

## Subtype BI-BLOC R290 HWP-100-160x

|                     |   |
|---------------------|---|
| Certificate Holder  | Viessmann Climate Solutions GmbH & Co. KG             |
| Address             | Viessmannstr. 1                                       |
| ZIP                 | 35107   |
| City                | Allendorf/Eder  |
| Country             | DE  |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH |
| Subtype title       | BI-BLOC R290 HWP-100-160x                             |
| Registration number | 011-1W1016  |
| Heat Pump Type      | Outdoor Air/Water                                     |
| Refrigerant         | R290  |
| Mass of Refrigerant | 2 kg  |
| Certification Date  | 30.04.2025  |
| Testing basis       | HP KEYMARK certification scheme rules rev. 14         |

## Model BI-BLOC R290 HWP-100-XWHT8-H

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-100-XWHT8-H   |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.3 kW          | 6.75 kW            |
| El input    | 1.46 kW         | 2.53 kW            |
| COP         | 5               | 2.67               |

### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

### EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 190 %           | 145 %              |
| Prated         | 9.8 kW          | 9.37 kW            |
| SCOP           | 4.83            | 3.7                |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 8.7 kW          | 8.3 kW             |
| COP Tj = -7°C  | 3.1             | 2.4                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 5.4 kW          | 5.2 kW             |
| COP Tj = +2°C  | 4.8             | 3.7                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = +2 °C                                      | 1           | 1           |
| Pdh Tj = +7°C                                       | 5.8 kW      | 5.7 kW      |
| COP Tj = +7°C                                       | 6           | 4.6         |
| Cdh Tj = +7 °C                                      | 1           | 1           |
| Pdh Tj = 12°C                                       | 5.5 kW      | 5.7 kW      |
| COP Tj = 12°C                                       | 7.3         | 6           |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 8.7 kW      | 8.3 kW      |
| COP Tj = Tbiv                                       | 3.1         | 2.4         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.9 kW      | 7.5 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.9         | 2.1         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| WTOL  | 70 °C       | 70 °C       |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.9 kW      | 1.87 kW     |
| Annual energy consumption Qhe                       | 4129 kWh    | 5229 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| ηs             | 160 %           | 127 %              |
| Prated         | 8.48 kW         | 7.98 kW            |
| SCOP           | 4.08            | 3.25               |
| Tbiv           | -15 °C          | -15 °C             |
| TOL            | -20 °C          | -20 °C             |
| Pdh Tj = -7°C  | 8.7 kW          | 8.4 kW             |
| COP Tj = -7°C  | 3.2             | 2.6                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 5.5 kW          | 5.2 kW             |
| COP Tj = +2°C  | 5               | 4                  |
| Cdh Tj = +2 °C | 1               | 1                  |
| Pdh Tj = +7°C  | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C  | 6.2             | 5                  |
| Cdh Tj = +7 °C | 1               | 1                  |
| Pdh Tj = 12°C  | 5.6 kW          | 5.7 kW             |

|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 7.4         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 6.9 kW      | 6.5 kW      |
| COP Tj = Tbiv                                       | 2.7         | 2.1         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6 kW        | 5.5 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.3         | 1.8         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 8.48 kW     | 7.98 kW     |
| Annual energy consumption Qhe                       | 5126 kWh    | 6050 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 168 %              |
| Prated  | 5.27 kW         | 4.65 kW            |
| SCOP  | 6.04            | 4.27               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = +2°C                                       | 4.2             | 2.7                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.3             | 3.6                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.8 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 7.2             | 5.4                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = Tbiv                                       | 4.2             | 2.7                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.3 kW          | 4.7 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.2             | 2.7                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0 kW        | 0 kW        |
| Annual energy consumption Qhe                       | 1165 kWh    | 1454 kWh    |

## Model BI-BLOC R290 HWP-130-XWHT8-H

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-130-XWHT8-H   |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.1 kW          | 7.56 kW            |
| El input    | 1.65 kW         | 2.47 kW            |
| COP         | 4.9             | 3.06               |

### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

### EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 178 %           | 141 %              |
| Prated         | 12.42 kW        | 12.1 kW            |
| SCOP           | 4.53            | 3.54               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 11 kW           | 10.7 kW            |
| COP Tj = -7°C  | 3               | 2.3                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 6.8 kW          | 6.6 kW             |
| COP Tj = +2°C  | 4.3             | 3.4                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = +2 °C                                      | 1           | 1           |
| Pdh Tj = +7°C                                       | 5.9 kW      | 5.7 kW      |
| COP Tj = +7°C                                       | 6.1         | 4.8         |
| Cdh Tj = +7 °C                                      | 1           | 1           |
| Pdh Tj = 12°C                                       | 5.5 kW      | 5.7 kW      |
| COP Tj = 12°C                                       | 7.4         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 11 kW       | 10.7 kW     |
| COP Tj = Tbiv                                       | 2.9         | 2.3         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10.1 kW     | 9.7 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.7         | 2.1         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| WTOL  | 70 °C       | 70 °C       |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.32 kW     | 2.4 kW      |
| Annual energy consumption Qhe                       | 5672 kWh    | 6944 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 144 %           | 118 %              |
| Prated         | 10.8 kW         | 10.35 kW           |
| SCOP           | 3.67            | 3.03               |
| Tbiv           | -15 °C          | -15 °C             |
| TOL            | -20 °C          | -20 °C             |
| Pdh Tj = -7°C  | 11 kW           | 10.8 kW            |
| COP Tj = -7°C  | 3               | 2.5                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 6.8 kW          | 6.6 kW             |
| COP Tj = +2°C  | 4.4             | 3.6                |
| Cdh Tj = +2 °C | 1               | 1                  |
| Pdh Tj = +7°C  | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C  | 6.2             | 5                  |
| Cdh Tj = +7 °C | 1               | 1                  |
| Pdh Tj = 12°C  | 5.6 kW          | 5.7 kW             |

