

# FLIX

THE POWER OF AIR HEAT ENERGY

Premium Home Solution  
for Comfort

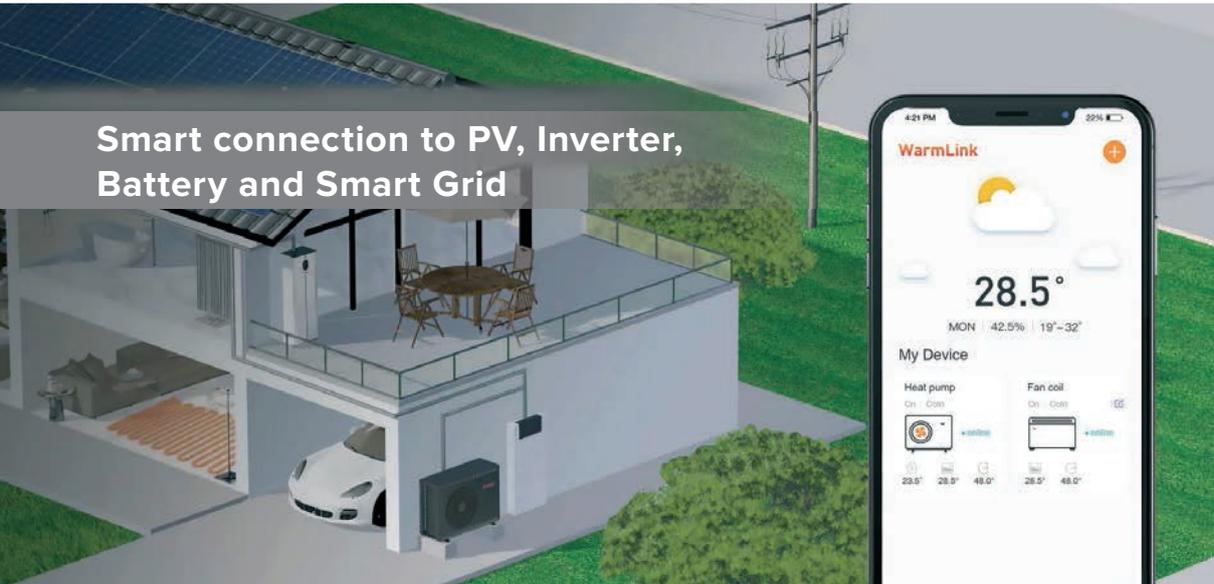


*Flip your life*

2026

# Smart Home Energy Solution

Smart connection to PV, Inverter, Battery and Smart Grid



FLIXX heat pump can connect to users' PV system and maximize the use of PV energy.

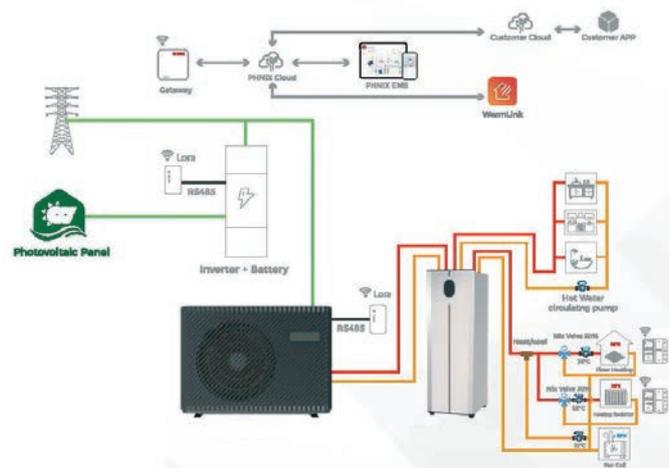


## EMS

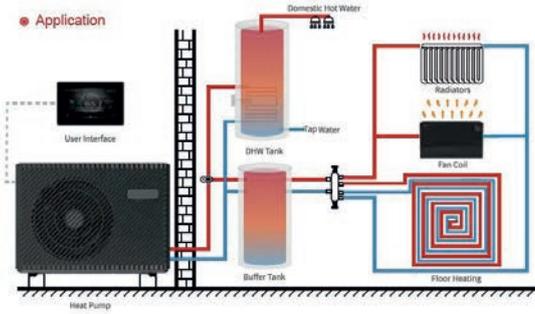
Independently developed EMS system can monitor the energy consumption of users' homes in real time to help users manage home energy usage more smartly and save energy expenses.

**Self-developed platform** and APP empower users to take charge of their energy management system, offering a gateway to a smarter energy future.

For better versatility, PHNIX products are compatible with a variety of energy management systems. They can also seamlessly adapt to users' existing photovoltaic applications.

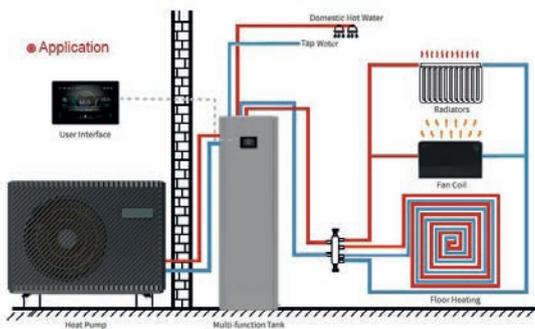


# 3 installation methods



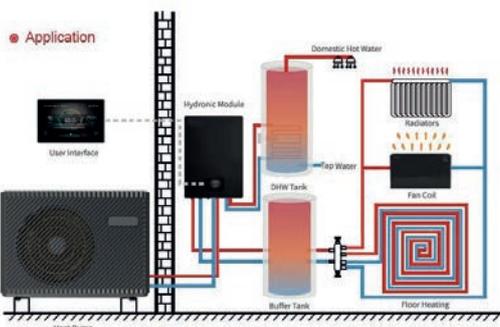
## Traditional installation.

3-way valve, DHW tank, storage tank and protection group are mounted in the boiler room, if necessary, additional electric heaters are integrated into the tanks.



## Installation with a multifunctional tank (ALL IN ONE)

Connect the heat pump directly to the multifunctional tank - this is the most convenient installation method. The multifunctional tank includes a hot water supply (DHW) tank, a buffer tank, an expansion tank, an electric heater for DHW and heating and a protection group.



## Installation with the multifunctional HYDROBOX module

The heat pump is connected directly to the Hydrobox module. It is also recommended to install a buffer tank and a separate tank for hot water supply, depending on the needs for hot water supply.

# FLIXX Green series



## Environmentally friendly

Environmentally friendly R290 refrigerant is fully compatible with conventional lubricants and components. With zero ozone depletion potential (ODP=0) and low global warming potential (GWP=3), it does not require synthetic processing, has a minimal impact on the hydrocarbon balance and does not contribute to the greenhouse effect.

