



**HEATING,
COOLING AND
HOT WATER
All In One:**



Flair

AIR TO WATER HEAT PUMP

Environmentally Friendly for a Green World

R32

INVERTER



With advanced heat pump technology and powerful equipment, Flair's efficiency has been improved, making CO² emissions much lower. It is an environmentally friendly product, a reflection of our social responsibility to protect the environment.

Flair is a multi-functional air to water heat pump with DC inverter that takes the natural heat from the environment and transfers it back to the room by raising this heat thanks to its advanced technology. It doesn't only heat the room, but also supplies hot water required for domestic use at the same time.

Flair can also be used for cooling during summer. It offers an 'All in One' complete solution with heating, cooling, and hot water to meet your needs. Choose Flair and enjoy your comfortable life all year round!



Game Changer Outstanding Features

Air to water heat pump with DC inverter

The Flair series have cooling, heating, hot water, cooling + hot water and heating + hot water functions and can be connected to radiators, underfloor heating, or different types of fan coils.



Boiler



Indoor Unit



Outdoor Unit

Flair Air to Water Heat Pump system is powerful, smart, and user-friendly. It has several user friendly functions, including vacation mode, silent mode, silent preset, clock setting, weekly timer, underfloor heating setting, and outdoor dependency mode.



Condenser with Golden Fins



Grooved Copper Pipe



Smart Defrosting



Silent Operation



Diagnosis



Wide Voltage Range



Low Temperature Heating



Starting at Low Voltage



Wide Operation Range



Memory Function



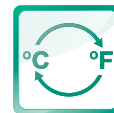
Corrosion Protection



24 Hour Programming



Weekly Scheduling



°C/°F Options



Time Display



Child Lock



Door Card Control



Remote Observation



High Efficiency

A+++
ENERGY CLASS

Has a A+++ segment heating performance according to the EU ERP energy efficiency. The engine and circulation pump components meet the requirements of the European Union's ECO Directive.

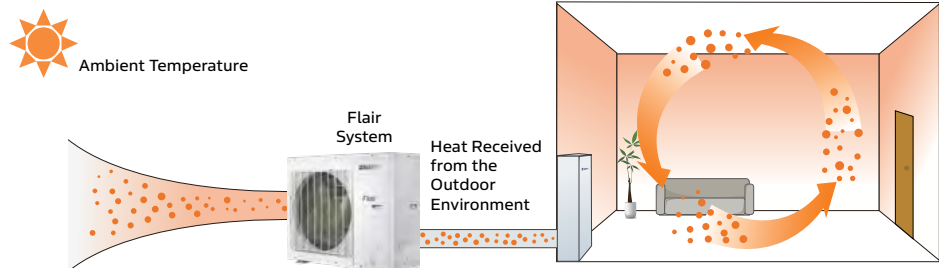
Mode	Outdoor unit operating temperature (°C)	Water temperature (°C)
Heating	-25 - 35	20 - 60
Cooling	-15 - 48	7 - 25
Water Heating	-25 - 45	40 - 80



Outdoor Unit:

Sustainable Energy Converter

With excellent COP values of up to 4.71, Flair uses DC Inverter Technology and R32 Refrigerant that does not damage the ozone layer.



Heat Pump Technology Reduces CO₂ Emissions and Energy Consumption!

Flair has a Heat Pump technology that transfers the heat energy from the outdoor to indoor environment for heating, cooling, and hot water supply and reduces energy consumption and CO₂ emissions considerably.

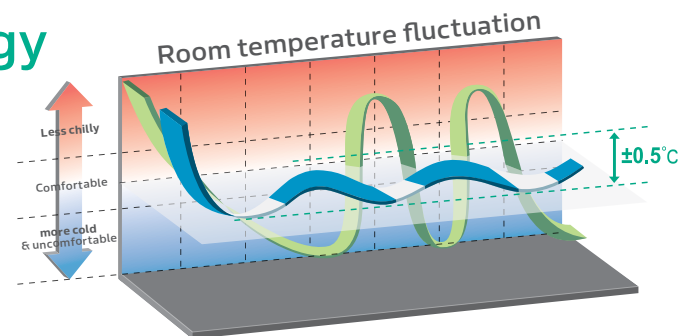
Super DC Inverter Technology

Twin Rotary DC Inverter Compressor

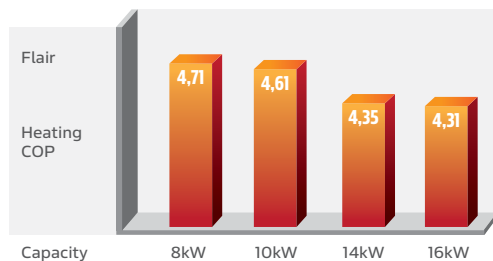
Compared with conventional compressors, the DC inverter compressor has the advantages of high performance and efficiency.

