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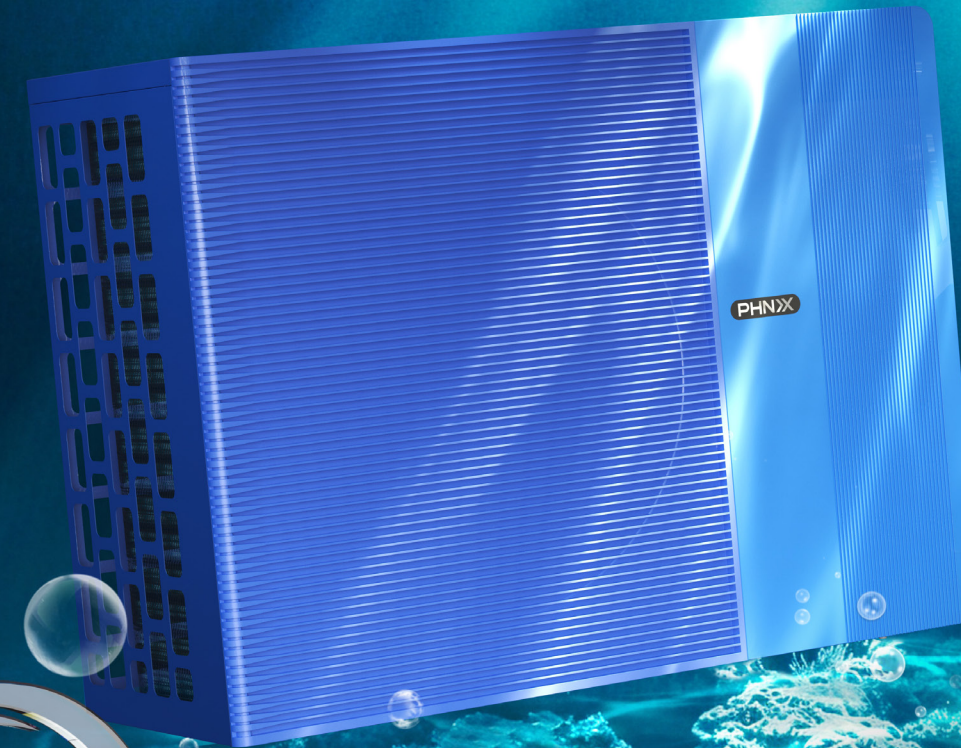
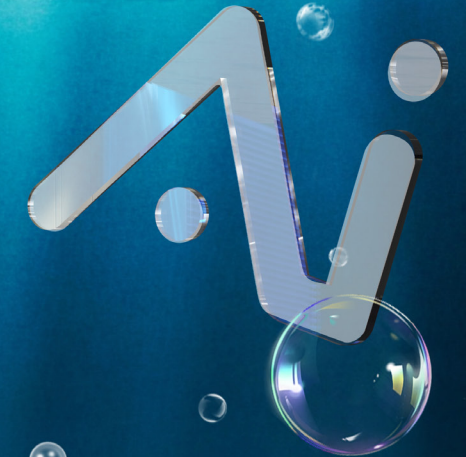


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**i-GreenLine Ultra**  
Swimming Pool Heat Pump

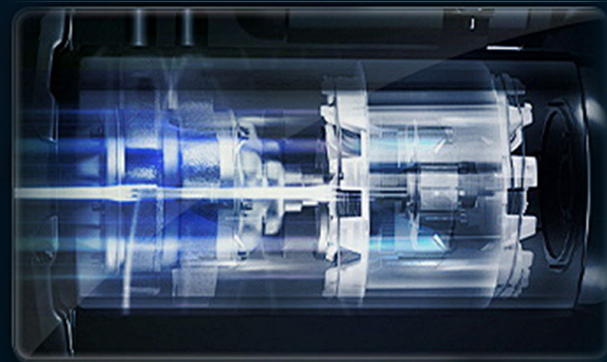


AI Full Inverter  
**30%+** Energy Saving





- A solidate & fixed Inverter logic.
- Running at max frequency low COP running.



REGULAR FULL INVERTER

30%+ ENERGY SAVING

AI FULL INVERTER



### TRAINED ON AN EXPERIMENTAL OCEAN

- Trained by more than 300,000 heat pumps running.



### GLOBALLY VALIDATED

- 60-Country field tests, localized AI tuning.



### CONTEXT-ADAPTIVE INVERTER LOGIC

- Dynamically adjust running logic by different environment and users habit.



