



Outdoor unit with heat pump for the production of chilled/hot water with hermetic rotary scroll compressors dedicated to the use of R410A, axial fans, plate heat exchanger, condensing coil with copper tubes and aluminum fins and thermostatic or electronic expansion valve, according to the version. The range is composed by units equipped with two compressors in a single-circuit configuration.

### Control



#### W3000 Base – W3000SE Compact

Two different versions of controllers are available:

**W3000 Base:** complete with keypad, easy-to-use interface and LCD display, menu with up to three languages (Italian and English come standard, a further language can be chosen within French, Spanish, German, Russian and Swedish)

**W3000SE Compact:** complete with keypad, easy-to-use interface and LCD display, multi-language menu, with selectable language setting on site. Internal clock also included. Both W3000 electronic controllers offer advanced functions and algorithms. The keypad features an easy-to-use interface and a complete LCD display, allowing to consult and intervene on the unit by means of a multi-level menu, with selectable language setting. Regulation based on the exclusive QuickMind algorithm, including self-adaptive control logics, beneficial in low water content systems. As alternatives the proportional- or proportional- integral regulations are also available. Complete alarm management, with the "black-box" and alarm logging functions for enhanced analysis of the unit operation (available on W3000SE Compact only).

For multiple units' systems, the regulation of the resources via optional proprietary devices, can be implemented. Energy metering, for both consumption and capacity, can also be developed and supervision can be executed via proprietary devices or the integration in third party systems by means of the most common protocols as ModBus, Bacnet, Bacnet-over-IP, Echelon LonWorks. Compatibility with the remote keyboard managing up to 10 units. The internal real time clock allows to manage a weekly schedule operating on 4-day profiles with 10 hour belts (available on W3000SE Compact only, optional on W3000 Base controller).

### Refrigerant



### Versions

|      |   |       |                                  |
|------|---|-------|----------------------------------|
| K    | Key efficiency, compact version               | CA    | Class A of efficiency            |
| LN-K | Low Noise, Key efficiency and compact version | LN-CA | Low Noise, Class A of efficiency |

### Configurations

|   |                |   |   |
|---|----------------|---|---|
| - | Basic function | D | Partial condensing heat recovery function |
|---|----------------|---|---|

### Features

#### REFRIGERANT GAS R410A

The use of R410A allowed to achieve better energy efficiencies with environment full respect (ODP = 0)

#### ELECTRONIC EXPANSION VALVE

The use of the electronic expansion valve generates considerable benefits, especially in cases of variable demand and different external conditions. It has been introduced into these units as a result of accurate design choices concerning the cooling circuit and the optimisation of operation in various different working conditions. The electronic expansion valve comes standard in the high-efficiency CA version.

#### CLASS A EFFICIENCY

The full range is also available with the Class A efficiency rating (in heating). CA version guarantees within all the noise configurations premium levels of efficiency thanks to the generous sizing of the refrigerant-exchange surface areas and to an accurate control of the fans.

#### WIDE OPERATING RANGE

Unit's operation guaranteed with external air temperature down to -10 °C during winter and up to 46 °C during summer.

#### COMPLIANCE WITH THE STRICTEST EUROPEAN STANDARDS

The main new feature that distinguishes the new NX-N units regards the calculation methods used to define the energy efficiency values.

These values are in fact now calculated not only based on the capacity delivered and power consumed by the unit, but also taking into account heat exchanger pressure drop, or the available pressure head if the unit is installed with pumps, as required by European standard EN14511.

In this way, energy efficiency is no longer an index for evaluating the unit alone, but rather extends the assessment by considering the unit within the system, consequently taking into account the energy required to pump the refrigerant or heat carrier fluid used in the system.

#### TWO SOUND EMISSION LEVELS

Two different sound emission levels available. This means the best unit can be identified based on requirements, according to the system where it will be installed and the application.

#### INTEGRATED HYDRONIC GROUP

The optional built-in hydronic module already contains the main water circuit components; it is available with single or twin in-line, for achieving both low or high head.

### Accessories

- Soft starters
- Set-up for remote connectivity with ModBus/Echelon protocol cards
- Remote control keyboard (distance to 200m and to 500m)

