

**MITSUBISHI ELECTRIC  
HYDRONICS & IT COOLING SYSTEMS S.p.A.**

COMFORT

CHILLERS

**NX<sup>2</sup>** G02 // G06

AIR COOLED CHILLERS  
FOR OUTDOOR INSTALLATION,  
FROM 379 TO 921 kW



# NX<sup>2</sup>-G02 // G06

**QUIETER. GREENER. COOLER.**



**Air cooled chillers with scroll compressors and low GWP refrigerant.  
From 379 to 921 kW.**

NX2-G02 and NX2-G06 are air cooled chillers with scroll compressors designed for delivering the best efficiencies in comfort applications.

Available with either R410A refrigerant or the low GWP R454B, the new range spans from units with four, five, six, and eight compressors in a multi-circuit configuration.

All the main hydraulic and mechanical components are integrated inside the unit, providing the ideal plug & play solution for HVAC plants.

The complete range is Eurovent certified and all the sizes are completely ErP2021 compliant.



## COMFORT APPLICATIONS

- ✓ Hotels
- ✓ Shopping centers
- ✓ Office buildings

- ✓ Museums
- ✓ Education centres
- ✓ Sport facilities

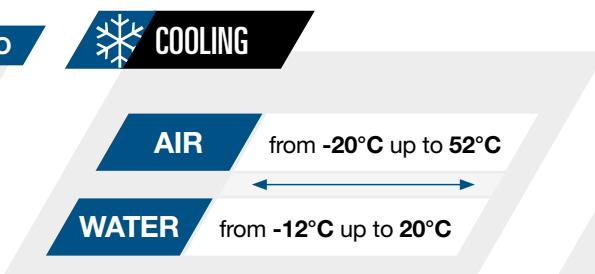
- ✓ Banks
- ✓ Institutions

## PREMIUM EFFICIENCIES IN COOLING

| COOLING                  |             | NX2-G06 Air cooled chillers |          |             |                    |
|--------------------------|-------------|-----------------------------|----------|-------------|--------------------|
| EER                      | SEER        | EER                         | SEER     | UP TO       |                    |
| <b>A</b>                 | <b>3,37</b> | <b>5,15</b>                 | <b>K</b> | <b>3,22</b> | <b>5,02</b>        |
| A ▶ Very high efficiency |             |                             |          |             | K ▶ Key efficiency |

EER: 12/7°C, air 35°C (EN14511 values)  
SEER: Regulation (EU) N. 2016/2281

## OPERATING RANGE



## 3 ACOUSTIC VERSIONS

|                             |  |
|-----------------------------|--|
| <b>Standard</b>             | Low sound power levels already in the standard version.  |
| <b>Acoustical Enclosure</b> | Additional compressor enclosures with sound-absorbing material, for even lower sound power levels. |
| <b>NR Kit</b>               | The highest level of noise reduction. No compromises in efficiency!                                |

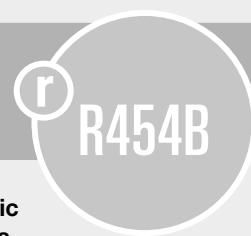
-2 dB(A)  
up to -9 dB(A)

## HEAT RECOVERY CONFIGURATIONS

|                              |   |      |
|------------------------------|---|------|
| <b>Standard unit</b>         | Unit without heat recovery.   | -    |
| <b>Partial heat recovery</b> | A desuperheater on the compressor discharge line recovers approximately 20% of the unit's capacity. | 60°C |

Suitable for DHW production or other secondary uses, such as the integration of an existing boiler.

## NEW GENERATION GREEN REFRIGERANT



Fully committed to support the creation of a greener tomorrow, Mitsubishi Electric Hydronics & IT Cooling Systems presents the G06 series, chillers and heat pumps with reduced environmental impact.

Thanks to the new generation refrigerant R454B, the environmental impact of NX2-G06 is greatly reduced. Combining reduced refrigerant charge with a low GWP refrigerant, these units boast the lowest amount of CO<sub>2</sub>eq in the scroll unit market, thus resulting as the perfect choice for any new forward looking installation.

### R454B REFRIGERANT

High density, low **GWP refrigerant**. Its physical properties are **similar to R410A**, so the same type of equipment / components can be used.

