

**NOBUS**  
heat pumps



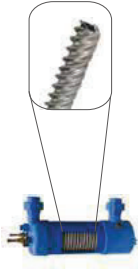
**SWIMMING POOL  
HEAT PUMP**

# Swimming pool heat pump

## General Features

### Prolonged operating life

- Spiral titanium tube heat-exchanger
- Titanium tube with PVC casing provides superior corrosion resistance.
- Spiral tube design, expand the surface area of the Titanium tube and water to provide heater transfer at a great rate.



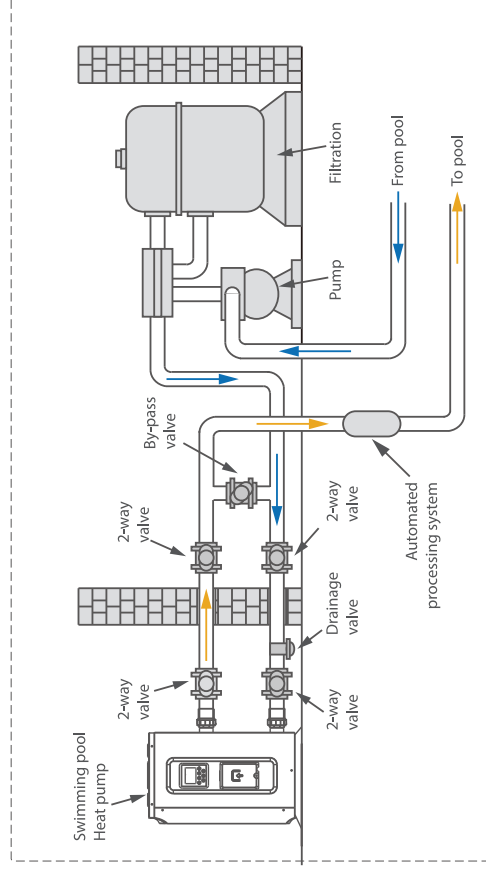
Titanium tube heat-exchanger  
Spiral Titanium tube

### Operating reliability

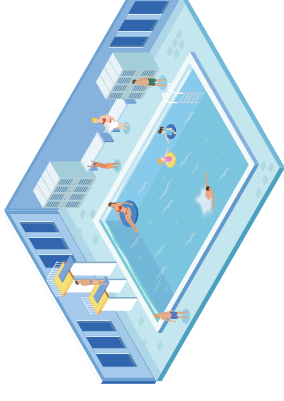
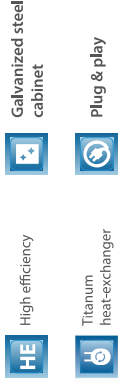
- Multi-protections, including pressure protections, water flow protection, temperature protections.
- When there is malfunction happened, diagnosis will be automatically made and the result will be displayed in controller screen.
- Built-in automatic 4-way valve for defrost. (Except Mini PAC)

### Convenient installation

- It is very convenience that only inlet/outlet water pipes and electricity cables need to connect.
- LCD controller with large screen as standard, and 15m shield cable as optional.
- Inlet and outlet water pipe connectors, drainage pipe for condensing water and rubber gaskets for unit fixing as accessories.(Except Mini PAC)



## Applications sketch



## Product Lineups

### Swimming Pool Heat Pumps

| Series                      | 3.0  | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 |
|-----------------------------|------|------|------|------|------|------|
| Heating capacity range (kW) |      |      |      |      |      |      |
| Wave inverter series        |      |      |      |      |      |      |
|                             | R32  |      |      |      |      |      |
|                             | 5.3  |      |      |      |      |      |
|                             | 31.7 |      |      |      |      |      |

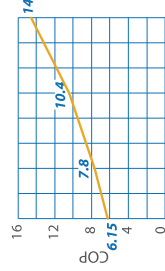


- High efficiency
- Plastic cabinet
- Pressure gauge
- Anti-UV cover
- Titanium heat-exchanger
- Wi-Fi

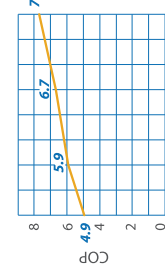
## Save energy and money with high efficient running

- Well-known brand compressor: GMCC, twin-rotary (except size 031 & 032),DC inverter technology,more efficient.
- High efficient brushless DC motor running with low noise.
- Thanks to electronic expansion valve, more accurate for refrigerant control.
- High COP/EER performance to save energy and money.

