

Hien®

R290 Monoblock Air Source Heat Pump

Hien®



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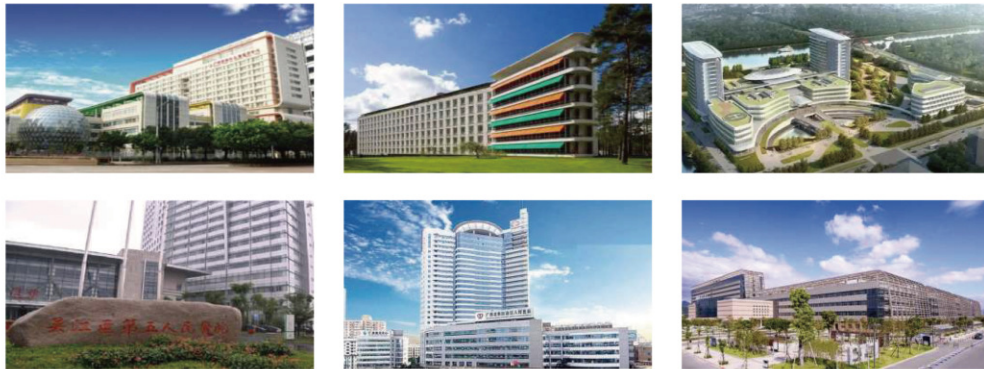
PROJECTS

MORE THAN 70000 PROJECTS COMPLETED SO FAR;
MORE THAN 6.5 MILLION PRODUCTS DELIVERED.

SCHOOLS



HOSPITALS



RESIDENTIAL



HIGHLIGHT



The 2008 Shanghai World Expo.



Universiade SHENZHEN 2011

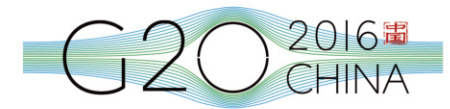
The 2011 Universiade in Shenzhen.



The artificial island hot water project of the Hong Kong-Zhuhai-Macao Bridge in 2019.



2016 the hot water reconstruction project of Qingdao port.



2016 the G20 Hangzhou Summit.



The 2022 Beijing Winter Olympic Games & Paralympic Games.



2023 the Asian Games in Hangzhou

R290

NATURAL REFRIGERANT

GWP=3

CONTRIBUTE TO CARBON NEUTRALITY.

REDUCED CO₂ EMISSIONS AND ENVIRONMENTAL IMPACT



ABOUT HIEN

Founded in 1992, Hien firstly started as an electronic component manufacturer. With a registered capital of 300 million RMB, Hien entered the air source industry in 2000. It is a leading enterprise of air source heat pumps in the area of product R & D, production, sales, and after-sales service. Hien owns one of the largest production bases of heat pumps in China, as well as the CANS certified state-level comprehensive laboratory.

PRODUCTION LINE






With a total of 60,000 m² of construction area and over 1,000 processing equipments, the main factory comprises 6 assembly lines, while the branch factory consists of 3 production workshops. Main products include air source heat pumps for residential, commercial, and industrial use. The capacity of our products ranges from 3 kW to 320 kW, primarily for heating, cooling, and domestic hot water. Heat pump dryers are also used for the production of tobacco, aroma wicks, medicinal herbs, tea, fruits, vegetables, and other products.

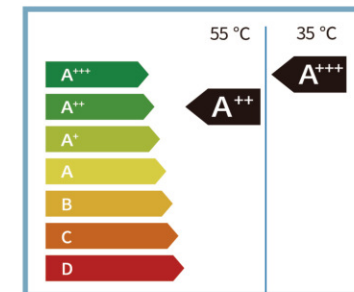


Ecoforce Series

HEATING+COOLING+DHW

VOLUME < 0.6 CBM

-  High Efficiency A+++ Energy Level
-  Energy - Saving up to 80%
-  Wi-Fi App Smart Controlled
-  Stable Running at -20°C Ambient Temperature
-  Our Product Surpasses CE Standards By Approximately 10%



