

A woman with long brown hair, wearing a grey knit beanie with a pom-pom, red ski goggles, and a white cable-knit sweater, is sitting on a beige sofa. She is looking down at her feet, which are wearing tall, cream-colored cable-knit socks. To her left is a dark wooden table with a vase of yellow tulips, a plate of food, a mug with a blue snowflake design, and a pair of dark gloves. The background is a large window showing a snowy mountain landscape. The overall scene is cozy and winter-themed.

**CH**  
**Cooper & Hunter**  
COMFORT INNOVATIONS

**2019 PRODUCT LINE**  
**OF CLIMATE CONTROL EQUIPMENT**



# CISION

Cooper&Hunter  
Becomes an Official  
HVAC Partner of  
the Florida Panthers



**CH**  
Cooper & Hunter

Official HVAC Partner  
OF THE FLORIDA PANTHERS,  
Hockey Club Member of NHL.



CISION CISION

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at&t

europa cafe  
europa cafe

*Times Square,  
New York City*





## About the company

The trademark C&H (COOPER&HUNTER) belongs to the company COOPER AND HUNTER INTERNATIONAL CORPORATION (USPTO/United States Patent & Trademark/№ 4494682)

Having inherited the best traditions of leading companies in the area of climate control equipment production in the USA, the company Cooper&Hunter International Corporation in 2003 started production of a wide spectrum of climate control equipment under their own trademark.

Two ideologies, two directions, two leaders have united to create a new project.

Elegant design corresponding to the fashionable trend, ergonomics and comfort are combined with innovative solutions, modern technology and high quality.

The words "COMFORT INNOVATIONS" became the motto of the COOPER&HUNTER brand.

COOPER&HUNTER is an international climate control brand. Sales geography covers a big quantity of countries on various continents, and it is constantly growing. It is the proof of deserved popularity of the trade mark.

### SALES OF COOPER&HUNTER CLIMATE CONTROL EQUIPMENT

Austria, Albania, Armenia, Bangladesh, Belgium, Bosnia, Bulgaria, Hungary, Ghana, Guinea, Greece, Georgia, Denmark, Spain, Italy, Canada, Cyprus, Kosovo, Latvia, Lebanon, Lithuania, Macedonia, Malta, Moldova, the Netherlands, Norway, UAE, Palestine, Poland, republic Belarus', Russia, Rumania, Sierra Leone, Slovakia, Slovenia, El Salvador, USA, Ukraine, Finland, Croatia, Montenegro, Czech Republic, Sweden, Sri Lanka, Estonia, Republic of South Africa.





THE PHYSICAL PROPERTIES OF FREON R32 AND R410A ARE VERY CLOSE. IT ALLOWS TO USE COPPER TUBES AND OILS WITH THE SAME CHARACTERISTICS LIKE IN R410A DEVICES AS WELL AS R32 EQUIPMENT.

HAVING EQUAL PRODUCTIVITY THE LOWER DENSITY OF THE NEW REFRIGERANT MAKES IT POSSIBLE TO SAVE ON THE AMOUNT OF R32 (SAVING BY 29%).

LOW VISCOSITY MEANS THAT THE PRESSURE LOSS IN THE ELEMENTS OF THE REFRIGERATION CIRCUIT IS REDUCED. THIS INCREASES THE OVERALL ENERGY PERFORMANCE BY ABOUT 5%. THE THERMAL CONDUCTIVITY OF R32 IS HIGHER THAN THAT OF R410A, WHICH MAKES IT POSSIBLE TO INCREASE THE COOLING

CAPACITY PER UNIT MASS BY ABOUT 4% AND AT THE SAME TIME TO REDUCE THE POWER CONSUMPTION OF THE DEVICE BY 10%.

AS A SINGLE COMPONENT, FREON R32 HAS THE ABILITY TO REFUEL REGARDLESS OF THE AMOUNT OF REFRIGERANT IN THE CIRCUIT. OPERATION WITH R32 IS MUCH SIMPLER THAN WITH THE TWO-COMPONENT R410A.

THE GLOBAL WARMING POTENTIAL OF R32 IS 67% LOWER THAN THAT OF THE MORE COMMON R410A REFRIGERANT AND THAT IS ULTIMATELY SAFER FOR THE ENVIRONMENT.



# THE GLOBAL WARMING POTENTIAL



# Welcome to Cooper&Hunter Business Portal

This business portal is intended for dealers and business partners of "Cooper&Hunter". "Cooper&Hunter" – is a modern-tech brand. We appreciate our partners and support them with continuous communications.

Here you will find the information necessary for the successful sale of TM C&H:

- promotional materials (catalogs, brochures, layouts, samples, corporate identity, commercials video)
- technical manuals (user manuals, datasheets, certificates)

- detailed information for engineers and installers about the maintenance, and troubleshooting (technical catalogs, videos)
- on individual page, the dealer can see the personal commercial information, a list of equipment ready for sale and place a pre-order.

The list of services on our business portal is constantly growing.

We are always ready to listen and implement your requests.

Please apply in writing ([portal@cooperandhunter.com](mailto:portal@cooperandhunter.com)).

Support of COOPER&HUNTER INTERNATIONAL CORPORATION

[www.ch-business.com](http://www.ch-business.com)

\*only to the registered dealers (the 1st level)

## Cooper&Hunter Comfort Innovations I-Action Inverter Technology

C&H inverters are hi-tech systems controlled by the innovative built-in microprocessor based on unique technology I-Action Inverter Technology.

This means that the rotor compressor achieving the specified

temperature does not turn off and continues to work at the extremely low 1 hz frequency consuming only 40 watt/hour. Thus Cooper&Hunter saves up to 50% of consumed electric power and extends the service period up to 10 years.

### Advantages of I-Action Technology:



#### Extremely low frequency of compressor rotation

- Accurate temperature control
- Saves up to 40% of energy consumption



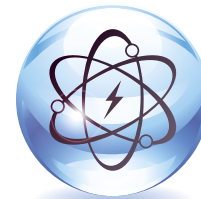
#### Refrigerant R410A

- Ozone-safe

- Effective cooling

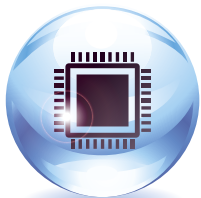
#### Refrigerant R32

- Low Global Warming Potential (GWP)
- Zero Ozone Depleting Potential (ODP)



#### Voltage automatic adjustment (150-265 V)

- Operation at unstable power level



#### Modern high-speed microprocessor

- High functional control
- Effective control of parameters



#### Noiseless operation

- As low 25 dB in the room
- Silen and comfort



#### Performance reliability

- Quality control at all production stages
- Perfect characteristics and high capacity



#### Strict temperature control

- Accuracy in the air temperature control up to 0,1°C
- Control of the specified parameters



#### Turbo mode

- High-speed achievement of the necessary temperature
- Quick cooling and space heating



#### Continuous operation

- Operates in the modes from maximum to minimum without the turn off
- Saves the electric energy



# "I FEEL" FUNCTION

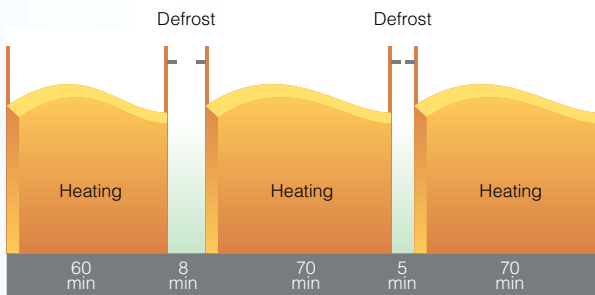
The function controls the air temperature by means of the detector on the control panel.

The temperature detector measures air temperature at the place and transfers the information to the air conditioner indoor unit.

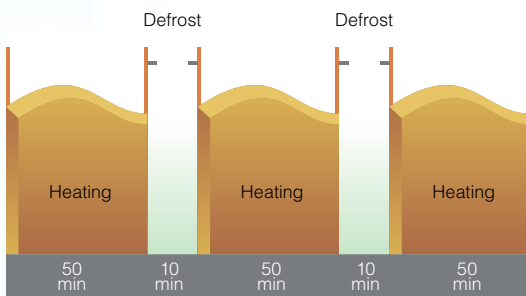
"I feel" adjusts in such way to achieve necessary parameters of climate comfort directly where the remote is.

## INTELLIGENT DEFROST

Is more effective heating function. Contrary to the previous programs, old models, the "intelligent defrost" program activates the process if only it is really necessary.



Intelligent defrost Cooper&Hunter



Traditional defrost

## COMFORT FOR LIFE



**Intelligent defrost** is more effective heating function. Contrary to the previous programs and old models, the "Intelligent defrost" program activates the process if only it is really necessary.



**Hot start** the air conditioner turns off only after the necessary air temperature is achieved.



**Control panel lock** defends from the undesirable control.



**Turbo mode** is a quick and powerful function to achieve the necessary temperature.



**Night mode** very quiet operation and support of comfort temperature during the night.



**"I feel" function** provides personalised environment since the temperature can be detected where the remote controller is located.







# GENERAL OFFICE IN THE US COOPER&HUNTER

**MIAMI, FLORIDA**

EIN ASSIGNED 47-3995007

3550 NW 113TH COURT

DORAL, FL 33178

COMFORTSIDE LLC





# SUPREME SERIES



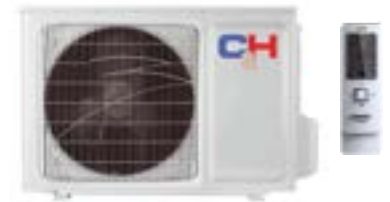
\*Gold



Two-stage  
Compressor

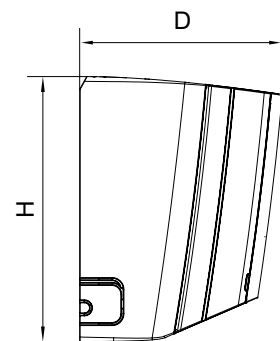
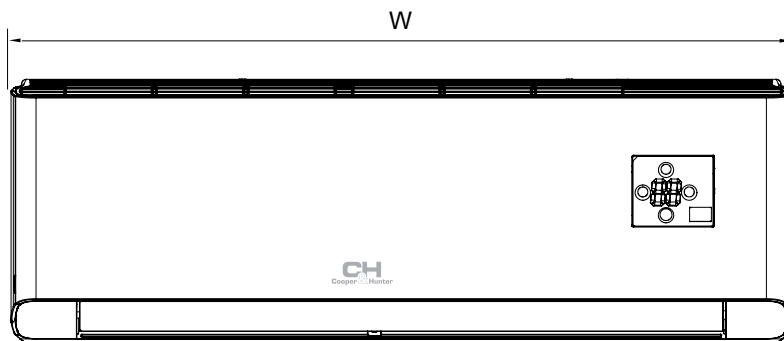


- ▶ Household heat pump. It is customized to generate heat in northern countries;
- ▶ The innovative technology "Two-stage Compressor" provides efficient operation in the temperature range of  $-30^{\circ}\text{C}$  ...  $+24^{\circ}\text{C}$  to generate heat and of  $-18^{\circ}\text{C}$  ...  $+54^{\circ}\text{C}$  to generate cold. It increases the energy efficiency coefficient in the cooling mode (EER) by 40%, whereas in the heat mode it increases the coefficient (COP) by 35%
- ▶ House protection against freezing:  $+8^{\circ}\text{C}$ ;
- ▶ "CH SMART-ION Filter" – the new generation technology of total cleaning of air;
- ▶ Wi-Fi module to control the air-conditioner via smart phone/ tablet PC (OS: Android, iOS);
- ▶ Full compliance with the EU Directive ErP (Energy related Products) valid since 01-01-2013 # 626/2011/EU for household heat pumps and air conditioners SEER A+++ SCOP A+++;
- ▶ Extra low noise level – only 18 dB, solid cast plastic body and new technology of seamless heat exchanger.



Model			CH-S09FTXAM2S-WP	CH-S12FTXAM2S-WP	CH-S18FTXAM2S-WP	CH-S24FTXAM2S-WP
			CH-S09FTXAM2S-SC	CH-S12FTXAM2S-SC	CH-S18FTXAM2S-SC	CH-S24FTXAM2S-SC
			CH-S09FTXAM2S-GD	CH-S12FTXAM2S-GD	CH-S18FTXAM2S-GD	CH-S24FTXAM2S-GD
			CH-S09FTXAM2S-BL	CH-S12FTXAM2S-BL	CH-S18FTXAM2S-BL	CH-S24FTXAM2S-BL
Capacity	Cooling	kW	2,70 (0,70-5,00)	3,53 (0,85-5,00)	5,30 (1,20-7,20)	7,03 (2,00-9,00)
	Heating	kW	3,50 (0,70-5,50)	4,20 (0,88-7,20)	5,57 (1,20-9,20)	7,03 (2,00-9,50)
Consumed power	Cooling	kW	0,55 (0,08-1,80)	0,84 (0,06-1,90)	1,32 (0,35-2,50)	1,85 (0,45-3,70)
	Heating	kW	0,75 (0,13-2,40)	0,95 (0,13-2,60)	1,32 (0,35-3,30)	1,75 (0,38-3,80)

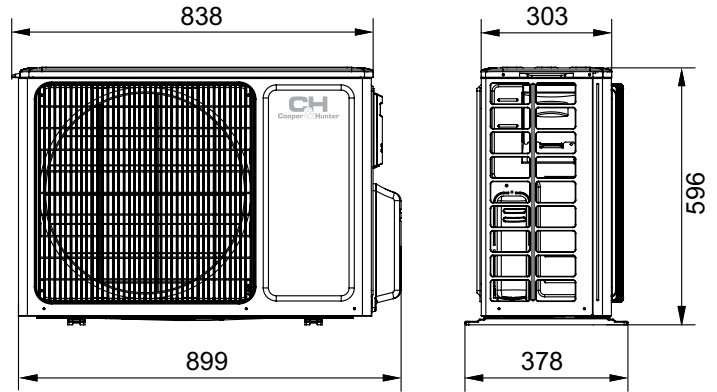
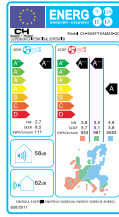
## INDOOR UNIT



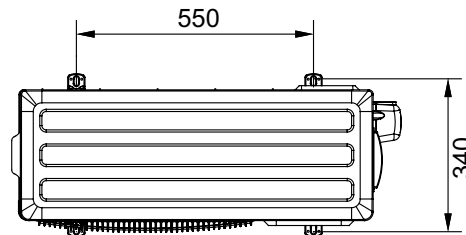
Model	W (mm)	H (mm)	D (mm)
CH-S09FTXAM2S-SG/ CH-S09FTXAM2S-GD/ CH-S09FTXAM2S-BL/ CH-S09FTXAM2S-WP	996	301	225
CH-S12FTXAM2S-SG/ CH-S12FTXAM2S-GD/ CH-S12FTXAM2S-BL/ CH-S12FTXAM2S-WP	996	301	225
CH-S18FTXAM2S-SG/ CH-S18FTXAM2S-GD/ CH-S18FTXAM2S-BL/ CH-S18FTXAM2S-WP	1101	327	249
CH-S24FTXAM2S-SG/ CH-S24FTXAM2S-GD/ CH-S24FTXAM2S-BL/ CH-S24FTXAM2S-WP	1101	327	249

# OUTDOOR UNIT

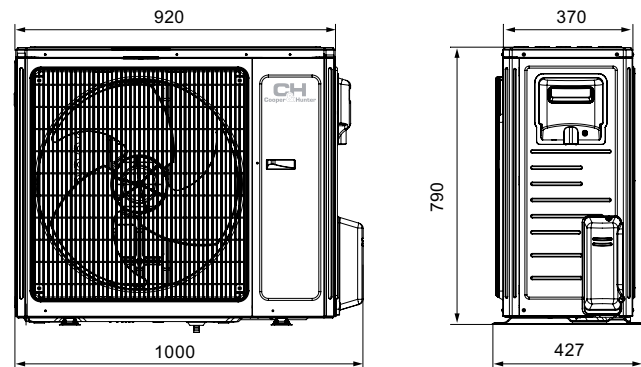
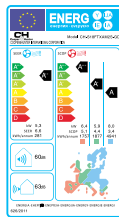
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CH-S09FTXAM2S-SG  
CH-S09FTXAM2S-GD  
CH-S09FTXAM2S-BL



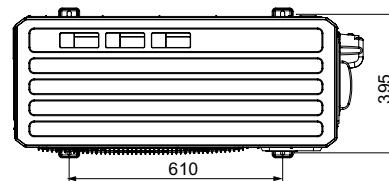
CH-S12FTXAM2S-WP  
CH-S12FTXAM2S-SG  
CH-S12FTXAM2S-GD  
CH-S12FTXAM2S-BL



CH-S18FTXAM2S-WP  
CH-S18FTXAM2S-SG  
CH-S18FTXAM2S-GD  
CH-S18FTXAM2S-BL



CH-S24FTXAM2S-WP  
CH-S24FTXAM2S-SG  
CH-S24FTXAM2S-GD  
CH-S24FTXAM2S-BL



Model			CH-S09FTXAM2S-WP CH-S09FTXAM2S-SG CH-S09FTXAM2S-GD CH-S09FTXAM2S-BL	CH-S12FTXAM2S-WP CH-S12FTXAM2S-SG CH-S12FTXAM2S-GD CH-S12FTXAM2S-BL	CH-S18FTXAM2S-WP CH-S18FTXAM2S-SG CH-S18FTXAM2S-GD CH-S18FTXAM2S-BL	CH-S24FTXAM2S-WP CH-S24FTXAM2S-SG CH-S24FTXAM2S-GD CH-S24FTXAM2S-BL
Capacity	Cooling	kW	2,70 (0,70-5,00)	3,53 (0,85-5,00)	5,30 (1,20-7,20)	7,03 (2,00-9,00)
	Heating	kW	3,50 (0,70-5,50)	4,20 (0,88-7,20)	5,57 (1,20-9,20)	7,03 (2,00-9,50)
Power supply			~ 220-240B/50Hz			
Consumed power	Cooling	kW	0,55 (0,08-1,80)	0,84 (0,06-1,90)	1,32 (0,35-2,50)	1,85 (0,45-3,70)
	Heating	kW	0,75 (0,13-2,40)	0,95 (0,13-2,60)	1,32 (0,35-3,30)	1,75 (0,38-3,80)
Energy performance	SEER (Cooling)	kW/kW	8,5 (A+++)	8,5 (A+++)	6,6 (A++)	6,5 (A++)
	SCOP (Heating)	kW/kW	5,1 (A+++)	5,1 (A+++)	4,4 (A+)	4,1 (A+)
Air flow		m <sup>3</sup> /h	430/500/560/620/670/720/800	450/530/580/630/680/730/800	600/780/950/1150/1200	650/750/800/850/950/1100/1250
Sound pressure level	Indoor unit	dB (A)	18/22/26/30/34/38/43	20/24/28/32/36/41/46	30/33/36/39/42/45/48	32/35/38/41/44/47/50
	Outdoor unit	dB (A)	53	54	56	58
Refrigerant type			R-32			
Weight	Indoor unit	kg	13	13,5	16,5	16,5
	Outdoor unit	kg	44,5	45,5	62,5	65
Compressor type			rotary			
Drying		l/h	0,8	1,4	1,8	2,0
Cooling operation ambient temperature			°C -18 ... +54			
Heating operation ambient temperature			°C -30 ... +24			
Gas charge volume		kg	1,0	1,0	1,5	2,0
Liquid line diameter		mm/inch	6,38/1/4"	6,38/1/4"	6,38/1/4"	6,38/1/4"
Gas line diameter		mm/inch	9,53/3/8"	9,53/3/8"	15,88/5/8"	15,88/5/8"
Maximal difference in level		m	10	10	20	30
Maximal pipe length		m	15	20	40	50
Distance between the bolts of the outdoor unit fastening			mm 550		610	

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.



# VIP INVERTER SERIES



**INVERTER**



 **Two stage compressor**

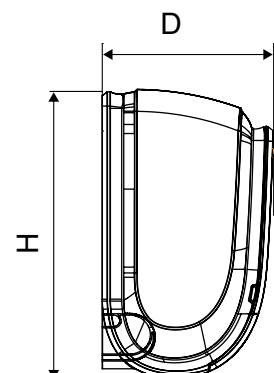
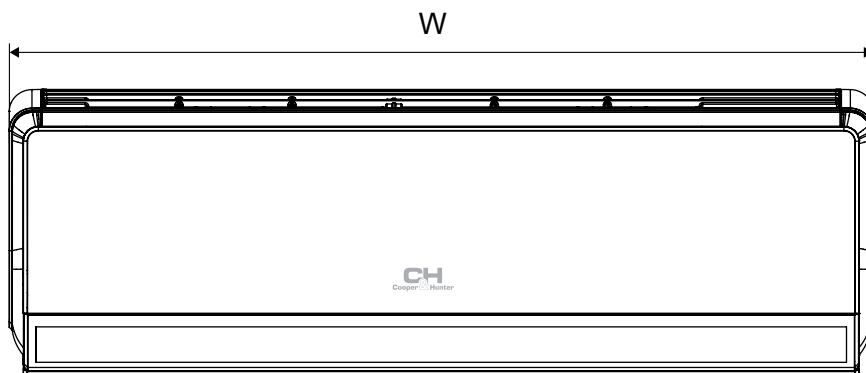


- ▶ Household heat pump. It is customized to generate heat in northern countries;
- ▶ The innovative technology "Two-stage Compressor" provides efficient operation in the temperature range of -30°C ... +24°C to generate heat and of -18°C...+54°C to generate cold. It increases the energy efficiency coefficient in the cooling mode (EER) by 40%, whereas in the heat mode it increases the coefficient (COP) by 35% Energy consumption is decreased down to 15 W/h;
- ▶ Stylish and compact design: usage of aluminum panels of the indoor unit (for models CH-S09FTXHV-B, CH-S12FTXHV-B),
- ▶ super thin indoor unit (only 170 mm), telescopic mechanism of air damper drive,
- ▶ Noiseless operation on the indoor unit: 18 dB(A);
- ▶ Air flow is distributed over the entire room area. This is achieved due to wide angle of outgoing air from the indoor unit: 130° in horizontal and 0° ... 180° in vertical directions.



Model			CH-S09FTXHV-B	CH-S12FTXHV-B	CH-S18FTXHV-B
Capacity	Cooling	kW	2,60 (0,38-4,4)	3,50 (0,39-4,8)	5,30 (0,85-6,77)
	Heating	kW	3,00 (0,38-5,1)	3,70 (0,4-5,7)	5,30 (0,75-7,32)
Consumed power	Cooling	kW	0,52 (0,075-1,30)	0,76 (0,08-1,5)	1,40 (0,2-2,0)
	Heating	kW	0,55 (0,07-1,4)	0,75 (0,08-1,6)	1,35 (0,2-2,4)

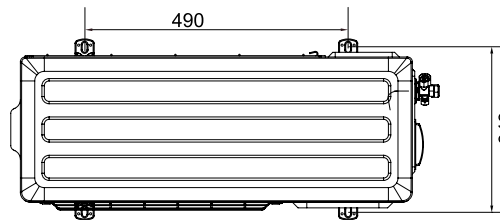
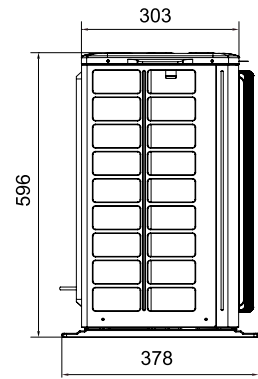
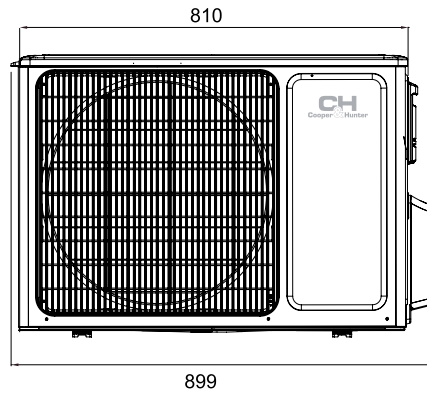
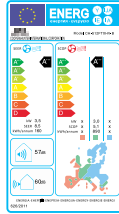
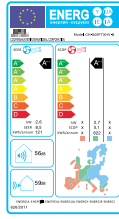
## INDOOR UNIT



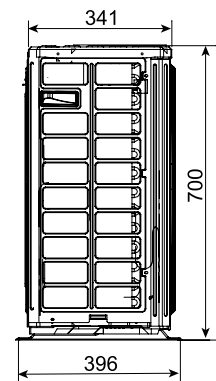
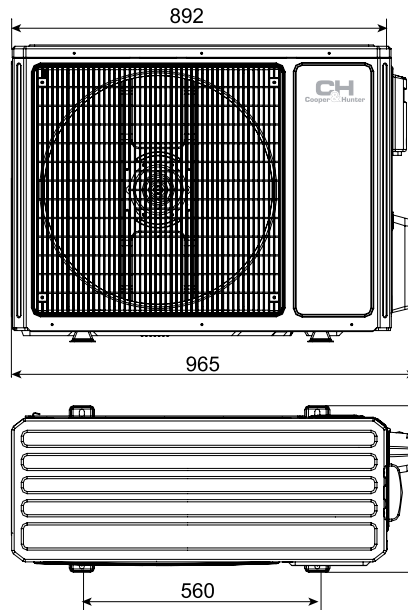
Model	W (mm)	H (mm)	D (mm)
CH-S09FTXHV-B	860	305	170
CH-S12FTXHV-B	860	305	170
CH-S18FTXHV-B	960	320	205

# OUTDOOR UNIT

CH-S09FTXHV-B  
CH-S12FTXHV-B



CH-S18FTXHV-B



Model			CH-S09FTXHV-B	CH-S12FTXHV-B	CH-S18FTXHV-B
Capacity	Cooling	kW	2.60 (0.38-4.4)	3.50 (0.39-4.8)	5.30 (0.85-6.77)
	Heating		3.00 (0.38-5.1)	3.70 (0.4-5.7)	5.30 (0.75-7.32)
Power supply			~220-240 V/50 Hz/1 Ph		
Consumed power	Cooling	kW	0.52 (0.075-1.30)	0.76 (0.08-1.5)	1.40 (0.2-2.0)
	Heating		0.55 (0.07-1.4)	0.75 (0.08-1.6)	1.35 (0.2-2.4)
Energy performance	SEER (Cooling/ COP (Heating))	kW/kW	5.0/5.45	4.6/4.93	3.8/3.93
EER*/SCOP** (Energy performance class)			8.5 (A+++)/5.1 (A+++)	8.5 (A+++)/5.1 (A+++)	6.1 (A+)/4.6 (A++)
Air flow		m <sup>3</sup> /h	290/300/350/400/470/530/650	290/320/370/420/490/550/720	340/400/500/600/650/750/850
Sound pressure level	Indoor unit (min/ave/max)/Outdoor unit		18/21/24/28/32/34/37	20/24/28/32/34/38/40	22/27/32/36/40/42/46
			45	50	56
Refrigerant type			R410A		
Weight	Indoor unit/Outdoor unit		11.5/44.5	11.5/44.5	14/51
				rotor	
Compressor type			rotor		
Drying		l/h	0.80	1.40	1.80
Cooling operation ambient temperature		°C	-18/+54		
Heating operation ambient temperature		°C	-30/+24		
Gas charge volume		kg	1.3	1.3	1.65
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	12.7/1/2"	12.7/1/2"	12.7/1/2"
Maximal difference in level		m	10	10	10
Maximal pipe length		m	15	20	25
Distance between the bolts of the outdoor unit fastening		mm	490	490	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.



# NORDIC PREMIUM SERIES



**INVERTER**



\*Silver



\*White

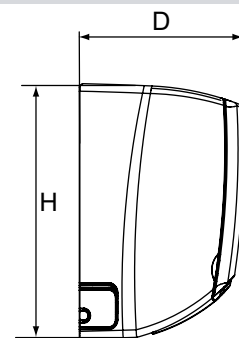
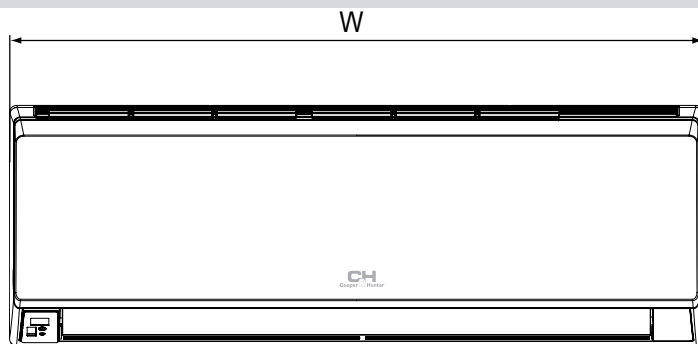


- ▶ The household heat pump is customized to generate heat in northern countries;
- ▶ Original compressor: TM MITSUBISHI ELECTRIC ;
- ▶ Efficient operation temperature range from -28°C to +24°C to generate heat, from +18°C to +48°C to generate cold;
- ▶ DC inverter motor of the indoor unit of new generation;
- ▶ Step-less Fan Control – unique technology of smooth regulation of the indoor unit fan speed within the wide range of 1... 100%;
- ▶ High class of energy efficiency A+++
- ▶ Top-grade energy saving specification "GENERATION V" (strict assembling/ material quality control);
- ▶ Top grade plasma air cleaner: a unique system removing bacteria, viruses, foul odors, and allergens from air.
- ▶ Extra low noise level of the outdoor unit (only 18 dB, airflow direction control is to the right and left by a remote control, additional panel to direct the air flow in parallel to the ceiling and prevent blowing on a user.
- ▶ Outdoor temperature indication.



Model	CH-S09FTXN-PS CH-S09FTXN-PW		CH-S12FTXN-PS CH-S12FTXN-PW		CH-S18FTXN-PS CH-S18FTXN-PW		CH-S24FTXN-PS CH-S24FTXN-PW	
Capacity	Cooling	kW	2.64 (0.78-3.30)	3.52 (0.90-3.90)	5.30 (1.00-6.70)	6.60 (1.40-7.00)		
	Heating	kW	3.00 (0.73- 3.40)	3.90 (0.80-4.20)	5.60 (1.10-6.80)	6.80 (1.50-7.90)		
Consumed power	Cooling	kW	0.56 (0.06-1.45)	0.77 (0.06-1.56)	1.19 (0.10-2.46)	1.50 (0.10-2.80)		
	Heating	kW	0.59 (0.14-1.55)	0.80 (0.14-1.65)	1.19 (0.20-2.30)	1.45 (0.21-2.50)		

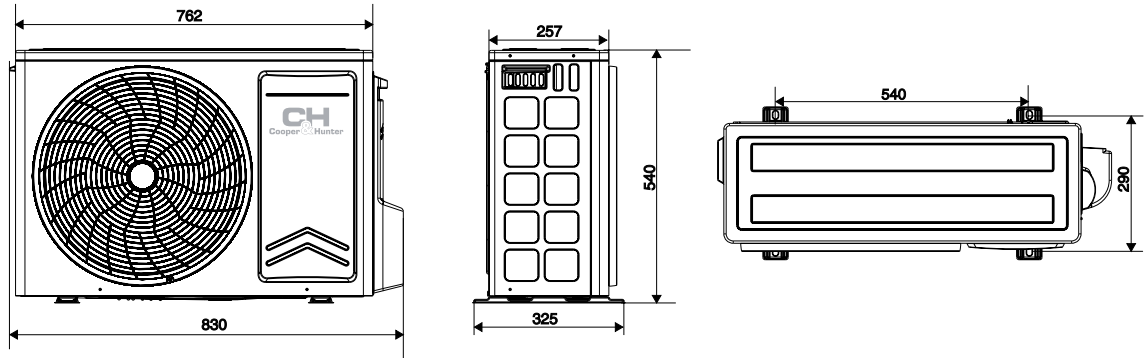
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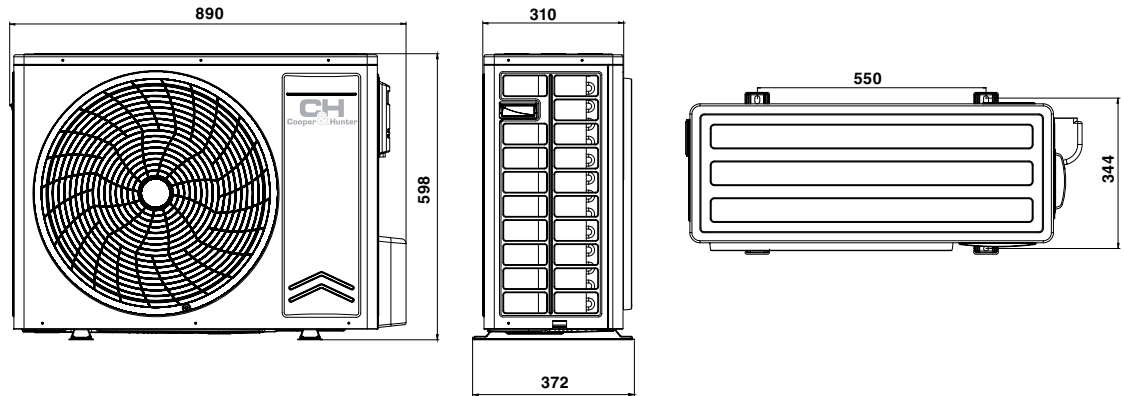
Model	W (mm)	H (mm)	D (mm)
CH-S09FTXN-PS / CH-S09FTXN-PW	880	298	218
CH-S12FTXN-PS / CH-S12FTXN-PW	880	298	218
CH-S18FTXN-PS / CH-S18FTXN-PW	992	309	235
CH-S24FTXN-PS / CH-S24FTXN-PW	992	309	235

# OUTDOOR UNIT

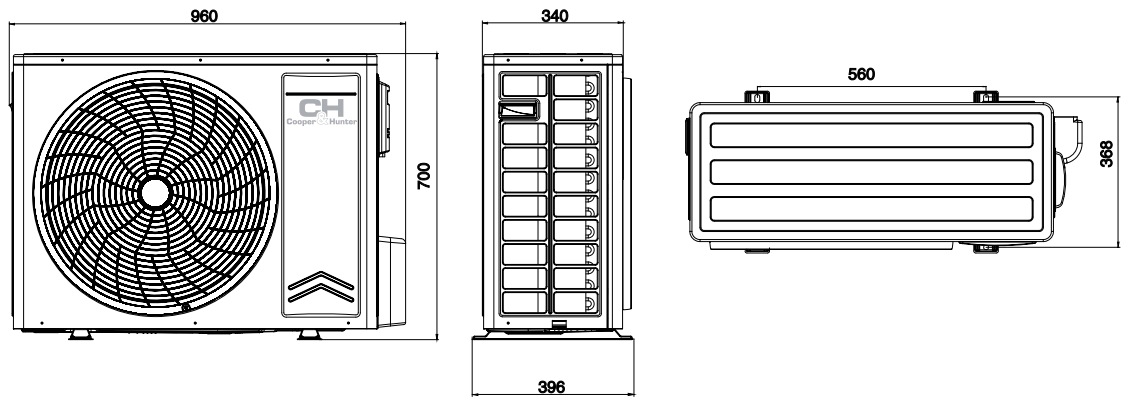
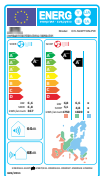
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CH-S12FTXN-PS  
CH-S12FTXN-PW



CH-S18FTXN-PS  
CH-S18FTXN-PW



CH-S24FTXN-PS  
CH-S24FTXN-PW



Model			CH-S09FTXN-PS CH-S09FTXN-PW	CH-S12FTXN-PS CH-S12FTXN-PW	CH-S18FTXN-PS CH-S18FTXN-PW	CH-S24FTXN-PS CH-S24FTXN-PW
Capacity	Cooling	kW	2.64 (0.78-3.30)	3.52 (0.90-3.90)	5.30 (1.00-6.70)	6.60 (1.40-7.00)
	Heating	kW	3.00 (0.73- 3.40)	3.90 (0.80-4.20)	5.60 (1.10-6.80)	6.80 (1.50-7.90)
Power supply	-220-240 V/50 Hz/1 Ph					
Consumed power	Cooling	kW	0.56 (0.06-1.45)	0.77 (0.06-1.56)	1.19 (0.10-2.46)	1.50 (0.10-2.80)
	Heating	kW	0.59 (0.14-1.55)	0.80 (0.14-1.65)	1.19 (0.20-2.30)	1.45 (0.21-2.50)
SEER*/SCOP** (Energy performance class)			8.1(A++)/5.1(A+++)	8.0(A++)/5.1(A+++)	7.2(A++)/5.1(A+++)	6.8(A++)/5.1(A+++)
Air flow		m <sup>3</sup> /h	670/580/470/360	670/580/470/360	900/810/670/510	900/810/670/510
Level of soundpressure	Indoor unit (min/ave/max)/	dB (A)	38/26/21/18	39/28/22/19	41/30/27/25	44/37/30/27
	Outdoor unit					
Refrigerant type			R32			
Weight	Indoor unit	kg	10	10	14	14
	Outdoor unit	kg	29	30,5	43	43.5
Compressor type	rotor					
Drying		l/h	0.80	1.40	1.80	2.40
Cooling operation ambient temperature		°C	+18/+52			
Heating operation ambient temperature		°C	-28/+24			
Gas charge volume		kg	0,55	0,78	0,96	1,15
Liquid line diameter		mm/inch	6,38/1/4"	6,38/1/4"	6,38/1/4"	6,38/1/4"
Gas line diameter		mm/inch	9,53/3/8"	9,53/3/8"	12,7/1/2"	15,88/5/8"
Maximal difference in level		m	10	10	10	10
Maximal pipe length		m	20	20	25	25
Distance between the bolts of the outdoor unit fastening		mm	540		550	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.





