

Ground Source Heat Pump NIBE™ AP-BW30

Heat pump for commercial projects

NEW



Features of NIBE™ AP-BW30

Ground source heat pump up to 160 kW (in single unit)

Heating and cooling with same unit

Heat recovery from waste heat

Cascade for very high heating output

- Combination up to 4pcs 29 - 69 kW
- Combination up to 4pcs 85-160 kW

Low sound pressure level down to 39 dB(A)

Single compressor unit (29-69 kW)

Double compressor unit (85-160 kW)

Insertion via standard doors possible

Small space requirement - small footprint

- L 1350 x W 912 X H 1030 inclusive frame (29-69 kW)
- L 1400 x W 913 x H 1847 inclusive frame (85 - 160 kW)

Frame is completely noise decoupled to the unit

High temperature versions available, up to 70°C (29-69kW)

Solid Construction

Easy to transport

NIBE AP-BW30

Efficiency and renewable heat

The supply of heat for residential, commercial and industrial properties accounts for a large percentage of their overall energy consumption. Improving energy efficiency is therefore one of the energy policy objectives. Increased energy efficiency and renewable heat mean more environmental relief and from an economic point of view, lower heating and running costs.

Heat pump can be easily integrated into a building management system. Utilisation of waste heat in industrial or commercial processes is also possible. A change from oil and gas to heat pump technology can often be used to achieve substantial savings - e.g. running costs and CO₂ emissions.



Heat pumps with high capacities!

Heat pumps

In apartment buildings, office and administration complexes, hotels and in industrial and commercial buildings, heat pumps are superior to conventional concepts, not only economically but also environmental.

Even more powerful

When installing up to four units in cascade, capacities up to 640 kW are possible with ground source heat pumps. Integrated systems controlled by a building management system can achieve an even higher heating capacity.

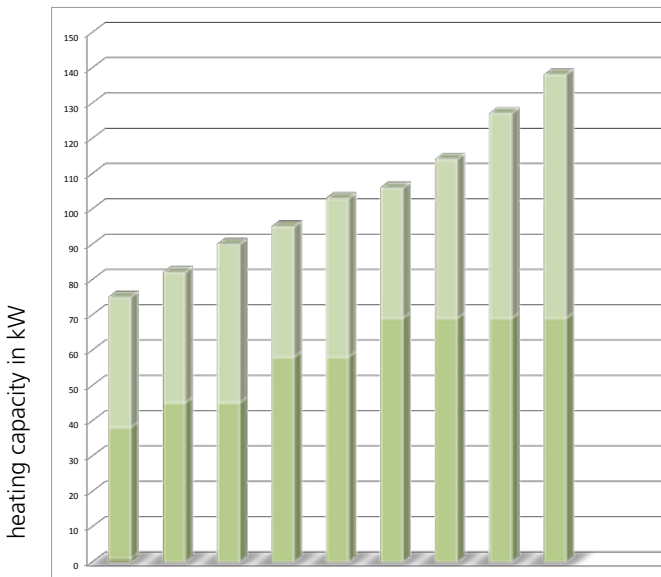
The units can be switched on and off as when necessary to enable economic operation

Active and passive cooling

If the installation is planned well, full air conditioning with chillers can be omitted with no loss of comfort and instead passive or active cooling is used.

Only heat pump systems offer the possibility for heating and active/passive cooling with one system using free environmental energy.

Flexibility with e.g. twin cascades



NIBE AP-BW30: -37 -45 -45 -58 -58 -54H -69 -69 -69
-37 -37 -45 -37 -45 -45 -45 -58 -69

First hand energy management!

BACnet/IP - perfect teamwork

The BACnet/IP virtual network enables NIBE heat pumps to be integrated into a building management system.

NIBE AP-CS 2.0

Controller device with LIN-Bus port.

Local Interconnect Network (LIN) is the specification for a serial communication system which was basically developed for communication of intelligent sensors and actors in the automobile industry.

