



HEATING SOLUTIONS



Comfort Module

5-20 kW

Choose the easy heating solution!

Comfort Module: heating with



Carrier system innovation

Proper control of heat pumps is key to comfort and energy efficiency. Carrier achieves this offering high system integration, with a range of comfort module perfectly matching our heat pumps. Whatever is the application, heating only or reversible, in a new building or a renovation project, using our comfort modules limits the needs for field supply components, such as buffer tanks, hydraulic disconnector, manometer, pressure relief valves, room controls, etc... and therefore reduces the risk of installation design mistakes. Our range of comfort module can also manage the domestic hot water production, with or without interfacing to solar thermal control panels, and swimming pool heating.

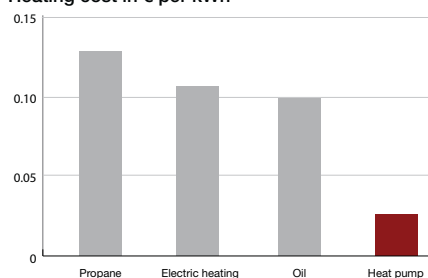
Quality: simply in Carrier's culture

Carrier is committed to delivering the best operational products to every customer. Components and processes are accurately defined, tested and monitored during the entire product development process. In addition, Eurovent regularly tests our products to certify their accurate performance.

System energy efficiency

- Outdoor weather conditions and indoor climate are constantly monitored by Carrier comfort module controls.
- There is no heat produced in excess and heat pump settings are always adjust to the most efficient possible.
- Our heat pumps can then reduce running cost by 30% or more when compared to technology using fossil fuel.
- The online selection software, only for professionals, will help you in finding the best solution for your customer. <http://eco-sim.carrier.com>

Heating cost in € per kWh



The data above is for comparison only and not contractually binding. It varies with each project and location type.



Carrier participates in the ECC programme for Liquid Chilling Packages.

Check ongoing certification validity:
www.eurovent-certification.com
or www.certiflash.com

Carrier GREEN



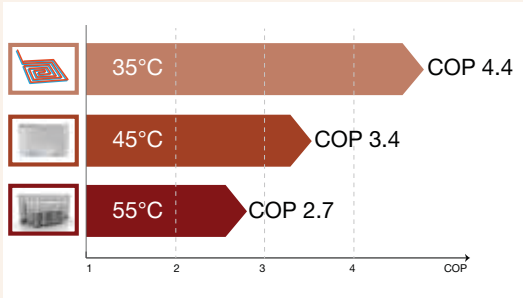
Choice of renewable energies

At Carrier, comfort and the environment have always been priorities. With this new system you can exploit all the benefits of renewable energies.

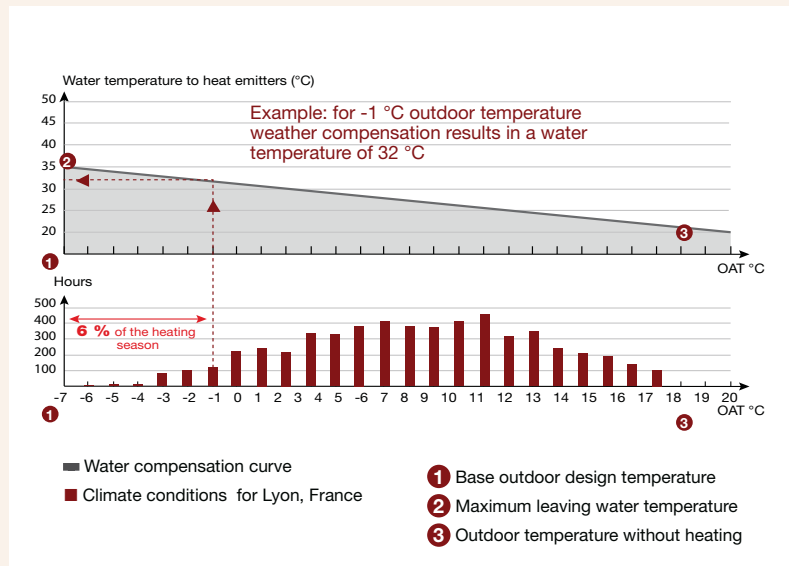
- A system that uses outdoor air as the main energy source: reduced energy consumption and CO₂ emissions
- A heat pump based on the Aquasnap Plus generation with optimised energy efficiency
- Components chosen for enhanced user comfort and environmental care

heat pumps made easy

Weather compensation control



A reduced operating temperature will increase the energy efficiency in heat pumps, using low temperature emitters type like under floor heating will help delivering high heating energy efficiency. In addition, weather compensation changes the water production temperature to the heat emitters, based on the outdoor temperature conditions. The heat pump produces water that is not very hot, except for the coldest days of the year. More energy efficiency and control is delivered by indoor temperature control.