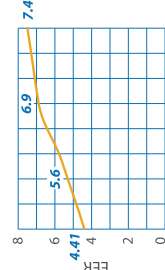
Notes: The swimming pool capacity is 45m<sup>3</sup>, and the temperature keeps 26°C.



(NBSP011 @A26°C, RH 80% inlet water 26°C)



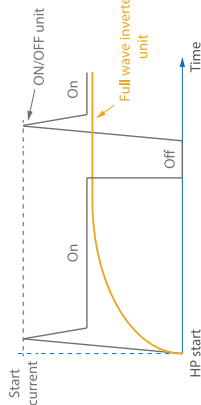
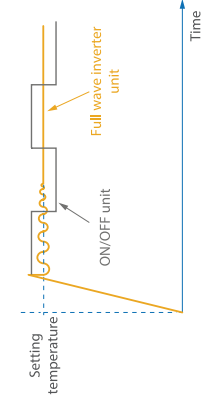
(NBSP011 @A15°C, RH 70% inlet water 26°C)



(NBSP011 @35°C, inlet water 28°C)

## Stable running and high reliable

- Full DC inverter technology, the unit can keep more stable running than ON/OFF unit, and keep the temperature of the pool water more accurate.



## Three modes design, maximise your pool season



### Boost Mode

20% - 100% capacity output  
Fast heating  
Late spring/early autumn in cooler climate



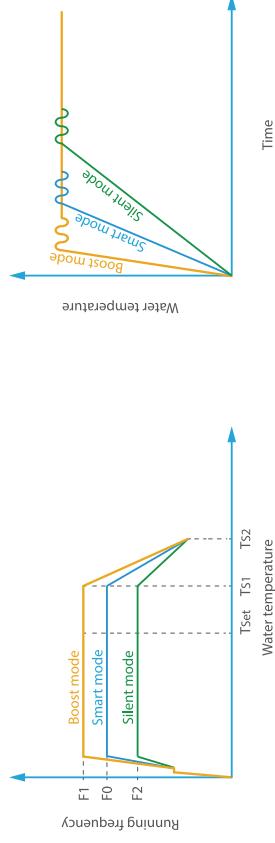
### Smart Mode

20% - 80% capacity output  
As standard  
Spring to Autumn in warm climate



### Silent Mode

20% - 50% capacity output  
Using at night  
Middle of summer in hot climate



## Super silence, much quieter

- Super quiet GMCC compressor and DC motor help full wave inverter heat pump to quiet running.
- With CFD air flow technology, newly designed fan blower and outlet grille bring super quiet and high efficient operation.

| Model                       | NBSP007N8 | NBSP011N8   | NBSP014N8   | NBSP017N8   | NBSP023N8   |
|-----------------------------|-----------|-------------|-------------|-------------|-------------|
| Sound pressure level (@4m)  | dB(A)     | 29.5 - 36.6 | 30.6 - 38.2 | 32.8 - 40.5 | 33.2 - 40.9 |
| Sound pressure level (@10m) | dB(A)     | 19.5 - 27.4 | 20.8 - 28.6 | 23.0 - 31.8 | 23.6 - 32.2 |
|                             |           |             |             |             |             |
| Model                       | NBSP025N8 | NBSP029N8   |             |             |             |
| Sound pressure level (@4m)  | dB(A)     | 36.4 - 44.7 | 37.9 - 46.9 |             |             |
| Sound pressure level (@10m) | dB(A)     | 26.6 - 36.5 | 27.3 - 38.2 |             |             |

