. With the sleep mode function can maintain the most confortable temperature and save energy.

# Main Features

### *Bio Filter*

Bio Filter consists of a specialized biological enzyme and Eco Filter. The Eco Filter catches very small airborne dust particles and neurilities bacteria, fungi and microbes. Biological enzyme eliminates bacteria by dissolving their cell wall thus eliminating the problem of re-pollution seen in traditional air conditioners.

### *Active Carbon Electrostatic Filter*

Active Carbon Filter eliminates certain kinds of odors such as ammonia (NH3) and deactivates harmful chemical gas such as formaldehyde (HCHO). By forming positive positions on the filter surface, Electrostatic Fiber Filter traps small dust particles, smoke and pet fur to prevent allergic reactions.

### *Plasma Filter*

The Plasma Dust Collector can generate an ionization zone. The air is converted to plasma as it passes the high voltage ion generator. 95% of the dust, smoke and pollen particles are attracted to the electrostatic filter.


### *Ionizer*

Ionizer brings refreshing air into the home. Anions can stimulate the blood circulation system, improve lung function and effectively prevent respiratory passage illnesses (sutch as asthma and pneumonia).

### *Anti-Rust Cabinet*

Made from electrolytic zinc steel sheet and anti-rust coated components. York's outdoor units are rust free even in coastal regions.

### *Valve Protection Cover*

It protects the service valves and prevents water from dripping.

## Iconography


Infrared control


Wired control


Infrared or Wired control


Dry mode


Sleep mode


Timer


Auto Sweep

Auto Restart


Turbo mode


Thin profile


Quiet


4 Way Air Flow


Floor/ Ceiling


Ducted Installation


Air Filter

Low Ambient Kit

# High Wall High Efficiency Inverter

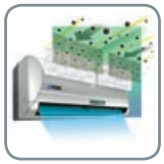
## EAHC-D 09 to 24

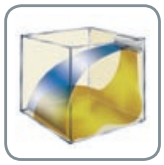
**A complete range from 2.6 kW to 6.5 kW**



Model reference
EAHC 09 to 24 DSAAAR

Model reference
EAHC 09 to 24 DSAAAA





## Features

- DC Inverter compressor
- Low noise levels
- Dry mould proof
- Automatic restart
- ON/OFF timer
- Automatic air sweep
- Service valve protection cover (09-12)
- Rustproof casing
- Heater cable (option)
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Room temperature sensor
- Fan speed selection
- Timer setting function
- Air flow direction setting
- LCD display
- Turbo mode

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# High Wall High Efficiency Inverter

## EAHC-D 09 to 24

## Technical features

| Set reference | | | EAHC-D | | | |
|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EAKC-09DS** | **EAKC-12DS** | **EAKC-18DS** | **EAKC-24DS** |
| **Outdoor unit** | | **Sizes** | **EAJC-09DS** | **EAJC-12DS** | **EAJC-18DS** | **EAJC-24DS** |
| Cooling capacity | | kW | 2.6 (1.2 - 3.3) | 3.5 (1.2 - 4.0) | 5.3 (1.3 - 6.2) | 6.5 (2.3 - 7.2) |
| Heating capacity | | kW | 2.9 (1.1 - 3.8) | 3.9 (0.8 - 4.1) | 5.6 (1.3 - 6.3) | 7.2 (1.8 - 9.0) |
| Compressor | | Type | Rotary | | | |
| Refrigerant | | | R410A | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | | |
| Power input | cooling | kW | 0.60 | 1.00 | 1.54 | 2.00 |
| | heating | kW | 0.65 | 1.06 | 1.55 | 1.99 |
| EER | | | 4.25 | 3.51 | 3.44 | 3.25 |
| COP | | | 4.22 | 3.61 | 3.62 | 3.62 |
| Energy Class | cooling | | A | A | A | A |
| | heating | | A | A | A | A |
| Indoor airflow (high speed) | | $m^3/h$ | 450 | 510 | 830 | 1 100 |
| Sound pressure at 1 m | Indoor (L/M/H) | dB(A) | 28 / 30 / 38 | 28 / 30 / 38 | 38 / 43 / 45 | 34 / 38 / 42 |
| | Outdoor | dB(A) | 54 | 54 | 56 | 58 |
| Dimensions | Indoor | H (mm) | 283 | 283 | 285 | 330 |
| | | W (mm) | 872 | 872 | 830 | 1 090 |
| | | D (mm) | 178 | 178 | 206 | 208 |
| | Outdoor | H (mm) | 540 | 540 | 685 | 840 |
| | | W (mm) | 848 | 848 | 846 | 950 |
| | | D (mm) | 320 | 320 | 300 | 420 |
| Net weight | Indoor unit | kg | 12 | 12 | 12 | 17.5 |
| | Outdoor unit | kg | 40 | 40 | 52 | 64 |
| Piping | Type of connection | | Flare | | | |
| | Diameter | Gas | 3/8" | 3/8" | 1/2" | 5/8" |
| | | Liquid | 1/4" | 1/4" | 1/4" | 3/8" |
| Refrigerant charge | | g | 1 100 | 1 270 | 1 600 | 2 400 |
| Pipe run | Length | m | 15 | 20 | 25 | 25 |
| | Height | m | 5 | 10 | 10 | 10 |
| Operating limit - cooling mode | | min./max. | +18°C / +50°C | | | |
| Operating limit - heating mode | | min./max. | -15°C / +24°C | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

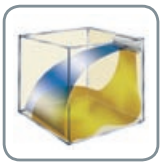
## Accessories

| Sizes | 09 | 12 | 18 | 24 |
|---|---|---|---|---|
| Electrostatic dedusting filter | Optional | | | |
| Silver ion filter | Optional | | | |
| Active carbon filter | Optional | | | |
| Service valve protection cover | Standard | | Optional | |
| Heater cable | Optional | | | |

# High Wall Inverter

## EVHC-D 09 to 24

**A complete range from 2.5 kW to 6.4 kW**

## Features

- DC Inverter compressor
- Low noise levels
- Dry mould proof
- Automatic restart
- ON/OFF timer
- Automatic air sweep
- Service valve protection cover
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer setting function
- Air flow direction setting
- LCD display
- Turbo mode
- Lock button function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# High Wall Inverter

## EVHC-D 09 to 24

## Technical features

| Set reference | | | EVHC | | | |
|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EVKC-09DS** | **EVKC-12DS** | **EVKC-18DS** | **EVKC-24DS** |
| **Outdoor unit** | | **Sizes** | **EVJC-09DS** | **EVJC-12DS** | **EVJC-18DS** | **EVJC-24DS** |
| Cooling capacity | | kW | 2.5 (1.2 - 3.1) | 3.5 (1.2 - 3.8) | 5.3 (1.3 - 6.2) | 6.4 (1.4 - 6.8) |
| Heating capacity | | kW | 2.8 (1.2 - 3.8) | 4.0 (1.3 - 4.7) | 5.8 (1.3 - 6.3) | 7.0 (1.3 - 8.0) |
| Compressor | | Type | Rotary | | | |
| Refrigerant | | | R410A | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | | |
| Power input | cooling | kW | 0.74 | 1.06 | 1.60 | 1.98 |
| | heating | kW | 0.75 | 1.10 | 1.62 | 1.93 |
| EER | | | 3.40 | 3.30 | 3.29 | 3.25 |
| COP | | | 3.69 | 3.64 | 3.61 | 3.63 |
| Energy Class | cooling | | A | A | A | A |
| | heating | | A | A | A | A |
| Indoor airflow (high speed) | | $m^3/h$ | 500 | 560 | 850 | 900 |
| Sound pressure at 1 m | Indoor (L/M/H) | dB(A) | 23 / 31 / 37 | 24 / 33 / 37 | 38 / 42 / 45 | 40 / 43 / 48 |
| | Outdoor | dB(A) | 51 | 52 | 53 | 54 |
| Dimensions | Indoor | H (mm) | 265 | 275 | 298 | 330 |
| | | W (mm) | 790 | 845 | 940 | 1 060 |
| | | D (mm) | 170 | 180 | 200 | 208 |
| | Outdoor | H (mm) | 540 | 540 | 700 | 700 |
| | | W (mm) | 848 | 848 | 890 | 890 |
| | | D (mm) | 260 | 260 | 340 | 340 |
| Net weight | Indoor unit | kg | 9 | 11 | 13 | 16 |
| | Outdoor unit | kg | 35 | 36 | 47 | 50 |
| Piping | Type of connection | | Flare | | | |
| | Diameter | Gas | 3/8" | 1/2" | 1/2" | 1/2" |
| | | Liquid | 1/4" | 1/4" | 1/4" | 1/4" |
| Refrigerant charge | | g | 800 | 1 150 | 1 100 | 1 400 |
| Pipe run | Length | m | 15 | 20 | 25 | 25 |
| | Height | m | 5 | 10 | 10 | 10 |
| Operating limit - cooling mode | | min./max. | +18°C / +50°C | | | |
| Operating limit - heating mode | | min./max. | -15°C / +24°C | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

## Accessories

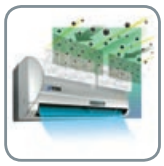
| Sizes | 09 | 12 | 18 | 24 |
|---|---|---|---|---|
| Electrostatic dedusting filter | Optional | | | |
| Silver ion filter | Optional | | | |
| Cold Plasma filter | Optional | | | |
| Active carbon filter | Optional | | | |

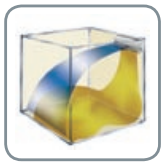
# Multi Inverter Free Indoor Units

## ERJC 22 (2x1) / ERJC 24 (3x1) / ERJC 28 (4x1)

**A complete range from 7.0 kW to 8.0 kW**

ERJC 22 (2x1) | ERJC 24 (3x1) | ERJC 28 (4x1)





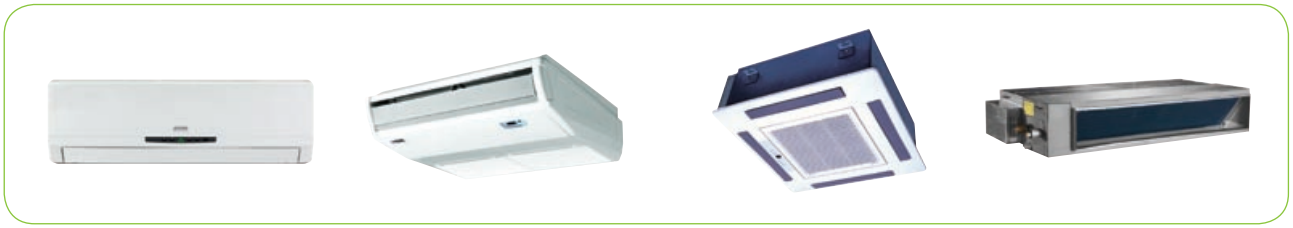
## Features

- Free match indoor/outdoor
- Automatic restart
- ON/OFF timer
- Automatic air sweep
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- Air flow direction setting
- LCD display

## Indoor units



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# Multi Inverter Free Indoor Units

## ERJC 22 (2x1) / ERJC 24 (3x1) / ERJC 28 (4x1)


## Technical features Outdoor units

| Model | | | ERJC | | |
|---|---|---|---|---|---|
| **Outdoor units** | | **Sizes** | **22** | **24** | **28** |
| Indoor units | | number | 2 indoor units | 3 indoor units | 4 indoor units |
| Cooling capacity | | kW | 7.0 (2.6 - 9.1) | 7.1 (2.7 - 10.0) | 8.0 (2.7 - 10.0) |
| Heating capacity | | kW | 8.7 (2.9 - 11.3) | 8.7 (2.8 - 11.0) | 9.3 (2.8 - 11.0) |
| Compressor | | Type (Nb) | Rotary Inverter (1) | | |
| Refrigerant | | | R410A | | |
| Location of expansion device | | | Outdoor unit | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | |
| Power input | cooling | kW | 2.2 | 2.2 | 2.5 |
| | heating | kW | 2.6 | 2.6 | 2.6 |
| EER | | | 3.2 | 3.2 | 3.2 |
| COP | | | 3.4 | 3.4 | 3.5 |
| Energy Class | cooling | | A | A | A |
| | heating | | B | B | B |
| Sound pressure level | | dB(A) | 59 | 59 | 59 |
| Dimensions outdoor unit H / W / D | | mm | 840 / 950 / 420 | 840 / 950 / 420 | 840 / 950 / 420 |
| Net weight outdoor unit | | kg | 68 | 75 | 75 |
| Refrigerant charge | | gr | 2 500 | 3 300 | 3 300 |
| Piping | Type of connection | | Flare | | |
| | Diameter | Gas | 2 x 1/2" | 3 x 3/8" | 4 x 3/8" |
| | | Liquid | 2 x 1/4" | 3 x 1/4" | 4 x 1/4" |
| Max pipe run | Length | m | 15 | 15 | 15 |
| | Height | m | 10 * | 10 * | 10 * |
| Operating limits - cooling mode | | min/max | +18°C / +50°C | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | |

** Each indoor unit*
*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

# Indoor units technical features

- Active carbon electrostatic filter
- Automatic air sweep

| | | | ERKC | | |
|---|---|---|---|---|---|
| **Indoor units** | | **Sizes** | **09** | **12** | **18** |
| Cooling capacity | | kW | 2.6 | 3.5 | 5.3 |
| Heating capacity | | kW | 2.8 | 3.8 | 5.8 |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | |
| Indoor airflow | | $m^3/h$ | 500 | 630 | 850 |
| Sound pressure level | H / M / L | dB(A) | 34 / 31 / 28 | 34 / 32 / 30 | 43 / 40 / 36 |
| Dimensions | H / W / D | mm | 267 / 790 / 170 | 275 / 845 / 180 | 298 / 940 / 200 |
| Net Weight | | kg | 9 | 10 | 13 |
| Piping | Type of connection | | | Flare | |
| | Diameter | Gas | 3/8" | 3/8" | 1/2" |
| | | Liquid | 1/4" | 1/4" | 1/4" |

- Convertible floor/ceiling
- Automatic air sweep

| | | | EOKC | |
|---|---|---|---|---|
| **Indoor units** | | **Sizes** | **12** | **18** |
| Cooling capacity | | kW | 3.5 | 5.3 |
| Heating capacity | | kW | 3.8 | 5.8 |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | |
| Indoor airflow | H / M / L | $m^3/h$ | 490 / 420 / 320 | 730 / 680 / 600 |
| Sound pressure level | H / M / L | dB(A) | 46 / 43 / 36 | 54 / 50 / 47 |
| Dimensions | H / W / D | mm | 695 / 836 / 238 | 695 / 836 / 238 |
| Net Weight | | kg | 27 | 27 |
| Piping | Type of connection | | Flare | |
| | Diameter | Gas | 1/2" | 1/2" |
| | | Liquid | 1/4" | 1/4" |

- Condensate pump included
- 600 x 600 standard size

| | | | EKKC | |
|---|---|---|---|---|
| **Indoor units** | | **Sizes** | **12** | **18** |
| Cooling capacity | | kW | 3.5 | 5.3 |
| Heating capacity | | kW | 3.8 | 5.8 |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | |
| Indoor airflow | | $m^3/h$ | 600 / 580 / 500 | 860 / 760 / 650 |
| Sound pressure level | H / M / L | dB(A) | 44 / 40 / 36 | 47 / 44 / 39 |
| Dimensions unit | H / W / D | mm | 230 / 600 / 600 | 230 / 600 / 600 |
| Dimensions panel | H / W / D | mm | 50 / 650 / 650 | 50 / 650 / 650 |
| Net Weight | | kg | 20 | 20 |
| Piping | Type of connection | | Flare | |
| | Diameter | Gas | 1/2" | 1/2" |
| | | Liquid | 1/4" | 1/4" |

- Slim size
- Air filter included
- Wired control included

| | | | EUKC | | |
|---|---|---|---|---|---|
| **Indoor units** | | **Sizes** | **09** | **12** | **18** |
| Cooling capacity | | kW | 2.6 | 3.5 | 5.3 |
| Heating capacity | | kW | 2.8 | 3.8 | 5.8 |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | |
| Indoor airflow | | $m^3/h$ | 450 | 520 | 840 |
| Sound pressure level | H / M / L | dB(A) | 37 / 37 / 30 | 40 / 40 / 33 | 42 / 42 / 33 |
| Dimensions | H / W / D | mm | 220 / 913 / 680 | 220 / 913 / 680 | 266 / 1 012 / 736 |
| Net Weight | | kg | 27 | 27 | 36 |
| Piping | Type of connection | | | Flare | |
| | Diameter | Gas | 3/8" | 1/2" | 1/2" |
| | | Liquid | 1/4" | 1/4" | 1/4" |

# Indoor unit combinations

## ERJC 22 (2x1) Cooling performances

| Nbr. connecting units | Room A | Room B | Room C | Room D | Capacity rating (Min.~ Max.) | Power rating (Min.~ Max.) |
|---|---|---|---|---|---|---|
| 9+9 | 2500 | 2500 | - | - | 5000 (3300~6700) | 1400 (1000~2600) |
| 9+12 | 2500 | 3500 | - | - | 6000 (3300~7800) | 1800 (1000~3300) |
| 12+12 | 3500 | 3500 | - | - | 7000 (3300~8200) | 2300 (1000~3800) |
| 9+18 | 2600 | 4500 | - | - | 7100 (3300~9500) | 2200 (1000~4600) |
| 12+18 | 3500 | 3600 | - | - | 7100 (3300~9500) | 2200 (1000~4600) |
| 18+18 | 3550 | 3550 | - | - | 7100 (3300~9500) | 2200 (1000~4600) |

## ERJC 22 (2x1) Heating performances

| Nbr. connecting units | Room A | Room B | Room C | Room D | Capacity rating (Min.~ Max.) | Power rating (Min.~ Max.) |
|---|---|---|---|---|---|---|
| 9+9 | 3200 | 3200 | - | - | 6400 (2550~8600) | 2050 (900~2950) |
| 9+12 | 3200 | 4000 | - | - | 7200 (2550~9000) | 2300 (900~3300) |
| 12+12 | 3900 | 3900 | - | - | 7800 (3000~9600) | 2400 (900~3500) |
| 9+18 | 2900 | 5000 | - | - | 7900 (3000~9300) | 2400 (900~3500) |
| 12+18 | 3600 | 4500 | - | - | 8100 (3100~9900) | 2400 (850~3900) |
| 18+18 | 4350 | 4350 | - | - | 8700 (3100~11300) | 2600 (850~3900) |

## ERJC 24 (3x1) Cooling performances

| Nbr. connecting units | Room A | Room B | Room C | Room D | Capacity rating (Min.~ Max.) | Power rating (Min.~ Max.) |
|---|---|---|---|---|---|---|
| 9+9 | 2500 | 2500 | - | - | 5000 (3300~6700) | 1400 (1000~2600) |
| 9+12 | 2500 | 3500 | - | - | 6000 (3300~7800) | 1800 (1000~3300) |
| 12+12 | 3500 | 3500 | - | - | 7000 (3300~8200) | 2300 (1000~3800) |
| 9+18 | 2600 | 4500 | - | - | 7100 (3300~9500) | 2200 (1000~4600) |
| 12+18 | 3500 | 3600 | - | - | 7100 (3300~9500) | 2200 (1000~4600) |
| 9+9+9 | 2350 | 2350 | 2350 | - | 7100 (3300~9500) | 2200 (1000~4600) |
| 9+9+12 | 2100 | 2100 | 2900 | - | 7100 (3300~9500) | 2200 (1000~4600) |
| 9+12+12 | 1900 | 2600 | 2600 | - | 7100 (3300~9600) | 2200 (1000~4650) |
| 12+12+12 | 2400 | 2400 | 2400 | - | 7100 (3300~9600) | 2200 (1000~4650) |
| 9+9+18 | 2200 | 2200 | 2700 | - | 7100 (3300~9600) | 2200 (1000~4650) |
| 9+12+18 | 2100 | 2300 | 2700 | - | 7100 (3300~9600) | 2200 (1000~4650) |
| 12+12+18 | 2300 | 2300 | 2500 | - | 7100 (3300~9600) | 2200 (1000~4650) |
| 9+18+18 | 2100 | 2500 | 2500 | - | 7100 (3300~9600) | |

## ERJC 24 (3x1) Heating performances

| Nbr. connecting units | Room A | Room B | Room C | Room D | Capacity rating (Min.~ Max.) | Power rating (Min.~ Max.) |
|---|---|---|---|---|---|---|
| 9+9 | 3200 | 3200 | - | - | 6400 (2550~8600) | 2050 (900~2950) |
| 9+12 | 3200 | 4000 | - | - | 7200 (2550~9000) | 2300 (900~3300) |
| 12+12 | 3900 | 3900 | - | - | 7800 (3000~9600) | 2400 (900~3500) |
| 9+18 | 2900 | 5000 | - | - | 7900 (3000~9300) | 2400 (900~3500) |
| 12+18 | 3600 | 4500 | - | - | 8100 (3100~9900) | 2400 (850~3900) |
| 9+9+9 | 2850 | 2850 | 2850 | - | 8500 (3100~11000) | 2350 (850~4000) |
| 9+9+12 | 2650 | 2650 | 3200 | - | 8500 (3100~11000) | 2350 (850~4000) |
| 9+12+12 | 2500 | 3100 | 3100 | - | 8700 (3100~11000) | 2400 (850~4000) |
| 9+9+18 | 2500 | 2500 | 3700 | - | 8700 (3100~11000) | 2400 (850~4000) |
| 12+12+12 | 2900 | 2900 | 2900 | - | 8700 (3100~11000) | 2400 (850~4000) |
| 9+12+18 | 2300 | 2700 | 3700 | - | 8700 (3100~11000) | 2400 (850~4000) |
| 12+12+18 | 2700 | 2700 | 3300 | - | 8700 (3100~11000) | 2400 (850~4000) |
| 9+18+18 | 2100 | 3300 | 3300 | - | 8700 (3100~11000) | 2400 (850~4000) |

## ERJC 28 (4x1) Cooling performances

| Nbr. connecting units | Room A | Room B | Room C | Room D | Capacity rating (Min.~ Max.) | Power rating (Min.~ Max.) |
|---|---|---|---|---|---|---|
| 9+9 | 2600 | 2600 | - | - | 5200 (3300~6700) | 1400 (1000~2600) |
| 9+12 | 2600 | 3500 | - | - | 6100 (3300~7800) | 1800 (1000~3300) |
| 12+12 | 3500 | 3500 | - | - | 7000 (3300~8200) | 2300 (1000~3800) |
| 9+18 | 2600 | 5300 | - | - | 7900 (3300~9500) | 2400 (900~3500) |
| 12+18 | 3500 | 4500 | - | - | 8000 (3300~9500) | 2400 (900~3500) |
| 18+18 | 4000 | 4000 | - | - | 8000 (3300~9500) | 2400 (900~3500) |
| 9+9+9 | 2600 | 2600 | 2600 | - | 7800 (3300~9500) | 2200 (1000~4600) |
| 9+9+12 | 2400 | 2400 | 3200 | - | 8000 (3300~9500) | 2200 (1000~4600) |
| 9+12+12 | 2000 | 3000 | 3000 | - | 8000 (3300~9600) | 2200 (1000~4650) |
| 12+12+12 | 2650 | 2650 | 2650 | - | 8000 (3300~9600) | 2200 (1000~4650) |
| 9+9+18 | 2300 | 2300 | 3400 | - | 8000 (3300~9600) | 2200 (1000~4650) |
| 9+12+18 | 2200 | 2600 | 3200 | - | 8000 (3300~9600) | 2200 (1000~4650) |
| 12+12+18 | 2500 | 2500 | 3000 | - | 8000 (3300~9600) | 2200 (1000~4650) |
| 9+18+18 | 2000 | 3000 | 3000 | - | 8000 (3300~9600) | 2200 (1000~4650) |
| 9+9+9+9 | 2000 | 2000 | 2000 | 2000 | 8000 (3300~9600) | 2480 (1000~4650) |
| 9+9+9+12 | 1750 | 1750 | 1750 | 2750 | 8000 (3300~9600) | 2480 (1000~4650) |
| 9+9+9+18 | 1700 | 1700 | 1700 | 2900 | 8000 (3300~9600) | 2480 (1000~4650) |
| 9+9+12+12 | 1500 | 1500 | 2500 | 2500 | 8000 (3300~10000) | 2480 (1000~4700) |
| 9+9+12+18 | 1400 | 1400 | 2400 | 2800 | 8000 (3300~10000) | 2480 (1000~4700) |
| 9+12+12+12 | 1700 | 2100 | 2100 | 2100 | 8000 (3300~10000) | 2480 (1000~4700) |
| 9+12+12+18 | 1400 | 2100 | 2100 | 2500 | 8000 (3300~10000) | 2480 (1000~4700) |
| 9+9+18+18 | 1400 | 1400 | 2600 | 2600 | 8000 (3300~10000) | 2480 (1000~4700) |
| 12+12+12+12 | 2000 | 2000 | 2000 | 2000 | 8000 (3300~10000) | 2480 (1000~4700) |

## ERJC 28 (4x1) Heating performances

| Nbr. connecting units | Room A | Room B | Room C | Room D | Capacity rating (Min.~ Max.) | Power rating (Min.~ Max.) |
|---|---|---|---|---|---|---|
| 9+9 | 2800 | 2800 | - | - | 5600 (2550~8200) | 2050 (900~2950) |
| 9+12 | 2800 | 3800 | - | - | 6600 (2550~8500) | 2300 (900~3300) |
| 12+12 | 3800 | 3800 | - | - | 7600 (3000~9300) | 2400 (900~3500) |
| 9+18 | 2800 | 5800 | - | - | 8600 (3000~9300) | 2400 (900~3500) |
| 12+18 | 3700 | 5600 | - | - | 9300 (3100~9900) | 2600 (900~3900) |
| 18+18 | 4650 | 4650 | - | - | 9300 (3100~9900) | 2600 (900~3900) |
| 9+9+9 | 2800 | 2800 | 2800 | - | 8400 (3100~9900) | 2400 (850~4000) |
| 9+9+12 | 2800 | 2800 | 3700 | - | 9300 (3100~9900) | 2600 (900~4000) |
| 9+12+12 | 2500 | 3400 | 3400 | - | 9300 (3100~9900) | 2600 (900~4000) |
| 9+9+18 | 2400 | 2400 | 4500 | - | 9300 (3100~9900) | 2600 (900~4000) |
| 12+12+12 | 3100 | 3100 | 3100 | - | 9300 (3100~9900) | 2600 (900~4000) |
| 9+12+18 | 2300 | 2800 | 4200 | - | 9300 (3100~9900) | 2600 (900~4000) |
| 12+12+18 | 2600 | 2600 | 4100 | - | 9300 (3100~9900) | 2600 (900~4000) |
| 9+18+18 | 2200 | 3550 | 3550 | - | 9300 (3100~9900) | 2600 (900~4000) |
| 9+9+9+9 | 2320 | 2320 | 2320 | 2320 | 9300 (3300~11000) | 2600 (900~4000) |
| 9+9+9+12 | 2100 | 2100 | 2100 | 3000 | 9300 (3300~11000) | 2600 (900~4000) |
| 9+9+9+18 | 1900 | 1900 | 1900 | 3600 | 9300 (3300~11000) | 2600 (900~4000) |
| 9+9+12+12 | 2000 | 2000 | 2650 | 2650 | 9300 (3300~11000) | 2600 (900~4000) |
| 9+9+12+18 | 1900 | 1900 | 2500 | 3000 | 9300 (3300~11000) | 2600 (900~4000) |
| 9+12+12+12 | 1900 | 2450 | 2450 | 2450 | 9300 (3300~11000) | 2600 (900~4000) |
| 9+12+12+18 | 1900 | 2300 | 2300 | 2800 | 9300 (3300~11000) | 2600 (900~4000) |
| 9+9+18+18 | 1900 | 1900 | 2750 | 2750 | 9300 (3300~11000) | 2600 (900~4000) |
| 12+12+12+12 | 2320 | 2320 | 2320 | 2320 | 9300 (3300~11000) | 2600 (900~4000) |

# Console Inverter

## ECHC-D 09 to 18

**A complete range from 2.6 kW to 5.3 kW**

NEW

## Features

- Inverter DC compressor
- Air outlet at top or bottom
- 7 fan speeds
- 8°C Heating mode
- Horizontal and vertical air sweep function
- Wide angle air distribution
- Service valve protection cover
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- 7 fan speeds
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

YORK
BY JOHNSON CONTROLS

# Console Inverter

## ECHC-D 09 to 18

## Technical features

| Set reference | | | ECHC-D | | |
|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **ECKC 09 DS** | **ECKC 12 DS** | **ECKC 18 DS** |
| **Outdoor unit** | | **Sizes** | **ECJC 09 DS** | **ECJC 12 DS** | **ECJC 18 DS** |
| Cooling capacity | | kW | 2.6 (0.5 - 3.2) | 3.5 (0.6 - 4.0) | 5.3 (0.9 - 5.6) |
| Heating capacity | | kW | 3.3 (0.5 - 3.8) | 4.0 (0.6 - 4.7) | 5.5 (0.9 - 6.6) |
| Compressor | | Type | Rotary | | |
| Refrigerant | | | R410A | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 | | |
| Power input | cooling | kW | 0.76 | 1.08 | 1.63 |
| | heating | kW | 0.91 | 1.10 | 1.52 |
| EER | | | 3.42 | 3.26 | 3.23 |
| COP | | | 3.63 | 3.61 | 3.62 |
| Energy Class | cooling | | A | A | A |
| | heating | | A | A | A |
| Indoor airflow (H/M/L) | | $m^3/h$ | 430 / 370 / 280 | 520 / 440 / 360 | 620 / 500 / 410 |
| Sound pressure at 1 m | Indoor (H/M/L) | dB(A) | 38 / 33 / 25 | 40 / 37 / 32 | 46 / 41 / 35 |
| | Outdoor | dB(A) | 51 | 51 | 56 |
| Dimensions | Indoor | H (mm) | 600 | 600 | 600 |
| | | W (mm) | 700 | 700 | 700 |
| | | D (mm) | 215 | 215 | 215 |
| | Outdoor | H (mm) | 540 | 540 | 700 |
| | | W (mm) | 848 | 848 | 955 |
| | | D (mm) | 320 | 320 | 396 |
| Net weight | Indoor unit | kg | 15 | 15 | 15 |
| | Outdoor unit | kg | 33 | 33 | 49 |
| Piping | Type of connection | | Flare | | |
| | Diameter | Gas | 3/8" | 3/8" | 1/2" |
| | | Liquid | 1/4" | 1/4" | 1/4" |
| Refrigerant charge | | g | 1 000 | 1 050 | 1 230 |
| Pipe run | Length | m | 15 | 15 | 25 |
| | Height | m | 10 | 10 | 10 |
| Operating limits - cooling mode | | min/max | +10°C / +50°C | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | |

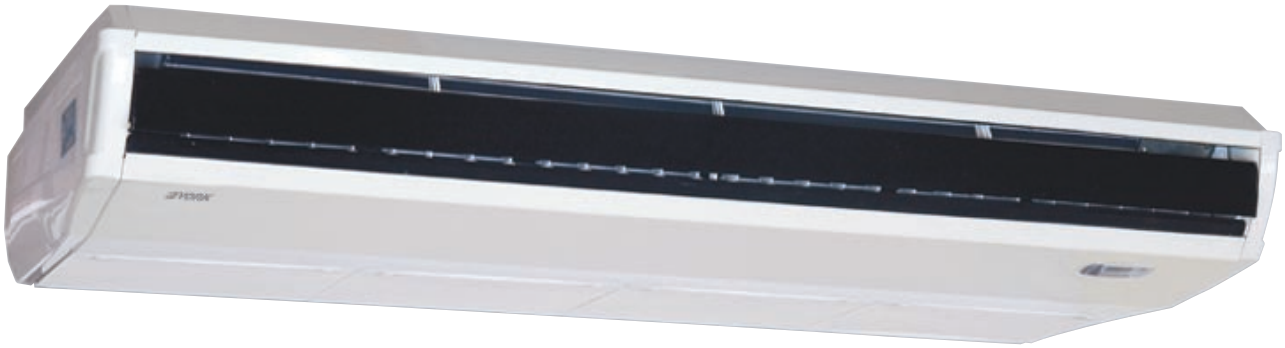
*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

# Floor/Ceiling Inverter

## EOHC-D 12 to 60 R

**A complete range from 3.4 kW to 16.0 kW**





## Features

- Inverter DC compressor
- Air filter included
- Convertible - floor or ceiling
- Horizontal and vertical air sweep function
- Wide angle air distribution
- Low Ambient Kit
- Slim profile - flush mounting
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

## Wired control (optional)

- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

# Floor/Ceiling Inverter

## EOHC-D 12 to 60 R

## Technical features

| Set reference | | | EOHC-D-R | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EOKC 12 DS** | **EOKC 18 DS** | **EOKC 24 DS** | **EOKC 30 DS** | **EOKC 36 DS** | **EOKC 42 DS** | **EOKC 48 DS** | **EOKC 60 DS** |
| **Outdoor unit** | | **Sizes** | **ENJC 12 DT** | **ENJC 18 DT** | **ENJC 24 DT** | **ENJC 30 DT** | **ENJC 36 DT** | **ENJC 42 DT** | **ENJC 48 DT** | **ENJC 60 DT** |
| Cooling capacity | | kW | 3.4 (1.6 - 3.6) | 5.3 (1.3 - 5.5) | 7.0 (3.0 - 7.8) | 8.8 (3.1 - 9.0) | 10.6 (3.5 - 13.0) | 11.9 (3.5 - 13.0) | 14.0 (5.0 - 14.3) | 16.0 (4.0 - 16.5) |
| Heating capacity | | kW | 3.8 (1.4 - 4.1) | 6.2 (1.5 - 6.6) | 8.0 (2.4 - 8.5) | 9.5 (2.7 - 9.9) | 12.0 (3.5 - 12.5) | 13.5 (3.5 - 14.2) | 16.5 (5.3 - 18.4) | 17.5 (4.5 - 18.3) |
| Compressor | | Type | Scroll | | | | | | | |
| Refrigerant | | | R410A | | | | | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 | | | | 230 / 1 / 50 or 400 / 3 / 50 | | | 400 / 3 / 50 |
| Power input | cooling | kW | 1.05 | 1.65 | 2.19 | 2.75 | 3.26 | 3.70 | 4.20 | 5.00 |
| | heating | kW | 0.92 | 1.70 | 2.22 | 2.64 | 3.16 | 3.30 | 4.40 | 4.86 |
| EER | | | 3.21 | 3.21 | 3.20 | 3.20 | 3.25 | 3.21 | 3.33 | 3.20 |
| COP | | | 4.10 | 3.61 | 3.60 | 3.60 | 3.80 | 4.09 | 3.75 | 3.60 |
| Energy Class | cooling | | A | A | A | A | A | A | A | A |
| | heating | | A | A | A | A | A | A | A | A |
| Indoor airflow (H/M/L) | | $m^3/h$ | 700/600/500 | 900/800/700 | 1200/1050/900 | 1600/1450/1300 | 2000/1630/1520 | 2000/1630/1520 | 2300/2100/1900 | 2300/2100/1900 |
| Sound pressure at 1 m | Indoor (H/M/L) | dB(A) | 39 / 37 / 35 | 45 / 42 / 39 | 52 / 49 / 46 | 50 / 48 / 46 | 54 / 51 / 48 | 54 / 51 / 48 | 58 / 55 / 52 | 58 / 55 / 52 |
| | Outdoor | dB(A) | 54 | 57 | 59 | 59 | 61 | 61 | 61 | 63 |
| Dimensions | Indoor | H (mm) | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 |
| | | W (mm) | 1 220 | 1 220 | 1 220 | 1 420 | 1 420 | 1 420 | 1 700 | 1 700 |
| | | D (mm) | 225 | 225 | 225 | 245 | 245 | 245 | 245 | 245 |
| | Outdoor | H (mm) | 540 | 700 | 790 | 790 | 1 100 | 1 100 | 1 365 | 1 365 |
| | | W (mm) | 776 | 955 | 980 | 980 | 1 107 | 1 107 | 1 085 | 1 085 |
| | | D (mm) | 320 | 396 | 427 | 427 | 440 | 440 | 427 | 427 |
| Net weight | Indoor unit | kg | 40 | 42 | 43 | 51 | 53 | 55 | 64 | 65 |
| | Outdoor unit | kg | 30 | 48 | 65 | 68 | 86 | 90 | 122 | 127 |
| Piping | Type of connection | | Flare | | | | | | | |
| | Diameter | Gas | 3/8" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" |
| | | Liquid | 1/4" | 1/4" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Refrigerant charge | | g | 1 350 | 1 400 | 2 400 | 2 600 | 3 500 | 3 800 | 4 300 | 5 500 |
| Pipe run | Length | m | 20 | 20 | 30 | 30 | 30 | 50 | 50 | 50 |
| | Height | m | 15 | 15 | 15 | 15 | 15 | 30 | 30 | 30 |
| Operating limits - cooling mode | | min/max | -10°C / +50°C | | | | | | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | | | | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*
*Sizes 36 to 48: Values for single phase models*

## Accessories

| Sizes | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 60 |
|---|---|---|---|---|---|---|---|---|
| Wired control | Optional | | | | | | | |
| Weekly timer | Optional | | | | | | | |
| Central control | Optional | | | | | | | |

# Cassette Inverter

## EKHC-D 12 to 42 R

**A complete range from 3.4 kW to 11.0 kW**

NEW

## Features

- Inverter DC compressor
- Air filter included
- Condensate pump standard
- Fresh air intake for sizes 24 to 42
- Auto restart
- Low Ambient Kit
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

## Wired control (optional)

- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

# Cassette Inverter

## EKHC-D 12 to 42 R

## Technical features

| Set reference | | | EKHC-D-R | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EKKC 12 DS** | **EKKC 18 DS** | **EKKC 24 DS** | **EKKC 30 DS** | **EKKC 36 DS** | **EKKC 42 DS** |
| **Outdoor unit** | | **Sizes** | **ENJC 12 DT** | **ENJC 18 DT** | **ENJC 24 DT** | **ENJC 30 DT** | **ENJC 36 DT** | **ENJC 42 DT** |
| Cooling capacity | | kW | 3.4 (1.6 - 3.6) | 5.3 (1.9 - 5.5) | 7.0 (2.4 - 8.3) | 8.8 (3.0 - 9.1) | 10.3 (3.0 - 11.5) | 11.0 (3.5 - 13.0) |
| Heating capacity | | kW | 3.7 (1.6 - 4.0) | 6.2 (1.5 - 6.6) | 8.7 (3.1 - 9.4) | 9.5 (2.5 - 9.9) | 11.2 (3.5 - 12.8) | 12.4 (3.8 - 14.5) |
| Compressor | | Type | Scroll | | | | | |
| Refrigerant | | | R410A | | | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 | | | | 230 / 1 / 50 or 400 / 3 / 50 | |
| Power input | Cooling | kW | 1.03 | 1.65 | 2.19 | 2.75 | 3.20 | 3.30 |
| | Heating | kW | 1.02 | 1.70 | 2.40 | 2.64 | 3.00 | 3.30 |
| EER | | | 3.30 | 3.21 | 3.20 | 3.20 | 3.22 | 3.33 |
| COP | | | 3.61 | 3.61 | 3.61 | 3.60 | 3.73 | 3.75 |
| Energy Class | Cooling | | A | A | A | A | A | A |
| | Heating | | A | A | A | A | A | A |
| Indoor airflow (H/M/L) | | $m^3/h$ | 550 / 450 / 350 | 1180 / 1080 / 1000 | 1400 / 1270 / 1170 | 1660 / 1570 / 1500 | 1660 / 1570 / 1500 | 1660 / 1570 / 1500 |
| Sound pressure at 1 m | Indoor (H/M/L) | dB(A) | 47 / 45 / 42 | 47 / 45 / 43 | 51 / 49 / 48 | 53 / 51 / 48 | 53 / 51 / 48 | 53 / 51 / 48 |
| | Outdoor | dB(A) | 54 | 57 | 59 | 59 | 61 | 61 |
| Dimensions | Indoor | H (mm) | 230 | 240 | 240 | 320 | 320 | 320 |
| | | W (mm) | 600 | 840 | 840 | 840 | 840 | 840 |
| | | D (mm) | 600 | 840 | 840 | 840 | 840 | 840 |
| | Outdoor | H (mm) | 540 | 700 | 790 | 790 | 1 100 | 1 100 |
| | | W (mm) | 776 | 955 | 980 | 980 | 1 107 | 1 107 |
| | | D (mm) | 320 | 396 | 427 | 427 | 440 | 440 |
| | Panel H / W / D | mm | 50 / 650 / 650 | 60 / 950 / 950 | 60 / 950 / 950 | 60 / 950 / 950 | 60 / 950 / 950 | 60 / 950 / 950 |
| Net weight | Indoor unit | kg | 20 | 27 | 27 | 32 | 32 | 38 |
| | Outdoor unit | kg | 30 | 48 | 65 | 68 | 86 | 90 |
| Piping | Type of connection | | Flare | | | | | |
| | Diameter | Gas | 3/8" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" |
| | | Liquid | 1/4" | 1/4" | 3/8" | 3/8" | 3/8" | 3/8" |
| Refrigerant charge | | g | 1 350 | 1 400 | 2 400 | 2 600 | 3 500 | 3 800 |
| Pipe run | Length | m | 20 | 20 | 30 | 30 | 30 | 50 |
| | Height | m | 15 | 15 | 15 | 15 | 15 | 30 |
| Operating limits - cooling mode | | min/max | -10°C / +50°C | | | | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*
*Sizes 36 and 42: values for single phase models*

## Accessories

| Sizes | 12 | 18 | 24 | 30 | 36 | 42 |
|---|---|---|---|---|---|---|
| Wired control | Optional | | | | | |
| Weekly timer | Optional | | | | | |
| Central control | Optional | | | | | |

# Blower Inverter

## EUHC-D 12 to 60 R

**A complete range from 3.5 kW to 17.0 kW**

NEW

## Features

- Inverter DC compressor
- Air filter included
- Condensate pump optional
- Fresh air intake
- Indoor unit with centrifugal fan
- Large distances between indoor and outdoor units
- Indoor units with high pressure
- Quiet operation
- Wired control
- Infrared remote control
- Low Ambient Kit
- **Blue fin protection (indoor and outdoor units)**

## Wired control

- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- Air flow direction setting
- LCD display

YORK
BY JOHNSON CONTROLS

# Blower Inverter

## EUHC-D 12 to 60 R

## Technical features

| Set reference | | | EUHC-D-R | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EUKC 12 DT** | **EUKC 18 DT** | **EUKC 24 DT** | **EUKC 30 DT** | **EUKC 36 DT** | **EUKC 42 DT** | **EUKC 48 DT** | **EUKC 60 DT** |
| **Outdoor unit** | | **Sizes** | **ENJC 12 DT** | **ENJC 18 DT** | **ENJC 24 DT** | **ENJC 30 DT** | **ENJC 36 DT** | **ENJC 42 DT** | **ENJC 48 DT** | **ENJC 60 DT** |
| Cooling capacity | | kW | 3.5 (1.6 - 3.6) | 5.3 (1.6 - 5.8) | 7.0 (2.0 - 7.7) | 8.2 (2.7 - 8.3) | 10.3 (3.5 - 11.5) | 11.0 (3.5 - 13.0) | 14.0 (4.9 - 14.1) | 17.0 (4.0 - 17.5) |
| Heating capacity | | kW | 3.8 (1.6 - 4.0) | 6.2 (1.4 - 6.5) | 7.5 (2.4 - 8.0) | 8.8 (2.0 - 9.3) | 11.5 (3.8 - 12.8) | 12.4 (3.8 - 14.5) | 16.5 (5.3 - 18.3) | 18.0 (5.0 - 18.8) |
| Compressor | | Type | Scroll | | | | | | | |
| Refrigerant | | | R410A | | | | | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 | | | | 230 / 1 / 50 or 400 / 3 / 50 | | | 400 / 3 / 50 |
| Power input | cooling | kW | 1.07 | 1.65 | 2.19 | 2.56 | 3.20 | 3.42 | 4.36 | 5.30 |
| | heating | kW | 0.97 | 1.70 | 2.08 | 2.44 | 3.06 | 3.43 | 4.50 | 5.00 |
| EER | | | 3.25 | 3.21 | 3.20 | 3.20 | 3.21 | 3.21 | 3.21 | 3.20 |
| COP | | | 3.90 | 3.61 | 3.60 | 3.61 | 3.75 | 3.61 | 3.67 | 3.60 |
| Energy Class | cooling | | A | A | A | A | A | A | A | A |
| | heating | | A | A | A | A | A | A | A | A |
| Indoor airflow (H/M/L) | | $m^3/h$ | 840/740/640 | 1000/800/600 | 1600/1400/1200 | 1500/1300/1100 | 2300/2110/1850 | 2300/2110/1850 | 2500/2300/2100 | 3150/2900/2600 |
| External static pressure | | Pa | 60 | 60 | 80 | 80 | 150 | 150 | 150 | 150 |
| Sound pressure at 1 m | Indoor (H/M/L) | dB(A) | 37 / 35 / 33 | 45 / 42 / 39 | 47 / 44 / 42 | 47 / 44 / 42 | 53 / 50 / 46 | 53 / 50 / 46 | 53 / 50 / 46 | 54 / 51 / 48 |
| | Outdoor | dB(A) | 54 | 57 | 59 | 59 | 61 | 61 | 61 | 63 |
| Dimensions | Indoor | H (mm) | 266 | 266 | 268 | 268 | 290 | 290 | 330 | 385 |
| | | W (mm) | 980 | 980 | 1 270 | 1 270 | 1 226 | 1 226 | 1 226 | 1 463 |
| | | D (mm) | 721 | 721 | 530 | 530 | 775 | 775 | 815 | 799 |
| | Outdoor | H (mm) | 540 | 700 | 790 | 790 | 1 100 | 1 100 | 1 365 | 1 365 |
| | | W (mm) | 776 | 955 | 980 | 980 | 1 107 | 1 107 | 1 085 | 1 085 |
| | | D (mm) | 320 | 396 | 427 | 427 | 440 | 440 | 427 | 427 |
| Net weight | Indoor unit | kg | 34 | 34 | 37 | 36 | 57 | 57 | 64 | 87 |
| | Outdoor unit | kg | 30 | 48 | 65 | 68 | 86 | 90 | 122 | 127 |
| Piping | Type of connection | | Flare | | | | | | | |
| | Diameter | Gas | 3/8" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 3/4" |
| | | Liquid | 1/4" | 1/4" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" |
| Refrigerant charge | | g | 1 350 | 1 400 | 2 400 | 2 600 | 3 500 | 3 800 | 4 300 | 5 500 |
| Pipe run | Length | m | 20 | 20 | 30 | 30 | 30 | 50 | 50 | 50 |
| | Height | m | 15 | 15 | 15 | 15 | 15 | 30 | 30 | 30 |
| Operating limits - cooling mode | | min/max | -10°C / +50°C | | | | | | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | | | | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*
*Sizes 36 to 48: Values for single phase models*

## Accessories

| Sizes | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 60 |
|---|---|---|---|---|---|---|---|---|
| Condensate pump | Optional | | | - | Optional | | | - |
| Weekly timer | Optional | | | | | | | |
| Central control | Optional | | | | | | | |

# Minisplit On/Off Systems

HIGH WALL UNITS

MULTISPLITS

CASSETTE, FLOOR/CEILING & BLOWER UNITS

WINDOW UNITS

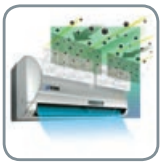
Johnson Controls

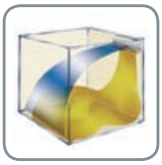
# High Wall On/Off

## EACC-EAHC 09 to 24 FS-R

**A complete range from 2.6 kW to 6.2 kW**

NEW



## Features

- Low noise levels
- Class A
- Automatic restart
- ON/OFF timer
- Automatic air sweep
- Service valve protection cover
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer setting function
- Air flow direction setting
- LCD display


YORK
BY JOHNSON CONTROLS

# High Wall On/Off

## EACC-EAHC 09 to 24 FS-R

## Technical features

| Set reference | | | EACC / EAHC FS-R | | | |
|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EAEC / EAKC 09** | **EAEC / EAKC 12** | **EAEC / EAKC 18** | **EAEC / EAKC 24** |
| **Outdoor unit** | | **Sizes** | **EADC / EAJC 09** | **EADC / EAJC 12** | **EADC / EAJC 18** | **EADC / EAJC 24** |
| Cooling capacity | | kW | 2.6 | 3.2 | 4.7 | 6.2 |
| Heating capacity | | kW | 2.8 | 3.5 | 4.9 | 6.5 |
| Compressor | | Type | Rotary | | | |
| Refrigerant | | | R410A | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | | |
| Power input | cooling | kW | 0.82 | 1.00 | 1.46 | 1.90 |
| | heating | kW | 0.77 | 0.97 | 1.43 | 1.90 |
| EER | | | 3.21 | 3.22 | 3.22 | 3.24 |
| COP | | | 3.61 | 3.61 | 3.43 | 3.42 |
| Energy Class | cooling | | A | A | A | A |
| | heating | | A | A | B | B |
| Indoor airflow (high speed) | | $m^3/h$ | 400 | 400 | 750 | 780 |
| Sound pressure at 1 m | Indoor (L/M/H) | dB(A) | 32 / 35 / 37 | 32 / 35 / 38 | 37 / 41 / 45 | 38 / 41 / 45 |
| | Outdoor | dB(A) | 50 | 52 | 55 | 56 |
| Dimensions | Indoor | H (mm) | 255 | 265 | 298 | 298 |
| | | W (mm) | 730 | 790 | 940 | 940 |
| | | D (mm) | 174 | 170 | 200 | 200 |
| | Outdoor | H (mm) | 540 | 540 | 540 | 680 |
| | | W (mm) | 785 | 798 | 848 | 913 |
| | | D (mm) | 355 | 355 | 360 | 428 |
| Net weight | Indoor unit | kg | 8 | 9 | 13 | 13 |
| | Outdoor unit | kg | 31 | 35 | 40 | 46 |
| Piping | Type of connection | | Flare | | | |
| | Diameter | Gas | 3/8" | 1/2" | 1/2" | 1/2" |
| | | Liquid | 1/4" | 1/4" | 1/4" | 1/4" |
| Refrigerant charge | | g | 760 | 840 | 1 150 | 1 450 |
| Pipe run | Length | m | 15 | 20 | 25 | 25 |
| | Height | m | 5 | 10 | 10 | 10 |
| Operating limit - cooling mode | | min./max. | +18°C / +46°C | | | |
| Operating limit - heating mode | | min./max. | -7°C / +24°C | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

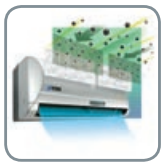
## Accessories

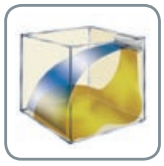
| Sizes | 09 | 12 | 18 | 24 |
|---|---|---|---|---|
| Electrostatic dedusting filter | Optional | | | |
| Silver ion filter | Optional | | | |
| Active carbon filter | Optional | | | |

# High Wall Multi Split

## EMHC 18 to 24 (2x1)

**A complete range from 5.3 kW to 7.0 kW**



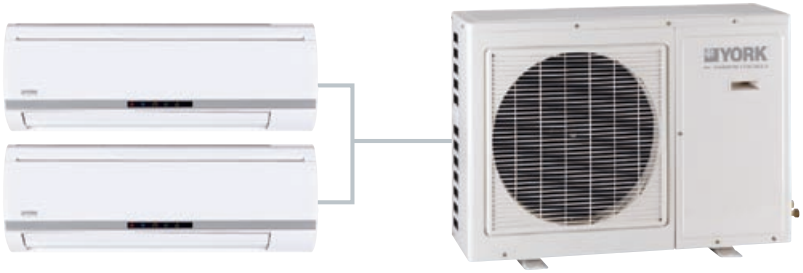


## Features

- Low noise levels
- Active carbon filter
- 2 circuits / 2 compressors running in same mode
- Automatic restart
- ON/OFF timer
- Automatic air sweep
- Service valve protection cover
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- Air flow direction setting
- LCD display



YORK
BY JOHNSON CONTROLS

# High Wall Multi Split

## EMHC 18 to 24 (2x1)

## Technical features

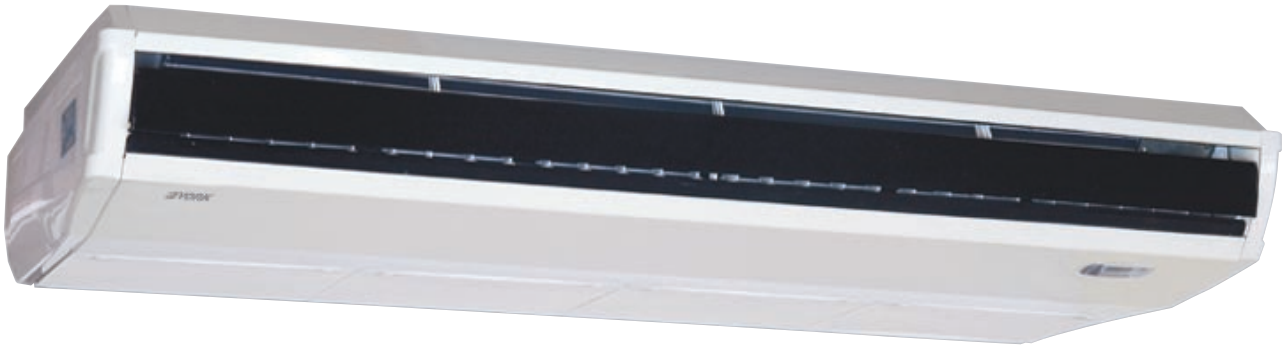
| INDOOR UNIT (9000 Btu/h) | | | 2 x EMKC 09 | 1 x EMKC 09 | |
|---|---|---|---|---|---|
| INDOOR UNIT (12000 Btu/h) | | | | 1 x EMKC 12 | 2 x EMKC 12 |
| OUTDOOR UNIT | | | EMJC 18 | EMJC 21 | EMJC 24 |
| Cooling capacity | | kW | 5.3 | 6.3 | 7.0 |
| Heating capacity | | kW | 6.0 | 7.2 | 8.8 |
| Compressor | | Type (Nb) | Rotary / 2 | | |
| Refrigerant | | | R410A | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | |
| Power input (Cooling) | | kW | 1.5 | 2.0 | 2.2 |
| Power input (Heating) | | kW | 1.7 | 2.0 | 2.2 |
| EER / COP | | | 3.3 / 3.5 | 3.2 / 3.6 | 3.2 / 3.4 |
| Energy Class (cooling/heating) | | | A / B | A / A | A / B |
| Sound pressure at 1 m (ind./out.) | | dB(A) | 25 / 54 | 25 - 31 / 55 | 32 / 58 |
| Dimensions | Indoor unit | H (mm) | 315 | 315 + 280 | 280 |
| | | W (mm) | 746 | 746 + 805 | 805 |
| | | D (mm) | 260 | 260 - 210 | 210 |
| | Outdoor unit | H (mm) | 680 | 700 | 700 |
| | | W (mm) | 913 | 1 018 | 1 018 |
| | | D (mm) | 378 | 412 | 412 |
| Net Weight (Indoor / Outdoor) | | kg | 10 / 52 | 10 + 12 / 70 | 12 / 70 |
| Piping diameter | | Gas | 2 x 3/8" | 3/8" + 1/2" | 2 x 1/2" |
| | | Liquid | 2 x 1/4" | 2 x 1/4" | 2 x 1/4" |
| Pipe run | Length | m | 2 x 15 | 2 x 15 | 2 x 15 |
| | Height | m | 2 x 8 | 2 x 8 | 2 x 8 |
| Operating limits - cooling mode | | min/max | +18°C / +46°C | | |
| Operating limits - heating mode | | min/max | -7°C / +24°C | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

# Floor/Ceiling

## EOHC 09 to 48 FS

**A complete range from 2.5 kW to 14.0 kW**



## Features

- Convertible – floor or ceiling
- Horizontal and vertical air sweep function
- Wide angle air distribution
- Slim profile – flush mounting
- Low Ambient Kit
- Service valve protection cover
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