DC Inverter System: Powerful and highly efficient inverter technology not only provides a comfortable life, but also saves energy.

Conventional System: As a result of temperature fluctuation, it turns ON-OFF frequently.



Thanks to the DC Inverter technology, the compressor regulates its output according to the cooling/heating load in order to achieve higher energy efficiency. With stepless power regulation technology, DC Inverter compressor can adjust output between 20Hz and 120Hz without any step.



COP up to 4.71

Flair offers more heating power with less energy consumption with its excellent performance class (COP). The maximum COP value reaches 4.71.

Test Standard: EN15411-2011

Note: ■ In single-phase models

Fan and Motor



Efficient Axial Fan

With its aerodynamic design and very high air flow rate, the efficient axial fan provides a powerful cooling capacity, while ensuring stable operation and reliability of the system.

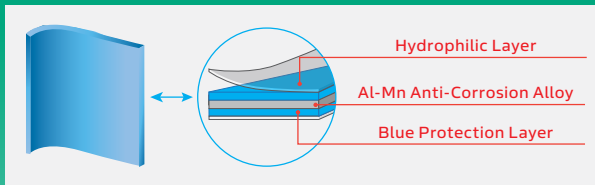
DC Fan Motor

Continuous setting of the DC fan motor provides more air flow and low energy consumption.

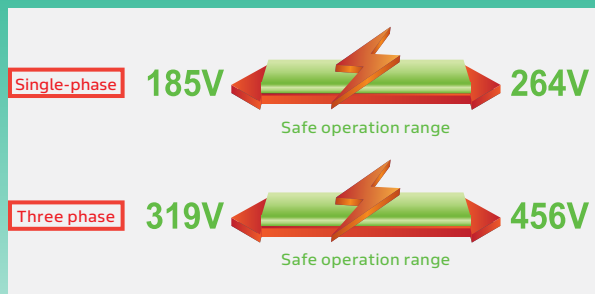
Reliable

Prevention of Corrosion in Heat Exchange

The blue hydrophilic coated aluminum vane with high corrosion protection is more durable than the commonly used fin.



Wide Operating Voltage Range



Automatic Malfunction Detection

With the automatic malfunction detection function, when the voltage or current values go out of the normal range, the outdoor unit will automatically start the protection. When the electricity returns to normal values, the protection is automatically canceled by this function and the system starts operating automatically.

Comfortable

Silent Mode

By adjusting the compressor output and fan speed, the operating sound level of the device can be reduced to 3 dB(A). In this way, it allows quieter operation for night or special occasions.

Precise Temperature Setting

The electronic expansion valve allows the system to automatically adjust according to changes in conditions and water temperature.

Efficient and Energy Saving

Heat Exchanger

Compared with the common fin, the heat exchange efficiency of the louver fin is increased 5%.



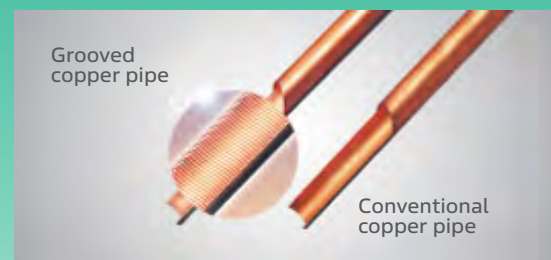
Former models:
Normal flat fin



Flair: Louver fin
with blue coated

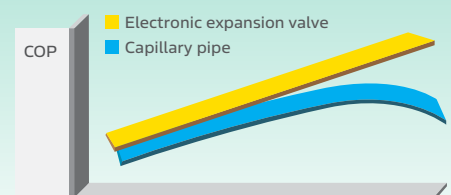
Exclusive Grooved Copper Pipe

The copper tube, which is grooved by a special process, increases the performance of the heat exchanger by more than 8%.