| NX-N /K   |          |         | 0152P      | 0182P      | 0202P      | 0252P      | 0262P      | 0302P      | 0352P      |
|---|----------|---------|------------|------------|------------|------------|------------|------------|------------|
| Power supply  |          | V/ph/Hz | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 |
| <b>PERFORMANCE</b>  |          |         |            |            |            |            |            |            |            |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |          |         |            |            |            |            |            |            |            |
| Cooling capacity  | (1)      | kW      | 38,74      | 43,77      | 51,01      | 58,34      | 64,63      | 74,11      | 84,40      |
| Total power input   | (1)      | kW      | 13,72      | 15,79      | 18,40      | 20,55      | 23,26      | 28,18      | 32,15      |
| EER   | (1)      | kW/kW   | 2,825      | 2,772      | 2,772      | 2,844      | 2,773      | 2,628      | 2,629      |
| ESEER   | (1)      | kW/kW   | 4,010      | 4,030      | 4,180      | 3,940      | 3,960      | 3,890      | 4,030      |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |          |         |            |            |            |            |            |            |            |
| Cooling capacity  | (1)(2)   | kW      | 38,50      | 43,50      | 50,70      | 58,00      | 64,30      | 73,80      | 83,90      |
| EER   | (1)(2)   | kW/kW   | 2,770      | 2,710      | 2,710      | 2,790      | 2,720      | 2,590      | 2,570      |
| ESEER   | (1)(2)   | kW/kW   | 3,830      | 3,850      | 4,000      | 3,780      | 3,820      | 3,770      | 3,840      |
| Cooling energy class                                      |          |         | C          | C          | C          | C          | C          | D          | D          |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |          |         |            |            |            |            |            |            |            |
| Total heating capacity                                    | (3)      | kW      | 42,92      | 47,38      | 55,34      | 65,03      | 70,69      | 80,07      | 92,14      |
| Total power input   | (3)      | kW      | 14,03      | 15,46      | 18,04      | 21,30      | 22,78      | 25,97      | 29,56      |
| COP   | (3)      | kW/kW   | 3,064      | 3,058      | 3,072      | 3,052      | 3,101      | 3,081      | 3,111      |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |          |         |            |            |            |            |            |            |            |
| Total heating capacity                                    | (3)(2)   | kW      | 43,20      | 47,70      | 55,60      | 65,40      | 71,10      | 80,50      | 92,70      |
| COP   | (3)(2)   | kW/kW   | 3,020      | 3,020      | 3,030      | 3,010      | 3,060      | 3,050      | 3,070      |
| Cooling energy class                                      |          |         | B          | B          | B          | B          | B          | B          | B          |
| <b>ENERGY EFFICIENCY</b>                                  |          |         |            |            |            |            |            |            |            |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |          |         |            |            |            |            |            |            |            |
| <b>Ambient refrigeration</b>                              |          |         |            |            |            |            |            |            |            |
| Prated,c  | (10)     | kW      | -          | -          | -          | -          | -          | -          | -          |
| SEER  | (10)(11) |         | -          | -          | -          | -          | -          | -          | -          |
| Performance ηs  | (10)(12) | %       | -          | -          | -          | -          | -          | -          | -          |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |          |         |            |            |            |            |            |            |            |
| PDesign   | (4)      | kW      | 31,0       | 34,3       | 42,1       | 47,9       | 51,8       | 59,1       | 72,2       |
| SCOP  | (4)(13)  |         | 3,42       | 3,42       | 3,55       | 3,40       | 3,44       | 3,42       | 3,55       |
| Performance ηs  | (4)(14)  | %       | 134        | 134        | 139        | 133        | 135        | 134        | 139        |
| Seasonal efficiency class                                 | (15)     |         | A+         | A+         | A+         | A+         | A+         | A+         | -          |
| <b>EXCHANGERS</b>   |          |         |            |            |            |            |            |            |            |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |          |         |            |            |            |            |            |            |            |
| Water flow  | (1)      | l/s     | 1,853      | 2,093      | 2,440      | 2,790      | 3,091      | 3,544      | 4,036      |
| Pressure drop   | (1)      | kPa     | 35,4       | 33,3       | 35,0       | 32,8       | 32,8       | 30,9       | 49,2       |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |          |         |            |            |            |            |            |            |            |
| Water flow  | (3)      | l/s     | 2,072      | 2,287      | 2,671      | 3,139      | 3,412      | 3,865      | 4,448      |
| Pressure drop   | (3)      | kPa     | 44,2       | 39,8       | 42,0       | 41,5       | 40,0       | 36,8       | 59,7       |
| <b>REFRIGERANT CIRCUIT</b>                                |          |         |            |            |            |            |            |            |            |
| Compressors nr.   |          | N°      | 2          | 2          | 2          | 2          | 2          | 2          | 2          |
| No. Circuits  |          | N°      | 1          | 1          | 1          | 1          | 1          | 1          | 1          |
| Refrigerant charge  |          | kg      | 12,0       | 13,3       | 15,6       | 17,1       | 17,2       | 18,1       | 26,0       |
| <b>NOISE LEVEL</b>  |          |         |            |            |            |            |            |            |            |
| Sound Pressure  | (5)      | dB(A)   | 67         | 67         | 67         | 67         | 67         | 67         | 68         |
| Sound power level in cooling                              | (6)(7)   | dB(A)   | 84         | 84         | 84         | 85         | 85         | 85         | 86         |
| Sound power level in heating                              | (6)(8)   | dB(A)   | 84         | 84         | 84         | 85         | 85         | 85         | 86         |
| <b>SIZE AND WEIGHT</b>                                    |          |         |            |            |            |            |            |            |            |
| Operating weight  | (9)      | kg      | 510        | 550        | 570        | 640        | 650        | 660        | 790        |
| A   | (9)      | mm      | 1825       | 1825       | 1825       | 2395       | 2395       | 2395       | 2395       |
| B   | (9)      | mm      | 1195       | 1195       | 1195       | 1195       | 1195       | 1195       | 1195       |
| H   | (9)      | mm      | 1865       | 1865       | 1865       | 1865       | 1865       | 1865       | 1865       |

#### Notes

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Sound power level in heating, outdoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency
- Energy efficiency class referred to LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 811/2013]

The units highlighted in this publication contain HFC R410A [GWP<sub>100</sub> 2088] fluorinated greenhouse gases.  
Certified data in EUROVENT