## Optimum thermal performance

R290 has outstanding thermodynamic efficiency, requiring less refrigerant for equipment with equivalent thermal capacity. This not only reduces costs, but also emphasizes its environmental friendliness.

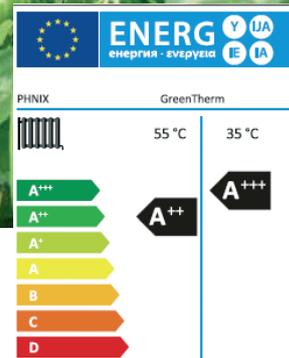
## CO<sub>2</sub> emissions (or Global Warming Potential, GWP) for R290, R32 and R410A:

Gas Type	R290	R32	R410A
GWP	3	675	2088
Weight(kg)	0.8	1.7	2.4
Weight x GWP(kg x GWP)	0.8 x 3	1.7 x 675	2.4 x 2088
CO <sub>2</sub> Emission(kg)	2.4	1350	5011
Conversion of Different Means of Transportation	 20-minute drive by car about 14.8km	 4-hour flight from Hongkong to Singapore	 17-hour flight from Hongkong to Chicago

As an example of a 12 kW R32 heat pump with the same performance, it can be noted that the R32 refrigerant charge is 1.7 kg, while R290 requires only 0.8 kg, which is 40% of the R32 refrigerant volume. Despite the significantly smaller amount of refrigerant, the R290 heat pump is able to provide the same or even higher performance.



# A+++



**FLIXX Green Series** is able to maintain high energy efficiency across various ambient temperatures, ensuring optimal comfort while minimizing energy consumption.

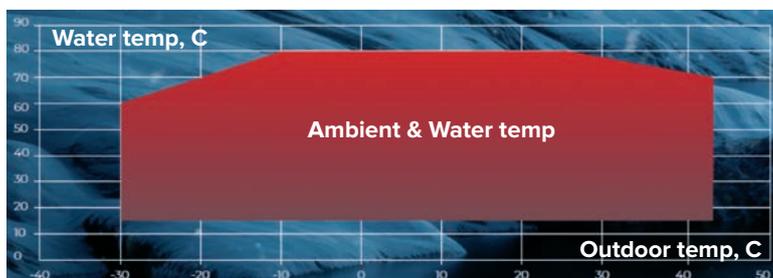
**A+++ energy label at 35°C**  
**A++ energy label at 55°C**



## Outstanding cold-weather performance

- Low-temperature operation, capable of running in environments as cold as -30°C.
- Taking the year-round washer conditions in Helsinki, Finland as an example, even during extremely cold and sudden weather, this heat pump can operate with backup heat sources. Moreover, the heat pump can essentially meet the year-round heating needs of the house.

## Heating working range



- Elevate home comfort with outlet water temperatures soaring up to 75°C.
- Added hygiene as GreenTherm comes equipped with a disinfection feature, ensuring clean and sanitary water output.

# Noise Reduction Technology

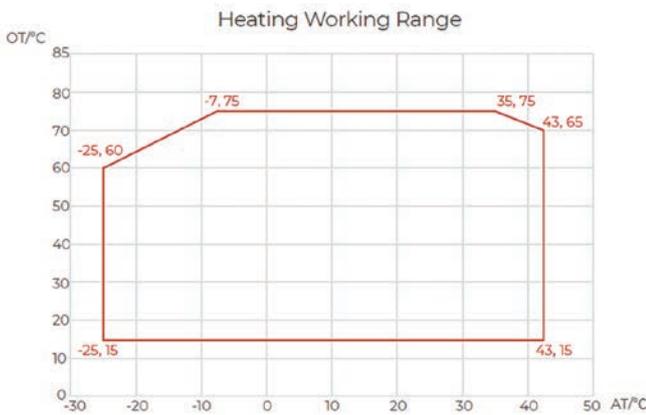
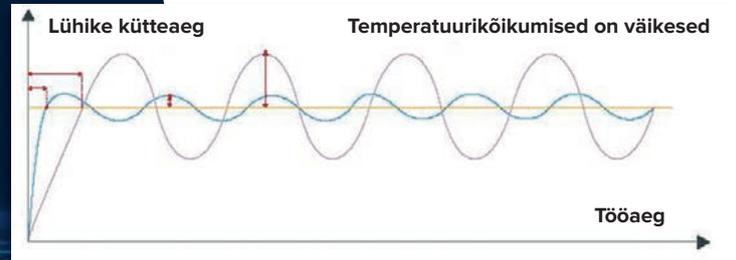


## Nominal sound pressure lower to 42-48 dB(A)

- Compressor features advanced noise reduction technology and utilizes a high-efficiency, low-noise motor.
- Optimized fan blades and improved airflow for a smoother air output, further reducing noise.
- Professional compressor base design reduces unit vibrations, consequently minimizing operational noise.



# Full Inverter Technology



## Stable Running at -25°C Ambient Temperature

Performs stably in environments as low as -25°C, maintaining efficiency even in extreme winter conditions.

## AI Technology

AI Heat Pump integrates Europe local electricity prices, ambient temp., flow/return water temp., energy consumption, COP, and other data. Through advanced computation (AI Calculation), it determines the optimal compressor frequency and valve opening to maintain peak operating efficiency—maximizing COP and savings.

**Industry-First**  
AI-CoreTech Heating Solution

**30%+ ENERGY SAVING**

**REGULAR FULL INVERTER**

- A solidified fixed inverter logic, running at max frequency low COP running.

**AI FULL INVERTER**

- Trained on an Experimental Ocean - Trained by more than 300,000 heat pumps running.
- Globally Validated - 60 Country Field Tests, Localized AI Tuning.
- Context-Adaptive Inverter Logic - Dynamically adjust running logic by different environment and users habit.

TUV certified  
CoreTech  
AI

## Dual Zone Control



# Installation with Multifunc Module



## Patented Design

Product Patent Number.  
2L 2021 2 16182715

## Compact Inner Structure Design

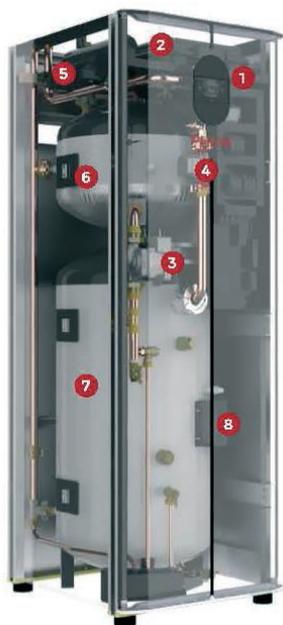
The compact Inner structure makes the water tank very fisible in installation und it won't take up too much space In the users' home.

