

envion

A brand of Envi-Group

R 290 SERIES CLEANLIFE

Full DC Inverter Monoblock

HEAT PUMP

- The preferred heat pump solution for zero-carbon buildings
- Specially designed for smart energy-saving home



Bundesamt
für Wirtschaft und
Ausfuhrkontrolle

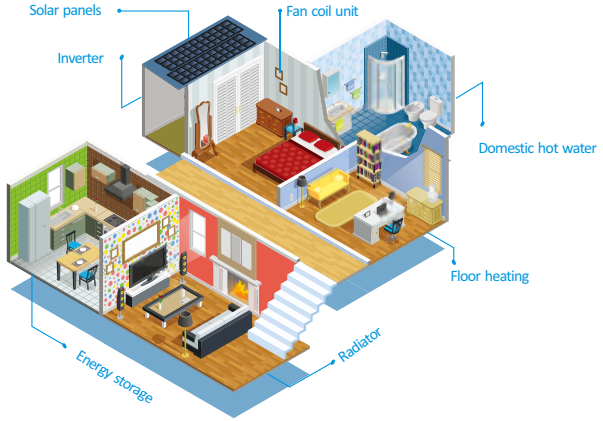


HEATING, COOLING AND DHW IN ONE SYSTEM

With SG-ready, Cleanlife HP can automatically switch states based on the power storage of PV equipment and the peak & valley power status of the grid, automatically select heating time under low tariff hours or use PV to save energy costs.

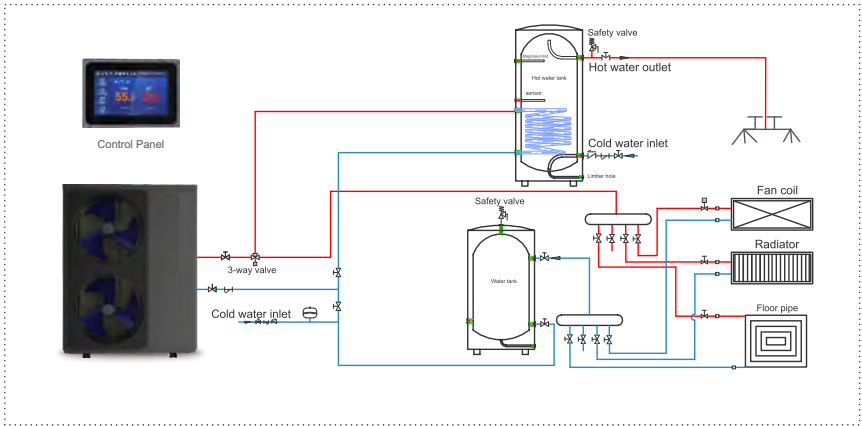
Zero Carbon

R290
GWP=3

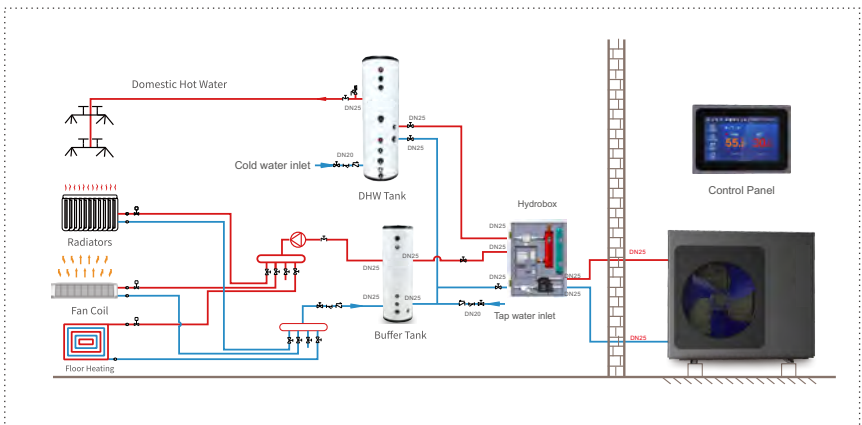


Heat Pump Solution Optional:

