ABOUT COMPANY

COOPER&HUNTER – feel comfort.

The trade mark C&H (COOPER&HUNTER)
belongs to COOPER&HUNTER INTERNATIONAL CORPORATION
(USPTO /United States Patent & Trademark/ № 4494682)

Inheriting the best traditions of the companies and being the leaders in the sphere of the climate control equipment production in the USA. In 2003 COOPER&HUNTER International Corporation started to produce a wide range of the climate control equipment under its own TM.

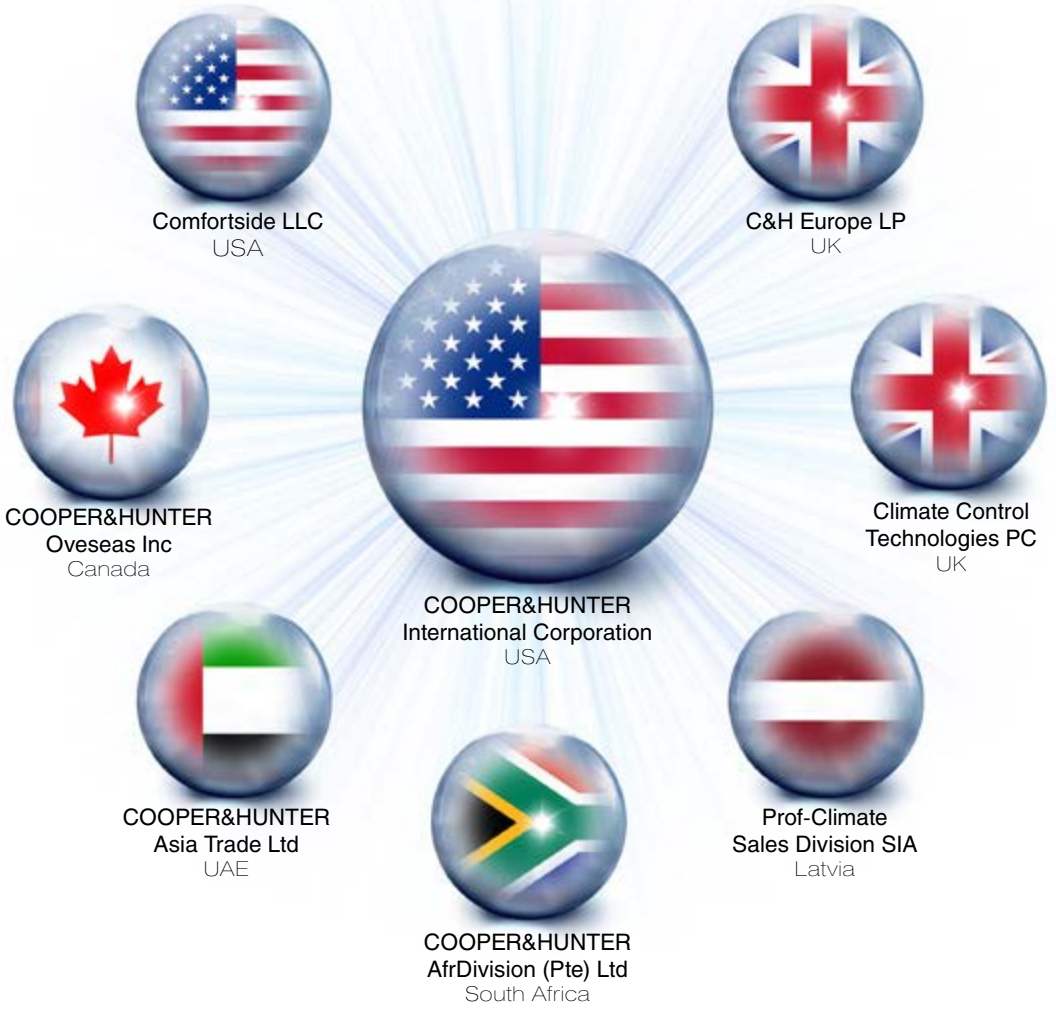
Two leaders in the industry came together, with different ideas and directions to make a new product. The elegant design which corresponds to the modern trend, ergonomics and comfort joined the innovations, modern technologies and high quality.

"COMFORT INNOVATIONS" – these words became the catchphrase of COOPER&HUNTER brand.

The aim of COOPER&HUNTER is to make the wishes of our clients of the high quality of life to be true. We implement innovations taking into account the current needs, acute researches and actual engineering trends.

Since 2003 the number of the equipment produced under C&H (COOPER&HUNTER) brand makes millions of units, COOPER&HUNTER facilities are popular in many different countries and C&H means quality and reliability of climate control equipment.

General Trade Company



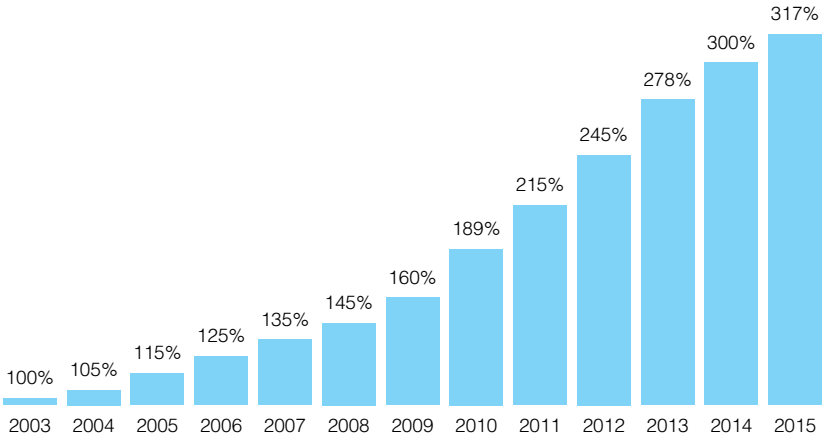
*Regional General Trading Company (C&H Trademark) **

**Attention! While concluding direct contracts for the supply of climate control equipment of TM COOPER&HUNTER the seller must be one of the above mentioned companies (as on January, 2016)*

The main industrial site for COOPER&HUNTER climate control equipment production is the plant GREE Electric Appliance INC located in the city of Zhuhai. This is the result of the long-time and strategic partnership and cooperation of the company with the plant being the world leader in climate control equipment production.

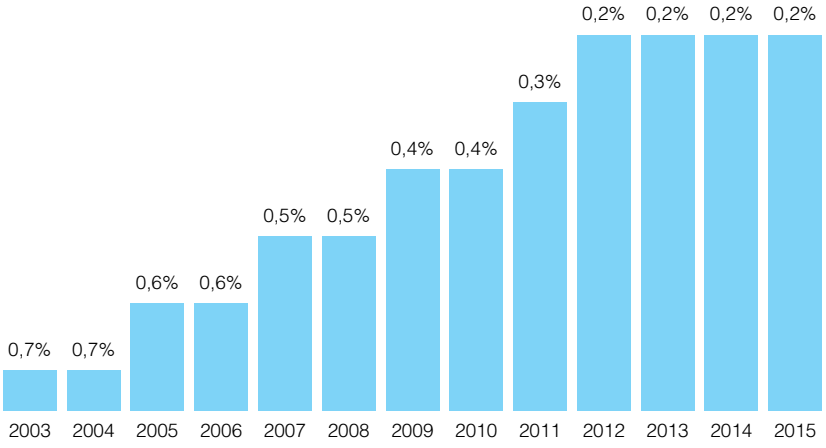
Our advantages

Table–scheme (production growth/year)



The strict production control, full responsibility for the final product and strict marketing strategy are the components of the company's success that the millions of people trust. We designed a unique program: "Perfect product strategy" and "Global quality control". Its usage allowed us to achieve higher quality of the equipment.

According to the data of the authorized service centers, statistics of refusal since 2012 makes less than 0,2%.



**According to the data of the authorized service centers, statistics of refusal since 2012 makes less than 0,2%.*

Each series of COOPER&HUNTER products has its unique characteristics, wide range of functions and gorgeous appearance.

COOPER&HUNTER equipment is the harmony of the engineering innovations and creative ideas making a wide range of different climate control equipment providing comfort and ecological climate for the everyday life.

Cooperating with COOPER&HUNTER you will always have access to the latest innovations in the sphere of the climate control equipment of consistent high quality, modern design and style.

Range of products

The household, commercial, industrial air conditioning systems of all types, specialized air-conditioners (sea, for telecommunications etc.)

- *Household and industrial air driers*
- *Household moisturizers, air cleaners*
- *Household coolers, purifiers, water purification systems*
- *Household electric heaters*
- *Household and industrial energy-saving heat pumps*
- *Air curtains*

Cooper&Hunter equipment is produced under the high standards and requirements of the USA, Canada and European Union.

AHRI

Is the member of USHP (Unitary Small Heat Pump Equipment /includes Mix-Match Coils/) certification program AHRI (Air-Conditioning, Heating and Refrigeration Institute).

CE

Has the European Commission mark which confirms the correspondence to the requirements for health, safety and ecology. Allows distribution of Cooper&Hunter products within the internal EU market.

ETL C LISTED US Intertek

ETL certificate confirms the correspondence of Cooper&Hunter products to the safety and quality standards in the USA and Canada.

G10 INVERTER technology

**European technology G-Matrik*

C&H inverters are the hi-tech systems controlled by the innovative build-in microprocessor based on unique technology G10.

This means that the rotor compressor achieving the specified temperature does not turns off but continue to work at the extremely low frequency in 1 hz consuming only 40 watt-hour. Thus Cooper&Hunter saves up to 50% of the electric power consumed and extending the service period up to 10 years.

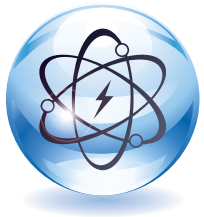
Advantages of G10:

Extremely low frequency of the compressor rotation

- Acute temperature control
- Saves up to 40% of the electric power supply

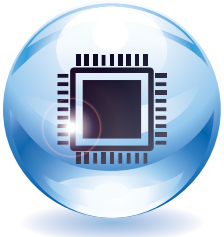
Refrigerant R410A

- Ozone-safe
- Effective cooling



Strain automatic adjustment (150-265 V)

- Stable work at power supply voltage swing
- Allows avoidance of damages



Modern high-speed microprocessor

- High functional control
- Effective control of all parameter

Noiseless operation

- from 25 dB in the room
- Provides quit and comfort

Performance reliability

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

Strict temperature control

- Strict support of air temperature up to 0,1°C
- Control of the specified parameters

Turbo mode

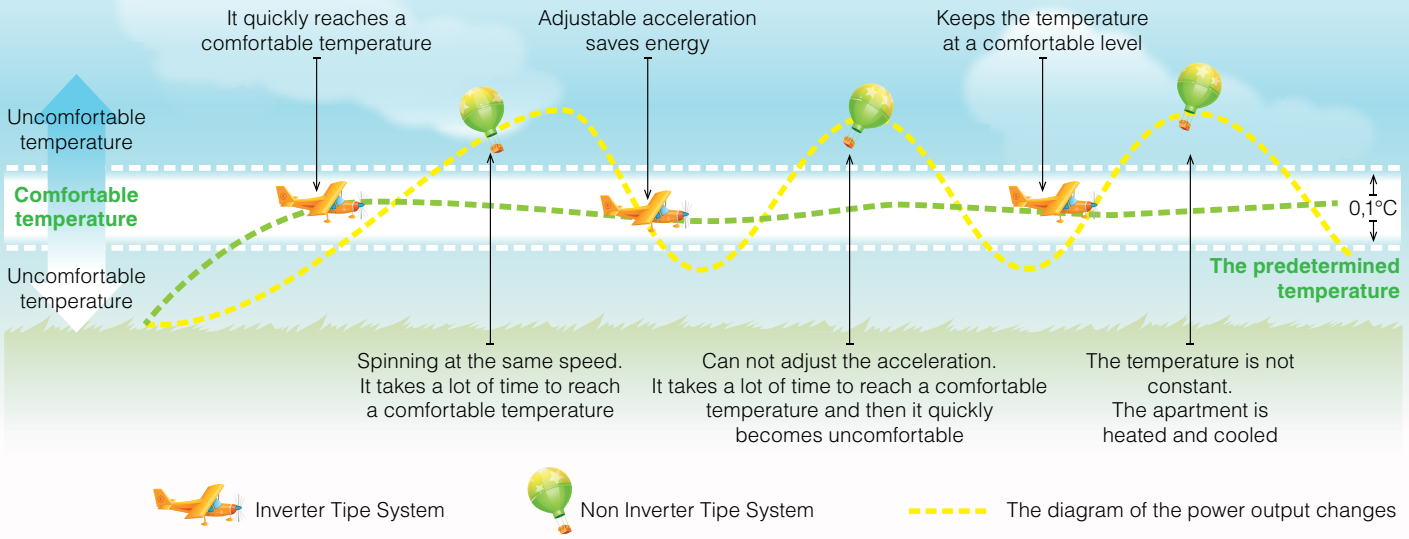
- High-speed achievement of the necessary temperature
- Quick cooling and quick space heating

Continuous operation

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

Comparison of inverter with the standard air conditioner

How an inverter saves energy?



Three components of efficiency

VENTILATION

1

The air conditioner has a build-in upgraded axial ventilator of the external unit with the bigger diameter and a powerful ventilator of the indoor unit to increase the volume of air and to improve efficiency of heat exchanger.

CONTROL

2

Build-in microprocessor which controls the heart of the air conditioner operates in the modes from maximum to minimum without the turn off saving up to 40% of the electric power, extending the service period of the equipment up to 10 years, noiseless.

COOLING

3

Highly-effective and stable operating compressor. The heat exchanger has the improved pipes system. Highly-efficient electronic expansion valve strictly controls the refrigerant flow.

Proper operation

Indoor unit self-cleaning

After the operation is over the ventilator blows off and dries the air conditioner from the inside to avoid moisture, fungi and corrosion.

Restart function

This is the possibility to restore all operational parameters in case of the accidental power cut.

Self-diagnosis

Helps to keep the air conditioner in the perfect state and immediately detects problems. The code appears on the control panel saying about the problem of failure.

Integrated device

Special base and water basin in the indoor unit help to avoid leaking and reduce the noise level.

Voltage variation protection

Automatically adjusts to voltage variation (150-265 V) securing more stable operation and allowing to prevent damage.

Fireproof box

The electric box in the metal case provides safety and protection from fire and helps to prevent fire in case of short circuit.

“I feel” function

Controls the air temperature by means of the detector on the control panel i.e. near you. The temperature detector measures air temperature at the place it is located at and transfers the information to the indoor unit of the air conditioner. And it adjusts in such a way to achieve the necessary parameters of the climate comfort directly where the remote is.

Comfort for life

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.

Hot start

the air conditioner turn on 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

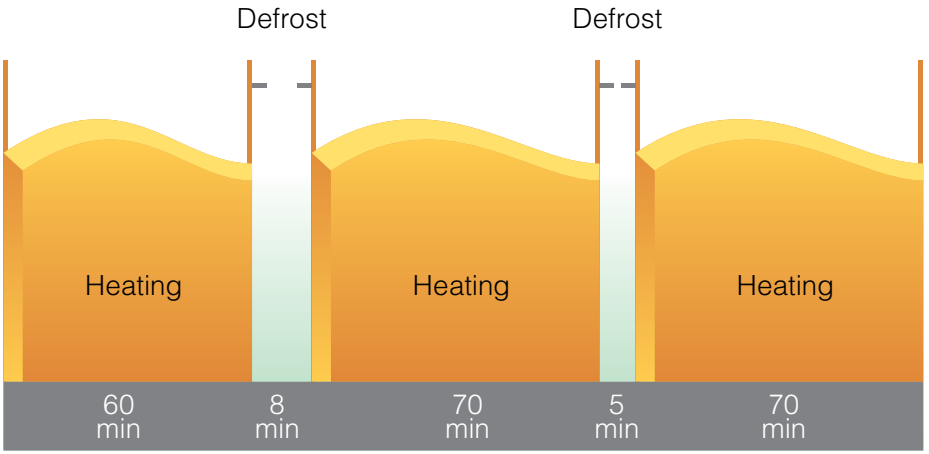
very quiet operation and support of comfort temperature for sleep.

"I feel" function

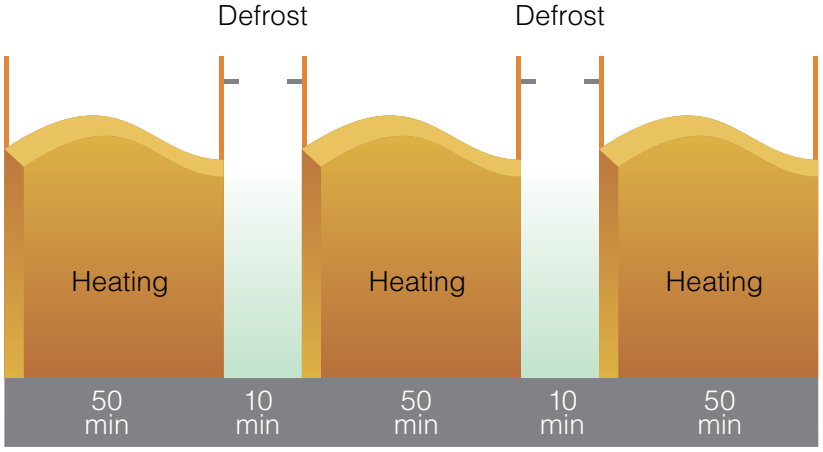
This feature provides apersonalised environment since the temperature can bedetected where the remote controller is located.

