

# Centrometal

HEATING TECHNIQUE



Monoblock  
R290

HEAT PUMPS



PRESENT AND THE FUTURE OF HEATING AND COOLING

# Heat pump monoblock R290



A heat pump can be defined as a universal solution for a space comfort achieving. It is an integrated system that combines space heating and cooling function, and domestic hot water (DHW) preparation as well. It, therefore, offers versatile solution, which can be used throughout the whole year. It can replace any type of boiler or operate in combination with it, as an integrated hybrid system.

## Natural refrigerant R290

R290, a highly pure propane with zero ODP value, does not have ozone depletion potential. The low GWP value further demonstrates its environmental protection characteristics, which provides great support to reach EU carbon neutrality. Thanks to the excellent thermodynamic properties of R290 and the advanced heat pump technology, with only a small amount of R290, Centrometal monoblok heat pumps show great performance under cold condition. So it is a modern solution that balances ecosystem requirements with economic performance.



# Powerful heating



55°C hot water under -25°C ambient temperature



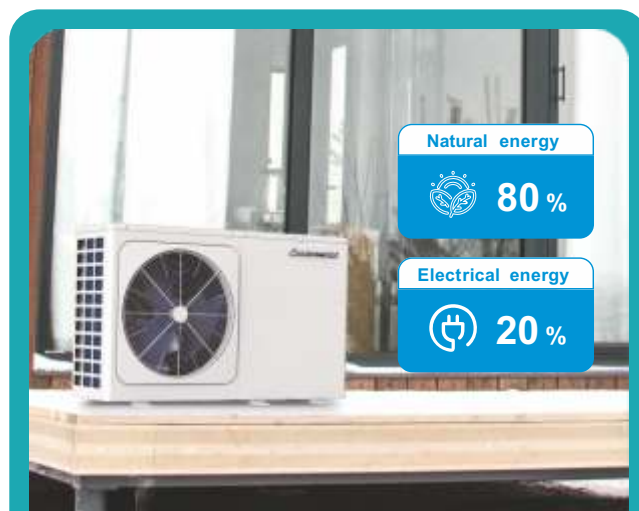
75°C hot water under -10°C ambient temperature

# Ideal for replacement

The main energy source for Centrometal monoblock heat pump is free-of-charge natural energy from the air. With only a small amount of electrical energy, heat pump can provide heat for your house. Compared with boiler, heat pump is a more efficient product with environmental protection. On the other hand, the powerful heating capacity of providing 75°C hot water makes it suitable for replacing or retrofitting the current heat source.



Traditional boiler heating



Heat pump heating

The data is only applied for some models under A7W35, which is for understanding and reference only. The result may vary depending on different products. Please refer to the specification for more details.

# High reliability

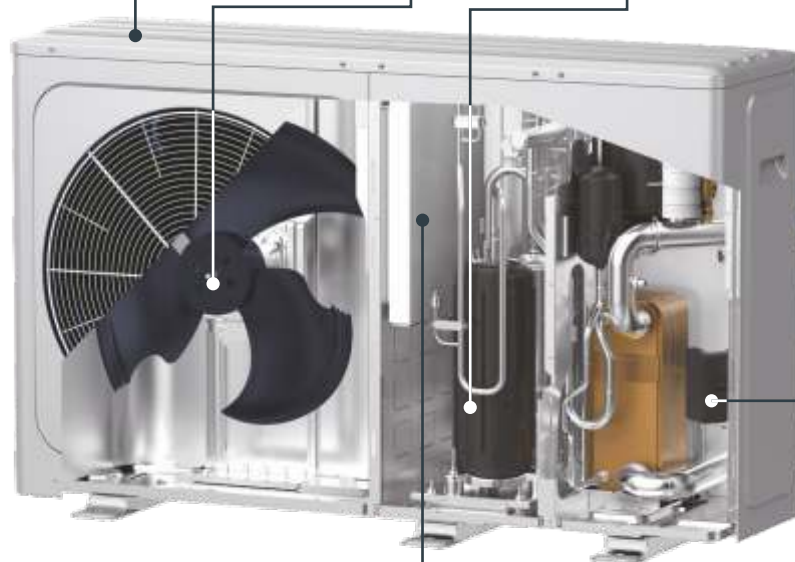
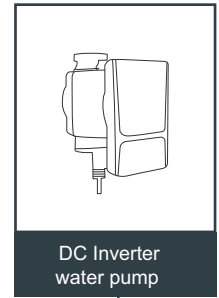
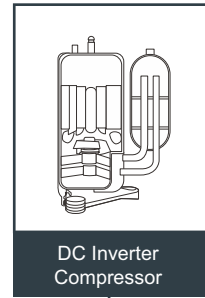
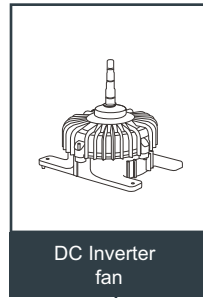
R290 heat pump adopts well-known brand components and advanced manufacturing processes to ensure product reliability. It is worth mentioning that, in order to best reassure customers about the use of R290 heat pump, the electric control system adopts a hermetic design to further improve the overall reliability.

