EWA(Y)K-CZ

R-290

Air-to-Water
Inverter Chiller & Heat Pump

Daikin **Safety** Shield

- Two refrigerant leak detector
- Compressor box & electrical panel extraction fans
- A siren for alert in case of refrigerant leakage
- All safety components on a separate power supply

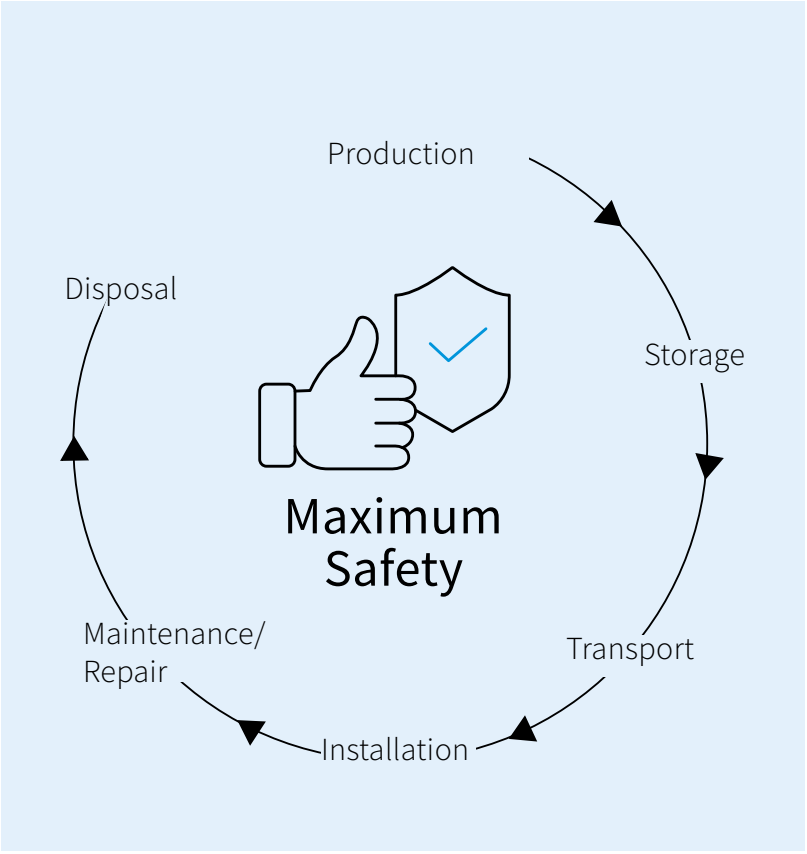
The Small Inverter is **always ready from stock**, ensuring **ultra-fast deliveries** and **maximum flexibility** for customers

Our safety approach to R-290

Regarding R-290, Daikin aims to raise the industry's safety standards across the entire product lifecycle, from production to disposal.

All partners- including installers, wholesalers, and logistics providers - are expected to receive proper training to handle R-290 in a fully safe and clean environment.

Ultimately, end users will also benefit from the resulting enhanced safety measures and established best practices.



Electrical box safety design

ATEX certified fans
Cooling down the panel, maintaining a slight positive pressure inside the electrical panel and washing away eventual leakage.

Emergency power supply
All safety devices are powered by an independent power supply. To be supplied by the customer through UPS.

Siren for visual & acoustic alert
Activated in case of emergency condition by the leak detectors.

Leak detector
To detect propane leakage in the electrical panel, automatically shutting down the unit, activating the alarms.

Daikin **Safety** Shield

Refrigerant circuit safety design

Refrigerant storage tanks
Ensuring safe containment of propane during transport, installation, and commissioning.

Leak detector
Detecting propane leakage in the compressor box and shutting off the unit, activating the alarms and extraction fan.

Coil covers
Collecting eventual leakage in the compressor box, in order to be detected by the leak detector.

Safety valve manifold
Collecting refrigerant outside the compressor box in case of an eventual overpressure event.

ATEX certified fans
To wash away eventual leakage from the compressor box.

Safe design on hydronic circuit
A dedicated water leak separator enables early detection of any refrigerant presence in the water circuit. In the event of a leak, a mechanical shut-off valve automatically isolates the unit from the main water circuit, ensuring maximum protection and system reliability.