Two stage compressor



- ▶ Household heat pump. It is customized to generate heat in northern countries;
- ▶ The innovative technology "Two-stage Compressor" provides efficient operation in the temperature range of from  $-30^{\circ}\text{C}$  to  $+24^{\circ}\text{C}$  to generate heat, from  $-15^{\circ}\text{C}$  to  $+54^{\circ}\text{C}$  to generate cold. It increases the energy efficiency coefficient in the cooling mode (EER) by 40%,

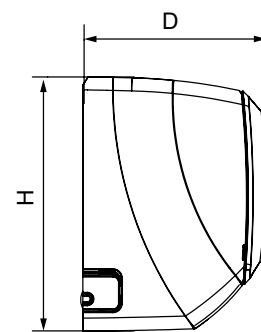
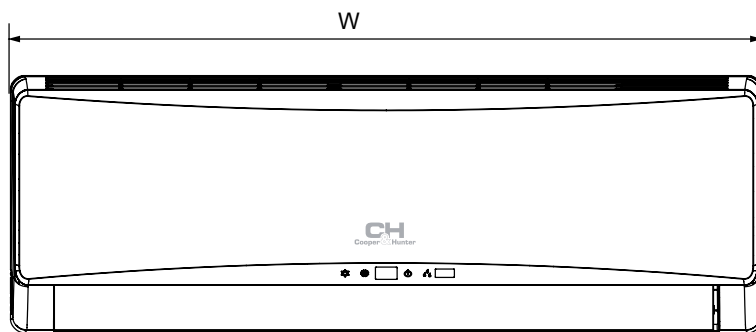
and in heating mode (COP) by 35%. Energy consumption is decreased down to 15 W/h;

- ▶ Air flow direction is to the right/ left by a remote control;
- ▶ Noiseless operation of the indoor unit: 20 dB(A);



Model		CH-S09FTXTB2S-W	CH-S12FTXTB2S-W	CH-S18FTXTB2S-W	CH-S24FTXTB2S-W
Capacity	kW Cooling	2.60 (0.76-4.81)	3.50(0.74-4.73)	5.28(1.00-6.30)	7.00(2.00-8.60)
	kW Heating	3.00 (0.82-5.50)	3.65(0.83-6.33)	5.45(1.00-7.14)	7.00(1.90-9.00)
Consumed power	kW Cooling	0.60 (0.12-1.10)	0.81(0.22-1.30)	1.32(0.40-2.45)	1.92(0.40-3.70)
	kW Heating	0.65 (0.12-1.60)	0.79(0.39-1.90)	1.20(0.40-2.50)	1.79(0.45-3.70)

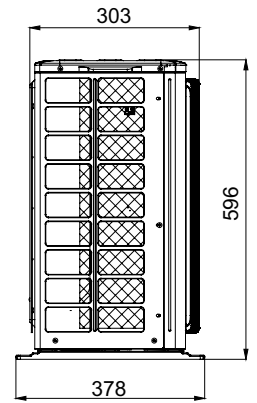
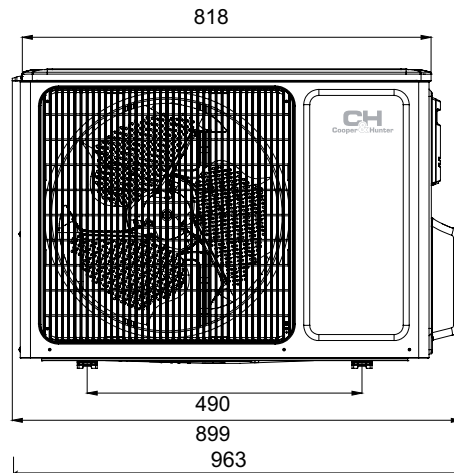
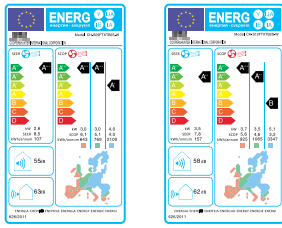
### INDOOR UNIT



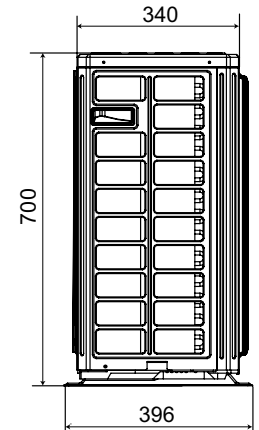
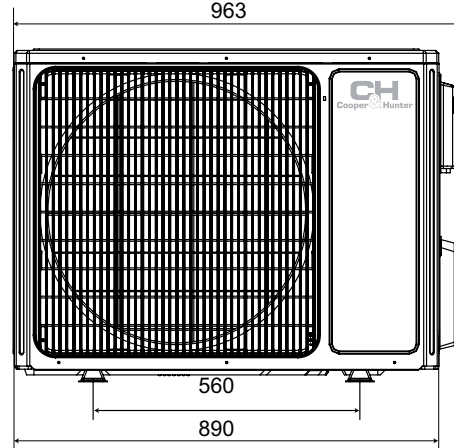
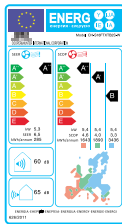
Model	W (mm)	H (mm)	D (mm)
CH-S09FTXTB2S-W	866	292	209
CH-S12FTXTB2S-W	866	292	209
CH-S18FTXTB2S-W	1018	319	230
CH-S24FTXTB2S-W	1178	326	264

# OUTDOOR UNIT

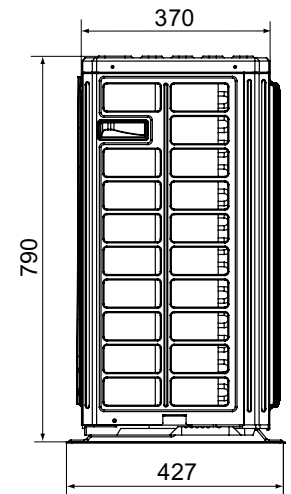
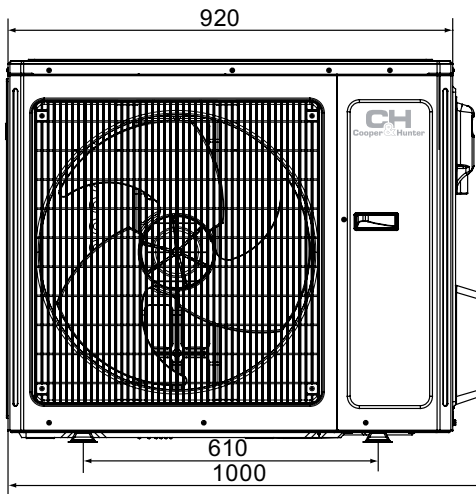
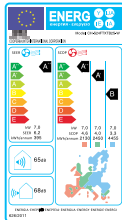
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CH-S12FTXTB2S-W



CH-S18FTXTB2S-W



CH-S24FTXTB2S-W



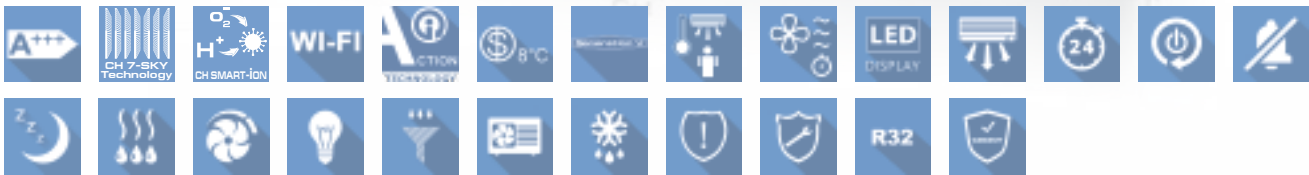
Model			CH-S09FTXTB2S-W	CH-S12FTXTB2S-W	CH-S18FTXTB2S-W	CH-S24FTXTB2S-W
Capacity	Cooling	kW	2.60 (0.76-4.81)	3.50 (0.74-4.73)	5.28 (1.00-6.30)	7.00 (2.00-8.60)
	Heating	kW	3.00 (0.82-5.50)	3.65 (0.83-6.33)	5.45 (1.00-7.14)	7.00 (1.90-9.00)
Power supply			~220-240 V/50 Hz/1 Ph			
Consumed power	Cooling	kW	0.60 (0.12-1.10)	0.81 (0.22-1.30)	1.32 (0.40-2.45)	1.92 (0.40-3.70)
	Heating	kW	0.65 (0.12-1.60)	0.79 (0.39-1.90)	1.20 (0.40-2.50)	1.79 (0.45-3.70)
Energy performance	SEER (Cooling/ COP (Heating)	kW/kW	4.33/4.62	4.30/4.60	4.00/4.55	3.64/3.90
	EER*/SCOP** (Energy performance class)		8.5 (A+++)/5.1 (A+++)	7.8 (A++)/4.6 (A++)	6.5 (A+)/4.0 (A+)	6.2 (A+)/4.0 (A+)
Air flow		m <sup>3</sup> /h	350/400/450/500/550/600/650	380/410/460/530/610/670/740	480/560/630/710/790/870/950	780/850/920/990/1060/1130/1200
Level of soundpressure	Indoor unit	dB (A)	20/24/28/32/34/36/43	20/24/28/32/34/36/43	30/34/38/40/42/44/46	32/37/42/44/46/50/51
	Outdoor unit	dB (A)	54	55	56	58
Refrigerant type		oz	R410A			
Weight	Indoor unit/ Outdoor unit	kg	11/41	11/43,5	14/51	17/65
	Compressor type		rotor			
Drying		l/h	0.8	1.4	1.8	2.5
Cooling operation ambient temperature		°C	-15/+54			
Heating operation ambient temperature		°C	-30/+24			
Gas charge volume		kg	1.20	1.30	1.65	2.00
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	12.7/1/2"	12.7/1/2"	15.88/5/8"
Maximal difference in level		m	10	10	10	10
Maximal pipe length		m	15	20	25	20

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.



# ARCTIC INVERTER NG SERIES

*INVERTER*



- ▶ Household heat pump, it is customized to generate heat in northern countries;
- ▶ A special operation algorithm providing stable and effective operation at negative outdoor temperatures, heating of the compressor and sump;
- ▶ Outdoor unit fan speed regulator;
- ▶ Effective operation temperature range: - 25°C ... +24°C to generate heat and - 15°C ... + 48°C to generate cold;
- ▶ The technology "I-Action": stable and smooth

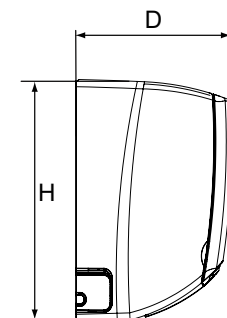
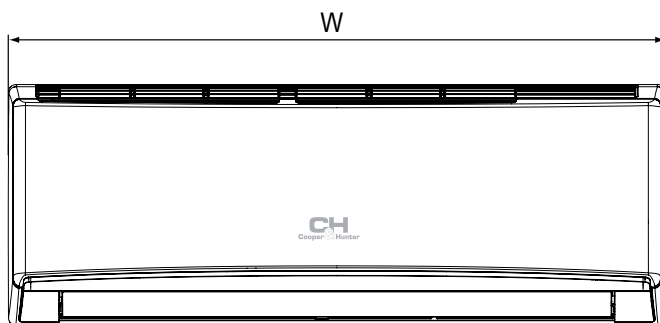
compressor operation at extra low frequencies (1 Hz);

- ▶ Air flow directing by a remote control to the left and to the right;
- ▶ "CH 7-SKY Technology: complex filtration system based on seven filters of wide effect spectrum;
- ▶ High class of energy efficiency A+++
- ▶ Top-grade energy saving specification "GENERATION V" (strict assembling/ material quality control).



Model			CH-S09FTXLA-NG	CH-S12FTXLA-NG	CH-S18FTXLA-NG	CH-S24FTXLA-NG
Capacity	Cooling	kW	2,70 (0,45-3,50)	3,50 (0,70-4,00)	5,20 (1,26-6,60)	7,00 (2,00-8,32)
	Heating	kW	2,80 (0,45- 4,20)	3,67 (0,80-4,50)	5,30 (1,12-6,80)	7,40 (2,00-9,20)
Consumed power	Cooling	kW	0,61 (0,09-1,40)	0,80 (0,09-1,45)	1,18 (0,38-2,45)	1,62 (0,40-3,10)
	Heating	kW	0,61 (0,16-1,50)	0,79 (0,18-1,50)	1,14 (0,35-2,60)	1,63 (0,45-3,75)

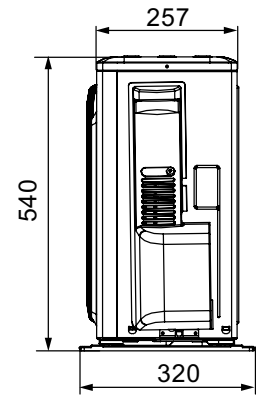
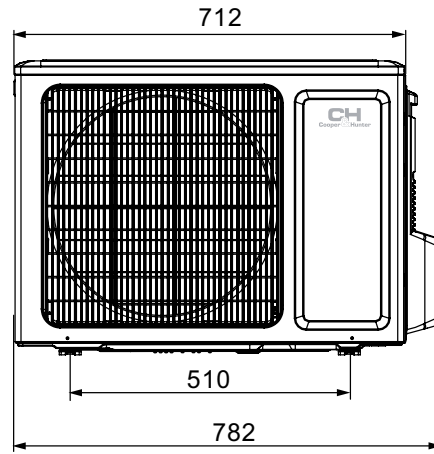
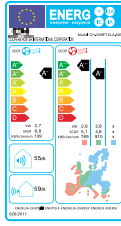
## INDOOR UNIT



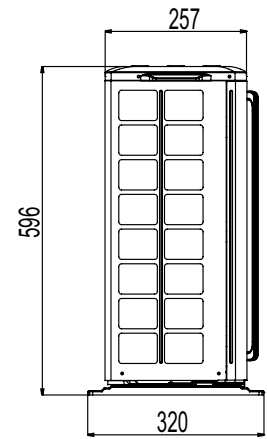
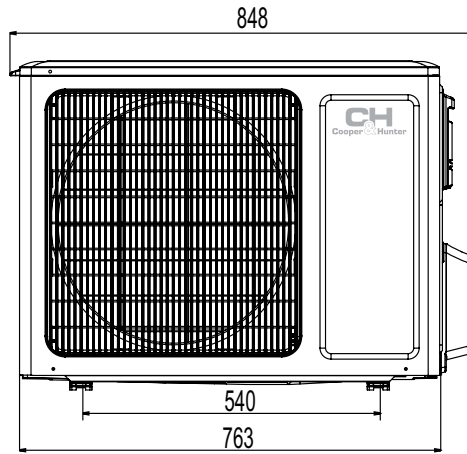
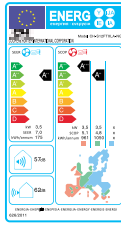
Model	W (mm)	H (mm)	D (mm)
CH-S09FTXLA-NG	790	275	200
CH-S12FTXLA-NG	845	289	209
CH-S18FTXLA-NG	970	300	224
CH-S24FTXLA-NG	1078	325	246

# OUTDOOR UNIT

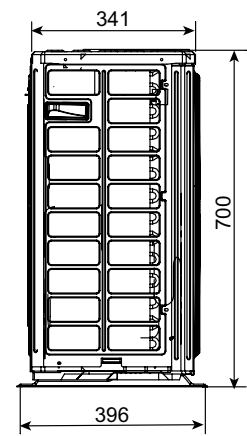
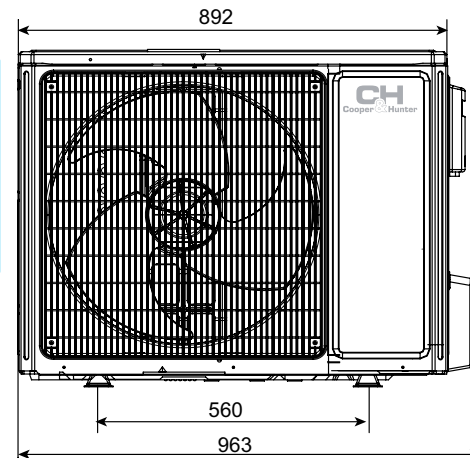
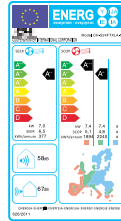
CH-S09FTXLA-NG



CH-S12FTXLA-NG



CH-S18FTXLA-NG  
CH-S24FTXLA-NG



Model			CH-S09FTXLA-NG	CH-S12FTXLA-NG	CH-S18FTXLA-NG	CH-S24FTXLA-NG
Capacity	Cooling	kW	2,70 (0,45-3,50)	3,50 (0,70-4,00)	5,20 (1,26-6,60)	7,00 (2,00-8,32)
	Heating	kW	2,80 (0,45- 4,20)	3,67 (0,80-4,50)	5,30 (1,12-6,80)	7,40 (2,00-9,20)
Power supply			~220-240 V/50 Hz			
Consumed power	Cooling	kW	0,61 (0,09-1,40)	0,80 (0,09-1,45)	1,18 (0,38-2,45)	1,62 (0,40-3,10)
	Heating	kW	0,61 (0,16-1,50)	0,79 (0,18-1,50)	1,14 (0,35-2,60)	1,63 (0,45-3,75)
Energy performance	SEER (Cooling)	kW/ kW	6,8 (A++)	7,0 (A++)	7,0 (A++)	6,5 (A++)
	COP (Heating)	kW/ kW	5,1 (A+++)	5,1 (A+++)	5,1 (A+++)	5,1 (A+++)
Air flow		m <sup>3</sup> /h	290/330/380/430/460/490/560	390/420/450/490/560/620/680	470/520/570/610/720/800	800/850/900/950/1050/1150/1250
Sound pressure level	Indoor unit	dB (A)	22/24/26/28/32/35/37	22/24/26/29/32/35/38	27/31/34/35/38/41/45	29/34/36/37/39/42/45
	Outdoor unit	dB (A)	50	52	57	57
Refrigerant type			R32			
Weight	Indoor unit	kg	9	10,5	13,5	16,5
	Outdoor unit	kg	27,5	31	45	53,5
Compressor type			Rotor			
Drying		l/h	0,80	1,40	1,8	2,4
Cooling operation ambient temperature		°C	-15 ... +48	-15 ... +48	-15 ... +48	-15 ... +48
Heating operation ambient temperature		°C	-25 ... +24	-25 ... +24	-25 ... +24	-25 ... +24
Gas charge volume		kg	0,55	0,70	1,00	1,70
Liquid line diameter		mm/inch	6,38/1/4"	6,38/1/4"	6,38/1/4"	6,38/1/4"
Gas line diameter		mm/inch	9,53/3/8"	9,53/3/8"	12,7/1/2"	15,88/5/8"
Maximal difference in level		m	10	10	10	10
Maximal pipe length		m	15	20	25	20
Distance between the bolts of the outdoor unit fastening		mm	510	540	560	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.



# NORDIC EVO NG SERIES

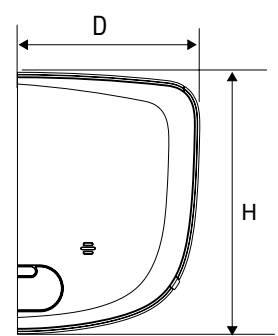
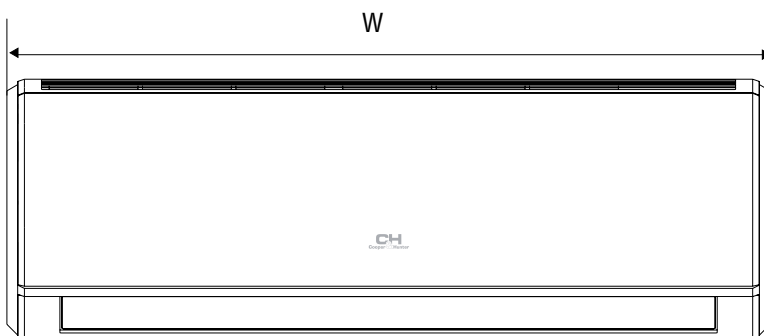


- ▶ Household heat pump. It is customized to generate heat in northern countries;
- ▶ Step-less Fan Control; a unique technology of smooth regulation of indoor unit fan speed within the wide range from 1 to 100%;
- ▶ The technology "I-Action": smooth and stable compressor operation at extra lowfrequencies (1 Hz);
- ▶ Operation from  $-25^{\circ}\text{C}$  to  $+24^{\circ}\text{C}$  to generate heat, and from  $+18^{\circ}\text{C}$  to  $+48^{\circ}\text{C}$  to generate cold;
- ▶ A special operation algorithm providing stable and effective operation at negative outdoor temperatures;
- ▶ Smart defrosting, heating of the compressor and sump, outdoor unit fan speed regulator.



Model		CH-S09FTXN-NG	CH-S12FTXN-NG	CH-S18FTXN-NG	CH-S24FTXN-NG
Capacity	Cooling kW	2.60 (0.48-2.90)	3.40 (0.60-3.90)	5.27 (1.00-6.70)	6.45 (1.40-7.00)
	Heating kW	2.80 (0.73- 3.30)	3.60 (0.80-4.20)	5.50 (1.10-6.80)	6.60 (1.50-7.90)
Consumed power	Cooling kW	0.57 (0.13-1.43)	0.77 (0.09-1.56)	1.19 (0.32-2.46)	1.47 (0.38-2.80)
	Heating kW	0.62 (0.17-1.55)	0.80 (0.14-1.65)	1.19 (0.35-2.30)	1.42 (0.40-2.50)

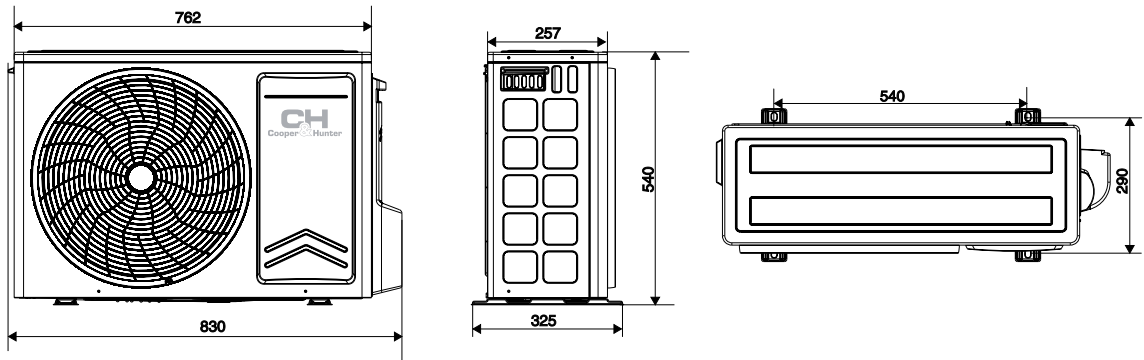
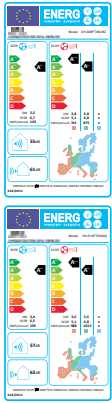
## INDOOR UNIT



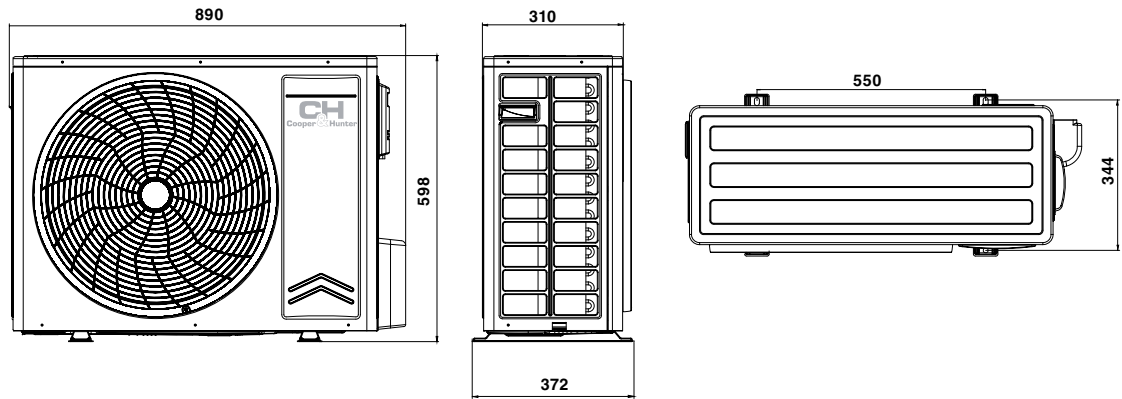
Model	W (mm)	H (mm)	D (mm)
CH-S09FTXN-NG	792	279	195
CH-S12FTXN-NG	792	279	195
CH-S18FTXN-NG	972	302	224
CH-S24FTXN-NG	1081	327	248

# OUTDOOR UNIT

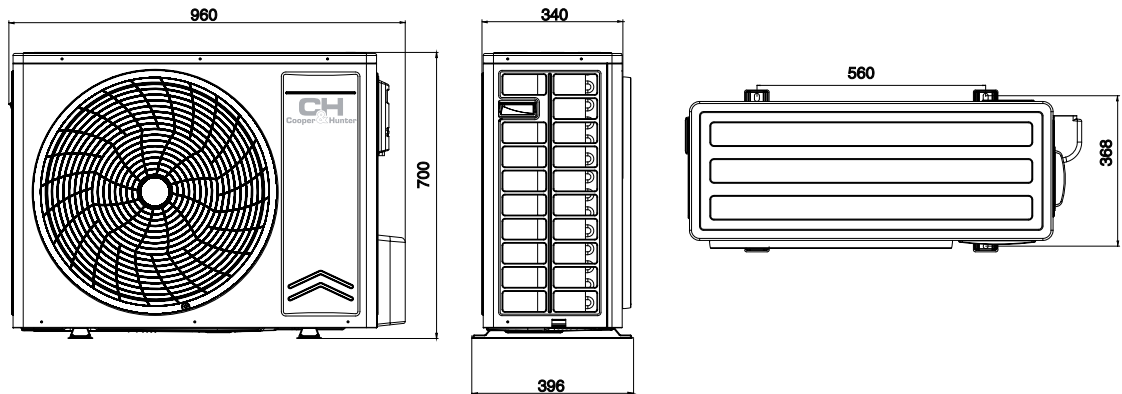
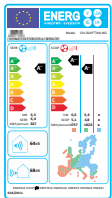
CH-S09FTXN-NG  
CH-S12FTXN-NG



CH-S18FTXN-NG



CH-S24FTXN-NG



Model			CH-S09FTXN-NG	CH-S12FTXN-NG	CH-S18FTXN-NG	CH-S24FTXN-NG
Capacity	Cooling	kW	2.60 (0.48-2.90)	3.40 (0.60-3.90)	5.27 (1.00-6.70)	6.45 (1.40-7.00)
	Heating	kW	2.80 (0.73- 3.30)	3.60 (0.80-4.20)	5.50 (1.10-6.80)	6.60 (1.50-7.90)
Power supply			-220-240 V/50 Hz/1 Ph			
Consumed power	Cooling	kW	0.57 (0.13-1.43)	0.77 (0.09-1.56)	1.19 (0.32-2.46)	1.47 (0.38-2.80)
	Heating	kW	0.62 (0.17-1.55)	0.80 (0.14-1.65)	1.19 (0.35-2.30)	1.42 (0.40-2.50)
Energy performance	SEER (Cooling/ COP (Heating))	kW/kW	4,56/4,52	4,44/4,53	4,43/4,64	4,39/4,65
SEER*/SCOP** (Energy performance class)			6,7(A+++)/5,1(A+++)	6,5(A+++)/5,1(A+++)	6,4(A+++)/5,3(A+++)	6,4(A+++)/5,1(A+++)
Air flow		m³/h	520/440/230/150	550/470/250/180	850/760/570/480	1090/930/670/560
Level of soundpressure	Indoor unit (min/ave/max)/	dB (A)	40/36/24/19	41/37/25/20	43/39/29/26	45/40/31/27
	Outdoor unit					
<b>Refrigerant type</b> R32						
Weight	Indoor unit	kg	9	9	13	16
	Outdoor unit	kg	29	30,5	40	43,5
Compressor type			rotor			
Drying		l/h	0.80	1.40	1.80	2.04
Cooling operation ambient temperature		°C	+18/+52			
Heating operation ambient temperature		°C	-25/+24			
Gas charge volume		kg	0.52	0.78	0.93	1.05
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	9.53/3/8"	12.7/1/2"	16.7/5/8"
Maximal difference in level		m	10	10	10	10
Maximal pipe length		m	20	20	25	25
Distance between the bolts of the outdoor unit fastening		mm	540		550	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.

# DAYTONA SERIES



**INVERTER**



\*White with Silver



\*White with Gold



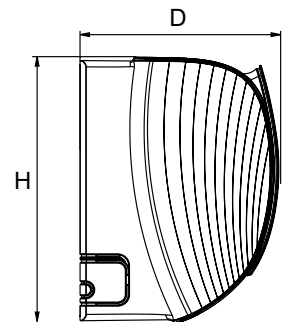
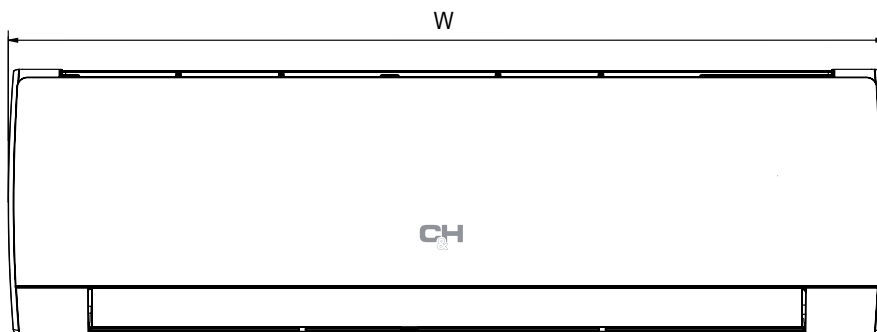
\*Gold

- ▶ Household heat pump. It is customized to generate heat in northern countries;
- ▶ Wi-Fi module to control the air-conditioner via smart phone/ tablet PC (OS: Android, iOS);
- ▶ Full compliance with the EU Directive ErP (Energy related Products; valid since 01-01-2013) # 626/2011/EU for household heat pumps and air conditioners SEER A+++ COP A+++;
- ▶ The technology "I-Action": smooth and stable compressor operation at extra low frequencies (1 Hz);
- ▶ Effective operation from -23°C to +24°C to generate heat, and from +15°C to +43°C to generate cold;
- ▶ Top-grade energy saving specification "GENERATION V" (strict assembling/ arial quality control);
- ▶ Ultra-modern designer inspired model.



Model	CH-S09FTXD CH-S09FTXDG CH-S09FTXD-GP		CH-S12FTXD CH-S12FTXDG CH-S12FTXD-GP		CH-S18FTXD CH-S18FTXDG CH-S18FTXD-GP		CH-S24FTXD CH-S24FTXDG CH-S24FTXD-GP		
	Capacity	Cooling kW	Heating kW	Cooling kW	Heating kW	Cooling kW	Heating kW	Cooling kW	Heating kW
Consumed power	Cooling kW	2,70 (0,50-3,60)	3,00 (0,50-4,30)	0,81 (0,09-1,40)	1,09 (0,09-1,45)	5,20 (1,26-6,60)	5,30 (1,12-6,80)	1,90 (0,43-3,10)	1,90 (0,43-3,75)
	Heating kW	3,00 (0,50-4,30)	3,67 (0,80-4,50)	0,78 (0,16-1,50)	0,99 (0,18-1,50)	1,53 (0,38-2,45)	1,41 (0,35-2,60)	1,90 (0,43-3,10)	1,90 (0,43-3,75)

## INDOOR UNIT

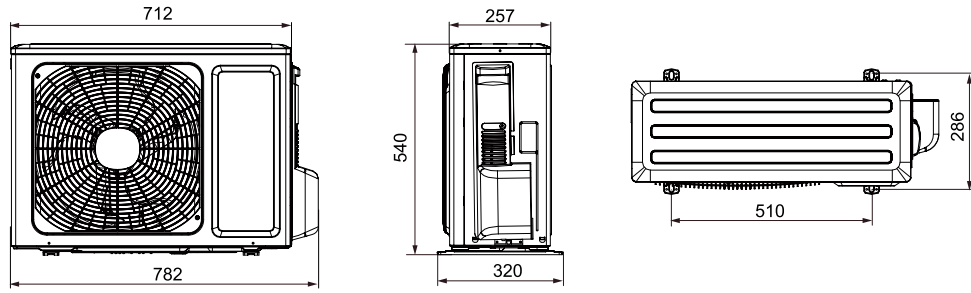
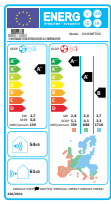


Model	W (mm)	H (mm)	D (mm)
CH-S09FTXD / CH-S09FTXDG / CH-S09FTXD-GP	889	294	212
CH-S12FTXD / CH-S12FTXDG / CH-S12FTXD-GP	889	294	212
CH-S18FTXD / CH-S18FTXDG / CH-S18FTXD-GP	1013	307	221
CH-S24FTXD / CH-S24FTXDG / CH-S24FTXD-GP	1122	329	247

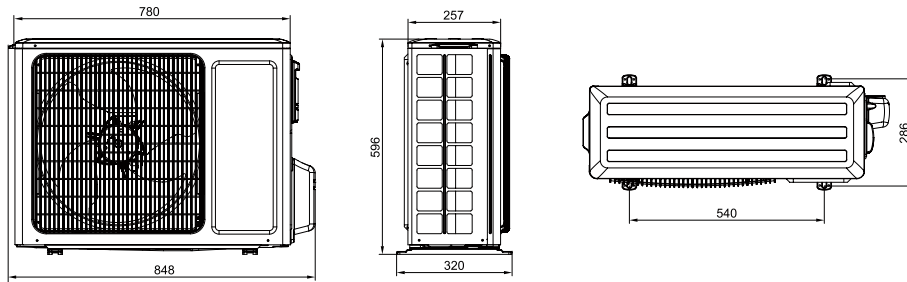
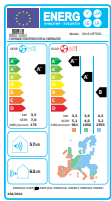


# OUTDOOR UNIT

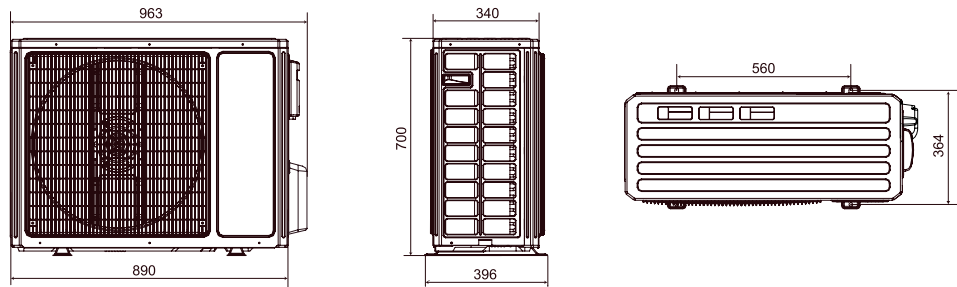
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CH-S09FTXDG  
CH-S09FTXD-GP



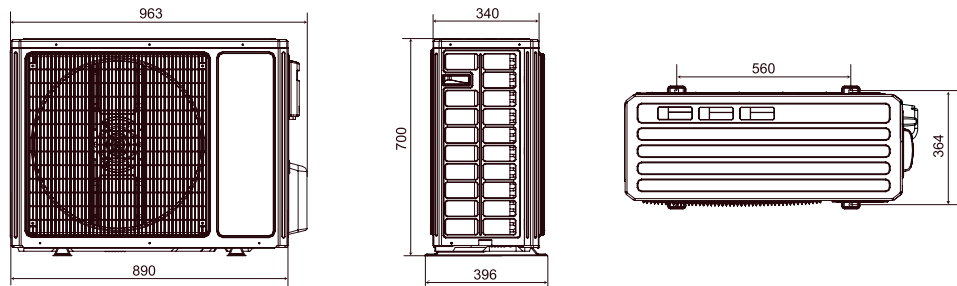
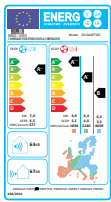
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CH-S12FTXDG  
CH-S12FTXD-GP



CH-S18FTXD  
CH-S18FTXDG  
CH-S18FTXD-GP



CH-S24FTXD  
CH-S24FTXDG  
CH-S24FTXD-GP



Model			CH-S09FTXD CH-S09FTXDG CH-S09FTXD-GP	CH-S12FTXD CH-S12FTXDG CH-S12FTXD-GP	CH-S18FTXD CH-S18FTXDG CH-S18FTXD-GP	CH-S24FTXD CH-S24FTXDG CH-S24FTXD-GP
Capacity	Cooling	kW	2,70 (0,50-3,60)	3,50 (0,70-4,00)	5,20 (1,26-6,60)	7,00 (1,93-8,85)
	Heating	kW	3,00 (0,50-4,30)	3,67 (0,80-4,50)	5,30 (1,12-6,80)	7,40 (1,80-10,63)
Power supply			-220-240 V/50 Hz/1 Ph			
Consumed power	Cooling	kW	0,81 (0,09-1,40)	1,09 (0,09-1,45)	1,53 (0,38-2,45)	1,90 (0,43-3,10)
	Heating	kW	0,78 (0,16-1,50)	0,99 (0,18-1,50)	1,41 (0,35-2,60)	1,90 (0,43-3,75)
SEER*/SCOP** (Energy performance class)		kW/kW	6.8(A++)/4.1(A+)		7.0(A++)/4.0(A+)	6.5(A++)/4.0(A+)
Air flow		m³/h	390/420/440/470/540/570/610	390/420/450/490/560/620/680	470/520/570/610/650/720/800	750/850/900/950/1000/1100/1250
Sound pressure level	Indoor unit (min/ave/max)/	dB (A)	18/22/26/30/34/37/43	20/24/28/32/36/38/46	30/33/36/39/42/45/48	32/35/38/43/45/47/50
	Outdoor unit					
Refrigerant type			R32			
Weight	Indoor unit	kg	11	11	13,5	17,5
	Outdoor unit	kg	27,5	31	45	53,5
Compressor type			rotor			
Drying		l/h	0,8	1,4	1,8	2,4
Cooling operation ambient temperature		°C	-15/+43			
Heating operation ambient temperature		°C	-23/+24			
Gas charge volume		kg	0,55	0,70	1,0	1,70
Liquid line diameter		mm/inch	6,38/1/4"	6,38/1/4"	6,38/1/4"	6,38/1/4"
Gas line diameter		mm/inch	9,53/3/8"	9,53/3/8"	12,7/1/2"	15,88/5/8"
Maximal difference in level		m	10			
Maximal pipe length		m	15	20	25	20
Distance between the bolts of the outdoor unit fastening		mm	510	540	560	

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.

# VERITAS NG SERIES



**INVERTER**



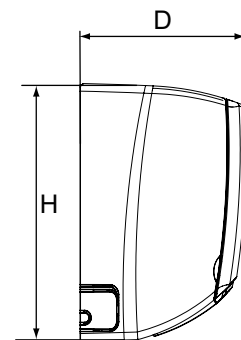
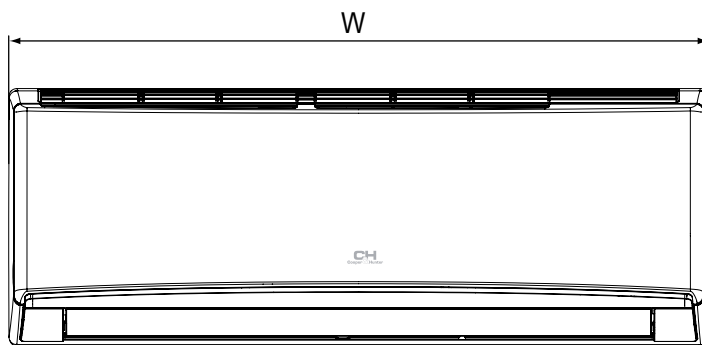
- ▶ "CH 7-SKY Technology" complex filtration system based on seven filters of wide effect spectrum;
- ▶ "CH SMART-ION Filter" – the new generation technology of total cleaning of air;
- ▶ Efficient operation temperature range from – 15°C to +24°C to generate heat, from –15°C to +48°C to generate cold;
- ▶ Top-grade energy saving specification

- ▶ "GENERATION V" (strict assembling/ material quality control off assembling and materials);
- ▶ The technology "I-Action": smooth and stable compressor operation at extra low frequencies (1 Hz);
- ▶ Indoor unit self-cleaning;
- ▶ Wide angle louvres that cover the entire room volume.



