Cooper & Hunter

COMMERCIAL AIR CONDITIONERS AND VENTILATION UNITS

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Proud Sponsor

Cooper&Hunter becomes the official sponsor of the New York Yankees!

We are proud to support and admire the passion for game of the New York Yankees baseball club, and we are excited about the new opportunities for a mutually beneficial partnership with the NY Yankees. This partnership is an important milestone for us as we join forces with one of the most famous teams in sports history.


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The multifacetedly talented Chad Finchum - a skilled HVAC technician and professional NASCAR driver joined the NASCAR in Texas.

Cooper&Hunter USA is proud to sponsor the young and talented driver!

Victory at the wheel of Cooper&Hunter!


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History

Following the best traditions of the leading companies in the field of climate control equipment production in the USA, in 2003 **Cooper&Hunter International Corporation** began production of a wide range of climate control equipment under its own under its own brand name.

Two ideologies, two directions, two leaders came together to to create a new product. Exquisite design, in line with the fashion trend, ergonomics and comfort are combined with innovative developments, modern technologies and high quality.

COMFORT INNOVATIONS - these words have become the brand's slogan **Cooper&Hunter**

With more than 20 years of experience in the air conditioning and ventilation, **Cooper&Hunter** is becoming a leading manufacturer and supplier of heating, ventilation, air conditioning, refrigeration and control systems for the residential, commercial and industrial markets, commercial and industrial markets.

Cooper&Hunter products are exported to more than 50 countries and regions of the world, opening new markets every year.

Authorized **Cooper&Hunter** installers have the technical knowledge, confirmed by certificates. Their task is to providing professional technical advice, correct installation of air conditioning systems and service, providing the user with support in purchasing an air conditioner and the safety of its operation.

Therefore, **Cooper&Hunter** equipment creates an environment that allows customers to fully enjoy the use of their space for its intended purpose.

SOCIAL RESPONSIBILITY PROJECT

"WE SAVE THE PLANET"

In the fall of 2019, the global brand of climate Cooper&Hunter, a global brand of climate technology, announced the start the implementation of the long-term project “We save the Planet” project. It covers all countries where climate control equipment is sold “Cooper&Hunter sells climate control equipment (more than 45 countries), including Ukraine.

Corporate social responsibility is a voluntary contribution of business to the social, economic, and environmental industires. The company has decided to strategically and systematic support of environmental, sports and socially important events.

Why choose a commercial series **NORDIC COMMERCIAL R2**

USER

- ### HIGH ENERGY EFFICIENCY
  SEER up to 7.20, energy efficiency rated A++ for the entire series thanks to the DC inverter system and highly efficient equipment design, providing an average of 10% energy savings compared to the previous generation.

- ### HEALTH CARE
  5-level health protection: the ability to connect fresh air mixing for a whole range of indoor units, a variety of optional filters such as plasma, photocatalytic, carbon and others, as well as a self-cleaning system for the indoor unit. This entire set of measures provides the room with high-quality air throughout the entire operation of the air conditioner.

- ### LOW NOISE LEVEL
  Originally designed fans and a low-noise compressor reduce the noise level of the indoor unit to 28 dB.

- ### COMFORT
  The use of high-precision temperature (±0.5°C) and humidity sensors takes into account the impact of humidity on thermal comfort, reduces excessive drying, and significantly improves the level of comfort through intelligent correction of temperature and humidity in the room.

- ### INTELLIGENT CONTROL
  Built-in Wi-Fi module for remote control via app.

INSTALLER

- ## EASY TO INSTALL OUTDOOR UNIT
  There is no need to remove the casing to connect the cable and pipes, which speeds up installation.

- ## COMPACT DESIGN
  The single-fan outdoor unit design for the entire series increases the convenience of transportation and installation.

- ## CONVENIENT DESIGN FOR FLOOR-CEILING UNITS
  Flexible and convenient installation: the connecting pipe is located on the right side with three piping directions to meet different engineering needs; the electrical box is located on the left side of the unit, so there is more space for wiring compared to the usual placement near the fan.

AFTER-SALES SERVICES

- ## VARIOUS ADJUSTMENT TOOLS
  Various debugging tools are supported, such as a portable debugger that can monitor operating parameters in real time, change device settings, and save records of the acquired data; monitoring and debugging through software that allows remote monitoring of operating conditions and parameters. A specialist can check the monitoring data to find errors. The troubleshooting process becomes more accurate and efficient.

- ## ELECTRICAL BOX
  The entire series of cassette units are designed with a built-in electrical box located under the decorative panel. There is no need to remove the ceiling for maintenance and inspection of the equipment. To perform maintenance, simply open the panel.

- ## UNIVERSAL DESIGN FOR OUTDOOR UNITS
  The NORDIC COMMERCIAL R2 commercial series offers a cooling capacity range from 3.5 kW to 16 kW. The outdoor units are versatile and can be combined with various types of indoor units: ducted, cassette and floor-ceiling.

NORDIC COMMERCIAL **R2** Series

Model range of **indoor units**

Type IDU		Cooling Capacity/10, kW	35	50	71	85	100	125	140	100	125	140	160
Phase ODU			1ph	1ph	1ph	1ph	1ph	3ph	1ph	3ph	1ph	3ph	3ph
Duct		low pressure	●	●									
		high pressure			●	○	●	○	○	●	●	●	●
Cassette		compact	●	●									
		standard			●	○	●	○	○	●	●	●	●
Floor-sailing			●	●	●	○	●	○	○	●	●	●	●

● – in stock
○ – to order

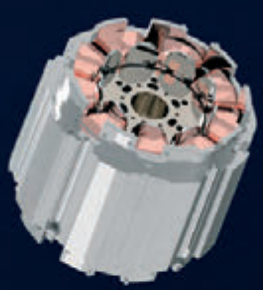
Model range of **outdoor units**

Model ODU			CH-IU035RK2	CH-IU050RK2	CH-IU071RK2	CH-IU085RK2	CH-IU100RK(M)2	CH-IU125RK(M)2	CH-IU140RK(M)2	CH-IU160RM2
Capacity	Cooling	kW	3.5	5.3	7.1	8.5	10.5	12.1	13.4	16
	Heating	kW	4	5.5	8	8.8	11.5	13.5	15.5	18.2
Power supply		V/Hz/Ph	220-240/50/1				K: 220-240/50/1 M: 380-415/50/3			380-415/50/3
EER/COP	Duct	W/W	3.4/4.0	3.5/3.95	3.7/4.0	3.4/3.9	3.5/4.1	3.38/3.65	2.98/3.44	2.96/3.62
SEER/SCOP	Duct	W/W	6.5/4.0	6.3/4.0	6.6/4.1	6.4/4.1	6.4/4.2	6.1/4.1	6.1/4.0	6.1/4.0
EER/COP	Cassette	W/W	3.8/4.0	3.4/3.5	3.5/3.9	3.4/3.9	3.4/3.9	3.1/3.4	2.91/3.3	2.74/2.98
SEER/SCOP	Cassette	W/W	7.1/4.2	6.6/4.0	6.7/4.3	6.9/4.3	6.6/4.4	6.1/4.1	6.3/4.0	6.1/4.0
Refrigerant charge volume		kg	0.57	1	1.5	1.5	2.1	2.25	2.8	3.6
Sound Power		dB(A)	64	65	67	69	70 (71)	71 (71)	71 (72)	72
Max. hight drop		m	15	20	20	20	25	30	30	30
Max. distance		m	30	30	30	30	75	75	75	75
Connecting pipe	Liquid pipe	inch (mm)	¼ (6.35)	¼ (6.35)	⅜ (9.52)	⅜ (9.52)	⅜ (9.52)	⅜ (9.52)	⅜ (9.52)	⅜ (9.52)
	Gas pipe	inch (mm)	⅜ (9.52)	½ (12.7)	⅝ (15.9)	⅝ (15.9)	⅝ (15.9)	⅝ (15.9)	⅝ (15.9)	⅝ (15.9)
Dimension (WxDxH)		mm	675×285×553	745×300×555	889×340×660		940×370×820			990×370×955
Weight	Net	kg	24.5	30.5	41.5	46	65 (75)	66 (76)	73 (81)	94
	Gross	kg		33	45	50	72 (82)	73 (83)	80 (88)	103

High-efficiency compressor

HIGH-EFFICIENCY MOTOR

The V-shaped structure and high magnetic flux density of the rare earth permanent magnet ensure high compressor performance under various load conditions.

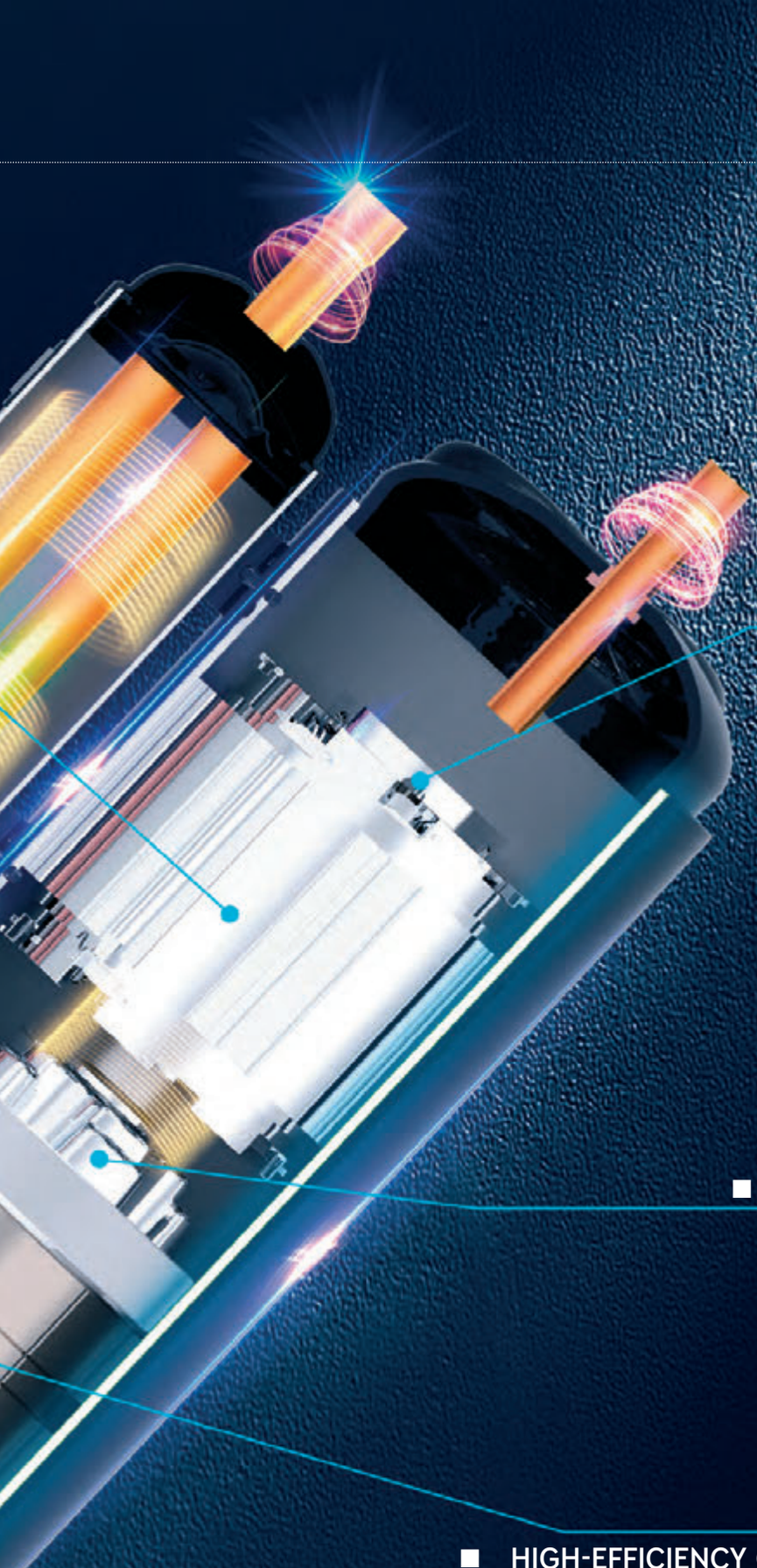


STRONG PARTING PLATE (BLADE)

The diamond-like carbon coating of the blade increases durability and reliability in extreme conditions between the high and low pressure chambers.

HIGH-STABILITY CRANKSHAFT

QT700 steel with a durable surface coating ensures long service life under full load.

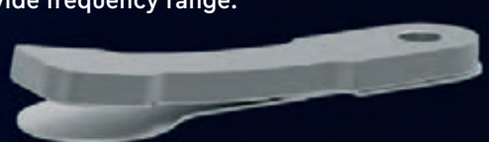


LOW OIL EMISSION INTO THE SYSTEM

The compressor uses active oil separation technology to reduce oil discharge into the piping system to ensure sufficient amount of oil is retained inside the compressor for higher heat transfer efficiency and improved reliability.

LOW RESISTANCE ON THE DISCHARGE VALVE

The new design of the discharge valve helps reduce refrigerant flow resistance, which increases compressor efficiency over a wide frequency range.

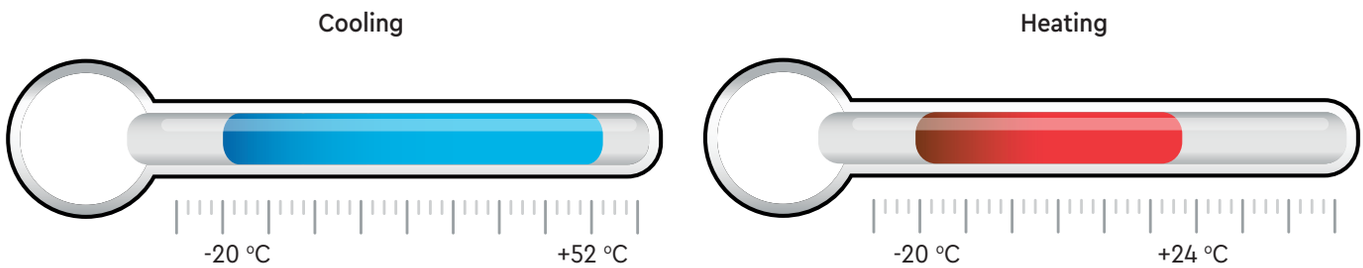


HIGH-EFFICIENCY CYLINDER

The mirror-polished cylinder surface combined with a cryogenically processed alloy rotor has increased abrasion resistance and provides improved sealing, creating more efficient compression.

Wide operating range

NORDIC COMMERCIAL R2 Series, equipped with full DC inverter technology, uses stepless speed regulation for the compressor and fan motor and precise flow control for the electronic expansion valve, ensuring reliable operation over a wide operating range, making the units well-suited for a wider range of applications.



Ambient temperature range for cooling: -20°C ~ +52°C

Ambient temperature range for heating: -20°C ~ +24°C

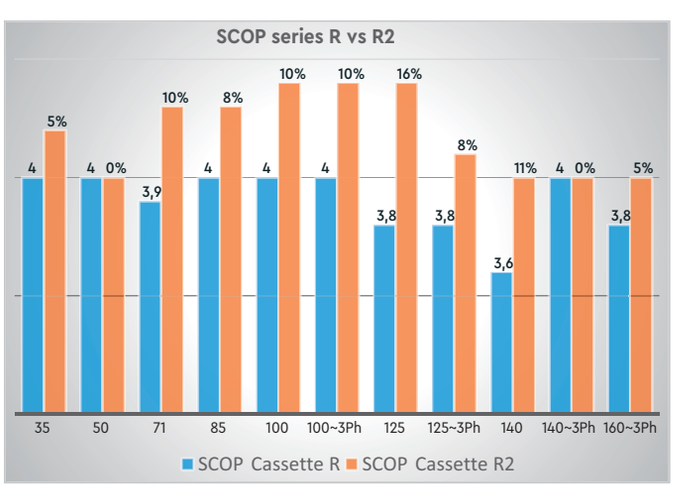
WIDE VOLTAGE RANGE

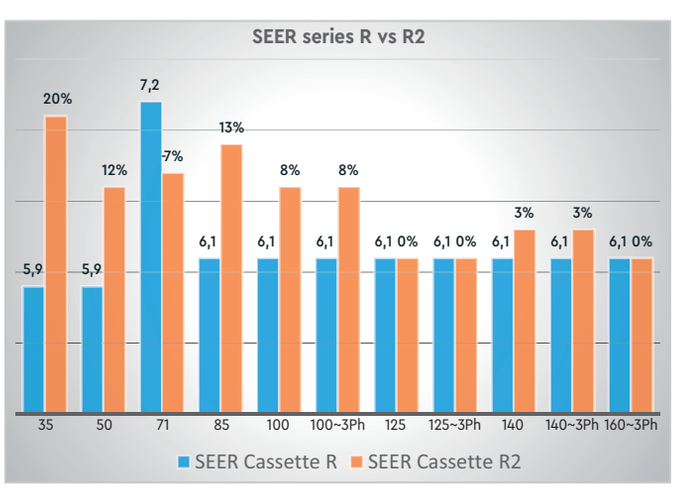
Thanks to the optimization of drive parameters and electronic control, NORDIC COMMERCIAL R2 can operate in a wide voltage range, even if the voltage drops to 180 V. It can be used in places with unstable power supply.

OTER

ENERGY EFFICIENCY

For example, a 3.5 kW cassette unit shows a 20% increase in SEER, while a 12.5 kW cassette unit shows an 11% increase in SCOP.





Combined communication network

Based on the specifics of connecting one outdoor unit to the indoor unit, two communication networks were connected.

BUS 1: LNS

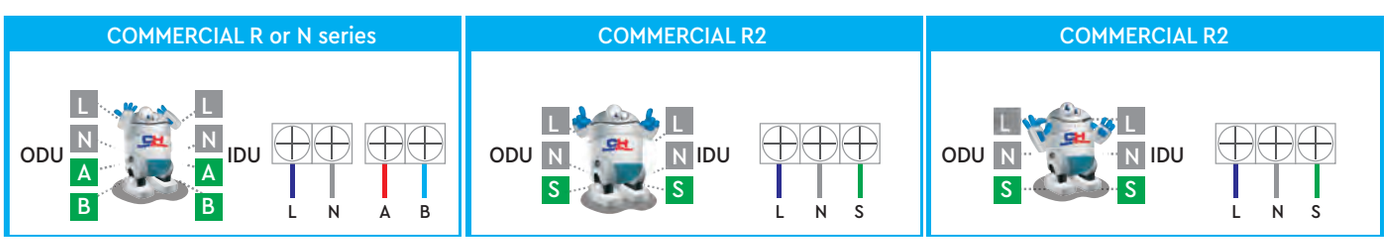
Using the latest generation of communication technology, the outdoor unit can simultaneously operate over a long distance with various types of indoor units, including ducted, cassette and floor-ceiling units.

BUS 2: HBS INDIVIDUAL CONTROL BUS

Change of control protocol (wired/centralized control, etc.): HBS communication technology is used for indoor units and controllers. Control terminals are applicable to both NORDIC COMMERCIAL R2 and CHV commercial series units, which provides compatibility and greatly simplifies centralized control.

LNS (LINE, NEUTRAL, SIGNAL)

The NORDIC COMMERCIAL R2 commercial series uses a communication line similar to household systems – LNS (Line-Neutral-Signal). Compared with the previous commercial air conditioners of the N, R, N4 series, the number of information lines has been reduced from 2 to 1, which not only saves wires, but also makes installation more convenient. At the same time, the signal line uses a powerful electrical port design, and a short-term connection of power to this line during installation will not damage the board.



TWIN-ROTOR DC INVERTER COMPRESSOR

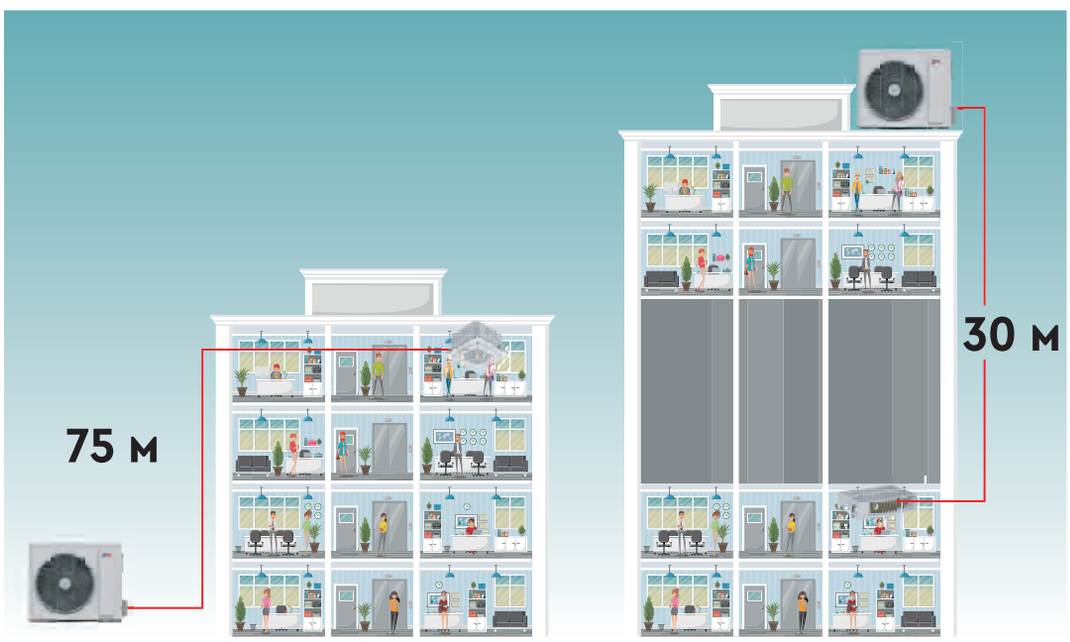
Compared to traditional compressors, the twin-rotor compressor has a higher level of power and energy efficiency and a wider operating range. Thanks to the lower discharge temperature, the compressor operates more stably under extreme operating conditions.

Long pipeline lengths

Model ODU - cooling capacity	kW	3.5	5	7.1	8.5	10	12.5	14	16
H - Max. hight drop	m	15	20	20	20	25	30	30	30
L - Max. Distance	m	30	30	30	30	75	75	75	75

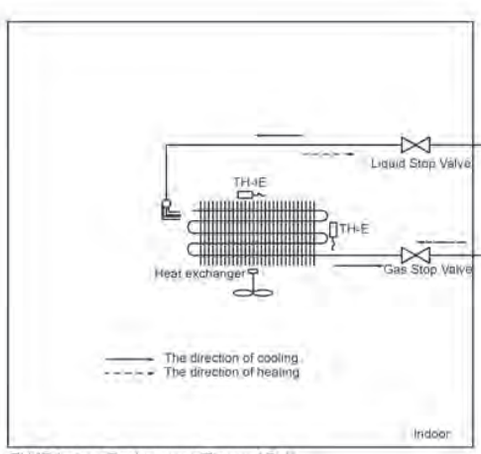
FLEXIBILITY AND CONVENIENCE OF INSTALLATION

he maximum distance from the outdoor to the indoor unit can reach 75 m (in models from 10 kW), and the height difference is up to 30 m (in models from 12.5 kW). Communication and power supply between the indoor and outdoor units is based on the principle of household systems — LNS (phase, neutral, signal), which simplifies the installation of equipment.

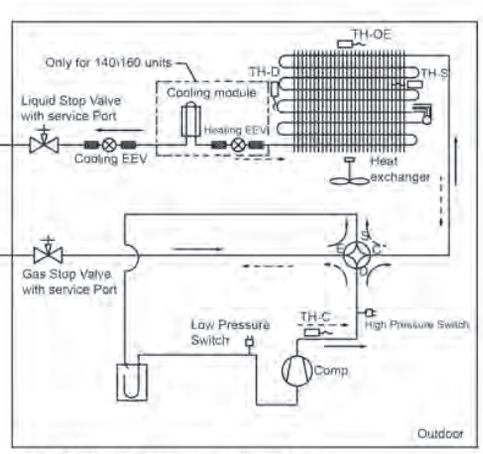


Improved hydraulic circuit protection

To reduce the risk of solid particles entering the hydraulic circuit of the equipment from the connecting pipeline, mesh filters are used. This increases the protection of such circuit elements as the EEV, four-way valve, and liquid freon distributor.



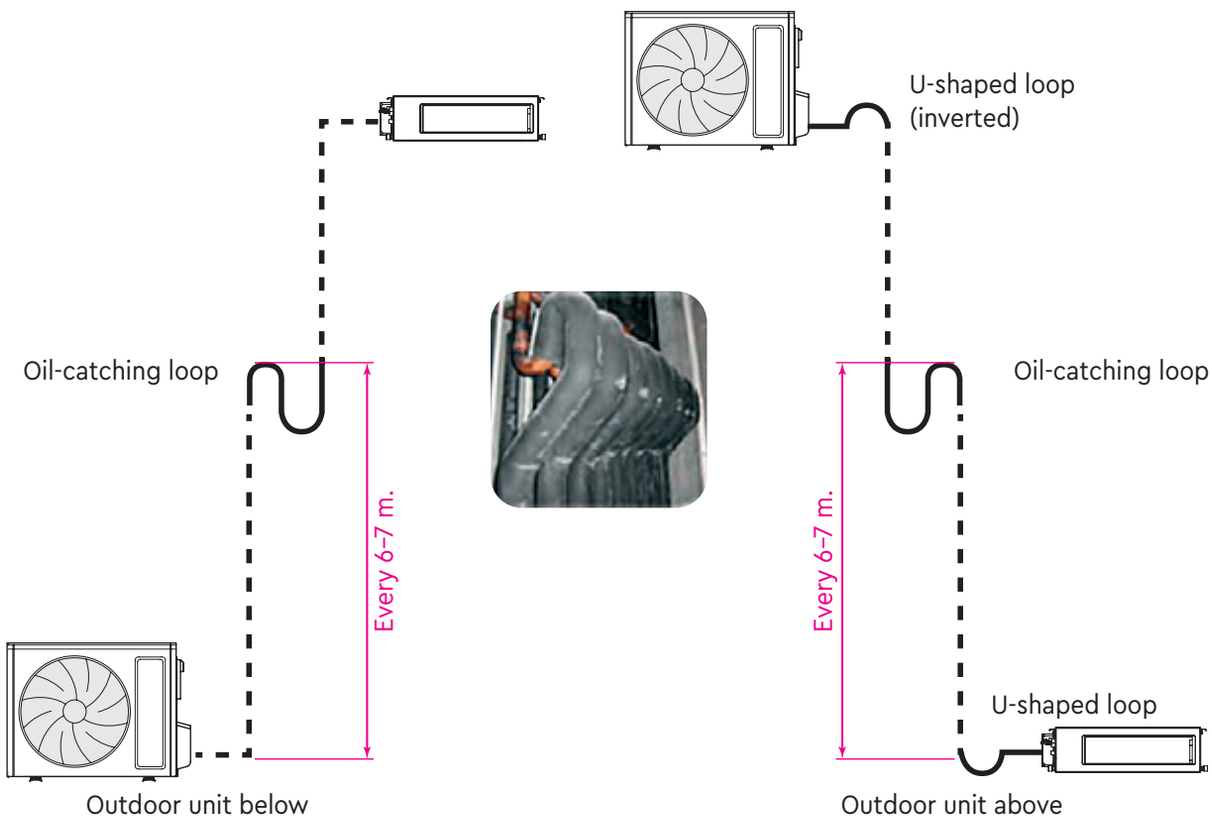
TH-IE Indoor Environment Thermal Bulb
TH-E Indoor Evaporator Thermal Bulb



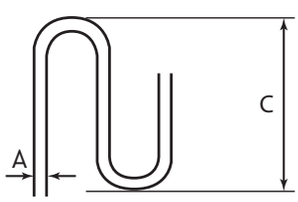
TH-OE Outdoor Environment Thermal Bulb
TH-D Outdoor Condenser Thermal Bulb
TH-C Outdoor Compressor Discharge Thermal Bulb
TH-S Outdoor Speed Adjustment Thermal Bulb

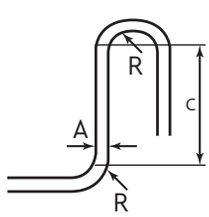
Oil-catching loops

The height difference between the outdoor and indoor units impairs the oil return process to the compressor. If the height difference between the outdoor and indoor units exceeds 10 m, it is necessary to install Oil-catching loops on the gas pipe.



A	R	C
Ø 9.52 (⅜")	≥ 20 mm	≤ 150 mm
Ø 12.7 (½")	≥ 26 mm	
Ø 15.9 (⅝")	≥ 33 mm	





■ HEATING OF THE TRAY

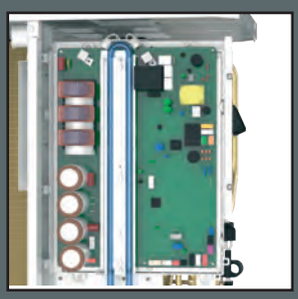
As standard, all outdoor units of the NORDIC COMMERCIAL R2 commercial series are equipped with a tray heater, which ensures stable heating operation at low outdoor temperatures.

Intelligent control

1 ELECTRICAL BOX

The electrical box is cooled by refrigerant, so the temperature of the controller power module is not affected by the ambient temperature, ensuring reliable operation and a long service life.

Note: Only for 14 and 16 kW models.



2 NEW SEPARATOR DESIGN

The new separator design prevents liquefied refrigerant from being sucked into the compressor, which increases operational reliability.

3 LNS BUS

By switching to a different communication technology, only 1 wire is used for communication, which saves wiring material and makes installation easier. In addition, the communication ports are designed in such a way that the controller will not be damaged when the wires are connected incorrectly for a short period of time.

4 FAN MOTOR

The fan motor has protection against strong wind gusts by detecting increased resistance/load on the motor. The protection switches off the motor to prevent damage. The components are made of stainless steel or by an electrophoresis process and meet class C4 salt spray test.