High temperature & natural solution

Capacity range and layout

Installation flexibility

The new R-290 small inverter chiller & heat pump EWA(Y)K-CZ is available in **4 compact versions**, all of which have a very small footprint despite the performance capacity they can deliver. This makes the range a great solution for projects where space is at a premium, such as: **residential**, **hotels** and **hospitals**. A green solution powered by R-290 refrigerant, delivering extremely low Global Warming Potential.

Product overview

The EWA(Y)K-CZ series is an air-to-water Small Inverter Chiller and reversible Heat Pump using the natural refrigerant R-290. It can deliver **heating water temperatures up to 75 °C** even under **extreme ambient conditions** - from harsh Nordic winters with very low outdoor temperatures to summer operation when domestic hot water is still required.

The EWA(Y)K-CZ also operates efficiently at high delta-T, enabling the supply of heating water to different applications.

With this series, Daikin further expands its Small Inverter range, offering a **compact**, **scalable** and **flexible solution** that easily adapts to various applications and capacity requirements. This immediate availability allows customers to respond quickly to urgent project needs and meet even the most demanding requirements.

Combining **high efficiency**, **compact design** and **rapid dispatch,** the Small Inverter range provides the ideal balance between performance and convenience. The configuration with integrated pump is **always available from stock** for ultra-fast delivery and maximum flexibility, while the version without pump is offered with short lead times to quickly support any project opportunity.

Large operating range

Reaches temperatures up to 75°C, making it an ideal boiler-replacement solution for existing buildings, and is also suited for high-temperature applications where a very low-GWP refrigerant is required.

	Min.	Max.
Heating water	**20°C**	**75°C**
Chilled water	**-15°C**	**20°C**
Outdoor ambient temperature	**-20°C** in Heating Mode	**46°C** in Cooling Mode

Benefits

- Outdoor installation
- Daikin tubes and fins (Cu/Al coil)
- Daikin VFD scroll
- Daikin EC fans
- Integrated VFD pump
- Refrigerant (R-290)

Product benefits

Daikin Core Technology

Daikin scroll compressors can benefit from inverter technology that increases this series' efficiency, while the vapor injection with economiser eensures precise capacity modulation and an extended operating envelope in heating mode.

Exceptional energy performance is further ensured by Daikin's inverter-driven fans, featuring a high-efficiency design with glass-reinforced resin blades to maximize overall system performance.

Daikin inverter scroll compressors and pump with vapor injection, make the new R-290 small inverter chiller & heat pump a full inverter series.

Daikin tube & fins (Cu/Al) are reversible heat exchanger optimised for most extreme heating operation. Aluminum fins are covered by acrylic layer to ease flowing of condensate moisture and provide resistance to corrosion and protection from UV.