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

VICTORIA
SERIES

- SEER 23
- Low Ambient Cooling 5° F
- Low voltage start-up
- Memory Function
- Control lock
- Fan Delay function

		GWH09QC-A3DNA1D	GWH12QC-A3DNA1D	GWH09QC-D3DNA1D	GWH12QC-D3DNA1D	GWH18QD-D3DNA1G	GWH24QE-D3DNA1D	GWH30LB-D3DNA5E	GWH36LB-D3DNA5E
Cooling Capacity (Min-Max)	Btu/h	9.000 (2.800-10.900)	12.000 (3.500-14.600)	9.000 (3.100-9.600)	12.000 (3.100-13.000)	18.000 (7.100-20.000)	24.000 (6.800-27.300)	28.000 (9.500-30.000)	33.600 (7.400-36.000)
Heating Capacity (Min-Max)	Btu/h	9.900 (2.100-14.000)	12.200 (2.800-16.600)	11.000 (1.900-12.000)	13.000 (2.400-14.000)	19.800 (7.300-23.500)	23.000 (6.800-30.700)	28.400 (10.000-33.000)	34.600 (15.000-36.000)

For details see page 43

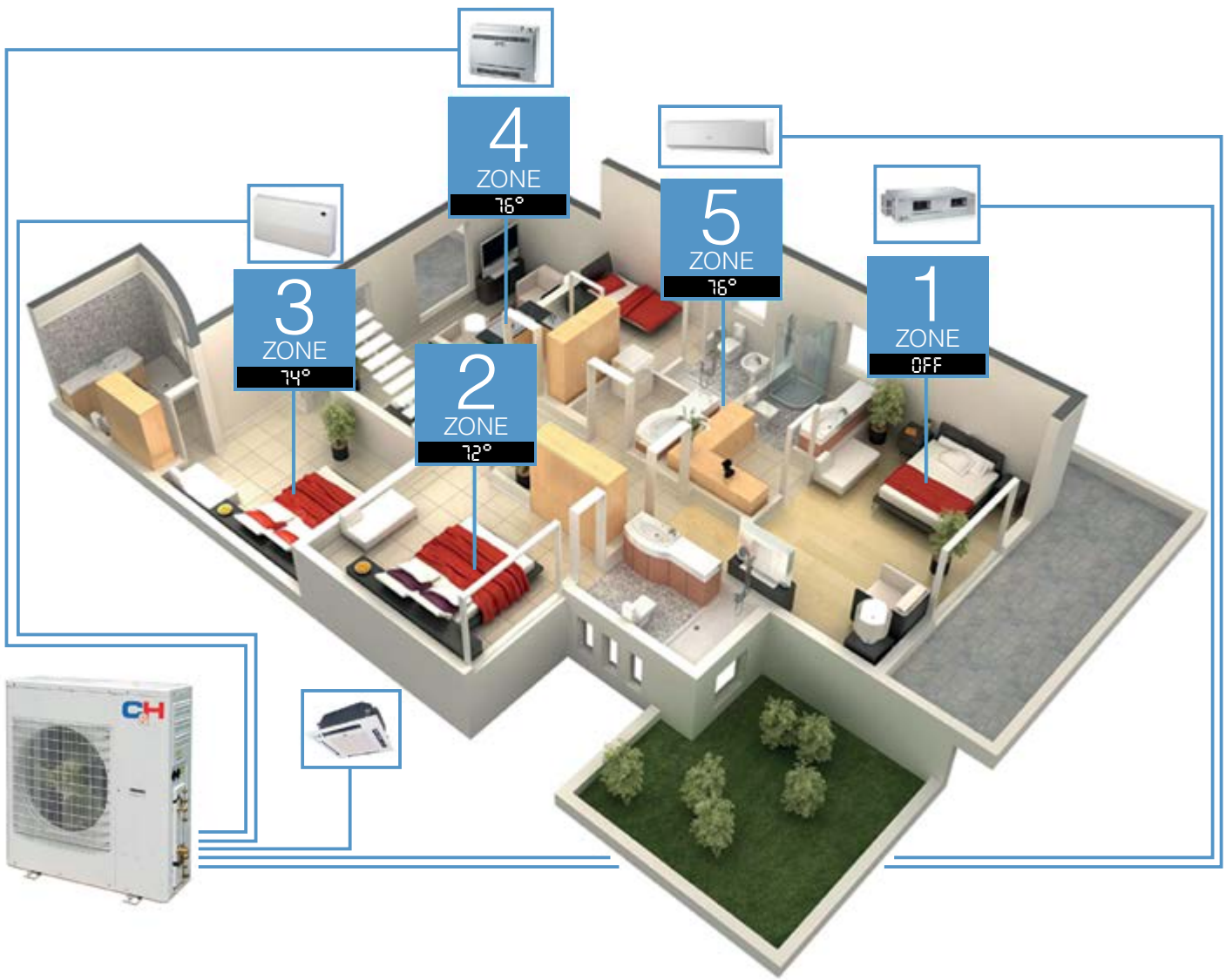
ALICE
SERIES

- SEER 16
- Low Ambient Cooling 5° F
- Low voltage start-up
- Memory Function
- Control lock
- Fan Delay function

		GWH09KF-A3DNB4A	GWH12KF-A3DNB4A	GWH09KF-D3DNB4F	GWH12KF-D3DNB4F	GWH18KG-D3DNB4F	GWH24KG-D3DNB4A
Cooling Capacity (Min-Max)	Btu/h	9.000 (3.500-11.000)	11.800 (3.300-12.500)	9.000 (3.800-11.500)	12.000 (3.300-12.500)	18.000 (4.500-21.000)	24.000 (6.400-24.000)
Heating Capacity (Min-Max)	Btu/h	9.800 (2.500-11.000)	13.000 (3.400-13.500)	9.000 (3.300-11.500)	12.000 (3.400-12.500)	19.200 (4.000-23.000)	24.200 (4.100-26.600)

For details see page 43

MULTI ZONE SYSTEM



C&H +Multi systems, with inverter technology, are some of today's most advanced ductless split heat pumps. Providing both cooling and heating comfort, in as many as five separate zones, they are the perfect solution for many residential and light commercial applications. +Multi systems reduce energy waste, maximize efficiency and achieve up to 22 SEER, with our G10 inverter driven compressors. Best of all, the ultimate in reliable room comfort is generated with Eco-friendly R410A refrigerant

Design Flexibility

C&H introduces project layout by simultaneously powering up to five indoor units with one outdoor unit. For even greater mix and match your choice of Wall Mount, Ceiling Cassette, Concealed Duct, Universal Floor/Ceiling and Mini Floor Console indoor units to create your unique +Multi heating and cooling system.

Energy Savings

C&H +Multi systems are highly zoning heat pumps that will keep operating costs under control, year round. No need for a bulky add-on coil or expensive-to-operate electric heat. Our variable speed heat pumps, powered by the G10 inverter, provide the same heating capacity as electric heat, while using as little as 1/3 the electricity. With +Multi ductless systems, there are no losses due to leaky ductwork.

Maximum Comfort

+Multi systems eliminate irritating temperature swings, by continuously monitoring comfort levels and adjusting compressor speed and refrigerant according to the cooling and heating needs of each room. Additionally, you can create your own personal-comfort-zone, by activating the I-Feel function on the remote control. With I-Feel activated, +Multi systems will sense temperatures surrounding the remote control, and adjust compressor speed and air to maintain the comfort level of your personal space.

Durability & Longevity

All duct free +Multi units are made from heavy gauge rolled steel and covered with a durable powder coat paint C&H's enhanced Gold-Fin coating provides condenser coil protection in corrosive environments, while improving hydrophilic properties and and our multi-point self-diagnostics continuously monitor critical system parameters to prevent catastrophic failures. These, along with many other, design considerations will extend the life of your +Multi system.

FM
SERIES

Each +Multi heat pump is powered by Cooper&Hunter's energy G10 inverter and a variable speed compressor. These units can heat and cool up to 5 zones without distribution boxes. Our G10 inverter technology saves energy, reduces outdoor noise and keeps room temperature steady by eliminating the harsh starts & stops of conventional systems. Each outdoor coil has

- *Ports R410A Refrigerant*
- *Heavy Gauge Steel Cabinet Sound Levels down to 56 DB*
- *Low Ambient Cooling down to 5 deg F*
- *No Refrigerant Distribution Boxes*
- *Indoor Master/Slave Settings*
- *Multi-point Diagnostics*
- *Multi Condensate*

		GWHD(18)ND3EO	GWHD(24)ND3EO	GWHD(30)ND3EO	GWHD(36)ND3EO	GWHD(42)ND3EO
Cooling Capacity (Min-Max)	Btu/h	18.000 (7.000-21.000)	26.000 (7.500-33.000)	29.000 (8.200-33.400)	34.000 (8.870-35.820)	39.000 (8.880-40.940)
Heating Capacity (Min-Max)	Btu/h	19.000 (8.530-22.600)	29.000 (7.500-35.000)	31.600(8.800-32.400)	42.500 (8.880-44.350)	45.000 (8.870-46.060)

For details see page 44

FREE MATCH CASSETTE TYPE

- *C&H's +Multi Ceiling Cassette will inconspicuously provide quiet performance through innovative design.*
- *The +Multi Ceiling Cassette is extremely suitable for any room, and can be easy installed in suspended ceilings with only a discreet decorative discharge grille visible.*
- *C&H's fan technology quietly and evenly distributes conditioned air throughout the room, and an internal condensate pump reliably disposes condensate water to a safe location.*

		GKH(12)BA-D3DNA2A/I	GKH(18)BA-D3DNA2A/I	GKH(24)BA-D3DNA2A/I
Cooling Capacity (Min-Max)	Btu/h	11.946	15.359	22.867
Heating Capacity (Min-Max)	Btu/h	13.652	17.065	27.304

For details see page 44

FREE MATCH CONSOLE TYPE

- *C&H's +Multi Mini Console indoor units are aesthetically pleasing and the perfect size for any room.*
- *The space saving design provides energy efficient solutions for difficult areas that may not have abundant space on the ceiling or walls.*
- *It can be mounted as low as six inches above the floor and has front panel access to the filter for ease of cleaning. Each+Multi Mini Console unit can be operated by an infrared remote control.*

		GEH(09)AA-D3DNA1C/I	GEH(12)AA-D3DNA1C/I	GEH(18)AA-D3DNA1C/I
Cooling Capacity	Btu/h	8.874	11.946	18.089
Heating Capacity	Btu/h	9.556	12.969	19.795

For details see page 44

FREE MATCH DUCT TYPE

- *Compact and powerful, the C&H Multi+ Concealed Duct indoor units offer the ultimate in flexibility and discretion.*
- *These slim indoor units are designed to be concealed above suspended ceilings or within open closet spaces to deliver conditionedair via ducting and suitable ceiling or wall grilles.*
- *This arrangement provides immense flexibility, in terms of both the distribution of conditioned air and the type of grille or diffuser that best compliments the room's styling. Each unit comes with an easy to operate wall mounted tether controller.*

		GFH(09)EA-D3DNA1A/I	GFH(12)EA-D3DNA1A/I	GFH(18)EA-D3DNA1A/I	GFH(24)EA-D3DNA1A/I
Cooling Capacity	Btu/h	8.533	11.946	15.359	24.232
Heating Capacity	Btu/h	9.556	13.140	18.772	27.304

For details see page 44

FREE MATCH WALL MOUNT

- Four Fan Speeds
- IR Remote Controller
- Turbo Mode
- Vertical Swing Louver
- Dry Coil Mode for Anti-Mildew Protection
- Remote Control Lockout
- Power Failure Recovery

		GWH09QC-D3DNA1D/I	GWH12QC-D3DNA1D/I	GWH18QD-D3DNA1G/I
Nominal Cooling Capacity	Btu/h	9.000	12.000	18.000
Nominal Heating Capacity	Btu/h	11.000	13.000	19.800

For details see page 44

VIP INVERTER
SERIES

- *A new inverter double stage compressor provides effective operation in the temperature range: cooling from -18°C to +54°C, heating from -30°C to +24°C, and increases EER for 40% during the cooling, and on 35% during the heating (COP);*
- *Noiseless operation of the indoor unit 18 dB(A);*
- *Wi-Fi module to control the air conditioner using the smartphone/tablet (OS: Android, iOS);*
- *Air flow distribution angle (to 180° horizontally and 130° vertically) allows achievement of maximum comfort and air balanced distribution in the room.*

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

For details see page 50

ICY
SERIES

INVERTER

WI-FI – *optional*

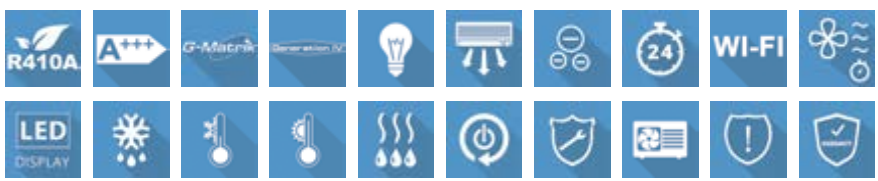
- *A new inverter double stage compressor provides effective operation in the temperature range: cooling from -15°C to +48°C, heating from -25°C to +24°C*
- *Noiseless operation of the indoor unit 20 dB(A);*
- *Wi-Fi modular to control the air conditioner using the smartphone/tablet (OS: Android).*

Model		CH-S09FTXTB-W Cold/Warm	CH-S12FTXTB-W Cold/Warm	CH-S18FTXTB-W Cold/Warm	CH-S24FTXTB-W Cold/Warm
Capacity	kW	2,60 (0,76-4,81)/ 3,00 (0,82-5,50)	3,50 (0,74-4,73)/ 4,00 (0,83-6,33)	5,30 (1,00-6,30)/ 5,40 (1,00-7,14)	7,00 (2,00-8,60)/ 7,30 (1,90-9,00)
Power intake	kW	0,60 (0,24-1,87)/ 0,65 (0,21-2,00)	0,90 (0,20-1,58)/ 1,00 (0,24-2,11)	1,51 (0,40-2,45)/ 1,45 (0,40-2,50)	2,00 (0,45-3,20)/ 1,96 (0,38-3,20)

For details see page 51

ARCTIC DESIGN
SERIES

INVERTER



- *Temperature range of effective operation in the temperature range: cooling from +18°C to +48°C, heating from -25°C to +24°C*
- *Slim-format 15,9 sm;*
- *Defends your home from frizzing: function "+8 degrees".*
- *White (FTXS-W), Champagne (FTXS-B), Metallic (FTXS-M)*

Model		CH-S09FTXS-B Cold/Warm	CH-S09FTXS-W Cold/Warm	CH-S09FTXS-M Cold/Warm	CH-S12FTXS-B Cold/Warm	CH-S12FTXS-W Cold/Warm	CH-S12FTXS-M Cold/Warm
Capacity	kW	2,79 (0,76-3,38)/ 2,9 (0,68-3,97)	2,79 (0,76-3,38)/ 2,9 (0,68-3,97)	2,79 (0,76-3,38)/ 2,9 (0,68-3,97)	3,53(0,82-3,97)/ 3,97(0,74-4,56)	3,53(0,82-3,97)/ 3,97(0,74-4,56)	3,53(0,82-3,97)/ 3,97(0,74-4,56)
Power intake	kW	0,57 (0,2-1,20)/ 0,58 (0,16-1,25)	0,57 (0,2-1,20)/ 0,58 (0,16-1,25)	0,57 (0,2-1,20)/ 0,58 (0,16-1,25)	0,77 (0,36-1,30)/ 0,84 (0,34-1,36)	0,77 (0,36-1,30)/ 0,84 (0,34-1,36)	0,77 (0,36-1,30)/ 0,84 (0,34-1,36)

For details see page 51

ARCTIC INVERTER
SERIES

INVERTER

- Household heat pump. Adjusted to produce warm in the northern countries
- Temperature range: cooling from -15°C to +48°C, heating from -25°C to +24°C
- Continuous operation in the range of 96V-260V.
- The innovative, compact transformer

Model		CH-S09FTXLA Cold/Warm	CH-S12FTXLA Cold/Warm	CH-S18FTXLA Cold/Warm	CH-S24FTXLA Cold/Warm
Capacity	kW	2,60 (0,44-3,26)/ 2,80 (0,44- 4,20)	3,50 (0,60-4,05)/ 3,67 (0,60-5,25)	5,13 (1,05-6,50)/ 5,275 (1,00-7,00)	6,70 (1,50-7,00)/ 7,25 (1,20-7,80)
Power intake	kW	0,59(0,20-1,35)/0,61(0,20-1,45)	0,80(0,22-1,45)/0,79(0,22-1,55)	1,28(0,36-2,50)/1,16(0,35-2,60)	1,56(0,35-2,50)/1,73(0,35-2,70)

For details see page 46

ALPHA
SERIES

INVERTER

- *Temperature range: cooling from -24°C to +43°C, heating from -15°C to +24°C*
- *Defends your home from frizzing: "+8 degrees" function. The air conditioner will support the temperature of 8°C not allowing the frizzing of the room and consuming the minimum electric power.*
- *The premium remote control with new ergonomic body frame and night lighting*