1. Outdoor unit with built-in water pump



2. Outdoor unit (No water pump) + hydro box unit



WORRY-FREE IN THE EXTREME COLD

Wide Working Ambient Temp Range -25°C~43°C



SG-Ready



PV-Ready



WiFi



Timer setting



IoT



Low Noise



Languages



Max SCOP



Intelligent defrost



Max water outlet



Sterilization Each 7 days



Cascade Max 8 unit



Real-time Energy monitoring



A+++ Top energy class

Heating Capacity
8.3KW~24KW
220V/1phase~380V/3phase



MULTIPLE POWERFUL NOISE REDUCTION MEASURES

THE NOISE IS AS LOW AS 43dB



DC inverter brushless motor
Low noise, intelligent variable speed control



Sound insulation sealing shell
(with soundproof cotton)

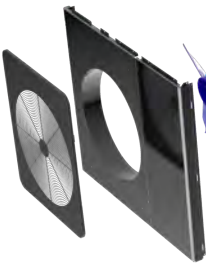
DC Inverter Water Pump
Stepless speed regulation, low noise

Damping shock absorber

Shock absorbing board

Thickened chassis

Biomimetic fan
Large air volume, low noise



DC inverter compressor
Small vibration, low noise, stepless frequency conversion of power



PU corrugated sound-absorbing cotton

The inner wall of the unit is packed with silencer cotton on the sheet metal, compressor, pipelines and other places.

THE MOST INTELLIGENT CONTROL SYSTEM

THE EASIEST OPERATION

It can be installed anywhere in the house. Users can set different water temp, operation modes, time setting, parameter query, smart grid, check the energy consumption curve, etc.



Built-in WIFI module, APP control



Smart energy consumption management

REAL-TIME MONITORING



Smart Silent Power Vacation Four Operating Modes



- ✓ SG-Ready control
- ✓ Timer setting
- ✓ Parameters
- ✓ Cascade control
- ✓ Operating mode
- ✓ 15 languages
- ✓ Water temp control
- ✓ Fault reminder

SMART CONTROL, SMART HOME

Smart Life/Tuya Smart App

WIFI remote control. Simple operation, easily check or control your heat pump from anywhere!



Mode switching ●

Energy consumption monitor and manage ●

Real-time monitoring ●

History record ●

15 Languages available ●

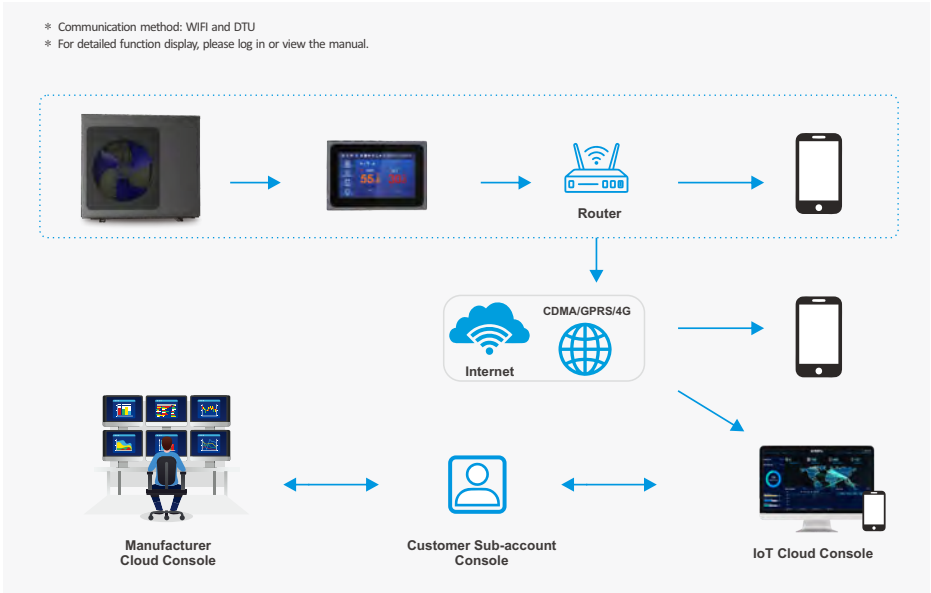
Automatic fault diagnosis ●

Various timing settings ●

Operating parameters ●

Smart IoT Cloud Control

Real-time monitoring, data operation and maintenance, saving time and costs for users, dealers, and manufacturers.



✓ BIG DATA MANAGEMENT:
 Global device data collection, statistics, analysis and management.