5 PROTECTION

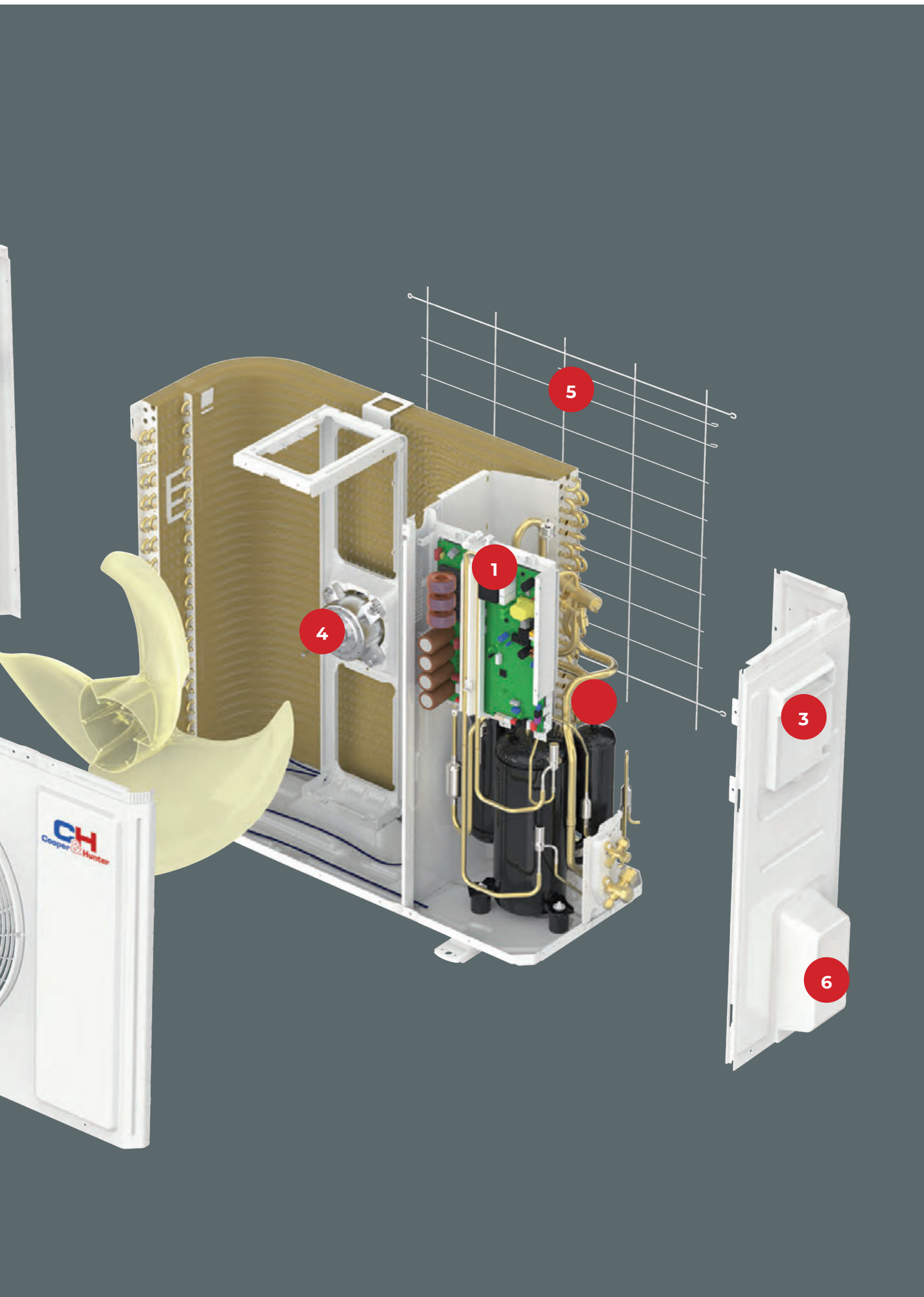
Protective grilles on the rear and left sides protect the heat exchanger fins from bending during transportation and installation.

6 CONVENIENCE

The valve cover protects the valves and prevents noise caused by condensation drops on the valves.

7 SAFETY

The air outlet grille meets EU requirements for child finger protection to protect children from injuries caused by accidental contact with the grille.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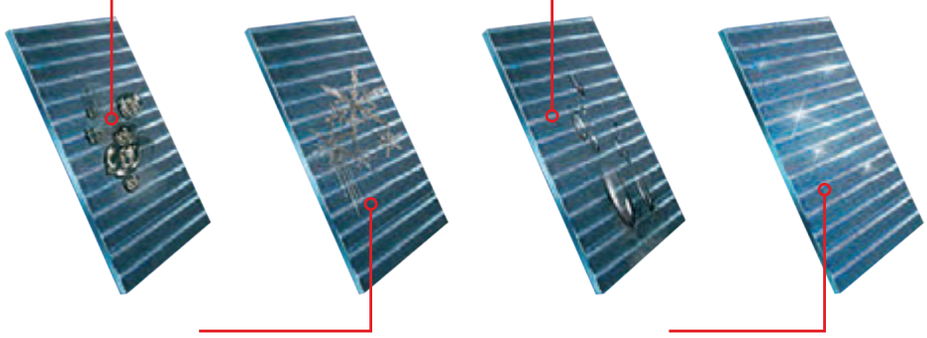
DOUBLE SELF-CLEAN

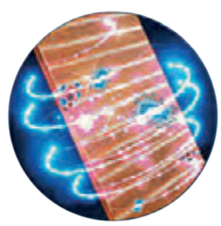
From now on, the Double Self-clean function is present on the entire commercial series. The essence of this technology is to sharply cool the heat exchanger to a freezing state, after which the heat exchanger is heated to a temperature of +58 ... +57 °C. This leads to instant cleaning, drying and destruction of bacteria.
Double Self-clean technology – saves you time and money on air conditioner service.

■ CONDENSATION
Absorbs moisture from the air, forming condensate on the heat exchanger.

■ DEFROSTING
Defrosted using heating to remove dust on the heat exchanger.

■ STERILIZATION
Sterilization temperature up to 56°C



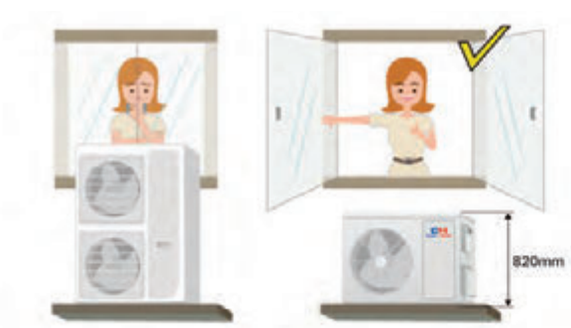


■ FREEZING
Icing of the heat exchanger leads to the separation of particles from the fins.

■ DRYING
After the water drains, the evaporator is heated to dry.

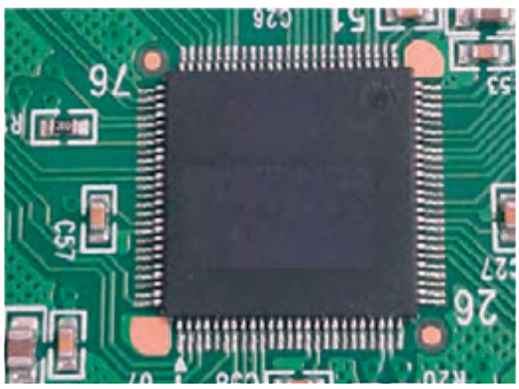
COMPACT AND LIGHTWEIGHT

Unified appearance, compact design with one fan for outdoor units of the entire series, takes up little space, is easy to transport and install, and saves installation space.

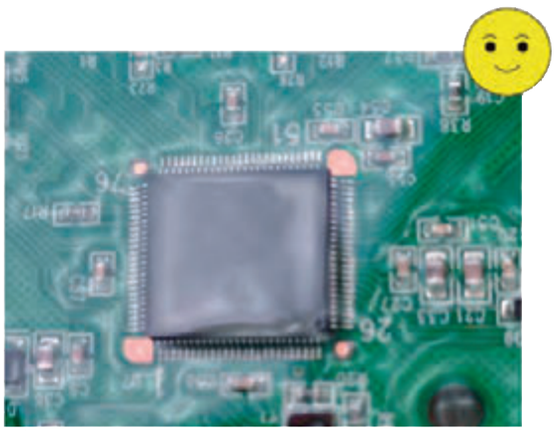


3-LAYER ANTI-CORROSION PCB COATING

The PCB boards of the outdoor units have three layers of anti-corrosion coating that protects the electrical circuits and components from moisture, insects and dust.



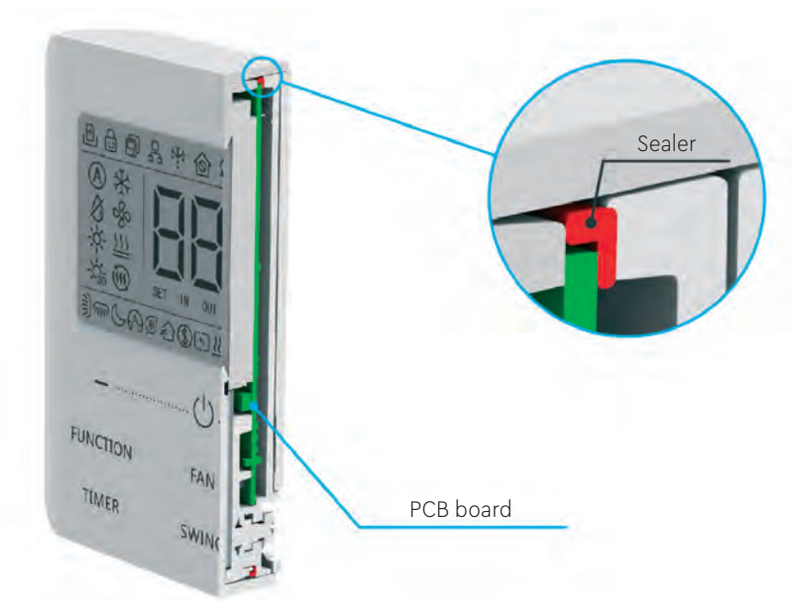
Without coating



3-layer anti-corrosion coating

WIRED CONTROLLER HAS DOUBLE PROTECTION AGAINST MOISTURE

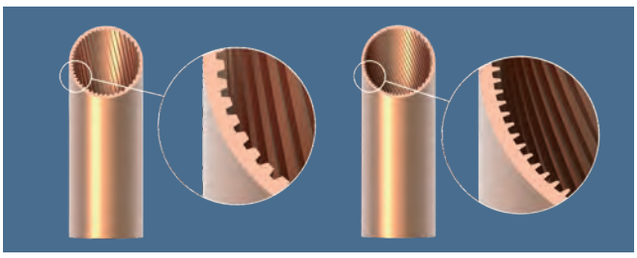
Additional seals in the controller design effectively protect the printed circuit board from moisture ingress.



FACTORY COMPLETE WITH TWO CONTROLLERS

All units of the NORDIC COMMERCIAL R2 series are equipped with an infrared remote controller and a wired controller with a built-in Wi-Fi module.

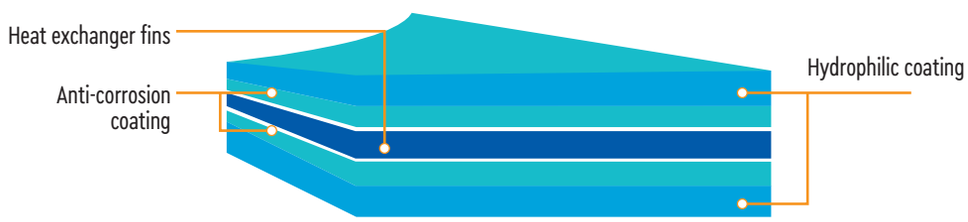
HEAT EXCHANGER TUBES



The heat exchanger tubes have internal helical fins to increase the contact area and optimize the turbulent state of the refrigerant flow, which has a positive effect on increasing heat exchange efficiency.

DOUBLE-COATED HEAT EXCHANGER FINS

The heat exchanger fins have a double coating. Hydrophilic coating that repels moisture and promotes rapid drainage of melt water during defrosting of the outdoor unit. Anti-corrosion coating* that protects the material from the destructive effects of active substances found in humid air, rainwater and snow, extending the service life and efficiency of the equipment.

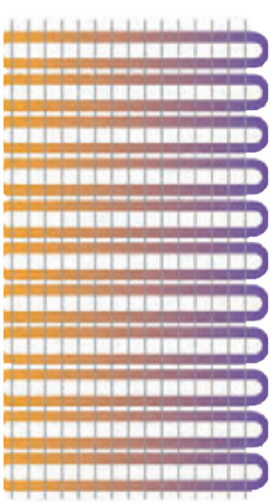


Structure of the double-coated heat exchanger fins

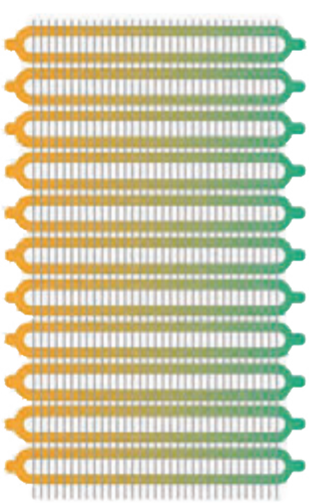
* Blue Fin coating is used as standard in the commercial series.

HEAT EXCHANGER FINS

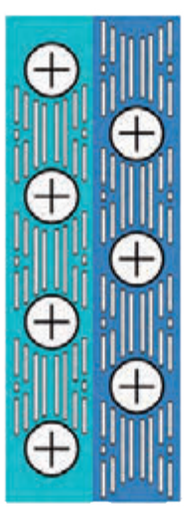
To improve heat exchange efficiency, corrugated fins with a smaller pitch are used, which increases the effective heat exchange area between the refrigerant and air and contributes to improving heat exchange efficiency. Reducing the distance between the fins increases corrosion resistance. The hydrophilic coating of the corrugated fins ensures unhindered drainage of melt water, facilitating the defrosting process of the outdoor unit.



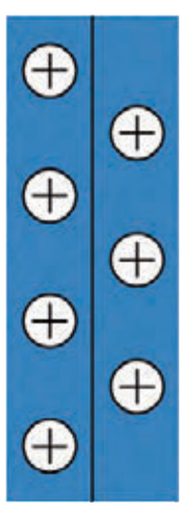
Other



NORDIC COMMERCIAL R2



Other

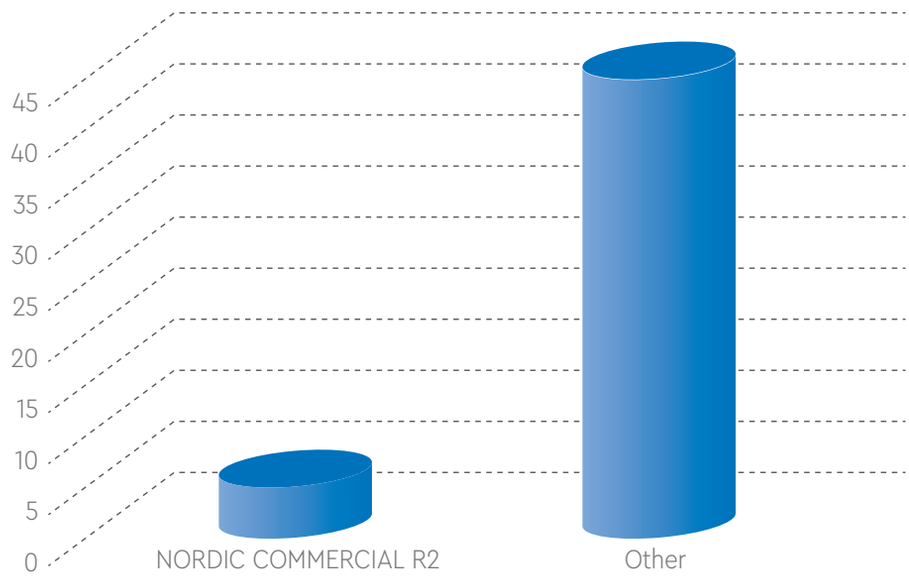


NORDIC COMMERCIAL R2

LOW POWER CONSUMPTION STANDBY MODE

The NORDIC COMMERCIAL R2 commercial series uses advanced technology of the unit wake-up circuit and intelligent heating of the compressor crankcase by its motor windings instead of the traditional band heater. Therefore, there is no electric compressor heater in this series.

Heating by compressor motor windings with intelligent control and high efficiency.



CONVENIENT FOR CONNECTING WIRING AND PIPES

Automatic fault diagnosis: The device can automatically diagnose faults and display corresponding error codes (on the LED panel of the indoor unit, the main board of the outdoor unit and the wired controller).

Easy connection: wires can be connected by detaching the handle, without having to open the front panel.
Reliable pipe connections: the entire model line is equipped with a side cover that hides and protects the ports and connection elements.
One-piece front panel: simple appearance, fewer components for vibration sources, easy access.

Electrical safety

DRAINAGE PUMP 12V DC

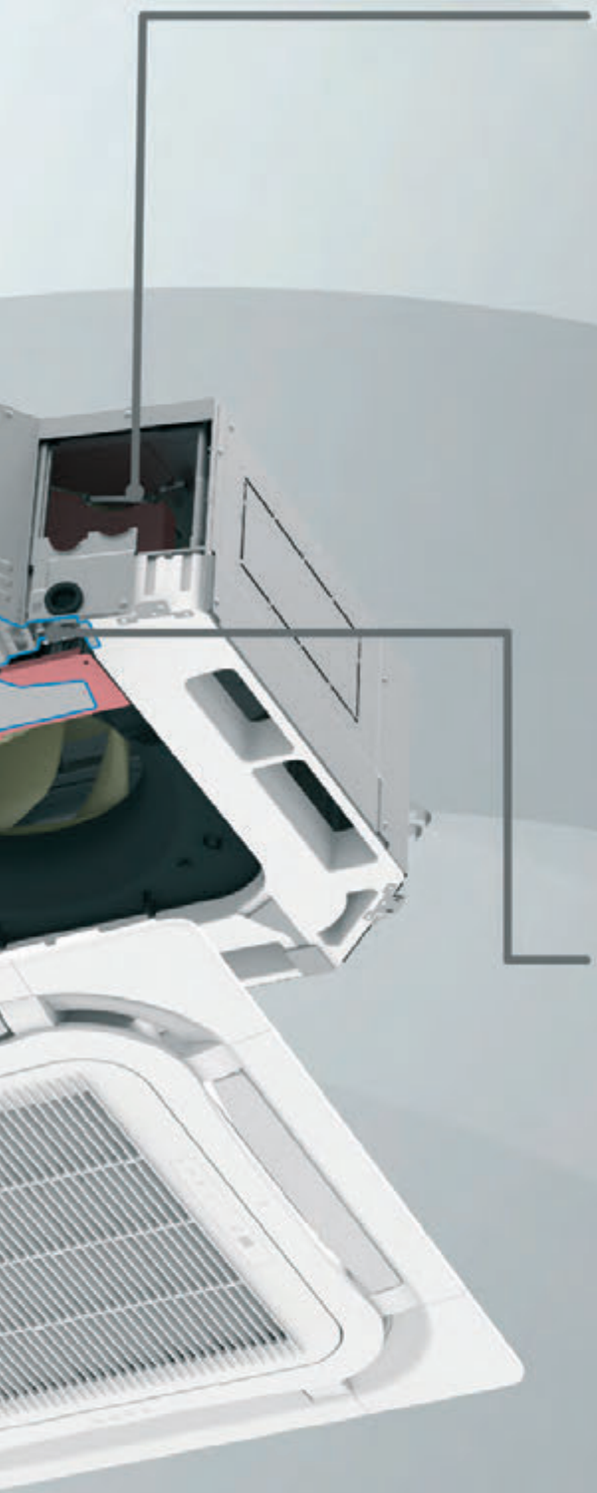
Even in a humid environment, a water pump can ensure electrical safety.

FULLY METAL ELECTRICAL BOX

A double-layer sheet metal outer casing is used to protect the electrical control components. The special wiring design prevents insects and water droplets from entering the electrical box.

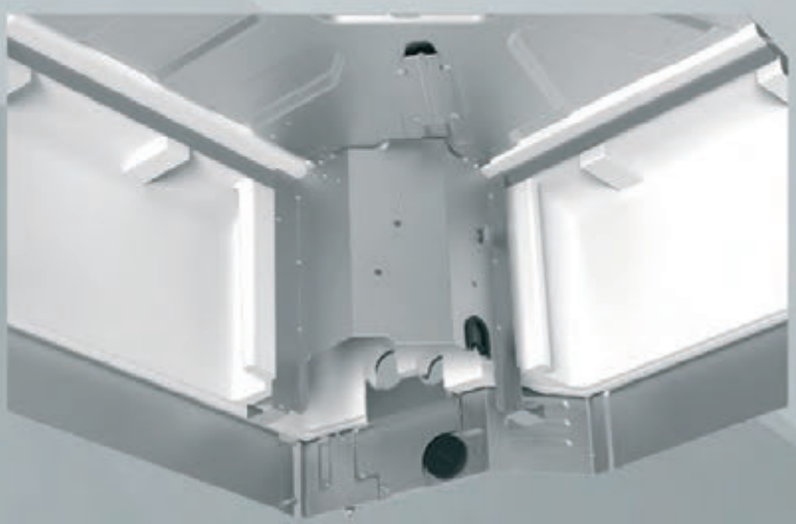
ENGINE WIRING IS PROTECTED WITH SHEET METAL

Sheet metal is used to protect electrical wires from mechanical damage.



FULL GROUNDING FOR THE ENTIRE UNIT

All conductive parts are grounded to ensure electrical safety.



ELECTRICAL WIRING PARTS PROTECTED BY SHEET METAL INSERTS

Sheet metal inserts are used for all wiring parts to protect them from damage and increase the electrical safety of the product.

Wi-Fi

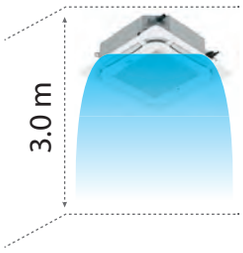
R32

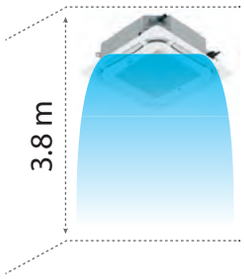
Cassette indoor unit with circular air distribution

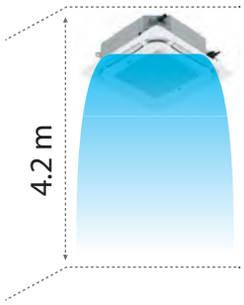
The cassette unit with circular air distribution is suitable for various places such as hotels, office buildings, and shopping malls. The unit provides an uniform air temperature distribution. That increases the air quality and thermal comfort.

CONVENIENT FOR HIGH CEILINGS

Cassette units offer 11 different fan speeds to choose from. During installation, you can select the appropriate fan speed according to the ceiling height to ensure a comfortable air supply distance.

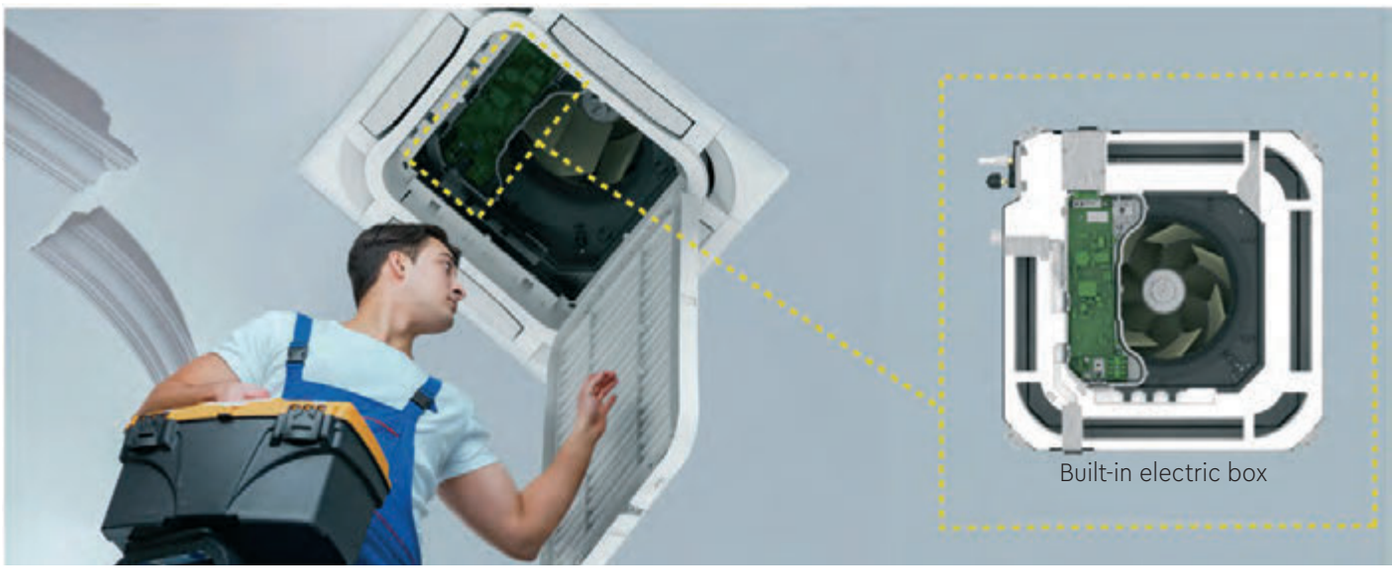






ELECTRIC BOX DESIGNED FOR EASY DISASSEMBLY AND SERVICING

Built-in electric box is standard for the entire product range. To carry out maintenance, just open the grill – there is no need to remove the ceiling, saving time and labor.



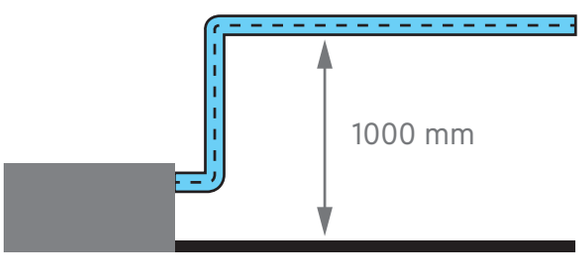
INDEPENDENT CONTROL OF OSCILLATIONS OF LOUVERS

The four air louvres can be controlled independently of each other, and by setting the direction of the air on all sides, there will be no direct entry of air into the working area.

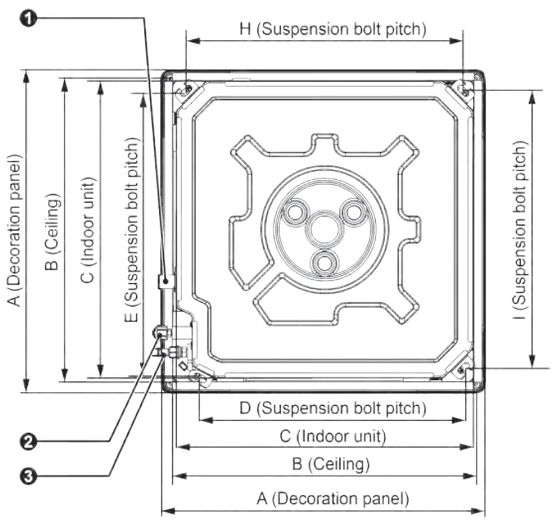
(requires XE 7C-24/HC remote control)

STANDARD EQUIPMENT DRAINAGE PUMP

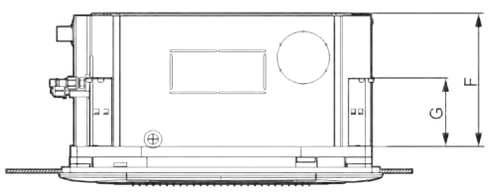
The pressure of the pump for condensate removal can be up to 1000 mm, and the height of the vertical installation of the unit can be flexibly adjusted depending on the installation requirements.



OVERALL DIMENSIONS OF THE INDOOR UNIT

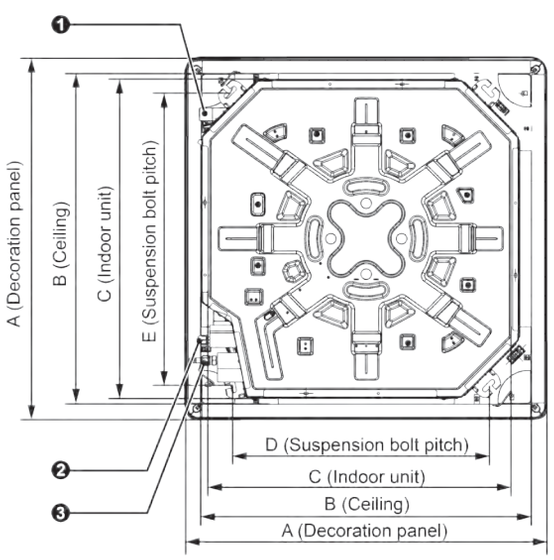


❶ Drain pipe
❷ Liquid pipe
❸ Gas pipe

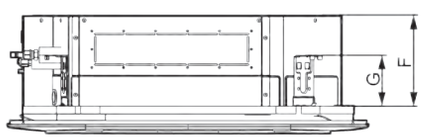


Units: mm

Dimensions/Model	A	B	C	D	E	F	G	H	I
CH-IC035RK2 CH-IC050RK2	620	580	570	505	550	260	140	530	530



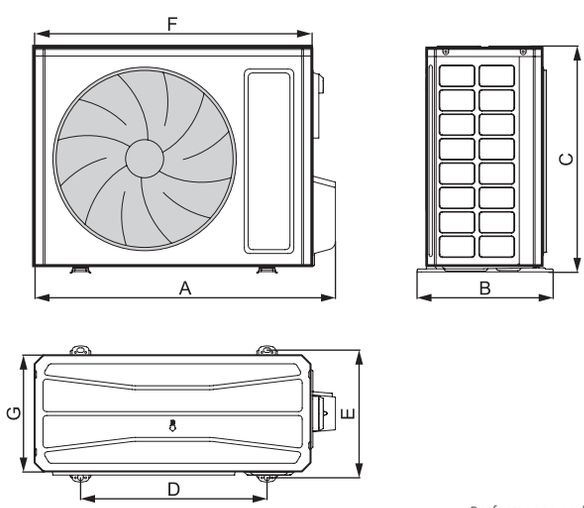
❶ Drain pipe
❷ Liquid pipe
❸ Gas pipe



Units: mm

Dimensions/ Model	A	B	C	D	E	F	G
CH-IC071RK2 CH-IC085RK2	950	890	840	680	780	200	135
CH-IC100RK2 CH-IC125RK2	950	890	840	680	780	240	135
CH-IC140RK2 CH-IC160RK2	950	890	840	680	780	290	135

OVERALL DIMENSIONS OF THE OUTDOOR UNIT



Units: mm

Dimensions/ Model	A	B	C	D	E	F	G
CH-IU035RK2	732	330	553	455	310	675	285
CH-IU050RK2	802	350	555	512	331	745	300
CH-IU071RK2	958	402	660	570	371	889	340
CH-IU085RK2	958	402	660	570	371	889	340
CH-IU100RM2	1020	427	820	635	396	940	370
CH-IU125RM2	1020	427	820	635	396	940	370
CH-IU140RM2	1020	427	820	635	396	940	370
CH-IU160RM2	1070	427	960	755	396	990	370

Performance and consumption data are determined at the following air parameters
Cooling: indoor temperature DB/WB: 27/19°C, outdoor temperature DB/WB: 35/24°C
Heating: indoor temperature DB/WB: 20/15°C, outdoor temperature DB/WB: 7/6°C

TECHNICAL SPECIFICATIONS

Model	Model IDU		CH-IC035RK2	CH-IC050RK2	CH-IC071RK2	CH-IC085RK2	CH-IC100RK2
	Model ODU		CH-IU035RK2	CH-IU050RK2	CH-IU071RK2	CH-IU085RK2	CH-IU100RK2
Capacity	Cooling	kW	3.5	5.0	7.1	8.5	10.5
		Btu/h	11900	17000	24200	29000	35800
	Heating	kW	4.0	5.6	7.8	8.8	11.5
		Btu/h	13600	19100	26600	30000	39200
EER/COP			3.80/4.00	3.40/3.50	3.50/3.90	3.40/3.90	3.40/3.90
SEER/SCOP			7.10/4.20	6.60/4.00	6.70/4.30	6.90/4.30	6.60/4.40
Energy efficiency grade			A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
Power supply		V/Hz/Ph	~220-240V/50Hz/1Ph				
Power input	Cooling	kW	0.92	1.47	2.03	2.50	3.10
	Heating	kW	1.00	1.60	2.00	2.25	2.95
Current input	Cooling	A	4.40	7.00	9.70	11.40	14.80
	Heating	A	4.80	7.65	9.60	10.30	14.10
Refrigerant charge volume		kg	0.57	0.85	1.50	1.50	2.10
Indoor unit							
Air flow volume (SH/H/M/L)		CFM	353/324/294/235	424/383/353/294	647/588/529/470	824/765/647/588	883/824/710/589
		m^3/h	600/550/500/400	720/650/600/500	1100/1000/900/800	1400/1300/1100/1000	1500/1400/1200/1000
Sound pressure		dB(A)	36/35/33/29	43/41/39/35	39/38/36/34	47/46/42/38	43/41/39/38
Dimension (WxDxH)	Outline	mm	570x570x260	570x570x260	840x840x200	840x840x200	840x840x240
	Package	mm	698x653x295	698x653x295	943x923x245	943x923x245	933x903x272
Net weight/Gross weight		kg	16.5/21.0	16.5/21.0	21.0/27.0	21.0/27.0	23.0/29.0
Panel	Model		TF05		TF06		
	Outline dimension	mm	620x620x47.5	620x620x47.5	950x950x52	950x950x52	950x950x52
	Package dimensio	mm	693x693x115	693x693x115	1033x1020x110	1033x1020x110	1033x1020x110
	Net/Gross weight	kg	3.0/4.5	3.0/4.5	6.0/9.5	6.0/9.5	6.0/9.5
Outdoor unit							
Sound pressure		dB(A)	48	52	55	57	57
Dimension (WxDxH)	Outline	mm	675x285x553	745x300x555	889x340x660	889x340x660	940x370x820
	Package	mm	794x376x605	872x398x609	1032x456x730	1032x456x730	1093x497x885
Net weight/Gross weight		kg	24.5/27.0	30.5/33.0	41.5/45.0	46.0/50.0	65.0/72.0
Connecting pipe	Liquid pipe	inch	1/4 (6.35)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Gas pipe	(mm)	3/8 (9.52)	1/2 (12.7)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
	Max. distance (Height/Length)	m	15/30	20/30	20/30	25/30	30/75