| NX-N /K   |              | 0402P    | 0452P    | 0502P    | 0552P    | 0602P    | 0702P    | 0802P    |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| Power supply  | V/ph/Hz      | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| <b>PERFORMANCE</b>  |              |          |          |          |          |          |          |          |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1) kW       | 100,2    | 112,5    | 125,0    | 138,2    | 161,9    | 179,7    | 198,8    |
| Total power input   | (1) kW       | 35,65    | 40,65    | 45,16    | 52,25    | 58,23    | 67,64    | 77,66    |
| EER   | (1) kW/kW    | 2,807    | 2,764    | 2,765    | 2,642    | 2,782    | 2,658    | 2,559    |
| ESEER   | (1) kW/kW    | 3,730    | 3,820    | 3,870    | 3,870    | 3,780    | 3,800    | 3,690    |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 99,60    | 111,9    | 124,4    | 137,5    | 161,1    | 178,9    | 197,8    |
| EER   | (1)(2) kW/kW | 2,740    | 2,710    | 2,720    | 2,590    | 2,730    | 2,620    | 2,510    |
| ESEER   | (1)(2) kW/kW | 3,580    | 3,670    | 3,740    | 3,720    | 3,650    | 3,670    | 3,560    |
| Cooling energy class                                      |              | C        | C        | C        | D        | C        | D        | D        |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3) kW       | 108,3    | 119,5    | 133,9    | 150,1    | 174,6    | 193,2    | 211,4    |
| Total power input   | (3) kW       | 35,52    | 39,23    | 42,92    | 48,57    | 57,01    | 63,19    | 69,48    |
| COP   | (3) kW/kW    | 3,051    | 3,048    | 3,121    | 3,088    | 3,063    | 3,057    | 3,042    |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3)(2) kW    | 109,0    | 120,2    | 134,7    | 150,9    | 175,5    | 194,1    | 212,6    |
| COP   | (3)(2) kW/kW | 3,010    | 3,010    | 3,080    | 3,050    | 3,030    | 3,030    | 3,010    |
| Cooling energy class                                      |              | B        | B        | B        | B        | B        | B        | B        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>Ambient refrigeration</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (10) kW      | -        | -        | -        | -        | -        | -        | -        |
| SEER  | (10)(11)     | -        | -        | -        | -        | -        | -        | -        |
| Performance ηs  | (10)(12) %   | -        | -        | -        | -        | -        | -        | -        |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |              |          |          |          |          |          |          |          |
| PDesign   | (4) kW       | 80,1     | 92,5     | 103      | 119      | 133      | 157      | 183      |
| SCOP  | (4)(13)      | 3,22     | 3,23     | 3,26     | 3,36     | 3,24     | 3,28     | 3,22     |
| Performance ηs  | (4)(14) %    | 126      | 126      | 127      | 131      | 126      | 128      | 126      |
| Seasonal efficiency class                                 | (15)         | -        | -        | -        | -        | -        | -        | -        |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 4,790    | 5,381    | 5,977    | 6,611    | 7,740    | 8,594    | 9,506    |
| Pressure drop   | (1) kPa      | 48,2     | 49,5     | 47,2     | 47,9     | 47,0     | 44,8     | 54,8     |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |              |          |          |          |          |          |          |          |
| Water flow  | (3) l/s      | 5,226    | 5,767    | 6,465    | 7,244    | 8,426    | 9,328    | 10,20    |
| Pressure drop   | (3) kPa      | 57,3     | 56,9     | 55,3     | 57,5     | 55,8     | 52,8     | 63,2     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| No. Circuits  | N°           | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
| Refrigerant charge  | kg           | 30,5     | 35,1     | 46,8     | 47,2     | 48,9     | 50,4     | 52,8     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (5) dB(A)    | 70       | 70       | 70       | 72       | 71       | 71       | 72       |
| Sound power level in cooling                              | (6)(7) dB(A) | 88       | 88       | 88       | 90       | 90       | 90       | 91       |
| Sound power level in heating                              | (6)(8) dB(A) | 88       | 88       | 88       | 90       | 90       | 90       | 91       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| Operating weight  | (9) kg       | 970      | 1020     | 1150     | 1210     | 1330     | 1360     | 1380     |
| A   | (9) mm       | 2825     | 2825     | 3360     | 3360     | 3980     | 3980     | 3980     |
| B   | (9) mm       | 1195     | 1195     | 1195     | 1195     | 1195     | 1195     | 1195     |
| H   | (9) mm       | 1980     | 1980     | 1980     | 1980     | 1980     | 1980     | 1980     |

**Notes**

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Sound power level in heating, outdoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency
- Energy efficiency class referred to LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 811/2013]