|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 7.2         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.4 kW      |
| COP Tj = Tbiv                                       | 2.5         | 2           |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.7 kW      | 7.2 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.3         | 1.8         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 10.8 kW     | 10.35 kW    |
| Annual energy consumption Qhe                       | 7252 kWh    | 8407 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 173 %              |
| Prated  | 6.68 kW         | 6.62 kW            |
| SCOP  | 6.05            | 4.41               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.7                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.7 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 6.9             | 5.5                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.7 kW          | 6.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |



|   |             |             |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0 kW        | 0 kW        |
| Annual energy consumption Qhe                       | 1518 kWh    | 2007 kWh    |

## Model BI-BLOC R290 HWP-160-XWHT8-H

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-160-XWHT8-H   |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 9.1 kW          | 8.49 kW            |
| El input    | 1.86 kW         | 2.53 kW            |
| COP         | 4.9             | 3.35               |

### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

### EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 178 %           | 141 %              |
| Prated         | 13.67 kW        | 13.37 kW           |
| SCOP           | 4.52            | 3.6                |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 12 kW           | 11.8 kW            |
| COP Tj = -7°C  | 2.9             | 2.3                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 7.4 kW          | 7.5 kW             |
| COP Tj = +2°C  | 4.3             | 3.4                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = +2 °C                                      | 1           | 1           |
| Pdh Tj = +7°C                                       | 6.7 kW      | 6.5 kW      |
| COP Tj = +7°C                                       | 6.1         | 4.8         |
| Cdh Tj = +7 °C                                      | 1           | 1           |
| Pdh Tj = 12°C                                       | 5.3 kW      | 5.7 kW      |
| COP Tj = 12°C                                       | 7.3         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 12.1 kW     | 11.8 kW     |
| COP Tj = Tbiv                                       | 2.9         | 2.3         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.1 kW     | 10.7 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.6         | 2.1         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| WTOL  | 70 °C       | 70 °C       |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.57 kW     | 2.67 kW     |
| Annual energy consumption Qhe                       | 6242 kWh    | 7670 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| ηs             | 141 %           | 117 %              |
| Prated         | 11.83 kW        | 11.17 kW           |
| SCOP           | 3.61            | 2.99               |
| Tbiv           | -15 °C          | -15 °C             |
| TOL            | -20 °C          | -20 °C             |
| Pdh Tj = -7°C  | 12.1 kW         | 11.7 kW            |
| COP Tj = -7°C  | 2.8             | 2.4                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 7.6 kW          | 7.5 kW             |
| COP Tj = +2°C  | 4.3             | 3.5                |
| Cdh Tj = +2 °C | 1               | 1                  |
| Pdh Tj = +7°C  | 6.7 kW          | 6.6 kW             |
| COP Tj = +7°C  | 6.1             | 5                  |
| Cdh Tj = +7 °C | 1               | 1                  |
| Pdh Tj = 12°C  | 5.4 kW          | 5.7 kW             |

|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 7.3         | 6.5         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 9.7 kW      | 9.1 kW      |
| COP Tj = Tbiv                                       | 2.4         | 2           |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.4 kW      | 7.7 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.2         | 1.7         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.83 kW    | 11.17 kW    |
| Annual energy consumption Qhe                       | 8080 kWh    | 10386 kWh   |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 175 %              |
| Prated  | 7.54 kW         | 7.56 kW            |
| SCOP  | 6.06            | 4.46               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.6 kW          | 6.1 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.6 kW          | 5.6 kW             |
| COP Tj = 12°C                                       | 7.3             | 5.6                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.5 kW          | 7.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0 kW        | 0 kW        |
| Annual energy consumption Qhe                       | 1662 kWh    | 2266 kWh    |

## Model BI-BLOC R290 HWP-100-XWHT8-H8

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-100-XWHT8-H8  |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.3 kW          | 6.75 kW            |
| El input    | 1.46 kW         | 2.53 kW            |
| COP         | 5               | 2.67               |

### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

### EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 190 %           | 145 %              |
| Prated         | 9.8 kW          | 9.37 kW            |
| SCOP           | 4.83            | 3.7                |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 8.7 kW          | 8.3 kW             |
| COP Tj = -7°C  | 3.1             | 2.4                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 5.4 kW          | 5.2 kW             |
| COP Tj = +2°C  | 4.8             | 3.7                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = +2 °C                                      | 1           | 1           |
| Pdh Tj = +7°C                                       | 5.8 kW      | 5.7 kW      |
| COP Tj = +7°C                                       | 6           | 4.6         |
| Cdh Tj = +7 °C                                      | 1           | 1           |
| Pdh Tj = 12°C                                       | 5.5 kW      | 5.7 kW      |
| COP Tj = 12°C                                       | 7.3         | 6           |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 8.7 kW      | 8.3 kW      |
| COP Tj = Tbiv                                       | 3.1         | 2.4         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.9 kW      | 7.5 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.9         | 2.1         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| WTOL  | 70 °C       | 70 °C       |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.9 kW      | 1.87 kW     |
| Annual energy consumption Qhe                       | 4129 kWh    | 5229 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| ηs             | 160 %           | 127 %              |
| Prated         | 8.48 kW         | 7.98 kW            |
| SCOP           | 4.08            | 3.25               |
| Tbiv           | -15 °C          | -15 °C             |
| TOL            | -20 °C          | -20 °C             |
| Pdh Tj = -7°C  | 8.7 kW          | 8.4 kW             |
| COP Tj = -7°C  | 3.2             | 2.6                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 5.5 kW          | 5.2 kW             |
| COP Tj = +2°C  | 5               | 4                  |
| Cdh Tj = +2 °C | 1               | 1                  |
| Pdh Tj = +7°C  | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C  | 6.2             | 5                  |
| Cdh Tj = +7 °C | 1               | 1                  |
| Pdh Tj = 12°C  | 5.6 kW          | 5.7 kW             |

|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 7.4         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 6.9 kW      | 6.5 kW      |
| COP Tj = Tbiv                                       | 2.7         | 2.1         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6 kW        | 5.5 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.3         | 1.8         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 8.48 kW     | 7.98 kW     |
| Annual energy consumption Qhe                       | 5126 kWh    | 6050 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 168 %              |
| Prated  | 5.27 kW         | 4.65 kW            |
| SCOP  | 6.04            | 4.27               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = +2°C                                       | 4.2             | 2.7                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.3             | 3.6                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.8 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 7.2             | 5.4                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = Tbiv                                       | 4.2             | 2.7                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.3 kW          | 4.7 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.2             | 2.7                |



|   |             |             |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0 kW        | 0 kW        |
| Annual energy consumption Qhe                       | 1165 kWh    | 1454 kWh    |

## Model BI-BLOC R290 HWP-130-XWHT8-H8

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-130-XWHT8-H8  |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

### General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | Yes         |

### Outdoor Air/Water

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.1 kW          | 7.56 kW            |
| El input    | 1.65 kW         | 2.47 kW            |
| COP         | 4.9             | 3.06               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 178 %           | 141 %              |
| Prated         | 12.42 kW        | 12.1 kW            |
| SCOP           | 4.53            | 3.54               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 11 kW           | 10.7 kW            |
| COP Tj = -7°C  | 3               | 2.3                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 6.8 kW          | 6.6 kW             |
| COP Tj = +2°C  | 4.3             | 3.4                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = +2 °C                                      | 1           | 1           |
| Pdh Tj = +7°C                                       | 5.9 kW      | 5.7 kW      |
| COP Tj = +7°C                                       | 6.1         | 4.8         |
| Cdh Tj = +7 °C                                      | 1           | 1           |
| Pdh Tj = 12°C                                       | 5.5 kW      | 5.7 kW      |
| COP Tj = 12°C                                       | 7.4         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 11 kW       | 10.7 kW     |
| COP Tj = Tbiv                                       | 2.9         | 2.3         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10.1 kW     | 9.7 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.7         | 2.1         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| WTOL  | 70 °C       | 70 °C       |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.32 kW     | 2.4 kW      |
| Annual energy consumption Qhe                       | 5672 kWh    | 6944 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| ηs             | 144 %           | 118 %              |
| Prated         | 10.8 kW         | 10.35 kW           |
| SCOP           | 3.67            | 3.03               |
| Tbiv           | -15 °C          | -15 °C             |
| TOL            | -20 °C          | -20 °C             |
| Pdh Tj = -7°C  | 11 kW           | 10.8 kW            |
| COP Tj = -7°C  | 3               | 2.5                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 6.8 kW          | 6.6 kW             |
| COP Tj = +2°C  | 4.4             | 3.6                |
| Cdh Tj = +2 °C | 1               | 1                  |
| Pdh Tj = +7°C  | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C  | 6.2             | 5                  |
| Cdh Tj = +7 °C | 1               | 1                  |
| Pdh Tj = 12°C  | 5.6 kW          | 5.7 kW             |

|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 7.2         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.4 kW      |
| COP Tj = Tbiv                                       | 2.5         | 2           |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.7 kW      | 7.2 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.3         | 1.8         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 10.8 kW     | 10.35 kW    |
| Annual energy consumption Qhe                       | 7252 kWh    | 8407 kWh    |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 173 %              |
| Prated  | 6.68 kW         | 6.62 kW            |
| SCOP  | 6.05            | 4.41               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.7                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.7 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 6.9             | 5.5                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.7 kW          | 6.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0 kW        | 0 kW        |
| Annual energy consumption Qhe                       | 1518 kWh    | 2007 kWh    |