Model	Indoor unit		CH-IC125RK2	CH-IC140RK2	CH-IC100RK2	CH-IC125RK2	CH-IC140RK2	CH-IC160RK2
	Outdoor unit		CH-IU125RK2	CH-IU140RK2	CH-IU100RM2	CH-IU125RM2	CH-IU140RM2	CH-IU160RM2
Capacity	Cooling	kW	12.1	13.4	10.5	12.1	13.4	14.5
		Btu/h	41200	45700	35800	41200	45700	49400
	Heating	kW	13.5	15.5	11.5	13.5	15.5	17.0
		Btu/h	46000	52900	39200	46000	52900	58000
EER/COP			3.10/3.40	2.91 /3.30	3.40/3.90	3.10/3.40	2.91 /3.30	2.74/2.98
SEER/SCOP			6.10/4.10	6.30/4.00	6.60/4.40	6.10/4.10	6.30/4.00	6.10/4.00
Energy efficiency grade			A++/A+	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
Power supply		V/Hz/Ph	~220-240V/50Hz/1Ph		~380-415V/50Hz/3Ph			
Power input	Cooling	kW	3.90	4.60	3.10	3.90	4.60	5.30
	Heating	kW	3.97	4.70	2.95	3.97	4.70	5.70
Current input	Cooling	A	18.60	21.00	4.90	6.20	7.00	9.00
	Heating	A	19.00	21.50	4.70	6.30	7.10	8.20
Refrigerant charge volume		kg	2.25	2.80	2.10	2.25	2.80	3.50
Indoor unit								
Air flow volume (SH/H/M/L)		CFM	1000/883/765/647	1177/1059/942/824	883/824/710/589	1000/883/765/647	1177/1059/942/824	1354/1235/1118/941
		m^3/h	1700/1500/1300/1100	2000/1800/1600/1400	1500/1400/1200/1000	1700/1500/1300/1100	2000/1800/1600/1400	2300/2100/1900/1600
Sound pressure		dB(A)	48/46/43/39	50/48/45/41	43/41/39/38	48/46/43/39	50/48/45/41	52/50/48/44
Dimension (WxDxH)	Outline	mm	840x840x240	840x840x290	840x840x240	840x840x240	840x840x290	840x840x290
	Package	mm	933x903x272	933x903x335	933x903x272	933x903x272	933x903x335	933x903x335
Net weight/Gross weight		kg	23.0/29.0	25.0/32.0	23.0/29.0	23.0/29.0	25.0/32.0	26.0/33.0
Panel	Model		TF06					
	Outline dimension	mm	950x950x52	950x950x52	950x950x52	950x950x52	950x950x52	950x950x52
	Package dimensio	mm	1033x1020x110	1033x1020x110	1033x1020x110	1033x1020x110	1033x1020x110	1033x1020x110
	Net/Gross weight	kg	6.0/9.5	6.0/9.5	6.0/9.5	6.0/9.5	6.0/9.5	6.0/9.5
Outdoor unit								
Sound pressure		dB(A)	58	59	57	58	59	60
Dimension (WxDxH)	Outline	mm	940x370x820	940x370x820	940x370x820	940x370x820	940x370x820	990x370x960
	Package	mm	1093x497x885	1093x497x885	1093x497x885	1093x497x885	1093x497x885	1153x478x1110
Net weight/Gross weight		kg	66.0/73.0	73.0/80.0	75.0/82.0	76.0/83.0	81.0/88.0	94.0/103.0
Connecting pipe	Liquid pipe	inch	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Gas pipe	(mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
	Max. distance (Height/Length)	m	30/75	30/75	30/75	30/75	30/75	30/75

R32

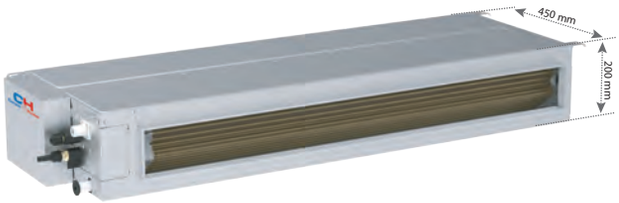
Wi-Fi

Duct type indoor unit

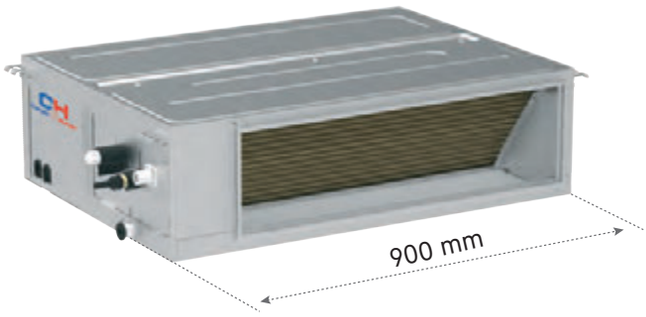
The duct-type indoor unit uses a DC motor, multi-stage airflow control, and flexible and convenient installation. All this meets the requirements for various construction objects, such as hotels, office buildings, shopping centers, apartments, cottages, etc.

REFINED BODY OF THE DEVICE

The duct unit is only 200mm thick and 450mm deep, which is suitable for spaces with different heights.

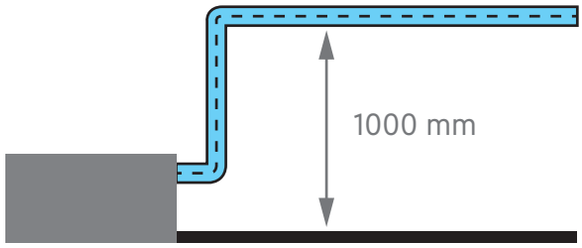


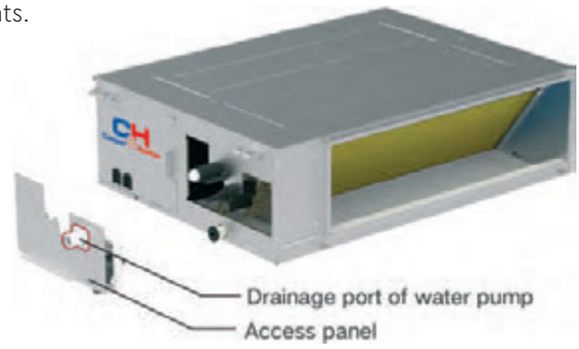
High static pressure duct units ranging from 7 .1 kW to 8.5kW are only 900mm in length. They are suitable to be installed in corridors whose width is ≤ 1.2m.



STANDARD EQUIPMENT DRAINAGE PUMP

The pressure of the pump for condensate removal can be up to 1000 mm, and the height of the vertical installation of the unit can be flexibly adjusted depending on the installation requirements.



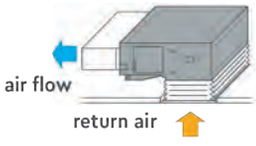


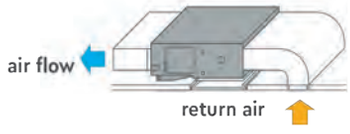
FRESH AIR SUPPLY FUNCTION

An air duct can be connected to the unit to supply fresh air to the room.

FLEXIBLE INSTALLATION

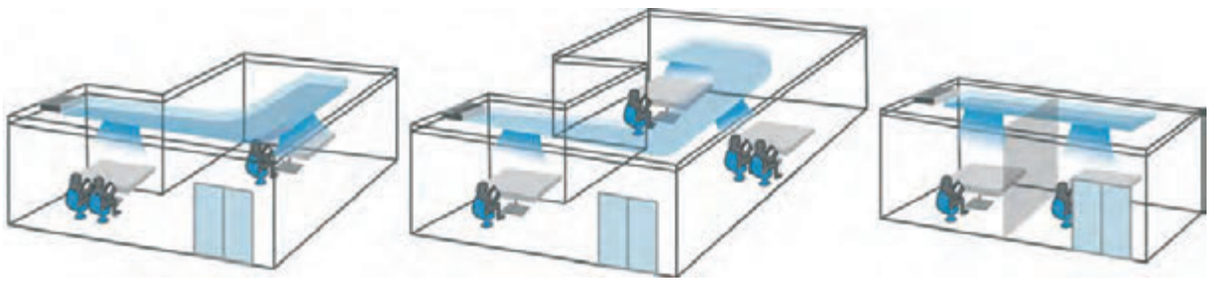
According to the location of the unit, you can choose one of two options for air intake, from below or from the side.





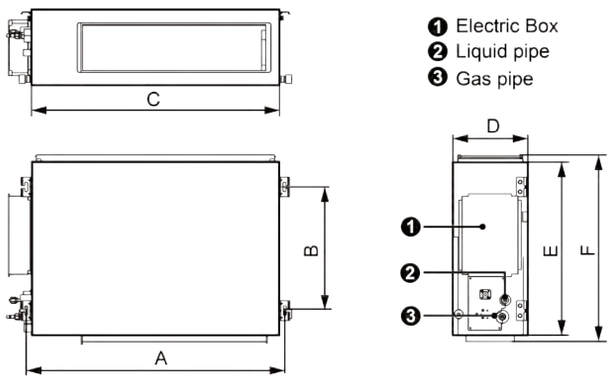
ADJUSTING THE PRESSURE OF THE FAN

The highest static pressure can be up to 30 Pa. From the control panel, you can change the static pressure of the fan according to the characteristics of the air duct network. 5 levels of external static pressure adjustment are available.

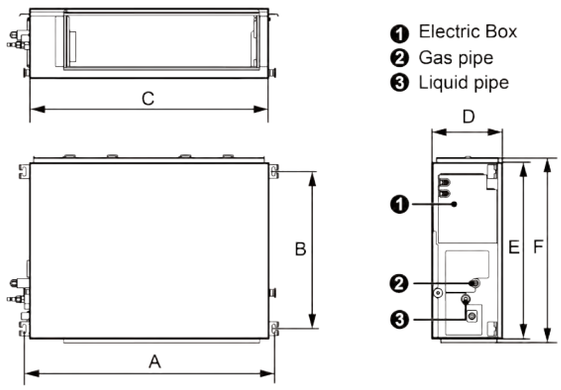


OVERALL DIMENSIONS OF THE INDOOR UNIT

CH-IDS035PRK2,CH-IDS050PRK2,
CH-IDH140PRK2, CH-IDH160PRK2.



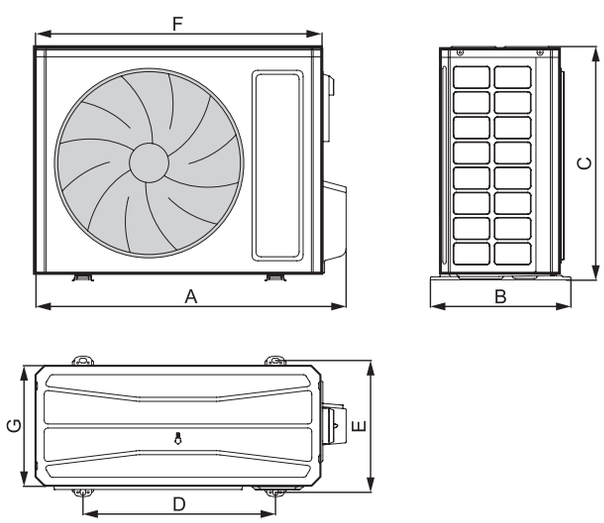
CH-IDS071PRK2,CH-IDS085PRK2,
CH-IDH100PRK2,CH-IDH125PRK2.



Units: mm

Dimensions/Model	A	B	C	D	E	F
CH-IDS035PRK2	760	415	700	200	450	486
CH-IDS050PRK2	1060	415	1000	200	450	486
CH-IDS071PRK2	942	590	900	260	655	692
CH-IDH085PRK2	942	590	900	260	655	692
CH-IDH100PRK2	1381	585	1340	260	655	697
CH-IDH125PRK2	1381	585	1340	260	655	697
CH-IDH140PRK2	1440	500	1400	300	700	754
CH-IDH160PRK2	1440	500	1400	300	700	754

OVERALL DIMENSIONS OF THE OUTDOOR UNIT



Units: mm

Dimensions/Model	A	B	C	D	E	F	G
CH-IU035RK2	732	330	553	455	310	675	285
CH-IU050RK2	802	350	555	512	331	745	300
CH-IU071RK2	958	402	660	570	371	889	340
CH-IU085RK2	958	402	660	570	371	889	340
CH-IU100RM2	1020	427	820	635	396	940	370
CH-IU125RM2	1020	427	820	635	396	940	370
CH-IU140RM2	1020	427	820	635	396	940	370
CH-IU160RM2	1070	427	960	755	396	990	370

TECHNICAL SPECIFICATIONS

Model	Indoor unit		CH-IDS035PRK2	CH-IDS050PRK2	CH-IDS071PRK2	CH-IDH085PRK2	CH-IDH100PRK2	CH-IDH125PRK2
	Outdoor unit		CH-IU035RK2	CH-IU050RK2	CH-IU071RK2	CH-IU085RK2	CH-IU100RK2	CH-IU125RK2
Capacity	Cooling	kW	3.5	5.3	7.1	8.5	10.5	12.1
		Btu/h	11900	18000	24200	29000	35800	41200
	Heating	kW	4.0	5.6	8.0	8.80	11.5	13.5
		Btu/h	13600	19100	27200	30000	39200	46000
EER/COP			3.40/4.00	3.50/3.95	3.70/4.00	3.40/3.90	3.50/4.10	3.38/3.65
SEER/SCOP			6.50/4.00	6.30/4.00	6.60/4.10	6.40/4.10	6.40/4.20	6.10/4.10
Energy efficiency grade			A++/A+	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
Power supply		V/Hz/Ph	~220-240V/50Hz/1Ph					
Power input	Cooling	kW	1.03	1.51	1.92	2.50	3.00	3.58
	Heating	kW	1.00	1.42	2.00	2.25	2.80	3.70
Current input	Cooling	A	4.90	7.20	9.20	11.40	14.35	17.2
	Heating	A	4.80	6.80	9.60	10.30	13.4	17.7
Refrigerant charge volume		kg	0.57	0.85	1.50	1.50	2.10	2.25
Indoor unit								
Air flow volume (SH/H/M/L)		CFM	353/324/294/235	530/471/412/353	647/588/529/470	824/765/647/588	1000/941/824/710	1177/1059/941/824
		m³/h	600/550/500/400	900/800/700/600	1100/1000/900/800	1400/1300/1100/1000	1700/1600/1400/1200	2000/1800/1600/1400
ESP	Rated	Pa	25	25	25	37	37	50
	Range	Pa	0-80	0-80	0-160	0-160	0-160	0-160
Sound pressure		dB(A)	35/33/32/30	36/35/33/31	37/35/33/31	43/41/39/37	39/38/37/36	43/42/41/40
Dimension (WxDxH)	Outline	mm	700×450×200	1000×450×200	900×655×260	900×655×260	1340×655×260	1340×655×260
	Package	mm	1008×568×275	1308×568×275	1115×772×320	1115×772×320	1568×770×323	1568×770×323
Net weight/Gross weight		kg	18.0/22.0	24.0/29.0	29.5/33.5	29.5/33.5	43.0/49.0	43.0/49.0
Outdoor unit								
Sound pressure		dB(A)	48	52	55	57	57	58
Dimension (WxDxH)	Outline	mm	675×285×553	745×300×555	889×340×660	889×340×660	940×370×820	940×370×820
	Package	mm	794×376×605	872×398×609	1032×456×730	1032×456×730	1093×497×885	1093×497×885
Net weight/Gross weight		kg	24.5/27.0	30.5/33.0	41.5/45.0	46.0/50.0	65.0/72.0	66.0/73.0
Connecting pipe	Liquid pipe	inch (mm)	1/4 (6.35)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Gas pipe		3/8 (9.52)	1/2 (12.7)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
	Max. distance (Height/Length)	m	15/30	20/30	20/30	25/30	30/75	30/75

Model	Indoor unit		CH-IDH140PRK2	CH-IDH100PRK2	CH-IDH125PRK2	CH-IDH140PRK2	CH-IDH160RK2
	Outdoor unit		CH-IU140RK2	CH-IU100RM2	CH-IU125RM2	CH-IU140RM2	CH-IU160RM2
Capacity	Cooling	kW	13.4	10.5	12.1	13.4	16.0
		Btu/h	45700	35800	41200	45700	54500
	Heating	kW	15.50	11.5	13.5	15.50	17.0
		Btu/h	52900	39200	46000	52900	58000
EER/COP			2.98/3.44	3.50/4.10	3.38/3.65	2.98/3.44	2.96/3.62
SEER/SCOP			6.10/4.00	6.40/4.20	6.10/4.10	6.10/4.00	6.10/4.00
Energy efficiency grade			A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
Power supply		V/Hz/Ph	~220-240V/50Hz/1Ph	~380-415V/50Hz/3Ph			
Power input	Cooling	kW	4.50	3.00	3.58	4.50	5.40
	Heating	kW	4.50	2.80	3.70	4.50	4.70
Current input	Cooling	A	20.60	4.8	5.7	6.80	9.20
	Heating	A	20.60	4.45	5.9	6.80	8.00
Refrigerant charge volume		kg	2.80	2.10	2.25	2.80	3.50
Indoor unit							
Air flow volume (SH/H/M/L)		CFM	1354/1236/1059/883	1000/941/824/710	1177/1059/941/824	1354/1236/1059/883	1529/1354/1176/1000
		m³/h	2300/2100/1800/1500	1700/1600/1400/1200	2000/1800/1600/1400	2300/2100/1800/1500	2600/2300/2000/1700
ESP	Rated	Pa	50	37	50	50	50
	Range	Pa	0-200	0-160	0-160	0-200	0-200
Sound pressure		dB(A)	43/42/40/38	39/38/37/36	43/42/41/40	43/42/40/38	46/44/42/40
Dimension (WxDxH)	Outline	mm	1400×700×300	1340×655×260	1340×655×260	1400×700×300	1400×700×300
	Package	mm	1601×813×365	1568×770×323	1568×770×323	1601×813×365	1601×813×365
Net weight/Gross weight		kg	52.0/58.0	43.0/49.0	43.0/49.0	52.0/58.0	55.0/62.0
Outdoor unit							
Sound pressure		dB(A)	59	57	58	59	60
Dimension (WxDxH)	Outline	mm	940×370×820	940×370×820	940×370×820	940×370×820	990×370×960
	Package	mm	1093×497×885	1093×497×885	1093×497×885	1093×497×885	1153×478×1110
Net weight/Gross weight		kg	73.0/80.0	75.0/82.0	76.0/83.0	81.0/88.0	94.0/103.0
Connecting pipe	Liquid pipe	inch (mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Gas pipe		5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
	Max. distance (Height/Length)	m	30/75	30/75	30/75	30/75	30/75

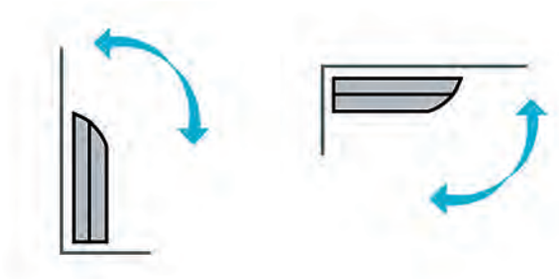
Performance and consumption data are determined at the following air parameters
Cooling: indoor temperature DB/WB: 27/19°C, outdoor temperature DB/WB: 35/24°C
Heating: indoor temperature DB/WB: 20/15°C, outdoor temperature DB/WB: 7/6°C

R32

Wi-Fi

Floor-ceiling type
indoor unit

The indoor unit of the floor-ceiling type has two installation methods: on the floor and on the ceiling. It can be widely used in hotels, office buildings, shopping centers, apartments, cottages, etc.



FLEXIBLE INSTALLATION

The device can be mounted on the floor (vertical) or ceiling (horizontal); the flexible and convenient installation method can give customers more options and makes this indoor unit versatile.

2-WAY AIR RETURN

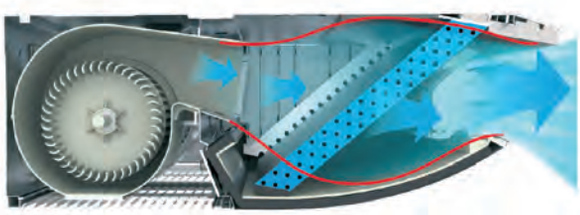
The 2-way air return design enlarges air return area and increases air volume by 7%.

AIR SUPPLY OVER LONG DISTANCES

AIR VOLUME TWO-STAGE PRESSURIZATION TECHNOLOGY

- Unique backflow prevention fan blade can avoid secondary backflow of air supply and improve the efficiency of air supply.
- The application of cavity variation technology changes the fluid cross-sectional area, creating a secondary pressure boost that increases the air supply distance by 2.5%.

The design of the wheel to prevent the reverse flow of air



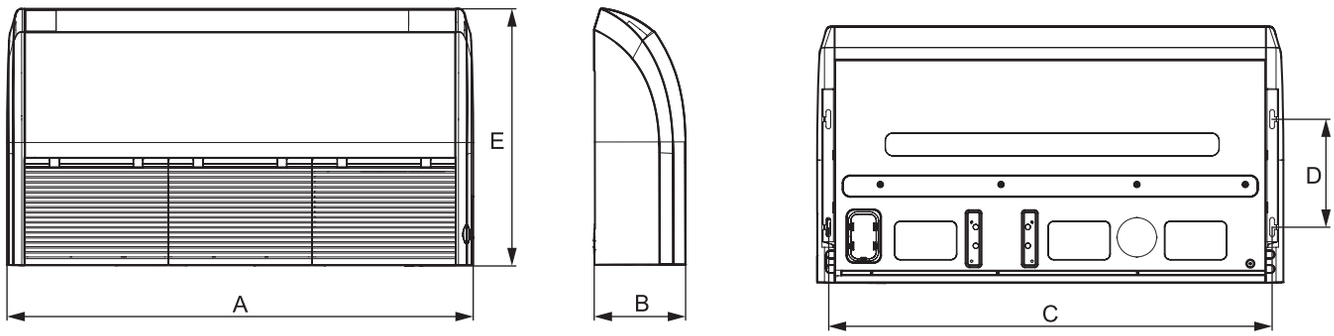
LARGE-ANGLE SWING DESIGN

The swing louvers adopt independent distribution design, which allows the left and right air outlet angles to be adjusted freely according to different applications.

SILENT DESIGN

The new design of the fan blade to reduce the noise level, combined with the DC motor and improved sound insulation, allows you to achieve optimal air flow, its uniform supply and lower noise level, creating a quiet and comfortable environment.

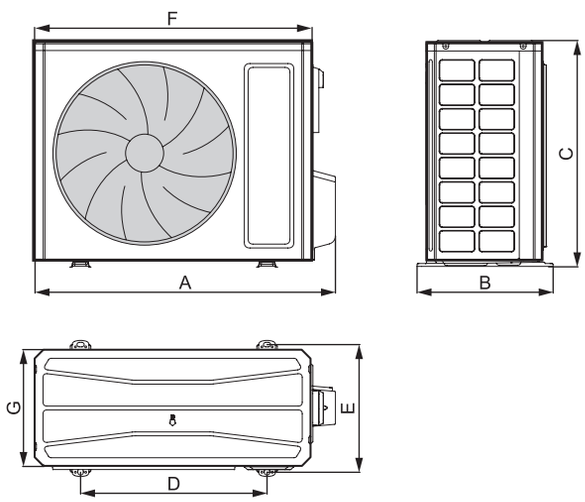
OVERALL DIMENSIONS OF THE INDOOR UNIT



Units: mm

Dimensions/Model	A	B	C	D	E
CH-IF035RK2	870	235	812	280	665
CH-IF050RK2	870	235	812	280	665
CH-IF071RK2	870	235	812	280	665
CH-IF085RK2	1200	235	1142	280	665
CH-IF100RK2	1200	235	1142	280	665
CH-IF125RK2	1570	235	1512	280	665
CH-IF140RK2	1570	235	1512	280	665
CH-IF160RK2	1570	235	1512	280	665

OVERALL DIMENSIONS OF THE OUTDOOR UNIT



Units: mm

Dimensions/Model	A	B	C	D	E	F	G
CH-IU035RK2	732	330	553	455	310	675	285
CH-IU050RK2	802	350	555	512	331	745	300
CH-IU071RK2	958	402	660	570	371	889	340
CH-IU085RK2	958	402	660	570	371	889	340
CH-IU100RM2	1020	427	820	635	396	940	370
CH-IU125RM2	1020	427	820	635	396	940	370
CH-IU140RM2	1020	427	820	635	396	940	370
CH-IU160RM2	1070	427	960	755	396	990	370

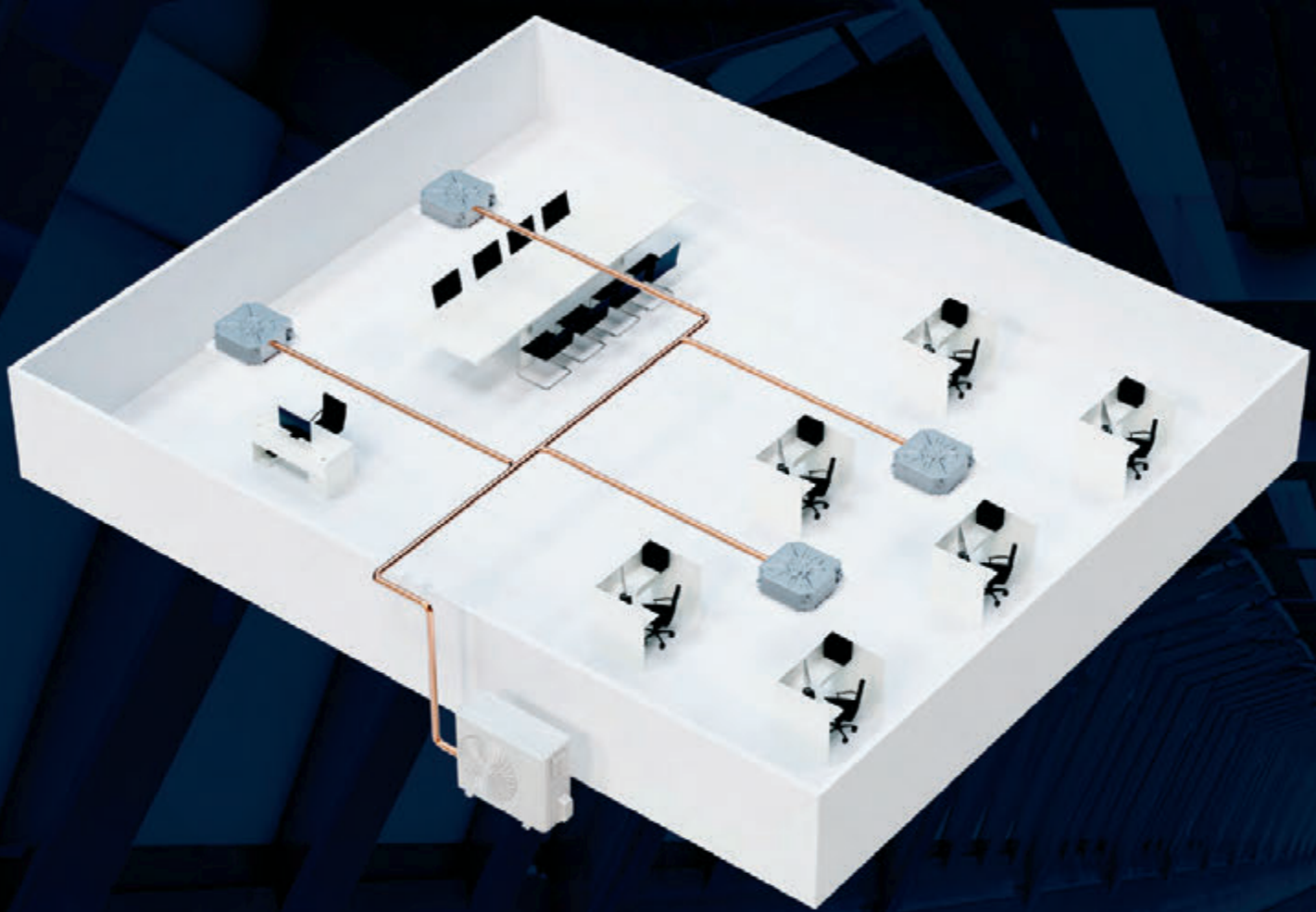
TECHNICAL SPECIFICATIONS

Model	Indoor unit		CH-IF035RK2	CH-IF050RK2	CH-IF071RK2	CH-IF085RK2	CH-IF100RK2
	Outdoor unit		CH-IU035RK2	CH-IU050RK2	CH-IU071RK2	CH-IU085RK2	CH-IU100RK2
Capacity	Cooling	kW	3.5	5.3	7.1	8.5	10
		Btu/h	11900	18000	24200	29000	34100
	Heating	kW	4.0	5.6	7.7	8.80	11.5
		Btu/h	13600	19100	26200	30000	39200
EER/COP			3.80/4.30	3.40/3.90	3.50/3.95	3.40/3.90	3.4/3.9
SEER/SCOP			7.2/4.1	6.5/4.2	7.2/4.3	6.80/4.50	6.3/4.2
Energy efficiency grade			A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
Power supply		V/Hz/Ph	~220-240V/50Hz/1Ph				
Power input	Cooling	kW	0.92	1.56	2.03	2.50	2.94
	Heating	kW	0.93	1.44	1.95	2.25	2.95
Current input	Cooling	A	4.40	7.50	9.70	11.40	14.00
	Heating	A	4.45	6.85	9.10	10.30	14.10
Refrigerant charge volume		kg	0.57	0.85	1.50	1.50	2.10
Indoor unit							
Air flow volume (SH/H/M/L)		CFM	383/353/294/235	530/471/412/353	735/647/588/529	824/765/706/588	941/883/824/710
		m^3/h	650/600/500/400	900/800/700/600	1250/1100/1000/900	1400/1300/1200/1000	1600/1500/1400/1200
Sound pressure		dB(A)	35/34/31/28	41/40/38/36	41/39/37/35	46/45/43/39	48/46/45/43
Dimension (WxDxH)	Outline	mm	870×665×235	870×665×235	1200×665×235	1200×665×235	1200×665×235
	Package	mm	973×770×300	973×770×300	1303×770×300	1303×770×300	1303×770×300
Net weight/Gross weight		kg	24.0/28.0	25.0/29.0	31.0/36.0	32.0/37.0	32.0/37.0
Outdoor unit							
Sound pressure		dB(A)	48	52	55	57	57
Dimension (WxDxH)	Outline	mm	675×285×553	745×300×555	889×340×660	889×340×660	940×370×820
	Package	mm	794×376×605	872×398×609	1032×456×730	1032×456×730	1093×497×885
Net weight/Gross weight		kg	24.5/27.0	30.5/33.0	41.5/45.0	46.0/50.0	65.0/72.0
Connecting pipe	Liquid pipe	inch (mm)	1/4 (6.35)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Gas pipe		3/8 (9.52)	1/2 (12.7)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
	Max. distance (Height/Length)	m	15/30	20/30	20/30	25/30	30/75

Model	Indoor unit		CH-IF125RK2	CH-IF140RK2	CH-IF100RK2	CH-IF125RK2	CH-IF140RK2	CH-IF160RK2
	Outdoor unit		CH-IU125RK2	CH-IU140RK2	CH-IU100RM2	CH-IU125RM2	CH-IU140RM2	CH-IU160RM2
Capacity	Cooling	kW	12.1	13.4	10.0	12.1	13.4	16.0
		Btu/h	41200	45700	34100	41200	45700	54500
	Heating	kW	13.5	15.5	11.5	13.5	15.50	17.0
		Btu/h	46000	52900	39200	46000	52900	58000
EER/COP			3.3/3.6	3.12/3.69	3.40/3.90	3.30/3.60	3.12/3.69	3.02/3.54
SEER/SCOP			6.3/4.0	6.3/4.0	6.3/4.2	6.3/4.0	6.30/4.00	6.10/4.00
Energy efficiency grade			A++/A+	A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
Power supply		V/Hz/Ph	~220-240V/50Hz/1Ph			~380-415V/50Hz/3Ph		
Power input	Cooling	kW	3.67	4.30	2.94	3.67	4.30	5.30
	Heating	kW	3.75	4.20	2.95	3.75	4.20	4.80
Current input	Cooling	A	17.50	19.70	4.65	5.85	6.50	9.00
	Heating	A	17.90	19.20	4.70	6.00	6.40	9.70
Refrigerant charge volume		kg	2.25	2.80	2.10	2.25	2.80	3.50
Indoor unit								
Air flow volume (SH/H/M/L)		CFM	1118/1059/941/824	1354/1236/1059/883	941/883/824/710	1118/1059/941/824	1354/1236/1059/883	1412/1294/1118/941
		m^3/h	1900/1800/1600/1400	2300/2100/1800/1500	1600/1500/1400/1200	1900/1800/1600/1400	2300/2100/1800/1500	2400/2200/1900/1600
Sound pressure		dB(A)	45/43/40/38	51/48/45/43	48/46/45/43	45/43/40/38	51/48/45/43	53/51/48/44
Dimension (WxDxH)	Outline	mm	1570×665×235	1570×665×235	1200×665×235	1570×665×235	1570×665×235	1570×665×235
	Package	mm	1669×770×300	1669×770×300	1303×770×300	1669×770×300	1669×770×300	1669×770×300
Net weight/Gross weight		kg	39.5/46.5	42.0/49.0	32.0/37.0	39.5/46.5	42.0/49.0	42.0/49.0
Outdoor unit								
Sound pressure		dB(A)	58	59	57	58	59	60
Dimension (WxDxH)	Outline	mm	940×370×820	940×370×820	940×370×820	940×370×820	940×370×820	990×370×960
	Package	mm	1093×497×885	1093×497×885	1093×497×885	1093×497×885	1093×497×885	1153×478×1110
Net weight/Gross weight		kg	66.0/73.0	73.0/80.0	75.0/82.0	76.0/83.0	81.0/88.0	94.0/103.0
Connecting pipe	Liquid pipe	inch (mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Gas pipe		5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
	Max. distance (Height/Length)	m	30/75	30/75	30/75	30/75	30/75	30/75

Performance and consumption data are determined under the following air parameters
Cooling: indoor temperature DB/WB: 27/19 °C, outdoor temperature DB/WB: 35/24 °C
Heating: indoor temperature DB/WB: 20/15 °C, outdoor temperature DB/WB: 7/6 °C

Intelligent control



MULTI-SPLIT KIT (NO ADDITIONAL EQUIPMENT REQUIRED)

NORDIC COMMERCIAL R2 series air conditioners use two combined communication networks – LNS Bus and HomeBus, and therefore one outdoor unit can be combined with several indoor units of the same type of duct/floor-ceiling/cassette. As a rule, such solutions are used for large rooms and rooms with "irregular shapes", such as T- and L-shaped rooms, etc.