#### REDUCED ENVIRONMENTAL IMPACT

- ▶ Low GWP, only 467
- ▶ Reduced refrigerant charge (-10% vs R410A)

#### RELIABILITY

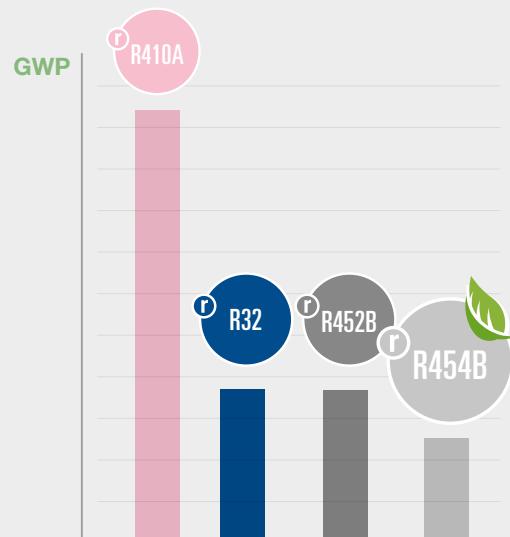
- ▶ Use of **well-known components**
- ▶ Refrigerant circuit **reliability** is maintained

#### PERFORMANCE & ENVELOPE

- ▶ Same operating limits of R410A both in **cooling** and **heating**
- ▶ Higher efficiency (full load +3,5%, seasonal +2% vs R410A)

**GWP: 467**

-76% vs R410A  
-31% vs R32



### HIGHER EFFICIENCY IN LESS SPACE



+11% COOLING CAPACITY  
+12% SEASONAL EFFICIENCY

The NX2 ranges have been designed to deliver increased cooling capacity and efficiencies compared to previous models, exceeding by far the most demanding efficiency thresholds.

The integrated hydronic modules guarantee simplified installation and time-saving commissioning. The result is a ready-to-be-installed solution.

### SUPER SILENT OPERATION



THE MOST SILENT SCROLL CHILLER ON THE MARKET

The NX2-G02 and NX2-G06 ranges have been designed for perfect acoustical well-being.

Thanks to a specific design, the NX2 version with NR Kit achieves the minimum sound level while maintaining the same performance and footprint as the standard acoustical version.

# TECHNOLOGICAL CHOICES

## W3000+ CONTROL

### Management software developed fully in-house

- ▶ Proprietary settings for faster adaptive responses to different dynamics
- ▶ Enhanced diagnostics thanks to the black box function
- ▶ Connectivity with the most commonly used BMS protocols and M-Net Mitsubishi Electric proprietary protocol (Opt.)

### Compact keyboard



- ▶ Large LCD display and functional keys
- ▶ Quick and easy parameter consultation and adjustment by means of a multi-level menu
- ▶ KIPlink, the innovative Wi-Fi interface, is available as an option.

### Patent-pending solution which optimizes the thermodynamic cycle



### New generation full aluminum micro-channel coils for cooling only chillers

- ▶ Long Life Alloy (LLA) for higher corrosion resistance and longer life cycle
- ▶ Up to 30% of refrigerant charge reduction vs. traditional solutions
- ▶ Lower weight vs. traditional solutions

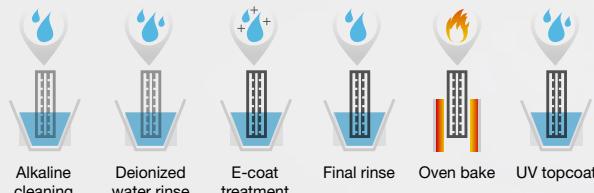


### AI- E-coating treatment (opt.)



- ✓ Excellent resistance to UV rays.
- ✓ over 6000 h resistance as per ASTM B117
- ✓ over 1000 h of surface protection against UV rays as per ASTM G155-05a

#### E-coating process



### R454B Refrigerant

High density, low GWP refrigerant

GWP: 467

-76% vs R410A  
-31% vs R32



- ▶ **Composition:**  
69% R32 + 31% R1234yf
- ▶ **Global Warming Potential:**  
467 (IPCC AR5)

#### Safety classification:

- A2L mildly flammable (ISO 817)
- Fluid Group 1 (PED)

## BEST-IN-CLASS TECHNOLOGICAL CHOICES FOR HIGH-LEVEL PERFORMANCE AND SUPER SILENT OPERATION.

### FANS

#### High performing, axial fans:

- ▶ External bell mouth for the highest efficiency and best-in-class sound power levels
- ▶ Variable Speed control as standard (DVVF), for large operating limits



#### UP TO +7% MORE SEASONAL EFFICIENCY



#### EC fans (opt. available for all versions)

- ▶ Continuous regulation of air flow
- ▶ Reduced power consumption and increased efficiencies at partial loads
- ▶ High ESP EC fan option for up to 150 Pa of available static pressure

### Shell&Tube heat exchanger

Dry expansion, single pass S&T evaporator, fully in-house developed.