## Model BI-BLOC R290 HWP-160-XWHT8-H8

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-160-XWHT8-H8  |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 9.1 kW          | 8.49 kW            |
| El input    | 1.86 kW         | 2.53 kW            |
| COP         | 4.9             | 3.35               |

### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

### EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 178 %           | 141 %              |
| Prated         | 13.67 kW        | 13.37 kW           |
| SCOP           | 4.52            | 3.6                |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 12 kW           | 11.8 kW            |
| COP Tj = -7°C  | 2.9             | 2.3                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 7.4 kW          | 7.5 kW             |
| COP Tj = +2°C  | 4.3             | 3.4                |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = +2 °C                                      | 1           | 1           |
| Pdh Tj = +7°C                                       | 6.7 kW      | 6.5 kW      |
| COP Tj = +7°C                                       | 6.1         | 4.8         |
| Cdh Tj = +7 °C                                      | 1           | 1           |
| Pdh Tj = 12°C                                       | 5.3 kW      | 5.7 kW      |
| COP Tj = 12°C                                       | 7.3         | 6.3         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 12.1 kW     | 11.8 kW     |
| COP Tj = Tbiv                                       | 2.9         | 2.3         |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.1 kW     | 10.7 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.6         | 2.1         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| WTOL  | 70 °C       | 70 °C       |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.57 kW     | 2.67 kW     |
| Annual energy consumption Qhe                       | 6242 kWh    | 7670 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| ηs             | 141 %           | 117 %              |
| Prated         | 11.83 kW        | 11.17 kW           |
| SCOP           | 3.61            | 2.99               |
| Tbiv           | -15 °C          | -15 °C             |
| TOL            | -20 °C          | -20 °C             |
| Pdh Tj = -7°C  | 12.1 kW         | 11.7 kW            |
| COP Tj = -7°C  | 2.8             | 2.4                |
| Cdh Tj = -7 °C | 1               | 1                  |
| Pdh Tj = +2°C  | 7.6 kW          | 7.5 kW             |
| COP Tj = +2°C  | 4.3             | 3.5                |
| Cdh Tj = +2 °C | 1               | 1                  |
| Pdh Tj = +7°C  | 6.7 kW          | 6.6 kW             |
| COP Tj = +7°C  | 6.1             | 5                  |
| Cdh Tj = +7 °C | 1               | 1                  |
| Pdh Tj = 12°C  | 5.4 kW          | 5.7 kW             |

|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 7.3         | 6.5         |
| Cdh Tj = +12 °C                                     | 1           | 1           |
| Pdh Tj = Tbiv                                       | 9.7 kW      | 9.1 kW      |
| COP Tj = Tbiv                                       | 2.4         | 2           |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.4 kW      | 7.7 kW      |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.2         | 1.7         |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 11.83 kW    | 11.17 kW    |
| Annual energy consumption Qhe                       | 8080 kWh    | 10386 kWh   |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 175 %              |
| Prated  | 7.54 kW         | 7.56 kW            |
| SCOP  | 6.06            | 4.46               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.6 kW          | 6.1 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.6 kW          | 5.6 kW             |
| COP Tj = 12°C                                       | 7.3             | 5.6                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.5 kW          | 7.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |



|   |             |             |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1           | 1           |
| Poff  | 0 W         | 0 W         |
| PTO   | 14 W        | 14 W        |
| PSB   | 16 W        | 16 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0 kW        | 0 kW        |
| Annual energy consumption Qhe                       | 1662 kWh    | 2266 kWh    |

## Model BI-BLOC R290 HWP-100-FST8-H

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-100-FST8-H    |
| Application                         | Heating + DHW + low temp       |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 123 %      |
| COP                             | 2.87       |
| Heating up time                 | 1:15 h:min |
| Standby power input             | 49.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 254 l      |

### EN 16147 | Colder Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 91 %       |
| COP                             | 2.12       |
| Heating up time                 | 1:27 h:min |
| Standby power input             | 117.0 W    |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 251 l      |

### EN 16147 | Warmer Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 141 %      |
| COP                             | 3.38       |
| Heating up time                 | 1:14 h:min |
| Standby power input             | 44.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 253 l      |

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.3 kW          | 6.75 kW            |
| El input    | 1.46 kW         | 2.53 kW            |
| COP         | 5               | 2.67               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 190 %           | 145 %              |
| Prated  | 9.8 kW          | 9.37 kW            |
| SCOP  | 4.83            | 3.7                |
| Tbiv  | -7 °C           | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 8.7 kW          | 8.3 kW             |
| COP Tj = -7°C                                       | 3.1             | 2.4                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 5.4 kW          | 5.2 kW             |
| COP Tj = +2°C                                       | 4.8             | 3.7                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.8 kW          | 5.7 kW             |
| COP Tj = +7°C                                       | 6               | 4.6                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.5 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.3             | 6                  |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 8.7 kW          | 8.3 kW             |
| COP Tj = Tbiv                                       | 3.1             | 2.4                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.9 kW          | 7.5 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.9             | 2.1                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| WTOL  | 70 °C           | 70 °C              |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |

|  |             |             |
|--|-------------|-------------|
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 1.9 kW      | 1.87 kW     |
| Annual energy consumption Qhe              | 4129 kWh    | 5229 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 160 %           | 127 %              |
| Prated  | 8.48 kW         | 7.98 kW            |
| SCOP  | 4.08            | 3.25               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = -7°C                                       | 8.7 kW          | 8.4 kW             |
| COP Tj = -7°C                                       | 3.2             | 2.6                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 5.5 kW          | 5.2 kW             |
| COP Tj = +2°C                                       | 5               | 4                  |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C                                       | 6.2             | 5                  |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.6 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.4             | 6.3                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 6.9 kW          | 6.5 kW             |
| COP Tj = Tbiv                                       | 2.7             | 2.1                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6 kW            | 5.5 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.3             | 1.8                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 8.48 kW         | 7.98 kW            |
| Annual energy consumption Qhe                       | 5126 kWh        | 6050 kWh           |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 168 %              |
| Prated  | 5.27 kW         | 4.65 kW            |
| SCOP  | 6.04            | 4.27               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = +2°C                                       | 4.2             | 2.7                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.3             | 3.6                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.8 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 7.2             | 5.4                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = Tbiv                                       | 4.2             | 2.7                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.3 kW          | 4.7 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.2             | 2.7                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 0 kW            | 0 kW               |
| Annual energy consumption Qhe                       | 1165 kWh        | 1454 kWh           |

## Model BI-BLOC R290 HWP-130-FST8-H

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-130-FST8-H    |
| Application                         | Heating + DHW + low temp       |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 123 %      |
| COP                             | 2.87       |
| Heating up time                 | 1:15 h:min |
| Standby power input             | 49.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 254 l      |

### EN 16147 | Colder Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 91 %       |
| COP                             | 2.12       |
| Heating up time                 | 1:27 h:min |
| Standby power input             | 117.0 W    |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 251 l      |

### EN 16147 | Warmer Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 141 %      |
| COP                             | 3.38       |
| Heating up time                 | 1:14 h:min |
| Standby power input             | 44.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 253 l      |

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.1 kW          | 7.56 kW            |
| El input    | 1.65 kW         | 2.47 kW            |
| COP         | 4.9             | 3.06               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 178 %           | 141 %              |
| Prated  | 12.42 kW        | 12.1 kW            |
| SCOP  | 4.53            | 3.54               |
| Tbiv  | -7 °C           | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 11 kW           | 10.7 kW            |
| COP Tj = -7°C                                       | 3               | 2.3                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 6.8 kW          | 6.6 kW             |
| COP Tj = +2°C                                       | 4.3             | 3.4                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C                                       | 6.1             | 4.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.5 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.4             | 6.3                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 11 kW           | 10.7 kW            |
| COP Tj = Tbiv                                       | 2.9             | 2.3                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10.1 kW         | 9.7 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.7             | 2.1                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| WTOL  | 70 °C           | 70 °C              |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |

|  |             |             |
|--|-------------|-------------|
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 2.32 kW     | 2.4 kW      |
| Annual energy consumption Qhe              | 5672 kWh    | 6944 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 144 %           | 118 %              |
| Prated  | 10.8 kW         | 10.35 kW           |
| SCOP  | 3.67            | 3.03               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -20 °C          | -20 °C             |
| Pdh Tj = -7°C                                       | 11 kW           | 10.8 kW            |
| COP Tj = -7°C                                       | 3               | 2.5                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 6.8 kW          | 6.6 kW             |
| COP Tj = +2°C                                       | 4.4             | 3.6                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C                                       | 6.2             | 5                  |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.6 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.2             | 6.3                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 8.8 kW          | 8.4 kW             |
| COP Tj = Tbiv                                       | 2.5             | 2                  |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.7 kW          | 7.2 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.3             | 1.8                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 10.8 kW         | 10.35 kW           |
| Annual energy consumption Qhe                       | 7252 kWh        | 8407 kWh           |

#### EN 12102-1 | Warmer Climate



|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 173 %              |
| Prated  | 6.68 kW         | 6.62 kW            |
| SCOP  | 6.05            | 4.41               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.7                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.7 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 6.9             | 5.5                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.7 kW          | 6.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 0 kW            | 0 kW               |
| Annual energy consumption Qhe                       | 1518 kWh        | 2007 kWh           |

## Model BI-BLOC R290 HWP-160-FST8-H

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-160-FST8-H    |
| Application                         | Heating + DHW + low temp       |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 123 %      |
| COP                             | 2.87       |
| Heating up time                 | 1:15 h:min |
| Standby power input             | 49.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 254 l      |

### EN 16147 | Colder Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 91 %       |
| COP                             | 2.12       |
| Heating up time                 | 1:27 h:min |
| Standby power input             | 117.0 W    |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 251 l      |

### EN 16147 | Warmer Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 141 %      |
| COP                             | 3.38       |
| Heating up time                 | 1:14 h:min |
| Standby power input             | 44.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 253 l      |