## Wired control (optional)

- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

# Floor/Ceiling

## EOHC 09 to 48 FS

## Technical features

| Set reference | | | EOHC | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EOKC 09 FS** | **EOKC 12 FS** | **EOKC 18 FS** | **EOKC 24 FS** | **EOKC 36 FS** | **EOKC 42 FS** | **EOKC 48 FS** |
| **Outdoor unit** | | **Sizes** | **ENJC 09 FS** | **ENJC 12 FS** | **ENJC 18 FS** | **ENJC 24 FS** | **ENJC 36 FS** | **ENJC 42 FS** | **ENJC 48 FS** |
| Cooling capacity | | kW | 2.5 | 3.5 | 5.2 | 7.2 | 10.0 | 12.0 | 14.0 |
| Heating capacity | | kW | 2.8 | 3.9 | 5.7 | 8.0 | 11.0 | 14.0 | 15.5 |
| Compressor | | Type | Rotary | | | | Scroll | | |
| Refrigerant | | | R410A | | | | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | | | 400 / 3 / 50 + E + N | | |
| Power input | cooling | kW | 0.89 | 1.23 | 1.80 | 2.50 | 3.50 | 4.50 | 5.70 |
| | heating | kW | 0.98 | 1.29 | 2.00 | 2.59 | 3.30 | 4.70 | 5.80 |
| EER | | | 2.81 | 2.85 | 2.89 | 2.88 | 2.86 | 2.67 | 2.46 |
| COP | | | 2.85 | 3.02 | 2.85 | 3.09 | 3.33 | 2.98 | 2.67 |
| Energy Class | cooling | | C | C | C | C | C | D | F |
| | heating | | D | D | D | D | C | D | E |
| Fuse rating | | A | 25 | 25 | 25 | 25 | 16 | 16 | 16 |
| Indoor airflow (high speed) | | $m^3/h$ | 550 | 600 | 700 | 1 170 | 1 800 | 1 800 | 2 000 |
| Sound pressure at 1 m | Indoor (H/M/L) | dB(A) | 45 / 42 / 39 | 46 / 42 / 38 | 54 / 50 / 46 | 50 / 48 / 46 | 54 / 51 / 48 | 54 / 51 / 48 | 58 / 55 / 52 |
| | Outdoor | dB(A) | 54 | 56 | 56 | 59 | 58 | 60 | 63 |
| Dimensions | Indoor | H (mm) | 695 | 695 | 695 | 600 | 695 | 695 | 695 |
| | | W (mm) | 836 | 836 | 836 | 1 300 | 1 590 | 1 590 | 1 590 |
| | | D (mm) | 238 | 238 | 238 | 188 | 238 | 238 | 238 |
| | Outdoor | H (mm) | 540 | 540 | 540 | 700 | 840 | 1 250 | 1 250 |
| | | W (mm) | 848 | 848 | 848 | 1 018 | 1 018 | 950 | 950 |
| | | D (mm) | 320 | 320 | 320 | 412 | 412 | 412 | 412 |
| Net weight | Indoor unit | kg | 27 | 27 | 27 | 32 | 42 | 42 | 42 |
| | Outdoor unit | kg | 30 | 40 | 40 | 59 | 90 | 112 | 112 |
| Piping | Type of connection | | Flare | | | | | | |
| | Diameter | Gas | 1/2" | 1/2" | 1/2" | 5/8" | 3/4" | 3/4" | 3/4" |
| | | Liquid | 1/4" | 1/4" | 1/4" | 3/8" | 1/2" | 1/2" | 1/2" |
| Refrigerant charge | | g | 1 100 | 1 000 | 1 500 | 2 200 | 3 200 | 3 550 | 3 800 |
| Pipe run | Length | m | 20 | 20 | 20 | 30 | 50 | 50 | 50 |
| | Height | m | 15 | 15 | 15 | 15 | 30 | 30 | 30 |
| Operating limits - cooling mode | | min/max | -10°C / +43°C | | | | | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | | | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

## Accessories

| **Sizes** | **09** | **12** | **18** | **24** | **36** | **42** | **48** |
|---|---|---|---|---|---|---|---|
| Wired control | Optional | | | | | | |
| Weekly timer | Optional | | | | | | |
| Central control | Optional | | | | | | |

# Cassette

## EKHC 12 to 48 FS

**A complete range from 3.5 kW to 14.2 kW**

## Features

- Condensate pump
- Fresh air intake for sizes 24 to 42
- 3 fan speeds
- 600 x 600 mm (size 12 & 18)
- Auto restart
- Low noise operation
- Low Ambient Kit
- Rustproof casing
- **Blue fin protection (indoor and outdoor units)**

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

## Wired control (optional)

- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

# Cassette

## EKHC 12 to 48 FS

## Technical features

| Set reference | | | EKHC | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EKKC 12 FS** | **EKKC 18 FS** | **EKKC 24 FS** | **EKKC 36 FS** | **EKKC 42 FS** | **EKKC 48 FS** |
| **Outdoor unit** | | **Sizes** | **ENJC 12 FS** | **ENJC 18 FS** | **ENJC 24 FS** | **ENJC 36 FS** | **ENJC 42 FS** | **ENJC 48 FS** |
| Cooling capacity | | kW | 3.5 | 5.3 | 7.0 | 10.0 | 12.0 | 14.2 |
| Heating capacity | | kW | 3.6 | 5.7 | 7.5 | 11.0 | 14.0 | 15.5 |
| Compressor | | Type | Rotary | | | Scroll | | |
| Refrigerant | | | R410A | | | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | | 400 / 3 / 50 + E | | |
| Power input | Cooling | kW | 1.15 | 1.85 | 2.50 | 3.50 | 4.60 | 5.40 |
| | Heating | kW | 1.10 | 1.75 | 2.50 | 3.40 | 4.80 | 5.80 |
| EER | | | 3,04 | 2,86 | 2,80 | 2,86 | 2,61 | 2,63 |
| COP | | | 3,27 | 3,26 | 3,00 | 3,24 | 2,92 | 2,67 |
| Energy Class | Cooling | | B | C | C | C | D | D |
| | Heating | | C | C | D | C | D | E |
| Indoor airflow | | $m^3/h$ | 550 | 550 | 1 180 | 1 660 | 1 660 | 1 660 |
| Sound pressure at 1 m | Indoor (H/M/L) | dB(A) | 47 / 45 / 43 | 47 / 45 / 43 | 47 / 45 / 43 | 53 / 51 / 48 | 53 / 51 / 48 | 53 / 51 / 48 |
| | Outdoor | dB(A) | 56 | 56 | 59 | 60 | 60 | 63 |
| Dimensions | Indoor | H (mm) | 230 | 230 | 260 | 320 | 320 | 320 |
| | | W (mm) | 600 | 600 | 840 | 840 | 840 | 840 |
| | | D (mm) | 600 | 600 | 840 | 840 | 840 | 840 |
| | Outdoor | H (mm) | 540 | 540 | 700 | 840 | 1 250 | 1 250 |
| | | W (mm) | 848 | 848 | 1 018 | 1 018 | 950 | 950 |
| | | D (mm) | 320 | 320 | 412 | 412 | 412 | 412 |
| | Panel H/W/D | mm | 50 / 650 / 650 | 50 / 650 / 650 | 60 / 950 / 950 | 60 / 950 / 950 | 60 / 950 / 950 | 60 / 950 / 950 |
| Net weight | Indoor unit | kg | 20 | 20 | 30 | 38 | 38 | 38 |
| | Outdoor unit | kg | 32 | 40 | 59 | 90 | 112 | 112 |
| Piping | Type of connection | | Flare | | | | | |
| | Diameter | Gas | 1/2" | 1/2" | 5/8" | 3/4" | 3/4" | 3/4" |
| | | Liquid | 1/4" | 1/4" | 3/8" | 1/2" | 1/2" | 1/2" |
| Refrigerant charge | | g | 1 000 | 1 500 | 2 200 | 3 200 | 3 550 | 3 800 |
| Max pipe run | Length | m | 20 | 20 | 30 | 50 | 50 | 50 |
| | Height | m | 15 | 15 | 15 | 30 | 30 | 30 |
| Operating limits - cooling mode | | min/max | -10°C / +43°C | | | | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

## Accessories

| Sizes | 12 | 18 | 24 | 36 | 42 | 48 |
|---|---|---|---|---|---|---|
| Wired control | Optional | | | | | |
| Weekly timer | Optional | | | | | |
| Central control | Optional | | | | | |

# Blower

## EUHC 12 to 60 FT

**A complete range from 3.5 kW to 16.0 kW**

## Features

- Air filter included
- Condensate pump optional
- Fresh air intake
- Indoor unit with centrifugal fan
- Large distances between indoor and outdoor units
- Indoor units with high pressure
- Quiet operation
- Wired control
- Infrared remote control
- Low Ambient Kit
- **Blue fin protection (indoor and outdoor units)**

## Wired control

- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- LCD display

## Remote controller

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep mode
- Room temperature setting
- Fan speed selection
- Timer
- Air flow direction setting
- LCD display

# Blower

## EUHC 12 to 60 FT

## Technical features

| Set reference | | | EUHC | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Indoor unit** | | **Sizes** | **EUKC 12 FT** | **EUKC 18 FT** | **EUKC 24 FT** | **EUKC 36 FT** | **EUKC 42 FT** | **EUKC 48 FT** | **EUKC 60 FT** |
| **Outdoor unit** | | **Sizes** | **ENJC 12 FS** | **ENJC 18 FS** | **ENJC 24 FS** | **ENJC 36 FS** | **ENJC 42 FS** | **ENJC 48 FS** | **ENJC 60 FS** |
| Cooling capacity | | kW | 3.5 | 5.2 | 7.0 | 10.2 | 12.2 | 14.0 | 16.0 |
| Heating capacity | | kW | 3.6 | 5.7 | 8.0 | 11.2 | 14.0 | 15.5 | 18.5 |
| Compressor | | Type | Rotary | | | Scroll | | | |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | | 400 / 3 / 50 + E + N | | | |
| Power input | cooling | kW | 1.1 | 1.85 | 2.60 | 3.70 | 4.80 | 5.80 | 6.30 |
| | heating | kW | 1.1 | 1.75 | 2.50 | 3.50 | 4.90 | 5.40 | 6.00 |
| EER | | | 3.18 | 2.81 | 2.69 | 2.76 | 2.54 | 2.47 | 2.54 |
| COP | | | 3.27 | 3.26 | 3.20 | 3.20 | 2.86 | 2.87 | 3.08 |
| Energy Class | cooling | | B | C | D | D | E | E | E |
| | heating | | C | C | C | C | D | D | D |
| Indoor airflow | | $m^3/h$ | 600 | 840 | 1 400 | 2 000 | 2 000 | 2 300 | 2 500 |
| External static pressure | | Pa | 25 | 40 | 80 | 150 | 150 | 150 | 150 |
| Sound pressure at 1 m | Indoor | dB(A) | 40 / 38 / 36 | 42 / 40 / 38 | 44 / 42 / 40 | 50 / 48 / 46 | 50 / 48 / 46 | 50 / 48 / 46 | 53 / 50 / 48 |
| | Outdoor | dB(A) | 56 | 56 | 59 | 60 | 60 | 63 | 64 |
| Dimensions | Indoor | H (mm) | 220 | 266 | 268 | 290 | 290 | 290 | 330 |
| | | W (mm) | 913 | 1 012 | 1 270 | 1 251 | 1 251 | 1 251 | 1 251 |
| | | D (mm) | 680 | 736 | 504 | 744 | 744 | 744 | 788 |
| | Outdoor | H (mm) | 540 | 540 | 700 | 840 | 1 250 | 1 250 | 1 250 |
| | | W (mm) | 848 | 848 | 1 018 | 1 018 | 950 | 950 | 950 |
| | | D (mm) | 320 | 320 | 412 | 412 | 412 | 412 | 412 |
| Net weight | Indoor unit | kg | 27 | 36 | 37 | 57 | 57 | 57 | 66 |
| | Outdoor unit | kg | 32 | 40 | 59 | 90 | 112 | 112 | 123 |
| Piping | Type of connection | | Flare | | | | | | |
| | Diameter | Gas | 1/2" | 1/2" | 5/8" | 3/4" | 3/4" | 3/4" | 3/4" |
| | | Liquid | 1/4" | 1/4" | 3/8" | 1/2" | 1/2" | 1/2" | 1/2" |
| Refrigerant charge | | g | 1 000 | 1 500 | 2 200 | 3 200 | 3 550 | 3 800 | 5 000 |
| Pipe run | Length | m | 20 | 20 | 30 | 50 | 50 | 50 | 50 |
| | Height | m | 15 | 15 | 15 | 30 | 30 | 30 | 30 |
| Operating limits - cooling mode | | min/max | -10°C / +43°C | | | | | | |
| Operating limits - heating mode | | min/max | -15°C / +24°C | | | | | | |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*
*Piping length : 5 m with initial charge*

## Accessories

| Sizes | 12 | 18 | 24 | 36 | 42 | 48 | 60 |
|---|---|---|---|---|---|---|---|
| Condensate pump | Optional | | | | | | |
| Weekly timer | Optional | | | | | | |
| Central control | Optional | | | | | | |

# Window

## Y8USE 09 to 24

**A complete range from 2.6 kW to 5.0 kW**

R410A

NEW


## Features

- Super compact design
- Quiet design
- Removable and washable panel
- Infrtared control
- Drying operation
- Anti cool wind
- Golden fin condenser
- Memory function

# Window

## Y8USE 09 to 24

## Technical features

| Models | | Sizes | Y8USE 09 | Y8USE 12 | Y8USE 18 | Y8USE 24 |
|---|---|---|---|---|---|---|
| Cooling capacity | | kW | 2.8 | 3.8 | 5.3 | 6.2 |
| Heating capacity | | kW | 2.5 | 3.5 | 4.8 | 5.5 |
| Power supply | | V/Ph/Hz | 230 / 1 / 50 + E | | | |
| Refrigerant | | Type | R410A | | | |
| Power input | cooling | kW | 0.92 | 1.26 | 1.76 | 1.99 |
| | heating | kW | 0.73 | 1.02 | 1.59 | 1.83 |
| EER | | | 3.04 | 3.04 | 3.00 | 3.01 |
| COP | | | 3.42 | 3.42 | 3.00 | 3.01 |
| Indoor airflow | | $m^3/h$ | 480 | 730 | 850 | 900 |
| Sound pressure at 1 m | | dB(A) | 50 / 48 / 46 | 53 / 51 / 49 | 57 / 55 / 53 | 58 / 56 / 53 |
| Dimensions | H | mm | 375 | 428 | 428 | 428 |
| | W | mm | 560 | 660 | 660 | 660 |
| | D | mm | 618 | 700 | 770 | 770 |
| Net weight | | kg | 43 | 57 | 66 | 75 |
| Stuffing quantity 40' HQ | | Set | 342 | 225 | 205 | 195 |

*Nominal cooling capacity based on : - Indoor Air Temp. 27°C DB / 19°C WB - Outdoor Air Temp. 35°C DB*
*Nominal heating capacity based on : - Indoor Air Temp. 21°C DB - Outdoor Air Temp. 7°C DB/6°C WB*

# Information for minisplit installation

| Model | Size | Power supply | Power supply cable size ($mm^2$) | Interconnection cables (number of cables and sizes) ($mm^2$) | Maximum pipe run (m) | Maximum height (m) | Piping diameter Liquid - gas | Outdoor unit charged for a piping length of (m) | Extra refrigerant charge for every meter (gr) |
|---|---|---|---|---|---|---|---|---|---|
| **EAHC-D** | | | | | | | | | |
| High wall Inverter **EAHC-D** R410A | 09 | Indoor | 3 x 2.5 | 4 x 2.5 | 15 | 5 | 1/4 - 3/8" | 5 | 30 |
| | 12 | | | | 20 | 10 | 1/4 - 1/2" | | |
| | 18 | Outdoor | | | 25 | | | | 50 |
| | 24 | | | | | | | | |
| **EVHC-D** | | | | | | | | | |
| High wall Inverter **EVHC-D** R410A | 09 | Indoor | 3 x 2.5 | 4 x 2.5 | 15 | 5 | 1/4 - 3/8" | 5 | 30 |
| | 12 | | | | 20 | 10 | 1/4 - 1/2" | | |
| | 18 | Outdoor | | | 25 | | | | 50 |
| | 24 | | | | | | | | |
| **EACC-EAHC-FS-R** | | | | | | | | | |
| High wall On-Off **EACC-EAHC-FS-R** R410A | 09 | Indoor | 3 x 2.5 | 5 x 2.5 | 20 | 8 | 1/4 - 3/8" | 5 | 30 |
| | 12 | | | | | | 1/4 - 1/2" | | |
| | 18 | | | | | 10 | | | 50 |
| | 24 | Outdoor | 3 x 4 | 6 x 4 | | | | | |
| **EMHC** | | | | | | | | | |
| High wall Multisplit **EMHC** R410A | 18 | Outdoor | 3 x 4 | 6 x 2.5 | 15 * | 7 | 1/4 -3/8" | 5 * | 30 |
| | 21 | | | | | | | | |
| | 27 | | | | | | | | |
| | 30 | | | | | | | | |
| **ERJC** | | | | | | | | | |
| Multisplit Inverter **ERJC** R410A | 22 | Outdoor | 3 x 4 | 4 x 1.5 | 15 * | 5 * | 1/4-3/8" ( 07 & 09 ) or 1/4-1/2" (12 & 18) ** | 5 * | 40 |
| | 24 | | | | | | | | |
| | 28 | | | | | | | | |
| **ECHC-D** | | | | | | | | | |
| Console Inverter **ECHC-D** R410A | 09 | Indoor | 4 x 2.5 | 4 x 0.25 | 15 | 10 | 1/4 - 3/8" | 5 | 20 |
| | 12 | | | | | | | | |
| | 18 | | | | 25 | | 1/4 - 1/2" | | |
| **EOHC-D-R / EKHC-D-R / EUHC-D-R** | | | | | | | | | |
| Floor/Ceiling Inverter **EOHC-D-R** Cassette Inverter **EKHC-D-R** Blower Inverter **EUHC-D-R** R410A | 12 | Outdoor & Indoor | Ind: 3 x 1.5 Out: 3 x 2.5 | 4 x 0.25 | 20 | 15 | 1/4 - 3/8" | 5 | 30 |
| | 18 | | | | | | 1/4 - 1/2" | | |
| | 24 | | Ind: 3 x 2.5 Out: 3 x 4 | | 30 | | 3/8 - 5/8" | | 60 |
| | 30 | | | | | | | | |
| | 36 | | | | 50 | 30 | | | 120 |
| | 42 | | Ind: 3 x 2.5 Out: 3 x 6 | | | | | | |
| | 48 | | | | | | | | |
| | 60 | | Ind: 3 x 2.5 Out: 5 x 4 | | | | 3/8 - 1/4" | | |
| **EOHC / EKHC / EUHC** | | | | | | | | | |
| Floor/Ceiling **EOHC** Cassette **EKHC** Blower **EUHC** R410A | 09 | Outdoor & Indoor | Ind: 3 x 1.5 Out: 3 x 2.5 | 2 x 0.25 | 20 | 15 | 1/4 - 1/2" | 5 | 30 |
| | 12 | | | | | | | | |
| | 18 | | | | | | | | |
| | 24 | | Ind: 3 x 1.5 Out: 3 x 4 | | 30 | | 3/8 - 5/8" | | 60 |
| | 36 | | Ind: 3 x 1.5 Out: 3 x 6 | | 50 | 30 | 1/2 - 3/4" | | 120 |
| | 42 | | | | | | | | |
| | 48 | | Ind: 3 x 1.5 Out: 5 x 2.5 | | | | | | |
| | 60 | | | | | | | | |

* Each indoor unit ** next indoor unit

# Load calculation

| | | | | | |
|---|---|---|---|---|---|
| Customer | | Date | | Project | |
| Telephone | | Type of installation | | | |
| Adress | | | | | |

| Termical loads | | PARAMETERS | | FACTOR | | CAPACITY |
|---|---|---|---|---|---|---|
| WINDOWS | not exposed to sunlight | $m^2$ | x | 50 | = | |
| | exposed to sunlight | $m^2$ | x | 180 | = | |
| | exposed to sunlight with curtains | $m^2$ | x | 135 | = | |
| | exposed to sunlight with awnings | $m^2$ | x | 90 | = | |
| OUTDOOR WALLS | exposed to sunlight and insulated | $m^2$ | x | 9 | = | |
| | exposed to sunlight non insulated | $m^2$ | x | 23 | = | |
| | not exposed to sunlight and insulated | $m^2$ | x | 7 | = | |
| | not exposed to sunlight non insulated | $m^2$ | x | 12 | = | |
| INDOOR WALLS * | | $m^2$ | x | 10 | = | |
| CEILING OR ROOF * | insulated | $m^2$ | x | 5 | = | |
| | not insulated | $m^2$ | x | 12 | = | |
| | insulation under the roof | $m^2$ | x | 10 | = | |
| | not insulation under roof | $m^2$ | x | 24 | = | |
| FLOOR * | insulated | $m^2$ | x | 7 | = | |
| | not insulated | $m^2$ | x | 10 | = | |
| FRESH AIR | | $m^3/h$ | x | 4,5 | = | |
| PERSONS INSIDE THE ROOM | | pers. | x | 144 | = | |
| WORKING ELECTRICAL EQUIPMENT | | W | x | 1 | = | |
| **NEEDED COOLING CAPACITY** | | | | | | **W** |

* *To not consider if they are next to climatisated area.*

**Important:** This is a simplified method to obtain an approximate value of cooling capacity, as long as the climatic conditions are not extreme.
Only for cooling calculation.

# VRF Systems

YDS-C • R410A

INDOOR UNIT TYPES

Johnson Controls

# YDS Variable refrigerant flow system

## YDMH 100, 140, 252, 280, 335, 400, 450 C

**Cooling capacities 10.0 kW to 180.0 kW**


## YDS System

- Capacities from 10 to 180 kW
- Operating range of nominal power (10% - 100 %)
- Digital Scroll Technology
- Low noise levels
- High performance
- Flexible and quickly installation

## Comfort – Quality

- Cooling and heating
- Connection up to 64 indoor units per refrigeration circuit (4 outdoor units)
- Complete range in R410A
- Reduced space of ground
- Is appropriate particularly for existing buildings
- Cooling to -10°C to +48°C (outdoor temperature)
- Heating to -15°C to +30°C (outdoor temperature)

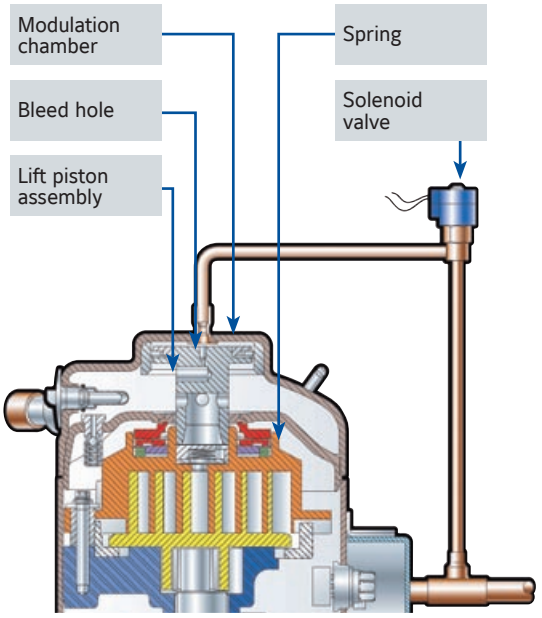
YORK
BY JOHNSON CONTROLS

# YDS Variable refrigerant flow system

## YDMH 100, 140, 252, 280, 335, 400, 450 C

## Technology of future: Digital Scroll Compressor operation

The Digital Scroll Compressor uses a simple and effective method to modulate the capacity of an AC, giving unparalleled performance in the modulation field. To modulate the capacity the Digital Scroll operates in two stages, the "loaded state" in which the compressor works as a normal Scroll compressor at full capacity and mass flow, and the "unloaded state", where there is not capacity and mass flow. During the "unloaded state" there is a separation between the scrolls. Once the scrolls separate, any gas passing through is no longer compressed. Changing the cycle time ("Loaded state" time and "Unloaded state" time) determines the capacity modulation of the compressor.




With the introduction of the third generation of the YDS systems, we offer one of the biggest capacity capabilities in the VRF market. Cooling capacity from 10 kW to 180 kW is now available. This capacity is now possible to achieve through connecting from 4 outdoor units together.
The range is based on 2 outdoor units of 10 kW and 14 kW capacity (Digital scroll compressor) and 4 basic modules of different capacities from 25.2 kW to 45 kW, each basic module including a Digital Scroll compressor and a conventional compressor.
You can connect up to 64 indoor units in one refrigerant circuit. More than 30 models are available, high walls, cassettes, duct and floor/ceiling types. The individual setting is done by infra red or wired remote control. Additionally it is possible to use a central controller.

# YDS Variable refrigerant flow system

## YDMH 100 to 900

## YDS Technical features - Single module outdoor unit

| Model | | YDMH 100C | YDMH 140C | YDMH 252C | YDMH 280C | YDMH 335C | YDMH 400C | YDMH 450C |
|---|---|---|---|---|---|---|---|---|
| Cooling capacity | kW | 10.00 | 14.00 | 25.20 | 28.00 | 33.50 | 40.00 | 45.00 |
| Heating capacity | kW | 12.00 | 16.00 | 27.00 | 31.50 | 35.00 | 43.00 | 47.00 |
| Air flow | $m^3/h$ | 6 000 | 6 000 | 10 000 | 10 000 | 10 000 | 14 000 | 14 000 |
| Noise level at 1 m | dB(A) | 55 | 55 | 58 | 58 | 58 | 60 | 60 |
| **Electrical features** | | | | | | | | |
| Power supply | | 3/N/ 400V 50Hz | | | | | | |
| Power input "cooling" | kW | 3.50 | 4.50 | 7.31 | 8.05 | 9.68 | 11.53 | 12.86 |
| Running current "cooling" | A | 8.50 | 8.50 | 12.5 | 14.60 | 17.30 | 20.20 | 23.00 |
| Power input "heating" | kW | 3.41 | 4.40 | 7.01 | 8.14 | 9.12 | 11.17 | 12.08 |
| Running current "heating" | A | 7.60 | 7.60 | 12.00 | 14.50 | 16.40 | 19.50 | 21.40 |
| Compressor | Type | Digital Scroll | | Digital Scroll and Fix Scroll | | | | |
| **Dimensions and Weight** | | | | | | | | |
| Height x Width x Length | mm | 1245 x 940 x 340 | 1245 x 940 x 340 | 1630 x 980 x 800 | | | 1630 x 1380 x 830 | |
| Weight | kg | 117 | 117 | 245 | | | 382 | |
| **Piping connections** | | | | | | | | |
| Gas | | 18mm / 3/4" | | 28mm / 1 1/8" | | | 35mm / 1 3/8" | |
| Liquid | | 10mm / 3/8" | | 12mm / 1/2" | | | 16mm / 5/8" | |
| Refrigerant charge | Type | R410A | | | | | | |
| | kg | 4.10 | 4.10 | 11.0 | 11.00 | 11.00 | 16.00 | 16.00 |
| **Piping length / Height difference** | | | | | | | | |
| Max. piping length | m | 70 | 70 | 175 | 175 | 175 | 175 | 175 |
| Max. height difference | m | 8 | 8 | 70 | 70 | 70 | 70 | 70 |
| Max. number of indoor units | | 6 | 8 | 13 | 16 | 20 | 20 | 20 |

## YDS Technical features - Outdoor units with two module combinations

| Model | | YDMH 532C | YDMH 560C | YDMH 615C | YDMH 680C | YDMH 730C | YDMH 785C | YDMH 850C | YDMH 900C |
|---|---|---|---|---|---|---|---|---|---|
| **Module combinations** | | 1x YDMH252 1x YDMH280 | 2x YDMH280 | 1x YDMH280 1x YDMH335 | 1x YDMH280 1x YDMH400 | 1x YDMH280 1x YDMH450 | 1x YDMH335 1x YDMH450 | 1x YDMH400 1x YDMH450 | 2x YDMH450 |
| Cooling capacity | kW | 53.2 | 56.00 | 61.50 | 68.00 | 73.00 | 78.50 | 85.00 | 90.00 |
| Heating capacity | kW | 58.5 | 63.00 | 66.50 | 74.50 | 78.50 | 82.00 | 90.00 | 94.00 |
| Noise level at 1 m | dB(A) | 62 | 62 | 62 | 62 | 62 | 63 | 63 | 63 |
| **Electrical features** | | | | | | | | | |
| Power supply | | | 3/N/ 400V 50Hz | | | | | | |
| Power input "cooling" | kW | 15.36 | 16.10 | 17.73 | 19.58 | 20.91 | 22.54 | 24.39 | 25.72 |
| Power input "heating" | kW | 15.15 | 16.28 | 17.26 | 19.31 | 20.22 | 21.20 | 23.25 | 24.16 |
| **Dimensions and Weight** | | | | | | | | | |
| Height x Width x Length | mm | 1630 x 1960 x 800 | | | 1630 x 2360 x 830 | | | 1630 x 2760 x 830 | |
| Weight | kg | 490 | | | 627 | | | 764 | |
| **Piping size between the outdoor unit and the first branch** | | | | | | | | | |
| Gas | | 35mm / 1 3/8" | | | | | | 42mm / 1 5/8" | |
| Liquid | | 18mm / 3/4" | | | | | | 22mm / 7/8" | |
| **Refrigerant piping** | | | | | | | | | |
| Piping 1 | | 16mm / 5/8" | | | | | | | |
| Piping 2 | | 18mm / 3/4" | | | | | | | |
| Connection between modules (out. groups) | | YDSA / RD102 | | | | | YDSA / RD103 | | |
| Max. number of indoor units | | 20 | 20 | 20 | 20 | 20 | 20 | 32 | 32 |

# YDS Variable refrigerant flow system

## YDMH 960 to 1800

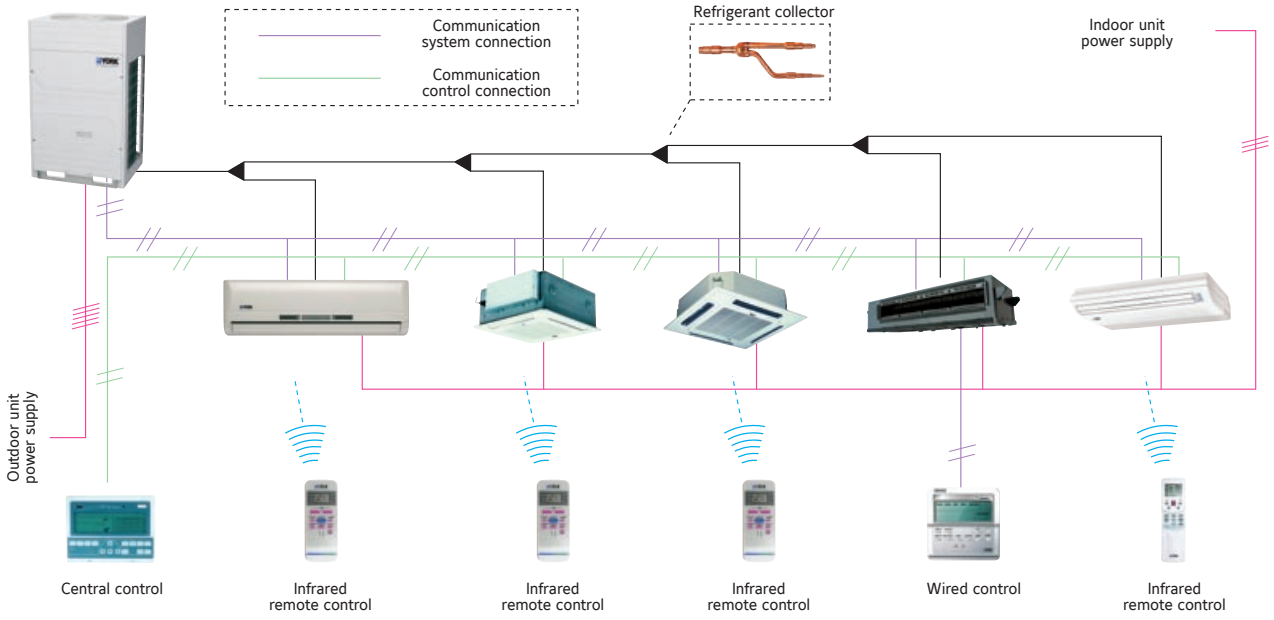
## YDS Technical features – Outdoor units with three module combinations

| Model | | YDMH 960C | YDMH 1010C | YDMH 1065C | YDMH 1130C | YDMH 1180C | YDMH 1235C | YDMH 1300C | YDMH 1350C |
|---|---|---|---|---|---|---|---|---|---|
| **Module combinations** | | **2x YDMH280 1x YDMH400** | **2x YDMH280 1x YDMH450** | **1x YDMH280 1x YDMH335 1x YDMH450** | **1x YDMH280 1x YDMH400 1x YDMH450** | **1x YDMH280 2x YDMH450** | **1x YDMH335 2x YDMH450** | **1x YDMH400 2x YDMH450** | **3x YDMH450** |
| Cooling capacity | kW | 96.00 | 101.00 | 106.50 | 113.00 | 118.00 | 122.50 | 130.00 | 135.00 |
| Heating capacity | kW | 106.00 | 110.00 | 113.50 | 121.50 | 125.50 | 129.00 | 137.00 | 141.00 |
| Noise level at 1 m | dB(A) | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| **Electrical features** | | | | | | | | | |
| Power supply | | 3/N/ 400V 50Hz | | | | | | | |
| Power input "cooling" | kW | 27.63 | 28.96 | 30.59 | 32.44 | 33.77 | 35.40 | 37.25 | 38.58 |
| Power input "heating" | kW | 27.45 | 28.36 | 29.34 | 31.39 | 32.30 | 33.28 | 35.33 | 36.24 |
| **Dimensions and Weight** | | | | | | | | | |
| Height x Width x Length | mm | 1630 x 3340 x 830 | | | 1630 x 3740 x 830 | | | 1630 x 4140 x 830 | |
| Weight | kg | 872 | | | 1.009 | | | 1.146 | |
| **Piping size between the outdoor unit and the first branch** | | | | | | | | | |
| Gas | | 42mm / 1 5/8" | | | | | | | |
| Liquid | | 22mm / 7/8" | | | | | | | |
| **Refrigerant piping** | | | | | | | | | |
| Piping 1 | | 16mm / 5/8" | | | | | | | |
| Piping 2 | | 18mm / 3/4" | | | | | | | |
| Connection between modules (out. groups) | | 1x YDSA / RD102 + 1x YDSA / RD01 | | | | | 1x YDSA / RD103 + 1x YDSA / RD01 | | |
| Max. number of indoor units | | 32 | 32 | 32 | 40 | 40 | 40 | 40 | 40 |

## YDS Technical features – Outdoor units with four module combinations

| Model | | YDMH 1405C | YDMH 1455C | YDMH 1520C | YDMH 1570C | YDMH 1630C | YDMH 1685C | YDMH 1750C | YDMH 1800C |
|---|---|---|---|---|---|---|---|---|---|
| **Module combinations** | | **3x YDMH335 1x YDMH400** | **3x YDMH335 1x YDMH450** | **2x YDMH335 1x YDMH400 1x YDMH450** | **2x YDMH335 2x YDMH450** | **1x YDMH280 3x YDMH450** | **1x YDMH335 3x YDMH450** | **1x YDMH400 3x YDMH450** | **4x YDMH450** |
| Cooling capacity | kW | 140.50 | 145.50 | 152.00 | 156.00 | 163.00 | 168.50 | 175.00 | 180.00 |
| Heating capacity | kW | 148.00 | 152.00 | 160.00 | 164.00 | 172.50 | 176.00 | 184.00 | 188.00 |
| Noise level at 1 m | dB(A) | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| **Electrical features** | | | | | | | | | |
| Power supply | | 3/N/ 400V 50Hz | | | | | | | |
| Power input "cooling" | kW | 40.57 | 41.90 | 43.75 | 45.08 | 46.63 | 48.26 | 50.11 | 51.44 |
| Power input "heating" | kW | 38.53 | 39.44 | 41.49 | 42.40 | 44.38 | 45.36 | 47.41 | 48.32 |
| **Dimensions and Weight** | | | | | | | | | |
| Height x Width x Length | mm | 1.630 x 4.320 x 830 | | 1.630 x 4.720 x 830 | | 1.630 x 5.120 x 830 | | 1.630 x 5.520 x 830 | |
| Weight | kg | 1.117 | | 1.254 | | 1.391 | | 1.528 | |
| **Piping size between the outdoor unit and the first branch** | | | | | | | | | |
| Gas | | 54mm / 2 1/8" | | | | | | | |
| Liquid | | 28mm / 1 1/8" | | | | | | | |
| **Refrigerant piping** | | | | | | | | | |
| Piping 1 | | 16mm / 5/8" | | | | | | | |
| Piping 2 | | 18mm / 3/4" | | | | | | | |
| Connection between modules (out. groups) | | 1x YDSA / RD102 + 2x YDSA / RD01 | | | | | 1x YDSA / RD103 + 2x YDSA / RD01 | | |
| Max. number of indoor units | | 50 | 50 | 50 | 50 | 50 | 64 | 64 | 64 |

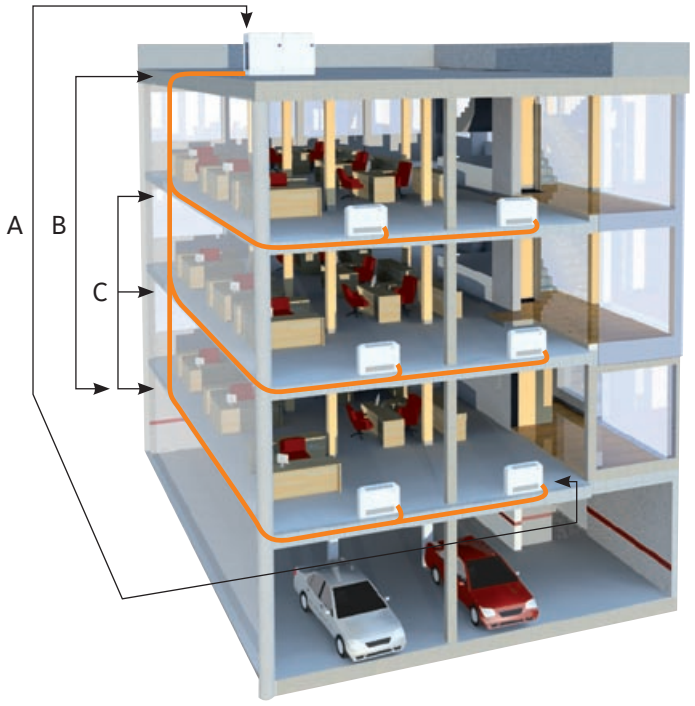
# YDS System - System Diagram




## YORK System YDS

The YORK system with Digital Scroll is working like the VRF principleand offers you economical air-conditioning system for projects, which are requiring more capacity than the normal split and multi split solutions.

The lengths for the connecting tubes between the indoor and outdoor have been prolonged, which brings you more flexible solutions for complex air-conditioning projects.

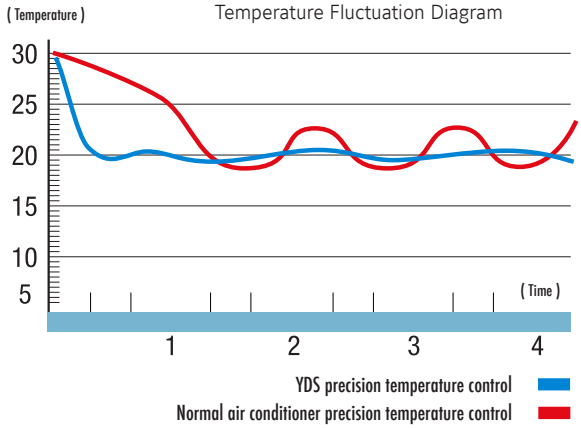



A – Real length of refrigerant piping : 150 m.
B – Maximum difference in height : 70 m.
C – Maximum difference in height between 2 indoor units : 15 m.

## Intelligent technology

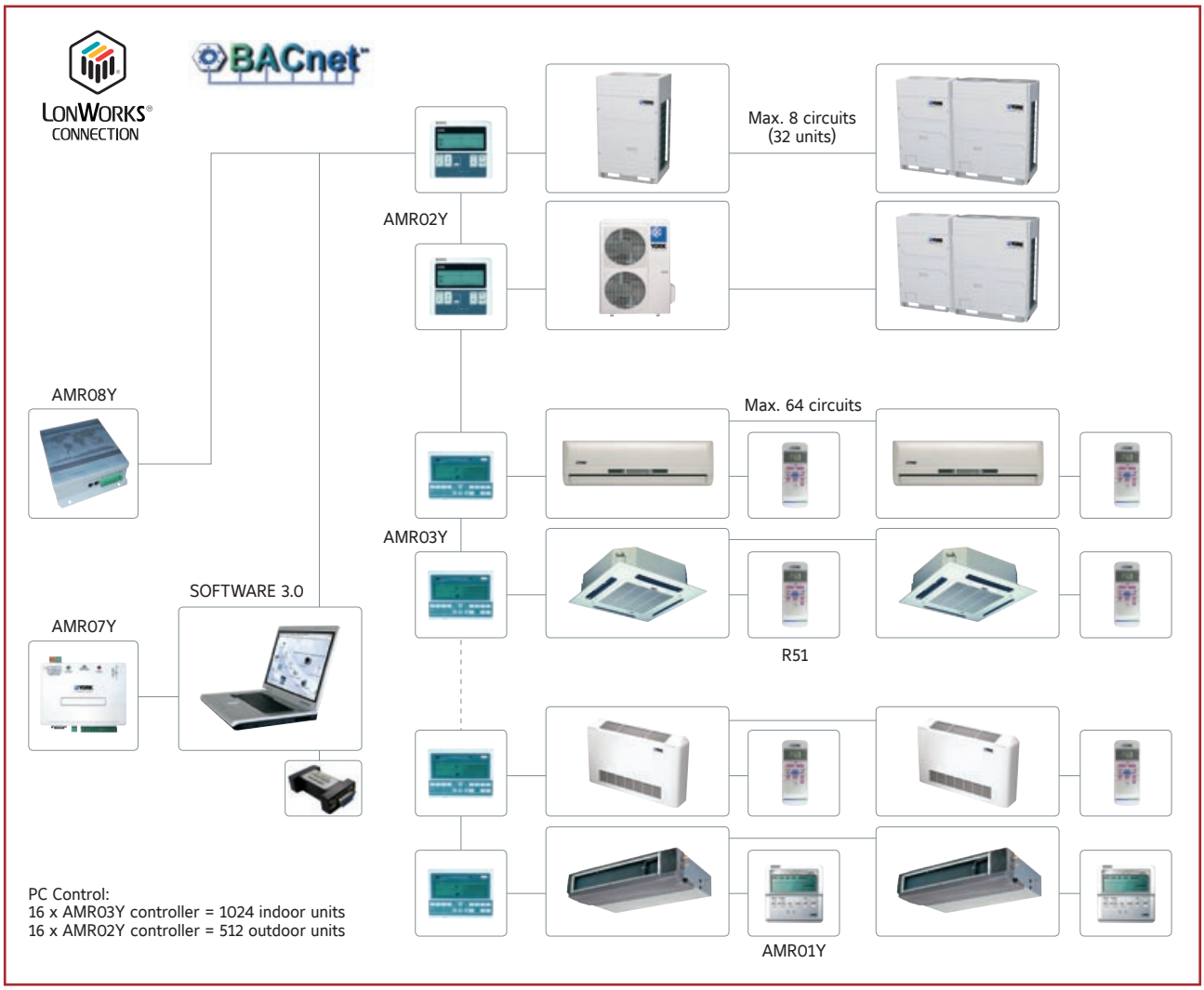
Comfortable and pleasant intelligent temperature control. The advanced temperature control system maintains the indoor ambient temperature at a precision of ± 0.5° C. This precise temperature control improves the feeling of comfort.

The different indoor units have diverse charges that are measured by the control system, and refrigerant quality distributed to each one of the indoor units is calculated and controlled by the microprocessor, so that each indoor unit may satisfy all individual needs.




## Management System YDS

It is possible to control the YDS system through the computer with the software or to connect to an overall BMS with LonWorks® or BacNet® protocols.



# YDS Technical features indoor units

## High wall

| Model | | | YDHW022C | YDHW028C | YDHW036C | YDHW045C | YDHW056C |
|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 |
| | Heating | kW | 2.6 | 3.2 | 4.0 | 5.0 | 6.3 |
| | Air flow | $m^3/h$ | 580 / 430 / 410 | | | 1 150 / 800 / 650 | |
| Noise level at 1 m | H / M / L | dB(A) | 42 / 39 / 36 | | | 46 / 43 / 39 | |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | |
| | Starting current | A | 2.2 | | | 3.2 | |
| Dimensions and Weight | H x W x D | mm | 265 x 790 x 195 | | | 292 x 920 x 225 | |
| | Weight | kg | 14 | | | 15 | |
| Piping | Gas | | 12mm / 1/2" | | | | |
| | Liquid | | 6mm / 1/4" | | | | |

## High wall (EXV integrated)

| Model | | | YDHWC022C | YDHWC028C | YDHWC036C | YDHWC045C | YDHWC056C |
|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 |
| | Heating | kW | 2.6 | 3.2 | 4.0 | 5.0 | 6.3 |
| | Air flow | $m^3/h$ | 580 / 500 / 420 | | | 900 / 760 / 650 | |
| Noise level at 1 m | H / M / L | dB(A) | 35 / 32 / 29 | | | 40 / 38 / 34 | |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | |
| | Starting current | A | 2.5 | | | 3.3 | |
| Dimensions and Weight | H x W x D | mm | 290 x 915 x 210 | | | 315 x 1070 x 210 | |
| | Weight | kg | 12 | | | 15 | |
| Piping | Gas | | 12mm / 1/2" | | | | |
| | Liquid | | 6mm / 1/4" | | | | |

## Cassette

| Model | | | YDCS022C | YDCS028C | YDCS036C | YDCS045C | YDCS056C |
|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 |
| | Heating | kW | 2.6 | 3.2 | 4.0 | 5.0 | 6.3 |
| | Air flow | $m^3/h$ | 570 / 400 | | | | |
| Noise level at 1 m | H / L | dB(A) | 38 / 35 | | | 39 / 36 | |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | |
| | Starting current | A | 3.6 | | | | |
| Dimensions and Weight | H x W x D | mm | 254 x 580 x 580 | | | | |
| | Weight | kg | 18 | 18 | 18 | 24 | 24 |
| Panel | H x W x D | mm | 30 x 650 x 650 | | | | |
| | Weight | kg | 3 | | | | |
| Piping | Gas | | 12mm / 1/2" | | | | 16mm / 5/8" |
| | Liquid | | 6mm / 1/4" | | | | 10mm / 3/8" |

## Cassette

| Model | | | YDCL056C | YDCL071C | YDCL080C | YDCL090C | YDCL112C | YDCL140C |
|---|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 5.6 | 7.1 | 8.0 | 9.0 | 11.2 | 14.0 |
| | Heating | kW | 6.3 | 8.0 | 9.0 | 10.0 | 12.5 | 15.0 |
| | Air flow | $m^3/h$ | 950 / 800 / 650 | 1 220 / 1 010 / 820 | | 1 540 / 1 300 / 1 120 | | 1 802 / 1 483 / 1 284 |
| Noise level at 1 m | H / M / L | dB(A) | 42 / 38 / 35 | 48 / 45 / 42 | | 53 / 48 / 45 | | 48 / 45 / 43 |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | | |
| | Starting current | A | 3.6 | 4.2 | | 6.0 | | |
| Dimensions and Weight | H x W x D | mm | 230 x 840 x 840 | | | 300 x 840 x 840 | | |
| | Weight | kg | 27 | 30 | | 36 | | |
| Panel | H x W x D | mm | 46 x 950 x 950 | | | | | |
| | Weight | kg | 6 | | | | | |
| Piping | Gas | | 16mm / 5/8" | | | | | |
| | Liquid | | 10mm / 3/8" | | | | | |

## Convertible console floor/ceiling

| Model | | | YDFC036C | YDFC045C | YDFC056C | YDFC071C | YDFC080C | YDFC090C | YDFC112C | YDFC140C |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 3.5 | 4.7 | 5.3 | 7.0 | 7.9 | 8.8 | 11.7 | 14.1 |
| | Heating | kW | 4.0 | 5.1 | 6.2 | 8.2 | 9.4 | 10.6 | 13.2 | 15.5 |
| | Air flow | m³/h | 650 / 570 / 500 | 800 / 600 / 500 | | | 1 400 / 1 200 / 1 000 | | 2 000 / 1 800 / 1 600 | |
| Noise level at 1 m | H / M / L | dB(A) | 43 / 41 / 38 | | | | 45 / 43 / 40 | | 47 / 45 / 42 | |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | | | | |
| | Starting current | A | 4.7 | 5.4 | | | 6.2 | | 7.7 | |
| Dimensions and Weight | H x W x D | mm | 660 x 995 x 198 | | | | 660 x 1 285 x 198 | | 680 x 1 670 x 240 | |
| | Weight | kg | 29 | | | | 37 | | 54 | |
| Piping | Gas | | 12mm / 1/2" | 16mm / 5/8" | | | | | | |
| | Liquid | | 6mm / 1/4" | 10mm / 3/8" | | | | | | |

## Floor standing

| Model | | | YDEFS022C | YDEFS028C | YDEFS036C | YDEFS045C | YDEFS56C | YDEFS071C | YDEFS080C |
|---|---|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.1 | 8.0 |
| | Heating | kW | 2.6 | 3.2 | 4.0 | 5.0 | 6.3 | 8.0 | 9.0 |
| | Air flow | m³/h | 530 / 456 / 400 | 569 / 485 / 421 | 624 / 522 / 375 | 660 / 542 / 440 | 1 150 / 970 / 830 | 1 380 / 1 100 / 870 | 1 332 / 1 212 / 1 023 |
| Noise level at 1 m | H / M / L | dB(A) | 37 / 35 / 33 | | 39 / 37 / 35 | 39 / 37 / 35 | 41 / 39 / 37 | 43 / 41 / 38 | |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | | | |
| Dimensions and Weight | H x W x D | mm | 625 / 1 000 / 220 | | 625 / 1 200 / 220 | | 625 / 1 500 / 220 | | |
| | Weight | kg | 30 | | 37 | | 44 | | |
| Piping | Gas | | 12mm / 1/2" | | | | 16mm / 5/8" | | |
| | Liquid | | 6mm / 1/4" | | | | 10mm / 3/8" | | |

## Floor standing concealed

| Model | | | YDCFS022C | YDCFS028C | YDCFS036C | YDCFS045C | YDCFS56C | YDCFS071C | YDCFS080C |
|---|---|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.1 | 8.0 |
| | Heating | kW | 2.6 | 3.2 | 4.0 | 5.0 | 6.3 | 8.0 | 9.0 |
| | Air flow | m³/h | 530 / 456 / 400 | 569 / 485 / 421 | 624 / 522 / 375 | 660 / 542 / 440 | 1 150 / 970 / 830 | 1 380 / 1 100 / 870 | 1 332 / 1 212 / 1 023 |
| Noise level at 1 m | H / M / L | dB(A) | 37 / 35 / 33 | | 39 / 37 / 35 | 39 / 37 / 35 | 41 / 39 / 37 | | |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | | | |
| Dimensions and Weight | H x W x D | mm | 544 / 840 / 212 | | 544 / 1 036 / 212 | | 544 / 1 336 / 212 | 545 / 1 336 / 212 | |
| | Weight | kg | 26 | | 29.5 | | 36 | | |
| Piping | Gas | | 12mm / 1/2" | | | | 16mm / 5/8" | | |
| | Liquid | | 6mm / 1/4" | | | | 10mm / 3/8" | | |

## Blower

| Model | | | YDDN022C | YDDN028C | YDDN036C | YDDN045C | YDDN056C | YDDN071C | YDDN080C | YDDN090C | YDDN112C | YDDN140C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 | 7.1 | 8.0 | 9.0 | 11.2 | 14.0 |
| | Heating | kW | 2.6 | 3.2 | 4.0 | 5.0 | 6.3 | 8.0 | 8.4 | 10.0 | 12.5 | 15.0 |
| | Air flow | m³/h | 570 / 400 / 320 | | | 1 160 / 1 100 / 950 | | 1 400 / 1 100 / 900 | | 1 800 / 1 500 / 1 200 | | |
| Noise level at 1 m | H / M / L | dB(A) | 34 / 32 / 30 | 35 / 33 / 31 | | 45 / 41 / 38 | | 46 / 44 / 42 | | 47 / 45 / 43 | | 48 / 46 / 44 |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | | | | | | | | |
| | Static pressure | Pa | 10 | | | 40 | | | | 70 | | |
| Dimensions and Weight | H x W x D | mm | 210 x 955 x 385 | | | 298 x 1 000 x 800 | | | | 298 x 1 350 x 800 | | |
| | Weight | kg | 15 | | | 37.2 | | | | 51.4 | | |
| Piping | Gas | | 12mm / 1/2" | | | 16mm / 5/8" | | | | | | |
| | Liquid | | 6mm / 1/4" | | | 10mm / 3/8" | | | | | | |

## High Static Pressure Blower

| Model | | | YDDH200C | YDDH250C | YDDH280C |
|---|---|---|---|---|---|
| Capacity | Cooling | kW | 20.0 | 25.0 | 28.0 |
| | Heating | kW | 22.6 | 27.5 | 31.1 |
| | Air flow | m³/h | 4 180 / 3 820 / 3 200 | | 4 400 / 3 940 / 3 300 |
| Noise level at 1 m | H / M / L | dB(A) | 61 / 58 / 55 | | |
| Electrical features | Power supply | V/Ph/Hz | 230 / 1 / 50 + N + E | | |
| | Static pressure | Pa | 196 | | |
| Dimensions and Weight | H x W x D | mm | 500 x 1 425 x 928 | | |
| | Weight | kg | 122 | | |
| Piping | Gas | | 16mm / 5/8" | | |
| | Liquid | | 10mm / 3/8" | | |

# Controllers

## Remote Controllers

### *R05 Remote Controller*

Light background, LCD display screen, clock function, ON / OFF / Temperature setting / Mode setting / Fan speed setting / Horizontal swing setting functions. Using for the Floor/Ceiling units.

### *R51 Remote Controller*

LCD display, clock function, ON / OFF / Temperature setting / Mode setting / Fan speed / Swing etc. Using for all the indoor units except Floor/Ceiling units.

## Central Control Monitor

### *AMR02Y Outdoor CCM*

Max. 32 outdoor units control.

### *AMR03Y Indoor CCM*

Max. 64 indoor units control; New mode lock function.

### *AMR09Y Indoor CCM*

Max. 64 indoor units control. New weekly timer function.

## Wired Controller

### *AMR01Y*

ON / OFF / Mode setting / Temp. setting / Fan speed / Time setting / Swing, etc.
Temp sensor built-in.

## Weekly Timer

### *AMR02M Weekly schedule timer*

Control one indoor unit.
Note: Weekly schedule timer and indoor CCM cannot be used simultaneity

## BMS Accessories

### *AMR07Y LonWorks gateway*

Matched with network CCM system (V3.0), connect to LonWorks.

### *Software 3.0*

3rd network central control system kit.

### *AMR08Y Bacnet gateway*

BACNET connection, max. connection 4 air-conditioning groups
(each group can connect max. 64 indoor units or 32 outdoor units).