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| NX-N /LN-K  |          | 0152P  | 0182P | 0202P | 0252P | 0262P | 0302P | 0352P |       |
|---|----------|--|-------|-------|-------|-------|-------|-------|-------|
| Power supply  |          | V/ph/Hz 400/3+N/50 400/3+N/50 400/3+N/50 400/3+N/50 400/3+N/50 400/3+N/50 400/3+N/50 |       |       |       |       |       |       |       |
| <b>PERFORMANCE</b>  |          |  |       |       |       |       |       |       |       |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |          |  |       |       |       |       |       |       |       |
| Cooling capacity  | (1)      | kW   | 35,79 | 39,83 | 46,78 | 53,44 | 60,38 | 69,88 | 77,90 |
| Total power input   | (1)      | kW   | 15,18 | 17,57 | 19,87 | 22,43 | 25,78 | 29,89 | 34,94 |
| EER   | (1)      | kW/kW  | 2,355 | 2,261 | 2,352 | 2,384 | 2,341 | 2,338 | 2,232 |
| ESEER   | (1)      | kW/kW  | 3,910 | 3,750 | 4,070 | 3,820 | 3,840 | 3,850 | 3,920 |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |          |  |       |       |       |       |       |       |       |
| Cooling capacity  | (1)(2)   | kW   | 35,60 | 39,60 | 46,60 | 53,10 | 60,10 | 69,60 | 77,50 |
| EER   | (1)(2)   | kW/kW  | 2,310 | 2,220 | 2,320 | 2,350 | 2,300 | 2,300 | 2,200 |
| ESEER   | (1)(2)   | kW/kW  | 3,750 | 3,620 | 3,910 | 3,680 | 3,710 | 3,720 | 3,770 |
| Cooling energy class                                      |          |  | E     | F     | E     | E     | E     | E     | F     |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |          |  |       |       |       |       |       |       |       |
| Total heating capacity                                    | (3)      | kW   | 42,92 | 47,38 | 55,34 | 65,03 | 70,69 | 80,07 | 92,14 |
| Total power input   | (3)      | kW   | 14,03 | 15,46 | 18,04 | 21,30 | 22,78 | 25,97 | 29,56 |
| COP   | (3)      | kW/kW  | 3,064 | 3,058 | 3,072 | 3,052 | 3,101 | 3,081 | 3,111 |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |          |  |       |       |       |       |       |       |       |
| Total heating capacity                                    | (3)(2)   | kW   | 43,20 | 47,70 | 55,60 | 65,40 | 71,10 | 80,50 | 92,70 |
| COP   | (3)(2)   | kW/kW  | 3,020 | 3,020 | 3,030 | 3,010 | 3,060 | 3,050 | 3,070 |
| Cooling energy class                                      |          |  | B     | B     | B     | B     | B     | B     | B     |
| <b>ENERGY EFFICIENCY</b>                                  |          |  |       |       |       |       |       |       |       |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |          |  |       |       |       |       |       |       |       |
| <b>Ambient refrigeration</b>                              |          |  |       |       |       |       |       |       |       |
| Prated,c  | (10)     | kW   | -     | -     | -     | -     | -     | -     | -     |
| SEER  | (10)(11) |  | -     | -     | -     | -     | -     | -     | -     |
| Performance ηs  | (10)(12) | %  | -     | -     | -     | -     | -     | -     | -     |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |          |  |       |       |       |       |       |       |       |
| PDesign   | (4)      | kW   | 31,0  | 34,3  | 42,1  | 47,9  | 51,8  | 59,1  | 72,2  |
| SCOP  | (4)(13)  |  | 3,42  | 3,42  | 3,55  | 3,40  | 3,44  | 3,42  | 3,55  |
| Performance ηs  | (4)(14)  | %  | 134   | 134   | 139   | 133   | 135   | 134   | 139   |
| Seasonal efficiency class                                 | (15)     |  | A+    | A+    | A+    | A+    | A+    | A+    | -     |
| <b>EXCHANGERS</b>   |          |  |       |       |       |       |       |       |       |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |          |  |       |       |       |       |       |       |       |
| Water flow  | (1)      | l/s  | 1,712 | 1,905 | 2,237 | 2,556 | 2,887 | 3,342 | 3,725 |
| Pressure drop   | (1)      | kPa  | 30,2  | 27,6  | 29,4  | 27,5  | 28,6  | 27,5  | 41,9  |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |          |  |       |       |       |       |       |       |       |
| Water flow  | (3)      | l/s  | 2,072 | 2,287 | 2,671 | 3,139 | 3,412 | 3,865 | 4,448 |
| Pressure drop   | (3)      | kPa  | 44,2  | 39,8  | 42,0  | 41,5  | 40,0  | 36,8  | 59,7  |
| <b>REFRIGERANT CIRCUIT</b>                                |          |  |       |       |       |       |       |       |       |
| Compressors nr.   |          | N°   | 2     | 2     | 2     | 2     | 2     | 2     | 2     |
| No. Circuits  |          | N°   | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Refrigerant charge  |          | kg   | 12,0  | 13,3  | 15,6  | 17,1  | 17,2  | 18,1  | 26,0  |
| <b>NOISE LEVEL</b>  |          |  |       |       |       |       |       |       |       |
| Sound Pressure  | (5)      | dB(A)  | 60    | 60    | 60    | 60    | 61    | 62    | 64    |
| Sound power level in cooling                              | (6)(7)   | dB(A)  | 77    | 77    | 77    | 78    | 79    | 80    | 82    |
| Sound power level in heating                              | (6)(8)   | dB(A)  | 78    | 78    | 78    | 79    | 80    | 81    | 83    |
| <b>SIZE AND WEIGHT</b>                                    |          |  |       |       |       |       |       |       |       |
| Operating weight  | (9)      | kg   | 510   | 560   | 580   | 650   | 660   | 670   | 800   |
| A   | (9)      | mm   | 1825  | 1825  | 1825  | 2395  | 2395  | 2395  | 2395  |
| B   | (9)      | mm   | 1195  | 1195  | 1195  | 1195  | 1195  | 1195  | 1195  |
| H   | (9)      | mm   | 1865  | 1865  | 1865  | 1865  | 1865  | 1865  | 1865  |

#### Notes

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Sound power level in heating, outdoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency
- Energy efficiency class referred to LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 811/2013]

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Certified data in EUROVENT

| NX-N /LN-K  |              | 0402P    | 0452P    | 0502P    | 0552P    | 0602P    | 0702P    | 0802P    |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| Power supply  | V/ph/Hz      | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| <b>PERFORMANCE</b>  |              |          |          |          |          |          |          |          |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1) kW       | 94,49    | 103,6    | 113,9    | 131,6    | 154,3    | 168,3    | 179,5    |
| Total power input   | (1) kW       | 36,72    | 42,46    | 47,78    | 54,13    | 60,50    | 71,63    | 83,80    |
| EER   | (1) kW/kW    | 2,575    | 2,438    | 2,383    | 2,433    | 2,550    | 2,351    | 2,142    |
| ESEER   | (1) kW/kW    | 3,890    | 3,890    | 3,850    | 3,990    | 3,960    | 3,910    | 3,620    |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 94,00    | 103,1    | 113,4    | 131,0    | 153,6    | 167,6    | 178,7    |
| EER   | (1)(2) kW/kW | 2,530    | 2,400    | 2,350    | 2,390    | 2,510    | 2,320    | 2,110    |
| ESEER   | (1)(2) kW/kW | 3,750    | 3,750    | 3,730    | 3,850    | 3,820    | 3,780    | 3,500    |
| Cooling energy class                                      |              | D        | E        | E        | E        | D        | E        | F        |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3) kW       | 108,3    | 119,5    | 133,9    | 150,1    | 174,6    | 193,2    | 211,4    |
| Total power input   | (3) kW       | 35,52    | 39,23    | 42,92    | 48,57    | 57,01    | 63,19    | 69,48    |
| COP   | (3) kW/kW    | 3,051    | 3,048    | 3,121    | 3,088    | 3,063    | 3,057    | 3,042    |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3)(2) kW    | 109,0    | 120,2    | 134,7    | 150,9    | 175,5    | 194,1    | 212,6    |
| COP   | (3)(2) kW/kW | 3,010    | 3,010    | 3,080    | 3,050    | 3,030    | 3,030    | 3,010    |
| Cooling energy class                                      |              | B        | B        | B        | B        | B        | B        | B        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>Ambient refrigeration</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (10) kW      | -        | -        | -        | -        | -        | -        | -        |
| SEER  | (10)(11)     | -        | -        | -        | -        | -        | -        | -        |
| Performance ηs  | (10)(12) %   | -        | -        | -        | -        | -        | -        | -        |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |              |          |          |          |          |          |          |          |
| PDesign   | (4) kW       | 80,1     | 92,5     | 103      | 119      | 133      | 157      | 183      |
| SCOP  | (4)(13)      | 3,31     | 3,41     | 3,46     | 3,51     | 3,41     | 3,48     | 3,38     |
| Performance ηs  | (4)(14) %    | 130      | 133      | 136      | 137      | 134      | 136      | 132      |
| Seasonal efficiency class                                 | (15)         | -        | -        | -        | -        | -        | -        | -        |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 4,519    | 4,955    | 5,447    | 6,294    | 7,379    | 8,047    | 8,586    |
| Pressure drop   | (1) kPa      | 42,9     | 42,0     | 39,2     | 43,4     | 42,8     | 39,3     | 44,7     |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |              |          |          |          |          |          |          |          |
| Water flow  | (3) l/s      | 5,226    | 5,767    | 6,465    | 7,244    | 8,426    | 9,328    | 10,20    |
| Pressure drop   | (3) kPa      | 57,3     | 56,9     | 55,3     | 57,5     | 55,8     | 52,8     | 63,2     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| No. Circuits  | N°           | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
| Refrigerant charge  | kg           | 30,5     | 35,1     | 46,8     | 47,2     | 48,9     | 50,4     | 52,8     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (5) dB(A)    | 65       | 65       | 65       | 66       | 65       | 65       | 67       |
| Sound power level in cooling                              | (6)(7) dB(A) | 83       | 83       | 83       | 84       | 84       | 84       | 86       |
| Sound power level in heating                              | (6)(8) dB(A) | 84       | 84       | 84       | 85       | 85       | 85       | 87       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| Operating weight  | (9) kg       | 1010     | 1100     | 1200     | 1250     | 1360     | 1410     | 1430     |
| A   | (9) mm       | 2825     | 2825     | 3360     | 3360     | 3980     | 3980     | 3980     |
| B   | (9) mm       | 1195     | 1195     | 1195     | 1195     | 1195     | 1195     | 1195     |
| H   | (9) mm       | 1980     | 1980     | 1980     | 1980     | 1980     | 1980     | 1980     |

