GOODHEAT



High-efficiency residential heating with natural R290, designed for low-carbon and future-ready homes.

- Dual Temperature Zone
- Immediate hot water supply
- Smart defrosting
- Domestic hot water priority
- Low Noise
- Automatic weekly sterilization

The GOODHEAT R290 Residential Air-to-Water Heat Pump delivers high efficiency, low noise, and environmentally friendly home heating, cooling, and domestic hot water. Designed for European residential applications, it uses natural refrigerant R290 to achieve outstanding seasonal performance and ultra-low global warming impact.
With wide operating temperature capability, smart control options, and compatibility with PV systems, it provides homeowners with a reliable, energy-saving, and future-proof heating solution.



- Natural R290 refrigerant, more eco-friendly
- Dual A+++ SCOP, more efficient
- Equipped with refrigerant leakage sensor
- Remote control management: WiFi & APP & IOT platform

AWHP R290 Series Air-to-Water Heat Pump | 6-24 kW | R290 Refrigerant | Residential Use | Full DC Inverter

Capacity	6kW	8kW	10kW	12kW	16kW	18kW
Model	GSHVSH-6AA1	GSHVSH-8AA1	GSHVSH-10AA1	GSHVSH-10AA1	GSHVSH-16AA1	GSHVSH-18AA1
Power Supply	220~240V/1N~/50Hz					
Heating Capacity (Max) (A 7/6°C, W 30/35°C)						
Heating Capacity(kW)	6.07(2.63~9.10)	8.11(3.57~12.29)	10.25(4.39~13.50)	11.98(4.39~15.45)	16.20(6.17~18.51)	17.60(6.50~22.00)
Power Input(kW)	1.19(0.54~2.28)	1.60(0.74~3.17)	2.07(0.89~3.55)	2.45(0.89~4.06)	3.38(1.26~4.83)	3.62(1.35~5.88)
COP	5.10(4.20~5.40)	5.07(4.10~5.35)	4.95(3.90~5.30)	4.89(3.85~5.20)	4.79(3.75~5.00)	4.86(3.82~5.30)
Heating Capacity (Max) (A 7/6°C, W 47/55°C)						
Heating Capacity(kW)	5.99(2.99~8.19)	8.11(3.65~10.96)	10.07(3.85~11.75)	11.55(3.85~13.35)	15.89(5.75~17.20)	17.85(5.45~18.89)
Power Input(kW)	1.87(1.03~2.92)	2.65(1.11~3.87)	3.12(1.20~4.35)	3.71(1.20~5.03)	5.30(1.81~5.34)	5.88(2.15~6.85)
COP	3.20(2.90~3.46)	3.18(2.83~3.45)	3.23(2.75~3.57)	3.11(2.65~3.57)	3.00(2.83~3.45)	3.03(2.64~3.57)
Cooling Capacity (Max) (A 35/24°C, W 12/7°C)						
Cooling Capacity(kW)	5.00(1.38~5.70)	7.10(1.44~8.11)	8.50(3.65~9.45)	10.00(3.65~11.04)	13.00(4.03~13.51)	15.00(4.55~17.20)
Power Input(kW)	1.77(0.67~2.44)	2.51(0.90~3.20)	3.01(1.12~3.51)	3.68(1.12~3.97)	4.60(1.45~5.03)	5.52(1.85~7.31)
EER	2.82(2.03~3.20)	2.83(2.00~3.15)	2.82(2.00~3.10)	2.72(1.95~3.00)	2.83(1.98~3.05)	2.72(1.96~2.98)
ErP Level (Outlet Water Temp. at 35°C/55°C)	A+++/A+++	A+++/A+++	A+++/A+++	A+++/A+++	A+++/A++	A+++/A+++
Rated Input Power(kW)	3.60	4.65	5.05	5.45	6.95	7.50
Rated Input Current(A)	15.0	20.40	23.0	25.00	30.50	35.0
Rated Water Flow(m^3/h)	1.00	1.37	1.7	2.06	2.75	3.10
IP Class	IPX4					
Sound Pressure at 1m Distance(dB(A))	43(39~51)	43(39~51)	44(39~52)	46(39~52)	48(39~55)	49(39~55)
Sound Pressure at 3m Distance(dB(A))	35(32~44)	35(32~44)	37(32~45)	39(32~45)	41(32~48)	47(32~38)
Max. Outlet Water Temp.(°C)	75					
Water Piping Connections(inch)	G1					
Water Pressure Drop(kPa)	20	25	20	20	55	55
Operating Temp. Range(Heating)(°C)	-25~45					
Operating Temp. Range(Cooling)(°C)	16~45					
N.W./G.W.(kg)	140/160	145/165	155/175	155/175	195/220	215/240
Net Dimensions(LxDxH)(mm)	1270x460x955				1490x460x1005	1190x500x1515
Packed Dimensions(LxDxH)(mm)	1300x500x1094				1520x540x1140	1220x540x1640