Model			CH-S09FTXQ-NG	CH-S12FTXQ-NG	CH-S18FTXQ-NG	CH-S24FTXLQ-NG	CH-S24FTXL2Q-NG
Capacity	kW	Cooling	2.60 (0.50-3.35)	3.50 (0.60-3.60)	5.00 (0.65-5.20)	6.45 (2.00-8.20)	7.00 (1.93-8.85)
	kW	Heating	2.80 (0.50-3.50)	3.60 (0.60-3.80)	5.30 (0.70-5.40)	6.45 (2.00-8.50)	7.40 (1.80-10.63)
Consumed power	kW	Cooling	0.718 (0.16-1.40)	0.972 (0.12-1.40)	1.39 (0.15-1.70)	1.79 (0.40-3.00)	1.62 (0.40-3.10)
	kW	Heating	0.733 (0.20-1.50)	0.942 (0.12-1.50)	1.34 (0.16-1.680)	1.68 (0.45-3.10)	1.63 (0.45-3.75)

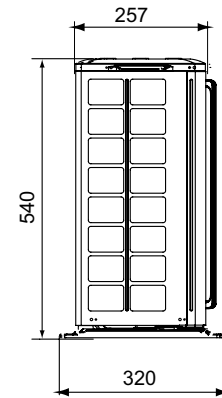
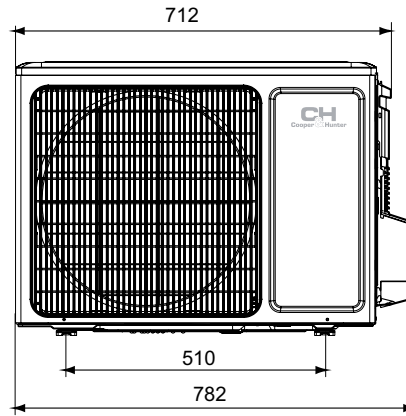
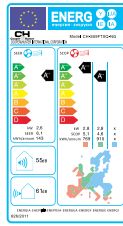
## INDOOR UNIT



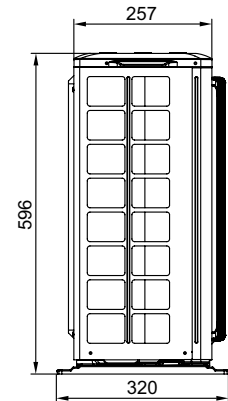
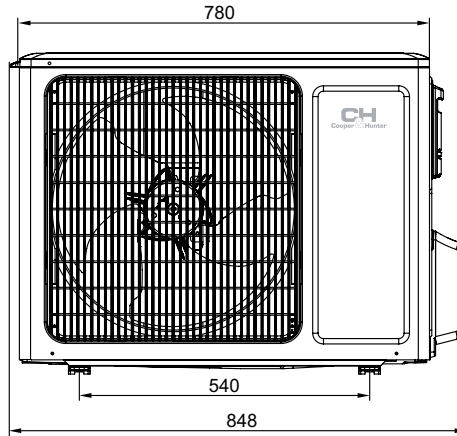
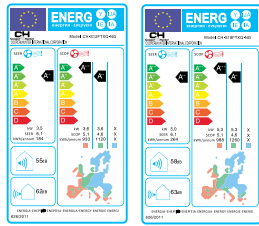
Model	W (mm)	H (mm)	D (mm)
CH-S09FTXQ-NG	790	275	200
CH-S12FTXQ-NG	790	275	200
CH-S18FTXQ-NG	970	300	225
CH-S24FTXLQ-NG	1078	325	246
CH-S24FTXL2Q-NG	1078	325	246

# OUTDOOR UNIT

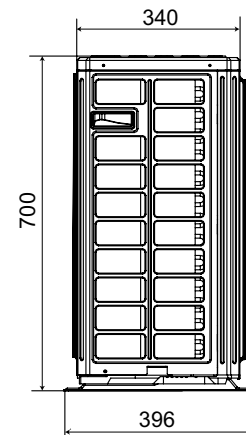
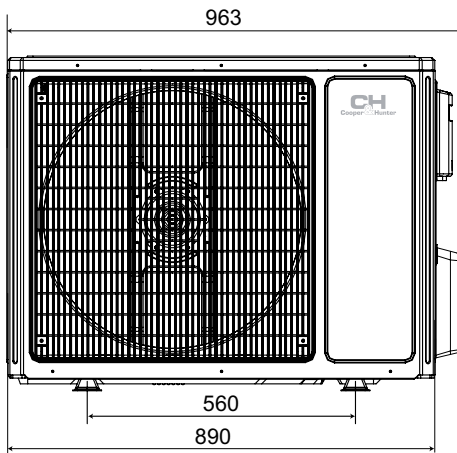
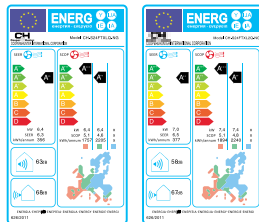
CH-S09FTXQ-NG



CH-S12FTXQ-NG  
CH-S18FTXQ-NG



CH-S24FTXLQ-NG  
CH-S24FTXL2Q-NG



Model			CH-S09FTXQ-NG	CH-S12FTXQ-NG	CH-S18FTXQ-NG	CH-S24FTXLQ-NG	CH-S24FTXL2Q-NG
Capacity	Cooling	kW	2.60 (0.50-3.35)	3.50 (0.60-3.60)	5.00 (0.65-5.20)	6.45 (2.00-8.20)	7.00 (1.93-8.85)
	Heating	kW	2.80 (0.50-3.30)	3.60 (0.60-3.80)	5.30 (0.70-5.40)	6.45 (2.00-8.50)	7.40 (1.80-10.63)
Power supply			-220-240 V/50 Hz/1 Ph				
Consumed power	Cooling	kW	0.72 (0.16-1.40)	0.97 (0.12-1.40)	1.39 (0.15-1.70)	1.79 (0.40-3.00)	1.62 (0.40-3.10)
	Heating	kW	0.71 (0.20-1.50)	0.92 (0.12-1.50)	1.34 (0.16-1.60)	1.68 (0.45-3.10)	1.63 (0.45-3.75)
Energy performance	SEER (Cooling/ COP (Heating))	kW/kW	3.62/3.93	3.60/3.93	3.50/3.95	3.60/3.84	4.32/4.54
EER*/SCOP** (Energy performance class)			6.1 (A++)/4.6 (A++)	6.1 (A++)/4.6 (A++)	6.1 (A++)/4.6 (A++)	6.3 (A++)/5.1 (A++)	6.5 (A++)/5.1 (A++)
Air flow		m³/h	330/430/490/560	290/410/480/560	520/610/720/850	850/950/1050/1250	800/850/900/950/1050/1150/1250
Level of soundpressure	Indoor unit (min/ave/max)/	dB (A)	23/26/30/36	24/28/32/37	28/33/39/45	30/34/39/44	29/34/36/37/39/42/45
	Outdoor unit	dB (A)	52	52	54	58	57
Refrigerant type			R 32				
Weight	Indoor unit/Outdoor unit	kg	9/29.5	9/31	13.5/34	16.5/52.5	16.5/53.5
Compressor type			rotor				
Drying		l/h	0.8	1.4	1.8	2.0	2.4
Cooling operation ambient temperature		°C	-15/+48	-15/+48	-15/+48	-15/+48	-15/+48
Heating operation ambient temperature		°C	-15/+24	-15/+24	-15/+24	-25/+24	-25/+24
Gas charge volume		kg	0.6	0.59	0.77	1.70	1.70
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	9.53/3/8"	9.53/3/8"	15.88/5/8"	15.88/5/8"
Maximal difference in level		m	10	10	10	10	10
Maximal pipe length		m	19	20	20	25	20
Distance between the bolts of the outdoor unit fastening		mm	510	540	540	560	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.



# ALPHA NG

## СЕРИЯ



**INVERTER**

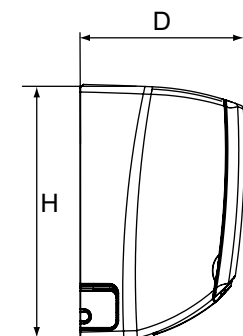
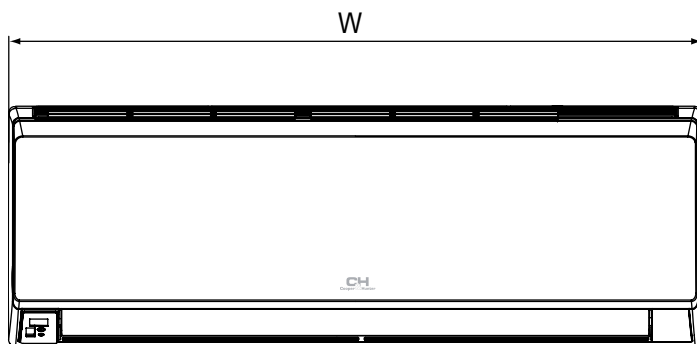


- ▶ "CH 7-SKY Technology" complex filtration system based on seven filters of wide effect spectrum;
- ▶ "CH SMART-ION Filter" – the new generation technology of total cleaning of air;
- ▶ The technology "I-Action": smooth and stable compressor operation at extra low frequencies (1 Hz);
- ▶ Efficient operation temperature range from – 15°C to +24°C to generate heat,
- ▶ from –15°C to +48°C to generate cold;
- ▶ Top-grade energy saving specification "GENERATION V" (strict assembling/material quality control);
- ▶ Your house protection against freezing: the "+8°C function". The air conditioner will maintain +8°C temperature preventing room freezing and consuming low energy.



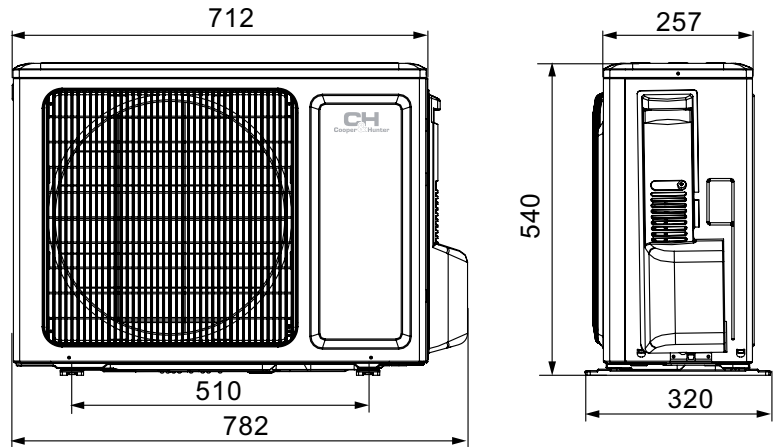
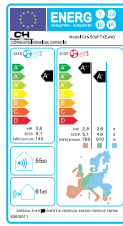
Model		CH-S09FTXE-NG	CH-S12FTXE-NG	CH-S18FTXE-NG	CH-S24FTXLE-NG	CH-S24FTXL2E-NG
Capacity	Cooling kW	2.60 (0.50-3.35)	3.50 (0.60-3.60)	5.00 (0.65-5.20)	6.45 (2.00-8.20)	7.00 (1.93-8.85)
	Heating kW	2.80 (0.50-3.50)	3.60 (0.60-3.80)	5.30 (0.70-5.40)	6.45 (2.00-8.50)	7.40 (1.80-10.63)
Consumed power	Cooling kW	0.718 (0.16-1.40)	0.972 (0.12-1.40)	1.39 (0.15-1.70)	1.79 (0.40-3.00)	1.62 (0.40-3.10)
	Heating kW	0.733 (0.20-1.50)	0.942 (0.12-1.50)	1.34 (0.16-1.680)	1.68 (0.45-3.10)	1.63 (0.45-3.75)

### INDOOR UNIT

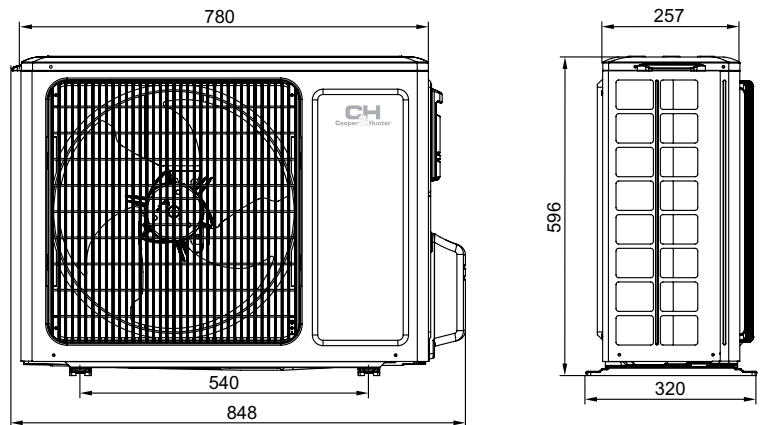
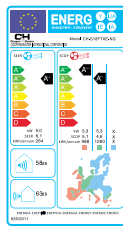
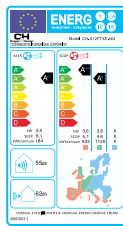


Model	W (mm)	H (mm)	D (mm)
CH-S09FTXE-NG	790	275	200
CH-S12FTXE-NG	790	275	200
CH-S18FTXE-NG	970	300	225
CH-S24FTXLE-NG	1078	325	246
CH-S24FTXL2E-NG	1078	325	246

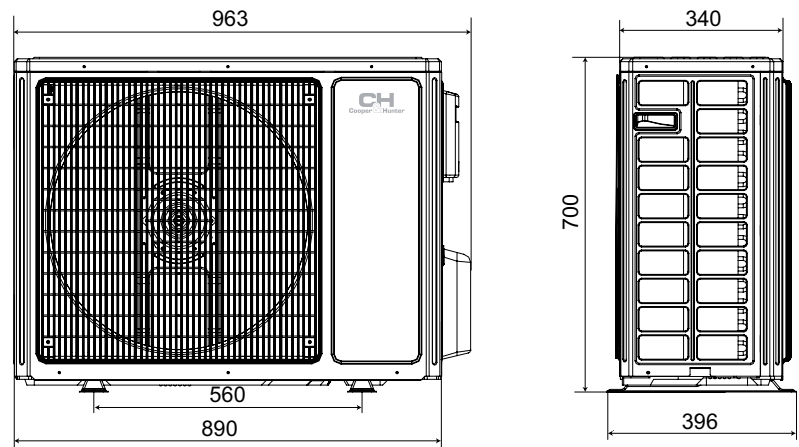
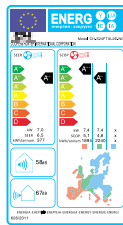
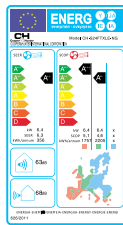
CH-S09FTXE-NG



CH-S12FTXE-NG  
CH-S18FTXE-NG



CH-S24FTXLE-NG  
CH-S24FTXL2E-NG



Model			CH-S09FTXE-NG	CH-S12FTXE-NG	CH-S18FTXE-NG	CH-S24FTXLE-NG	CH-S24FTXL2E-NG
Capacity	Cooling	kW	2.60 (0.50-3.35)	3.50 (0.60-3.60)	5.00 (0.65-5.20)	6.45 (2.00-8.20)	7.00 (1.93-8.85)
	Heating	kW	2.80 (0.50-3.30)	3.60 (0.60-3.80)	5.30 (0.70-5.40)	6.45 (2.00-8.50)	7.40 (1.80-10.63)
Power supply			-220-240 V/50 Hz/1 Ph				
Consumed power	Cooling	kW	0.72 (0.16-1.40)	0.97 (0.12-1.40)	1.39 (0.15-1.70)	1.79 (0.40-3.00)	1.62 (0.40-3.10)
	Heating	kW	0.71 (0.20-1.50)	0.92 (0.12-1.50)	1.34 (0.16-1.6.0)	1.68 (0.45-3.10)	1.63 (0.45-3.75)
Energy performance		SEER (Cooling)/ COP (Heating)	3.62/3.93		3.60/3.93	3.50/3.95	3.60/3.84
EER*/SCOP** (Energy performance class)			6.1 (A++)/4.6 (A++)	6.1 (A++)/4.6 (A++)	6.1 (A++)/4.6 (A++)	6.3 (A++)/5.1 (A+++)	6.5 (A++)/5.1 (A+++)
Air flow		m <sup>3</sup> /h	330/430/490/560	290/410/480/560	520/610/720/850	850/950/1050/1250	800/850/900/950/1050/1150/1250
Sound pressure level	Indoor unit (min/ave/max)/	dB (A)	23/26/30/36	24/28/32/37	28/33/39/45	30/34/39/44	29/34/36/37/39/42/45
	Outdoor unit	dB (A)	52	52	54	58	57
Refrigerant type			R 32				
Weight	Indoor unit	kg	9	9	13.5	16.5	16.5
	Outdoor unit	kg	29.5	31	34	52.5	53.5
Compressor type			rotor				
Drying			0.8	1.4	1.8	2.0	2.4
Cooling operation ambient temperature		l/h	-15/+48	-15/+48	-15/+48	-15/+48	-15/+48
Heating operation ambient temperature		°C	-15/+24	-15/+24	-15/+24	-25/+24	-25/+24
Gas charge volume		°C	0.6	0.59	0.77	1.70	1.70
Liquid line diameter		kg	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	9.53/3/8"	9.53/3/8"	15.88/5/8"	15.88/5/8"
Maximal difference in level		mm/inch	10	10	10	10	10
Maximal pipe length		m	19	20	20	25	20
Distance between the bolts of the outdoor unit fastening		m	510	540	540	560	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.

# WINNER SERIES



*INVERTER*

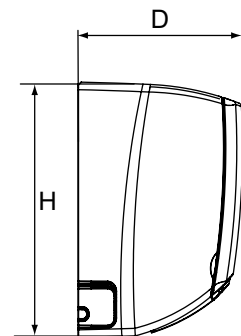
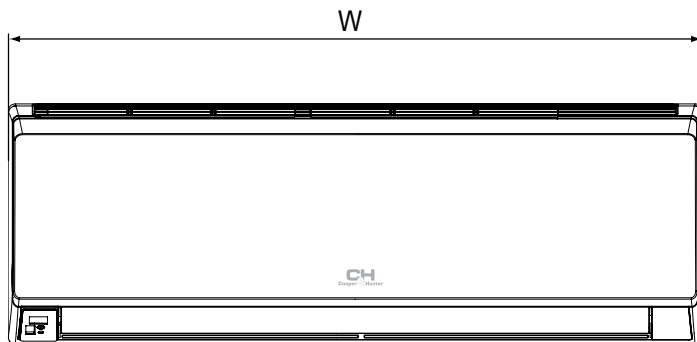


- ▶ "CH 7-SKY Technology" complex filtration system based on seven filters of wide effect spectrum;
- ▶ "CH SMART-ION Filter" – the new generation technology of total cleaning of air;
- ▶ The technology "I-Action": smooth and stable compressor operation at extra low frequencies (1 Hz);
- ▶ Efficient operation temperature range from –15°C to +24°C to generate heat, from –15°C to +48°C to generate cold;
- ▶ Top-grade energy saving specification "GENERATION V" (strict assembling/material quality control);
- ▶ Your house protection against freezing: the "+8°C function". The air conditioner will maintain +8°C temperature preventing room freezing and consuming low energy.



Model			CH-S07FTX5	CH-S09FTX5	CH-S12FTX5	CH-S18FTX5	CH-S24FTX5
Capacity	Cooling	kW	2.20 (0.37-2.53)	2.60 (0.44-3.00)	3.50 (0.60-3.60)	5.00 (0.65-5.20)	6.70 (2.00-8.20)
	Heating	kW	2.30 (0.51-2.60)	2.80 (0.60-3.20)	3.60 (0.60-3.80)	5.30 (0.70-5.48)	7.25 (2.00-8.50)
Consumed power	Cooling	kW	0.608 (0.10-0.95)	0.718 (0.12-1.30)	0.972 (0.12-1.40)	1.43 (0.15-1.86)	1.875 (0.40-3.70)
	Heating	kW	0.602 (0.10-0.91)	0.733 (0.12-1.40)	0.942 (0.12-1.50)	1.38 (0.16-1.68)	1.945 (0.45-3.80)

## INDOOR UNIT

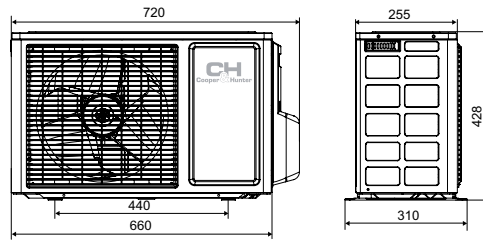
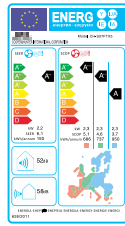


Model	W (mm)	H (mm)	D (mm)
CH-S07FTX5	790	275	200
CH-S09FTX5	790	275	200
CH-S12FTX5	790	275	200
CH-S18FTX5	970	300	224
CH-S24FTX5	1078	325	246

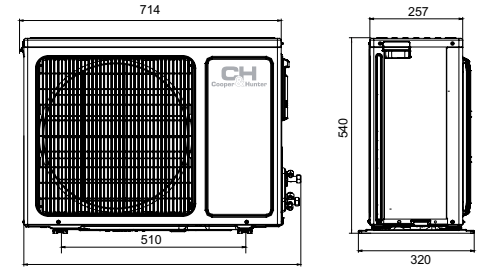
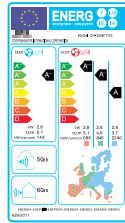


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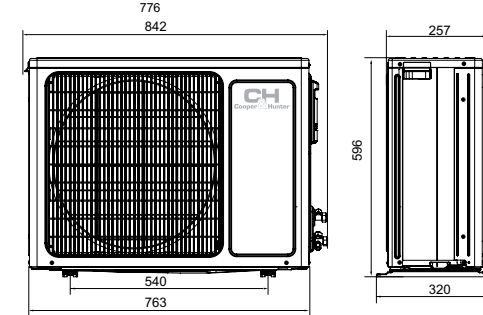
CH-S07FTX5



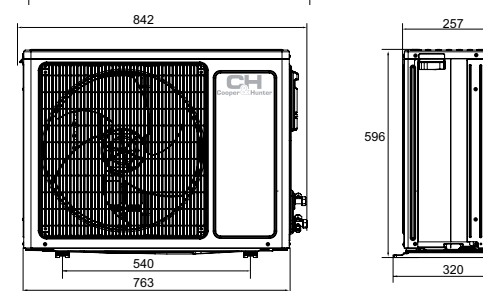
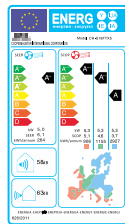
CH-S09FTX5



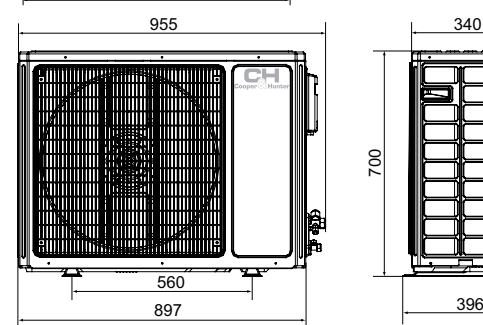
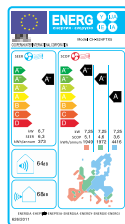
CH-S12FTX5



CH-S18FTX5



CH-S24FTX5



Model			CH-S07FTX5	CH-S09FTX5	CH-S12FTX5	CH-S18FTX5	CH-S24FTX5	
Capacity	Cooling	kW	2.20 (0.37-2.53)	2.60 (0.44-3.00)	3.50 (0.60-3.60)	5.00 (0.65-5.20)	6.70 (2.00-8.20)	
	Heating	kW	2.30 (0.51-2.60)	2.80 (0.60-3.20)	3.60 (0.60-3.80)	5.30 (0.70- 5.48)	7.25 (2.00-8.50)	
Power supply			-220-240 V/50 Hz					
Consumed power	Cooling	kW	0.608 (0.10-0.95)	0.718 (0.12-1.30)	0.972 (0.12-1.40)	1.43 (0.15-1.86)	1.875 (0.40-3.70)	
	Heating	kW	0.602 (0.10- .91)	0.733 (0.12-1.40)	0.942 (0.12-1.50)	1.38 (0.16-1.68)	1.945 (0.45-3.80)	
Energy performance		EER (Cooling/ COP (Heating))	3.61/3.83		3.62/3.82		3.60/3.82	
SEER*/SCOP** (Energy performance class)			6.1 (A++)/4.6 (A++)		6.1 (A++)/4.6 (A++)		6.1 (A++)/4.6 (A++)	
Air flow		m <sup>3</sup> /h	300/390/420/500	210/320/ 370/480	290/410/480/560	520/610/720/850	850/950/1000/1150	
Sound pressure level	Indoor unit (min/ave/max)/	dB (A)	22/25/27/29		23/26/35/38		24/28/37/40	
	Outdoor unit		49		49		51	
Refrigerant type			R410A					
Weight	Indoor unit/Outdoor unit	kg	8.5/21.5	9/26.5	9/31	13.5/33.5	17/53	
Compressor type			rotor					
Drying		l/h	0.8	0.8	1.4	1.8	2.0	
Cooling operation ambient temperature		°C	-15/+48					
Heating operation ambient temperature		°C	-15/+24					
Gas charge volume		kg	0.55	0.7	0.90	1.1	1.9	
Liquid line diameter		mm/inch	6.38/1/4"					
Gas line diameter		mm/inch	9.53/3/8"		9.53/3/8"			15.88/5/8"
Maximal difference in level		m	10					
Maximal pipe length		m	15		20			25
Distance between bolts of outdoor unit fastening		mm	440		510			540

\* SEER - seasonal coefficient of system cooling capacity.  
 \*\* SCOP - seasonal coefficient of system heating capacity.

# INVERTER CONSOLE (WI-FI) SERIES



WI-FI

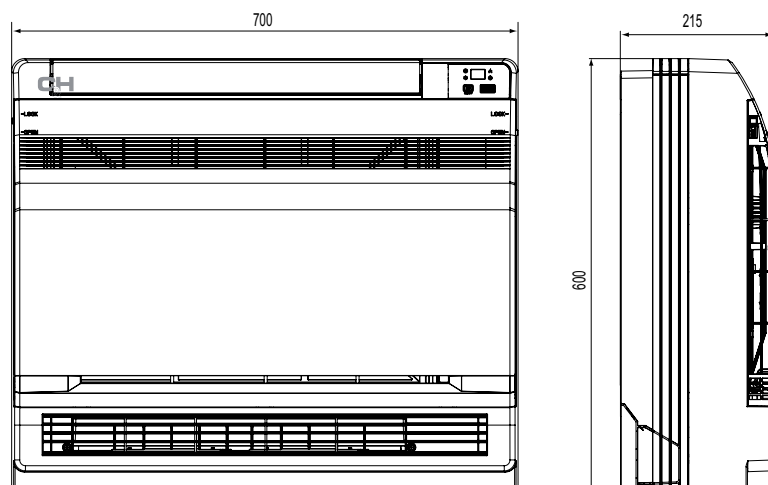


- ▶ Household heat pump. It is customized to generate heat in northern countries;
- ▶ Operation from  $-15^{\circ}\text{C}$  to  $+43^{\circ}\text{C}$  to generate cold and from  $-25^{\circ}\text{C}$  to  $+24^{\circ}\text{C}$  to generate heat;
- ▶ The technology "I-Action": smooth and stable compressor operation at extra low frequencies (1 Hz);
- ▶ Noise Analysis Technology – almost noiseless operation of indoor and outdoor units;
- ▶ The technology Dual stream: distribution of air flow outgoing from upper and lower louvres;
- ▶ A special operation algorithm providing stable and effective operation at egative outdoor temperatures;



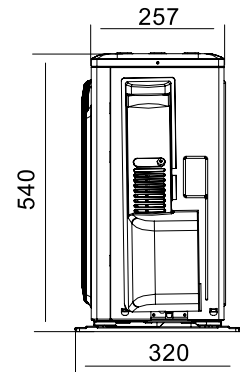
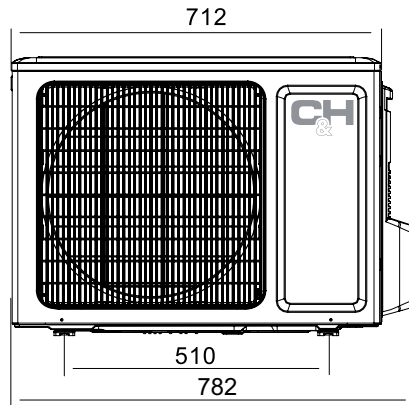
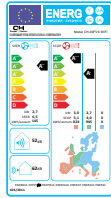
Model			CH-S09FVX (Wi-Fi)	CH-S12FVX (Wi-Fi)	CH-S18FVX (Wi-Fi)
Capacity	Cooling	kW	2,70 (0.45-3.20)	3,50 (0.60-3.95)	5,20 (0.90-5.60)
	Heating	kW	2,80 (0.45-3.75)	3,75 (0.60-4.70)	5,33 (0.90-6.60)
Consumed power	Cooling	kW	0,66 (0.20-1.55)	0,98 (0.22-1.40)	1,42 (0.35-2.50)
	Heating	kW	0,81 (0.20-1.35)	1,00 (0.22-1.58)	1,53 (0.35-2.50)

## INDOOR UNIT

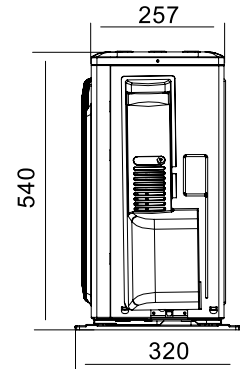
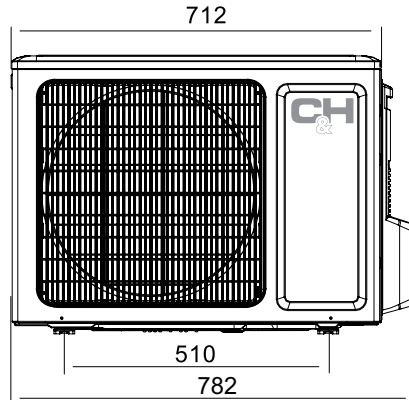


# OUTDOOR UNIT

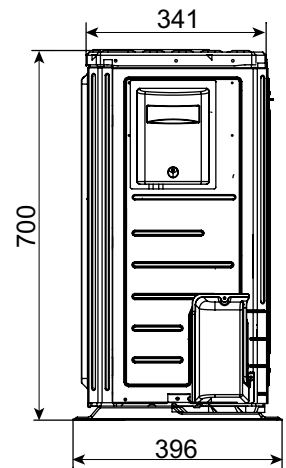
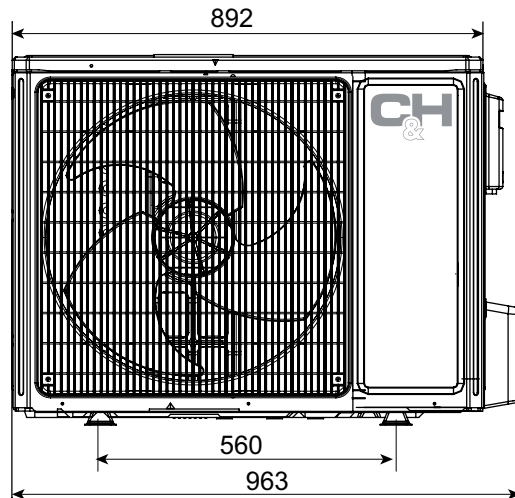
CH-S09FVX (Wi-Fi)  
CH-S12FVX (Wi-Fi)



CH-S12FVX (Wi-Fi)



CH-S18FVX (Wi-Fi)



Model			CH-S09FVX (Wi-Fi)	CH-S12FVX (Wi-Fi)	CH-S18FVX (Wi-Fi)
Capacity	Cooling	kW	2.70 (0.45-3.20)	3.50 (0.60-3.95)	5.20 (0.90-5.60)
	Heating	kW	2.80(0.45-3.75)	3.75 (0.60-4.70)	5.33 (0.90-6.60)
Power supply				-220-240V/50Hz	
Consumed power	Cooling	kW	0.66 (0.20-1.30)	0.98 (0.22-1.35)	1.42 (0.38-2.45)
	Heating	kW	0.81 (0.20-1.40)	1.00 (0.19-1.60)	1.53 (0.35-2.50)
SEER*/SCOP** (Energy performance class)		kW / kW	6.5 A++ / 4.0 A+	6.4 A++ / 4.0 A+	6.5 A++ / 4.1 A+
Air flow		m <sup>3</sup> /h	500/430/410/370/330/280/250	600/520/480/440/400/360/280	700/650/580/520/460/410/320
Sound pressure level	Indoor unit	dB (A)	22/28/36	24/32/38	28/34/40
	Outdoor unit	dB (A)	50	50	53
Refrigerant type			R410A		
Weight	Indoor unit	kg	15.5	15.5	15.5
	Outdoor unit	kg	31	31.5	46
Compressor type			rotor		
Drying		l/h	0.80	1.20	1.80
Cooling operation ambient temperature		°C	-15 ... +43	-15 ... +43	-15 ... +43
Heating operation ambient temperature		°C	-25 ... +24	-25 ... +24	-25 ... +24
Gas charge volume		kg	0.90	0.95	1.30
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	9.53/3/8"	12.7/1/2"
Maximal difference in level		m	10	10	10
Maximal pipe length		m	15	20	25
Distance between the bolts of the outdoor unit fastening		mm	510	510	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.



# ECOSTAR SERIES



ON/OFF

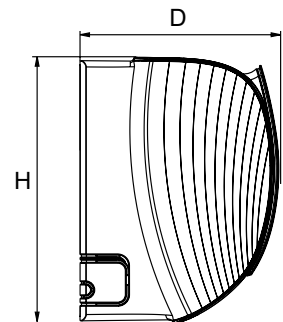
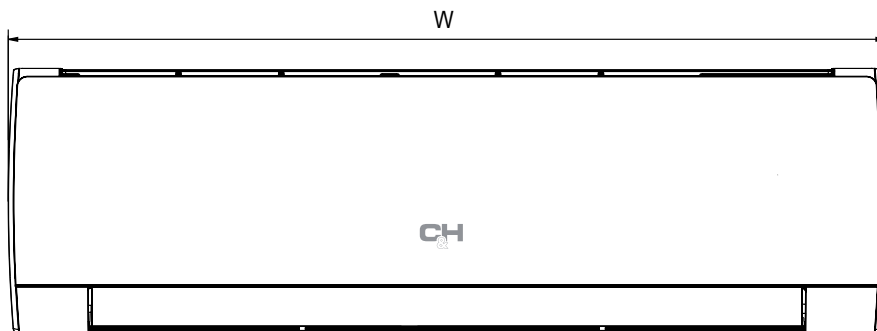


- ▶ Ultra-modern designer inspired model;
- ▶ "CH SMART-ION Filter" – the new generation technology of total cleaning of air;
- ▶ Special solution for professional installations;
- ▶ Increased life cycle;
- ▶ Low noise level;
- ▶ A-class of energy efficiency. The highest index for models with a non-inverter compressor.
- ▶ Indication of current time on the remote control.
- ▶ Wide angle louvres that cover the entire room volum in the mode of automatic air distribution "SWING";
- ▶ Indoor unit self-cleaning;
- ▶ When the air conditioner is switched off, the fan doesn't stop and removes moisture from the heat exchanger;
- ▶ It prevents formation of mould, fungi, bacterial growth inside the unit.



Model	CH-S07WKP8		CH-S09WKP8		CH-S12WKP8		CH-S18WKP8		CH-S24WKP8		CH-S30WKP8	
		CH-S07GKP8		CH-S09GKP8		CH-S12GKP8		CH-S18GKP8		CH-S24GKP8		CH-S30GKP8
Capacity	Cooling	kW	2.25	2.55	3.25	4.80	6.15	8.00				
	Heating	kW	2.35	2.65	3.40	5.30	6.70	8.50				
Consumed power	Cooling	kW	0.70	0.79	1.01	1.49	1.91	2.85				
	Heating	kW	0.65	0.73	0.94	1.47	1.86	2.65				

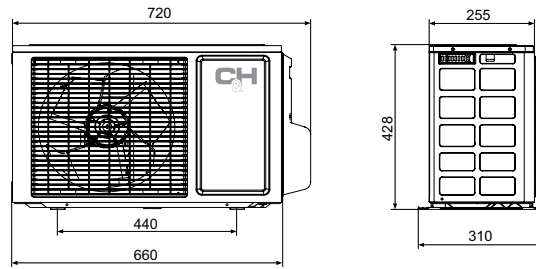
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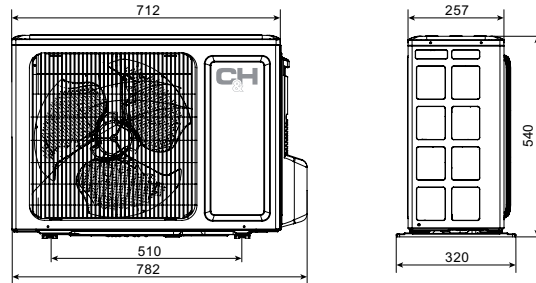
Model	W (mm)	H (mm)	D (mm)
CH-S07GKP8 /CH-S07WKP8	744	256	185
CH-S09GKP8/CH-S09WKP8	744	256	185
CH-S12GKP8/CH-S12WKP8	819	256	185
CH-S18GKP8/CH-S18WKP8	888	294	212
CH-S24GKP8/CH-S24WKP8	1013	307	221
CH-S30GKP8/CH-S30WKP8	1013	307	221

# OUTDOOR UNIT

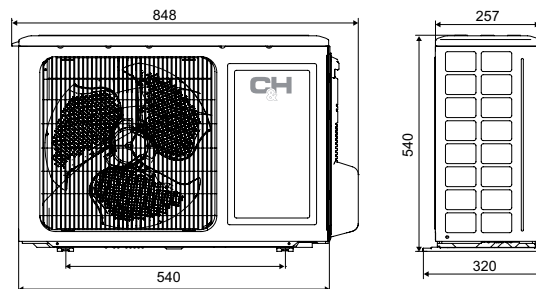
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CH-S07WKP8  
CH-S09GKP8  
CH-S09WKP8



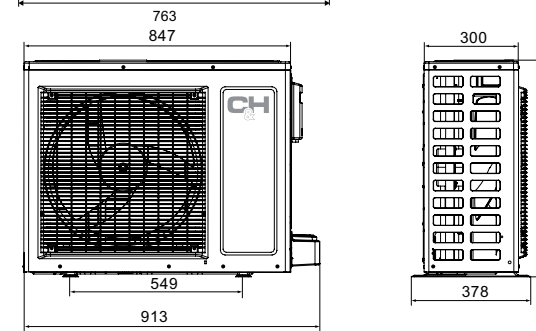
CH-S12GKP8  
CH-S12WKP8



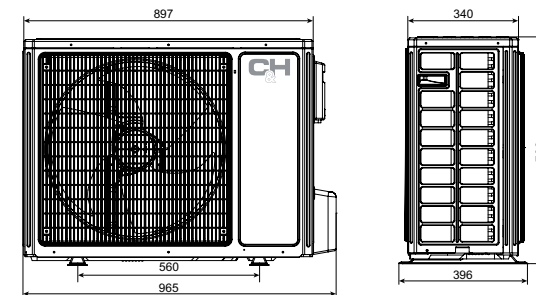
CH-S18GKP8  
CH-S18WKP8



CH-S24GKP8  
CH-S24WKP8



CH-S30GKP8  
CH-S30WKP8



Model			CH-S07WKP8 CH-S07GKP8	CH-S09WKP8 CH-S09GKP8	CH-S12WKP8 CH-S12GKP8	CH-S18WKP8 CH-S18GKP8	CH-S24WKP8 CH-S24GKP8	CH-S30WKP8 CH-S30GKP8
Capacity	Cooling	kW	2.25	2.55	3.25	4.80	6.15	8.00
	Heating	kW	2.35	2.65	3.40	5.30	6.70	8.50
Power supply			-220-240B/50Hz					
Consumed power	Cooling	kW	0.70	0.79	1.01	1.49	1.91	2.85
	Heating	kW	0.65	0.73	0.94	1.47	1.86	2.65
Air flow		m <sup>3</sup> /h	470	470	550	650	900	1200
Sound pressure level	Indoor unit		26/28/31	26/31/33	29/33/35	31/34/38	37/39/41	39/42/44
	Outdoor unit		49	49	52	56	56	59
Refrigerant type		oz	R410A					
Weight	Indoor unit	kg	8.0	8.0	8.5	14.0	14.0	16.5
	Outdoor unit	kg	22.0	24.5	30.0	39.0	50.0	61.0
Drying		l/h	0.60	0.80	1.40	1.80	1.80	3.00
Cooling operation ambient temperature		°C	+18/+43					
Heating operation ambient temperature		°C	-7/+24					
Gas charge volume		kg	0.55	0.56	0.72	1.26	1.45	1.90
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	9.53/3/8"	12.7/1/2"	12.7/1/2"	12.7/1/2"	15.88/5/8"
Maximal difference in level		m	10					
Maximal pipe length		m	15	15	15	25	25	30
Distance between the bolts of the outdoor unit fastening		mm	440	440	510	540	549	560

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.