Model		CH-S09FTXE Cold/Warm	CH-S12FTXE Cold/Warm	CH-S18FTXE Cold/Warm	CH-S24FTXE Cold/Warm
Capacity	kW	2,60 (0.44-3.00) /2,80 (0.60-3.20)	3,50 (0.60-3.60)/3,60(0.60-3.80)	5,0 (0.65-5.20)/5,30 (0.70-5.28)	6,70(2.00-8.20)/7,25(2.00-8.50)
Power intake	kW	0,718(0.12-1.30)/0,733(0.12-1.40)	0,972(0.12-1.40)/0,942(0.12-1.50)	1,43(0.15-1.86)/1,38(0.16-1.68)	1,875(0.40-3.70)/1,945(0.45-3.80)

For details see page 46

WINNER
SERIES

INVERTER

- *Operates till -15°C in the heating and cooling modes;*
- *Temperature range: cooling from -24°C to +43°C, heating from -15°C to +24°C*
- *Defends your home from frizzing: "+8 degrees" function.*
  The air conditioner will support the temperature of 8°C not allowing the frizzing of the room and consuming the minimum electric power.
- *Wide angle louvers*
- *Precise temperature operation range within 0,5°C*

Model		CH-S09FTXE Cold/Warm	CH-S12FTXE Cold/Warm	CH-S18FTXE Cold/Warm	CH-S24FTXE Cold/Warm
Capacity	kW	2,60 (0.44-3.00)/2,80 (0.60-3.20)	3,50 (0.60-3.60)/3,60(0.60-3.80)	5,0 (0.65-5.20)/5,3 (0.70-5.28)0	6,70(2.00-8.20)/7,25(2.00-8.50)
Power intake	kW	0,718(0.12-1.30)/0,733(0.12-1.40)	0,972(0.12-1.40)/0,942(0.12-1.50)	1,43(0.15-1.86)/1,38(0.16-1.68)	1,875(0.40-3.70)/1,945(0.45-3.80)

For details see page 47

NORDIC
SERIES

INVERTER

- *Household heat pump. Adjusted to produce warm in the northern countries*
- *Warming up of the compressor and pallet, speed control unit of the ventilator of the outdoor unit;*
- *Temperature range: cooling from +18°C to +48°C, heating from -20°C to +24°C*

Model		CH-S09FTXN Cold/Warm	CH-S12FTXN Cold/Warm	CH-S18FTXN Cold/Warm	CH-S24FTXN Cold/Warm
Capacity	kW	2.70 (0.44-3.26)/3.60(4.00-4.20)	3.60 (0.60-4.05)/4.12 (0.60-5.25)	5.30(1.05-6.50) / 5.70(1.00-7.00)	6.45 (1.50-7.00) / 7.00 (1.20-7.80)
Power intake	kW	0.68 (0.20-1.35)/0.87 (0.20-1.45)	0.90(0.22-1.45)/0.99(0.22-1.55)	1.31(0.36-2.50)/1.35(0.35-2.60)	1.85(0.35-2.50)/1.98(0.35-2.70)

For details see page 47

INVERTER CONSOLE
SERIES

- *Wide temperature range: cooling from -15°C to +43°C, heating from -25°C to +24°C*
- *Slim-format (215 mm)*
- *Wide-angled louvre-boards, control of air supply from the lower and upper parts of the unit*
- *Automatic frost-up protection system Intelligent Preheating. Defrosting "over time" – in average 10 minutes of defrosting for 50 minutes of compressor operation.*

Model		CH-S09FVX Cold/Warm	CH-S12FVX Cold/Warm	CH-S18FVX Cold/Warm
Capacity	kW	2,60 (0.45-3.20)/2,75 (0.45-3.75)	3,52 (0.60-3.95)/4,00(0.60-4.70)	5,27 (0.90-5.60)/5,5 (0.90-6.60)
Power intake	kW	0,66 (0.20-1.55)/0,81(0.20-1.35)	0,98(0.22-1.40)/1,00(0.22-1.58)	1,42(0.35-2.50)/1,53(0.35-2.50)

For details see page 48

INVERTER
SERIES

- *Wide temperature range: cooling from +18°C to +48°C, heating from -15°C to +24°C;*
- *Automatic frost-up protection system Intelligent Preheating. Defrosting "over time" – in average 10 minutes of defrosting for 50 minutes of compressor operation*
- *Standby energy consumption 45 W*

Model		CH-S09FTXG Cold/Warm	CH-S12FTXG Cold/Warm	CH-S18FTXG Cold/Warm	CH-S24FTXG Cold/Warm
Capacity	kW	2,70 (0,44-3,26)/3,60 (0,44-4,20)	3,60 (0,60-4,20)/4,12 (0,60-5,25)	5,30 (1,05-6,50)/5,70 (1,00-7,00)	6,45 (1,50-7,00)/7,00 (1,20-7,80)
Power intake	kW	0,68 (0,20-1,35)/0,87 (0,20-1,45)	0,99 (0,22-1,55)/0,99 (0,22-1,55)	1,31 (0,36-2,50)/1,35 (0,35-2,60)	1,85 (0,35-2,50)/1,98 (0,35-2,70)

For details see page 49

AIR-MASTER
SERIES

ON/OFF

- *Increased operational life;*
- *Heat exchangers have the anti-corrosion coating GREEN-FIN;*
- *Wide angle louvers, that create a coverage of the entire volume of the space by the automatic function SWING.*

Model		CH-S07RX4 Cold/Warm	CH-S09RX4 Cold/Warm	CH-S12RX4 Cold/Warm	CH-S18RX4 Cold/Warm	CH-S24RX4 Cold/Warm
Capacity	kW	2,26/2,43	2,70/2,85	3,25/3,40	4,7/4,9	6,15/6,50
Power intake	kW	0,69/0,66	0,82/0,78	1/0,97	1,46/1,43	1,9/1,9

For details see page 49

EVOLUTION
SERIES

ON/OFF

- *Higher operational life;*
- *Low level of noise;*
- *Heat-exchangers with the anti-corrosion coating GREEN-FIN;*
- *Dehumidifying function*

Model		CH-S07XP4 Cold/Warm	CH-S09XP4 Cold/Warm	CH-S12XP4 Cold/Warm
Capacity	kW	2,26/2,43	2,70/2,85	3,25/3,40
Power intake	kW	0,69/0,66	0,82/0,78	1,00/0,97

For details see page 48

ECO PLAZMA
SERIES

ON/OFF

- *Indoor unit can be produced in three colors: white (LKP6), silver (MKP6), black (BKP6);*
- *Heat exchangers have the anti-corrosion coating GREEN-FIN;*
- *Dehumidifying function, without lowering the temperature;*
- *Automatic restart with memory settings;*

Model		CH-S07LKP6/CH-S07MKP6/CH-S07BKP6	CH-S09LKP6/CH-S09MKP6/CH-S09BKP6	CH-S12LKP6/CH-S12MKP6/CH-S12BKP6
		Cold/Warm	Cold/Warm	Cold/Warm
Capacity	kW	2,26/2,43	2,70/2,85	3,25/3,40
Power intake	kW	0,69/0,66	0,82/0,78	1,00/0,97

For details see page 50

PORTABLE AIR CONDITIONER

- *Low Noise «More Silence»;*
- *5-layer guard shield «V-protect»;*
- *0,5W Standby;*
- *Vertical swing;*

Model		*CH-M09K6S Cold/Warm*	*CH-M12K6B Cold/Warm*
Capacity	*kW*	*2,64/-*	*3,52/3,52*
Power intake	*kW*	*1,01/-*	*1,345/1,235*

For details see page 61

NORDIC COMMERCIAL

DUCT TYPE
SERIES

INVERTER

- Compact size;
- Low noise level;
- Long-life washable filter
- Self-diagnosis of the main units and modes;
- Defense from the incorrect connection to the power supply;
- Length of the pipeline is 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			~ 220-240V/50Hz- /1F	~ 220-240V/50Hz- /1F	~ 220-240V/50Hz- /1F	~ 220-240V/50Hz- /1F	~ 220-240V/50Hz- /1F

Model			CH-ID36NK4 / CH-IU36NK4	CH-ID42NK4 / CH-IU42NK4	CH-ID48NK4 / CH-IU48NK4	CH-ID60NK4 / CH-IU60NK4
Capacity	Cooling/heating	kW	10.00/12.00	11.50/13.50	14.00/15.50	16.00/16.50
Power Supply			~ 380-415V/50Hz- /3F	~ 380-415V/50Hz- /3F	~ 380-415V/50Hz- /3F	~ 380-415V/50Hz- /3F

For details see page 52, 53

NORDIC COMMERCIAL

CASSETTE TYPE

SERIES

INVERTER

- Compact size; Drainage pump;
- 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;
- Intellectual 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-IU36NK4	CH-IC42NK4/ CH-IU42NK4	CH-IC48NK4/ CH-IU48NK4	CH-IC60NK4/ CH-IU60NK4
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	~ 220-240V/50Hz/1F	~ 220-240V/50Hz/1F	~ 220-240V/50Hz/1F	~ 380-415V/50Hz/3F	~ 380-415V/50Hz/3F	~ 380-415V/50Hz/3F	~ 380-415V/50Hz/3F

For details see page 54

NORDIC COMMERCIAL

FLOOR-CEILING TYPE

SERIES

INVERTER

- Compact sizes;
- 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;
- Intellectual defrost;
- Length of the pipeline makes 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			~ 220-240V/50Hz/1F	~ 220-240V/50Hz/1F	~ 220-240V/50Hz/1F	~ 220-240V/50Hz/1F	~ 220-240V/50Hz/1F

Model			CH-IF36NK4/CH-IU36NK4	CH-IF42NK4/CH-IU42NK4	CH-IF48NK4/CH-IU48NK4	CH-IF60NK4/CH-IU60NK4
Capacity	Cooling/heating	kW	10.00/12.00	11.50/13.50	14.00/16.00	16.00/17.00
Power Supply			~ 380-415V/50Hz/3F	~ 380-415V/50Hz/3F	~ 380-415V/50Hz/3F	~ 380-415V/50Hz/3F

For details see page 55

COMMERCIAL AIR CONDITIONERS

FLOOR STANDING TYPE SERIES

ON/OFF

R410A

- Multi-rate fan;
- "Warm" start;
- Four-sided air delivery;
- Timer;
- "Turbo" mode;
- Display;
- Self-diagnosis;
- Self-cleaning mode; Autorestart;
- Clock-faced display;
- Control panel lock;
- Intellectual defrost;
- Supplementary electric heating unit;
- Night mode

Model		CHF60AD-M3NNA2A * Cooling/Heating	CHF48FH-M3NNB1B Cooling/Heating
Capacity	kW	16/18	12,31/14,65
Power consumption	kW	6,2/7,8	4,72/5,05

* CHF60AD-M3NNA2A

- Build-in electric heating element allows the air conditioner to be effective heater unit (3000 W)
- The increased heating area - up to 200 m^2 (600 m^3);

For details see page 56

VRF SYSTEM CHV5

INVERTER

R410A

High Static Pressure Duct Type Indoor Unit

Compact 4-way Cassette Indoor Unit

Slim Ducted 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

- *Inventers and motor drive of the indoor units;*
- *Heat braking unit made it possible to raise IPLV up to 6,8, making 33% higher than in the previous version ;*
- *Patent 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;*
- *Maximum length of the pipeline is 1000 m;*
- *Elevation difference – up to 90 m;*
- *Standard sizes of the outdoor units in 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*

MULTY SPLIT AIR CONDITIONING SYSTEM

INVERTER

R410A

NORDIC MULTI LIGHT

SERIES

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

For details see page 87-91

UNITHERM SERIES

INVERTER R410A

Heat Pumps For Heating And Hot Water Supply

Model			CH-HP8.0SINK	CH-HP10SINK	CH-HP12SINK(M)	CH-HP14SINK(M)	CH-HP16SINK(M)
Capacity (for warm floor)	cooling	KW	8,50	10,00	12,50(13.50)	13,50(14.50)	14,50(15.0)
	heating	KW	8,50	9,60	12,50(13.50)	13,50(14.20)	15,50(16.50)
Rated power consumption (for warm floor)	cooling	KW	2,45	3,28	3,57(3.46)	4,09(3.91)	4,53(4.11)
	heating	KW	2,05	2,36	2,80(2.75)	3,06(3.23)	3,78(3.47)

FUNCTIONS AND ADVANTAGES

- Heating of the room; Cooling of the room;
- Water heating for hot water supply;
- Cooling of the room and water heating;
- Heating of the room and water heating; Automatic climate control;
- Emergency water heating mode;
- Quick water heating;
- Noiseless (night) mode;
- Anti-frizzing mode;
- Sanitary mode (heating of water in the boiler to 80°C); Programming unit for 7 days;
- Central control;

*Additional paid option.

OUTDOOR UNIT

- DC-inverter double-rotor compressor of a new generation; Highly-performance structure of the heat exchange unit and ventilator;
- High class of energy efficiency A: C.O.P 4,5;
- Safe start and operation within the range from 95 W to 260 W;
- Wide temperature range of effective operation: from -20°C when heating and up to +48°C when cooling;
- Compressor starts with low inrush current (up to 5A);
- Multi-level protection system;
- Energy saving mode;

INDOOR UNIT

- Gorgeous design and compact size (900x500x324 mm);
- Plate type heat exchanger with the maximum energy efficiency ratio C.O.P;
- Reliable and express pump;
- Intellectual control system;

BOILER* (200L, 300L)

- Is installed into the hot water supply system;
- Boiler and heat exchanger are made of stainless steel;
- Magnesium anod (effective scale protection);
- Two temperature sensors;
- Easy use and maintenance.

For details see page 61

Household Heat Pump air-water with HWS boiler

R134A

- *Operation range of outdoor temperature: from -15 to +45°C;*
- *Range of incoming temperatures of the sanitary water is from +35°C to +70°C;*
- *If it is +7°C outdoors the sanitary water is heated from +5°C to 55°C during 240 min.;*
- *Multi-speed ventilator;*
- *Modular multi-stage water apparatus for HWS Systems on freon R134; Build-in heating element for 1500 W (to compensate losses of useful heat when the outdoor temperature goes down);*
- *Basic configuration "installed and forgot": outdoor unit, GAM boiler, wire-connected controller;*

Outdoor unit model		CH-HP3.0SWHK
Ratedl heat power	W	2800
Rated power consumption	W	700

For details see page 61

Industrial heat pump for heating and HWS systems

R410A

30 KW, 40 KW

60 KW

- Simple installment;
- Compact size;
- Wide operational temperature range -26°C +46°C;
- Quick water heating;
- Reliable and highly efficient compressor DANFOSS with high COP ratio;
- Anti-corrosion coating of the heat exchanger;
- Low noise level;
- Possibility to install up to 16 units in one system, up to 0,96 MW; Group control.