- ▶ Internally grooved copper tubes
- ▶ Possibility of inspection and tubes cleaning
- ▶ Low pressure drops



### Scroll compressors

New generation scroll compressors, developed for the use of high density A2L refrigerants (Fluid Group 1 of PED Directive).



- ▶ Tandem or trio configuration to benefit from higher seasonal efficiency
- ▶ Specific oil management solution for enhanced reliability

### HYDRONIC MODULES

The **fully integrated hydronic module** (opt.) includes the pumps, the buffer tank, and all the main hydraulic components, which optimize of the installation space, time, and costs.

#### Pumps

- ▶ In-line configuration
- ▶ 2-pole motor
- ▶ Single or twin pumps
- ▶ Low or high head (approx. 100 or 200 kPa).

#### Pumps + Inverter

- ▶ External inverter to adjust the waterflow
- ▶ Reduced energy consumption through speed regulation
- ▶ Available flow control logics: Constant flow parameter-set, variable flow with VPF and VPF.D systems

#### Pumps + Buffer tank

- ▶ Up to 1000 liter buffer tank
- ▶ 20mm insulation lining
- ▶ Including: expansion vessel, safety valve, manometer.

# ACCESSORIES AND FURTHER OPTIONS

## KIPlink USER INTERFACE



An exclusive product of  
Mitsubishi Electric Hydronics & IT Cooling Systems.  
Based on Wi-Fi technology, KIPlink is an option that allows one to operate the unit directly from a mobile device (smartphone, tablet, or notebook) by simply scanning the QR code positioned on the unit.



## MAIN FEATURES



### Easier on-site operation

Monitor each component while moving around the unit for maintenance operations. View and change all parameters with easy-to-understand screenshots and dedicated tooltips. Get devoted “help” messages / for alarm reset and trouble shooting.



### Real-time graphs and trends

Monitor the immediate labor status of the compressors, heat exchangers, cooling circuits, and pumps. View the real-time graphs of the key operating variable trends.



### Data logger function

View history of events and use the filter for a simple search. Enhance diagnostics with data and graphs of 10 minutes before and after each alarm. Download all the data for detailed analysis.

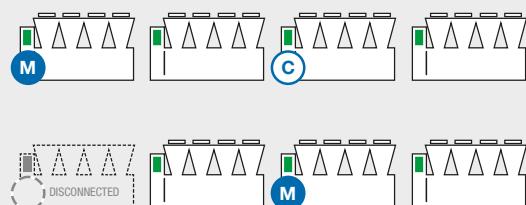
## SMART LAN FUNCTIONS

The NX2 ranges feature embedded LAN logics for an easy connection between a group of chillers.

- ▶ Up to 8 chillers connected to the same group.
- ▶ Load sharing and Sequencing logics for the smart distribution of cooling loads among the units.
- ▶ Selectable units' start-up sequence to avoid simultaneous start-ups of different unit's compressors in case of dangerous current peaks.
- ▶ Stand by unit management with automatic unit rotation.
- ▶ Dynamic master with succession priority One master unit is elected to coordinate the group and if it becomes disconnected the candidate unit takes full control.
- ▶ Resource priority management For a group of chillers, with different technologies, it is possible to set the usage priority of each unit, making the most of the available cooling resources.

The entire cooling equipment works as one, with one master chiller that coordinates and optimizes the operation of the group.

## MASTER SUCCESSION PRIORITY



**M** Master Unit   **C** Candidate Master Unit

## FURTHER OPTIONS

### Set-point adjustment

**4-20 mA:** Enables remote set-point adjustments (analog input).  
**Double set-point:** Enables the remote switch between 2 set-points (digital input).  
**Set-point compensation:** Automatic adjustment of the set-point on the basis of the outdoor temperature.

### Control functions

**Night mode:** Limits the unit sound level reducing the usage of the resources. Sound power reduction (with factory settings): -3 dB(A).  
**U.L.C. User Limit Control:** Controls a mixing valve (not included) to ensure a safe start-up and operation of the unit even in critical conditions.  
**Remote probe:** Controls the unit's and pump's activation on the base of the water temperature of the buffer tank or hydraulic decoupler.  
**Demand limit:** Limits the unit's power absorption for safety reasons or in temporary situations (digital input).