## Stable Temperature

Supplying stable hot or cool water for either far coll or for heating coll. the water tank enables unars to enjoy more gentle cool air In summer, and the more stable and warm temperature in winter.

## Separate DSS Liner

The Duplex Stainless Steel(D55) liner Is strongly anti-corrosion and quake proofed which enaures long service llfe. Besides, with it, the heat pump can provide stable hot water while performing house hanting.



- 1) Color controller
- 2) Expansion tank 12l
- 3) Circulation pump (Optional)
- 4) 3-way valve for DHW
- 5) Electric heater for heating 3+6 kW
- 6) Accumulator tank 60l
- 7) Hot water tank 180l
- 8) Electric heater for DHW 2 kW



	MULTIFUNCTION (ALL IN ONE)
Power Supply	380-415V/50Hz
Max. Power input (kW)	13.2
Max. Current input (A)	20
Net Weight (kg)	137
Electrical Heater (kW)	3+6
Electrical Heater DHW (kW)	2
DHW tank volume (L)	180
Buffer tank volume (L)	60
Expansion tank volume (L)	12
Water connection on the heat pump side supply/re- turn (inches)	1
Cabinet type	Galvanizes sheet metal
Unit Dimensions (L x W x H) mm	665x595x1800
Shipping Dimensions (L x W x H) mm	780x685x1950

# Installation with Hydraulic Module



Integrated hydraulic components to make Installation easier.

Include a modulating electric heater, speed up the heating in extremely cold weather accordingly.

With an electrical box, It's convenient for cable wiring and maintenance.



- 1) Color controller
- 2) Expansion tank 10l
- 3) Circulation pump (Optional)
- 4) 3-way valve for DHW
- 5) Electric heater 3+6 kW

HydroBox Flixx-10 contains integrated main components including water pump, valves, filters, constant pressure water filling device, electric control unit, etc.

This unit has one of the thinnest housings on the market - its depth is 295 mm.

	HydroBox Flixx-10 white/black
Power Supply	380-415V/3N/50Hz
Water Temp. Range (C)	5-75
Filling Water Connection (inch)	3/4
Drain Connection (inch)	3/4
Heat Pump Side Water Connection (inch)	1
Heating Side Water Connection (inch)	1
Hot Water Side Water Connection (inch)	1
Max. Water Pressure (bar)	3
Water Head (m), flow rate is 1.7m <sup>3</sup> /h	9.8
Water Pressure Drop (kPa), flow rate is 1.7m <sup>3</sup> /h	22
Expansion Tank (L)	10
Electrical Heater (kW)	3+6
Sound Pressure at 1 Meter (dB(A)), flow rate is 1.7m <sup>3</sup> /h	35
Dual Zone Control	Yes
Net Weight (kg)	53
Unit Dimensions (L x W x H) mm	665x485x295

# BLIZZARD

## SPECIFICATIONS:



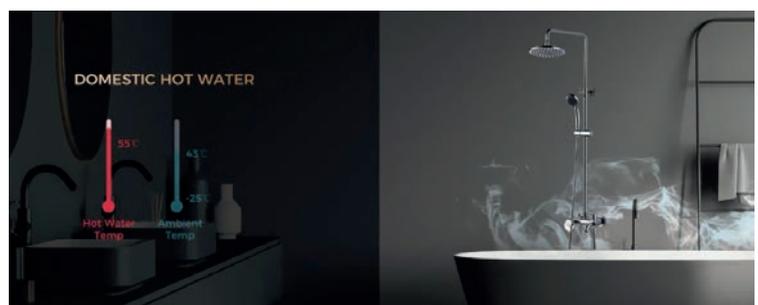
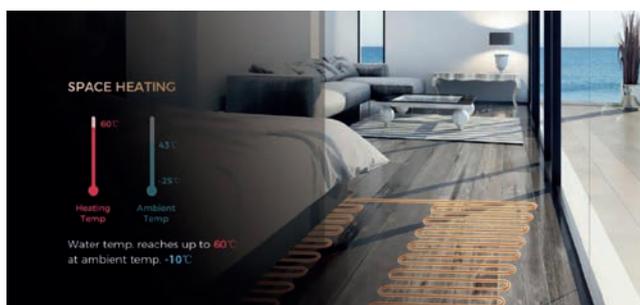
	<b>BLIZZARD 2-10</b>	<b>BLIZZARD 4-16</b>	<b>BLIZZARD 5-22</b>
Power Supply	220-240V~/50Hz	380~415V/3N~/50Hz	380~415V/3N~/50Hz
Heating Condition – Ambient Temp.(DB/WB): 7/6°C. Water Temp. (In/Out): 30/35°C			
Nominal Capacity (kW)	7	10	17
Heating Capacity Range (kW)	1.80-9.60	4.3-15.5	4.5-22.0
Heating Power Input Range (kW)	0.49-2.35	0.95-4.2	1.0-5.6
Heating Condition – Ambient Temp.(DB/WB): 7/6°C. Water Temp. (In/Out): 47/55°C			
Nominal Capacity (kW)	7	10	17
Heating Capacity Range (kW)	2.25-8.30	5.8-16.0	6.9-22.0
Heating Power Input Range (kW)	0.93-3.09	1.82-6.08	1.9-7.1
Heating Capacity (A-7W35 EN 14511) (kW)	6,2	13,1	16,5
Heating Power Input (A-7W35 EN 14511) (kW)	2,11	4,52	5,5
COP (A-7W35 EN 14511) (kW/kW)	2,93	2,9	3
Heating Capacity (A-7W55 EN 14511) (kW)	5,87	13	16,5
Heating Power Input (A-7W55 EN 14511) (kW)	2,56	6,18	7,2
COP (A-7W55 EN 14511) (kW/kW)	2,29	2,11	2,29
Cooling Condition – Ambient Temp.(DB/WB): 35/24°C. Water Temp. (In/Out): 23/18°C			
Cooling Capacity Range (kW)	2.10-9.90	4.0-14.5	8.0-23.0
Cooling Power Input Range (kW)	0.50-3.25	0.88-4.5	1.75-6.9
Cooling Condition – Ambient Temp.(DB/WB): 35/24°C. Water Temp. (In/Out): 12/7°C			
Cooling Capacity Range (kW)	1.60-6.75	3.0-11.2	6.2-17.7
Cooling Power Input Range (kW)	0.60-2.65	0.85-4.3	1.7-6.5
Max. Power Input (kW)	3,9	9,35	10,8
Max. Current Input (A)	17	19	16,5
ERP Level at outlet water temperature 35°C	A+++	A+++	A+++
ERP Level at outlet water temperature 55°C	A++	A++	A++
Refrigerant Type	R290	R290	R290
Refrigerant Volume (kg)	0,65	1,1	1,7
Sound Pressure (1m) (dB(A))	45	46	48
Sound Power Level (EN12102) (dB)	56	60	64
Net Weight (kg )	115	170	186
Unit Dimension(L/W/H) (mm)	1173 × 403 × 800	1287 × 458 × 928	1250 × 540 × 1330
Shipping Dimension(L/W/H) (mm)	1300 × 485 × 935	1420 × 540 × 1080	1380 × 570 × 1480
Compressor Brand	Panasonic	Panasonic EVI	Panasonic EVI
Circulation Pump Brand	SHIMGE	SHIMGE	SHIMGE
Operating Ambient Temperature	-25...+43	-28...+43	-28...+43
Fan Motor Type	DC	DC	DC
Water Connection (inch)	1	1	1
Rated Water Flow (m <sup>3</sup> /h)	1,2	1,72	2,92
Water Pressure Drop @Rated Water Flo (kPa)	15	20	32
Circulation Pump Head @Rated Water F (m)	7,5	8	10,4
Cabinet Type	Galvanized sheet+ABS	Galvanized sheet+ABS	Galvanized sheet+ABS