TUV Certified

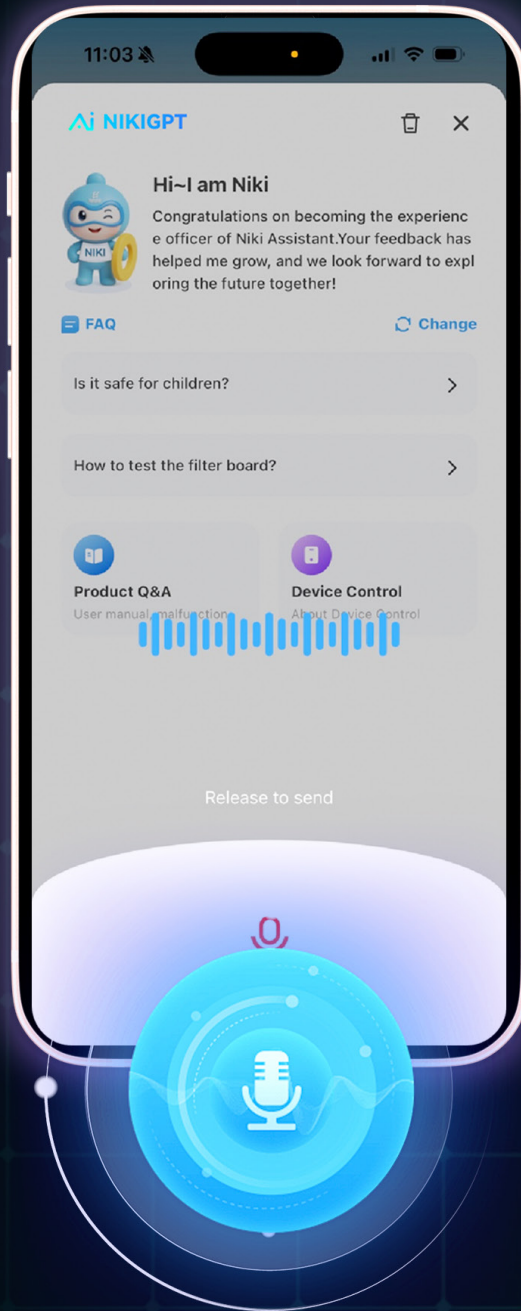


# Industry-First

## AI-CoreTech Pool Heating Solution



## INDUSTRY-FIRST AI Smart Assistant



Hi~ i am NIKI. What can I do for you?

I'm hosting a pool party this Friday night. Any recommended settings?

Device Control.

I'm getting an E03 error.

Please set target temperature to 30°C.

 **Device Control**  
About Device Control

 **Product Q&A**  
User manual, Malfunction



Available on the  
**App Store**

Get it on  
**Google play**

## Building an -Driven Service Ecosystem PHNIX IOT Platform



Hi ! I am Niki~  
Congratulations on becoming the experience officer of Niki Assistant.Your feedback has helped me grow, and we look forward to exploring the future together!

Error code: E01 ,high pressure protection.  
Explanation: when the pressure of the system more than 4.4Mpa ,unit will stop for protection.

I have to try fix the problem by adjusting parameters,here are the detection records

① Switch running mode, the signal of the 4 way valve is normal the discharge temp and the suction temp value are normal so 4 way valve is ok

② Adjust the steps of EEV, the signal of EEV and steps value are normal the coil temp and suction temp values are normal So EEV is ok

So EEV is ok

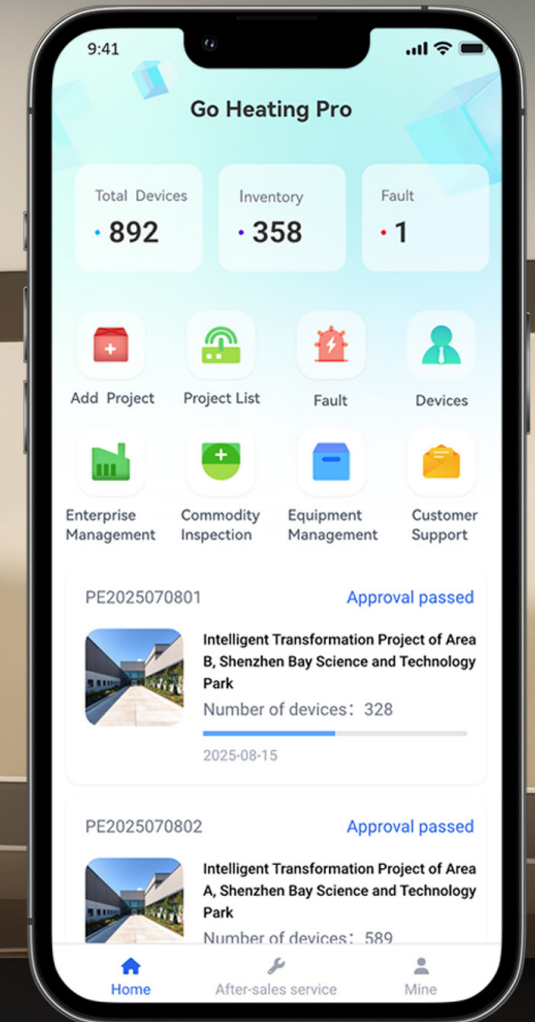
I have to try fix the problem by adjusting parameters,here are the detection records



Go Heating Pro

Available on the  
**App Store**

Get it on  
**Google play**





## Industry-First: AI Full Inverter × R290

### Revolutionize Pool Heating

i-GreenLine Ultra is the industry-first R290 full inverter pool heat pump empowered by PHNIX's AI CoreTech. Designed to lead the next generation of intelligent, sustainable pool heating, it delivers:

- Ultra-high efficiency
- Ultra-low noise
- Ultra-stable performance





# R290 Refrigerant

R290 refrigerant has an extremely low GWP value (GWP=3), showing a minimal impact on the global-warming effect and playing a positive role in going carbon-neutral.