Auto calibration feature of weather compensation can take short term indoor thermal load variations into account for example solar radiation gains. This smart control technology, used for all Carrier heating systems, guarantees end user comfort and system energy efficiency throughout the heating season.

The two-zone kit:

Carrier developed a kit to control two different heat emitters type in the same building, for example fan coils units in individual rooms and heating floors in large open areas. Even if they use one heat emitters type, buildings with different zones can require independent comfort zones. Areas with high solar gains (bay windows) cannot be controlled the same way as interior areas. This is especially true for U or L shaped buildings, where only independent control of comfort zones prevents cold or overheated areas.

Anyhow, we all have our own perception of the ideal room comfort temperature. Having several comfort zones in the building ensures that everybody enjoys the desired temperature.



Module with two-zone-kit



Components of the **system**



User interfaces

The Carrier user interface has a contemporary and discreet design with a backlit LCD screen that easily blends in with any room decor. It offers many functions such as weekly scheduling and several modes that are accessible by quick-access keys: night-time/eco/comfort modes.



Inverter-driven outdoor unit

■ Two versions available: split (38AW) or monobloc (30AWH)

Choice of water or refrigerant (R-410A) heat transfer technology between outdoor unit and Comfort Module. Reliability, ease-of-installation and energy performance of the system are the same.

■ One of the best energy coefficients of performance in the market

Twin-rotary DC inverter technology, variable-air volume fans, electronic expansion valve and large-surface heat exchanger ensure an energy efficiency ratio above 4 at standard operating conditions.

■ Wide inverter operating range

The compressor speed variation from 20 to 100% permits precise adjustment of capacity and leaving water temperature during the whole heating season, avoiding energy waste of on/off control mode of inverter compressor.

■ High water temperature all year round

The outdoor unit operating range in heating mode goes from -20 °C to +30 °C outdoor temperature. Heating and domestic hot water production are guaranteed all year round.

Module with two-zone-kit



Single-zone module



Comfort Module

■ Innovative control

The heat pump operating temperature is adjusted and optimised to ensure occupant comfort and reduced energy consumption. It also controls domestic hot water production. It constantly measures outdoor temperature and indoor comfort conditions.

■ A compact and complete unit

The Comfort Module is exceptionally compact with dimensions similar to those of a modern wall boiler. But the module includes all water and electric components required for reliable and safe operation: expansion tank, buffer tank, pressure gauge, purge, disconnect switch, pressure switch etc. And everything is easily accessible.

■ Second optional independent zone

The two-zone kit permits control of several heat emitter types with different operating temperatures such as heating floors or radiators. Each zone can be in a different part of the building, on the ground floor or a higher floor, a night zone or a day zone, with different comfort temperatures and programs.

■ Simple efficient options

From swimming pool heating in the summer to the high-pressure circulation pump the installer will select the accessories to ensure that the system is suitable for the desired comfort conditions and energy efficiency targets.



Domestic hot water tank

■ The right model for any application

The hot water tank is made of enamelled steel with reinforced thermal insulation. It is available in two sizes, 300 and 200 litres, with a single or dual heat exchanger for easy connection to a solar panel system. Used in connection with a solar storage system, anti-legionella protection is always controlled by the Comfort Module.

■ Simple efficient functions

All tanks include an electric heater controlled by the Comfort Module. It ensures anti-legionella protection (programmable). A factory-installed anode protects the tank against limescale deposits and corrosion.

Air to water monobloc system 30AWH + 80HMA

Part number		Heat pump					Comfort module				
		Maximum heating capacity* 35°C LWT					80HMA-M00	80HMA-M03	80HMA-M06	80HMA-T06	80HMA-T09
		-7°C OAT	-2°C OAT	0°C OAT	+2°C OAT	+7°C OAT					
30AWH004	kW	2,9	3,1	3,3	3,5	4,7	●	●	●	●	●
30AWH006	kW	3,5	3,8	4,1	4,3	6,1	●	●	●	●	●
30AWH008	kW	4,3	4,8	5,2	5,5	8,0	●	●	●	●	●
30AWH012	kW	7,9	8,9	9,6	10,1	13,5	●	●	●	●	●
30AWH015	kW	9,1	10,2	11,1	12,1	16,5	●	●	●	●	●

* Without booster electrical heater or boiler back up

80HMA is also compatible with 30RQ 17 to 21 and 61AF 14 and 19. Heat pump control is then done by on/off contact. Professional in charge of the system design and installation must check that installation water volume is sufficient to ensure proper functioning of the heat pump. Connection piping between indoor and outdoor unit contains water.