# FLURRY

## SPECIFICATIONS:



	FLURRY 4-16	FLURRY 5-23
Power Supply	380~415V/3N~/50Hz	380~415V/3N~/50Hz
Heating Condition – Ambient Temp. (DB/WB): 7/ 6°C, Water Temp. (In/ Out): 30/35°C		
Nominal Capacity (kW)	12	17
Heating Capacity Range (kW)	4,3-18,7	4,5-22,7
Heating Power Input Range (kW)	0,67-4,33	0,9-5,0
ERP Level at outlet water temperature 35°C	A+++	A+++
ERP Level at outlet water temperature 55°C	A+++	A+++
Refrigerant Type	R290	R290
Refrigerant Volume (kg)	R290/1,3	R290/1,7
Sound Pressure (im) (dB(A))	41	42
Sound Power Level (EN12102) (dB)	49	50
Net Weight (kg)	214	263
Unit Dimension (L/W/H) mm	1438x543x1106	1438x543x1522
Shipping Dimension (L/W/H) mm	1588x623x1206	1588x623x1622
Compressor	Panasonic	Panasonic
Circulation Pump	Grundfos	Grundfos
Operating Ambient Temperature	-30...43	-30...43
Fan Quantity	1	2
Fan Motor Type	DC	DC
Water Connection (inch)	1	1
Rated Water Flow (m <sup>3</sup> /h)	2.06/1.3	2.92/1.83
Water Pressure Drop @Rated Water Flow (kPa)	20	25
Circulation Pump Head ©Rated Water Flow (m)	8.5	12.5
Cabinet Type	Galvanized sheet metal+ASA+EPP	Galvanized sheet metal+ASA+EPP



# Features and benefits of FLIXX heat pumps

## Integrated Design

The integrated design integrates the heat pump system into a single unit, saving installation space and simplifying maintenance. In addition, placing the heat pump outdoors not only frees up indoor space, but also eliminates the risk of refrigerant leakage in the room, creating a more comfortable and safe environment for the user.

## Patented Defrost Technology

Equipped with PHNIX's exclusive defrost technology, our motherboard has outstanding defrost control capabilities. This advanced technology not only improves the heat pump's efficiency, but also extends its overall lifespan, ensuring stable and reliable operation even in the harshest conditions.

## Fully upgraded motherboard

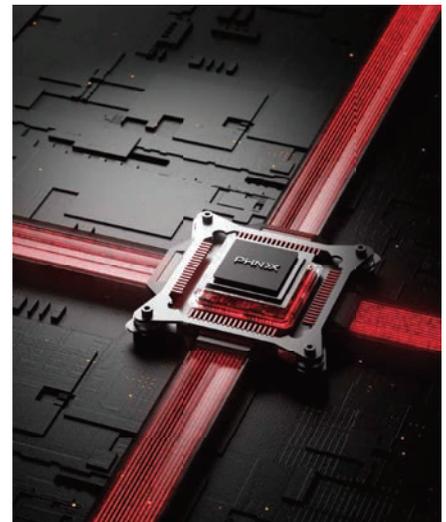
New motherboard with more features

## Plug and play design

### SG-Ready compatibility

### Dual-zone control (different outlet temperatures)

### Temperature compensation



## Smart Touch Display

### Touch Operation

- Effortless touchscreen controls for easy operation.
- Sleek and aesthetic design for simplicity.

### Versatile Installation

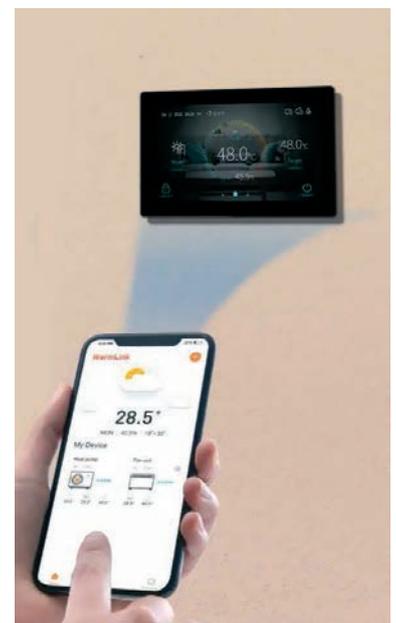
- Wall-mountable with the option for waterproof casing.
- Adaptable to various installation scenarios.

### Multi-Language Support

With support for up to 13 languages, it offers a user-friendly experience catering to a diverse global audience.

### Advanced Monitoring and Recording

- Access to temperature curves for water, ambient, and environmental conditions within the last 45 days.
- Retrieve operational data under different loads, facilitating comenter Installation, debugging, and after-sales service.



# Cascade Controller



- Connection of up to 16 heat pumps into a single system.
- Weather-dependent regulation.
- Rotation of units based on compressor operating time.
- Proportional activation of units depending on the building's needs for heat or cold.
- Automatic addressing of units.
- Smart control of the defrosting process.

## Smart control family



### Remote control, monitoring and maintenance system Warmlink and IOT Cloud

All FLIXX heat pumps are equipped with a wireless module that allows connection to a remote monitoring and control system. Connection is via Wi-Fi or 4G communication module integrated into the heat pump housing.

#### Warmlink application for smartphone:

- Temperature adjustment.
- Setting of operating timers.
- Switching of operating modes.
- Notifications about faults.
- Monitoring of energy consumption.

