BIGBLUE Series

COMMERCIAL INVERTER
HEAT PUMP FOR HEATING / COOLING + DHW HOT WATER

R290

Aldea
HEAT PUMP

Aldea

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Environmentally Friendly Technologie

- BigBlue Series -

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R290 Refrigerant

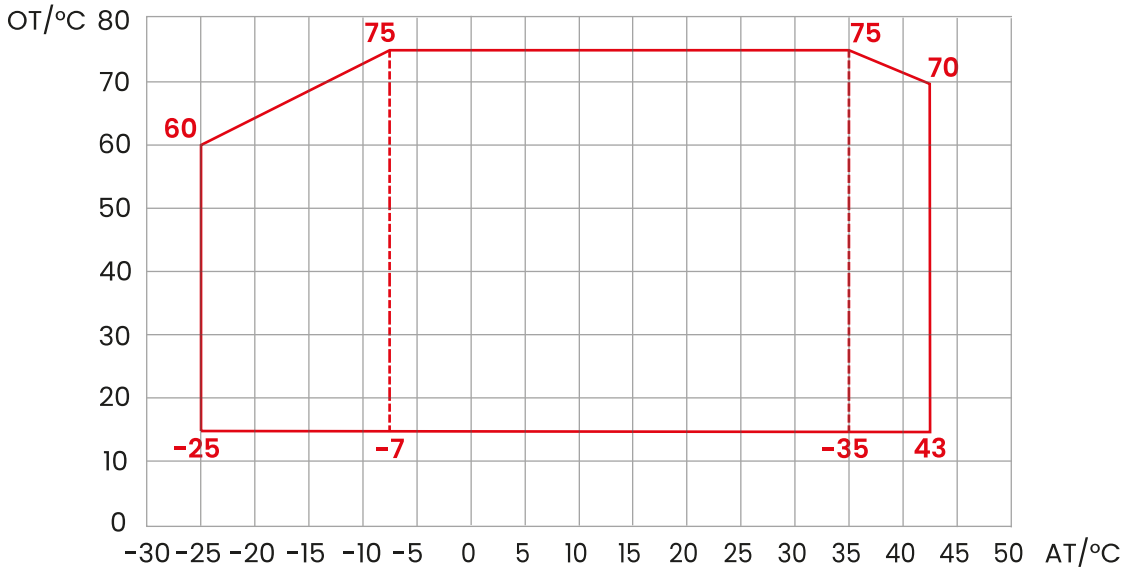
Aldea has always been committed to the concept of green environmental protection and actively shoulders the responsibility of energy conservation and environmental protection.

With both low carbon emissions and low GWP, R290 is recognized as the most potential refrigerant in the industry and its application is conducive to achieving the goal of global carbon neutrality.

Operation Range

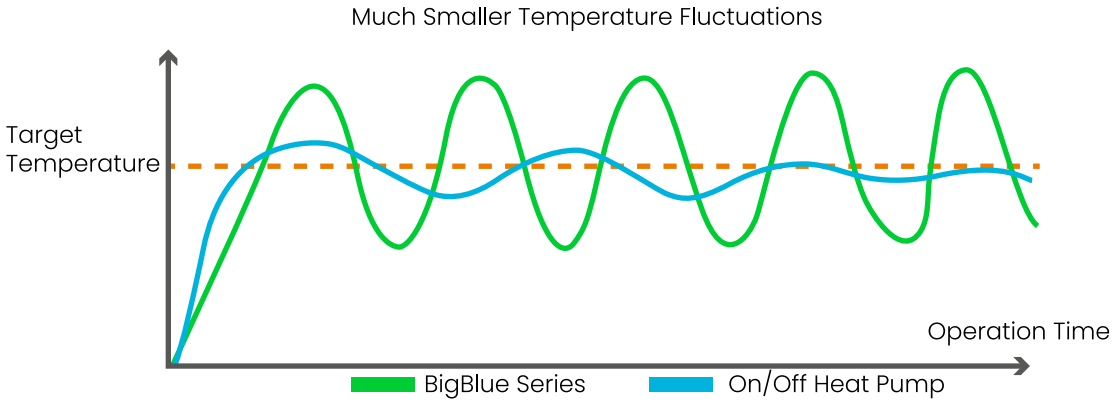
Running safely and reliably all year round, BigBlue Series perfectly combines eco-friendly R290 natural refrigerant and inverter heating technology to ensure optimal performance from -25°C to 43°C. It's worth mentioning that the unit can operate efficiently at -25°C, maintaining high COP, reliable stability and strong heating capacity for 60°C hot water.

More significantly, the maximum outlet water temp can be up to 75°C without electric heating to guarantee protection against legionella. With wide operating range, BigBlue is different from tradinational installations. It can connet to solar water heating systems, various gas boiler water heating systems and electric water heating systems.



Full DC Inverter Technology

In order to meet the market requirement, ALDEA has made many breakthroughs in core technologies. With the full inverter technology, Aldea Heat Pumps become more energy-efficient, thus saving users' energy bills. Also, when the heat pump is powered on, the current will start from 0A and go up slowly to the rated current and reduce the effects on main electricity system.