Comfort module		80HMA-M00	80HMA-M03	80HMA-M06	80HMA-T06	80HMA-T09
Booster Electrical Heater	kW	0 Boiler back up	3 1 stage	6 3 stages	6 3 stages	9 3 stages
Buffert tank volume	l	10	10	10	10	10
Dimensions, H x L x D	mm	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320
Operating weight	kg	34	35	35	35	35
Power supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	400-3-50	400-3-50
Maximum leaving water temperature*	°C	80	80	80	80	80

* With booster electrical heater or boiler back up

Heat pump		30AWH004HC	30AWH006HC	30AWH008HC	30AWH012HC	30AWH015HC
Maximum leaving water temperature	°C	60	60	60	60	60
Nominal heating capacity*	kW	4	6	7	12	14
Minimum heating capacity	kW	1	0,9	1,2	4,0	3,4
Maximum heating capacity	kW	4,7	6,1	8,0	13,5	16,5
Nominal absorbed power*	kW	0,98	1,35	1,8	3,0	3,54
COP at nominal conditions*	kW/kW	4,15	4,28	3,97	3,95	4,09
Nominal cooling capacity**	kW	3,3	4,7	5,8	10,2	13
Minimum cooling capacity	kW	0,8	0,6	0,7	3,6	3,9
Maximum cooling capacity	kW	3,45	5,3	5,8	11,7	13,55
Nominal absorbed power*	kW	1,1	1,58	1,96	3,46	4,42
EER at nominal conditions**	kW/kW	3,02	3	2,98	2,96	2,95
Heating nominal sound power****	dB(A)	62	62	64	67	68
Cooling nominal sound power****	dB(A)	64	64	65	68	69
Heating sound pressure level***	dB(A)	42	42	44	47	48
Cooling sound pressure level****	dB(A)	44	44	45	48	49
Dimensions, H x L x D	mm	821 x 908 x 350	821 x 908 x 350	821 x 908 x 350	1363 x 908 x 350	1363 x 908 x 350
Operating weight	Kg	59	61	71	105	130
Power supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50

Options

- Two-zone kit compatible with all model of comfort module
- Intermediate heat exchanger to isolate brine water from heat pump from terminal unit fresh water
- Additional user interface
- Anti-vibration mounts for outdoor unit
- Thermal cut-out for heating floor applications
- Outdoor temperature sensor
- Three-way valve for domestic hot water production
- Installation kit for three-way valve in the two zone kit
- 200 or 300 liters hot water tank with or without solar panel connection
- Roof panel for two zone kit if this is not installed below the comfort module
- Pump kit
- Swimming pool heating control kit

* Standard Eurovent LCP/A/CHF conditions in heating mode: water heat exchanger entering/leaving water temperature 30°C/35°C, outside air temperature 7°C db/6°C wb

** Standard Eurovent LCP/A/AC conditions in cooling mode: water heat exchanger entering/leaving water temperature 12°C/7°C, outside air temperature 35°C.

*** Based on the following conditions: entering/leaving water temperature 35°C/30°C, outside air temperature 7°C.

**** Based on the following conditions: entering/leaving water temperature 12°C/7°C, outside air temperature 35°C.

Note: The sound pressure level is measured in a hemispheric field at 4 m distance from the unit.

Air to water split system 38AW + 80AW

Reference	Heat pump Maximum heating capacity* 35°C LWT						Comfort module								
	-7°C OAT	-2°C OAT	0°C OAT	+2°C OAT	+7°C OAT	80AW-065M0	80AW-065M3	80AW-065M6	80AW-065T6	80AW-115M0	80AW-115M3	80AW-115M6	80AW-115T6	80AW-115T9	
	38AWH 050H7	kW	4,1	4,2	4,2	4,3	5,9	●	●	●	●				
38AWH 065H7	kW	4,5	4,8	5,1	5,3	7,8	●	●	●	●					
38AWH 090H7	kW	6,8	7,9	8,7	9,2	11,1					●	●	●	●	●
38AWH 115H7	kW	8,4	10,4	10,7	11,5	13,8					●	●	●	●	●

* Without booster electrical heater or boiler back up
Connection piping between indoor and outdoor unit contains refrigerant

Comfort module		80AWX 065M0	80AWX 065M3	80AWX 065M6	80AWX 065T6	80AWH 065M0	80AWH 065M3	80AWH 065M6	80AWH 065T6
Application		Reversible	Reversible	Reversible	Reversible	Heating only	Heating only	Heating only	Heating only
Booster Electrical Heater	kW	0 Boiler back up	3 2 stages	6 2 stages	6 2 stages	0 Boiler back up	3 2 stages	6 2 stages	6 2 stages
Buffert tank volume	l	10	10	10	10	10	10	10	10
Dimensions, H x L x D	mm	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320
Operating weight	kg	48	48	48	48	48	48	48	48
Power supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	400-3-50	230-1-50	230-1-50	230-1-50	400-3-50
Maximum leaving water temperature*	°C	80	80	80	80	80	80	80	80