# PRIMA PLUS SERIES



ON/OFF

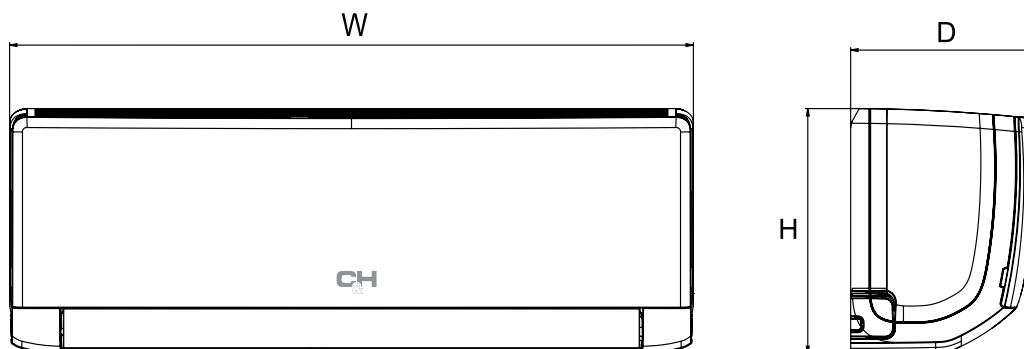


- ▶ "CH SMART-ION Filter" – the new generation technology of total cleaning of air;
- ▶ The air conditioner will maintain +8°C temperature preventing room freezing and consuming low energy;
- ▶ A-class of energy efficiency. The highest index for models with a non-inverter compressor;
- ▶ New top-grade remote control;
- ▶ Extra low noise level: 24 dB(A);
- ▶ Indoor unit self-cleaning and drying;
- ▶ Automatic moisture removal from the heat exchanger. Prevents formation of mould, fungi, bacterial growth inside the unit;
- ▶ Compact hi-tech design. Width only 698 mm (for models CH-S07XN7, CH-S09XN7).



Model			CH-S07XN7	CH-S09XN7	CH-S12XN7	CH-S18XN7	CH-S24XN7	CH-S30XN7
Capacity	Cooling	kW	2,25	2,55	3,25	4,80	6,15	8,00
	Heating	kW	2,35	2,65	3,40	5,30	6,70	8,50
Consumed power	Cooling	kW	0,67	0,75	0,98	1,45	1,85	2,48
	Heating	kW	0,63	0,71	0,93	1,46	1,85	2,35

## INDOOR UNIT

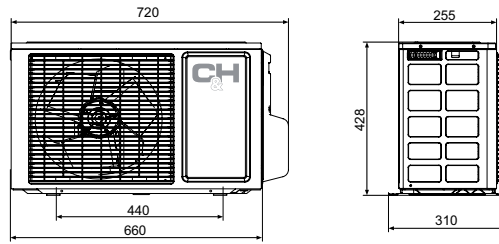


Model	W (mm)	H (mm)	D (mm)
CH-S07XN7	698	250	185
CH-S09XN7	698	250	185
CH-S12XN7	773	250	185
CH-S18XN7	849	289	210
CH-S24XN7	970	300	225
CH-S30XN7	1080	324	245

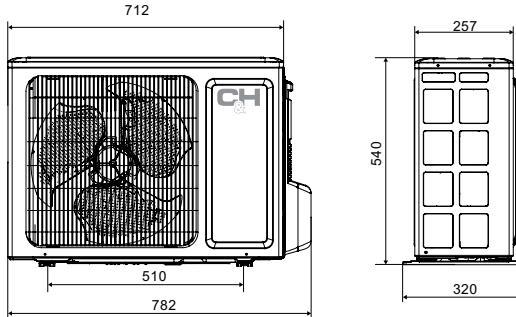


# OUTDOOR UNIT

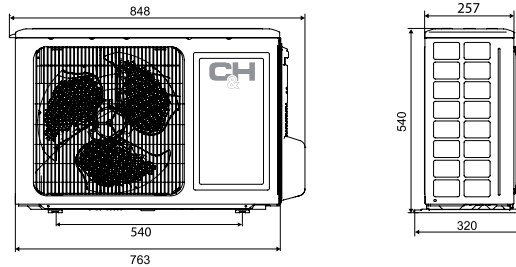
CH-S07XN7  
CH-S09XN7



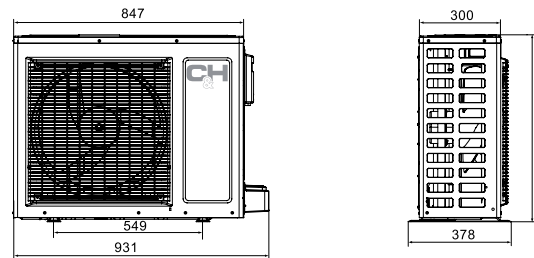
CH-S12XN7



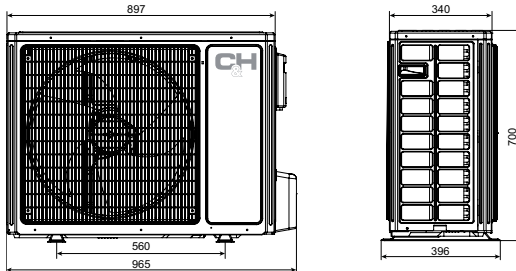
CH-S18XN7



CH-S24XN7



CH-S30XN7



Model			CH-S07XN7	CH-S09XN7	CH-S12XN7	CH-S18XN7	CH-S24XN7	CH-S30XN7
Capacity	Cooling	kW	2.25	2.55	3.25	4.80	6.15	8.00
	Heating	kW	2.35	2.65	3.40	5.30	6.70	8.50
Power supply			~220-240 V/50 Hz					
Consumed power	Cooling	kW	0.67	0.75	0.98	1.45	1.85	2.48
	Heating	kW	0.63	0.71	0.93	1.46	1.85	2.35
Air flow		m <sup>3</sup> /h	470	470	550	650	900	1200
Sound pressure level	Indoor unit	dB (A)	24/27/31	25/28/33	29/33/35	31/35/39	33/37/41	38/41/44
	Outdoor unit	dB (A)	47	48	50	52	53	55
<b>Refrigerant type</b>			<b>R410A</b>					
Weight	Indoor unit	kg	7.5	7.5	8.5	11	13.5	16.5
	Outdoor unit	kg	22	24.5	30	39	50	61
Drying		l/h	0.60	0.80	1.40	1.80	1.80	3.00
Cooling operation ambient temperature		°C	+18/+43					
Heating operation ambient temperature		°C	-7/+24					
Gas charge volume		kg	0.55	0.56	0.72	1.26	1.45	1.90
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	9.53/3/8"	12.7/1/2"	12.7/1/2"	12.7/1/2"	15.88/5/8"
Maximal difference in level		m	10					
Maximal pipe length		m	15	15	15	25	25	30
Distance between the bolts of the outdoor unit fastening		mm	440	440	510	540	549	560

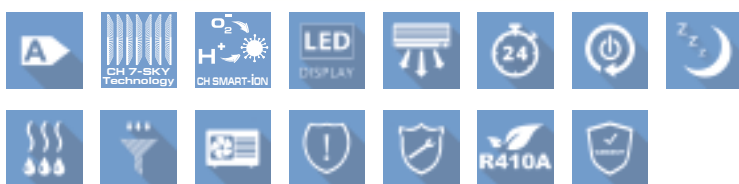
\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.

# AIR-MASTER PLUS

## SERIES



ON/OFF

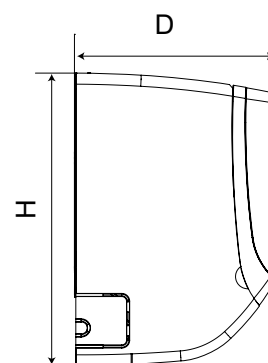
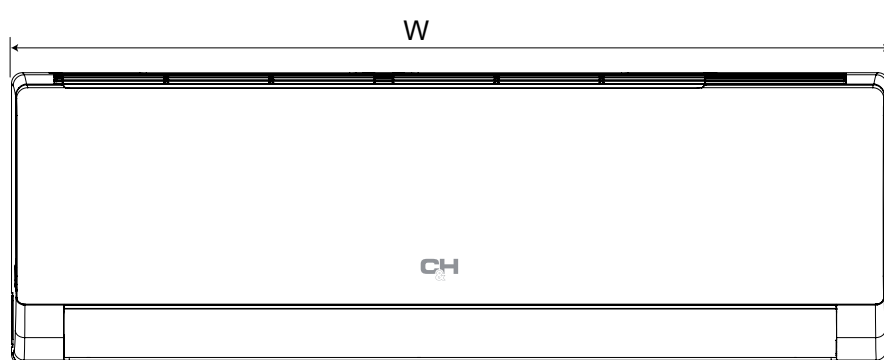


- ▶ "CH 7-SKY Technology" – complex filtration system based on seven filters of wide effect spectrum;
- ▶ "CH SMART-ION Filter" – the new generation technology of total cleaning of air of new generation (CH-S07XP7, CHS09XP7);
- ▶ Special solution for professional installations;
- ▶ Wide designing capabilities. Two colors of removable panels of the indoor unit with either a white or silver insert (option);
- ▶ Increased life cycle;
- ▶ Low noise level;
- ▶ A-class of energy efficiency. The highest index for models with a non-inverter compressor.



Model			CH-S07XP7	CH-S09XP7	CH-S12XP7	CH-S18RX7	CH-S24RX7
Capacity	Cooling	kW	2,26	2,70	3,25	4,7	6,15
	Heating	kW	2,43	2,85	3,40	4,9	6,50
Consumed power	Cooling	kW	0,69	0,82	1,00	1,46	1,9
	Heating	kW	0,66	0,78	0,97	1,43	1,9

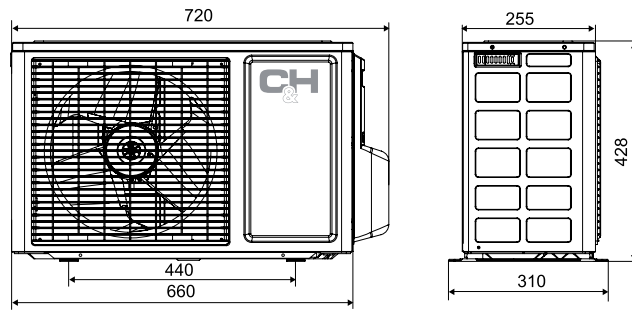
### INDOOR UNIT



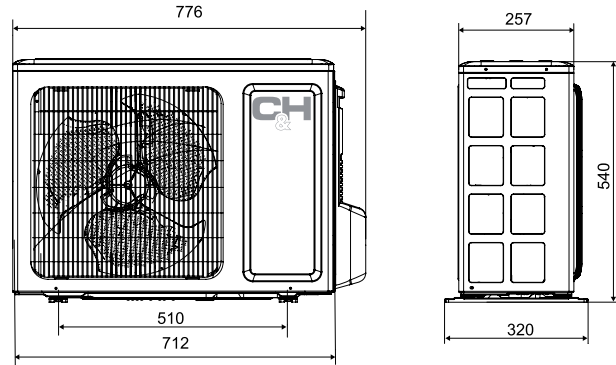
Model	W (mm)	H (mm)	D (mm)
CH-S07XP7	730	254	184
CH-S09XP7	730	254	184
CH-S12XP7	848	275	190
CH-S18RX7	945	298	211
CH-S24RX7	945	298	211

# OUTDOOR UNIT

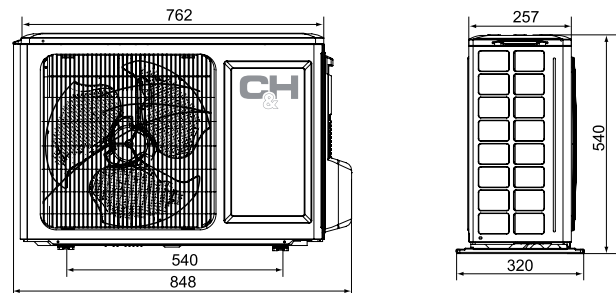
CH-S07XP7  
CH-S09XP7



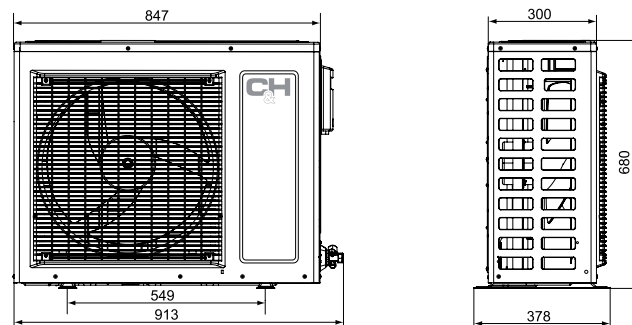
CH-S12XP7



CH-S18RX7



CH-S24RX7



Model			CH-S07XP7	CH-S09XP7	CH-S12XP7	CH-S18RX7	CH-S24RX7
Capacity	Cooling	kW	2,26	2,70	3,25	4,70	6,20
	Heating	kW	2,43	2,85	3,40	4,90	6,52
Power supply			-220-240 V/50 Hz				
Consumed power	Cooling	kW	0,69	0,82	1,00	1,46	1,9
	Heating	kW	0,66	0,78	0,97	1,43	1,9
Air flow		m <sup>3</sup> /h	400	400	600	850	850
Sound pressure level	Indoor unit	dB (A)	24/27/31	26/31/33	29/33/35	31/35/39	33/37/41
	Outdoor unit	dB (A)	49	49	50	52	53
Refrigerant type			R410A				
Weight	Indoor unit	kg	8	8	10	13	13
	Outdoor unit	kg	22	25,5	29	40	46
Compressor type			rotor				
Drying		l/h	0,60	0,80	1,20	1,80	2,00
Cooling operation ambient temperature		°C	+18... +43	+18... +43	+18... +43	+18... +43	+18... +43
Heating operation ambient temperature		°C	-7 ... +24	-7 ... +24	-7 ... +24	-7 ... +24	-7 ... +24
Gas charge volume		kg	0,50	0,68	0,80	1,15	1,45
Liquid line diameter		mm/inch	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"	6.38/1/4"
Gas line diameter		mm/inch	9.53/3/8"	9.53/3/8"	9.53/3/8"	12.7/1/2"	12.7/1/2"
Maximal difference in level		m	5	10	10	10	10
Maximal pipe length		m	15	15	20	25	25
Distance between bolts of outdoor unit fastening		mm	440	440	510	540	549

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.

# MONOBLOCK



**INVERTER**



Unique air conditioner without outdoor units. Designed for preserving the external outlook of the buildings. Can be installed by enduser.

- ▶ Ultra-thin design
- ▶ The monoblock is the thinnest in its category: only 16 mm deep
- ▶ Simple installation
- ▶ "No Frost" system
- ▶ The monoblock unit can be installed in any wall place: either at the top or at the bottom
- ▶ A drainage pipe is constantly heated; this prevents condensate freezing in winter
- ▶ The monoblock unit operates both in the cooling mode and in the heating mode.

Model		CH-VC11TH	CH-VC13TH
Cooling power	kW	2.04	2.35
Power in the maximal cooling mode. Double power	kW	2.60	3.10
Heating power (2)	kW	2.10	2.36
Heating power (3)	kW	0.98	1.11
Maximal heating power. Double power	kW	2.64	3.05
Consumed power when cooling (1)	kW	0.63	0.73
Consumed power when heating (2)	kW	0.638	0.72
Drying capacity	l/h	1.0	1.1
Power supply	V/Hz	-220-240V/50Hz	-220-240V/50Hz
EER	W/W	3.24	3.22
COP	kW/kW	3.29	3.28
Energy performance class when cooling		A+	A+
Energy performance class when heating		A	A
Indoor-outdoor ventilation speed	No.	3	3
Indoor-outdoor air flow at maximal speed	m <sup>3</sup> /h	380/460	400/480
Indoor-outdoor air flow at average speed	m <sup>3</sup> /h	310/380	320/390
Indoor-outdoor air flow at minimal speed	m <sup>3</sup> /h	260/330	270/340
Overall dimensions, (WxHxD)	mm	1030x555x170	1030x555x170
Weight, including package	kg	48.5	48.5
Sound pressure level (min-max) (4)	dB (A)	26/39	27/41
Sound power level inside the device (min-max)	dB (A)	44/57	45/58
Wall hole diameter	mm	162	162
Distance between wall holes	mm	293	293
<b>Refrigerant type</b>		<b>R410A</b>	
Refrigerant quantity R410A	gr.	560	560
Total heating potential (GWP 2088)	kr CO <sub>2</sub> eq.	1,169	1,169
Maximal consumed power	kW	0.950*	1,060*
Maximal absorbed current	A	4.4*	4.8*
Maximal operating pressure PS	MPa	3.8	3.8
Protection degree		IPX0	IPX0

\* With the double power function, which activates during heating

Initial conditions	Indoor T	Outdoor T
(1) Cooling mode tests (EN 14511)	DB 27°C - WB 19°C	DB 35°C - WB 24°C
(2) Heating mode tests (EN 14511)	DB 20°C - WB 15°C	DB 7°C - WB 6°C
(3) Heating mode tests	DB 20°C - WB 15°C	DB -7°C - WB -8°C
(4) Internal sound pressure measured in a semi-anechoic chamber at 2 m distance.		
(5) Internal sound pressure measured according to rules EN 12012.		

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.



# PORTABLE AIR CONDITIONER



CH-M10K7B



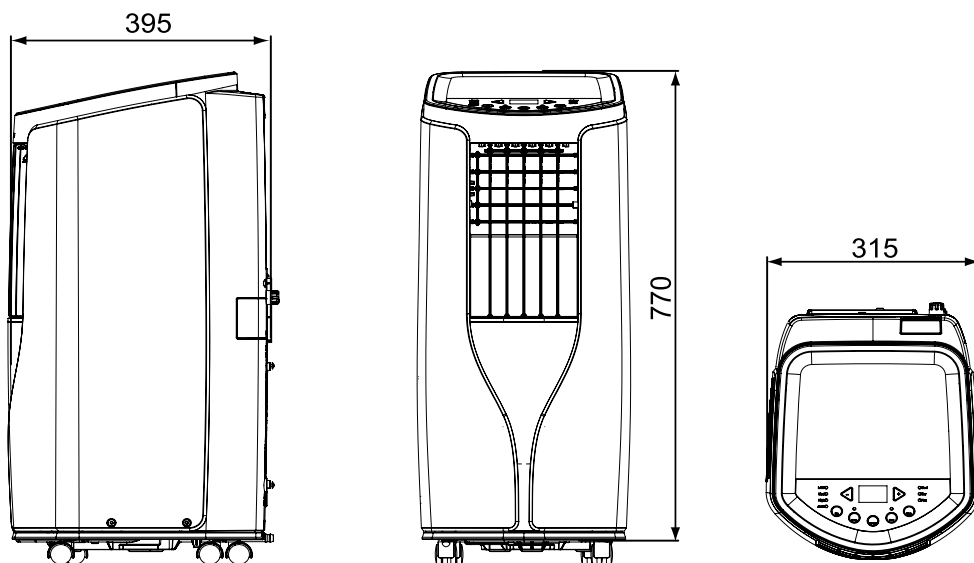
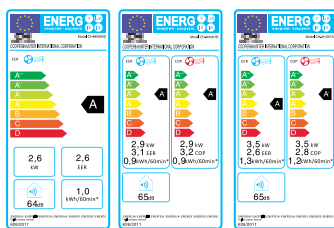
CH-M09K6S  
CH-M10K7S  
CH-M12K7S



- ▶ Increased life cycle;
- ▶ Noise low level;
- ▶ Highest class of energy efficiency A
- ▶ Compact Hi-Tech design;
- ▶ Indication of current time on the remote control.
- ▶ Antibacterial coating

Model			CH-M09K6S	CH-M10K7B/S	CH-M12K7S
Capacity	Cooling	kW	2,64	2,93	3,52
	Heating	kW	-	2,93	3,52
Consumed power	Cooling	kW	1,01	0,95	1,35
	Heating	kW	-	0,90	1,24

CH-M09K6S  
CH-M10K7S  
CH-M12K7S



Model	Power supply	Refrigerant type	Energy performance EER (Cooling)	Energy performance (heat)	Air flow	Sound pressure level
	V/Hz/Ph		kW/kW	kW/kW	m³/h	min/ave/max) dB (A)
CH-M09K6S	-220-240 V/50 Hz/1 Ph	R32	2,62	-	330/300/270	46/48/51
CH-M10K7B/S	-220-240 V/50 Hz/1 Ph	R32	3,1	3,2	360/330/300	46/48/51
CH-M12K7S	-220-240 V/50 Hz/1 Ph	R410A	2,61	2,85	360/330/300	47/49/51

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system cooling capacity.

# WDP6

## PORTABLE DEHUMIDIFIER



- ▶ Drying modes: "smart", "constant", "quiet", "dry";
- ▶ LED-display, indicating set/current moisture;
- ▶ Three speeds of the fan: high, average, low;
- ▶ Air flow direction control;
- ▶ Clothes drying function;
- ▶ Moisture range control is within 35% ~ 80%;
- ▶ Condensate discharge either into a container or through a hose;
- ▶ Timer;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 ours of operation;
- ▶ Full container indication and sound signalization, when the container is full;
- ▶ Automatic operation stop, when the container is full;
- ▶ Automatic defrosting mode;
- ▶ Autorestart with all settings saved;
- ▶ Convenient movement (wheels)
- ▶ Air flow direction control.

		CH-D008WDP6-20LD	CH-D016WDP6-40LD
Electric supply	V/Hz	~220-240V/50Hz	
Capacity	l/day	20	40
Consumed power	W	345	570
Temperature range	°C	+5/+35	+5/+35
Air flow	m <sup>3</sup> /h	130/115/105	230/195/170
Container volume	l	4	7
Sound pressure level	dB(A)	43/41/39	46/43/41
Weight	kg	15	23
Overall dimensions (WxHxD)	mm	363x577x245	396x625x286
Refrigerant type		R134A	R410A

# WDN6

## PORTABLE DEHUMIDIFIER

- ▶ Drying modes: "smart", "constant", "quiet", "dry";
- ▶ LED-display, indicating set/current moisture;
- ▶ Three speeds of the fan: high, average, low;
- ▶ Moisture range control is within 35% ~ 80%;
- ▶ Condensate discharge either into a container or through a hose;
- ▶ Timer;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 ours of operation;
- ▶ Full container indication and sound signalization, when the container is full;
- ▶ Automatic operation stop, when the container is full;
- ▶ Automatic defrosting mode;
- ▶ Autorestart with all settings saved;
- ▶ Air flow direction control.
- ▶ Convenient movement (wheels)



		CH-D008WDN6-20LD	CH-D016WDN6-40LD
Electric supply	V/Hz	~220-240V/50Hz	
Capacity	l/day	20	40
Consumed power	W	345	570
Temperature range	°C	+5/+35	+5/+35
Air flow	m <sup>3</sup> /h	130/115/105	230/195/170
Container volume	l	4	7
Sound pressure level	dB(A)	43/41/39	46/43/41
Weight	kg	15	22
Overall dimensions (WxHxD)	mm	367x582x246	464x670x351
Refrigerant type		R134A	R410A

## WD7

## PORTABLE DEHUMIDIFIER



- ▶ Drying modes: "smart", "constant", "quiet", "dry";
- ▶ LED-display, indicating set/current moisture;
- ▶ Three speeds of the fan: high, average, low;
- ▶ Moisture range control is within 35% ~ 80%;
- ▶ Condensate discharge either into a container or through a hose;
- ▶ Timer;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 hours of operation;
- ▶ Full container indication and sound signalization, when the container is full;
- ▶ Automatic operation stop, when the container is full;
- ▶ Automatic defrosting mode;
- ▶ Autorestart with all settings saved;
- ▶ Airflow direction control.
- ▶ Convenient movement (wheels)

		CH-D009WD7-22LD	CH-D011WD7-26LD
Electric supply	V/Hz	~220-240V/50Hz	
Capacity	l/day	22	26
Consumed power	W	280	280
Temperature range	°C	+5/+35	+5/+35
Air flow	m <sup>3</sup> /h	150/130/110	185/165/145
Container volume	l	3.6/4.2	3.6/4.2
Sound pressure level	dB(A)	43/41/39	48/46/44
Weight	kg	15	15
Overall dimensions (WxHxD)	mm	351x492x260	351x492x260
Refrigerant type		R134A	R134A

## WD5

## PORTABLE DEHUMIDIFIER

- ▶ Operation modes: easy drying, bedrooms, living rooms, basement, constant drying;
- ▶ Moisture range control is within 35% ~ 80%;
- ▶ Three speeds of the fan: high, average, low;
- ▶ Setting the timer for a period from 0,5 to 24 hours;
- ▶ Lock function with a light indicator;
- ▶ Original and aesthetic LC display;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 hours of operation;
- ▶ The device will automatically switch off in the following cases: the condensate container is full, the container is removed from the device or installed incorrectly, moisture is below 5% of a set level;
- ▶ Memory function. In case of power loss all settings will be saved;
- ▶ Convenient movement (wheels)



		CH-D008WD5-20LD	CH-D014WD5-30LD
Electric supply	V/Hz	~220-240V/50Hz	
Capacity	l/day	20	30
Consumed power	W	285	500
Temperature range	°C	+5/+35	+5/+35
Air flow	m <sup>3</sup> /h	150/135/125	275/225/200
Container volume	l	4.7	7
Sound pressure level	dB(A)	36/34/33	39/37/35
Weight	kg	15.5	18.5
Overall dimensions (WxHxD)	mm	355x495x280	380x610x285
Refrigerant type		R134A	R134A

WD2

## PORTABLE DEHUMIDIFIER



ELECTRONIC CONTROL

- ▶ Operation modes: easy drying, bedrooms, living rooms, basement, constant drying;
- ▶ Moisture range control is within 35% ~ 80%;
- ▶ Three speeds of the fan: high, average, low;
- ▶ Setting the timer for a period from 0,5 to 24 hours;
- ▶ Original and aesthetic LC display;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 ours of operation;
- ▶ The device will automatically switch off in the following cases: the condensate container is full, the container is removed from the device or installed incorrectly, moisture is below 5% of a set level;
- ▶ Memory function. In case of power loss all settings will be saved;
- ▶ Convenient movement (wheels)
- ▶ Lock function with a light indication

		CH-D007WD2-16LD	CH-D010WD2-24LD
Electric supply	V/Hz	~220-240V/50Hz	
Capacity	l/day	16	24
Consumed power	W	300	330
Temperature range	°C	+5/+35	+5/+35
Air flow	m <sup>3</sup> /h	152/137/125	175/149/140
Container volume	l	4,8	4,8
Sound pressure level	dB(A)	42/37/33	44/37/34
Weight	kg	15	16
Overall dimensions (WxHxD)	mm	343x528x262	343x528x262
Refrigerant type		R134A	R134A

WD1

## PORTABLE DEHUMIDIFIER

- ▶ Moisture range control is within 35% ~ 80%;
- ▶ Condensate discharge either into a container or through a hose;
- ▶ Two speeds of the fan: high and low;
- ▶ Timer will switch off the device in 2 or 4 hours;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 ours of operation;
- ▶ Continuous operation indication;
- ▶ LED–display, indicating set/current moisture;
- ▶ Full container indication and sound signalization, when the container is full;
- ▶ Automatic operation stop, when the container is full;
- ▶ Automatic defrosting mode;
- ▶ Autorestart with all settings saved;
- ▶ Convenient movement (wheels)



DIGITAL CONTROL

		CH-D005WD1-12LD	CH-D008WD1-18LD
Электропитание	Вольт/Гц	~220-240V/50Hz	
Производительность	л/сутки	12	18
Потребляемая мощность	Вт	230	295
Температурный диапазон	°C	+5/+35	+5/+35
Воздушный поток	m <sup>3</sup> /h	115/100	115/100
Емкость резервуара	л	3,5	3,5
Уровень звукового давления	дБ(А)	43/41	45/43
Вес	кг	11	13,5
Габариты (ШxВxГ)	мм	353x496x225	353x496x225
Тип хладагента		R134A	R134A



# CH-D005WD8-10LD

HOUSEHOLD DEHUMIDIFIERS

## PORTABLE DEHUMIDIFIER

- ▶ Electronic control;
- ▶ 4 operation modes: continuous, comfortable, set, clothes drying;
- ▶ Moisture range control is within 40% ~ 70%;
- ▶ Two fan speeds: maximal and minimal.
- ▶ Condensate discharge either into a container or through a hose;
- ▶ Timer will switch on/off the device in 24 h;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 ours of operation;
- ▶ Continuous operation indication;
- ▶ LED–display, indicating set/current moisture;
- ▶ Full container indication and sound signalization, when the container is full;
- ▶ Automatic operation stop, when the container is full;
- ▶ Convenient movement (wheels)



CH-D005WD8-10LD		
Electric supply	V/Hz	-220-240V/50Hz
Capacity (30°C 80% RH)	l/h	0,41
Capacity (30°C 80% RH)	l/day	10
Consumed power	W	145
Nominal current	A	0,65
Air consumption	m <sup>3</sup> /h	110
Refrigerant volume, R134a	g	55
Noise level (dB)	dB(A)	45
Device weight	kg	10,5
Overall dimensions (LxBxH)	mm	310x190x480

# WDR9

## PORTABLE DEHUMIDIFIER



- ▶ Operation modes: comfortable, continuous
- ▶ Moisture range control is within 35% ... 80%;
- ▶ Setting the timer for a period from 0,5 to 24 hours;
- ▶ LC display;
- ▶ Fan speed regulation: high and normal;
- ▶ Filter cleaning indicator: it will remind about necessary cleaning after 250 hours of operation;
- ▶ The device will automatically switch off in the following cases: the condensate container is full, the container is removed from the device or installed incorrectly, moisture is below 5% of a set level;
- ▶ Memory function. In case of power loss all settings will be saved;
- ▶ Convenient movement (wheels)

		CH-D016WDR9	CH-D022WDR9
Electric supply	V/Hz	-220-240V/50Hz	
Capacity	l/day	40	50
Consumed power	W	560	775
Temperature range	°C	5-35	5-35
Nominal current (A)	A	2,7	3,6
Air consumption	m <sup>3</sup> /h	345/320	345/320
Container volume	l	6	6
Electric protection class		I class	I class
Moisture protection class		IPX0	IPX0
Freon gas charging weight, g	g	190	290
Noise level (dB)	dB(A)	52/51	52/51
Freon type		R410A	
Weight	kg	18,1	19,8
Overall dimensions	mm	392x282x616	392x282x616

# CH-D90FSP

## SEMI-INDUSTRIAL DEHUMIDIFIER



- ▶ For pools;
- ▶ Stainless steel body;
- ▶ Electronic control;
- ▶ Rough cleaning filter;
- ▶ Digital color LC display;
- ▶ Equipped with Panasonic rotor compressors.
- ▶ Operates quietly and efficiently.
- ▶ Autorestart function. Automatically switches on the drying mode set prior to dryer switching off;
- ▶ Automatic defrost function. If necessary, the heater will be automatically switched on to prevent system freezing;
- ▶ Installation method: on wheels;
- ▶ Drying range indicator: from 99 to 10 %;
- ▶ Indoor temperature range indicator: from 5°C to 38°C; Noise absorbing body and compressor sound insulation; Humid air intake by the frontal panel;
- ▶ 24 hours timer;
- ▶ Dismountable 8L discharge container and condensate discharge through drainage.

CH-D90FSP		
Electric supply	V/Hz	-220-240V/50Hz
Capacity (30°C 80% RH)	l/h	3,75
Capacity (30°C 80% RH)	l/day	90
Consumed power	W	1150
Nominal current	A	5,2
Air consumption	m³/h	700
Refrigerant volume, R410C	g	730
Noise level (dB)	dB(A)	59
Device weight	kg	76
Overall dimensions (LxBxH)	mm	720x550x1240

# CH-D90FW

## SEMI-INDUSTRIAL DEHUMIDIFIER

- ▶ Electronic control;
- ▶ Rough cleaning filter;
- ▶ Digital color LC display;
- ▶ Equipped with Panasonic rotor compressors.
- ▶ Operates quietly and efficiently.
- ▶ Autorestart function. Automatically switches on the drying mode set prior to dryer switching off;
- ▶ Automatic defrost function. If necessary, the heater will be automatically switched on to prevent system freezing;
- ▶ Installation method: on wheels;
- ▶ Drying range indicator: from 99 to 10 %;
- ▶ Indoor temperature range indicator: from 5°C to 38°C;
- ▶ Noise absorbing body and compressor sound insulation;
- ▶ Humid air intake by the frontal panel;
- ▶ 24 hours timer;
- ▶ Dismountable 8L discharge container and condensate discharge through drainage.



CH-D90FW		
Electric supply	V/Hz	-220-240V/50Hz
Capacity (30°C 80% RH)	l/h	3,75
Capacity (30°C 80% RH)	l/day	90
Consumed power	W	1150
Nominal current	A	5,2
Air consumption	m³/h	700
Refrigerant volume, R410C	g	730
Noise level (dB)	dB(A)	59
Device weight	kg	76
Overall dimensions (LxBxH)	mm	720x550x1240

# CH-D145SP CH-D240SP SEMI-INDUSTRIAL DEHUMIDIFIER



- ▶ For pools;
- ▶ Electronic control;
- ▶ Digital color LC display;
- ▶ Automatic defrost function. If necessary, the heater will switch on to prevent system freezing;
- ▶ Installation method: on wheels;
- ▶ Drying range: from 99 to 10%;
- ▶ Indoor temperature range: from 5°C to 38°C;
- ▶ Noise absorbing body and compressor sound insulation;
- ▶ Humid air intake by the frontal panel;
- ▶ 24 hours timer;
- ▶ Temperature indicator;
- ▶ Moisture indicator;

		CH-D145SP	CH-D240SP
Electric supply	V/Hz	~220-240V/50Hz	~380-400V/50Hz
Capacity (30°C 80% RH)	l/h	6	10
Capacity (30°C 80% RH)	l/day	145	240
Consumed power	W	2120	4450
Nominal current	A	9,6	8,8
Air consumption	m³/h	1400	1800
Refrigerant volume, R410C	g	1150	1500
Noise level (dB)	dB(A)	63	65
Device weight	kg	110	135
Overall dimensions (LxBxH)	mm	700x500x1680	760x540x1790

# WD SEMI-INDUSTRIAL DEHUMIDIFIER

- ▶ Color LC display;
- ▶ Equipped with rotor compressors Hitachi, Toshiba. Operates quietly and efficiently;
- ▶ Dryers are equipped with a remote control;
- ▶ Autorestart function. Automatically switches on the drying mode set prior to dryer switching off;
- ▶ Automatic defrost function.
- ▶ 4 installation methods: on wall, legs, wheels (furniture is included), and concealed installation;
- ▶ Drying range from 25% to 80% at temperature from +10 to +42°;
- ▶ Noise absorbing body and compressor sound insulation;
- ▶ Vertical and horizontal air flow;
- ▶ Humid air intake by the frontal panel;



		CH-D025WD	CH-D042WD	CH-D060WD	CH-D085WD	CH-D105WD	CH-D155WD
Electric supply	V/Hz	~220-240V/50Hz	~220-240V/50Hz	~220-240V/50Hz	~220-240V/50Hz	~380-415V/50Hz/3phases	~380-415V/50Hz/3phases
Capacity	l/h	2,5	4,2	6,0	8,5	10,5	15,5
Capacity	l/day	60	108,8	144	204	252	372
Heat power	W	1600	2200	3000	4500	5500	7200
Consumed power	W	920	1260	1685	2680	2680	3350
Nominal current	A	4,3	6	7,8	12,9	12,9	15,5
Air consumption	m³/h	450	500	750	1250	1250	1500
Refrigerant volume, R407C	g	550	550	1100	1800	1800	3100
Sound pressure level	dB(A)	46	48	52	60	60	62
Device weight	kg	50	55	95	105	105	115
Overall dimensions (LxBxH)	mm	890x255x750	890x255x750	1120x315x900	1120x385x900	1360x385x900	1360x385x900
Refrigerant type		R407C					





COMMERCIAL  
SERIES FOR  
PROFESSIONAL  
INSTALLATIONS





# NORDIC COMMERCIAL DUCT TYPE SERIES N



**INVERTER**



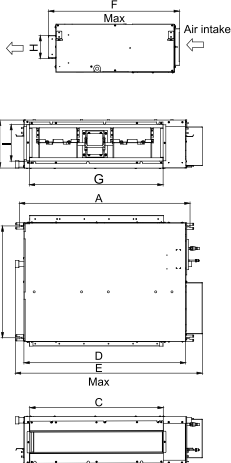
- ▶ Compact size;
- ▶ Drainage pump (only for inverter models);
- ▶ Low noise level;
- ▶ Long life washable filter;
- ▶ Automatic air distribution in Swing mode
- ▶ Self-diagnosis of the main units and modes;
- ▶ Multi-level protection system;
- ▶ Intelligent defrost;
- ▶ Length of the pipe up to 50 m.