**Notes**

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Sound power level in heating, outdoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency
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| NX-N /CA  |          | 0152P   | 0182P      | 0202P      | 0252P      | 0262P      | 0302P    | 0352P    |       |
|---|----------|---------|------------|------------|------------|------------|----------|----------|-------|
| Power supply  |          | V/ph/Hz | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3/50 | 400/3/50 |       |
| <b>PERFORMANCE</b>  |          |         |            |            |            |            |          |          |       |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |          |         |            |            |            |            |          |          |       |
| Cooling capacity  | (1)      | kW      | 40,00      | 45,28      | 51,24      | 59,61      | 66,85    | 80,91    | 91,97 |
| Total power input   | (1)      | kW      | 13,05      | 14,98      | 18,03      | 19,90      | 22,45    | 27,02    | 30,81 |
| EER   | (1)      | kW/kW   | 3,077      | 3,020      | 2,844      | 2,995      | 2,969    | 2,996    | 2,987 |
| ESEER   | (1)      | kW/kW   | 4,190      | 4,240      | 4,220      | 4,050      | 4,120    | 4,010    | 4,120 |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |          |         |            |            |            |            |          |          |       |
| Cooling capacity  | (1)(2)   | kW      | 39,70      | 45,00      | 50,90      | 59,30      | 66,50    | 80,50    | 91,40 |
| EER   | (1)(2)   | kW/kW   | 3,000      | 2,950      | 2,780      | 2,940      | 2,920    | 2,940    | 2,910 |
| ESEER   | (1)(2)   | kW/kW   | 3,970      | 4,030      | 4,030      | 3,880      | 3,960    | 3,850    | 3,890 |
| Cooling energy class                                      |          |         | B          | B          | C          | B          | B        | B        | B     |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |          |         |            |            |            |            |          |          |       |
| Total heating capacity                                    | (3)      | kW      | 46,11      | 50,95      | 59,03      | 69,51      | 74,54    | 86,77    | 98,61 |
| Total power input   | (3)      | kW      | 14,11      | 15,52      | 18,10      | 21,35      | 22,90    | 26,67    | 30,27 |
| COP   | (3)      | kW/kW   | 3,270      | 3,290      | 3,260      | 3,263      | 3,253    | 3,251    | 3,254 |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |          |         |            |            |            |            |          |          |       |
| Total heating capacity                                    | (3)(2)   | kW      | 46,40      | 51,30      | 59,40      | 69,90      | 74,90    | 87,30    | 99,30 |
| COP   | (3)(2)   | kW/kW   | 3,210      | 3,240      | 3,210      | 3,220      | 3,210    | 3,210    | 3,200 |
| Cooling energy class                                      |          |         | A          | A          | A          | A          | A        | A        | A     |
| <b>ENERGY EFFICIENCY</b>                                  |          |         |            |            |            |            |          |          |       |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |          |         |            |            |            |            |          |          |       |
| <b>Ambient refrigeration</b>                              |          |         |            |            |            |            |          |          |       |
| Prated,c  | (10)     | kW      | -          | -          | -          | -          | -        | -        | -     |
| SEER  | (10)(11) |         | -          | -          | -          | -          | -        | -        | -     |
| Performance ηs  | (10)(12) | %       | -          | -          | -          | -          | -        | -        | -     |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |          |         |            |            |            |            |          |          |       |
| PDesign   | (4)      | kW      | 33,5       | 37,2       | 43,9       | 51,5       | 55,6     | 64,9     | 73,1  |
| SCOP  | (4)(13)  |         | 3,77       | 3,77       | 3,89       | 3,76       | 3,76     | 3,55     | 3,56  |
| Performance ηs  | (4)(14)  | %       | 148        | 148        | 153        | 147        | 147      | 139      | 140   |
| Seasonal efficiency class                                 | (15)     |         | A+         | A+         | A++        | A+         | A+       | A+       | -     |
| <b>EXCHANGERS</b>   |          |         |            |            |            |            |          |          |       |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |          |         |            |            |            |            |          |          |       |
| Water flow  | (1)      | l/s     | 1,913      | 2,165      | 2,450      | 2,851      | 3,197    | 3,869    | 4,398 |
| Pressure drop   | (1)      | kPa     | 37,7       | 35,7       | 35,3       | 34,2       | 35,1     | 36,9     | 58,4  |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |          |         |            |            |            |            |          |          |       |
| Water flow  | (3)      | l/s     | 2,226      | 2,459      | 2,849      | 3,355      | 3,598    | 4,189    | 4,760 |
| Pressure drop   | (3)      | kPa     | 51,0       | 46,0       | 47,8       | 47,4       | 44,5     | 43,2     | 68,4  |
| <b>REFRIGERANT CIRCUIT</b>                                |          |         |            |            |            |            |          |          |       |
| Compressors nr.   |          | N°      | 2          | 2          | 2          | 2          | 2        | 2        | 2     |
| No. Circuits  |          | N°      | 1          | 1          | 1          | 1          | 1        | 1        | 1     |
| Refrigerant charge  |          | kg      | 14,3       | 15,0       | 15,0       | 16,5       | 16,9     | 20,0     | 27,6  |
| <b>NOISE LEVEL</b>  |          |         |            |            |            |            |          |          |       |
| Sound Pressure  | (5)      | dB(A)   | 66         | 66         | 66         | 67         | 67       | 70       | 70    |
| Sound power level in cooling                              | (6)(7)   | dB(A)   | 84         | 84         | 84         | 85         | 85       | 88       | 88    |
| Sound power level in heating                              | (6)(8)   | dB(A)   | 84         | 84         | 84         | 85         | 85       | 88       | 88    |
| <b>SIZE AND WEIGHT</b>                                    |          |         |            |            |            |            |          |          |       |
| Operating weight  | (9)      | kg      | 590        | 640        | 640        | 670        | 670      | 800      | 990   |
| A   | (9)      | mm      | 2395       | 2395       | 2395       | 2395       | 2395     | 2825     | 3360  |
| B   | (9)      | mm      | 1195       | 1195       | 1195       | 1195       | 1195     | 1195     | 1195  |
| H   | (9)      | mm      | 1865       | 1865       | 1865       | 1865       | 1865     | 1980     | 1980  |