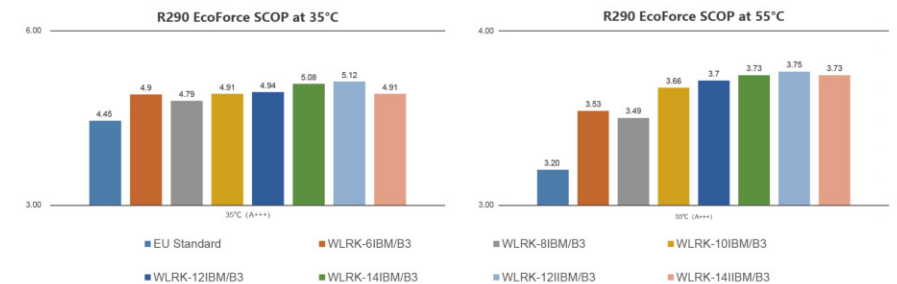
Multi-Function Selections

There are 5 operation modes to be selected :

- Heating + Hot Water
- Cooling + Hot Water
- Heating
- Cooling
- DHW

Comparison between EU standards and Hien SCOP

Regulation : (EU) No 811/2013





Ecoforce Max Series

HEATING+COOLING+DHW

VOLUME < 0.6 CBM



Stable Operation at -30°C
8kw to 16kw models.



Easy Installation
Simple, efficient installation.



DC Inverter EVI Technology
30%+ more efficient.



Reduce Compressor Load
Avert overheating, extend life.



Reduce Operating Noise
Quieter operation, better comfort.



Inverter-EVI Synergy
IPLV +20%-30% (partial load).



Smart Control System
Remote monitoring and auto-adjustment.



SCOP Up to 5.24
The SCOP of this heat pump is as high as 5.24.

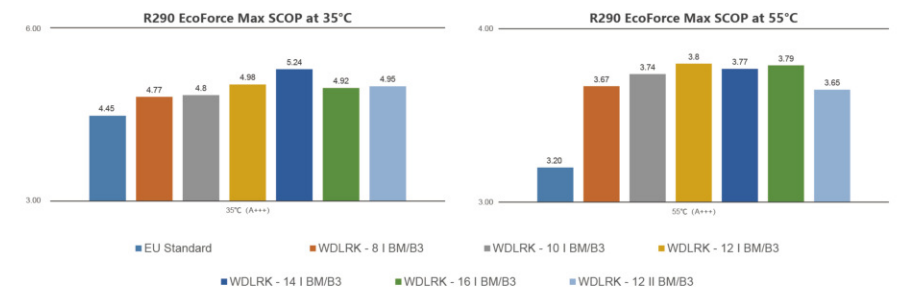
DC Inverter EVI Technology

The EVI technology ensures optimum performance of the unit at ambient temperatures as low as -30°C. This allows users to enjoy comfortable house heating and a stable hot water supply all year round.

Additionally, it outperforms conventional heat pumps in low temperatures, delivering higher COP, which not only ensures greater energy efficiency and reliable warmth in winter, but also significantly reduces electricity bills, helping you save more.

Comparison between EU standards and Hien SCOP

Regulation : (EU) No 811/2013



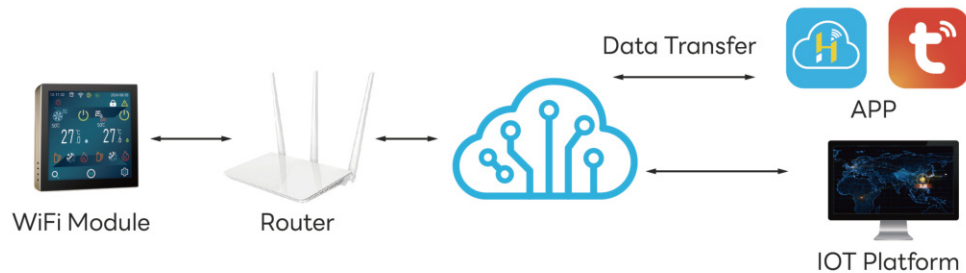
Smart Touch Display



- Color Screen
- Intuitive Interface
- Touch Key Design
- Built-in Wifi Module
- APP Control

RS485

The intelligent controller with RS485 is adopted to realize the linkage control between the heat pump unit and the terminal end. Multiple heat pumps can be controlled and connected to be well monitored.



Smart Control Family

Smart APP control

Smart APP control brings a lot of convenience to users. Temperature adjustment, mode switching, and timer setting can be achieved on your smart phone. Moreover, you can know power consumption statistics and fault record at anytime and anywhere.

Real-Time Zone Insight
Stay informed with live monitoring of each heating and cooling zone.

Personalized Control
Name your device as you like for a truly personal experience.