Model		CH-ID09NK4 / CH-IU09NK4	CH-ID12NK4 / CH-IU12NK4	CH-ID18NK4 / CH-IU18NK4	CH-ID24NK4 / CH-IU24NK4	CH-ID30NK4 / CH-IU30NK4
Capacity	Cooling/Heating kW	2.7/2.9	3.50/3.80	5.0/5.6	7.00/8.00	8.3/9.2
Power Supply		-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph

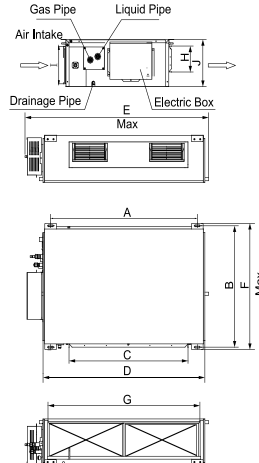
Model		CH-ID36NK4 / CH-IU36NM4	CH-ID42NK4 / CH-IU42NM4	CH-ID48NK4 / CH-IU48NM4	CH-ID60NK4 / CH-IU60NM4
Capacity	Cooling/Heating kW	10.00/12.00	11.50/13.50	14.00/15.50	16.00/16.50
Power Supply		-380-415 V/50 Hz/3 Ph	-380-415 V/50 Hz/3 Ph	-380-415 V/50 Hz/3 Ph	-380-415 V/50 Hz/3 Ph

## INDOOR UNIT

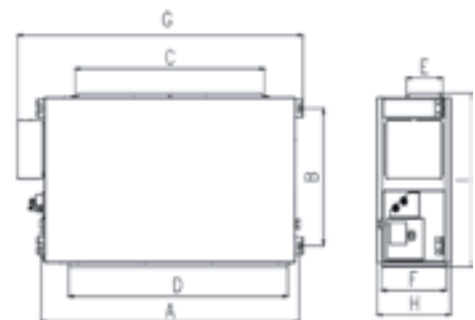
CH-ID09NK4 – CH-ID18NK4  
CH-D48NK2 – CH-D60NK2



CH-D24NK2 – CH-D42NK2  
CH-ID24NK4 – CH-ID60NK4



CH-D18NK2\*



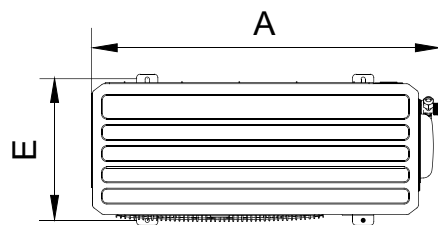
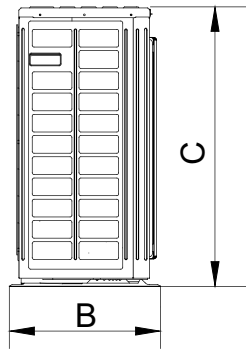
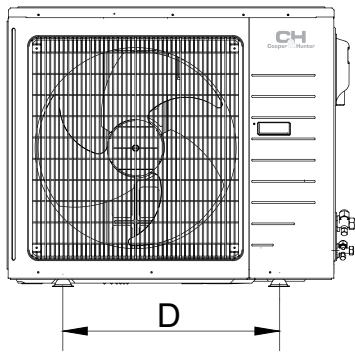
**INVERTER**

## ON/OFF

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)
CH-ID09NK4	840	561	635	790	925	665	738	125	203	250
CH-ID12NK4	945	618	738	892	1037	721	738	125	203	266
CH-ID18NK4	1101	517	820	1159	1279	558	1002	160	235	268
CH-ID24NK4	1011	748	820	1115	1226	775	979	160	231	290
CH-ID30NK4	1177	646	852	1150	1340	750	953	190	316	350
CH-ID36NK4										
CH-ID42NK4										
CH-ID48NK4										
CH-ID60NK4										
Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)
CH-D18NK2*	940	430	740	738	206	125	1015	275	720	-
CH-D24NK2	1011	515	820	1159	1260	555	1002	160	235	270
CH-D36NK2	1011	748	820	1115	1226	775	979	160	231	290
CH-D48NK2	1011	788	820	1115	1235	830	979	160	256	330



# OUTDOOR UNIT



## INVERTER

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CH-IU09NK4	848	320	540	540	286
CH-IU12NK4	955	396	700	560	360
CH-IU18NK4	980	427	790	610	395
CH-IU24NK4	1107	440	1100	631	400
CH-IU30NK4	958	412	1349	572	376
CH-IU36NM4	1085	427	1365	620	395

## ON/OFF

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CH-U18NK2	955	395	700	560	360
CH-U24NK2	980	425	790	610	395
CH-U36NM2	1120	440	1100	631	400
CH-U48NM2	980	410	1350	572	376

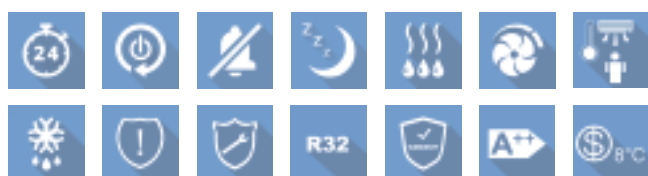
Model	ON/OFF	CH-D18NK2/ CH-U18NK2	CH-D24NK2/ CH-U24NK2	CH-D36NK2/ CH-U36NM2	CH-D48NK2/ CH-U48NM2	CH-D60NK2/ CH-U60NM2	
Capacity	Cooling/Heating	kW	5.00/5.40	7.00/7.40	10.00/11.50	14.00/15.00	16.00/18.00
Electric power supply			-220-240 V/50 Hz/1 Ph		-380-415 V/50 Hz/3 Ph		
Rated input	Cooling/Heating	kW	2.00/1.90	2.50/2.30	3.60/3.30	5.00/4.70	5.60/5.50
Current rate	Cooling/Heating	A	9.20/8.20	12.00/10.50	7.60/7.20	10.80/10.50	11.60/11.40
Energy performance	Cooling/Heating	EER/COP	2.50/2.80	2.80/3.20	2.70/3.40	2.80/3.10	2.80/3.20
Air productive capacity		m <sup>3</sup> /h	720/660/540/420	1260/1000/780/660	2100/2030/1860/1730	2300/2100/1750/1650	2500/2300/1900/1800
Pressure range	Cooling/Heating	Pa	0-30	0-40	0-75	0-100	0-100
Sound-pressure level	Cooling/Heating	dB (A)	36/33/30/29	43/38/34/32	51/48/46/44	53/52/50/50	56/52/49/49
			56	59	60	60	61
Type of refrigerant coolant				R410a			
Weight	Indoor unit	kg	31	33	46	53	56
	Outdoor unit	kg	53	61	69	103	118
Volume of refrigerant coolant		kg	1.30	1.50	2.20	3.70	4.10
Operational temperature range	Cooling/Heating	°C	-15 ~ +43/-15 ~ +24				
Liquid pipeline diameter		mm/inch	6.35/ 1/4"	9.53/ 3/8"	9.53/ 3/8"	12.70 / 1/2"	12.70 / 1/2"
Gas pipeline diameter		mm/inch	12.7 / 1/2"	15.88 / 5/8"	19.05 / 3/4"	19.05 / 3/4"	19.05 / 3/4"
Maximum pipeline level difference		m	15				30
Pipeline maximum length		m	25	30	50		
Number of interblock strands (for control)			2*0.75 if longer than 20 m		2*1.0 if longer than 20 m		
Main power supply area			Outdoor unit				
Number of the strands (power supply)	Indoor unit		3(∅1.0mm <sup>2</sup> )	3(∅1.0mm <sup>2</sup> )	3(∅1.5mm <sup>2</sup> )	3(∅1.5mm <sup>2</sup> )	3(∅1.5mm <sup>2</sup> )
	Outdoor unit		3(∅4.0mm <sup>2</sup> )	3(∅4.0mm <sup>2</sup> )	5(∅2.5mm <sup>2</sup> )	5(∅4.0mm <sup>2</sup> )	5(∅4.0mm <sup>2</sup> )
Factory Freon fill ( for the number of the running meters)		m	7				9.5
Freon per one running meter (surplus. for one running meter)		g/m	22	54	110	110	110

Model	INVERTER	CH-ID09NK4 / CH-IU09NK4	CH-ID12NK4 / CH-IU12NK4	CH-ID18NK4 / CH-IU18NK4	CH-ID24NK4 / CH-IU24NK4	CH-ID30NK4 / CH-IU30NK4	CH-ID36NK4 / CH-IU36NM4	CH-ID42NK4 / CH-IU42NM4	CH-ID48NK4 / CH-IU48NM4	CH-ID60NK4 / CH-IU60NM4	
Capacity	Cooling/Heating	kW	2.7/2.9	3.50/3.80	5.0/5.6	7.00/8.00	8.3/9.2	10.00/12.00	11.50/13.50	14.00/15.50	16.00/16.50
Electric power supply			-380-415 V/50 Hz/1 Ph						-380-415 V/50 Hz/1 Ph		
Rated input	Cooling/Heating	kW	0.84/0.8	1.17/1.05	1.55/1.55	2.18/2.21	2.67/2.57	3.12/3.32	4.0/3.9	5.1/4.5	5.6/4.57
Input rate	Cooling	A	3.9	5.40	7.50	10.10	12.4	5.40	6.90	8.80	9.7
	Heating		3.7	4.90	7.40	10.20	12.0	5.80	6.70	7.80	7.9
Energy performance	Cooling/Heating	EER/COP	3.21/3.61	3.0/3.61	3.23/3.61	3.21/3.62	3.11/3.58	3.21/3.61	2.88/3.46	2.75/3.44	2.86/3.61
Air flow	Indoor unit	m <sup>3</sup> /h	650	750	1000	1400	1400	2100	2100	2400	3000
Nominal pressure	Indoor unit	Pa	25	25	25	25	37	37	37	50	50
Pressure level	Indoor unit	Pa	0-30	0-35	0-35	0-75	0-75	0-100	0-100	0-125	0-150
Sound-pressure level	Indoor unit	dB (A)	36/34/28/26	37/36/34/28	40/39/36/28	47/46/44/40	47/46/44/40	53/52/48/44	53/52/48/44	55/53/49/45	57/56/54/49
	Outdoor unit		52	52	56	57	58	63	61	59	63
Type of refrigerant coolant			R410A								
Refrigerant coolant		kg	1.2	1.2	1.4	2.2	2.4	3.5	3.7	4.0	5.0
Weight	Indoor unit	kg	27	33	33	34	34	46	46	56	57
	Outdoor unit	kg	34	34	47	67	71	98	108	114	126
Operational temperature range	Cooling	°C	-15/+48								
	Heating	°C	-20/+24								
Liquid pipeline diameter		mm/inch	6.38/ 1/4"	6.38/ 1/4"	6.38/ 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"
Gas pipeline diameter		mm/inch	9.53/ 3/8"	9.53/ 3/8"	12.70/ 1/2"	15.88/ 5/8"	15.88/ 5/8"	15.88/ 5/8"	15.88/ 5/8"	15.88/ 5/8"	19.05/ 3/4"
Maximum pipeline level difference		m	15				30				
Pipeline maximum length		m	20			30			50		
Quantity of interblock strands (for control)			2*0.75 if longer than 20 m				2*1.0 if longer than 20 m				
Main power supply area			Outdoor unit								
Quantity of the strands (powersupply outdoor/indoor)	Indoor unit		3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )	3(∅1.0 mm <sup>2</sup> )
	Outdoor unit		3(∅1.5 mm <sup>2</sup> )	3(∅1.5 mm <sup>2</sup> )	3(∅2.5 mm <sup>2</sup> )	3(∅2.5 mm <sup>2</sup> )	3(∅2.5 mm <sup>2</sup> )	5(∅1.5 mm <sup>2</sup> )	5(∅2.5 mm <sup>2</sup> )	5(∅2.5 mm <sup>2</sup> )	5(∅2.5 mm <sup>2</sup> )
Factory Freon fill ( for the number of the running meters)		m	5								7.5
Freon per one running meter (surplus. for one running meter)		g/m	30	30	30	60	60	60	60	60	60
SEER/SCOP			5.6/3.8	5.6/4.0	5.6/3.8	6.1/4.0	6.1/4.0	6.1/4.0	5.6/4.0	5.6/3.8	5.6/3.8

\* EER - seasonal coefficient of system cooling capacity.  
\*\* COP - seasonal coefficient of system heating capacity.

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system heating capacity.

# NORDIC COMMERCIAL DUCT TYPE SERIES R

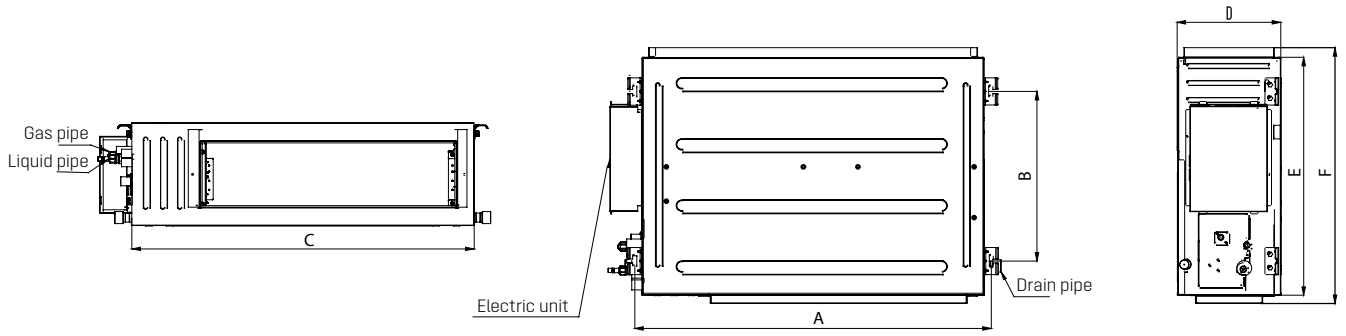


- ▶ Compact size;
- ▶ Drainage pump (only for inverter models);
- ▶ Low noise level;
- ▶ Long life washable filter;
- ▶ Automatic air distribution in Swing mode
- ▶ Self-diagnosis of the main units and modes;
- ▶ Multi-level protection system;
- ▶ Intelligent defrost;
- ▶ Length of the pipe up to 75 m (for high power models).

Model		CH-IDS035PRK / CH-IU035RK	CH-IDS050PRK / CH-IU050RK	CH-IDS071PRK / CH-IU071RK	CH-IDS085PRK / CH-IU085RK	CH-IDH100PRK / CH-IU100RM	CH-IDH125PRK / CH-IU125RM	CH-IDH140PRK / CH-IU140RM	CH-IDH160PRK / CH-IU160RM		
Capacity	Cooling	kW	3,5	5,00	7,00	8,50	10,00	12,10	13,40	16,00	
	Heating	kW	4,00	5,50	8,00	8,80	12,00	13,50	15,50	17,00	
Electric power supply		~220-240 V/50 Hz/1 Ph					~380-415 V/50 Hz/3 Ph				
Rated input	Cooling	kW	0,95	1,55	2,10	2,70	3,15	3,80	4,70	5,45	
	Heating	kW	1,05	1,45	2,25	2,65	3,50	3,90	4,45	5,00	
Energy performance	Cooling	EER	3,68	3,23	3,33	3,15	3,17	3,18	2,85	2,94	
	Heating	COP	3,81	3,79	3,56	3,32	3,43	3,46	3,48	3,40	
Air flow	Indoor unit	m³/h	650	950	1200	1500	1800	2000	2200	2400	
Pressure range (nominal/ maximal)		Pa	25/50	25/50	25/75	37/75	37/100	50/150	50/150	50/200	
Sound-pressure level	Indoor unit	dB (A)	41/38/36/34	43/42/39/36	40/39/37/36	42/40/37/35	46/44/42/40	42/40/39/37	43/41/40/38	44/41/39/38	
	Outdoor unit	dB (A)	50	53	52	53	55	56	57	57	
Type of refrigerant coolant		R32									
Volume of refrigerant coolant		kg	0,78	1,00	1,60	1,80	2,50	2,65	2,80	3,60	
Weight	Indoor unit	kg	20	26	31	31	41	50	50	57	
	Outdoor unit	kg	37	39	53	60	89	95	99	112	
Operational temperature range	Cooling	°C	-20-48								
	Heating	°C	-20-24								
Liquid pipeline diameter		mm/ inch	6,38//1/4"	6,38//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"	
Gas pipeline diameter		mm/ inch	9,53//3/8"	12,70//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"	
Maximum pipeline level difference		m	15	20	25	30	30	30	30	30	
Pipeline maximum length		m	30	35	50	65	75	75	75	75	
Number of interblock strands (for control)		2x0,75mm²									
Main power supply area		Outdoor unit									
Number of the strands (power supply)	Indoor unit	3 (∅ 1,0mm²)									
	Outdoor unit	3 (∅ 1,5mm²)	3 (∅ 1,5mm²)	3 (∅ 2,5mm²)	3 (∅ 2,5mm²)	5 (∅ 1,5mm²)	5 (∅ 1,5mm²)	5 (∅ 1,5mm²)	5 (∅ 1,5mm²)	5 (∅ 1,5mm²)	
Factory Freon fill ( for the number of the running meters)		m	5	5	5	5	5	5	7,5	7,5	
Freon per one running meter (surplus. for one running meter)		g/m	16	16	40	40	40	40	40	40	
SEER/SCOP			6,10/4,00	6,10/4,00	6,80/4,00	6,10/4,00	6,10/4,00	5,80/3,80	5,40/3,70	6,10/4,00	
Energy performance class			A++/A+	A++/A+	A++/A+	A++/A+	A++/A+	A+/A	A+/A	A++/A+	

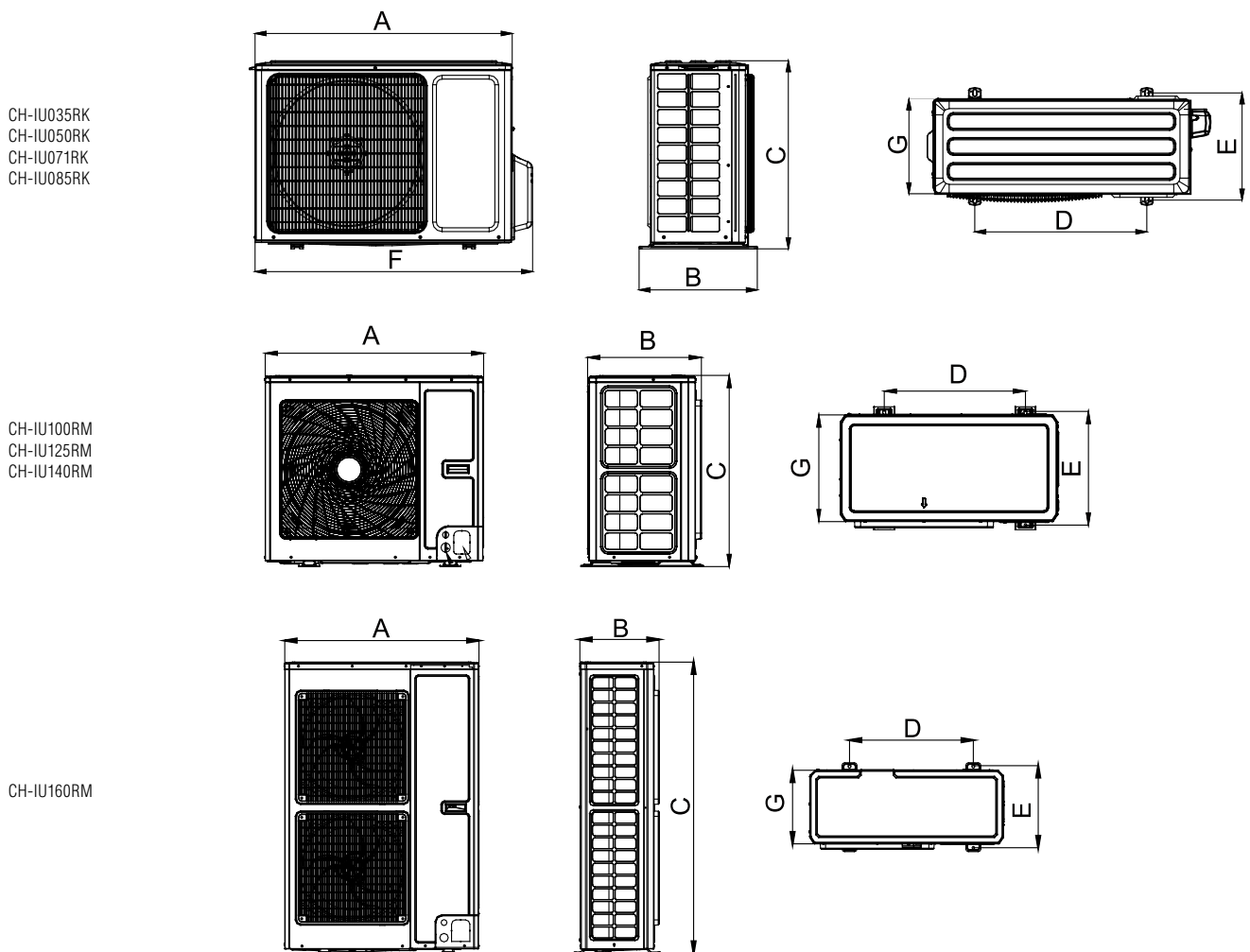


# INDOOR UNIT



Model	A	B	C	D	E	F
CH-IDS035PRK	760	415	700	200	450	474
CH-IDS050PRK	1060	415	1000	200	450	474
CH-IDS071PRK	1360	415	1300	220	450	474
CH-IDS085PRK						
CH-IDH100PRK	1040	500	1000	300	700	754
CH-IDH125PRK						
CH-IDH140PRK	1440	500	1400	300	700	754
CH-IDH160PRK						

# OUTDOOR UNIT



Model	A	B	C	D	E	F	G
CH-IU035RK / CH-IU050RK	818	378	596	550	348	887	302
CH-IU071RK	892	396	698	560	364	952	340
CH-IU085RK	920	427	790	610	395	1002	370
CH-IU100RM / CH-IU125RM / CH-IU140RM	940	530	820	610	486	/	460
CH-IU160RM	900	412	1345	572	378	/	340

\*EER - seasonal coefficient of system cooling capacity.  
 \*\* COP - seasonal coefficient of system heating capacity.

\*SEER - seasonal coefficient of system cooling capacity.  
 \*\* SCOP - seasonal coefficient of system heating capacity.

# NORDIC COMMERCIAL CASSETTE TYPE SERIES N



**INVERTER**



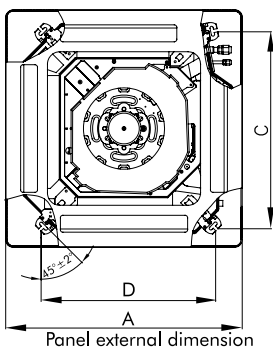
- ▶ Compact size;
- ▶ Drainage pump (only for inverter models);
- ▶ Low noise level;
- ▶ Long life washable filter;
- ▶ Automatic air distribution in Swing mode
- ▶ Self-diagnosis of the main units and modes;
- ▶ Multi-level protection system;
- ▶ Intelligent defrost;
- ▶ Length of the pipe up to 50 m

Model	CH-IC12NK4/ CH-IU12NK4	CH-IC18NK4/ CH-IU18NK4	CH-IC24NK4/ CH-IU24NK4	CH-IC36NK4/ CH-IU36NM4	CH-IC42NK4/ CH-IU42NM4	CH-IC48NK4/ CH-IU48NM4	CH-IC60NK4/ CH-IU60NM4	
Capacity	Cooling/Heating kW	3.5/3.8	5.0/5.5	7.0/8.0	10.0/12.0	11.0/12.5	14.0/16.0	16.0/17.0
Power Supply		~220-240 V/50 Hz/1 Ph			~380-415 V/50 Hz/3 Ph			

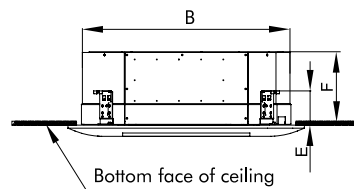
## INDOOR UNIT

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)
CH-C18NK2	670	595	599	562	135	240	665	234	562	491

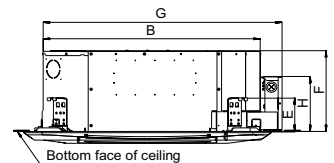
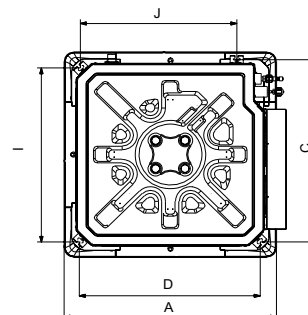
CH-C18NK2



Panel external dimension



Bottom face of ceiling



Bottom face of ceiling

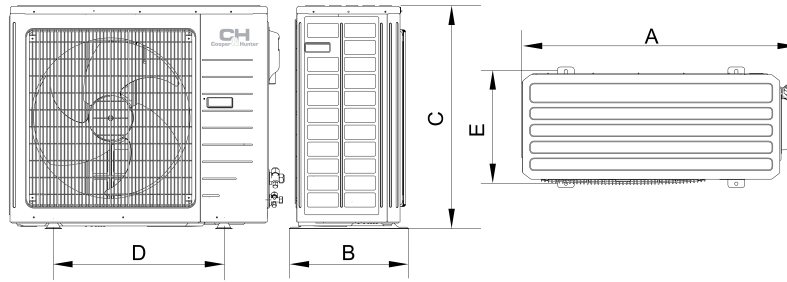
**INVERTER**

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
CH-IC12NK4	670	596	592	571	145	240
CH-IC18NK4	670	595	599	562	135	240
CH-IC24NK4	950	840	780	680	160	240
CH-IC36NK4	950	840	780	680	160	320
CH-IC42NK4	950	840	780	680	160	320
CH-IC48NK4	1040	910	842	788	170	290
CH-IC60NK4	1040	910	842	788	170	290

## ON/OFF

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
CH-C24NK2	950	840	784	728	135	240
CH-C36NK2	950	850	776	712	134	325
CH-C48NK2	950	840	770	680	134	290
CH-C60NK2	950	840	770	680	134	290

# OUTDOOR UNIT



## INVERTER

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CH-IU12NK4	848	320	540	540	286
CH-IU18NK4	955	396	700	560	360
CH-IU24NK4	980	427	790	610	395
CH-IU30NK4	1107	440	1100	631	400
CH-IU42NM4	958	412	1349	572	376
CH-IU48NM4	1085	427	1365	620	395

## ON/OFF

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CH-U18NK2	955	395	700	560	360
CH-U24NK2	980	425	790	610	395
CH-U36NM2	1120	440	1100	631	400
CH-U48NM2	980	410	1350	572	376

Model	ON/OFF	CH-C18NK2/ CH-U18NK2	CH-C24NK2/ CH-U24NK2	CH-C36NK2/ CH-U36NM2	CH-C48NK2/ CH-U48NM2	CH-C60NK2/ CH-U60NM2	
Capacity	Cooling/Heating	kW		kW		kW	
Electric power supply		-220-240 V/50 Hz/1 Ph			-380-415 V/50 Hz/3 Ph		
Rated input	Cooling/Heating	kW		kW		kW	
Current rate	Cooling/Heating	A		A		A	
Energy performance	Cooling/Heating	EER/COP		EER/COP		EER/COP	
Air flow		m³/h		m³/h		m³/h	
Sound-pressure level	Indoor unit	dB (A)		dB (A)		dB (A)	
	Outdoor unit	dB (A)		dB (A)		dB (A)	
Type of refrigerant coolant		R410a					
Weight	Indoor unit/Outdoor unit	kg		kg		kg	
Volume of refrigerant coolant		kg		kg		kg	
Operational temperature range	Cooling	°C					
	Heating	°C					
Liquid pipeline diameter		mm/inch		mm/inch		mm/inch	
Gas pipeline diameter		mm/inch		mm/inch		mm/inch	
Maximum pipeline level difference		m		m		m	
Pipeline maximum length		m		m		m	
Number of interblock strands (for control)		2*0.75 if longer than 20 m			2*1.0 if longer than 20 m		
Main power supply area		Outdoor unit					
Number of the strands (power supply)	Indoor unit	3(∅1.0 mm²)		3(∅1.0 mm²)		3(∅1.0 mm²)	
	Outdoor unit	3(∅4.0 mm²)		3(∅4.0 mm²)		5(∅2.5 mm²)	
Factory Freon fill ( for the number of the running meters)		m					
Freon per one running meter (surplus. for one running meter)		g/m		g/m		g/m	

Model	INVERTER	CH-IC12NK4/ CH-IU12NK4	CH-IC18NK4/ CH-IU18NK4	CH-IC24NK4/ CH-IU24NK4	CH-IC36NK4/ CH-IU36NM4	CH-IC42NK4/ CH-IU42NM4	CH-IC48NK4/ CH-IU48NM4	CH-IC60NK4/ CH-IU60NM4	
Capacity	Cooling	kW		kW		kW		kW	
	Heating	kW		kW		kW		kW	
Electric power supply		-220-240 V/50 Hz/1 Ph					-380-415 V/50 Hz/3 Ph		
Rated input	Cooling	kW		kW		kW		kW	
	Heating	kW		kW		kW		kW	
Rated input	Cooling	A		A		A		A	
	Heating	A		A		A		A	
Energy performance	Cooling	EER		EER		EER		EER	
	Heating	COP		COP		COP		COP	
Air flow	Indoor unit	m³/h		m³/h		m³/h		m³/h	
Sound-pressure level	Indoor unit/	dB (A)		dB (A)		dB (A)		dB (A)	
	Outdoor unit	dB (A)		dB (A)		dB (A)		dB (A)	
Type of refrigerant coolant		R410A							
Refrigerant coolant type		kg		kg		kg		kg	
Weight	Indoor unit	kg		kg		kg		kg	
	Outdoor unit	kg		kg		kg		kg	
Operational temperature range	Cooling	°C						°C	
	Heating	°C						°C	
Liquid pipeline diameter		mm/inch		mm/inch		mm/inch		mm/inch	
Gas pipeline diameter		mm/inch		mm/inch		mm/inch		mm/inch	
Maximum pipeline level difference		m		m		m		m	
Pipeline maximum length		m		m		m		m	
Number of interblock strands (for control)		2*0.75 if longer than 20 m				2*1.0 if longer than 20 m			
Main power supply area		Outdoor unit							
Number of the strands (power supply)	Indoor unit	3(∅1.0 mm²)		3(∅1.0 mm²)		3(∅1.0 mm²)		3(∅1.0 mm²)	
	Outdoor unit	3(∅1.5 mm²)		3(∅2.5 mm²)		5(∅1.5 mm²)		5(∅2.5 mm²)	
Factory Freon fill ( for the number of the running meters)		m							
Freon per one running meter (surplus. for one running meter)		g/m		g/m		g/m		g/m	
SEER/SCOP		5.6/4.0		5.6/3.8		6.1/4.0		6.1/4.0	

\*EER - seasonal coefficient of system cooling capacity.

\*\* COP - seasonal coefficient of system heating capacity.

\*SEER - seasonal coefficient of system cooling capacity.

\*\* SCOP - seasonal coefficient of system heating capacity.

# NORDIC COMMERCIAL CASSETTE TYPE SERIES R



**INVERTER**

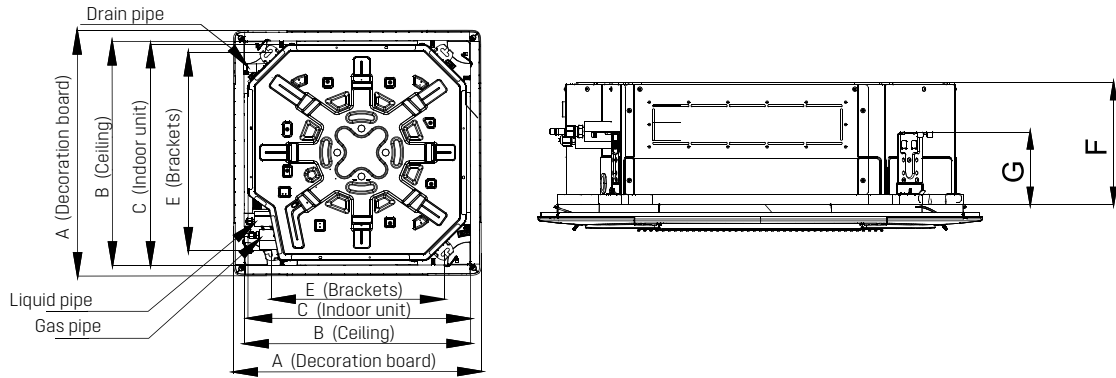


- ▶ Simple installation
- ▶ Compact overall dimensions
- ▶ Low noise fan;
- ▶ Long life cycle washable filter;
- ▶ Drain pump;
- ▶ Self-testing of main units and modes to identify malfunctions;
- ▶ Multi-level system protection.
- ▶ Pipeline length is up to 75 m. (for high power models);
- ▶ The possibility of selecting an indoor air temperature sensor for controlling.

Model		CH-IC035RK / CH-IU035RK	CH-IC050RK / CH-IU050RK	CH-IC071RK / CH-IU071RK	CH-IC085RK / CH-IU085RK	CH-IC100RK / CH-IU100RM	CH-IC125RK / CH-IU125RM	CH-IC140RK / CH-IU140RM	CH-IC160RK / CH-IU160RM	
Capacity	Cooling	kW	3,50	5,00	7,00	8,50	10,00	12,10	13,40	14,50
	Heating	kW	4,00	5,50	8,00	8,80	12,00	13,50	15,50	17,00
Electric power supply			~220-240 V/50 Hz/1 Ph				~380-415 V/50 Hz/3 Ph			
Rated input	Cooling	kW	1,00	1,56	2,05	2,80	3,00	4,05	4,70	5,20
	Heating	kW	1,05	1,65	2,20	2,65	3,40	4,15	4,45	4,80
Energy performance	Cooling	EER	3,50	3,21	3,41	3,04	3,33	2,99	2,85	2,94
	Heating	COP	3,81	3,33	3,63	3,06	3,53	3,25	3,48	3,54
Air flow	Indoor unit	m <sup>3</sup> /h	650	700	1100	1400	1500	1800	1900	2000
Sound-pressure level	Indoor unit	dB (A)	44/39/36/33	44/39/36/33	43/42/40/39	49/47/44/41	50/48/46/42	51/49/46/42	52/51/48/45	54/52/50/48
	Outdoor unit	dB (A)	50	53	52	53	55	56	57	57
Type of refrigerant coolant			R32							
Volume of refrigerant coolant		kg	0,78	1,00	1,60	1,80	2,5	2,65	2,80	3,60
Weight	Indoor unit	kg	17	17	29	29	31	33	36	36
	Panel	kg	3	3	6	6	6	6	6	6
	Outdoor unit	kg	37	39	53	60	89	95	99	112
Operational temperature range	Cooling	°C	-20-48							
	Heating	°C	-20-24							
Liquid pipeline diameter	mm/ inch	6,38//1/4"	6,38//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"	
Gas pipeline diameter	mm/ inch	9,53//3/8"	12,70//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"	
Maximum pipeline level difference	m	15	20	25		30				
Pipeline maximum length	m	30	35	50		65	75			
Number of interblock strands (for control)			2x0,75mm <sup>2</sup>							
Main power supply area			Outdoor unit 3 (∅ 1,0mm <sup>2</sup> )							
Number of the strands (power supply)	Indoor unit		3 (∅ 1,5mm <sup>2</sup> )							
	Outdoor unit		3 (∅ 1,5mm <sup>2</sup> )	3 (∅ 1,5mm <sup>2</sup> )	3 (∅ 2,5mm <sup>2</sup> )	3 (∅ 2,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )
Factory Freon fill ( for the number of the running meters)	m	5	5	5	5	5	5	7,5	7,5	
Freon per one running meter (surplus. for one running meter)	g/m	16	16	40	40	40	40	40	40	
SEER/SCOP		5,90/-	5,90/4,00	7,20/3,90	6,10/4,00	6,10/4,00	6,10/3,80	6,10/4,00	6,10/3,80	
Energy performance class		A+/-	A+/A+	A++/A	A++/A	A++/A+	A++/A	A++/A+	A++/A	



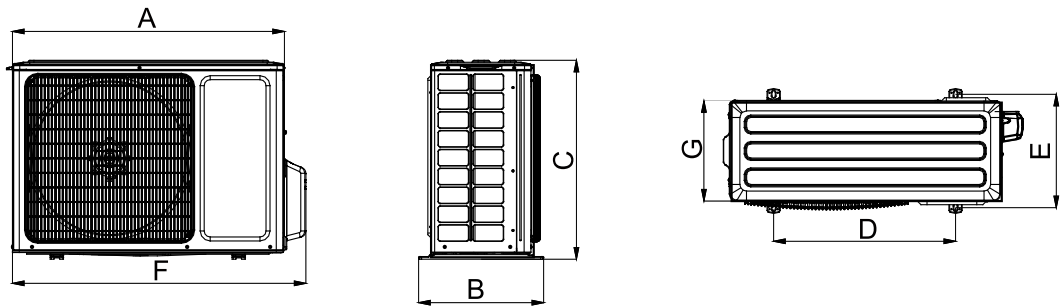
# INDOOR UNIT



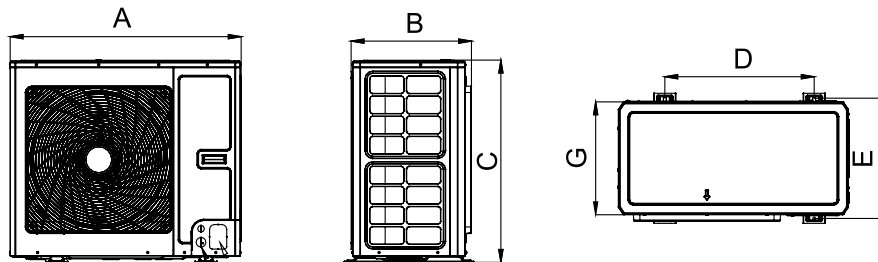
Model	A	B	C	D	E	F	G
CH-IC035RK	620	580	570	520	560	265	140
CH-IC050RK	620	580	570	520	560	265	140
CH-IC071RK	950	870	840	660	790	240	134
CH-IC085RK	950	870	840	660	790	240	134
CH-IC100RK	950	870	840	660	790	240	134
CH-IC125RK	950	870	840	660	790	290	134
CH-IC140RK	950	870	840	660	790	290	134
CH-IC160RK	950	870	840	660	790	290	134

# OUTDOOR UNIT

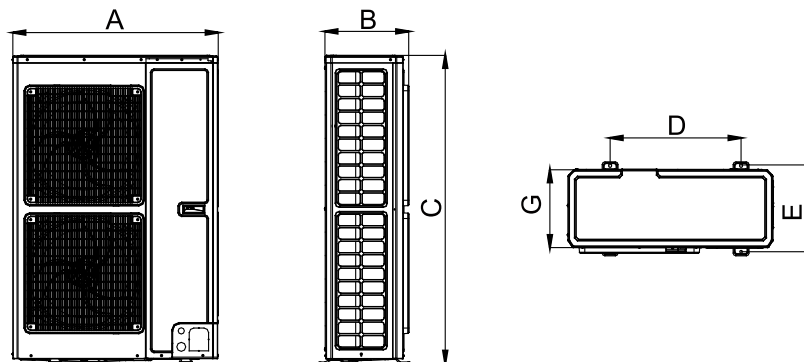
CH-IU035RK  
CH-IU050RK  
CH-IU071RK  
CH-IU085RK



CH-IU100RM  
CH-IU125RM  
CH-IU140RM



CH-IU160RM



Model	A	B	C	D	E	F	G
CH-IU035RK / CH-IU050RK	818	378	596	550	348	887	302
CH-IU071RK	892	396	698	560	364	952	340
CH-IU085RK	920	427	790	610	395	1002	370
CH-IU100RM / CH-IU125RM / CH-IU140RM	940	530	820	610	486	/	460
CH-IU160RM	900	412	1345	572	378	/	340

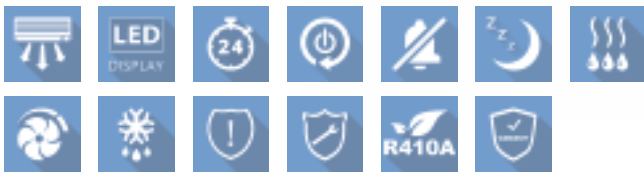
\*EER - seasonal coefficient of system cooling capacity.  
\*\* COP - seasonal coefficient of system heating capacity.

\*SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system heating capacity.

# NORDIC COMMERCIAL FLOOR-CEILING TYPE SERIES N



**INVERTER**



- ▶ Compact size;
- ▶ Drainage pump (only for inverter models);
- ▶ Low noise level;
- ▶ Long life washable filter;
- ▶ Automatic air distribution in Swing mode

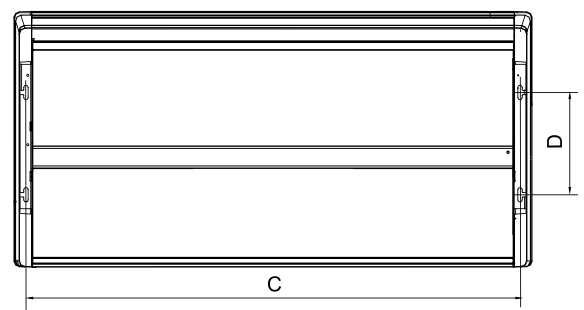
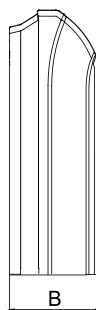
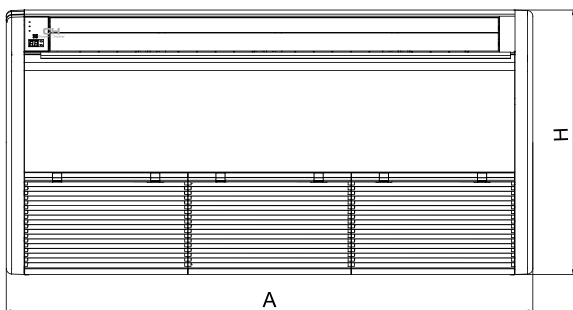
- ▶ Self-diagnosis of the main units and modes;
- ▶ Multi-level protection system;
- ▶ Intelligent defrost;
- ▶ Length of the pipe up to 50 m.