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 9.1 kW          | 8.49 kW            |
| El input    | 1.86 kW         | 2.53 kW            |
| COP         | 4.9             | 3.35               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 178 %           | 141 %              |
| Prated  | 13.67 kW        | 13.37 kW           |
| SCOP  | 4.52            | 3.6                |
| Tbiv  | -7 °C           | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 12 kW           | 11.8 kW            |
| COP Tj = -7°C                                       | 2.9             | 2.3                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 7.4 kW          | 7.5 kW             |
| COP Tj = +2°C                                       | 4.3             | 3.4                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.7 kW          | 6.5 kW             |
| COP Tj = +7°C                                       | 6.1             | 4.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.3 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.3             | 6.3                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 12.1 kW         | 11.8 kW            |
| COP Tj = Tbiv                                       | 2.9             | 2.3                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.1 kW         | 10.7 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.6             | 2.1                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| WTOL  | 70 °C           | 70 °C              |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |

|  |             |             |
|--|-------------|-------------|
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 2.57 kW     | 2.67 kW     |
| Annual energy consumption Q <sub>he</sub>  | 6242 kWh    | 7670 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 141 %           | 117 %              |
| Prated  | 11.83 kW        | 11.17 kW           |
| SCOP  | 3.61            | 2.99               |
| T <sub>biv</sub>  | -15 °C          | -15 °C             |
| TOL   | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 12.1 kW         | 11.7 kW            |
| COP T <sub>j</sub> = -7°C   | 2.8             | 2.4                |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 7.6 kW          | 7.5 kW             |
| COP T <sub>j</sub> = +2°C   | 4.3             | 3.5                |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 6.7 kW          | 6.6 kW             |
| COP T <sub>j</sub> = +7°C   | 6.1             | 5                  |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 5.4 kW          | 5.7 kW             |
| COP T <sub>j</sub> = 12°C   | 7.3             | 6.5                |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C   | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>   | 9.7 kW          | 9.1 kW             |
| COP T <sub>j</sub> = T <sub>biv</sub>   | 2.4             | 2                  |
| P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 8.4 kW          | 7.7 kW             |
| COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>                         | 2.2             | 1.7                |
| C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 1               | 1                  |
| P <sub>off</sub>  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input  | Electricity     | Electricity        |
| Supplementary Heater: PSUP  | 11.83 kW        | 11.17 kW           |
| Annual energy consumption Q <sub>he</sub>   | 8080 kWh        | 10386 kWh          |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 175 %              |
| Prated  | 7.54 kW         | 7.56 kW            |
| SCOP  | 6.06            | 4.46               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.6 kW          | 6.1 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.6 kW          | 5.6 kW             |
| COP Tj = 12°C                                       | 7.3             | 5.6                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.5 kW          | 7.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 0 kW            | 0 kW               |
| Annual energy consumption Qhe                       | 1662 kWh        | 2266 kWh           |

## Model BI-BLOC R290 HWP-100-FST8-H8

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-100-FST8-H8   |
| Application                         | Heating + DHW + low temp       |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 123 %      |
| COP                             | 2.87       |
| Heating up time                 | 1:15 h:min |
| Standby power input             | 49.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 254 l      |

### EN 16147 | Colder Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 91 %       |
| COP                             | 2.12       |
| Heating up time                 | 1:27 h:min |
| Standby power input             | 117.0 W    |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 251 l      |

### EN 16147 | Warmer Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 141 %      |
| COP                             | 3.38       |
| Heating up time                 | 1:14 h:min |
| Standby power input             | 44.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 253 l      |

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.3 kW          | 6.75 kW            |
| El input    | 1.46 kW         | 2.53 kW            |
| COP         | 5               | 2.67               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 190 %           | 145 %              |
| Prated  | 9.8 kW          | 9.37 kW            |
| SCOP  | 4.83            | 3.7                |
| Tbiv  | -7 °C           | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 8.7 kW          | 8.3 kW             |
| COP Tj = -7°C                                       | 3.1             | 2.4                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 5.4 kW          | 5.2 kW             |
| COP Tj = +2°C                                       | 4.8             | 3.7                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.8 kW          | 5.7 kW             |
| COP Tj = +7°C                                       | 6               | 4.6                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.5 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.3             | 6                  |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 8.7 kW          | 8.3 kW             |
| COP Tj = Tbiv                                       | 3.1             | 2.4                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.9 kW          | 7.5 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.9             | 2.1                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| WTOL  | 70 °C           | 70 °C              |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |

|  |             |             |
|--|-------------|-------------|
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 1.9 kW      | 1.87 kW     |
| Annual energy consumption Q <sub>he</sub>  | 4129 kWh    | 5229 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 160 %           | 127 %              |
| Prated  | 8.48 kW         | 7.98 kW            |
| SCOP  | 4.08            | 3.25               |
| T <sub>biv</sub>  | -15 °C          | -15 °C             |
| TOL   | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 8.7 kW          | 8.4 kW             |
| COP T <sub>j</sub> = -7°C   | 3.2             | 2.6                |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 5.5 kW          | 5.2 kW             |
| COP T <sub>j</sub> = +2°C   | 5               | 4                  |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 5.9 kW          | 5.7 kW             |
| COP T <sub>j</sub> = +7°C   | 6.2             | 5                  |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 5.6 kW          | 5.7 kW             |
| COP T <sub>j</sub> = 12°C   | 7.4             | 6.3                |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C   | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>   | 6.9 kW          | 6.5 kW             |
| COP T <sub>j</sub> = T <sub>biv</sub>   | 2.7             | 2.1                |
| P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 6 kW            | 5.5 kW             |
| COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>                         | 2.3             | 1.8                |
| C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 1               | 1                  |
| P <sub>off</sub>  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input  | Electricity     | Electricity        |
| Supplementary Heater: PSUP  | 8.48 kW         | 7.98 kW            |
| Annual energy consumption Q <sub>he</sub>   | 5126 kWh        | 6050 kWh           |