- Intuitive operation via the jog dial
- Full graphic display with self-explanatory menu function
- USB connection (for reading out data or of software updates)
- Automatic screed heating program
- Start-Up Wizard
- Separate mode setting e.g automatic, party, holiday
- Weather compensated control of several heating circuits



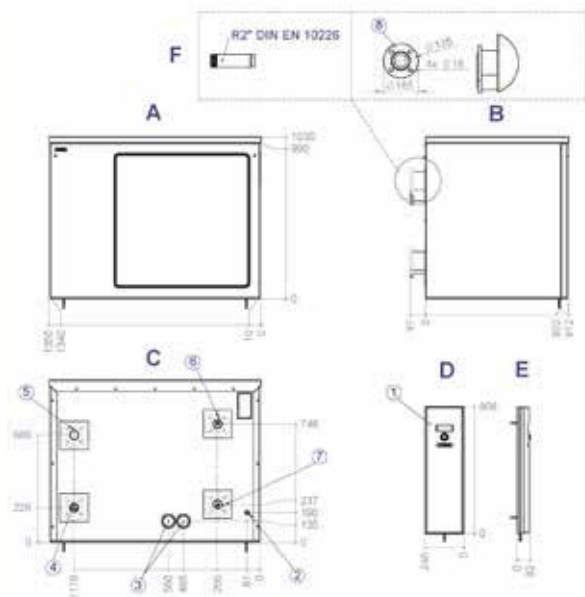
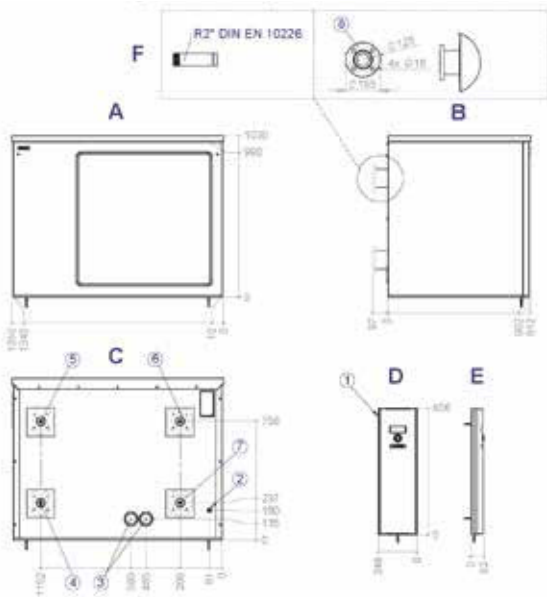
Possible combination up to 4 pcs in cascade

| NIBE AP-BW30- | 29H | 37 | 45 | 56H | 58 | 69 | 85H | 100 | 125 | 160 |
|---------------|-----|----|----|-----|----|----|-----|-----|-----|-----|
| 29H | X | X | X | X | X | X | | | | |
| 37 | X | X | X | X | X | X | | | | |
| 45 | X | X | X | X | X | X | | | | |
| 56H | X | X | X | X | X | X | | | | |
| 58 | X | X | X | X | X | X | | | | |
| 69 | X | X | X | X | X | X | | | | |
| 85H | | | | | | | X | X | X | X |
| 100 | | | | | | | X | X | X | X |
| 125 | | | | | | | X | X | X | X |
| 160 | | | | | | | X | X | X | X |

Dimensions

NIBE AP-BW30-37 to NIBE AP-BW30-69

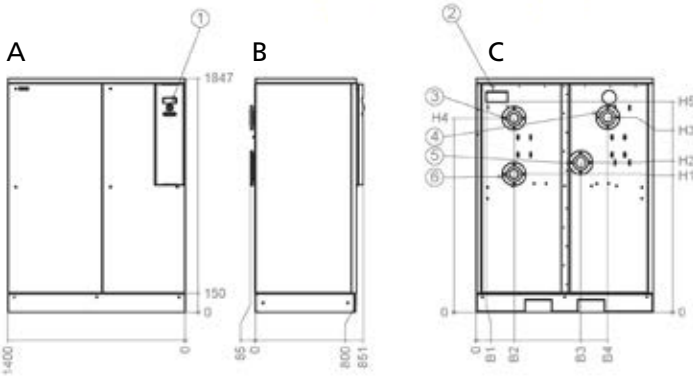
NIBE AP-BW30-39H and NIBE AP-BW30-56H



- A Front view
- B Side view from left
- C Rear view
- D Front view, control element
- E Side view from left, control element
- F Connection options