Smart Remote Comfort
Control and schedule your system remotely for the perfect indoor climate when you get home.

Zone Control
Turn heating or cooling on and off in each area as needed.

Setting Mode

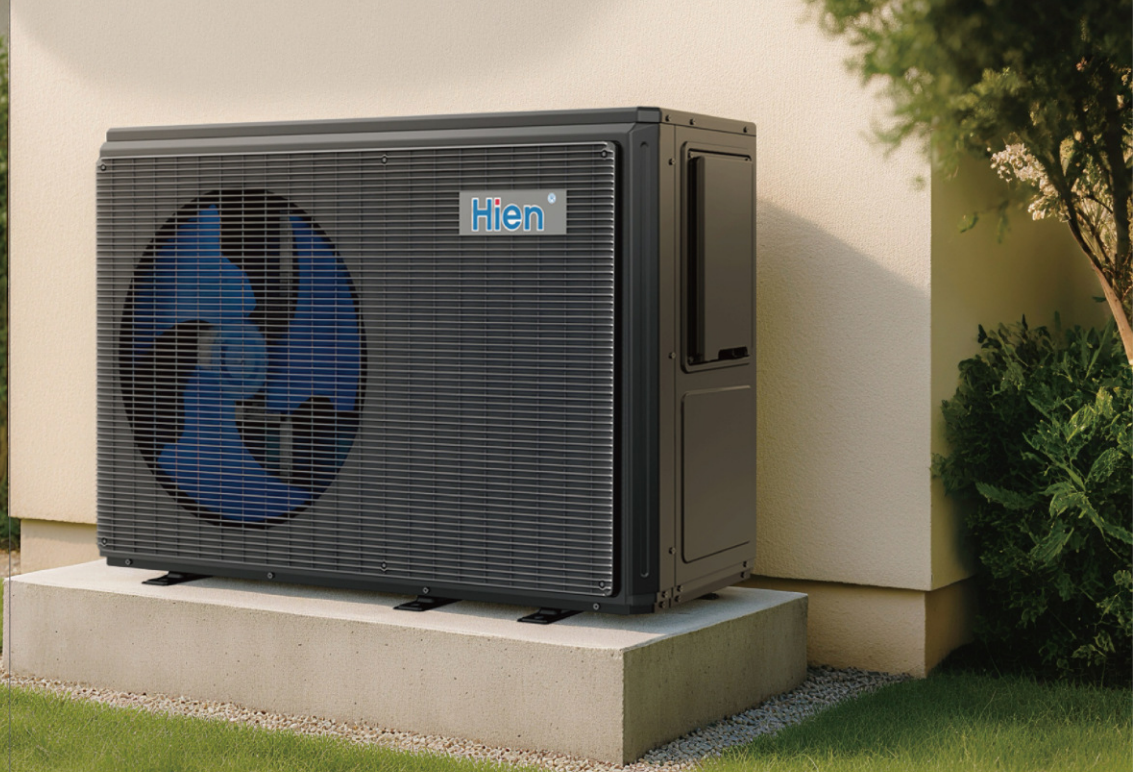
- Auto
- Cooling
- Heating

Flexible Mode Setting
Easily switch between Auto, Cooling, and Heating to meet every comfort need.

Multilingual Smart Control
8 languages, one intuitive experience.

Wi-Fi DTU

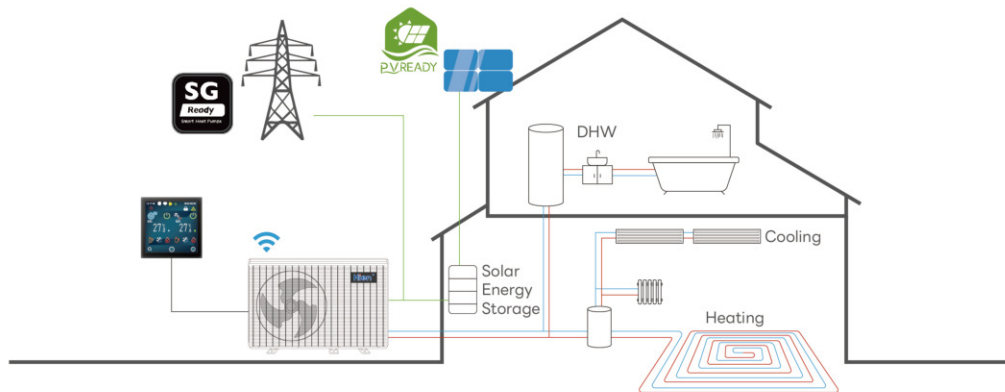
To deliver the best user experience, EcoForce series is designed with a DTU module for remote data transferring, and then you can easily monitor the running status of your heating system.