Model	CH-IF09NK4/ CH-IU09NK4	CH-IF12NK4/ CH-IU12NK4	CH-IF18NK4/ CH-IU18NK4	CH-IF24NK4/ CH-IU24NK4	CH-IF30NK4/ CH-IU30NK4	
Capacity	Cooling/Heating kW	2.7/2.9	3.50/3.80	5.00/5.60	7.00/8.00	8.50/9.20
Power Supply		-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph	-220-240 V/50 Hz/1 Ph

Model	CH-IF36NK4/CH-IU36NM4	CH-IF42NK4/CH-IU42NM4	CH-IF48NK4/CH-IU48NM4	CH-IF60NK4/CH-IU60NM4	
Capacity	Cooling/Heating kW	10.00/12.00	11.50/13.50	14.00/16.00	16.00/17.00
Power Supply		-380-415 V/50 Hz/1 Ph	-380-415 V/50 Hz/1 Ph	-380-415 V/50 Hz/1 Ph	-380-415 V/50 Hz/1 Ph

## INDOOR UNIT



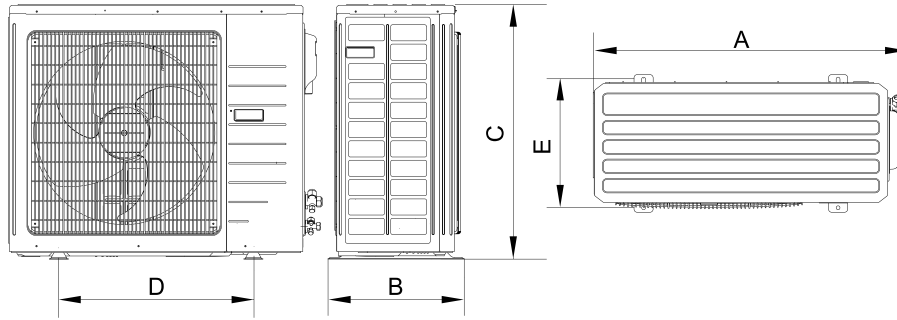
**INVERTER**

Model	A (mm)	B (mm)	C (mm)	D (mm)	H (mm)
CH-IF09NK4 CH-IF12NK4 CH-IF18NK4 CH-IF24NK4	1220	225	1158	280	700
CH-IF30NK4 CH-IF36NK4 CH-IF42NK4 CH-IF48NK4 CH-IF60NK4	1420	245	1354	280	700
CH-IF60NK4	1700	245	1634	280	700

**ON/OFF**

Model	A (mm)	B (mm)	C (mm)	D (mm)	H (mm)
CH-F18NK2 CH-F24NK2 CH-F36NK2	1200	235	1142	280	665
CH-F48NK2 CH-F60NK2	1570	235	1512	280	665

# OUTDOOR UNIT



## INVERTER

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CH-IU09NK4	848	320	540	540	286
CH-IU12NK4					
CH-IU18NK4	955	396	700	560	360
CH-IU24NK4					
CH-IU30NK4	980	427	790	610	395
CH-IU36NM4	1107	440	1100	631	400
CH-IU42NM4					
CH-IU48NM4	958	412	1349	572	376
CH-IU60NM4	1085	427	1365	620	395

## ON/OFF

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CH-U18NK2	955	395	700	560	360
CH-U24NK2					
CH-U36NM2	980	425	790	610	395
CH-U48NM2	1120	440	1100	631	400
CH-U60NM2	980	410	1350	572	376

Model	ON/OFF	CH-F18NK2/ CH-U18NK2	CH-F24NK2/ CH-U24NK2	CH-F36NK2/ CH-U36NM2	CH-F48NK2/ CH-U48NM2	CH-F60NK2/ CH-U60NM2	
Capacity	Cooling/Heating	kW	5.5/5.7	7.2/8.2	10.6/11.8	14.2/16.0	15.8/18.2
Electric power supply			-220-240 V/50 Hz/1 Ph		-380-415 V/50 Hz/3 Ph		
Rated input	Cooling/Heating	kW	2.0/1.9	2.5/2.4	3.6/3.6	5.0/4.7	5.5/5.45
Current rate	Cooling/Heating	A	9.2/8.6	11.4/11.1	8.0/7.5	10.0/10.0	10.7/10.65
Energy performance	Cooling/Heating	EER/COP	2.7/3.0	2.8/3.4	2.9/3.2	2.8/3.4	2.8/3.3
Air flow		m³/h	1000	1400	1600	2400	2400
Sound-pressure level	Indoor unit	dB (A)	40/37/35/33	48/46/44/40	52/51/50/49	56/55/53/52	56/55/53/52
	Outdoor unit		56	59	60	60	61
Type of refrigerant coolant			R410a				
Weight	Indoor unit	kg	31	32	36	46	46
	Outdoor unit	kg	53	59	90	103	118
Volume of refrigerant coolant		kg	1.3	1.5	2.2	3.7	4.1
Operational temperature range	Cooling/Heating	°C	-15 - +43/-15 - +24				
Liquid line diameter		mm/inch	6.35/ 1/4"	9.53/ 3/8"	9.53/ 3/8"	12.70/ 1/2"	12.70/ 1/2"
Gas pipeline diameter		mm/inch	12.7/ 1/2"	15.88/ 5/8"	19.05/ 3/4"	19.05/ 3/4"	19.05/ 3/4"
Maximum pipeline level difference		m	15				
Pipeline maximum length		m	25	30	50		
Number of interblock strands (for control)			2*0.75 if longer than 20 m		2*1.0 if longer than 20 m		
Main power supply area			Outdoor unit				
Number of the strands (power supply)	Indoor unit		3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)
	Outdoor unit		3 (Ø4.0 mm²)	3 (Ø4.0 mm²)	5 (Ø2.5 mm²)	5 (Ø4.0 mm²)	5 (Ø4.0 mm²)
Factory Freon fill ( for the number of the running meters)		m	7.0				
Freon per one running meter (surplus. for one running meter)		g/m	15	60	120	120	120

Model	INVERTER	CH-IF09NK4/ CH-IU09NK4	CH-IF12NK4/ CH-IU12NK4	CH-IF18NK4/ CH-IU18NK4	CH-IF24NK4/ CH-IU24NK4	CH-IF30NK4/ CH-IU30NK4	CH-IF36NK4/ CH-IU36NM4	CH-IF42NK4/ CH-IU42NM4	CH-IF48NK4/ CH-IU48NM4	CH-IF60NK4/ CH-IU60NM4	
Capacity	Cooling/Heating	kW	2.7/2.9	3.50/3.80	5.00/5.60	7.00/8.00	8.50/9.20	10.00/12.00	11.50/13.50	14.00/16.00	16.00/17.00
Electric power supply			-220-240 V/50 Hz/1 Ph					-380-415 V/50 Hz/3 Ph			
Rated input	Cooling/Heating	kW	0.84/0.8	1.09/1.05	1.55/1.55	2.18/2.21	2.67/2.57	3.12/3.32	3.9/3.74	5.2/4.5	5.75/4.7
Current rate	Cooling/Heating	A	3.9/3.7	5/4.9	7.2/7.2	10.1/10.2	12.4/12	5.4/5.8	6.7/6.5	8.6/7.8	10.0/10.2
Energy performance	Cooling/Heating	EER/COP	3.21/3.61	3.21/3.61	3.23/3.61	3.21/3.62	3.18/3.58	3.21/3.61	3.21/3.61	2.80/3.56	3.78/3.62
Air flow		m³/h	600	700	1000	1200	1500	1900	1900	2300	2500
Sound-pressure level	Outdoor unit	dB (A)	31/29/26/24	35/33/30/27	44/42/38/32	49/48/46/40	49/46/44/38	54/53/51/46	55/54/52/47	56/52/50/46	58/56/52/46
			52	52	56	57	58	63	61	59	63
Type of refrigerant coolant			R410A								
Refrigerant coolant type		kg	1.2	1.2	1.4	2.2	2.4	3.5	3.7	4	5
Weight	Indoor unit	kg	38	39	39	40	48	48	50	59	59
	Outdoor unit	kg	34	34	47	67	71	98	108	114	126
Operational temperature range	Cooling/Heating	°C	-15/+48								
	Cooling/Heating	°C	-20/+24								
Liquid pipeline diameter		mm/inch	6.38/ 1/4"	6.38/ 1/4"	6.38/ 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"
Gas pipeline diameter		mm/inch	9.53/ 3/8"	9.53/ 3/8"	12.70/ 1/2"	15.88/ 5/8"	15.88/ 5/8"	15.88/ 5/8"	15.88/ 5/8"	15.88/ 5/8"	19.05/ 3/4"
Maximum pipeline level difference		m	15								
Pipeline maximum length		m	20			30			50		
Number of interblock strands (for control)			2*0.75 if longer than 20 m				2*1.0 if longer than 20 m				
Main power supply area			Outdoor unit								
Number of the strands (power supply)	Indoor unit		3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)	3 (Ø1.0 mm²)
	Outdoor unit		3 (Ø1.5 mm²)	3 (Ø1.5 mm²)	3 (Ø2.5 mm²)	3 (Ø2.5 mm²)	5 (Ø2.5 mm²)	5 (Ø1.5 mm²)	5 (Ø2.5 mm²)	5 (Ø2.5 mm²)	5 (Ø2.5 mm²)
Factory Freon fill ( for the number of the running meters)		m	5				5			7.5	
Freon per one running meter (surplus. for one running meter)		g/m	30	30	60	60	60	60	60	60	60
SEER/SCOP			6.1/3.8	6.1/4.0	6.1/4.0	5.6/4.0	6.1/4.0	6.1/4.0	5.6/4.0	5.6/4.0	5.1/4.0

\* EER - seasonal coefficient of system cooling capacity.  
\*\* COP - seasonal coefficient of system heating capacity.

\* SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system heating capacity.

# NORDIC COMMERCIAL FLOOR-CEILING TYPE SERIES R



**INVERTER**



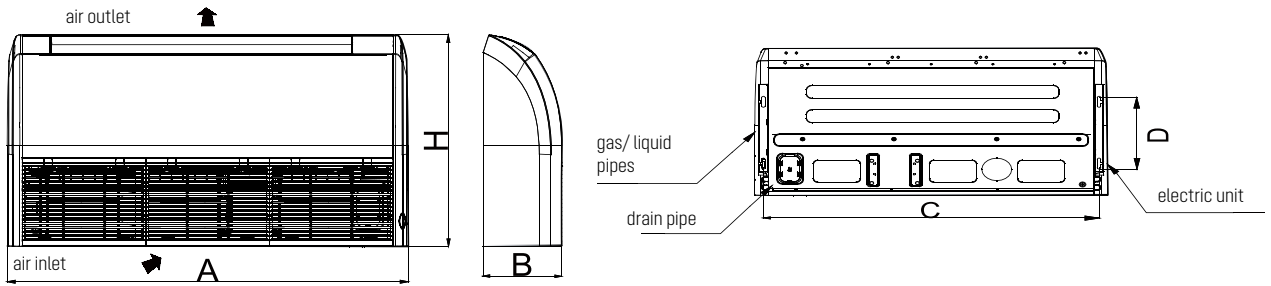
- ▶ Simple installation
- ▶ Self-testing of main units and modes to identify malfunctions;
- ▶ Multi-level system protection;
- ▶ Pipeline length is up to 75 m. (for high power models).



Model			CH-IF035RK / CH-IU035RK	CH-IF050RK / CH-IU050RK	CH-IF071RK / CH-IU071RK	CH-IF085RK / CH-IU085RK	CH-IF100RK / CH-IU100RM	CH-IF125RK / CH-IU125RM	CH-IF140RK / CH-IU140RM	CH-IF160RK / CH-IU160RM	
Capacity	Cooling	kW	3,5	5,00	7,00	8,50	10,00	12,10	13,40	16,00	
	Heating	kW	4,00	5,50	8,00	8,80	12,00	13,50	15,50	17,00	
Electric power supply			~220-240 V/50 Hz/1 Ph					~380-415 V/50 Hz/3 Ph			
Rated input	Cooling	kW	0,90	1,55	1,90	2,80	3,30	4,05	4,30	5,40	
	Heating	kW	0,95	1,60	2,45	2,65	3,50	4,00	4,40	5,40	
Energy performance	Cooling	EER	3,98	3,23	3,68	3,04	3,03	3,18	3,12	2,96	
	Heating	COP	4,21	3,44	3,26	3,32	3,43	3,38	3,52	3,15	
Air flow	Indoor unit	m <sup>3</sup> /h	650	850	1300	1500	1600	1800	2100	2300	
Sound-pressure level	Indoor unit	dB (A)	39/36/32/28	44/42/39/36	45/44/41/38	49/47/45/43	49/47/45/43	49/47/44/42	52/50/48/44	54/53/49/45	
	Outdoor unit	dB (A)	50	53	52	53	55	56	57	57	
Type of refrigerant coolant			R32								
Refrigerant coolant type		kg	0,78	1,00	1,60	1,80	2,50	2,70	2,80	3,60	
Weight	Indoor unit	kg	25	26	31	31	32	40	42	42	
	Outdoor unit	kg	37	39	53	60	89	95	99	112	
Operational temperature range	Cooling	°C	-20-48								
	Heating	°C	-20-24								
Liquid pipeline diameter	mm/ inch		6,38//1/4"	6,38//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"	
Gas pipeline diameter	mm/ inch		9,53//3/8"	12,70//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"	
Maximum pipeline level difference	m		15	20	25		30				
Pipeline maximum length	m		30	35	50		65		75		
Number of interblock strands (for control)			2x0,75mm <sup>2</sup>								
Main power supply area			Outdoor unit								
Number of the strands (power supply)	Indoor unit		3 (∅ 1,0mm <sup>2</sup> )								
	Outdoor unit		3 (∅ 1,5mm <sup>2</sup> )	3 (∅ 1,5mm <sup>2</sup> )	3 (∅ 2,5mm <sup>2</sup> )	3 (∅ 2,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )	5 (∅ 1,5mm <sup>2</sup> )	
Factory Freon fill ( for the number of the running meters)	m		5	5	5	5	5	5	7,5	7,5	
Freon per one running meter (surplus. for one running meter)	g/m		16	16	40	40	40	40	40	40	
SEER/SCOP			6,70/4,00	6,10/4,00	6,80/3,90	6,10/4,00	6,10/4,00	6,10/3,80	6,10/4,00	6,10/4,00	
Energy performance class			A++/A+	A++/A+	A++/A	A++/A+	A++/A+	A++/A	A++/A+	A++/A+	



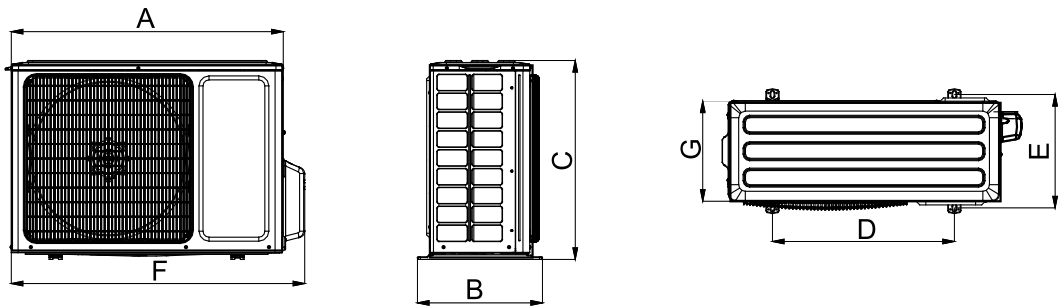
# INDOOR UNIT



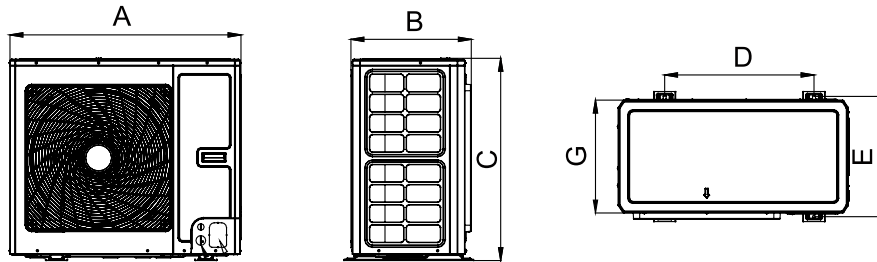
Model	A	B	C	D	H
CH-IF035RK	870	235	812	318	665
CH-IF050RK					
CH-IF071RK					
CH-IF080RK	1200	235	1142	318	665
CH-IF100RK					
CH-IF125RK					
CH-IF140RK	1570	235	1512	318	665
CH-IF160RK					

# OUTDOOR UNIT

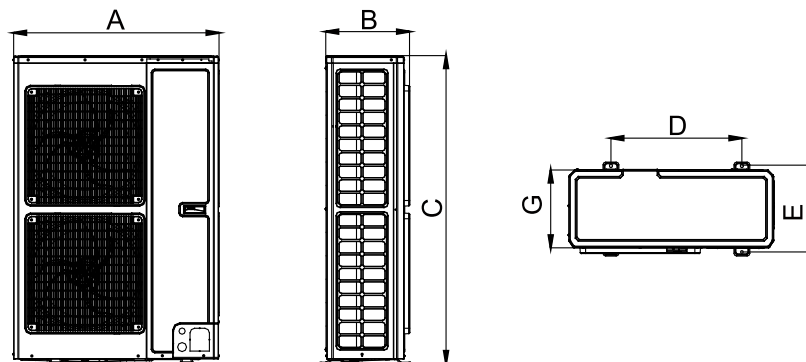
CH-IU035RK  
CH-IU050RK  
CH-IU071RK  
CH-IU085RK



CH-IU100RM  
CH-IU125RM  
CH-IU140RM



CH-IU160RM



Model	A	B	C	D	E	F	G
CH-IU035RK / CH-IU050RK	818	378	596	550	348	887	302
CH-IU071RK	892	396	698	560	364	952	340
CH-IU085RK	920	427	790	610	395	1002	370
CH-IU100RM / CH-IU125RM / CH-IU140RM	940	530	820	610	486	/	460
CH-IU160RM	900	412	1345	572	378	/	340

\*EER - seasonal coefficient of system cooling capacity.  
\*\* COP - seasonal coefficient of system heating capacity.

\*SEER - seasonal coefficient of system cooling capacity.  
\*\* SCOP - seasonal coefficient of system heating capacity.

# MULTY SPLIT AIR CONDITIONING SYSTEM *INVERTER*

## NORDIC MULTI LIGHT SERIES

R32



The outdoor units have the production capacity from 14 000 to 42 000 BTU

Model		CHML-U14RK2	CHML-U18RK2	CHML-U21RK3	CHML-U24RK3	CHML-U28RK4	CHML-U36RK4	CHML-U42RK5	
Number of the connected indoor units		1-2	1-2	2-3	2-3	2-4	2-4	2-5	
Capacity	Cooling	kW	4.1	5.2	6.1	7.1	8.0	10.5	12.0
	Heating	kW	4.4	5.4	6.5	8.5	9.5	12.0	12.0
Electric power supply		~220-240 V/50 Hz/1 Ph							
Air flow	m <sup>3</sup> /h	2600	2600	3800	3800	3800	5500	5500	
Sound-pressure level	dB (A)	55	55	58	58	58	60	60	
Dimensions (width/depth/height)	mm	899x596x378	899x596x378	963x396x700	1001x427x790	1001x427x790	1087x1103x440	1087x1103x440	
Weight	kg	43/46	43/46	55/60	68/73	69/74	90/98	90/98	
Operational temperature	Cooling	°C					-5/+48		
	Heating	°C					-15/+27		
Pipeline maximum length (total for the system/till the one block)	m	20/10	20/10	60/20	60/20	70/20	75/25	75/25	
Maximum pipeline elevation difference (between indoor and outdoor/between indoor)	m	5	5	10	10	10	7.5	7.5	
Distance between the fastening bolts of the outdoor unit	mm	550	560	560	610	610	631	631	



## ALPHA

Model			CHML-IW07AARK	CHML-IW09AARK with WI-FI	CHML-IW12AARK with WI-FI	CHML-IW18AARK with WI-FI
Capacity	Cooling/Heating	kW	2.1/2.6	2.6/2.8	3.2/3.5	4.6/5.2
Air flow		m <sup>3</sup> /h	500	560	560	850
Sound-pressure level		dB (A)	38	38	38	44
Dimensions (width/height/depth)		mm	790x200x275	790x275x200	790x275x200	970x300x224
Weight		kg	8.5	9	9	13.5
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	6.35/1/4"
Gas pipeline diameter		mm/inch	9.53/3/8"	9.53/3/8"	9.53/3/8"	9.53/3/8"



## Console type units

Model			CHML-IK09RK	CHML-IK12RK	CHML-IK18RK
Capacity	Cooling/Heating	kW	2.7/2.8	3.5/3.75	5.2/5.33
Air flow		m <sup>3</sup> /h	480	550	650
Sound-pressure level		dB (A)	34	35	41
Dimensions (width/depth/height)		mm	700x600x215	700x600x215	700x600x215
Weight		kg	15	15	15
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"
Gas pipeline diameter		mm/inch	9.53/3/8"	9.53/3/8"	9.53/3/8"



## Cassette type units
















Model			CHML-IC12RK	CHML-IC18RK	CHML-IC24RK
Capacity	Cooling/Heating	kW	3.5/4.0	4.5/5.0	7.1/8.0
Air flow		m <sup>3</sup> /h	650/560/520/450	710/670/590/450	1280/1220/1100/880
Sound-pressure level		dB (A)	44/41/38/34	47/45/41/35	47/45/41/36
Dimensions (width/depth/height)	Indoor unit	mm	596x596x240	596x596x240	596x596x240
	Panel	mm	670x670	670x670	670x670
Weight (cassette/panel)		kg	20	20	26
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	9.53/3/8"
Gas pipeline diameter		mm/inch	9.53/3/8"	12.7/1/2"	15.88/5/8"



## Duct type units


Model			CHML-ID09RK	CHML-ID12RK	CHML-ID18RK	CHML-ID21RK	CHML-ID24RK
Capacity	Cooling/Heating	kW	2.5/2.8	3.5/3.85	5.0/5.5	6.0/6.6	7.1/8.0
Air flow		m <sup>3</sup> /h	450/350/280	550/400/300	700/600/500	1000/750/550	1000/750/550
Sound-pressure level		dB (A)	37/34/31/47/41	39/35/32/49/42	41/33/51/43	42/34/52/44	42/34/52/44
Dimensions (width/depth/height)		mm	700x615x200	700x615x200	900x615x200	1100x615x200	1100x615x200
Weight		kg	21	22	26	30	30
Liquid pipeline diameter		mm/inch	6.35/1/4"	6.35/1/4"	6.35/1/4"	9.53/3/8"	9.53/3/8"
Gas pipeline diameter		mm/inch	9.53/3/8"	9.53/3/8"	12.7/1/2"	15.88/5/8"	15.88/5/8"

## INDOOR UNIT DIMENSION TYPE


BTU	7 000	9 000	12 000	18 000	21 000	24 000
Wall-mounted Indoor Unit						
Console Indoor Unit						
Cassette Indoor Unit						
Duct Type Indoor Unit						

## OUTDOOR UNIT COMBINATIONS


### 8 COMBINATIONS

 CHML-U14RK2 (from 1 to 2)	One unit		Two units	
	7	7+7	7+9	
	9	7+12	9+9	
	12	9+12		


### 10 COMBINATIONS

 CHML-U18RK2 (from 1 to 2)	One unit		Two units	
	7	7+7	7+18	12+12
	9	7+9	9+9	
	12	7+12	9+12	


### 18 COMBINATIONS

 CHML-U21RK3 (from 1 to 2)	Two units		Three units	
	7+7	7+9	7+7+7	7+7+9
	7+12	7+18	7+7+12	7+9+9
	9+9	9+12	7+9+12	7+12+12
	9+18	12+12	9+9+9	9+9+12
	12+18		12+12+12	


23 COMBINATIONS

 CHML-U24RK3 (from 2 to 3)	Two units		Three units		
	7+7	7+9	7+7+7	7+7+9	7+7+12
	7+12	7+18	7+7+18	7+9+9	7+9+12
	9+9	9+12	7+9+18	7+12+12	9+9+9
	9+18	12+12	9+9+12	9+9+18	9+12+12
	12+18	18+18	12+12+12		


40 COMBINATIONS

 CHML-U28NRK4 (from 2 to 3)	Two units		Three units			Four units		
	7+7	7+9	7+7+7	7+7+9	7+7+12	7+7+7+7	7+7+7+9	7+7+7+12
	7+12	7+18	7+7+18	7+9+9	7+9+12	7+7+7+18	7+7+9+9	7+7+9+12
	9+9	9+12	7+9+18	7+12+12	7+12+18	7+7+9+18	7+7+12+12	7+9+9+9
	9+18	12+12	9+9+9	9+9+12	9+9+18	7+9+9+12	7+9+12+12	9+9+9+9
	12+18	18+18	9+12+12	9+12+18	12+12+12	9+9+9+12	9+9+12+12	

97 COMBINATIONS

 CHML-U36RK4 (from 2 to 3)	Two units		Three units			Four units		
	7+12	7+18	7+7+7	7+7+9	7+7+12	7+7+7+7	7+7+7+9	7+7+7+12
	7+21	7+24	7+7+18	7+7+21	7+7+24	7+7+7+18	7+7+7+21	7+7+7+24
	9+9	9+12	7+9+9	7+9+12	7+9+18	7+7+9+9	7+7+9+12	7+7+9+18
	9+18	9+21	7+9+21	7+9+24	7+12+12	7+7+9+21	7+7+9+24	7+7+12+12
	9+24	12+12	7+12+18	7+12+21	7+12+24	7+7+12+18	7+7+12+21	7+7+18+18
	12+18	12+21	7+18+18	7+18+21	7+18+24	7+9+9+9	7+9+9+12	7+7+12+24
	12+24	18+18	7+21+21	9+9+9	9+9+12	7+9+9+21	7+9+9+24	7+9+9+18
	18+21	18+24	9+9+18	9+9+21	9+9+24	7+9+12+18	7+9+12+21	7+9+12+12
	21+21	21+24	9+12+12	9+12+18	9+12+21	7+12+12+12	7+12+12+18	7+9+18+18
	24+24		9+12+24	9+18+18	9+18+21	9+9+9+12	9+9+9+18	9+9+9+9
			9+18+24	9+21+21	12+12+12	9+9+9+24	9+9+12+12	9+9+9+21
			12+12+18	12+12+21	12+12+24	9+9+12+21	9+9+18+18	9+9+12+18
			12+18+18	12+18+21	18+18+18	9+12+12+18	12+12+12+12	9+12+12+12

171 COMBINATIONS

 CHML-U42RK5 (from 2 to 3)	Two units		Three units			Four units				Five units			
	7+18	7+21	7+7+7	7+7+9	7+7+12	7+7+7+7	7+7+7+9	7+7+7+12	7+7+7+18	7+7+7+7+7	7+7+7+7+9	7+7+7+7+12	7+7+7+7+18
	7+24	9+12	7+7+18	7+7+21	7+7+24	7+7+7+21	7+7+7+24	7+7+9+9	7+7+9+12	7+7+7+7+21	7+7+7+7+24	7+7+7+9+9	7+7+7+9+12
	9+18	9+21	7+9+9	7+9+12	7+9+18	7+7+9+18	7+7+9+21	7+7+9+24	7+7+12+12	7+7+7+9+18	7+7+7+9+21	7+7+7+9+24	7+7+7+12+12
	9+24	12+12	7+9+21	7+9+24	7+12+12	7+7+12+18	7+7+12+21	7+7+12+24	7+7+18+18	7+7+7+12+18	7+7+7+12+21	7+7+9+9+12	7+9+9+9+9
	12+18	12+21	7+12+18	7+12+21	7+12+24	7+7+18+21	7+7+18+24	7+7+21+21	7+7+21+24	7+7+7+18+21	7+7+9+9+9	7+7+9+12+12	7+7+9+9+18
	12+24	18+18	7+18+18	7+18+21	7+18+24	7+9+9+9	7+9+9+12	7+9+9+18	7+9+9+21	7+7+9+9+21	7+9+9+9+18	7+9+9+9+21	7+7+9+12+18
	18+21	18+24	7+21+21	7+21+24	7+24+24	7+9+9+24	7+9+12+12	7+9+12+18	7+9+12+21	7+7+9+12+21	7+9+9+12+18	7+9+12+12+18	7+7+12+12+12
	21+21	21+24	9+9+9	9+9+12	9+9+18	7+9+12+24	7+9+18+18	7+9+18+21	7+9+18+24	7+7+12+12+18	7+9+12+12+12	9+9+9+9+9	7+9+9+9+24
	24+24		9+9+21	9+9+24	9+12+12	7+9+21+21	7+9+21+24	7+12+12+12	7+12+12+18	7+9+9+9+12			7+9+12+12+21
			9+12+18	9+12+21	9+12+24	7+12+12+21	7+12+12+24	7+12+18+18	7+12+18+21	7+9+9+12+12			9+9+9+9+12
			9+18+18	9+18+21	9+18+24	7+12+18+24	7+12+21+21	7+18+18+18	9+9+9+9	7+9+9+18+18			9+9+9+12+12
			9+21+21	9+21+24	9+24+24	9+9+9+12	9+9+9+18	9+9+9+21	9+9+9+24	7+12+12+12+12			9+9+12+12+12
			12+12+12	12+12+18	12+12+21	9+9+12+12	9+9+12+18	9+9+12+21	9+9+12+24	9+9+9+9+18			
			12+12+24	12+18+18	12+18+21	9+9+18+18	9+9+18+21	9+12+12+21	12+12+12+18				
			12+18+24	12+21+21	12+21+24	9+12+12+12	9+12+12+18	12+12+12+12	12+12+18+21				
			12+24+24	18+18+18	18+18+21	9+12+18+18	9+12+18+21	12+12+18+18					
		18+18+24	18+21+21				12+12+18+18						



# BIG DUCT SPLIT UNIT



**INVERTER**

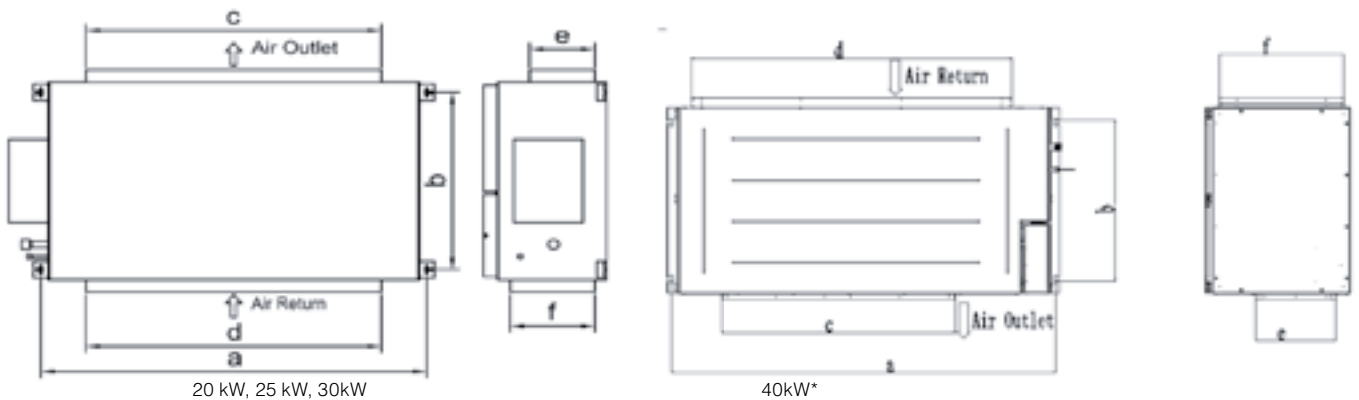


- ▶ All DC inverter for high capacity and energy saving.
- ▶ High static units for longer ducted runs.
- ▶ ESP reach up to 250Pa high.
- ▶ Static pressure is adjustable.
- ▶ Long-distance control is optional, with intelligent filter cleaning reminding function.
- ▶ Indoor fan can be adjusted according to the static pressure of air duct installed by customers.

Model	Heat pump	CH-IBD20NM	CH-IBD25NM	CH-IBD30NM	CH-IBD40N (2) M *	
Capacity	Cooling	kW	20	25	30	40
		BTU/h	68200	85303	102364	136486
	Heating	kW	23	28	34	43
		BTU/h	78479	95540	116013	146722

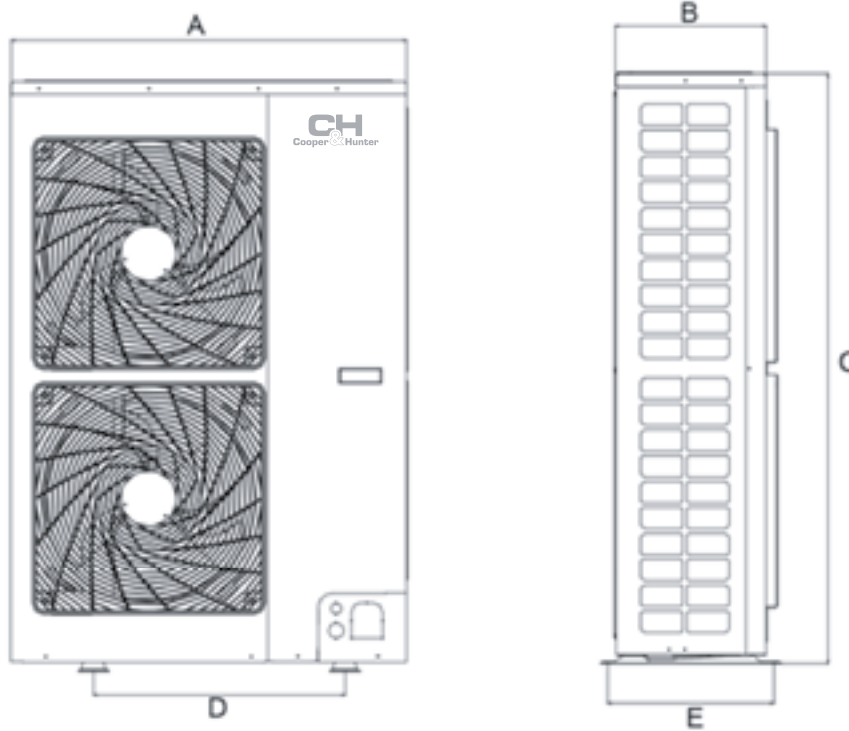
\* A 40 kW model consists of two outdoor units and one indoor unit

## INDOOR UNIT



Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
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

# OUTDOOR UNIT



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

Model		Heat pump		CH-IBD20NM	CH-IBD25NM	CH-IBD30NM	CH-IBD40N (2) M
Capacity	Cooling	kW		20	25	30	40
		BTU/h		68200	85303	102364	136486
	Heating	kW		23	28	34	43
		BTU/h		78479	95540	116013	146722
EER/COP		W/W		2.70/3.15	2.70/3.15	2.70/3.15	2.70/3.15
Power supply		-380-415 V/50 Hz/3 Ph					
Power input	Cooling	kW		7.4	9.3	11.1	14.8
	Heating	kW		7.3	8.9	10.8	13.7
Current input	Cooling	A		14.5	18.2	21.7	29
	Heating	A		14.3	17.4	21.2	26.8
Refrigerant charge volume		kg		5.5	7.1	9.5	11
Type of refrigerant coolant		R410A					
Indoor unit	Air flow volume		CFM	2236	2590	3178	4120
			m³/h	3800	4400	5400	7000
	External static pressure		Rated	Pa	120	120	120
			Range	Pa	0-250	0-250	0-250
	Sound pressure level		dB(A)	53	54	55	56
Net weight/Gross weight		Kg	82/104	99/134	105/140	175/210	
Outdoor unit	Sound pressure level		dB(A)	62	64	65	66
	Net weight/Gross weight		Kg	115/126	146/162	165/182	230/252
	Outer diameter	Liquid	Inch (mm)	3/8" (9.52)	3/8" (9.52)	1/2" (12.7)	3/8" (9.52)
Gas		Inch (mm)	3/4" (19.05)	7/8" (22)	1" (25.4)	3/4" (19.05)	
Connection pipe	Max. distance	Height	m	40	40	40	40
		Length	m	70	70	70	70

	Nominal operating condition (temperature)				Operating range (temperature)
	Outdoor condition		Indoor condition		Outdoor condition
	DB (°C)	WB (°C)	DB (°C)	WB (°C)	DB (°C)
Cooling	35	24	27	19	-7-48
Heating	7	6	20	15	-15-24

# Heat pumps for heating, cooling and HWS



## FUNCTIONS AND ADVANTAGES

- ▶ Room heating;
- ▶ Room cooling;
- ▶ Water heating for a hot water supply system;
- ▶ Cooling a room and water heating;
- ▶ Room heating and water heating;
- ▶ Weather dependent mode;
- ▶ Automatic climate control;
- ▶ Water heating in emergency mode (installed tubular electric heater);
- ▶ Quick water heating;
- ▶ Noiseless (night time) mode;
- ▶ Freezing protection mode;
- ▶ Sanitary mode (water heating in the tank up to 80°C).
- ▶ Programming unit for 7 days of operation;
- ▶ Central control (ModBus);

## ▶ OUTDOOR UNIT

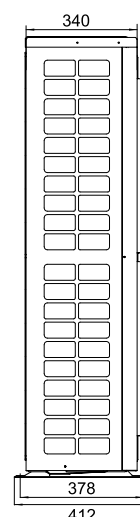
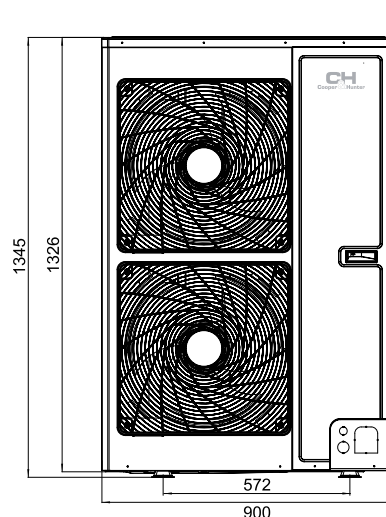
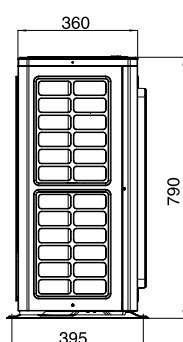
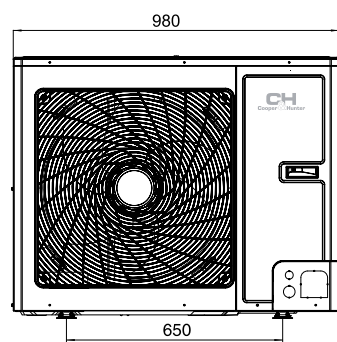
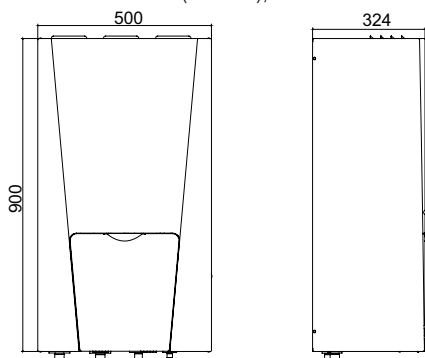
- ▶ Two-stage compressor" technology, DC inverter motor (UNITERM 3);
- ▶ DC-inverter two rotor compressor of new generation (UNITERM 2);
- ▶ Highest class of energy efficiency A: 4,5;
- ▶ Safe start and operation within the range from 95 V to 260 V;
- ▶ Efficient operation wide temperature range:
  - from -30°C to generate heat and up to 48°C to generate cold (UNITERM3);
  - from -25°C to generate heat and up to 48°C to generate cold (UNITERM2);
- ▶ Compressor starting system without inrush current (below 5A);
- ▶ Multi-level protection system;
- ▶ Energy saving operation mode;

## INDOOR UNIT

- ▶ Excellent design and compact dimensions (900x500x324 mm);
- ▶ Plate heat exchanger with maximal energy efficiency coefficient COP;
- ▶ Reliable inverter pump;
- ▶ Smart control system;
- ▶ A tubular electric heater allows to use the indoor unit as an electric boiler.