# Water Systems

CHILLER AND HEAT PUMP
INDOOR WATER TERMINALS

Johnson Controls

# ECOFRIO v2 / ECOFRIO v2 Plus
# Air cooled chiller / heat pump

## YLCA 12 to 27 / YLHA 12 to 27 Plus

**A complete range from 12 kW up to 25.8 kW**

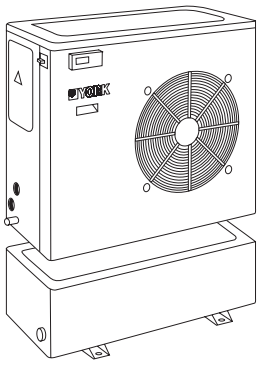

*Indoor water terminals: see page 86*

## Features

- Scroll compressor units
- Very compact units
- High efficiency units
- Leaving and return water temperature control
- Hydro pack standard
- Buffer tank supresion function
- Dynamic set point function
- Fan speed control as standard
- Coated condenser fins as standard (blue fin)
- Flow switch and water filter included

## Options / Accessories

- Condenser copper fins
- BMS Communication
- Remote control / Remote terminal
- High pressure fans
- External buffer tank
- Tray cable heater (YLHA Plus)
- Condenser protection grill




*External Buffer tank in accessories*

# ECOFRIO v2 / ECOFRIO v2 Plus

## YLCA 12 to 27 / YLHA 12 to 27 Plus

## Technical features

**T** Three phases supply **C** Hydro Pack

| Model | | | YLCA G1 | | | | YLHA PLUS G1 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 12 TC | 15 TC | 20 TC | 27 TC | 12 TC | 15 TC | 20 TC | 27 TC |
| **Performance** | Cooling capacity (1) | kW | 12.4 | 14.5 | 19.5 | 25.6 | 12 | 13,8 | 19.4 | 25.8 |
| | Total Input Power (1) | kW | 4.2 | 5.4 | 6.9 | 9,1 | 4.2 | 5.5 | 7 | 8.9 |
| | EER (1) | | 2.97 | 2.52 | 2.81 | 2.81 | 2,88 | 2,52 | 2,75 | 2,9 |
| | ESEER | | 3.20 | 2.91 | 3.24 | 3.17 | 3.08 | 2.91 | 3.17 | 3.25 |
| | Heating capacity (1) | kW | - | - | - | - | 12,4 | 16,1 | 20.9 | 27.5 |
| | Total Input Power (1) | kW | - | - | - | - | 4.2 | 5.2 | 6.6 | 8.6 |
| | COP (1) | | - | - | - | - | 3.0 | 3,12 | 3,17 | 3,2 |
| | Heating capacity (2) | kW | - | - | - | - | 12.6 | 16.4 | 20.5 | 26.8 |
| | COP (2) | | - | - | - | - | 3,86 | 4.0 | 3,79 | 3,8 |
| | Capacity steps | % | 0 / 100 | | | | | | | |
| | Sound power level | dB(A) | 73 | 73 | 74 | 78 | 73 | 73 | 74 | 78 |
| | Sound pressure level at 10 m | dB(A) | 43 | 43 | 44 | 48 | 43 | 43 | 44 | 48 |
| **Compressor** | Type | | Scroll | | | | | | | |
| | Quantity | | 1 | | | | | | | |
| **Air side heat exchanger** | Fans quantity | | 2 | | | | | | | |
| | Working ambient temp. cool / heat mode | | (5) (-18°C) -10°C ~ 46°C | | -18°C ~ 46°C | | -18°C ~ 46°C / -15°C ~ 20°C | | | |
| **Water side heat exchanger** | Type | | Plate Heat Exchanger | | | | | | | |
| | Unit water volume | Litres | 1.5 | 2 | 2.8 | 3.2 | 1.5 | 2 | 2.8 | 3.2 |
| | Pump Type | | Multi stage | | | | | | | |
| | Nominal water flow in cooling | l/h | 2 065 | 2 530 | 3 360 | 4 405 | 1 980 | 2 375 | 3 335 | 4 440 |
| | Available pressure (1) (3) | kPa | 113 | 149 | 129.5 | 182 | 116 | 157.5 | 124 | 182 |
| | Working water leaving temp. cooling/heating mode (4) | °C | -5°C to 15°C / 30°C to 50°C | | | | | | | |
| | Water connections | inch | 1" | 1 1/4" | | | 1" | 1 1/4" | | |
| **Dimensions & Weight** | Height / Width / Depth | mm | 1 270 / 905 / 460 | | 1270/1430/502 | 1270/1876/502 | 1 270 / 905 / 460 | | 1270/1430/502 | 1270/1876/502 |
| | Weight | kg | 146 | 160 | 220 | 290 | 150 | 164 | 235 | 330 |
| **Electrical features** | Voltage / Phases / Frequency | V/ph/hz | 400-3-50+N+E | | | | | | | |
| | Maximum Unit current | A | 11.6 | 15.8 | 18.1 | 23 | 11.6 | 12.4 | 15.5 | 21 |

*(1) net values at Nominal conditions (2) net values at floor heating conditions (3) with filter (4) below 6°C with glycol (5) -18°C with LAK option*
*Nominal conditions: Cooling capacities for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature*
*Heating capacities for 45°C water leaving temperature Δt 5°C and 7°C ambient temperature*
*Floor heating conditions: Heating capacities for 35°C water leaving temperature Δt 5°C and 7°C ambient temperature*

## Compatibility table / Codes

| YLCA Model | 12 TC | 15 TC | 20 TC | 27 TC |
|---|---|---|---|---|
| Cooling only units (Pack included) | S668551282 | S668551582 | S668552082 | S668552782 |

| YLHA Plus Model | 12 TC | 15 TC | 20 TC | 27 TC |
|---|---|---|---|---|
| Heat pump units (Pack included) | S668651285 | S668651585 | S668652085 | S668652785 |

*Use this unit code when a factory fitted option is NOT required*

### Accessories (Supplied loose)

| | | | | | |
|---|---|---|---|---|---|
| Water tank | 30 Liters | S613990300 | - | S613990300 | |
| | 115 Liters | - | S613991150 | - | S613991150 |
| Water tank + heater | 30 L + 4.5 kW (3~) | - | | S613990305 | - |
| | 30 L + 6 kW (3~) | - | | S613990306 | - |
| | 115 L + 10.5 kW (3~) | - | | | S613991151 |
| Remote control | | S613802011 | | | |
| Remote terminal | | S613802231 | | | |
| BMS Communication | | S613802041 | | | |
| Anti vibration mounting | | S613029001 | S613029002 | S613029001 | S613029002 |
| Compressor heater | | S613760322 | STANDARD | S613760322 | STANDARD |
| Tray cable heater | | - | | S611080788 | |

| YLCA Model | 12 TC | 15 TC | 20 TC | 27 TC |
|---|---|---|---|---|
| Cooling only units (Pack included) | S668000010 | S668000012 | S668000014 | S668000016 |

| YLHA Plus Model | 12 TC | 15 TC | 20 TC | 27 TC |
|---|---|---|---|---|
| Heat pump units (Pack included) | S6686000239 | S6686000242 | S6686000243 | S6686000244 |

*Use this unit code when a factory fitted option is required*

### Options (Factory fitted)

| | | | | | | |
|---|---|---|---|---|---|---|
| High pressure fans | S611991083 | | S611991085 | S611991083 | | S611991085 |
| Condenser protection grill | S613995085 | S61399086 | S61399087 | S613995085 | S61399086 | S61399087 |
| LAK -18°C | S613112083 | STANDARD | | | | |

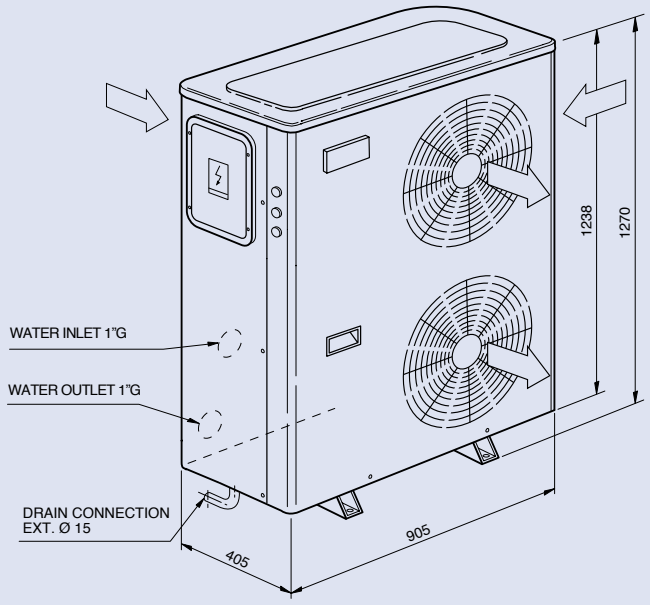




Johnson Controls

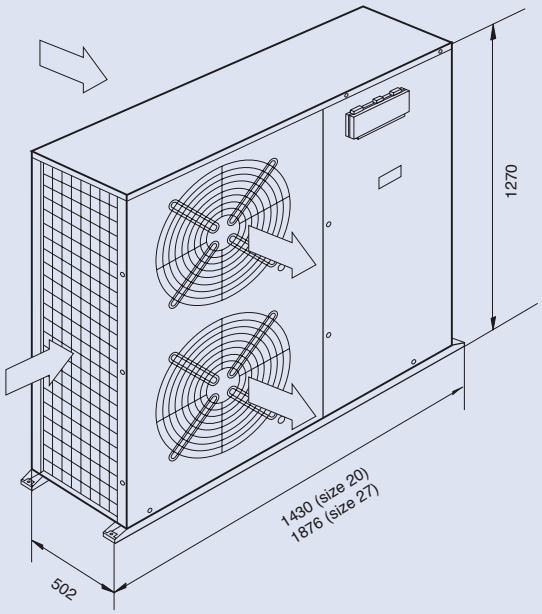
# Dimensions, hydraulic connections and space requirements

## YLCA-YLHA PLUS 12/15 TC




*All dimensions in mm. Drawings not a scale.*

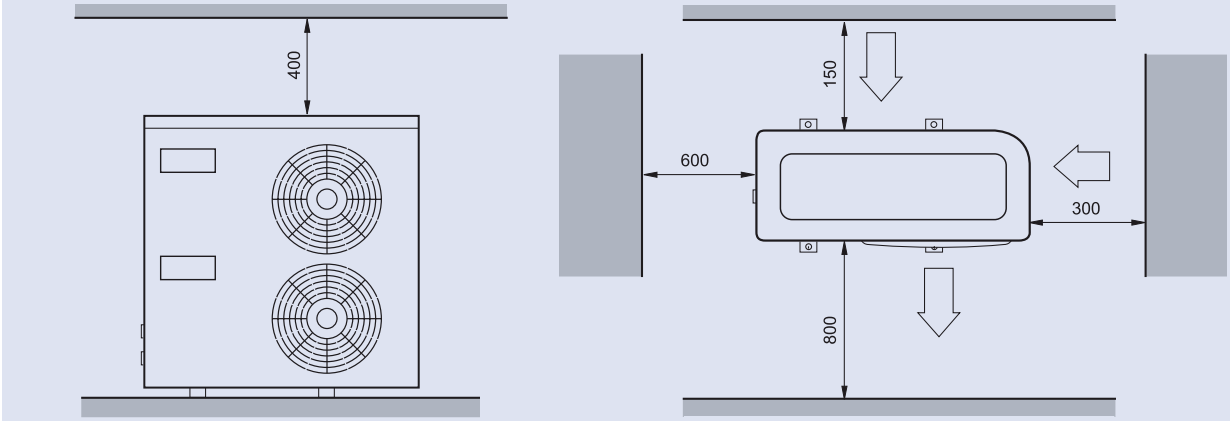
## YLCA-YLHA PLUS 20/27 TC




*All dimensions in mm. Drawings not a scale.*

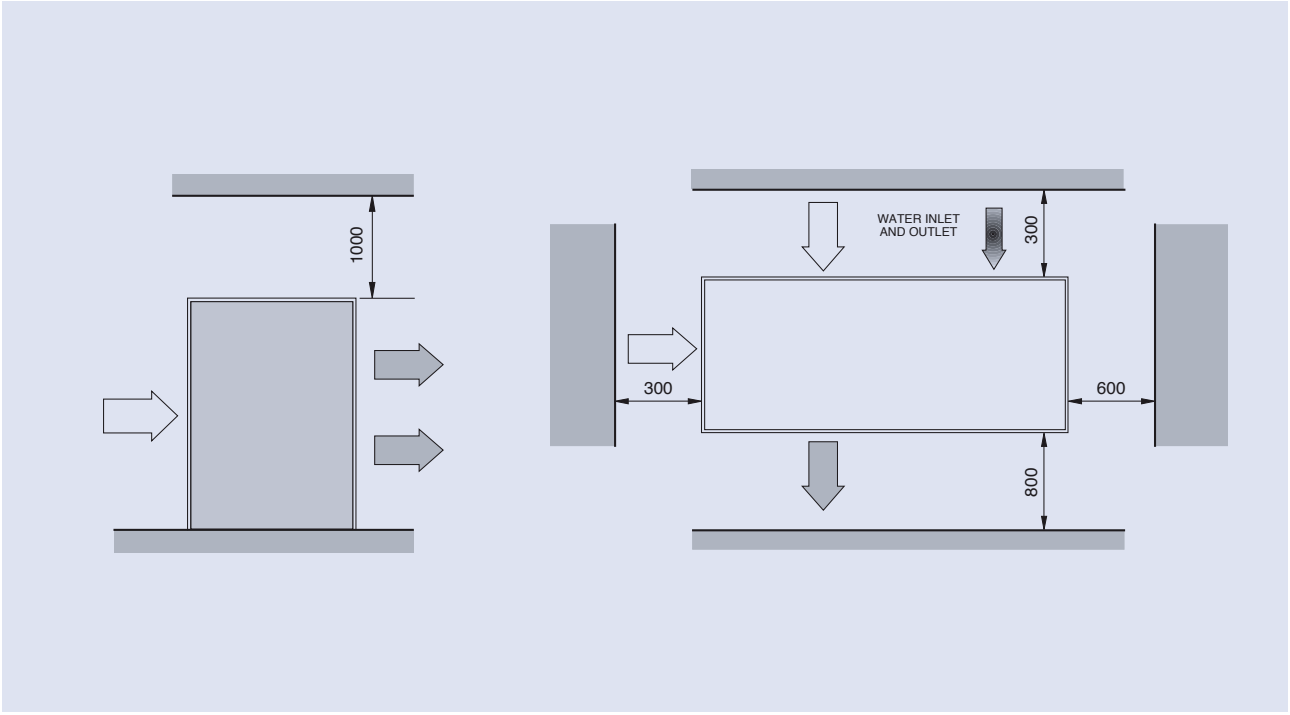
# YLCA-YLHA PLUS 12 to 27

## Models YLCA-YLHA PLUS 12/15




*All dimensions in mm. Drawings not a scale.*

## Models YLCA-YLHA PLUS 20/27




*All dimensions in mm. Drawings not a scale.*

# ECOFRIO v2
# Air cooled chiller / heat pump

## YLCA / YLHA 40 to 150
**A complete range from 39.6 kW up to 151 kW**


*Indoor water terminals: see page 86*

## Features

**YLCA/YLHA 40 to 80**
- 2 capacity steps (1 for size 40)
- LWT & RWT Control
- Hydro Pack standard
- Buffer tank integrated
- Plate heat exchanger
- Condenser fins (blue fin)
- Pressostatic LAK (-18°C)

**YLCA/YLHA 100 to 150**
- Same features as YLCA/YLHA 40 to 80
- 4 capacity steps
- High efficiency at full and partial load
- Reduced noise levels
- 1/4 turn lock for easy access

## Options / Accessories
- Unit without pack
- BMS Communication
- Remote control
- Remote terminal
- Water filter (unit without Hydro Pack)
- Flow switch (unit without Hydro Pack)
- Low noise version
- Dual pump version
- Antivibration mountings
- Condenser protection grille

# ECOFRIO v2

## YLCA / YLHA 40 to 150

## Technical features

**T** Three phases supply **P** Hydro Pack **H** Heat pump

| Model | | | YLCA / YLHA | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 40 T-TP | 50 T-TP | 60 T-TP | 80 T-TP | 100 T-TP | 120 T-TP | 150 T-TP |
| Performance | Cooling capacity c/o units (1) | kW | 39.6 | 52.1 | 60.5 | 77.6 | 98 | 119 | 151 |
| | Total Input Power (1) (3) | kW | 13.26 | 17.96 | 19.6 | 26.6 | 33.8 | 40 | 53.6 |
| | EER (1) | | 2.99 | 2.9 | 3.09 | 2.92 | 2.9 | 2.98 | 2.82 |
| | ESEER (1) | | 3.31 | 3.24 | 3.44 | 3.26 | 3.56 | 3.80 | 3.60 |
| | Cooling capacity h/p units (1) | kW | 37.8 | 52 | 60.5 | 72.2 | 96 | 114 | 145 |
| | Heating capacity h/p units (1) | kW | 38.6 | 52.5 | 59.6 | 74.7 | 104 | 119.6 | 150 |
| | Total Input Power cool/heat mode (1) | kW | 13.3 / 12.6 | 17.3 / 17.9 | 19.6 / 19.8 | 26 / 26.4 | 35.5 / 37.1 | 43.2 / 39.6 | 50.6 / 53.5 |
| | EER / COP (1) | | 2.84/3.14 | 3/2.93 | 3.09/3.01 | 2.78/2.83 | 2.7 / 2.8 | 2.64/3.02 | 2.87/2.8 |
| | ESEER (1) | | 3.30 | 3.24 | 3.44 | 3.26 | 3.65 | 3.71 | 3.7 |
| | Capacity steps | % | 0 / 100 | 0-50-100 | | | 0-25-50-75-100 | | |
| | Sound power level STD / LN | dB(A) | 81/76 | 83 / 78 | 85 / 80 | 86 / 82 | 86 / 82 | 86 / 82 | 87 / 83 |
| | Sound press. level 10 m STD / LN | dB(A) | 54 / 48 | 56 / 50 | 57 / 51 | 60 / 54 | 57 / 54 | 58 / 54 | 59 / 55 |
| Compressor | Type | | Scroll | | | | | | |
| | Quantity | | 1 | 2 | | | 4 | | |
| Air side heat exchanger | Fans quantity | | 2 | | | 3 | 4 | | |
| | Working ambient temp. cool. / heat. mode (4) | | -18°C ~ 46°C / -10°C ~ 20°C | | | | | | |
| Water side heat exchanger | Type | | Single Plate Heat Exchanger | | | | Dual Plate Heat Exchanger | | |
| | Unit water volume (2) | Litres | 131 | 188 | 194 | 285 | 193 | 195 | 214 |
| | Pump Type | | Multistage horizontal pumps | | | | | | |
| | Nominal water flow | l/h | 6 820 | 8 960 | 10 400 | 13 350 | 17 600 | 20 470 | 25 970 |
| | Available pressure (1) (2) | kPa | 105 | 108 | 158 | 123 | 187 | 202 | 186 |
| | Pressure drop (1) (3) | kPa | 75 | 40 | 51 | 61 | 54 | 32 | 27.5 |
| | Working range water leaving temperature cooling / heating (5) | | -5°C ~ 15°C / 30°C ~ 50°C | | | | | | |
| | Water connections (2) | inch | 1 1/4" | 2" | | | 2 1/2" | | |
| Dimensions & Weight | Height / Width / Depth | mm | 1573/1500/822 | 1600 / 1011 / 2104 | | 1600/1118/2944 | 2190 / 1101 / 3416 | | 2263/1101/3770 |
| | Weight without pack / pack c/o | kg | 340 / 380 | 524 / 580 | 555 / 611 | 715 / 785 | 1 124 / 1 220 | 1 190 / 1 286 | 1 415 / 1 503 |
| | Weight without pack / pack h/p | kg | 337 / 397 | 537 / 593 | 568 / 624 | 735 / 805 | 1 154 / 1 250 | 1 220 / 1 316 | 1 445 / 1 703 |
| Electrical features | Voltage / Phases / Frequency | V/ph/hz | 400 / 3 / 50+N+E | | | | | | |
| | Maximum Unit current | A | 33 | 46.2 | 49.2 | 70.5 | 80 | 108 | 120 |

*YLCA: Cooling only units models. YLHA: Air to water heat pump models.*
*(1) net values at Eurovent nominal conditions (2) version P with hydro kit with filter (3) version without hydro kit (4) -18°C with LAK option (5) below 6°C with glycol*
*Nominal conditions: Cooling capacities in kW given for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature*
*Heating capacities in kW given for 45°C water leaving temperature and 7°C ambient temperature*

## Compatibility table / Codes

| Model | 40 TP | 50 TP | 60 TP | 80 TP | 100 TP | 120 TP | 150 TP |
|---|---|---|---|---|---|---|---|
| YLCA Cooling only unit (Pack included) | S668554084 | S668525182 | S668526182 | S668528182 | S668521182 | S668551156 | S668551507 |
| YLHA Heat pump unit (Pack included) | S668654084 | S668625182 | S668626182 | S668628182 | S668621182 | S668651156 | S668651506 |

| Model | 40 T | 50 T | 60 T | 80 T | 100 T | 120 T | 150 T |
|---|---|---|---|---|---|---|---|
| YLCA Cooling only unit (without Pack) | S668554080 | S668525180 | S668526180 | S668528180 | S668521180 | S668551154 | S668551503 |
| YLHA Heat pump unit (without Pack) | S668654080 | S668625180 | S668626180 | S668628180 | S668621180 | S668651154 | S668651504 |

*Use this unit code when a factory fitted option is NOT required*

### Accessories (Supplied loose)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| AVM mounting | S613029002 | S613026080 | | S613028180 | S613021580 | | |
| Mechanical flow switch | S611992021 | | | | | | |
| Water Filter * | S611300150 | S611300170 | | | S611300190 | | |
| Remote control | S613802011 | | | | | | |
| Remote terminal | S613802231 | | | | - | | |
| Cable for remote connection of the terminal | - | | | | S613802241 | | |
| B.M.S. Communication | S613802041 | | | | S613802051 | | |

| Model | 40 TP | 50 TP | 60 TP | 80 TP | 100 TP | 120 TP | 150 TP |
|---|---|---|---|---|---|---|---|
| YLCA Cooling only unit (Pack included) | S668000226 | S668000247 | S668000251 | S668000255 | S668000259 | S668000107 | S668000111 |
| YLHA Heat pump unit (Pack included) | S668000228 | S668000248 | S668000252 | S668000256 | S668000260 | S668000131 | S668000135 |

| Model | 40 T | 50 T | 60 T | 80 T | 100 T | 120 T | 150 T |
|---|---|---|---|---|---|---|---|
| YLCA Cooling only unit (without Pack) | S668000038 | S668000245 | S668000249 | S668000253 | S668000257 | S668000105 | S668000109 |
| YLHA Heat pump unit (without Pack) | S668000039 | S668000246 | S668000250 | S668000254 | S668000258 | S668000129 | S668000133 |

*Use this unit code when a factory fitted option is required*

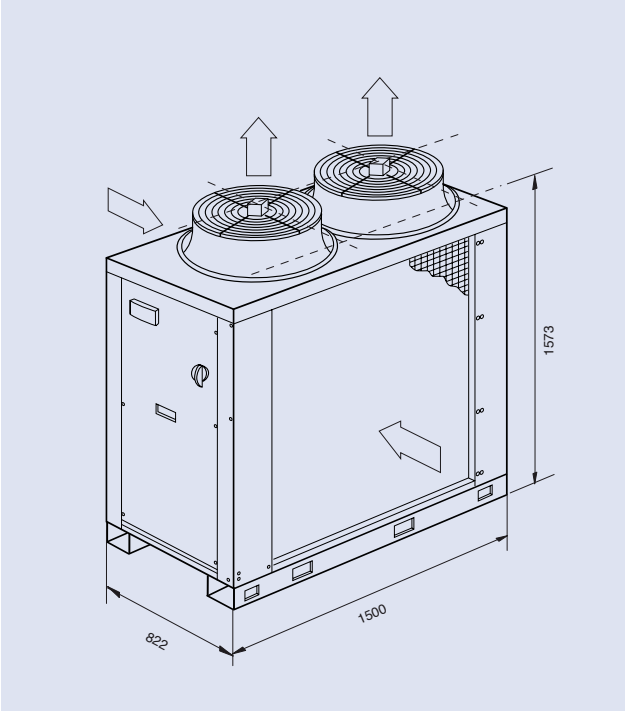
### Options (Factory fitted)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Low Noise version | NA | S613990650 | | S613990850 | S613991050 | S613991285 | S613991584 |
| Softstart | S606744692 | S606744693 | | | S606744694 | | |
| Dual pumps | NA | S613990540 | S613990640 | S613990840 | S613991040 | S613991286 | S613991585 |
| Condenser protection grille | S613995090 | S613995091 | | S613995092 | S613995093 | | S613995094 |

** included with unit version "P" only for unit without pack. Filter size: 2" for YLCA 40-50-60-80 and 2 1/2" for YLHA 100-120-150.* *NA= Not available*

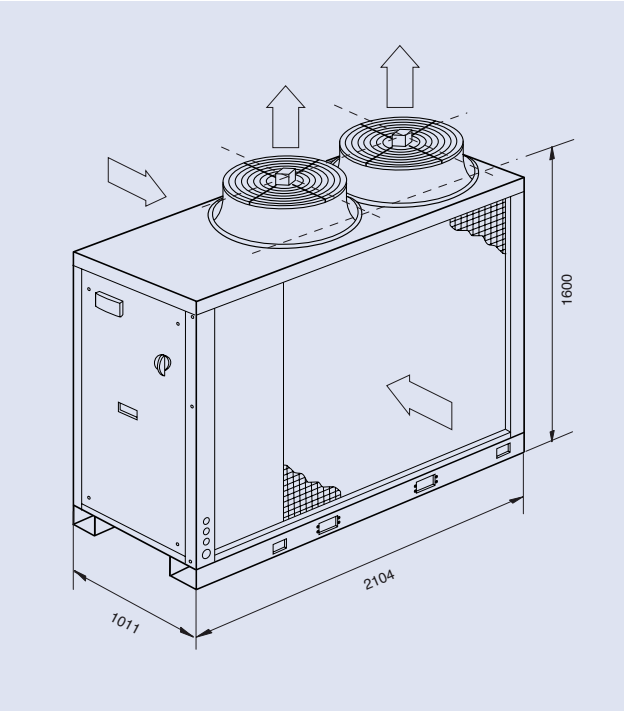
# Dimensions, hydraulic connections and space requirements

## YLCA-YLHA 40 T-TP



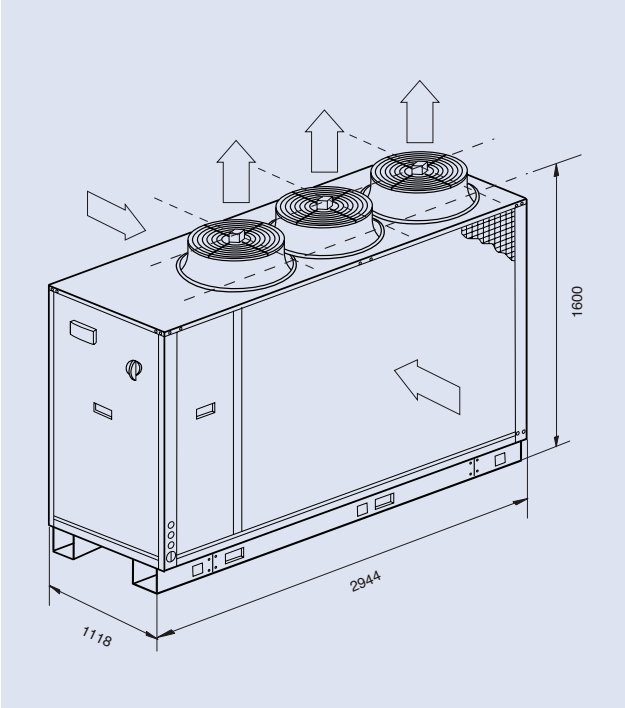

*All dimensions in mm. Drawings not a scale.*

## YLCA-YLHA 50 and 60 T-TP



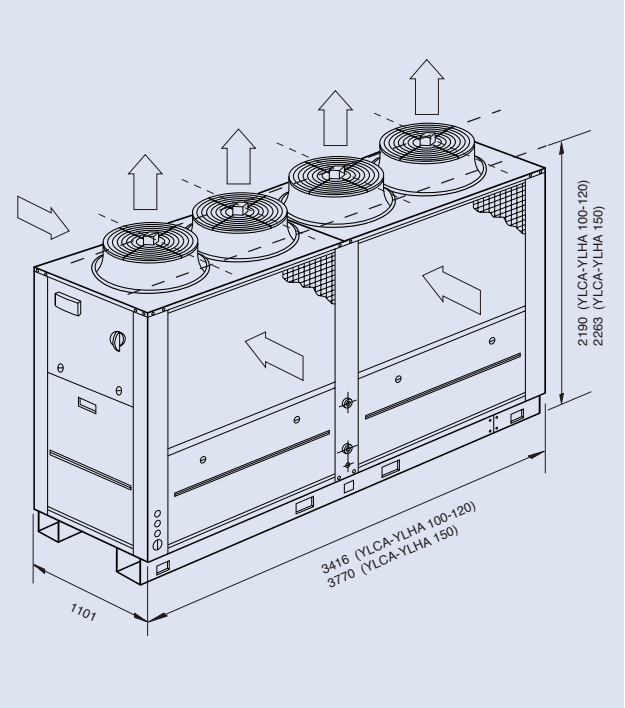

*All dimensions in mm. Drawings not a scale.*

## YLCA-YLHA 80 T-TP




*All dimensions in mm. Drawings not a scale.*

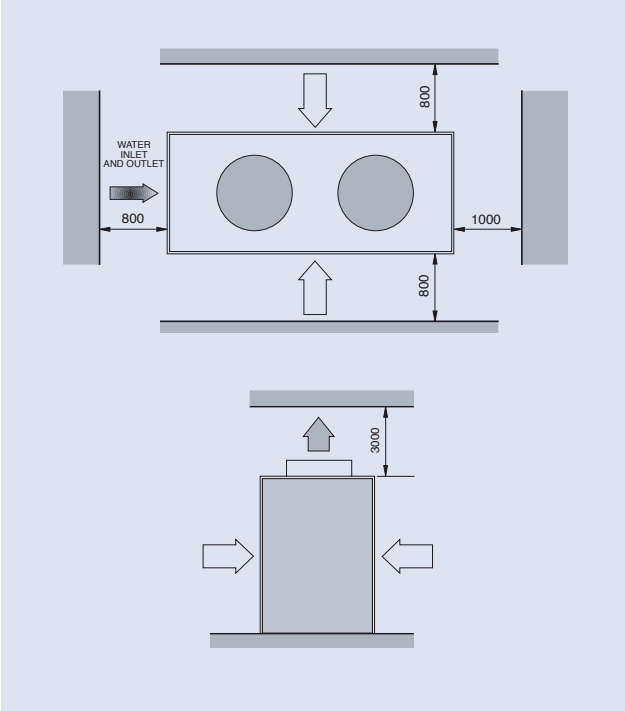
## YLCA-YLHA 100, 120 and 150 T-TP




*All dimensions in mm. Drawings not a scale.*

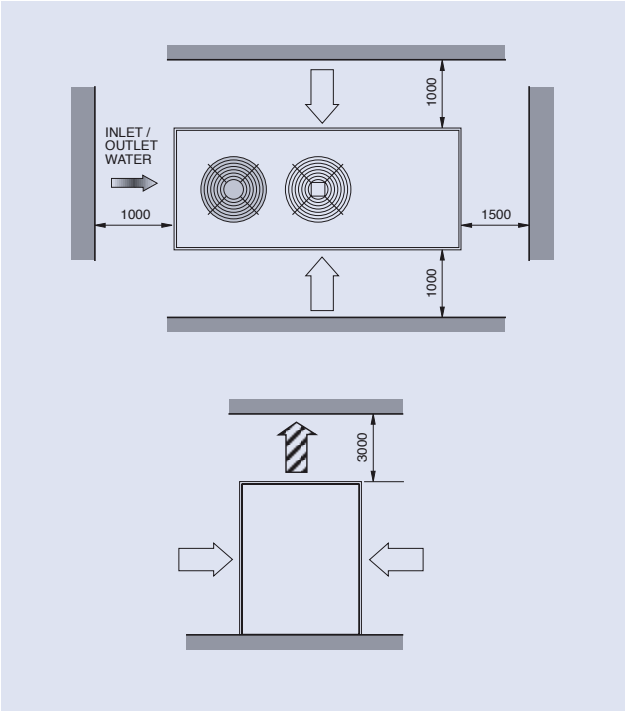
# YLCA / YLHA 40 to 150

## YLCA-YLHA 40 T-TP



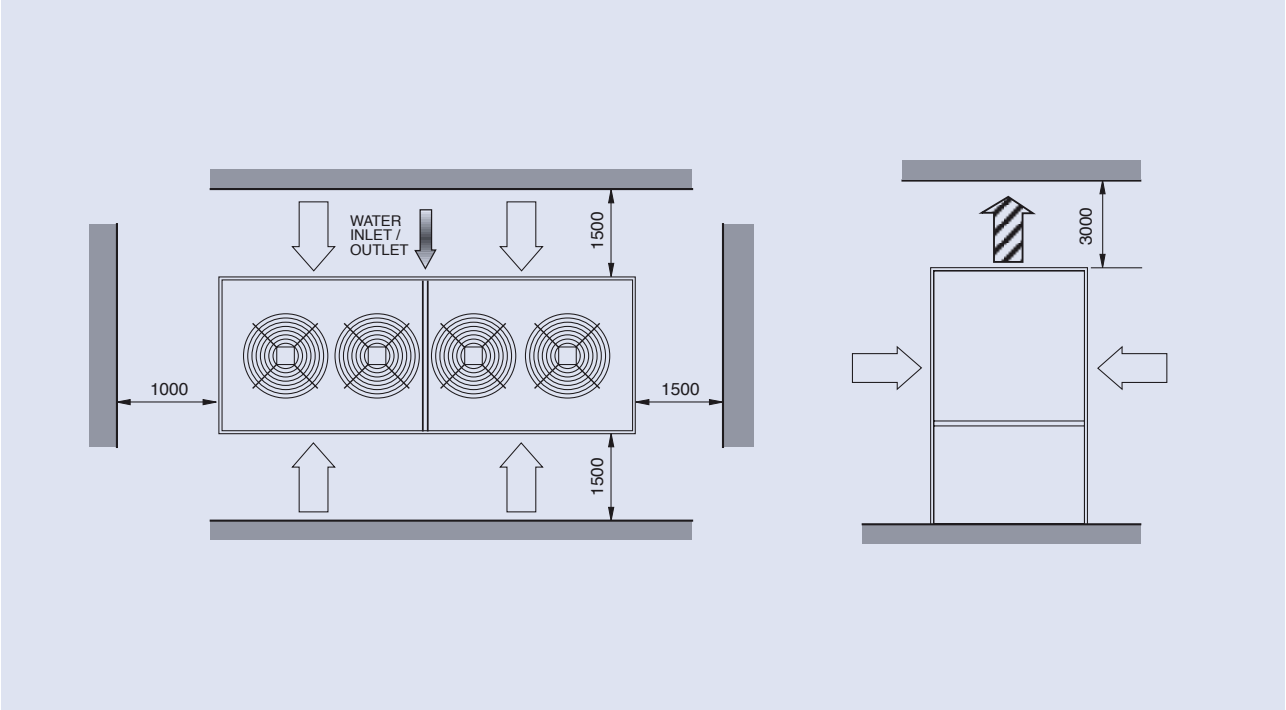

*All dimensions in mm. Drawings not a scale.*

## YLCA-YLHA 50, 60 and 80 T-TP




*All dimensions in mm. Drawings not a scale.*

## YLCA-YLHA 100, 120 and 150 T-TP




*All dimensions in mm. Drawings not a scale.*

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# HVS, Hydro Variable System
# Air cooled chiller

## YDCC522H (-C) / YDCC972H (-C) / YOCC762H (-C) / YOCC1522H (-C)

**A complete range from 15 kW up to 72 kW**


*Indoor water terminals: see page 86*

## Features

- Variable capacity compressor (10% to 100%)
- Constant water temperature
- Energy savings up to 35%
- BMS communication
- Easy selection software
- Low ambient operation standard
- Plate heat exchanger, no buffer tank needed
- Flexible in use
- No glycol required (split version)
- Integrated hydro kit (compact version)
- Water filter standard

## Options / Accessories

- Condenser protection grilles
- High static pressure fans
- Anticorrosion epoxy coils
- Sound attenuation
- Softstarter kit
- DX unit (split version)
- Antifreeze heater for heat exchanger
- Interface card for LON Bus
- Anti vibration mounting
- Outdoor temperature sensor
- Valve kits
- Relay box for several FCU applications
- Fan coil load identification

*Remote Central Controller*

# HVS Split & Compact version

## YDCC522H (-C) / YDCC972H (-C) / YOCC762H (-C) / YOCC1522H (-C)

## Technical features Compact version

| Models | | | YDCC 522H-C | YDCC 972H-C | YDCC 1732 H-C | YDCC 2502 H-C |
|---|---|---|---|---|---|---|
| Performance | Cooling capacity c/o units | kW | 15.0 | 28.0 | 50.0 | 72.0 |
| | Total Input Power | kW | 5 | 9 | 9.7 + 6.1 | 9.7 + 12.3 |
| | Capacity steps | % | 10 - 100 | 6 - 100 | 4 - 100 | 3 - 100 |
| | Sound pressure level at 1 m | dB(A) | 64 | 66 | 64 | 67 |
| Compressor | Type | | Digital Scroll | Digital Scroll & Scroll | Digital Scroll & 2 x Scroll | Digital Scroll & 3 x Scroll |
| | Quantity | | 1 | 2 | 3 | 4 |
| Air side heat exchanger | Fans quantity | | 1 | 2 | 2 x 2 | 2 + 3 |
| | Working ambient temperature | | -20°C~45°C | | | |
| Water side heat exchanger | Type | | Plate Heat Exchanger | | | |
| | Pump type | | Circulators (3 speeds) | | | |
| | Water flow nominal | l/h | 2 150 | 4 100 | 7 200 | 10 350 |
| | Available pressure nominal (1) | kPa | 81 | 67 | 67 | 64 |
| | Water connections | inch | 1 1/2" | 2" | 2" + 2" | 2 1/2" + 2 1/2" |
| | Water connections type | | Threated male | | | |
| Dimensions & Weight | Height | mm | 1 350 | 1 350 | 2 x 1 350 | 1 350 + 1 350 |
| | Width | mm | 780 | 780 | 2 x 780 | 2 x 780 |
| | Length | mm | 1 330 | 1 500 | 1 500 + 1 330 | 1 500 + 1 980 |
| | Weight cooling only | kg | 310 | 400 | 435 + 285 | 400 + 700 |
| Electrical supply | Voltage / Phases / Frequency | V/ph/hz | 400 / 3 / 50+N | | | |
| Combinations | | | YDCC 522H-C | YDCC 972H-C | YDCC 972H-C + YOCC 762H-C | YDCC 972H-C + YOCC 1522H-C |

## Technical features Split version

| Models | | | YDCC 522H | YDCC 972H | YDCC 1732 H | YDCC 2502 H |
|---|---|---|---|---|---|---|
| Performance | Cooling capacity c/o units | kW | 15.0 | 28.0 | 50.0 | 72.0 |
| | Total Input Power | kW | 5 | 9 | 9.7 + 6.1 | 9.7 + 12.3 |
| | Capacity steps | % | 10 - 100 | 6 - 100 | 4 - 100 | 3 - 100 |
| | Sound pressure level at 1 m | dB(A) | 58 | 59 | 62 | 63 |
| Compressor | Type | | Digital Scroll | Digital Scroll & Scroll | Digital Scroll & 2 x Scroll | Digital Scroll & 3 x Scroll |
| | Quantity | | 1 | 2 | 3 | 5 |
| Air side heat exchanger | Fans quantity | | 1 | 2 | 2 x 2 | 2 + 3 |
| | Working ambient temperature | | -20°C~45°C | | | |
| Refrigerant side | Refrigerant connections | mm | 12 / 22 | 16 / 28 | 2 x 16 / 28 | 16 / 28 + 22 / 42 |
| | Max refrigerant piping length | m | 20 | | | |
| | Max height difference | m | 5 | | | |
| Water side (Transformer Box) | Pump type | | Circulators (3 speeds) | | | |
| | Available pressure nominal (1) | kPa | 81 | 67 | 67 | 64 |
| | Water connections (Threated male) | inch | 1 1/2" | 2" | 2" + 2" | 2 1/2" + 2 x 2" |
| Dimensions & Weight | H / W / L | mm | 1350 x 780 x 1330 | 1350 x 780 x 1500 | 1350 x 780 x 2850 | 1350 x 780 x 3500 |
| | Weight cooling only | kg | 250 | 325 | 325 + 280 | 325 + 550 |
| Electrical supply | Voltage / Phases / Frequency | V/ph/hz | 400 / 3 / 50+N | | | |
| Combinations | | | YDCC 522 H | YDCC 972 H | YDCC 972 H + YOCC 762 H | YDCC 972 H + YOCC 1522 H |

*Nominal cooling capacity based on: leaving water temperature: +7°C - Ambient air temperature: 35°C DB* *(1) At nominal water flow*

## Technical features Transformer boxes

| Models | | | YTBC | | | |
|---|---|---|---|---|---|---|
| | | | 522 | 972 | 1732 | 2502 |
| Cooling capacities | Total capacity | kW | 15.0 | 28.0 | 50.0 | 72.0 |
| | Water flow | l/h | 2150 | 4100 | 7200 | 10350 |
| Sound pressure level at 3 m free field | | dB(A) | 35 | 35 | 40 | 40 |
| Electrical characteristics | Power supply | V/Ph/Hz | 220 - 240 / 1 / 50 | | 400 / 3 / 50 | |
| | Power input -nominal | W | 270 | 350 | 1100 | 1100 |
| | Running current - nominal | A | 1.8 | 2.0 | 3.1 | 3.1 |
| Dimensions | Heigth | mm | 1000 | 1000 | 1200 | 1200 |
| | Width | mm | 800 | 800 | 1000 | 1000 |
| | Depth | mm | 300 | 300 | 300 | 300 |
| Net weight | | kg | 80 | 95 | 150 | 170 |
| Refrigerant piping connections | Diameter (nominal) | mm | 12 / 22 | 16 / 28 | 2 x 16 / 28 | 3 x 16 / 28 |

*Nominal cooling capacity based on: Leaving water temperature: +6° C*
*Horizontal Transformer Boxes available upon request, for more information contact to Johnson Controls.*





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## Compatibility table / Codes

| System | | 15 kW | 28 kW | 50 kW | 72 kW |
|---|---|---|---|---|---|
| Cooling only models | | YDCC 522 H (-C) | YDCC 972 H (-C) | YDCC 1732 H (-C) | YDCC 2502 H (-C) |
| **Transformer boxes (only for split version)** | | | | | |
| Cooling only models | | YTBC 522 H-V | YTBC 97 2H-V | YTBC 1732 H-V | YTBC 2502 H-V |
| Options (factory fitted) Quantity depends on combination selected. See previous table in "Combinations". | | | | | |
| **Models** | | **YDCC 522 H (-C)** | **YDCC 972 H (-C)** | **YOCC 762 H (-C)** | **YOCC 1522 H (-C)** |
| DX Cooling only units (only split model) | DX-KIT-CO | DX-KIT-CO-S | DX-KIT-CO-L | | |
| Condenser grid | CG | CGS-1 | CGL-1 | CGS-1 | Contact YORK |
| High static pressure fans | HPF | HPF-522 | HPF-972 | HPF-762 | HPF-1522 |
| Anticorrosion Epoxy coils | ACF-1 | • | • | • | • |
| Sound attenuation | CSI | CSI-522 | CSI-972 | CSI-762 | CSI-1522 |
| Softstarter kit | SSK | SSK-522 | SSK-972 | SSK-762 | SSK-1522 |
| Antifreeze heater for heat exchanger and internal piping | AFH-1 | • | • | • | • |
| Fan coil load identification * | LI-1 | • | • | With YDC_ unit | With YDC_ unit |

** The compressor is inactive when all fan coils are switched off. Operation starts again when at least one fan coil is switched on.*

Accessories (supplied loose)

| | | | | | |
|---|---|---|---|---|---|
| Remote central controller (mandatory) * | | 7004601 | | With YDC_ unit | With YDC_ unit |
| Interface card for LON Bus | LP-NET-102-000 | • | | With YDC_ unit | With YDC_ unit |
| Anti vibration mounting | | AVM2 | AVM2 | AVM2 | AVMx2 |
| Outdoor temperature sensor | OTS-1 | • | • | With YDC_ unit | With YDC_ unit |

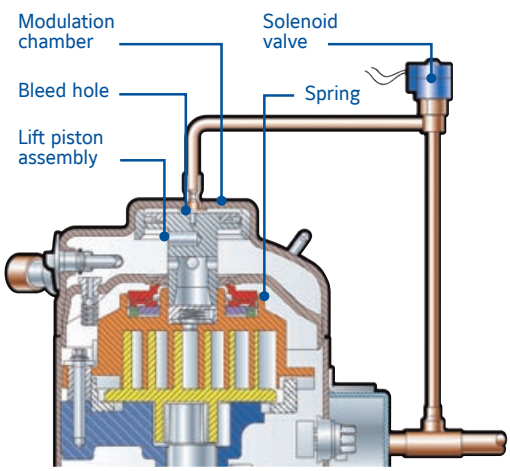
** It is mandatory to have one central controller for HVS unit*

## Recommended combinations

| Cooling capacity | YDCC522 | YDCC972 | YOCC762 | YOCC1522 | Transformer Box |
|---|---|---|---|---|---|
| 15 | 1 | | | | 1 x YTB 522 |
| 28 | | 1 | | | 1 x YTB 972 |
| 50 | | 1 | 1 | | 1 x YTB 1732 |
| 72 | | 1 | | 1 | 1 x YTB 2502 |
| 87 | 1 | 1 | | 1 | 1 x YTB 522 + 1 x YTB 2502 |
| 100 | | 2 | 2 | | 2 x YTB 1732 |
| 122 | | 2 | 3 | | 1 x YTB 1732 + 1 x YTB 2502 |
| 122 | | 2 | 1 | 1 | 1 x YTB 1732 + 1 x YTB 2502 |
| 144 | | 2 | | 2 | 2 x YTB 2502 |
| 159 | 1 | 2 | | 2 | 1 x YTB 522 + 2 x YTB 2502 |
| 172 | | 3 | | 2 | 1 x YTB 972 + 2 x YTB 2502 |
| 194 | | 3 | 5 | | 1 x YTB 1732 + 2 x YTB 2502 |
| 194 | | 3 | 1 | 2 | 1 x YTB 1732 + 2 x YTB 2502 |
| 216 | | 3 | | 3 | 3 x YTB 2502 |

# Digital Scroll Compressor

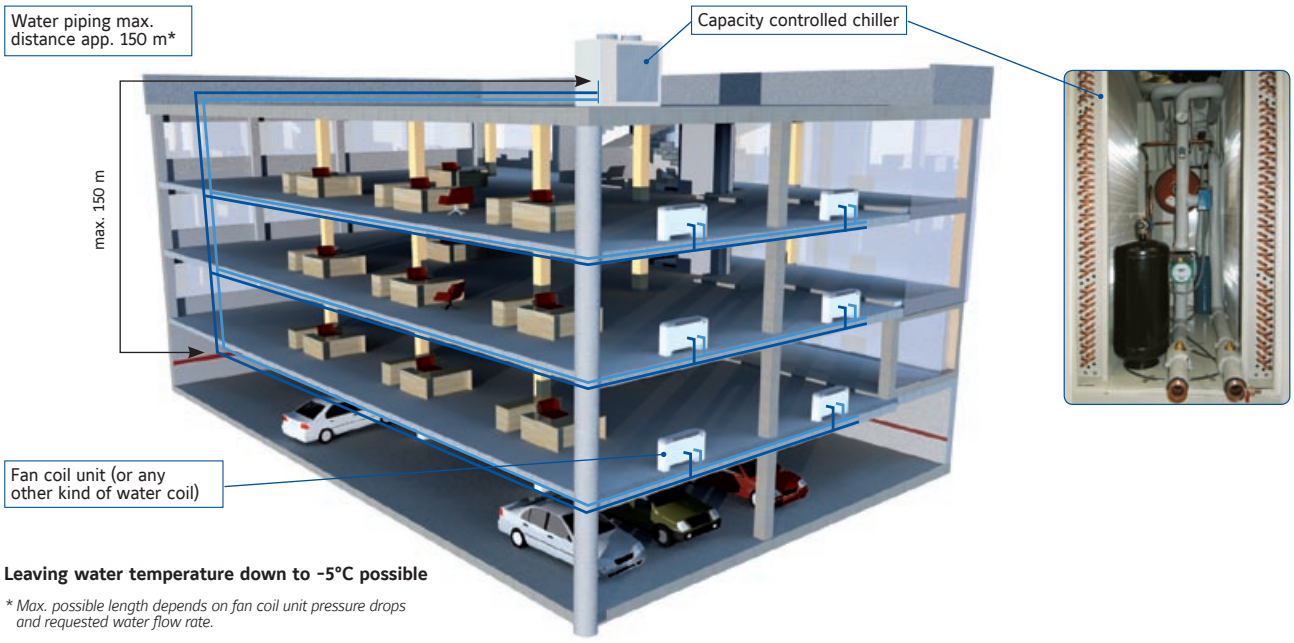
The Digital Scroll Compressor uses a simple and effective method to modulate the capacity of an AC, giving unparalleled performance in the modulation field. To modulate the capacity the Digital Scroll operates in two stages, the "loaded state" in which the compressor works as a normal Scroll compressor at full capacity and mass flow, and the "unloaded state", where there is not capacity and mass flow. During the "unloaded state" there is a separation between the scrolls. Once the scrolls separate, any gas passing through is no longer compressed. Changing the cycle time ("Loaded state" time and "Unloaded state" time) determines the capacity modulation of the compressor.



# System Diagram Compact version

The HVS-system is available as a COMPACT version.
This version is particularly designed for process cooling applications for very low brine-temperatures (down to -5°C) but is also applicable for standard AC applications.
The HVS-COMPACT serie contains all hydronic components which normally are located in the transformer box.

The hydronic components are installed between the two coils (see picture) therefore the COMPACT version provides the same dimensions as the condensing unit of the SPLIT version does.
Water connections on the rear side of the unit (see picture).




**Leaving water temperature down to -5°C possible**

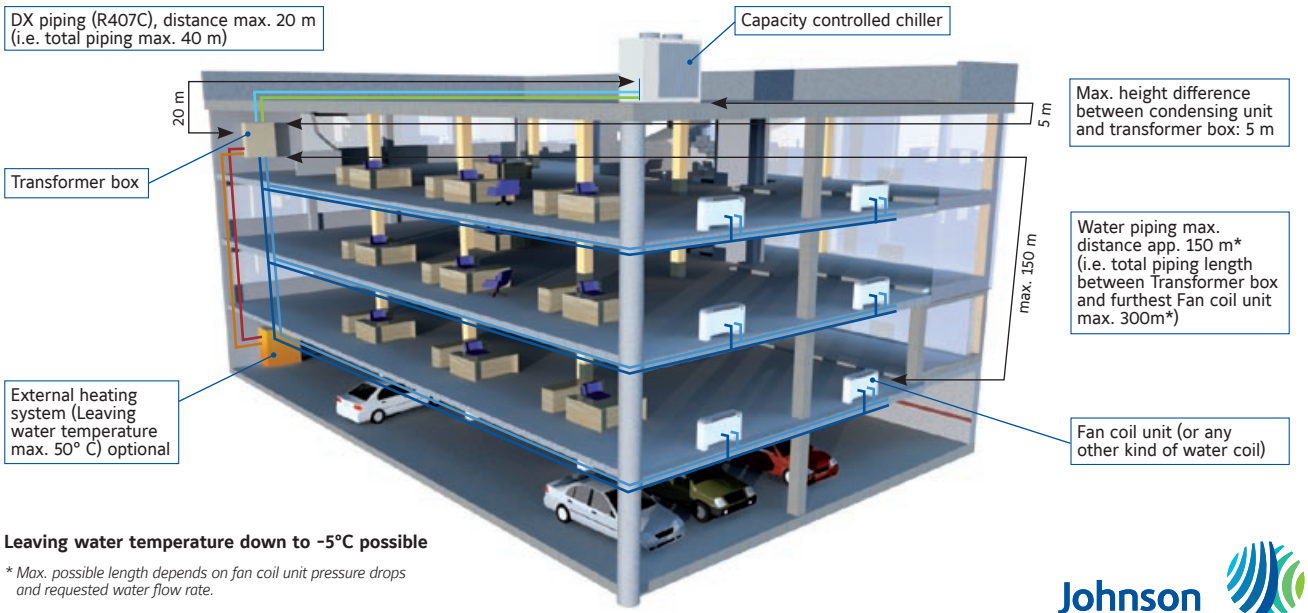
** Max. possible length depends on fan coil unit pressure drops and requested water flow rate.*

# System Diagram Split version

HVS Digital is the latest generation of YORK's Air Conditioners for cooling and heating. These units use the Digital Scroll compressor technology that allows to adequate the capacity to the cooling or heating load. Thanks to this innovative technology our products reach many advantages for our customers.

- Energy saving up to 35% compared with conventional chillers.
- High comfort because of the unit is capable to adjust the water outlet temperature in a ±0,5°C, thereby it is possible for the users enjoy always a comfortable ambient temperature.
- Absence of Electromagnetic Interference, compared with a variable speed compressor, making the system easy and less sensitve.
- High reliability, as there is not necessary to use complicates electronic devices to get the right capacity.
- Not necessary to use buffer tank, thanks to the modulation control
- Not necessary to use glycol, as it is possible to use an intermediate transformer box as a remote evaporator.

And many other advantages that you can discover by yourself using HVS units.