Can be operated in combination with:

1. Electric Water Heater
2. Conventional Boiler
3. Solar Hot Water Systems

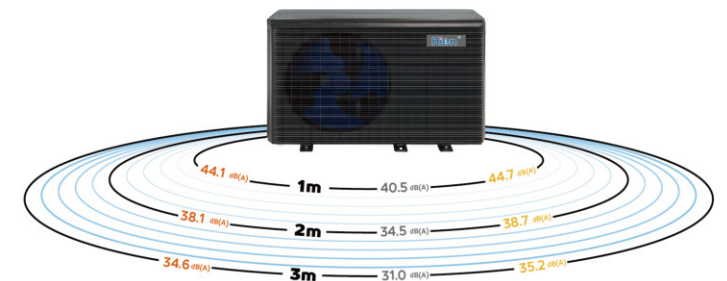
The Ecoforce Series provides heat through heating distribution systems like radiators, underfloor heating, fan coils, or air conditioners. It offers reliable heating, cooling, and domestic hot water year-round. The heat pump automatically adjusts and operates optimally in heating or cooling mode depending on the season and air temperature for energy savings. It suits various applications including space heating and domestic hot water for residential and commercial projects.



The nine - layer noise reduction measures include :

- New type of eddy current fan blades;
- Low air resistance grille, designed to better fit air flow dynamics;
- compressor shock absorber pads for vibration reduction;
- Simulated technology optimized vortex design for finned heat exchanger;
- Simulated technology optimized pipeline vibration transmission design;
- Sound-absorbing cotton and peak cotton for noise absorption and reduction;
- Variable frequency compressor load adjustment;
- DC fan load adjustment;
- Energy saving mode.

- WLRK-10 | BM/B3
- WLRK-12 | BM/B3
- WLRK-14 | BM/B3



Set It · Forget It · Enjoy It



Easy Installation

The machine is designed for hassle-free setup, making the installation process simple and efficient.



Quiet Operation

With minimal noise output, the heat pump ensures smooth and peaceful operation.



Compact Size

Its small footprint allows for space-saving installation, making it ideal for various settings.

Different Look, Same Excellence

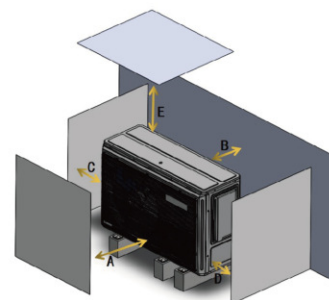
SAME PERFORMANCE, DIFFERENT STYLE

To meet diverse aesthetic preferences and installation needs, we offer two exterior designs for the same model.

Both versions share identical performance, dimensions, and air outlet design, with a volume under **0.6 CBM** — only the appearance differs.

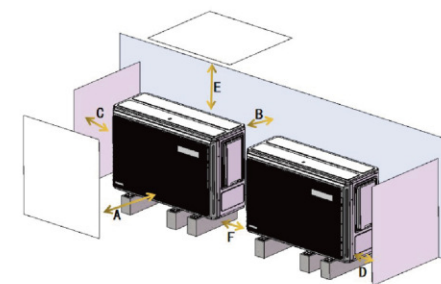


Installation Mode



Single-unit installation

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
≥2000	≥500	≥500	≥500	≥1000



Double-unit installation

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
≥2000	≥500	≥500	≥500	≥1000	≥1000

Sterilizing Mode

Thanks to its ability to reach temperatures as high as 75°C, this cutting-edge product eliminates harmful Legionella bacteria and viruses, ensuring the highest level of water safety.

Invest in your health and your family's well-being with our state-of-the-art heat pump. Experience the unparalleled convenience, energy efficiency, and superior performance that this product offers.

Don't compromise on safety and hygiene when it comes to your water supply. Choose our heat pump with its exceptional sterilizing mode, and enjoy the reassurance of pristine water quality every day.