#### EN 12102-1 | Warmer Climate



|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 168 %              |
| Prated  | 5.27 kW         | 4.65 kW            |
| SCOP  | 6.04            | 4.27               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = +2°C                                       | 4.2             | 2.7                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.3             | 3.6                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.8 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 7.2             | 5.4                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 5.3 kW          | 4.7 kW             |
| COP Tj = Tbiv                                       | 4.2             | 2.7                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.3 kW          | 4.7 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.2             | 2.7                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 0 kW            | 0 kW               |
| Annual energy consumption Qhe                       | 1165 kWh        | 1454 kWh           |

## Model BI-BLOC R290 HWP-130-FST8-H8

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-130-FST8-H8   |
| Application                         | Heating + DHW + low temp       |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 123 %      |
| COP                             | 2.87       |
| Heating up time                 | 1:15 h:min |
| Standby power input             | 49.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 254 l      |

### EN 16147 | Colder Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 91 %       |
| COP                             | 2.12       |
| Heating up time                 | 1:27 h:min |
| Standby power input             | 117.0 W    |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 251 l      |

### EN 16147 | Warmer Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 141 %      |
| COP                             | 3.38       |
| Heating up time                 | 1:14 h:min |
| Standby power input             | 44.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 253 l      |

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.1 kW          | 7.56 kW            |
| El input    | 1.65 kW         | 2.47 kW            |
| COP         | 4.9             | 3.06               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 178 %           | 141 %              |
| Prated  | 12.42 kW        | 12.1 kW            |
| SCOP  | 4.53            | 3.54               |
| Tbiv  | -7 °C           | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 11 kW           | 10.7 kW            |
| COP Tj = -7°C                                       | 3               | 2.3                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 6.8 kW          | 6.6 kW             |
| COP Tj = +2°C                                       | 4.3             | 3.4                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.9 kW          | 5.7 kW             |
| COP Tj = +7°C                                       | 6.1             | 4.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.5 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.4             | 6.3                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 11 kW           | 10.7 kW            |
| COP Tj = Tbiv                                       | 2.9             | 2.3                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10.1 kW         | 9.7 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.7             | 2.1                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| WTOL  | 70 °C           | 70 °C              |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |

|  |             |             |
|--|-------------|-------------|
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 2.32 kW     | 2.4 kW      |
| Annual energy consumption Q <sub>he</sub>  | 5672 kWh    | 6944 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 144 %           | 118 %              |
| Prated  | 10.8 kW         | 10.35 kW           |
| SCOP  | 3.67            | 3.03               |
| T <sub>biv</sub>  | -15 °C          | -15 °C             |
| TOL   | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 11 kW           | 10.8 kW            |
| COP T <sub>j</sub> = -7°C   | 3               | 2.5                |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 6.8 kW          | 6.6 kW             |
| COP T <sub>j</sub> = +2°C   | 4.4             | 3.6                |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 5.9 kW          | 5.7 kW             |
| COP T <sub>j</sub> = +7°C   | 6.2             | 5                  |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 5.6 kW          | 5.7 kW             |
| COP T <sub>j</sub> = 12°C   | 7.2             | 6.3                |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C   | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>   | 8.8 kW          | 8.4 kW             |
| COP T <sub>j</sub> = T <sub>biv</sub>   | 2.5             | 2                  |
| P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 7.7 kW          | 7.2 kW             |
| COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>                         | 2.3             | 1.8                |
| C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 1               | 1                  |
| P <sub>off</sub>  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input  | Electricity     | Electricity        |
| Supplementary Heater: PSUP  | 10.8 kW         | 10.35 kW           |
| Annual energy consumption Q <sub>he</sub>   | 7252 kWh        | 8407 kWh           |

#### EN 12102-1 | Warmer Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 173 %              |
| Prated  | 6.68 kW         | 6.62 kW            |
| SCOP  | 6.05            | 4.41               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 5.7 kW          | 5.2 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.7                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.7 kW          | 5.5 kW             |
| COP Tj = 12°C                                       | 6.9             | 5.5                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 6.7 kW          | 6.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.7 kW          | 6.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 0 kW            | 0 kW               |
| Annual energy consumption Qhe                       | 1518 kWh        | 2007 kWh           |

## Model BI-BLOC R290 HWP-160-FST8-H8

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | BI-BLOC R290 HWP-160-FST8-H8   |
| Application                         | Heating + DHW + low temp       |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | Warmer Climate, Colder Climate |
| Heat Source                         | Outdoor Air                    |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | Yes         |