WHY?

IT'S STILL HOT, EVEN AFTER THE TEMPERATURE IS SET AT 27°C.

Human perception of thermal comfort is closely related to air humidity. Even if the ambient temperature is the same, people feel it differently depending on the humidity.

Stuffiness
(high humidity after rain)
temperature **27 °C**
humidity **80 %**

Air temperature ≠ Temperature felt by a person

Cooling
(optimal parameters)
temperature **27°C**
humidity **50%**

TECHNOLOGY FOR CORRECTION OF TEMPERATURE AND HUMIDITY

The new controller uses high-precision temperature and humidity sensors to fully account the impact of humidity on thermal comfort and improve comfort levels through intelligent correction of indoor temperature and humidity.

Multi-control functions

REMOTE CONTROL

Contacts


BMS

Central controller

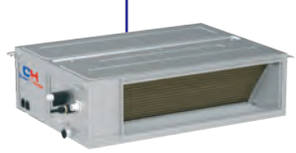
SIGNAL CONVERSION GATEWAY


Gateway of dry contacts



Modbus

EQUIPMENT


CONTROLLERS


Communication controller



Controller without Wi-Fi

Standard controller with Wi-Fi

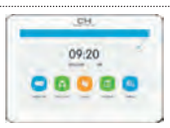

Controller with weekly timer and Wi-Fi

APPENDICES


Hotel card


EwpeSmart APP

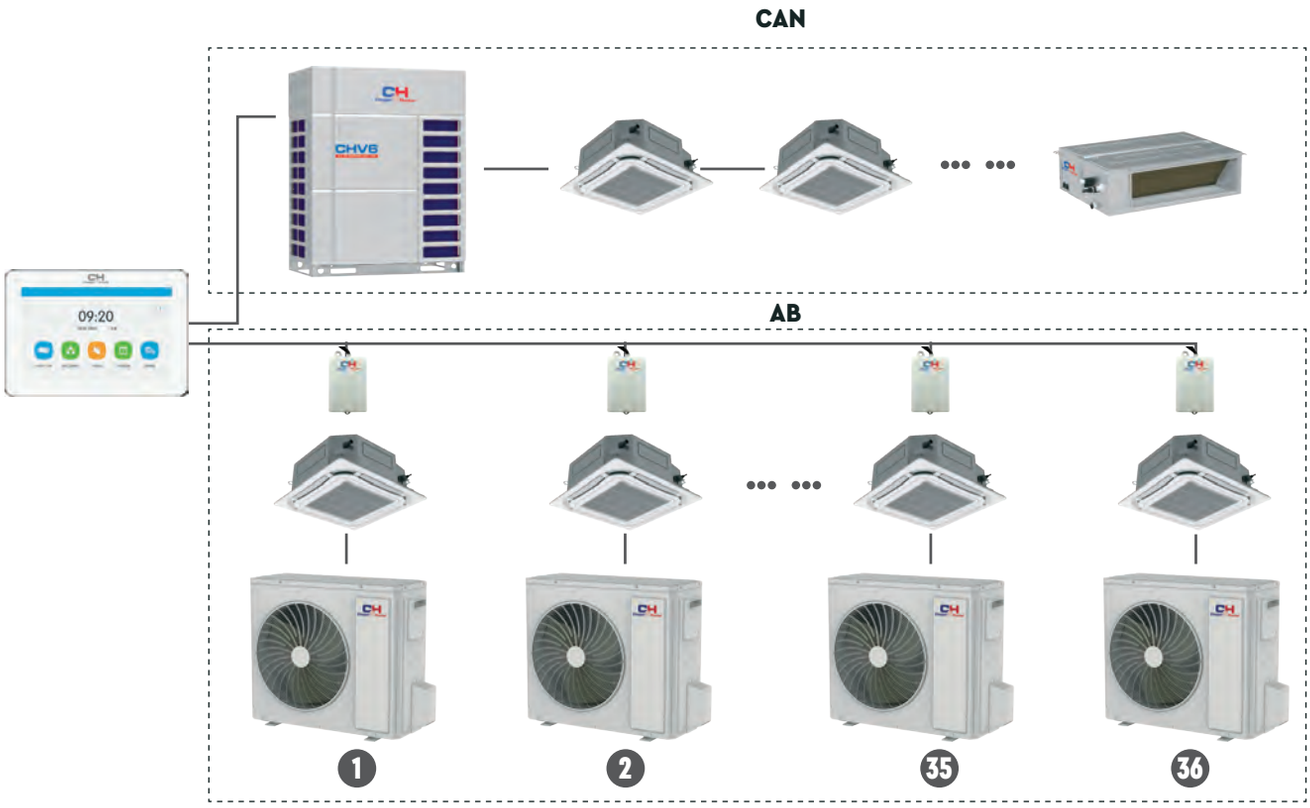
Accessories

Group	Name	Labeling	Appearance	W-house
Remotes and controllers	Infrared remote control	YAP1F7		●
	Next-generation wired controller	XE7A-24/H		○
	Standard next-generation wired controller with Wi-Fi	XE7A-24/HC		●
	Color touch screen remote controller with Wi-Fi	XE73-24/HC		○
	Wired controller with weekly timer and Wi-Fi	XE7C-24/HC		○
	Communication controller (connection to key card)	LE60-24/H1		●
	Dry contact gateway. Requires replacement of the internal blocks board manufactured until 03.2023	ME60-42/H1		○
Infrared signal receiving panel for duct-type units		JS13		○
Central control	Centralized controller. Requires ME50-00/EG (M) for each air conditioner	CE58-00/EF (CM)		○
	Centralized controller. Requires ME50-00/EG (M) for each air conditioner	CE52-24/F (C)		●
Converters for converting internal bus signals to industrial protocols	Modbus gateway for connection to central control and signal conversion to Modbus RTU	ME50-00/EG (M)		●
	BACnet gateway for converting Modbus to BACnet. Requires ME50-00/EG (M) for each air conditioner	ME30-44/D2 (B)		○
Wi-Fi control via Ewpe Smart APP (iOS, Android)	Wi-Fi module	WMBTG01		○
Diagnostic controller		DE43-00/EF(CM)		○

Note: ● – in stock, ○ – to order

CENTRAL CONTROL

Optional central controllers can control up to 36 units of commercial series air conditioners. Centralized control can combine control of residential air conditioners with wired remote control extensions, commercial air conditioners, and CHV systems.

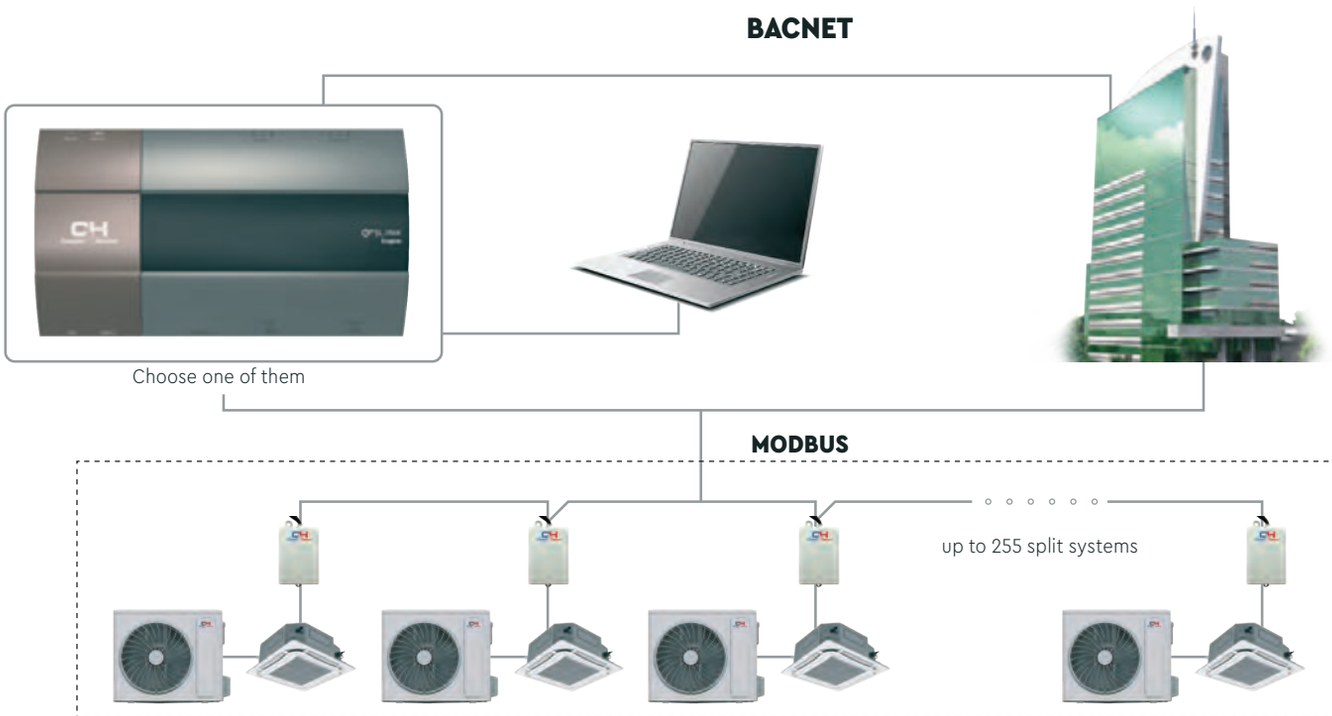


WI-FI CONTROL

The built-in Wi-Fi module in the standard wired controller allows you to control air conditioners via the EwpeSmart application if there is access to a Wi-Fi network.

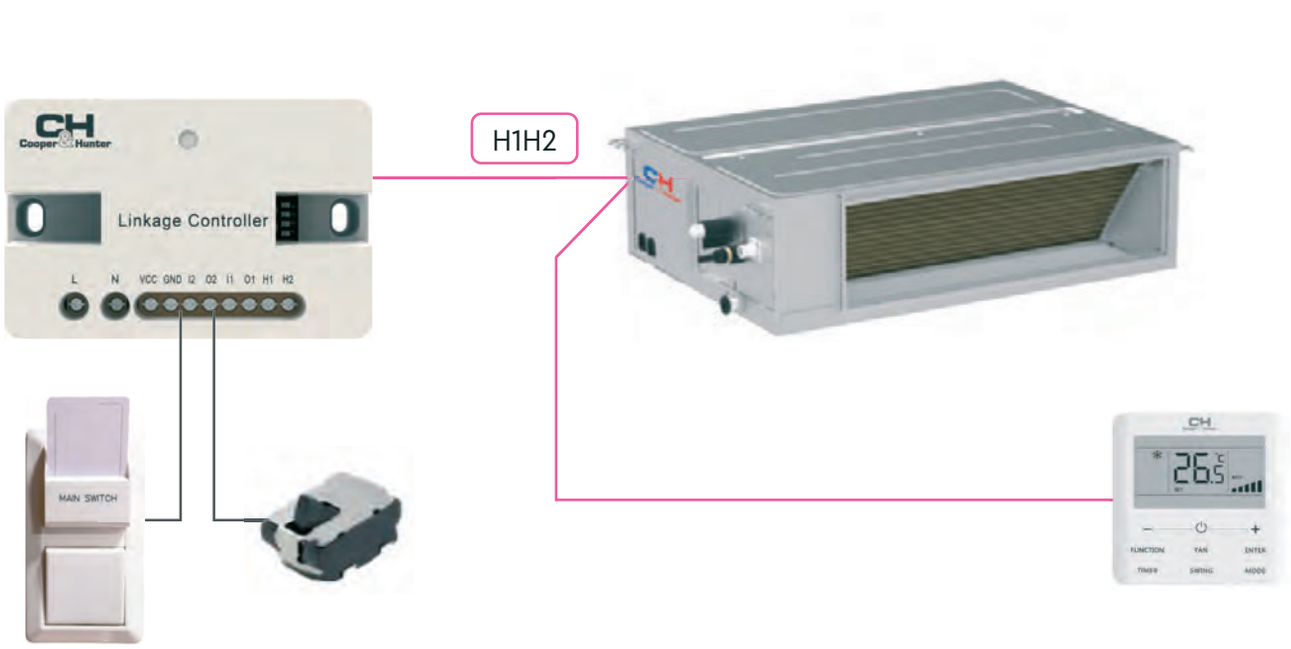
REMOTE CONTROL (BMS)

Remotely through BMS, you can control up to 255 air conditioner units.
Currently, there are two gateways (converters) using the following protocols: Modbus and BACnet.



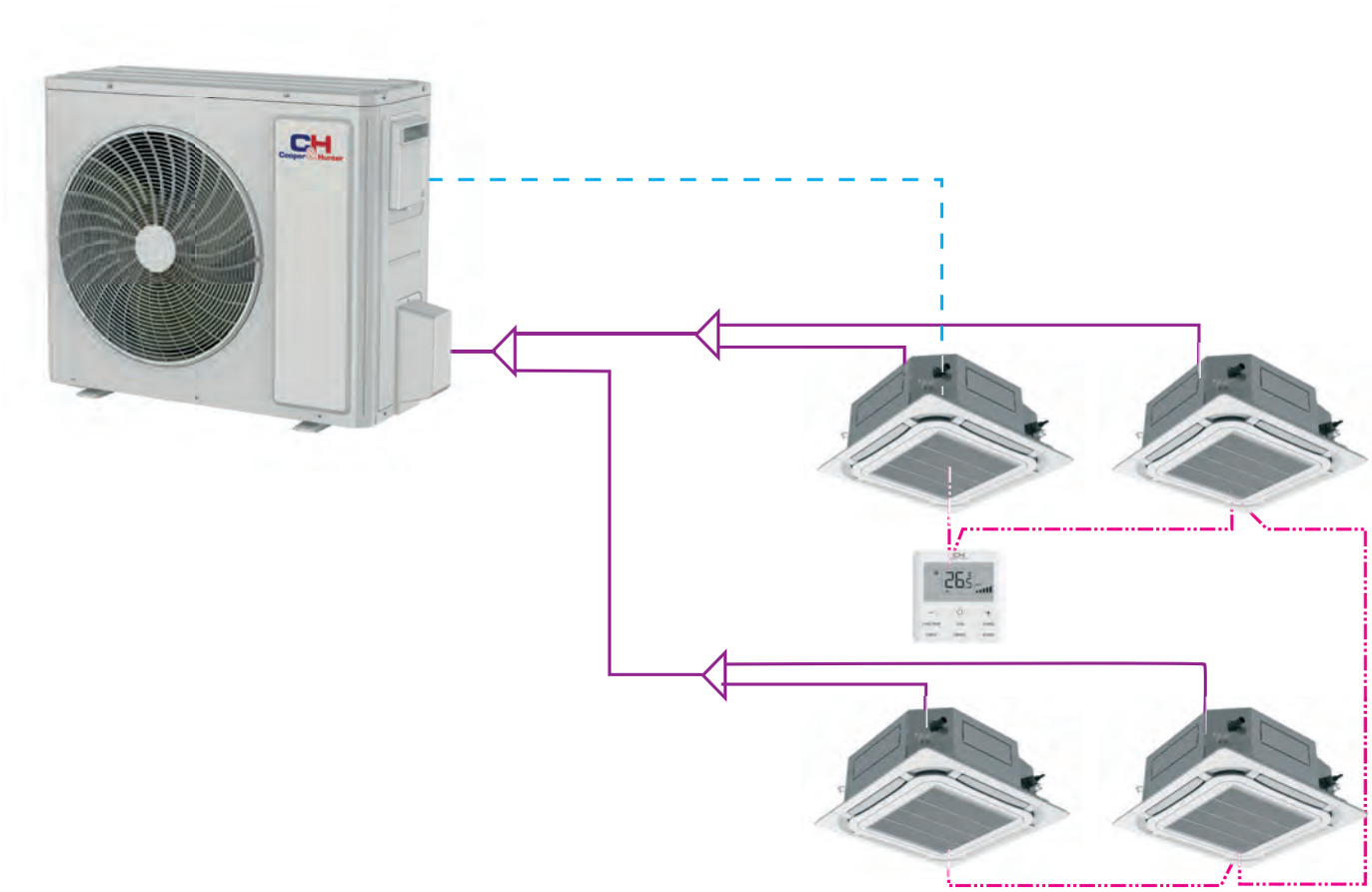
COMMUNICATION CONTROLLER

The key card interface is often used in hotel complexes to save electricity and increase security by automatically turning off electrical devices after the guest leaves their room.
To implement the key card function, a LE60-24/H1 communication module is required, it is installed on each indoor unit where such a function is required.
In addition, the communication controller provides two groups of dry contacts that can be used to turn on/off indoor units using signals such as fire alarm and window closing/opening.



Multi-split system

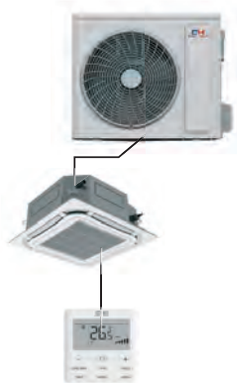
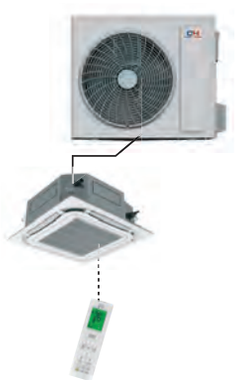
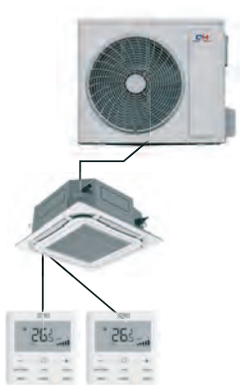
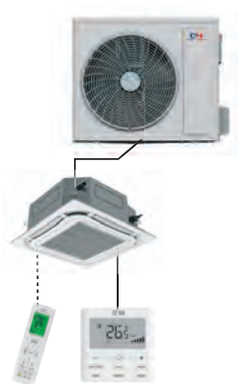
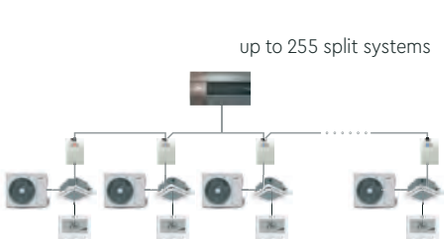
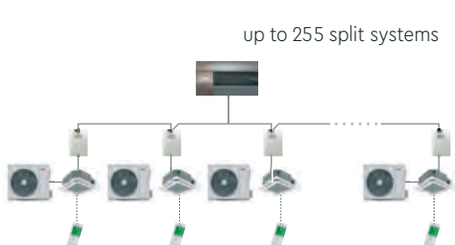
The NORDIC COMMERCIAL R2 series allows you to build a multi-split system without additional equipment, i.e., several indoor units can be connected to one outdoor unit using refnet headers. This scheme can be used for one irregularly shaped room (T or L-shaped rooms) or a room with a low height for improved distribution of cooled/heated air.



Multiple indoor units of the same type can be connected to an outdoor unit, see the table below.
Notes on model selection:
(1) The type, cooling capacity and model of the units must be the same.
(2) The piping connection must be made through refnet headers.
(3) The indoor units operate as one system – one operation mode, one temperature, fan speed, on/off and other settings are the same
(4) It is not allowed to use dry contact to turn on/off the indoor units. Remote monitoring functions are not available.

Capacity ODU (*100W)	Qty IDU		
	Two 1:1 (*100W)	Three 1:1:1 (*100W)	Four 1:1:1:1 (*100W)
71	50*2	—	—
100	50*2	35*3	—
125	71*2	50*3	35*4
140	71*2	50*3	35*4
160	85*2	71*3	50*4

Variety of control forms

Description	Wired controller	Wireless controller
Control by one controller		
Control by two controllers		
Control by one controller and via dry contacts		
Central control. The maximum communication distance is 800m		

NORDIC COMMERCIAL

CASSETTE TYPE

N SERIES |C:-15~+48 H:-15~+24|

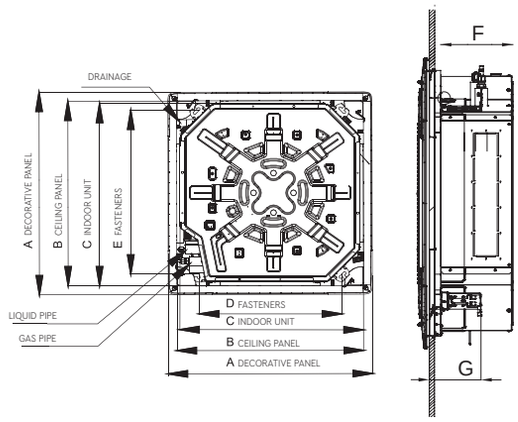
R410A
FREON

ON/OFF

Wi-Fi
Optional

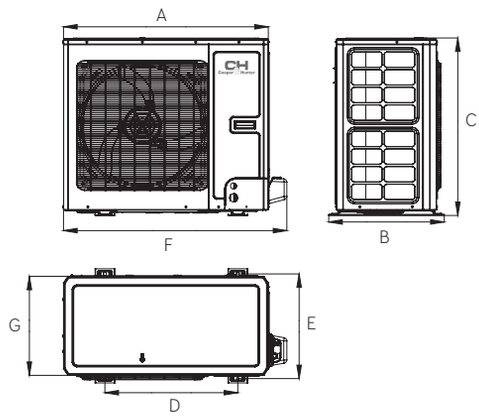
- Easy installation;
- Compact size;
- Low-noise fan;
- Durable and washable filter;
- Drainage pump;
- Self-diagnosis of malfunctions of the main units and modes;
- Multi-level system protection;
- Remote control included;
- Pipeline length up to 50 m (for high-power models);
- Possibility to select an indoor air temperature sensor for control.

OVERALL DIMENSIONS OF THE INDOOR UNIT



Model	A	B	C	D	E	F	G
CH-C050NK	620	580	570	520	560	265	170
CH-C071NK	950	870	840	660	790	240	165
CH-C085NK	950	870	840	660	790	240	165
CH-C100NK	950	870	840	660	790	240	165
CH-C125NK	950	870	840	660	790	240	165
CH-C140NK	950	870	840	660	790	240	165
CH-C160NK	950	870	840	660	790	240	165

OVERALL DIMENSIONS OF THE OUTDOOR UNIT



Units: mm

Dimensions/Model	A	B	C	D	E	F	G
CH-U050NK	761	320	548	540	286	825	256
CH-U071NK	892	396	698	560	364	957	340
CH-U085NK	892	396	698	560	364	957	340
CH-U100NM	920	427	790	610	395	985	370
CH-U125NM	940	530	820	610	486	1010	460
CH-U140NM	940	530	820	610	486	1010	460
CH-U160NM	940	530	820	610	486	1010	460

TECHNICAL SPECIFICATIONS

Model	Indoor unit		CH-C050NK	CH-C071NK	CH-C085NK	CH-C100NK	CH-C125NK	CH-C140NK	CH-C160NK
	Outdoor unit		CH-U050NK	CH-U071NK	CH-U085NK	CH-U100NM	CH-U125NM	CH-U140NM	CH-U160NM
Capacity	Cooling	kW	4.80	7.10	8.30	10.01	12.00	14.01	15.00
	Heating	kW	5.00	7.40	9.20	12.00	14.80	15.10	17.40
Power supply			~220-240V/50Hz/1Ph			~380-415V/50Hz/3Ph			
Power consumption	Cooling	kW	1.55	2.15	2.65	3.25	4.20	4.50	5.30
	Heating	kW	1.35	2.05	2.50	3.20	4.20	4.30	5.60
Energy efficiency	Cooling	EER	3.10	3.30	3.13	3.08	2.86	2.86	2.83
	Heating	COP	3.70	3.61	3.68	3.75	3.52	3.38	3.11
Airflow volume	Indoor unit	m^3/h	700	1250	1250	1600	1600	2000	2000
Sound pressure	Indoor unit	dB(A)	44/43/38/35	46/45/42/39	46/45/42/39	52/50/48/45	52/50/49/47	54/51/47/45	55/51/47/45
	Outdoor unit	dB(A)	51	53	55	56	58	58	60
Refrigerant type			R410A						
Refrigerant charge volume		kg	1.20	1.90	2.10	2.10	2.85	3.30	4.20
Weigh	Indoor unit	kg	17	30	30	30	33	34	34
	Panel	kg	3	6	6	6	6	6	6
	Outdoor unit	kg	39	59	61	70	97	97	103
Operational temperature range	Cooling	°C	-15-48						
	Heating	°C	-15-24						
Connection diameter liquid line		mm/inch	6.35/1/4"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"
Connection diameter gas line		mm/inch	12.7/1/2"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"
Pipeline height maximum		m	15	15	15	20	30	30	30
Pipeline length maximum		m	30	30	30	30	50	50	50
Number of interblock cores (for control)			2×0.75mm^2						
Main power supply point			Outdoor unit						
Number of interblock cores (for control)	Outdoor unit		3×1.5mm^2	3×1.5mm^2	3×1.5mm^2	5×1.5mm^2	5×1.5mm^2	5×1.5mm^2	5×1.5mm^2
Refrigerant factory charge (volume per meter)		m	7	7	7	7	7	9.5	9.5
Amount of refrigerant refueling per mile (overrun per meter)		gram/m	22	30	30	45	45	45	54

* SEER is the Seasonal Cooling Efficiency Ratio of the system.
** SCOP is the Seasonal Heating Efficiency Ratio of the system.

Cooper&Hunter

NORDIC COMMERCIAL

DUCT TYPE

N SERIES |C:-15~+48 H:-15~+24|

ON/OFF

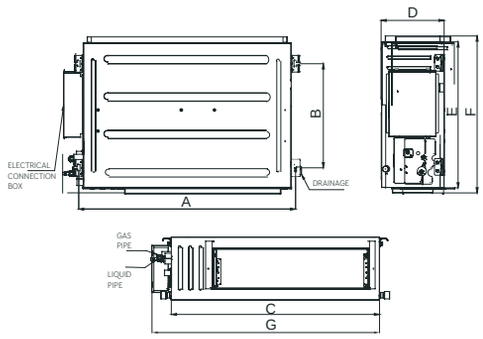
R410A
FREON

Wi-Fi
Optional

- Easy installation;
- Compact size;
- Low-noise fan;
- Durable and washable filter;
- Wired controller included;
- Self-diagnosis of malfunctions of the main units and modes;
- Drainage pump;
- Multi-level system protection;
- Pipeline length up to 75 m

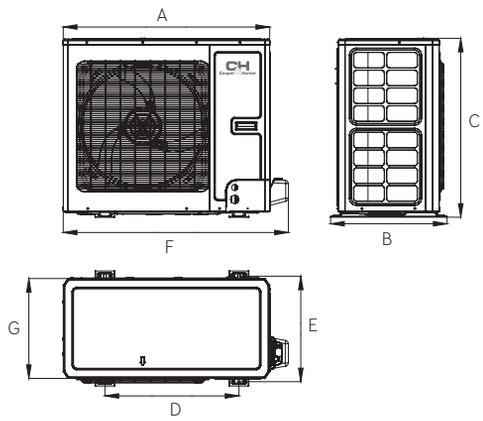
(for high-power models).