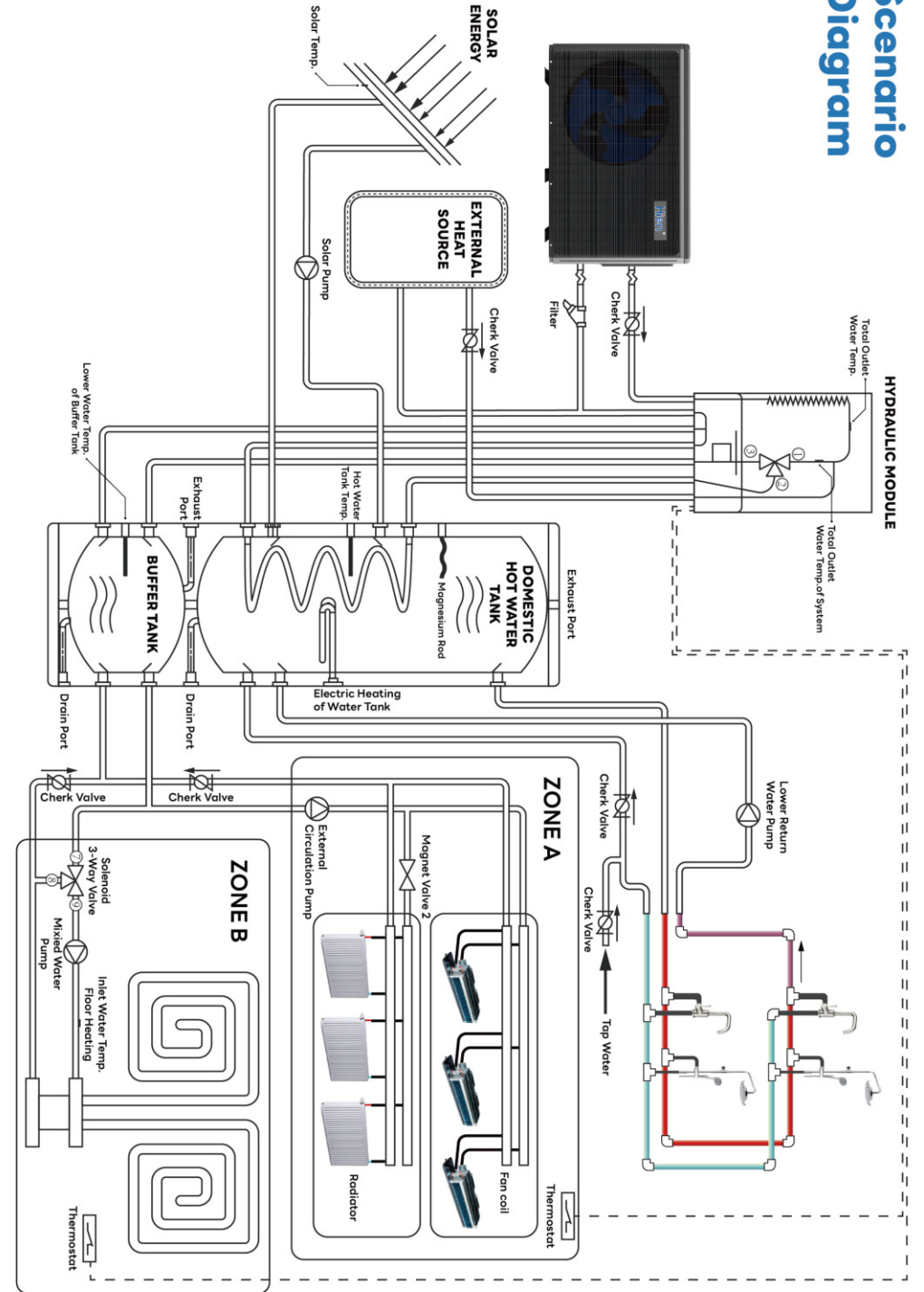


Cascade System Diagram



- Maximum of 8 units can be controlled with one touch screen.
- Connect 1 master to 7 slaves for networking.
- Can be operated independently or in group.
- Automatically control the start and stop of the machine based on water temperature.
- Multiple heat pumps can work together to improve the efficiency and energy efficiency of the system.