#### Cloud service IOT Cloud for installation and maintenance companies:

- Full access to all installed devices.
- Operation statistics, graphs, changing settings and remote diagnostics of devices.
- Software updates.
- Monitoring and reporting of faults via email or web interface 24/7.
- Remote support and maintenance work from the device manufacturer.



# Swimming pool heat pump Njord



## Advanced Heat Pump Technology

Not only is the unit designed with superior appearance, but also powerful performance. With mature inverter technology combined with the adoption of Mitsubishi compressor, the unit can maintain high COP at 16 while running silently, which create wonderful swimming atmosphere for you!

## Low Noise Running

A fully enclosed cabinet is specially designed for the compressor so that the running noise can be kept inside and the noise of the whole unit can maintain very low.

## Double-side Airflow Outlet

The unit uses own patent double-side airflow cabinet which through years of application in the market is proven to be highly efficient in heat exchange and outstandingly silent during operation.

## Matt-finished Sheet Metal Cabinet

On the cabinet, the lively interplay of matt-finished surfaces combined with irregular shaped pattern is reminiscent of a high-performance swimming pool heat pump products.

## Modern Controller

The unit utilizes a smart big button and touch combined display which is incomparably easy to use. Moreover, the display can be installed simply by plugging in the machine and removes easily when maintenance and replacement.



## App control

Simplify your life with AQUA TEMP. Via connection by Bluetooth, Wi-Fi and 4G, you can take full control of your swimming pool heat pump from anywhere in your home or office with a single app on your smartphone.

FLIXX Njord models	SP 20-40	SP D30-55	SP 40-70	SP 50-85	SP 60-100	SP3 70-115	SP3 80-130
Advised pool volume (m <sup>3</sup> )	20-40	30-55	40-70	50-85	60-100	70-115	80-130
Operating air temperature (°C)	-10~43						
Rated power	1,6	2,13	2,36	3,22	3,17	4,91	5,28
Refrigerant	R32						
Certification	CE						
Air 27°C/Water 26°C / Humid. 80%							
Heating Capacity(kW)	1.4~7.1	1.9~9.5	2.4~13	2.5~17.8	3.5~20	7.7~25	7.8~27.8
Consumed power (kW)	0.087-1.09	0.118-1.39	0.145-1.96	0.151-2.78	0.214-3.07	0.481~4.10	0.488~4.71
COP	16~6.5	16.1~6.8	16.5~6.6	16.5~6.4	16.3~6.5	16.0~6.1	16.0~5.9
Air 15°C/Water 26°C/Humid. 70%							
Heating Capacity(kW)	1.1-5.5	1.4~7.0	1.6~9.1	2.3~12.8	2.5~14.7	4.9~18.9	5.0~21.2
Consumed power (kW)	0.157-1.22	0.205-1.48	0.238-1.89	0.353-2.66	0.357-3.19	0.754~4.11	0.769~4.81
COP	7~4.5	6.8~4.7	6.7~4.8	6.5~4.8	7~4.6	6.5~4.6	6.5~4.4
Air 10°C/Water 26°C/Humid. 64%							
Heating Capacity(kW)	0.9-4.0	1.2-5.5	1.6-7.2	2.0-9.8	2.6-11.3	3.6-14.2	3.7-15.9
Consumed power (kW)	0.20-1.25	0.27-1.72	0.33-2.18	0.40-2.80	0.58-3.32	0.80-4.06	0.82-4.68
COP	4.5-3.2	4.5-3.2	4.8-3.3	4.9-3.5	4.5-3.4	4.5-3.5	4.5-3.4
Air 35 °C /Water 28 °C / Humid 80 %							
Cooling Capacity(kW)	1.92-3.5	1.92-3.5	2.06-3.65	2.50-4.54	4.64-8.96	6.56-11.40	6.56-11.40
Consumed power (kW)	0.48-1.14	0.48-1.14	0.50-1.29	0.85-2.01	1.21-2.64	1.61-3.17	1.61-3.17
EER	4.0-3.07	4.0-3.07	4.12-2.83	2.94-2.26	3.83-3.39	4.07-3.60	4.07-3.60
Power Supply	220-240V~/1Ph 380V~/3N						
Fan Quantity	1	1	1	1	1	1	1
Fan Speed (RPM)	400-700	400-750	400-800	400-750	500-750	500-800	500-850
Sound Pressure 1m dB(A)	36-45	36-46	37-47	40-50	41-51	43-53	45-54
Sound Pressure of 50% capacity at 1m dB(A)	42	43	44	44	45	47	47
Sound Pressure 10m dB(A)	16-25	16.5-27	19-28.5	20-30	21-31	23-33	25-34
Water Connection (mm)	50						
Water FlowVolume (m <sup>3</sup> /h)	2,4	3,2	4,1	5,2	5,6	10,3	12,5
Water Pressure Drop (max) kPa	2	3	4	5	6	7	8
Net Dimensions L/W/H (mm)	1030*455*635	1030*455*635	1030*455*635	1130*500*800	1210*530*900	1210*530*900	1210*530*900

## FREYA



Heating capacity 3.3 to 7.4 kW  
 Heating temperature up to -25°C at outdoor temperature  
 Cooling temperature up to +48°C at outdoor temperature  
 Refrigerant R32  
 Wi-Fi  
 Self-diagnosis  
 Sleep mode  
 Anti-icing system  
 Fan speed control  
 Turbo mode  
 Warm start  
 Screen off  
 Air direction control  
 Hidden digital display  
 Automatic restart  
 Timer  
 Quiet operation  
 Economy mode  
 Ventilation mode  
 Golden heat exchanger protection cover  
 Service valve protection  
 Drying mode

## SKADI



Heating capacity 2.6 to 7.1 kW  
 Heating temperature up to -15°C at outdoor temperature  
 Cooling temperature up to +48°C at outdoor temperature  
 Refrigerant R32  
 Wi-Fi  
 Self-diagnosis  
 Anti-icing system  
 Warm start  
 Hidden digital display  
 Silent operation  
 Anti-corrosion coating  
 Sleep mode  
 Turbo mode  
 Vertical air direction adjustment  
 Timer  
 Ventilation mode  
 Drying mode  
 Fan speed adjustment  
 Display off  
 Auto restart  
 Economy mode  
 Washable filter