#### Notes

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The units highlighted in this publication contain HFC R410A [GWP<sub>100</sub> 2088] fluorinated greenhouse gases.  
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| NX-N /CA  |              | 0402P    | 0452P    | 0502P    | 0562P    | 0612P    | 0712P    | 0812P    |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| Power supply  | V/ph/Hz      | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| <b>PERFORMANCE</b>  |              |          |          |          |          |          |          |          |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1) kW       | 102,2    | 116,2    | 130,9    | 152,5    | 169,7    | 197,7    | 219,5    |
| Total power input   | (1) kW       | 34,37    | 39,11    | 43,52    | 51,30    | 56,48    | 66,46    | 72,23    |
| EER   | (1) kW/kW    | 2,971    | 2,972    | 3,009    | 2,973    | 3,004    | 2,973    | 3,040    |
| ESEER   | (1) kW/kW    | 4,130    | 4,170    | 4,050    | 4,040    | 4,050    | 3,930    | 3,860    |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 101,6    | 115,5    | 130,2    | 151,6    | 168,8    | 196,7    | 218,3    |
| EER   | (1)(2) kW/kW | 2,900    | 2,900    | 2,950    | 2,900    | 2,940    | 2,910    | 2,970    |
| ESEER   | (1)(2) kW/kW | 3,940    | 3,960    | 3,880    | 3,840    | 3,890    | 3,770    | 3,700    |
| Cooling energy class                                      |              | B        | B        | B        | B        | B        | B        | B        |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3) kW       | 110,4    | 122,2    | 138,2    | 161,4    | 180,6    | 209,2    | 232,2    |
| Total power input   | (3) kW       | 33,87    | 37,61    | 42,39    | 49,67    | 55,59    | 64,39    | 71,18    |
| COP   | (3) kW/kW    | 3,257    | 3,250    | 3,259    | 3,247    | 3,248    | 3,248    | 3,261    |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3)(2) kW    | 111,1    | 123,0    | 139,0    | 162,4    | 181,6    | 210,3    | 233,7    |
| COP   | (3)(2) kW/kW | 3,210    | 3,200    | 3,220    | 3,200    | 3,210    | 3,210    | 3,210    |
| Cooling energy class                                      |              | A        | A        | A        | A        | A        | A        | A        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>Ambient refrigeration</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (10) kW      | -        | -        | -        | -        | -        | -        | -        |
| SEER  | (10)(11)     | -        | -        | -        | -        | -        | -        | -        |
| Performance ηs  | (10)(12) %   | -        | -        | -        | -        | -        | -        | -        |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |              |          |          |          |          |          |          |          |
| PDesign   | (4) kW       | 81,1     | 92,2     | 104      | 115      | 134      | 154      | 179      |
| SCOP  | (4)(13)      | 3,58     | 3,65     | 3,56     | 3,45     | 3,55     | 3,39     | 3,34     |
| Performance ηs  | (4)(14) %    | 140      | 143      | 139      | 135      | 139      | 133      | 131      |
| Seasonal efficiency class                                 | (15)         | -        | -        | -        | -        | -        | -        | -        |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 4,885    | 5,558    | 6,260    | 7,294    | 8,117    | 9,453    | 10,50    |
| Pressure drop   | (1) kPa      | 50,1     | 52,8     | 51,8     | 58,3     | 51,7     | 54,2     | 66,8     |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |              |          |          |          |          |          |          |          |
| Water flow  | (3) l/s      | 5,328    | 5,898    | 6,670    | 7,791    | 8,719    | 10,10    | 11,21    |
| Pressure drop   | (3) kPa      | 59,6     | 59,5     | 58,8     | 66,5     | 59,7     | 61,9     | 76,2     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| No. Circuits  | N°           | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
| Refrigerant charge  | kg           | 31,3     | 33,6     | 38,5     | 46,3     | 54,1     | 60,3     | 70,9     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (5) dB(A)    | 71       | 71       | 71       | 71       | 71       | 72       | 73       |
| Sound power level in cooling                              | (6)(7) dB(A) | 89       | 89       | 90       | 91       | 91       | 92       | 93       |
| Sound power level in heating                              | (6)(8) dB(A) | 89       | 89       | 90       | 91       | 91       | 92       | 93       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| Operating weight  | (9) kg       | 1120     | 1170     | 1290     | 1790     | 1890     | 2150     | 2260     |
| A   | (9) mm       | 3360     | 3360     | 3980     | 4110     | 4110     | 5110     | 5110     |
| B   | (9) mm       | 1195     | 1195     | 1195     | 2220     | 2220     | 2220     | 2220     |
| H   | (9) mm       | 1980     | 1980     | 1980     | 2150     | 2150     | 2150     | 2150     |