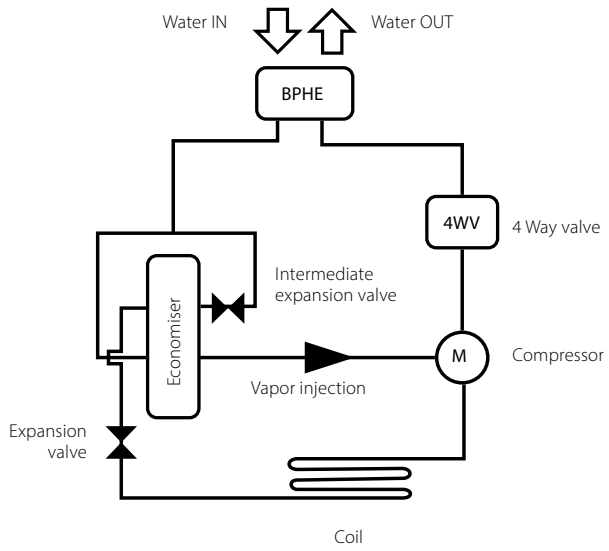
Daikin inverter scroll compressors

Daikin tube & fins (Cu/Al) heat exchanger

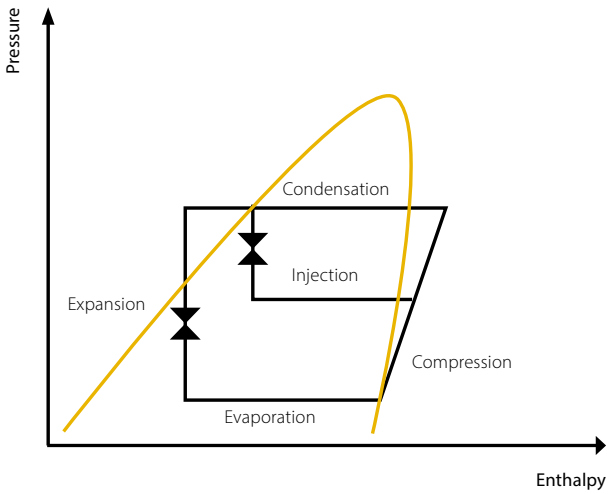
Daikin inverter driven fans

New compressor technology with vapor injection

Refrigerant piping diagram with economiser for vapor injection



Refrigerant cycle with vapor injection



Verified installation

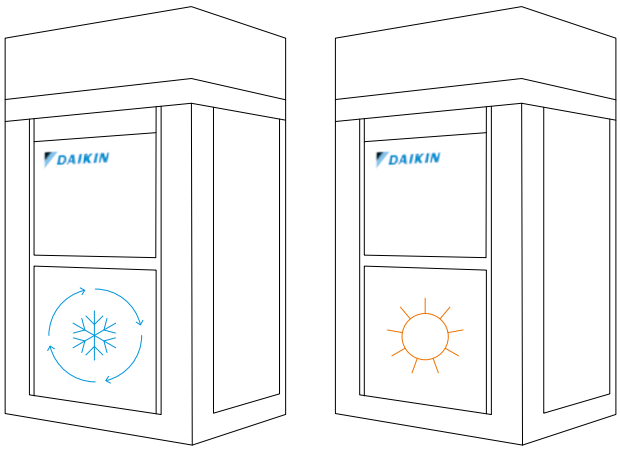
The EWA(Y)K-CZ installation is permitted only by certified installers. Certification is obtained through the Stand By Me portal, where installers must successfully complete the qualification test.

Once certified, the installer must register with Daikin systems via the e-Care App and complete the registration process before proceeding with the installation.

Optimised defrost management

Integrated defrost logic optimised for multi-unit systems ensures perfectly sequenced defrost cycles, preventing simultaneous defrost operation and maximising overall efficiency. Plant up to 4 units are optimised in terms of overall defrost impact:

- Less plant water content
- Higher customer comfort due to minimised temperature drop
- Heating load uniformity over time



Future-proof solution

The new Small Inverter Heat Pump provides low direct and indirect CO_2 emissions levels thanks to the use of R-290, which is known for being a low GWP (0,02) and sustainable refrigerant, fully compliant with the new F-gas regulation.

Contribution to Green Building

The most popular green building protocols are BREEAM and LEED. EWA(Y)K-CZ can contribute to project's credits when evaluating energy efficiency of the hydronic system, thanks to inverter driven compressors. The limited GWP of R-290 also result in a possible contribution when evaluating the impact of refrigerants. On top of that, the smart grid accessory allows to control the heat pump maximising consumptions when renewable energy is produced. Thereby, potentially resulting in credits under BREEAM and LEED protocols, as carbon footprint would be reduced.

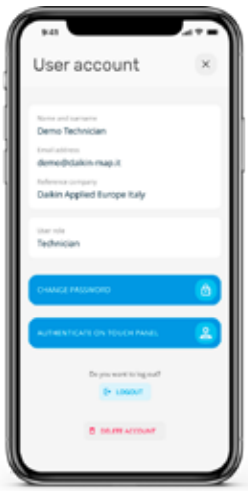
BREEAM®

LEED
LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN

Product options and accessories

mAP mobile APP for HMI controller extension towards end users

HMI APP is available on smartphone and tablet devices for close monitoring of unit parameters up to 5 meters.