## The Feature of R290 Refrigerant



Stable running at -25°C ambient temperature.



The max outlet water temperature can be up to 75°C.



Stable operation: R290 operates stably at low ambient temperature, and can reach the same level of R32 EVI product at ultra-low temperature.

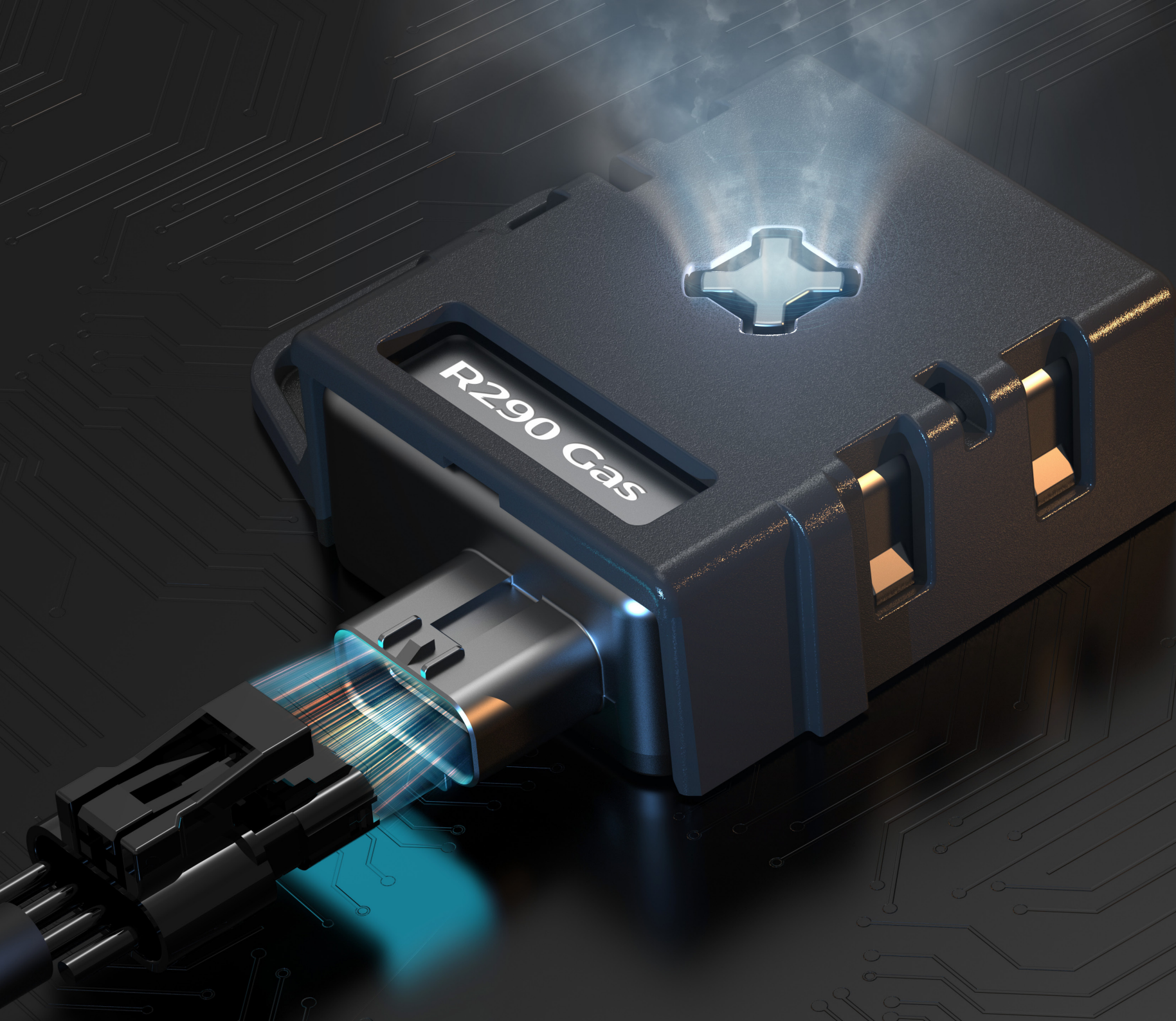


Strong cooling capacity: The cooling capacity of R290 is better than that of R32, which is 103%-105% of the cooling capacity of the same R32 product.



Small refrigerant charge: For heat pump with the same capacity, the refrigerant charge of R290 is 20% less than that of R32 refrigerant and 30% less than that of R410A refrigerant.