**Notes**

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511
- Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
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- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
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- Sound power level in cooling, outdoors.
- Sound power level in heating, outdoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency
- Energy efficiency class referred to LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 811/2013]

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| NX-N /LN-CA   |          | 0152P      | 0182P      | 0202P      | 0252P      | 0262P      | 0302P    | 0352P    |       |
|---|----------|------------|------------|------------|------------|------------|----------|----------|-------|
| Power supply  | V/ph/Hz  | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3/50 | 400/3/50 |       |
| <b>PERFORMANCE</b>  |          |            |            |            |            |            |          |          |       |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |          |            |            |            |            |            |          |          |       |
| Cooling capacity  | (1)      | kW         | 36,27      | 40,93      | 47,54      | 54,33      | 59,83    | 79,38    | 87,12 |
| Total power input   | (1)      | kW         | 14,64      | 16,94      | 19,49      | 21,98      | 25,21    | 26,81    | 31,17 |
| EER   | (1)      | kW/kW      | 2,486      | 2,420      | 2,436      | 2,468      | 2,373    | 2,963    | 2,792 |
| ESEER   | (1)      | kW/kW      | 3,980      | 3,900      | 4,140      | 3,890      | 3,830    | 4,120    | 4,080 |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |          |            |            |            |            |            |          |          |       |
| Cooling capacity  | (1)(2)   | kW         | 36,10      | 40,70      | 47,30      | 54,00      | 59,50    | 79,00    | 86,60 |
| EER   | (1)(2)   | kW/kW      | 2,440      | 2,380      | 2,400      | 2,430      | 2,330    | 2,900    | 2,730 |
| ESEER   | (1)(2)   | kW/kW      | 3,810      | 3,760      | 3,970      | 3,750      | 3,700    | 3,960    | 3,880 |
| Cooling energy class                                      |          |            | E          | E          | E          | E          | E        | B        | C     |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |          |            |            |            |            |            |          |          |       |
| Total heating capacity                                    | (3)      | kW         | 46,11      | 50,95      | 59,03      | 69,51      | 74,54    | 86,77    | 98,61 |
| Total power input   | (3)      | kW         | 14,11      | 15,52      | 18,10      | 21,35      | 22,90    | 26,67    | 30,27 |
| COP   | (3)      | kW/kW      | 3,270      | 3,290      | 3,260      | 3,263      | 3,253    | 3,251    | 3,254 |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |          |            |            |            |            |            |          |          |       |
| Total heating capacity                                    | (3)(2)   | kW         | 46,40      | 51,30      | 59,40      | 69,90      | 74,90    | 87,30    | 99,30 |
| COP   | (3)(2)   | kW/kW      | 3,210      | 3,240      | 3,210      | 3,220      | 3,210    | 3,210    | 3,200 |
| Cooling energy class                                      |          |            | A          | A          | A          | A          | A        | A        | A     |
| <b>ENERGY EFFICIENCY</b>                                  |          |            |            |            |            |            |          |          |       |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |          |            |            |            |            |            |          |          |       |
| <b>Ambient refrigeration</b>                              |          |            |            |            |            |            |          |          |       |
| Prated,c  | (10)     | kW         | -          | -          | -          | -          | -        | -        | -     |
| SEER  | (10)(11) |            | -          | -          | -          | -          | -        | -        | -     |
| Performance ηs  | (10)(12) | %          | -          | -          | -          | -          | -        | -        | -     |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |          |            |            |            |            |            |          |          |       |
| PDesign   | (4)      | kW         | 33,5       | 37,2       | 43,9       | 51,5       | 55,6     | 64,9     | 73,1  |
| SCOP  | (4)(13)  |            | 3,77       | 3,77       | 3,89       | 3,76       | 3,76     | 3,55     | 3,56  |
| Performance ηs  | (4)(14)  | %          | 148        | 148        | 153        | 147        | 147      | 139      | 140   |
| Seasonal efficiency class                                 | (15)     |            | A+         | A+         | A++        | A+         | A+       | A+       | -     |
| <b>EXCHANGERS</b>   |          |            |            |            |            |            |          |          |       |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |          |            |            |            |            |            |          |          |       |
| Water flow  | (1)      | l/s        | 1,734      | 1,957      | 2,274      | 2,598      | 2,861    | 3,796    | 4,166 |
| Pressure drop   | (1)      | kPa        | 31,0       | 29,1       | 30,4       | 28,4       | 28,1     | 35,5     | 52,4  |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |          |            |            |            |            |            |          |          |       |
| Water flow  | (3)      | l/s        | 2,226      | 2,459      | 2,849      | 3,355      | 3,598    | 4,189    | 4,760 |
| Pressure drop   | (3)      | kPa        | 51,0       | 46,0       | 47,8       | 47,4       | 44,5     | 43,2     | 68,4  |
| <b>REFRIGERANT CIRCUIT</b>                                |          |            |            |            |            |            |          |          |       |
| Compressors nr.   |          | N°         | 2          | 2          | 2          | 2          | 2        | 2        | 2     |
| No. Circuits  |          | N°         | 1          | 1          | 1          | 1          | 1        | 1        | 1     |
| Refrigerant charge  |          | kg         | 14,3       | 15,0       | 15,0       | 16,5       | 16,9     | 20,0     | 27,6  |
| <b>NOISE LEVEL</b>  |          |            |            |            |            |            |          |          |       |
| Sound Pressure  | (5)      | dB(A)      | 59         | 59         | 59         | 60         | 61       | 64       | 65    |
| Sound power level in cooling                              | (6)(7)   | dB(A)      | 77         | 77         | 77         | 78         | 79       | 82       | 83    |
| Sound power level in heating                              | (6)(8)   | dB(A)      | 78         | 78         | 78         | 79         | 80       | 83       | 84    |
| <b>SIZE AND WEIGHT</b>                                    |          |            |            |            |            |            |          |          |       |
| Operating weight  | (9)      | kg         | 600        | 640        | 650        | 710        | 720      | 840      | 1000  |
| A   | (9)      | mm         | 2395       | 2395       | 2395       | 2395       | 2395     | 2825     | 3360  |
| B   | (9)      | mm         | 1195       | 1195       | 1195       | 1195       | 1195     | 1195     | 1195  |
| H   | (9)      | mm         | 1865       | 1865       | 1865       | 1865       | 1865     | 1980     | 1980  |