### SPECIFICATIONS:

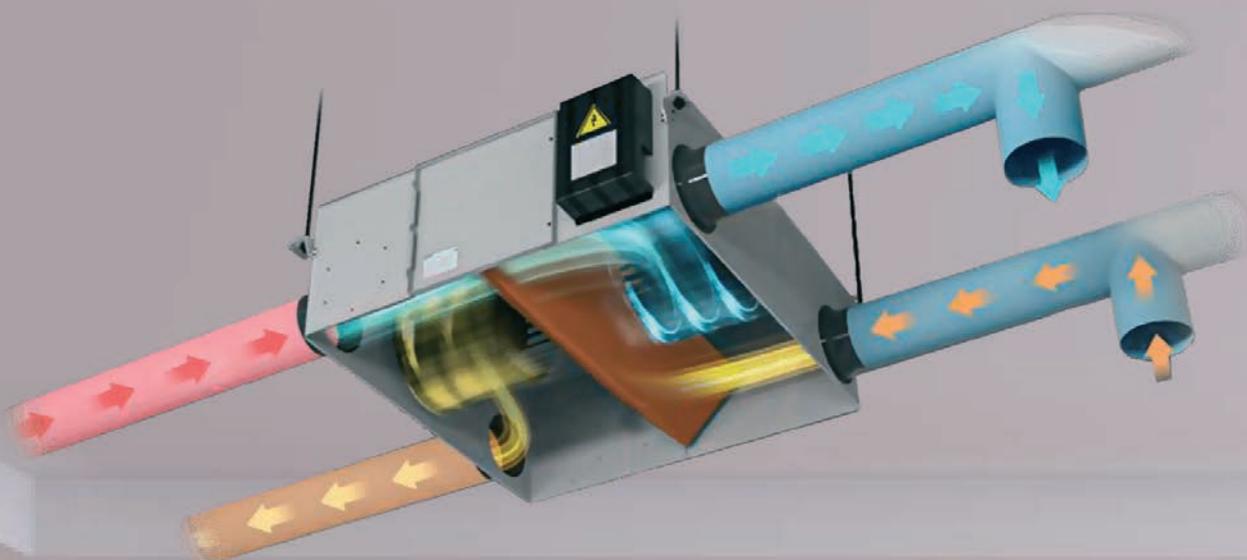
Model				FR09MD33M+	FR12MD42M+	FR18MD58M+	FR24MD74M+
Nameplate Parameter	Rated Capacity	Cooling	W	2750 (600~4000)	3650 (700~4100)	5400 (1300~5900)	7300 (1800~7400)
		Heating	W	3300 (800~4200)	4200 (900~4200)	5800 (1300~6100)	7420 (1800~8000)
	Rated Input Power	Cooling	W	720 (100-1200)	870 (130-1550)	1430 (290-1950)	1700 (230-2300)
		Heating	W	800 (200-1200)	1060 (230-1300)	1330 (250-1800)	2300 (230-2530)
	Rated Input Current	Cooling	A	3.3 (0.5-5.32)	4.2 (0.6-5.8)	6.4 (2.2-6.8)	7.9 (1.0-10.0)
		Heating	A	3.9 (1.0-5.30)	4.8 (1.0-6.3)	6.1 (2.0-8.0)	10.5 (1.0-11.0)
	Max. Input Power		W	1410	1778	2650	3200
	Max. Input Current		A	6,4	8,1	12,0	14,6
	SEER		/	A+++ 8.5	A+++ 8.5	A+++ 8.8	A+++ 8.7
	SCOP cold zone		/	A++ 4.6	A++ 4.6	A++ 4.6	A++ 4.6
	SCOP average zone		/	A+++ 5.9	A+++ 5.5	A+++ 5.8	A+++ 5.4
	Power supply source		V/Ph/Hz	220-240V-1-50Hz	220-240V-1-50Hz	220-240V-1-50Hz	220-240V-1-50Hz
	Refrigerant			R32	R32	R32	R32
	Refrigerant Charged		kg	0,39	0,57	0,77	1
	Air Flow Volume		m³/h	350/400/480/550/700	430/520/580/650/800	700/780/870/900/1000	820/990/1100/1200/1400
	IDU-Noise level		dB(A)	20/24/27/31/35	20/24/27/31/35	24/28/33/37/42	26/32/35/39/43
	ODU-Noise level		dB(A)	48	49	50	53
	Indoor unit weight (Net)		kg	8	9	10	14
	Outdoor unit weight (Net)		kg	22	24	33	44
	Indoor unit weight (Gross)		kg	11	12	13	17
Outdoor unit weight (Gross)		kg	24	27	36	48	
Indoor unit configuration	Net Dimension (WidthxHeightxDepth)		mm	726*250*200	825*290*210	940*320*240	1120*320*240
	Packing Dimension (WidthxHeightxDepth)		mm	770*335*280	880*350*270	985*375*315	1168*405*330
Outdoor unit configuration	Connection	Liquid Valve	inch	1/4'	1/4'	1/4'	1/4'
		Gas Valve	inch	3/8'	3/8'	1/2'	5/8'
	Compressor	Type		ROTARY	ROTARY	ROTARY	ROTARY
		Brand		GMCC	GMCC	GMCC	GMCC
		Throttling gear		capillary	capillary	capillary	capillary
	Net Dimension (WidthxDepthxHeight)		mm	738*246*462	788*300*540	888*295*600	903*322*655
	Packing Dimension (WidthxDepthxHeight)		mm	775*315*495	825*380*570	915*390*640	933*422*700
Ambient temperature (cooling)		°C	+16 ~ +48	+16 ~ +48	+16 ~ +48	+16 ~ +48	
Ambient temperature (heating)		°C	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	