Capacity	10kW	12kW	16kW	18kW	24kW
Model	GSHVTH-10AA1	GSHVTH-12AA1	GSHVTH-16AA1	GSHVTH-18AA1	GSHVTH-24AA1
Power Supply	380~415V/3N~/50Hz				
Heating Capacity (Max) (A 7/6°C, W 30/35°C)					
Heating Capacity(kW)	10.25(4.39~13.50)	11.98(4.39~15.45)	16.20(6.17~18.51)	17.60(6.50~22.00)	24.05(9.63~29.13)
Power Input(kW)	2.07(0.89~3.55)	2.45(0.89~4.06)	3.38(1.26~4.83)	3.62(1.35~5.88)	4.96(2.00~7.82)
COP	4.95(3.90~5.30)	4.89(3.85~5.20)	4.79(3.75~5.00)	4.86(3.82~5.30)	4.85(3.86~5.30)
Heating Capacity (Max) (A 7/6°C, W 47/55°C)					
Heating Capacity(kW)	10.07(3.85~11.75)	11.55(3.85~13.35)	15.89(5.75~17.20)	17.85(5.45~18.89)	23.85(8.45~25.89)
Power Input(kW)	3.12(1.20~4.35)	3.71(1.20~5.03)	5.30(1.81~5.34)	5.88(2.15~6.85)	8.01(2.86~9.12)
COP	3.23(2.75~3.57)	3.11(2.65~3.57)	3.00(2.83~3.45)	3.03(2.64~3.57)	2.98(2.84~3.57)
Cooling Capacity (Max) (A 35/24°C, W 12/7°C)					
Cooling Capacity(kW)	8.50(3.65~9.45)	10.00(3.65~11.04)	13.00(4.03~13.51)	15.00(4.55~17.20)	17.00(6.15~19.50)
Power Input(kW)	1.77(0.67~2.44)	3.68(1.12~3.97)	4.60(1.45~5.03)	5.52(1.85~7.31)	6.14(2.50~9.75)
EER	3.01(1.12~3.51)	2.72(1.95~3.00)	2.83(1.98~3.05)	2.72(1.96~2.98)	2.77(2.03~3.00)
ErP Level (Outlet Water Temp. at 35°C/55°C)	A+++/A+++	A+++/A+++	A+++/A++	A+++/A+++	A+++/A+++
Rated Input Power(kW)	5.05	5.86	6.95	10.52	12.52
Rated Input Current(A)	8.50	10.0	11.70	17.30	19.50
Rated Water Flow(m^3/h)	1.70	2.06	2.75	3.10	4.20
IP Class	IPX4				
Sound Pressure at 1m Distance(dB(A))	44(39~52)	46(39~52)	48(39~55)	49(39~55)	52(50~60)
Sound Pressure at 3m Distance(dB(A))	37(32~45)	39(32~45)	41(32~48)	47(32~48)	45(43~53)
Max. Outlet Water Temp.(°C)	75				
Water Piping Connections(inch)	G1				
Water Pressure Drop(kPa)	20	20	55	55	60
Operating Temp. Range(Heating)(°C)	-25~45				
Operating Temp. Range(Cooling)(°C)	16~45				
N.W./G.W.(kg)	155/175	155/175	195/220	215/240	215/240
Net Dimensions(LxDxH)(mm)	1270x460x955	1270x460x955	1490x460x1005	1190x500x1515	1190x500x1515
Packed Dimensions(LxDxH)(mm)	1300x500x1094	1300x500x1094	1520x540x1140	1220x540x1640	1220x540x1640

Note: The data above is for reference only. Please refer to the nameplate on the unit if for more specific data.