Model		CH-HP30MFNM	CH-HP40MFNM	CH-HP60MFNM
Heat range	KW	31	40	60
Power consumption	KW	8,1	10	15

For details see page 62

Heat pump series for HWS

R134A R22

- *No Freon pipeline makes the installment easier and cheaper; Is used for the household hot water supply;*
- *Heating of water for minimum 35°C, maximum 58°C;*
- *Consumes electric power in 3-4 times less than the electric boiler;*
- *The operational range of the outdoor temperatures for heat pumps using the freon R134A makes from -15°C to +43°C; The operational range of the outdoor temperatures for heat pumps using the freon R22 makes from -7°C to +43°C; The diameter of water pipes makes 3/4 inch;*
- *No exhausted and hazardous gases in the room;*
- *No exhaust pipe and ventilation units;*
- *No environmental pollution;*
- *Long life;*
- *Low cost of maintenance.*

For details see page 62

VICTORIA series



Model		GWH09QC-A3DNA1D	GWH12QC-A3DNA1D	GWH09QC-D3DNA1D	GWH12QC-D3DNA1D	GWH18QD-D3DNA1G	GWH24QE-D3DNA1D	GWH30LB-D3DNA5E	GWH36LB-D3DNA5E
System T ype		Heat Pump							
Power Supply		115V / 60Hz	115V / 60Hz	208-230V / 60Hz	208-230V / 60 Hz	208-230V / 60Hz	208-230V / 60Hz	208-230V / 60Hz	208-230V / 60Hz
Rated Current Cooling	Amps	6.2	8.8	2.8	4.5	8.7	8.0	12.1	15.9
Rated Current Heating	Amps	6.2	8.8	3.5	5.5	7.5	8.4	12.5	15.5
Cooling Capacity (Min-Max)	Btu/h	9.000 (2.800-10.900)	12.000 (3.500-14.600)	9.000 (3.100 - 9.600)	12.000 (3.100-13.000)	18.000 (7.100-20.000)	24.000 (6.800-27.300)	28.000 (9.500-30.000)	33.600 (7.400-36.000)
Heating Capacity (Min-Max)	Btu/h	9.900 (2.100-14.000)	12.200 (2.800-16.600)	11.000 (1.900-12.000)	13.000 (2.400-14.000)	19.800 (7.300-23.500)	23.000 (6.800-30.700)	28.400 (10.000-33.000)	34.600 (15.000-36.000)
SEER/EER		23 / 12.9	22 / 12.5	23 / 14.3	22 / 13.0	20 / 12.5	20 / 12.5	16 / 10.1	16 / 9.2
HSPF/COP		10.5 10.7	10.20 / 12.3	10.5 / 10.8	10.1 / 11.8	10.0 / 11.5	10.0 / 11.5	8.2 / 9.9	8.2 / 9.7
Indoor Unit									
Air Flow	CFM	377/288/241/171	400/288/241/171	377/289/242/171	400/288/241/171	559/488/412/335	706/647/588/530	706/677/647	824/706/677
Sound Pressure Level - T/H/M/L	db (A)	43/38/32/26	45/40/34/28	43/39/35/29	45/39/35/29	47/43/39/35	48/44/40/36	-/57/54/48	-/59/56/53
Unit Dimension (WxHxD)	linches	33.3 x 11.1 x 8.2	33.4 x 11.1 x 8.2	33.3 x 11.1 x 8.2	33.3 x 11.1 x 8.2	38.2 x 11.8 x 8.8	42.4 x 12.8 x 9.7	53.1 x 12.8 x 10.0	53.1 x 12.8 x 10.0
Package Dimension (WxHxD)	inches	36.3 x 11.4 x 14.9	36.3 x 11.4 x 14.9	36.3 x 11.4 x 14.9	36.3 x 11.4 x 14.9	41.0 x 15.0 x 12.6	45.2 x 16.3 x 13.8	56.7 x 16.6 x 14.0	56.7 x 16.6 x 14.0
Net / Gross Weight	lb	23 / 28	23 / 28	22 / 27	22 / 27	28 / 34	34 / 42	44 / 60	44 / 60
Outdoor Unit									
Compressor Type		DC Inverter-driven rotary							
Sound Pressure Level	db (A)	53	53	53	54	55	59	62	65
Unit Dimension (WxHxD)	inches	33.4 x 21.3 x 12.6	33.4 x 21.3 x 12.6	33.4 x 21.3 x 12.6	33.4 x 23.6 x 12.6	38.0 x 27.6 x 15.6	38.6 x 31.1 x 16.8	38.6 x 31.1 x 16.8	38.6 x 31.1 x 16.8
Package Dimension (WxHxD)	inches	34.7 x 23.4 x 14.3	34.7 x 23.4 x 14.3	34.7 x 23.4 x 14.3	34.7 x 25.4 x 14.3	40.5 x 29.5 x 18.3	42.6 x 33.7 x 19.2	42.6 x 33.7 x 19.2	42.6 x 33.7 x 19.2
Net / Gross Weight	lb	72 / 77	77 / 84	78 / 84	86 / 93	106/116	142/153	154/163	161 /170
Refrigerant / Charge	oz.	R410A / 42.3	R410A / 47.6	R410A / 45.9	R410A / 47.6	R410A / 60.0	R410A / 77.6	R410A / 84.7	R410A / 91.7
Line Set Size (Liquid - Suction)	inches	1/4" - 3/8"	1/4" - 1/2"	1/4" - 3/8"	1/4" - 1/2"	1/4" - 5/8"	1/4" - 5/8"	1/4" - 5/8"	1/4" 5/8"
Pre-Charge	Feet	25	25	25	25	25	25	25	25
Max. Line Run	Feet	50	66	50	66	82	82	98	98
Max. Elevation	Feet	33	33	33	33	33	33	33	33
MCA	Amps	12	15	9	9	16	20	20	24
MOCP	Amps	20	25	15	15	25	30	30	40
Wire Size / # Wires		AWG12 / 4		AWG16 / 4		AWG14 / 4	AWG12 / 4	AWG10 / 2	AWG8 / 2

ALICE series



Model		*GWH09KF-A3DNB4A	GWH12KF-A3DNB4A	GWH09KF-D3DNB4F	GWH12KF-D3DNB4F	GWH18KG-D3DNB4F	GWH24KG-D3DNB4A
System Type		Heat Pump					
Power Supply		115V/60Hz	115V/60HZ	208-230V / 60Hz	208-230V / 60Hz	208-230V / 60Hz	208-230V / 60Hz
Rated Current Cooling		9.0	15.0	3.9	5.4	8.3	11.5
Rated Current Heating		9.5	15.5	3.4	5.1	11.8	13.0
System Performance							
Cooling Capacity (Min-Max)	Btu/h	9.000 (3.500-11.000)	11.800 (3.300-12.500)	9.000 (3.800-11.500)	12.000 (3.300-12.500)	18.000 (4.500-21.000)	24.000 (6.400-24.000)
Heating Capacity (Min-Max)	Btu/h	9.800 (2.500-11.000)	13.000 (3.400-13.500)	9.000 (3.300-11.500)	12.000 (3.400-12.500)	19.200 (4.000-23.000)	24.200 (4.100-26.600)
SEER/EER		16/12.0	16/9.40	16/10.2	16/9.8	16/10.6	16/10.0
HSPF/COP		8.60/12.0	8.60/9.8	8.5/11.7	8.5/11.4	8.5/8.0	9.5/9.0
Indoor Unit							
Air Flow	CFM	330/277/224/188	341/288/235/200	330/277/224/188	341/288/235/200	471/400/330/271	589/441/306/206
Sound Pressure Level - T/H/M/L	db (A)	41/37/35/32	43/39/35/32	43/38/32/26	44/39/33/28	48/43/38/34	49/43/39/34
Unit Dimension (WxHxD)		30.3 x 11.1 x 7.9	30.3 x 11.1 x 7.9	30.3 x 11.1 x 7.9	30.3 x 11.1 x 7.9	34.1 x 12.0 x 8.5	40.1 x 12.4 x 8.7
Package Dimension (WxHxD)		33.4 x 13.6 x 10.9	33.4 x 13.6 x 10.9	33.8 x 11.4 x 14.8	33.8 x 11.4 x 14.8	37.3 x 15.1 x 12.2	42.4x15.7x12.9
Net / Gross Weight		19/23	19/23	19/25	20/27	24/31	33/44
Outdoor Unit							
Compressor Type		DC Inverter-driven rotary					
Sound Pressure Level	db (A)	53	55	49	52	56	53
Unit Dimension (WxHxD)	inches	33.4 x 21.3 x 12.6	33.4 x 21.3 x 12.6	28.0 x 21.3 x 12.5	28.0 x 21.3 x 12.5	37.6 x 27.6 x 15.6	37.6 x 27.6 x 15.6
Package Dimension (WxHxD)	inches	34.7 x 23.4 x 14.3	34.7 x 23.4 x 14.3	30.5 x 23.9 x 13.8	30.5 x 23.9 x 13.8	40.5 x 29.5 x 18.5	40.5 x 29.5 x 18.0
Net / Gross Weight		69/77	69/77	62/68	66/73	104/114	115/126
Refrigerant / Charge		R410A / 35.3	R410A / 35.3	R410A / 26.1	R410A / 35.3	R410A / 52.9	R410A / 54.7
Line Set Size (Liquid - Suction)		1/4" - 3/8"	1/4"-3/8"	1/4"-3/8"	1/4"-3/8"	1/4" - 1/2"	1/4" - 1/2"
Pre-Charge		25	25	25	25	25	25
Max. Line Run		50	50	50	50	82	82
Max. Elevation	Feet	33	33	33	33	33	33
MCA	Amps	12	15	10	10	15	17
MOCP	Amps	20	25	15	15	25	25
Wire Size / # Wires		AWG12/4		AWG16/4		AWG14/4	AWG12/4

FM series

Outdoor Unit HP Inverter		GWHD(18)ND3E0	GWHD(24)ND3E0	GWHD(30)ND3E0	GWHD(36)ND3E0	GWHD(42)ND3E0
S ystem Type		Heat Pump				
Cooling Capacity (Min-Max)	Btu/h	18.000 (7.000-21.000)	26.000(7.500-33.000)	29.000(8.200-33.400)	34.000(8.870-35.820)	39.000(8.880-40.940)
Heating Capacity (Min-Max)	Btu/h	19.000(8.530-22.600)	29.000(7.500-35.000)	31.600(8.800-32.400)	42.500(8.880-44.350)	45.000(8.870-46.060)
Power Supply		208-230V/60Hz	208-230V/60Hz	208-230V/60Hz	208-230V/60Hz	208-230V/60Hz
Rated Current Cooling	amp	7.3	12.2	10.5	19.2	19.5
Rated Current Heating	amp	7.1	10.3	10.7	15.8	20.5
Operation Range - Cooling	deg F	0 - 118	0 - 118	0 - 118	0 - 118	0 - 118
Operation Range - Heating	deg F	-4~75	-4~75	-4~86	-4~86	-4~86
Compressor Type		DC Inverter-driven Twin rotary				
Sound Pressure Level	db (A)	56	59	59	61	61
Unit Dimension (WxHxD)	inch	37.6x27.6x15.6	38.6x31.1x16.8	38.6x31.1z17.3	42.8x43.5x17.3	42.8x43.5x17.3
Package Dimension (WxHxD)	inch	40.5x29.5x18.0	42.6x33.7x19.2	42.6x33.7x19.2	46.2x48.6x19.4	46.2x48.6x19.4
Net / Gross Weight	lbs	114/124	153/164	145/155	199/216	199/216
Condenser Coil type		Copper/Aluminum with GOLD FIN Coating				
Indoor Units		2	3	4	5	5
Refrigerant / Charge	oz.	R410A/56.4	R410A/77.6	R410A/98.8	R410A/128.8	R410A/128.8
Port Size (Liquid-Suction)	inch	∅1/4- ∅3/8	∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8
		∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8
			∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8
				∅1/4-∅3/8	∅1/4-∅3/8	∅1/4-∅3/8
					∅1/4-∅3/8	∅1/4-∅3/8
Pre-Charge Piping Length	ft	33	98	131	131	131
Additional Refrigerant harge	oz./ft	0.2	0.2	0.2	0.2	0.2
Max. Total Piping Length	ft	66	198	230	248	248
Max. Equivalent Length (Outdoor to last Indoor Unit)	ft	33	66	82	82	82
Max. Elevation (Outdoor t o Indoor Unit)	ft	33	33	50	50	50
MCA	amp	13	20	26	28	29
MOCP	amp	25	35	45	45	50

CEILING CASSETTE

Ceiling Cassette Indoor Unit		GKH(12)BA-D3DNA2A/I	GKH(18)BA-D3DNA2A/I	GKH(24)BA-D3DNA2A/I
System Type		Heat Pump		
Nominal Capacity- Cooling	Btu/h	11.946	15.359	22.867
Nominal Capacity- Heating	Btu/h	13.652	17.065	27.304
Power Supply		208~230V/60Hz	208~230V/60Hz	208~230V/60Hz
Airflow - H/M/L	CFM	353/292/251	353/292/251	694/509/456
Sound Pressure Level - H/M/L	Db (A)	46/44/42	46/44/42	39/37/35
Unit Dimension (WxHxD)	inch	22.5 x 22.5 x 9	22.5 x 22.5 x 9	33 x 33 x 9.5
Package Dimension (WxHxD)	inch	33.5 x 29 x 13	33.5 x 29 x 13	38x 38 x 13
Net / Gross Weight	lbs	40/51	40/51	62/77
Piping Connections: Gas/Suction	inch	∅ 3/8	∅ 1/2	∅ 5/8
Piping Connections: Liquid	inch	∅ 1/4	∅ 1/4	∅ 3/8
		Decorative Discharge Grille		
Part Number - Discharge Grille		CASGRILLE1SM	CASGRILLE1SM	CASGRILLE1LG
Unit Dimension (WxHxD)	inch	25.5 x 25.5 x 2	25.5 x 25.5 x 2	37.5 x 37.5 x 2.5
Package Dimension (WxHxD)	inch	29 x 26.5 x 4.5	29 x 26.5 x 4.5	41 x 40.5 x 5
Net / Gross Weight	lbs	6/8	6/8	6.5/10

MINI FLOOR CONSOLE

Console Indoor Unit		GEH(09)AA-D3DNA1C/I	GEH(12)AA-D3DNA1C/I	GEH(18)AA-D3DNA1C/I
System Type		Heat Pump		
Nominal Capacity- Cooling	Btu/h	8.874	11.946	18.089
Nominal Capacity- Heating	Btu/h	9.556	12.969	19.795
Power Supply		208~230V/60Hz	208~230V/60Hz	208~230V/60Hz
Airflow - H/M/L	CFM	294/194/147	353/235/165	383/265/188
Sound Pressure Level - H/M/L	db(A)	40/30/25	43/35/27	48/37/33
Unit Dimension (WxHxD)	inch	27.5 x 24 x 8.5	27.5 x 24 x 8.5	27.5 x 24 x 8.5
Package Dimension (WxHxD)	inch	31 x 28 x 11	31 x 28 x 11	31 x 28 x 11
Net / Gross Weight	lbs	30/40	30/40	30/40
Piping Connections: Gas/Suction	inch	∅ 3/8	∅ 3/8	∅ 1/2
Piping Connections: Liquid	inch	∅ 1/4	∅ 1/4	∅ 1/4

FREE MATCH WALL MOUNT

Victoria Indoor unit INVERTER		GWH09QC-D3DNA1D/I	GWH12QC-D3DNA1D/I	GWH18QD-D3DNA1G/I
System type		Heat Pump		
Nominal Capacity - Cooling	Btu/h	9.000	12.000	18.000
Nominal Capacity - Heatling	Btu/h	11.000	13.000	19.800
Power Supply		208-230V/60Hz		
Running Current	amp	0.17	0.17	0.32
Airflow-T/H/M/L	CFM	337/289/242/171	400/288/241/171	559/488/412/335
Sound Pressure Level - T/H/M/L	dB(a)	43/39/35/29	45/39/35/29	47/43/39/35
Unit Dimension (WxHxD)	inch	33.3x11.1x8.2		38.2x11.8x8.8
Package Dimension (WxHxD)	inch	36.3x11.4x14.9		41.0x15.0x12.6
Net / GrossWeight	lbs	22/27		28/34
Piping Connections (Liquid – Gas/Suction)	inch	∅1/4- ∅3/8	∅1/4- ∅1/2	∅1/4- ∅5/8

SLIM DUCT

Slim Duct Indoor Unit		GFH(09)EA-D3DNA1A/I	GFH(12)EA-D3DNA1A/I	GFH(18)EA-D3DNA1A/I	GFH(24)EA-D3DNA1A/I
System Type		Heat Pump			
Nominal Capacity- Cooling	Btu/h	8.533	11.946	15.359	24.232
Nominal Capacity- Heating	Btu/h	9 556	13.140	18.772	27.304
Power Supply		208-230V/60Hz			
Airflow - H/M/L	CFM	265/177/147	394/235/177	412/353/294	589/441/324
Sound Pressure Level - H/M/L	db(A)	37/34/31	39/35/32	41/37/33	42/38/34
Unit Dimension (WxHxD)	inch	27.5 x 24 x 7.87	27.5 x 24 x 7.9	35.5 x 24 x 7.9	43.5 x 24 x 7.9
Package Dimension (WxHxD)	inch	35 x 29 x 12	35 x 29 x 12	44 x 29 x 12	52 x 29 x 12
Net / Gross Weight	lbs	49/60	51/64	60/79	68/90
Piping Connections: Gas/ Suction	inch	∅ 3/8	∅ 3/8	∅ 1/2	∅ 5/8
Liquid	inch	∅ 1/4	∅ 1/4	∅ 1/4	∅ 3/8

FM series
Matching combinations and capacities

GWHD(18)ND3EO 4 Combinations

One unit	*Two units*
9	*9+9*
12	*9+12*
	12+12

GWHD(24)ND3EO 11 Combinations

Two units		*Three units*	
9+9	*9+12*	*9+9+9*	*9+12+12*
9+18	*12+12*	*9+9+12*	*9+9+18*
12+18	*18+18*	*12+12+12*	

GWHD(30)ND3EO 16 Combinations

Two units		*Three units*			*Four units*	
9+9	*9+12*	*9+9+9*	*9+9+12*	*9+9+18*	*9+9+9+9*	*9+9+9+12*
9+18	*12+12*	*9+12+12*	*9+12+18*	*12+12+12*	*9+9+12+12*	
12+18	*18+18*	*12+12+18*				

*GWHD(36)ND3EO 36 Combinations**

Two units		*Three units*			*Four units*		*Five units*	
9+9	*12+18*	*9+9+9*	*9+12+18*	*12+12+12*	*9+9+9+9*	*9+9+12+18*	*9+9+9+9+9*	*9+9+9+9+12*
9+12	*12+24*	*9+9+12*	*9+12+24*	*12+12+18*	*9+9+9+12*	*9+9+18+18*		
9+18	*18+18*	*9+9+18*	*9+18+18*	*12+12+24*	*9+9+9+18*	*9+12+12+12*		
9+24	*18+24*	*9+9+24*	*9+18+24*	*12+18+18*	*9+9+9+24*	*9+12+12+18*		
12+12	*24+24*	*9+12+12*		*18+18+18*	*9+9+12+12*	*12+12+12+12*		