**Leaving water temperature down to -5°C possible**

** Max. possible length depends on fan coil unit pressure drops and requested water flow rate.*

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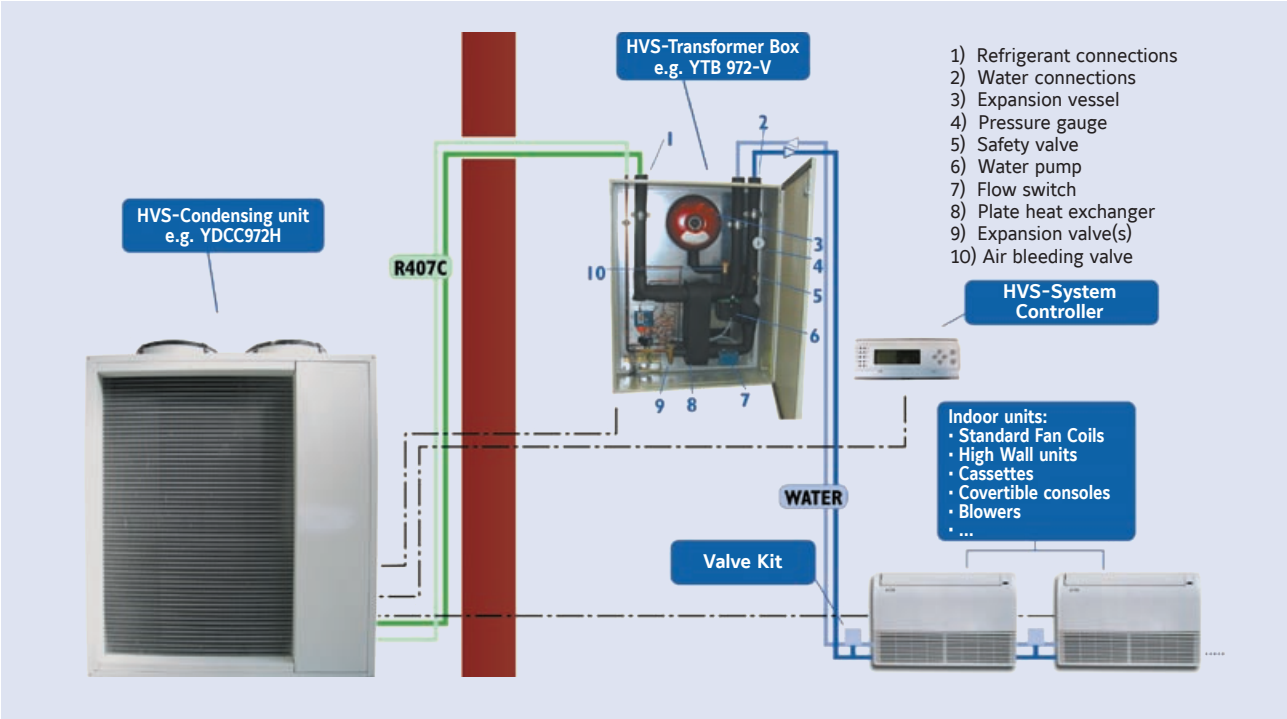
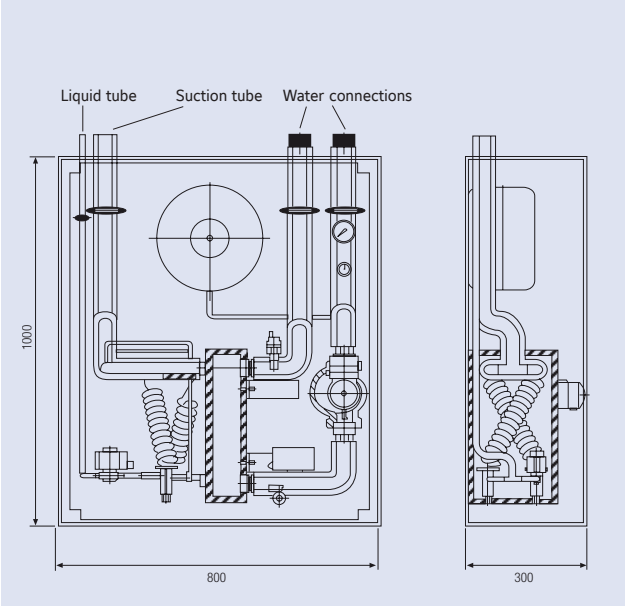
# Split system overview




# Transformer box dimensions

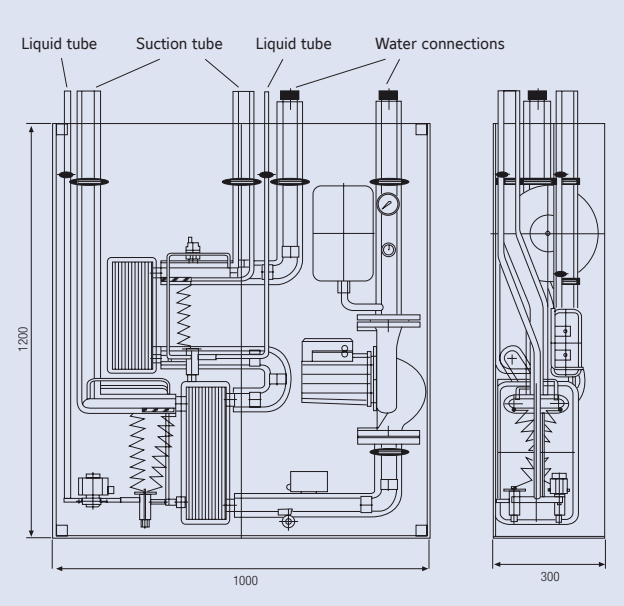
## Transformer box YTB_522-V / YTB_972-V




*All dimensions in mm. Drawings not a scale.*

| Unit | Water pipe connection | Refrigerant tubing diameter | Weight kg |
|---|---|---|---|
| YTB-522-V | 1 1/2" threaded male | 12 / 22 | 80 |
| YTB-972-V | 2" threaded male | 16 / 28 | 95 |

## Transformer box YTB_1732-V / YTB_2502-V

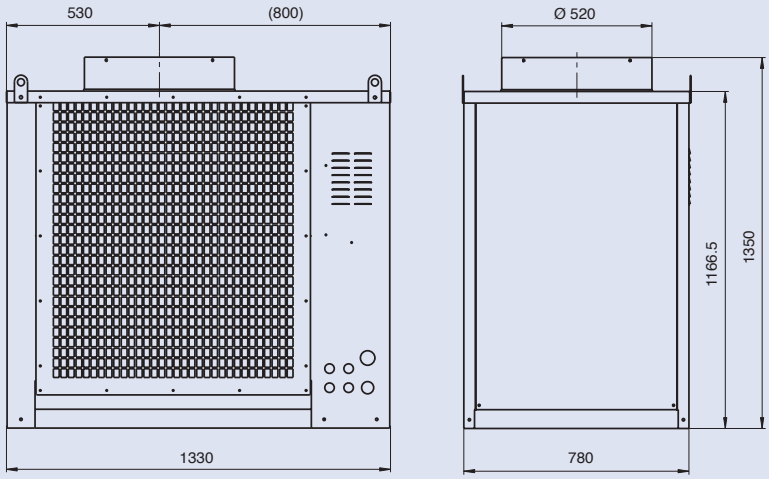



*All dimensions in mm. Drawings not a scale.*

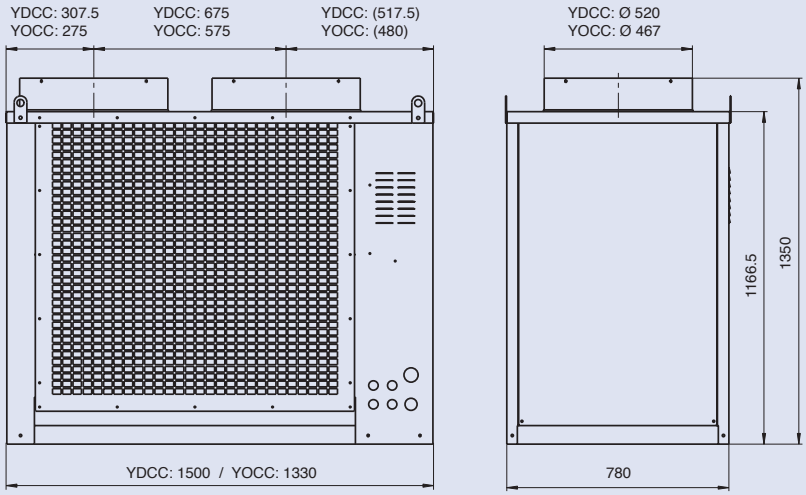
| Unit | Water pipe connection | Refrigerant tubing diameter | Weight kg |
|---|---|---|---|
| YTB-1732-V | 2" threaded male | 2 x 16 / 28 | 150 |
| YTB-2502-V | 2 1/2" threaded male | 3 x 16 / 28 | 170 |

# Condensing unit dimensions

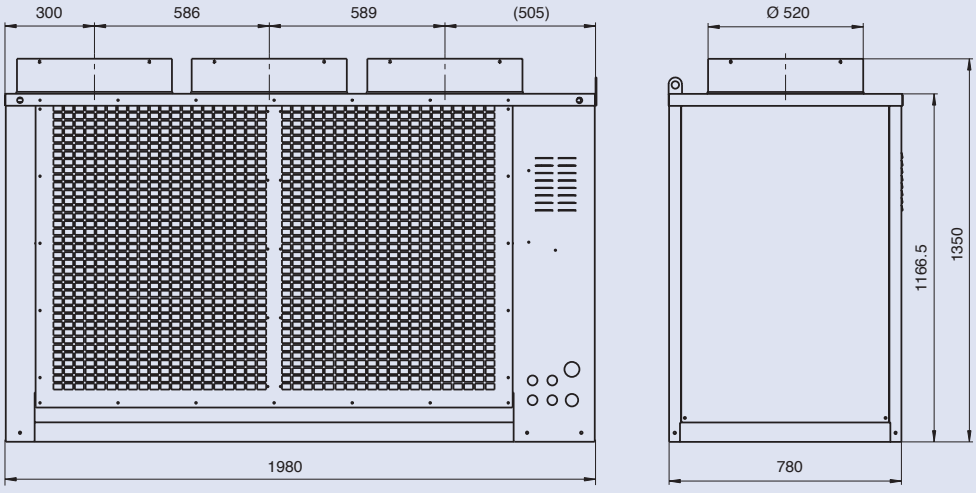
## YDCC 522 (-C)




## YDCC 972 (-C) / YOCC 762 (-C)




## YOCC 1522 (-C)




*All dimensions in mm. Drawings not a scale.*

# YLCD-YLHD
# Air cooled chiller / heat pump

## YLCD-YLHD 25 to 150
**A complete range from 25 kW up to 150 kW**



**Available during 2011**

*Indoor water terminals: see page 86*

## Features
- Centrifugal or radial fans
- Scroll compressor
- Vertical and horizontal discharge
- Integrated Hydro kit (P versions)
- LAK (-18°C) standard
- Flow switch standard

## Options / Accessories
- Coated condenser fins (blue fin)
- Antivibration mounting
- Remote control / Remote terminal
- BMS communication

# Air cooled chiller & heat pump

## YLCD-YLHD 25 to 150

## Technical features (Preliminary data)

**T** Three phases supply **C/P** Hydro Pack **H** Heat pump

| Models | | | YLCD / YLHD | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 25 TC | 40 T-TP | 70 T-TP | 100 T-TP | 120 T-TP | 150 T-TP |
| Performance | Cooling capacity c/o units (1) | kW | 25 | 40 | 70 | 100 | 120 | 150 |
| | Other performance data | | Contact Johnson Controls | | | | | |
| | Cooling capacity h/p units (1) | kW | 25 | 40 | 70 | 100 | 120 | 150 |
| | Heating capacity h/p units (1) | kW | 25 | 40 | 70 | 100 | 120 | 150 |
| | Other performance data | | Contact Johnson Controls | | | | | |
| Compressor | Type | | Scroll | | | | | |
| | Quantity | | 1 | 2 | 2 | 4 | 4 | 4 |
| Air side heat exchanger | Fans quantity | | 1 | 2 | 2 | 4 | 4 | 4 |
| | Air flow (50 Pa) | m³/h | 6 500 | 11 000 | 14 500 | 18 000 | 20 000 | 24 000 |
| | Working ambient temp. cool. / heat. mode | | (4) (-18°C) ~ 46°C / -10°C ~ 20°C | | | -18°C ~ 46°C / -10°C ~ 20°C | | |
| Water side heat exchanger | Type | | Single plate heat exchanger | | | Dual plate heat exchanger | | |
| | Unit water volume | Litres | 3,2 | 71 | 71 | 168 | 170 | 179 |
| | Pump Type | | Multistage horizontal pump | | | | | |
| | Nominal water flow | l/h | 4 500 | 6 900 | 12 000 | 16 860 | 20 470 | 25 970 |
| | Available pressure (1) (2) | kPa | 182 | 105 | 145 | 190 | 202 | 186 |
| | Pressure drop (1) (3) | kPa | - | 75 | 56 | 60 | 32 | 28 |
| | Working range water leaving temperature cooling / heating (5) | | -5°C ~ 15°C / 30°C ~ 50°C | | | | | |
| | Water connections | inch | 1-1/4" | 2" | | 2-1/2" | | |
| Dimensions & Weight | Height | mm | 1 526 | 1 794 | 1 794 | 2 460 | 2 460 | 2 480 |
| | Width | mm | 1 740 | 2 659 | 2 659 | 3 466 | 3 416 | 3 770 |
| | Depth | mm | 785 | 897 | 897 | 1 101 | 1 101 | 1 101 |
| | Weight without pack / pack c/o | kg | - / 390 | 730 / 770 | 740 / 780 | 1 264 / 1 360 | 1 264 / 1 360 | 1 680 / 1 776 |
| | Weight without pack / pack h/p | kg | - / 400 | 750 / 790 | 760 / 800 | 1 284 / 1 380 | 1 284 / 1 380 | 1 700 / 1 796 |
| El. supply | Voltage / Phases / Frequency | V/ph/hz | 400 / 3 / 50 + N + E | | | | | |

*YLCD: Cooling only units models. YLHD: Air to water heat pump models.*
*(1) net values at Eurovent nominal conditions (2) version P with hydro kit with filter (3) version without hydro kit (4) -18°C with LAK option (5) below 6°C with glycol*
*Nominal conditions: Cooling capacities in kW given for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature*
*Heating capacities in kW given for 45°C water leaving temperature and 7°C ambient temperature*

## Compatibility table / Codes

| Models | - | 40 T | 70 T | 100 T | 120 T | 150 T |
|---|---|---|---|---|---|---|
| Cooling only unit YLCD | - | S668594083 | S668597083 | S668591083 | S668591283 | S668591583 |
| Heat pump unit YLHD | - | S668574083 | S668577083 | S668571083 | S668571283 | S668571583 |
| **Models** | **25 TC** | **40 TP** | **70 TP** | **100 TP** | **120 TP** | **150 TP** |
| Cooling only unit YLCD | S668592580 | S668594080 | S668597080 | S668591080 | S668591280 | S668591580 |
| Heat pump unit YLHD | S668572580 | S668574080 | S668577080 | S668571080 | S668571280 | S668571580 |

*Use this unit code when a factory fitted option is NOT required*

Accessories (Supplied loose)

| | | | | | |
|---|---|---|---|---|---|
| AVM mounting | S613029002 | | S613028180 | S613021580 | |
| Flow switch | S611992021 | | | | |
| Remote control | S613802011 | | | | |
| Remote terminal | S613802231 | | | - | |
| Cable for remote connection of the terminal | - | | | S613802241 | |
| B.M.S. Communication | S613802041 | | | S613802051 | |

| Models | 25 TC | 40 T-TP | 70 T-TP | 100 T-TP | 120 T-TP | 150 T-TP |
|---|---|---|---|---|---|---|
| Cooling only unit YLCD | Contact Johnson Controls | | | | | |
| Heat pump unit YLHD | Contact Johnson Controls | | | | | |

*Use this unit code when a factory fitted option is required*

Options (Factory fitted)

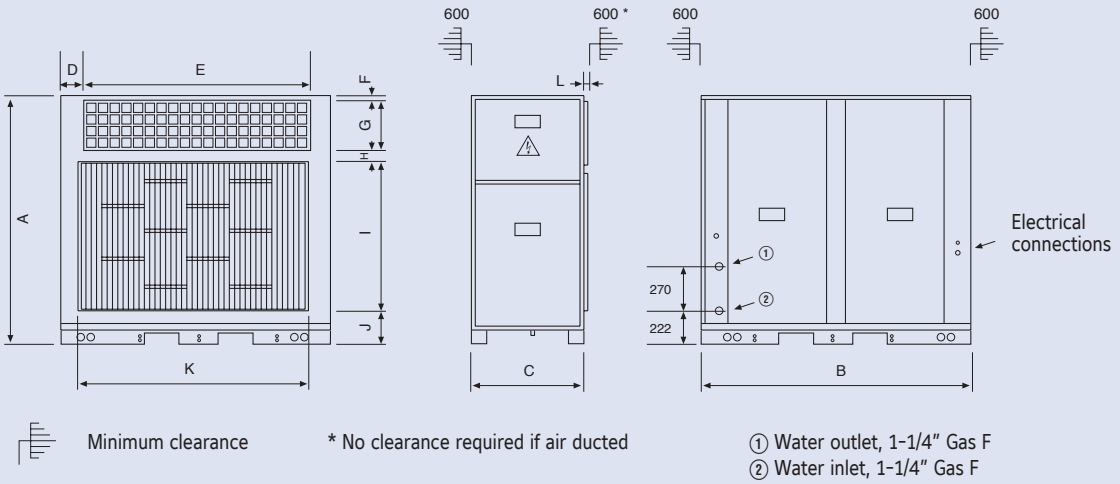
| | | |
|---|---|---|
| Low noise | NA | Contact Johnson Controls |
| Dual pump | NA | Contact Johnson Controls |
| Coated condenser fins (blue fin) | Contact Johnson Controls | |
| Copper/copper condenser | Contact Johnson Controls | |




Johnson Controls

# Dimensions, hydraulic connections and space requirements

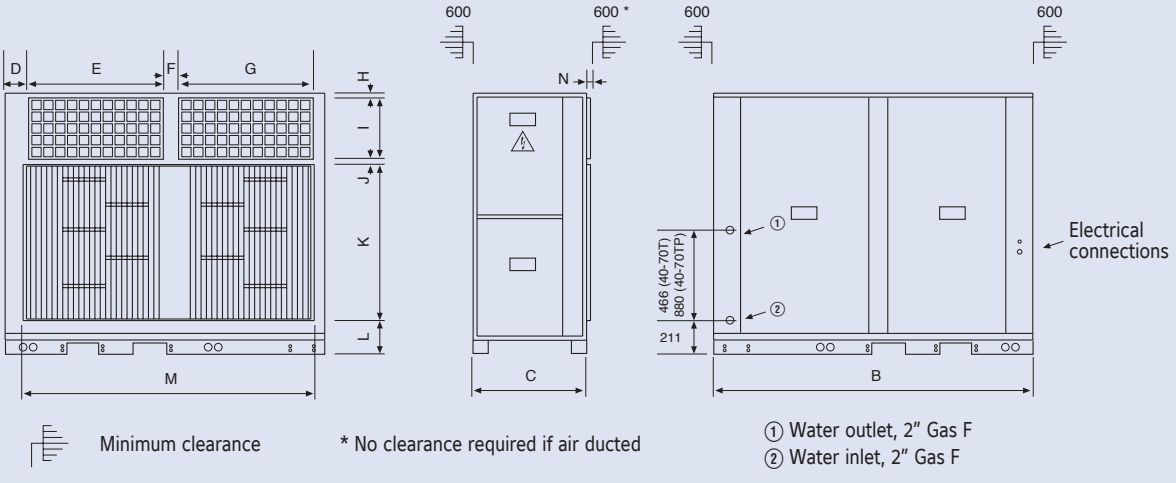
## YLCD / YLHD 25 TC




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YLDC/YLHD 25 TC | 1 526 | 1 740 | 785 | 151 | 1436 | 30 | 324 | 37 | 994 | 141 | 1476 | 24 |

## YLCD / YLHD 40-70 T/TP

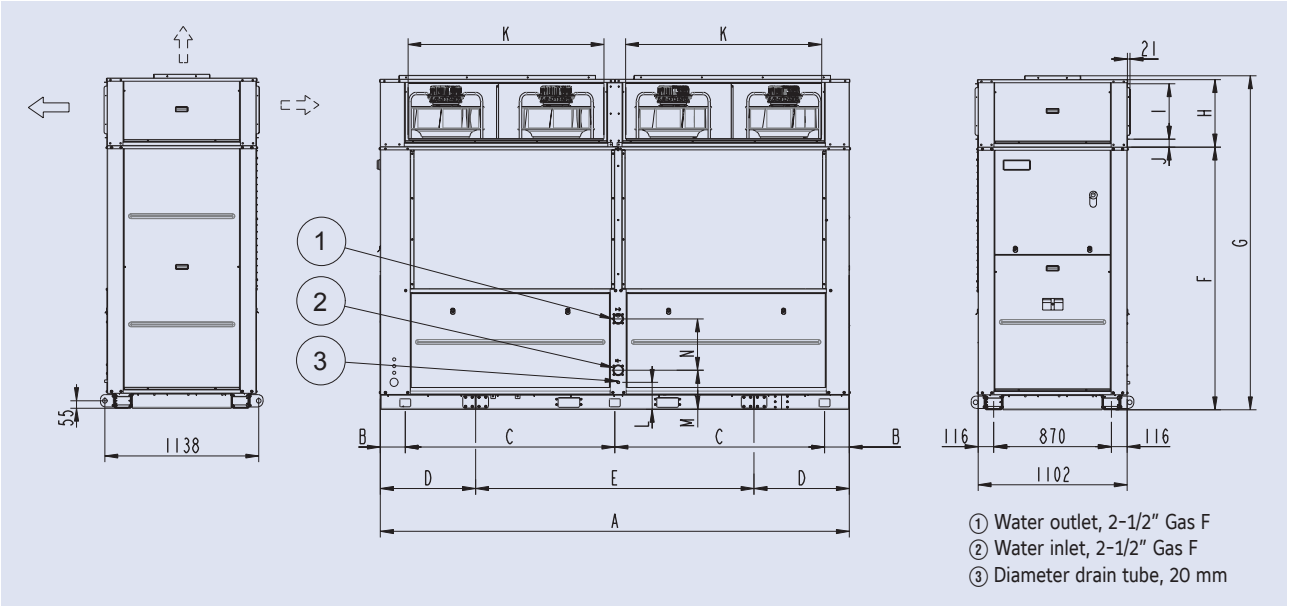



*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YLDC/YLHD 40 T/TP | 1 794 | 2658 | 897 | 148 | 1155 | 95 | 1155 | 30 | 389 | 37 | 1 200 | 138 | 2479 | 23 |
| YLDC/YLHD 70 T/TP | 1 794 | 2658 | 897 | 148 | 1155 | 95 | 1155 | 30 | 389 | 37 | 1 200 | 138 | 2479 | 23 |

# YLCD-YLHD 25 to 150

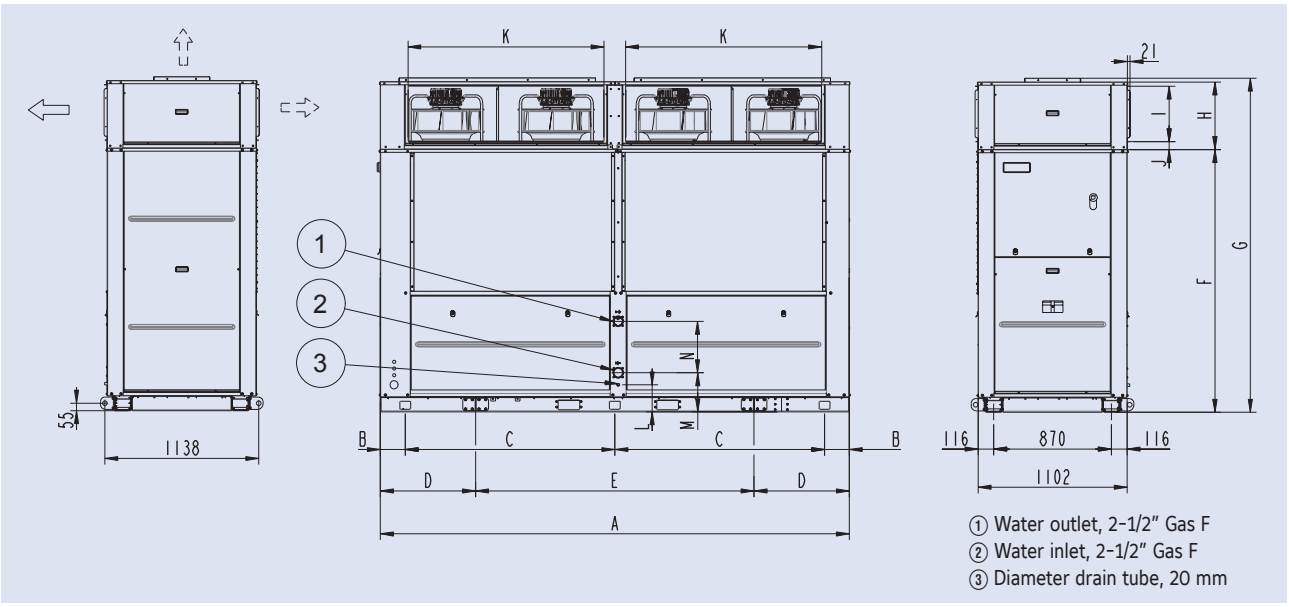
## YLCD / YLHD 100-120 T/TP




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **YLDC/YLHD 100 T/TP** | 3 466 | 183 | 1 550 | 704 | 2 058 | 1 942 | 2 460 | 500 | 410 | 59 | 1 450 | 200 | 290 | 380 |
| **YLDC/YLHD 120 T/TP** | 3 416 | 183 | 1 525 | 604 | 2 208 | 1 942 | 2 460 | 500 | 418 | 55 | 1 438 | 200 | 290 | 380 |

## YLCD / YLHD 150 T/TP




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **YLDC/YLHD 150 T/TP** | 3 768 | 254 | 1 630 | 605 | 2 558 | 1 992 | 2 480 | 470 | 386 | 55 | 1 617 | 410 | 210 | 458 |

# YHK Hydro Cassette

## 2 & 4 pipe system

**A complete range from 1.3 kW to 11.1 kW**

Coloured versions
available as a option

## Wired controls

**BR**
Remote three speeds controller

**TR**
BR + Electronic thermostat
and Summer/Winter switch

**ATR**
Automatic TR

**DTR**
Digital Automatic
Remote controller

**TMO 503 SV2**
Digital Automatic
Remote controller
to be mounted in the standard
light wall box

**DRC - DI**
Centralized controller
up to 60 terminals

## Infrared control

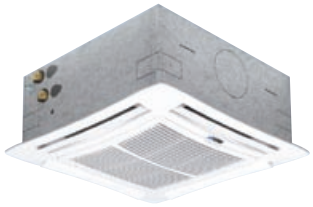
## Features

- Cooling duty from 1.3 to 11.1 kW
- YHKH: models with infrared control (standard)
- YHKY: models with wired control (accessory)
- 2 (-2) & 4 (-4) pipes systems in all range
- 2 sizes: 600 x 600 & 800 x 800
- Possible to choice between 6 fan speeds
- Condensate pump integrated in all range
- 2/3 way valves fitted or supplied loose in all range
- Coloured versions, possible to change the colour of the grid and the frame
- Possible to select a complete range of controls
- Electric heater fitted as an option for all range (2 pipe only)
- All metal parts insulated to avoid condensations

**FX03 Terminal unit controller**
BacNET and N2 Metasys
network compatible
(see page 103 for details)

# YHK Hydro Cassette

## 1.3 to 11.1 kW



## Technical features 2 pipe system

| Model | | YHK 20-2 | YHK 25-2 | YHK 40-2 | YHK 50-2 | YHK 65-2 | YHK 95-2 | YHK 110-2 |
|---|---|---|---|---|---|---|---|---|
| Cooling capacity | kW | 1.3 / 1.6 / 2.0 | 1.8 / 2.3 / 2.7 | 2.3 / 3.3 / 4.3 | 2.9 / 3.9 / 5.0 | 4.2 / 4.9 / 6.2 | 5.3 / 6.8 / 9.5 | 5.3 / 8.5 / 11.1 |
| Sensible cooling capacity | kW | 1.0 / 1.3 / 1.6 | 1.4 / 1.8 / 2.0 | 1.6 / 2.4 / 3.2 | 2.1 / 2.8 / 3.7 | 3.0 / 3.6 / 4.6 | 3.5 / 4.5 / 6.5 | 3.7 / 6.1 / 8.3 |
| Heating capacity | kW | 1.6 / 2.1 / 2.6 | 2.2 / 2.9 / 3.4 | 2.6 / 3.9 / 5.2 | 3.4 / 4.6 / 6.2 | 5.1 / 6.0 / 7.8 | 5.6 / 7.3 / 10.7 | 6.1 / 10.3 / 14.0 |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | | | | | |
| Airflow | m3/h | 310 / 420 / 610 | 310 / 420 / 520 | 320 / 500 / 710 | 430 / 610 / 880 | 630 / 820 / 1140 | 710 / 970 / 1500 | 710 / 1280 / 1820 |
| Fan | W | 25 / 32 / 57 | 25 / 32 / 44 | 25 / 44 / 68 | 32 / 57 / 90 | 33 / 48 / 77 | 42 / 63 / 120 | 42 / 95 / 170 |
| | A | 0.11 / 0.15 / 0.27 | 0.11 / 0.15 / 0.20 | 0.11 / 0.20 / 0.32 | 0.15 / 0.27 / 0.45 | 0.15 / 0.23 / 0.36 | 0.18 / 0.28 / 0.53 | 0.18 / 0.42 / 0.74 |
| Water flow | l/h | 219 / 280 / 340 | 316 / 402 / 461 | 387 / 574 / 745 | 506 / 667 / 863 | 724 / 845 / 1060 | 913 / 1166 / 1636 | 913 / 1453 / 1909 |
| Water content | l | 0.8 | 1.4 | 2.1 | 2.1 | 3.0 | 4.0 | 4.0 |
| Pressure drop in cooling | kPa | 4.5 / 7.0 / 10.0 | 4.9 / 7.6 / 9.7 | 4.6 / 9.4 / 15.1 | 7.5 / 12.4 / 19.7 | 10.9 / 14.3 / 21.6 | 9.4 / 14.7 / 26.9 | 9.4 / 21.8 / 35.6 |
| Pressure drop in heating | kPa | 4.0 / 6.0 / 9.0 | 4.1 / 6.3 / 8.2 | 3.5 / 7.3 / 11.4 | 6.7 / 11.2 / 17.7 | 6.7 / 9.9 / 15.1 | 7.9 / 12.4 / 23.0 | 7.9 / 18.6 / 30.6 |
| Sound power level | dB(A) | 33 / 40 / 49 | 33 / 40 / 45 | 33 / 45 / 53 | 41 / 49 / 59 | 33 / 40 / 48 | 34 / 40 / 53 | 34 / 48 / 58 |
| Sound pressure level * | dB(A) | 24 / 31 / 40 | 24 / 31 / 36 | 24 / 36 / 44 | 32 / 40 / 50 | 24 / 31 / 39 | 25 / 31 / 44 | 25 / 39 / 49 |
| Dimensions (H x W x D) | mm | 275 x 575 x 575 | | | | 303 x 820 x 820 | | |
| Panel (W x D) | mm | 670 x 670 | | | | 965 x 965 | | |
| Packed unit net weight | kg | 28 | 28 | 30 | 30 | 44 | 47 | 47 |

** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.*
*Cooling capacities based on 7/12°C EWT - Indoor temperature 27°C DB / 19°C WB*
*Heating capacities based on 50°C EWT at nominal flow rate Indoor temperature 20°C*
*Water flow rate as for the cooling conditions.*
*All data are in equivalent to Low / Medium / High speed.*

## Technical features 4 pipe system

| Model | | YHK 20-4 | YHK 25-4 | YHK 40-4 | YHK 50-4 | YHK 65-4 | YHK 95-4 | YHK 110-4 |
|---|---|---|---|---|---|---|---|---|
| Cooling capacity | kW | 1.5 / 2.0 / 2.3 | 1.9 / 2.4 / 2.7 | 1.9 / 2.7 / 3.3 | 2.4 / 3.0 / 3.8 | 4.1 / 5.0 / 6.3 | 4.5 / 5.7 / 7.7 | 4.5 / 6.9 / 8.9 |
| Sensible cooling capacity | kW | 1.2 / 1.6 / 1.9 | 1.4 / 1.7 / 2.0 | 1.3 / 2.0 / 2.6 | 1.8 / 2.3 / 3.0 | 3.0 / 3.7 / 4.7 | 3.3 / 4.2 / 5.8 | 3.3 / 5.2 / 6.8 |
| Heating capacity | kW | 2.0 / 2.5 / 3.0 | 2.4 / 3.0 / 3.5 | 2.4 / 3.5 / 4.4 | 3.1 / 4.0 / 5.0 | 5.9 / 7.2 / 9.1 | 6.5 / 8.1 / 11.0 | 6.5 / 10.0 / 12.7 |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | | | | | |
| Airflow | m3/h | 310 / 420 / 610 | 310 / 420 / 520 | 320 / 500 / 710 | 430 / 610 / 880 | 630 / 820 / 1140 | 710 / 970 / 1500 | 710 / 1280 / 1820 |
| Fan | W | 25 / 32 / 57 | 25 / 32 / 44 | 25 / 44 / 68 | 32 / 57 / 90 | 33 / 48 / 77 | 42 / 63 / 120 | 42 / 95 / 170 |
| | A | 0.11 / 0.15 / 0.27 | 0.11 / 0.15 / 0.20 | 0.11 / 0.20 / 0.32 | 0.15 / 0.27 / 0.45 | 0.15 / 0.23 / 0.36 | 0.18 / 0.28 / 0.53 | 0.18 / 0.42 / 0.74 |
| Water flow in cooling | l/h | 260 / 337 / 401 | 318 / 406 / 464 | 318 / 456 / 574 | 406 / 519 / 655 | 712 / 865 / 1090 | 777 / 974 / 1326 | 777 / 1192 / 1529 |
| Water flow in heating | l/h | 169 / 219 / 261 | 209 / 260 / 298 | 209 / 298 / 378 | 267 / 341 / 426 | 508 / 618 / 783 | 555 / 697 / 946 | 555 / 858 / 1092 |
| Water content Cooling / Heating | l | 1 / 0.6 | 1.4 / 0.7 | 1.4 / 0.7 | 1.4 / 0.7 | 3.0 / 1.4 | 3.0 / 1.4 | 3.0 / 1.4 |
| Pressure drop in cooling | kPa | 6.0 / 10.0 / 13.5 | 4.6 / 6.9 / 8.8 | 4.6 / 8.8 / 13.4 | 7.2 / 11.2 / 17.0 | 8.8 / 12.5 / 18.9 | 10.3 / 15.4 / 26.9 | 10.3 / 22.1 / 34.7 |
| Pressure drop in heating | kPa | 6.5 / 10.5 / 14.5 | 5.7 / 8.5 / 10.8 | 5.7 / 10.8 / 16.6 | 8.8 / 13.8 / 20.5 | 9.8 / 14.0 / 21.4 | 11.5 / 17.4 / 29.9 | 11.5 / 25.3 / 38.8 |
| Sound power level | dB(A) | 33 / 40 / 49 | 33 / 40 / 45 | 33 / 45 / 53 | 41 / 49 / 59 | 33 / 40 / 48 | 34 / 40 / 53 | 34 / 48 / 58 |
| Sound pressure level * | dB(A) | 24 / 31 / 40 | 24 / 31 / 36 | 24 / 36 / 44 | 32 / 40 / 50 | 24 / 31 / 39 | 25 / 31 / 44 | 25 / 39 / 49 |
| Dimensions (H x W x D) | mm | 275 x 575 x 575 | | | | 303 x 820 x 820 | | |
| Panel (W x D) | mm | 670 x 670 | | | | 965 x 965 | | |
| Packed unit net weight | kg | 30 | 30 | 30 | 30 | 47 | 47 | 47 |

** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.*
*Cooling capacities based on 7/12°C EWT - Indoor temperature 27°C DB / 19°C WB*
*Heating capacities based on 70/60°C EWT - Indoor temperature 20°C*
*All data are in equivalent to Low / Medium / High speed.*

Condensate pump integrated in all sizes

Metal parts insulated to avoid condensation

2 or 3 way valves fitted or supplied loose in all sizes

Outer casing as an option to integrate the water cassette into any enviroment

# YHK ECM Inverter Hydro Cassette

## 2 & 4 pipe system

**A complete range from 1.8 kW to 10.8 kW**

Coloured versions available as a option

## Wired control

**ETN-ECM**
Wall-mounted controller that can be connected that allows the inverter control with a 0-10V signal. The same controller can be connected to one or several cassettes (master-slave function).

## Infrared control

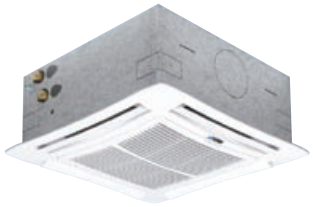
## Features

- Cooling duty from 1.8 to 10.8 kW
- YHKH: models with infrared control (standard)
- YHKY: models with wired control (accessory)
- 2 (-2) & 4 (-4 or -6) pipes systems
- 2 sizes: 600 x 600 & 800 x 800
- Condensate pump integrated in all range
- 2/3 way valves fitted or supplied loose in all range
- Coloured versions, possible to change the colour of the grid and the frame
- All metal parts insulated to avoid condensations
- Inverter fan motor for a very quiet operation
- Electrical consumption reduced by up to 75%
- Specific range of controllers with master-slave function

**FX03 Terminal unit controller**
BacNET and N2 Metasys network compatible
(see page 103 for details)

# YHK ECM Inverter Hydro Cassette

## 1.8 to 10.8 kW



## Technical features 2 pipe system

| Model | | YHK-ECM 25-2 | YHK-ECM 40-2 | YHK-ECM 50-2 | YHK-ECM 65-2 | YHK-ECM 95-2 |
|---|---|---|---|---|---|---|
| Cooling capacity | kW | 1.8 / 2.2 / 2.8 | 2.2 / 3.1 / 4.3 | 2.6 / 3.9 / 5.0 | 4.2 / 5.2 / 6.3 | 5.3 / 7.7 / 10.8 |
| Sensible cooling capacity | kW | 1.4 / 1.6 / 2.1 | 1.6 / 2.2 / 3.2 | 1.8 / 2.8 / 3.7 | 3.0 / 3.8 / 4.7 | 3.7 / 5.5 / 7.9 |
| Heating capacity | kW | 2.2 / 2.7 / 3.4 | 2.6 / 3.6 / 5.2 | 3.0 / 4.6 / 6.2 | 5.1 / 6.4 / 8.0 | 5.9 / 8.8 / 12.7 |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | | | |
| Airflow | $m^3/h$ | 310 / 380 / 535 | 310 / 445 / 710 | 360 / 610 / 880 | 630 / 870 / 1165 | 710 / 1130 / 1770 |
| Fan | W | 5 / 8 / 16 | 5 / 11 / 31 | 7 / 21 / 62 | 10 / 17 / 33 | 10 / 32 / 108 |
| Water flow | l/h | 317 / 373 / 473 | 385 / 524 / 744 | 441 / 666 / 864 | 723 / 885 / 1089 | 909 / 1328 / 1848 |
| Water content | l | 1.4 | 2.1 | 2.1 | 3.0 | 4.0 |
| Pressure drop in cooling | kPa | 4.9 / 6.6 / 10.1 | 4.6 / 9.4 / 15.1 | 5.9 / 12.4 / 19.7 | 10.9 / 15.6 / 22.7 | 9.4 / 18.5 / 33.6 |
| Pressure drop in heating | kPa | 4.0 / 5.5 / 8.7 | 3.6 / 6.6 / 13.1 | 4.7 / 10.5 / 17.7 | 8.7 / 12.8 / 19.5 | 7.2 / 14.9 / 28.8 |
| Sound power level | dB(A) | 33 / 39 / 47 | 33 / 43 / 54 | 37 / 50 / 60 | 33 / 39 / 48 | 34 / 47 / 57 |
| Sound pressure level * | dB(A) | 24 / 30 / 38 | 24 / 34 / 45 | 28 / 41 / 51 | 24 / 30 / 39 | 25 / 38 / 48 |
| Dimensions (H x W x D) | mm | 275 x 575 x 575 | | | 303 x 820 x 820 | |
| Panel (W x D) | mm | 670 x 670 | | | 965 x 965 | |
| Packed unit net weight | kg | 28 | 30 | 30 | 44 | 47 |

** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 $m^3$ room and a reverberation time of 0.5 sec.*
*Cooling capacities based on 7/12°C EWT - Indoor temperature 27°C DB / 19°C WB*
*Heating capacities based on 50°C EWT at nominal flow rate Indoor temperature 20°C*
*Water flow rate as for the cooling conditions.*
*All data are in equivalent to Low / Medium / High speed.*

## Technical features 4 pipe system

| Model | | YHK-ECM 25-4 | YHK-ECM 40-6 | YHK-ECM 50-6 | YHK-ECM 65-4 | YHK-ECM 95-6 |
|---|---|---|---|---|---|---|
| Cooling capacity | kW | 1.9 / 2.2 / 2.8 | 2.1 / 2.8 / 3.9 | 2.4 / 3.5 / 4.5 | 4.3 / 5.3 / 6.5 | 5.0 / 7.2 / 9.9 |
| Sensible cooling capacity | kW | 1.3 / 1.6 / 2.1 | 1.5 / 2.0 / 3.0 | 1.7 / 2.6 / 3.5 | 3.1 / 3.8 / 4.8 | 3.5 / 5.2 / 7.4 |
| Heating capacity | kW | 2.4 / 2.9 / 3.6 | 2.0 / 2.5 / 3.4 | 2.2 / 3.1 / 3.8 | 6.1 / 7.5 / 9.4 | 5.2 / 7.2 / 9.5 |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | | | |
| Airflow | $m^3/h$ | 310 / 380 / 535 | 310 / 445 / 710 | 360 / 610 / 880 | 630 / 870 / 1165 | 710 / 1130 / 1770 |
| Fan | W | 5 / 8 / 16 | 5 / 11 / 31 | 7 / 21 / 62 | 10 / 17 / 33 | 10 / 32 / 108 |
| Water flow in cooling | l/h | 318 / 375 / 476 | 359 / 483 / 676 | 409 / 608 / 779 | 740 / 908 / 1120 | 856 / 1233 / 1697 |
| Water flow in heating | l/h | 209 / 245 / 311 | 170 / 217 / 288 | 189 / 263 / 326 | 528 / 649 / 805 | 449 / 616 / 818 |
| Water content Cooling / Heating | l | 1.4 / 0.7 | 1.7 / 0.5 | 1.7 / 0.5 | 3.0 / 1.4 | 3.6 / 1.1 |
| Pressure drop in cooling | kPa | 4.6 / 6.2 / 9.5 | 3.5 / 5.7 / 10.5 | 4.1 / 8.4 / 13.1 | 9.4 / 13.6 / 19.8 | 8.8 / 17.0 / 30.1 |
| Pressure drop in heating | kPa | 5.7 / 7.6 / 11.7 | 3.5 / 5.5 / 9.0 | 4.5 / 7.5 / 11.0 | 10.5 / 15.5 / 22.5 | 6.5 / 11.0 / 18.0 |
| Sound power level | dB(A) | 33 / 39 / 47 | 33 / 43 / 54 | 37 / 50 / 60 | 33 / 39 / 48 | 34 / 47 / 57 |
| Sound pressure level * | dB(A) | 24 / 30 / 38 | 24 / 34 / 45 | 28 / 41 / 51 | 24 / 30 / 39 | 25 / 38 / 48 |
| Dimensions (H x W x D) | mm | 275 x 575 x 575 | | | 303 x 820 x 820 | |
| Panel (W x D) | mm | 670 x 670 | | | 965 x 965 | |
| Packed unit net weight | kg | 30 | 30 | 30 | 47 | 47 |

** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 $m^3$ room and a reverberation time of 0.5 sec.*
*Cooling capacities based on 7/12°C EWT - Indoor temperature 27°C DB / 19°C WB*
*Heating capacities based on 70/60°C EWT - Indoor temperature 20°C*
*All data are in equivalent to Low / Medium / High speed.*

Condensate pump integrated in all sizes

Metal parts insulated to avoid condensation

2 or 3 way valves fitted or supplied loose in all sizes

Outer casing as an option to integrate the water cassette into any enviroment

# Options & Accessories

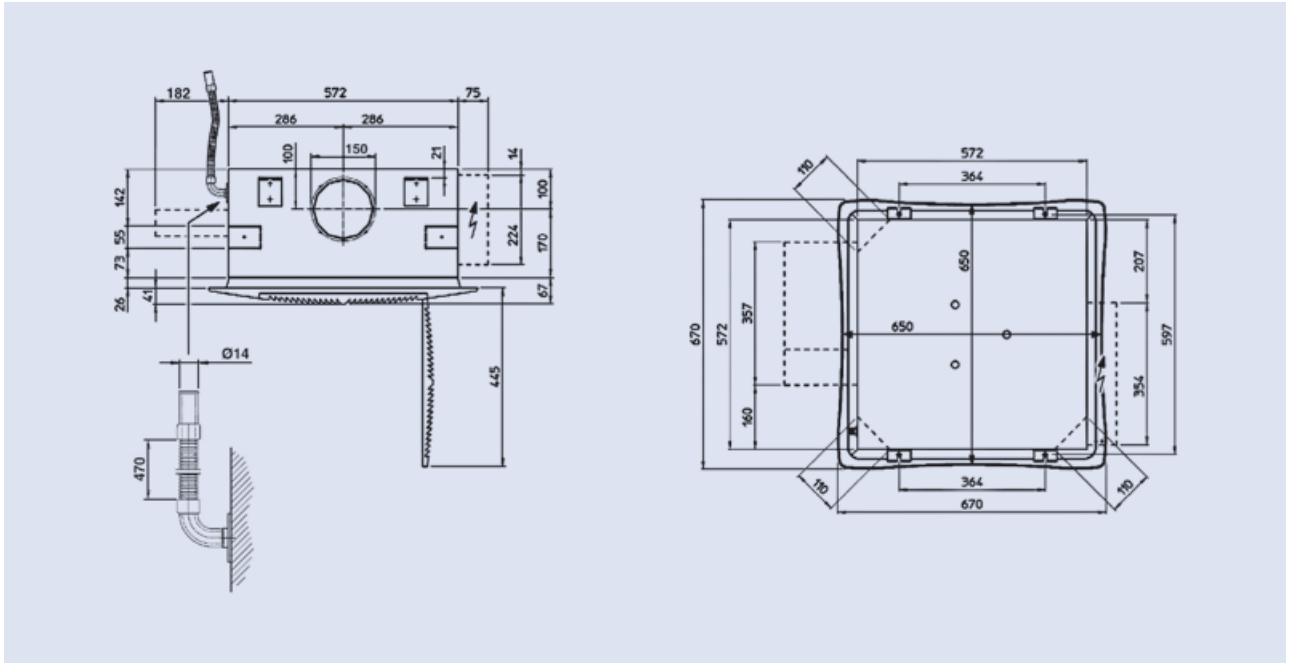
## Compatibility table / Codes

| Model (Panel not included) | | YHK 20 | YHK 25 | YHK 40 | YHK 50 | YHK 65 | YHK 95 | YHK 110 |
|---|---|---|---|---|---|---|---|---|
| Cassette YHKY | 2 pipe system | 0079100K | 0079000K | 0079001K | 0079002K | 0079003K | 0079004K | 0079005K |
| | 4 pipe system | 0079110K | 0079010K | 0079011K | 0079012K | 0079013K | 0079014K | 0079015K |
| Cassette YHKH - with infrared remote control included | 2 pipe system | 0079140K | 0079040K | 0079041K | 0079042K | 0079043K | 0079044K | 0079045K |
| | 4 pipe system | 0079150K | 0079050K | 0079051K | 0079052K | 0079053K | 0079054K | 0079055K |
| Cassette YHKY-ECM - basic model | 2 pipe system | - | 0079801K | 0079802K | 0079803K | 0079804K | 0079805K | - |
| | 4 pipe system | - | 0079811K | 0079812K | 0079813K | 0079814K | 0079815K | - |
| Cassette YHKH-ECM - basic model | 2 pipe system | - | 0079821K | 0079822K | 0079823K | 0079824K | 0079825K | - |
| | 4 pipe system | - | 0079831K | 0079832K | 0079833K | 0079834K | 0079835K | - |
| **Options (Factory fitted)** | | | | | | | | |
| Cassette YHKY-E - with electric resistance | | | | | | | | |
| Version without infrared remote control YHKY-E | 2 pipe system | - | 0079060K | 0079061K | 0079062K | 0079063K | 0079064K | 0079065K |
| Version with infrared remote control included YHKH-E | 2 pipe system | - | 0079080K | 0079081K | 0079082K | 0079083K | 0079084K | 0079085K |
| Cassette YHKY-REB - with remote electric board | | | | | | | | |
| Cassette YHKY-REB | 2 pipe system | 0079120K | 0079020K | 0079021K | 0079022K | 0079023K | 0079024K | 0079025K |
| | 4 pipe system | 0079130K | 0079030K | 0079031K | 0079032K | 0079033K | 0079034K | 0079035K |
| **Valves** | | | | | | | | |
| 3 way valve + mounting kit for 2 pipe models (factory fitted) | 9079510 | | ● | | | - | | |
| | 9079511 | | - | | | ● | | |
| 3 way valve + mounting kit for 4 pipe models (factory fitted) | 9079512 | | ● | | | - | | |
| | 9079513 | | - | | | ● | | |
| **Accessories (supplied loose)** | | | | | | | | |
| **Air diffusers / Panels** | | | | | | | | |
| Air diffuser - intake grid, frame and louvres in RAL 9003 white colour | AKPA 600 | | ● | | | - | | |
| | AKPA 800 | | - | | | ● | | |
| Air diffuser - other colours (*) | | | Contact Johnson Controls | | | | | |
| **Valves (220V On/Off)** | | | | | | | | |
| 3 way valve + mounting kit for 2 pipe models (not fitted) | 9079500 | | ● | | | - | | |
| | 9079501 | | - | | | ● | | |
| 3 way valve + mounting kit for 4 pipe models (not fitted) | 9079502 | | ● | | | - | | |
| | 9079503 | | - | | | ● | | |
| 2 way valve + mounting kit for 2 pipe models (not fitted) | 9079505 | | ● | | | - | | |
| | 9079506 | | - | | | ● | | |
| 2 way valve + mounting kit for 4 pipe models (not fitted) | 9079507 | | ● | | | - | | |
| | 9079508 | | - | | | ● | | |
| 3 way valve + mounting kit for units with outer casing OCA (not fitted) | 9079155 | | ● | | | - | | |
| 3 way valve + mounting kit for units with outer casing OCA (not fitted) | 9079156 | | - | | | ● | | |
| **Other type of valves** | | | | | | | | |
| Other valves | | | Contact Johnson Controls | | | | | |
| **Other Accessories** | | | | | | | | |
| Outer casing | OCA 600 | | ● | | | - | | |
| | OCA 800 | | - | | | ● | | |
| Fresh air duct | FAD | | | | ● | | | |
| Fresh air kit 1 way for units with outer casing OCA | FAK 600 | | ● | | | - | | |
| Fresh air kit 1 way for units with outer casing OCA | FAK 800 | | - | | | ● | | |
| **CONTROLS for YHKY versions** | | | | | | | | |
| Remote three speed control BR | 9060540 | | | | ● | | | |
| Remote three speed control + electronic thermostat and S/W switch TR | 9060541 | | | | ● | | | |
| Automatic speed control with electronic thermostat and S/W - ATR | 9060542 | | | | ● | | | |
| Automatic speed control with electronic thermostat to be mounted in the light wall box TMO-503-SV2 | 9060172 | | | | ● | | | |
| Receiver REC-S | 9079110 | | | | ● | | | |
| Automatic remote control with electronic thermostat, S/W swithc and liquid crystall display DTR | 9060521 | | | | ● | | | |
| Receiver (slave) for control DTR RECD | 9060139 | | | | ● | | | |
| Change over CH 15-25 | 9053049 | | | | ● | | | |
| Low temperature cut out thermostat TME | 3021091 | | | | ● | | | |
| **CONTROLS for YHKH versions** | | | | | | | | |
| Digital remote control up to 60 multifunction units DRC-DI | 9079102 | | | | ● | | | |
| Change over for infrared remote control CH T2 | 9079103 | | | | ● | | | |
| **CONTROLS only for YHK-ECM version** | | | | | | | | |
| Digital remote control up to 60 multifunction units DRC-DI | 9079102 | | | | ● | | | |
| ETM-ECM control | 3021232 | | | | ● | | | |
| RT03/ECM infrared remote control | 9079220 | | | | ● | | | |
| **Maxinet management system for a network of cassette fan coil** | | | | | | | | |
| Maxinet | 9079104 | | | | ● | | | |
| Board 8 relais for Maxinet | 9079105 | | | | ● | | | |

*(*) Minimum order quantity : 20 units*

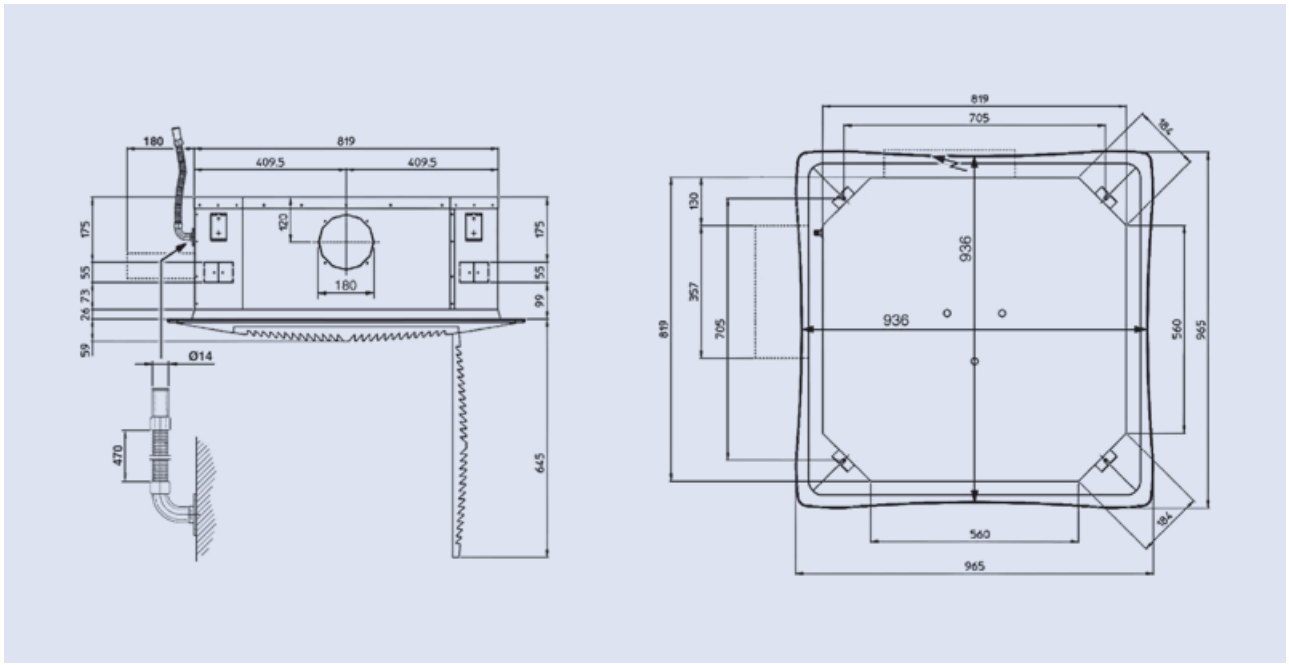
# Dimensions

## YHK 20/25/40/50-2 / YHK 20/25/40/50-4. (Version 600x600)
## YHK-ECM 25/40/50-2 / YHK-ECM 25-4 / 40/50-6. (Version 600x600)




*All dimensions in mm. Drawings not a scale.*

## YHK 65/95/110-2 / YHK 65/95/110-4. (Version 800x800)
## YHK-ECM 65/95-2 / YHK-ECM 65-4 / 95-6. (Version 800x800)




*All dimensions in mm. Drawings not a scale.*

# YFCC Coanda Hydro Cassette

## 2 & 4 pipe system

**A complete range from 0.9 kW to 4.0 kW**

NEW

## Wired controls

**BR**
Remote three speeds controller

**TR**
BR + Electronic thermostat
and Summer/Winter switch

**ATR**
Automatic TR

**DTR**
Digital Automatic
Remote controller

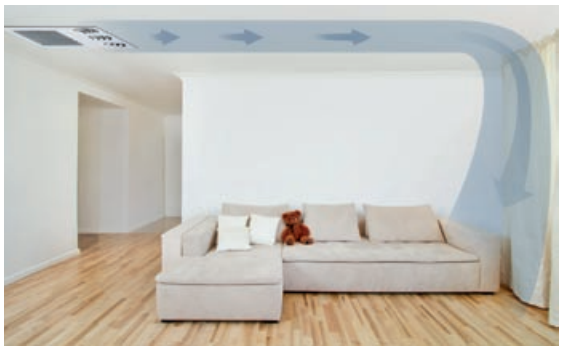
**TMO 503 SV2**
Digital Automatic
Remote controller
to be mounted in the standard
light wall box

**DRC - DI**
Centralized controller
up to 60 terminals

## Infrared control

## Features

- Coanda effect units, allowing easier and cheaper installation
- Cooling duty from 0.9 to 4.0 kW
- 2 & 4 (+1 or +2) pipes systems in all range
- 3 sizes: 600 x 600, 600 x 1000 & 600 x 1200
- 2/3 way valves fitted or supplied loose in all range
- Left and right hand (optional) water connections
- 6 fan speeds (3 pre-wired)
- Air throw till 7.6m (cooling) and 9.5m (heating)



**Coanda effect**

# YFCC Coanda Hydro Cassette

## 0.9 to 4.0 kW

## Technical features 2 pipe system

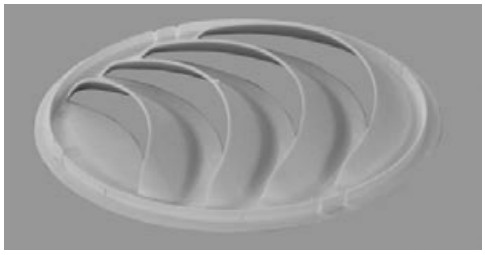
| Model | | YFCC 130 | YFCC 140 | YFCC 230 | YFCC 240 | YFCC 330 | YFCC 340 |
|---|---|---|---|---|---|---|---|
| Cooling capacity | kW | 0.9 / 1.1 / 1.5 | 1.0 / 1.2 / 1.7 | 1.4 / 1.6 / 2.4 | 1.4 / 1.7 / 2.6 | 2.0 / 2.8 / 3.3 | 2.5 / 3.6 / 4.0 |
| Sensible cooling capacity | kW | 0.7 / 0.8 / 1.2 | 0.7 / 0.9 / 1.3 | 1.0 / 1.2 / 1.8 | 1.0 / 1.2 / 1.9 | 1.4 / 2.1 / 2.5 | 1.8 / 2.6 / 3.0 |
| Heating capacity | kW | 1.1 / 1.3 / 1.9 | 1.1 / 1.4 / 2.1 | 1.6 / 1.9 / 2.9 | 1.7 / 2.0 / 3.1 | 2.3 / 3.4 / 4.0 | 2.9 / 4.2 / 4.8 |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | | | | |
| Airflow | $m^3/h$ | 140 / 180 / 280 | 140 / 180 / 280 | 200 / 240 / 380 | 200 / 240 / 380 | 290 / 440 / 540 | 360 / 540 / 620 |
| Fan | W | 16 / 22 / 49 | 16 / 22 / 49 | 24 / 27 / 44 | 24 / 27 / 44 | 27 / 42 / 59 | 33 / 59 / 72 |
| Pressure drop in cooling | kPa | 2.4 / 3.3 / 6.1 | 4.7 / 6.7 / 12.9 | 2.9 / 3.9 / 7.6 | 4.4 / 6.0 / 12.1 | 6.4 / 12.1 / 16.2 | 6.7 / 12.6 / 15.5 |
| Pressure drop in heating | kPa | 1.8 / 2.6 / 4.9 | 3.7 / 5.4 / 10.7 | 2.3 / 3.1 / 6.3 | 3.5 / 4.8 / 10.2 | 5.2 / 9.8 / 13.4 | 5.5 / 10.0 / 12.6 |
| Sound power level | dB(A) | 35 / 41 / 52 | 35 / 41 / 52 | 33 / 36 / 48 | 33 / 36 / 48 | 35 / 46 / 52 | 41 / 52 / 55 |
| Sound pressure level * | dB(A) | 26 / 32 / 43 | 26 / 32 / 43 | 24 / 27 / 39 | 24 / 27 / 39 | 26 / 37 / 43 | 32 / 43 / 46 |
| Dimensions (H x W x D) | mm | 309 x 592 x 592 | | 309 x 592 x 970 | | 309 x 592 x 1192 | |
| Net weight | kg | 16 | 18 | 33 | 35 | 42 | 45 |

** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 $m^3$ room and a reverberation time of 0.5 sec.*
*Cooling capacities based on 7/12°C EWT - Indoor temperature 27°C DB / 19°C WB*
*Heating capacities based on 50°C EWT at nominal flow rate Indoor temperature 20°C*
*Water flow rate as for the cooling conditions*
*All data are in Low / Medium / High speeds pre-wired*

## Technical features 4 pipe system

| Model | | YFCC 130+1 | YFCC 230+1 | YFCC 330+1 |
|---|---|---|---|---|
| Cooling capacity | kW | 0.9 / 1.1 / 1.5 | 1.4 / 1.6 / 2.4 | 2.0 / 2.8 / 3.3 |
| Sensible cooling capacity | kW | 0.7 / 0.8 / 1.2 | 1.0 / 1.2 / 1.8 | 1.4 / 2.1 / 2.5 |
| Heating capacity | kW | 0.9 / 1.1 / 1.5 | 1.5 / 1.7 / 2.4 | 2.1 / 2.9 / 3.3 |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | |
| Airflow | $m^3/h$ | 140 / 180 / 280 | 200 / 240 / 380 | 290 / 440 / 540 |
| Fan | W | 16 / 22 / 49 | 24 / 27 / 44 | 27 / 42 / 59 |
| Pressure drop in cooling | kPa | 2.4 / 3.3 / 6.1 | 2.9 / 3.9 / 7.6 | 6.4 / 12.1 / 16.2 |
| Pressure drop in heating | kPa | 1.6 / 2.1 / 3.6 | 0.9 / 1.2 / 2.0 | 2.0 / 3.4 / 4.3 |
| Sound power level | dB(A) | 35 / 41 / 52 | 33 / 36 / 48 | 35 / 46 / 52 |
| Sound pressure level * | dB(A) | 26 / 32 / 43 | 24 / 27 / 39 | 26 / 37 / 43 |
| Dimensions (H x W x D) | mm | 309 x 592 x 592 | 309 x 592 x 970 | 309 x 592 x 1192 |
| Net weight | kg | 19 | 38 | 48 |

** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 $m^3$ room and a reverberation time of 0.5 sec.*
*Cooling capacities based on 7/12°C EWT - Indoor temperature 27°C DB / 19°C WB*
*Heating capacities based on 70/60°C EWT - Indoor temperature 20°C*
*All data are in Low / Medium / High speeds pre-wired*



**Round diffuser**
The YFCC one-way cassette units are supplied with round diffusers suitably designed to generate an airflow with "coanda" effect. The direction of diffuser air flow can be adjusted on site.