DC Inverter Compressor

DC inverter compressor is dedicated for heating & hot water.

DC INVERTER
COMPRESSOR

Better by Design

As one of the leading heat pump manufacturers, ALDEA always adheres to forefront manufacturing technology and the most advanced spare parts to fit our machines.

REFRIGERANT COOLING BOARD

Refrigerant cooling inverter heat dissipation technology, strong cooling below 55°C
v

FINNED HEAT EXCHANGER

The capacity of the copper-aluminum fin heat exchanger is increased by 25%.

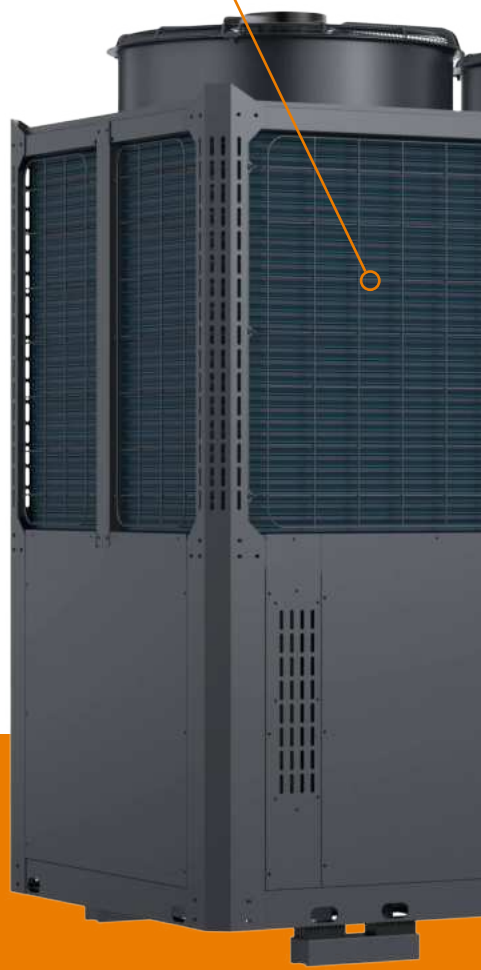
DOUBLE-WALL PLATE HEAT EXCHANGER

The double-wall plate heat exchanger is certified by WaterMark, which is mandatory for all sanitary products installed in Australia.

RS485 CENTRALIZED CONTROL

BigBlue Series is highlighted with a central control system as an RS485 serial port is designed for communications in every unit.

BigBlue Series

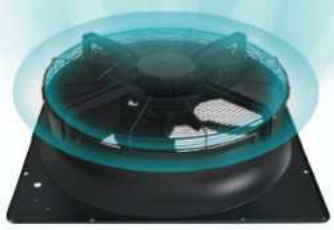


7-inch Color Display

- Duty Cycling
- Up To 16 Heat Pumps
- One-key Setting
- Fault Display
- Remote Upgrade
- Temp Timer

DC Inverter Motor

R290



DC INVERTER
FAN MOTOR

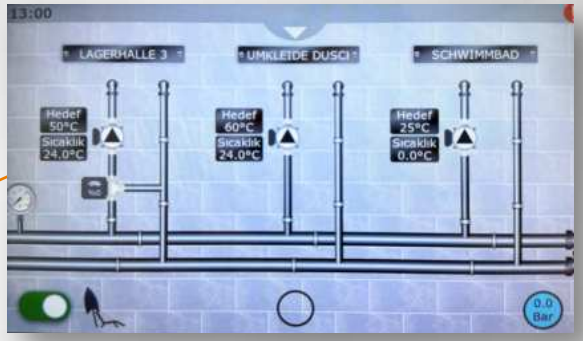
Remote Maintenance Technolgy

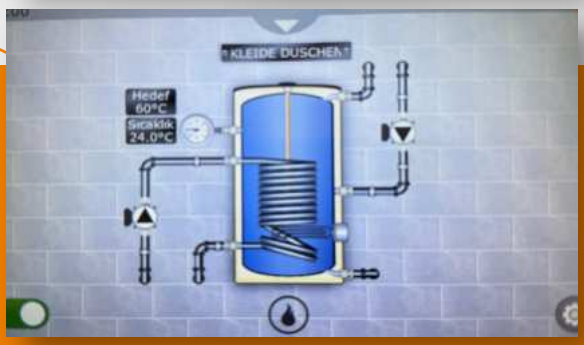
With specialised IoT(Internet of Things) application, Authorised service teams of Aldea can connect the device through Wi-Fi connection and observe the operating details, possible faults and error codes, change mode applications etc. Aldea dedicated on the idea of supplying customers not just the devices, our vision to become the solution partner for our customers with combining high quality & skilled engineering knowledge and experience on the field.

