

AIR-TO-WATER HEAT PUMP HEATING SYSTEM



Heating

80AW/38AW

Accessories

- Additional user interface.
- Communication kit.
- Remote outdoor air sensor maximises comfort.
- Room temperature sensor.
- Domestic hot water tank, one or two coils - storage, 200 l/300 l of domestic hot water with or without thermal solar panel connection.
- CDU rubber vibration isolators.
- Domestic hot-water three-way valve and actuator.
- Thermal cut-out, floor heating to connect under-floor heating zone.
- Two-zone kit - allows independent control of two comfort zones
- Piping kit to install domestic hot-water valve and actuator inside unit.
- Cover panel to install two-zone kit detached from comfort module.

Control

- User-friendly controller with large display, intuitive symbols and two simple buttons, allowing the user to select the desired operating parameter values.



Features

- Eight sizes with nominal heating capacities from 5 to 11.5 kW and nominal cooling capacities from 4.2 to 9.0 kW.
- Reversible XP Energy air-to-water split system heat pumps with built-in inverter technology, designed for residential and light commercial applications, offer excellent energy efficiency values, exceptionally quiet operation and meet the most stringent operating temperature demands.
- Incorporate the latest technological innovations: ozone-friendly refrigerant R-410A, DC inverter twin-rotary compressors, low-noise fan and microprocessor control.
- Designed for ease-of-installation and service.
- For added flexibility the XP Energy systems are available in heating only or reversible versions, to suit the demand. Back-up heating with either electrical (single-energy applications) or gas boiler (dual-energy applications).
- Can be used with a wide choice of Carrier terminal fan coil units - cassettes, low, medium and high-pressure satellite units, console units, under-ceiling units and high-wall units.
- Wide operating range in both heating and cooling mode offering high performance in a wide temperature range.
- DC inverter twin-rotary compressors guarantee enhanced reliability, low energy consumption and smooth operation under all operating conditions.
- Variable-speed fans with an innovative patented fan blade shape ensure improved air distribution at exceptionally low noise levels.
- Pre-set or customised selection of the appropriate climate curve for stable output capacity to match the heat load.
- Output to link and integrate the unit with existing heat sources for dual-energy approach with increased savings and optimum comfort in all conditions.
- Able to control two independent comfort zones with a two-zone kit added to the main comfort module.
- Leaving water temperature up to 60°C for radiator and domestic hot water applications, making hot water readily available.

Physical data, indoor and outdoor units

| System | Heating only | | | | Heating and cooling | | | |
|--------------------------------|--------------|------------|------------|------------|---------------------|------------|------------|------------|
| Indoor unit (comfort module) | 80AWH 065 | 80AWH 065 | 80AWH 115 | 80AWH 115 | 80AWX 065 | 80AWX 065 | 80AWX 115 | 80AWX 115 |
| Outdoor unit (heat pump) | 38AW 050H7 | 38AW 065H7 | 38AW 090H7 | 38AW 115H7 | 38AW 050H7 | 38AW 065H7 | 38AW 090H7 | 38AW 115H7 |
| Max. leaving water temperature | °C | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Nominal heating capacity* | kW | 5.0 | 6.5 | 9.1 | 11.5 | 5.0 | 6.5 | 9.1 |
| Min./Max. heating capacity* | kW | 1.5/5.9 | 1.3/7.8 | 3.6/11.1 | 3.5/13.8 | 1.5/5.9 | 1.3/7.8 | 3.6/11.1 |
| COP* | kW/kW | 4.10 | 4.10 | 4.20 | 4.10 | 4.10 | 4.10 | 4.10 |
| Nominal cooling capacity** | kW | - | - | - | - | 4.2 | 5.6 | 7.9 |
| Min./Max. heating capacity** | kW | - | - | - | - | 1.6/6.6 | 2.0/7.3 | 3.9/9.5 |
| EER** | kW/kW | - | - | - | - | 3.65 | 3.65 | 4.05 |

* The nominal heating capacity is in accordance with EN 14511, water temperature 35°C/30°C, air temperature 7°C/6°C

** The nominal cooling capacity is in accordance with EN 14511, water temperature 18°C/23°C, air temperature 35°C

| Indoor unit (comfort module) | 80AW 065 | 80AW 065 | 80AW 115 | 80AW 115 |
|--------------------------------|------------|-----------------|-----------------|-----------------|
| Outdoor unit (heat pump) | 38AW 050H7 | 38AW 065H7 | 38AW 090H7 | 38AW 115H7 |
| Number of comfort zones | 1 | 1 | 1 | 1 |
| Nominal water flow rate | l/s (l/h) | 0.24 (860) | 0.31 (1118) | 0.43 (1548) |
| Minimum water flow rate | l/s (l/h) | 0.19 (688) | 0.25 (894) | 0.34 (1238) |
| Maximum water flow rate | l/s (l/h) | 0.29 (1032) | 0.37 (1342) | 0.52 (1858) |
| Nominal temperature difference | K | 5 | 5 | 5 |
| Sound power level, cooling | dB(A) | 40.9 | 40.9 | 40.9 |
| Sound power level, heating | dB(A) | 40.9 | 40.9 | 40.9 |
| Dimensions, H x L x D | mm | 800 x 450 x 320 | 800 x 450 x 320 | 800 x 450 x 320 |
| Operating weight | kg | 48 | 48 | 50 |