✓ EQUIPMENT MANAGEMENT
 Information statistics/operation status/parameter viewing and setting/fault diagnosis report/operation log, etc.

✓ OTA UPGRADE
 Quickly fix code defects and remotely iteratively upgrade product motherboards.

CLEANLIFE SERIES HEAT PUMP

With a Built-in Circulating Water Pump



| Model | | PW030-DKZLRS-E/S | PW040-DKZLRS-E/S | PW050-DKZLRS-E/S | PW055-DKZLRS-E/S | PW060-DKZLRS-E/S | PW070-DKZLRS-E/S | PW040-DKZLRS-E | PW050-DKZLRS-E | PW060-DKZLRS-E | PW055-DKZLRS-E | PW070-DKZLRS-E |
|--|------------------------|------------------|------------------|------------------|------------------|--------------------|------------------|----------------|------------------|----------------|----------------|----------------|
| Heating Condition - Ambient Temp.(DB/WB)7/6°C,Water Temp.(In/Out):30/35°C | | | | | | | | | | | | |
| Heating capacity range (kw) | | 3.3~8.3 | 4.5~11.4 | 5.9~14.8 | 7.2~18.2 | 8.8~22.0 | 9.6~24.0 | 4.5~11.4 | 5.9~14.8 | 8.8~22.0 | 7.2~18.2 | 9.6~24.0 |
| Heating Power Input Range(kw) | | 0.64~2.18 | 0.85~2.95 | 1.13~3.83 | 1.38~4.65 | 1.68~5.77 | 1.83~6.30 | 0.85~2.95 | 1.13~3.83 | 1.68~5.77 | 1.38~4.65 | 1.83~6.30 |
| COP range | | 3.81~5.17 | 3.86~5.29 | 3.86~5.22 | 3.91~5.22 | 3.81~5.24 | 3.81~5.24 | 3.86~5.29 | 3.86~5.22 | 3.81~5.24 | 3.91~5.22 | 3.81~5.24 |
| DHW Condition-Ambient Temp.(DB/WB)7/6°C,Water Temp.(In/Out):15/55°C | | | | | | | | | | | | |
| Heating Capacity Range (kW) | | 3.7~7.4 | 5.2~10.2 | 6.6~13.2 | 7.2~16.2 | 7.8~17.6 | 8.8~19.6 | 5.2~10.2 | 6.6~13.2 | 7.8~17.6 | 7.2~16.2 | 8.8~19.6 |
| Heating Power Input Range(kW) | | 0.79~2.10 | 1.10~2.87 | 1.41~3.73 | 1.54~4.58 | 1.67~5.01 | 1.89~5.60 | 1.10~2.87 | 1.41~3.73 | 1.67~5.01 | 1.54~4.58 | 1.89~5.60 |
| COP Range | | 3.52~4.69 | 3.55~4.71 | 3.54~4.67 | 3.54~4.67 | 3.51~4.66 | 3.50~4.66 | 3.55~4.71 | 3.54~4.67 | 3.51~4.66 | 3.54~4.67 | 3.50~4.66 |
| Heated water output (L/H) | | 159 | 219 | 283 | 348 | 377 | 421 | 219 | 283 | 377 | 348 | 421 |
| Cooling Condition - Ambient Temp.(DB/WB)35/24°C,Water Temp.(In/Out):12/7°C | | | | | | | | | | | | |
| Cooling Capacity Range (kW) | | 2.4~5.8 | 3.3~8.2 | 4.3~10.8 | 5.6~14.1 | 6.2~15.3 | 6.9~17.0 | 3.3~8.2 | 4.3~10.8 | 6.2~15.3 | 5.6~14.1 | 6.9~17.0 |
| Cooling Power Input Range(kW) | | 0.79~2.19 | 1.08~3.07 | 1.39~3.99 | 1.80~5.38 | 1.99~5.60 | 2.21~6.49 | 1.08~3.07 | 1.39~3.99 | 1.99~5.60 | 1.80~5.38 | 2.21~6.49 |
| EER Range | | 2.65~3.04 | 2.67~3.06 | 2.71~3.10 | 2.62~3.11 | 2.73~3.12 | 2.62~3.12 | 2.67~3.06 | 2.71~3.10 | 2.73~3.12 | 2.62~3.11 | 2.62~3.12 |
| Space Heating (According to EN14825:2022) Average Climate Water Outlet 35°C | Rated heat output (kW) | 5.82 | 7.89 | 9.95 | 12.0 | 14.0 | 16.0 | 7.61 | 10.27 | 14.05 | 12.0 | 16.0 |
| | ErP Level | A+++ | A+++ | A+++ | A+++ | A+++ | A+++ | A+++ | A+++ | A+++ | A+++ | A+++ |
| Space Heating (According to EN14825:2022) Average Climate Water Outlet 35°C | Rated heat output (kW) | 5.59 | 8.70 | 9.23 | 12.0 | 14.0 | 16.0 | 8.10 | 12.17 | 13.47 | 12.0 | 16.0 |
| | ErP Level | A++ | A++ | A++ | A++ | A++ | A++ | A++ | A++ | A++ | A++ | A++ |
| Power supply | | | | | | 230V/1Ph/50Hz/60Hz | | | 380V/3Ph/50-60Hz | | | |
| Diameter of pipe (mm) | | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 |
| Max water head(m) | | 9 | 9 | 9 | 12 | 12 | 12 | 9 | 9 | 12 | 12 | 12 |
| Net Weight (kg) | | 112 | 120 | 138 | 165 | 170 | 220 | 120 | 138 | 170 | 165 | 220 |
| Body size(W*D*H) (mm) | | 1080*460*820 | 1080*460*960 | 1080*480*1060 | 1080*480*1060 | 1080*480*1372 | 1160*480*1580 | 1080*460*960 | 1080*480*1060 | 1080*480*1372 | 1080*480*1060 | 1160*480*1580 |
| Operation Ambient Temp. (°C) | | -25~43 | | | | | | | | | | |
| Operating water temperature (°C) | | 20~65(DHW) | | | | | | | | | | |
| Operating water temperature (°C) | | 20~70(Heating) | | | | | | | | | | |
| Operating water temperature (°C) | | 7~35(Cooling) | | | | | | | | | | |