** 24K size is reserved for ceiling cassettes, conceiled ducts, and oor/ceiling units only not wall mount units.*

*GWHD(42)ND3EO 57 Combinations **

Two units		*Three units*			*Four units*			*Five units*	
9+12	*12+24*	*9+9+9*	*9+12+24*	*12+12+24*	*9+9+9+9*	*9+9+12+24*	*9+12+18+18*	*9+9+9+9+9*	*9+9+9+18+18*
9+18	*18+18*	*9+9+12*	*9+18+18*	*12+18+18*	*9+9+9+12*	*9+9+18+18*	*9+18+18+18*	*9+9+9+9+12*	*9+9+12+12+12*
9+24	*18+24*	*9+9+18*	*9+18+24*	*12+18+24*	*9+9+9+18*	*9+9+18+24*	*12+12+12+12*	*9+9+9+9+18*	*9+9+12+12+18*
12+12	*24+24*	*9+9+24*	*9+24+24*	*12+24+24*	*9+9+9+24*	*9+12+12+12*	*12+12+12+18*	*9+9+9+9+24*	*9+12+12+12+12*
12+18		*9+12+12*	*12+12+12*	*18+18+18*	*9+9+12+12*	*9+12+12+18*	*12+12+12+24*	*9+9+9+12+12*	*9+12+12+12+18*
		9+12+18	*12+12+18*	*18+18+24*	*9+9+12+18*	*9+12+12+24*	*12+12+18+18*	*9+9+9+12+18*	*12+12+12+12+12*

** 24K size is reserved for ceiling cassettes, conceiled ducts, and oor/ceiling units only not wall mount units.*

ARCTIC INVERTER series

Model			CH-S09FTXLA	CH-S12FTXLA	CH-S18FTXLA	CH-S24FTXLA
Capacity	Cold/Warm	kW	2.60(0.44-3.26)/2.80(0.44-4.20)	3.50(0.60-4.05)/3.67(0.60-5.25)	5.13 (1.05-6.50)/5.275(1.00-7.00)	6.70(1.50-7.00)/7.25(1.20-7.80)
Electric power supply			~220-240V/50Hz/1Ph			
Rated input	Cold/Warm	kW	0.59(0.20-1.35)/0.61(0.20-1.45)	0.80(0.22-1.45)/0.79(0.22-1.55)	1.28(0.36-2.50)/1.16(0.35-2.60)	1.56(0.35-2.50)/1.73(0.35-2.70)
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	4.41/4.59	4.38/4.65	4.01/4.55	4.29/4.19
SEER*/SCOP** (energy performance class)			6.1(A++)/5.1(A+++)	6.1(A++)/5.1(A+++)	6.1(A++)/5.4(A+++)	6.3(A++)/5.1(A+++)
Air productive capacity			560/490/430/330	660/540/460/330	800/720/610/520	1150/1000/900/800
Sound-pressure level	indoor unitave/ maxoutdoor unit	dB(A)	22/25/34/39 50	22/27/36/42 52	27/32/38/46 54	29/32/40/48 55
Type of refrigerant coolant			R410A			
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	790x275x200/776x540x320	845x289x209/776x540x320	970x300x224/963x700x396	1078x325x246/963x700x396
Weight	indoor unit/outdoor	kg	9/28	10/29	13.5/45	17/53
Compressor type			rotor	rotor	rotor	rotor
Drainage		l/h	0.80	1.40	1.80	2.10
Operational temperature range cooling		°C	-15/+48			
Operational temperature range heating		°C	-25/+24			
Gas charge volume		kg	0.70	0.85	1.30	1.90
Liquid pipeline diameter		mm/inch	6.38/1/4"			
Gas pipeline diameter		mm/inch	9.53/3/8"		12.7/1/2"	15.88/5/8"
Maximum pipeline level difference		m	10	10	10	10
Pipeline maximum length		m	15	20	25	25
Distance between the bolts of the outdoor unit fastening		mm	510	510	560	560
Power supply			Outdoor unit			

** SEER – Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

ALPHA series

Model			CH-S09FTXE	CH-S12FTXE	CH-S18FTXE	CH-S24FTXE
Capacity	Cold/Warm	kW	2.60(0.44-3.00)/2.80 (0.60-3.20)	3.50 (0.60-3.60)/3.60 (0.60-3.80)	5.0(0.65-5.20)/5.30(0.70-5.28)	6.70(2.00-8.20)/7.25(2.00-8.50)
Electric power supply			~ 220-240V/50Hz/1Ph			
Rated input	Cold/Warm	kW	0.718(0.12-1.30)/0.733(0.12-1.40)	0.972(0.12-1.40)/0.942(0.12-1.50)	1.43(0.15-1.86)/1.38(0.16-1.68)	1.875(0.40-3.70)/1.945(0.45-3.80)
Energy performance	EER (Cold)/ C.O.P.(Warm)	kW/kW	3.62/3.82	3.60/3.82	3.50/3.84	3.57/3.73
SEER*/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++)/4.6(A++)
Air productive capacity			210/320/370/480	290/410/480/560	520/610/720/850	850/950/1000/1100
Sound-pressure level	indoor unitave/ maxoutdoor unit	dB(A)	23/26/35/38 49	24/28/37/40 51	28/33/39/44 54	30/33/40/45 60
Type of refrigerant coolant			R410A			
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	790x275x200/776x540x320	790x275x200/842x596x320	970x300x224/842x596x320	1078x325x246/963x700x396
Weight	indoor unit/outdoor	kg	9/26.5	9/31	13.5/33.5	17/53
Compressor type			rotor	rotor	rotor	rotor
Drainage		l/h	0.8	1.4	1.8	2.0
Operational temperature range cooling		°C	-24/+48			
Operational temperature range heating		°C	-15/+24			
Gas charge volume		kg	0.7	0.85	1.2	1.9
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	9.52/3/8"	9.52/3/8"	9.52/3/8"	15.88/5/8"
Maximum pipeline level difference		m	10	10	10	10
Pipeline maximum length		m	15	20	20	25
Distance between the bolts of the outdoor unit fastening		mm	510	540	540	560
Power supply			Outdoor unit			

** SEER - Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

WINNER series

Model			CH-S09FTX5	CH-S12FTX5	CH-S18FTX5	CH-S24FTX5
Capacity	Cold/Warm	kW	2.60(0.44-3.00)/2.80 (0.60-3.20)	3.50 (0.60-3.60)/3.60 (0.60-3.80)	5.0(0.65-5.20)/5.30(0.70-5.28)	6.70(2.00-8.20)/7.25(2.00-8.50)
Electric power supply			~ 220-240V/50Hz/1Ph			
Rated input	Cold/Warm	kW	0.718(0.12-1.30)/0.733(0.12-1.40)	0.972(0.12-1.40)/0.942(0.12-1.50)	1.43(0.15-1.86)/1.38(0.16-1.68)	1.875(0.40-3.70)/1.945(0.45-3.80)
Energy performance	EER (Cold)/ C.O.P.(Warm)	kW/kW	3.62/3.82	3.60/3.82	3.50/3.84	3.57/3.73
SEER*/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++)/4.6(A++)
Air productive capacity			210/320/370/480	290/410/480/560	520/610/720/850	850/950/1000/1100
Sound-pressure level	indoor unit (m/ave/ma) outdoor unit	dB(A)	23/26/35/38 49	24/28/37/40 51	28/33/39/44 54	30/33/40/45 60
Type of refrigerant coolant			R410A			
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	790x275x200/776x540x320	790x275x200/842x596x320	970x300x224/842x596x320	1078x325x246/963x700x396
Weight	indoor unit/outdoor unit	kg	9/26.5	9/31	13.5/33.5	17/53
Compressor type			rotor	rotor	rotor	rotor
Drainage		l/h	0.8	1.4	1.8	2.0
Operational temperature range cooling		°C	-24/+48			
Operational temperature range heating		°C	-15/+24			
Gas charge volume		kg	0.7	0.85	1.2	1.9
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	9.52/3/8"	9.52/3/8"	9.52/3/8"	15.88/5/8"
Maximum pipeline level difference		m	10	10	10	10
Pipeline maximum length		m	15	20	20	25
Distance between the bolts of the outdoor unit fastening		mm	510	540	540	560
Power supply			Outdoor unit			

** SEER - Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

NORDIC series

Model			CH-S09FTXN	CH-S12FTXN	CH-S18FTXN	CH-S24FTXN
Capacity	Cold/Warm	kW	2.70(0.44-3.26)/3.60(0.44-4.20)	3.60(0.60-4.05)/4.12(0.60-5.25)	5.30 (1.05-6.50)/5.70(1.00-7.00)	6.45(1.50-7.00)/7.00(1.20-7.80)
Electric power supply			~220-240V/50Hz/1Ph			
Rated input	Cold/Warm	kW	0.68 (0.20-1.35)/0.87(0.20-1.45)	0.90 (0.22-1.45)/0.99(0.22-1.55)	1.31 (0.36-2.50)/1.35(0.35-2.60)	1.85 (0.35-2.50)/1.98(0.35-2.70)
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	3.97/4.20	4.00/4.20	4.05/4.22	3.49/3.54
SEER*/SCOP** (energy performance class)			7.4(A++)/4.63(A++)	7.1(A++)/4.7(A++)	7.1(A++)/4.6(A++)	6.5(A++)/4.3(A+)
Air productive capacity		m^3/h	520	560	800	1000
Sound-pressure level	indoor unit/outdoor unit	dB(A)	24/28/34 51	25/29/36 53	29/34/38 54	31/35/40 55
Type of refrigerant coolant			R410A			
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	770x283x201/710x550x318	770x283x201/710x550x318	865x305x215/899x596x378	1008x319x221/955x700x396
Weight	indoor unit/outdoor unit	kg	8/28	9/30	12/52	15/55
Compressor type			rotor	rotor	rotor	rotor
Drainage		l/h	0.80	1.40	1.80	2.00
Operational temperature range cooling		°C	+18/+48			
Operational temperature range heating		°C	-20/+24			
Gas charge volume		kg	0.77	1.00	1.10	1.40
Liquid pipeline diameter		mm/inch	6.38/1/4''	6.38/1/4''	6.38/1/4''	6.38/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	9.53/3/8''	12.7/1/2''	12.7/1/2''
Maximum pipeline level difference		m	10	10	10	10
Pipeline maximum length		m	15	15	25	25
Distance between the bolts of the outdoor unit fastening		mm	470	470	550	560

** SEER - Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

EVOLUTION series

Model			CH-S07XP4	CH-S09XP4	CH-S12XP4
Capacity	Cold/Warm	kW	2.26/2.43	2.70/2.85	3.25/3.40
Electric power supply			~ 220-240V/50Hz/1Ph	~ 220-240V/50Hz/1Ph	~ 220-240V/50Hz/1Ph
Rated input	Cold/Warm	kW	0.69/0.66	0.82/0.78	1/0.97
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	3.28/3.68	3.29/3.65	3.25/3.51
Air productive capacity		m^3/h	400	400	550
Sound-pressure level	indoor unit (min/ave/max)/ outdoor unit	dB(A)	24/27/31 49	26/31/33 49	29/33/35 50
Type of refrigerant coolant				R-410A	
Dimensions (W/H/D)	indoor unit/outdoor unit	mm	730x254x184/720x428x310	730X254X184/720X428X310	848X274X189/776X540X320
Weight	indoor unit/outdoor unit	kg	8/22	8/26	10/31
Drainage		l/h	0.60	0.80	1.20
Operational temperature range cooling		°C		+18/+43	
Operational temperature range heating		°C		-7/+24	
Weight of refrigerant coolant		kg	0.61	0.75	0.80
Liquid pipeline diameter		mm/inch	6.38/1/4''	6.38/1/4''	6.38/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	9.53/3/8''	9.53/3/8''
Maximum pipeline level difference		m	5	10	10
Pipeline maximum length		m	15	15	20
Distance between the bolts of the outdoor unit fastening		mm	440	440	510

** SEER – Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

INVERTER CONSOL series

Model			CH-S09FVX	CH-S12FVX	CH-S18FVX
Capacity	Cold/Warm	kW	2.60 (0.45-3.20)/3.30 (0.45-3.75)	3.52 (0.60-3.95)/4.00 (0.60-4.70)	5.27 (0.90-5.60)/5.50 (0.90-6.60)
Electric power supply				~ 220-240V/50Hz/1Ph	
Rated input	Cold/Warm	kW	0.66 (0.20-1.55)/0.81 (0.20-1.35)	0.98 (0.22-1.70)/1.00(0.22-1.50)	1.42 (0.35-2.50)/1.53(0.35-2.50)
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	3.93/4.10	3.6/4	3.46/3.87
SEER*/SCOP**			6.5 (A++)/4.6 (A++)	6.3 (A++)/4.6 (A++)	5.8 (A+)/4.2 (A+)
Air productive capacity		m^3/h	500	600	650
Sound-pressure level	indoor unit (min/ave/max)/ outdoor unit	dB(A)	22/24/26/29/32/34/37 50	24/26/28/30/32/35/38 51	28/30/32/34/36/38/40 53
Type of refrigerant coolant				R410A	
Dimensions(width/height/depth)	indoor unit / outdoor unit	mm	700x600x215/776x540x320	700x600x215/848x540x320	700x600x215/963x700x396
Weight	indoor unit / outdoor unit	kg	15/32	15/34	15/45
Compressor type			rotor	rotor	rotor
Drainage		l/h	0.8	1.8	2
Operational temperature range cooling		°C		-15/+43	
Operational temperature range heating		°C		-25/+24	
Weight of refrigerant coolant		kg	0.9	1.15	1.3
Liquid pipeline diameter		mm/inch	6.38/1/4''	6.38/1/4''	6.38/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	9.53/3/8''	12.7/1/2''
Maximum pipeline level difference		m	10	10	10
Pipeline maximum length		m	15	15	25
Distance between the bolts of the outdoor unit fastening		mm	510	540	560

** SEER – Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

INVERTER series

Model			CH-S09FTXG	CH-S12FTXG	CH-S18FTXG	CH-S24FTXG
Capacity	Cold/Warm	kW	2.70(0.44-3.26)/3.60(0.44-4.20)	3.60(0.60-4.20)/4.12(0.60-5.25)	5.30 (1.05-6.50/5.70(1.00-7.00)	6.45(1.50-7.00)/7.00(1.20-7.80)
Electric power supply			~ 220-240V/50Hz/1Ph			
Rated input	Cold/ Warm	kW	0.68 (0.20-1.35)/0.87(0.20-1.45)	0.90 (0.22-1.45)/0.99(0.22-1.55)	1.31 (0.36-2.50)/1.35(0.35-2.60)	1.85 (0.35-2.50)/1.98(0.35-2.70)
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	3.97/4.2	4.00/4.20	4/4.2	3.78/3.9
SEER*/SCOP**(energy efficiency ratio)			7.1(A++)/4.7(A++)	7.1(A++)/4.7(A++)	7.1(A++)/4.6(A++)	6.5(A++)/4.3(A+)
Air productive capacity		m^3/h	520/370/280	560/410/300	800/680/560	1000/800/700
Sound-pressure level	indoor unit (min/ave/max)/	dB(A)	24/28/34	25/29/36	29/34/38	31/35/40
	outdoor unit	dB(A)	51	53	54	55
Type of refrigerant coolant			R410A			
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	770x283x201/710x550x318	770x283x201/710x550x318	865x305x215/955x700x396	1008x319x221/955x700x396
Weight	indoor unit/outdoor unit	kg	8/28	9/30	12/52	15/55
Compressor type			rotor	rotor	rotor	rotor
Drainage		l/h	1.0	1.2	1.8	2.0
Operational temperature range cooling		°C	+18/+48			
Operational temperature range heating		°C	-15/+24			
Gas charge volume		kg	0.74	1.0	1.16	1.7
Liquid pipeline diameter		mm/inch	6.38/1/4''	6.38/1/4''	6.38/1/4''	6.38/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	9.52/3/8''	12.7/1/2''	12.7/1/2''
Maximum pipeline level difference		m	10	10	10	10
Pipeline maximum length		m	15	20	25	25
Distance between the bolts of the outdoor unit fastening		mm	470	470	560	560

** SEER - Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

AIR-MASTER series

Model			CH-S07RX4	CH-S09RX4	CH-S12RX4	CH-S18RX4	CH-S24RX4
Capacity	Cold/ Warm	kW	2.26/2.43	2.70/2.85	3.25/3.40	4.7/4.9	6.15/6.50
Electric power supply			~ 220-240V/50Hz/1Ph				
Rated input	Cold/ Warm	kW	0.69/0.66	0.82/0.78	1/0.97	1.46/1.43	1.9/1.9
Energy performance	EER (Cold)/ C.O.P. (Warm)	kW/kW	3.28/3.68	3.29/3.65	3.25/3.51	3.22/3.43	3.24/3.42
Air productive capacity		m^3/h	400	400	600	850	850
Sound-pressure level	indoor unit (min/ave/max)/ outdoor 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
Type of refrigerant coolant			R-410A				
Dimensions (width/height/depth)	indoor unit/outdoor unit	mm	730x254x184/720x428x310	730X254X184/720X428X310	848X274X189/776X540X320	945X298X211/848X540X320	945X298X211/913X680X378
Weight	indoor unit/outdoor unit	kg	8/22	8/26	10/29	13/40	13/50
Drainage		l/h	0.60	0.80	1.20	1.80	2.00
Operational temperature range cooling		°C	+18/43				
Operational temperature range heating		°C	-7/24				
Weight of refrigerant coolant		kg	0.61	0.75	0.80	1.15	1.45
Liquid pipeline diameter		mm/inch	6.38/1/4''	6.38/1/4''	6.38/1/4''	6.38/1/4''	6.38/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	9.53/3/8''	9.53/3/8''	12.7/1/2''	12.7/1/2''
Maximum pipeline level difference		m	5	10	10	10	10
Pipeline maximum length		m	15	15	20	25	25
Distance between the bolts of the outdoor unit fastening		mm	440	440	510	540	549