### SPECIFICATIONS:

Model				SK09AG27AIR	SK12AG35AIR	SK18AG53AIR	SK24AG71AIR
Nameplate Parameter	Rated Capacity	Cooling	W	2650 (700~3100)	3540 (1000~4200)	5280 (1500~6000)	7100 (2400~8000)
		Heating	W	2750 (700~3200)	3680 (1000~4500)	5400 (1600~6100)	7420 (2400~8300)
	Rated Input Power	Cooling	W	752	1020	1510	2150
		Heating	W	736	992,0	1450	1998
	Rated Input Current	Cooling	A	3,6	4,9	7,2	10,3
		Heating	A	3,5	4,7	6,9	9,6
	Max. Input Power		W	1200	1600	2400	3400
	Max. Input Current		A	8,3	9,1	11,1	15,8
	SEER		CLASS	A++	A++	A++	A++
			W/W	6,83	7,01	6,81	6,82
	SCOP		CLASS	A+/A+++	A+/A+++	A+/A+++	A+/A+++
			W/W	4,21	4,22	4,20	4,13
	Power supply source		V/Ph/Hz	220-240V-1-50Hz	220-240V-1-50Hz	220-240V-1-50Hz	220-240V-1-50Hz
	Refrigerant			R32	R32	R32	R32
	Refrigerant Charged			0.31 kg	0.450 kg	0.72 kg	0.9 kg
	Air Flow Volume		m³/h	320/350/400/480/550	610/540/480/420	610/700/780/870/900	630/820/990/1100/1200
	IDU-Noise level		dB(A)	20/24/27/31/35	20/24/27/31/35	24/28/33/37/42	26/32/35/39/45
	ODU-Noise level		dB(A)	50	50	52	54
	Indoor unit weight (Net)		kg	8	8,5	10	14
	Outdoor unit weight (Net)		kg	25	25	30	34
Indoor unit weight (Gross)		kg	10	11	13	17	
Outdoor unit weight (Gross)		kg	27	27	33	37	
Indoor unit configuration	Net Dimension (WidthxDepthxHeight)		mm	700*250*190	810*290*190	910*320*230	1100*320*230
	Packing Dimension (WidthxDepthxHeight)		mm	775*320*285	875*375*285	985*375*315	1165*395*315
Outdoor unit configuration	Connection	Liquid Valve	inch	1/4"	1/4"	1/4"	1/4"
		Gas Valve	inch	3/8"	3/8"	1/2"	1/2"
	Compressor Parameter	type		ROTARY	ROTARY	ROTARY	ROTARY
		Brand		HIGHLY	GMCC	GREE	GREE
	Throttling gear			capillary	capillary	capillary	capillary
		Net Dimension (WidthxDepthxHeight)		mm	738*246*462	738*246*462	800*285*520
Packing Dimension (WidthxDepthxHeight)		mm	775*315*495	775*315*495	825*380*570	915*390*640	
Common parameters	Max pipe length		m	25	25	30	35
	Max height difference		m	10	10	15	20
	Standard pipe length (no additional refrigerant required)		m	3.5	3.5	3.5	3.5
	Ambient temperature (cooling)		°C	+16 ~ +48	+16 ~ +48	+16 ~ +48	+16 ~ +48
	Ambient temperature (heating)		°C	-15 ~ +24	-15 ~ +24	-15 ~ +24	-15 ~ +24

# Energy-saving ventilation



## Energy recovery fan provides fresh air with minimal energy costs

### **EPS integrated structure + galvanized steel**

Good sealing, strong and durable machine body with smooth and low noise airflow.

### **Automatic bypass**

100% bypass, switches according to indoor and outdoor air temperature.

### **Optional intake and exhaust air direction**

Optional air inlet and outlet in different directions, easy on-site installation and pipe layout according to on-site conditions.

## Heat

### Recovery Mode

In this mode, the energy in the exhaust air can be reused to heat (in winter) or cool (in summer) the fresh air, reducing energy loss.

## Bypass mode

When the outdoor air is comfortable, fresh air can be directly introduced into the room without heat exchange, and at the same time, the air blown out of the room can be discharged to improve indoor air quality.

## Auto

### Start Mode

The unit will operate automatically according to the timer setting. When the auto bypass function is ON, the unit will operate in heat exchange mode or bypass mode depending on the outdoor temperature.

## Sleep mode

In sleep mode, the device operates at the lowest speed and the backlight is turned off.

## Main features

- ① Fan speed selection
- ② Pressure balancing
- ③ Screen lock
- ④ ON/OFF timer
- ⑤ Weekly timer
- ⑥ Filter/heat exchanger alarm
- ⑦ Shutdown memory
- ⑧ Fault alarm
- ⑨ Auto bypass
- ⑩ Auto defrost
- ⑪ Engineer mode

## Advanced features

- ① Low temperature operation
- ② Temperature correction
- ③ Advanced sleep function
- ④ Smart airflow compensation

## Reserved functions

- ① Cloud control
- ② Forced air dehumidification
- ③ Forced CO2 removal
- ④ Filter pressure switch alarm
- ⑤ Various signal connections

## Occlusal edge sealing technology

Improves the overall strength of the machine and makes it work more smoothly.

## High efficiency and energy saving

Plastic encapsulated DC motor with low power consumption, high static pressure and long service life.

## Full heat exchanger with plastic frame

High heat exchange efficiency, integrated compact and delicate filter slider.

# FRIGG – horizontal heat recovery ventilation



Touch control



APP Management

Supplied kit:

- Electric preheater
- CO2 sensor
- Humidity sensor
- WI-FI
- H10 Filter
- DC FAN
- Enthalpy heat exchanger
- Modbus control
- Auto Bypass function
- Automatic control based on humidity, CO<sub>2</sub> and VOC levels

## SPECIFICATIONS:

Model	FRIGG FAH-250 Advance	FRIGG FAH-350 Advance	FRIGG FAH-500 Advance	FRIGG FAH-650 Advance	FRIGG FAH-800 Advance	FRIGG FAH-1000 Advance
Airflow (m <sup>3</sup> /h)	250	350	500	650	800	1000
External pressure (Pa)	85	160	120	120	150	170
Power [W]	62	140	165	252	335	420
Temperature exchange efficiency [%]	80-86	80-89	80-87	80-86	80-85	80-90
Noise dB(A)	28	32	34	35	35	37
Net weight (Kg)	23	30	33	38	48	54
Enthalpy exchange efficiency [%], cooling	70-83	72-84	69-83	69-82	70-81	71-86
Enthalpy exchange efficiency [%], heating	79-86	80-89	78-87	77-86	71-82	74-87
Power supply	220-240 V. 50/60Hz, 1 ph					

Working environment: temperature -20°C ~45°C, relative humidity below 85% RH.  
Test standard: Japanese standard JISB 8628-2017/8639-2017.

## SPECIFICATIONS:

Model	FRIGG FAH-1500 Advance	FRIGG FAH-2000 Advance
Airflow (m <sup>3</sup> /h)	1500	2000
External pressure (Pa)	175	150
Power [W]	670	850
Temperature exchange efficiency [%]	80-85	80-90
Noise dB(A)	39	40
Net weight (Kg)	105	117
Enthalpy exchange efficiency [%], cooling	71-81	71-86
Enthalpy exchange efficiency [%], heating	72-82	73-87
Power supply	220-240 V. 50/60Hz, 1 ph	



Working environment: temperature -20°C ~45°C, relative humidity below 85% RH.  
Test standard: Japanese standard JISB 8628-2017/8639-2017.