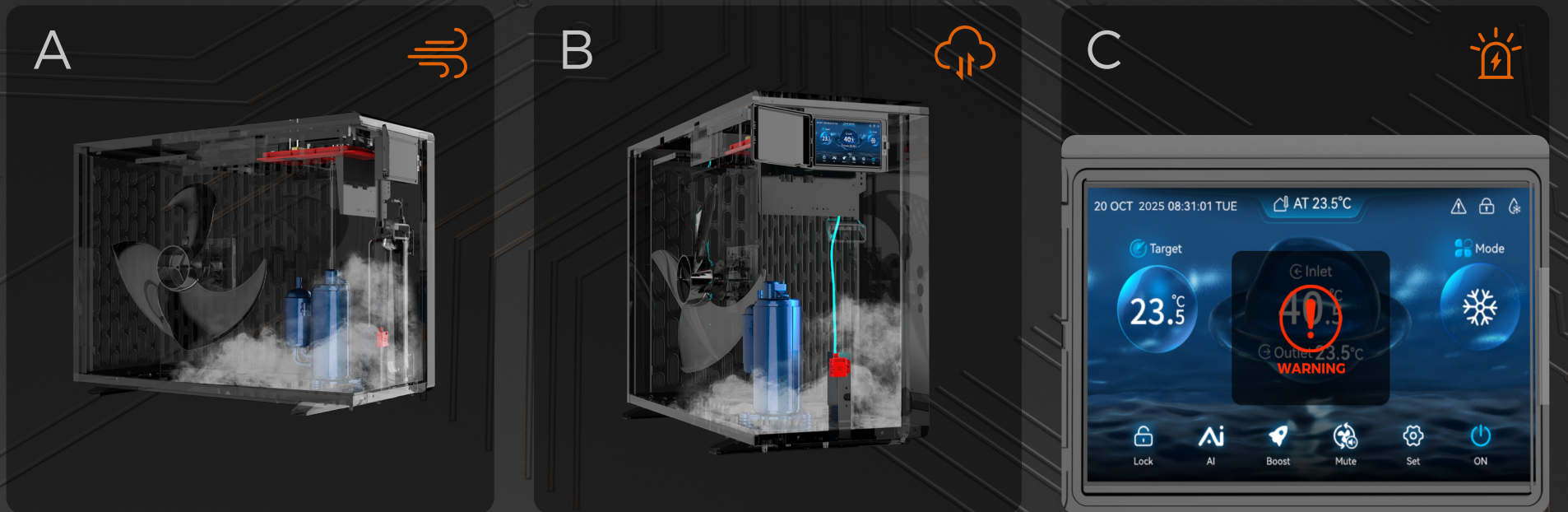




## Industry-First: Built-in R290 Leak Detection

100% Protection, Zero Compromise.