ECO PLAZMA series

Model			CH-S07LKP6 CH-S07MKP6 CH-S07BKP6	CH-S09LKP6 CH-S09MKP6 CH-S09BKP6	H-S12LKP6 H-S12MKP6 H-S12BKP6
Capacity	Cold/Warm	kW	2.26/2.43	2.70/2.85	3.25/3.40
Electric power supply			~ 220-240V/50Hz/1Ph	~ 220-240V/50Hz/1Ph	~ 220-240V/50Hz/1Ph
Rated input	Cold/Warm	kW	0.69/0.66	0.82/0.78	1/0.97
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	3.28/3.68	3.29/3.65	3.25/3.51
Air productive capacity		m^3/h	400	400	550
Sound-pressure level	indoor unit (min/ave/max)/ outdoor unit	dB(A)	24/27/31 49	26/31/33 49	29/33/35 50
Type of refrigerant coolant			R-410A		
Dimensions (W/H/D)	indoor unit /outdoor unit	mm	730x255x174/720x428x310	730X255X174/720X428X310	790X265X177/776X540X320
Weight	indoor unit/outdoor unit	kg	8/22	8/26	9/31
Drainage		l/h	0.60	0.80	1.20
Operational temperature range cooling		°C	18/43		
Operational temperature range heating		°C	-7/24		
Weight of refrigerant coolant		kg	0.61	0.75	0.80
Liquid pipeline diameter		mm/inch	6.38/1/4''	6.38/1/4''	6.38/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	9.53/3/8''	9.53/3/8''
Maximum pipeline level difference		m	5	10	10
Pipeline maximum length		m	15	15	20
Distance between the bolts of the outdoor unit fastening		mm	440	440	510

VIP INVERTER series

Model			CH-S09FTXHV-B	CH-S12FTXHV-B	CH-S18FTXHV-B
Capacity	Cold/ Warm	kW	2.60(0.38-4.4)/3.00(0.38-5.1)	3.50(0.39-4.8)/3.70(0.4-5.7)	5.30(0.85-6.77)/5.30(0.75-7.32)
Electric power supply			~220V/50 Hz/1Ph		
Rated input	Cold/ Warm	kW	0.52(0.075-1.30)/0.55(0.07-1.4)	0.76(0.08-1.5)/0.75(0.08-1.6)	1.40(0.2-2.0)/1.35(0.2-2.4)
Energy performance	EER/C.O.P.	kW	5.0/5.45	4.6/4.93	3.8/3.93
SEER*/SCOP** (energy performance class)			8.5(A+++)/5.1(A+++)	8.5(A+++)/5.1(A+++)	6.1(A++)/4.6(A++)
Air productive capacity		m^3/h	650/530/470/400/350/300/290	720/550/490/420/370/320/290	850/750/650/600/500/400/340
Sound-pressure level	indoor unit/(max-min)outdoor unit	dB(A)	37/34/32/28/24/21/18 45	40/38/34/32/28/24/20 50	46/42/40/36/32/27/22 56
Type of refrigerant coolant				R410A	
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	860x305x170/899x596x378	860x305x170/899x596x378	960x320x205/965x700x396
Weight	indoor unit/outdoor unit	kg	11.5/44.5	11.5/44.5	14/51
Compressor type			rotor	rotor	rotor
Drainage		l/h	0.80	1.40	1.80
Operational temperature range cooling		°C	-18/+54	-18/+54	-18/+54
Operational temperature range heating		°C	-30/+24	-30/+24	-30/+24
Gas charge volume		kg	1.3	1.3	1.65
Liquid pipeline diameter		mm/inch	6.35/1/4''	6.35/1/4''	6.35/1/4''
Gas pipeline diameter		mm/inch	12.7/1/2''	12.7/1/2''	12.7/1/2''
Maximum pipeline level difference		m	10	10	10
Pipeline maximum length		m	15	20	25
Distance between the bolts of the outdoor unit fastening		mm	550	550	560

** SEER – Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

ICY series

Model			CH-S09FTXTB-W	CH-S12FTXTB-W	CH-S18FTXTB-W	CH-S24FTXTB-W
Capacity	Cold/ Warm	kW	2.60(0.76-4.81)/3.00(0.82-5.50)	3.50(0.74-4.73)/4.00(0.83-6.33)	5.30(1.00-6.30)/5.40(1.00-7.14)	7.00(2.00-8.60)/7.30(1.90-9.00)
Electric power supply			~ 220-240V/50Hz/1Ph			
Rated input	Cold/ Warm	kW	0.60(0.24-1.87)/0.65(0.21-2.00)	0.90(0.20-1.58)/1.00(0.24-2.11)	1.51(0.40-2.45)/1.45(0.40-2.50)	2.00(0.45-3.20)/1.96(0.38-3.20)
Energy performance	EER(Cold)/ C.O.P. (Warm)	kW/kW	4.33/4.62	3.89/4.00	3.5/3.7	3.5/3.7
SEER*/SCOP** (energy performance class)			8.5(A+++)/5.1(A+++)	7.8(A++)/4.6(A++)	6.5(A++)/4.0(A+)	5.8(A+)/4.0(A+)
Air productive capacity		m^3/h	650/600/550/500/450/400/350	750/650/580/520/470/420/350	950/870/790/710/630/560/480	1200/1130/1060/990/920/850/780
Sound-pressure level	indoor unit/(max-min) outdoor uni)	dB(A)	20/24/28/32/34/36/43 54	20/24/28/32/34/36/43 54	30/34/38/40/42/44/46 56	32/37/42/44/46/50/51 58
Type of refrigerant coolant			R410A			
Dimensions(width/height/depth)	indoor unit/outdoor uni	mm	866x292x209/899x596x378	866x292x209/899x596x378	1018x319x230/955x700x396	1178x326x264/980x790x427
Weight	indoor unit/outdoor uni	kg	11/41	11/43	14/47.5	17.5/65
Compressor type			rotor			
Drainage		l/h	0.8	1.4	1.8	2.5
Operational temperature range cooling		°C	-15/+48	-15/+48	-15/+48	-15/+48
Operational temperature range heating		°C	-25/+24	-25/+24	-25/+24	-25/+24
Gas charge volume		kg	1.20	1.30	1.60	2.30
Liquid pipeline diameter		mm/inch	6.38/1/4''	6.38/1/4''	6.38/1/4''	6.38/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	12.7/1/2''	15.88/5/8''	15.88/5/8''
Maximum pipeline level difference		m	10	10	10	10
Pipeline maximum length		m	15	20	25	25

** SEER – Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

ARCTIC DESIGN series

Model			CH-S09FTXS-B	CH-S09FTXS-W	CH-S09FTXS-M
Capacity	Cold/Warm	kW	2.79(0.76-3.38)/2.9(0.68-3.97)	2.79(0.76-3.38)/2.9(0.68-3.97)	2.79(0.76-3.38)/2.9(0.68-3.97)
Electric power supply			~220-240V/50Hz/1Ph	~220-240V/50Hz/1Ph	~220-240V/50Hz/1Ph
Rated input	Cold/Warm	kW	0.57(0.2-1.20)/0.58(0.16-1.25)	0.57(0.2-1.20)/0.58(0.16-1.25)	0.57(0.2-1.20)/0.58(0.16-1.25)
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	4.85/4.95	4.85/4.95	4.85/4.95
SEER*/SCOP** (energy efficiency ratio)			8.6(A+++)/4.9(A++)	8.6(A+++)/4.9(A++)	8.6(A+++)/4.9(A++)
Air productive capacity		m^3/h	1400/1200/1100/1000/900/800/700		
Sound-pressure level	indoor unit (m/a/max)/outdoor unit	dB(A)	21/25/27/29/32/34/38 50	21/25/27/29/32/34/38 50	21/25/27/29/32/34/38 50
Type of refrigerant coolant			R410A		
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	896x320x159/776x540x320	896x320x159/776x540x320	896x320x159/776x540x320
Weight	indoor unit/outdoor unit	kg	11.5/29	11.5/29	11.5/29
Operational temperature range cooling		°C	+18/+48		
Operational temperature range heating		°C	-25/+24		
Liquid pipeline diameter		mm/inch	6/1/4''	6/1/4''	6/1/4''
Gas pipeline diameter		mm/inch	9.53/3/8''	9.53/3/8''	9.53/3/8''
Distance between the bolts of the outdoor unit fastening		mm	510		

Model			CH-S12FTXS-B	CH-S12FTXS-W	CH-S12FTXS-M
Capacity	Cold/Warm	kW	3.53(0.82-3.97)/3.97(0.74-4.56)	3.53(0.82-3.97)/3.97(0.74-4.56)	3.53(0.82-3.97)/3.97(0.74-4.56)
Electric power supply			~220-240V/50Hz/1Ph	~220-240V/50Hz/1Ph	~220-240V/50Hz/1Ph
Rated input	Cold/Warm	kW	0.77(0.36-1.30)/0.84(0.34-1.36)	0.77(0.36-1.30)/0.84(0.34-1.36)	0.77(0.36-1.30)/0.84(0.34-1.36)
Energy performance	EER (Cold)/C.O.P.(Warm)	kW/kW	4.61/4.71	4.61/4.71	4.61/4.71
SEER*/SCOP** (energy efficient rating)		kW/kW	8.6(A+++)/4.9(A++)	8.6(A+++)/4.9(A++)	8.6(A+++)/4.9(A++)
Air productive capacity		m^3/h	1400/1250/1150/1050/950/850/700		
Noise level	indoor unit/outdoor unit	dB(A)	23/25/28/31/34/36/39 52	23/25/28/31/34/36/39 52	23/25/28/31/34/36/39 52
Type of refrigerant coolant			R410A		
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	896x320x159/848x540x320	896x320x159/848x540x320	896x320x159/848x540x320
Weight	indoor unit/outdoor unit	kg	11.5/38	11.5/38	11.5/38
Operational temperature range cooling		°C	+18/+48		
Operational temperature range heating		°C	-25/+24		
Liquid pipeline diameter		mm/inch	6/1/4''	6/1/4''	6/1/4''
Gas pipeline diameter		mm/inch	12.7/1/2''	12.7/1/2''	12.7/1/2''
Distance between the bolts of the outdoor unit fastening		mm	540		

** SEER – Seasonal Energy Efficient Ratingin the cooling mode. ** SCOP – seasonal system capacity ratio in the heating mode.*

Series: Commercial, Duct type on/off

Model			CH-D18NK2/CH-U18NK2	CH-D24NK2/CH-U24NK2	CH-D36NK2/CH-U36NM2	CH-D48NK2/CH-U48NM2	CH-D60NK2/CH-U60NM2
Capacity	cold/warm	kW	5.00/5.40	7.00/7.40	10.00/11.50	14.00/15.00	16.00/18.00
Power supply			~ 220-240V/50Hz/1Ph	~ 220-240V/50Hz/1Ph	~ 380-415V/50Hz/3Ph	~ 380-415V/50Hz/3Ph	~ 380-415V/50Hz/3Ph
rated input	cold/warm	kW	2.00/1.90	2.50/2.30	3.60/3.30	5.00/4.70	5.60/5.50
Current rate	cold/warm	A	9.20/8.20	12.00/10.50	7.60/7.20	10.80/10.50	11.60/11.40
Energy efficiency	cold/warm	EER/COP	2.50/2.80	2.80/3.20	2.70/3.40	2.80/3.10	2.80/3.20
Air capacity		m^3/h	720/660/540/420	1260/1000/780/660	2100/2030/1860/1730	2300/2100/1750/1650	2500/2300/1900/1800
Pressure range	indoor unit	Pa	0-30	0-40	0-75	0-100	0-100
Sound-pressure level	indoor unit/outdoor unit	dB(A)	36/33/30/29 56	43/38/34/32 59	51/48/46/44 60	53/52/50/50 60	56/52/49/49 61
Refrigerant coolant type					R410a		
Dimensions (width/height/depth)	indoor unit/outdoor unit	mm	1015x275x720/955x700x395	1260x270x555/955x700x395	1230x290x790/980x790x425	1230x290x790/1120x1100x440	1235x330x830/980x1350x410
Weight	indoor unit/outdoor unit	kg	31/53	33/61	46/69	53/103	56/118
Refrigerant coolant volume		kg	1.30	1.50	2.20	3.70	4.10
Operational temperature range	cold/warm	°C	-15/+43/-10/+24	-15/+43/-10/+24	-15/+43/-10/+24	-15/+43/-10/+24	-15/+43/-10/+24
Fluid 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		12.70/1/2"	15.88/5/8"	19.05 / 3/4''	19.05 / 3/4''	19.05/3/4"
Maximum pipeline level difference		m	15	15	15	30	15
Maximum pipeline length		m	15	15	30	30	30
Distance between the fastening bolts of the outdoor unit		mm	560	560	610	631	572
Number of the interblock strands (for control)			2*0.75 – up to 20 m long	2*0.75 – up to 20 m long	2*1.0 – if longer than 20 m	2*1.0 – if longer than 20 m	2*1.0 – if longer than 20 m
Main power supply area			Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Number of strands (power supply)		indoor unitl	3(Ø1.0 mm)/	3(Ø1.0mm)/	3(Ø1.5mm)/	3(Ø1.5mm)/	3(Ø1.5mm)/
		outdoor unit	3Ø4.0 mm)	3(Ø4.0mm)	5(Ø2.5mm)	5(Ø4.0mm)	5(Ø4.0mm)
Factory freon fill (for the number of running meters)		r.m.	7	7	7	7	9.5
Quantity of freon per one running meter (surplus. for one running meter)		gramm/r.m.	22	54	110	110	110

Series: Commercial, Cassette type on/off

Model			CH-C18NK2 / CH-U18NK2	CH-C24NK2 /CH-U24NK2	CH-C36NK2 /CH-U36NM2	CH-C48NK2 /CH-U48NM2	CH-C60NK 2/ CH-U60NM2
Capacity	Cold/Warm	kW	5.00/5.40	7.00/7.60	10.00/11.00	13.20/14.50	15.50/18.00
Electric power supply			~220-240V/50Hz/1Ph		~380-415V/50Hz/1Ph		
Rated input	Cold / Warm	kW	2.00/1.90	2.50/2.30	3.60/3.30	4.80/5.20	6.00/5.30
Amperage	Cold / Warm	A	9.20/8.60	11.90/11.40	6.70/5.70	9.10/8.20	11.80/10.30
Energy performance	Cold / Warm	EER/COP	2.50/2.80	2.80/3.30	2.78/3.55	2.75/2.79	2.50/3.48
Air productive capacity		m^3/h.	720/640/580/520	1470/1300/1220/1170	1650/1610/1500/1300	1650/1610/1500/1300	1800/1750/1650/1450
Sound-pressure level	Indoor unit	dB(A)	50/49/47/46	49/48/47/46	52/47/46/43	52/47/46/43	53/51/49/47
	Outdoor unit		56	59	60	60	61
Type of refrigerant coolant					R410a		
Dimensions (W/H/D)	Indoor unit/ Panel of indoor unit/ Outdoor unit	mm	665/240/595 670/50/670 955/700/395	840/240/840 950/60/950 955/700/395	850/325/850 950/60/950 980/790/425	850/325/850 950/60/950 1120/1100/440	840/290/840 950/60/950 980/350/410
Weight	Indoor unit. /outdoor unit.	kg	20/53	27/61	32/60	34/112	37/118
Volume of refrigerant coolant		kg	1.3	1.5	2.2	3.7	4.1
Operationaltemperaturerange	Cold / Warm	°C	-15/+43 / -10/+24				
Liquid pipeline diameter		mm/cal	6.35/1/4"	9.53/3/8"	9.53/3/8"	12.70/1/2"	12.70/1/2"
Gas pipeline diameter		mm/cal	12.70/1/2"	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	15	15	30		
Distance between the bolts of the outdoor unit fastening		mm	540	572	572	572	572
Number of interblock strands (for control)			2*0.75–up to 20 m		2*1.0 –if longer than 20 m		
Main power supply area			outdoor				
Nomber of the strands (power supply)			3(Ø1.0 mm)/ 3(Ø4.0 mm)	3(Ø1.0 mm)/ 3(Ø4.0 mm)	3(Ø1.0 mm)/ 5Ø2.5 mm)	3(Ø1.0 mm)/ 5(Ø4.0 mm)	3(Ø1.0 mm)/ 5(Ø4.0 mm)
Factory freon fill (for the nomber of the running)		m.b.	7				9.5
Freon per one running meter (surplus. per each running meter		gr/m.b.	22	54	110	110	110