Electronic Expansion Valve

The electronic expansion valve is extremely flexible. It can automatically adjust the flow rate according to the refrigerant requirement for the balance of the system. It is more balanced and economical than capillary tubular systems.



Compact Design

Due to compact design, transportation costs are reduced as it takes up less.



Hydro Indoor Unit:

Heating / Cooling and Domestic Water

The hydro-indoor unit transfers the heat in the refrigerant to the radiators, the underfloor heating system, and the water to be stored in the domestic hot water tank. If the cooling mode is selected, the hydro unit will lower the water temperature to allow the space to cool down.



Lightweight and Compact

Flair Hydro Indoor Unit provides easy installation and adaptation to every space with its compact design and lightweight. High-quality components such as pressure safety, plate heat exchanger, expansion tank, circulation pump and control box are all offered in a compact size.

Superior Efficiency with High Performance Components



High Performance
Coefficient (COP)
Plate Heat

High Efficiency
Pump





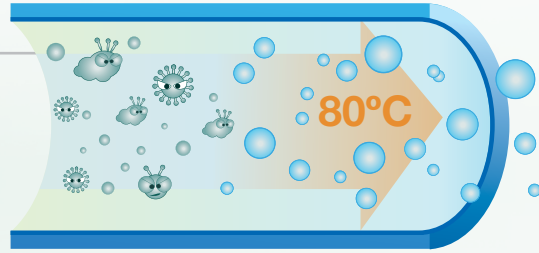
Smart Temperature Control

The advanced control of the system is integrated into the indoor hydraulic unit. Timer can be set hourly or daily. In this way, the temperature is automatically lowered at night or when you are on vacation, so that the temperature is maintained as much as you feel comfortable when you wake up or return home.



Healthy

Domestic water is hygienic and can be used directly. Stainless steel tanks and pipes do not affect water quality. High-temperature disinfection function up to 80°C can prevent bacteria from increasing and create a healthy living experience for the user by providing hygienic water.



Flexible

Due to its versatile operation design, it can also get integrated into solar panels or boilers.



Reliable

While using hot water, it can provide fast storage and continuous supply by filling the water to maintain the water level in the tank.

Isolation of water and electricity from each other ensures safe operation.

Water and electricity are completely isolated from each other, preventing electrical leakage. Advanced microcomputer control and all protection functions help to prevent electrical leakage, dry heating, overheating, etc.