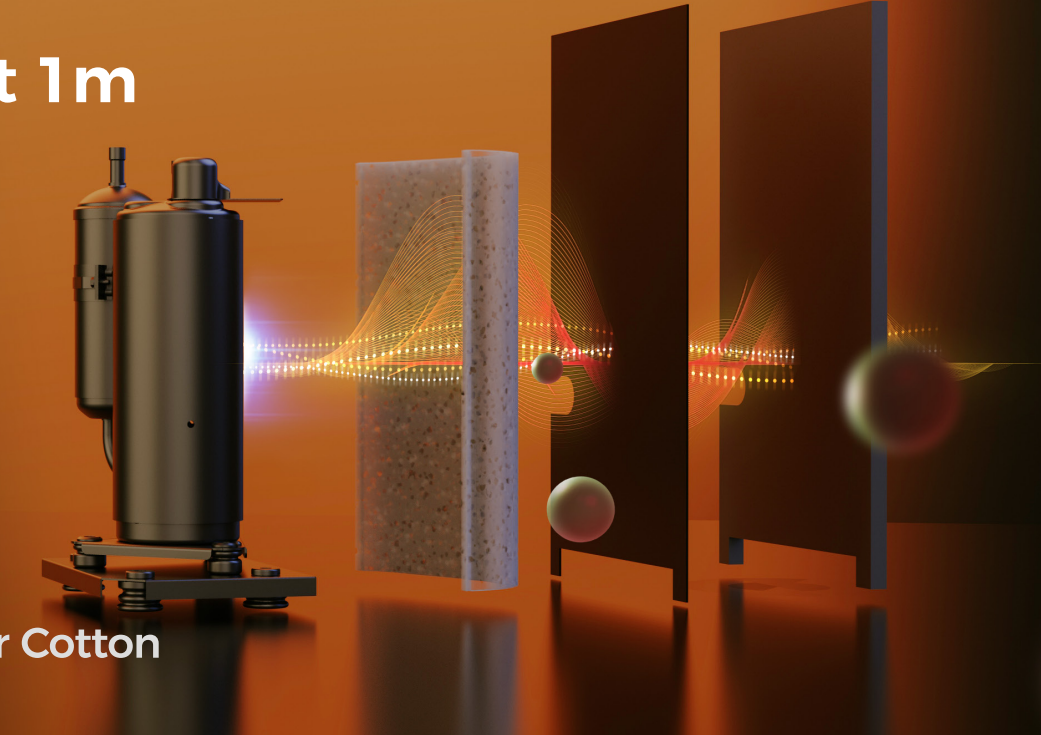
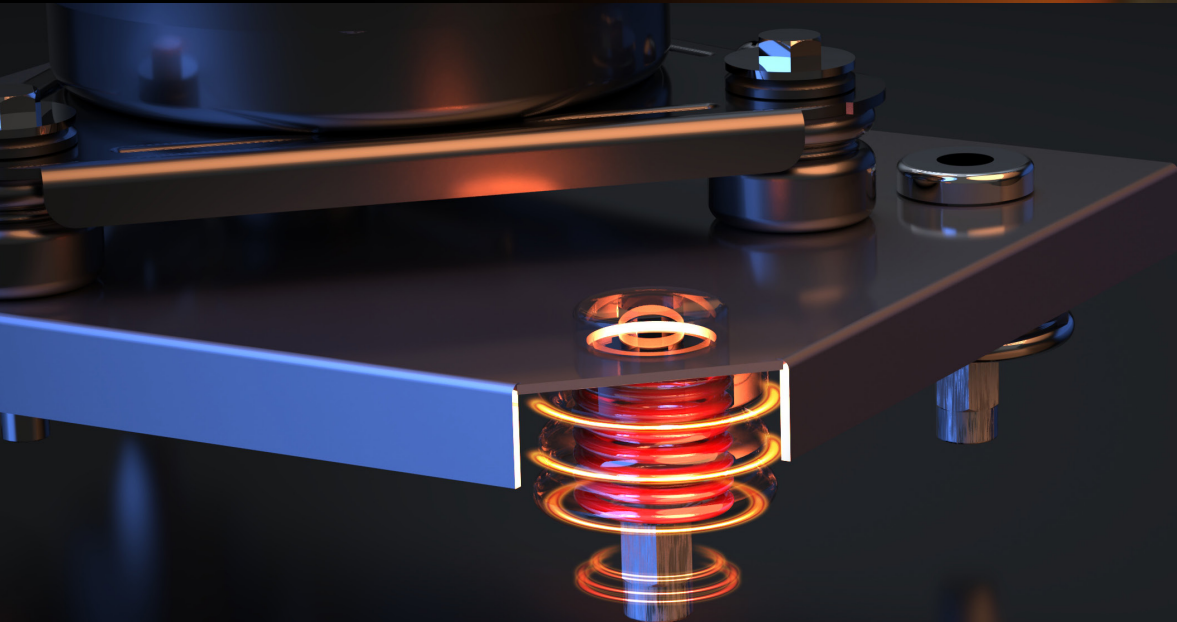
When the R290 refrigerant concentration exceeds 5% EEL, the system instantly alarms and automatically stops operation. Leak alerts are simultaneously sent to both the display and APP.





Noise Lower to **29.7dB(A)** at 1m  
Dive into Quiet Luxury

PHNIX Self-Developed Composite Silencer Cotton



Zero-Noise Compressor Operation  
Achieved Through CDC Suspension Technology

Industry-First: **5mm** Fin Tube Design  
**20%** Increase on SCOP

i-GreenLine Ultra is the industry-first pool heat pump to apply  $\phi 5$  (5mm) fin tubes, which improves thermal efficiency, achieving up to 20% SCOP enhancement.







## User-Friendly Operation

Available in 10 Languages

Bulgarian  
Greek  
German  
Dutch  
Spanish

English

Polish  
Danish  
Ukraine  
French  
Czech  
Portuguese

## Remote Intelligence

### Service Beyond Boundaries

The Smart Control feature of PHNIX i-GreenLine Ultra pool heat pump is your reliable partner. Enjoy seamless connectivity via DTU or Wi-Fi module, enabling remote service and management through PHNIX IOT platform. Easily monitor and adjust water temperature anytime, anywhere—right from your smartphone or tablet.



4G



Router



DTU & Wi-Fi  
Module



Data Transfer



IOT



Aqua Temp



Available on the  
App Store



Get it on  
Google play

- Temperature adjustment
- Timer setting
- Mode switching
- Fault alarm and record
- Monitor power-consumption statistics

### 4G-DTU & IOT

- Data transferring is automatic once powered on
- Device online rate is 90%
- Europe cloud server
- 4G signal is stable and strong
- Remote device management is available

### Wi-Fi Module

- Once the module is connected to the net, data transferring will stay stable independent of mobile signal
- Remote device management is available
- Europe cloud server
- Even lower cost



## Industry-First: Potting for Board Protection

### Triple Protection. Built to Last.

i-GreenLine Ultra is the industry-first pool heat pump to apply fully potting on electronic PCB board. This encapsulated design offers triple protection:

- Anti-Insect
- Anti-Moisture
- Anti-Corrosion

The result? Exceptional durability, long-term stability, and consistent performance.

## Stable Operation Even at **-20°C**

### All Year Long Reliability

Equipped with a chassis heating belt and titanium pipe heater, i-GreenLine Ultra ensures stable operation even in ultra-cold environments. Its robust design ensures optimal efficiency across a wide range of ambient temperatures, delivering reliable heating performance even at -20°C.