COMMERCIAL AIR CONDITIONERS

Series: NORDIC Commercial, Duct type, inverter

Model			CH-ID09NK4 / CH-IU09NK4	CH-ID12NK4 / CH-IU12NK4	CH-ID18NK4 / CH-IU18NK4	CH-ID24NK4 / CH-IU24NK4	CH-ID30NK4 / CH-IU30NK4
Capacity	Cold/Warm	kW	2.7/2.9	3.50/3.80	5.0/5.6	7.00/8.00	8.3/9.2
Electric power supply			~220-240V/50Hz/1Ph				
Rated input	Cold/Warm	kW	0.84/0.8	1.17/1.05	1.55/1.55	2.18/2.21	2.67/2.57
Input rate	Cold	A	3.9	5.40	7.50	10.10	12.4
	Warm		3.7	4.90	7.40	10.20	12.0
Energy performance	Cold/Warm	EER/ COP	3.21/3.61	3.0/3.61	3.23/3.61	3.21/3.62	3.11/3.58
Air capability	Indoor unit	m^3/h	650	750	1000	1400	1400
Nominal pressure	Indoor unit	Pa	25	25	25	25	37
Pressure level	Indoor unit	Pa	0-30	0-35	0-35	0-75	0-75
Sound-pressure level	Indoor unit outdoor unit	dB(A)	36/34/28/26 52	37/36/34/28 52	40/39/36/28 56	47/46/44/40 57	47/46/44/40 58
Type of refrigerant coolant			R410A				
Refrigerant coolant		kg	1.2	1.2	1.4	2.2	2.4
Dimension (width/height/ depth)	Indoor unit/ outdoor unit	mm	925x665x250/ 848x320x540	1037x721x266/ 848x320x540	1037x721x266/ 955x396x700	1279x558x268/ 980x427x790	1279x558x268/ 980x427x790
Weight	Indoor unit/ outdoor unit	kg	27/34	33/34	33/47	34/67	34/71
Operational temperature range	Cold	°C	-15/+48				
	Warm	°C	-20/+24				
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''	12.70/ 1/2''	15.88/ 5/8''	15.88/ 5/8''
Maximum pipeline level difference		m	15				
Pipeline maximum length		m	20			30	
Quantity of interblock strands (for control)			2*0.75 – up to 20 m long				2*1.0 – if longer than 20 m
Main power supply arrea			outdoor.				
Quantity of the strands (powersupply outdoor/indoor)			3(Ø1.0 mm)/ 3(Ø1.5 mm)	3(Ø1.0 mm)/ 3(Ø1.5 mm)	3(Ø1.0 mm)/ 3(Ø2.5 mm)	3(Ø1.0 mm)/ 3(Ø2.5 mm)	3(Ø1.0 mm)/ 3(Ø2.5 mm)
Factory Freon fill (per the number of running meters)		m.	5				
Volumeoffreon.		gramm/ m.p.	30	30	30	60	60
SEER/SCOP			5.6/3.8	5.6/4.0	5.6/3.8	6.1/4.0	6.1/4.0

Model			CH-ID36NK4/ CH-IU36NM4	CH-ID42NK4/ CH-IU42NM4	CH-ID48NK4/ CH-IU48NM4	CH-ID60NK4/ CH-IU60NM4
Capacity	Cold/Warm	kW	10.00/12.00	11.50/13.50	14.00/15.50	16.00/16.50
Electric power supply			~380-415V/50PHz/3Ph			
Rated input	Cold/Warm	kW	3.12/3.32	4.0/3.9	5.1/4.5	5.6/4.57
Input rate	Cold	A	5.40	6.90	8.80	9.7
	Warm		5.80	6.70	7.80	7.9
Energy performance	Cold/Warm	EER/ COP	3.21/3.61	2.88/3.46	2.75/3.44	2.86/3.61
Air capability	Indoor unit	m^3/h	2100	2100	2400	3000
Nominal pressure	Indoor unit	Pa	37	37	50	50
Pressure level	Indoor unit	Pa	0-100	0-100	0-125	0-150
Sound-pressure level	Indoor unit outdoor unit	dB(A)	53/52/48/44 63	53/52/48/44 61	55/53/49/45 59	57/56/54/49 63
Type of refrigerant coolant			R410A			
Refrigerant coolant		kg	3.5	3.7	4.0	5.0
Dimension (width/height/ depth)	Indoor unit/ outdoor unit	mm	1226x775x290/ 1107x440x1100	1226x775x290/ 958x412x1349	1340x750x350/ 958x412x1349	1340/750/350 1085/427/1365
Weight	Indoor unit/ outdoor unit	kg	46/98	46/108	56/114	57/126
Operational temperature range	Cold	°C	-15/+48			
	Warm	°C	-20/+24			
Liquid pipeline diameter		mm/inch	9.53/ 3/8''	9.53/ 3/8''	9.53/ 3/8''	9.53/ 3/8''
Gas pipeline diameter		mm/inch	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	30	50		
Quantity of interblock strands (for control)			2*1.0 – if longer than 20 m			
Main power supply arrea			outdoor			
Quantity of the strands (powersupply outdoor/indoor)			3(Ø1.0 mm)/ 5(Ø1.5 mm)	3(Ø1.0 mm)/ 5(Ø2.5 mm)	3(Ø1.0 mm)/ 5(Ø2.5 mm)	3(Ø1.0 mm)/ 5(Ø2.5 mm)
Factory Freon fill (per the number of running meters)		m.	5		7.5	
Volumeoffreon.		gramm/ m.p.	60	60	60	60
SEER/SCOP			5.1/4.0	5.6/4.0	5.6/3.8	5.6/3.8

COMMERCIAL AIR CONDITIONERS

Series: NORDIC Commercial, Cassette type, inverter

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	Cold	kW	3.5	5.0	7.0	10.0	11.0	14.0	16.0
	Warm	kW	3.8	5.5	8.0	12.0	12.5	16.0	17.0
Electric power supply			~220-240V/50Hz/1Ph			~380-415V/50Hz/3Ph			
Rated input	Cold/	kW	1.09	1.6	2.18	3.12	3.9	5.15	5.7
	Warm		1.05	1.58	2.21	3.32	3.8	4.5	4.2
Current rate	Cold/	A	5	7.2	10.1	5.4	6.7	8.9	9.8
	Warm		4.9	7.6	10.2	5.8	6.6	7.8	8.2
Energy performance	Cold/	EER/ COP	3.21/	3.12/	3.21/	3.2/	2.82/	2.72/	2.81/
	Warm		3.61	3.48	3.61	3.6	3.29	3.56	3.6
Air productive capacity	indoor unit	m^3/h	700	760	1300	1860	1860	2300	2400
Sound-pressure level	indoor unit/ outdoor unit	dB(A)	46/45/41/36 52	47/46/44/37 56	47/46/42/38 57	51/49/46/43 63	51/49/46/43 61	53/52/47/41 59	55/53/47/46 63
Type of refrigerant coolant			R410A						
Refrigerant coolant type		kg	1.2	1.4	2.2	3.5	3.7	4	5
Dimensions (width/height/depth)	indoor unit	mm	596x596x240	596x596x240	840x840x240	840x840x320	840x840x320	910x910x290	910x910x290
	indoor unit panel	mm	670x670x50	670x670x50	950x950x60	950x950x60	950x950x60	1040x1040x65	1040x1040x65
	outdoor unit	mm	848x320x540	955x396x700	980x427x790	1107x440x1100	958x412x1349	958x412x1349	1085x427x1365
Weight	indoor unit/ outdoor unit	kg	20/34	20/47	26/67	31/98	31/108	43/114	43/126
Operational temperature range	Cold/ Warm	°C	-15/+48 -20/+24						
Liquid pipeline diameter		mm/inch	6.35/ 1/4''	6.35/ 1/4''	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''	19.05/ 3/4''
Maximum pipeline level difference		m	15					30	
Pipeline maximum length		m	20		30		50		
Number of interblock strands (for control)			2*0.75–up to 20 m			2*1.0 –if longer than 20 m		2*1.0 –if longer than 20 m	
Main power supply area			outdoor						
Number of the strands (power supply)			3(Ø1.0mm.)/ 3(Ø1.5mm.)	3(Ø1.0mm.)/ 3(Ø2.5mm.)	3(Ø1.0mm.)/ 3(Ø2.5mm.)	3(Ø1.0 mm)/ 5(Ø1.5 mm)	3(Ø1.0mm.)/ 3(Ø2.5mm.)	3(Ø1.0 mm)/ 5(Ø2.5 mm)	3(Ø1.0 mm)/ 5(Ø2.5 mm)
Factory Freon fill (for the number of the running meters)		r.m.	5					7.5	
Freonperonerunningmeter (surplus. per each running meter)		gramm/r.m.	30	30	60	60	60	60	60
SEER/SCOP			5.6/4.0	5.6/3.8	6.1/4.0	6.1/4.0	6.1/4.0	5.6/3.8	6.1/4.0

Series: Commercial, floor-ceiling type on/off

Model			CH-F18NK / CH-U18NK	CH-F24NK /CH-U24NK	CH-F36NK / CH-U36NM	CH-C48NK /CH-U48NM	CH-C60NK / CH-U60NM
Capacity	Cold/warm	kW	5.00/5.70	7.00/8.00	9.80/10.80	13.20/14.50	15.50/18.50
Electric power supply			~220-240V/50Hz/1Ph		~380-415V/50Hz/1Ph		
Rated input	Cold/warm	kW	2.03/2.07	2.61/2.59	3.60/3.30	5.00/4.80	6.00/5.30
Current rate	Cold/warm	A	9.30/9.50	11.80/11.70	6.70/6.00	9.20/8.40	10.90/9.60
Energy performance	Cold/warm	EER/COP	2.46/2.75	2.68/3.09	2.72/3.27	2.64/3.02	2.58/3.49
Air productive capacity		m^3/h	570/640/700	1000/1080/1170	1520/1630/1800	1800/1900/2100	1900/2100/2300
Sound-pressure level	Outdoor unit	dB(A)	46/50/54	46/48/50	48/51/54	52/55/58	52/55/58
	Indoor unit		56	59	60	63	64
Type of refrigerant coolant			R410a				
Dimensions (width/height/depth)	Indoor unit/outdoor unit	mm	836x695x238 /820x540x320	1300x600x188/1018x695x412	1590x695x238/1018x840x412	1590x695x238/1032x1250x412	1700x700x245
Weight	Indoor unit/outdoor unit	kg	26/40	33/59	48/90	48/112	65/123
Volume of refrigerant coolant		kg	1.5	2.2	3.2	3.8	4.5
Operational temperature range	Cold/warm	°C	+18/+43 / -7/+24				
Liquid pipeline diameter		mm/inch	6.35 / 1/4''	9.53/3/8"	12.70 / 1/2''	12.70/1/2"	12.70/1/2"
Gas pipeline diameter		mm/inch	12.70/1/2"	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	20	30	50		
Distance between the bolts of the outdoor unit fastening		mm	540	572			
Number of the strands (power supply)			2*0.75up to 20 m		2*1.0 – if longer than 20 m		
Main power supply area			outdoor				
Number of the strands (power supply)			3(Ø1.0 mm)/ 3(Ø4.0 mm)	3(Ø1.0 mm)/ 3(Ø4.0 mm)	3(Ø1.0 mm)/ 5(Ø2.5 mm)	3(Ø1.0 mm)/ 5(Ø4.0 mm)	3(Ø1.0 mm)/ 5(Ø4.0 mm)
Factory Freon fill (for the number of the running meters)		m.b.	5				7.5
Freonperonerunningmeter (surplus. per each running meter)		gr/m.b.	15	60	120	120	120

COMMERCIAL AIR CONDITIONERS

Series: NORDIC Commercial, floor-ceiling type, inverter

Model			CH-IF09NK4/ CH-IU09NK4	CH-IF12NK4/CH-IU12NK4	CH-IF18NK4/ CH-IU18NK4	CH-IF24NK4/ CH-IU24NK4	CH-IF30NK4/ CH-IU30NK4
Capacity	Cold/warm	kW	2.7/2.9	3.50/3.80	5.00/5.60	7.00/8.00	8.50/9.20
Electric power supply			~ 220-240V/50Hz/1Ph		~ 380-415V/50Hz/3Ph		
Rated input	Cold/warm	kW	0.84 0.8	1.09 1.05	1.55 1.55	2.18 2.21	2.67 2.57
Current rate	Cold/ Warm	A	3.9 3.7	5 4.9	7.2 7.2	10.1 10.2	12.4 12
Energy performance	Cold/	EER/COP	3.21	3.21	3.23	3.21	3.18
	Warm		3.61	3.61	3.61	3.62	3.58
Air productive capacity		m^3/h	600	700	1000	1200	1500
Sound-pressure level	Indoor unit	dB(A)	31/29/26/24 52	35/33/30/27 52	44/42/38/32 56	49/48/46/40 57	49/46/44/38 58
Type of refrigerant coolant			R410a				
Refrigerant coolant type		kg	1.2	1.2	1.4	2.2	2.4
Dimensions (width/height/depth)	Indoor unitOutdoor unit/ Indoor unit	mm	1220x700x225/ 848x320x540	1220x700x225/ 848x320x540	1220x700x225/ 955 x396 x700	1220x700x225/ 980x427x790	1420x700x225/ 980x427x790
Weight	indoor unit/outdoor unit	kg	38/34	39/34	39/47	40/67	48/71
Operational temperature range	Cold/Warm	°C	-15/+48/-20/+24				
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''	12.70/ 1/2''	15.88/ 5/8''	15.88/ 5/8''
Maximum pipeline level difference		m	15				30
Pipeline maximum length		m	20			30	
Number of interblock strands (for control)			2*0.75 up to 20 m long			2*1.0 if longer than 20m	
Main power supply area			Outdoor unit				
Number of the strands (power supply)			3(Ø1.0mm)/ 3(Ø1.5mm)	3(Ø1.0mm)/ 3(Ø1.5mm)	3(Ø1.0mm)/ 3(Ø2.5mm)	3(Ø1.0mm)/ 5(Ø2.5mm)	3(Ø1.0mm)/ 5(Ø2.5mm)
Factory Freon fill (for the number of the running meters)		r.m.	5				
Freon per one running meter (surplus. per each running meter)		gr/r.m.	30	30	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

Model			CH-IF36NK4/ CH-IU36NM4	CH-IF42NK4/ CH-IU42NM4	CH-IF48NK4/ CH-IU48NM4	CH-IF60NK4/ CH-IU60NM4
Capacity	Cold/warm	kW	10.00/12.00	11.50/13.50	14.00/16.00	16.00/17.00
Electric power supply			~380-415V/50Hz/3Ph			
Rated input	Cold/warm	kW	3.12 3.32	3.9 3.74	5.2 4.5	5.75 4.7
Current rate	Cold/ Warm	A	5.4 5.8	6.7 6.5	8.6 7.8	10.0 10.2
Energy performance	Cold/	EER/COP	3.21	3.21	2.80	3.78
	Warm		3.61	3.61	3.56	3.62
Air productive capacity		m^3/h	1900	1900	2300	2500
Sound-pressure level	Indoor unit	dB(A)	54/53/51/46 63	55/54/52/47 61	56/52/50/46 59	58/56/52/46 63
Type of refrigerant coolant			R410a			
Refrigerant coolant type		kg	3.5	3.7	4	5
Dimensions (width/height/depth)	Indoor unitOutdoor unit/ Indoor unit	mm	1420x700x245/ 1007x440x1100	1420x700x245/ 958x412x1349	1720x700x225/ 958x412x1349	1700x700x245/ 1085/427/1365
Weight	indoor unit/outdoor unit	kg	48/98	50/108	59/114	59/126
Operational temperature range	Cold/Warm	°C	-15/+48/-20/+24			
Liquid pipeline diameter		mm/inch	9.53/ 3/8''	9.53/ 3/8''	9.53/ 3/8''	9.53/ 3/8''
Gas pipeline diameter		mm/inch	15.88/ 5/8''	15.88/ 5/8''	15.88/ 5/8''	19.05/ 3/4''
Maximum pipeline level difference		m	30			
Pipeline maximum length		m	30	50		
Number of interblock strands (for control)			2*1.0 - - if longer than 20 m			
Main power supply area			Outdoor unit			
Number of the strands (power supply)			3(Ø1.0mm)/ 5(Ø1.5mm)	3(Ø1.0mm)/ 5(Ø2.5mm)	3(Ø1.0mm)/ 5(Ø2.5mm)	3(Ø1.0mm)/ 5(Ø2.5mm)
Factory Freon fill (for the number of the running meters)		r.m.	5		7.5	
Freon per one running meter (surplus. per each running meter)		gr/r.m.	60	60	60	60
SEER/SCOP			6.1/4.0	5.6/4.0	5.6/4.0	5.1/4.0

COMMERCIAL AIR CONDITIONERS

Floor standing type

Model			CHF60AD-M3NNA2A *	CHF48FH-M3NNB1B
Capacity	Cold/Warm/E-Heater	kW	16/18/3	12.31/14.65/-
Electric power supply			~ 380-415V/50Hz/3Ph	
Rated input	Cold/Warm	kW	6.27.8	4.725.05
Energy performance	EER (Cold)/ C.O.P.(Warm)	kW/kW	2.51/2.91	2.4/2.58
Air productive capacity		m^3/h	2000	1800
Sound-pressure level	indoor unit (min/ ave/max)/ outdoor unit	dB(A)	50/53/58 61	46/48/50/52 59
Type of refrigerant coolant			R410A	
Dimensions(width/height/depth)	indoor unit/outdoor unit	mm	540x1750x380/950x1250x412	580x1870x395/1032x1250x412
Weight	indoor unit/outdoor unit	kg	60/115	60/105
Operational temperature range		°C	-7/+43	-7/+43
Liquid pipeline diameter		inch	1/2''	1/2''
Gas pipeline diameter		inch	3/4''	3/4''
Maximum pipeline level difference		m	30	20
Pipeline maximum length		m	30	30