### Electrical

**Compressor rephasing:** The capacitors on the compressors' line increase the unit's power factor.  
**Soft-starter:** Manages the inrush current enabling lower motor windings' mechanical wear, avoidance of mains voltage fluctuations during starting and favorable sizing for the electrical system.

### Connectivity

Serial card interface module to allow integration with BMS protocols:  
**Modbus / LonWorks / BACnet MS/TP / BACnet over IP / Konnex / Modbus TCP/IP/ SNMP**  
**M-Net interface kit:** Interface module to allow the integration of the unit with Mitsubishi Electric proprietary communication protocol M-Net.  
**Multi Manager** options to allow easy connection between a group of chillers

### Energy Meter

**Energy meter for BMS:** Acquires electrical data and the power absorbed by the unit and sends them to the BMS for energy metering (Modbus RS485).  
**Energy meter for W3000:** The electrical data acquired is available directly on the unit's control.

### Refrigerant circuit

**Compressor suction and discharge valves:** Installed for each compressor tandem or trio, the valves simplify maintenance activities. The user can work on the isolated valve for periodic maintenance or replacement, without removing the refrigerant from the circuit.  
**Dual pressure relief valves with switch:** One valve is isolated from the refrigerant circuit while the other is in service. The user can work on the isolated valve for periodic maintenance or replacement, without removing the refrigerant from the circuit.

### Refrigerant leak detector

**Leak detector:** Factory installed device. In case of a gas leak detection it raises an alarm.  
**Leak detector + compressor off:** Factory installed device. In case of a gas leak detection it raises an alarm and stops the units.

### Hydraulic

**Water flow switch:** Designed to protect the unit when the water flow across the evaporator is not sufficient and falls outside of the operating parameters.

### Structure

**Anti-intrusion grilles:** Perimeter metal grilles to protect against the intrusion of solid bodies into the unit structure.  
**Spring or rubber type anti-vibration mountings:** Reduce vibrations, keeping noise transmission to a minimum.

### Packing

**Standard or nylon packing:** The unit is provided with plastic supports, with or without a protective nylon layer.  
**Container slides or packing:** The unit is provided with metal slides to load it in a container, with or without a protective nylon layer.  
**Wooden cage packing:** The unit is provided with a robust wooden cage, with or without a protective nylon layer.

# NX<sup>2</sup>-G02 // 0404 - 0928

Air cooled chillers  
for outdoor installation  
(from 398 to 921 kW)



## NX2-G02 / K

| Model   |              | 0404     | 0424     | 0464     | 0515     | 0576     | 0585     | 0636     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 397,6    | 417,9    | 456,4    | 510,0    | 563,5    | 573,0    | 626,4    |
| Total power input   | (1) kW       | 127,0    | 135,0    | 151,6    | 167,4    | 183,4    | 186,4    | 202,5    |
| EER   | (1) kW/kW    | 3,131    | 3,096    | 3,011    | 3,047    | 3,073    | 3,074    | 3,093    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 397,0    | 417,4    | 455,9    | 509,4    | 562,8    | 572,4    | 625,8    |
| EER   | (1)(2) kW/kW | 3,080    | 3,050    | 2,960    | 3,000    | 3,020    | 3,040    | 3,050    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 397      | 417      | 456      | 509      | 563      | 572      | 626      |
| SEER  | (7)(8)       | 4,58     | 4,60     | 4,55     | 4,61     | 4,61     | 4,67     | 4,65     |
| Performance $\eta_s$                                      | (7)(9) %     | 180      | 181      | 179      | 181      | 181      | 184      | 183      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 19,01    | 19,98    | 21,83    | 24,39    | 26,95    | 27,40    | 29,95    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 67,9     | 53,3     | 63,6     | 60,1     | 73,4     | 46,7     | 55,8     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 4        | 4        | 4        | 5        | 6        | 5        | 6        |
| No. Circuits  | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Refrigerant charge  | kg           | 49,1     | 54,2     | 54,4     | 62,7     | 67,8     | 75,8     | 78,7     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 62       | 62       | 62       | 62       | 63       | 63       | 62       |
| Sound power level in cooling                              | (4)(5) dB(A) | 94       | 94       | 94       | 94       | 95       | 95       | 95       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 3905     | 3905     | 3905     | 5080     | 5080     | 5080     | 6255     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 2520     | 2550     | 2590     | 3090     | 3320     | 3400     | 3840     |