OVERALL DIMENSIONS OF THE INDOOR UNIT



Model	A	B	C	D	E	F	G
CH-D050PNK	1060	415	1000	200	450	474	1068
CH-D071PNK	1360	415	1300	220	450	474	1368
CH-D085PNK	1360	415	1300	220	450	474	1368
CH-DH100PNK	1040	500	1000	300	700	754	1092
CH-DH125PNK	1040	500	1000	300	700	754	1092
CH-DH140PNK	1440	500	1400	300	700	754	1492
CH-DH160PNK	1440	500	1400	300	700	754	1492

OVERALL DIMENSIONS OF THE OUTDOOR UNIT



Units: mm

Dimensions/Model	A	B	C	D	E	F	G
CH-U050NK	761	320	548	540	286	825	256
CH-U071NK	892	396	698	560	364	957	340
CH-U085NK	892	396	698	560	364	957	340
CH-U100NM	920	427	790	610	395	985	370
CH-U125NM	940	530	820	610	486	1010	460
CH-U140NM	940	530	820	610	486	1010	460
CH-U160NM	940	530	820	610	486	1010	460

TECHNICAL SPECIFICATIONS

Model	Indoor unit		CH-D050PNK	CH-D071PNK	CH-D085PNK	CH-DH100PNK	CH-DH125PNK	CH-DH140PNK	CH-DH160PNK
	Outdoor unit		CH-U050NK	CH-U071NK	CH-U085NK	CH-U100NM	CH-U125NM	CH-U140NM	CH-U160NM
Capacity	Cooling	kW	4.75	7.00	8.30	10.10	12.00	14.60	16.00
	Heating	kW	4.90	7.40	9.30	12.00	14.60	16.30	19.00
Power supply			~220-240V/50Hz/1Ph			~380-415V/50Hz/3Ph			
Power consumption	Cooling	kW	1.60	2.15	2.70	3.20	4.35	4.50	5.50
	Heating	kW	1.40	1.95	2.60	3.20	4.60	4.30	5.40
Energy efficiency	Cooling	EER	2.97	3.26	3.07	3.16	2.76	3.24	2.91
	Heating	COP	3.50	3.79	3.58	3.75	3.17	3.79	3.52
Airflow volume	Indoor unit	m^3/h	650	1150	1250	1650	1700	2200	2600
Sound pressure	Indoor unit	dB(A)	35/32/30/27	37/33/30/28	40/36/33/32	44/42/38/35	44/41/38/35	45/44/41/37	47/45/40/37
	Outdoor unit	dB(A)	51	53	55	56	58	58	60
Refrigerant type			R410A						
Refrigerant charge volume		kg	1.20	1.90	2.10	2.10	2.85	3.30	4.20
Pressure range		Pa	0-60	0-60	0-80	0-100	0-100	0-150	0-150
Weigh	Indoor unit	kg	25	32	32	40	42	53	55
	Outdoor unit	kg	39	59	61	70	97	97	103
Operational temperature range	Cooling	°C	-15-48						
	Heating	°C	-15-24						
Connection diameter liquid line		mm/inch	6.35/1/4"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"
Connection diameter gas line		mm/inch	12.7/1/2"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"
Pipeline height maximum		m	15	15	15	20	30	30	30
Pipeline length maximum		m	30	30	30	30	50	50	50
Number of interblock cores (for control)			2×0.75mm²						
Main power supply point			Outdoor unit						
Number of interblock cores (for control)	Outdoor unit		3×1.5mm²	3×1.5mm²	3×1.5mm²	3×1.5mm²	5×1.5mm²	5×1.5mm²	5×1.5mm²
Refrigerant factory charge (volume per meter)		m	7	7	7	7	7	9.5	9.5
Amount of refrigerant refueling per mile (overrun per meter)		gram/m	22	30	30	45	45	45	54

* SEER – Seasonal cooling efficiency ratio.
** SCOP is the seasonal cooling coefficient of performance.

Cooper&Hunter

NORDIC COMMERCIAL

FLOOR-CEILING TYPE

N SERIES |C:-15~+48 H:-15~+24|

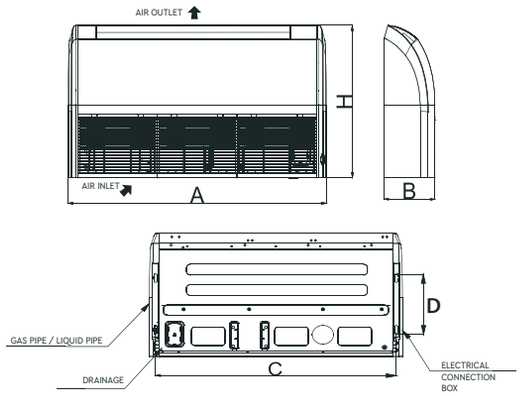
ON/OFF

R410A
FREON

Wi-Fi
Optional

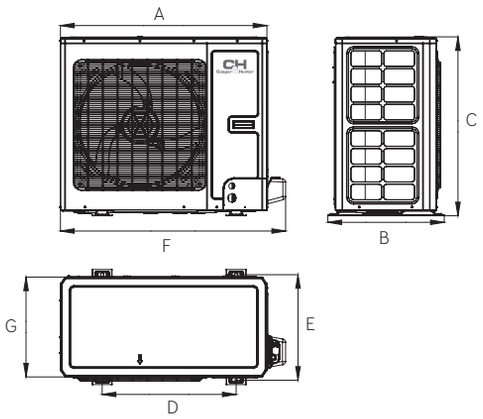
- Easy installation;
- Compact size;
- Low-noise fan;
- Durable and washable filter;
- Drainage pump;
- Self-diagnosis of malfunctions of the main units and modes;
- Multi-level system protection;
- Remote control included;
- Pipeline length up to 50 m (for high-power models);
- Possibility to select an indoor air temperature sensor for control.

OVERALL DIMENSIONS OF THE INDOOR UNIT



Model	A	B	C	D	H
CH-F050NK	870	235	812	318	665
CH-F071NK	1200	235	1142	318	665
CH-F085NK	1200	235	1142	318	665
CH-F100NK	1200	235	1142	318	665
CH-F125NK	1200	235	1142	318	665
CH-F140NK	1570	235	1512	318	665
CH-F160NK	1570	235	1512	318	665

OVERALL DIMENSIONS OF THE OUTDOOR UNIT



Units: mm

Dimensions/Model	A	B	C	D	E	F	G
CH-U050NK	761	320	548	540	286	825	256
CH-U071NK	892	396	698	560	364	957	340
CH-U085NK	892	396	698	560	364	957	340
CH-U100NM	920	427	790	610	395	985	370
CH-U125NM	940	530	820	610	486	1010	460
CH-U140NM	940	530	820	610	486	1010	460
CH-U160NM	940	530	820	610	486	1010	460

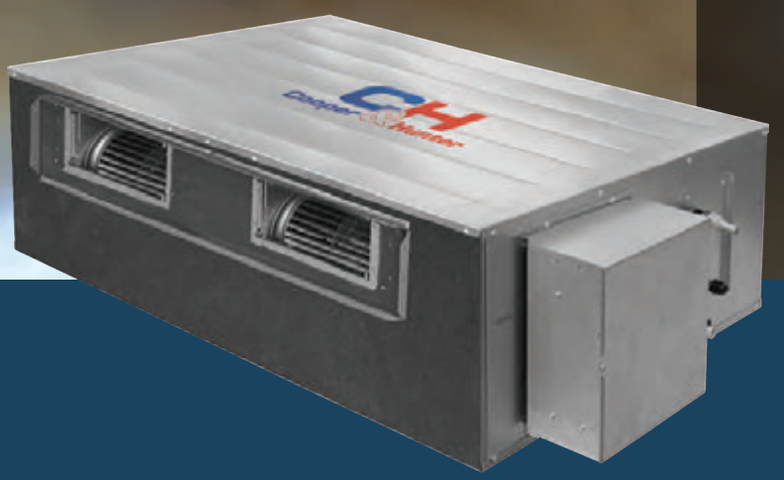
TECHNICAL SPECIFICATIONS

Model	Indoor unit		CH-F050NK	CH-F071NK	CH-F085NK	CH-F100NK	CH-F125NK	CH-F140NK	CH-F160NK
	Outdoor unit		CH-U050NK	CH-U071NK	CH-U085NK	CH-U100NM	CH-U125NM	CH-U140NM	CH-U160NM
Capacity	Cooling	kW	5.00	7.30	8.60	10.10	12.00	14.10	15.80
	Heating	kW	5.20	7.70	9.30	12.00	14.50	16.50	19.10
Power supply			~220-240V/50Hz/1Ph			~380-415V/50Hz/3Ph			
Power consumption	Cooling	kW	1.65	2.25	2.75	3.20	4.20	4.50	5.50
	Heating	kW	1.45	2.20	2.80	3.40	4.45	4.30	5.40
Energy efficiency	Cooling	EER	3.03	3.24	3.13	3.16	2.86	3.13	2.88
	Heating	COP	3.59	3.50	3.32	3.53	3.26	3.75	3.54
Airflow volume	Indoor unit	m^3/h	700	1400	1500	1700	1700	2200	2500
Sound pressure	Indoor unit	dB(A)	41/40/37/33	47/46/44/41	49/48/47/44	51/50/49/48	52/50/49/48	54/53/52/51	54/53/52/51
	Outdoor unit	dB(A)	51	53	55	56	58	58	60
Refrigerant type			R410A						
Refrigerant charge volume		kg	1.20	1.90	2.10	2.10	2.85	3.30	4.20
Weigh	Indoor unit	kg	25	33	33	36	37	43	45
	Outdoor unit	kg	39	59	61	70	97	97	103
Operational temperature range	Cooling	°C	-15-48						
	Heating	°C	-15-24						
Connection diameter liquid line		mm/inch	6.35/1/4"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"
Connection diameter gas line		mm/inch	12.7/1/2"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"	15.88/5/8"
Pipeline height maximum		m	15	15	15	20	30	30	30
Pipeline length maximum		m	30	30	30	30	50	50	50
Number of interblock cores (for control)			2×0.75mm²						
Main power supply point			Outdoor unit						
Number of interblock cores (for control)		Outdoor unit	3×1.5mm²	3×1.5mm²	3×1.5mm²	5×1.5mm²	5×1.5mm²	5×1.5mm²	5×1.5mm²
Refrigerant factory charge (volume per meter)		m	7	7	7	7	7	9.5	9.5
Amount of refrigerant refueling per mile (overrun per meter)		gram/m	22	30	30	45	45	45	54

* SEER – Seasonal cooling efficiency ratio.
** SCOP is the seasonal cooling coefficient of performance.

Cooper&Hunter

R410A
FREON

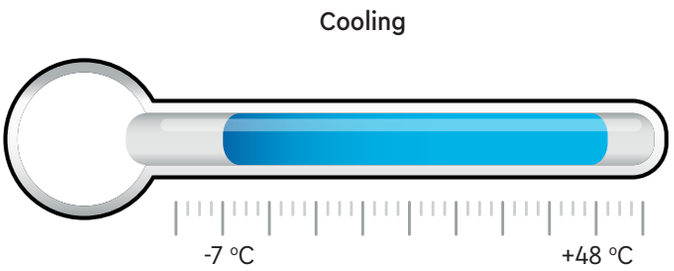


HIGH PERFORMANCE DUCT UNITS

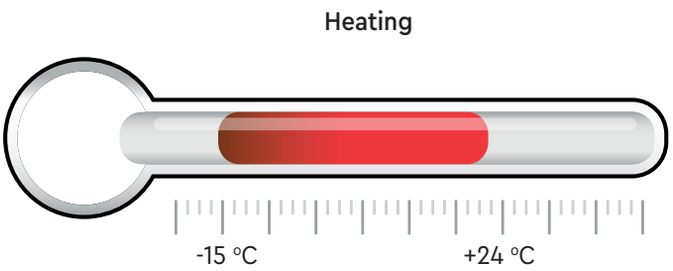
Wi-Fi
Optional

HIGH-PERFORMANCE DUCT UNITS

- This series of equipment is built on the basis of the CHV5 inverter with a similar data transmission bus – CAN.
- DC-inverter compressor and fan motors, for greater efficiency and energy savings.
- Indoor units with external static pressure up to 250 Pa, for longer ducts.
- By adjusting the fan speed, you can select the external static pressure in the air duct.



Ambient temperature range for cooling: -7°C ~ +48°C



Ambient temperature range for cooling: -15°C ~ +24°C

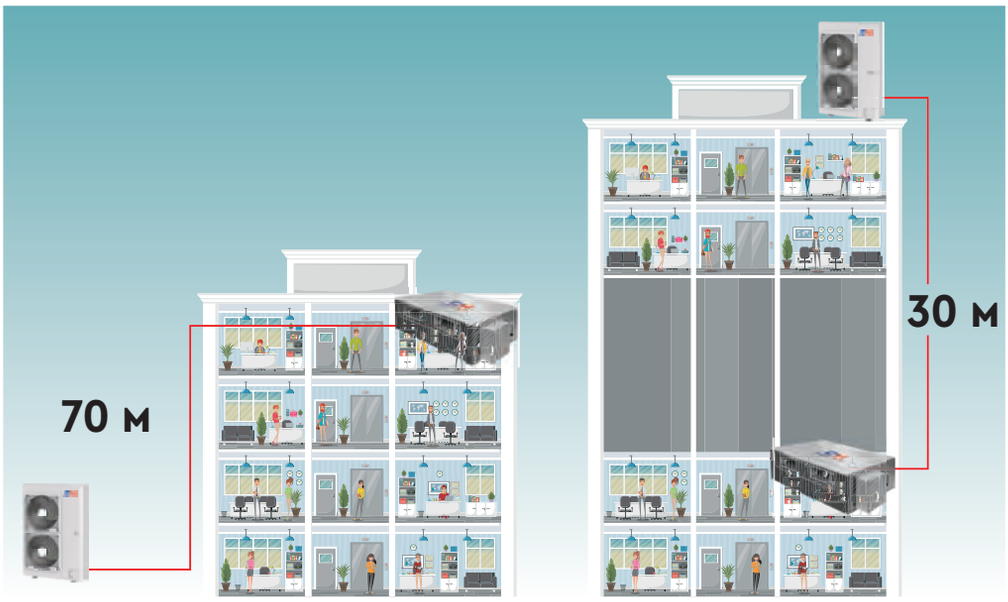
WIDE VOLTAGE RANGE

Thanks to the optimization of drive parameters and electronic control, can operate in a wide voltage range, even if the voltage drops to 180 V. They can be used in places with unstable power supply.

OTER

HEALTH		COMFORT MANAGEMENT						INTELLIGENT CONTROL				TECHNOLOGICAL		
mode SLEEP	ECO-FRESH	Timer	LED-display	Turbo mode	Multi-speed fan	Wi-Fi	Dry mode	Freezing protection	Automatic restart	Self-diagnosis	Wired controller connection	Built-in drain pump	Anti-corrosion coating	Silent mode

LARGE LENGTH OF PIPELINES

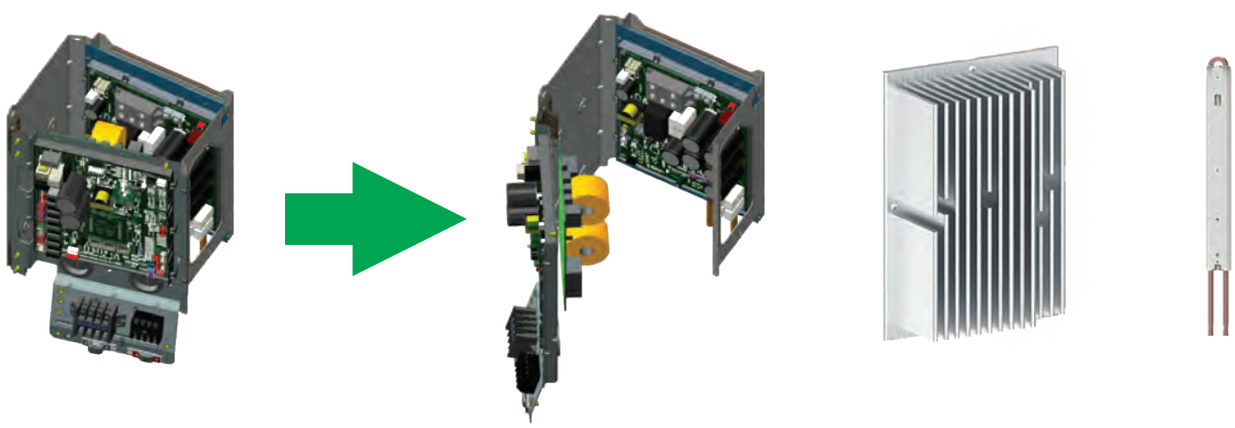


- Maximum height difference 30 m.
- Maximum pipeline length 70 m.

Note: The system needs to be refilled in length according to the diameter of the liquid pipe.

OPTIMIZED ELECTRICAL BOX

The electrical box has a hinged design. The front panel with the main board opens and provides access to the inverter board without dismantling the box. The compressor inverter board is freon-cooled.



COMPACT SIZES

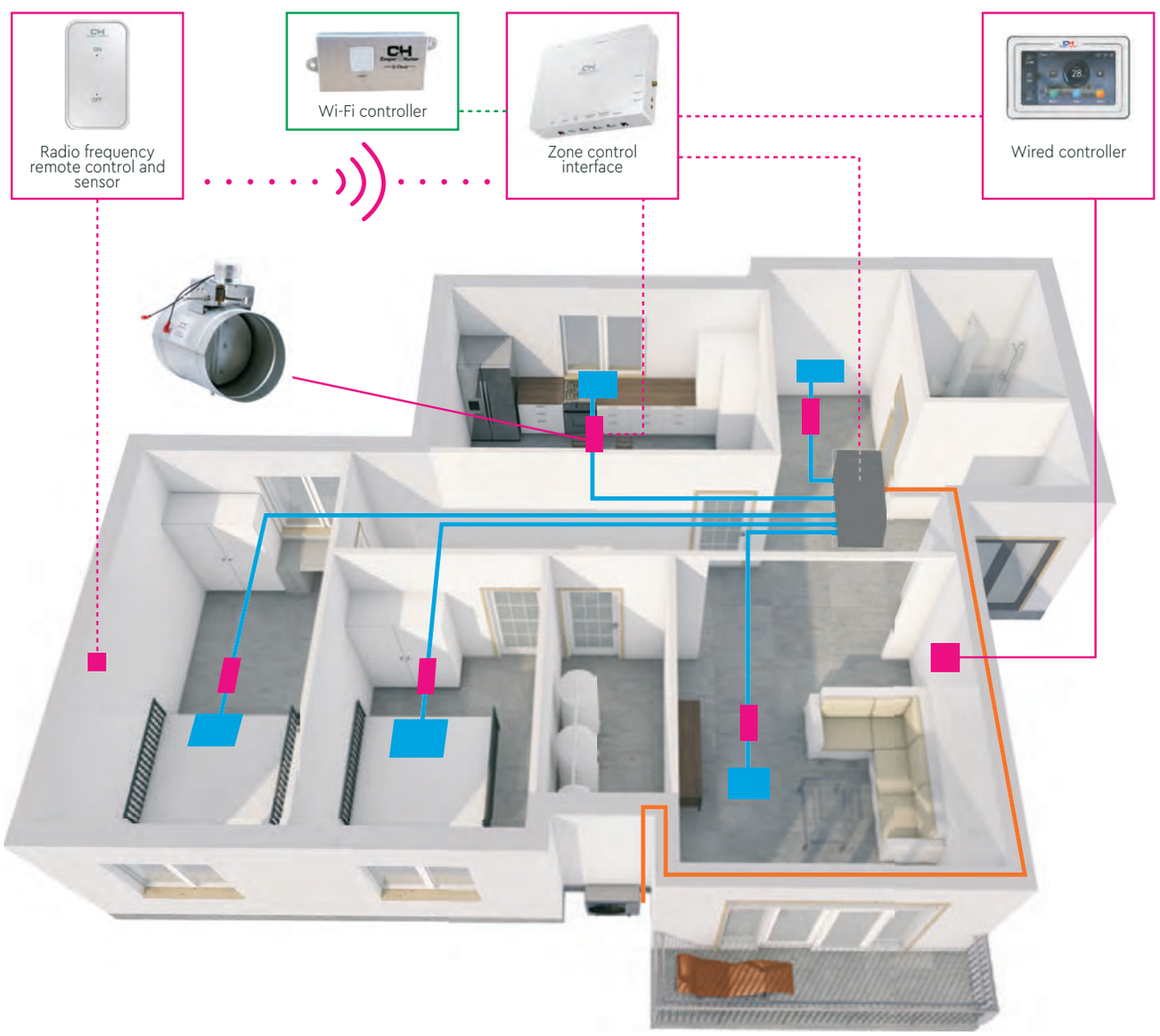
Side-discharge outdoor units take up 30% less space than top-discharge units and weigh approximately 25%. This form factor increases the possibilities for transportation, movement around the facility to the installation point and allows for wall mounting.

Zone control of a duct-type unit

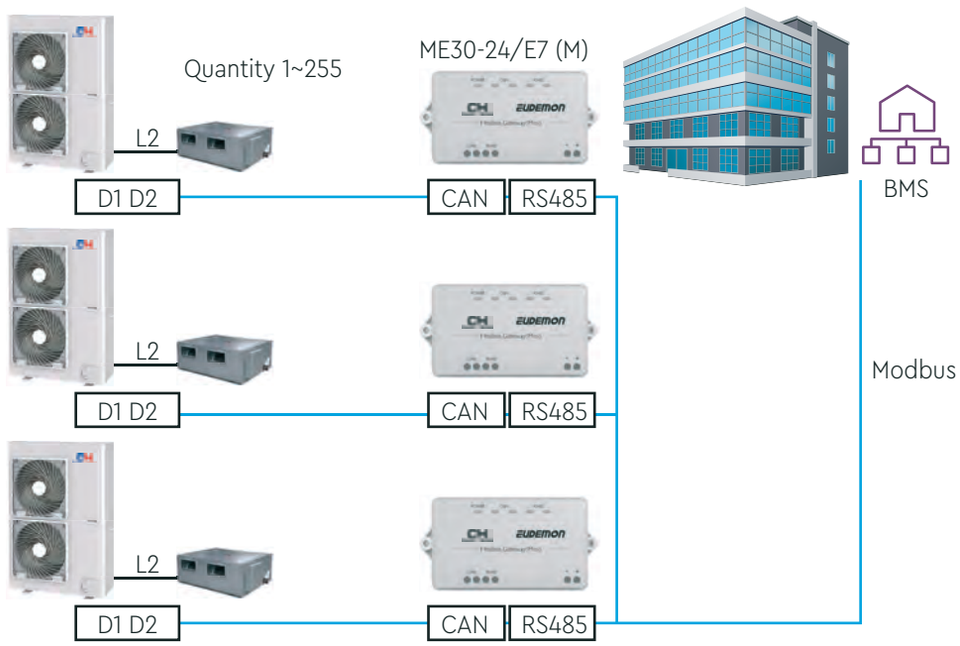
Units with zone controllers provide independent temperature control for up to 8 zones.
Zone control elements:

- Central communicator;
- Separate wired controller: 4.3 inch color screen, touch control;
- Independent temperature control and weekly timer function for each zone;
- Wireless RF thermostat: convenient wireless installation, easy setup;
- Wi-Fi module: control via the EwpeSmart application independently by zones: temperature, on/off, weekly timer.

Note: Dampers with electric actuators must be purchased on the local market, power supply 24V~ Max. current 150mA, RJ11 port..

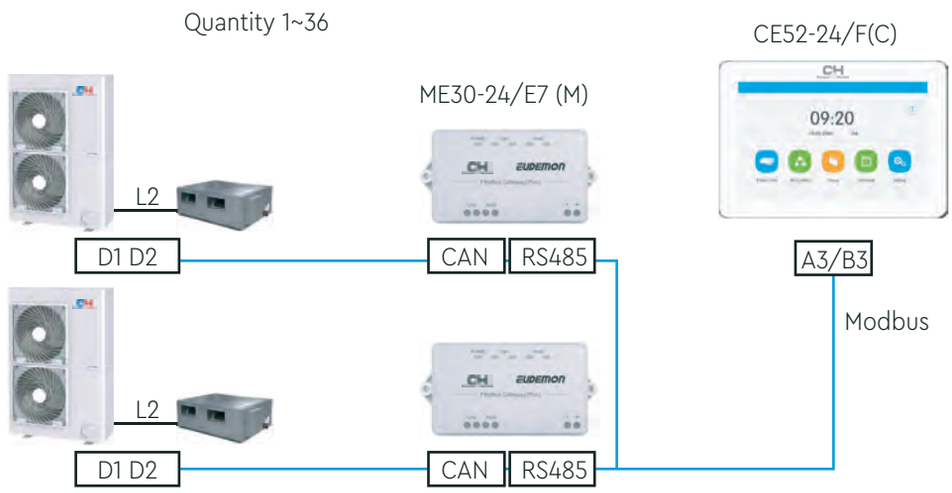


CONNECTION TO BMS



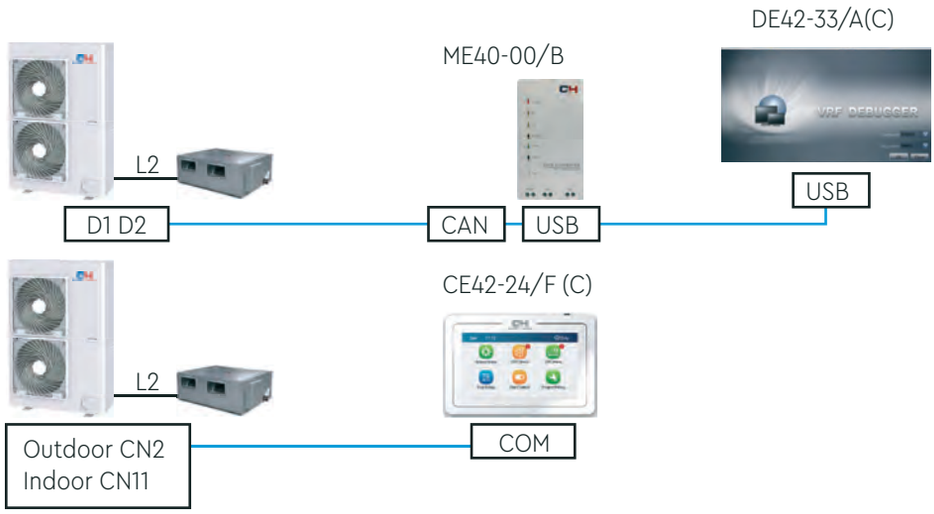
To connect air conditioners to remote control/ monitoring systems via Modbus protocol, the ME30-24/E7 (M)* gateway is used. Only one air conditioner can be connected to one gateway. The maximum number of air conditioners in a Modbus network is 255 units.

CONNECTION TO CENTRAL CONTROL



To control air conditioners from the centralized controller CE52-24/F (C), the gateway ME30-24/ E7 (M)* is used. Only one air conditioner can be connected to one gateway. The maximum number of air conditioners that can be connected to one centralized controller is 36 units.

CONNECTION TO DEBUGGING AND DIAGNOSTICS SYSTEMS



The following devices are used for debugging or diagnostics:

1. Converter ME40-00/B and PC with Windows operating system and software DE42-33/A (C).
2. Diagnostic console SE42-24/F (C).

TECHNICAL SPECIFICATIONS

Model	Indoor unit			CH-IBD20NM(I)	CH-IBD25NM(I)	CH-IBD30NM(I)	CH-IBD40N(2)M(I)
	Outdoor unit			CH-IBD20NM(O)	CH-IBD25NM(O)	CH-IBD30NM(O)	CH-IBD20NM(O)*2
Rated capacity at ESP	Cooling		Btu/h	68200	85300	102400	136500
			kW	20	25	30	40
	Heating		Btu/h	75100	93800	112600	146700
			kW	22	27.5	33	43
SEER/SCOP			W/W	4.9/3.41	4.61/3.61	4.7/3.4	4.6/3.42
Power input		Cooling	kW	7.8	9.4	11.3	15.4
		Heating		7.0	8.9	10.3	13.9
Current input		Cooling	A	16.5	18.9	22.7	27.8
		Heating		15.6	17.2	20.7	26.4
Refrigerant charge volume R410a			kg	6.4	8.0	9.5	6.4×2
Indoor unit	Power supply		V/Hz/Ph	~220-240V/50Hz/1Ph			~380-415V/50Hz/3Ph
	Fan	Air flow volume	CFM	2178	2472	3060	4120
			m³/h	3700	4200	5200	7000
		Power input	Wt	750	800	900	1350
		Current input	A	4.1	4.4	4.9	2.7
		External static pressure (ESP) Rated	Pa	120			
		External static pressure (ESP) Range	Pa	0-250			
		Sound pressure	dB(A)	52	53	55	56
	Dimension (WxDxH)	Outline	mm	1315×760×385	1520×840×450	1520×840×450	1680×900×650
		Package		1578×883×472	1788×988×580	1788×988×580	1893×1123×850
	Net weight/Gross weight		kg	82/104	99/134	105/145	165/210
	Drain tube (O.D)		mm	25			33
Outdoor unit	Power supply		V/Hz/Ph	~380-415V/50Hz/3Ph			
	Compressor	Type		Rotary		Spiral	Rotary
		Current input	A	10.1	12.9	15.8	10.1
	Fan revolutions per meter		rpm	100~800	100~950	100~950	100~800
	Sound pressure		dB(A)	62	63	65	66
	Dimension (WxDxH)	Outline	mm	940×320×1430	940×460×1615	940×460×1615	940*2×320*2×1430*2
		Package		1033×433×1580	1033×573×1765	1033×573×1765	1033*2×433*2×1580*2
	Net weight/Gross weight		kg	120/130	146/162	175/190	120×2/130×2
	Connecting pipe	Liquid pipe	inch (mm)	3/8 (9.52)	3/8 (9.52)	1/2 (12.7)	3/8 (9.52)*2
		Gas pipe	inch (mm)	3/4 (19.05)	7/8 (22)	1 (25.4)	3/4 (19.05)*2
		Maximum distance (Heaight/Length)	m	30/50	30/50	30/50	30/50

Note: two outdoor units CH-IBD20NM(O) are connected to the indoor unit CH-IBD40N(2)M(I), which has a dual-circuit heat exchanger.