- 1 Control element (for wall-mounting)
- 2 Penetration for connection and LIN bus cable
- 3 Penetration for electric cable
- 4 Heat source outlet
- 5 Heat source inlet
- 6 Heating water outlet (flow)
- 7 Heating water inlet (return)
- 8 Flange DN50 PN10/16 DIN2566

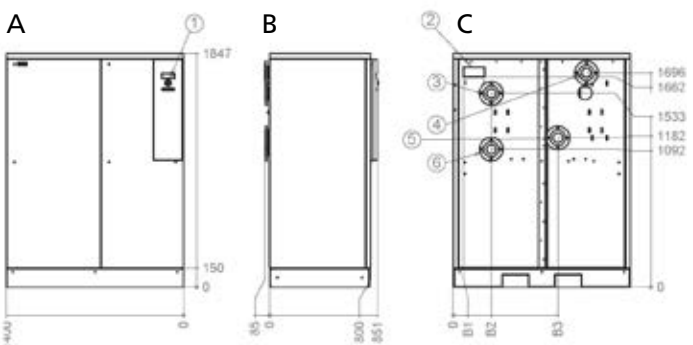
NIBE AP-BW30 110, NIBE AP-BW30 125,
NIBE AP-BW30 85H



- A Front view
- B Side view from left
- C Rear view
- 1 Control Panel
- 2 Sleeves for electrical / sensor cables
- 3 Hot Water outlet (flow), flange DIN 2566
- 4 Heat source inlet, flange DIN 2566
- 5 Heat source outlet, flange DIN 2566
- 6 Hot water inlet (return), flange DIN 2566

| Type | H1 | H2 | H3 | H4 | H5 | B1 | B2 | B3 | B4 |
|---------------|------|------|------|------|------|----|-----|-----|------|
| BW30 110, 85H | 1085 | 1182 | 1537 | 1541 | 1661 | 65 | 294 | 832 | 1043 |
| BW30 125 | 1092 | 1182 | 1537 | 1533 | 1661 | 65 | 300 | 832 | 1043 |

NIBE AP-BW30 160



| Type | B1 | B2 | B3 | B4 |
|---------------|----|-----|-----|------|
| BW30 110, 85H | 65 | 294 | 832 | 1043 |
| BW30 125 | 65 | 300 | 832 | 1043 |

Technical specifications

NIBE™ AP-BW30



| NIBE™ | | AP-BW30-29H | AP-BW30-37 | AP-BW30-45 | AP-BW30-58 | AP-BW30-69 | AP-BW30-56H |
|--|--------------|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Heating power/COP at B0/W35 ¹⁾ | 1 compressor | kW 27,5 / 4,30 | 37,2 / 4,80 | 45,0 / 4,80 | 57,6 / 4,80 | 68,5 / 4,60 | 53,8 / 4,50 |
| Heating power/COP at B0/W45 ¹⁾ | 1 compressor | kW 26,7 / 3,40 | 35,8 / 3,70 | 42,7 / 3,70 | 55,8 / 3,80 | 66,1 / 3,60 | 52,9 / 3,80 |
| Heating power/COP at B7/W35 ¹⁾ | 1 compressor | kW 33,2 / 5,10 | 45,4 / 5,60 | 55,0 / 5,70 | 71,1 / 5,80 | 84,1 / 5,40 | 65,9 / 5,20 |
| Heating power/COP at B0/W50 ¹⁾ | 1 compressor | kW 25,9 / 2,70 | 34,8 / 2,90 | 41,1 / 2,90 | 54,1 / 3,00 | 64,6 / 2,90 | 52,1 / 3,10 |
| Heat circuit | °C | 20 - 64 | 20 - 57 | 20 - 58 | 20 - 60 | 20 - 60 | 20 - 64 |
| Heat source | °C | -5 - 25 | | | | | |
| Additional operating points | | B4/W70 | B3/W65 | B0/W65 | | | B0/W70 |
| Sound pressure level at 1m gap around the machine averaged (in free field) | dB (A) | 43 | 39 | 41 | 42 | 44 | |
| Sound power level as per EN12102 | dB | 58 | 54 | 56 | 57 | 59 | |
| Connections heating circuit | | DN50 DIN2566 | | | | | |
| Connections brine circuit | | DN50 DIN2566 | | | | | |
| Refrigerant type / Filling capacity | - / kg | R134a/6,7 | R410A/7,2 | R410A/8,2 | R410A/11,2 | R410A/13,4 | R134a/12,8 |
| Voltage | - / A | 3~/PE/400V/50Hz / | | | | | |
| All-pole circuit breaker for heat pump ²⁾ | | C40 | C32 | C40 | C50 | | |
| Voltage controller/ circuit breaker ²⁾ | - / A | 1~/N/PE230V/50HZ / B16 | | | | | |
| Weight | kg | 319 | 371 | 385 | 441 | 484 | 521 |
| L x W x H | mm | 1350 x 912 x 1030 (inclusive frame) | | | | | |