Heat pump		80AWX 115M0	80AWX 115M3	80AWX 115M6	80AWX 115T6	80AWX 115T9	80AWH 115M0	80AWH 115M3	80AWH 115M6	80AWH 115T6	80AWH 115T9
Application		Reversible	Reversible	Reversible	Reversible	Reversible	Heating only	Heating only	Heating only	Heating only	Heating only
Booster Electrical Heater	kW	0 Boiler back up	3 2 stages	6 2 stages	6 2 stages	9 2 stages	0 Boiler back up	3 2 stages	6 2 stages	6 2 stages	9 2 stages
Buffert tank volume	l	10	10	10	10	10	10	10	10	10	10
Dimensions, H x L x D	mm	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320	800 x 450 x 320
Operating weight	kg	50	50	50	50	50	50	50	50	50	50
Power supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	400-3-50	400-3-50	230-1-50	230-1-50	230-1-50	400-3-50	400-3-50
Maximum leaving water temperature*	°C	80	80	80	80	80	80	80	80	80	80

* With booster electrical heater or boiler back up

Heat pump		38AW050H7	38AW065H7	38AW090H7	38AW115H7
Maximum leaving water temperature	°C	60	60	60	60
Nominal heating capacity*	kW	5	6,5	9,0	11,5
Minimum heating capacity	kW	1,5	1,3	3,6	3,5
Maximum heating capacity	kW	5,9	7,8	11,1	13,8
Nominal absorbed power*	kW	1,22	1,59	2,17	2,81
COP at nominal conditions*	kW/kW	4,1	4,1	4,2	4,1
Nominal cooling capacity**	kW	4,2	5,6	7,9	9,0
Minimum cooling capacity	kW	1,6	2,0	3,9	4,1
Maximul cooling capacity	kW	6,6	7,3	9,5	12,1
Nominal absorbed power*	kW	1,16	1,53	1,94	2,37
EER at nominal conditions**	kW/kW	3,65	3,65	4,05	3,8
Heating nominal sound power***	dB(A)	64	68	69	70
Cooling nominal sound power****	dB(A)	64	65	68	70
Heating sound pressure level***	dB(A)	44	48	49	50
Cooling sound pressure level****	dB(A)	44	45	48	50
Dimensions, H x L x D	mm	690 x 900 x 320	820 x 900 x 320	1360 x 900 x 320	1360 x 900 x 320
Operating weight	Kg	49	51	88	88
Power supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	230-1-50

Options

- Two-zone kit compatible with all model of comfort module
- Additional user interface
- Anti-vibration mounts for outdoor unit
- Thermal cut-out for heating floor applications
- Outdoor temperature sensor
- Three-way valve for domestic hot water production
- Installation kit for three-way valve in the two zone kit
- 200 or 300 liters hot water tank with or without solar panel connection
- Roof panel for two zone kit if this is not installed below the comfort module

* Standard Eurovent LCP/A/CHF conditions in heating mode: water heat exchanger entering/leaving water temperature 30°C/35°C, outside air temperature 7°C db/6°C wb

** Standard Eurovent LCP/A/AC conditions in cooling mode: water heat exchanger entering/leaving water temperature 12°C/7°C, outside air temperature 35°C.

*** Based on the following conditions: entering/leaving water temperature 35°C/30°C, outside air temperature 7°C.

**** Based on the following conditions: entering/leaving water temperature 12°C/7°C, outside air temperature 35°C.

Note: The sound pressure level is measured in a hemispheric field at 4 m distance from the unit.



Carrier, for the environment

Carrier believes that industry leadership demands environmental leadership. In fact, environmental stewardship is one of Carrier's core values. Carrier continuously works to improve the environmental performance of its products and services, operations and culture to help achieve a sustainable society.

Carrier, for performance

Carrier strives for continuous growth to reinforce its leadership position, achieve world-class financial performance and continuously improve the productivity of its assets and resources.

Carrier, for service

The Carrier service delivery model maintains a reputation for high customer satisfaction and delivers service excellence with strong communication channels, industry-leading technicians, continuous improvement of contracts and a highly experienced management team.

Carrier, for innovation

Carrier is a company of ideas, committed to research and development, whose founder inspires the company to reach the next innovative, powerful and marketable idea.

Carrier, to be your expert

Carrier delivers global solutions across the broadest range of heating, cooling and refrigeration applications. With a proven track record of leadership and industry expertise, we are here to meet your needs with our portfolio of market-leading products and services.

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