Dry Heating



Electrical Leakage



Overheating

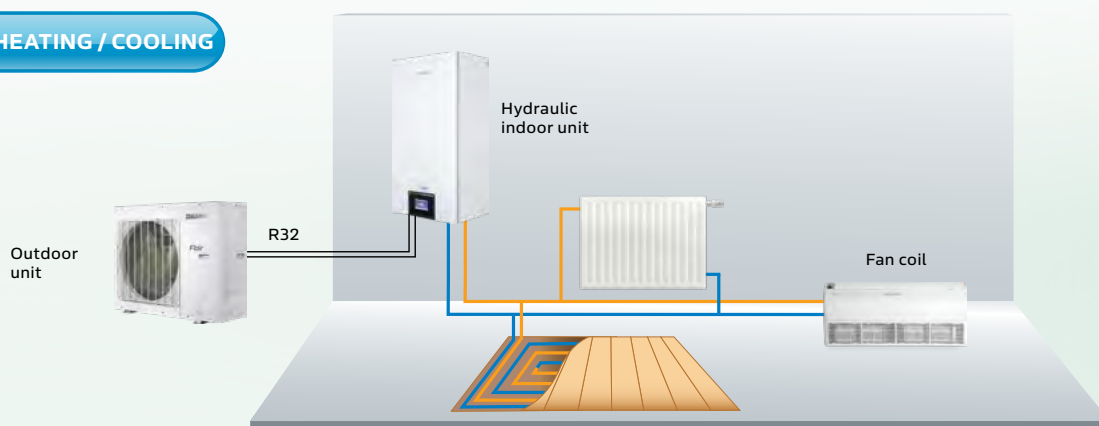


FLEXIBLE APPLICATIONS

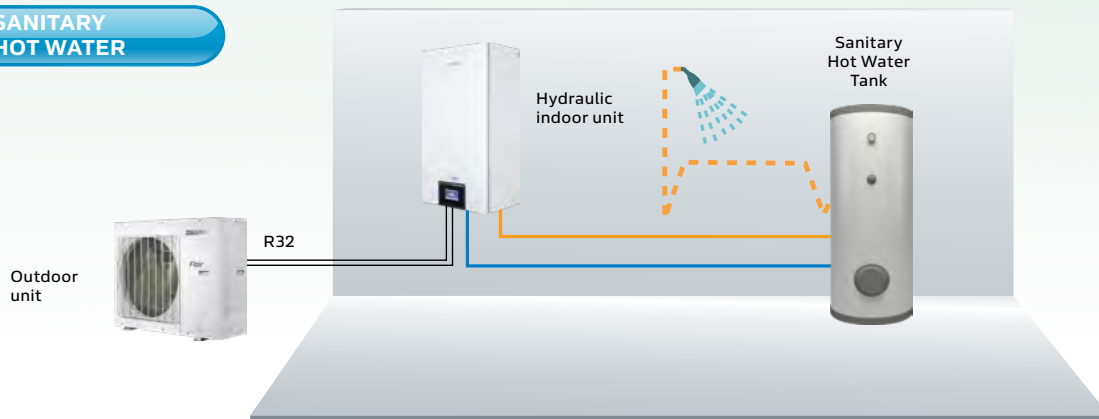


Combination Examples:

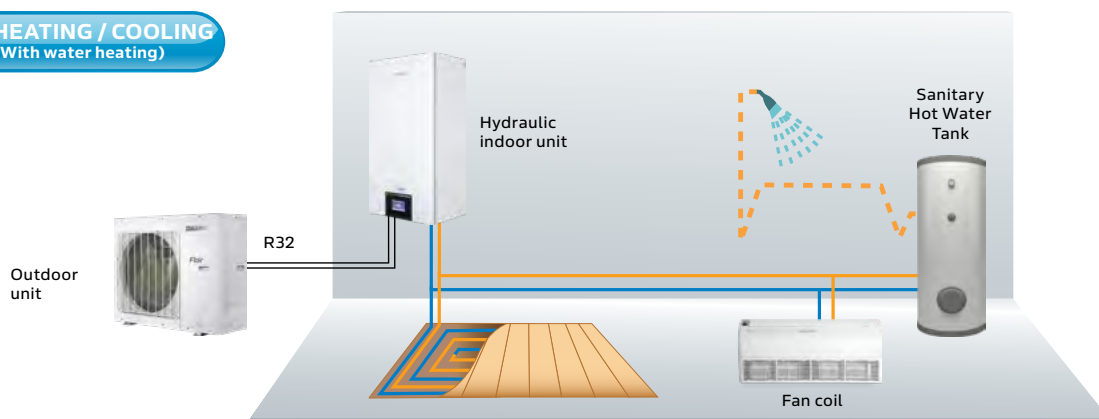
HEATING / COOLING



SANITARY HOT WATER



HEATING / COOLING (With water heating)



Five Different Operating Modes

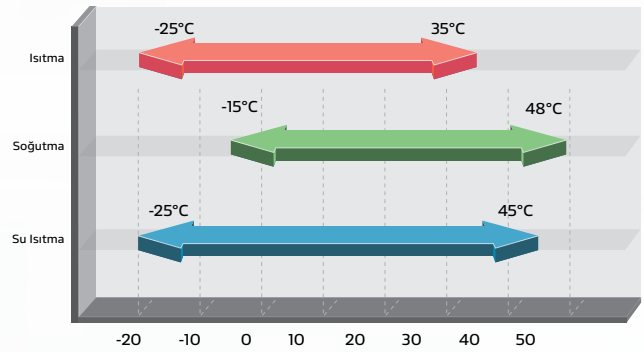
- Heating
- Cooling
- Sanitary Hot Water Tank
- Heating + Sanitary Hot Water Tank
- Cooling + Sanitary Hot Water Tank

Wide Operating Temperature Range

- Heating -25 ~ 35°C
- Cooling -15 ~ 48°C
- Sanitary Hot Water Tank -25 ~ 45°C

Hot Water Temperature Range

Domestic Water: 40°C - 80°C



Heating: Fan coil / Radiator: 20°C - 60°C
Underfloor Heating: 25°C - 45°C

Cooling: Fan coil/Radiator: 7°C~25°C
Underfloor Cooling: 18°C - 25°C

Many Additional and User Friendly Functions



Emergency Water Heating

The heat pump uses the back-up electric heater in case of any malfunction.