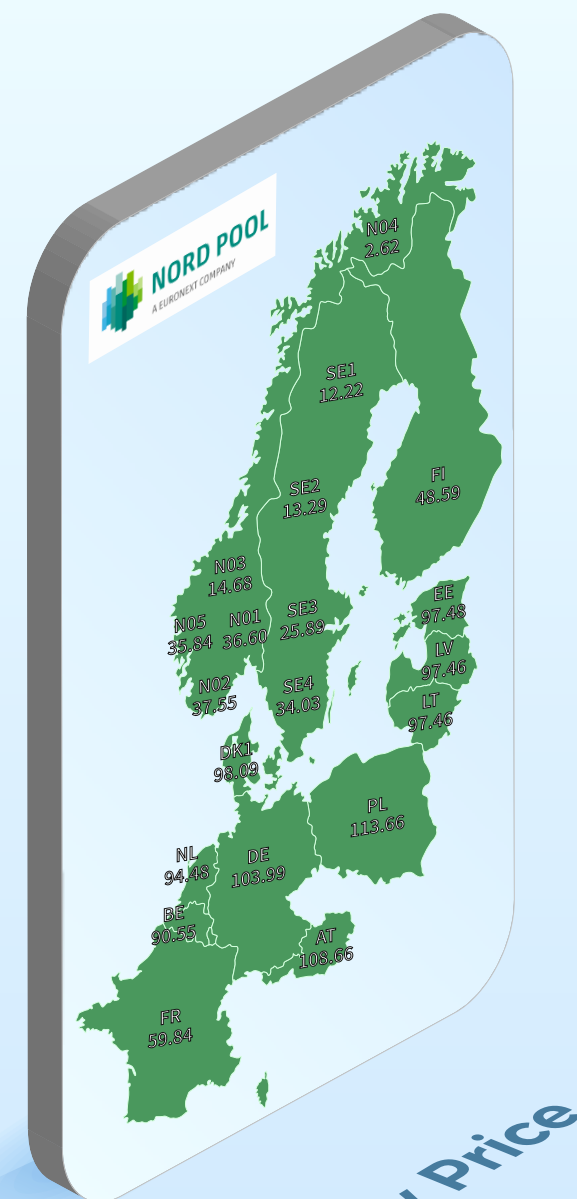






## PV Ready Seamless Integration with SAJ

i-GreenLine Ultra enables seamless PV-to-heat pump integration, intelligently adjusting operating modes in real time based on solar power availability. This PV Ready feature not only reduces carbon emissions, but also maximizes energy savings, delivering a truly eco-conscious, AI-driven pool heating experience. Now fully compatible with the SAJ inverter system, our heat pump system achieves data-level interconnection.