Scenario Diagram



Specifications

ECOFORCE SERIES

Model		WLRK-6IBM/B3	WLRK-8IBM/B3	WLRK-10IBM/B3	WLRK-12IBM/B3	WLRK-14IBM/B3	WLRK-16IBM/B3	WLRK-12IBM/B3	WLRK-14IBM/B3	WLRK-16IBM/B3	
Power supply		220V-240V/1/50Hz						380V-415V/3/50Hz			
Heating(A7W35)	Capacity	kW	6.00	8.00	10.00	12.00	14.00	16.00	12.00	14.00	16.00
	Rated Input	kW	1.22	1.79	2.24	2.65	3.19	3.40	2.60	3.16	3.50
	COP		4.90	4.45	4.45	4.53	4.39	4.58	4.61	4.43	4.57
Heating(A7W45)	Capacity	kW	5.90	8.10	9.60	12.00	14.00	16.30	12.50	14.40	15.90
	Rated Input	kW	1.50	2.20	2.70	3.20	4.00	4.40	3.20	4.00	4.40
	COP		3.74	3.59	3.56	3.75	3.49	3.67	3.80	3.56	3.58
Heating(A7W55)	Capacity	kW	6.00	8.05	9.98	12.00	14.07	16.00	12.07	13.96	16.05
	Rated Input	kW	2.03	2.62	3.28	3.99	4.82	5.40	3.98	4.72	5.40
	COP		2.95	3.07	3.04	3.01	2.92	2.95	3.03	2.96	2.97
Heating(A-7W35)	Capacity	kW	4.80	6.20	7.80	9.80	11.10	12.40	9.90	11.30	12.70
	Rated Input	kW	1.50	2.10	2.60	3.20	3.80	4.20	3.10	3.70	4.30
	COP		3.19	2.97	2.93	2.97	2.90	2.92	3.11	3.01	2.91
Cooling(A35W18)	Capacity	kW	6.50	8.80	10.50	12.80	15.00	18.00	12.80	15.00	17.00
	Rated Input	kW	1.91	2.63	2.96	3.79	4.73	5.30	3.88	4.91	4.40
	EER		3.40	3.33	3.55	3.37	3.17	3.36	3.30	3.05	3.86
SCOP	Average Climate, W35°C		A+++								
			4.90	4.79	4.91	4.94	5.08	/	5.12	4.91	/
	Average Climate, W55°C		A++								
			3.53	3.49	3.66	3.70	3.73	/	3.75	3.73	/
Net Dimension(W*H*D)	mm	1160*455*743	1160*455*743	1160*455*743	1330*486*914	1330*486*914	1330*486*914	1330*486*914	1330*486*914	1330*486*914	
Packing Dimension(W*H*D)	mm	1335*605*955	1335*605*955	1335*605*955	1485*615*1110	1485*615*1110	1485*615*1110	1485*615*1110	1485*615*1110	1485*615*1110	
Net Weight	kg	95.00	97.00	106.00	129.00	134.00	149.00	143.00	147.00	151.00	
Erp Sound Power Level	dB	53	53	59	55	61	/	54	59	/	
Compressor	Brand	Highly	Highly	Highly	Highly	Highly	Highly	Highly	Highly	Highly	
Water Side Connection		DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN25	
Refrigerant/Charge	/	R290/0.6kg	R290/0.7kg	R290/0.8kg	R290/0.95kg	R290/1.00kg	R290/1.60kg	R290/0.95kg	R290/1.00kg	R290/1.60kg	
Rated Water Flow	m³/h	1.03	1.38	1.72	2.06	2.41	2.75	2.06	2.41	2.75	
Control Mode	/	Heating, Cooling, DHW, Heating + DHW, Cooling + DHW									
Max.Outlet Water Temp.	°C	75									
Outdoor Air Temperature Range	Heating	°C	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43
	Cooling	°C	-7~48	-7~48	-7~48	-7~48	-7~48	-7~48	-7~48	-7~48	-7~48
	DHW	°C	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43
Water Setting Temperature Range	Heating	°C	25~70	25~70	25~70	25~70	25~70	25~70	25~70	25~70	25~70
	Cooling	°C	12~26	12~26	12~26	12~26	12~26	12~26	12~26	12~26	12~26
	DHW	°C	28~70	28~70	28~70	28~70	28~70	28~70	28~70	28~70	28~70

Note:
data above based on test reference standard EN14511; EN14825; EN50564; EN 12102; (EU) No:811

The above parameters, if there are slight differences due to technical improvements, please refer to the relevant specifications of the actual product for accuracy.