## Specifications

| Host model                          | External model            | Specification—Inverter swimming pool HP |              |              |              |              |
|-------------------------------------|---------------------------|-----------------------------------------|--------------|--------------|--------------|--------------|
|                                     |                           | NBSF017N8                               | NBSF012N8    | NBSF025N8    | NBSF012N8    | NBSF012N8    |
| Ari15°C/Water/25°C<br>Humidity 70%  | capacity (kW)             | 3.49~17.34                              | 4.64~17.34   | 5.15~18.52   | 5.43~21.28   | 6.34~23.68   |
|                                     | power input(kW)           | 0.47~2.64                               | 0.61~3.66    | 0.68~3.77    | 0.73~4.3     | 0.87~4.8     |
|                                     | COP                       | 4.85~7.44                               | 4.8~7.5      | 4.91~7.53    | 4.95~7.51    | 4.9~7.6      |
|                                     | capacity (kW)Boost        | 13.00                                   | 17.34        | 18.52        | 21.28        | 23.68        |
|                                     | COP Boost                 | 4.85                                    | 4.80         | 4.91         | 4.95         | 4.9          |
|                                     | capacity (kW)Smart        | 10.40                                   | 13.87        | 14.82        | 17.02        | 18.94        |
|                                     | COP Smart                 | 5.71                                    | 5.65         | 5.74         | 5.82         | 5.76         |
|                                     | capacity (kW)Silent       | 6.50                                    | 8.67         | 9.26         | 10.54        | 11.84        |
|                                     | COP Silent                | 6.47                                    | 6.40         | 6.51         | 6.60         | 6.53         |
|                                     | capacity (kW)             | 3.9~15.1                                | 5.2~19.86    | 5.4~21.2     | 6.1~24.53    | 7.0~26.8     |
| Ari20°C/Water/25°C<br>Humidity 80%  | power input(kW)           | 0.37~2.89                               | 0.49~3.82    | 0.51~4.07    | 0.57~4.66    | 0.66~5.17    |
|                                     | COP                       | 5.22~10.6                               | 5.2~10.6     | 5.21~10.55   | 5.26~10.64   | 5.18~10.61   |
|                                     | capacity (kW)Boost        | 15.10                                   | 19.86        | 21.20        | 24.53        | 26.8         |
|                                     | COP Boost                 | 5.22                                    | 5.20         | 5.21         | 5.26         | 5.18         |
|                                     | capacity (kW)Smart        | 12.08                                   | 15.89        | 16.56        | 19.62        | 21.44        |
|                                     | COP Smart                 | 6.39                                    | 6.42         | 6.37         | 6.51         | 6.35         |
|                                     | capacity (kW)Silent       | 7.55                                    | 9.93         | 10.60        | 12.27        | 13.40        |
|                                     | COP Silent                | 8.77                                    | 8.71         | 8.84         | 8.92         | 8.77         |
|                                     | capacity (kW)             | 4.3~17.4                                | 5.7~23.2     | 6.2~25.1     | 6.6~29.0     | 7.7~31.7     |
|                                     | power input(kW)           | 0.29~2.85                               | 0.4~3.8      | 0.43~4.05    | 0.46~4.75    | 0.54~5.21    |
| Ari25°C/Water/25°C<br>Humidity 80%  | COP                       | 6.0~14.5                                | 6.1~14.5     | 6.2~14.52    | 6.1~14.54    | 6.1~14.6     |
|                                     | capacity (kW)Boost        | 17.40                                   | 23.20        | 25.10        | 29.00        | 31.7         |
|                                     | COP Boost                 | 6.00                                    | 6.10         | 6.20         | 6.10         | 6.10         |
|                                     | capacity (kW)Smart        | 14.01                                   | 18.79        | 20.10        | 23.20        | 25.68        |
|                                     | COP Smart                 | 7.50                                    | 7.63         | 7.60         | 7.63         | 7.64         |
|                                     | capacity (kW)Silent       | 8.70                                    | 11.67        | 12.52        | 14.55        | 15.85        |
|                                     | COP Silent                | 10.00                                   | 10.17        | 10.15        | 10.17        | 10.18        |