| Model   |              | 0676     | 0706     | 0768     | 0808     | 0848     | 0898     | 0928     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 665,3    | 688,8    | 755,7    | 796,3    | 836,0    | 874,4    | 905,9    |
| Total power input   | (1) kW       | 218,9    | 221,4    | 238,6    | 254,1    | 270,0    | 286,4    | 302,6    |
| EER   | (1) kW/kW    | 3,039    | 3,111    | 3,167    | 3,134    | 3,096    | 3,053    | 2,994    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 664,7    | 688,2    | 755,0    | 795,6    | 835,4    | 873,7    | 905,2    |
| EER   | (1)(2) kW/kW | 3,000    | 3,070    | 3,120    | 3,080    | 3,060    | 3,010    | 2,950    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 665      | 688      | 755      | 796      | 835      | 874      | 905      |
| SEER  | (7)(8)       | 4,64     | 4,67     | 4,67     | 4,66     | 4,67     | 4,65     | 4,65     |
| Performance $\eta_s$                                      | (7)(9) %     | 183      | 184      | 184      | 183      | 184      | 183      | 183      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 31,81    | 32,94    | 36,14    | 38,08    | 39,98    | 41,82    | 43,32    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 53,8     | 57,7     | 62,6     | 69,5     | 51,8     | 56,7     | 60,8     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 6        | 6        | 8        | 8        | 8        | 8        | 8        |
| No. Circuits  | N°           | 3        | 2        | 4        | 4        | 4        | 4        | 4        |
| Refrigerant charge  | kg           | 79,1     | 90,1     | 93,2     | 100      | 110      | 111      | 111      |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 62       | 63       | 63       | 63       | 64       | 64       | 64       |
| Sound power level in cooling                              | (4)(5) dB(A) | 95       | 96       | 96       | 96       | 97       | 97       | 97       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 6255     | 6255     | 7430     | 7430     | 7430     | 7430     | 7430     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 3890     | 4000     | 4840     | 4880     | 4950     | 4990     | 5030     |

**Notes:**

- 1 ► Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ► Values in compliance with EN14511
- 3 ► Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ► Sound power on the basis of measurements made in compliance with ISO 9614.

The units highlighted in this publication contain R410A [GWP100 2088] fluorinated greenhouse gases.

- 5 ► Sound power level in cooling, outdoors.
- 6 ► Unit in standard configuration/execution, without optional accessories.
- 7 ► Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ► Seasonal energy efficiency ratio
- 9 ► Seasonal space cooling energy efficiency