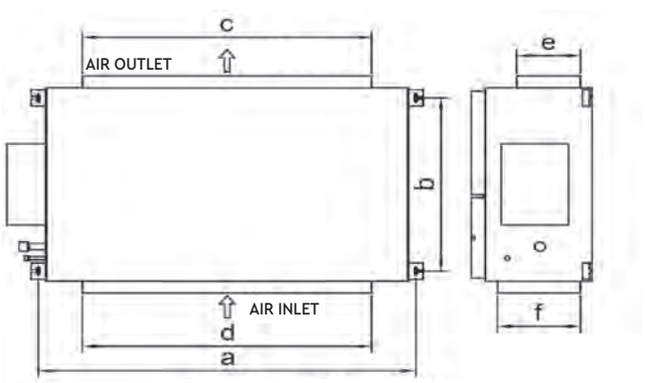
ELECTRICAL PARAMETERS

Model	Power supply V/Hz/Ph	Circuit breaker capacity (A)	Number of power cables *Minimum cross-sectional area (mm²)
CH-IBD20NM(O)	~380-415V/50Hz/3Ph	20	5*2.5
CH-IBD20NM(I)	~220-240V/50Hz/1Ph	10	3*1.5
CH-IBD25NM(O)	~380-415V/50Hz/3Ph	25	5*2.5
CH-IBD25NM(I)	~220-240V/50Hz/1Ph	10	3*1.5
CH-IBD30NM(O)	~380-415V/50Hz/3Ph	32	5*4.0
CH-IBD30NM(I)	~220-240V/50Hz/1Ph	10	3*1.5
CH-IBD40N(2)M(I)	~380-415V/50Hz/3Ph	10 × 2	5*1.5 × 2

OVERALL DIMENSIONS OF THE INDOOR UNIT

Model	A	B	C	D	E	F
CH-IBD20NM(I)	1334	632	990	1150	192	363
CH-IBD25NM(I)	1541	705	980	1350	270	420
CH-IBD30NM(I)	1541	705	980	1350	270	420
CH-IBD40N(2)M(I)	1730	760	1054	1450	360	560

Units: mm

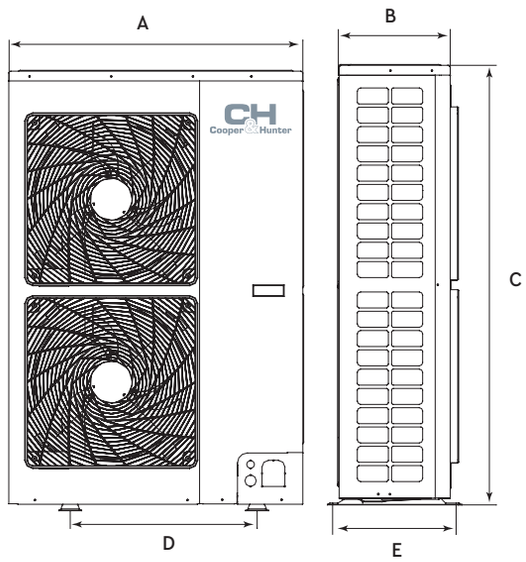


OVERALL DIMENSIONS OF THE OUTDOOR UNIT

Model	A	B	C	D	E
CH-IBD20NM(O)	940	320	1430	632	350
CH-IBD25NM(O)	940	460	1615	610	486
CH-IBD30NM(O)	940	460	1615	610	486

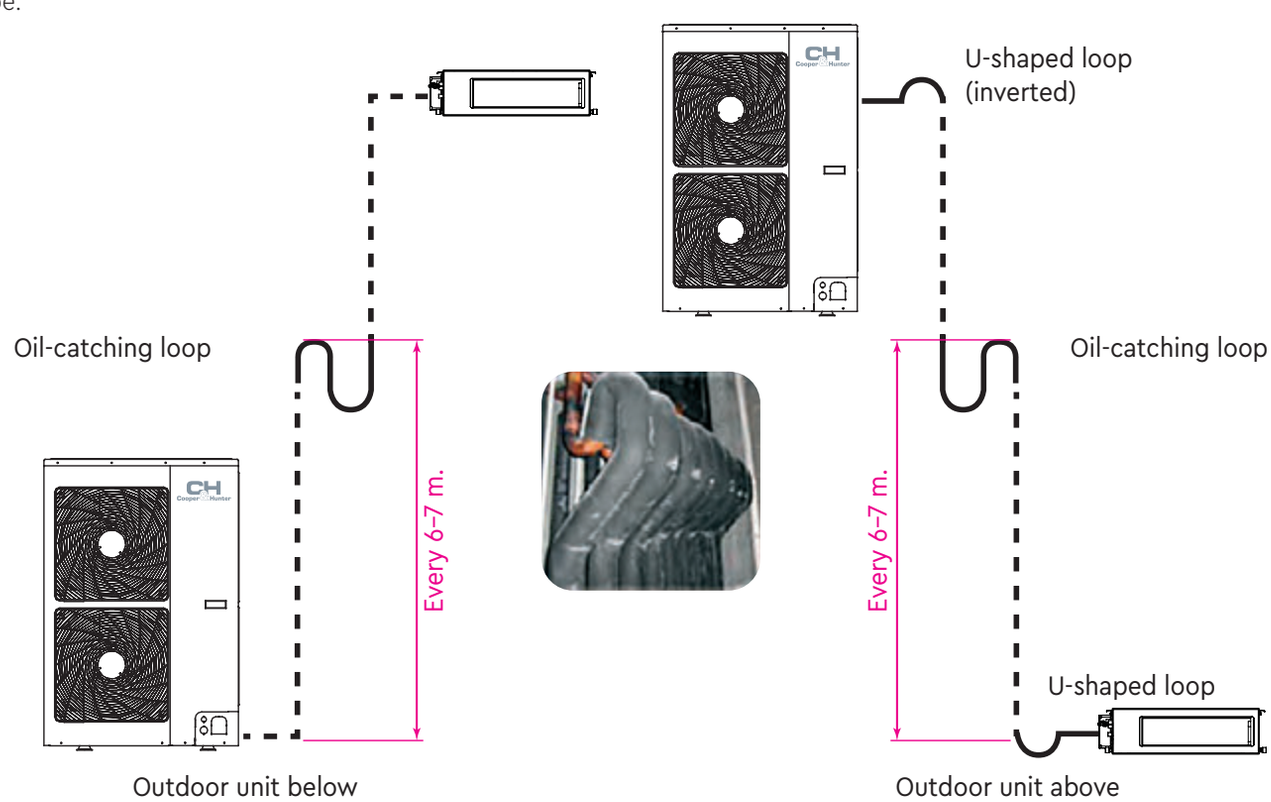
Units: mm

Note: two outdoor units CH-IBD20NM(O) are connected to the indoor unit CH-IBD40N(2)M(I), which has a dual-circuit heat exchanger.

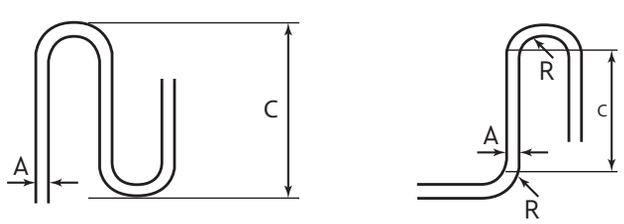


OIL-CATCHING LOOPS

The height difference between the outdoor and indoor units impairs the oil return process to the compressor. If the height difference between the outdoor and indoor units exceeds 10 m, it is necessary to install oil-catching loops on the gas pipe.



A	R	C
Ø 9.52 (⅜")	≥ 20 mm	≤ 150 mm
Ø 12.7 (½")	≥ 26 mm	
Ø 15.9 (⅝")	≥ 33 mm	



Accessories

Group	Name	Labeling	Appearance	W-house
Remotes and controllers	Infrared remote control	YAP1F7		○
	Standard wired controller	XK46		●
	Standard new generation wired controller	XE7A-24/H		○
	Communication controller (connection to key card)	LE60-24/H1		●
Central controllers	Central controller	CE52-24/F(C)		●
Infrared signal receiving panel		JS13		○
Converters for converting internal bus signals to industrial protocols	Modbus gateway for connection to central control and signal conversion to Modbus RTU	ME30-24/E6(M) ME30-24/E7(M)		●
Diagnostic converters	Diagnostic converter	ME40-00/B		●
	Diagnostic controller	CE42-24/F(C)		●
	Diagnostic controller new	DE43-00/EF(CM)		●
	Diagnostic program for PC (debugger)	DE42-33/A(C)		●

Notes:
● - In stock ○ - to order

Series	EASY VENT	WKEC	K2	(A) K4	KDC	KDC2	TKEC
Installation type	Through wall	Wall-mounted	Under ceiling	Under ceiling/ floor	Under ceiling	Under ceiling	Wall-mounted
Main data	W S D	W S D	W S B D	W S M	W S M C B D	W S M B D	W S M C B D
Appereance							
Air flow volume (m^3/h) 80	●						
150		●			●	●	
200			●				
250					●	●	●
300			●				
350					●	●	●
400			●				
500					●	●	●
600			●				
650					●	●	
800			●		●	●	
1000			●		●	●	
1300			●				
1500				●	●	●	
2000				●	●	●	
2500				●			
3000				●			

W Wi-Fi (optional module required). Easy Vent WF and WKEC heat exchanger series are supplied with built-in Wi-Fi.

C Counterflow heat exchanger

D EC motor

S Sensors: CO_2 or air quality (pm 2.5) sensor control, humidity

M Modbus

B Bypass

Note: Some features are optional and require the purchase of additional sensors, modules, etc. Please consult Cooper&Hunter engineers for advice.

*CH-HRV070K2 WF (CO_2)

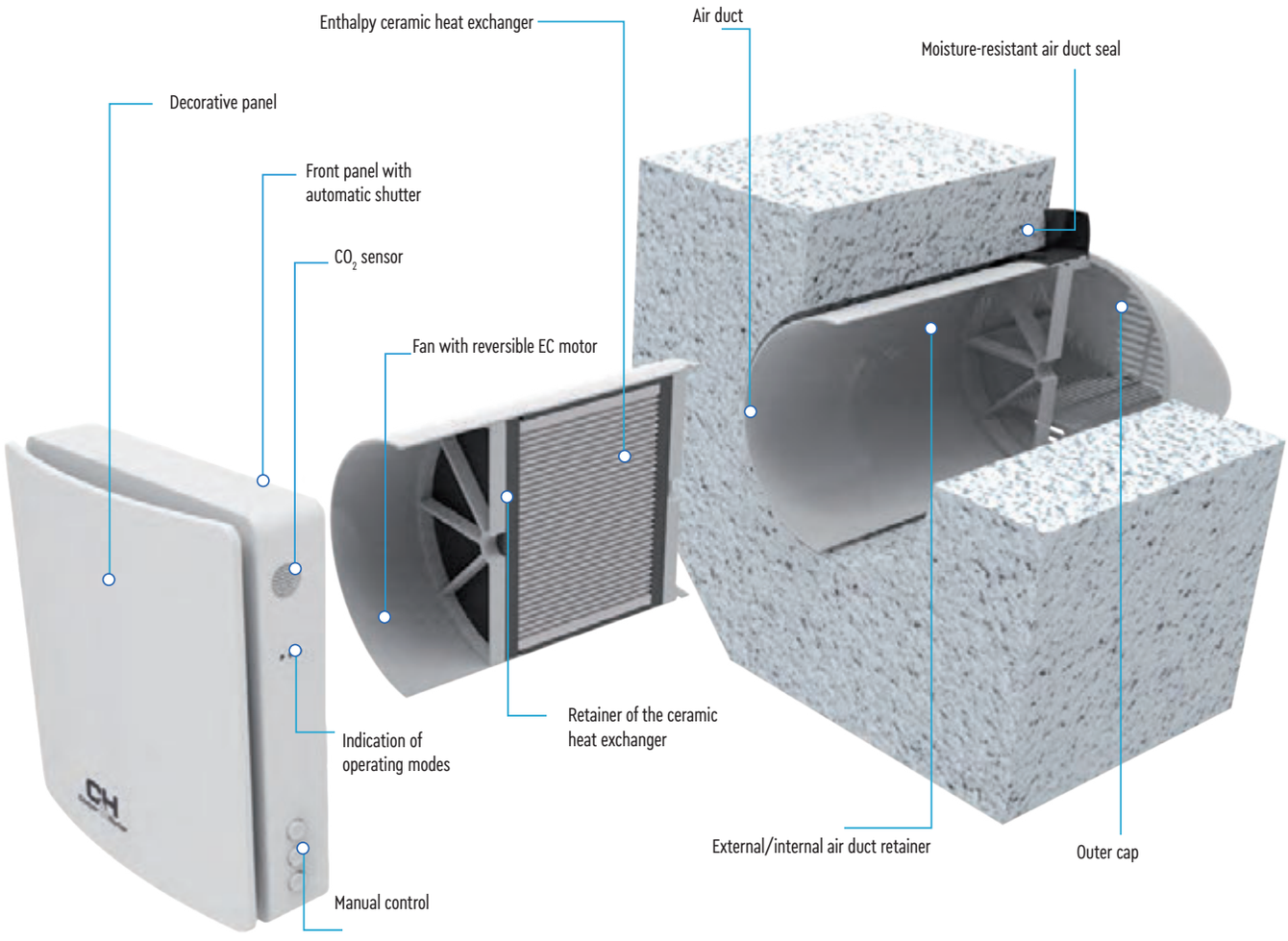
WALL-MOUNTED HEAT RECOVERY UNIT
EASY VENT

Wi-Fi

WI-FI function | Mode selection: fresh/exhaust air | Easy installation | Silent operation | Prevention of mold formation | Energy saving | Automatic shutter (louvers) | High-efficiency regenerator | Protective outer cap

- Highly efficient ceramic heat accumulator.
- Two operating modes: Recovery mode, Ventilation mode.
- Easy installation and maintenance.
- Louvers that automatically close when the device is not in use to prevent drafts. Light indication of operating modes.
- Remote control.
- Wi-Fi control NEW!

DESIGN



REVERSIBLE FAN

Reversible axial fan with EC motor. Thanks to EC technology, economical power consumption and ultra-quiet operation are achieved. The motor is equipped with thermal protection against overheating and high-quality bearings, which increase the working life.

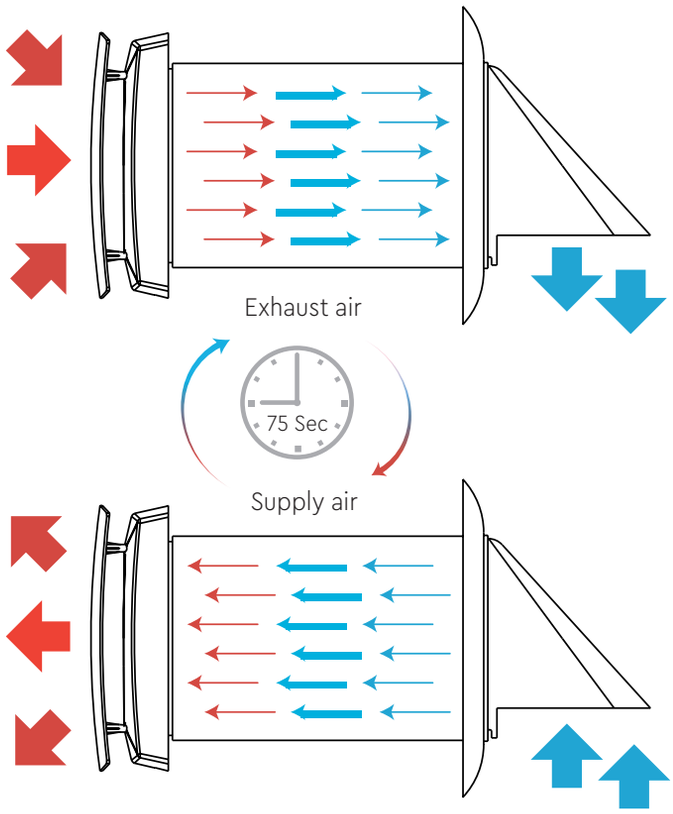
CERAMIC HIGH-EFFICIENCY REGENERATOR

The high-tech ceramic regenerator uses up to 97% of the heat of the exhaust air from the room. This allows you to significantly save resources for heating the supply air. Thanks to the unique design of the regenerator with a large heat exchange area, exceptional heat recovery rates are achieved. The regenerator material is covered with an antibacterial layer that prevents the formation of pests on the surface of the regenerator. The regenerator has a service life of up to 10 years.

OPERATION MODES

Ventilation mode. The fan operates on air exhaust or fresh air supply. In the case of synchronous operation of two devices, one operates on air exhaust, the other on fresh air supply.

Recuperation mode. The fan operates in stages every 75 seconds on the exhaust and supply air. This ensures heat exchange between the exhaust and supply air.



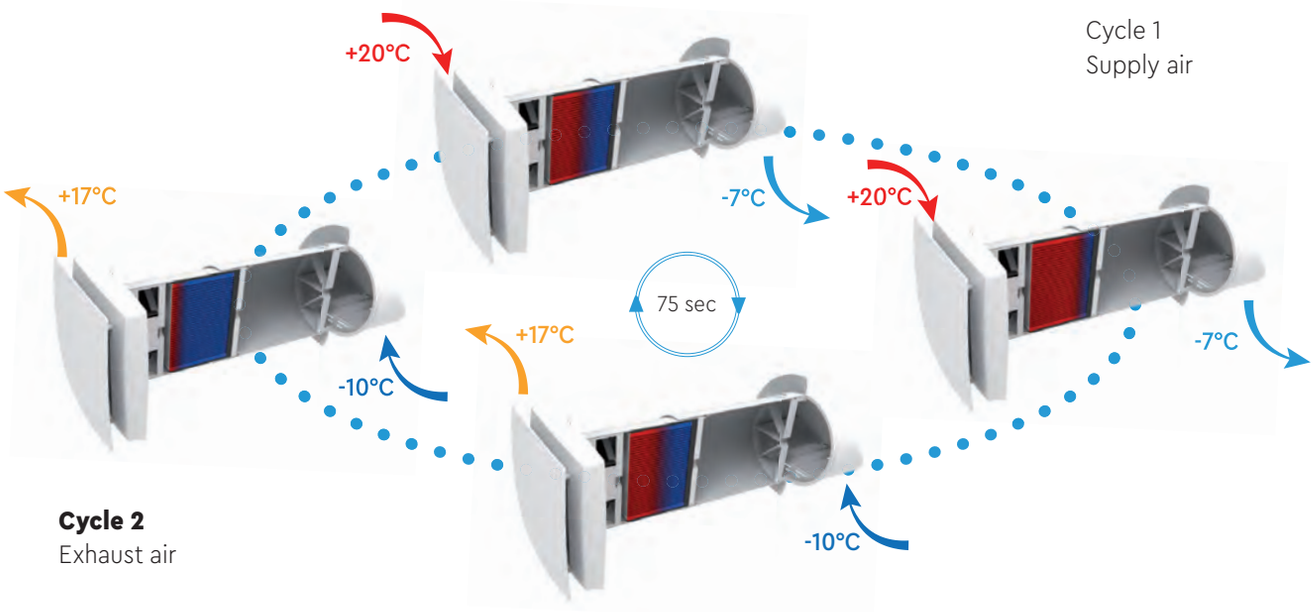
OPERATION PRINCIPLE

The reversible fan operation makes heat recovery possible in two cycles:

Cycle 1
Warm, dirty exhaust air is extracted from the room and passes through a ceramic regenerator, which accumulates the exhaust heat and humidity of the room. During these 75 seconds, the regenerator heats up and automatically switches to supply air mode.

Cycle 2
Fresh but cold air passes through the regenerator and accumulates heat, thus increasing the temperature of the supply air that is supplied to the room. Within 75 seconds, the regenerator cools down and the fan switches to exhaust mode, thus repeating the cycle.

OPERATION SCHEME



TECHNICAL SPECIFICATIONS

Technical data	Item	CH-HRV070K WF	CH-HRV070K2 WF (CO_2)
CO_2 Sensor	-	No	Yes
Wi-Fi	-	Yes	Yes
Voltage	V	220–240	
Frequency	Hz	50/60	
Power	W	5.9/8.8/11.3	6/7/7.8
Current rate	A	0.03/0.05/0.06	0.04/0.05/0.06
RPM	-	1000/1550/1800	1000/1550/1800
RPM (max)	-	2200	2200
Airflow rate (L/M/H) supply/exhaust		26/55/64	34/56/70
Airflow rate maximum	m^3/h	70	70
Sound pressure	dB(A)	36.7	32.7
Heat recovery rate	%	97	
Safety class	-	IPX4	
Air duct connection	mm	158	
SEC	-	Class A	
Net weight	kg	3.4	4.2

WALL-MOUNTED RECUPERATOR

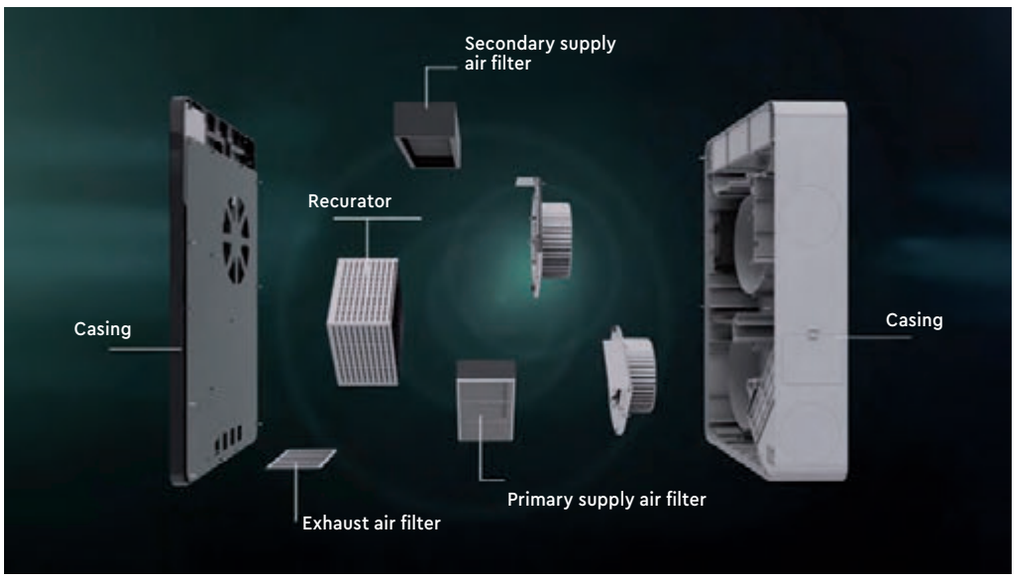
CH-HRV1.5WKEC

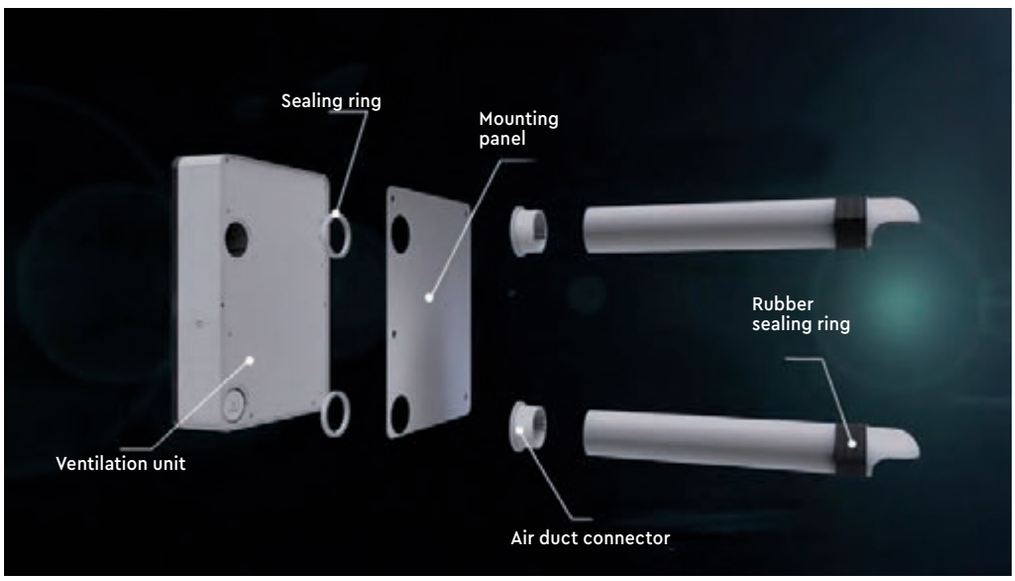
- CO_2, temperature and humidity display
- Mode selection: Manual/Auto/Sleep
- Functional timer
- Convenient remote control

Smart functions	Manual control	Auto control	Remote control	Night mode	Timer	LED display	Filter H10

In «Auto» mode, the heat exchanger automatically adjusts the supply air capacity to the room, according to the CO_2 level.

CO_2 Level	Condition	Velocity
$CO_2 \leq 500$	Perfect	1
$500 < CO_2 \leq 650$	Good	3
$650 < CO_2 \leq 800$	Little dirty	5
$CO_2 > 800$	Serious dirty	8





TECHNICAL SPECIFICATIONS

Model		CH-HRV1.5WKEC
Capacity	m^3/h	150
Power supply		~220-240V/ 50Hz
Filtration class	%	99
Heat recovery rate	%	82
Air duct connection	Mm	100
Weight	Kg	10
IP Class		IPX2
Sound pressure	dB(A)	36
Power consumption	W	35
Dimensions (LxWxD)	mm	660×450×155

Cooper&Hunter

SUPPLY AND EXHAUST VENTILATION SYSTEM WITH HEAT RECOVERY

K2 SERIES

Wi-Fi
Optional

EFFICIENT VENTILATION

The ventilation unit supplies fresh outside air into the room while simultaneously removing exhaust air to the outside, thereby providing a feeling of natural comfort.

HIGH ENERGY SAVING RATE

The built-in cross-flow enthalpy recuperator returns thermal energy from the exhaust air to the supply air, thus recovering over 70% of the thermal energy.

SILENT DESIGN

The unit is designed according to a worldwide standard design and manufactured using precision pressed molds. The use of anechoic micro-perforation technology reduces noise levels.

AIR FILTRATION AND PURIFICATION

The internal air filter cleans the outside air from large particles such as fluff, animal hair, insects, plant seeds and other particles with a size of 0.4 microns. The filter in the exhaust part protects the recuperator from dust, increasing its service life.

BYPASS FUNCTION

The unit can bypass the exhaust air to the heat exchanger depending on the outside air temperature, creating a free cooling effect (cooling the room with outside air).

LOW AIR PERMEABILITY AND EASY MAINTENANCE

The recuperator is connected to the equipment by means of an internal press mold with special soft seals. It can be pulled out by hand and is easy to maintain. The fresh and exhaust air flows are completely separated.

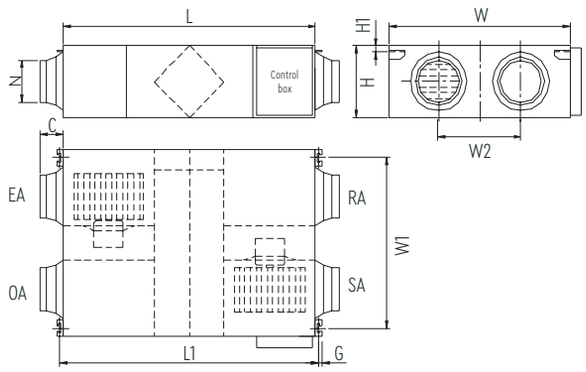
CONTROL INPUTS AND OUTPUTS

The unit has the following external control elements:

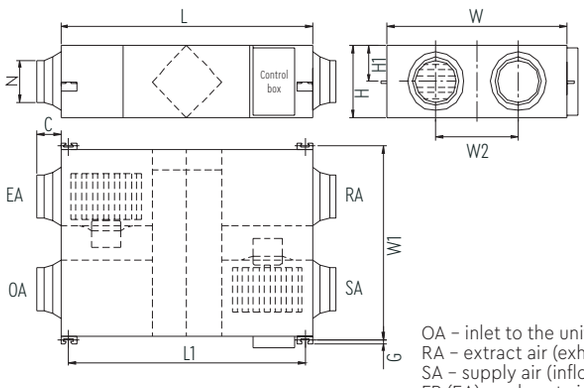
- Control signal 220 V for electric heater of pre-heating (2 stages).
- Air damper control contact.
- Remote on/off dry contact.
- Dry contact of shutdown from the fire alarm signal.
- Alarm output signal of unit.
- Port for CO_2 sensor. The sensor is optional and must be purchased separately.
- Port for humidity sensor. The sensor is optional and must be purchased separately. To control the humidity sensor, a Touch Screen remote controller is required.
- RS485 port with Modbus protocol.
- Wi-Fi module connection port. The module itself is optional and purchased separately. Control via the SmartVent app.

OVERALL DIMENSIONS

CH-HRV2K2



CH-HRV3~13K2



OA – inlet to the unit (intake)
RA – extract air (exhaust)
SA – supply air (inflow)
FR (EA) – exhaust air (emission)

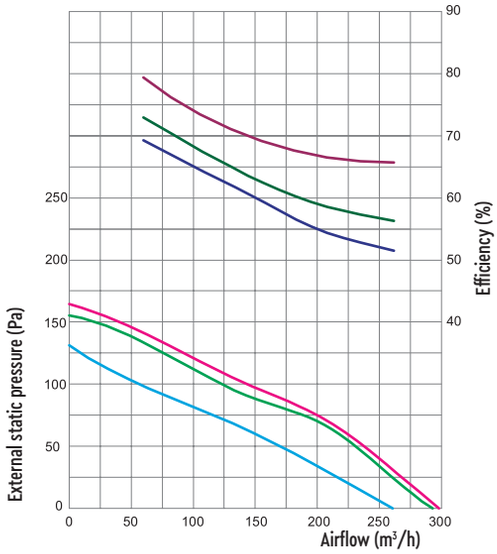
Model	L	L1	W	W1	W2	H	H1	C	G	N
CH-HRV2K2	666	725	580	510	290	264	20	100	19	∅ 144
CH-HRV3K2	744	675	599	657	315	270	111	100	19	∅ 144
CH-HRV4K2	744	675	804	860	480	270	111	100	19	∅ 144
CH-HRV6K2	824	754	904	960	500	270	111	107	19	∅ 194
CH-HRV8K2	1116	1045	884	940	428	388	170	85	19	∅ 242
CH-HRV10K2	1116	1045	1134	1190	678	388	170	85	19	∅ 242
CH-HRV13K2	1129	1059	1216	1273	621	388	170	85	19	∅ 242

TECHNICAL SPECIFICATIONS

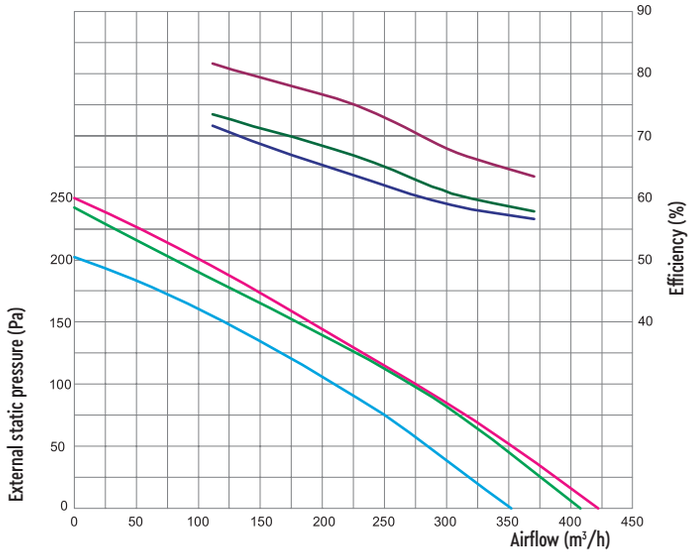
Model			CH-HRV2K2	CH-HRV3K2	CH-HRV4K2	CH-HRV6K2	CH-HRV8K2	CH-HRV10K2	CH-HRV13K2
Air flow volume (m^3/h)		**L**	150	250	350	500	700	900	1000
		M	200	300	400	600	800	1000	1300
		H	200	300	400	600	800	1000	1300
External pressure (Pa)		**L**	60	75	80	89	92	80	75
		M	70	82	85	92	96	85	85
		H	75	85	88	97	100	86	90
Enthalpy Efficiency (%)	**Summer**	**L**	60	62	62	63	57	60	58
		M	55	57	57	59	55	58	56
		H	55	57	57	59	55	58	56
	Winter	**L**	63	65	65	67	63	64	62
		M	59	61	60	61	57	62	59
		H	59	61	60	61	57	62	59
Temp. Eff.(%)		**L**	75	73	74	76	74	76	76
		M	70	68	69	70	68	70	70
		H	70	68	69	70	68	70	70
Noise dB(A)		**L**	25	27	31	29	34	34	38
		M	30	34	37	35	39	38	41
		H	31.5	34.5	37.5	39	41	42	43
Power supply			~220-240V/50Hz/1Ph						
Current (A)			0.5	0.56	0.72	0.96	1.7	2.1	3.4
Input power (W)			105	117	150	200	355	440	710
Net weight (kg)			23	25	31	36	60	70	79

PERFOMANCE CHART

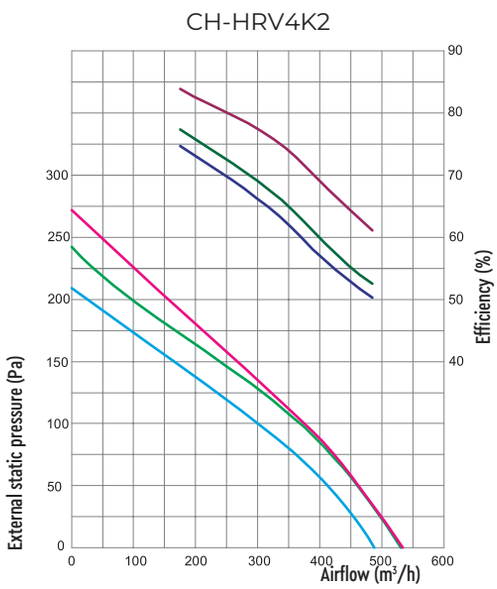
CH-HRV2K2



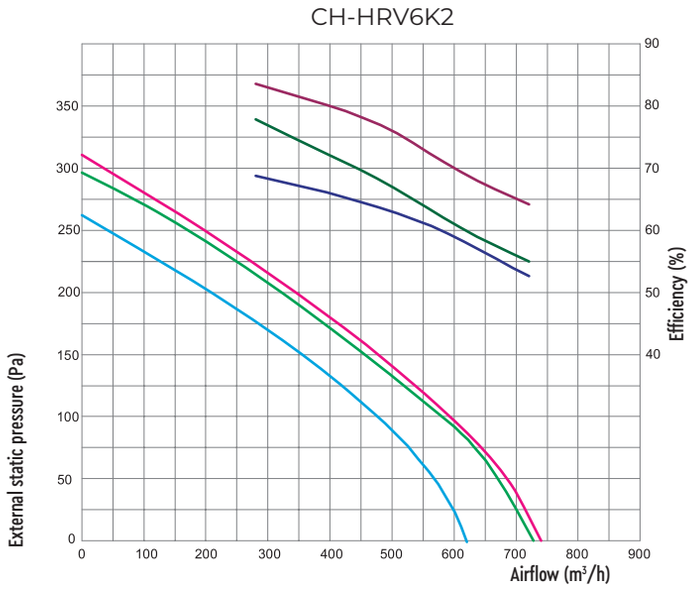
CH-HRV3K2



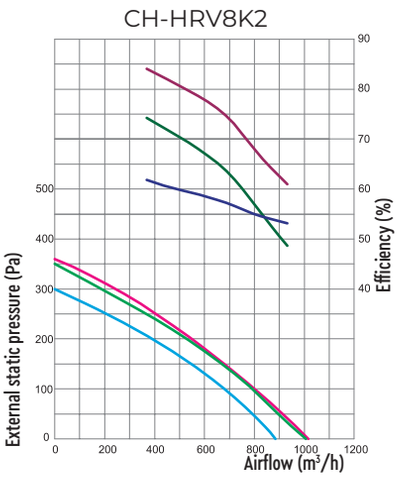
CH-HRV4K2



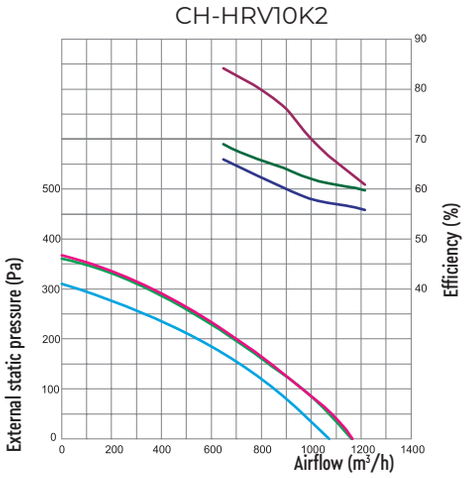
CH-HRV6K2



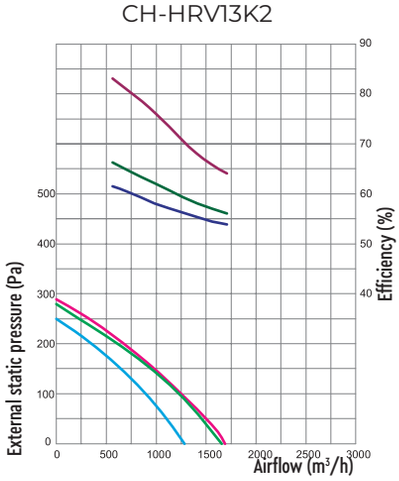
CH-HRV8K2



CH-HRV10K2



CH-HRV13K2



Temperature eff. | Enthalpy eff. (heating) | Enthalpy eff. (cooling) | High | Medium | Low

SUPPLY AND EXHAUST VENTILATION SYSTEM WITH HEAT RECOVERY

K4 SERIES

Wi-Fi

Optional

EFFICIENT VENTILATION

The ventilation unit supplies fresh outside air into the room while simultaneously removing exhaust air to the outside, thereby providing a feeling of natural comfort.