Mode	Inlet Water	Outlet Water
Hot Water	(unit: °C)	(unit: °C)
55	65	70.0

Water Tank	Ambient
(unit: °C)	(unit: °C)
52.0	7.0

Smart Control with Aldea





- Easy and understandable use with LCD touch screen.
- Cascade control of 128 wall-mounted or floor-standing boilers.
- 32 three-way motorized valve zone control.
- 64 heat pump cascade control.
- Solar system control.
- Hybrid system control (heat pump + boiler/boiler control).
- Possibility to drive the boilers in two different ways, with PID Control, according to the need in the heating circuits of the boilers.
- Precise modulation control with 1% steps according to the need in the heating circuits of the boilers.
- Possibility to respond quickly to floor station systems with sudden high capacity needs (1 sec).
- Possibility to create a weekly time program with 6 different temperature values for each day of the week.
- Circulation pump anti-lock program (automatic program cancellation if there is no water in the system).
- Plumbing water frost protection mode.
- Straw drying mode.
- Ability to make different disinfection scheduling for more than one domestic hot water circuit.
- Automatic water supply system control according to system pressure.
- Expansion tank pressure control.
- Recirculation control for multiple hot water tank (domestic hot water) systems.
- Hot water tank electric heater control.
- Active anode rod situation control.
- Ability to Control of two-way valves used in single collector systems according to need.
- Possibility of connection to the building management system via MODBUS protocol.
- Automatic maintenance alert program.
- Freeze Protection.
- Service contact information.

BigBlue Series		ALD-HTIP050	ALD-HTIP100
Prated (Pdesignh@A-10°C/W35°C, average climate)	(W/W)	34	66
Prated (Pdesignh@A-10°C/W55°C, average climate)	(kW)	32	60
SCOP (W35°C, average climate)	(W/W)	5.1	5.1
SCOP (W55°C, average climate)	(W/W)	4.0	3.9
ErP Level (W35°C, average climate)		A+++	A+++
ErP Level (W55°C, average climate)		A+++	A+++
[Space Heating] Ambient Temp. (DB/WB): 7°C/6°C, Water Temp. (Inlet/Outlet): 30°C/35°C			
Heating Capacity	(kW)	13.62-50.00	27.24-100.00
Power Input	(kW)	2.34-11.68	4.68-23.98
Heating Current Input Range	(A)	3.95-19.72	7.90-40.48
COP	(W/W)	5.82-4.28	5.82-4.17
[Space Heating] Ambient Temp. (DB/WB): 7°C/6°C, Water Temp. (Inlet/Outlet): 50°C/55°C			
Heating Capacity	(kW)	12.26-46.00	24.52-92.00
Power Input	(kW)	2.99-15.43	5.98-32.62
Heating Current Input Range	(A)	5.04-26.04	10.08-55.06
COP	(W/W)	4.10-2.98	4.10-2.82
[Space Cooling] Ambient Temp. (DB/WB): 35°C / -, Water Temp. (Inlet/Outlet): 12°C/7°C			
Cooling Capacity	(kW)	7.60-35.00	15.20-70.00
Power Input	(kW)	1.76-12.36	3.52-27.02
Cooling Current Input Range	(A)	2.99-15.43	5.94-45.62
EER	(W/W)	4.30-2.83	4.30-2.59
[Water Heating] Ambient Temp. (DB/WB): 20°C / 15°C, Water Temp. (Inlet/Outlet): 15°C/55°C			
Heating Capacity	(kW)	60.00	120.00
Power Input	(kW)	13.04	26.25
Heating Current Input Range	(A)	22.02	44.33
COP	(W/W)	4.60	4.57
Other technical specifications			
Max. Power Input	(kW)	22.00	44.00
Max. Running Current	(A)	37.20	74.70
Max. Outlet Water Temperature	(°C)	75	75
Operating Ambient Temperature	(°C)	-25-43	-25-43
Power Supply	(V/Ph/Hz)	380-415V/3N-/ 50Hz	380-415V/3N-/ 50Hz
Display		7-inch Colored Touch Screen	7-inch Colored Touch Screen
Refrigerant Type:		R290	R290
Refrigerant Weight	(kg)	20x2	20x4
Sound Pressure Level at 1m	(dB(A))	58	60
Sound Power Level	(dB(A))	75	77
Rated Water Flow	(m^3/h)	8.6	17.2
Water Pressure Drop	(kPa)	25	28
Water Pipe Connection		DN50	DN65
Direction of Air Discharge		Top	Top
Fan/Motor Type		Axial/DC	Axial/DC
Fan Quantity	(PCS)	1	2
Ingress Protection Rating		IPX4	IPX4
Electric Shock Protection Class		I	I
Net Weight	(kg)	450	890
Net Dimensions (L×W×H)	(mm)	1095x1315x2435	2190x1315x2435
Shipping Weight	(kg)	510	978
Shipping Dimensions (L×W×H)	(mm)	1100x1350x2535	2200x1350x2535

Aldea
HEAT PUMP

Turkiye Head Quarters
Karacaoğlan Mah. 6172 Sok. İzeltaş 3F No:10/2D 35070 Bornova - İzmir - Türkiye
www.aldeaheatingsystem.com
+90 232 472 00 26 I info@aldea.com.tr I www.aldea.com.tr

Germany Head Quarters
Neue Mainzer Straße 6-10 60311 Franfurt am Main
info@aldea.com.tr I aldeawarmepumpen.de