| Outdoor unit | 38AW 050H7 | 38AW 065H7 | 38AW 090H7 | 38AW 115H7 |
|---------------------------|----------------|-----------------|-----------------|------------------|
| Compressor type | DC twin-rotary | DC twin-rotary | DC twin-rotary | DC twin-rotary |
| Inverter type | PAM + PWM | PAM + PWM | PAM + PWM | PAM + PWM |
| Refrigerant | R-410A | R-410A | R-410A | R-410A |
| Maximum pipe length | m | 50 | 30 | 70 |
| Maximum height difference | m | 30 | 30 | 30 |
| Pre-charged length | m | 20 | 20 | 30 |
| Air flow | l/s (m³/h) | 728 (2620) | 783 (2820) | 1658 (5970) |
| Dimensions, H x L x D | mm | 690 x 900 x 320 | 820 x 900 x 320 | 1360 x 900 x 320 |
| Operating weight | kg | 49 | 51 | 88 |
| Pipe connections | in | 1/4 - 1/2 | 3/8 - 5/8 | 3/8 - 5/8 |
| Power supply | V-ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 |

*** Sound pressure levels are given for a distance of 4 m from the unit.

| Indoor unit for 38AW 050H7 and 38AW 065H7 | 80AWX 065M0 | 80AWX 065M3 | 80AWX 065M6 | 80AWX 065T6 | 80AWH 065M0 | 80AWH 065M3 | 80AWH 065M6 | 80AWH 065T6 |
|-------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Number of comfort zones | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Electric heater element | kW | 0 | 3 | 6 | 6 | 0 | 3 | 6 |
| Heating only | No | No | No | No | Yes | Yes | Yes | Yes |
| Heating and cooling | Yes | Yes | Yes | Yes | No | No | No | No |
| Connection of back-up boiler | Yes | No | No | No | Yes | No | No | No |
| Power supply | V-ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50 | 230-1-50 | 230-1-50 | 400-3-50 |

| Indoor unit for 38AW 090H7 and 38AW 115H7 | 80AWX 115M0 | 80AWX 115M3 | 80AWX 115M6 | 80AWX 115T6 | 80AWX 115T9 | 80AWH 115M0 | 80AWH 115M3 | 80AWH 115M6 | 80AWH 115T6 | 80AWH 115T9 |
|-------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Number of comfort zones | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Electric heater element | kW | 0 | 3 | 6 | 6 | 9 | 0 | 3 | 6 | 9 |
| Heating only | No | No | No | No | No | Yes | Yes | Yes | Yes | Yes |
| Heating and cooling | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No |
| Connection of back-up boiler | Yes | No | No | No | No | Yes | No | No | No | No |
| Power supply | V-ph-Hz | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50 | 400-3-50 | 230-1-50 | 230-1-50 | 230-1-50 | 400-3-50 |

Electrical data, indoor and outdoor units

| Outdoor unit | 38AW 050 | 38AW 065 | 38AW 090 | 38AW 115 |
|-------------------------------------|-----------|------------------|------------------|------------------|
| Power supply/voltage range | V-ph-Hz/V | 230-1-50/198-264 | 230-1-50/198-264 | 230-1-50/198-264 |
| Full load current/operating current | A | 11/7.9 | 11.7/9.0 | 18.9/13.4 |
| Fuse rating* | A | 16 | 16 | 25 |
| Power consumption | W | 1473 | 1930 | 2887 |
| Main power wire size | mm² | 2.5 | 2.5 | 2.5 |
| Power factor | % | 0.95 | 0.95 | 0.95 |

* Time delay fuse

| Comfort module | 80AW-065 | | | | 80AW-115 | | | | | | |
|-------------------|-----------------------|----------------|----|----|---------------------------|----|----------------|----|---------------------------|---------------------------------|--|
| | M0 | M3 | M6 | T6 | M0 | M3 | M6 | T6 | T9 | | |
| Outdoor units | 38AW 050H7/38AW 065H7 | | | | 38AW 090H7/38AW 115H7 | | | | | | |
| Power supply | V-ph-Hz | 230-1-50 ± 10% | | | 400-3-50 ± 10% | | 230-1-50 ± 10% | | | 400-3-50 ± 10% | |
| Power input | kW | - | 3 | 6 | 6 | - | 3 | 6 | 6 | 9 | |
| Operating current | A | - | 13 | 26 | L1: 13 L2: 13 N: 13 | - | 13 | 26 | L1: 13 L2: 13 N: 13 | L1: 19.5 L2: 19.5 N: 19.5 | |