Access to the dashboards

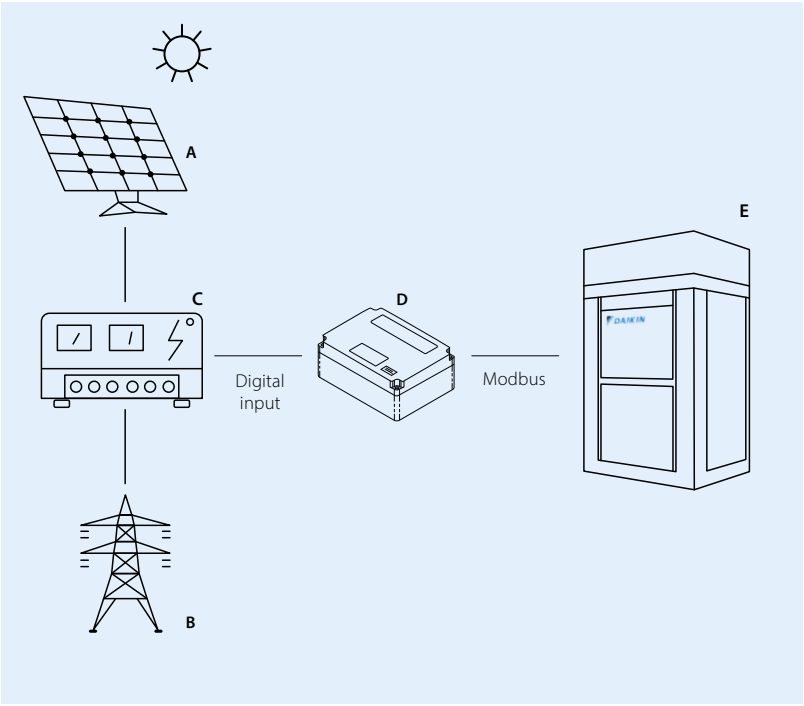
Monitoring parameters categories

Monitoring in progress

Smart Grid Ready Box

The smart grid box is an accessory that allows the integration of the heat pump control for a smart grid application, maximising use of green energy to run the heat pump.

A: Solar panels
B: Grid
C: Interface-compatible system components (Solar inverter / energy management system)
D: Smart grid box
E: Heat pump



Daikin on Site

24/7

Daikin's proprietary cloud platform enables seamless remote monitoring and system optimization. Predictive maintenance helps prevent breakdowns, while energy consumption visualization supports cost reduction. With the Daikin Cloud Service, it is possible to monitor and control your building from anywhere, receive remote diagnostic support to extend system lifetime, and efficiently manage multiple sites from a single interface.

Technical data

EWAK~CZ N			020CZNA1	025CZNA1	030CZNA1	040CZNA1	050CZNA2	060CZNA2	070CZNA2	085CZNA2
Cooling	Cooling capacity*	kW	17.60	21.07	24.61	34.73	43.97	51.41	60.23	71.38
	Capacity control		Inverter Controlled							
	Power input	kW	5.10	6.43	8.10	10.98	12.92	16.39	20.08	23.49
	EER / SEER		3.45 / 5.10	3.28 / 5.15	3.04 / 5.00	3.16 / 5.57	3.40 / 5.29	3.14 / 5.00	3.00 / 5.09	3.04 / 5.32
Heat exchanger	Air		Al Fins & Cu Tubes							
	Water		Brazed Plate							
Fan	Type		Axial							
	Quantity		1			2			3	4
Sound Power level		dB(A)	84			85	87	88		89
Dimensions	H x W x L	mm	1878 x 1259 x 812			1878 x 1757 x 812	1878 x 2516 x 816		1878 x 3016 x 816	1878 x 3516 x 816
Compressor	Type		Inverter Scroll with Vapour Injection							
	Quantity		1				2			
	Economiser		1				2			
	Refrigerant charge	kg	2.65			2.8	5.3		5.45	5.6

EWAK~CZ P			020CZPA1	025CZPA1	030CZPA1	040CZPA1	050CZPA2	060CZPA2	070CZPA2	085CZPA2
Cooling	Cooling capacity*	kW	17.81	21.33	24.88	35.06	44.29	51.83	60.76	72.43
	Capacity control		Inverter Controlled							
	Power input	kW	5.05	6.37	8.03	10.88	12.77	16.21	20.07	23.56
	EER / SEER		3.52 / 5.37	3.35 / 5.41	3.10 / 5.25	3.22 / 5.8	3.47 / 5.54	3.20 / 5.21	3.03 / 5.33	3.07 / 5.48
Heat exchanger	Air		Al Fins & Cu Tubes							
	Water		Brazed Plate							
Fan	Type		Axial							
	Quantity		1			2			3	4
Sound Power level		dB(A)	84			85	87	88		89
Dimensions	H x W x L	mm	1878 x 1259 x 812			1878 x 1757 x 812	1878 x 2516 x 816		1878 x 3016 x 816	1878 x 3516 x 816
Compressor	Type		Inverter Scroll with Vapour Injection							
	Quantity		1				2			
	Economiser		1				2			
	Refrigerant charge	kg	2.65			2.8	5.3		5.45	5.6