TWO VERSIONS OF CROSS-PRECISION RECUPEATOR WITH TEMPERATURE EFFICIENCY OVER 70%

CH-HRV__K4 – ventilation unit with enthalpy recuperator.

CH-HRV__AK4 – ventilation unit with aluminum recuperator. Condensate drainage from the unit's pan is provided.

SILENT DESIGN

The unit is designed according to a worldwide standard design and manufactured using precision pressed molds. The use of anechoic micro-perforation technology reduces noise levels.

AIR FILTRATION AND PURIFICATION

The internal air filter cleans the outside air from large particles such as fluff, animal hair, insects, plant seeds and other particles with a size of 0.4 microns. The filter in the exhaust section protects the recuperator from dust, increasing its service life.

LOW AIR PERMEABILITY AND EASY MAINTENANCE

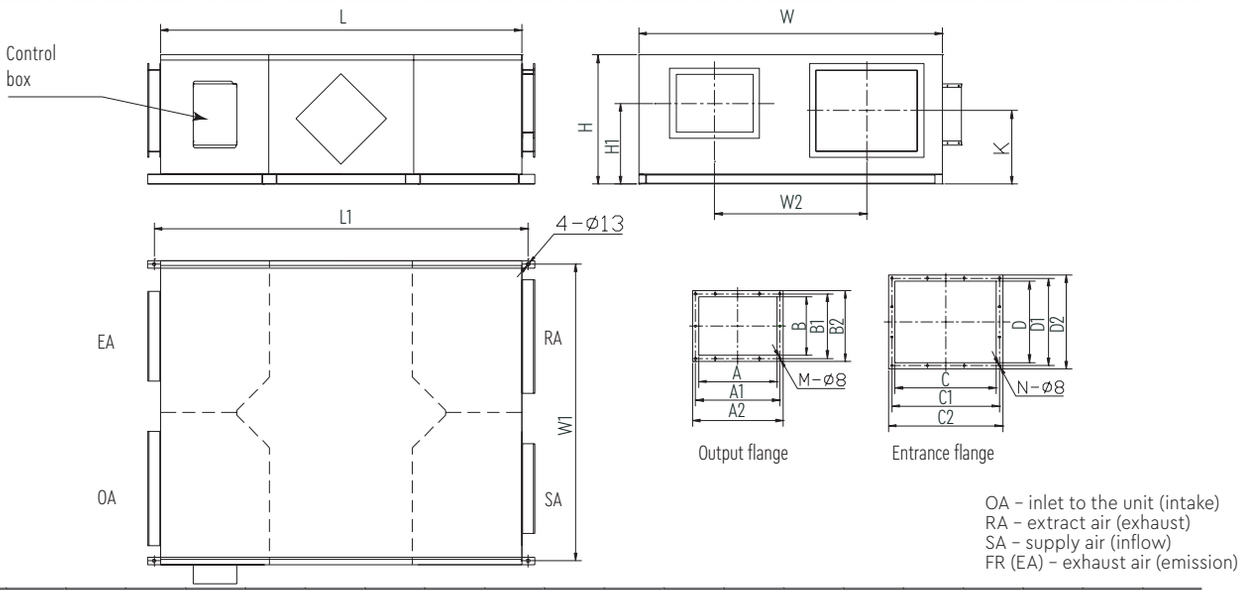
The recuperator is connected to the equipment by an internal mold with special soft seals. It can be pulled out by hand and is easy to maintain. The fresh and exhaust air flows are completely separated.

CONTROL INPUTS AND OUTPUTS

The unit has the following external control elements:

- Control signal 220 V for electric heater of pre-heating (2 stages).
- Air damper control contact.
- Remote on/off dry contact.
- Dry contact of shutdown from the fire alarm signal.
- Alarm output signal of unit.
- Port for CO_2 sensor. The sensor is optional and must be purchased separately.
- Port for humidity sensor. The sensor is optional and must be purchased separately. To control the humidity sensor, a Touch Screen remote controller is required.
- RS485 port with Modbus protocol.
- Wi-Fi module connection port. The module itself is optional and purchased separately. Control via the SmartVent app.

OVERALL DIMENSIONS



OA – inlet to the unit (intake)
RA – extract air (exhaust)
SA – supply air (inflow)
FR (EA) – exhaust air (emission)

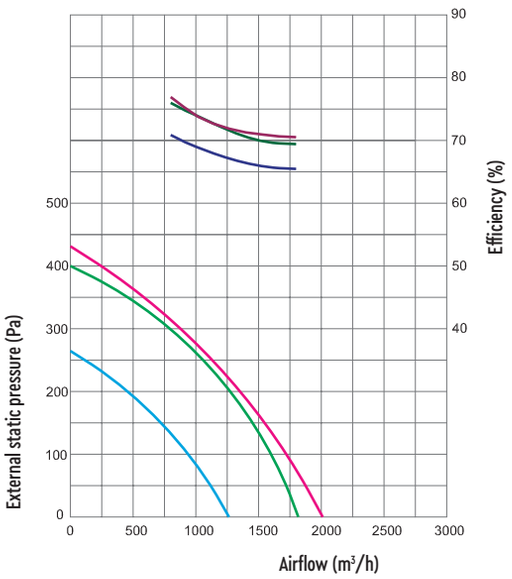
Model	L	W	L1	W1	H	W2	H1	K	B	B1	B2	A	A1	A2	D	D1	D2	C	C1	C2
CH-HRV15(A)K4	1250	1200	1300	1170	520	600	339	300	230	255	280	308	333	358	320	345	370	400	425	450
CH-HRV20(A)K4	1250	1200	1300	1170	520	600	339	300	230	255	280	308	333	358	320	345	370	400	425	450
CH-HRV25(A)K4	1524	1400	1574	1370	580	700	334	335	273	298	323	350	375	400	350	375	400	500	525	550
CH-HRV30(A)K4	1624	1500	1674	1470	650	750	400	405	285	310	335	373	398	423	350	375	400	500	525	550

TECHNICAL SPECIFICATIONS

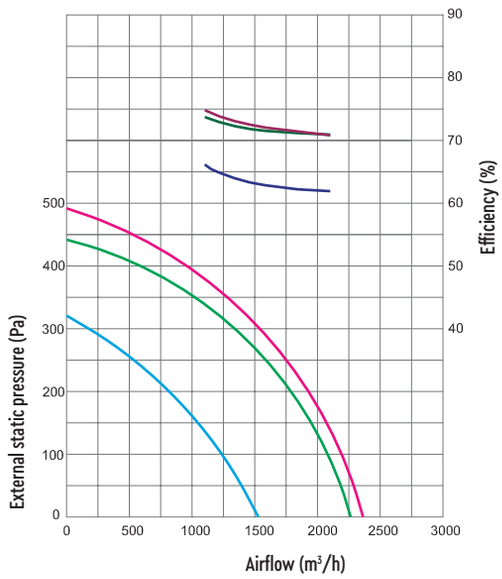
Model			CH-HRV15K4	CH-HRV15AK4	CH-HRV20K4	CH-HRV20AK4	CH-HRV25K4	CH-HRV25AK4	CH-HRV30K4	CH-HRV30AK4
Air flow volume (m^3/h)		L	1000		1200		2000		2500	
		M	1500		2000		2500		3000	
		H	1500		2000		2500		3000	
External pressure (Pa)		L	84		110		140		150	
		M	135		132		170		180	
		H	163		176		200		210	
Enthalpy Efficiency (%)	**Summer**	L	69	–	65	–	64	–	63	–
		M	66	–	62	–	61	–	60	–
		H	66	–	62	–	61	–	60	–
	Winter	L	74	–	73	–	72	–	71	–
		M	70	–	71	–	70	–	69	–
		H	70	–	71	–	70	–	69	–
Temp. Eff.(%)		L	74	76	74	76	73	74	73	74
		M	71	74	71	74	70	72	70	72
		H	71	74	71	74	70	72	70	72
Noise dB(A)		L	46		49		50		51	
		M	49		51		52		54	
		H	51		53		55		57	
Power supply			~220-240V/50Hz/1Ph							
Current (A)		L	2.3		3.0		4.5		6.5	
		M	3.6		4.6		6.0		8.7	
		H	3.8		4,8		6.3		9.0	
Input power (W)		L	485		650		940		1400	
		M	740		980		1250		1870	
		H	785		1020		1300		1950	
Net weight (kg)			110	114	112	116	130	142	142	155

PERFOMANCE CHART

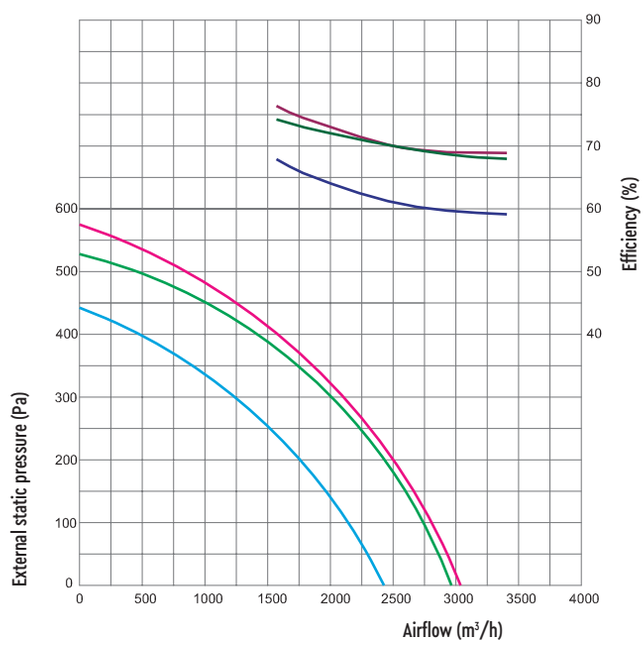
CH-HRV15K4 (CH-HRV15AK4)



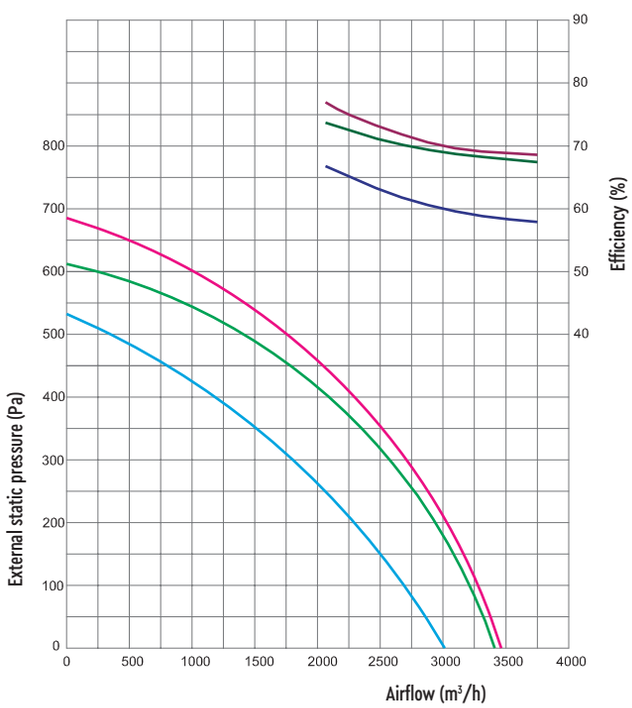
CH-HRV20K4 (CH-HRV20AK4)



CH-HRV25K4 (CH-HRV25AK4)



CH-HRV30K4 (CH-HRV30AK4)



Temperature eff. | Enthalpy eff. (heating) | Enthalpy eff. (cooling) | High | Medium | Low

SUPPLY AND EXHAUST VENTILATION SYSTEM WITH ENERGY RECOVERY

KDC SERIES

Wi-Fi

Optional

DC MOTOR

Thanks to DC fan motors, maximum energy efficiency is achieved across the entire speed range. The user has access to 10 speeds for the supply and exhaust fans.

EFFICIENT VENTILATION

The ventilation unit supplies fresh outside air into the room while simultaneously removing exhaust air to the outside, thereby providing a feeling of natural comfort.

HIGH ENERGY SAVING RATE

The built-in high-efficiency counter-flow recuperator returns heat energy from the exhaust air to the supply air, thus recovering over 82% of the heat energy.

SILENT DESIGN

The unit is designed according to a worldwide design and manufactured using precise compression molds. The use of anechoic micro-perforation technology reduces noise levels. In combination with DC motors, this series is characterized by the lowest noise levels.

AIR FILTRATION AND PURIFICATION

The internal air filter cleans the outside air from large particles such as fluff, animal hair, insects, plant seeds and other particles of 0.4 microns in size. The filter in the exhaust section protects the recuperator from dust, increasing its service life.

BYPASS FUNCTION

The unit can bypass the exhaust air to the heat exchanger depending on the outside air temperature, creating a free cooling effect (cooling the room with outside air).

LOW AIR PERMEABILITY AND EASY MAINTENANCE OF THE RECUPERATOR

The heat exchanger is connected to the equipment by an internal mold with special soft seals. It can be pulled out by hand and is easy to maintain. The fresh and exhaust air flows are completely separated.

CONTROL INPUTS AND OUTPUTS

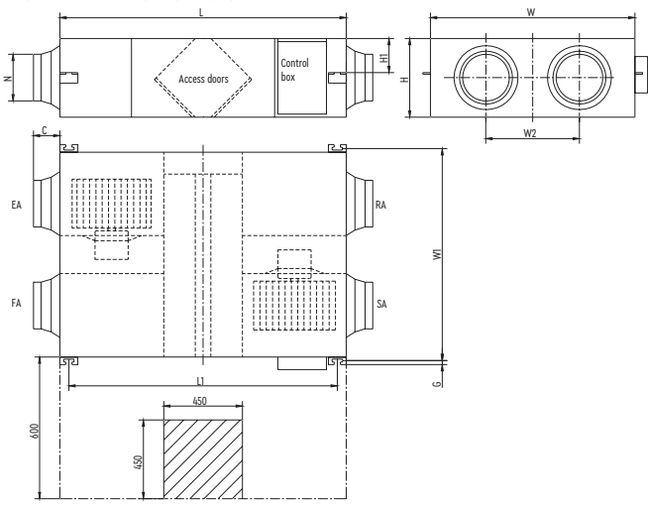
The unit has the following external control elements:

- Control signal 220 V for the pre-heating electric heater (2 stages);
- Air damper control contact;
- Dry contact of remote on/off;
- Dry contact of shutdown from the fire alarm signal;
- Alarm output signal of unit;
- Port for CO_2 sensor.*
- Port for humidity sensor.* (Touch Screen remote control required for humidity sensor control).
- RS485 port with Modbus protocol. Modbus is not available on models 15 and 20.
- Wi-Fi module connection port. The module itself is optional and purchased separately. Control via the SmartVent app.

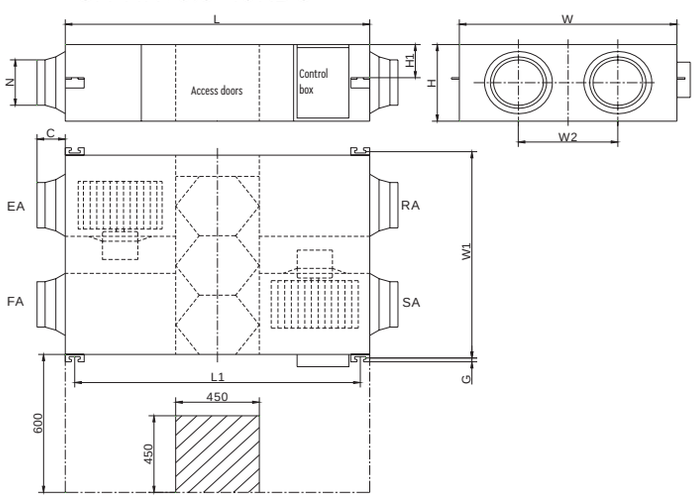
* The sensor is optional and must be purchased separately.

OVERALL DIMENSIONS

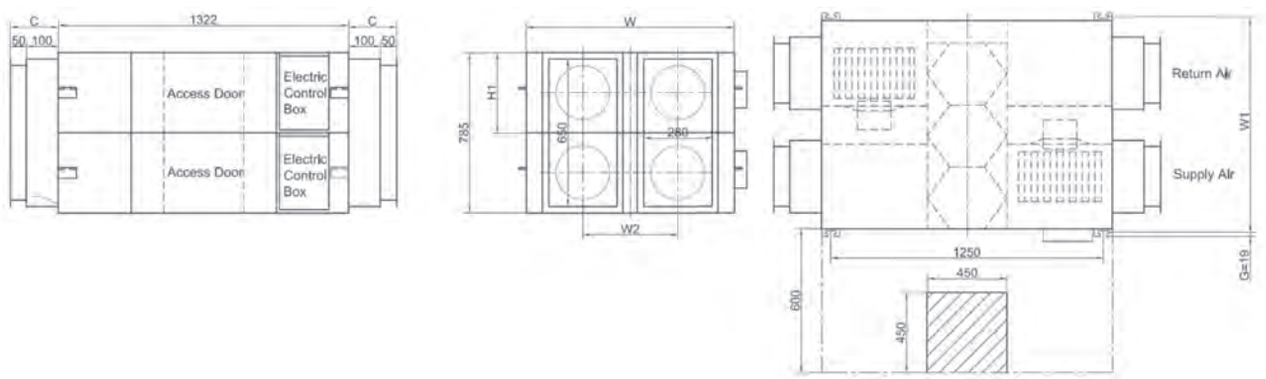
CH-HRV1.5~5KDC



CH-HRV6.5~10KDC



CH-HRV15~20KDC



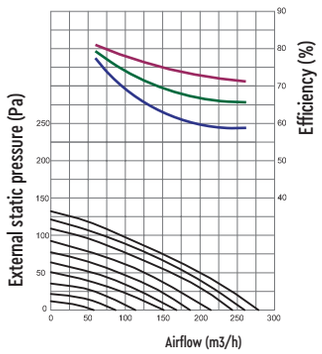
Model	L	L1	W	W1	W2	H	H1	C	G	N
CH-HRV1.5KDC	808	867	580	510	290	264	20	100	19	∅ 144
CH-HRV2.5KDC	882	810	599	657	315	270	111	100	19	∅ 144
CH-HRV3.5KDC	882	810	804	860	480	270	111	100	19	∅ 144
CH-HRV5KDC	962	890	904	960	500	270	111	107	19	∅ 194
CH-HRV6.5KDC	1222	1150	884	940	480	340	146	107	19	∅ 194
CH-HRV8KDC	1322	1250	884	940	428	388	170	85	19	∅ 242
CH-HRV10KDC	1322	1250	1134	1190	678	388	170	85	19	∅ 242
CH-HRV15KDC	1322	1250	884	940	428	785	170	150	19	280×650
CH-HRV20KDC	1322	1250	1134	1190	678	785	170	150	19	280×650

TECHNICAL SPECIFICATIONS

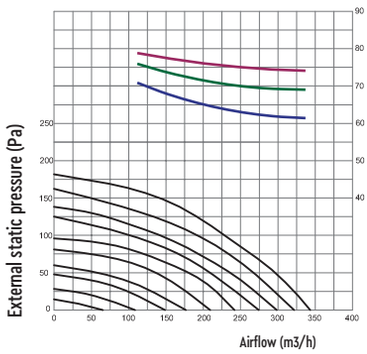
Model		Item	CH-HRV1.5KDC	CH-HRV2.5KDC	CH-HRV3.5KDC	CH-HRV5KDC	CH-HRV6.5KDC	CH-HRV8KDC	CH-HRV10KDC	CH-HRV15KDC	CH-HRV20KDC
Air flow volume		**m^3/h**	150	250	350	500	650	800	1000	1500	2000
Energy efficiency rate	**Heating**	**%**	70-76	70-75	69-75	67-75	68-73	71-77	71-78	71-77	71-78
	Cooling		63-70	63-73	66-72	62-74	62-70	65-74	65-74	65-74	65-74
Thermal efficiency rate		**%**	75-82	75-82	75-84	75-86	75-84	75-84	75-85	75-84	75-85
Sound pressure		**dB(A)**	31.5	34.5	37.5	39	39.5	42	43	50	51.5
Power supply		**V/Hz/Ph**	~220-240V/50Hz/1Ph								
Output power		**W**	26	46	60	88	114	186	243	372	486
Weight		**kg**	25	29	37	43	64	71	83	165	189
Dimensions (WxHxD)		**mm**	580×264×808	599×270×882	804×270×882	904×270×962	884×340×1222	884×388×1322	1134×388×1322	884×785×1322	1134×785×1322

PERFOMANCE CHART

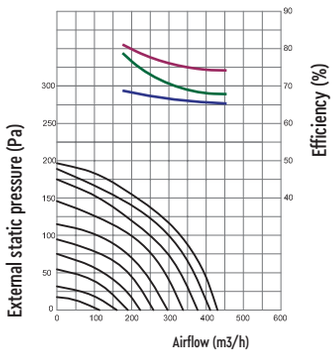
CH-HRV1.5KDC



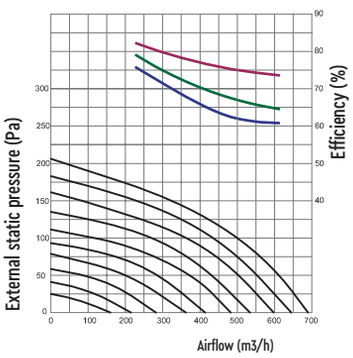
CH-HRV2.5KDC



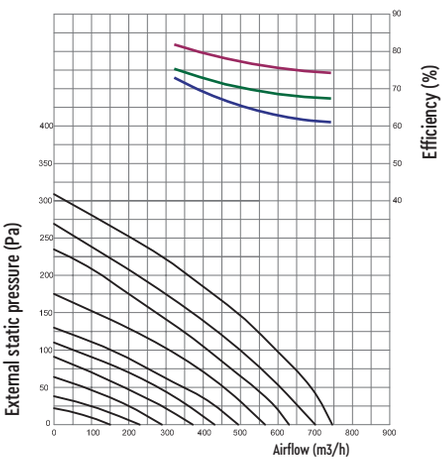
CH-HRV3.5KDC



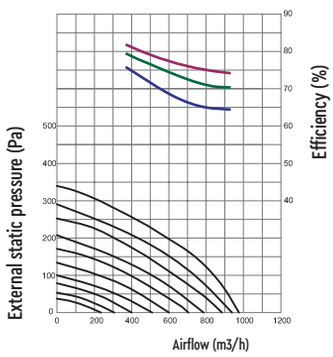
CH-HRV5KDC



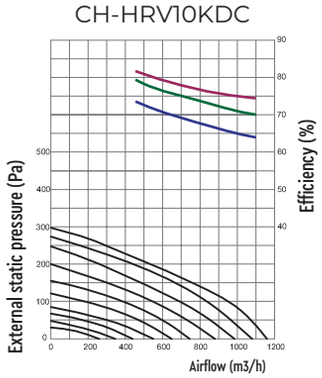
CH-HRV6.5KDC



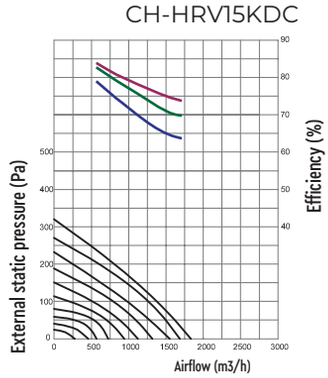
CH-HRV8KDC



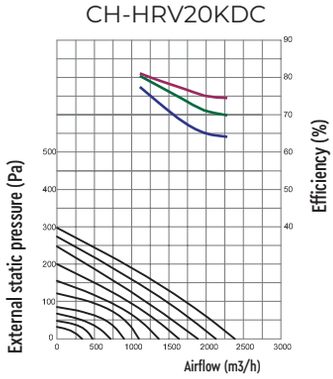
CH-HRV10KDC



CH-HRV15KDC



CH-HRV20KDC



Temperature eff.

Enthalpy eff. (heating)

Enthalpy eff. (cooling)

SOUND PRESSURE DB(A)

Model	Speed									
	1	2	3	4	5	6	7	8	9	10
CH-HRV1.5KDC	21.0	22.2	23.3	24.5	25.7	26.9	28.0	29.2	30.4	31.5
CH-HRV2.5KDC	23.0	24.3	25.5	26.8	28.1	29.4	30.6	31.9	33.2	34.5
CH-HRV3.5KDC	25.0	26.4	27.8	29.1	30.5	31.9	33.3	34.7	36.0	37.5
CH-HRV5KDC	26.0	27.4	28.9	30.3	31.8	33.2	34.6	36.1	37.5	39.0
CH-HRV6.5KDC	26.3	27.8	29.3	30.7	32.2	33.6	35.1	36.6	38.0	39.5
CH-HRV8KDC	28.0	29.6	31.1	32.7	34.2	35.8	37.3	38.9	40.4	42.0
CH-HRV10KDC	28.7	30.2	31.8	33.4	35.0	36.6	38.1	39.7	41.3	43.0
CH-HRV15KDC	33.3	35.2	37.0	38.9	40.7	42.6	44.4	46.3	48.1	50.0
CH-HRV20KDC	34.3	36.2	38.2	40.1	42.0	43.9	45.8	47.7	49.6	51.5

SUPPLY AND EXHAUST VENTILATION SYSTEM WITH ENERGY RECOVERY

KDC2 SERIES

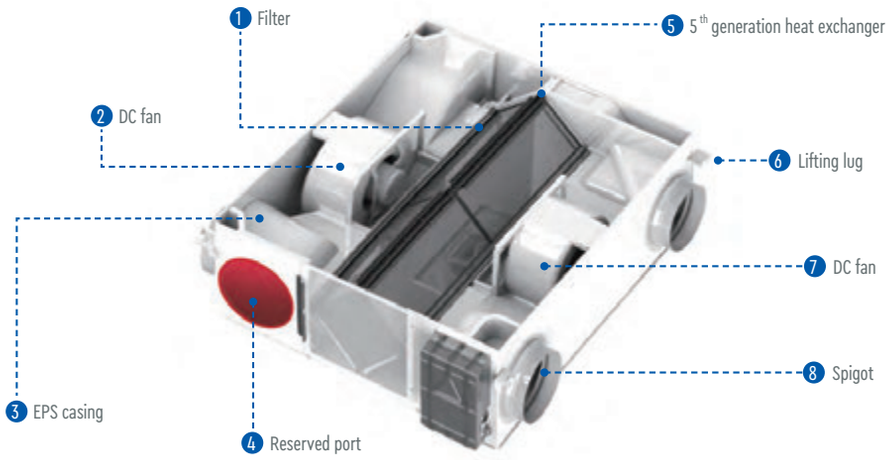
Wi-Fi

Optional

FEATURES

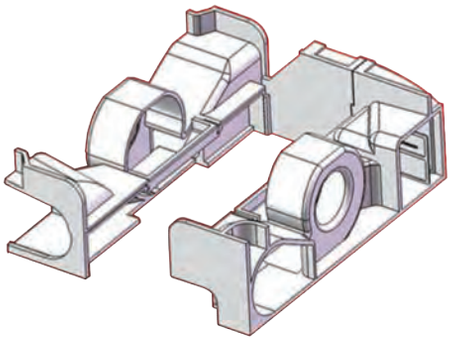
- 5th generation enthalpy heat exchanger with increased energy efficiency, up to 87%;
- DC motor in plastic casing, 10 airflow control speeds;
- Supply and exhaust air purification with G3 class filter;
- Automatic bypass;
- Two types of installation – side connections for fresh and exhaust air;
- Remote control system via Wi-Fi via Android/ IOS application (optional).