## 1. Advanced manufacturing technology



## 2. All DC Inverter components

DC Inverter

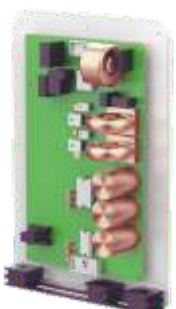


## 3. Hermetic electric control box

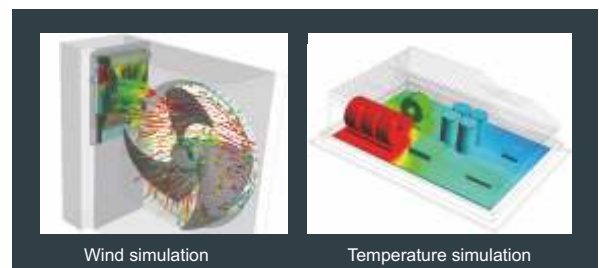


- Excellent sealability

Thanks to the special air flue design and multiple simulations, the heat dissipation rate of electric control system has been greatly improved, which provides a strong support for heat pump to run stably under 25°C~46°C wide ambient temperature range.



- Explosion-proof design



# High efficiency

Energy efficiency label indicates the energy efficiency level and performance data of heat pump. The purpose of energy efficiency label is to provide necessary information for users to make purchase decisions, so as to help users to choose highly energy-efficient and energy-saving products. With the help of all DC inverter technology, Centrometal R290 heat pumps series reaches the EU Energy Efficiency A+++ at 35°C water temperature, A++ at 55°C water temperature, which ensures users get a better experience with a more economical and reasonable cost .



## Monoblock type - CHARACTERISTICS

- Air-to-water heat pump
- Monoblock models (6-16kW)
- Eco-friendly refrigerants: R290 (propane)
- Main flow temperature: to 75 °C (6 - 16 kW) ; to 85 °C (26 - 40 kW)
- Lower space heating and cooling costs
- Lower CO2 emission
- High-efficiency source for space heating and cooling
- Control unit with colorful touchscreen panel controls the heat pump operation, and it can control system with up to two mixing heating/cooling circuits, one direct heating/cooling circuit and DHW preparation (with DHW circulation pump operation control as well) (mandatory additional equipment)
- It can be connected to a system that uses floor heating/cooling, fan coils and/or radiators
- It can be connected to a web portal afterwards



Control panel with a color touch screen

# Control unit and additional equipment

Control unit HPCU360iCMP (HPxTouchCM)