NORDIC MULTI LIGHT
TECHNICAL CHARACTERISTICS:
Outdoor units

Model			CHML- U14NK2	CHML- U18NK3	CHML- U21NK3	CHML- U24NK3	CHML- U28NK4	CHML- U36NK4	CHML- U42NK5
Number of the connected indoor units			1-2	1-2	2-3	2-3	2-4	2-4	2.5
Capacity	Cold	kW	4.10(2.10-4.70)	5.00 (2.10-6.21)	6.1 (2.70-8.21)	7.03 (2.20-10.00)	8.00 (2.20-10.00)	9.80 (3.00-10.00)	11.58 (3.50-13.60)
	Warm	kW	4.40 (2.50-5.51)	5.57 (2.50-6.65)	6.5 (3.50-9.50)	8.50 (3.60-11.00)	9.38 (2.81-11.00)	11.00 (4.50 - 12.00)	13.00 (4.48 - 14.00)
Electric power supply			~ 220-240V/50Hz/3Ph						
Air productive capacity		m^3/h	2600	3200	3200	4000	4000	5200	5500
Sound-pressure level		dB(A)	55	56	56	58	58	57	54
Dimensions (width/depth/height)		mm	899x378x596	955x396x700	955x396x700	980x427x790	980x427x790	1015x440x1103	1015x440x1103
Weight		kg	43	50	51	68	69	94	102
Operational temperature	Cold	°C	-15/+43				-5/+48		
Operational temperature	Warm	°C	-20/+24				-15/+27		
Pipeline maximum length (total for the system/till the one block)		m	20/10		60/20		70/20		80/25
Maximum pipeline elevation difference (between indoor and outdoor/between indoor)		m	10/5					15/7.5	
Distance between the fastening bolts of the outdoor unit		mm	550	550	560	560	560	572	631

Indoor units
Wall-mounted units
VIP Inverter

Model			CHML-IW09VNK	CHML-IW12VNK	CHML-IW18VNK
Capacity	Cold	kW	2.64	3.52	5.27
	Warm	kW	2.99	3.60	5.27
Air productive capacity			650	720	850
Sound-pressure level		dB(A)	41/37/35/33/30/22/19	43/38/36/34/31/23/20	46/42/40/36/33/25/22
Dimensions (width/height/depth)		mm	899x596x378	899x596x378	950x700x396
Weight		kg	12.5		14
Liquid pipeline diameter		mm/inch	6.35 / 1/4"		
Gas pipeline diameter		mm/inch	12.7 / 1/2"		

Premium Inverter

Model			CHML-IW07DNK	CHML-IW09DNK	CHML-IWN12DNK	CHML-IW18DNK
Capacity	Cold	kW	2.1	2.64	3.52	5.28
	Warm	kW	2.2	2.87	3.81	5.63
Air productive capacity		m^3/h	450	450	560	850
Sound-pressure level		dB(A)	25/26/28/30/32/35/37	22/25/27/29/32/34/38	23/25/28/31/34/36/39	28/31/33/35/37/40/44
Dimensions (width/depth/height)		mm	860x153x299	860x153x299	896x159x320	998x178x340
Weight		kg	9.5	9.5	11.5	15
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''	12.70/ 1/2''

Cozy

Model			CHML-IW09CNK	CHML-IW12CNK	CHML-IW18CNK
Capacity	Cold	kW	2.61	3.49	5.30
	Warm	kW	2.81	3.81	5.80
Air productive capacity		m^3/h	500	630	850
Sound-pressure level		dB(A)	-/28/31/34/37	-/30/32/34/38	-/36/40/43/46
Dimensions (width/depth/ height)		mm	790x170x265	845x180x275	940x200x298
Weight		kg	9	10	13
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''	12.70/ 1/2''

DCInverter

Model			CHML-IW07INK	CHML-IW09INK	CHML-IW12INK	CHML-IW18INK
Capacity	Cold	kW	2.11	2.61	3.49	5.30
	Warm	kW	2.61	2.81	3.81	5.80
Air productive capacity		m^3/h	550	600	680	800
Sound-pressure level		dB(A)	-/24/30/38/40	-/24/30/38/41	-/25/31/39/42	-/32/37/40/45
Dimensions (width/depth/height)		mm	770x201x283	770x201x283	770x201x283	865x215x305
Weight		kg	8	8	9	12
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''	12.70/ 1/2''

Floor-ceiling type units

Model			CHML-IF09NK	CHML-IF12NK	CHML-IF18NK	CHML-IF24NK
Capacity	Cold	kW	2.50	3.50	5.00	7.10
	Warm	kW	2.80	3.85	5.50	8.00
Air productive capacity		m^3/h	650	650	950	1250
Sound-pressure level		dB(A)	36/40	36/40	40/45	44/48
Dimensions (width/depth/height)		mm	1220x225x700	1220x225x700	1220x225x700	1220x225x700
Weight		kg	40	40	40	45
Liquid pipeline diameter		mm/inch	6.35 / 1/4''	6.35 / 1/4''	6.35 / 1/4''	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''

Console type units

Model			CHML-IK09NK	CHML-IK12NK	CHML-IK18NK
Capacity	Cold	kW	2.61	3.49	5.30
	Warm	kW	2.81	3.81	5.80
Air productive capacity		m^3/h	480	550	650
Sound-pressure level		dB(A)	24/26/30/33/36/38/40	26/32/35/37/38/40/42	32/35/37/41/44/46/48
Dimensions (width/depth/height)		mm	700x215x600	700x215x600	700x215x600
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''	12.70/ 1/2''

Cassette type units

Model			CHML- IC12NK	CHML- IC18NK	CHML- IC24NK
Capacity	Cold	kW	3.50	4.50	7.10
	Warm	kW	4.00	5.00	8.00
Air productive capacity		m^3/h	600	600	1180
Sound-pressure level		dB(A)	41/47	41/47	35/39
Dimensions (width/depth/height)	indoor unit	mm	570x570x230	570x570x230	840x840x240
	panel	mm	650x650x50	650x650x50	950x950x60
Weight (cassette/panel)		kg	18/2.5	18/2.5	30/6.5
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''	12.70/ 1/2''	15.88 / 5/8''

Duct type units

Model			CHML- ID09NK	CHML- ID12NK	CHML- ID18NK	CHML- ID21NK	CHML- ID24NK
Capacity	Cold	kW	2.50	3.50	5.00	6.00	7.10
	Warm	kW	2.80	3.85	5.50	6.60	8.00
Air productive capacity		m^3/h	450	500	700	1000	1000
Sound-pressure level		dB(A)	31/37	32/39	33/41	34/42	34/42
Dimensions (width/depth/height)		mm	700x615x200	700x615x200	900x615x200	1100x615x200	1100x615x200
Weight		kg	22	23	27	31	31
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''	12.70/ 1/2''	15.88 / 5/8''	15.88 / 5/8''

COMBINATIONS OF OUTDOOR UNITS

8 combinations

CHML-U14NK2(1to2)

One unit	Two units	
7	7+7	7+9
9	7+12	9+9
12	9+12	

10 combinations

CHML-U18NK3(1to2)

One unit	Two units		
7	7+7	7+18	12+12
9	7+9	9+9	
12	7+12	9+12	

18 combinations

CHML-U21NK3(2to3)

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-U24NK3(2to3)

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		

COMBINATIONS OF OUTDOOR UNITS

40 combinations

CHML-U28NK4(2to4)

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	
		12+12+18					

96 combinations

CHML-U36NK4(2to4)

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+9+9+18
12+24	18+18	7+21+21	9+9+9	9+9+12	7+9+9+21	7+9+9+24	7+9+12+12
18+21	18+24	9+9+18	9+9+21	9+9+24	7+9+12+18	7+9+12+21	7+9+18+18
21+21	21+24	9+12+12	9+12+18	9+12+21	7+12+12+12	7+12+12+18	9+9+9+9
24+24		9+12+24	9+18+18	9+18+21	9+9+9+12	9+9+9+18	9+9+9+21
		9+18+24	9+21+21	12+12+12	9+9+9+24	9+9+12+12	9+9+12+18
		12+12+18	12+12+21	12+12+24	9+9+12+21	9+9+18+18	9+12+12+12
		12+18+18	12+18+21	18+18+18	9+12+12+18	12+12+12+12	

199 combinations

CHML-U42NK5(2to5)

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+7+12+24	7+7+7+18+18
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+9+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+7+9+9+24	7+7+9+12+12	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+7+9+12+24	7+7+9+18+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+7+12+12+21	7+7+12+18+18	7+9+9+9+9
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+9+9+18	7+9+9+9+21	7+9+9+9+24
		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	7+9+9+12+18	7+9+9+12+21	7+9+9+12+24
		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	7+9+12+12+12	7+9+12+12+18	7+9+12+12+21
		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	7+12+12+12+18	9+9+9+9+9	9+9+9+9+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	9+9+9+9+21	9+9+9+9+24	9+9+9+12+12
		12+12+24	12+18+18	12+18+21	9+9+18+18	9+9+18+21	9+9+18+24	9+9+21+21	9+9+9+12+18	9+9+9+12+21	9+9+9+18+18	9+9+12+12+12
		12+18+24	12+21+21	12+21+24	9+12+12+12	9+12+12+18	9+12+12+21	9+12+12+24	9+9+12+12+18	9+9+12+12+21	9+12+12+12+12	9+12+12+12+18
		12+24+24	18+18+18	18+18+21	9+12+18+18	9+12+18+21	9+12+21+21	9+18+18+18	12+12+12+12+12			
		18+18+24	18+21+21	21+21+21	12+12+12+12	12+12+12+18	12+12+12+21	12+12+12+24				
					12+12+18+18	12+12+18+21						

INVERTER R410A

HEAT PUMP FOR HEATING AND HOT WATER

Model			CH-HP8.0SINK	CH-HP10SINK	CH-HP12SINK(M)	CH-HP14SINK(M)	CH-HP16SINK(M)
Capacity (for the warm floor)	Cold	kW	8.50	10.00	12.50(13.50)	13.50(14.50)	14.50(15.0)
	Warm	kW	8.50	9.60	12.50(13.50)	13.50(14.20)	15.50(16.50)
Rated input (for the warm floor)	Cold	kW	2.45	3.28	3.57(3.46)	4.09(3.91)	4.53(4.11)
	Warm	kW	2.05	2.36	2.80(2.75)	3.06(3.23)	3.78(3.47)
Energy performance (for the warm floor)	Cold	EER	3.35	3.35	3.50(3.90)	3.30(3.71)	3.20(3.65)
	Warm	COP	4.15	4.15	4.45(4.55)	4.40(4.40)	4.10(4.10)
Electric power supply			~ 220-240V/50Hz/1Ph(~ 380-415V/50Hz/3Ph)				
Capacity (for fan coil unit or radiator)	Cold	kW	6.20	7.50	9.50(9.50)	10.00(10.50)	10.50(11.00)
	Warm	kW	7.50	8.50	11.00(11.50)	12.00(12.50)	14.00(14.00)
Rated input (for fan coil unit or radiator)	Cold	kW	2.38	3.00	3.39(3.17)	3.57(3.56)	3.96(3.73)
	Warm	kW	2.50	2.79	3.14(3.38)	3.36(3.62)	4.00(4.12)
Energy performance (for fan coil unit or radiator)	Cold	EER	2.61	2.50	2.80(3.00)	2.80(2.95)	2.65(2.95)
	Warm	COP	3.00	3.05	3.50(3.40)	3.45(3.45)	3.50(3.40)
Weight of refrigerant coolant	kg		2.1	2.1	3.2(3.40)	3.2(3.4)	3.2(3.4)
Sound-pressure level	indoor unit	dB(A)	31				
	otdoor unit	dB(A)	55	55	57	57	59
Dimensions (width/height/depth)	indoor unit	mm	500x900x324				
	outdoor unit	mm	980x790x360		950x1345x412		
Weight	indoor unit	kg	53				
	outdoor unit	kg	78.5		106(107)		
Operational temperature range		°C	up to +7 for cooling / up to +55 for heating (up to +70 in the sanitary mode)				
Operational temperature range		°C	-20/ +48				
Liquid pipeline diameter		mm/inch	9.53 / 3/8				
Gas pipeline diameter		mm/inch	15.88 / 5/8				
Maximum pipeline level difference		m	15				
Pipeline maximum length		m	30				

*the meaning in brackets are for the models operating from the power supply ~ 380-415W/50hz/3Fand marked (M).

R134A

HOUSEHOLD HEAT PUMP air-water with HWS boiler

Outdoor unit

Model		CH-HP3.0SWHK
Normal heat release	W	2800
Rated input	W	700
Load type	A	L
COP		2.90
Energy efficiency ratio		A
Heat exchange efficiency		110%
Maximum Power intake	W	1180+1500W (EHT)
Output water temperature	°C	Standard: 55°C. 35°C~70°C
Power supply parmeters		~ 220-240V/50Hz/1Ph
Isolation class		I
Protection class		IPX4
Type of refrigerant coolant		R134a
Fill of refrigerant coolant	kg	1.20
Dimension (WxDxH)	mm	848x320x540
Sound-pressure level	dB(A)	61
Operational range of outdoor temperatures	°C	-15~45

Indoor unit

Model of the boiler		WT200SW1.5EHK
Volume	l	185
Power supply parameters of the heating element	W	~ 220-240V/50Hz/1Ph
Heating element power intake	W	1500
Dimensions (WxHxD)	mm	545 x 545 x 1919
Diameters of connected freon pipelines	mm	∅6.35/∅9.52

Industrial heat pump for heating and HWS systems



Model		CH-HP30MFNM	CH-HP40MFNM	CH-HP60MFNM
Heating capacity	kW	31	40	60
Power intake	kW	8.1	10	15
Consumed current	A	14.5	19	28
COP	kW	3.8	4	4
Standard hot water supply	l/h	667	860	1300
Specified rage of hot water temperature	°C	35-70		
Electric power supply		~ 380-415V/50Hz/3Ph		
Automatic switch off	A	25	32	40
Electric power supply cable	mm	5*4.0	5*4.0	5*6.0
Type of refrigerant coolant		R-410A		
Volume of refrigerant coolant	kg	3.9	4.73	6.5
Compressor type		spiral		
Quantity of compressor	piece	1	1	1
Operational temperature range	°C	от +46 до -26	from +46 to -26	from +46 to -26
Diameters of connected water pipelines	Outdoor water supply	DN 25	DN 25	DN 32
	Recirculatinginlet water	DN 32	DN 32	DN 50
	Output water	DN 32	DN 32	DN 50
Dimensions	mm	930x800x1605	930x800x1605	1340x800x1605
Sound-pressure level	dB(A)	67	67	67
Netto/Brutto	kg	238/252	264/286	362/378

Series: Heat pump for HWS

Technical characteristics for Freon R134A:

Model	Heat capability	Power intake		Hot water volume	C.O.P.	Power supply
	kW	Average kW	maximum kW	l/h	kW/kW	W/hz/Ph
GRS-C3.5/Nba-K	3.5	1.02	2.5	82	3.73	220/50/1
GRS-C5.0/Nba-K	5	1.35	2.9	108	3.70	220/50/1

Technical characteristicsfor Freon R22:

Model	Heat capability	Power intake		Hot water volume	C.O.P.	Power supply
	kW	AveragekW	Max.	p/h	kW/kW	w/hz/Ph
GRS-C3.5/A-K	3.5	0.9	1.3	75	3.89	220/50/1
GRS-C5.0/A-K	5	1.3	1.8	108	3.84	220/50/1
GRS-C7.2/A-K	7.2	1.9	2.50	155	3.78	220/50/1


Model	Power supply	Type of refrigerant	Energy Efficiency EER (cooling)	Energy Efficiency COP (heating)	Air flow	Noise level
	V/Hz/F		KW/KW	KW/KW	m3/hr	(min/avg/max) dB(A)
CH-M09K6S	~220-240V/50Hz/1F	R32	2,62	-	330/300/270	46/48/51
GRS-C5.0/A-K	~220-240V/50Hz/1F	R410A	2,61	2,85	360/330/300	47/49/51

Features

Energy Star certified

AHRI certified

Intertek certified

RoHS certified

CE certified

Energy Efficiency Class

Energy Class Efficiency type

Timer

Self-diagnostics system

Auto-protection

Automatic restart

Swing mode – wide angle louvers

Cooling

Heating

Dry mode – dehumidifying

Standard for energy efficient consumer products

Inverter technology G-matrik

Intelligent defrost system

Inverter compressor

LED-Display of indoor unit

Multi speed fan

Type of refrigerant

Sleep mode

Noise Analysis Technology – noiseless operation

The Wi-Fi function module to manage the air conditioner via a Smartphone/Tablet (OS: Android, iOS)

The evaporator of indoor unit will be blowed after the unit is stopped to avoid mould

Backlight of indoor unit display

"I Feel" The controller will automatically adjust the indoor temperature according to the temperature detected by the remote

Defends your home from frizzing: function "+8 degrees".

GREEN-FIN – anticorrosive cover of the heat exchangers

ECO-FRESH – electret dust filter

Cold Plasma – new generation technology for complete purification of air

Warranty

Note

Note