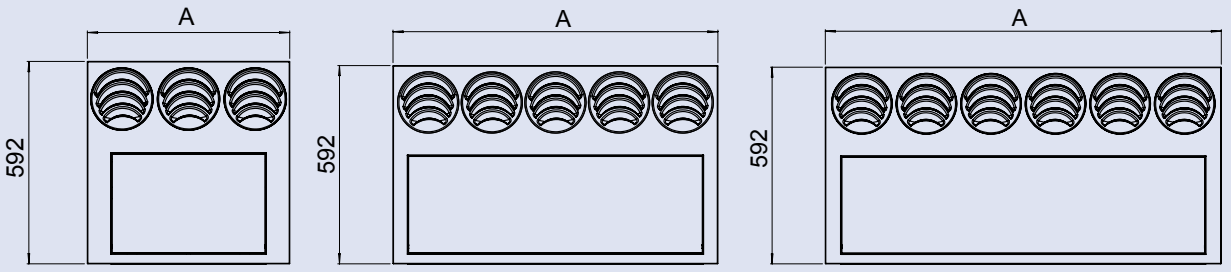
# Options & Accessories

## Compatibility table / Codes

| Model (Panel not included) | | YFCC 130 | YFCC 140 | YFCC 230 | YFCC 240 | YFCC 330 | YFCC 340 |
|---|---|---|---|---|---|---|---|
| Cassette YFCC | 2 pipe system | 0064001K | 0064011K | 0064002K | 0064012K | 0064003K | 0064013K |
| | 4 pipe system (+1) | 0064021K | 0064031K | 0064022K | 0064032K | 0064023K | 0064033K |
| | 4 pipe system (+2) | 0064041K | - | 0064042K | - | 0064043K | - |
| **Options (Factory fitted)** | | | | | | | |
| Right hand connection | | Contact Johnson Controls | | | | | |
| **Valves (220V On/Off) (factory fitted)** | | | | | | | |
| 3 way valve + mounting kit for 2 pipe models (factory fitted) | 9066561 | • | | | | - | |
| | 9060471 | - | | | | • | |
| 3 way valve + additional battery (factory fitted) | 9060472 | • | | | | | |
| 2 way valve + additional battery (factory fitted) | 9060476 | Contact Johnson Controls | | | | | |
| **Controls** | | | | | | | |
| Infrared control | 9060175 | • | | | | | |
| | 9060166 | • | | | | | |
| **Accessories (supplied loose)** | | | | | | | |
| **Valves (220V On/Off)** | | | | | | | |
| 3 way valve + mounting kit for 4 pipe models (not fitted) | 9066560 | • | | | | - | |
| | 9060474 | - | | | | • | |
| 3 way valve + additional battery not fitted | 9060475 | • | | | | | |
| 2 way valve + additional battery not fitted | 9060478 | Contact Johnson Controls | | | | | |
| | 9060479 | Contact Johnson Controls | | | | | |
| **Other type of valves** | | | | | | | |
| Other valves | | Contact Johnson Controls | | | | | |
| **Wired controls** | | | | | | | |
| Remote three speed control BR | 9060540 | • | | | | | |
| Remote three speed control + electronic thermostat and S/W switch TR | 9060541 | • | | | | | |
| Automatic speed control with electronic thermostat and S/W - ATR | 9060542 | • | | | | | |
| Automatic remote control with electronic thermostat, S/W swithc and liquid crystall display DTR | 9060521 | • | | | | | |
| Automatic speed control with electronic thermostat to be mounted in the light wall box TMO-503-S | 9060170 | • | | | | | |
| Automatic speed control with electronic thermostat to be mounted in the light wall box TMO-503-SV2 | 9060172 | • | | | | | |
| Remote thermostat with S/W switch (for 2 pipe system only) | 9060174 | | | | | | |
| Receiver REC-S | 9079110 | • | | | | | |
| Receiver (slave) for control DTR RECD | 9060139 | • | | | | | |
| Low temperature cut out thermostat TME | 3021091 | • | | | | | |
| Low temperature cut out thermostat TMM | 9053048 | • | | | | | |
| Change over CH 15-25 | 9053049 | • | | | | | |
| **Infrared and Free controls** | | | | | | | |
| Infrared remote control with not fitted electronic board for versions CD only IRC-S | 9060176 | • | | | | | |
| IRC-S control (not fitted on the unit) with ETN +/-3% | 9060167 | • | | | | | |
| Low temperature cut out CH | 9079103 | • | | | | | |
| Digital remote control up to 60 multifunction units | 9079102 | • | | | | | |
| Maxinet | 9079104 | • | | | | | |
| Board 8 relais for Maxinet | 9079105 | • | | | | | |
| Remote control FREE-COM | 9060572 | • | | | | | |
| Free control | 9060571 | • | | | | | |
| Not mounted Electronic board FREE-UPS | 9060570 | • | | | | | |
| Temperature sensor FREE-SEN | 9060573 | • | | | | | |
| Low temperature cut out FREE-NTC | 3021090 | • | | | | | |

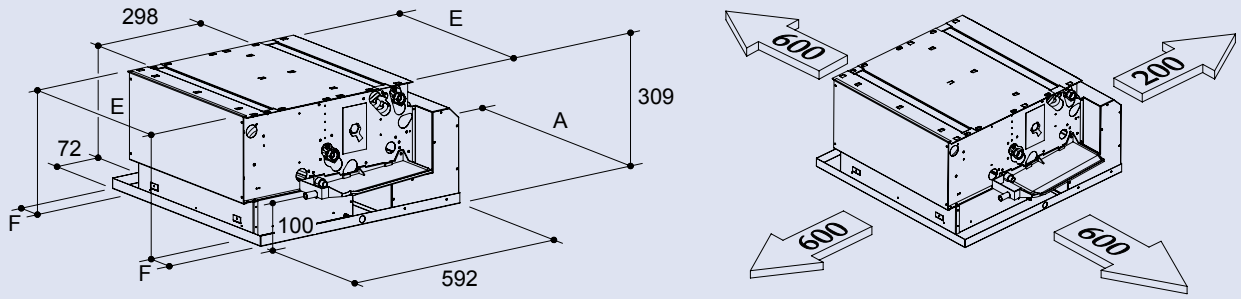
# Dimensions

## Diffussers




*All dimensions in mm. Drawings not a scale.*

## YFCC 130 to 340

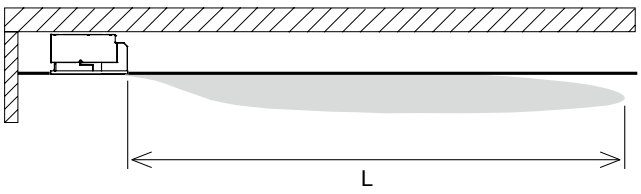



*All dimensions in mm. Drawings not a scale.*

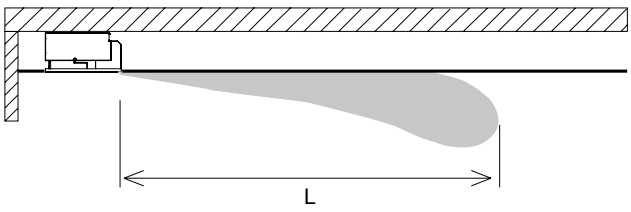
| Model | 130 / 140 | 230 / 240 | 330 / 340 |
|---|---|---|---|
| A | 592 | 970 | 1 192 |
| E | 454 | 884 | 1 099 |
| F | 78 | 43 | 46.5 |

## Air Throw

### C1 - Heating




### C2 - Cooling




| Model | | YFCC 1 | | | | | | YFCC 2 | | | | | | YFCC 3 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| Air throw L (m) | C1 | 3.8 | 4.5 | 5.8 | 6.3 | 6.8 | 7.2 | 4 | 5 | 6.1 | 7 | 8 | 9 | 4.5 | 5.2 | 6.3 | 7.5 | 8.8 | 9.5 |
| | C2 | 3 | 3.6 | 4.6 | 5 | 5.4 | 5.7 | 3.2 | 4 | 4.8 | 5.6 | 6.4 | 7.2 | 3.6 | 4.1 | 5 | 6 | 7 | 7.6 |

# YHM Hydro High Wall

## 2 pipe system

**A range from 1.7 to 4.7 kW**

NEW


**TR. Wired Control**
Remote three speeds controller, electronic thermostat and Summer/Winter switch

**ATR. Wired Control**
Automatic TR

**Electronic Infrared Control**

**FX03 Terminal unit controller**
BacNET and N2 Metasys network compatible
(see page 103 for details)

## Features

- Wired control or infrared control
- Automatic air sweep
- 3 way valves fitted (YHMH 20V and 30V models) or 2 way valves supplied loose in all range
- Condensate collection tray
- Air filter included
- Heat exchange coil

**2 Way Valve ON/OFF**
with thermoelectric actuator.
Suitable for the connection with Ø 12 mm pipes

**Rear Frame**
for installation of valves (accessorie)

## Wired control (YHMY)

- 4 operation modes (Cool/Heat/Auto/Fan)
- Room temperature and setting
- Fan speed selector (Auto, low, medium and high)

## Infrared control (YHMH)

- Wireless
- 5 operation modes (Cool/Heat/Auto/Dry/Fan)
- Sleep Mode
- Room Temperature setting
- Fan speed selection
- Timer
- Air flow direction setting
- LCD display

# YHM Hydro High Wall

## 1.7 to 4.7 kW

## Technical features

| Model | | YHMY(H) 20 | YHMY(H) 30 | YHMY(H) 40 | YHMY(H) 50 |
|---|---|---|---|---|---|
| Cooling capacity | kW | 2.2 / 1.9 / 1.7 | 2.8 / 2.0 / 1.8 | 4.0 / 3.4 / 3.1 | 4.7 / 3.9 / 3.4 |
| Sensible capacity | kW | 1.8 / 1.6 / 1.5 | 2.5 / 1.8 / 1.6 | 3.4 / 2.9 / 2.6 | 3.6 / 3.3 / 2.9 |
| Heating capacity | kW | 2.7 / 2.3 / 2.0 | 3.6 / 2.6 / 2.2 | 4.9 / 4.2 / 3.8 | 5.8 / 4.9 / 4.2 |
| Air flow | $m^3/h$ | 436 / 376 / 334 | 632 / 522 / 403 | 780 / 691 / 570 | 920 / 810 / 697 |
| **Electrical data** | | | | | |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | | |
| Power input | W | 24 | 28 | 40 | 50 |
| **Noise level** | | | | | |
| Sound pressure level at 1 m | dB(A) | 36 / 33 / 29 | 43 / 33 / 30 | 46 / 43 / 39 | 51 / 47 / 44 |
| **Dimensions and weight** | | | | | |
| Height | mm | 270 | 270 | 298 | 298 |
| Width | mm | 845 | 845 | 920 | 920 |
| Depth | mm | 180 | 180 | 200 | 200 |
| Weight | kg | 10 | 10 | 13 | 13 |

## Technical features with valve fitted

| Model | | YHMH 20 V | YHMH 30 V |
|---|---|---|---|
| Cooling capacity | kW | 1.7 / 1.6 / 1.2 | 3.2 / 2.8 / 2.4 |
| Sensible capacity | kW | 1.3 / 1.1 / 0.9 | 2.4 / 2.1 / 1.8 |
| Heating capacity | kW | 2.4 / 2.0 / 1.7 | 4.5 / 3.9 / 3.4 |
| Air flow | $m^3/h$ | 450 / 383 / 323 | 650 / 560 / 490 |
| **Electrical data** | | | |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | |
| Power input | W | 50 | 60 |
| **Noise level** | | | |
| Sound pressure level at 1 m | dB(A) | 44 / 38 / 32 | 50 / 43 / 38 |
| **Dimensions and weight** | | | |
| Height | mm | 270 | 298 |
| Width | mm | 845 | 920 |
| Depth | mm | 180 | 200 |
| Weight | kg | 11 | 13 |

*All data are in high/medium/low speed*
*Cooling capacities based on 7°C EWT Δt 5°C  Indoor temperature 27°C DB / 19°C WB*
*Heating capacities based on 50°C EWT at nominal flow rate Indoor temperature 20°C*
*Water flow rate as for the cooling conditions*

## Codes

| Unit without infrared remote control | | YHMY 20 | YHMY 30 | YHMY 40 | YHMY 50 |
|---|---|---|---|---|---|
| Unit codes | | 0024231K | 0024232K | 0024233K | 0024234K |
| **Unit with infrared remote control** | | **YHMH 20** | **YHMH 30** | **YHMH 40** | **YHMH 50** |
| Unit codes | | 0024241K | 0024242K | 0024243K | 0024244K |
| **Unit with infrared remote control and fitted valve** | | **YHMH 20 V** | **YHMH 30 V** | **-** | **-** |
| Unit codes | | 0024252K | 0024254K | - | - |
| **Options (Factory fitted) / Accessories (supplied loose)** | | | | | |
| TR (Wired ON/OFF 3 Speeds Cool/Heat) | 9060541 | • | • | • | • |
| ATR (TR + Auto speed control) | 9060542 | • | • | • | • |
| 2 Way valve | 9024000 | • | • | • | • |
| Rear frame | | 9024021 | | 9024023 | |
| Rear frame with 3 way valve | | 9024031 | | 9024033 | |
| Low temperature cut out | 3021091 | • | • | • | • |
| Change over | 9053049 | • | • | • | • |

# YFCN Fan Coil Unit centrifugal fan

## 2 & 4 pipe system

**A complete range from 1.0 kW to 7.6 kW**


## Wired controls

**BR**
Remote three speeds controller

**TR**
BR + Electronic thermostat
and Summer/Winter switch

**ATR**
Automatic TR

**DTR**
Digital Automatic
Remote controller

**TMO 503 SV2**
Digital Automatic
Remote controller
to be mounted in the standard
light wall box

**DRC - DI**
Centralized controller
up to 60 terminals

## Infrared control

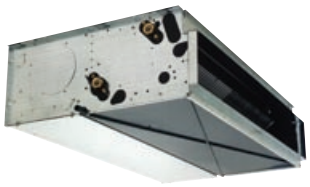
## Features

- New Casing, improved aesthetics and suitable for any modern indoor ambient
- Full range for all your needs: 9 sizes suitable for horizontal/vertical mounting
- Models with or without casing
- Low noise operation
- 3 fan speeds (possible to choice between 6 fan speeds)
- Single piece discharge grid
- Several coil choices: Single: 3 or 4 rows, Dual: 3 rows cooling & 2 rows heating
- Electrical heater optional
- Suction and discharge plenum optional
- Factory fitted valves and controller packages
- Painted back panel option
- 4 available versions in all range:
  VC = Vertical Discharge with Casing
  VCB = Vertical Discharge with Casing (floor installation)
  HC = Horizontal Discharge with Casing
  CD = Concealed unit without Casing

**FX03 Terminal unit controller**
BacNET and N2 Metasys
network compatible
(see page 103 for details)

# YFCN Fan Coil Unit centrifugal fan

## 1.0 to 7.6 kW



## YFCN - Technical features 2 pipes

| YFCN model | Air flow | Total capacity | | Pressure drop | | Power input | Pressure level | Dimensions (with casing) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Cooling | Heating | Cooling | Heating | | | Height | Width | Depth |
| | m³/h | kW | kW | kPa | kPa | W | dBA | mm | mm | mm |
| **130** | 220 | 1.0 | 1.4 | 2.3 | 2.0 | 33 | 36 | 530 | 670 | 225 |
| **230** | 295 | 1.6 | 2.0 | 6.5 | 5.5 | 32 | 38 | 530 | 770 | 225 |
| **330** | 385 | 2.4 | 2.9 | 19.7 | 16.7 | 41 | 40 | 530 | 985 | 225 |
| **430** | 485 | 2.9 | 3.6 | 27.2 | 23.1 | 44 | 38 | 530 | 985 | 225 |
| **530** | 650 | 3.2 | 3.9 | 12.7 | 10.8 | 46 | 34 | 530 | 1 200 | 225 |
| **630** | 760 | 4.1 | 5.1 | 19.8 | 16.8 | 78 | 43 | 530 | 1 200 | 225 |
| **730** | 925 | 5.1 | 6.3 | 34.2 | 29.1 | 103 | 47 | 530 | 1 415 | 225 |
| **830** | 1 200 | 5.8 | 7.7 | 19.0 | 16.2 | 130 | 51 | 530 | 1 415 | 255 |
| **930** | 1 500 | 6.7 | 9.1 | 24.6 | 20.9 | 176 | 55 | 530 | 1 415 | 255 |
| **140** | 220 | 1.2 | 1.6 | 5.6 | 4.7 | 33 | 36 | 530 | 670 | 225 |
| **240** | 295 | 1.8 | 2.2 | 13.9 | 11.6 | 32 | 38 | 530 | 770 | 225 |
| **340** | 385 | 2.6 | 3.1 | 11.5 | 9.2 | 41 | 40 | 530 | 985 | 225 |
| **440** | 485 | 3.1 | 3.8 | 15.5 | 12.2 | 44 | 38 | 530 | 985 | 225 |
| **540** | 545 | 3.5 | 4.2 | 24.2 | 19.9 | 46 | 34 | 530 | 1 200 | 225 |
| **640** | 760 | 4.8 | 5.9 | 36.2 | 29.3 | 78 | 43 | 530 | 1 200 | 225 |
| **740** | 925 | 5.6 | 6.7 | 27.7 | 23.7 | 103 | 47 | 530 | 1 415 | 225 |
| **840** | 1 200 | 6.5 | 8.4 | 17.5 | 14.5 | 130 | 51 | 530 | 1 415 | 255 |
| **940** | 1 500 | 7.6 | 10.1 | 23.2 | 19.3 | 176 | 55 | 530 | 1 415 | 255 |

*With fan running at max. speed. Data for the casing models. The capacities are accordingly to the EUROVENT standards and UNI ENV 1397.*
*COOLING: Room temperature 27°C d.b., 19°C w.b. - Water temperature 7/12 °C*
*HEATING: Room temperature 20°C - Water inlet temperature: 50°C and water flow rate is for a cooling conditions*
** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.*

## YFCN - Technical features 4 pipes

| YFCN model | Air flow | Total capacity | | Pressure drop | | Power input | Pressure level | Dimensions (with casing) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Cooling | Heating | Cooling | Heating | | | Height | Width | Depth |
| | m³/h | kW | kW | kPa | kPa | W | dBA | mm | mm | mm |
| **130-1** | 220 | 1.0 | 1.0 | 2.3 | 1.7 | 33 | 36 | 530 | 670 | 225 |
| **230-1** | 295 | 1.6 | 1.5 | 6.5 | 4.0 | 32 | 38 | 530 | 770 | 225 |
| **330-1** | 385 | 2.4 | 2.3 | 19.7 | 9.7 | 41 | 40 | 530 | 985 | 225 |
| **430-1** | 485 | 2.9 | 2.7 | 27.2 | 12.8 | 44 | 38 | 530 | 985 | 225 |
| **530-1** | 545 | 3.2 | 3.0 | 12.7 | 3.2 | 46 | 34 | 530 | 1 200 | 225 |
| **630-1** | 760 | 4.1 | 3.8 | 19.8 | 6.7 | 78 | 43 | 530 | 1 200 | 225 |
| **730-1** | 925 | 5.1 | 4.8 | 34.2 | 8.3 | 103 | 47 | 530 | 1 415 | 225 |
| **830-1** | 1 200 | 5.8 | 5.4 | 19.0 | 10.3 | 130 | 51 | 530 | 1 415 | 255 |
| **930-1** | 1 500 | 6.7 | 6.2 | 24.6 | 13.2 | 176 | 55 | 530 | 1 415 | 255 |

*With fan running at max. speed. Data for the casing models. The capacities are accordingly to the EUROVENT standards and UNI ENV 1397.*
*COOLING: Room temperature 27°C d.b., 19°C w.b. - Water temperature 7/12 °C*
*HEATING: Room temperature 20°C - Water inlet temperature: 70/60°C*
** The sound pressure levels are 9 dB(A) lower than the sound power levels and apply to the reverberant field of a 100 m³ room and a reverberation time of 0.5 sec.*

# Options / Accessories

## Compatibility table / Codes

| Model | YFCN | | |
|---|---|---|---|
| **Versions** | **VC/VCB mod. - Vertical with casing** | **HC mod. - Horizontal with casing** | **CD mod. - Without casing** |
| **Controls for style VC (supplied with separate packaging)** | | | |
| Three speed control BL * | 9060130 | - | - |
| Three speed control + electronic thermostat and S/W switch TMV-S | 9060140 | - | - |
| Three speed control + electronic thermostat and centralized S/W - TLC ** | 9060133 | - | - |
| Automatic speed control with electronic thermostat and S/W switch ATL ** | 9060134 | - | - |
| Infra-red remote control with fitted electronic board for versions VC and HC only IRC-M ** | 9060175 | 9060175 | - |
| IRC-M control (fitted on the unit) with ETN +/- 3% | 9060166 | 9060166 | 9060166 |
| **Controls for style HC/CD (supplied with separate packaging)** | | | |
| Remote three speed control BR * | - | 9060540 | 9060540 |
| Remote three speed control + electronic thermostat and S/W switch TR *** | - | 9060541 | 9060541 |
| Automatic speed control with electronic thermostat and centralized S/W - ATR *** | - | 9060542 | 9060542 |
| Automatic remote controol with electronic thermostat, S/W swithc and liquid crystall display DTR ** | - | 9060521 | 9060521 |
| Automatic speed control with electronic thermostat to be mounted in the light wall box TMO-503-S **** | - | 9060170 | 9060170 |
| Automatic speed control with electronic thermostat to be mounted in the light wall box TMO-503-SV **** | - | 9060172 | 9060172 |
| Infra-red remote control with NOT fitted electronic board for version CD only IRC-S ** | - | - | 9060176 |
| IRC-S control (not fitted on the unit) with ETN +/- 3% | - | 9060167 | 9060167 |
| **Controls for all versions (supplied with separate packaging)** | | | |
| Low temperature cut out TME for controls TL, TLC, ATL, ATLC, TR, DTR | 3021091 | 3021091 | 3021091 |
| Low temperature cut out TMM for controls BL, BR | 9053048 | 9053048 | 9053048 |
| Change over 15-25 CH 15-25 | 9053049 | 9053049 | 9053049 |
| Receiving speed selector for centralized control (slave) style VC RECV | 9060136 | 9060136 | 9060136 |
| Receiving speed selectror for centralized control (slave) style HC/CD RECH | 9060137 | 9060137 | 9060137 |
| Receiver (slave) for control DTR RECD | 9060139 | 9060139 | 9060139 |
| Digital remote control up to 60 multifunction units | 9079102 | 9079102 | 9079102 |
| **Controls for style VC + additional electric resistance (supplied with separate packaging)** | | | |
| Three speed control BL-E * | 9063000 | - | - |
| Three speed control + electronic thermostat and S/W switch BTL-E * | 9063001 | - | - |
| Three speed control + electronic thermostat and S/W switch TL-E ** | 9063002 | - | - |
| Three speed control + electronic thermostat and centralized S/W - TLC-E ** | 9063003 | - | - |
| Automatic speed control with electronic thermostat and S/W switch ATL-E ** | 9063004 | - | - |
| Automatic speed control with electronic thermostat and centralized S/W - ATLC-E ** | 9063005 | - | - |
| **Controls for style HC/CD + additional electric resistance (supplied with separate packaging)** | | | |
| Remote three speed control BR-E * | - | 9063050 | 9063050 |
| Remote three speed control + electronic thermostat and S/W switch TR-E *** | - | 9063051 | 9063051 |
| Automatic speed control with electronic thermostat and centralized S/W - ATR-E *** | - | 9063024 | 9063024 |
| Automatic remote control with electronic thermostat, S/W switch and liquid crystall display DTR ** | - | 9060521 | 9060521 |

** not to be used with valves and/or low temperature cut-out*
*** it can be used with valves and/or low temperature cut-out*
**** to be used with valves and/or low temperature cut-out. The Winter/Summer switch is manual/centralized in accordance to the position of the J1 Jumper*
***** low temperature cut-out included*

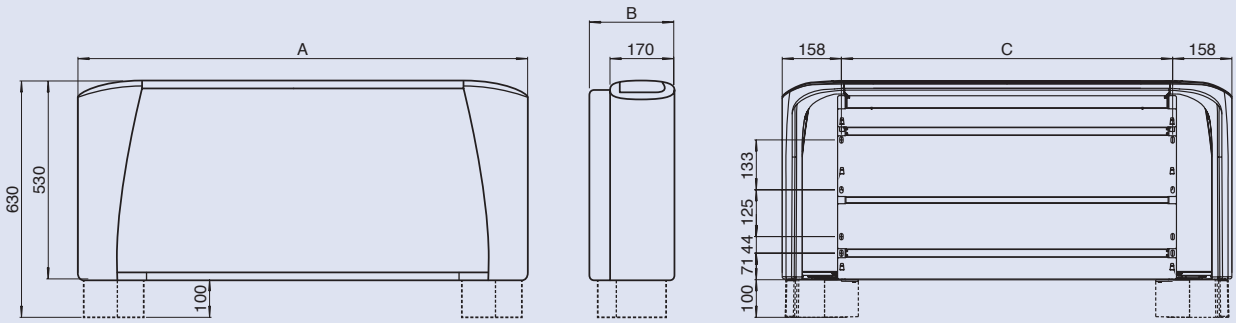
# Options / Accessories

## Compatibility table / Codes

| Model | YFCN | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sizes** | **130/140** | **230/240** | **330/340** | **430/440** | **530/540** | **630/640** | **730/740** | **830/840** | **930/940** |
| **Valves** | | | | | | | | | |
| Kit 3 way valve mounted | 9066561 | | | | | 9060471 | | | |
| Kit 3 way valve additional battery mounted | 9060472 | | | | | | | | |
| Kit 3 way valve not mounted | 9066560 | | | | | 9060474 | | | |
| Kit 3 way valve additional battery not mounted | 9060475 | | | | | | | | |
| Kit 2 way valve primary + additional battery mounted | 9060476 | | | | | - | | | |
| Kit 2 way valve primary battery mounted | - | | | | | 9060477 | | | |
| Kit 2 way valve primary+additional battery not mounted | 9060478 | | | | | - | | | |
| Kit 2 way valve primary battery not mounted | - | | | | | 9060479 | | | |
| Semplified valve kit for CD version fitted | 9066571 | | | | | 9060484 | | | |
| Semplified valve kit for CD version not fitted | 9066570 | | | | | 9060481 | | | |
| **Accessories for all versions** | | | | | | | | | |
| Pair feet | 9060150 | | | | | | | 9060151 | |
| Vertical auxiliary condensate tray | 6060400 | | | | | | | | |
| Horizontal auxiliary condensate tray (left connections) | 6060402 | | | | | | | | |
| Horizontal auxiliary condensate tray (right connections) | 6060403 | | | | | | | | |
| Condensate drain pipe | 6060420 | | | | | | | | |
| El. resistance and relays fitted on the unit (650 W) VC/HC | 9066491E | - | | | | | | | |
| El. resistance and relays fitted on the unit (400 W) VC/HC | - | 9066472E | - | | | | | | |
| El. resistance and relays fitted on the unit (600 W) VC/HC | - | 9066482E | 9066473E | - | | | | | |
| El. resistance and relays fitted on the unit (750 W) VC/HC | - | | | 9066475E | - | | | | |
| El. resistance and relays fitted on the unit (900 W) VC/HC | - | | 9066483E | - | | | | | |
| El. resistance and relays fitted on the unit (1000 W) VC/HC | - | 9066492E | - | | | 9066477E | | | |
| El. resistance and relays fitted on the unit (1250 W) VC/HC | - | | | 9066485E | - | | | | |
| El. resistance and relays fitted on the unit (1500 W) VC/HC | - | | 9066493E | - | | 9066487E | | | |
| El. resistance and relays fitted on the unit (2000 W) VC/HC | - | | | 9066495E | - | | | | |
| El. resistance and relays fitted on the unit (2500 W) VC/HC | - | | | | 9066497E | | | | |
| El. resistance and relays fitted on the unit (700 W) CD | 9066611E | - | | | | | | | |
| El. resistance and relays fitted on the unit (400 W) CD | - | 9066592E | - | | | | | | |
| El. resistance and relays fitted on the unit (600 W) CD | - | 9066602E | 9066593E | - | | | | | |
| El. resistance and relays fitted on the unit (750 W) CD | - | | | 9066595E | - | | | | |
| El. resistance and relays fitted on the unit (900 W) CD | - | | 9066603E | - | | | | | |
| El. resistance and relays fitted on the unit (1000 W) CD | - | 9066612E | - | | | 9066597E | | | |
| El. resistance and relays fitted on the unit (1250 W) CD | - | | | 9066605E | - | | | | |
| El. resistance and relays fitted on the unit (1500 W) CD | - | | 9066613E | - | | 9066607E | | | |
| El. resistance and relays fitted on the unit (2000 W) CD | - | | | 9066615E | - | | | | |
| El. resistance and relays fitted on the unit (2500 W) CD | - | | | | 9066617E | | | | |
| Damper | 9066531 | 9066532 | 9066533 | 9066535 | | 9066537 | | 9066538 | |
| IM Frame | - | 9060575 | 9060576 | 9060577 | | 9060578 | | - | |
| Rear closing panel VC | 9062005 | 9060180 | 9060181 | 9060182 | | 9060183 | | | |
| Rear closing panel HC | 9060187 | 9060190 | 9060191 | 9060192 | | 9060193 | | 9060194 | |
| Frontal air intake CD mounted | 9066501 | 9066502 | 9066503 | 9066505 | | 9066507 | | 9066508 | |
| Intake grid for VC | 9060229 | 9060230 | 9060231 | 9060232 | | 9060233 | | | |
| Adaptor for terminal board VC for remote control | 9060103 | | | | | | | | |
| **Accessories only for concealed version CD** | | | | | | | | | |
| Outlet flange 90° | 9066381 | 9066382 | 9066383 | 9066385 | | 9066387 | | 9066388 | |
| Inlet flange 90° | 9066441 | 9060710 | 9060711 | 9060712 | | 9060713 | | 9060714 | |
| Straight inlet flange | 9066451 | 9060720 | 9060721 | 9060722 | | 9060723 | | 9060724 | |
| Straight outlet flange | 9066371 | 9066372 | 9066373 | 9066375 | | 9066377 | | 9066378 | |
| Outlet spigot diffuser | 9066361 | 9066362 | 9066363 | 9066365 | | 9066367 | | 9066368 | |
| Air outlet grid | 9066411 | 9060750 | 9060751 | 9060752 | | 9060753 | | | |
| Air inlet grid | 9066421 | 9060760 | 9060761 | 9060762 | | 9060763 | | | |
| Air inlet spigot plenum | 9066461 | 9066462 | 9066463 | 9066465 | | 9066467 | | 9066468 | |
| Intake grid with filter (to be used in combination with inlet flange 90°) | 9066391 | 9060770 | 9060771 | 9060772 | | 9060773 | | | |
| Intake grid with filter (to be used in combination with straight inlet flange) | 9066401 | 9060774 | 9060775 | 9060776 | | 9060777 | | | |

# Dimensions

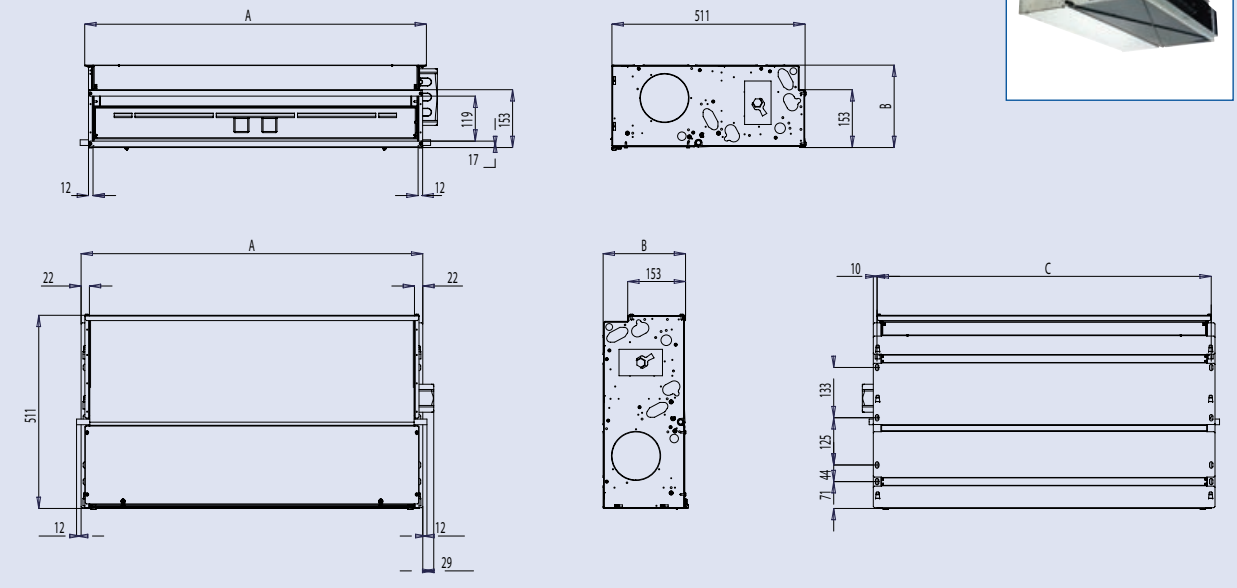
## YFCN 130 to 940 (with casing)




*All dimensions in mm. Drawings not a scale.*

| Model | 130 / 140 | 230 / 240 | 330 / 340 | 430 / 440 | 530 / 540 | 630 / 640 | 730 / 740 | 830 / 840 | 930 / 940 |
|---|---|---|---|---|---|---|---|---|---|
| A | 670 | 770 | 985 | 985 | 1 200 | 1 200 | 1 415 | 1 415 | 1 415 |
| B | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 255 | 255 |
| C | 354 | 454 | 669 | 669 | 884 | 884 | 1 099 | 1 099 | 1 099 |

## YFCN 130 to 940 (without casing)




*All dimensions in mm. Drawings not a scale.*

| Model | 130 / 140 | 230 / 240 | 330 / 340 | 430 / 440 | 530 / 540 | 630 / 640 | 730 / 740 | 830 / 840 | 930 / 940 |
|---|---|---|---|---|---|---|---|---|---|
| A | 374 | 474 | 689 | 689 | 904 | 904 | 1 119 | 1 119 | 1 119 |
| B | 218 | 218 | 218 | 218 | 218 | 218 | 218 | 248 | 248 |
| C | 354 | 454 | 669 | 669 | 884 | 884 | 1 099 | 1 099 | 1 099 |

# Smart Pac

## Johnson Controls Intelligent Network Controllers

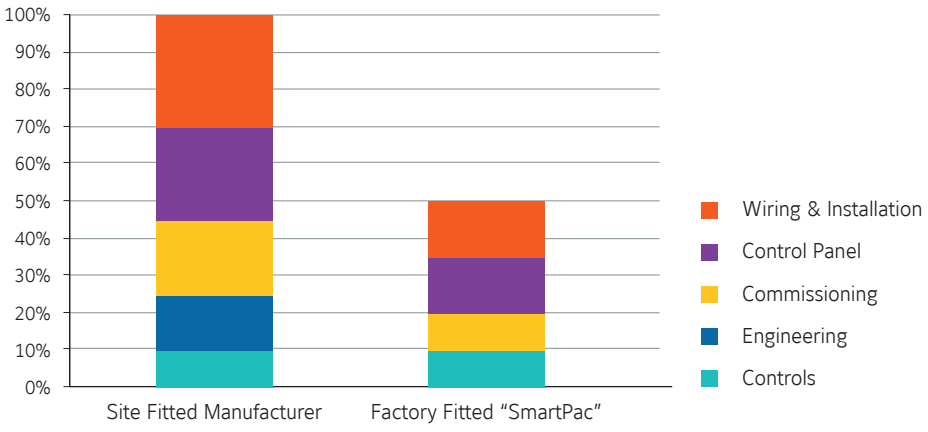
## FX03 Controller

ControllerThe controller is designed specifically to provide direct digital control of terminal unit applications with heating and/or cooling coils, an electric heater and a three-speed or variable speed fan. The device can be configured by the installer without the need of a PC and software tool, using a set of on-board dip-switches. The controller is designed for mounting by York OEM equipment FCU manufacturers on DIN-rail or directly on to the FCU surface.

## Communication & Valves

The total assembly is completed in the factory; options for controllers include EUBAC approved systems or low cost configurable controllers. Further communication options enhance flexibility with BACNet and LON made available at no extra cost. Valves and Valve kits are also flexible, with modulating and on/off actuators, plus isolation valves if required fitted to the valve kits. Installations are tested and delivered to site with software ready loaded.

## Fancoil Factory Package over Typical Site Installed Controls




### Save Time...

Site Time is always precious, the more off site to benefit the flow of the contract, the deliver the desired result.

SmartPac Engineering is the control panels are standard and the savings are greater...

Source: Johnson Controls

Johnson Controls

# LASER & LOW BODY Fan Coil Units

## 2 & 4 pipe system

**A complete range from 0.7 kW up to 9.9 kW**

**CSL00 (Built in)**
**CSR00 (Wall mounted)**
Fan speed selector

**CEL00 (Built in)**
**CER00 (Wall mounted)**
Thermostat with manual fan speed and automatic change over

**CEL20 (Built in)**
**CER20 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over

**CML00 (Built in)**
**CMR00 (Wall mounted)**
Thermostat with manual fan speed and S/W change over

**CEL30 (Built in)**
**CER30 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over for modulating valve

**FX03 Terminal unit controller**
BacNET and N2 Metasys network compatible
(see page 103 for details)

## Features

- 6 speed fan
- Cabinet factory fitted
- Valve factory fitted
- Electrical heater factory fitted
- Thermal or modulating valve
- Service valve
- Option front air intake (LASER)
- Optional plenum (LASER)
- Up to 110 pa static pressure (LASER)

## Technical features

| Model | | LASER: YLV, YLV-AF, YLH, YLH-AF, YLIV, YLIV-AF, YLIH, YLIH-AF | | | | | | | | | | LOW BODY: YLVR, YLIVR | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sizes** | | **110** | **112** | **114** | **216** | **218** | **220** | **222** | **224** | **226** | **228** | **110** | **112** | **114** | **216** | **218** |
| Cooling capacity (1) | W | 1 169 | 1 746 | 2 291 | 3 467 | 3 804 | 4 664 | 5 570 | 6 789 | 7 599 | 9 974 | 942 | 1 460 | 2 115 | 2 719 | 3 372 |
| Heating capacity (2) | W | 1 628 | 2 296 | 2 981 | 4 514 | 5 076 | 6 013 | 7 304 | 8 677 | 9 800 | 12 739 | 1 159 | 1 839 | 2 432 | 3 270 | 3 656 |
| Pressure drop (4) | kPa | 3.9 | 7.6 | 6.5 | 13.8 | 13.6 | 23.1 | 31.6 | 18.8 | 20.9 | 37.1 | 6.1 | 1.4 | 5.4 | 9.1 | 24.2 |
| Power supply | V/Ph/Hz | 230 / 1 / 50 + E | | | | | | | | | | | | | | |
| Input | W | 46 | 48 | 57 | 81 | 86 | 89 | 119 | 145 | 156 | 200 | 46 | 48 | 57 | 81 | 86 |
| Sound power level (3) | dB(A) | 49 | 50 | 53 | 53 | 55 | 55 | 59 | 60 | 63 | 67 | 49 | 50 | 53 | 53 | 55 |
| Sound pressure level at 3 m (3) | dB(A) | 31 | 32 | 35 | 35 | 37 | 37 | 41 | 42 | 45 | 49 | 31 | 32 | 35 | 35 | 37 |
| Water connections | inch | 1/2 " | | | | | | | | | | | | | | |

*Dimensions indicated next page.*
*(1) Cooling capacities based on 7°C EWT Δt 5°C indoor temperature 27°C DB / 19°C WB (2 pipes - high speed fan) (3 rows).*
*(2) Heating capacities based on 50°C EWT (LASER) / 70°C EWT (LOW BODY) at nominal flow rate indoor temperature 20°C (2 pipes - high speed fan) (3 rows for LASER and 1 row for LOW BODY).*
*(3) Sound level at high speed fan . (4) In cooling mode. For other conditions contact Johnson Controls*

# LASER & LOW BODY Fan Coil Units

## 0.7 to 9.9 kW

## Compatibility table / Codes

| Model | | LASER | | | | | | | | | | LOW BODY | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sizes** | | **110** | **112** | **114** | **216** | **218** | **220** | **222** | **224** | **226** | **228** | **110** | **112** | **114** | **216** | **218** |
| With Cabinet | | | | | | | | | | | | | | | | |
| YLV-YLH | 2/3/4 rows | • | • | • | • | • | • | • | • | • | • | | | | | |
| YLV-YLH/AF Front air intake | 2/3/4 rows | • | • | • | • | • | • | • | • | • | • | | | | | |
| YLVR | 2/3 rows | | | | | | | | | | | • | • | • | • | • |
| Without Cabinet | | | | | | | | | | | | | | | | |
| YLIV-YLIH | 2/3/4 rows | • | • | • | • | • | • | • | • | • | • | | | | | |
| YLIV-YLIH/AF Front air intake | 2/3/4 rows | • | • | • | • | • | • | • | • | • | • | | | | | |
| YLIVR | 2/3 rows | | | | | | | | | | | • | • | • | • | • |
| **Options (Factory fitted)** | | | | | | | | | | | | | | | | |
| Coil and heaters | | | | | | | | | | | | | | | | |
| 1 row heating | BA1 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Kit electrical heater (with relay and safety switch) | KREL | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| Built in thermostat | | | | | | | | | | | | | | | | |
| Fan speed selector | CSL00 | | | | | | | | • | | | | | | | |
| Thermostat with manual fan speed and S/W change over | CML00 | | | | | | | | • | | | | | | | |
| Thermostat with manual fan speed, dead band, automatic change over | CEL00 | | | | | | | | • | | | | | | | |
| Thermostat with automatic fan speed, dead band, automatic change over | CEL20 | | | | | | | | • | | | | | | | |
| Thermostat with automatic fan speed, dead band, automatic change over for modulating valve | CEL30 | | | | | | | | • | | | | | | | |
| Parallel connection | | | | | | | | | | | | | | | | |
| For ON/OFF valve one/FCU | CBL20 | | | | | | | | • | | | | | | | |
| For modulating valve one/FCU | CBL30 | | | | | | | | • | | | | | | | |
| 3 way valve factory fitted | | | | | | | | | | | | | | | | |
| For 2 pipe systems ON/OFF | J3A2 (2p) | | | | | | | | • | | | | | | | |
| For 4 pipe systems ON/OFF | J3A2 (4p) | | | | | | | | • | | | | | | | |
| 3 way modulating valve factory fitted | | | | | | | | | | | | | | | | |
| For 2 pipe systems Modulating | J3AM (2p) | | | | | | | | • | | | | | | | |
| For 4 pipe systems Modulating | J3AM (4p) | | | | | | | | • | | | | | | | |
| Shut off valves factory fitted | | | | | | | | | | | | | | | | |
| For 2 pipe systems | DT (2p) | | | | | | | | • | | | | | | | |
| For 4 pipe systems | DT (4p) | | | | | | | | • | | | | | | | |
| Condensate pump | PC | | | | | | | | • | | | | | | | |
| WS sensor change over for CEL/CER | WS | | | | | | | | • | | | | | | | |
| Minimum temperature thermostat | TM | | | | | | | | • | | | | | | | |
| **Accessories (Supplied loose)** | | | | | | | | | | | | | | | | |
| Remote controllers and thermostat (wall mounted) | | | | | | | | | | | | | | | | |
| Fan speed selector | CSR00 | | | | | | | | • | | | | | | | |
| Thermostat with manual fan speed and S/W change over | CMR00 | | | | | | | | • | | | | | | | |
| Thermostat with manual fan speed, dead band, automatic change over | CER00 | | | | | | | | • | | | | | | | |
| Thermostat with automatic fan speed, dead band, automatic change over | CER20 | | | | | | | | • | | | | | | | |
| Thermostat with automatic fan speed, dead band, automatic change over for modulating valve | CER30 | | | | | | | | • | | | | | | | |
| Feet and panel (1) | | | | | | | | | | | | | | | | |
| Set of painted feet | CP1 | • | • | • | • | • | • | • | • | • | • | | | | | |
| Set of painted feet + frontal socle | ZL1 | • | • | • | • | • | • | • | • | • | • | | | | | |
| Vertical painted back panel | PPV1 | • | • | • | • | • | • | • | • | • | • | | | | | |
| Horizontal painted back panel | PPH1 | • | • | • | • | • | • | • | • | • | • | | | | | |
| Plenums and air intake (1) | | | | | | | | | | | | | | | | |
| Air intake plenum | PA | • | • | • | • | • | • | • | • | • | • | | | | | |
| Air intake plenum with collars | PAS | • | • | • | • | • | • | • | • | • | • | | | | | |
| 90° air intake plenum | PA90 | • | • | • | • | • | • | • | • | • | • | | | | | |
| Air intake duct fitting | RCA | • | • | • | • | • | • | • | • | • | • | | | | | |
| Air delivery plenum with collars | PM | • | • | • | • | • | • | • | • | • | • | | | | | |
| 90° air delivery plenum | PM90 | • | • | • | • | • | • | • | • | • | • | | | | | |

*(1) for check compatibility with the models of FCU see compatibility table on page 109*

# Dimensions & Weights

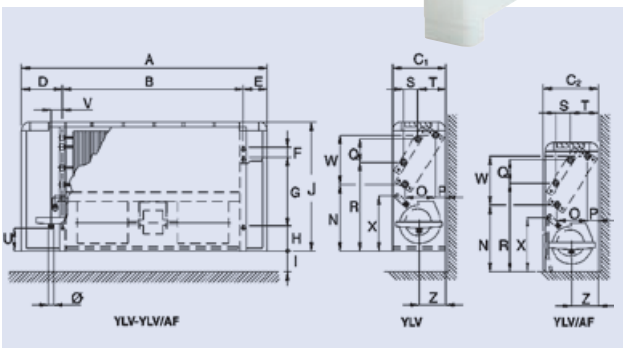
**YLV & YLH**
- V= vertical
- H= horizontal

**YLV-AF & YLH-AF**
- AF= front air intake
- V= vertical
- H= horizontal

**YLVR**
- R= low body
- V= vertical

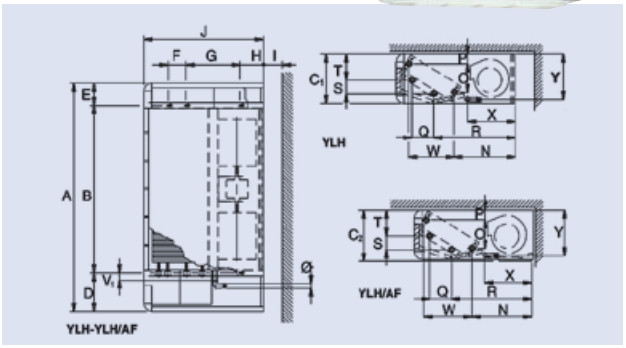
## LASER: YLV - YLV/AF

VERTICAL




## LASER: YLH - YLH/AF

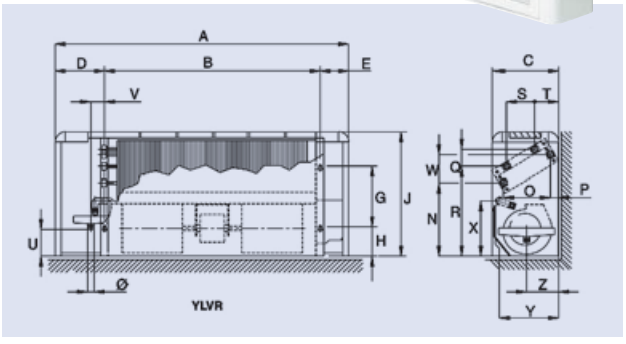
HORIZONTAL




| Dim | 110 | 112 | 114 | 216 | 218 | 220 | 222 | 224 | 226 | 228 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 648 | 773 | 898 | 1023 | 1148 | 1273 | 1273 | 1523 | 1523 | 1773 |
| B | 374 | 499 | 624 | 749 | 874 | 999 | 999 | 1249 | 1249 | 1499 |
| C1 | 224 | 224 | 224 | 224 | 224 | 254 | 254 | 254 | 254 | 254 |
| C2 | 233 | 233 | 233 | 233 | 233 | 263 | 263 | 263 | 263 | 263 |
| D | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 | 174 |
| E | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| F | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| G | 280 | 280 | 280 | 280 | 280 | 356 | 356 | 356 | 356 | 356 |
| H | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 |
| I | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| J | 538 | 538 | 538 | 538 | 538 | 614 | 614 | 614 | 614 | 614 |
| N | 266 | 266 | 266 | 266 | 266 | 299 | 299 | 299 | 299 | 299 |
| O | 113 | 113 | 113 | 113 | 113 | 138 | 138 | 138 | 138 | 138 |
| P | 48 | 48 | 48 | 48 | 48 | 53 | 53 | 53 | 53 | 53 |
| Q | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| R | 355 | 355 | 355 | 355 | 355 | 409 | 409 | 409 | 409 | 409 |
| S | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| T | 117 | 117 | 117 | 117 | 117 | 135 | 135 | 135 | 135 | 135 |
| U | 90 | 90 | 90 | 90 | 90 | 116 | 116 | 116 | 116 | 116 |
| V | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| V 1 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| W | 195 | 195 | 195 | 195 | 195 | 238 | 238 | 238 | 238 | 238 |
| X | 219 | 219 | 219 | 219 | 219 | 252 | 252 | 252 | 252 | 252 |
| Y | 205 | 205 | 205 | 205 | 205 | 235 | 235 | 235 | 235 | 235 |
| Z | 109 | 109 | 109 | 109 | 109 | 122 | 122 | 122 | 122 | 122 |
| Ø | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| kg1 | 18 | 20 | 23 | 28 | 31 | 41 | 44 | 52 | 52 | 58 |
| kg2 | 19 | 21 | 24 | 30 | 32 | 43 | 46 | 54 | 54 | 61 |

*Notes: 1=YLV / YLH - 2=YLV/AF / YLH/AF (All dimensions in mm)*

## LOW BODY: YLVR




| Dim | 110 | 112 | 114 | 216 | 218 |
|---|---|---|---|---|---|
| A | 648 | 773 | 898 | 1023 | 1148 |
| B | 374 | 499 | 624 | 749 | 874 |
| C | 254 | 254 | 254 | 254 | 254 |
| D | 174 | 174 | 174 | 174 | 174 |
| E | 100 | 100 | 100 | 100 | 100 |
| G | 170 | 170 | 170 | 170 | 170 |
| H | 101 | 101 | 101 | 101 | 101 |
| J | 430 | 430 | 430 | 430 | 430 |
| N | 245 | 245 | 245 | 245 | 245 |
| O | 154 | 154 | 154 | 154 | 154 |
| P | 31 | 31 | 31 | 31 | 31 |
| Q | 47 | 47 | 47 | 47 | 47 |
| R | 304 | 304 | 304 | 304 | 304 |
| S | 88 | 88 | 88 | 88 | 88 |
| T | 87 | 87 | 87 | 87 | 87 |
| U | 65 | 65 | 65 | 65 | 65 |
| V | 47 | 47 | 47 | 47 | 47 |
| W | 84 | 84 | 84 | 84 | 84 |
| X | 214 | 214 | 214 | 214 | 214 |
| Z | 109 | 109 | 109 | 109 | 109 |
| ø | 20 | 20 | 20 | 20 | 20 |
| kg | 15 | 17 | 22 | 23 | 26 |