Electricity Price





# R290 -GreenLine Ultra

| Model                                  |       | 020-BP16     | 030-BP16  | 040-BP16   | 050-BP16      | 060-BP16  | 070-BP16   | 050S-BP16     | 060S-BP16  | 070S-BP16  |
|----------------------------------------|-------|--------------|-----------|------------|---------------|-----------|------------|---------------|------------|------------|
| Advised Pool Size                      | m³    | 30-40        | 45~60     | 60-80      | 75~100        | 90-120    | 105~140    | 75~100        | 90-120     | 105~140    |
| Operating Air Temperature              | ℃     | -20~43       |           |            |               |           |            |               |            |            |
| Refrigerant                            | /     | R290         |           |            |               |           |            |               |            |            |
| Certification                          | /     | CE / CB      |           |            |               |           |            |               |            |            |
| Power Supply                           | /     | 230V~/50Hz   |           |            |               |           |            | 380V/3N~/50Hz |            |            |
| Performance (Heating)                  |       |              |           |            |               |           |            |               |            |            |
| SCOP EN17645                           | /     | 8.4          | 7.8       | 8.4        | 7.6           | 7.5       | 7.4        | 7.6           | 7.5        | 7.4        |
| Air 27℃ / Water 26℃ / Humid. 80%       |       |              |           |            |               |           |            |               |            |            |
| Heating Capacity - BOOST Mode (Option) | kW    | 11.1         | 15        | 18.4       | 22.1          | 27.5      | 32         | 22.1          | 27.5       | 32         |
| Heating Capacity                       | kW    | 4.05-10.20   | 4.4-13.1  | 5.31-16.70 | 6.21-20.20    | 6.95-25.0 | 6.95-30.00 | 6.22-20.50    | 6.95-25.00 | 7.07-30.00 |
| Consumed Power                         | kW    | 0.18-1.42    | 0.20-2.15 | 0.22-2.57  | 0.25-3.21     | 0.31-4.03 | 0.32-5.36  | 0.26-3.25     | 0.31-4.03  | 0.33-5.08  |
| COP                                    | /     | 22.5~7.2     | 22.0-6.1  | 24.1-6.5   | 24.8-6.3      | 22.4-6.2  | 21.7 ~ 5.6 | 23.9 ~ 6.3    | 22.4~6.2   | 21.4 ~ 5.9 |
| Air 15℃ / Water 26℃                    |       |              |           |            |               |           |            |               |            |            |
| Heating Capacity - BOOST Mode (Option) | kW    | 8.00         | 11.00     | 13.50      | 16.00         | 19.00     | 22.50      | 16.00         | 19.00      | 22.50      |
| Heating Capacity                       | kW    | 1.35-7.80    | 1.52-9.80 | 2.13-12.50 | 2.95-15.10    | 3.0-18.5  | 3.00-21.50 | 2.99-15.10    | 3.00-18.50 | 3.00-21.50 |
| Consumed Power                         | kW    | 0.18-1.5     | 0.20-2.1  | 0.26-2.5   | 0.32-3.2      | 0.38-3.9  | 0.38-4.8   | 0.32-3.2      | 0.38-3.9   | 0.37-4.8   |
| COP                                    | /     | 7.5 ~ 5.2    | 7.5 ~ 4.7 | 8.2 ~ 5.0  | 9.2 ~ 4.7     | 8.0 ~ 4.7 | 8.0~4.5    | 9.2~4.7       | 7.9~4.7    | 8.0 ~ 4.5  |
| Cooling                                |       |              |           |            |               |           |            |               |            |            |
| Cooling Capacity                       | kW    | 4.76         | 5.32      | 9.62       | 12.00         | 15.00     | 18.00      | 12.00         | 15.00      | 18.00      |
| EER                                    | /     | 3.7          | 2.4       | 2.8        | 3.3           | 3.4       | 3.4        | 3.3           | 2.6        | 2.6        |
| Technical Data                         |       |              |           |            |               |           |            |               |            |            |
| Fan Quantity                           | /     | 1            |           |            |               |           |            |               |            |            |
| Fan Speed                              | /     | 500-600      | 600-650   | 500-600    | 550-650       | 650-750   | 650-750    | 550-650       | 650-750    | 650-750    |
| Sound Pressure 1m                      | dB(A) | 37~43        | 39~43.5   | 40~44.5    | 41~48         | 42~50     | 43~51      | 41~48         | 43~51      | 43~51      |
| Sound Pressure 3m                      | dB(A) | 29~35.3      | 31~35.8   | 32~36.8    | 33~40.3       | 34~42.0   | 35~43.0    | 33~40.3       | 35~43.0    | 35~43.0    |
| Sound Pressure 10m                     | dB(A) | 20~25.6      | 21.6~26.0 | 22.6~27.1  | 23.6~30.6     | 24.6~32.6 | 25.6~33.6  | 23.6~30.6     | 25.6~33.6  | 25.6~33.6  |
| Water Connection                       | mm    | 50           |           |            |               |           |            |               |            |            |
| Water Flow Volume                      | m³/h  | 4.4          | 5.6       | 7.2        | 8.7           | 10.7      | 12.9       | 8.7           | 10.7       | 12.9       |
| Water Pressure Drop (max)              | kPa   | 3            | 4         | 5          | 8             | 15        | 15         | 8             | 15         | 15         |
| Net Dimensions L/W/H                   | mm    | 1060*475*768 |           |            | 1144*489*865  |           |            |               |            |            |
| Package Dimension                      | /     | 1130*485*910 |           |            | 1210*515*1010 |           |            |               |            |            |
| Qty Per 40'HQ                          | /     | 96           | 96        | 82         | 82            | 82        | 82         | 82            | 82         | 82         |
| Refrigerant Volume                     | g     | 300          | 400       | 500        | 650           | 850       | 850        | 650           | 850        | 850        |