## TANK FOR WATER (200 L., 300 L.)

- ▶ It shall be installed into a hot water supply system.
- ▶ The tank and heat exchanger are made of stainless steel;
- ▶ Magnesium anode (reliable protection against limescale)
- ▶ Two temperature sensors;
- ▶ Simple in operation and maintenance.



# -25°C

# UNITHERM2 SERIES

Model			CH-HP8.0SINK2	CH-HP10SINK2	CH-HP12SINK(M)2	CH-HP14SINK(M)2	CH-HP16SINK(M)2
Capacity*	Cooling	kW	7.8	8.2	12.5(13.5)	13.5(14.5)	14.5(15)
	Heating	kW	8	10	12(12)	14(14)	15.5(15.5)
Power supply	Cooling	kW	1.95	2.1	3(3.55)	3.4(3.95)	3.8(4.2)
	Heating	kW	1.778	2.273	2.8(2.8)	3.3(3.35)	3.75(3.85)
Energy performance	Cooling	EER	3.9	4.0	4.2(3.8)	4(3.7)	3.8(3.6)
	Heating	COP	4.4	4.5	4.3(4.3)	4.2(4.2)	4.1(4.05)
Capacity**(for fan coil unit or radiator)	Cooling	kW	6.3	7.2	8.5(10)	9(10.5)	9.5(11)
	Heating	kW	7.6	9.5	11.5(12)	12.5(13.5)	14.5(14)
Rated input**(for fan coil unit or radiator)	Cooling	kW	2.33	2.77	2.7(3.35)	3(3.6)	3.3(3.8)
	Heating	kW	2.24	2.88	3.4(3.55)	3.8(4.05)	4.5(4.25)
Energy performance**(for fan coil unit or radiator)	Cooling	EER	2.6	2.7	3.1(3)	3(2.95)	2.9(2.9)
	Heating	COP	3.3	3.4	3.35(3.4)	3.3(3.35)	3.2(3.3)
Weight of refrigerant coolant		kg		2.3		3.6	
Sound-pressure level	Outdoor unit	Cooling	dB (A)		54		56 (55)
		Heating	dB (A)		56		58 (57)
	Indoor unit	Cooling	dB (A)		31		
		Heating	dB (A)		31		
Dimensions (WxDxH)	Outdoor unit	mm	980x427x788		900x412x1345		
	Indoor unit	mm			981x324x500		
Net weight/Gross weight	Outdoor unit	kg	80/85		107(114)/117(124)		
	Indoor unit	kg	56/65		57(58)/66(67)		
Sanitary water Temperature		°C			40-80		
Operational temperature range	Cooling	°C			-25 - +35		
	Heating	°C			+10 - +48		
Liquid pipeline diameter					3/8" (9,52 mm)		
Gas pipeline diameter					5/8" (15,9 mm)		
Maximum pipeline level difference		m			15		
Pipeline maximum length		m			30		

\*the meanings in brackets are for the models operating from the power supply -380-415V/50 Hz/3Ph and marked (M)

# -30°C

# UNITHERM3 SERIES

UNITHERM3 split unit is designed specially for the European market.

The whole series of products strictly comply with EN14511-2100 and EVROVENT energy efficiency class A.

Model			CH-HP8.0SINK3	CH-HP10SINK3	CH-HP12SINKM3	CH-HP14SINKM3
Capacity*	Cooling	kW	8.2	9.7	13.5	14
	Heating	kW	8	9.2	12	14
Power supply			-220-240 V/50 Hz/1 Ph		-220-240 V/50 Hz/1 Ph	
Rated input *	Cooling	kW	1.86	2.46	3.46	3.68
	Heating	kW	1.85	2.19	2.67	3.33
Energy performance	Cooling	EER	4.41	3.94	3.90	3.80
	Heating	COP	4.32	4.20	4.49	4.20
Capacity**(for fan coil unit or radiator)	Cooling	kW	5.5	6.9	9.6	10
	Heating	kW	7.7	9	12	12.8
Rated input**(for fan coil unit or radiator)	Cooling	kW	1.85	2.34	3.02	3.22
	Heating	kW	2.26	2.65	3.24	3.56
Energy performance**(for fan coil unit or radiator)	Cooling	EER	2.97	2.95	3.18	3.11
	Heating	COP	3.41	3.40	3.70	3.60
Weight of refrigerant coolant		kg	5.3	5.3	5.3	5.3
Sound-pressure level	Indoor unit	dB (A)			31	
	Outdoor unit	dB (A)	53	53	57	57
Dimensions (WxDxH)	Indoor unit	mm			981x324x500	
	Outdoor unit	mm	980x427x788		900x412x1345	
Net Weight/Gross Weight	Indoor unit	kg	56/65		58/67	
	Outdoor unit	kg	85/87		126/136	
Sanitary water Temperature		°C			40-80	
Operational temperature range	Cooling	°C			-30 - +45	
	Heating	°C			-10 - +48	
Liquid pipeline diameter					3/8" (9,52 mm)	
Gas pipeline diameter					5/8" (15,9 mm)	
Maximum pipeline level difference		m			15	
Pipeline maximum length		m			30	

\*indicates the capacity and power input are tested based on the conditions below: Cooling. Indoor Water Temperature: 23°C/18°C, Outdoor Temperature: 35°CDB/24°CWB; Heating. Indoor Water Temperature: 30°C/35°C, Outdoor Temperature: 7°CDB/6°CWB

\*\* indicates the capacity and power input are tested based on the conditions below: Cooling. Indoor Water Temperature: 12°C/7°C, Outdoor Temperature: 35°CDB/24°CWB; Heating. Indoor Water Temperature: 40°C/45°C, Outdoor Temperature: 7°CDB/6°CWB

# Household Heat Air-water pump with HWS boiler



Two-stage  
Compressor



**INVERTER**

- ▶ Two-stage compressor;
- ▶ Operation range of outdoor temperature: from -25 to +45°C;
- ▶ Range of incoming temperatures of the sanitary water is from +35°C to +70°C;
- ▶ Multi-speed ventilator;
- ▶ Modular multi-stage water apparatus for HWS Systems on freon R410A; Build-in heating element for 1500 W (to compensate losses of useful heat when the outdoor temperature goes down);
- ▶ Basic configuration "plug-and-play": outdoor unit, GAM boiler, wire-connected controller;

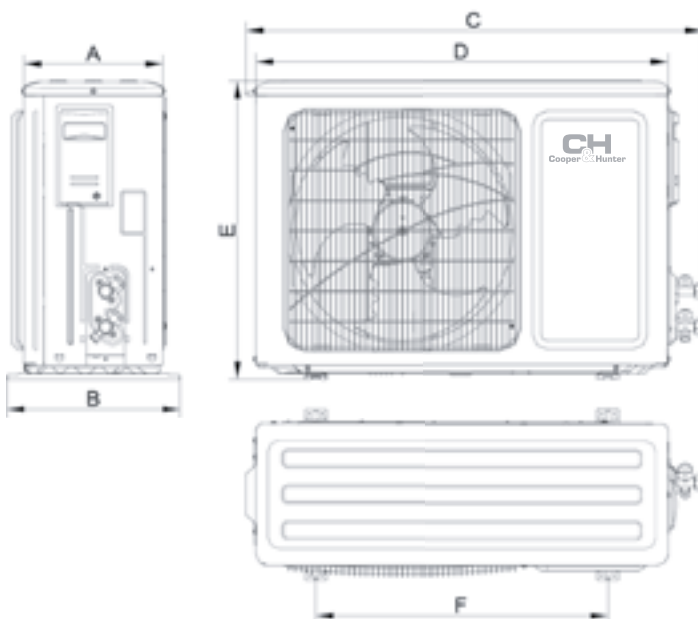


Outdoor unit model		CH-HP3.5SWNK
Rated heat power	W	3500
Rated power consumption	W	850

## WATER TANK

Model		WT200SW1.5EHK
Volume	l	185
Power supply parameters of the heating element	W	-220-240 V/50 Hz/1 Ph
Heating element power intake	W	1500
Dimension (WxDxH)	mm	545 x 545 x 1919
Diameters of connected freon pipelines	mm	Ø6.38/Ø9.52

## OUTDOOR UNIT



Model		CH-HP3.5SWHK
Normal heat release	W	3500
Rated input	W	850
Load type	A	L
COP		3.17
Energy performance ratio		A
Maximum Power intake	W	1500+1500 W (EHT)
Output water temperature	°C	Standard: 55°C. 35°C-55°C
Power supply parameters		-220-240 V/50 Hz/1 Ph
Isolation class		I
Protection class		IPX4
Type of refrigerant coolant		R410A
Fill of refrigerant coolant	kg	1.40
Sound-pressure level	dB (A)	63
Operational range of outdoor temperatures	°C	-25-+45

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
CH-HP3.5SWHK	260	320	842	784	591	540



# Industrial pump for heating and HWS systems



23 kW, 33 kW



48 kW

ON/OFF

- ▶ Simple installation;
- ▶ Compact dimensions;
- ▶ Wide range of operation temperatures: -26°C ... +46°C
- ▶ Quick water heating;
- ▶ Reliable and high Capacity scroll compressor DANFOSS with a high COP value;
- ▶ Anti-corrosion treatment of the heat exchanger;
- ▶ Noise low level;
- ▶ The possibility to install up to 16 units into one system of up to 0.96 MW;
- ▶ Group control.

Model		CH-HP23MFNM	CH-HP33MFNM	CH-HP48MFNM
Heating capacity	kW	23	33	48
Power intake	kW	8.1	10	15
Consumed current	A	14.5	19	28
COP		3.8	4	4
Standard hot water supply	l/h	667	860	1300
Specified range of hot water temperature	°C	35-70		
Electric power supply		~380-415 V/50 Hz/3 Ph		
Automatic switch off	A	25	32	40
Electric power supply cable	mm	5*4.0	5*4.0	5*6.0
<b>Type of refrigerant coolant</b>		<b>R-410A</b>		
Volume of refrigerant coolant	kg	3.9	4.73	6.5
Compressor type		scroll		
Quantity of compressor	piece	1	1	1
Operational temperature range	°C	-26 — +46	-26 — +46	-26 — +46
Diameters of connected water pipelines	Outdoor water supply	DN 25	DN 25	DN 32
	Recirculating inlet water	DN 32	DN 32	DN 50
	Output water	DN 32	DN 32	DN 50
Dimensions (WxDxH)	mm	930x800x1605	930x800x1605	1340x800x1605
Sound-pressure level	dB (A)	67	67	67
Netto/Brutto	kg	238/252	264/286	362/378

# Heat pump for heating, cooling and HWS MULTIPOWER

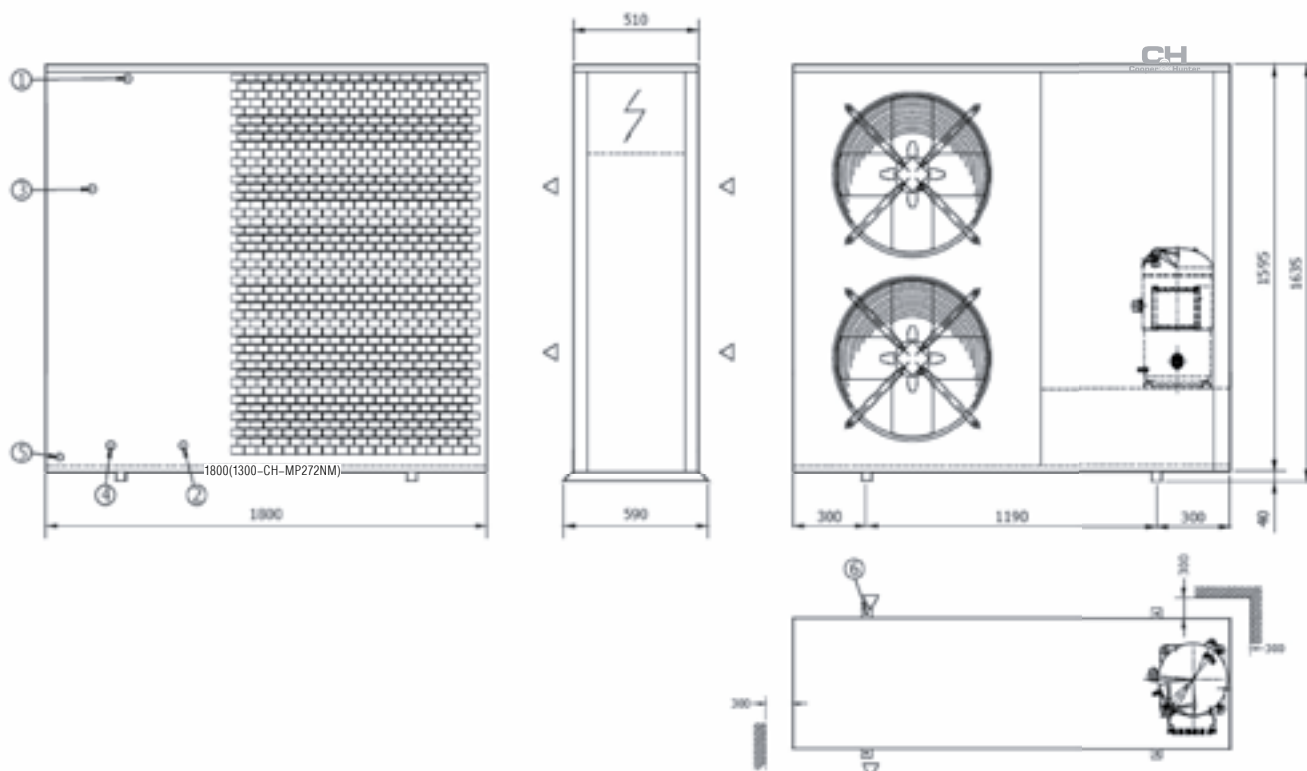


ON/OFF



Multifunctional heat generators with liquid injection scroll compressor for the production of hot water up to 65°C

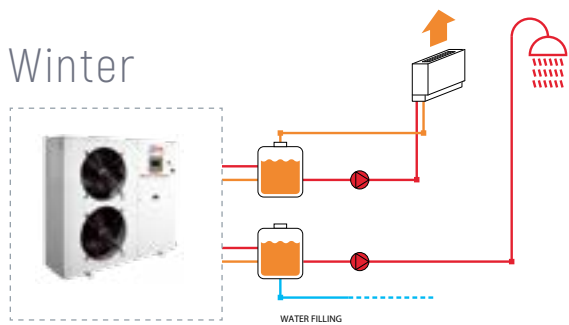
Model		CH-MP272NM	CH-MP315NM	CH-MP358NM	CH-MP411NM	CH-MP462NM	CH-MP501NM
Capacity	Cooling/Heating kW	23.7/27.2	29.4/31.5	32.2/35.8	36.4/41.1	41.2/46.2	44.5/50.1
Power Supply		-380-415 V/50 Hz/3 Ph					



Model		CH-MP272NM	CH-MP315NM	CH-MP358NM	CH-MP411NM	CH-MP462NM	CH-MP501NM
Capacity (Cooling/Heating)	kW	23.7/27.2	29.4/31.5	32.2/35.8	36.4/41.1	41.2/46.2	44.5/50.1
Consumed power (Cooling/Heating)	kW	8.04/7.24	9.3/9.2	10.5/10.2	12.2/11.5	13.7/13.3	14.9/14.6
COP/EER		3.38/3.27	3.39/3.20	3.41/3.16	3.37/3.17	3.37/3.10	3.36/3.05
Hot water temperature	°C	up to 65					
Power supply		-380-415 V/50 Hz/3 Ph					
Refrigerant type		R410A					
Temperature range	°C	-20 — +45					
Sound pressure level	dB (A)	72	74	74	74	74	74
Weight	kg	202	295	361	369	386	395

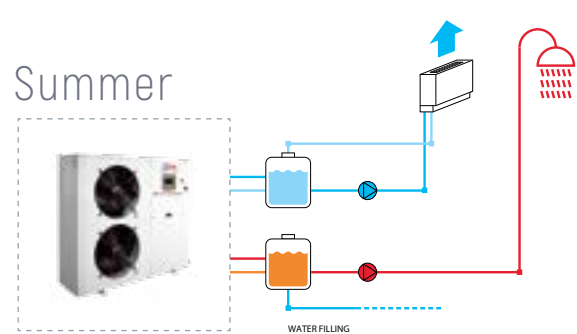
- ▶ Scroll compressor optimized for heat pump with innovative liquid injection system.
- ▶ Fans propeller type.
- ▶ Water side evaporator stainless steel AISI 316 brazed plate type externally insulated complete of differential pressure switch and antifreeze protection electric heater.
- ▶ Hot sanitary water evaporator stainless steel AISI 316 brazed plate type externally insulated complete of differential pressure switch and antifreeze protection electric heater.
- ▶ Condenser coils with seamless copper tubes and aluminium fins.
- ▶ Double set point temperature for comfort cooling/heating water and for sanitary water.

- ▶ Anti-legionella measures.
- ▶ Condensing and evaporating pressure control with variable fan speed modulation for external temperature up to  $-20^{\circ}\text{C}$ .
- ▶ Hot sanitary water circuit equipped with variable flow rate circulators.
- ▶ Air conditioning circuit equipped with variable flow rate circulators.
- ▶ Microprocessor.
- ▶ Galvanised steel base frame and panels in powder painted galvanised steel sheet for outdoor installation.
- ▶ Communication card RS485.



### WINTER AIR-CONDITIONING AND HOT SANITARY WATER PRODUCTION

- ▶ Production of hot water (up to  $65^{\circ}\text{C}$ ) for the heating and hot water production (giving priority to the sanitary consumptions).



### SUMMER AIR-CONDITIONING AND HOT WATER PRODUCTION

- ▶ Production of cold water for the cooling and free of costs hot water production (up to  $65^{\circ}\text{C}$ ) to serve sanitary consumptions.



# HEAT PUMP FOR HEATING, COOLING AND HWS EVIPOWER

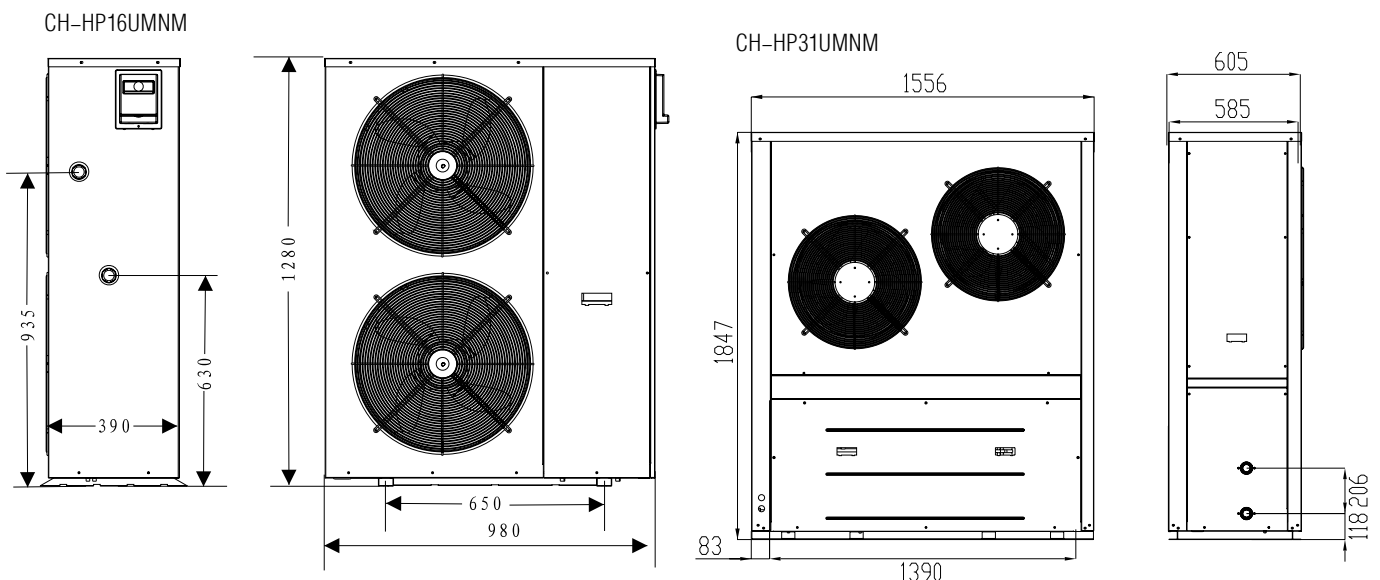


- ▶ Five operation modes: Heating, Cooling, HWS, Heating + HWS, Cooling + HWS;
- ▶ Scroll compressors of EVI technology;
- ▶ Smart defrost;
- ▶ Control over several modules;
- ▶ Automatic reset in case of partial fault;
- ▶ Wide temperature range of effective operation: from  $-30^{\circ}\text{C}$  to generate heat and up to  $+45^{\circ}\text{C}$  to generate Cooling;
- ▶ Quiet mode;
- ▶ Remote control;
- ▶ Compressor overload protection;
- ▶ Protection against high/ low water temperatures at the outlet;
- ▶ Unique patented heat exchanger;
- ▶ In case of power loss it doesn't freeze during 20 hours at temperature  $-30^{\circ}\text{C}$ .

Model			CH-HP16UMNM	CH-HP31UMNM	CH-HP42UMNM	CH-HP84UMNM
Capacity*	Cooling	kW	11,50	18,00	27,30	59,00
	Heating	kW	15,70	31,10	42,00	84,00
Power supply			-380V/3 Ph/50 Hz			
Energy performance	Cooling	EER	2,88	2,40	2,58	2,69
	Heating	COP	4,53	4,20	4,20	4,20

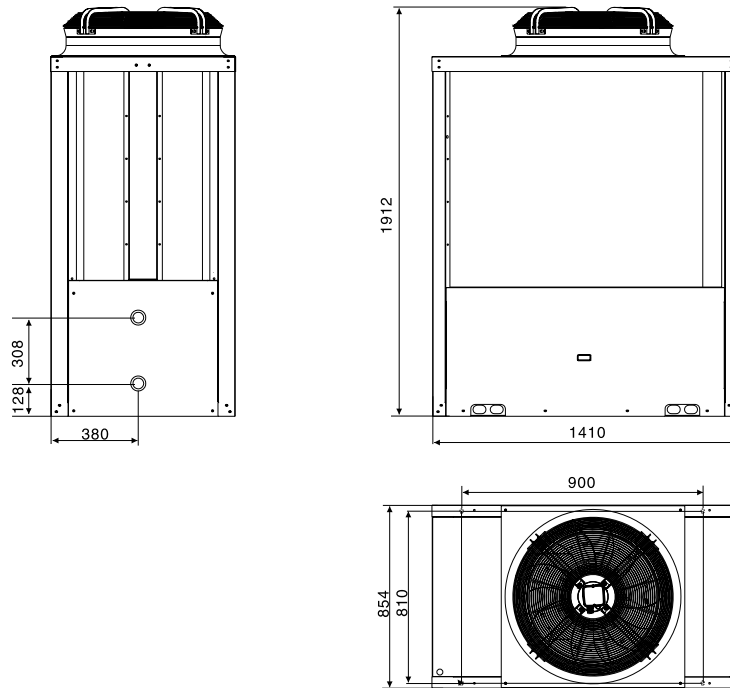
\*Cooling: outdoor temperature DB/WB  $35^{\circ}\text{C}/24^{\circ}\text{C}$ , water temperature at outlet:  $7^{\circ}\text{C}$ , water temperature at inlet:  $12^{\circ}\text{C}$ .  
Heating: outdoor temperature: DB/WB  $7^{\circ}\text{C}/6^{\circ}\text{C}$ , water temperature at outlet:  $35^{\circ}\text{C}$ , water temperature at inlet:  $30^{\circ}\text{C}$ .

## OUTDOOR UNIT

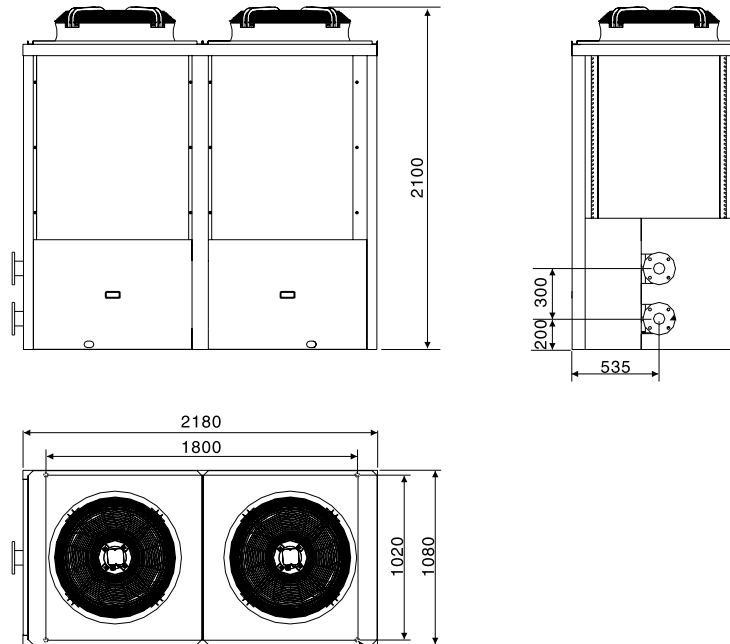


# OUTDOOR UNIT

CH-HP42UMNM



CH-HP84MNM



Model			CH-HP16UMNM	CH-HP31UMNM	CH-HP42UMNM	CH-HP84UMNM
Capacity*	Cooling	kW	11,50	18,00	27,30	59,00
	Heating	kW	15,70	31,10	42,00	84,00
Energy performance	Cooling	EER	2,88	2,40	2,58	2,69
	Heating	COP	4,53	4,20	4,20	4,20
Power supply			~380V/3 Ph/50 Hz			
Rated input	Cooling	kW	4,00	7,50	10,60	21,90
	Heating	kW	3,47	7,40	10,00	20,00
Current input	Cooling	A	6,90	13,00	18,80	46,50
	Heating	A	6,00	12,80	17,80	42,40
Sound pressure level		dB (A)	60	65	68	73
Dimensions (WxDxH)		mm	980x390x1280	1556x605x1850	1413x854x2000	2180x1080x2100
Package (WxDxH)		mm	1050x430x1400	1630x700x2010	1490x900x2160	2260x1130x2260
Weight	Net	kg	143	331	475	778
	Gross	kg	159	366	500	843
Operational temperature range		°C	-30°C~45°C			
Liquid pipeline diameter		Inch	1	1,5	1,5	DN80 flange

\*Cooling: outdoor temperature DB/WB 35°C/24°C, water temperature at outlet: 7°C, water temperature at inlet: 12°C.

\*Heating: outdoor temperature: DB/WB 7°C/6°C, water temperature at outlet: 35°C, water temperature at inlet: 30°C.



# HEAT PUMP FOR HEATING, COOLING AND HWS

## EVIPOWER INVERTER



**INVERTER**



- ▶ Five operation modes: Heating, Cooling, HWS, Heating + HWS, Cooling + HWS;
- ▶ User friendly sensor display of a wired controller;
- ▶ Efficient operation wide temperature range: from  $-25^{\circ}\text{C}$  to  $+43^{\circ}\text{C}$ ;
- ▶ EVI technology scroll compressors with an inverter drive

Model			CH-HP20UIMRM
Capacity*	Cooling	kW	14
	Heating	kW	20
Energy performance	Cooling	EER	2,0
	Heating	COP	3,33
Rated input	Cooling	kW	7,0
	Heating	kW	6,0
Current input	Cooling	A	10,2
	Heating	A	8,1
Sound-pressure level		dB (A)	58
Power supply			$-380-415\text{ V}/50/60\text{ Hz}$
Operational temperature range		$^{\circ}\text{C}$	$-25-+43$
Type of refrigerant coolant			R32
Maximum water temperature		$^{\circ}\text{C}$	60
Net weight		kg	155
Nominal water flow		$\text{m}^3/\text{h}$	2,15

\*Cooling: outdoor temperature DB/WB  $35^{\circ}\text{C}/24^{\circ}\text{C}$ , water temperature at outlet:  $7^{\circ}\text{C}$ , water temperature at inlet:  $12^{\circ}\text{C}$ .

\*Heating: outdoor temperature: DB/WB  $7^{\circ}\text{C}/6^{\circ}\text{C}$ , water temperature at outlet:  $35^{\circ}\text{C}$ , water temperature at inlet:  $30^{\circ}\text{C}$ .

# HEAT PUMP FOR HEATING, COOLING AND HWS



ON/OFF

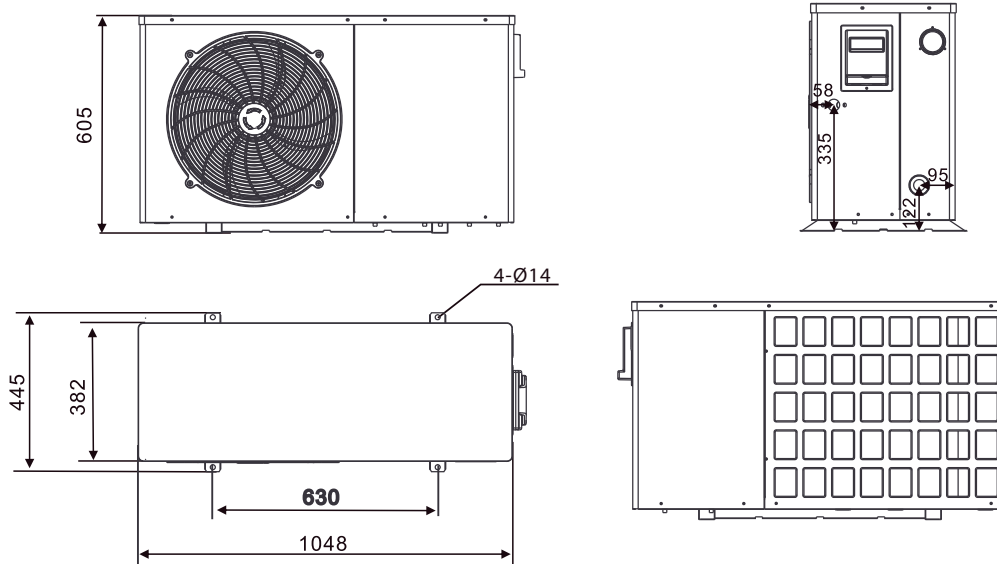


- ▶ Five operation modes: Heating, Cooling, HWS, Heating + HWS, Cooling + HWS;
- ▶ User friendly sensor display of a wired controller;
- ▶ Anti-freezing protection;
- ▶ Compressor overheat protection;

Model		CH-HP07MNK	
Capacity*	Cooling	kW	5,9
	Heating	kW	7,4
Energy performance	Cooling	EER	2,56
	Heating	COP	4,11
Rated input	Cooling	kW	2,3
	Heating	kW	1,8
Current input	Cooling	A	10,2
	Heating	A	8,1
Sound-pressure level		dB (A)	56
Power supply		~230BV/50Hz/1 Ph	
Operational temperature range		°C	-15+45
Connection pipe diameter		inch	1
Maximum water temperature		°C	60
Nominal water flow		m³/h	1,55

\*Cooling: outdoor temperature DB/WB 35°C/24°C, water temperature at outlet: 7°C, water temperature at inlet: 12°C.

\*Heat: outdoor temperature: DB/WB 7°C/6°C, water temperature at outlet: 35°C, water temperature at inlet: 30°C.

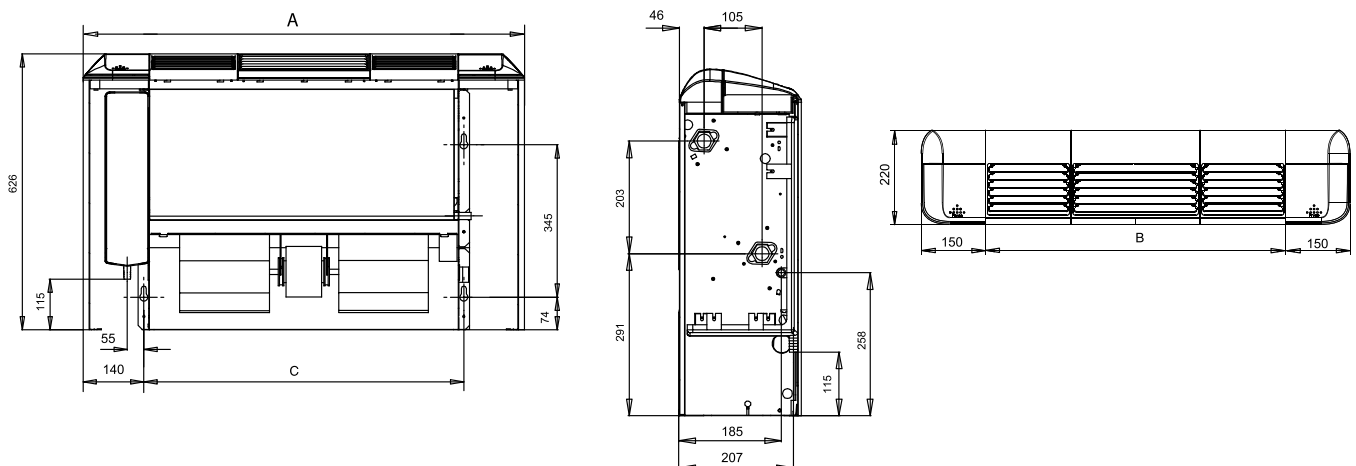


# FLOOR-CEILING TYPE FAN COIL UNIT



- ▶ Finned coil type heat-exchanger consisting of copper tubes and aluminum fins, with connections on the left reversible to fit on the right.
- ▶ Three-speed centrifugal blower with aluminum blades statically and dynamically balanced.
- ▶ Directly-coupled motor equipped with internal thermal protection and condenser permanently in circuit.
- ▶ Casing in pre-painted galvanized steel sheet, clad in a protective film of PVC, complete with the acoustic insulation, grilles in heat-resistant ABS polymer with fixed vanes.
- ▶ Condensation collection tray with natural drainage, complete with anti-condensation insulation.
- ▶ Mesh filter in regenerable polypropylene.

Model	CH-FFC015K2	CH-FFC020K2	CH-FFC025K2	CH-FFC035K2	CH-FFC040K2	CH-FFC050K2	CH-FFC060K2	CH-FFC065K2	CH-FFC090K2
Cooling capacity (W)	1150	1870	2530	3270	3970	4850	5640	6520	7850
Heating capacity (W)	1520	2530	3490	4580	5640	6980	8230	9580	11690
Air volume (m <sup>3</sup> /h)	255	425	510	680	765	850	1020	1360	1530
Sound pressure (dB (A))	32	35	37	39	41	43	44	46	48
Rated input (W)	29	30	44	44	36	51	64	95	143
Weight (kg)	22.5	22.5	26	26	32.5	32.5	39	39	39
Power supply	~220-240 V/50 Hz/1 Ph								



Model	CH-FFC015K2	CH-FFC020K2	CH-FFC025K2	CH-FFC035K2	CH-FFC040K2	CH-FFC050K2	CH-FFC060K2	CH-FFC065K2	CH-FFC090K2
<b>A (mm)</b>	800	800	1000	1000	1200	1200	1500	1500	1500
<b>B (mm)</b>	500	500	700	700	900	900	1200	1200	1200
<b>C (mm)</b>	526	526	726	726	926	926	1226	1226	1226

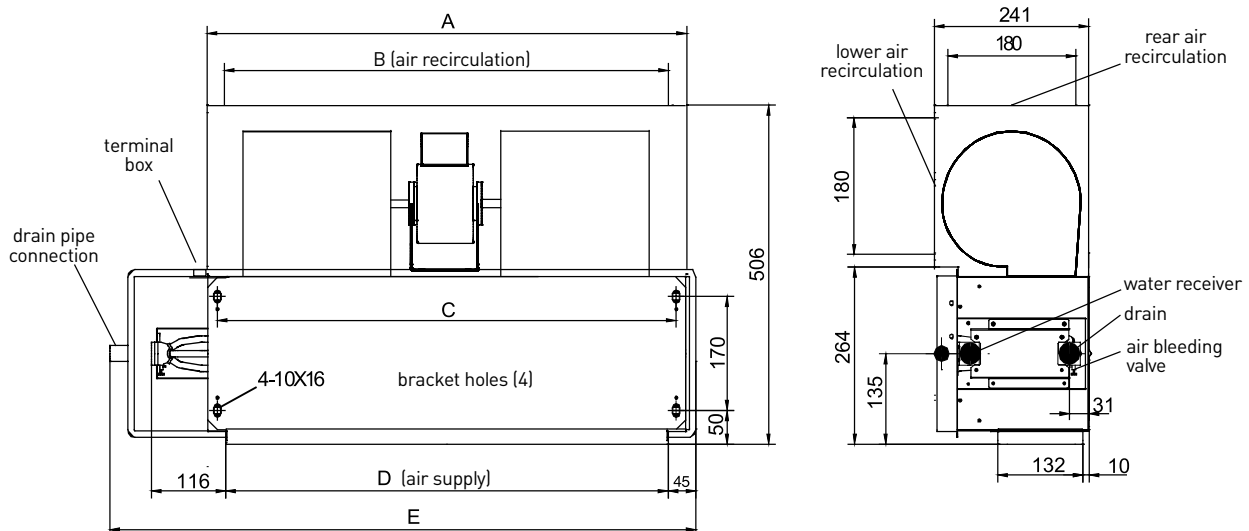
# DUCT TYPE 2-ROWS FAN COIL UNIT

- ▶ Left or right hand piping connection, field convertible.
- ▶ Quiet operation.
- ▶ A patent design is able to prevent abnormal noise caused by blowing fins.
- ▶ Superior air distribution.
- ▶ As the conditioner air can be distributed to every corner of the area by air duct, this will ensure more pleasant living environment, thus provide extra comfort to the occupants.
- ▶ Fresh air supply makes life healthier and more comfortable.
- ▶ Air return plenum
- ▶ Units with air return plenum is standard and units without air return plenum can be customized.
- ▶ Washable filter.
- ▶ Iron frame filter is standard, and aluminum frame filter can be customized.



- ▶ Air outlet flange and multi-direction pull-out filter can be customized.
- ▶ Optional wired controller.
- ▶ Optional wired controller offers simple and flexibility in controlling the unit.