# JOTNAR – vertical heat recovery ventilation



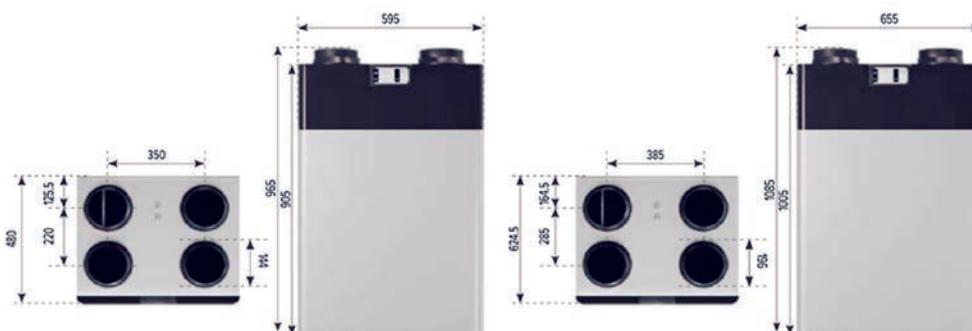
APP Management

- Enthalpy heat exchanger
- Electric preheater
- CO2 sensor
- Humidity sensor
- Wi-Fi
- H10 Filter
- Modbus control
- Auto Bypass function
- Automatic control based on humidity, CO<sub>2</sub> and VOC levels

## SPECIFICATIONS:

Model	JOTNAR FAV-250 Advance	JOTNAR FAV-350 Advance	JOTNAR FAV-500 Advance
Device voltage [V/50 (60) Hz]	230	230	230
Airflow (m <sup>3</sup> /h)	250	350	500
External pressure (Pa)	130	150	160
Temperature exchange efficiency [%]	83	77	78
Enthalpy efficiency [%]	78	72	73
Max power [W]	137	285	440
Air temperatures [°C]	-25...+40		
Housing material Galvanized steel Insulation	EPP		
Connected air duct diameter [mm]	144	144	196
Noise dB(A)*	35	37	39
Energy efficiency class	A+	A	A
Net weight (Kg)	40	40	50

Note: Data is measured under conditions where the airflow is 70% of maximum volume and the static pressure is 50 Pa.



# NOTT – DC inverter

## ventilation air-to-air heat pump



- Smart Air Quality Detector
- Electric Preheater
- CO2 Sensor
- Humidity Sensor
- WI-FI
- VOC Sensor
- EC FAN
- Cross-Counterflow Enthalpy Heat Exchanger

### SPECIFICATIONS:

Model			AC-HTPF35	AV-HTPF60	AV-HTPF90
Airflow		(m <sup>3</sup> /h)	350	620	950
Exhaust airflow (ventilation mode)		(m <sup>3</sup> /h)	350	620	950
Exhaust airflow (heating/cooling mode)		(m <sup>3</sup> /h)	350	620	950
External static pressure		Pa	100	100	100
Ventilation mode	Temperature efficiency (heating)	%	77	78	77
	Temperature efficiency (cooling)	%	72	72	73
	Enthalpy efficiency (heating)	%	76	77	70
	Enthalpy efficiency (cooling)	%	70	70	65
	Power input	W	185	185	451
	Current input	A	1,67	1,67	3,77
Cooling/Heating	Nominal cooling capacity	W	3798	3798	6394
	Maximum cooling capacity	W	4173	4173	6946
	Power input (cooling)	W	847	847	1243
	Operating current (cooling)	A	4,43	4,43	6,55
	Nominal heating capacity	W	4631	4631	6287
	Maximum heating capacity	W	4981	4981	6921
	Power input (heating)	W	790	790	1033
	Operating current (heating)	A	3,91	3,91	5,74
Noise		dB(A)	37 / 42	40/44.6	41/46
Power supply			220V 1 ph 50/60Hz		
Dimensions		mm	600*760*1040	740*1050*1030	740*1090*1170
Net weight		Kg	135	165	190
Air inlet/outlet diameter		mm	195	245	245
Air inlet/outlet height		mm	40	40	40
Base frame height		mm	40	40	40
Drain pipe			G1/2 21mm		
Refrigerant			R32	R32	R32
Refrigerant charging		g	370	500	660

# ENERGY RECOVERY VENTILATOR

## WL-ERV60

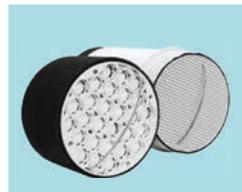
- Top Air Inlet/Outlet
- New Structure Design
- New Control Function
- Multiple Functional Versions Available
- Suitable for 10~20 m<sup>2</sup> rooms
- Elegant decorative front panel
- Reversible fan with low energy consumption
- Auto shutter to prevent air back drafting
- Installation can be done internally
- Wireless pairing operation function optional
- Silent operation
- Mold prevention
- Humidity control



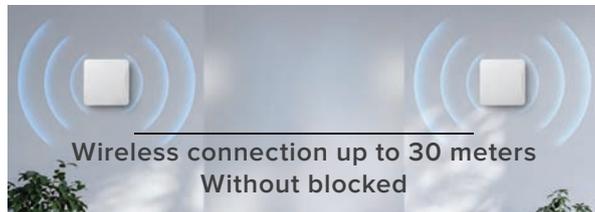
**97%** up to  
Regeneration Efficiency



**REVERSIBLE DC FAN**  
The reversible DC duct fan is characterised by its low power consumption and silent operation. The fan motor features built-in thermal protection and ball bearings for a long lifespan.



**HIGH EFFICIENCY ENERGY REGENERATOR**



Wireless connection up to 30 meters  
Without blocked

### OPTIONAL WIRELESS PAIRING OPERATION

- Wireless control
- No extra controller
- No extra costs for installation
- No impact on existing decoration



closed



open

### AUTO SHUTTER

Auto shutter can prevent the insects entering and the cold air flowing backward when the unit stops. It's top air outlet for uniform air supply.



### OPTIONAL WIFI FUNCTION

The remote control is standard, while WIFI function is optional.

Voltage	100V~240V AC /50~60Hz
Air Flow in Supply/Exhaust Mode (L/M/H) (CMH)	20/43/60
Air Flow in Supply/Exhaust Mode (L/M/H) (CFM)	11.8/25.3/35.3
Air Flow in Regeneration Mode (L/M/H) (CMH)	10/21.5/30
Air Flow in Regeneration Mode (L/M/H) (CFM)	5.9/12.7/17.6
Max airflow (under fan boost mode) (CMH)	70
Max Airflow (under fan boost mode) (CFM)	41.2
Input Power (L/M/H) (W)	6.3/17.2/8.2
Sound pressure level dB(A)	18.9/25.2/28.7
Max RPM	2200
Regeneration Efficiency (%)	≥97
SEC Class	A+
Diameter of Duct (mm)	158
Product Size (mm)	230×243×499.7 (The length of duct in wall is 280~470 mm)
Weight (kg)	4.2



**FLIXX**  
*Flip your life*

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