Certified data in EUROVENT



## NX2-G02 / A

| Model   |              | 0404     | 0424     | 0464     | 0515     | 0576     | 0585     | 0636     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 401,9    | 423,1    | 464,7    | 516,7    | 569,3    | 579,9    | 632,8    |
| Total power input   | (1) kW       | 121,4    | 128,2    | 142,5    | 159,0    | 175,9    | 178,0    | 194,6    |
| EER   | (1) kW/kW    | 3,311    | 3,300    | 3,261    | 3,250    | 3,236    | 3,258    | 3,252    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 401,4    | 422,6    | 464,2    | 516,1    | 568,6    | 579,4    | 632,2    |
| EER   | (1)(2) kW/kW | 3,250    | 3,250    | 3,210    | 3,200    | 3,180    | 3,220    | 3,200    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      |              | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 401      | 423      | 464      | 516      | 569      | 579      | 632      |
| SEER  | (7)(8)       | 4,66     | 4,68     | 4,65     | 4,70     | 4,65     | 4,74     | 4,74     |
| Performance ηs  | (7)(9) %     | 183      | 184      | 183      | 185      | 183      | 187      | 187      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 19,22    | 20,23    | 22,22    | 24,71    | 27,22    | 27,73    | 30,26    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 69,4     | 54,6     | 65,9     | 61,7     | 74,9     | 47,8     | 57,0     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 4        | 4        | 4        | 5        | 6        | 5        | 6        |
| No. Circuits  | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Refrigerant charge  | kg           | 59,0     | 63,0     | 66,0     | 80,5     | 82,0     | 85,0     | 93,5     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 63       | 63       | 63       | 62       | 63       | 63       | 63       |
| Sound power level in cooling                              | (4)(5) dB(A) | 95       | 95       | 95       | 95       | 96       | 96       | 96       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 5080     | 5080     | 5080     | 6255     | 6255     | 6255     | 7430     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 2860     | 2890     | 2930     | 3500     | 3730     | 3800     | 4190     |
| Model   |              | 0676     | 0706     | 0768     | 0808     | 0848     | 0898     | 0928     |
| 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       | 675,7    | 696,1    | 761,8    | 805,8    | 847,4    | 887,9    | 921,9    |
| Total power input   | (1) kW       | 206,6    | 213,7    | 229,5    | 242,8    | 256,6    | 270,5    | 284,4    |
| EER   | (1) kW/kW    | 3,271    | 3,257    | 3,319    | 3,319    | 3,302    | 3,282    | 3,242    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 675,1    | 695,4    | 761,1    | 805,1    | 846,7    | 887,2    | 921,1    |
| EER   | (1)(2) kW/kW | 3,220    | 3,210    | 3,270    | 3,260    | 3,260    | 3,240    | 3,190    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      |              | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 675      | 695      | 761      | 805      | 847      | 887      | 921      |
| SEER  | (7)(8)       | 4,76     | 4,75     | 4,74     | 4,73     | 4,75     | 4,75     | 4,78     |
| Performance ηs  | (7)(9) %     | 188      | 187      | 187      | 186      | 187      | 187      | 188      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 32,31    | 33,29    | 36,43    | 38,54    | 40,52    | 42,46    | 44,08    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 55,5     | 58,9     | 63,6     | 71,2     | 53,2     | 58,4     | 63,0     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 6        | 6        | 8        | 8        | 8        | 8        | 8        |
| No. Circuits  | N°           | 3        | 2        | 4        | 4        | 4        | 4        | 4        |
| Refrigerant charge  | kg           | 99,0     | 104      | 113      | 136      | 136      | 136      | 136      |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 64       | 64       | 64       | 64       | 65       | 65       | 65       |
| Sound power level in cooling                              | (4)(5) dB(A) | 97       | 97       | 97       | 97       | 98       | 98       | 98       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 7430     | 7430     | 9780     | 9780     | 9780     | 9780     | 9780     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 4330     | 4350     | 5530     | 5590     | 5650     | 5680     | 5720     |

### Notes:

- 1 ► Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ► Values in compliance with EN14511
- 3 ► Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ► Sound power on the basis of measurements made in compliance with ISO 9614.

The units highlighted in this publication contain R410A [GWP100 2088] fluorinated greenhouse gases.

- 5 ► Sound power level in cooling, outdoors.
- 6 ► Unit in standard configuration/execution, without optional accessories.
- 7 ► Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ► Seasonal energy efficiency ratio
- 9 ► Seasonal space cooling energy efficiency

Certified data in EUROVENT

# NX<sup>2</sup>-G02 // 0404 - 0928

Air cooled chillers  
for outdoor installation  
(from 398 to 921 kW)