Specifications

ECOFORCE MAX SERIES

Model		WDLRK-8IBM/B3	WDLRK-10IBM/B3	WDLRK-12IBM/B3	WDLRK-14IBM/B3	WDLRK-16IBM/B3	WDLRK-12IBM/B3	WDLRK-14IBM/B3	WDLRK-16IBM/B3		
Power supply		220V-240V/1/50Hz						380V-415V/3/50Hz			
Heating(A7W35)	Capacity	kW	8.00	10.00	12.00	14.00	16.00	12.00	14.00	16.00	
	Rated Input	kW	1.80	2.22	2.60	3.15	3.50	2.70	3.00	3.45	
	COP		4.45	4.51	4.60	4.44	4.57	4.44	4.67	4.64	
Heating(A7W45)	Capacity	kW	7.90	10.00	11.80	14.03	16.06	12.08	14.19	16.04	
	Rated Input	kW	2.10	2.60	3.20	3.88	4.25	3.37	3.68	4.16	
	COP		3.72	3.77	3.71	3.61	3.78	3.58	3.85	3.86	
Heating(A7W55)	Capacity	kW	7.80	10.00	11.90	14.18	16.02	12.04	14.20	16.13	
	Rated Input	kW	2.40	3.00	3.70	4.63	4.93	3.98	4.31	4.89	
	COP		3.21	3.29	3.15	3.06	3.25	3.02	3.29	3.30	
Heating(A-7W35)	Capacity	kW	6.24	8.10	9.74	/	/	/	/	/	
	Rated Input	kW	2.00	2.60	3.00	/	/	/	/	/	
	COP		3.06	3.11	3.02	/	/	/	/	/	
Heating(A-10W35)	Capacity	kW	/	/	/	10.93	12.10	9.42	11.03	12.44	
	Rated Input	kW	/	/	/	3.94	4.26	3.32	3.89	4.19	
	COP		/	/	/	2.77	2.84	2.84	2.84	2.97	
Cooling(A35W18)	Capacity	kW	9.20	11.00	12.80	15.00	17.00	13.00	15.00	17.00	
	Rated Input	kW	2.49	3.13	3.75	4.11	4.40	3.60	3.94	4.63	
	EER		3.70	3.51	3.41	3.65	3.86	3.61	3.81	3.67	
SCOP	Average Climate, W35°C		A+++								
			4.77	4.80	4.98	5.24	4.92	4.95	/	/	
	Average Climate, W55°C		A++								
			3.67	3.74	3.80	3.77	3.79	3.65	/	/	
Net Dimension(W*H*D)	mm	1200*470*765	1200*470*765	1370*500*935	1370*500*935	1370*500*935	1370*500*935	1370*500*935	1370*500*935	1370*500*935	
Packing Dimension(W*H*D)	mm	1280*555*910	1280*555*910	1440*570*1080	1440*570*1080	1440*570*1080	1440*570*1080	1440*570*1080	1440*570*1080	1440*570*1080	
Net Weight	kg	106	114	131	146	151	156	161	163	163	
Erp Sound Power Level	dB	54	58	56	52	54	55	/	/	/	
Compressor	Brand	Panasonic	Panasonic	Panasonic	Highly	Panasonic	Panasonic	Highly	Panasonic		
Water Side Connection		DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN25		
Refrigerant/Charge	/	R290/0.8kg	R290/0.85kg	R290/1.1kg	R290/1.35kg	R290/1.5kg	R290/1.15kg	R290/1.35kg	R290/1.45kg		
Rated Water Flow	m³/h	1.38	1.72	2.06	2.41	2.75	2.06	2.41	2.75		
Control Mode	/	Heating, Cooling, DHW, Heating + DHW, Cooling + DHW									
Max.Outlet Water Temp.	°C	75									
Outdoor Air Temperature Range	Heating	°C	-25~43	-25~43	-25~43	-30~50	-30~50	-30~50	-30~43	-30~43	
	Cooling	°C	-7~48	-7~48	15~48	15~48	15~48	15~48	15~48	15~48	
	DHW	°C	-25~43	-25~43	-25~43	-30~43	-30~43	-30~43	-30~43	-30~43	
Water Setting Temperature Range	Heating	°C	25~70	25~70	25~70	28~70	28~70	28~70	28~70	28~70	
	Cooling	°C	12~26	12~26	12~26	12~26	12~26	12~26	12~26	12~26	
	DHW	°C	28~70	28~70	28~70	28~70	28~70	28~70	28~70	28~70	

Note:
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The above parameters, if there are slight differences due to technical improvements, please refer to the relevant specifications of the actual product for accuracy.