DESING



CASE

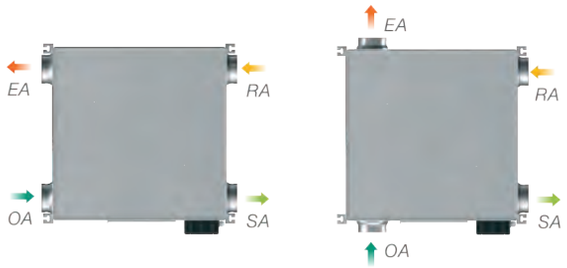
- Fan casing provides better insulation, airtightness and reduces noise
- Fans are mounted in the middle for greater stabilization of the airflow to have better heat transfer efficiency.



FLEXIBLE CONNECTION

Two connection options are available

- Parallel air flow (standard)
- Side connections for fresh air and exhaust air.

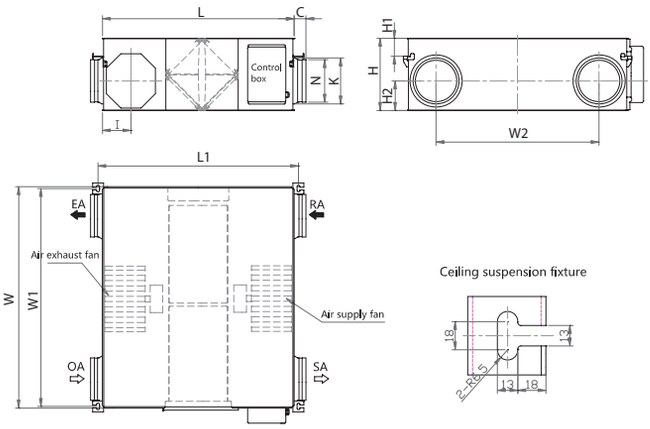


5TH GENERATION HEAT EXCHANGER

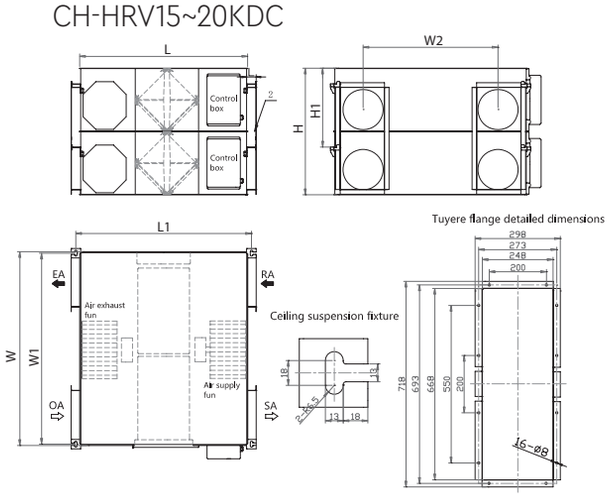
- New ER paper with up to 87% higher heat exchange efficiency.
- The enthalpy heat exchanger returns heat and moisture from the exhaust air to the supply air, reducing heating and humidification costs.
- The heat exchanger materials are mold resistant
- The integrated structure has better air tightness.

OVERALL DIMENSIONS

CH-HRV1.5~10KDC2



CH-HRV15~20KDC



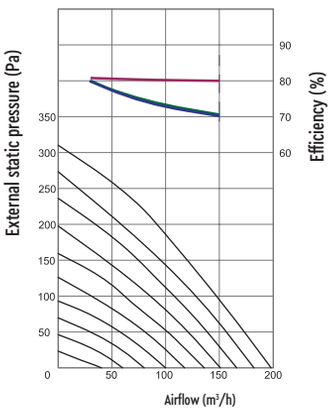
Model	L	L1	W	W1	W2	H	H1	C	G	N
CH-HRV1.5KDC2	780	819	610	594	450	289	78	53	Ø 95	Ø 110
CH-HRV2.5KDC2	780	819	735	719	526	289	78	58	Ø 144	Ø 160
CH-HRV3.5KDC2	884	922	874	958	650	331	81	58	Ø 144	Ø 160
CH-HRV5KDC2	884	922	1016	1000	750	331	81	61	Ø 195	Ø 211
CH-HRV6.5KDC2	908	947	954	935	692	404	71	61	Ø 195	Ø 211
CH-HRV8KDC2	1144	1182	1004	986	690	404	82	62	Ø 244	Ø 261
CH-HRV10KDC2	1144	1182	1231	1213	917	404	82	62	Ø 244	Ø 261
CH-HRV15KDC2	1144	1182	1004	986	690	808	82	108	248*668	-
CH-HRV20KDC2	1144	1182	1231	1213	917	808	82	108	248*668	-

TECHNICAL SPECIFICATIONS

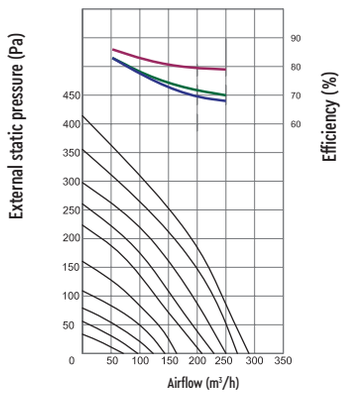
Model		Item	CH-HRV1.5KDC2	CH-HRV2.5KDC2	CH-HRV3.5KDC2	CH-HRV5KDC2	CH-HRV6.5KDC2	CH-HRV8KDC2	CH-HRV10KDC2	CH-HRV15KDC2	CH-HRV20KDC2
Air flow volume		m^3/h	150	250	350	500	650	800	1000	1500	2000
Energy efficiency rate	Heating	%	73-79	70-83	72-84	69-83	69-82	71-82	73-87	72-82	73-87
	Cooling		71-79	68-83	71-82	67-82	66-81	70-81	71-86	71-81	71-86
Thermal efficiency rate		%	80-84	79-86	80-89	78-87	77-86	79-85	80-90	80-85	80-90
Sound pressure		dB(A)	29	28	32	34	35	35	37	39	40
Power supply		V/Hz/Ph	220-240/1/50								
Output power		W	58	62	140	165	252	335	420	670	850
Weight		kg	20	23	30	33	38	48	54	98	112
Dimensions (WxHxD)		mm	780×289×610	780×289×735	884×331×874	884×331×1016	908×404×954	1144×404×1004	1144×404×1231	1144×808×1004	1144×808×1231

PERFOMANCE CHART

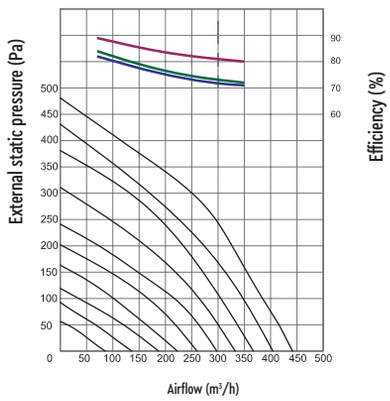
CH-HRV1.5KDC2



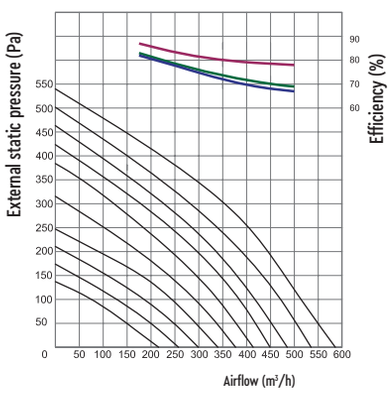
CH-HRV2.5KDC2



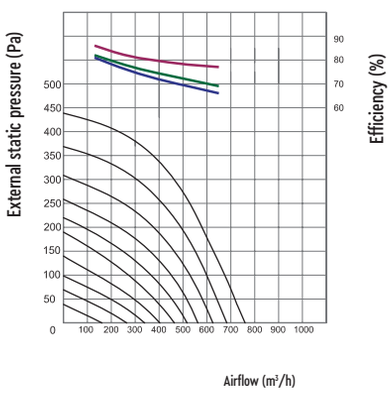
CH-HRV3.5KDC2



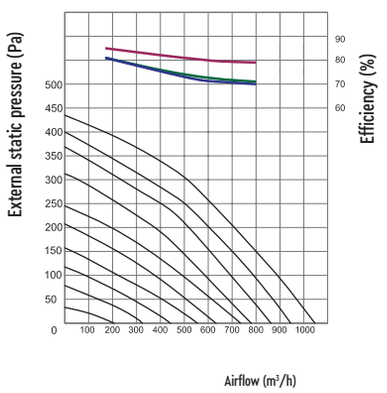
CH-HRV5KDC2



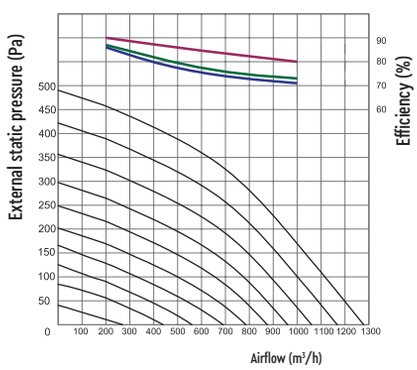
CH-HRV6.5KDC2



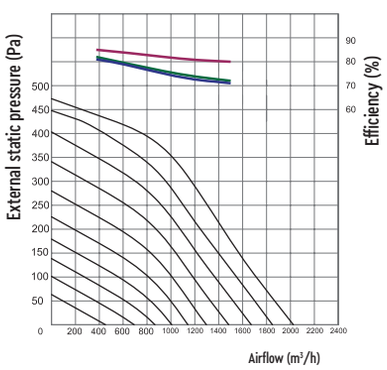
CH-HRV8KDC2



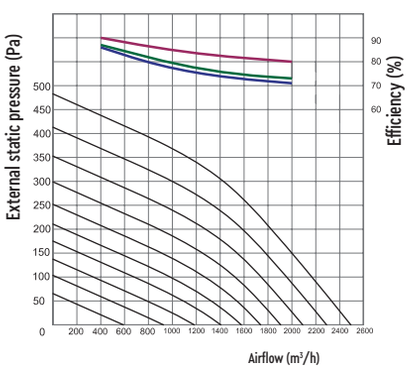
CH-HRV10KDC2



CH-HRV15KDC2



CH-HRV20KDC2



Temperature eff.

Enthalpy eff. (heating)

Enthalpy eff. (cooling)

Standard and optional controllers

				
Controller			**LH-13001**	**LH-13001**
Type	Custom control*			Centralized control of up to 16 units of ventilation systems*.
Air handling series	KDC2	K2, KDC / K4	K2, KDC / K4	K2, K4, KDC
Temperature indication	OA/RA/SA/FR	OA/RA/SA/FR	OA/RA/SA/FR	OA/RA/SA/FR
Different Velocities	●	●	●	●
Weekly timer	●	●	●	●
By-pass	Auto	Auto / ○	Auto / ○	Custom control
External switch ON/OFF	●	●	●	Custom control
Auxiliary heater control	●	●	●	●
Stop-freezing	●	●	●	Custom control
Control by CO_2	●	●	●	Custom control
Filter cleaning indication	●	●	●	●
Fault signalization	●	●	●	●
Saving settings	●	●	●	●
Nighttime period time direct cooling (free cooling)	●	● / ○	● / ○	Custom control
BMS integration (Modbus)	●	●	●	●
Control by humidity sensor %	●	●	○	Custom control
Heater control for frost protection	●	●	●	Custom control

● : Available ○ : Not Available

* Note: The remote control program for K2(4) and KDC is different. When ordering the control panels, always specify the installation series.

Individual control – a function that operates from an individual controller
OA – inlet to the unit (intake)
RA – extract air (exhaust)
SA – supply air (inflow)
FR (EA) – exhaust air (emission)

INDOOR AIR QUALITY MONITORING

Monitor local weather, temperature, humidity, CO_2 concentration, air quality to lead a healthy lifestyle.

FLEXIBLE SETTINGS

Changing the main parameters of the filter speed/temperature/bypass/timer/alarm.

LANGUAGE OF CHOICE

Available languages: English/French/Italian/Spanish.

GROUP CONTROL

Single Smart Vent app can control multiple devices.

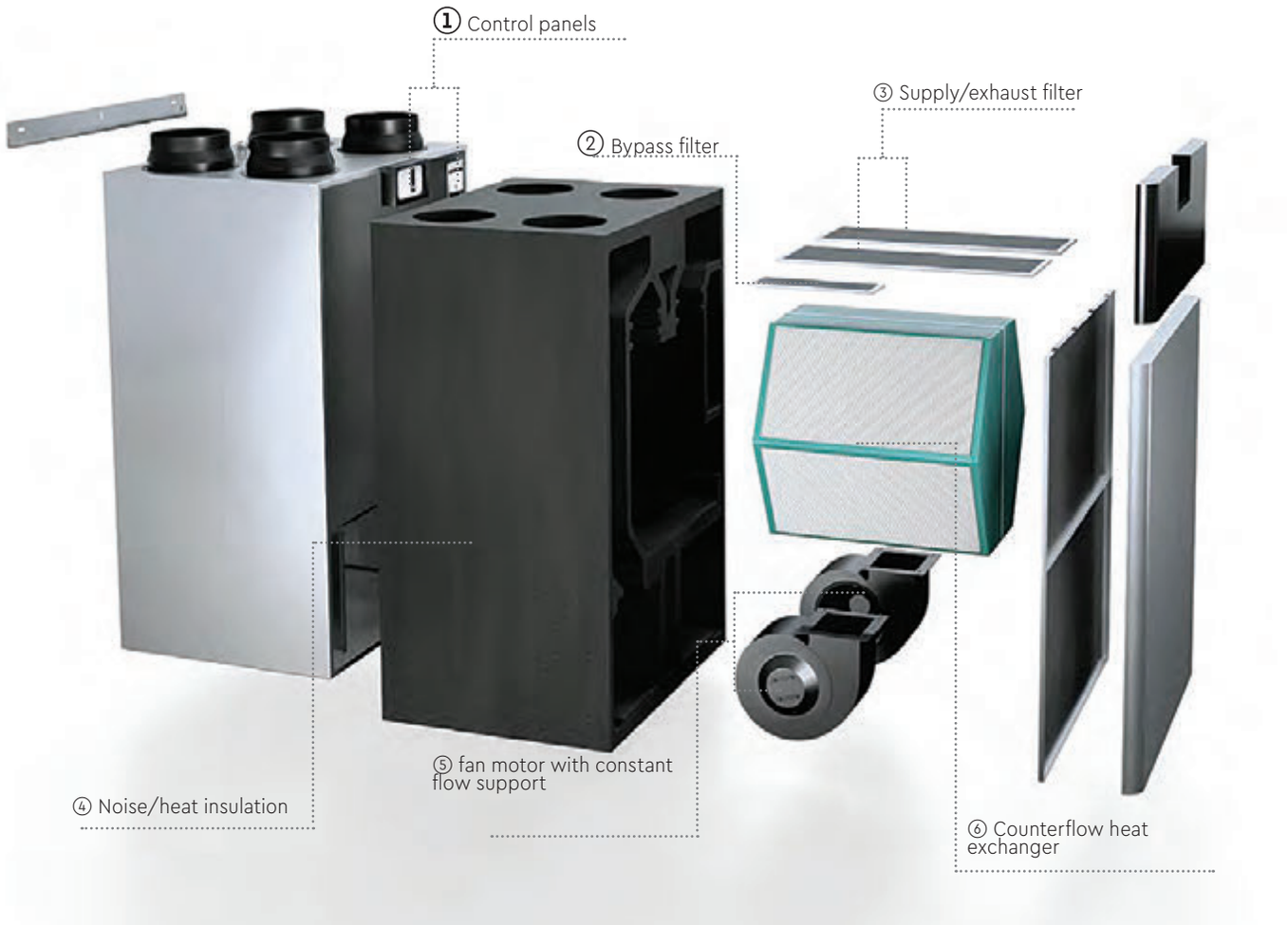
VERTICAL SUPPLY-EXHAUST UNIT WITH ENERGY RECOVERY

Wi-Fi

Optional

MAIN CHARACTERISTICS

- Compact design.
- 4 operation modes
- Automatic CO_2 control
- Air duct connection from above
- Counterflow heat exchanger
- Heat recovery efficiency up to 95%
- DC fan
- «Bypass» function
- Control on the casing + remote control (optional)
- Left or right installation type
- Wi-Fi control (optional)

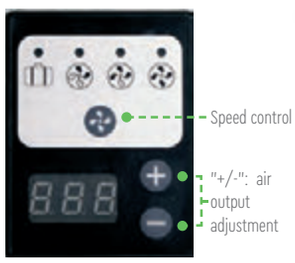


CONTROL FUNCTIONS

Built-in control panel

There are two control panels on the unit's body.
The first panel sets basic daily settings;
the second panel has advanced features.

First panel

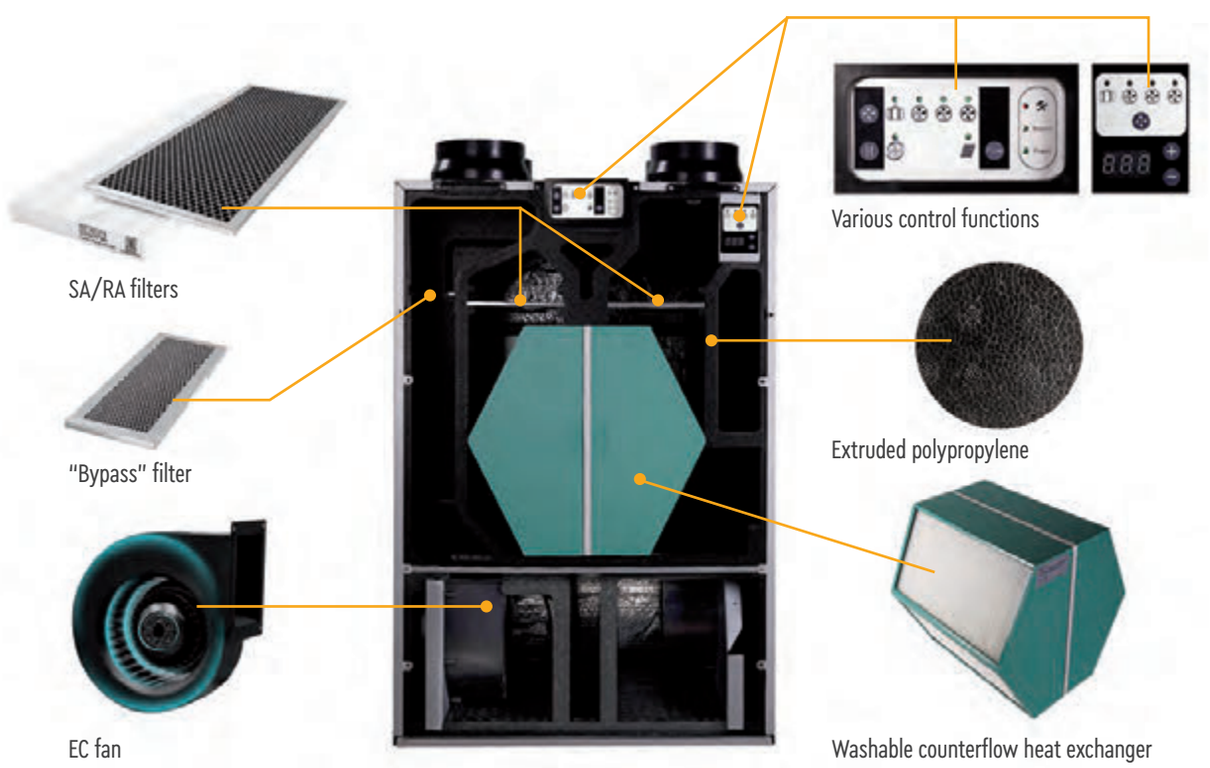


Second panel

ADVANCED LCD REMOTE CONTROL PANEL (optional)

- Autobypass
- Auto-defrost
- Weekly timer
- Filter contamination indicator
- Error
- Adjusting the air flow balance
- Energy consumption recording
- Optional CO_2 control
- One-touch turbo mode
- Humidity control

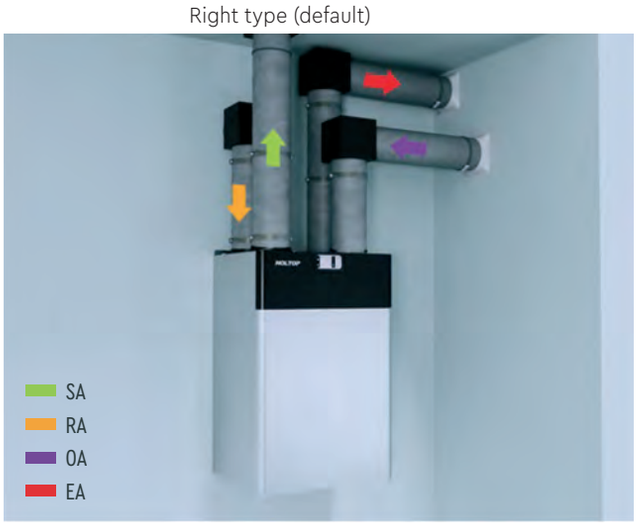
DESIGN



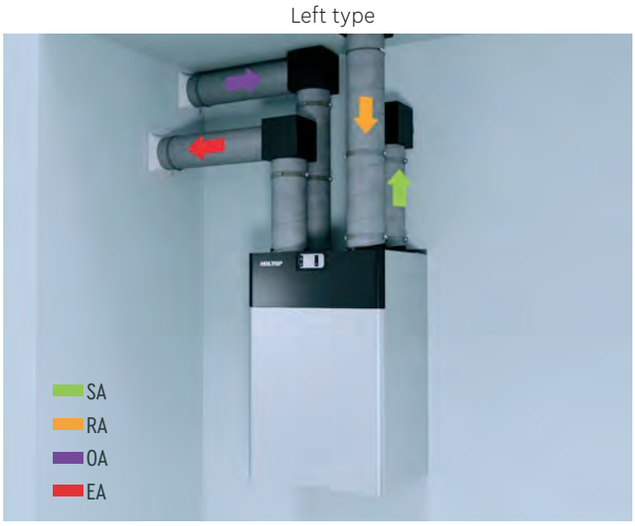
FLEXIBLE INSTALLATION

The right/left installation type can be configured on site according to site requirements.

Right type (default)



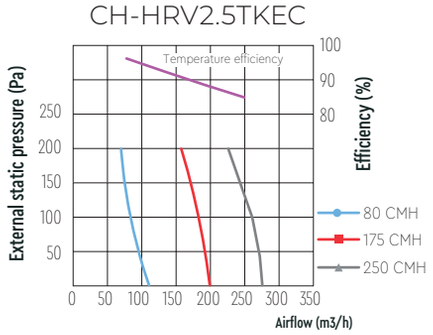
Left type



OA – inlet to the unit (intake)
RA – exhaust air (exhaust)
SA – supply air (inflow)
FR (EA) – exhaust air (exhaust)

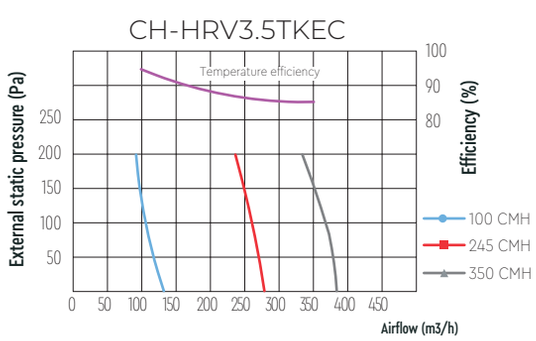
PERFOMANCE CHART

CH-HRV2.5TKEC



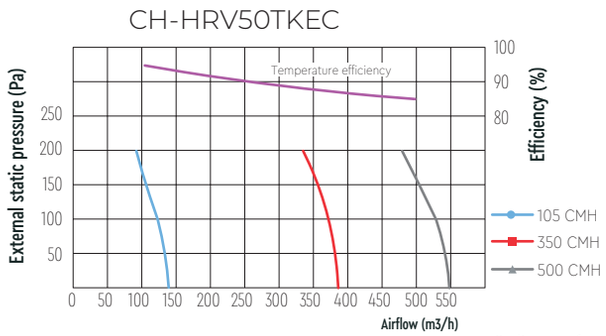
CH-HRV2.5TKEC				
№	Air flow rate (m^3/h)	P (Pa)	N (W)	SFP*(W/l/sec)
1	250	100	128.0	0.14
2	250	50	110.0	0.12
3	175	100	78.5	0.12
4	175	50	62.0	0.10
5	80	100	41.3	0.14
6	80	50	31.0	0.11

CH-HRV3.5TKEC



CH-HRV3.5TKEC				
№	Air flow rate (m^3/h)	P (Pa)	N (W)	SFP*(W/l/sec)
1	350	100	267.3	0.21
2	350	50	260.0	0.21
3	245	100	128.0	0.15
4	245	50	106.0	0.12
5	100	100	43.8	0.12
6	100	50	34.0	0.09

CH-HRV50TKEC



CH-HRV5TKEC				
№	Air flow rate (m^3/h)	P (Pa)	N (W)	SFP*(W/l/sec)
1	500	100	399.0	0.22
2	500	50	380.0	0.21
3	350	100	209.3	0.17
4	350	50	155.0	0.12
5	105	100	60.9	0.16
6	105	50	30.0	0.08

* SFP (indicator of power ventilation pressure) includes the energy consumption of fans and heating circuit boards.

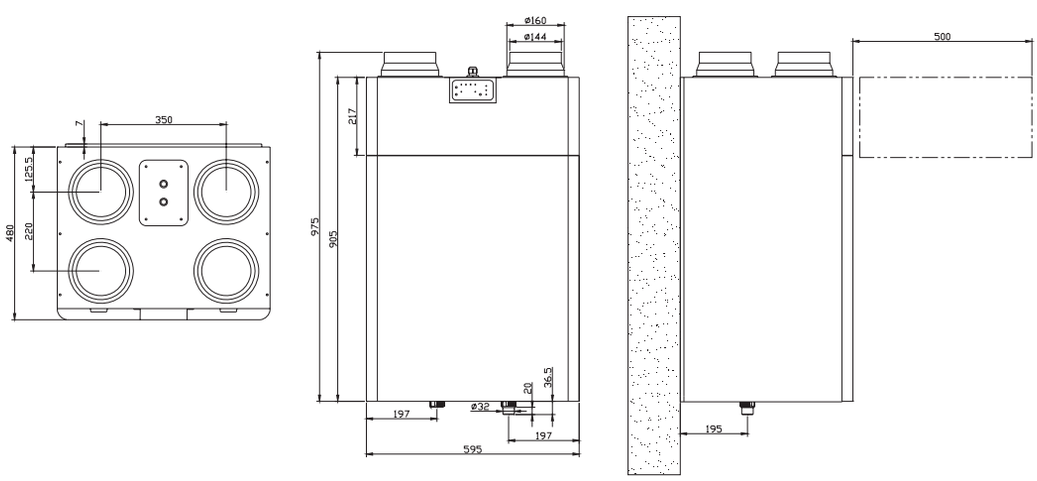
TECHNICAL SPECIFICATIONS

Model		CH-HRV2.5TKEC	CH-HRV3.5TKEC	CH-HRV5TKEC
Power supply	V/Hz/Ph	230/1/50		
Air flow volume	m^3/h	250	350	500
External static pressure	Pa	130	150	160
Temperature efficiency rate	%	85	85	85
Heat recovery rate	%	90	87	88
Power input	W	137	272	412
Current input	A	1.5	2.4	3.2
Operating range (with heater)	℃	-25 …+40		
Operating range (no heater)	℃	-10 …+40		
Case material		Galvanized steel		
Isolation		Foam polypropylene		
Filter class		G4		
Connection diameter	mm	160	160	200
Sound pressure*	dB(A)	35	37	39
Energy efficiency grade		A+	A	A
Weight	kg	40	40	50

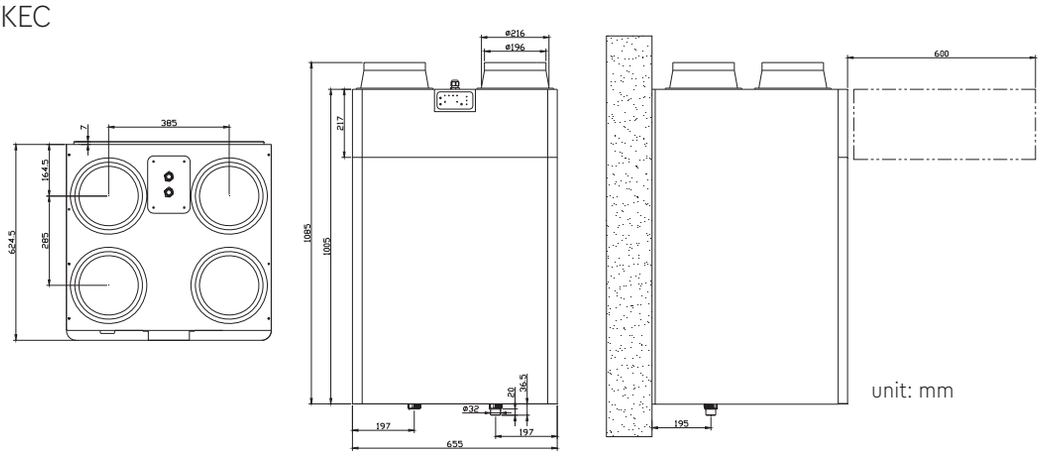
Note: This noise level is measured at 70% of maximum air flow and 50 Pa static pressure.

OVERALL DIMENSIONS

CH-HRV2.5TKEC, CH-HRV3.5TKEC



CH-HRV5.0TKEC



unit: mm

YOUR HOME CLIMATE IS IN YOUR HANDS WITH THE APP
SMART LIFE

WI-FI FUNCTION
The Wi-Fi function is available to control and monitor the ventilation system from anywhere in the world using a smartphone. The user can monitor the air quality in the room.

INDOOR AIR QUALITY MONITORING
Keep track of local weather, temperature, humidity, CO_2 concentration — an important element of a healthy lifestyle is in your hands.

OWN SCENARIOS
The user can create scenarios according to weather changes, schedules, or device status changes.
For example, when the weather shows that the relative humidity outside is over 85%, the user can set the fan to stop to prevent outside moisture from entering the house. The device will operate according to the settings automatically.

GROUP CONTROL
Multiple devices can be controlled with one app. The user can easily control a group of ventilation units.
Connect to other devices using Tuya Smart.

CONNECTION WITH OTHER SMART DEVICES
Add devices from the Tuya app to your home screen. For example, you can add air conditioners, exhaust fans, light switches, etc. to the app and control them through a single app.

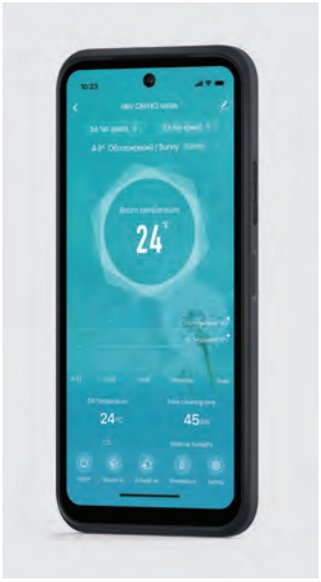
SMART LIFE APP
Available on Google Play Market and App Store.

Download on the App Store

GET IT ON Google Play

GROUP CONTROL

Using the APP, you can combine an unlimited number of units and manage groups or all units simultaneously.



CONTROL SCENARIOS

The user can create a scenario according to the weather change, schedule or device status change. For example, when the relative humidity outside exceeds 85%, the user can set the fan to stop to prevent the outside moisture from entering the room.

SMART HOME

Users can add devices to the Tuya APP on the home screen. For example, you can add all the fans for individual rooms, exhaust fans or light switches and control them from one app.


CH
Cooper&Hunter
HEAT PUMPS

Cooper&Hunter

* Cooper&Hunter is constantly striving to improve its products and the information in this manual is subject to change without notice.