|                                     | capacity (kW)             | 3.9~9.6                                 | 5.9~12.8     | 5.8~13.9     | 6.2~16.0     | 7.2~17.5     |
|                                     | power input(kW)           | 0.51~2.3                                | 0.73~3.1     | 0.8~3.35     | 0.82~3.73    | 0.97~4.17    |
|                                     | EER                       | 4.24~7.4                                | 4.17~7.25    | 4.15~7.22    | 4.29~7.54    | 4.21~7.44    |
| Ari35°C/Water/25°C<br>Humidity 80%  | capacity (kW)Boost        | 9.60                                    | 12.80        | 13.90        | 16.00        | 17.50        |
|                                     | EER Boost                 | 4.24                                    | 4.17         | 4.15         | 4.29         | 4.21         |
|                                     | capacity (kW)Smart        | 7.68                                    | 10.24        | 11.10        | 12.80        | 14.00        |
|                                     | EER Smart                 | 5.30                                    | 5.21         | 5.18         | 5.36         | 5.26         |
|                                     | capacity (kW)Silent       | 4.80                                    | 6.40         | 6.95         | 8.00         | 8.75         |
|                                     | EER Silent                | 6.52                                    | 6.42         | 6.40         | 6.60         | 6.48         |
|                                     | m <sup>2</sup>            | 35~70                                   | 60~100       | 65~110       | 70~130       | 80~150       |
|                                     | V / PH / Hz               | 230~750                                 |              |              |              |              |
| Advised Pool Volume<br>power supply | PM                        | 400~1000                                | 400~1000     |              |              | 400~1000     |
|                                     | max power input           | 3.17                                    | 4.22         | 4.49         | 4.91         | 5.8          |
|                                     | max current               | 13.77                                   | 18.36        | 19.52        | 21.35        | 25.2         |
|                                     | water pipe In-out         | G1+1/2                                  | G1+1/2       | G1+1/2       | G1+1/2       | G1+1/2       |
|                                     | Water Pressure            | 19                                      | 22           | 23           | 25           | 28           |
|                                     | m <sup>2</sup> /h         | 6~8                                     | 8~10         | 8~11         | 9~12         | 12~15        |
|                                     | Refrigerant volume        | 841/04/2 kg                             | 841/04/2.6kg | R32/2.6kg    | 841/04/3.5kg | R32/3.3kg    |
|                                     | Refrigerant volume        | R32/1.8kg                               | R32/1.8kg    | R32/2.6kg    | R32/3.3kg    | R32/3.3kg    |
|                                     | Min pressure/max pressure | 989/556/668                             | 1076/626/720 |              |              | 1176/641/822 |
|                                     | package dimensions        | LxWxH(mm)                               | 1080*435*900 | 1161*490*855 | 1261*515*957 |              |
| compressor type                     | unit dimensions           | LxWxH(mm)                               | 56           | 70           | 90           | 98           |
|                                     | net weight                | kg                                      | 66           | 83           | 108          |              |
|                                     | gross weight              | kg                                      | 66           | 83           | 108          |              |
| compressor brand                    | noise at 1 m              | dB(A)                                   | 41.5~52.5    | 44.2~54.9    | 45.6~57.1    | 47.2~59.7    |
|                                     | noise at 4 m              | dB(A)                                   | 32.8~40.5    | 35.3~41.1    | 35.6~41.8    | 37.9~46.0    |
|                                     | noise at 10m              | dB(A)                                   | 23.0~31.8    | 24.3~33.4    | 26.6~36.5    | 27.3~38.2    |
| Operating at temperature            | °C                        | +15~+43                                 |              |              |              |              |
| compressor brand                    | Toshiba                   |                                         |              |              |              |              |
| compressor type                     | Rotary                    |                                         |              |              |              |              |
| water proof level                   | IPX4                      |                                         |              |              |              |              |