*(All dimensions in mm)*

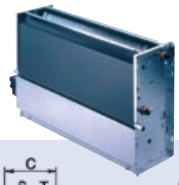
# Dimensions & Weights

**YLIV & YLIH**
- V= vertical
- H= horizontal
- I= without cabinet

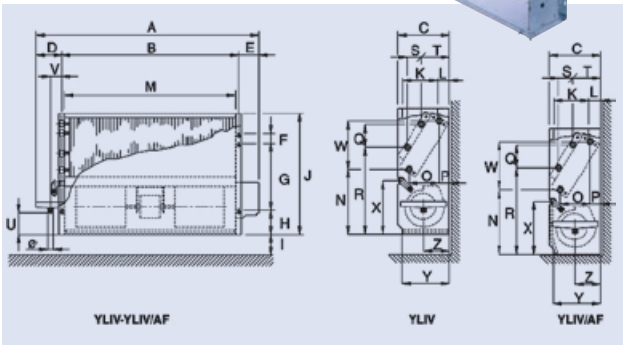
**YLIV-AF & YLIH-AF**
- AF= front air intake
- V= vertical
- H= horizontal
- I= without cabinet

**YLIVR**
- R= low body
- V= vertical
- I= without cabinet

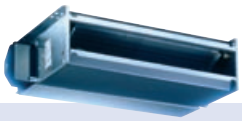
## LASER: YLIV - YLIV/AF



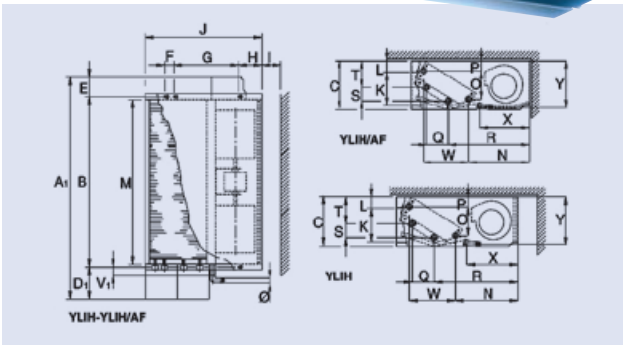
VERTICAL




## LASER: YLIH - YLIH/AF



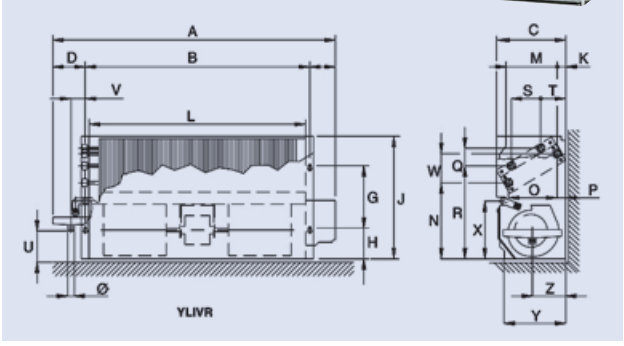
HORIZONTAL




| Dim | 110 | 112 | 114 | 216 | 218 | 220 | 222 | 224 | 226 | 228 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 555 | 680 | 805 | 930 | 1055 | 1180 | 1180 | 1430 | 1430 | 1680 |
| A 1 | 574 | 699 | 824 | 949 | 1074 | 1199 | 1199 | 1449 | 1449 | 1699 |
| B | 374 | 499 | 624 | 749 | 874 | 999 | 999 | 1249 | 1249 | 1499 |
| C | 215 | 215 | 215 | 215 | 215 | 245 | 245 | 245 | 245 | 245 |
| D | 109 | 109 | 109 | 109 | 109 | 109 | 109 | 109 | 109 | 109 |
| D 1 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 | 128 |
| E | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| F | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| G | 280 | 280 | 280 | 280 | 280 | 356 | 356 | 356 | 356 | 356 |
| H | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 |
| I | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| J | 505 | 505 | 505 | 505 | 505 | 581 | 581 | 581 | 581 | 581 |
| K | 110 | 110 | 110 | 110 | 110 | 125 | 125 | 125 | 125 | 125 |
| L | 55 | 55 | 55 | 55 | 55 | 60 | 60 | 60 | 60 | 60 |
| M | 349 | 474 | 599 | 724 | 849 | 974 | 974 | 1224 | 1224 | 1474 |
| N | 266 | 266 | 266 | 266 | 266 | 299 | 299 | 299 | 299 | 299 |
| O | 113 | 113 | 113 | 113 | 113 | 138 | 138 | 138 | 138 | 138 |
| P | 48 | 48 | 48 | 48 | 48 | 53 | 53 | 53 | 53 | 53 |
| Q | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| R | 355 | 355 | 355 | 355 | 355 | 409 | 409 | 409 | 409 | 409 |
| S | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| T | 117 | 117 | 117 | 117 | 117 | 135 | 135 | 135 | 135 | 135 |
| U | 90 | 90 | 90 | 90 | 90 | 116 | 116 | 116 | 116 | 116 |
| V | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| V 1 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| W | 195 | 195 | 195 | 195 | 195 | 238 | 238 | 238 | 238 | 238 |
| X | 219 | 219 | 219 | 219 | 219 | 252 | 252 | 252 | 252 | 252 |
| Y | 200 | 200 | 200 | 200 | 200 | 230 | 230 | 230 | 230 | 230 |
| Z | 109 | 109 | 109 | 109 | 109 | 122 | 122 | 122 | 122 | 122 |
| Ø | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| kg | 10 | 13 | 16 | 19 | 22 | 29 | 31 | 38 | 38 | 42 |

*(All dimensions in mm)*

## LOW BODY: YLIVR




| Dim | 110 | 112 | 114 | 216 | 218 |
|---|---|---|---|---|---|
| A | 555 | 680 | 805 | 930 | 1055 |
| B | 374 | 499 | 624 | 749 | 874 |
| C | 230 | 230 | 230 | 230 | 230 |
| D | 108 | 108 | 108 | 108 | 108 |
| E | 73 | 73 | 73 | 73 | 73 |
| G | 170 | 170 | 170 | 170 | 170 |
| H | 101 | 101 | 101 | 101 | 101 |
| J | 395 | 395 | 395 | 395 | 395 |
| K | 61 | 61 | 61 | 61 | 61 |
| L | 349 | 474 | 599 | 724 | 849 |
| M | 127 | 127 | 127 | 127 | 127 |
| N | 245 | 245 | 245 | 245 | 245 |
| O | 154 | 154 | 154 | 154 | 154 |
| P | 31 | 31 | 31 | 31 | 31 |
| Q | 47 | 47 | 47 | 47 | 47 |
| R | 304 | 304 | 304 | 304 | 304 |
| S | 88 | 88 | 88 | 88 | 88 |
| T | 87 | 87 | 87 | 87 | 87 |
| U | 65 | 65 | 65 | 65 | 65 |
| V | 47 | 47 | 47 | 47 | 47 |
| W | 84 | 84 | 84 | 84 | 84 |
| X | 214 | 214 | 214 | 214 | 214 |
| Y | 201 | 201 | 201 | 201 | 201 |
| Z | 109 | 109 | 109 | 109 | 109 |
| ø | 20 | 20 | 20 | 20 | 20 |
| kg | 9 | 11 | 14 | 16 | 19 |

*(All dimensions in mm)*

# LASER and LOW BODY

## Compatibility tables

**CSL00 (Built in)**
**CSR00 (Wall mounted)**
Fan speed selector

**CEL00 (Built in)**
**CER00 (Wall mounted)**
Thermostat with manual fan speed and automatic change over

**CEL20 (Built in)**
**CER20 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over

**CML00 (Built in)**
**CMR00 (Wall mounted)**
Thermostat with manual fan speed and S/W change over

**CEL30 (Built in)**
**CER30 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over for modulating valve

## Features CEL/CER

- Dead band for change over 5°C or 2°C (factory set 2°C)
- Manual fan speeds or automatic (models 20 and 30)
- Thermostated fan control or continuous fan running
- Option water sensor WS for change over on coil (for 2 pipes)
- Led indicated status summer, winter or dead band
- Temperature setting for 7 to 30°C (comfort 20-25°C)
- Plastic pins for limiting temperature range
- Input for window contact
- Input for Economy/ occupancy mode
- Output for remote alarm
- Filter alarm 600 or 1200 running hours (factory set 1200 hours)
- With electrical heater post ventilation
- With Air sensor in the air intake destratification function (CEL only)

## Compatibility table Thermostats / Valves / Heaters / Parallel connection / Water sensor / Minimum temperature thermostat

| Factory fitted thermostat (built in) | | Valves for 2 pipes | | Valves for 4 pipes | | Heaters | Parallel connection | | Water sensor | Min. Temp. Thermostat |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ON/OFF | Modulating | | |
| | | J3A2 (2p) | J3AM (2p) | J3A2 (4p) | J3AM (4p) | KREL | CBL20 | CBL30 | WS | TM |
| CSL00 | Fan speed selector | | | | | | • | | | • |
| CML00 | Thermostat with manual fan speed and S/W change over | • | | • | | | • | | | • |
| CEL00 | Thermostat with manual fan speed, dead band, automatic change over | • | | • | | • | • | | • | • |
| CEL20 | Thermostat with automatic fan speed, dead band, automatic change over | • | | • | | • | • | | • | • |
| CEL30 | Thermostat with automatic fan speed, dead band, automatic change over for modulating valve | | • | | • | | | • | • | • |
| **Remote controllers and thermostats (wall mounted)** | | | | | | | | | | |
| CSR00 | Fan speed selector | | | | | | • | | | • |
| CMR00 | Thermostat with manual fan speed and S/W change over | • | | • | | | • | | | • |
| CER00 | Thermostat with manual fan speed, dead band, automatic change over | • | | • | | • | • | | • | • |
| CER20 | Thermostat with automatic fan speed, dead band, automatic change over | • | | • | | • | • | | • | • |
| CER30 | Thermostat with automatic fan speed, dead band, automatic change over for modulating valve | | • | | • | | | • | • | • |

• *Compatible* ☐ *Not compatible*

# LASER and LOW BODY

## Compatibility tables

## Compatibility Options / Accessories / Models

| | | STANDARD | | | | | | | | LOW BODY | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LASER | | | | CONCEALED | | | | | |
| **Code** | **Designation** | **YLV** | **YLH** | **YLV-AF** | **YLH-AF** | **YLIV** | **YLIH** | **YLIV-AF** | **YLIH-AF** | **YLVR** | **YLIVR** |
| **Coils and heaters**** | | | | | | | | | | | |
| BA1** | Additionnal 1 row heating | • | • | • | • | • | • | • | • | • | • |
| KREL** | Kit electrical heater with safety thermostat and relay | • | • | • | • | • | • | • | • | | |
| **Factory fitted thermostat (built in)** | | | | | | | | | | | |
| CSL00 | Fan speed selector (buit in) | • | | • | | • | | • | | • | • |
| CML00 | Thermostat with manual fan speed and S/W change over | • | | • | | • | | • | | • | • |
| CEL00 | Thermostat with manual fan speed, dead band, automatic change over | Compatible with electrical heaters | | | | | | | | • | • |
| CEL20 | Thermostat with automatic fan speed, dead band, automatic change over | Compatible with electrical heaters | | | | | | | | • | • |
| CEL30 | Thermostat with automatic fan speed, dead band, automatic change over for modulating valves | • | | • | | • | | • | | • | • |
| CBL20 | Parallel connection for ON/OFF valve | • | • | • | • | • | • | • | • | • | • |
| CBL30 | Parallel connection for modulating valve | • | • | • | • | • | • | • | • | • | • |
| **Remote controllers and thermostats (wall mounted)** | | | | | | | | | | | |
| CSR00 | Fan speed selector (wall mounted) | • | • | • | • | • | • | • | • | • | • |
| CMR00 | Thermostat with manual fan speed and S/W change over | • | • | • | • | • | • | • | • | • | • |
| CER00 | Thermostat with manual fan speed, dead band, automatic change over | Compatible with electrical heaters | | | | | | | | • | • |
| CER20 | Thermostat with automatic fan speed, dead band, automatic change over | Compatible with electrical heaters | | | | | | | | • | • |
| CER30 | Thermostat with automatic fan speed, dead band, automatic change over for modulating valves | • | | • | | • | | • | | • | • |
| **Valves / Condensate pump / Water sensor / Minimum temperature thermostat (Factory fitted)** | | | | | | | | | | | |
| J3A2 (2p) | 3-way 4-ports on/off valves for 2-pipe systems | • | • | • | • | • | • | • | • | • | • |
| J3A2 (4p) | 3-way 4-ports on/off valves for 4-pipe systems | • | • | • | • | • | • | • | • | • | • |
| J3AM (2p) | 3-way 4-ports modulating valves for 2-pipe systems | • | • | • | • | • | • | • | • | • | • |
| J3AM (4p) | 3-way 4-ports modulating valves for 4-pipe systems | • | • | • | • | • | • | • | • | • | • |
| DT (2p) | Shut-off valves for 2-pipe systems (in addition to J3A2/J3AM valves) | • | • | • | • | • | • | • | • | • | • |
| DT (4p) | Shut-off valves for 4-pipe systems (in addition to J3A2/J3AM valves) | • | • | • | • | • | • | • | • | • | • |
| PC | Condensate pump | • | • | • | • | • | • | • | • | • | • |
| WS | Water sensor | Compatible with CEL/CER | | | | | | | | | |
| TM | Minimum temperature thermostat | • | • | • | • | • | • | • | • | • | • |
| **Feet and panels** | | | | | | | | | | | |
| CP1 | Set of painted feet | • | | | | • | | | | | |
| ZL1 | Set of feet + frontal socle | • | | | | • | | | | | |
| PPV1 | Vertical painted back panel | • | | • | | | | | | • | |
| PPH1 | Horizontal painted back panel | | • | | • | | | | | | |
| **External air intake** | | | | | | | | | | | |
| PA | Air intake plenum | | | | | | • | | | | |
| PAS | Air intake plenum collars | | | | | | • | | | | |
| PA90 | 90° air intake plenum | | | | | | • | | | | |
| RCA | Air intake duct fitting | | | | | | • | | | | |
| PM | Air delivery plenum with collars | | | | | • | • | • | • | | • |
| PM90 | 90° air delivery plenum | | | | | • | • | • | • | | • |

• *Compatible*
*Compatible with conditions*
*Not compatible*
** *Maximum of rows is indicated in the documentation, the maximum number of rows includes the heating row or electrical heater.*

Johnson Controls

# YEFB Hydro Blower

## 2 & 4 pipe system

**A complete range from 3.2 kW up to 23.3 kW**

**CSR00 (Wall mounted)**
Fan speed selector

**CER00 (Wall mounted)**
Thermostat with manual fan speed and automatic change over

**CER20 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over

**CER30 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over for modulating valve

**CMR00 (Wall mounted)**
Thermostat with manual fan speed and S/W change over

## Features

- Horizontal air return
- Twin centrifugal fans
- High static pressure up to 250 Pa
- Air distribution plenum
- Electric heater option
- Optional paint finish

**FX03 Terminal unit controller**
BacNET and N2 Metasys network compatible
(see page 103 for details)

## Technical features at 50 Pa external static pressure

| Model | | YEFB | 130 | 140 | 230 | 240 | 330 | 340 | 430 | 440 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total cooling capacity [kW] | (1) | max | 6.00 | 6.91 | 8.81 | 10.60 | 11.15 | 14.06 | 17.86 | 23.31 |
| | | med | 5.13 | 5.81 | 7.27 | 8.55 | 9.39 | 11.58 | 16.28 | 20.95 |
| | | min | 3.22 | 3.49 | 6.08 | 7.01 | 7.51 | 9.00 | 14.39 | 18.20 |
| Heating capacity [kW] | (2) | max | 7.89 | 8.90 | 12.34 | 14.62 | 15.20 | 18.84 | 24.38 | 30.36 |
| | | med | 6.61 | 7.32 | 9.83 | 11.36 | 12.48 | 15.06 | 21.83 | 26.79 |
| | | min | 3.96 | 4.20 | 8.01 | 9.04 | 9.70 | 11.33 | 18.90 | 22.77 |
| Air volume [m³/h] | | max | 1153 | 1130 | 2158 | 2116 | 2639 | 2587 | 4129 | 4048 |
| | | med | 916 | 898 | 1553 | 1523 | 1994 | 1955 | 3505 | 3436 |
| | | min | 494 | 484 | 1174 | 1151 | 1422 | 1394 | 2853 | 2797 |
| Max. available external static pressure [Pa] | | | 100 | 100 | 175 | 175 | 250 | 250 | 250 | 250 |
| Sound pressure level [dB(A)](3) | | max | 49.3 | | 55.6 | | 58.7 | | 65.4 | |
| | | med | 48.3 | | 52.6 | | 54.2 | | 63.1 | |
| | | min | 44.4 | | 49.1 | | 48.5 | | 61.5 | |
| Power supply [V-ph-Hz] | | | 230 - 1- 50 | | | | | | | |
| Water connections | | | G 1/2" F | G 1/2" F | G 1/2" F | G 1/2" F | G 1/2" F | G 1/2" F | G 1" M | G 1" M |

*(1) Room temperature 27°C d.b., 48% R.H. - Water temperature 7/12 °C*
*(2) Room temperature 20°C, 50% R.H. - Water inlet temperature: 50°C - Water flow values as Cooling, accordingly to the EUROVENT standards and UNI ENV 1397*
*(3) Sound pressure level in 1 meter distance open field and 0 Pa external static pressure*

# YEFB Hydro Blower

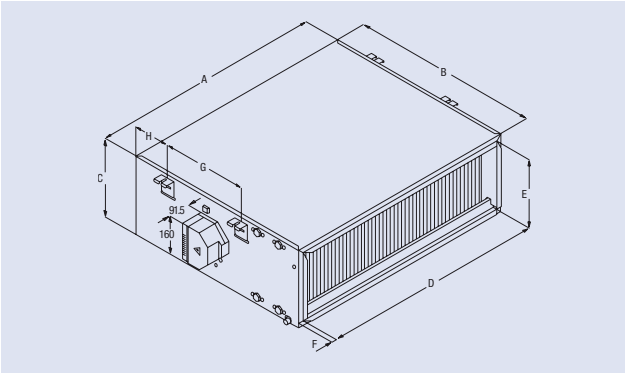
## 3.2 to 23.3 kW

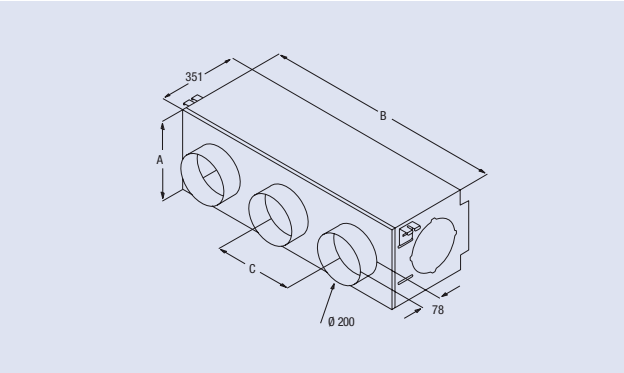
## Compatibility table / Codes

| Models | YEFB 130-140 | YEFB 230-240 | YEFB 330-340 | YEFB 430-440 |
|---|---|---|---|---|
| **Options (factory fitted)** | | | | |
| Auxiliary hot water coil (2 or 3 rows) | • | • | • | • |
| Paint finish | • | • | • | • |
| F5 Filter | • | • | • | • |
| **Accessories (supplied loose)** | | | | |
| Valve kits 3 ways 4 ports | | | | |
| On/off 2 and 4 pipes | | J3B2 | | J3C2 |
| Modulating 2 and 4 pipes | | J3BM | | J3CM |
| Electrical heaters | | | | |
| Capacity (W) | 3000 | | 6000 | 9000 |
| Controls | | | | |
| CSR00 fan speed selector | • | • | • | • |
| CMR00 2 and 4 pipe, on/off valves | • | • | • | • |
| CER00 2 and 4 pipe, on/off valves (or El. heater) | • | • | • | • |
| CER20 2 and 4 pipe, on/off valves (or El. heater) | • | • | • | • |
| CER30 2 and 4 pipe, modulating valves | • | • | • | • |
| Discharge plenum | KPM 100-200 | | KPM 300 | KPM 400 |
| Condensate pump | KPC 100-400 | | | |

• Available

## Dimensions and minimum spaces




| Mod. | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 100-200 | 990 | 800 | 330 | 949 | 290 | 21.5 | 362 | 158 |
| 300 | 1 240 | 900 | 350 | 1 199 | 309 | 21.5 | 462 | 158 |
| 400 | 1 630 | 900 | 440 | 1 592 | 398 | 21.5 | 450 | 158 |

*All dimensions in mm*

| Mod. | A | B | C |
|---|---|---|---|
| 100-200 | 330 | 954 | 306 |
| 300 | 350 | 1 204 | 300 |
| 400 | 440 | 1 597 | 311 |

*All dimensions in mm*

# Heating Systems

HEAT PUMP GEYSIR SERIES

HEAT PUMP GEYSIR AIR SERIES

HEAT PUMP GEYSIR VARIO SERIES

Johnson Controls

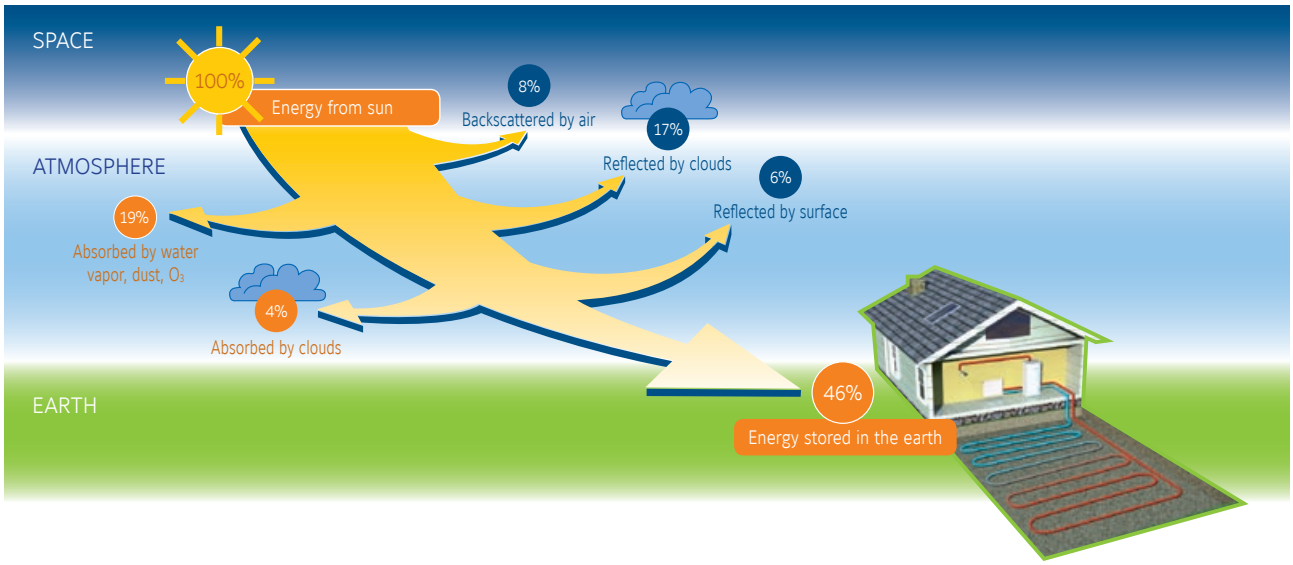
## DID YOU KNOW THAT...

- Almost half of the sun's energy is stored in the earth? (Fig.1)
- A heat pump can be more than 4 times more efficient than a conventional gas boiler? (Fig.2)
- A heat pump requires 3 circuits to retrieve, store and transmit the free energy in the environment into hot sanitary water and heating for the home? (Fig.3)
- Heat pumps are classified depending on their environmental energy source? (Fig.4)

Learn more about heat pump technology...

## HOW IS THE SUN'S ENERGY ABSORBED BY THE EARTH?

Fig. 1




## WHY A HEAT PUMP IS MORE EFFICIENT?

Fig. 2

The earth is heated by the sun and stores a lot of energy. Heat pumps take advantage of this inexhaustible energy that can be stored in the air, in the rock, in the ground and in the water in such an efficient way that you can save up to 50% of your heating costs compared to a traditional gas boilers. That's why these systems are considered as a renewable energy source by governments.

## HOW DOES A HEAT PUMP WORK?

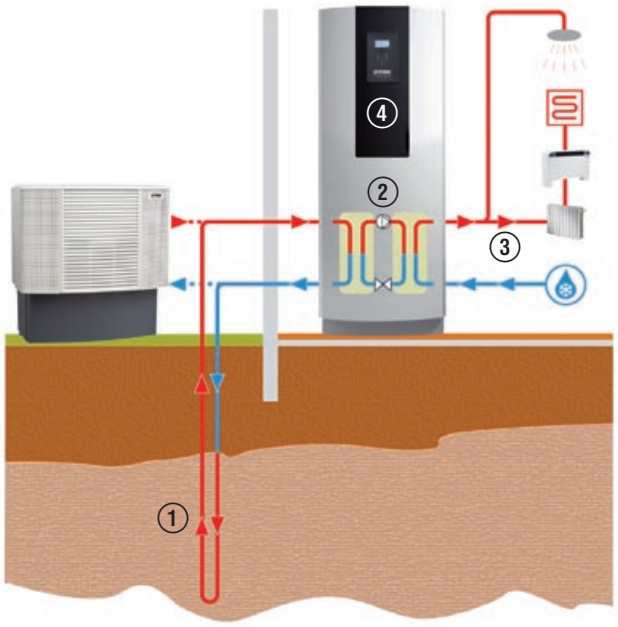
Fig. 3

A heat pump is an electrically powered system that uses mechanical compression technology to absorb the free energy from the environment to produce hot sanitary water and heating (cooling as an option).

It is composed of 3 circuits:

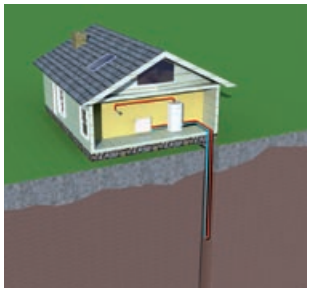
- Brine circuit ①: Collector loop responsible for the absorbtion and storage of the free energy from the air or ground.
- Refrigeration circuit ②: Incorporates all the necessary components (compressor, valves and heat exchangers) to convert the energy stored in the brine circuit into hot water. The hot water is stored in a water tank and it is available for further use.
- Tap/heating circuit ③: Brings the hot water stored in the tank to hot sanitary water or heating purposes.

Finally, a complex electronic control ④ manages the full system to make sure that the process always runs in the most efficient way.



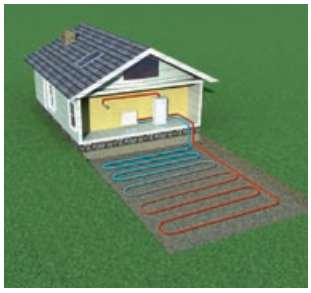

## WHAT KIND OF HEAT PUMP INSTALLATIONS ARE AVAILABLE?

Fig. 4



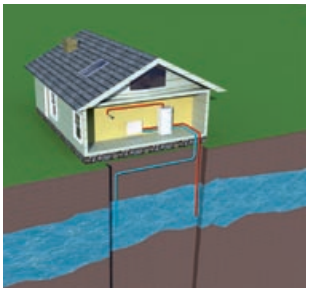
### GSHP Bedrock source

By means of setting a pipe in a drilled bore hole, a bedrock heat pump absorbs the heat stored in the rock. The depth of the borehole depends on the heating demand but can be drilled down to 130m. These systems take advantage from the fact that at a certain depth (~15m) the temperature of the rock remains constant at any period of the year and therefore performance is almost unaffected by the outdoor temperature.



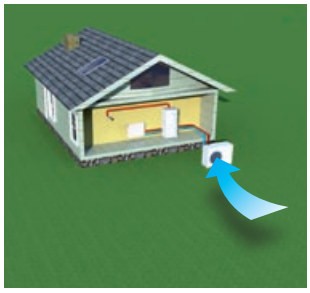
### GSHP Ground source

A long hose is buried in loops in the ground around 1m depth and retrieves the energy in the same way as a bedrock heat pump. The surface buried is about 1.5 times the surface of the area to be heated and has no influence on the surrounding vegetation. It is suitable where rock shelf is deep, as there is no need for drilling (low investment costs).



### WSHP Ground Water source

Retrieving energy from groundwater is the most efficient way since it retains the advantages as bedrock and ground heat pumps, but it requires less hose length for the same heating needs. However, the WSHP systems working with open loops require special equipment to stop particles in the pumped water from damaging components.



### ASHP Air source

Unlike the previous systems, air source heat pumps absorb the heat in the surrounding air through an additional outdoor terminal. Not as efficient as the systems retrieving the energy from the ground, and with a performance more sensitive by outdoor temperatures, these kind of installations require much lower investment costs and they are still up to 3 times more efficient than current conventional gas boilers.

Johnson Controls

# System Components

*Heat pump*
The "brain" of the system, controls all the components to supply heating & water as per user demand whilst optimizing the efficiency.

*Water tank*
Can be either integrated in the heat pump or aside, stores the hot sanitary water for heating systems or sanitary water purposes.

*Outdoor unit*
Absorbs, stores and transmits the heat available in the air to the heat pump for further use (for ASHP only).

*Indoor unit*
Responsible for the supply of heat to the room, can be radiant floor, fan coil unit or radiator.

*Room temperature control*
Allows the user to set the parameters of comfort, it also measures room temperature and sends the information to the heat pump.

*Heat pump unit*

# Applications

*Hot sanitary water*

*Fancoil**

*Radiator*

*Radiant floor**

*Heats swimming pools*

* Cooling as an option

Johnson Controls

# GEYSIR SERIES
# Ground source heat pump

## YHGS 06 to 16
**A complete range from 5.8 kW to 16.6 kW**



### Control Panel
Intelligent control system to fully adjust and monitor heat pump parameters according to heating needs for optimal performance.

## Cold outside? I don't care...
The new GEYSIR Series are the most suitable option for those houses where ground is the preferred source of energy. With COP up to 4.5, these units are the cheapest option to supply heat and hot sanitary water to your home.

## Features
- High efficiency even in extreme winter conditions
- Optimized hot water production
- Leaving water temperature up to +65°C
- Integrated 180 l tank
- Passive/Active cooling optional
- Aesthetic design
- User friendly control and monitoring system
- Stainless steel water tank
- Optional models with passive cooling (for sizes 06 to 10)

# GEYSIR SERIES

## YHGS 06 to 16

## Technical features

| Set reference | | | YHGS | | | | |
|---|---|---|---|---|---|---|---|
| **Models** | | **Sizes** | **06 G1MA - 06 G1TA** | **08 G1MA - 08 G1TA** | **10 G1MA - 10 G1TA** | **12 G1MA - 12 G1TA** | **16 G1TA** |
| Heating capacity (*) | | kW | 5.8 | 8.1 | 9.5 | 11.1 | 16.6 |
| COP (*) | | | 4.2 | 4.6 | 4.4 | 4.5 | 4.4 |
| Power supply | | V/ph/Hz | 230 / 1 / 50 - 400 / 3 / 50 | | | | 400 / 3 / 50 |
| Rated power compressor | G1TA | kW | 2.0 | 2.3 | 3.6 | 4.4 | 5.6 |
| | G1MA | kW | 3.3 | 4.2 | 5.4 | 5.7 | - |
| Number of compressors | | | 1 | | | | |
| Type of compressors | | | Scroll | | | | |
| Starting current | G1TA | A | 14 | 25 | 29 | 32 | 45 |
| | G1MA | A | 58 | 56 | 97 | 108 | - |
| Max leaving water temperature | | °C | 65°C | | | | |
| Number of heating circuits | | | 2 | | | | |
| Working range brine circuit | | °C | -10°C / +20°C | | | | |
| Working range heating circuit | | °C | +20°C / +55°C | | | | |
| Type of refrigerant | | | R407C | | | | |
| Quantity of refrigerant | | kg | 1.20 | 1.30 | 1.45 | 1.55 | 2.10 |
| Auxiliary heating | G1TA | kW | 3 / 6 / 9 (3 ph) | | | | |
| | G1MA | kW | 1.5 / 3 / 4.5 (1 ph) | | | | - |
| External available pressure (heating) | | kPa | 44 | 42 | 39 | 51 | 57 |
| Nominal flow (heating circuit) | | l/h | 360 | 720 | 720 | 1 080 | 1 440 |
| Sound pressure at 1m | | dB(A) | 31 | 33 | 33 | 34 | 36 |
| Dimensions ( W x H x D ) | | mm | 596 x 1 754 x 690 | | | | |
| Net weight | | kg | 229 | | | 238 | 242 |
| Hot sanitary water tank | | l | included ( 180 l ) | | | | |
| Water connections | Service water and heating | | 22 Cu | | | | |
| | Brine | | 28 Cu | | | | |
| Cooling module ( Passive / Active ) | | | Optional / Optional | | | | |

*(*) Tested as per EN 255, 0/35°C  G1MA: Single phase / G1TA: Three phases*

## Options / Accessories

| Models | Codes | 06 G1MA - 06 G1TA | 08 G1MA - 08 G1TA | 10 G1MA - 10 G1TA | 12 G1MA - 12 G1TA | 16 G1TA |
|---|---|---|---|---|---|---|
| Cooling Module Active | YHACC3318 | ● | ● | ● | ● | ● |
| Cooling Module Pasive | YHACC3319 | ● | ● | ● | ● | ● |
| 3 Way Valve 20 24V | YHACC3803 | ● | ● | ● | ● | ● |
| 3 Way Valve 25 230V | YHACC3801 | ● | ● | ● | | |
| 3 Way Valve 32 230V | YHACC3802 | | | | ● | ● |
| Pump Set complete | YHACC1870 | ● | ● | ● | ● | ● |
| | YHACC1871 | ● | ● | ● | ● | ● |
| Plate heat exchanger for ground water | YHACC1977 | ● | | | | |
| | YHACC1978 | | ● | | | |
| | YHACC1979 | | | ● | | |
| | YHACC1983 | | | | ● | |
| | YHACC1984 | | | | | ● |
| Heat Recovery System | YHACC5122 | ● | ● | ● | ● | ● |
| Flowguard UR32CTNR 12/80 | YHACC3809 | ● | ● | ● | ● | ● |
| Electronic Flowguard zz7009 | YHACC6002 | ● | ● | ● | ● | ● |
| Filter for Filling Device Brine DN25 | YHACC1865 | ● | ● | ● | | |
| Filter for Filling Device Brine DN32 | YHACC1866 | | | | ● | ● |
| Room Sensor Controller 901150 | YHACC2698 | ● | ● | ● | ● | ● |
| Filter 1" 5064084L | YHACC3776 | ● | ● | ● | | |
| Filter 1-1/4" 5064085L | YHACC3777 | ● | ● | ● | | |
| Filter 1-1/2" 5064086L | YHACC3778 | | | | ● | ● |
| Flexible hose 22L600mm | YHACC6015 | ● | ● | ● | | |
| Flexible hose 25L600mm | YHACC6000 | ● | ● | ● | | |
| Flexible hose 32L600mm | YHACC6001 | | | | ● | ● |
| Rubber hose 2x28L600mm | YHACC6012 | ● | ● | ● | ● | ● |
| Pool control, complete with 3 Way Valve | YHACC3754 | ● | ● | ● | ● | ● |
| Expansion card for cooling/shunt/pool | YHACC6009 | ● | ● | ● | ● | ● |

# GEYSIR AIR SERIES
# Air source heat pump

## YHAS 06 to 12

**A complete range from 5.9 kW to 11.3 kW**


## When comfort and economy come together

For those for whom the ground source installation is not an option, the GEYSIR AIR Series, by retrieving the energy from the air, combines the heat pump technology and low installation costs but still keeps efficiencies up to 3 times greater than a conventional gas boiler.

## Features

- User friendly control and monitoring system
- Low noise level
- Easy installation
- Intelligent defrosting
- Anti corrosion coated condenser fins
- Heat recovery for exhaust air as option

YORK
BY JOHNSON CONTROLS

# GEYSIR AIR SERIES

## YHAS 06 to 12

## Technical features

| Set reference | | | YHAS | | | |
|---|---|---|---|---|---|---|
| **Models** | | **Sizes** | **06 G1MA - 06 G1TA** | **08 G1MA - 08 G1TA** | **10 G1MA - 10 G1TA** | **12 G1MA - 12 G1TA** |
| Heating capacity (*) | | kW | 5.9 | 8.0 | 9.9 | 11.3 |
| COP (*) | | | 3.9 | 4.1 | 4.2 | 4.9 |
| Power supply | | V/ph/Hz | 230 / 1 / 50 - 400 / 3 / 50 | | | |
| Rated power compressor | G1TA | kW | 2.0 | 2.3 | 3.6 | 4.4 |
| | G1MA | kW | 3.3 | 4.2 | 5.4 | 5.7 |
| Number of compressors | | | 1 | | | |
| Type of compressors | | | Scroll | | | |
| Starting current | G1TA | A | 14 | 25 | 29 | 32 |
| | G1MA | A | 58 | 56 | 97 | 108 |
| Max leaving water temperature | | °C | 65°C | | | |
| Number of heating circuits | | | 2 | | | |
| Working range brine circuit | | °C | -20°C / +20°C | | | |
| Working range heating circuit | | °C | +20°C / +55°C | | | |
| Type of refrigerant | | | R404A | | | |
| Quantity of refrigerant | | kg | 0.95 | 1.45 | 1.50 | 1.60 |
| Auxiliary heating | G1TA | kW | 3 / 6 / 9 / 12 / 15 (3 ph) | | | |
| | G1MA | kW | 1.5 / 3 / 4.5 (1 ph) | | | |
| External available pressure (heating) | | kPa | 44 | 41 | 38 | 52 |
| Nominal flow (heating circuit) | | l/h | 360 | 720 | 720 | 1 080 |
| Sound pressure at 1m (Indoor / Outdor) | | dB(A) | 31 / 51 | 33 / 51 | 33 / 61 | 34 / 61 |
| Dimensions Indoor / Outdoor (W x H x D) | | mm | 596 x 1 754 x 690 / 1 145 x 1 175 x 612 | | | |
| Net weight Indoor / Outdoor | | kg | 260 / 80 | | | |
| Hot sanitary water tank | | l | included ( 180 l ) | | | |
| Water connections | Service water and heating | | 22 Cu | | | |
| | Brine | | 28 Cu | | | |

*(*) Tested as per EN 14.511 7/35°C excluding circulation pumps and outdoor unit* *G1MA: Single phase / G1TA: Three phases*

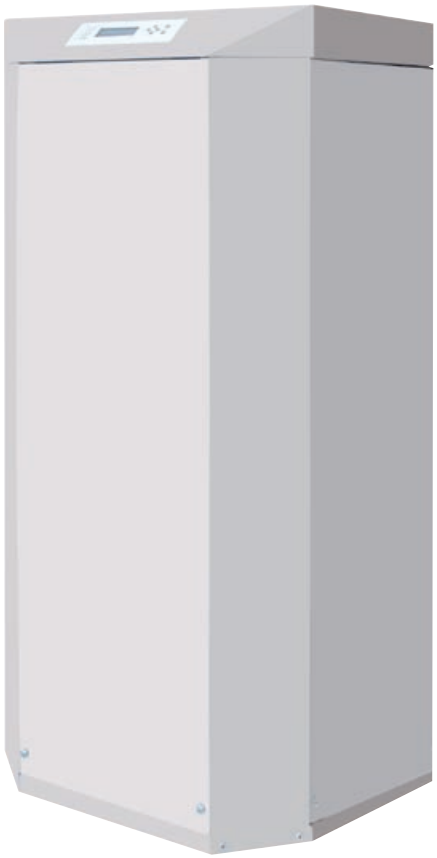
## Options / Accessories

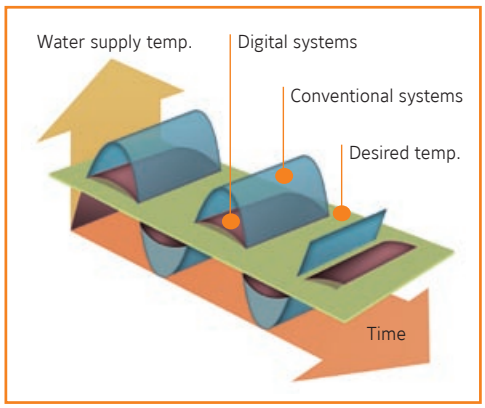
| Models | Codes | 06 G1MA - 06 G1TA | 08 G1MA - 08 G1TA | 10 G1MA - 10 G1TA | 12 G1MA - 12 G1TA |
|---|---|---|---|---|---|
| 3 Way Valve 20 24V | YHACC3803 | ● | ● | ● | ● |
| 3 Way Valve 25 230V | YHACC3801 | ● | ● | ● | |
| 3 Way Valve 32 230V | YHACC3802 | | | | ● |
| Pump Set complete | YHACC1870 | ● | ● | ● | ● |
| | YHACC1871 | ● | ● | ● | ● |
| Plate heat exchanger for ground water | YHACC1977 | ● | | | |
| | YHACC1978 | | ● | | |
| | YHACC1979 | | | ● | |
| | YHACC1983 | | | | ● |
| | YHACC1984 | | | | |
| Heat Recovery System | YHACC5122 | ● | ● | ● | ● |
| Flowguard UR32CTNR 12/80 | YHACC3809 | ● | ● | ● | ● |
| Electronic Flowguard zz7009 | YHACC6002 | ● | ● | ● | ● |
| Filter for Filling Device Brine DN25 | YHACC1865 | ● | ● | ● | |
| Filter for Filling Device Brine DN32 | YHACC1866 | | | | ● |
| Room Sensor Controller 901150 | YHACC2698 | ● | ● | ● | ● |
| Filter 1" 5064084L | YHACC3776 | ● | ● | ● | |
| Filter 1-1/4" 5064085L | YHACC3777 | ● | ● | ● | |
| Filter 1-1/2" 5064086L | YHACC3778 | | | | ● |
| Flexible hose 22L600mm | YHACC6015 | ● | ● | ● | |
| Flexible hose 25L600mm | YHACC6000 | ● | ● | ● | |
| Flexible hose 32L600mm | YHACC6001 | | | | ● |
| Rubber hose 2x28L600mm | YHACC6012 | ● | ● | ● | ● |
| Pool control, complete with 3 Way Valve | YHACC3754 | ● | ● | ● | ● |
| Expansion card for cooling/shunt/pool | YHACC6009 | ● | ● | ● | ● |

# GEYSIR VARIO SERIES
# Ground source heat pump digital

## YHGD 11 to 30

**A complete range from 11.7 kW to 30.5 kW**




### Variable capacity compressor

By changing the capacity of the compressor, Digital Systems provide a more stable water temperature, energy saving and increase the lifetime of the unit.

## Varying the capacity until the top of comfort

Following the impact of inverter technology on the residential air conditioning market, the variable capacity compressor has reached the heat pump market bringing the same benefits such as improved efficiency and increased lifetime of the unit.

## Features

- Variable capacity compressor
- Constant leaving water temperature
- Passive/Active cooling as an option
- Water tank optional (160 or 300l)
- Compact unit
- Up to 30 kW heating capacity

YORK
BY JOHNSON CONTROLS

# GEYSIR VARIO SERIES

## YHGD 11 to 30

## Technical features

| Set reference | | | YHGD | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Models** | | Sizes | **11 G1TA** | **14 G1TA** | **17 G1TA** | **19 G1TA** | **23 G1TA** | **30 G1TA** |
| Heating capacity (*) | | kW | 11.7 | 14.3 | 17.1 | 19.2 | 23.5 | 30.5 |
| COP (*) | | | 4.5 | 4.5 | 4.5 | 4.6 | 4.6 | 4.6 |
| Power supply | | V/ph/Hz | 400 / 3 / 50 | | | | | |
| Power input | | kW | 2.9 | 3.5 | 4.2 | 4.7 | 5.7 | 7.3 |
| Number of compressors | | | 1 | | | | | |
| Type of compressors | | | Digital Scroll | | | | | |
| Starting current | | A | 48 | 63 | 69 | 95 | 95 | 110 |
| Max leaving water temperature | | °C | 61°C | | | | | |
| Number of heating circuits | | | 2 | | | | | |
| Working range brine circuit | | °C | -10°C / +20°C | | | | | |
| Working range heating circuit | | °C | 0°C / +45°C | | | | | |
| Type of refrigerant | | | R407C | | | | | |
| Quantity of refrigerant | | kg | 2.4 | 3.0 | 3.5 | 4.0 | 4.3 | 4.8 |
| External available pressure (heating) | | kPa | 42 | 45 | 39 | 35 | 70 | 47 |
| Nominal flow (heating circuit) | | l/h | 2 010 | 2 460 | 2 940 | 3 300 | 4 040 | 5 200 |
| Sound pressure at 1m | | dB(A) | 46 | 47 | 47 | 48 | 49 | 49 |
| Dimensions ( W x H x D ) | | mm | 590 x 1 200 x 700 | | | 790 x 1 200 x 800 | | |
| Net weight | | kg | 150 | 162 | 170 | 200 | 226 | 249 |
| Hot sanitary water tank | | l | Optional ( 160 / 300 l ) | | | | Optional ( 300 l ) | |
| Water connections | heating and brine | inches | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/2" | 1 1/2" | 1 1/2" |
| | service water | inches | 3/4" | 3/4" | 1" | 1" | 1" | 1" |
| Cooling module ( Passive / Active ) | | | Optional / Optional | | | | | |
| Cooling capacity | | kW | 12.1 | 15.0 | 18.0 | 20.1 | 24.5 | 32.3 |
| Working range cooling circuit | | °C | +7°C / +20°C | | | | | |

*(*) Tested as per EN 255, 0/35°C*

## Options / Accessories

| Models | Codes | 11 G1TA | 14 G1TA | 17 G1TA | 19 G1TA | 23 G1TA | 30 G1TA |
|---|---|---|---|---|---|---|---|
| 3Way valve for circuit 2 - Kvs 4 | YHACCCV4 | ● | ● | ● | ● | ● | ● |
| 3Way valve for circuit 2 - Kvs 10 | YHACCCV10 | ● | ● | ● | ● | ● | ● |
| Flow switch (factory fitted) | YHACCFS1 | ● | ● | ● | ● | ● | ● |
| Plate heat exchanger for ground water | YHACCGWWT11 | ● | | | | | |
| | YHACCGWWT14 | | ● | | | | |
| | YHACCGWWT17 | | | ● | | | |
| | YHACCGWWT19 | | | | ● | | |
| | YHACCGWWT23 | | | | | ● | |
| | YHACCGWWT30 | | | | | | ● |
| Temperature sensor circuit 2 | YHACCA99 | ● | ● | ● | ● | ● | ● |
| Reference-room controller | YHACCLPNRM | ● | ● | ● | ● | ● | ● |
| Adjustable feet-set | YHACCAVMDS1 | ● | ● | ● | ● | ● | ● |
| Expansion vessel for brine-circuit 8l | YHACCEV8 | ● | ● | ● | ● | ● | ● |
| Soft starter | YHACCSSKDS1117 | ● | ● | ● | | | |
| | YHACCSSKDS1930 | | | | ● | ● | ● |
| Water filter 2" | YHACCWF1123 | ● | ● | ● | ● | ● | |
| Water filter 2 ½" | YHACCWF30 | | | | | | ● |
| Electric heater for Water tank 3 kW | YHACCEH3 | ● | ● | ● | ● | | |
| Electric heater for Water tank 5 kW | YHACCEH5 | | | | | ● | ● |
| Water tank 160l | YHACCSWB160 | ● | ● | ● | ● | | |
| Water tank 300l | YHACCSWB300 | | | | ● | ● | ● |

# Air Systems

ROOMTOP

ROOFTOP

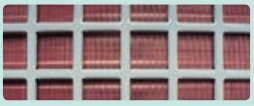
LARGE SPLIT

Johnson Controls

# Common Specifications

## *Cabinet features*

- Build to last, all cabinet with heavy gauge galvanized steel and powder paint backed on oven.
- Copper-copper coils or blue fin delivered upon request.
- Side or bottom duct connections to be realized on site.
- Excellent water-tightness even with high internal negative pressure.
- External slopes to remove rain water.
- Only 4 solid points to crane.



**Copper-copper coil**

**Blue fin**


## *Designed to service*

- Quick and easy access to all components.
- Doors equipped with hinges and ¼ turn lock.
- Service valves.
- Inspection window for sight glass.
- Internal drain pan slope to remove drain water.
- YKtool for comissioning, monitoring and controlling unit parameters.

## *Electrical features*

- YKN2open regulation and control.
- Vertical hermetic scroll compressor, with compressor module and crankcase heater.
- Smooth start indoor fan.
- Phase detector.
- Main power switch.
- Numbered wires in cable truncking.
- Motor protection.

## *Quality and ELT*

Design, built and tested under ISO9001 quality system certification, we are constantly listening to customer comments. For this reason, our End of Line Test ELT strives to be as close as possible to the commissioning you carry out on site.

# Control System

## YKN2open

The YKlon is a controller regulating all components and accessories. It will pro actively manage cool and heat stages to maintain a stable room temperature maximizing the efficiency.
Additionally, the benefits are:

- Redundancy on cool and heat stages (if one step is locked out, the PCB starts another one automatically).
- Random start between units to minimise electrical tariff.
- All stages will start in sequence to reduce peak inrush.
- Reduces nuisance calls by using 3 times "you are out" on all safeties before a hard lockout occurs.
- Automatic restart after power failure. Compressors run time priority.
- Alarm output relay and led diagnostic code. No parameters to check before starting.
- Lockout and incident level of protection. Last 10 lockouts stored in a non-volatile memory.
- 4 heating stages on hot water heating.
- BMS connection (N2 Open protocol).

## YKtool N2open

The Yktool is the perfect tool to use on a regular basis for comissioning and service on site. For comissioning, it will override the thermostat and start the cooling or heating stages. Being a plug and play device, you will have direct acess to all sensors and status of each components and accessories installed (lockout & incidents, temperatures, defrost test...).

Code: S613786031


## Features and benefits Thermostat DPC-1

- Day (normal), night (economy) and unoccupied (stand by).
- Lockout code on screen gives direct diagnostics.
- ON/OFF or programmable from dip switch setting.
- Day or night programmable state avoids wide internal temperature variation.
- 3 preset and 3 programmable profiles.
- Temperature override.
- Select the control sensor you want to use (integrated in the thermostat, return air in duct or room sensor).
- Turbo, normal or economy logic from dip switch setting.
- From −3°C to +3°C sensor offset.
- Average temperature with room or duct sensors.