NX2-G02 / A

NR

| Model   |              | 0404     | 0424     | 0464     | 0515     | 0576     | 0585     | 0636     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 399,0    | 419,1    | 458,2    | 510,4    | 563,1    | 572,2    | 625,1    |
| Total power input   | (1) kW       | 123,0    | 130,7    | 146,8    | 163,7    | 180,6    | 183,5    | 200,3    |
| EER   | (1) kW/kW    | 3,244    | 3,207    | 3,121    | 3,118    | 3,118    | 3,118    | 3,121    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 398,4    | 418,7    | 457,6    | 509,8    | 562,4    | 571,7    | 624,5    |
| EER   | (1)(2) kW/kW | 3,190    | 3,160    | 3,070    | 3,070    | 3,060    | 3,080    | 3,080    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 398      | 419      | 458      | 510      | 562      | 572      | 624      |
| SEER  | (7)(8)       | 4,65     | 4,67     | 4,63     | 4,68     | 4,63     | 4,72     | 4,71     |
| Performance $\eta_s$                                      | (7)(9) %     | 183      | 184      | 182      | 184      | 182      | 186      | 185      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 19,08    | 20,04    | 21,91    | 24,41    | 26,93    | 27,37    | 29,89    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 68,4     | 53,6     | 64,1     | 60,2     | 73,3     | 46,6     | 55,6     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 4        | 4        | 4        | 5        | 6        | 5        | 6        |
| No. Circuits  | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Refrigerant charge  | kg           | 59,0     | 63,0     | 66,0     | 80,5     | 82,0     | 85,0     | 93,5     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 54       | 54       | 55       | 54       | 54       | 55       | 55       |
| Sound power level in cooling                              | (4)(5) dB(A) | 86       | 86       | 87       | 87       | 87       | 88       | 88       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 5080     | 5080     | 5080     | 6255     | 6255     | 6255     | 7430     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 2930     | 2960     | 3000     | 3600     | 3830     | 3900     | 4290     |
| Model   |              | 0676     | 0706     | 0768     | 0808     | 0848     | 0898     | 0928     |
| 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       | 667,5    | 686,2    | 756,9    | 799,2    | 838,8    | 877,9    | 910,4    |
| Total power input   | (1) kW       | 212,0    | 220,2    | 231,0    | 246,0    | 261,5    | 277,4    | 293,1    |
| EER   | (1) kW/kW    | 3,149    | 3,116    | 3,277    | 3,249    | 3,208    | 3,165    | 3,106    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 666,9    | 685,6    | 756,2    | 798,4    | 838,1    | 877,2    | 909,6    |
| EER   | (1)(2) kW/kW | 3,110    | 3,070    | 3,230    | 3,190    | 3,170    | 3,120    | 3,060    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 667      | 686      | 756      | 798      | 838      | 877      | 910      |
| SEER  | (7)(8)       | 4,75     | 4,72     | 4,73     | 4,72     | 4,74     | 4,74     | 4,76     |
| Performance $\eta_s$                                      | (7)(9) %     | 187      | 186      | 186      | 186      | 187      | 187      | 187      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 31,92    | 32,82    | 36,20    | 38,22    | 40,11    | 41,98    | 43,53    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 54,1     | 57,2     | 62,8     | 70,0     | 52,1     | 57,1     | 61,4     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 6        | 6        | 8        | 8        | 8        | 8        | 8        |
| No. Circuits  | N°           | 3        | 2        | 4        | 4        | 4        | 4        | 4        |
| Refrigerant charge  | kg           | 99,0     | 104      | 113      | 136      | 136      | 136      | 136      |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 55       | 56       | 57       | 57       | 57       | 57       | 57       |
| Sound power level in cooling                              | (4)(5) dB(A) | 88       | 89       | 90       | 90       | 90       | 90       | 90       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 7430     | 7430     | 9780     | 9780     | 9780     | 9780     | 9780     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 4430     | 4450     | 5660     | 5720     | 5770     | 5810     | 5850     |

**Notes:**

- 1 ► Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ► Values in compliance with EN14511
- 3 ► Average sound pressure level at 10m distance, unit in a free field on a reflective surface;  
non-binding value calculated from the sound power level.
- 4 ► Sound power on the basis of measurements made in compliance with ISO 9614.

The units highlighted in this publication contain R410A [GWP100 2088] fluorinated greenhouse gases.

- 5 ► Sound power level in cooling, outdoors.
- 6 ► Unit in standard configuration/execution, without optional accessories.
- 7 ► Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ► Seasonal energy efficiency ratio
- 9 ► Seasonal space cooling energy efficiency

Certified data in EUROVENT



0404 - 0928

Air cooled chillers  
for outdoor installation  
(from 379 to 872 kW)

A ENERG.CL.



COOLING



SHELL&amp;T.