¹⁾ Standard point as per EN14511

²⁾ Observe local regulations

| NIBE™ | | AP-BW30-85H | AP-BW30-110 | AP-BW30-125 | AP-BW30-160 |
|--|---------------|------------------------|-------------|--------------|-------------|
| Heating power/COP at B0/W35 ¹⁾ | 2 compressors | kW 88,0 / 4,1 | 107,5 / 4,3 | 125, / 4,3 | 161,1 / 4,4 |
| Heating power/COP at B0/W35 ¹⁾ | 1 compressor | kW 46,5 / 4,2 | 57,0 / 4,4 | 66,3 / 4,4 | 85,6 / 4,5 |
| Heating power/COP at B0/W50 ¹⁾ | 2 compressors | kW 86,4 / 3,0 | 107,6 / 3,1 | 125,2 / 3,1 | 161,8 / 3,2 |
| Heating power/COP at B0/W50 ¹⁾ | 1 compressor | kW 42,5 / 3,2 | 57,1 / 3,2 | 66,4 / 3,2 | 85,8 / 3,3 |
| Heating power/COP at B-5/W35 ¹⁾ | 2 compressors | 78,0 / 3,8 | 96,5 / 3,9 | 112,3 / 3,9 | 145,1 / 4,0 |
| Heating power/COP at B-5/W35 ¹⁾ | 1 compressor | kW 40,5 / 4,0 | 51,2 / 4,0 | 59,5 / 4,0 | 76,9 / 4,1 |
| Heating power/COP at B-5/W50 ¹⁾ | 2 compressors | kW 76,0 / 3,0 | 95,2 / 2,8 | 110,8 / 2,8 | 143,2 / 2,9 |
| Heating power/COP at B-5/W50 ¹⁾ | 1 compressor | kW 39,5 / 3,0 | 50,5 / 2,9 | 58,7 / 2,9 | 75,9 / 2,9 |
| Heat circuit | °C | 20 - 65 | 20 - 55 | | |
| Heat source | °C | -5 - 25 | | | |
| Sound pressure level at 1m gap around the machine averaged (in free field) | dB (A) | 64 | 62 | 64 | 66 |
| Connections heating circuit | | DN50 DIN2566 | | DN65 DIN2566 | |
| Connections brine circuit | | DN65 DIN2566 | | | |
| Refrigerant type / Filling capacity | - / kg | R134a/17,0 | R407C/19,0 | R407C/18,8 | R407C/20,7 |
| Voltage | - / A | 3~/PE/400V/50Hz | | | |
| All-pole circuit breaker for heat pump ²⁾ | | C80 | C100 | C125 | C125 |
| Voltage controller/ circuit breaker ²⁾ | - / A | 1~/N/PE230V/50HZ / B10 | | | |
| Weight | kg | 935 | 870 | 935 | 1000 |
| L x W x H | mm | 1400 x 913 x 1847 | | | |

¹⁾ Standard point as per EN 255

²⁾ Observe local regulations