## Thermostats with integrated sensors

| Thermostat models | | DPC-1 | DPC-1R | |
|---|---|---|---|---|
| | Code | S603786044 | S603786045 | |
| Roomtop | RTC and RTH | X | 0 | |
| Rooftop | All models | X (1) | 0 | |
| Split system | VAC and VAH | X | 0 | |
| | VCH | X | 0 | |

| Main features | | | |
|---|---|---|---|
| Strategy | Turbo, normal or economy | | |
| Auto restart after power failure | ● | ● | |
| Number of cool stages | 2 | 1 | 2 |
| Number of heat stages | 2 | 1 | 2 |
| Auxiliary Heat | ● | ● | |
| Automatic Heat/Cool change over | ● | ● | |
| Continuous or auto indoor fan | ● | ● | |
| Manual setback (Day/Night key) | Day, night and unocuppied | | |
| Override possibility | ● | ● | |
| Compressor anti short cycle | ● | ● | |
| °C Range cooling / heating | 10 to 32°C / 9 to 32°C | | |
| Programmable, 7-day | ● | ● | |
| Lockout codes | ● | ● | |
| Outdoor air temperature | ● | with YKlon | |
| Sensor selection | ● | ● | |

*X : Delivered as standard with the unit.* *X (1) : Standard but has to be ordered separately.*
*O : Optional.* *● : Function available.*

DS-1

AS-1

RS-1

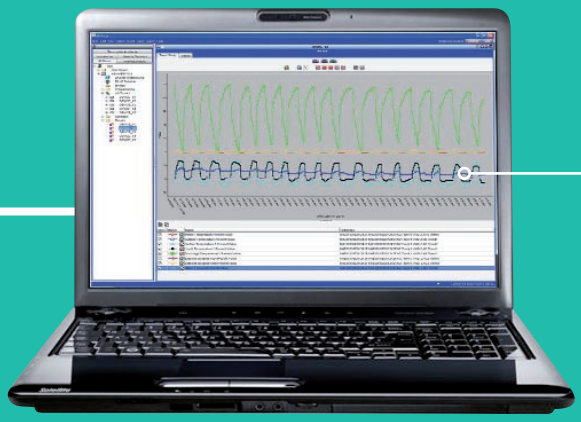
| Duct sensor | Ambiance sensor* | Room sensor |
|---|---|---|
| DS-1 | AS-1 | RS-1 |
| S603786047 | S603786049 | S603786042 |

** To control up to 4 temperature sensors. To be fitted with DPC-1 version 2.0 or superior.*

Johnson Controls

# BMS Connection

*IP Network*



METASYS COMPATIBLE

LONWORKS CONNECTION

BACnet

DPC-1

DPC-1

YKN2open

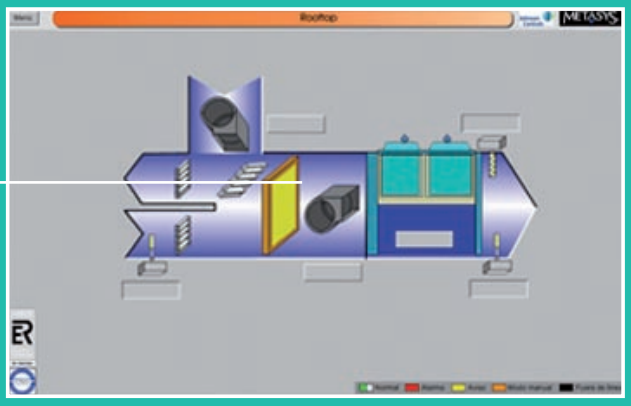
YKN2open

*Light control, Power station...*

AHU

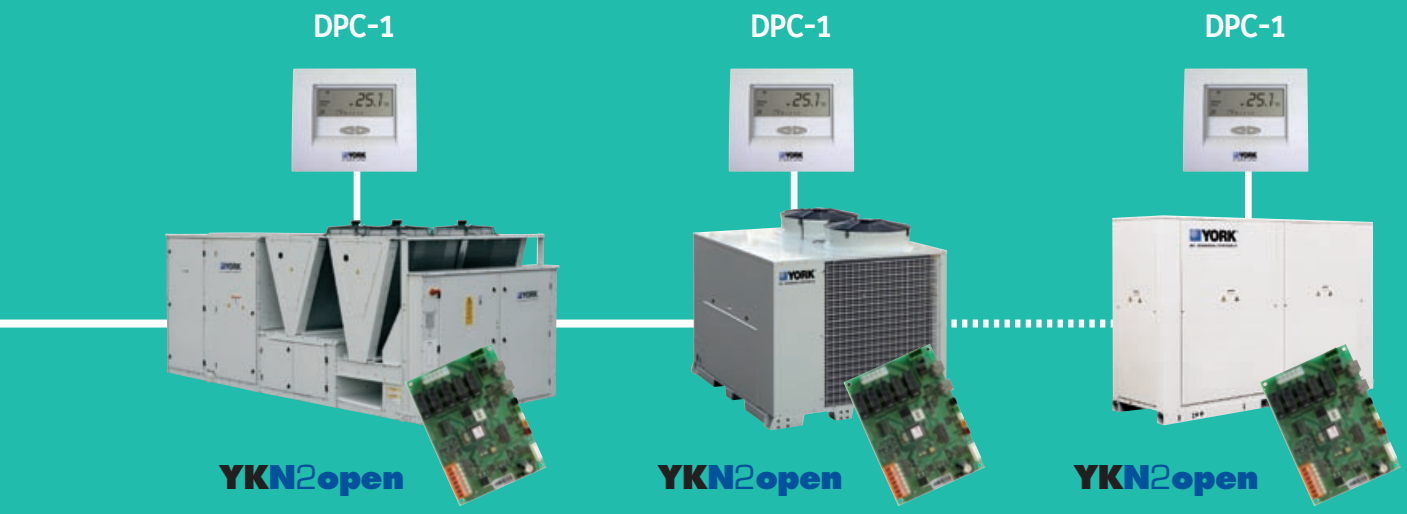
VRF

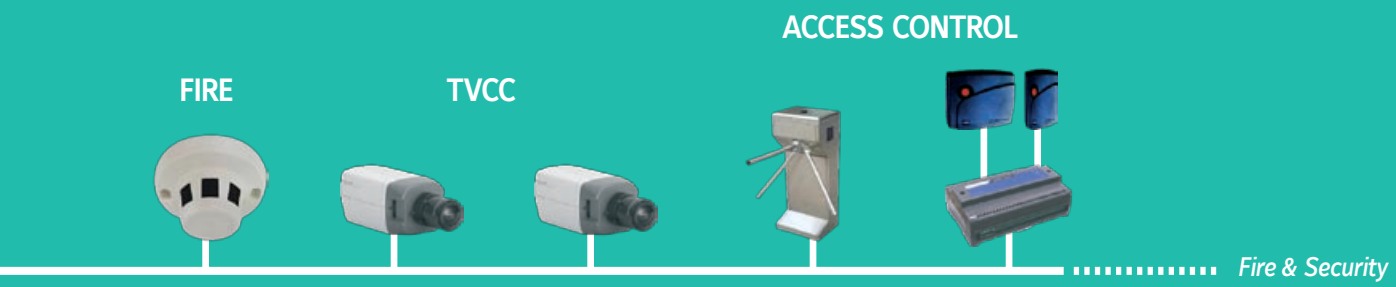
CHILLER



Sample screen

- BMS communication through new board YKN2Open delivered as standard (N2Open protocol)
- Possibility to fully control the unit and monitor more than 160 variables per unit.
- Can be integrated with other systems like lighting, fire&security or other HVAC equipment.
- Fully tailored solutions available (ask JCI sales office)





Johnson Controls

# Roomtop

## RTC-RTH - L

**A complete range from 14.6 kW up to 27.0 kW**


**YKN2open**

## Features

- New YKN2open board
- Possibility to be installed outdoor
- Scroll Compressors
- High COP and EER
- 1/4 turn on electrical panel
- Expansion valves for models 20, 25 and 30
- High external static pressure on evaporator and condenser
- Digital thermostat DPC-1 and indoor air filter included

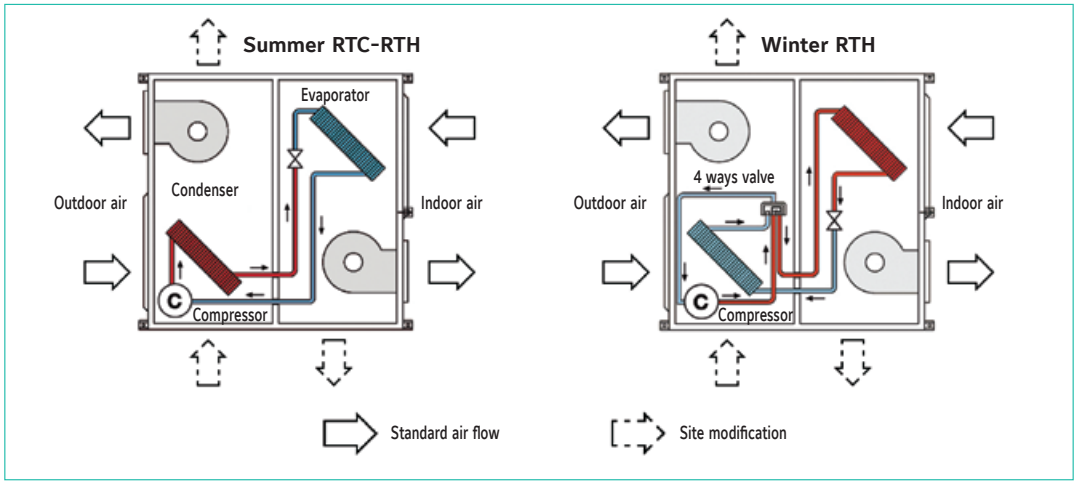
## Nomenclature

**RTC 15 L**

L = version

**Capacity range:**
15 = 15 kW

**Product category:**
RTC = Cooling only
RTH = Heat pump



# Roomtop

## RTC-RTH 15 to 30 - L

## Technical features

| Cooling only models | | | RTC 15 L | RTC 20 L | RTC 25 L | RTC 30 L |
|---|---|---|---|---|---|---|
| Cooling capacities | | kW | 14.60 | 19.90 | 22.20 | 27.00 |
| Power input in cooling | | kW | 5.50 | 8.60 | 10.00 | 12.00 |
| In duct outdoor side sound power level | | dB(A) | 72 | 74 | 77 | 81 |
| In duct indoor side sound power level | | dB(A) | 71 | 73 | 75 | 75 |
| **Heat pump models** | | | **RTH 15 L** | **RTH 20 L** | **RTH 25 L** | **RTH 30 L** |
| Cooling capacities | | kW | 14.10 | 19.90 | 22.20 | 26.80 |
| Power input in cooling | | kW | 5.40 | 8.32 | 10.04 | 11.63 |
| Heating capacities | | kW | 13.80 | 17.80 | 20.80 | 25.40 |
| Power input in heating | | kW | 4.84 | 7.15 | 7.89 | 9.67 |
| In duct outdoor side sound power level | | dB(A) | 74 | 74 | 81 | 81 |
| In duct indoor side sound power level | | dB(A) | 73 | 73 | 81 | 81 |
| **Common characteristics** | | | | | | |
| Power supply | | | 400V/3 + N/ 50Hz | | | |
| Nominal current RTC / RTH | | A | 11.6 / 11.5 | 19 / 19 | 21 / 21 | 23 / 23 |
| Starting current | | A | 64 | 95 | 111 | 118 |
| Main switch (1) | | A | 20 | 25 | 25 | 32 |
| Main cable (1) | | Nbr.xmm² | 5 x 4 | 5 x 4 | 5 x 4 | 5 x 6 |
| Cable to standard thermostat (2) | | Nbr.xmm² | 10 x 0.22 | | | |
| Evaporator fan at nominal airflow | Airflow | m³/h | 3 580 | 4 100 | 5 060 | 5 300 |
| | Standard ESP | Pa | 50 | 50 | 62 | 62 |
| Condenser fan at nominal airflow | Airflow | m³/h | 3 890 | 4 810 | 5 640 | 7 450 |
| | Standard ESP | Pa | 50 | 50 | 50 | 50 |
| Nett dimensions | Height | mm | 557 | 585 | 650 | 650 |
| | Length | mm | 1 312 | 1 575 | 1 750 | 1 770 |
| | Depth | mm | 1 312 | 1 575 | 1 656 | 2 056 |
| Nett weight | RTC | kg | 235 | 305 | 358 | 420 |
| Nett weight | RTH | kg | 243 | 317 | 379 | 434 |

*(1) For information only. These should be checked for compliance with local regulations depending also on installation and cable type*
*(2) Shield type cable only*
*All the data are at EUROVENT conditions with 400V/3+N/50Hz.*
*Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C*
*Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB*

## Compatibility table / Codes

| Cooling only models | RTC 15 L | RTC 20 L | RTC 25 L | RTC 30 L |
|---|---|---|---|---|
| | S661241503 | S661242003 | S661242503 | S661243003 |
| **Heat pump models** | **RTH 15 L** | **RTH 20 L** | **RTH 25 L** | **RTH 30 L** |
| | S662041503 | S662042003 | S662042503 | S662043003 |

| Thermostat | |
|---|---|
| Delivered as standard with the unit | DPC-1 |

| Accessories or options | Remarks | Code | RTC 15 L / RTH 15 L | RTC 20 L / RTH 20 L | RTC 25 L / RTH 25 L | RTC 30 L / RTH 30 L |
|---|---|---|---|---|---|---|
| Electrical Heaters * (in duct) | 5 kW / 3ph. | S611765653 | A | A | A | A |
| | 10 kW / 3ph. | S611765583 | A | A | A | A |
| | 15 kW / 3ph. | S611765513 | A | A | A | A |
| Low ambient regulation | | S613111533 | O | | | |
| | | S613113087 * | | O | O | O |
| Copper-copper coils unit | | Contact us | O | O | O | O |
| Blue fin | | Contact us | O | O | O | O |

*A= Accessory (supplied loose). O= Option (factory fitted). * Not protected against external conditions.*

# ACTIVA Rooftop

## ARC-ARG-ARH-ARD

**A complete range from 17 kW up to 40 kW**

NEW


YKN2open

## Features

- High efficiency EER and COP
- Low noise level
- Variable speed supply fan
- All configurations: Cooling only, Cooling + gas, Heating, Heating + Gas
- BMS connection (N2open protocol as standard)
- Compact design
- Energy recovery (enthalpy wheel)
- EC Return fan
- External HP & LP access
- Filters G4, F6 & F7 available

## Nomenclature

**A R C 032 A A**

- A = Aluminium fin
  B = Blue fin
  C = Copper fin
- A = version
- **Capacity range:**
  032 = 32 kW
- **Product category:**
  C = Cooling
  H = Heat pump
  G = Cooling & Gas
  D = Heat pump & Gas (Dual)
- Rooftop
- Activa series

Johnson Controls participate to the Eurovent certification program for rooftop units

YORK
BY JOHNSON CONTROLS

# ACTIVA Rooftop

## ARC-ARG-ARH-ARD 017 to 040 A

## Technical features (Preliminary data)

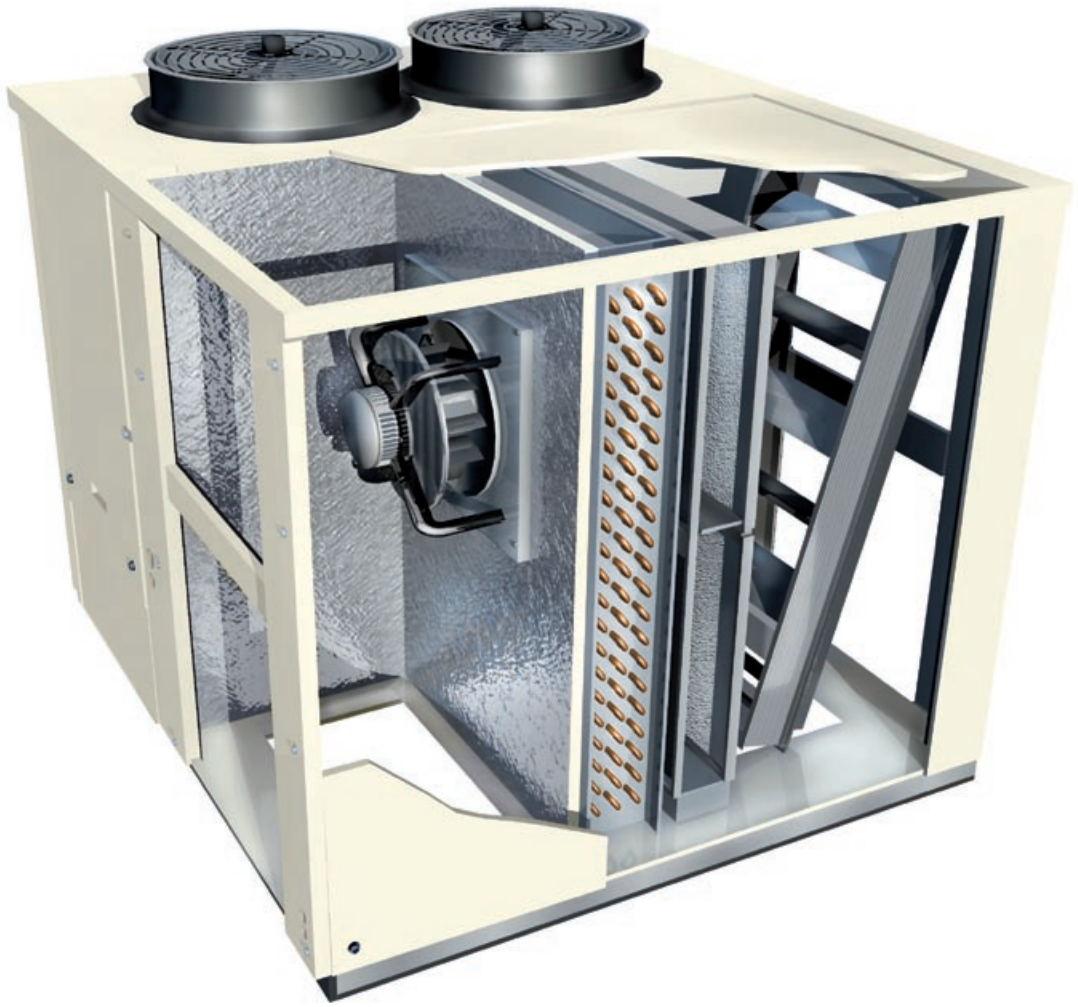
| **Cooling only models** | | **ARC 017 A** | **ARC 022 A** | **ARC 032 A** | **ARC 040 A** |
|---|---|---|---|---|---|
| Net cooling capacities | kW | 17.2 | 22 | 30 | 40 |
| Power input | kW | 5.5 | 7.3 | 9.5 | 13.7 |
| EER | | 3.1 | 3.0 | 3.1 | 2.9 |
| Working range (full load / partial load) | °C | 7°C ~ 46°C / -10°C ~ 52°C | | | |
| **Heat pump models** | | **ARH 017 A** | **ARH 022 A** | **ARH 032 A** | **ARH 040 A** |
| Net cooling capacities | kW | 17 | 21.5 | 30 | 39 |
| Power input in cooling | kW | 5.8 | 7.6 | 9.8 | 13.9 |
| EER | | 2.9 | 2.8 | 3.0 | 2.8 |
| Heating capacities (1) | kW | 16.6 | 20.6 | 28.6 | 37.8 |
| Power input in heating | kW | 5.3 | 6.7 | 9.6 | 12.7 |
| COP | | 3.1 | 3.0 | 3.0 | 3.0 |
| Working range (full load / partial load) | °C | -10°C ~ 46°C / -10°C ~ 52°C | | | |
| **Cooling only + Gas heating models** | | **ARG 017 A** | **ARG 022 A** | **ARG 032 A** | **ARG 040 A** |
| Net cooling capacities | kW | 17.2 | 22 | 30 | 40 |
| Cooling power input | kW | 5.5 | 7.3 | 9.5 | 13.7 |
| Standard Heating capacities (1) NET | kW | 23 | 23 | 23 | 23 |
| Natural gas 2ND-H, G20 | $m^3/h$ | 2.6 | 2.6 | 2.6 | 2.6 |
| High Heating capacities (1) NET | kW | - | - | 40 | 40 |
| Natural gas 2ND-H, G20 | $m^3/h$ | - | - | 4.5 | 4.5 |
| Working range (full load / partial load) | °C | -15°C ~ 46°C / -15°C ~ 52°C | | | |
| **Heat pump + Gas heating models** | | **ARD 017 A** | **ARD 022 A** | **ARD 032 A** | **ARD 040 A** |
| Net cooling capacities | kW | 17.2 | 21.5 | 30 | 39 |
| Cooling power input | kW | 5.5 | 7.6 | 9.8 | 13.9 |
| Heating capacities (1) | kW | 16.6 | 20.6 | 28.6 | 37.8 |
| Power input in heating | kW | 5.3 | 6.7 | 9.6 | 12.7 |
| Standard Heating capacities (1) NET | kW | 23 | 23 | 23 | 23 |
| Natural gas 2ND-H, G20 | $m^3/h$ | 2.6 | 2.6 | 2.6 | 2.6 |
| High Heating capacities (1) NET | kW | - | - | 40 | 40 |
| Natural gas 2ND-H, G20 | $m^3/h$ | - | - | 4.5 | 4.5 |
| Working range (full load / partial load) | °C | -15°C ~ 46°C / -15°C ~ 52°C | | | |
| **Common characteristics** | | | | | |
| Power supply | | 400V/3 + N/ 50Hz | | | |
| Main switch | A | 20 | 25 | 40 | 50 |
| Main cable | Nbr. x $mm^2$ | 5 x 4 | 5 x 6 | 5 x 10 | 5 x 16 |
| Cable to thermostat | Nbr. x $mm^2$ | 10 x 0,22 | | | |
| Number of circuits / Compressor type | | 1 / Scroll | | 1 (Tandem) / Scroll | |
| Evaporator fan at nominal airflow — Airflow | $m^3/h$ | 3400 | 4300 | 5700 | 7400 |
| Evaporator fan at nominal airflow — Power input | kW | 1 | 1.7 | 2.9 | 2.9 |
| Nett dimensions — Height | mm | 1 420 | 1 420 | 1 420 | 1 420 |
| Nett dimensions — Length | mm | 1 866 | 1 866 | 2 135 | 2 135 |
| Nett dimensions — Depth | mm | 1 540 | 1 540 | 1 850 | 1 850 |
| Nett weight ARC / ARG | kg | 420 / 455 | 440 / 465 | 576 / 616 | 580 / 620 |
| Nett weight ARH / ARD | kg | 425 / 460 | 445 / 470 | 582 / 622 | 586 / 626 |

*All the data are at EUROVENT conditions with 400V/3+N/50Hz.*
*Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C - Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB*
*(1) Add indoor fan motor consumption to know total heating capacity.*

## Codes

| | | | | |
|---|---|---|---|---|
| **Cooling only models** | **ARC 017 A** | **ARC 022 A** | **ARC 032 A** | **ARC 040 A** |
| | S661752410 | S661752426 | S661752430 | S661752450 |
| **Heat pump models** | **ARH 017 A** | **ARH 022 A** | **ARH 032 A** | **ARH 040 A** |
| | S661752413 | S661752423 | S661752433 | S661752453 |
| **Cooling only + Gas heating models** | **ARG 017 A** | **ARG 022 A** | **ARG 032 A** | **ARG 040 A** |
| | S661752411 | S661752421 | S661752431 | S661752451 |
| **Heat pump + Gas heating models** | **ARD 017 A** | **ARD 022 A** | **ARD 032 A** | **ARD 040 A** |
| | S661752412 | S661752422 | S661752432 | S661752452 |
| **Thermostat** | | | | |
| to be ordered separately | DPC-1 | | | |

# Activa rooftop details & features



### *High Efficiency*

High efficiency compressor and fans managed by an smart control allows the unit to achieve and maintain the level of comfort required in the most efficient way, reducing therefore the energy bill.

### *Low Noise*

Ultra quiet fans and optimized airflow reduces the noise level increasing the comfort. Compressors are mounted on shock absorbers and anti-vibration springs are available to avoid vibration transmissions into de building.

### *Easy Installation and Maintenance*

The high level of usability of the control, the internal solutions adopted (like direct driven fans with variable speed) and the easy access to components simplify and reduce the need of external interventions. Full information on commissioning and maintenance plan are provided to help to ensure unit keeps running always in optimal conditions.

### *Compact Design*

The refrigerant circuit layout has been redesigned and high efficiency exchangers been used to reduce the footprint and improve the transport and handling. Transition roofcurbs are available to fit in existing installations

# Accessories & options

## Accessories & options

| | | Code | Cooling only | | | | Heat pump | | | | Cooling + gas heating | | | | Heat pump + gas heating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 017 | 022 | 032 | 040 | 017 | 022 | 032 | 040 | 017 | 022 | 032 | 040 | 017 | 022 | 032 | 040 |
| Thermostat DPC-1 | | S603786044 | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Dry bulb triple input economizer or motorized air damper with rain hood | | S611752301 | O | O | | | O | O | | | O | O | | | O | O | | |
| | | S611752311 | | | O | O | | | O | O | | | O | O | | | O | O |
| Enthalpy probes | | S613990081 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Indoor air quality sensor | | S606819964 | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Power Exhaust | | S611752302 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752312 | | | A | A | | | A | A | | | A | A | | | A | A |
| Barometric relief damper and rain hood | | S611752472 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752473 | | | A | A | | | A | A | | | A | A | | | A | A |
| Fresh air damper and rain hood (2) | | S611752303 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752313 | | | A | A | | | A | A | | | A | A | | | A | A |
| Low ambient kit | | S611752381 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Roofcurb adapter (3) | | S611752886 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752887 | | | A | A | | | A | A | | | A | A | | | A | A |
| Fixed roof curb | | S611752881 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752882 | | | A | A | | | A | A | | | A | A | | | A | A |
| Adjustable roof curb | | S611752883 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752884 | | | A | A | | | A | A | | | A | A | | | A | A |
| Dirty filter switch | | S613990085 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Smoke detector | | S613995382 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Fire detection thermostat | | S613903003 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Hot water coil | | S611752351 | O | O | | | O | O | | | O | O | | | O | O | | |
| | | S611752352 | | | O | O | | | O | O | | | O | O | | | O | O |
| Electric heaters | 12 kW | S611752512 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| | 25 kW | S611752525 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| | 37 kW | S611752537 | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Propane conversion Kit | | S611752780 | | | | | | | | | A | A | A | A | A | A | A | A |
| High heat gas | | S611752790 | | | | | | | | | | | O | O | | | O | O |
| Filter kit F6 | | S611752401 | O | O | | | O | O | | | O | O | | | O | O | | |
| | | S611752402 | | | O | O | | | O | O | | | O | O | | | O | O |
| Filter kit F7 | | S611752411 | O | O | | | O | O | | | O | O | | | O | O | | |
| | | S611752412 | | | O | O | | | O | O | | | O | O | | | O | O |
| Grill condenser coil protection | | S611752451 | O | O | | | O | O | | | O | O | | | O | O | | |
| | | S611752452 | | | O | O | | | O | O | | | O | O | | | O | O |
| Antivibration mounting kit | | S611752461 | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A |
| Return fan bottom duct | | S611752361 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752362 | | | A | A | | | A | A | | | A | A | | | A | A |
| Energy recovery | | S611752501 | A | A | | | A | A | | | A | A | | | A | A | | |
| | | S611752511 | | | A | A | | | A | A | | | A | A | | | A | A |
| Filter kit F6 for energy recovery | | S611752506 | O/A | O/A | | | O/A | O/A | | | O/A | O/A | | | O/A | O/A | | |
| | | S611752516 | | | O/A | O/A | | | O/A | O/A | | | O/A | O/A | | | O/A | O/A |
| Filter kit F7 for energy recovery | | S611752507 | O/A | O/A | | | O/A | O/A | | | O/A | O/A | | | O/A | O/A | | |
| | | S611752517 | | | O/A | O/A | | | O/A | O/A | | | O/A | O/A | | | O/A | O/A |
| Copper-copper coil | | Contact us | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Blue fin | | Contact us | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O |

*O=Option (factory fitted). A=Accessory (supplied loose). O/A=If you want this item factory fitted, precise it in the order form.*
*(1) Energy recovery accessory include: economizer, rain hood, indoor air quality sensor, enthalpy probe and G4 filters.*
*(2) Fresh air damper can not be installed if economizer or motorized damper is fitted*
*(3) Transition roofcurbs to fit in existing installations*

Johnson Controls

# ACTIVA Rooftop

## ARC-ARG-ARH-ARD

**A complete range from 45.1 kW up to 84 kW**


YKN2open



## Features

- High efficiency EER and COP
- Low noise level
- All configurations: Cooling only, Cooling + gas, Heating, Heating + Gas
- New board with BMS connection (N2open protocole as standard)
- Energy recovery (enthalpy wheel)
- EC Return fan
- External HP & LP access
- Filters G4, F6 & F7 available
- Tandem configuration (up to 52°C outdoor temperature)

## A R C 045 A A Nomenclature

- A A = Aluminium fin / B = Blue fin / C = Copper fin
- A = version
- **Capacity range:** 045 = 45 kW
- **Product category:** C = Cooling / H = Heat pump / G = Cooling & Gas / D = Heat pump & Gas (Dual)
- Rooftop
- Activa series

**Johnson Controls participate to the Eurovent certification program for rooftop units**

YORK BY JOHNSON CONTROLS

# ACTIVA Rooftop

## ARC-ARG-ARH-ARD 45 to 90 A


## Technical features

| **Cooling only models** | | **ARC 045 A** | **ARC 060 A** | **ARC 075 A** | **ARC 090 A** |
|---|---|---|---|---|---|
| Net cooling capacities | kW | 45.1 | 61.0 | 71.5 | 84.0 |
| Power input | kW | 16.0 | 23.0 | 30.0 | 36.0 |
| EER | | 2.96 | 2.91 | 2.67 | 2.60 |
| Working range (full load / partial load) | °C | 7°C ~ 46°C / -10°C ~ 52°C | | | |
| **Heat pump models** | | **ARH 045 A** | **ARH 060 A** | **ARH 075 A** | **ARH 090 A** |
| Net cooling capacities | kW | 47.6 | 61.9 | 71.4 | 83.4 |
| Power input in cooling | kW | 17.0 | 20.0 | 28.0 | 36.0 |
| EER | | 3.00 | 3.06 | 2.67 | 2.60 |
| Heating capacities (1) | kW | 45.2 | 58.0 | 71.7 | 86.5 |
| Power input in heating | kW | 16.0 | 19.0 | 27.0 | 33.0 |
| COP | | 2.80 | 2.96 | 2.81 | 2.60 |
| Working range (full load / partial load) | °C | -10°C ~ 46°C / -10°C ~ 52°C | | | |
| **Cooling only + Gas heating models** | | **ARG 045 A** | **ARG 060 A** | **ARG 075** | **ARG 090 A** |
| Net cooling capacities | kW | 45.1 | 61.0 | 71.5 | 84.0 |
| Cooling power input | kW | 16.0 | 23.0 | 30.0 | 36.0 |
| Standard Heating capacities (1) | kW | 76.0 | 76.0 | 76.0 | 76.0 |
| Natural gas 2ND-H, G20 | $m^3/h$ | 8.60 | 8.60 | 8.60 | 8.60 |
| High Heating capacities (1) | kW | 90.0 | 90.0 | 90.0 | 90.0 |
| Natural gas 2ND-H, G20 | $m^3/h$ | 9.80 | 9.80 | 9.80 | 9.80 |
| Working range (full load / partial load) | °C | -15°C ~ 46°C / -15°C ~ 52°C | | | |
| **Heat pump + Gas heating models** | | **ARD 045 A** | **ARD 060 A** | **ARD 075** | **ARD 090 A** |
| Net cooling capacities | kW | 47.6 | 61.9 | 71.4 | 83.4 |
| Cooling power input | kW | 17.0 | 20.0 | 28.0 | 36.0 |
| Heating capacities (1) | kW | 45.2 | 58.0 | 71.7 | 86.5 |
| Power input in heating | kW | 16.0 | 19.0 | 27.0 | 33.0 |
| Standard Heating capacities (1) | kW | 76.0 | 76.0 | 76.0 | 76.0 |
| Natural gas 2ND-H, G20 | $m^3/h$ | 8.60 | 8.60 | 8.60 | 8.60 |
| High Heating capacities (1) | kW | 90.0 | 90.0 | 90.0 | 90.0 |
| Natural gas 2ND-H, G20 | $m^3/h$ | 9.80 | 9.80 | 9.80 | 9.80 |
| Working range (full load / partial load) | °C | -15°C ~ 46°C / -15°C ~ 52°C | | | |
| **Common characteristics** | | | | | |
| Power supply | | 400V/3 + N/ 50Hz | | | |
| Main switch | A | 50 | 63 | 80 | 80 |
| Main cable | Nbr. x $mm^2$ | 5 x 10 | 5 x 16 | 5 x 25 | 5 x 25 |
| Cable to thermostat | Nbr. x $mm^2$ | 10 x 0,22 | | | |
| Number of circuits / Compressor type | | 2 x scroll | | | |
| Evaporator fan at nominal airflow — Airflow | $m^3/h$ | 8 500 | 11 500 | 13 500 | 16 000 |
| Evaporator fan at nominal airflow — Power input | kW | 3 | 4 | 5,5 | 7,5 |
| Nett dimensions — Height | mm | 1 316 | 1 316 | 1 367 | 1 367 |
| Nett dimensions — Length | mm | 3 180 | 3 180 | 3 495 | 3 495 |
| Nett dimensions — Depth | mm | 2 337 | 2 337 | 2 337 | 2 337 |
| Nett weight ARC / ARG | kg | 900 / 1 010 | 945 / 1 055 | 1 118 / 1 228 | 1 142 / 1 252 |
| Nett weight ARH / ARD | kg | 930 / 1 040 | 985 / 1 095 | 1 145 / 1 255 | 1 220 / 1 330 |

*All the data are at EUROVENT conditions with 400V/3+N/50Hz.*
*Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C - Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB*
*(1) Add indoor fan motor consumption to know total heating capacity.*

## Codes

| | | | | |
|---|---|---|---|---|
| **Cooling only models** | **ARC 045 A** | **ARC 060 A** | **ARC 075 A** | **ARC 090 A** |
| | S661752440 | S661752460 | S661752470 | S661752490 |
| **Heat pump models** | **ARH 045 A** | **ARH 060 A** | **ARH 075 A** | **ARH 090 A** |
| | S661752443 | S661752463 | S661752473 | S661752493 |
| **Cooling only + Gas heating models** | **ARG 045 A** | **ARG 060 A** | **ARG 075 A** | **ARG 090 A** |
| | S661752441 | S661752461 | S661752471 | S661752491 |
| **Heat pump + Gas heating models** | **ARD 045 A** | **ARD 060 A** | **ARD 075 A** | **ARD 090 A** |
| | S661752442 | S661752462 | S661752472 | S661752492 |
| **Thermostat** | | | | |
| to be ordered separately | DPC-1 | | | |

# Activa rooftop details & features

### *Condenser fan*

New condenser fans with high technology blades and outdoor bell that reduce the turbulences in the air and therefore increase the efficiency and improve the noise level performance.

PCB board

### *Tandem scroll compressors*

Tandem compressors configuration allows the unit to operate at partial load (only with one compressor) with higher efficiency and increases the working range up to +52°C ambient temperature.

### *PCB board*

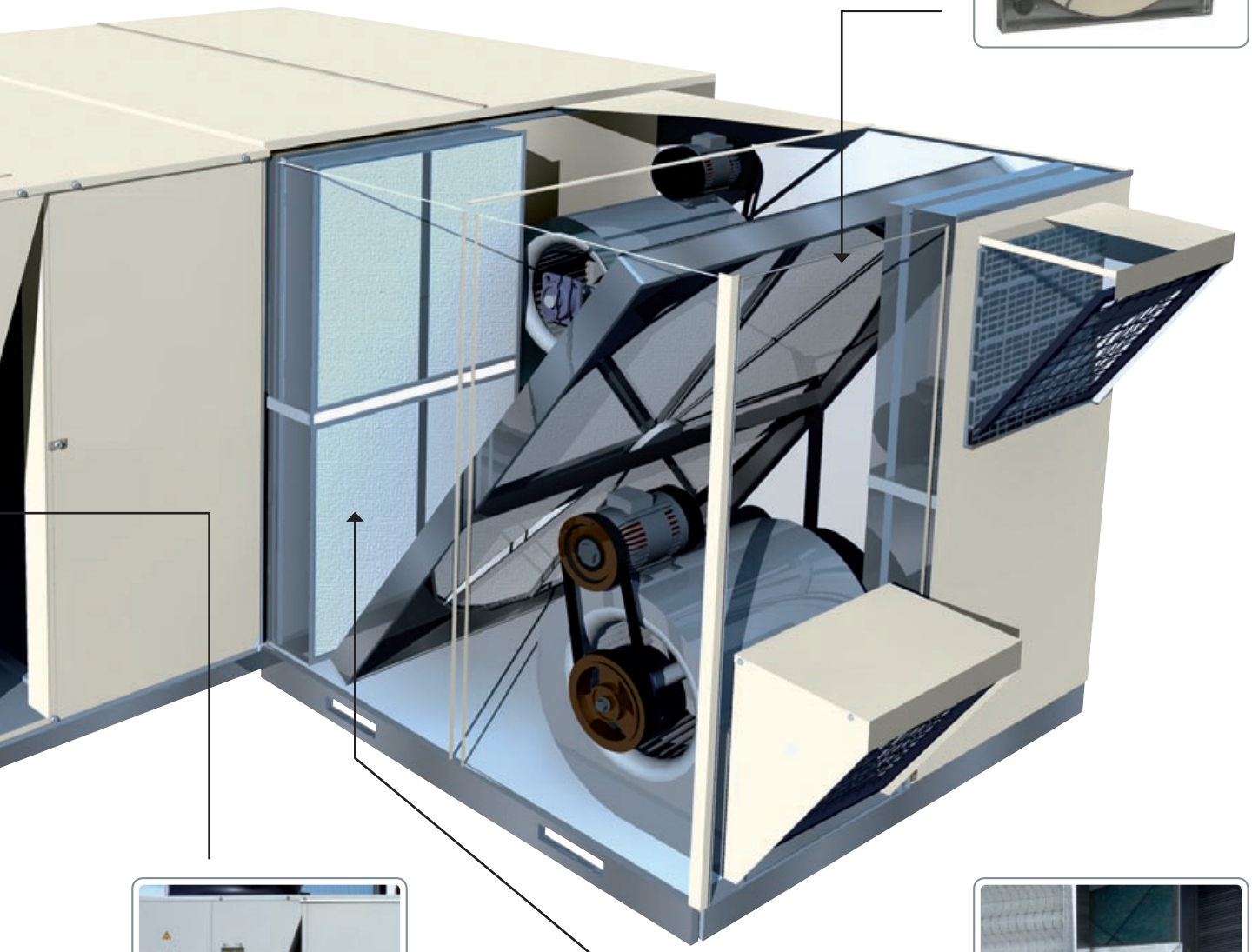
The new control board keeps same features and benefits as YKlon V3 (see pg. 129) and adds new logical to control the tandem circuit, the new options (heat recovery, return fan) and the possibility to communicate with BMS system as standard (N2Open).

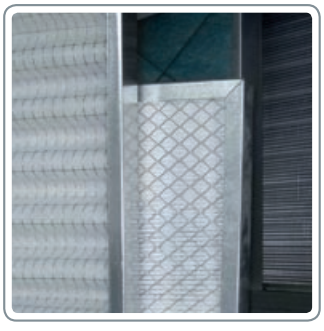
### *Return fan*

Located in a special roof curb underneath the rooftop, it works simultaneously with the indoor fan in order to balance the amount of air supplied to and removed from the space. It is the best suited for systems with high return path static pressures.
Also, incorporates EC technology and a differential pressure gauge to easy set up and maintain automatically the working point in the installation.

## *Energy recovery system*

It is the preferred solution to solve two conflicting requirements: reduce running costs (increase efficiency) while maintaining the indoor air quality at high levels (through ventilation).
An enthalpy rotary wheel retains the energy from the exhaust air and transmits it to the fresh air stream that is being supplied in the conditioned space.
The material used is manufactured with the latest technology to increase the energy transmission in both sensible and latent heat.
The wheel is split into 6 portions that can be easily removed for cleaning.





## *V-Coils*

Can be made in aluminium, blue fin or in copper (for harsh conditions), increases the heat exchange surface for a given rooftop footprint.
The floor pan is sloped for easy condensates drainage.

## *Filter options*

Washable air filters: G4 class filter (gravimetric efficiency above 90%) and M1 fire class, it comes with galvanized sheet metal frame that allows easy cleaning and replacement. Delivered as standard.
Filter kit F6: for Average Opacimetric efficiency (em) 60% ≤ em ≤ 80%
Filter kit F7: for Average Opacimetric efficiency (em) 80% ≤ em ≤ 90%
As per EN 779

Johnson Controls

# Accessories & options

## Accessories & options

| | | Code | Cooling only | | | | Heat pump | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 45 | 60 | 75 | 90 | 45 | 60 | 75 | 90 |
| Thermostat DPC-1 | | S603786044 | A | A | A | A | A | A | A | A |
| Dry bulb triple input economizer or motorized air damper with rain hood | | S661752301 | O | O | | | O | O | | |
| | | S661752311 | | | O | O | | | O | O |
| Enthalpy probes | | S613990081 | O | O | O | O | O | O | O | O |
| Indoor air quality sensor | | S606819964 | A | A | A | A | A | A | A | A |
| Power Exhaust | | S661752302 | A | A | | | A | A | | |
| | | S661752322 | | | A | A | | | A | A |
| Barometric relief damper and rain hood | | S613990472 | A | A | | | A | A | | |
| | | S613990473 | | | A | A | | | A | A |
| Fresh air damper and rain hood (2) | | S661752303 | A | A | | | A | A | | |
| | | S661752323 | | | A | A | | | A | A |
| High speed drive | 4 kW | S611990401 | O | | | | O | | | |
| | 5.5 kW | S611990601 | | O | | | | O | | |
| | 7.5 kW | S611990701 | | | O | | | | O | |
| | 9.2 kW | S611990901 | | | | O | | | | O |
| | 11 kW | S611990902 | | | | O | | | | O |
| Soft start indoor fan | 5.5 kW | S606744690 | O | O | O | O | O | O | O | O |
| | 11.5 kW | S606744691 | O | O | O | O | O | O | O | O |
| Low ambient kit | | S613118301 | O | O | O | O | O | O | O | O |
| Side duct flanges | | S613991482 | A | A | | | A | A | | |
| | | S613991483 | | | A | A | | | A | A |
| Fixed roof curb | | S613991884 | A | A | | | A | A | | |
| | | S613991885 | | | A | A | | | A | A |
| Adjustable roof curb | | S613992081 | A | A | | | A | A | | |
| | | S613992082 | | | A | A | | | A | A |
| Dirty filter switch | | S613990085 | O | O | O | O | O | O | O | O |
| Smoke detector | | S613995382 | O | O | O | O | O | O | O | O |
| Fire detection thermostat | | S613903003 | O | O | O | O | O | O | O | O |
| Hot water coil | | S611083351 | O | O | O | O | O | O | O | O |
| Electric heaters | 12 kW | S611761584 | O | O | O | O | O | O | O | O |
| | 25 kW | S611762284 | O | O | O | O | O | O | O | O |
| | 37 kW | S611763385 | O | O | O | O | O | O | O | O |
| | 50 kW | S611764485 | O | O | O | O | O | O | O | O |
| Propane conversion Kit | | S611801780 | A | A | A | A | A | A | A | A |
| High heat gas conversion kit | | S611803080 | O | O | O | O | O | O | O | O |
| Filter kit F6 | | S611300401 | O | O | | | O | O | | |
| | | S611300701 | | | O | | | | O | |
| | | S611300901 | | | | O | | | | O |
| Filter kit F7 | | S611300402 | O | O | | | O | O | | |
| | | S611300702 | | | O | | | | O | |
| | | S611300902 | | | | O | | | | O |
| Grill condenser coil protection | | S661752304 | O | | | | O | | | |
| | | S661752324 | | O | | | | O | | |
| | | S661752314 | | | O | O | | | O | O |
| Antivibration mounting kit | | S613990411 | A | A | A | A | A | A | A | A |
| Return fan bottom duct | | S613993042 | A | A | | | A | A | | |
| | | S613993072 | | | A | A | | | A | A |
| Energy recovery | Q6000 (1) | S611994501 | A | A | | | A | A | | |
| | Q3000 (1) | S611994502 | A | A | | | A | A | | |
| | Q9000 (1) | S611997501 | | | A | A | | | A | A |
| | Q4500 (1) | S611997502 | | | A | A | | | A | A |
| Filter kit F6 for energy recovery | | S611994506 | O/A | O/A | | | O/A | O/A | | |
| | | S611997506 | | | O/A | O/A | | | O/A | O/A |
| Filter kit F7 for energy recovery | | S611994507 | O/A | O/A | | | O/A | O/A | | |
| | | S611997507 | | | O/A | O/A | | | O/A | O/A |
| Copper-copper coil | | Contact us | O | O | O | O | O | O | O | O |
| Blue fin | | Contact us | O | O | O | O | O | O | O | O |

*O=Option (factory fitted). A=Accessory (supplied loose). O/A=If you want this item factory fitted, precise it in the order form.*
*(1) = Energy recovery accessory include: economizer, rain hood, indoor air quality sensor, enthalpy probe and G4 filters.*
*(2) Fresh air damper can not be installed if economizer or motorized damper is fitted*

## Accessories & options

| | | Code | Cooling + gas heating | | | | Heat pump + gas heating | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 45 | 60 | 75 | 90 | 45 | 60 | 75 | 90 |
| Thermostat DPC-1 | | S603786044 | A | A | A | A | A | A | A | A |
| Dry bulb triple input economizer or motorized air damper with rain hood | | S661752301 | O | O | | | O | O | | |
| | | S661752311 | | | O | O | | | O | O |
| Enthalpy probes | | S613990081 | O | O | O | O | O | O | O | O |
| Indoor air quality sensor | | S606819964 | A | A | A | A | A | A | A | A |
| Power Exhaust | | S661752302 | A | A | | | A | A | | |
| | | S661752322 | | | A | A | | | A | A |
| Barometric relief damper and rain hood | | S613990472 | A | A | | | A | A | | |
| | | S613990473 | | | A | A | | | A | A |
| Fresh air damper and rain hood (2) | | S661752303 | A | A | | | A | A | | |
| | | S661752323 | | | A | A | | | A | A |
| High speed drive | 4 kW | S611990401 | O | | | | O | | | |
| | 5.5 kW | S611990601 | | O | | | | O | | |
| | 7.5 kW | S611990701 | | | O | | | | O | |
| | 9.2 kW | S611990901 | | | | O | | | | O |
| | 11 kW | S611990902 | | | | O | | | | O |
| Soft start indoor fan | 5.5 kW | S606744690 | O | O | O | O | O | O | O | O |
| | 11.5 kW | S606744691 | O | O | O | O | O | O | O | O |
| Low ambient kit | | S613118301 | O | O | O | O | O | O | O | O |
| Side duct flanges | | S613991482 | A | A | | | A | A | | |
| | | S613991483 | | | A | A | | | A | A |
| Fixed roof curb | | S613991884 | A | A | | | A | A | | |
| | | S613991885 | | | A | A | | | A | A |
| Adjustable roof curb | | S613992081 | A | A | | | A | A | | |
| | | S613992082 | | | A | A | | | A | A |
| Dirty filter switch | | S613990085 | O | O | O | O | O | O | O | O |
| Smoke detector | | S613995382 | O | O | O | O | O | O | O | O |
| Fire detection thermostat | | S613903003 | O | O | O | O | O | O | O | O |
| Hot water coil | | S611083351 | O | O | O | O | O | O | O | O |
| Electric heaters | 12 kW | S611761584 | O | O | O | O | O | O | O | O |
| | 25 kW | S611762284 | O | O | O | O | O | O | O | O |
| | 37 kW | S611763385 | O | O | O | O | O | O | O | O |
| | 50 kW | S611764485 | O | O | O | O | O | O | O | O |
| Propane conversion Kit | | S611801780 | A | A | A | A | A | A | A | A |
| High heat gas conversion kit | | S611803080 | O | O | O | O | O | O | O | O |
| Filter kit F6 | | S611300401 | O | O | | | O | O | | |
| | | S611300701 | | | O | | | | O | |
| | | S611300901 | | | | O | | | | O |
| Filter kit F7 | | S611300402 | O | O | | | O | O | | |
| | | S611300702 | | | O | | | | O | |
| | | S611300902 | | | | O | | | | O |
| Grill condenser coil protection | | S661752304 | O | | | | O | | | |
| | | S661752324 | | O | | | | O | | |
| | | S661752314 | | | O | O | | | O | O |
| Antivibration mounting kit | | S613990411 | A | A | A | A | A | A | A | A |
| Return fan bottom duct | | S613993042 | A | A | | | A | A | | |
| | | S613993072 | | | A | A | | | A | A |
| Energy recovery | Q6000 (1) | S611994501 | A | A | | | A | A | | |
| | Q3000 (1) | S611994502 | A | A | | | A | A | | |
| | Q9000 (1) | S611997501 | | | A | A | | | A | A |
| | Q4500 (1) | S611997502 | | | A | A | | | A | A |
| Filter kit F6 for energy recovery | | S611994506 | O/A | O/A | | | O/A | O/A | | |
| | | S611997506 | | | O/A | O/A | | | O/A | O/A |
| Filter kit F7 for energy recovery | | S611994507 | O/A | O/A | | | O/A | O/A | | |
| | | S611997507 | | | O/A | O/A | | | O/A | O/A |
| Copper-copper coil | | Contact us | O | O | O | O | O | O | O | O |
| Blue fin | | Contact us | O | O | O | O | O | O | O | O |

*O=Option (factory fitted). A=Accessory (supplied loose). O/A=If you want this item factory fitted, precise it in the order form.*
*(1) = Energy recovery accessory include: economizer, rain hood, indoor air quality sensor, enthalpy probe and G4 filters.*
*(2) Fresh air damper can not be installed if economizer or motorized damper is fitted*

Johnson Controls

# Large Rooftop

## DIC-BIH-DIG

**A complete range from 119.1 kW up to 155.6 kW**


YKlon ✓3

## Features

- YKlon ✓3 board
- Duct work configuration side or down flow
- Cooling, heat pump, gas and electric heating
- Compact unit
- Wide range of accessories
- Suitable for use in harsh climates

**Johnson Controls participate to the Eurovent certification program for rooftop units**

## Nomenclature

D 4 IC 360 G 50

**Voltage code:**
50 = 400V / 3 + N / 50 Hz

**Heating installed:**
G = R407C

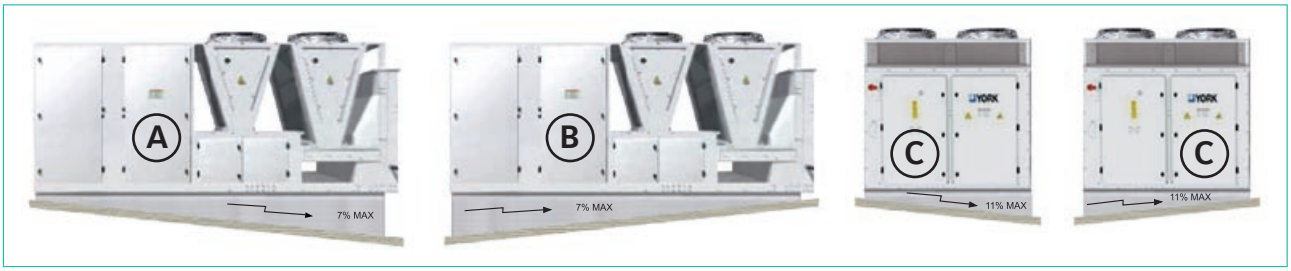
**Capacity range:**
360 = 360.000 Btu/h
1.000 Btu/h = 293 W

**Product identification:**
IC = Cooling only
IH = Heat pump
IG = Heat gas

**Product generation:**
4 = 4th generation

**Product category:**
D = Packaged air conditioner (air-cooled)
B = Heat pump

## Adjustable roof curb types




YORK
BY JOHNSON CONTROLS

# Large Rooftop

## DIC-BIH-DIG 360 to 480 G

## Technical features

| Models | | | D4IC 360 G | D4IC 480 G | B4IH 360 G | B4IH 480 G | D4IG 360 G* | D4IG 480 G* |
|---|---|---|---|---|---|---|---|---|
| Gross cooling capacities (1) | | kW | 119.1 | 155.6 | 115.1 | 151.0 | 119.1 | 155.6 |
| Power input in cooling (2) | | kW | 31.4 | 37.2 | 32.0 | 44.5 | 31.4 | 37.2 |
| Heating capacities | | kW | - | - | 127.1 | 163.3 | - | - |
| Power input in heating | | kW | - | - | 41.9 | 56.7 | - | - |
| Cooling capacities (3) | | kW | 111.6 | 144.6 | 107.6 | 140.0 | 111.6 | 144.6 |
| Power input in cooling (3) | | kW | 42.4 | 52.2 | 43.0 | 59.5 | 42.4 | 52.2 |
| Heating capacities (3) | | kW | - | - | 127.1 | 163.3 | - | - |
| Power input in heating (3) | | kW | - | - | 41.9 | 56.7 | - | - |
| Gas heating capacities (3) | | kW | | | | | 117 + 9.2 | 117 + 11 |
| Natural gas 2ND-H, G20 | | $m^3/h$ | | | | | 12.8 | 12.8 |
| Power supply | | | 400V/3 + N/ 50Hz | | | | | |
| Nominal / Starting current | | A | 89 / 167 | 109 / 250 | 83 / 169 | 109 / 250 | 89 / 167 | 109 / 250 |
| Main switch | | A | 125 | 160 | 125 | 160 | 125 | 160 |
| Main cable | | Nbr x $mm^2$ | 5 x 50 | 5 x 70 | 5 x 50 | 5 x 70 | 5 x 50 | 5 x 70 |
| Cable to thermostat DPC-1 | | Nbr x $mm^2$ | 10 x 0,22 shield cable only | | | | | |
| Number of circuits | | | 3 | 3 | 3 | 3 | 3 | 3 |
| Thermostat | | | DPC-1 | | | | | |
| Evaporator fan at nominal airflow | Airflow | $m^3/h$ | 21 000 | 25 000 | 21 000 | 25 000 | 21 000 | 25 000 |
| | Standard ESP | Pa | 250 | 250 | 250 | 250 | 250 | 250 |
| | ESP with HSD | Pa | 400 (Side duct connections) - 450 (Down duct connections) | | | | | |
| | Power input | kW | 9.2 | 11 | 9.2 | 11 | 9.2 | 11 |
| | Power input HSD | kW | 11 | 15 | 11 | 15 | 11 | 15 |
| | Drive | | Pulley - Belt (6 turns adjustable) | | | | | |
| Nett dimensions | Height | mm | 1.815 | | | | | |
| | Length | mm | 4.580 | | | | | |
| | Depth | mm | 2.200 | | | | | |
| Nett weight | | kg | 2 010 | 2 295 | 2 060 | 2 350 | 2 125 | 2 410 |

*(1) : without heat from evaporator fan motor (2) : without evaporator fan motor (3) : All the data are at EUROVENT conditions with 230V/1/50Hz or 400V/3+N/50Hz Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C - Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB*
** You should indicate airflow connection (side or down) when placing order.*

## Compatibility table / Codes

| | | |
|---|---|---|
| **Cooling only models** | **D4IC 360 G** | **D4IC 480 G** |
| | S661723623 | S661724823 |
| **Heat pump models** | **B4IH 360 G** | **B4IH 480 G** |
| | S661923623 | S661924823 |
| **Cooling and gas heating models** | **D4IG 360 G** | **D4IG 480 G** |
| | S661763603 | S661764803 |
| **Thermostat** | | |
| to be ordered separately | DPC-1 | |

## Accessories or options

| Models | | | D4IC 360 G | D4IC 480 G | B4IH 360 G | B4IH 480 G | D4IG 360 G | D4IG 480 G |
|---|---|---|---|---|---|---|---|---|
| Thermostat DPC-1 | | S603780044 | A | A | A | A | A | A |
| Dry bulb triple input economizer or motorized air damper with rain hood (1) | | S613993601 | O | O | O | O | O | O |
| Enthalpy probe * | | S613990081 | O | O | O | O | O | O |
| Indoor air quality sensor * | | S606819964 | O/A | O/A | O/A | O/A | O/A | O/A |
| Power exhaust * | | S613994880 | O/A | O/A | O/A | O/A | O/A | O/A |
| Barometric relief damper + rain hood | | S613990471 | O/A | O/A | O/A | O/A | O/A | O/A |
| Fresh air damper and rain hood (2) | | S613990488 | O | O | O | O | O | O |
| High pressure drive 360 | | S611993680 | O | | O | | O | |
| High pressure drive 480 | | S611994880 | | O | | O | | O |
| Low ambient control 360 and 480 | | S613113680 | O | O | O | O | O | O |
| Hot water coil with control | | S611083651 | O | O | O | O | | |
| Electric heater 37 kW (2 stages) | | S611763384 | O | O | O | O | | |
| Electric heater 50 kW (2 stages) | | S611764484 | O | O | O | O | | |
| Electric heater 60 kW (2 stages) | | S611765581 | O | O | O | O | | |
| Washable air filter set G4 (EU4) | | S611303680 | O | O | O | O | O | O |
| Dirty filter switch | | S613990084 | O | O | O | O | O | O |
| Smoke detector | | S613995381 | O | O | O | O | O | O |
| Fire detection thermostat | | S613903002 | O | O | O | O | O | O |
| Fixed roof curb ** | | S613991980 | A | A | A | A | A | A |
| Adjustable roof curb ** | A | S613992084 | A | A | A | A | A | A |
| | B | S613992085 | A | A | A | A | A | A |
| | C | S613992086 | A | A | A | A | A | A |

*O=Option (factory fitted). A=Accessory (supplied loose). O/A=If you want this item factory fitted, precise it in the order form.*
** It is mandatory to order the economizer with this item. ** Delivered in kit form.*
*(1) You should indicate airflow connection (side or down) when placing order.*
*(2) Fresh air damper can not be installed if economizer or motorized damper is fitted*

Johnson Controls

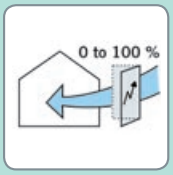
# Rooftop & Large Rooftop accessories & options


## *Triple input economizer*

This system utilizes 3 probes: Return Air, Outdoor Air and Supply Air. The Outdoor Air damper and the Return Air dampers are mechanically interconnected in order to provide the same airflow at the coil inlet, with a single damper motor. The PCB compares sensor values and modulates the dampers providing maximum efficiency of the economiser system (free cooling) and comfort (Supply Air > 12°C). Combined with the air quality sensor, your payback will be ensured within few months. The rain hood is painted to match the basic unit and aluminium mesh pre-filter prevents water penetration.

## *Indoor air quality*

This sensor measures concentrations of pollutant gases, such as tobacco smoke, human body odours, kitchen odours, carbon monoxide, etc... It automatically overrides the economizer when pollutant levels rise above preset limits. A shorting plug will set the algorithm to acceptable, good or very good air quality. This VOC sensor (Volatile Organic Compounds) sends an ON/OFF signal to the control PCB. The YKIon will then adjust the fresh air damper, optimising indoor air quality and minimising the energy consumption.




## *Motorised outdoor air damper*

Equipped with the same dampers as the economizer, the Return Air probe is not used. Outdoor air damper opens to pre-set position whenever the indoor fan is operating (selected from the thermostat, the indoor fan can be activated with the compressor or to operate continuously) and will drive fully closed when the indoor fan shuts down. The rain hood is painted to match the basic unit and aluminium mesh pre-filter prevents water penetration.

## *Power Exhaust*

Used to mechanically relieve internal air pressure from the Return Air section and ensure efficient fresh air introduction on units equipped with triple input economiser or motorised air damper. The power exhaust fan motor works when enough Outdoor Air is blowing into the room and if Outdoor Air temperature is acceptable (12°C < t° < 30°C).

## *Enthalpy sensors*

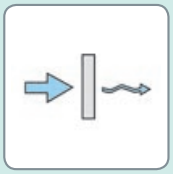
To control the economizer in humid areas, or when indoor air humidity needs to remains dry, you should select enthalpy regulation. Enthalpy sensors will be used with the triple input economizer.


## *High speed drive*

The high speed drive will increase the supply fan performance for applications requiring greater air flow and/or static pressure.
Please consult technical guide for more information.

## *Barometric relief damper*

This accessory can be used to relieve internal air pressure on units equipped with triple input economiser or motorised air damper but no power exhaust. When the rooftop is working in free cooling or introducing fresh air, the damper opens to relieve over pressure from the return air section. This accessory is comprised of a rain hood, a protective grille and a fully assembled damper.



## *Dirty filter switch*

Ensures that clean air is being supplied, advises when maintenance is required to prevent excessive depression and ensures water integrity of the AHU. These are the main advantages of filter dirty switch. Connected with the DPC-1 thermostat, the filter icon will appear on the thermostat screen when a filter change is required.


## *Fresh air damper and rain hood*

The most cost effective method with a complete rain hood and a fixed damper that can be adjusted to provide approximately 10, 15 or 25% of fresh air.


## *Low ambient control*

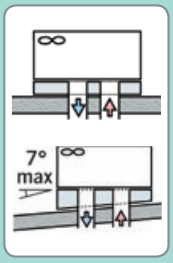
All our rooftops are designed to work in cooling mode down to 7°C ambient temperatures. Although this working range suits most applications, the units can operate correctly down to -18°C with optional low ambient control.

## *Fire detection thermostat*

This fire detection thermostat is protecting the AHU but must not be used to ensure a full building protection against fire danger. The standard AHU is protected as standard with a Supply Air probe that shuts the unit down (lockout) when temperature exceeds 80°C. The electro-mechanical fire detection thermostat is used to fulfil specific local requirement. A manual reset is necessary.