#### Notes

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| NX-N /LN-CA   |              | 0402P    | 0452P    | 0502P    | 0562P    | 0612P    | 0712P    | 0812P    |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| Power supply  | V/ph/Hz      | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| <b>PERFORMANCE</b>  |              |          |          |          |          |          |          |          |
| <b>COOLING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1) kW       | 98,99    | 109,9    | 124,9    | 144,3    | 165,3    | 188,9    | 212,4    |
| Total power input   | (1) kW       | 34,53    | 39,69    | 43,65    | 50,06    | 55,75    | 63,77    | 70,06    |
| EER   | (1) kW/kW    | 2,870    | 2,768    | 2,858    | 2,880    | 2,968    | 2,961    | 3,030    |
| ESEER   | (1) kW/kW    | 4,090    | 4,120    | 4,040    | 4,010    | 4,120    | 3,950    | 3,910    |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 98,40    | 109,3    | 124,3    | 143,5    | 164,5    | 188,0    | 211,3    |
| EER   | (1)(2) kW/kW | 2,800    | 2,710    | 2,810    | 2,820    | 2,910    | 2,910    | 2,970    |
| ESEER   | (1)(2) kW/kW | 3,900    | 3,930    | 3,890    | 3,820    | 3,970    | 3,800    | 3,760    |
| Cooling energy class                                      |              | C        | C        | C        | C        | B        | B        | B        |
| <b>HEATING ONLY (GROSS VALUE)</b>                         |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3) kW       | 110,4    | 122,2    | 138,2    | 161,4    | 180,6    | 209,2    | 232,2    |
| Total power input   | (3) kW       | 33,87    | 37,61    | 42,39    | 49,67    | 55,59    | 64,39    | 71,18    |
| COP   | (3) kW/kW    | 3,257    | 3,250    | 3,259    | 3,247    | 3,248    | 3,248    | 3,261    |
| <b>HEATING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Total heating capacity                                    | (3)(2) kW    | 111,1    | 123,0    | 139,0    | 162,4    | 181,6    | 210,3    | 233,7    |
| COP   | (3)(2) kW/kW | 3,210    | 3,200    | 3,220    | 3,200    | 3,210    | 3,210    | 3,210    |
| Cooling energy class                                      |              | A        | A        | A        | A        | A        | A        | A        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>Ambient refrigeration</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (10) kW      | -        | -        | -        | -        | -        | -        | -        |
| SEER  | (10)(11)     | -        | -        | -        | -        | -        | -        | -        |
| Performance ηs  | (10)(12) %   | -        | -        | -        | -        | -        | -        | -        |
| <b>SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)</b>  |              |          |          |          |          |          |          |          |
| PDesign   | (4) kW       | 81,1     | 92,2     | 104      | 115      | 134      | 154      | 179      |
| SCOP  | (4)(13)      | 3,58     | 3,65     | 3,56     | 3,45     | 3,55     | 3,39     | 3,34     |
| Performance ηs  | (4)(14) %    | 140      | 143      | 139      | 135      | 139      | 133      | 131      |
| Seasonal efficiency class                                 | (15)         | -        | -        | -        | -        | -        | -        | -        |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 4,734    | 5,256    | 5,971    | 6,900    | 7,906    | 9,034    | 10,16    |
| Pressure drop   | (1) kPa      | 47,0     | 47,3     | 47,1     | 52,1     | 49,1     | 49,5     | 62,6     |
| <b>HEAT EXCHANGER USER SIDE IN HEATING</b>                |              |          |          |          |          |          |          |          |
| Water flow  | (3) l/s      | 5,328    | 5,898    | 6,670    | 7,791    | 8,719    | 10,10    | 11,21    |
| Pressure drop   | (3) kPa      | 59,6     | 59,5     | 58,8     | 66,5     | 59,7     | 61,9     | 76,2     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| No. Circuits  | N°           | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
| Refrigerant charge  | kg           | 31,3     | 33,6     | 38,5     | 46,3     | 54,1     | 60,3     | 70,9     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (5) dB(A)    | 66       | 66       | 65       | 65       | 65       | 66       | 67       |
| Sound power level in cooling                              | (6)(7) dB(A) | 84       | 84       | 84       | 85       | 85       | 86       | 87       |
| Sound power level in heating                              | (6)(8) dB(A) | 85       | 85       | 85       | 86       | 86       | 87       | 88       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| Operating weight  | (9) kg       | 1130     | 1190     | 1300     | 1800     | 1900     | 2160     | 2270     |
| A   | (9) mm       | 3360     | 3360     | 3980     | 4110     | 4110     | 5110     | 5110     |
| B   | (9) mm       | 1195     | 1195     | 1195     | 2220     | 2220     | 2220     | 2220     |
| H   | (9) mm       | 1980     | 1980     | 1980     | 2150     | 2150     | 2150     | 2150     |

**Notes**

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**Dimensional drawing**