Model		CH-FDH 020K2	CH-FDH 030K2	CH-FDH 035K2	CH-FDH 045K2	CH-FDH 060K2	CH-FDH 075K2	CH-FDH 100K2	CH-FDH 110K2	CH-FDH 120K2
Cooling capacity (W)	H	2000	2700	3600	4400	5500	7500	8900	10800	12300
	M	1740	2310	3110	3740	4580	6330	7610	9130	10460
	L	1520	2030	2660	3250	4090	5680	6410	7930	9270
Heating capacity (W)	H	3200	4300	5400	6800	8100	11000	13500	16500	19500
	M	2750	3740	4640	5780	6770	9480	11720	14050	16850
	L	2370	3230	4050	5070	5920	8250	10030	12240	14630
Air flow (m³/h)	H	340	510	680	850	1020	1360	1700	2040	2380
	M	255	385	510	640	765	1020	1275	1530	1785
	L	170	255	340	425	510	680	850	1020	1190
Sound pressure (dB (A))	H	41	41	42	45	46	46	47	48	49
	M	37	37	39	41	41	41	43	44	44
	L	31	32	33	34	35	36	37	38	39
Rated input (W)		45	60	67	89	110	130	171	212	249
Weight (kg)		16	18.5	20	20	24	33	38	43	47
Power supply		~220-240 V/50 Hz/1 Ph								



Model	CH-FDH 020K2	CH-FDH 030K2	CH-FDH 035K2	CH-FDH 045K2	CH-FDH 060K2	CH-FDH 075K2	CH-FDH 100K2	CH-FDH 110K2	CH-FDH 120K2
<b>A (mm)</b>	547	647	747	747	967	1267	1372	1662	1828
<b>B (mm)</b>	515	615	715	715	935	1235	1340	1630	1796
<b>C (mm)</b>	513	613	713	713	933	1233	1338	1628	1794
<b>D (mm)</b>	485	585	685	685	905	1205	1310	1600	1766
<b>E (mm)</b>	757	812	912	912	1135	1435	1540	1830	1992

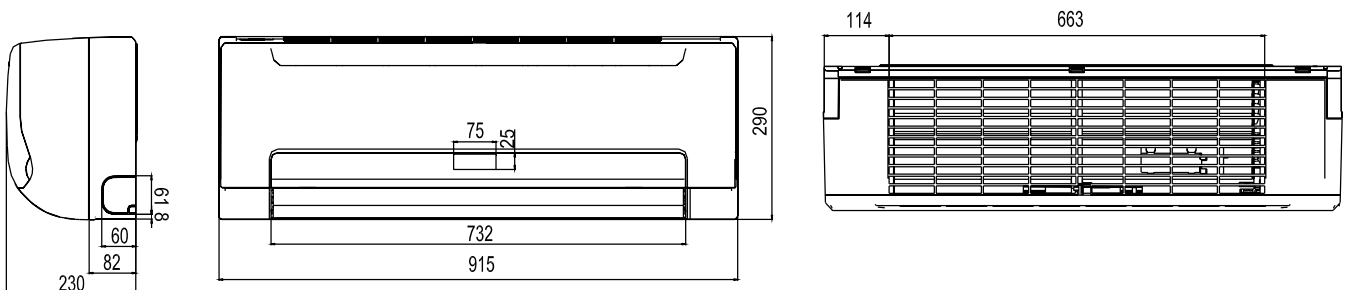
# WALL MOUNTED TYPE FAN COIL UNIT



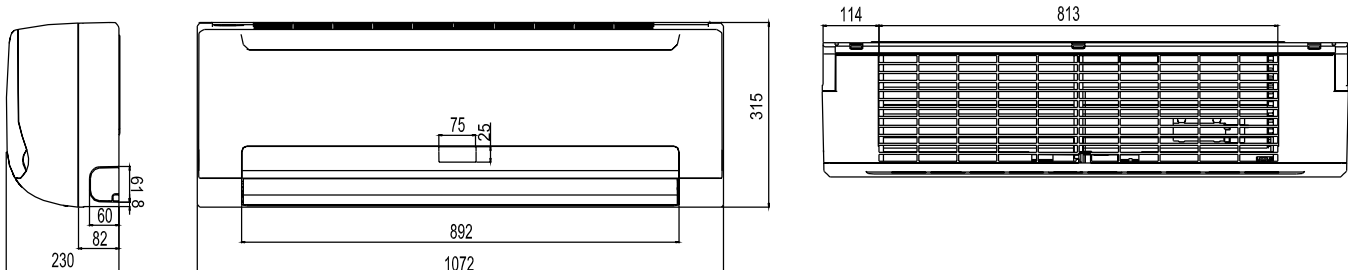
- ▶ New panel supplies more choice for customs
- ▶ Multi-connection outlet pipe method: left/right/rear, more flexible for installation
- ▶ Wind direction adjustment can be in horizontal and vertical way for auto swing louver
- ▶ Built-in 3 way electromagnetic valve
- ▶ Easy maintenance has been realized as the front panel can be removed for easy access
- ▶ Remote controller with LCD display is standard, wired controller and central controller are optional
- ▶ Four-speed motor with super high speed reserved for more choice
- ▶ Eurovent certified performance.

Model		CH-FW025K2	CH-FW030K2	CH-FW040K2	CH-FW050K2	CH-FW060K2
Cooling capacity (W)	H	2630	2970	3280	4250	5000
	M	2410	2470	2830	3850	4470
	L	2160	2120	2410	3320	3970
Heating capacity(W)	H	3360	3910	4370	5810	6700
	M	3100	3260	3730	5170	6000
	L	2790	2770	3170	4430	5280
Air flow (m³/h)	H	425	510	680	850	1020
	M	360	430	580	720	870
	L	320	380	510	640	770
Sound pressure(dB (A))	H	30	35	37	39	40
	M	24	29	31	33	34
	L	20	24	26	28	29
Rated input (W)		24	37	40	50	66
Weight (kg)		13		13.3	15.8	
Power supply		~220-240 V/50 Hz/1 Ph				

CH-FW025K2, CH-FW030K2, CH-FW040K2



CH-FW050K2, CH-FW060K2





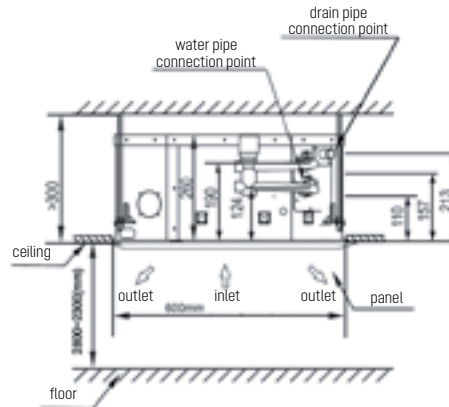
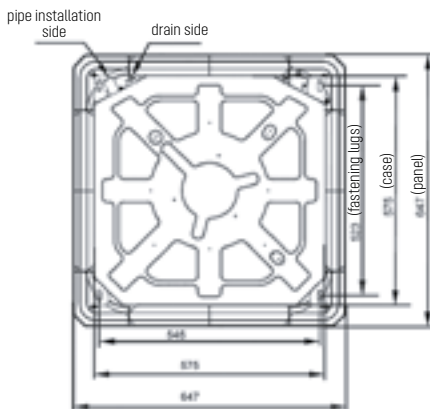
# FOUR-WAY CASSETTE TYPE FAN COIL UNIT

- ▶ Chilled water/Hot water (2 pipes)
- ▶ Low height for easy installation
- ▶ Low noise fan direct driven by single phase, 3 speed permanent split capacitor motor.
- ▶ Copper tube/aluminum fin coils
- ▶ Hydrophilic aluminum fin coils coated (optional)
- ▶ Unit constructed by electrostatic galvanized sheet, providing maximum protection against corrosion
- ▶ Heavy gauge zinc coated steel drainage pan with good insulation processing, avoiding sweating and corrosion Mesh filter in regenerable polypropylene.

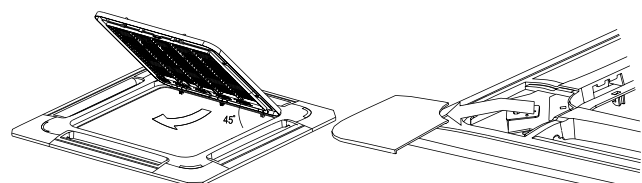
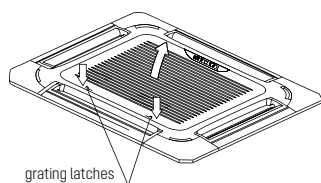
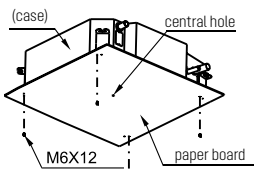
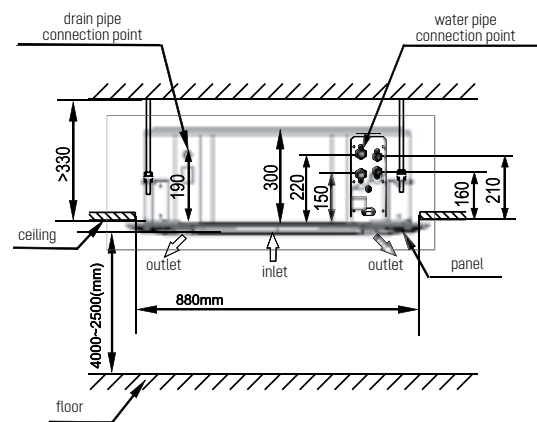
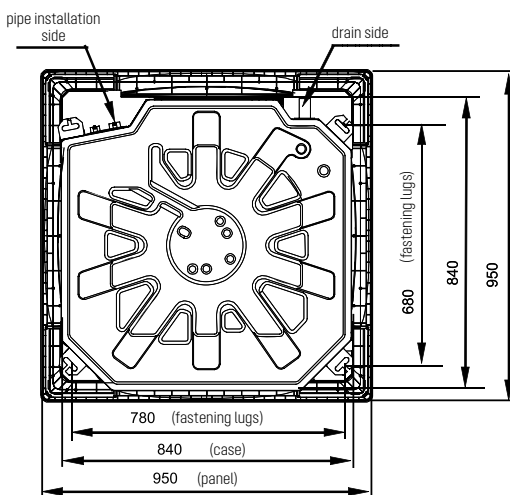


Model	CH-FC030K2	CH-FC040K2	CH-FC050K2	CH-FC060K2	CH-FC075K2	CH-FC085K2	CH-FC100K2	CH-FC120K2	CH-FC150K2	
Cooling capacity (W)	3000	3700	4500	5700	7000	7270	8220	10390	12900	
Heating capacity(W)	4000	5100	6000	9660	11550	12420	13850	17580	17600	
Air flow (m <sup>3</sup> /h)	H	510	680	850	1000	1250	1400	1600	2000	2550
	M	440	580	730	850	1060	1190	1360	1700	2170
	L	360	480	600	720	900	1010	1150	1440	1840
Sound pressure(dB (A))	36	42	45	45	46	47	48	49	50	
Rated input (W)	35	60	75	120	125	145	150	185	185	
Weight (kg)	Indoor unit	17.5			25		30.5		35	
	Panel	3					6			
Power supply	~ 220-240 V/50 Hz/1 Ph									

CH-FC030K2, CH-FC040K2, CH-FC050K2



CH-FC060K2, CH-FC075K2, CH-FC085K2, CH-FC100K2, CH-FC120K2, CH-FC150K2

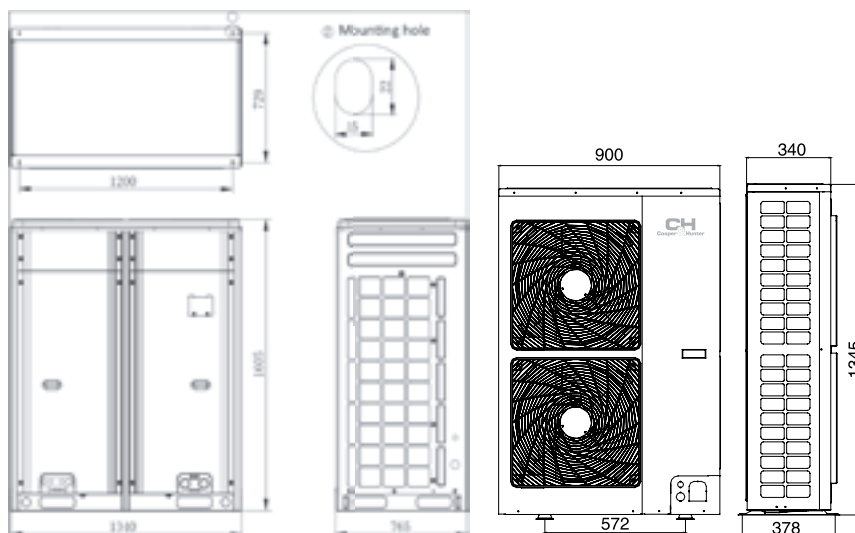


# HYBRID VRF CHV5 HOME

**INVERTER**



- ▶ The newest hybrid VRF system with heat recovery and simultaneous capability: cooling / heating of indoor air, hot water supply and floor heating;
- ▶ The area of the serviced room is increased, over 200 m<sup>2</sup>;
- ▶ 16 kW hydrobox produce with a high-Capacity plate heat exchanger;
- ▶ Control by means of «CAN network control»

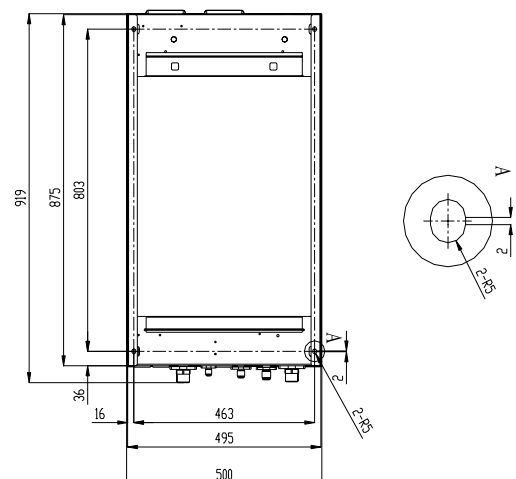


## Outdoor unit

Model			CHV-5SHH120NK	CHV-5SHH140NK	CHV-5SHH160NK	CHV-5SHH224NMX	CHV-5SHH280NMX
Capacity	Cooling	kW	12.10	14.0	16.0	22.4	28
	Heating	kW	14.0	16.5	18.5	25	31.5
Power supply			~220-240 V/50 Hz/1 Ph			~380-415 V/50 Hz/3 Ph	

## Hot water generator

Capacity range		HB16NK
	kW	3.6–16



# VRF SYSTEM CHV5

INVERTER



High Static Pressure  
Duct Type Indoor Unit



Compact 4-way  
Cassette Indoor Unit



Slim Duct  
Type Indoor Unit



Low Static Pressure  
Duct Type Indoor Unit



1-way Cassette  
Indoor Unit



4-way Cassette  
Indoor Unit



Floor-Ceiling  
Type Indoor Unit



Console  
Indoor Unit



Wall-mounted  
Indoor Unit

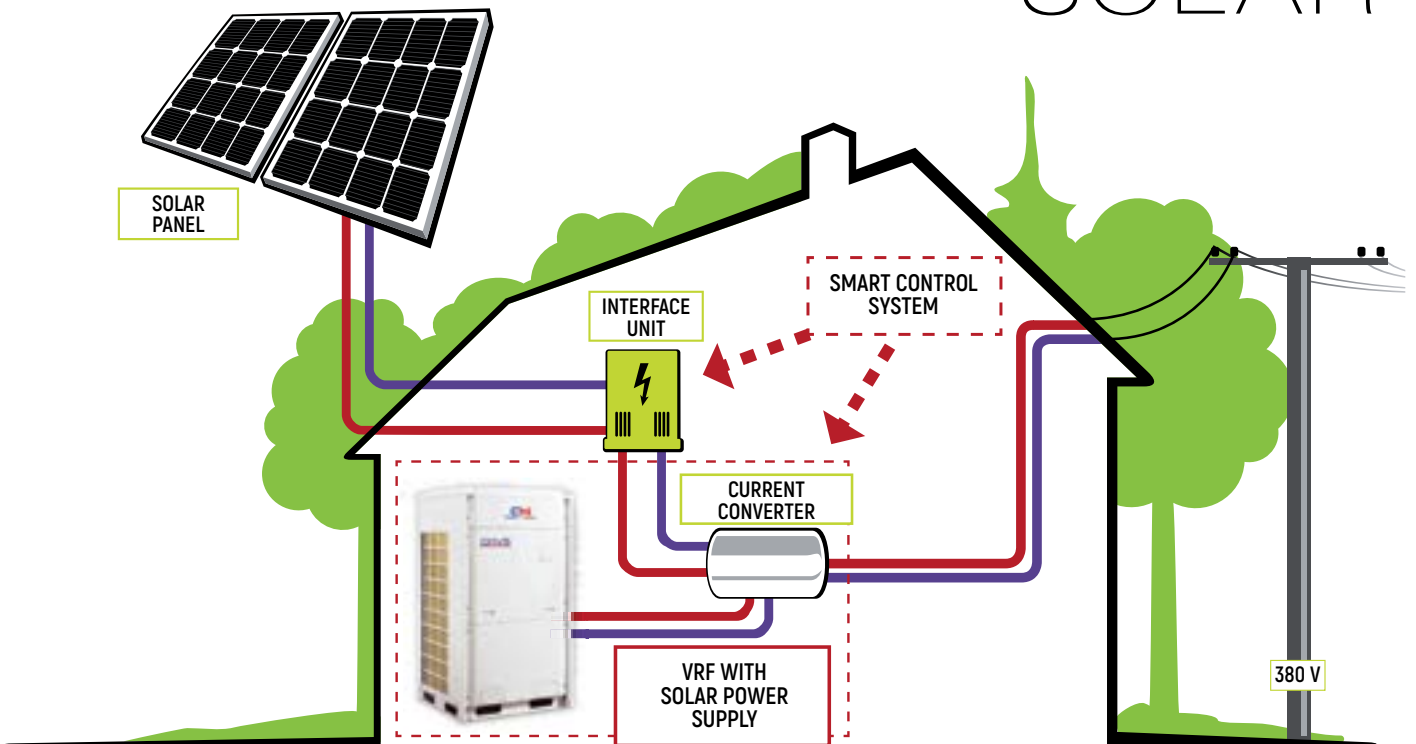


Fresh Air Processing  
Indoor Unit

- ▶ Inverters and motor drive on the indoor and outdoor units;
- ▶ Heat braking unit made it possible to raise IPLV up to 6,8, making it 33 % higher than the previous version;
- ▶ Patented principle of oil return (99 % of all oil do not leave the compressor!) completely removes the problem of oil starving;
- ▶ Almost 80 indoor units of 10 types: 3 standart sizes of AHU-KITs: 14kW, 28kW, 56kW;
- ▶ Maximum length of the pipeline is 1000 m;
- ▶ Elevation difference – up to 90 m: standart sizes of the outdoor units of CHV5 min: 12kW, 14kW, 16kW; standart sizes of the outdoor units of CHV5 Slim: 22.4kW, 25kW, 28kW, 33.5kW;
- ▶ Standard sizes of the outdoor units of CHV5: from 22,4 kW to 61,5 kW;
- ▶ Modular composition – up to 246 kW;
- ▶ Operational temperature range: from – 20°C to + 50°C;
- ▶ In CHV5 a new up-to-date CAN bus protocol is used;
- ▶ Small “USB Data Converter” can be connected to any block and using PC provides the system control, adjustment and maintenance;
- ▶ There are special modes: 9 variants of energy saving settings, noiseless operation (for outdoor unit making 22,4 kW, 45 dB), background heating (keeping +8°C) etc.;
- ▶ System engineering, turn-key project in .xls and .dwg formats are executed using CHV

**NEW**

# VRF SYSTEM CHV5 SOLAR



Photovoltaic direct-driven inverter VRF: all series of basic model are 22.4kW, 28.0kW, 33.5kW, combined type model is 22.4–134.0kW

Model	Cooling Capacity (kW)	Heat Capacity (kW)	Power supply	Appearance
CHV-5SL224NMX	22.4	25.0	AC source: 380-415V 3–50/60Hz DC source: 370-900Vdc	
CHV-5SL280NMX	28.0	31.5		
CHV-5SL335NMX	33.5	37.5		

# AHU KIT inverter for Light Commercial

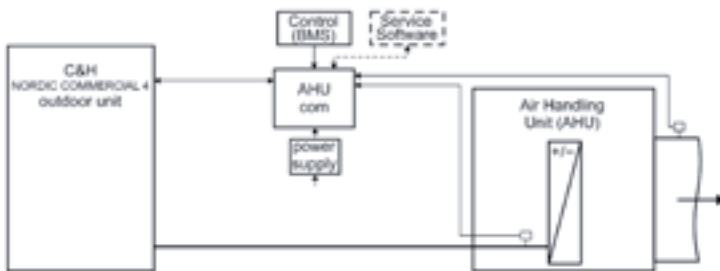
## TYPE: NORDIC COMMERCIAL 4

### Technical parameters

Application	C&H NORDIC COMMERCIAL IV series (CH-IUxxN4) + any airhandling units equipped with direct expansion air exchanger
AHU unit capacity	2,6-16kW (more with parallel connection)
Power voltage	220-240V/1Ph/50Hz (CH-IUxxNK4) 380-415V/3Ph/50Hz (CH-IUxxNM4)
Control signal setting	0-100% (0-8.5V, stepless), 3 floating contact signals master control
Control device	system (AHU control system, BMS)
Outdoor temperature operation range	-15 to 48°C (cooling), -20 to 24°C (heating)



### OUTDOOR UNITS



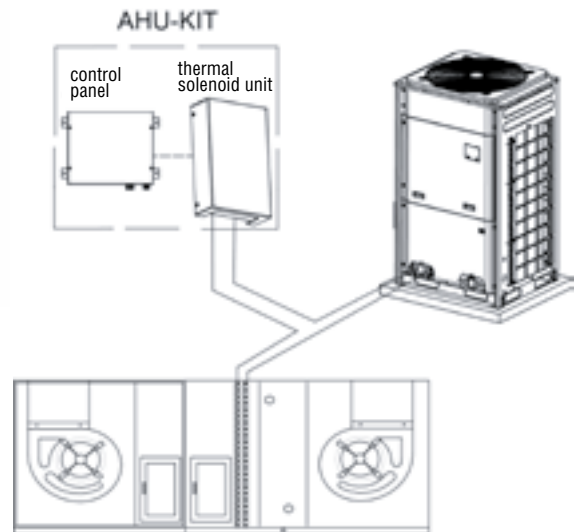
### VERSION 1.03:

- CH-IU09NK4
- CH-IU12NK4
- CH-IU18NK4
- CH-IU24NK4
- CH-IU30NK4
- CH-IU36NK4
- CH-IU42NK4
- CH-IU48NK4
- CH-IU36NM4
- CH-IU42NM4
- CH-IU48NM4
- CH-IU60NM4

### VERSION 2.0:

- CH-IU035RK
- CH-IU050RK
- CH-IU071RK
- CH-IU085RK
- CH-IU100RK
- CH-IU125RK
- CH-IU140RK
- CH-IU100RM
- CH-IU125RM
- CH-IU140RM
- CH-IU160RM

# AHU-KIT for VRF CVH5



### Technical parameters

Model	Max power (kW)	Installable power levels (kW)
CHV-AK036NK2	3.6	2.8/3.6
CHV-AK071NK2	7.1	4.5/5.6/7.1
CHV-AK140NK2	14.0	9.0/11.2/14.0
CHV-AK280NK2	28.0	22.4/28/33.5/40/45
CHV-AK560NK2	56.0	50.4/56/84



# ENERGY RECOVERY VENTILATION SYSTEM

- ▶ Temperature display
- ▶ Speed selection
- ▶ Weekly timer
- ▶ Bypass  
(not available on models CH-HRV15K2, CH-HRV20K2, CH-HRV25K2, CH-HRV30K2)
- ▶ External ON/OFF
- ▶ Comfortable heater control
- ▶ Defrosting
- ▶ CO2 control (Optional)
- ▶ Filter alarm
- ▶ Fault alarm
- ▶ Data memory
- ▶ Night free cooling  
(not available on models CH-HRV15K2, CH-HRV20K2, CH-HRV25K2, CH-HRV30K2)
- ▶ BMS integration
- ▶ Humidity control (Optional)
- ▶ Defrosting heater control
- ▶ Working condition monitor

ON/OFF



Model		CH-HRV2K2	CH-HRV3K2	CH-HRV4K2	CH-HRV6K2	CH-HRV8K2	CH-HRV10K2	CH-HRV13K2							
Airflow	(m³/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 Eff.(%)	Cooling	L	60	62	62	63	57	60	58						
		M	55	57	57	59	55	58	56						
		H	55	57	57	59	55	58	56						
	Heating	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	22	23	25	25	32	32	37						
		M	25	27	29	31	37	36	40						
		H	27	30	32	35	39	40	42						
Voltage (V)		220		220		220		220							
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	

ON/OFF



\*1 - Cellulose heat exchanger



\*2 - Aluminum heat exchanger

Model		CH-HRV15K2*1 CH-HRV15AK2*2	CH-HRV20K2*1 CH-HRV20AK2*2	CH-HRV25K2*1 CH-HRV25AK2*2	CH-HRV30K2*1 CH-HRV30AK2*2				
Airflow	(m³/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 Eff.(%)	Cooling	L	69	65	64	63			
		M	66	62	61	60			
		H	66	62	61	60			
	Heating	L	74	73	72	71			
		M	70	71	70	69			
		H	70	71	70	69			
Temp.Eff	(%)	L	74	74	73	73			
		M	71	71	70	70			
		H	71	71	70	70			
Noise	dB (A)	L	46	49	50	51			
		M	49	51	52	54			
		H	51	53	55	57			
Voltage (V)		220		220		220		220	
Current (A)		2.3/3.6/3.8		3.0/4.6/4.8		4.5/6.0/6.3		6.5/8.7/9.0	
Input Power (W)		485/740/785		650/980/1020		940/1250/1300		1400/1870/1950	
Net Weight (KG)		110		112		130		142	

# INVERTER



Model	CH-HRV1.5KDC	CH-HRV2.5KDC	CH-HRV3.5KDC	CH-HRV5KDC	CH-HRV6.5KDC	CH-HRV8KDC	CH-HRV10KDC	CH-HRV15KDC	CH-HRV20KDC	
Airflow (m³/h)	150	250	350	500	650	800	1000	1500	2000	
Airflow (l/s)	43	71	100	143	186	229	286	429	571	
Enth. Eff (%)	Heating	70	70	69	67	68	71	71	71	
	Cooling	63	63	66	62	62	65	65	65	
Temp. Eff (%)	75	75	75	75	75	75	75	75	75	
Noise DB (A)	23	24	28	30	32	35	35	38	38	
Power Supply	~ 220-240 V/50 Hz/1 Ph									
Input Power (W)	51	81	112	143	205	290	305	580	610	
Power Cable	2x1,5mm									
Control Cable	2x0,5mm									
Control	Standard	Yes (7-Day Time-clock)								
	(BMS) Modbus	Yes							No	
Fan Type	DC Fan Motors									
Fan Speeds (Supply)	10 Speed Fan Control									
Fan Speeds (Exhaust)	10 Speed Fan Control									
Summer Bypass	Yes (Automatic with adjustable range)									
Defrost	Yes (Automatic with adjustable range)									
CO <sub>2</sub> Control	Optional controller available (On / Off control with adjustable range)									
Fan Boost Contacts	Yes (3x available connections to Contacts: Closed = Boost to High Speed)									
Fire Shutdown	Yes (1x available connection to Contact: Closed = Shutdown)									
Weight (Kg)	25	29	37	43	64	71	83	165	189	
Size (WxHxD)	580x264x808	599x264x882	804x270x882	904x270x962	884x340x1222	884x388x1322	1134x388x1322	884x785x1322	1134x785x1322	
Duct Size	150	150	150	200	200	250	250	300	300	



Models HRV	CH-HRV2... 13K2	CH-HRV15... 30K2	CH-HRV2... 13K2	CH-HRV15... 30K2	Models HRV	CH-HRV2... 13K2	CH-HRV15... 30K2
	CH-HRV1.5... 20KDC	CH-HRV15... 30AK2	CH-HRV1.5... 20KDC	CH-HRV15... 30AK2		CH-HRV2... 13K2	CH-HRV15... 30K2
Comfortable heater control	+		+		Speed selection	+	
Temperature display	<b>OA/RA/SA/FA temp</b>		<b>OA/RA/SA/FA temp</b>		Temperature display	<b>OA/RA/SA/FA temp</b>	
Speed selection	+		+		Multiple control units up to 16 pcs	+	
Weekly timer	+		+		Individual on/off control unit	+	
Automatic By-pass	<b>Auto</b>	-	<b>Auto</b>	-	On/off mode	+	
External control contact	+		+		Data memory	+	
Automatic defrost	+		+		Bypass	<b>Auto</b>	-
CO <sub>2</sub> control (Option)	+		+		Defrosting	+	
Filter alarm	+		+		Humidity control (Option)	+	
Fault alarm	+		+		Working condition monitor	+	
Data memory	+		+		Fault alarm	+	
Night free cooling	+	-	+	-			
Humidity control (Option)	-		+				
BMS integration	+		+				
Defrosting heater control	+		+				
Working condition monitor	+		+				

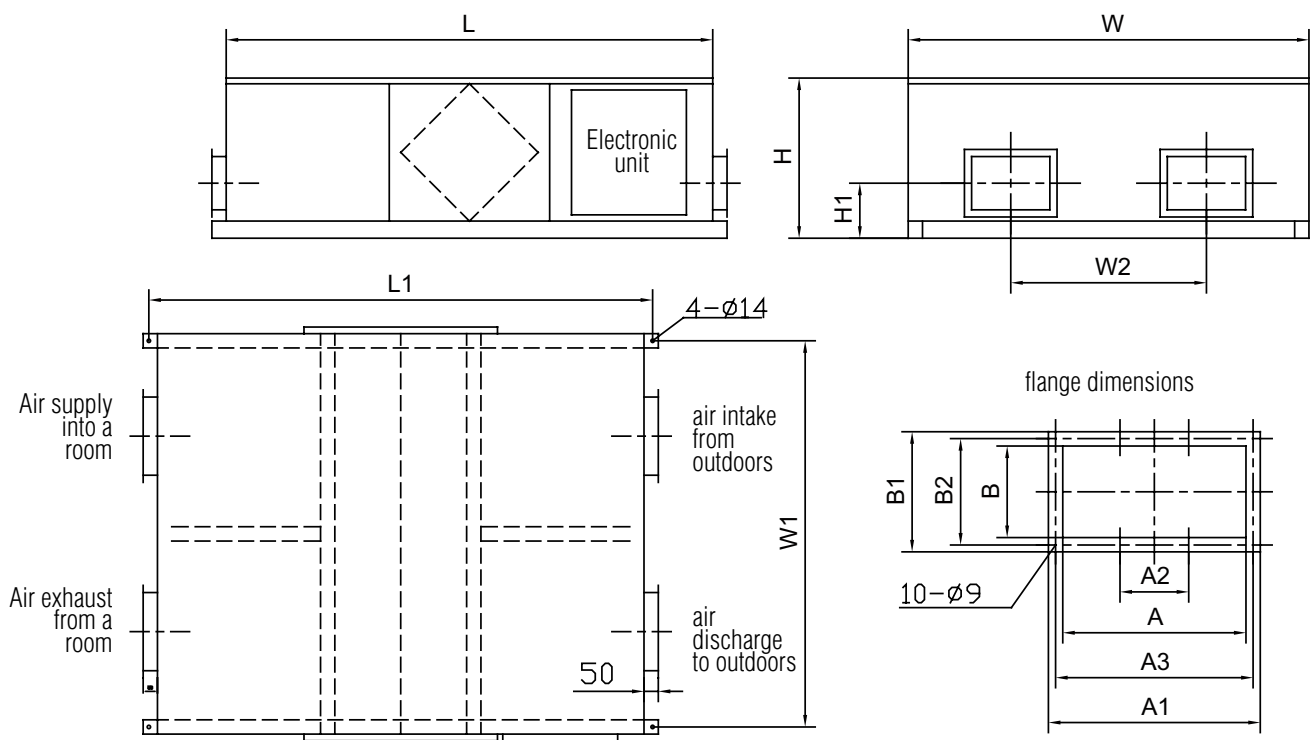
# ENERGY RECOVERY VENTILATION SYSTEM

ON/OFF

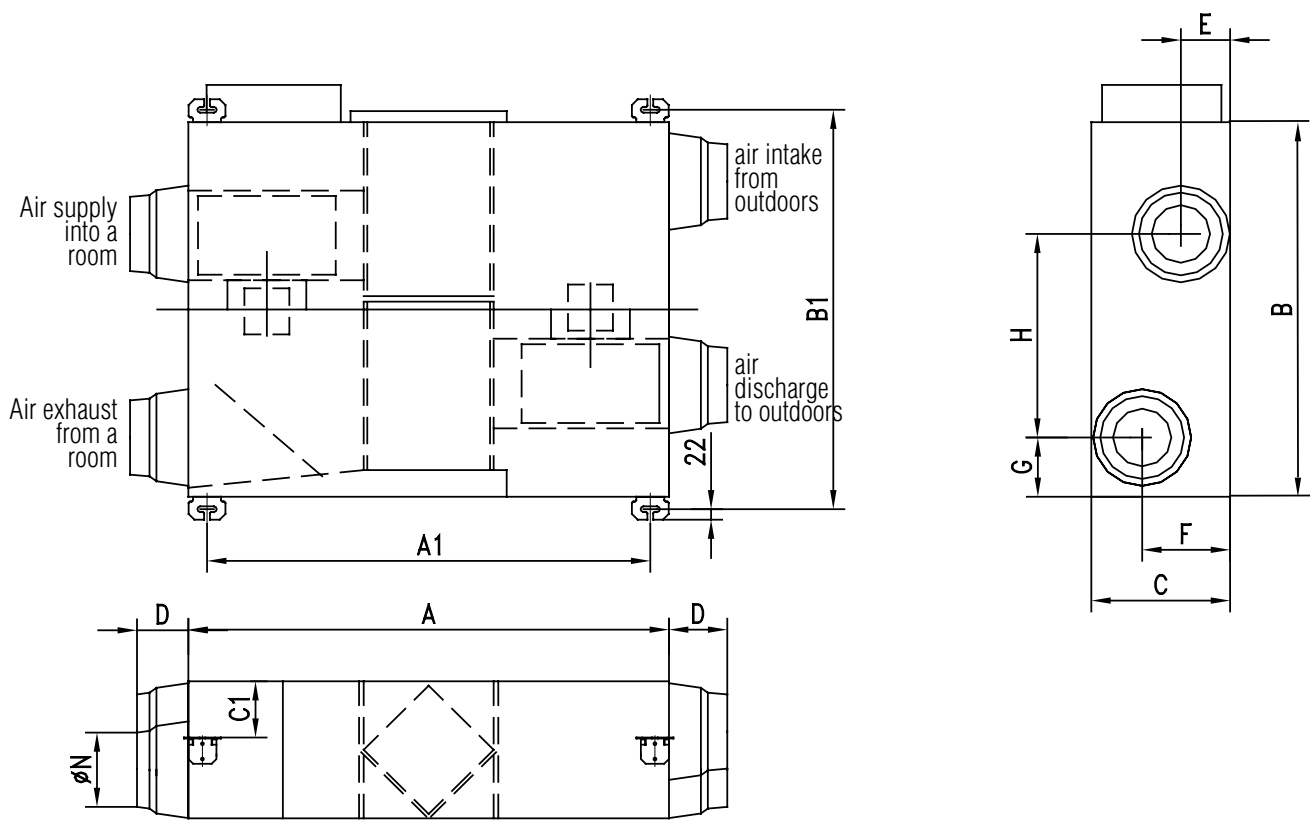


Air duct installation: inlet/outlet ducts "from" and "to" premisses should be insulated well to prevent the condensation. Insulation required only in case of under ceiling installation with high humidity and temperature.

- ▶ Low noise and compact dimensions;
- ▶ Three speed fan operation (for models CH-HRV15M, CH-HRV20M, CH-HRV30M – only one speed fans);
- ▶ Don't require condensate discharge since heat exchanger made of cellulose
- ▶ Bypass



Model	L	L1	W	W1	W2	H	H1	A	A1	A2	A3	B	B1	B2
CH-HRV30M	1550	1650	1340	1310	670	572	249	346	386	180	366	332	372	352



Model	A	A1	B	B1	C	C1	D	E	F	G	H	N
CH-HRV3.5K	879	823	800	852	306	125	90	125	175	136	416	197
CH-HRV5K	879	823	800	852	306	125	90	125	175	136	416	197
CH-HRV8K	1016	960	832	884	380	165	90	150	230	155	372	246
CH-HRV10K	1016	960	832	884	380	165	90	150	230	155	372	246
CH-HRV15M	1215	1159	1210	1262	452	200	100	190	277	178	737	297
CH-HRV20M	1215	1159	1210	1262	452	200	100	190	277	178	737	297

Model: CH-HRV_K(M)			3.5	5	8	10	15	20	30
Power Supply			~220-240 V/50 Hz/1 Ph				~380-415 V/50 Hz/3 Ph		
Airflow (m³/h)	H		350	500	800	1000	1500	2000	3000
	M		360	380	600	750			
	L		210	300	480	600			
External pressure (Pa)	H		100	100	110	110	150	150	220
	M		80	80	85	85			
	L		60	60	65	65			
Temperature Capacity (%)	H		71	68	70	75	73	71	70
	M		73	70	72	77			
	L		75	72	74	79			
Air ducts diameter		mm	200	200	250	250	300		332*346
Enthalpy Capacity (%)	Heating	H	65	62	63	66	65	62	62
		M	67	64	65	68			
		L	68	65	67	70			
	Cooling	H	61	57	60	62	60	58	58
		M	63	59	62	64			
		L	65	61	64	65			
Power supply cable	Quantity		3				5		
	Area of cross-section	mm²	1,0				1,5		
Input power	W	165	262	400	440	600	950	2800	
Sound pressure level	dB(A)	37	39	45	46	48	50	54	
Dimensions (mm)	Height	306	306	380	380	452	452	572	
	Width	800	800	832	832	1210	1210	1340	
	Depth	879	879	1016	1016	1215	1215	1550	
Weight	kg	45	45	70	70	100	100	211	

# COMMERCIAL AIR CONDITIONERS FLOOR STANDING TYPE






























- ▶ Timer;
- ▶ «Turbo» mode;
- ▶ Informative display;
- ▶ Self-diagnosis;
- ▶ Self-cleaning system;
- ▶ Autorestart;
- ▶ Display with a clock;
- ▶ Locking of the remote;
- ▶ Intelligent defrosting;
- ▶ The presence of an additional electric heater in the indoor unit of model CHF60AH-K3NNA5A

Model	CHF24AG-K3NNA5A		CHF36AH-M3NNA5A		CHF48AH-M3NNA5A		CHF60AH-M3NNA5A		
Function	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	
Rated Voltage	~220-240 V/50 Hz/1 Ph				~380-415 V/50 Hz/3 Ph				
Total Capacity (W)	7050	7800	11000	12700	12400	13600	15530	19000	
Power Input (W)	2430	2350	3920	4220	4940	4840	6190	6530	
Air Flow Volume (m³/h)	1100		1700		1800		2000		
Dehumidifying Volume (l/h)	3		4.5		6		6		
EER / C.O.P (Bt/Bt)	2.9/3.32		2.81/3.01		2.51/2.81		2.51/2.91		
Indoor unit	Sound Pressure Level dB (A) (H/M/L)	48/45/42/40		51/49/47/45		52/50/48/46		54/52/50/47	
	Dimension (W/H/D) (mm)	500x1757x300				518x1870x395			
	Net Weight (kg)	40		60		63			
Outdoor unit	Sound Pressure Level dB (A) (H/M/L)	56		59			63		
	Dimension (W/H/D) (mm)	1018x840x412		1032x1250x412					
	Net Weight (kg)	69		105		110		117	
	Refrigerant Charge (kg)	R410A		R410A		R410A		R410A	



# Designation

 RoHS certificate	 Intelligent defrost system	 GREEN-FIN – anticorrosive cover of the heat exchangers
 CE certificate	 LED-Display of indoor unit	 ECO-FRESH – electret dust filter
 Energy saving specification	 Multi speed fan	 CH SMART-ION Filter – new generation technology for complete purification of air
 Energy Class capacity type	 Type of refrigerant	 Warranty
 Timer	 Sleep mode	 The unique technology of CH 7-SKY means the seven air purification steps
 Self-diagnostics system	 Noise Analysis Technology – noiseless operation	 Step-less Fan Control - controlled by step-less regulation technology, the fan speed be adjust 1% to 100% between the highest and lowest speed.
 Auto-protection	 The Wi-Fi function module to manage the air conditioner via a Smartphone/Tablet (OS: Android, iOS)	 Two-stage Compressor
 Automatic restart	 The evaporator of indoor unit will be blown after the unit is stopped to avoid mould	 EVI-scroll technology
 Swing mode – wide angle louvers	 Backlight of indoor unit display	
 Dry mode – dehumidifying	 “I Feel” The controller will automatically adjust the indoor temperature according to the temperature detected by the remote	
 Inverter technology	 Defends your home from frizzling: function “+8 degrees”.	
 High quality Plasma air cleaner: unique removing system of bacteria, viruses, foulodors, and allergens from air		



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