Note:

The data above is for reference only, please refer to the nameplate on the unit if for more specific data.

CLEANLIFE SERIES HEAT PUMP

Without Circulating Water Pump



| Model | PW030-DKZLRS-E/S | PW040-DKZLRS-E/S | PW050-DKZLRS-E/S | PW040-DKZLRS-E | PW050-DKZLRS-E | PW060-DKZLRS-E |
|--|--------------------|------------------|------------------|------------------|----------------|----------------|
| Heating Condition - Ambient Temp.(DB/WB)7/6°C,Water Temp.(In/Out):30/35°C | | | | | | |
| Heating capacity range (kw) | 3.3~8.3 | 4.5~11.4 | 5.9~14.8 | 4.5~11.4 | 5.9~14.8 | 8.8~22.0 |
| Heating Power Input Range(kw) | 0.64~2.18 | 0.85~2.95 | 1.13~3.83 | 0.85~2.95 | 1.13~3.83 | 1.68~5.77 |
| Cop range | 3.81~5.17 | 3.86~5.29 | 3.86~5.22 | 3.86~5.29 | 3.86~5.22 | 3.81~5.24 |
| DHW Condition-Ambient Temp.(DB/WB)7/6°C,Water Temp.(In/Out):15/55°C | | | | | | |
| Heating Capacity Range (kW) | 3.7~7.4 | 5.2~10.2 | 6.6~13.2 | 5.2~10.2 | 6.6~13.2 | 7.8~17.6 |
| Heating Power Input Range(kW) | 0.79~2.10 | 1.10~2.87 | 1.41~3.73 | 1.10~2.87 | 1.41~3.73 | 1.67~5.01 |
| COP Range | 3.52~4.69 | 3.55~4.71 | 3.54~4.67 | 3.55~4.71 | 3.54~4.67 | 3.51~4.66 |
| Heated water output (L/H) | 159 | 219 | 283 | 219 | 283 | 377 |
| Cooling Condition - Ambient Temp.(DB/WB)35/24°C,Water Temp.(In/Out):12/7°C | | | | | | |
| Cooling Capacity Range (kW) | 2.4~5.8 | 3.3~8.2 | 4.3~10.8 | 3.3~8.2 | 4.3~10.8 | 6.2~15.3 |
| Cooling Power Input Range(kW) | 0.79~2.19 | 1.08~3.07 | 1.39~3.99 | 1.08~3.07 | 1.39~3.99 | 1.99~5.60 |
| EER Range | 2.65~3.04 | 2.67~3.06 | 2.71~3.10 | 2.67~3.06 | 2.71~3.10 | 2.73~3.12 |
| ErP Level (35°C) | A+++ | A+++ | A+++ | A+++ | A+++ | A+++ |
| ErP Level (55°C) | A++ | A++ | A++ | A++ | A++ | A++ |
| Power supply | 230V/1Ph/50Hz/60Hz | | | 380V/3Ph/50-60Hz | | |
| Diameter of pipe (mm) | DN25 | DN25 | DN25 | DN25 | DN25 | DN25 |
| Water Flow(m3/h) | 1.43 | 1.96 | 2.55 | 1.96 | 2.55 | 3.78 |
| Water Pressure Drop (max) kPa | 30 | 35 | 40 | 35 | 40 | 45 |
| Sound pressure level (dB(A)) | 44 | 43 | 45 | 43 | 44 | 45 |
| Net Weight (kg) | 110 | 118 | 135 | 118 | 135 | 168 |