# R32 -ForceLine Ultra

| Model                                                   |       | Ultra-020                | Ultra-030 | Ultra-040 | Ultra-050     | Ultra-060 | Ultra-070 | Ultra-050T                    | Ultra-060T | Ultra-070T | Ultra-080T |
|---------------------------------------------------------|-------|--------------------------|-----------|-----------|---------------|-----------|-----------|-------------------------------|------------|------------|------------|
| Advised Pool Volume                                     | m³    | 40                       | 60        | 80        | 100           | 120       | 140       | 100                           | 120        | 140        | 160        |
| Operating Air Temperature                               | °C    | -15~43                   |           |           |               |           |           |                               |            |            |            |
| Refrigerant                                             | /     | R32                      |           |           |               |           |           |                               |            |            |            |
| Certification                                           | /     | CE / CB                  |           |           |               |           |           |                               |            |            |            |
| Power Supply                                            | /     | 220-240V~/1Ph 50HZ(60HZ) |           |           |               |           |           | 380-400V~/3Ph 50HZ 50HZ(60HZ) |            |            |            |
| Performance (Heating)                                   |       |                          |           |           |               |           |           |                               |            |            |            |
| EN17645 Rating (TüV Certified)                          | /     | A                        | A         | A         | A             | A         | A         | A                             | A          | A          | A          |
| SCOP (EN17645 TüV Certified)                            | /     | 7.45                     | 7.63      | 8.3       | 9.54          | 7.39      | 7.39      | 7.4                           | 7.2        | 7.0        | 7.0        |
| Air 27°C / Water 26°C / Humid. 80%                      |       |                          |           |           |               |           |           |                               |            |            |            |
| Heating Capacity at Boost Mode (Option)                 | kW    | 12.5                     | 15.8      | 18.5      | 22            | 28        | 32        | 23.5                          | 28         | 32         | 40         |
| Heating Capacity                                        | kW    | 1.2~10.5                 | 1.8~13.8  | 3.2~17    | 3.0~20.5      | 3.8~25.8  | 4~30      | 3.1~21.5                      | 3.7~25.8   | 4~30       | 4.5~35     |
| COP                                                     | /     | 21.5~7                   | 21.5~7.0  | 22.3~7.3  | 22.4~7.9      | 21.0~7.0  | 20.0~7.0  | 21.0~7.1                      | 20.5~7.0   | 20.2~7.1   | 20.0~7.2   |
| Air 15°C / Water 26°C / Humid. 70%                      |       |                          |           |           |               |           |           |                               |            |            |            |
| Heating Capacity                                        | kW    | 1~8.1                    | 1.2~10.3  | 2.5~13    | 1.8~16        | 3.3~20.2  | 3.3~24.2  | 2.4~18.5                      | 3.3~20.2   | 3.1~23.1   | 5.4~28.8   |
| COP                                                     | /     | 7.9~5.1                  | 8.0~5.1   | 8.5~5.4   | 9.5~5.6       | 8.2~5.0   | 8.0~5.1   | 9.5~5.6                       | 8.2~5.0    | 8.0~5.1    | 8.0~5.1    |
| Air 7°C / Water 26°C / Humid. 64%                       |       |                          |           |           |               |           |           |                               |            |            |            |
| Heating Capacity                                        | kW    | 0.8~6.5                  | 0.8~8     | 1.1~10.4  | 1.2~11        | 1.3~12.2  | 1.3~12.2  | 1.2~11.3                      | 1.5~16.16  | 1.8~18.48  | 3.2~21.36  |
| COP                                                     | /     | 4.5~4.1                  | 4.2~3.3   | 5.6~4.5   | 5.2~4.2       | 4.3~3     | 4.3~3     | 4.3~3                         | 4.3~3      | 4.1~3      | 4.9~4      |
| Performance (Cooling)Air 35°C / Water 30°C / Humid. 40% |       |                          |           |           |               |           |           |                               |            |            |            |
| Cooling Capacity                                        | kW    | 1.5~4.8                  | 2.5~7.2   | 3.6~9     | 5~13          | 15.50     | 4~18      | 5~13                          | 4~15.5     | 4~18       | 6.2~23.5   |
| EER                                                     | /     | 4.5~3.6                  | 3.8~3     | 5.0~4.2   | 5.0~4.0       | 3.70      | 3.7~2.9   | 4.4~3.9                       | 3.7~2.9    | 3.7~2.9    | 5~3.8      |
| Technical Speicfication                                 |       |                          |           |           |               |           |           |                               |            |            |            |
| Throttling Device                                       | /     | EEV                      |           |           |               |           |           |                               |            |            |            |
| Fan Quantity                                            | /     | 1                        |           |           |               |           |           |                               |            |            |            |
| MAX Fan Speed                                           | RPM   | 650                      | 650       | 630       | 650           | 750       | 750       | 650                           | 750        | 750        | 750        |
| Sound Pressure 1m                                       | dB(A) | 27~48.5                  | 29~50     | 29~50     | 30~50.8       | 31~56.2   | 32~56.2   | 30~50                         | 31~55.2    | 32~55.2    | 34~56      |
| Compressor Brand                                        | /     | Panasonic                |           |           |               |           |           |                               |            |            |            |
| Temperature Setting in Heating                          | °C    | 9~40                     |           |           |               |           |           |                               |            |            |            |
| Temperature Setting in Cooling                          | °C    | 8~30                     |           |           |               |           |           |                               |            |            |            |
| Water Connection                                        | mm    | 50                       |           |           |               |           |           |                               |            |            |            |
| Water Flow Volume                                       | m³/h  | 4.5                      | 5.9       | 7.3       | 8.4           | 10.9      | 12.4      | 10.0                          | 10.9       | 12.4       | 15.0       |
| Water Pressure Drop (max)                               | kPa   | 3                        | 4         | 5         | 8             | 14.7      | 14.7      | 16                            | 8          | 25         | 15         |
| Net Dimensions L/W/H                                    | mm    | 1060×475×768             |           |           | 1144×489×865  |           |           |                               |            |            |            |
| Packing Dimensions L/W/H                                | mm    | 1130×485×910             |           |           | 1210×515×1010 |           |           |                               |            |            |            |
| Qty Per 40'HQ                                           | /     | 86                       | 86        | 62        | 62            | 62        | 62        | 62                            | 62         | 62         | 31         |