Ground Protection

The heat pump uses the back-up electric heater in case of any malfunction.



Underfloor Heating

The default highest water temperature for underfloor heating is 45°C, so it does not damage the floor due to overheating. (The highest water outlet temperature of heating operation for the device is 60°C.)



Underfloor Cooling

The default lowest water temperature for floor cooling is 18°C, so it does not damage the floor due to condensation. (The lowest outlet water temperature of cooling operation for the device is 7°C.)



Rapid Water Heating

To achieve rapid water heating, the heat pump and the electric heater of the water tank operate simultaneously.



Disinfection

The water will be heated up to 80°C at the designated time to kill bacteria in the water. Disinfection process is usually done at night.



Vacation Mode

When the user goes on a trip in winter, the user can set the device to operate automatically to keep the room temperature between 8°C and 15°C.



Weather Dependent Operation

The unit can automatically adjust the operating status according to the outside air temperature or a temperature range set by the user.



User Friendly and Large LED Display



ON / OFF Timer



Forced Operation Mode



Daily / Weekly / Countdown Timer Setting



Silent Mode



Weekly Schedule



Central Control



Emergency Operation Mode (For heating and hot water)

TECHNICAL SPECIFICATIONS

Outdoor Unit

Model			FLRHP0803SP	FLRHP1003SP
Power Source		V/Phase/Hz	230V - 50HZ	230V - 50HZ
Capacity* ¹	Cooling* ³	kW	7.00	8.50
	Heating* ⁴	kW	8.00	9.50
Power Input* ¹	Cooling* ³	kW	1.75	2.24
	Heating* ⁴	kW	1.70	2.07
EER / COP* ¹		W/W	4.00 / 4.71	3.79 / 4.59
Capacity* ²	Cooling* ⁵	kW	5.30	6.50
	Heating* ⁶	kW	8.00	9.50
Power Input* ²	Cooling* ⁵	kW	1.73	2.27
	Heating* ⁶	kW	2.14	2.64
EER / COP* ²		W/W	3.06 / 3.74	2.86 / 3.60
Refrigerant amount		kg	1.60	1.60
Boiler water temperature		°C	40 - 80	40 - 80
Sound pressure level	Cooling	dB(A)	55	55
	Heating	dB(A)	55	55
Connecting pipe	Gas	inch (mm)	12.70	12.70
	Liquid	inch (mm)	6.35	6.35
Dimensions (WxDxH)	External dimensions	mm	982 x 427 x 787	982 x 427 x 787
	Packaged	mm	1097 x 478 x 937	1097 x 478 x 937
Net weight / Gross weight		kg	82 / 92	82 / 92

Model			FLRHP1403SP	FLRHP1603SP
Power Source		V/Phase/Hz	230V - 50HZ	230V - 50Hz
Capacity* ¹	Cooling* ³	kW	12.50	14.50
	Heating* ⁴	kW	13.50	15.50
Power Input* ¹	Cooling* ³	kW	3.05	3.82
	Heating* ⁴	kW	3.22	3.60
EER / COP* ¹		W/W	3.70 / 4.35	3.30 / 4.30
Capacity* ²	Cooling* ⁵	kW	10.00	10.50
	Heating* ⁶	kW	14.00	15.50
Power Input* ²	Cooling* ⁵	kW	4.14	4.73
	Heating* ⁶	kW	3.94	4.56
EER / COP* ²		W/W	2.60 / 3.55	2.50 / 3.40
Refrigerant amount		kg	1.84	1.84
Boiler water temperature		°C	40 - 80	40 - 80
Sound pressure level	Cooling	dB(A)	58	58
	Heating	dB(A)	61	61
Connecting pipe	Gas	inch (mm)	15.4	15.4
	Liquid	inch (mm)	6.35	6.35
Dimensions (WxDxH)	External dimensions	mm	940 x 460 x 820	940 x 460 x 820
	Packaged	mm	1083 x 573 x 973	1083 x 573 x 973
Net weight / Gross weight		kg	106 / 118	106 / 118

Note:

1. Capacities and power inputs are based on the following conditions.

• **Cooling conditions**

Outdoor Air Temperature 35 °C KT/- YT.
Inlet water temperature 23°C.
Outlet water temperature 18 °C

• **Heating conditions**

Outdoor Air Temperature 7 °C KT/ 6 °C YT.
Inlet water temperature 30°C.
Outlet water temperature 35°C
Pipe lenght 5 m.