EWYK~CZ N			020CZNA1	025CZNA1	030CZNA1	040CZNA1	050CZNA2	060CZNA2	070CZNA2	085CZNA2
Cooling	Cooling capacity*	kW	17.60	21.07	24.61	34.73	43.97	51.41	60.23	71.38
	Capacity control		Inverter Controlled							
	Power input	kW	5.10	6.43	8.10	10.98	12.92	16.39	20.08	23.49
	EER / SEER		3.45 / 5.10	3.28 / 5.15	3.04 / 5.00	3.16 / 5.57	3.40 / 5.29	3.14 / 5.00	3.00 / 5.09	3.04 / 5.32
Heating	Heating capacity*	kW	20.15	24.79	30.50	39.92	49.66	59.13	71.02	83.25
	Power input	kW	5.15	6.46	8.26	11.05	13.29	16.19	20.65	23.99
	COP		3.92	3.84	3.69	3.61	3.74	3.65	3.44	3.47
	SCOP MT 55°C / LT 35°C		3.42 / 4.58	3.49 / 4.65	3.45 / 4.53	3.56 / 4.61	3.41 / 4.47	3.39 / 4.38	3.47 / 4.50	3.52 / 4.58
Heat exchanger	Air		Al Fins & Cu Tubes							
	Water		Brazed Plate							
Fan	Type		Axial							
	Quantity		1			2			3	4
Sound Power level	Heating = Cooling	dB(A)	84			85	87	88		89
	EN12102	dB(A)	68			78				
Dimensions	H x W x L	mm	1878 x 1259 x 812			1878 x 1757 x 812	1878 x 2516 x 816		1878 x 3016 x 816	1878 x 3516 x 816
Compressor	Type		Inverter Scroll with Vapour Injection							
	Quantity		1				2			
	Economiser		1				2			
	Refrigerant charge	kg	2.65			2.8	5.3		5.45	5.6

EWYK~CZ P			020CZPA1	025CZPA1	030CZPA1	040CZPA1	050CZPA2	060CZPA2	070CZPA2	085CZPA2
Cooling	Cooling capacity*	kW	17.81	21.33	24.88	35.06	44.29	51.83	60.76	72.43
	Capacity control		Inverter Controlled							
	Power input	kW	5.05	6.37	8.03	10.88	12.77	16.21	20.07	23.56
	EER / SEER		3.52 / 5.37	3.35 / 5.41	3.10 / 5.25	3.22 / 5.8	3.47 / 5.54	3.20 / 5.21	3.03 / 5.33	3.07 / 5.48
Heating	Heating capacity*	kW	19.88	24.51	30.21	39.55	49.25	58.67	70.39	82.63
	Power input	kW	5.09	6.40	8.22	10.92	13.10	16.00	20.55	23.95
	COP		3.91	3.83	3.68	3.62	3.76	3.67	3.43	3.45
	SCOP MT 55°C / LT 35°C		3.50 / 4.75	3.56 / 4.82	3.51 / 4.68	3.61 / 4.74	3.50 / 4.62	3.45 / 4.52	3.50 / 4.57	3.55 / 4.66
Heat exchanger	Air		Al Fins & Cu Tubes							
	Water		Brazed Plate							
Fan	Type		Axial							
	Quantity		1			2			3	4
Sound Power level	Heating = Cooling	dB(A)	84			85	87	88		89
	EN12102	dB(A)	68			78				
Dimensions	H x W x L	mm	1878 x 1259 x 812			1878 x 1757 x 812	1878 x 2516 x 816		1878 x 3016 x 816	1878 x 3516 x 816
Compressor	Type		Inverter Scroll with Vapour Injection							
	Quantity		1				2			
	Economiser		1				2			
	Refrigerant charge	kg	2.65			2.8	5.3		5.45	5.6

* The Cooling capacity is referred to 12/7°C 35°C OAT and the Heating capacity is referred to 40/45°C 7°C OAT. Performance data is preliminary and may change before the sales launch.

This product is in development and expected to be available by May 2026. Final specifications may vary.

Daikin Europe N.V. Naamloze Vennootschap Zandvoordestraat 300 · 8400 Oostende · Belgium · www.daikin.eu · BE 0412 120 336 · RPR Oostende (Publisher). Printed on non-chlorinated paper · ECPEN26-431 · 03/26