| Body size(W*D*H) (mm) | 1080×460×820 | 1080×460×960 | 1080×480×1060 | 1080×460×960 | 1080×480×1060 | 1080×480×1372 |
| IP Grade (Level of protection) | IPX4 | IPX4 | IPX4 | IPX4 | IPX4 | IPX4 |
| Anti-electric shock Rate | I | I | I | I | I | I |
| Refrigerant | R290/1.0kg | R290/1.1kg | R290/1.45kg | R290/1.1kg | R290/1.45kg | R290/1.4kg |
| Compressor Brand | HIGHLY | HIGHLY | HIGHLY | HIGHLY | HIGHLY | HIGHLY |
| Operation Ambient Temp. (°C) | -25~43 | | | | | |
| Operating water temperature (°C) | 20~65(DHW) | | | | | |
| Operating water temperature (°C) | 20~70(Heating) | | | | | |
| Operating water temperature (°C) | 7~35(Cooling) | | | | | |

Note:

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Hydro Box Parameter



| Model | PW-03H/S | PW-03H | PW-05H/S | PW-05H |
|------------------------|--------------------------------|--------------------------|---------------------------|---------------------------|
| 3-Way Valve | ACOL/DN25 | ACOL/DN25 | ACOL/DN25 | ACOL/DN25 |
| Filter | ACOL/DN25 | ACOL/DN25 | ACOL/DN25 | ACOL/DN25 |
| Electric Heater | 3kW/220V | 3kW/220V | 3kW/220V | 3kW/220V |
| DC Inverter Water Pump | Shimge/APM25-9-130 | Shimge/APM25-9-130 | Shimge/APF25-12-130 | Shimge/APF25-12-130 |
| Max water head(m) | 9 | 9 | 12 | 12 |
| Expansion Tank(L) | 8L | 8L | 8L | 8L |
| Diameter of pipe (mm) | DN25 | DN25 | DN25 | DN25 |
| Safety valve(MPa) | 0.3 | 0.3 | 0.3 | 0.3 |
| Leakage Switch(A) | Schneider/40A | Schneider/25A | Schneider/50A | Schneider/32A |
| Cabinet | Galvanized powder coated steel | | | |
| Package | Splint/Carton | Splint/Carton | Splint/Carton | Splint/Carton |
| Power Supply(V) | 230V/1Ph/50-60Hz | 380V/3Ph/50-60Hz | 230V/1Ph/50-60Hz | 380V/3Ph/50-60Hz |
| Net Weight(kg) | 35 | 35 | 35 | 35 |
| Gross Weight(kg) | 38 | 38 | 38 | 38 |
| Net Dimension(mm) | 700*500*280 | 700*500*280 | 700*500*280 | 700*500*280 |
| Packing Dimension (mm) | 760*540*320 | 760*540*320 | 760*540*320 | 760*540*320 |
| Applicable Models | PW030/PW040(Single phase) | PW030/PW040(Three-phase) | PW050/PW060(Single phase) | PW050/PW060(Three-phase) |

Note:

The data above is for reference only, please refer to the nameplate on the unit if for more specific data.