## Outdoor Air/Water

### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 123 %      |
| COP                             | 2.87       |
| Heating up time                 | 1:15 h:min |
| Standby power input             | 49.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 254 l      |

### EN 16147 | Colder Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 91 %       |
| COP                             | 2.12       |
| Heating up time                 | 1:27 h:min |
| Standby power input             | 117.0 W    |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 251 l      |

### EN 16147 | Warmer Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 141 %      |
| COP                             | 3.38       |
| Heating up time                 | 1:14 h:min |
| Standby power input             | 44.0 W     |
| Reference hot water temperature | 52.3 °C    |
| Mixed water at 40°C             | 253 l      |

## EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

#### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 9.1 kW          | 8.49 kW            |
| El input    | 1.86 kW         | 2.53 kW            |
| COP         | 4.9             | 3.35               |

#### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Average Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 178 %           | 141 %              |
| Prated  | 13.67 kW        | 13.37 kW           |
| SCOP  | 4.52            | 3.6                |
| Tbiv  | -7 °C           | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 12 kW           | 11.8 kW            |
| COP Tj = -7°C                                       | 2.9             | 2.3                |
| Cdh Tj = -7 °C                                      | 1               | 1                  |
| Pdh Tj = +2°C                                       | 7.4 kW          | 7.5 kW             |
| COP Tj = +2°C                                       | 4.3             | 3.4                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.7 kW          | 6.5 kW             |
| COP Tj = +7°C                                       | 6.1             | 4.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.3 kW          | 5.7 kW             |
| COP Tj = 12°C                                       | 7.3             | 6.3                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 12.1 kW         | 11.8 kW            |
| COP Tj = Tbiv                                       | 2.9             | 2.3                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.1 kW         | 10.7 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.6             | 2.1                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| WTOL  | 70 °C           | 70 °C              |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |

|  |             |             |
|--|-------------|-------------|
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 2.57 kW     | 2.67 kW     |
| Annual energy consumption Q <sub>he</sub>  | 6242 kWh    | 7670 kWh    |

#### EN 12102-1 | Colder Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Colder Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 141 %           | 117 %              |
| Prated  | 11.83 kW        | 11.17 kW           |
| SCOP  | 3.61            | 2.99               |
| T <sub>biv</sub>  | -15 °C          | -15 °C             |
| TOL   | -20 °C          | -20 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7°C   | 12.1 kW         | 11.7 kW            |
| COP T <sub>j</sub> = -7°C   | 2.8             | 2.4                |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +2°C   | 7.6 kW          | 7.5 kW             |
| COP T <sub>j</sub> = +2°C   | 4.3             | 3.5                |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = +7°C   | 6.7 kW          | 6.6 kW             |
| COP T <sub>j</sub> = +7°C   | 6.1             | 5                  |
| C <sub>dh</sub> T <sub>j</sub> = +7 °C  | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = 12°C   | 5.4 kW          | 5.7 kW             |
| COP T <sub>j</sub> = 12°C   | 7.3             | 6.5                |
| C <sub>dh</sub> T <sub>j</sub> = +12 °C   | 1               | 1                  |
| P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>   | 9.7 kW          | 9.1 kW             |
| COP T <sub>j</sub> = T <sub>biv</sub>   | 2.4             | 2                  |
| P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 8.4 kW          | 7.7 kW             |
| COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>                         | 2.2             | 1.7                |
| C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub> | 1               | 1                  |
| P <sub>off</sub>  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input  | Electricity     | Electricity        |
| Supplementary Heater: PSUP  | 11.83 kW        | 11.17 kW           |
| Annual energy consumption Q <sub>he</sub>   | 8080 kWh        | 10386 kWh          |

#### EN 12102-1 | Warmer Climate



|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 239 %           | 175 %              |
| Prated  | 7.54 kW         | 7.56 kW            |
| SCOP  | 6.06            | 4.46               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = +2°C                                       | 3.8             | 2.8                |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.6 kW          | 6.1 kW             |
| COP Tj = +7°C                                       | 5.4             | 3.8                |
| Cdh Tj = +7 °C                                      | 1               | 1                  |
| Pdh Tj = 12°C                                       | 5.6 kW          | 5.6 kW             |
| COP Tj = 12°C                                       | 7.3             | 5.6                |
| Cdh Tj = +12 °C                                     | 1               | 1                  |
| Pdh Tj = Tbiv                                       | 7.5 kW          | 7.6 kW             |
| COP Tj = Tbiv                                       | 3.8             | 2.8                |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.5 kW          | 7.6 kW             |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.8             | 2.8                |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1               | 1                  |
| Poff  | 0 W             | 0 W                |
| PTO   | 14 W            | 14 W               |
| PSB   | 16 W            | 16 W               |
| PCK   | 0 W             | 0 W                |
| Supplementary Heater: Type of energy input          | Electricity     | Electricity        |
| Supplementary Heater: PSUP                          | 0 kW            | 0 kW               |
| Annual energy consumption Qhe                       | 1662 kWh        | 2266 kWh           |