3. For underfloor cooling.

4. For underfloor heating.

5. For Fancoil units.

6. For Fancoil or radiator.

2. Capacities and power inputs are based on the following conditions.

• **Cooling conditions**

Outdoor Air Temperature 35 °C KT/- YT.
Inlet water temperature 12°C.
Outlet water temperature 7°C

• **Heating conditions**

Outdoor Air Temperature 7 °C KT/ 6 °C YT.
Inlet water temperature 40°C.
Outlet water temperature 45°C
Pipe lenght 5 m.

Hydraulic Indoor Unit

Model	Indoor Unit		FLRHP0803SPO	FLRHP1003SPO
Power Source		V/Phase/Hz	230V ~ 50Hz	230V ~ 50Hz
Rated input		W	100	100
Outlet water temperature	Cooling ¹	°C	18	18
	Cooling ²	°C	7	7
	Heating ¹	°C	35	35
	Heating ²	°C	45	45
Pump	Type	-	Inverter	Inverter
	Number of rpm	-	10	10
	Power input	w	75	75
	Water flow limit	LPM	12	12
Electrical Heater	Operation	-	Automatic	Automatic
	Number of Steps	-	2	2
	Capacity	kW	6	6
	Combination	kW	3+3	3+3
	Power input	Phase/V/Hz	230V ~ 50Hz	230V ~ 50Hz
Sound pressure level		dB(A)	29	29
Connecting pipe	Gas	inch (mm)	12,7	12,7
	Liquid	inch (mm)	6,35	6,35
Dimensions (WxDxH)	External dimensions	mm	460 x 318 x 860	460 x 318 x 860
	Packaged	mm	568 x 390 x 1133	568 x 390 x 1133
Net weight / Gross weight		kg	62 / 71	62 / 71

Model	Indoor Unit		FLRHP1403SPO	FLRHP1603SPO
Power Source		V/Phase/Hz	230V ~ 50Hz	230V ~ 50Hz
Rated input		W	100	110
Outlet water temperature	Cooling ¹	°C	18	18
	Cooling ²	°C	7	7
	Heating ¹	°C	35	35
	Heating ²	°C	45	45
Pump	Type	-	Inverter	Inverter
	Number of rpm	-	10	10
	Power input	w	85	85
	Water flow limit	LPM	12	12
Electrical Heater	Operation	-	Automatic	Automatic
	Number of Steps	-	2	2
	Capacity	kW	6	6
	Combination	kW	3+3	3+3
	Power input	Phase/V/Hz	230V-50Hz	230V-50HZ
Sound pressure level		dB(A)	31	31
Connecting pipe	Gas	inch (mm)	15,4	15,4
	Liquid	inch (mm)	6,35	6,35
Dimensions (WxDxH)	External dimensions	mm	460 x 318 x 860	460 x 318 x 860
	Packaged	mm	568 x 390 x 1133	568 x 390 x 1133
Net weight / Gross weight		kg	62 / 71	62 / 71

Note:

1. Capacities and power inputs are based on the following conditions.

- **Cooling conditions**

Outdoor Air Temperature 35 °C DB/- WB.
Inlet water temperature 23°C.
Outlet water temperature 18 °C

- **Heating conditions**

Outdoor Air Temperature 7 °C DB/ 6 °C WB.
Inlet water temperature 30°C.
Outlet water temperature 35°C
Pipe lenght 5 m.

2. Capacities and power inputs are based on the following conditions.

- **Cooling conditions**

Outdoor Air Temperature 35 °C DB/- WB.
Inlet water temperature 12°C.
Outlet water temperature 7°C

- **Heating conditions**

Outdoor Air Temperature 7 °C DB/ 6 °C WB.
Inlet water temperature 40°C.
Outlet water temperature 45°C
Pipe lenght 5 m.



We are investing in the future with our Alarko Flair environmentally friendly products.
 We use efficient and environmentally friendly products. We are aware that products
 with high energy efficiency are budget and environmentally friendly.
 We fight against global warming with environmentally friendly products.
 We turned our face towards green. We think green.

Flair

The data in this catalog is for reference only. Alarko Carrier reserves the right to make changes to product data at any time.

Manufacturer reserves the right to change any product specifications without notice.

ALARKO



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