## *Smoke detector*

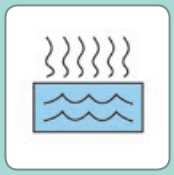
The smoke detector is protecting the AHU but must not be used to ensure a full building protection against smoke danger. If smoke is detected the AHU is shutdown (lockout). A manual reset is necessary.




## Fixed and adjustable roof curbs

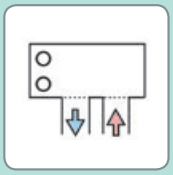
Ideal for down-flow applications, it is a great help for installation allowing duct connections, electrical connection and weatherproofing between the roofcurb and the roof of the building. Shipped in kit form, it also gives sufficient height for condensate trap operation.

The adjustable roof curbs have the same benefits as the fixed roof curb, it allows the rooftop to be levelled on a roof with up to 7° slope (4%).



## Hot water coil with control

The hot water coil and his control are always fitted, wired and factory tested. Located in the supply air section, side or bottom duct connection is possible without any modification. Complete with an anti-frost thermostat, the PCB will activate the modulated valve (24V supply, 0 – 10V modulating signal) in order to get the best comfort. A jumper will allow using hot water coil as 1st heating stage.



## Side duct flanges

Fitted as standard on units 90, 120 and 150, this accessory is composed of easy to install sheet metal panels to allow ductwork connections on the side of the AHU for horizontal return air and/or supply air.

## Electric heaters

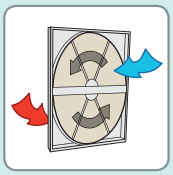
Available on cooling only and Heat pump units, the electric heater is protected with two overheats per element.
When the overheat operates, there is a lock out of the faulty electric heater stage and the PCB starts automatically another heat stage.


## Kit conversion propane

This kit comprises replacement burner, pilot injectors and all necessary instructions for converting the natural gas burner to propane gas. The nominal pressure of the propane gas should be 37 mbar.

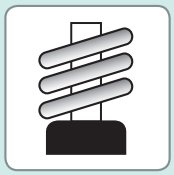
## High heat gas

This kit comprises replacement burner injectors and all necessary instructions to provide high heat capacity for gas rooftop.



## Energy recovery

Attached to the return air box of the rooftop, a rotary enthalpy wheel retrieves the energy of the exhausted air and transmits it to the fresh air intake. A special material used in the wheel allows that latent heat as well as sensible heat are transmitted.



## Antivibration mounting kit

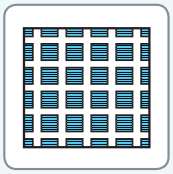
It is composed by a set of stainless steel springs, to be assembled underneath the rooftop in a specific position. Their installation avoids the potential vibration transmission of the equipment to the building and reduces therefore the noise level (compressors have their own shock absorbers delivered as standard).

## Indoor fan soft start

Compact control unit with a motor with AC semiconductors, designed for soft starting and stopping of three-phase motors for centrifugal fans. The starting time, the stopping time and the initial torque are adjusted by mean of independent potentiometers.

## Return fan

Used to overcome high return path pressure drops, works in series with the indoor fan to maintain the air pressure of the conditioned space within acceptable levels.



## Grill condenser protection

Metallic frame painted with oven-baked polymerized paint (800h salt spray resistance) to protect the fins of the coils from external damages.

## Air filters

G4, F6 and F7 filters are available to purify the air in the room. M1 fire class and manufactured in sheet metal frame, they are easy to install and clean.

Johnson Controls

# VITALITY Axial Fan Large Split

## VAC/VAH - VIR 20 to 90 A

**A complete range from 19.1 kW up to 86.1 kW**


YKN2open

## Features

- New YKN2open board
- High technology fan blades increases efficiency and reduces noise level
- Service valves
- Economizer or motorized damper
- Return fan
- Indoor air quality
- Hot water coil and control
- Scroll compressor with crankcase heater
- Digital thermostat DPC-1 included

## Nomenclature

**V A H 40 A**

A = version

**Capacity range:**
40 = 40 kW

**Product category:**
C = Cooling only
H = Heat Pump
R = Reversible
I = Indoor

A = Axial

V = Vitality

# VITALITY Axial Fan Large Split

## VAC/VAH - VIR 20 to 90 A

## Technical features

| INDOOR UNITS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Cooling only and Heat pump** | **VIR** | **25A** | | **40A** | | **45A** | **60A** | **75A** | **90A** |
| **OUTDOOR UNITS** | | | | | | | | | |
| **Cooling only models** | **VAC** | **20A** | **25A** | **30A** | **40A** | **45A** | **60A** | **75A** | **90A** |
| Cooling capacities | kW | 19.10 | 23.00 | 28.80 | 35.10 | 42.90 | 54.00 | 72.30 | 86.10 |
| Power input in cooling | kW | 5.60 | 6.99 | 9.60 | 11.62 | 13.53 | 18.60 | 23.09 | 28.60 |
| EER (4) | | 3.41 | 3.29 | 3.00 | 3.02 | 3.17 | 2.90 | 3.13 | 3.01 |
| Refrigerant charge on site for 7 m piping length | kg | 12 | 12 | 12.5 | 13.5 | 2 x 11 | 2 x 11.5 | 2 x 15.5 | 2 x 15 |
| **Heat pump models** | **VAH** | **20A** | **25A** | **30A** | **40A** | **45A** | **60A** | **75A** | **90A** |
| Cooling capacities | kW | 19.10 | 23.00 | 28.80 | 35.10 | 42.90 | 52.10 | 72.30 | 86.10 |
| Power input in cooling | kW | 5.60 | 6.99 | 9.60 | 11.62 | 13.53 | 18.60 | 23.09 | 28.60 |
| EER (4) | | 3.41 | 3.29 | 3.00 | 3.02 | 3.17 | 2.80 | 3.13 | 3.01 |
| Heating capacities | kW | 21.20 | 25.20 | 31.90 | 41.00 | 44.80 | 59.40 | 81.00 | 93.10 |
| Power input in heating | kW | 4.94 | 6.73 | 8.41 | 12.09 | 12.69 | 17.06 | 22.13 | 28.82 |
| COP (4) | | 4.29 | 3.74 | 3.79 | 3.39 | 3.53 | 3.48 | 3.66 | 3.23 |
| Refrigerant charge on site for 7 m piping length | kg | 12 | 12 | 12.5 | 13.5 | 2 x 11 | 2 x 11.5 | 2 x 15.5 | 2 x 15 |
| Power supply | | 400V/3 + N/ 50Hz | | | | | | | |
| Nominal / Starting current | A | 8.5 / 74 | 11.8 / 95 | 15 / 118 | 19.3 / 140 | 2 x 12 / 95 | 2 x 15 / 118 | 2 x 19 / 140 | 2 x 25 / 198 |
| Main switch (1) | A | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Main cable to the outdoor unit (1) | Nbr x mm² | 5 x 4 | 5 x 4 | 5 x 6 | 5 x 10 | 5 x 10 | 5 x 16 | 5 x 25 | 5 x 35 |
| Interconnecting cable (1) | Nbr x mm² | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 2.5 |
| Cable to standard thermostat (2) | Nbr x mm² | 10 x 0.22 | | | | | | | |
| Insulated refrigerant piping | Suction | 1-1/8" | 1-1/8" | 1-1/8" | 1-1/8" | 2 x 1-1/8" | 2 x 1-1/8" | 2 x 1-3/8" | 2 x 1-3/8" |
| | Liquid | 1/2" | 1/2" | 5/8" | 5/8" | 2 x 1/2" | 2 x 5/8" | 2 x 7/8" | 2 x 7/8" |
| Evaporator fan VIR at nominal airflow (3) Airflow | m³/h | 4 590 | 4 590 | 7 500 | 7 500 | 9 000 | 10 500 | 13 000 | 16 000 |
| Evaporator fan VIR at nominal airflow (3) Standard ESP | Pa | 172 | | 153 | | 150 | 178 | 170 | 240 |
| Evaporator fan VIR at nominal airflow (3) ESP with HSD | Pa | 267 | | 242 | | 203 | 277 | 289 | 399 |
| Evaporator fan VIR at nominal airflow (3) ESP with HSDM | Pa | 267 | | 242 | | 203 | 277 | 289 | 399 |
| Nett dimensions outdoor VAC / VAH Height | mm | 1 230 | 1 230 | 1 382 | 1 378 | 1 378 / 1 429 | 1 378 / 1 429 | 1 534 | 1 534 |
| Nett dimensions outdoor VAC / VAH Length | mm | 882 | 882 | 882 | 1 627 | 1 627 | 1 627 | 1 627 | 1 627 |
| Nett dimensions outdoor VAC / VAH Depth | mm | 1 354 | 1 354 | 1 354 | 1 453 | 1 453 | 1 453 | 2 099 | 2 099 |
| Nett dimensions indoor VIR Height | mm | 592 | | 665 | | 764 | 764 | 838 | 838 |
| Nett dimensions indoor VIR Length | mm | 1360 | | 1740 | | 2240 | 2240 | 2653 | 2653 |
| Nett dimensions indoor VIR Depth | mm | 785 | | 785 | | 772 | 772 | 892 | 892 |
| Nett weight VAC / VAH | kg | 227 | 228 | 250 | 397 | 560 | 562 | 610 | 610 |
| Nett weight VIR | kg | 128 | | 173 | | 250 | 250 | 340 | 342 |

*(1) For information only. These should be checked for compliance with local regulations depending also on installation and conductor type.*
*(2) Shield type cable only.*
*(3) ESP = External static pressure  HSD = High speed drive  HSDM = High speed drive and motor*
*(4) All the data are at EUROVENT conditions with 400V/3+N/50Hz.*
*Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C*
*Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB*

## Codes

| INDOOR UNITS | | | | | | |
|---|---|---|---|---|---|---|
| **Cooling only & heat pump models** | **VIR 25** | **VIR 40** | **VIR 45** | **VIR 60** | **VIR 75** | **VIR 90** |
| | S662562574 | S662564074 | S662564574 | S662566074 | S662567574 | S662569074 |

| OUTDOOR UNITS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Cooling only models** | **VAC 20** | **VAC 25** | **VAC 30** | **VAC 40** | **VAC 45** | **VAC 60** | **VAC 75** | **VAC 90** |
| | S661502063 | S661502563 | S661503063 | S661504163 | S661504663 | S661506163 | S661507663 | S661509163 |
| **Heat pump models** | **VAH 20** | **VAH 25** | **VAH 30** | **VAH 40** | **VAH 45** | **VAH 60** | **VAH 75** | **VAH 90** |
| | S662512063 | S662512563 | S662513063 | S662514163 | S662514663 | S662516263 | S662517663 | S662519163 |

| Thermostat | |
|---|---|
| Delivered with the unit | DPC-1 |

# Accessories or options

## Compatibility table / Codes

| INDOOR UNITS | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Cooling only & heat pump** | **VIR 25A** | **VIR 40A** | **VIR 45A** | **VIR 60A** | **VIR 75A** | **VIR 90A** |
| | S662562574 | S662564074 | S662564574 | S662566074 | S662567574 | S662569074 |

| OUTDOOR UNITS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Cooling only models** | **VAC 20A** | **VAC 25A** | **VAC 30A** | **VAC 40A** | **VAC 45A** | **VAC 60A** | **VAC 75A** | **VAC 90A** |
| | S661502063 | S661502563 | S661503063 | S661504163 | S661504663 | S661506163 | S661507663 | S661509163 |
| **Heat pump models** | **VAH 20A** | **VAH 25A** | **VAH 30A** | **VAH 40A** | **VAH 45A** | **VAH 60A** | **VAH 75A** | **VAH 90A** |
| | S662512063 | S662512563 | S662513063 | S662514163 | S662514663 | S662516263 | S662517663 | S662519163 |

| Thermostat | |
|---|---|
| Delivered with the unit | DPC-1 |

### Accessories or options for outdoor units

| | | 20A | 25A | 30A | 40A | 45A | 60A | 75A | 90A |
|---|---|---|---|---|---|---|---|---|---|
| Low Ambient Kit | S606819974 | O | O | O | O | | | | |
| | S606819975 | | | | | O | O | O | O |
| Soft start compressor | S606744692 | O | O | O | O | | | | |
| | S606744693 | | | | | O | O | O | O |
| Copper-copper coil | Contact us | O | O | O | O | O | O | O | O |
| Blue fin | Contact us | O | O | O | O | O | O | O | O |

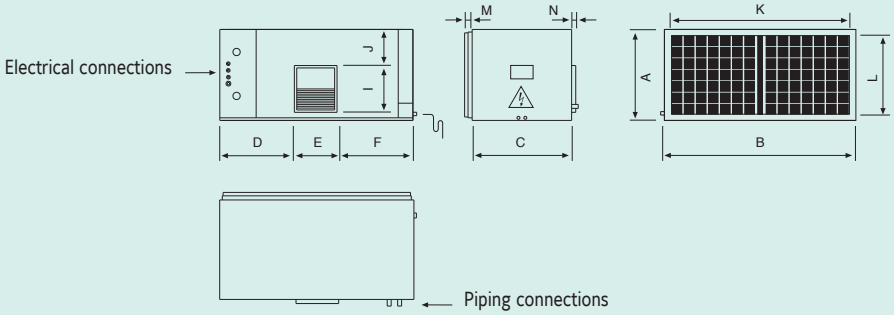
### Accessories or options for indoor units

| VIR models | | | 25A | 40A | 45A | 60A | 75A | 90A |
|---|---|---|---|---|---|---|---|---|
| Electrical Heaters (Inside the unit) (cable 20 m included) | 10 kW (1 stage) | S611763704 | O/A | | | | | |
| | 15 kW (1 stage) | S611763714 | O/A | | | | | |
| | 10 kW (1 stage) | S611763724 | | O/A | | | | |
| | 20 kW (2 stages) | S611763734 | | O/A | | | | |
| | 15 kW (1 stage) | S611763744 | | | O/A | O/A | | |
| | 30 kW (2 stages) | S611763754 | | | O/A | O/A | | |
| | 30 kW (2 stages) | S611763764 | | | | | O/A | O/A |
| | 40 kW (2 stages) | S611763774 | | | | | O/A | O/A |
| 50 m connecting cable | 1 stage | S611763780 | A | A | A | A | | |
| | 2 stages | S611763781 | | A | A | A | A | A |
| Economizer or Motorised damper (dry bulb sensors included) (cable 20 m included) | | S613994250 | A | | | | | |
| | | S613994400 | | A | | | | |
| | | S613994450 | | | A | A | | |
| | | S613994750 | | | | | A | A |
| Indoor air quality | | S606819964 | A | A | A | A | A | A |
| Hot water coil and control (cable 20 m included) | | S611082513 | O | | | | | |
| | | S611084010 | | O | | | | |
| | | S611084512 | | | O | O | | |
| | | S611087510 | | | | | O | O |
| 50 m communication cable (Economizer/HWC) | | S611087520 * | A | A | A | A | A | A |
| Return fan | | S613995450 | | | A | A | | |
| | | S613995750 | | | | | A | A |
| Vertical discharge Kit | | S669482502 | O | | | | | |
| | | S669484002 | | O | | | | |
| | | S669486002 | | | O | O | | |
| | | S669487502 | | | | | O | O |
| Indoor fan smooth start up to 5,5 kW | | S606744690 | O | O | O | O | O | O |
| High speed drive | | S611991087 | O | | | | | |
| | | S611991089 | | O | | | | |
| | | S611991091 | | | O | | O | |
| | | S611991092 | | | | O | | |
| | | S611991095 | | | | | | O |
| High speed drive and motor | | S611991088 | O | | | | | |
| | | S611991090 | | | O | | | |
| | | S611991093 | | | | O | | |
| | | S611991094 | | | | | O | |
| | | S611991096 | | | | | | O |

*O = Option (factory fitted)  A = Accessory (supplied loose)  O/A = If you want this item factory fitted, precise it in the order form*
*(1) Factory fitted, for horizontal airflow only.*
** If the unit is equipped with economizer and hot water coil, only 1 communication cable is necessary.*

# Indoor units dimensions

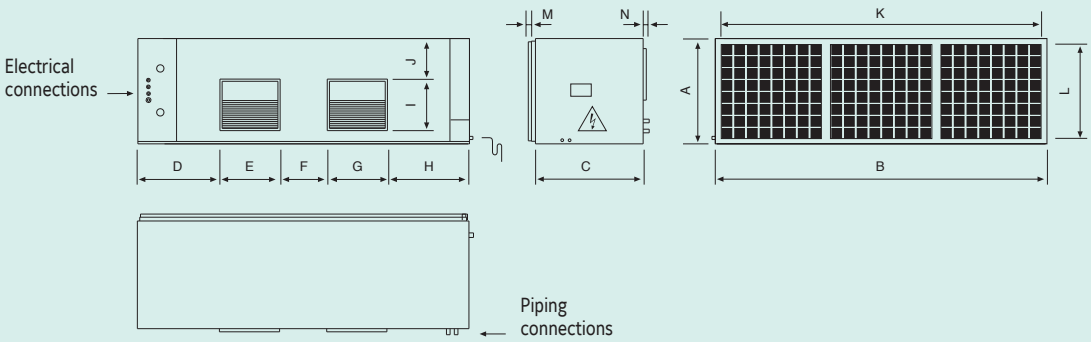
## VIR 25A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VIR25A** | 592 | 1360 | 785 | 480 | 403 | 480 | - | - | 347 | 40 | 1094 | 520 | 21 | 25 |

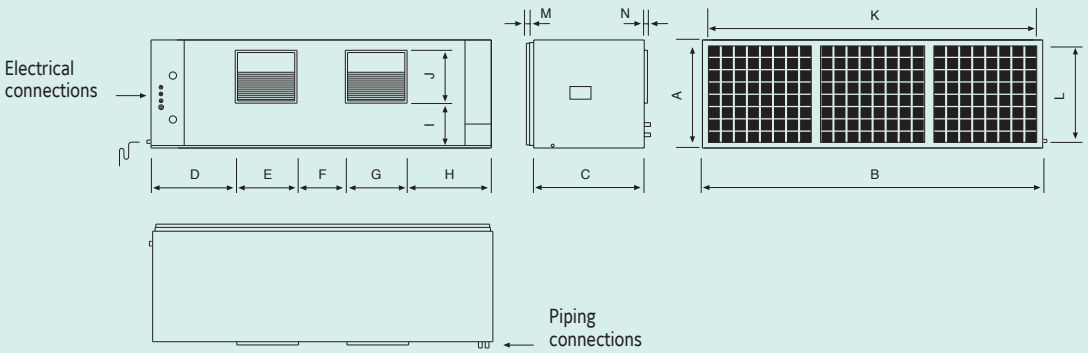
## VIR 40-45-60A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VIR40A** | 665 | 1740 | 785 | 442 | 316 | 229 | 316 | 442 | 347 | 79 | 1337 | 593 | 21 | 25 |
| **VIR45A** | 764 | 2240 | 772 | 567 | 401 | 309 | 401 | 567 | 347 | 79 | 1920 | 692 | 21 | 25 |
| **VIR60A** | 764 | 2240 | 772 | 567 | 401 | 309 | 401 | 567 | 347 | 79 | 1920 | 692 | 21 | 25 |

## VIR 75-90A

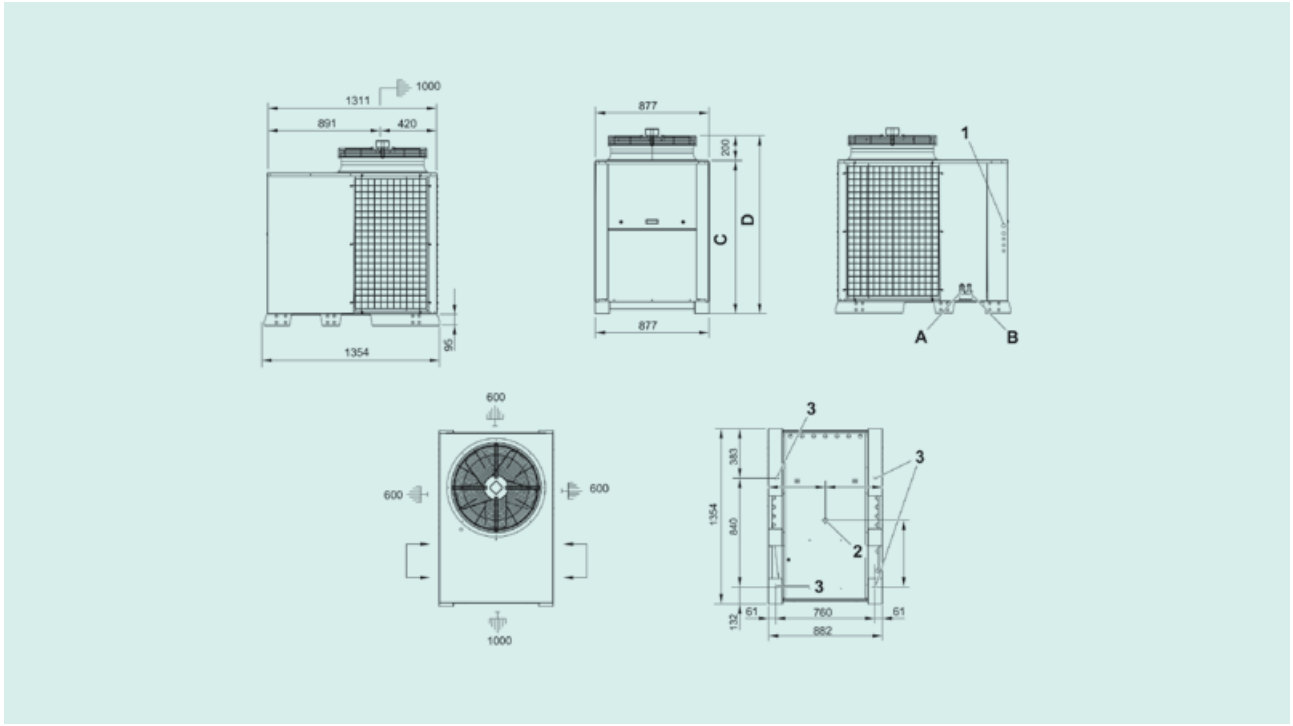



*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VIR75A** | 838 | 2653 | 892 | 663 | 478 | 376 | 478 | 663 | 409 | 79 | 2196 | 766 | 21 | 25 |
| **VIR90A** | 838 | 2653 | 892 | 663 | 478 | 376 | 478 | 663 | 409 | 79 | 2196 | 766 | 21 | 25 |

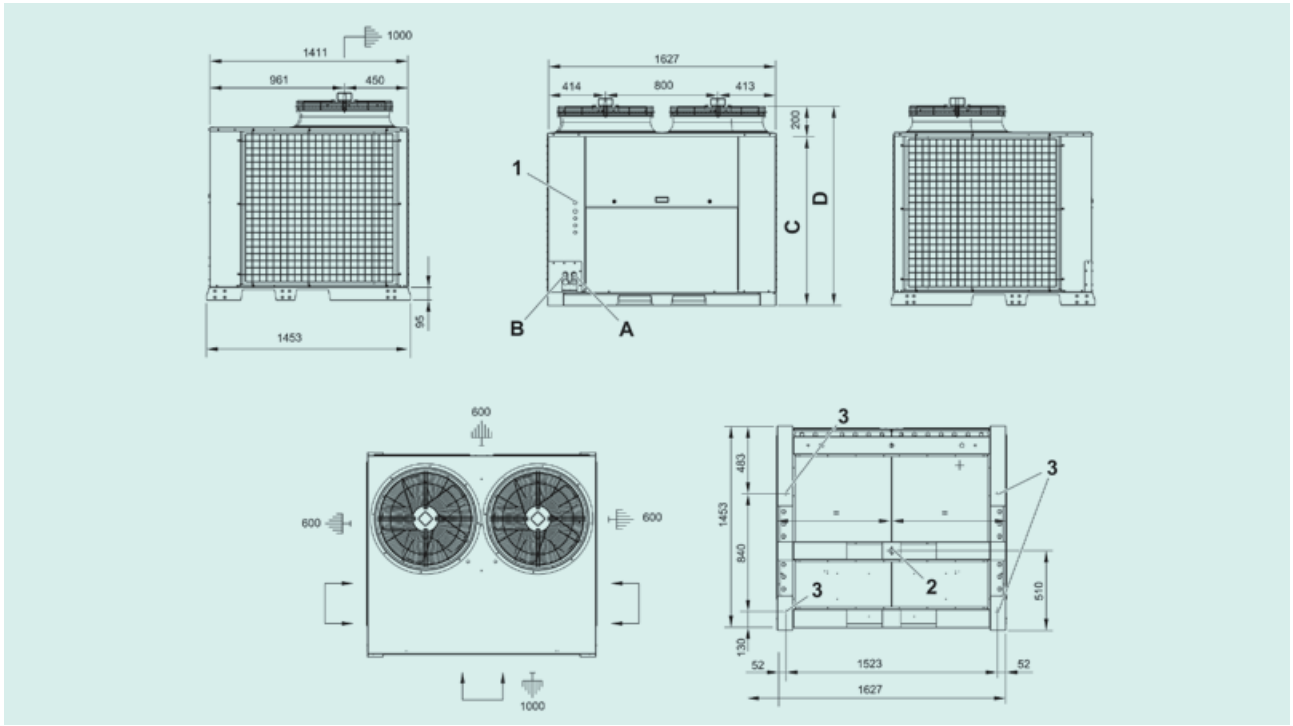
# Dimensions and space requirements for outdoor units

## VAC-VAH 20-25-30 A



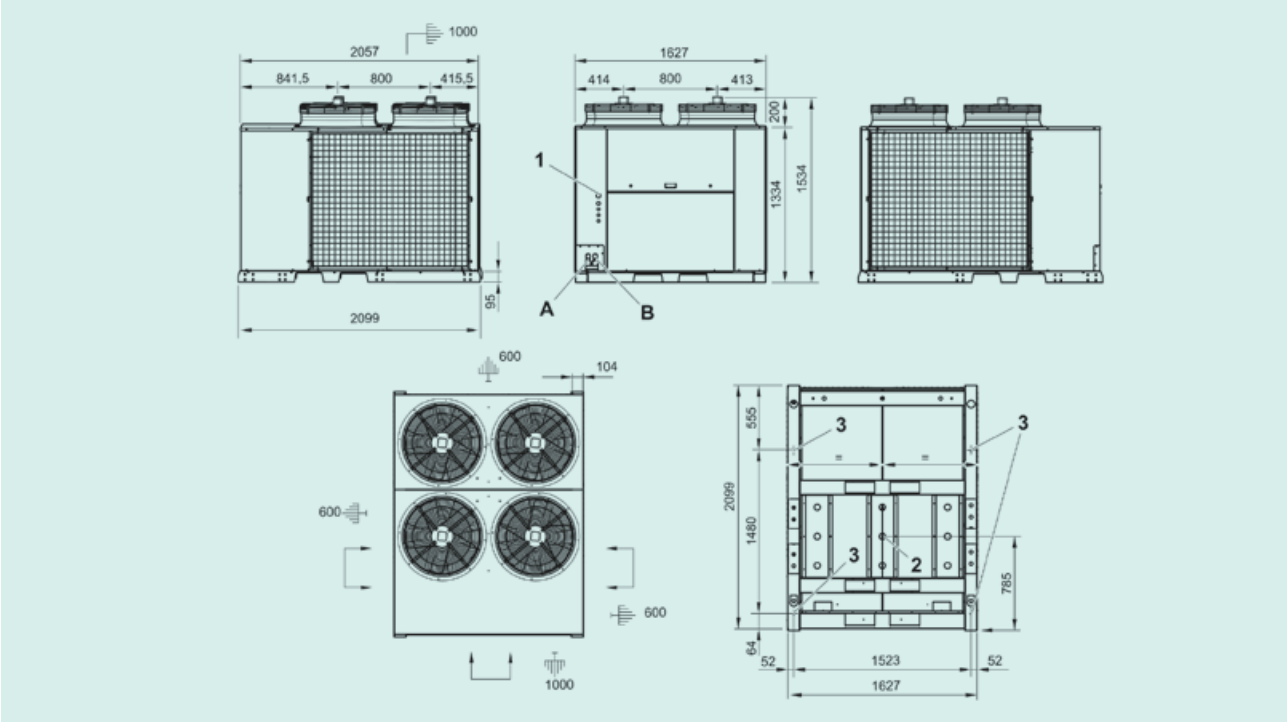

*All dimensions in mm. Drawings not a scale.*

## VAC-VAH 40-45-60 A




*All dimensions in mm. Drawings not a scale.*

## VAC-VAH 75-90 A




*All dimensions in mm. Drawings not a scale.*

## VAC-VAH 20-25-30 A

| | A | B | C | D |
|---|---|---|---|---|
| Unit | Gas piping diameter | Liquid piping diameter | mm | mm |
| **VAC20A** | 1-1/8" | 1/2" | 1 030 | 1 230 |
| **VAH20A** | 1-1/8" | 1/2" | 1 030 | 1 230 |
| **VAC25A** | 1-1/8" | 1/2" | 1 030 | 1 230 |
| **VAH25A** | 1-1/8" | 1/2" | 1 030 | 1 230 |
| **VAC30A** | 1-1/8" | 5/8" | 1 182 | 1 382 |
| **VAH30A** | 1-1/8" | 5/8" | 1 182 | 1 382 |

## VAC-VAH 40-25-60 A

| | A | B | C | D |
|---|---|---|---|---|
| Unit | Gas piping diameter | Liquid piping diameter | mm | mm |
| **VAC40A** | 1-1/8" | 5/8" | 1 178 | 1 378 |
| **VAH40A** | 1-1/8" | 5/8" | 1 178 | 1 378 |
| **VAC45A** | 2 x 1-1/8" | 2 x 1/2" | 1 178 | 1 378 |
| **VAH45A** | 2 x 1-1/8" | 2 x 1/2" | 1 129 | 1 429 |
| **VAC60A** | 2 x 1-1/8" | 2 x 5/8" | 1 178 | 1 378 |
| **VAH60A** | 2 x 1-1/8" | 2 x 5/8" | 1 129 | 1 429 |

## VAC-VAH 40-25-60 A

| | A | B | C | D |
|---|---|---|---|---|
| Unit | Gas piping diameter | Liquid piping diameter | mm | mm |
| **VAC75A** | 2 x 1-3/8" | 2 x 7/8" | - | - |
| **VAH75A** | 2 x 1-3/8" | 2 x 7/8" | - | - |
| **VAC90A** | 2 x 1-3/8" | 2 x 7/8" | - | - |
| **VAH90A** | 2 x 1-3/8" | 2 x 7/8" | - | - |

# VITALITY Centrifugal Large Split

## VCH-VIR 20 to 90 A

**A complete range from 16.8 kW up to 87.3 kW**

YKN2open

## Features

- New YKN2open board
- High efficiency EER and COP
- Economizer or motorized damper
- Indoor air quality
- Hot water coil and control
- Scroll compressor with crankcase heater
- Possibility to be installed outdoor
- Return fan
- Digital thermostat DPC-1 included

## Nomenclature*

**V C H 40 A**

A = version

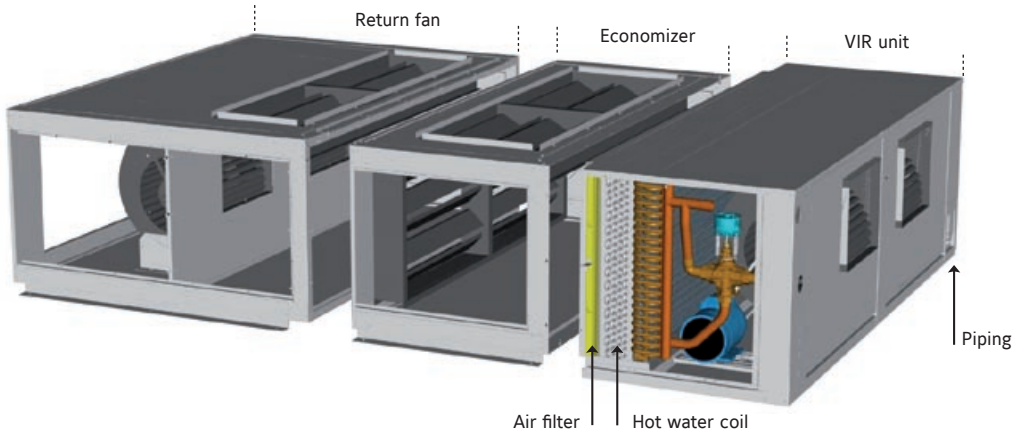
**Capacity range:**
40 = 40 kW

**Product category:**
H = Heat Pump
R = Reversible
C = Centrifugal
I = Indoor

V = Vitality

** Check codes in next page for discharge configuration*

## VIR - Indoor unit details



# VITALITY Centrifugal Large Split

## VCH-VIR 20 to 90 A

## Technical features

| VITALITY UNITS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Heat pump models** | | **VCH/VIR** | **20** | **25** | **30** | **40** | **45** | **60** | **75** | **90** |
| Cooling capacities | | kW | 16.8 | 20.6 | 28.7 | 32.4 | 43.5 | 54.1 | 76.1 | 87.3 |
| Power input in cooling | | kW | 5.9 | 7.48 | 10.25 | 12.81 | 14.81 | 20.86 | 29.21 | 34.92 |
| EER | | | 2.85 | 2.75 | 2.8 | 2.53 | 2.94 | 2.6 | 2.61 | 2.5 |
| Heating capacities | | kW | 21.5 | 23.2 | 32.3 | 39.3 | 47.4 | 53 | 77.7 | 89.9 |
| Power input in heating | | kW | 5.68 | 6.84 | 9.95 | 12.87 | 13.75 | 20 | 27.56 | 33.19 |
| COP | | | 3.79 | 3.39 | 3.25 | 3.05 | 3.45 | 2.8 | 2.82 | 2.71 |
| Refrigerant charge on site for 7m piping length | | kg | 8.5 | 8.5 | 12 | 12 | 2 x 9.5 | 2 x 10.5 | 2 x 15 | 2 x 16 |
| Power supply | | | 400V/3 + N/ 50Hz | | | | | | | |
| Nominal / Starting current | | A | 13 / | 16 / | 22 / | 27 / | 33 / | 43 / | 59 / | 72 / |
| Main switch (1) | | A | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Main cable to the condensing unit (1) | | Nbr x mm² | 5 x 4 | 5 x 4 | 5 x 6 | 5 x 10 | 5 x 10 | 5 x 16 | 5 x 25 | 5 x 35 |
| Interconnecting cable (1) | | Nbr x mm² | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 1.5 | 4 x 2.5 |
| Cable to standard thermostat (1) (2) | | Nbr x mm² | 10 x 0.22 | | | | | | | |
| Insulated refrigerant piping | | Suction | 1 1/8" | 1 1/8" | 1 1/8" | 1 1/8" | 2 x 1 1/8" | 2 x 1 1/8" | 2 x 1 3/8" | 2 x 1 3/8" |
| | | Liquid | 1/2" | 1/2" | 5/8" | 5/8" | 2 x 1/2" | 2 x 5/8" | 2 x 7/8" | 2 x 7/8" |
| Evaporator fan VIR at nominal airflow (3) | Airflow | m³/h | 4 590 | | 7 500 | | 9000 | 10500 | 13700 | 16000 |
| | Standard ESP | Pa | 117 | | 118 | | 130 | 137 | 125 | 175 |
| | ESP with HSD | Pa | - | | 217 | | 188 | 246 | 260 | - |
| | ESP with HSDM | Pa | 222 | | - | | 188 | 246 | 260 | 354 |
| Condenser fan at nominal airflow | Airflow | m³/h | 6235 | 6235 | 11975 | 11975 | 17250 | 20340 | 25200 | 25200 |
| | Standard ESP | Pa | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Nett dimensions VCH condensing units | Height | mm | 1392 | 1392 | 1526 | 1526 | 1641 | 1641 | 1794 | 1794 |
| | Length | mm | 1362 | 1362 | 1740 | 1740 | 2240 | 2240 | 2658 | 2658 |
| | Depth | mm | 790 | 790 | 785 | 785 | 778 | 778 | 897 | 897 |
| Nett dimensions VIR indoor units | Height | mm | 592 | | 665 | | 764 | 764 | 838 | 838 |
| | Length | mm | 1360 | | 1740 | | 2240 | 2240 | 2653 | 2653 |
| | Depth | mm | 785 | | 785 | | 772 | 772 | 892 | 892 |
| Nett weight | VCH | kg | 285 | 310 | 355 | 375 | 578 | 589 | 710 | 715 |
| | VIR | kg | 128 | | 173 | | 223 | 223 | 310 | 312 |

*(1) For information only. These should be checked for compliance with local regulations depending also on installation and conductor type.*
*(2) Shield type cable will have a better insulation against electromagnetic interference. It is recommended for sensitive sites and for communications.*
*(3) ESP = External static pressure HSD = High speed drive HSDM = High speed drive and motor*
*All the data are at EUROVENT conditions with 400V/3+N/50Hz.*
*Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C*
*Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB*

## Codes

| INDOOR UNITS | | | | | | |
|---|---|---|---|---|---|---|
| **Cooling only & heat pump models** | **VIR 25** | **VIR 40** | **VIR 45** | **VIR 60** | **VIR 75** | **VIR 90** |
| | S662562574 | S662564074 | S662564574 | S662566074 | S662567574 | S662569074 |

| OUTDOOR UNITS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Heat pump models** | **VCH 20** | **VCH 25** | **VCH 30** | **VCH 40** | **VCH 45** | **VCH 60** | **VCH 75** | **VCH 90** |
| with horizontal discharge | S662512033 | S662512643 | S662513033 | S662514054 | S662514533 | S662516143 | S662517533 | S662519033 |
| with vertical discharge | - | - | - | - | S662514564 | S662516173 | S662517563 | S662519063 |

| Thermostat | |
|---|---|
| Delivered with the unit | DPC-1 |

# Accessories or options

## Compatibility table / Codes

| INDOOR UNITS | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Cooling only & heat pump models** | **VIR 25** | **VIR 40** | **VIR 45** | **VIR 60** | **VIR 75** | **VIR 90** | |
| | S662562574 | S662564074 | S662564574 | S662566074 | S662567574 | S662569074 | |

| OUTDOOR UNITS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Heat pump models** | **VCH 20** | **VCH 25** | **VCH 30** | **VCH 40** | **VCH 45** | **VCH 60** | **VCH 75** | **VCH 90** |
| with horizontal discharge | S662512033 | S662512643 | S662513033 | S662514054 | S662514533 | S662516143 | S662517533 | S662519033 |
| with vertical discharge | - | - | - | - | S662514564 | S662516173 | S662517563 | S662519063 |

| Thermostat | |
|---|---|
| Delivered with the unit | DPC-1 |

### Accessories or options for condensing units

| VCH models | | 20 | 25 | 30 | 40 | 45 | 60 | 75 | 90 |
|---|---|---|---|---|---|---|---|---|---|
| Low ambient regulation * | S613112583 | O | O | | | | | | |
| | S613114084 | | | O | O | | | | |
| | S613116084 | | | | | O | O | | |
| | S613111084 | | | | | | | O | O |
| Vertical discharge kit | S612828305 | O | O | | | | | | |
| | S612828405 | | | O | O | | | | |
| | S612828505 ** | | | | | O | | | |
| | S612828605 ** | | | | | | O | | |
| | S612828205 ** | | | | | | | O | O |
| Condensate tray heater | S611080789 | A | A | A | A | | | | |
| | S611080790 | | | | | A | A | A | A |
| Copper-copper coil | Contact us | O | O | O | O | O | O | O | O |
| Blue fin | Contact us | O | O | O | O | O | O | O | O |

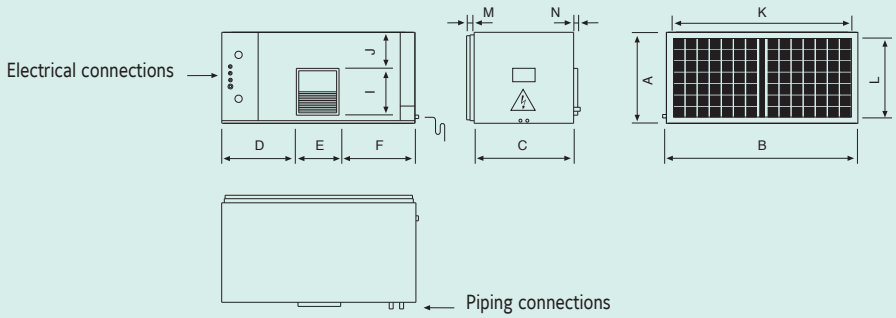
### Accessories or options for indoor units

| VIR models | | | 25 | 40 | 45 | 60 | 75 | 90 |
|---|---|---|---|---|---|---|---|---|
| Electrical Heaters (Inside the unit) (cable 20 m included) | 10 kW (1 stage) | S611763704 | O/A | | | | | |
| | 15 kW (1 stage) | S611763714 | O/A | | | | | |
| | 10 kW (1 stage) | S611763724 | | O/A | | | | |
| | 20 kW (2 stages) | S611763734 | | O/A | | | | |
| | 15 kW (1 stage) | S611763744 | | | O/A | O/A | | |
| | 30 kW (2 stages) | S611763754 | | | O/A | O/A | | |
| | 30 kW (2 stages) | S611763764 | | | | | O/A | O/A |
| | 40 kW (2 stages) | S611763774 | | | | | O/A | O/A |
| 50 m connecting cable | 1 stage | S611763780 | A | A | A | A | | |
| | 2 stages | S611763781 | | A | A | A | A | A |
| Economizer or Motorised damper (dry bulb sensors included) (cable 20 m included) | | S613994250 | A | | | | | |
| | | S613994400 | | A | | | | |
| | | S613994450 | | | A | A | | |
| | | S613994750 | | | | | A | A |
| Indoor air quality | | S606819964 | A | A | A | A | A | A |
| Hot water coil and control (cable 20 m included) | | S611082513 | O | | | | | |
| | | S611084010 | | O | | | | |
| | | S611084512 | | | O | O | | |
| | | S611087510 | | | | | O | O |
| 50 m communication cable (Economizer/HWC) | | S611087520 *** | A | A | A | A | A | A |
| Return fan | | S613995450 | | | A | A | | |
| | | S613995750 | | | | | A | A |
| Vertical discharge Kit | | S669482502 | O | | | | | |
| | | S669484002 | | O | | | | |
| | | S669486002 | | | O | O | | |
| | | S669487502 | | | | | O | O |
| Indoor fan smooth start up to 5,5 kW | | S606744690 | O | O | O | O | O | O |
| High speed drive | | S611991087 | O | | | | | |
| | | S611991089 | | O | | | | |
| | | S611991091 | | | O | | O | |
| | | S611991092 | | | | O | | |
| | | S611991095 | | | | | | O |
| High speed drive and motor | | S611991088 | O | | | | | |
| | | S611991090 | | | O | | | |
| | | S611991093 | | | | O | | |
| | | S611991094 | | | | | O | |
| | | S611991096 | | | | | | O |

*O = Option (factory fitted). A = Accessory (supplied loose). O/A = If you want this item factory fitted, precise it in the order form.*
** Not protected against external condition. ** To be used only with horizontal discharge models*
**** If the unit is equipped with economizer and hot water coil, only 1 communication cable is necessary.*

# Indoor units dimensions

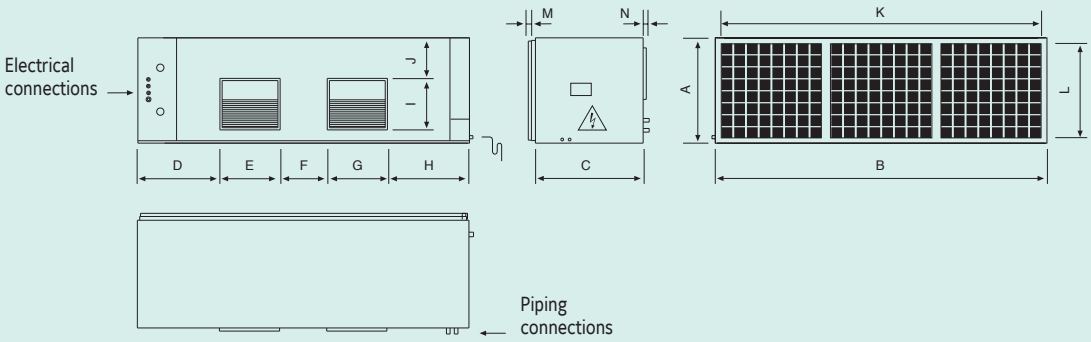
## VIR 25A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VIR25A** | 592 | 1360 | 785 | 480 | 403 | 480 | - | - | 347 | 40 | 1094 | 520 | 21 | 25 |

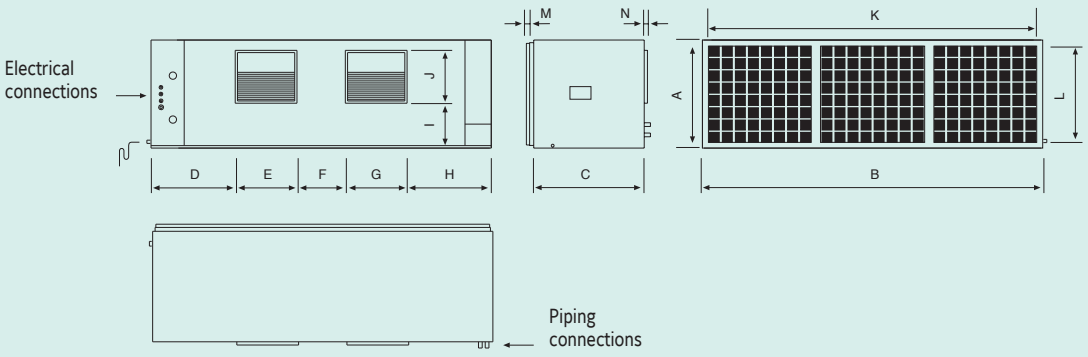
## VIR 40-45-60A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VIR40A** | 665 | 1740 | 785 | 442 | 316 | 229 | 316 | 442 | 347 | 79 | 1337 | 593 | 21 | 25 |
| **VIR45A** | 764 | 2240 | 772 | 567 | 401 | 309 | 401 | 567 | 347 | 79 | 1920 | 692 | 21 | 25 |
| **VIR60A** | 764 | 2240 | 772 | 567 | 401 | 309 | 401 | 567 | 347 | 79 | 1920 | 692 | 21 | 25 |

## VIR 75-90A

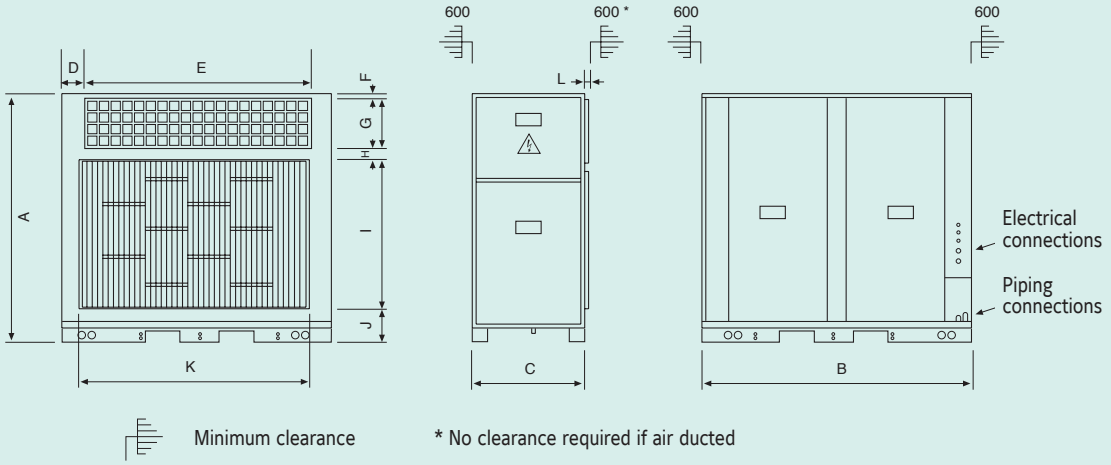



*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VIR75A** | 838 | 2653 | 892 | 663 | 478 | 376 | 478 | 663 | 409 | 79 | 2196 | 766 | 21 | 25 |
| **VIR90A** | 838 | 2653 | 892 | 663 | 478 | 376 | 478 | 663 | 409 | 79 | 2196 | 766 | 21 | 25 |

# Dimensions and space requirements for condensing units

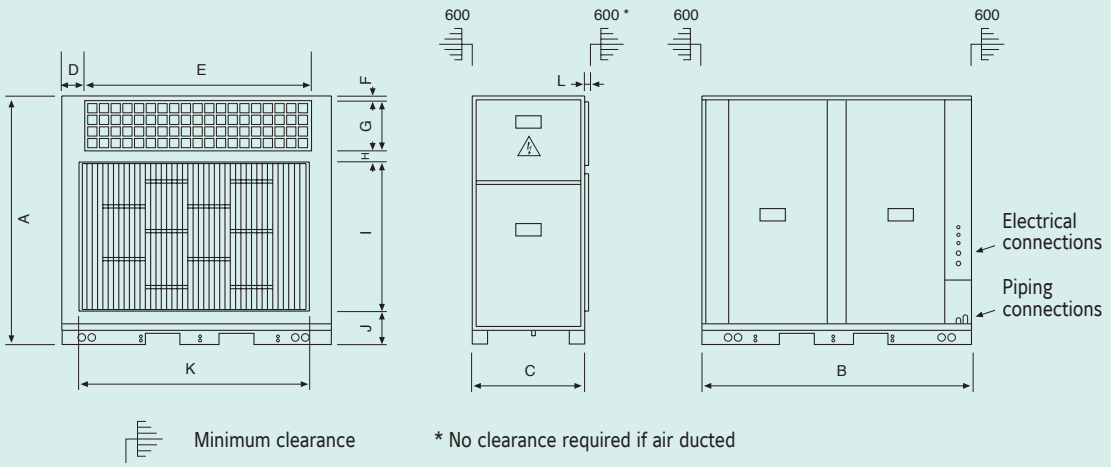
## VCH 20-25A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VCH20A** | 1 392 | 1 362 | 790 | 147 | 1 069 | 30 | 268 | 37 | 919 | 138 | 1 100 | 24 |
| **VCH25A** | 1 392 | 1 362 | 790 | 147 | 1 069 | 30 | 268 | 37 | 919 | 138 | 1 100 | 24 |

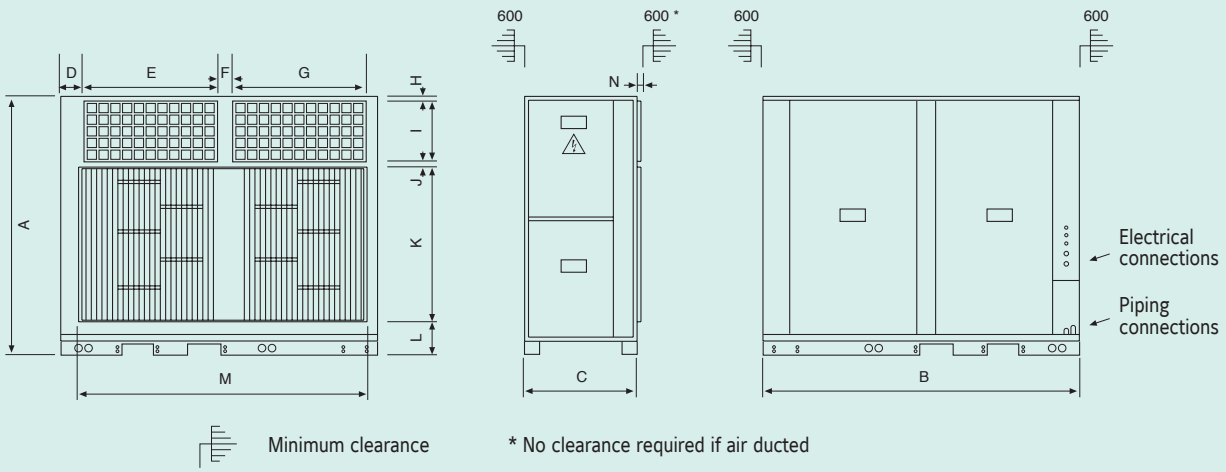
## VCH 30-40A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VCH30A** | 1 526 | 1 740 | 785 | 151 | 1436 | 30 | 324 | 37 | 994 | 141 | 1476 | 24 |
| **VCH40A** | 1 526 | 1 740 | 785 | 151 | 1436 | 30 | 324 | 37 | 994 | 141 | 1476 | 24 |

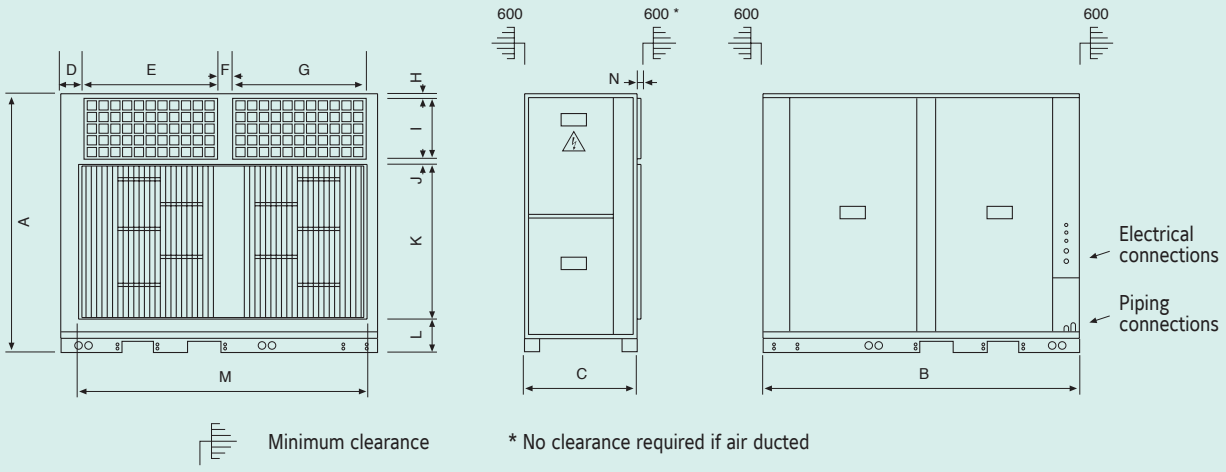

## VCH 45-60A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VCH45A** | 1 641 | 2 240 | 778 | 148 | 945 | 95 | 945 | 38 | 389 | 38 | 1044 | 140 | 2 060 | 23 |
| **VCH60A** | 1 641 | 2 240 | 778 | 148 | 945 | 95 | 945 | 38 | 389 | 38 | 1044 | 140 | 2 060 | 23 |

## VCH 75-90A




*All dimensions in mm. Drawings not a scale.*

| Unit | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VCH75A** | 1 794 | 2658 | 897 | 148 | 1155 | 95 | 1155 | 30 | 389 | 37 | 1 200 | 138 | 2479 | 23 |
| **VCH90A** | 1 794 | 2658 | 897 | 148 | 1155 | 95 | 1155 | 30 | 389 | 37 | 1 200 | 138 | 2479 | 23 |

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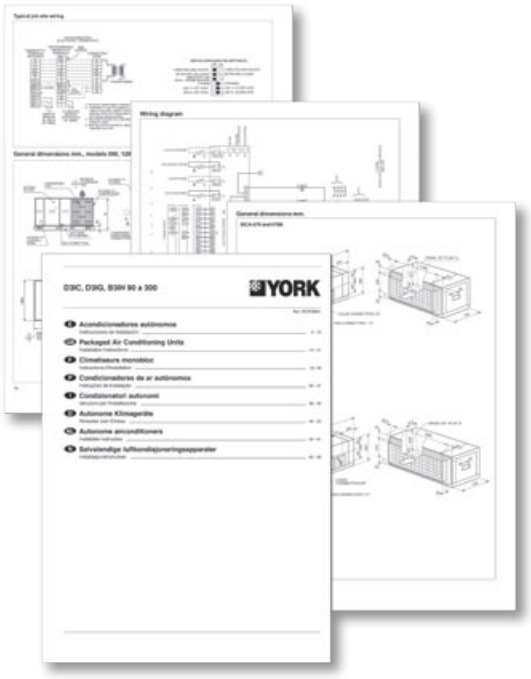
# Multi-language Technical Information

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