Thermostat HPxTouchCM

Wireless thermostat HPx40CM



Electric heater HPe2/4CM

Connection to Web portal with WiFi module HPnet300CM



HP-BOT  
200-2.000 liters

Enamelled tanks



# Specifications R290 (6 - 16 kW)

Model			6 kW	10 kW	16 kW
Power supply		V/Hz	220-240V-50Hz	220-240V-50Hz	380-415V-3N-50Hz
Heating A7/W35	Capacity	W	6200	10000	15000
	Rated input	W	1265	2128	3409
	COP		4.90	4.70	4.40
Heating A7/W45	Capacity	W	6400	10000	15000
	Rated input	W	1684	2740	4478
	COP		3.80	3.65	3.35
Heating A7/W55	Capacity	W	6200	9500	15000
	Rated input	W	2000	3115	5263
	COP		3.10	3.05	2.85
Heating A2/W35	Capacity	W	5600	8200	12800
	Rated input	W	1436	2247	4000
	COP		3.90	3.65	3.20
Heating A-7/W35	Capacity	W	5900	8000	12700
	Rated input	W	2000	2807	5080
	COP		2.95	2.85	2.50
Cooling A35/W18	Capacity	W	6500	10000	16000
	Rated input	W	1275	2105	4103
	EER		5.10	4.75	3.90
Cooling A35/W7	Capacity	W	6800	8900	14000
	Rated input	W	2194	2738	5091
	EER		3.10	3.25	2.75
SCOP	Average climate, W35		A+++		
	Average climate, W55		A++		
ErP sound power level		dB	58	61	69
Refrigerant	Type (GWP)		R290(3)		
	Charged volume	g	700	1100	1250
Unit dimension (W×H×D)		mm	1299×717×426	1385×865×523	1385×865×523
Packing dimension (W×H×D)		mm	1375×885×475	1465×1035×560	1465×1035×560
Net weight		kg	90	117	137
Gross weight		kg	110	139	159
Water side Connection dimension			G1"BSP	G1 1/4"BSP	G1 1/4"BSP
Outdoor air temperature range	Cooling	°C	-5~46		
	Heating	°C	-25~35		
	DHW	°C	-25~46		
Water setting temperature range	Cooling	°C	5~25		
	Heating	°C	25~75		
	DHW	°C	20~70		
Electric heater	Power supply	V/Ph/Hz	220-240/1/50	220-240/1/50	380-415/3/50
	Capacity	kW	3	3	9

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

# Specifications (26 - 40 kW)

Model			26 kW	30 kW	35 kW	40 kW
Power supply		V/Hz	380-415/3/50			
Heating A7/W35	Capacity	W	26000	30000	35000	39000
	Rated input	W	5450	6670	8400	9750
	COP		4,77	4,50	4,17	4,00
Heating A7/W45	Capacity	W	26000	30000	35000	39000
	Rated input	W	6820	8260	10050	11900
	COP		3,81	3,36	3,48	3,28
Heating A7/W55	Capacity	W	26000	30000	35000	39000
	Rated input	W	7850	9570	11750	14000
	COP		3,31	3,13	2,98	2,79
Heating A2/W35	Capacity	W	23500	26800	30400	30400
	Rated input	W	6350	7620	9520	9520
	COP		3,70	3,52	3,19	3,19
Heating A-7/W35	Capacity	W	21000	24000	28200	28200
	Rated input	W	6930	8380	11100	11100
	COP		3,03	2,86	2,54	2,54
Cooling A35/W18	Capacity	W	26000	30000	35000	39000
	Rated input	W	5600	6800	8500	9850
	EER		4,64	4,41	4,12	3,96
Cooling A35/W7	Capacity	W	26000	30000	32000	32000
	Rated input	W	8400	10700	11980	11980
	EER		3,10	2,80	2,67	2,67
SCOP	Average climate, W35		4,95	4,92	4,48	3,84
	Average climate, W55		3,84	3,79	3,63	3,00
SEER	Leaving wat. temp. 7°C		5,21	4,99	4,82	4,82
	Leaving wat. temp. 18°C		7,17	6,8	6,43	6,22
ErP sound power level		dB	69	74	75	76
Refrigerant	Type (GWP)		R290			
	Charged volume	g	2900			
Unit dimension (W×H×D))		mm	1384x1816x523			
Net weight		kg	260			
Water side Connection dimension			G 1 1/4" BSP (DN 32)			
Outdoor air temperature range	Cooling	°C	-15 ~ 48			
	Heating	°C	-25 ~ 43			
	DHW	°C	-25 ~ 43			
Rasprodnih temperatura vode	Cooling	°C	5 ~ 25			
	Heating	°C	25 ~ 85			
	DHW	°C	20 ~ 75			
Razred energetske učinkovitosti	Leaving wat. temp. 35°C		A+++	A+++	A+++	A++
	Leaving wat. temp. 55°C		A+++	A++	A++	A++

**Bilješka:**  
EU standardi: EN14511; EN14825; EN50564; EN 12102; (EU) No:811



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