SCROLL



AXIAL

R R454B

## NX2-G06 / K

| Model   |              | 0404     | 0424     | 0464     | 0515     | 0576     | 0585     | 0636     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 379,1    | 398,9    | 437,0    | 488,0    | 538,9    | 546,7    | 597,9    |
| Total power input   | (1) kW       | 115,6    | 122,6    | 136,9    | 152,1    | 167,3    | 168,6    | 183,8    |
| EER   | (1) kW/kW    | 3,279    | 3,254    | 3,192    | 3,208    | 3,221    | 3,243    | 3,253    |
| ESEER   | (1) kW/kW    | -        | -        | -        | -        | -        | -        | -        |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 378,6    | 398,5    | 436,5    | 487,5    | 538,3    | 546,2    | 597,3    |
| EER   | (1)(2) kW/kW | 3,220    | 3,210    | 3,140    | 3,160    | 3,170    | 3,200    | 3,210    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 379      | 398      | 436      | 488      | 538      | 546      | 597      |
| SEER  | (7)(8)       | 4,67     | 4,68     | 4,65     | 4,70     | 4,70     | 4,76     | 4,75     |
| Performance ηs  | (7)(9) %     | 184      | 184      | 183      | 185      | 185      | 187      | 187      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 18,13    | 19,08    | 20,90    | 23,34    | 25,77    | 26,14    | 28,59    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 61,8     | 48,6     | 58,3     | 55,1     | 67,1     | 42,5     | 50,9     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 4        | 4        | 4        | 5        | 6        | 5        | 6        |
| No. Circuits  | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Refrigerant charge  | kg           | 46,6     | 51,5     | 51,7     | 59,6     | 64,4     | 72,0     | 74,8     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 62       | 62       | 62       | 62       | 63       | 63       | 62       |
| Sound power level in cooling                              | (4)(5) dB(A) | 94       | 94       | 94       | 94       | 95       | 95       | 95       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 3905     | 3905     | 3905     | 5080     | 5080     | 5080     | 6255     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 2590     | 2620     | 2660     | 3190     | 3420     | 3500     | 3940     |
| Model   |              | 0676     | 0706     | 0768     | 0808     | 0848     | 0898     | 0928     |
| 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       | 636,3    | 656,5    | 720,5    | 759,5    | 798,1    | 835,5    | 867,1    |
| Total power input   | (1) kW       | 198,1    | 200,3    | 218,0    | 231,4    | 245,1    | 259,3    | 273,5    |
| EER   | (1) kW/kW    | 3,212    | 3,278    | 3,305    | 3,282    | 3,256    | 3,222    | 3,170    |
| ESEER   | (1) kW/kW    | -        | -        | -        | -        | -        | -        | -        |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 635,7    | 655,8    | 719,8    | 758,8    | 797,4    | 834,8    | 866,3    |
| EER   | (1)(2) kW/kW | 3,170    | 3,230    | 3,260    | 3,230    | 3,220    | 3,180    | 3,130    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 636      | 656      | 720      | 759      | 797      | 835      | 866      |
| SEER  | (7)(8)       | 4,73     | 4,77     | 4,75     | 4,74     | 4,75     | 4,75     | 4,74     |
| Performance ηs  | (7)(9) %     | 186      | 188      | 187      | 187      | 187      | 187      | 187      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 30,43    | 31,39    | 34,45    | 36,32    | 38,17    | 39,96    | 41,46    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 49,2     | 52,4     | 56,9     | 63,3     | 47,2     | 51,7     | 55,7     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 6        | 6        | 8        | 8        | 8        | 8        | 8        |
| No. Circuits  | N°           | 3        | 2        | 4        | 4        | 4        | 4        | 4        |
| Refrigerant charge  | kg           | 75,1     | 85,6     | 88,5     | 95,1     | 104      | 106      | 106      |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 62       | 63       | 63       | 63       | 64       | 64       | 64       |
| Sound power level in cooling                              | (4)(5) dB(A) | 95       | 96       | 96       | 96       | 97       | 97       | 97       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 6255     | 6255     | 7430     | 7430     | 7430     | 7430     | 7430     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 3980     | 4100     | 4970     | 5010     | 5080     | 5120     | 5150     |

## Notes:

- 1 ► Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.  
 2 ► Values in compliance with EN14511  
 3 ► Average sound pressure level at 10m distance, unit in a free field on a reflective surface;  
     non-binding value calculated from the sound power level.  
 4 ► Sound power on the basis of measurements made in compliance with ISO 9614.

The units highlighted in this publication contain R410A [GWP100 2088] fluorinated greenhouse gases.

- 5 ► Sound power level in cooling, outdoors.  
 6 ► Unit in standard configuration/execution, without optional accessories.  
 7 ► Parameter calculated according to [REGULATION (EU) N. 2016/2281]  
 8 ► Seasonal energy efficiency ratio  
 9 ► Seasonal space cooling energy efficiency

Certified data in EUROVENT

# NX<sup>2</sup>-G06 // 0404 - 0928

Air cooled chillers  
for outdoor installation  
(from 379 to 872 kW)



## NX2-G06 / A

| Model   |              | 0404     | 0424     | 0464     | 0515     | 0576     | 0585     | 0636     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 380,1    | 400,0    | 439,8    | 490,2    | 540,8    | 548,6    | 599,7    |
| Total power input   | (1) kW       | 111,3    | 117,1    | 129,4    | 145,0    | 161,1    | 161,7    | 177,4    |
| EER   | (1) kW/kW    | 3,415    | 3,416    | 3,399    | 3,381    | 3,357    | 3,393    | 3,380    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 379,6    | 399,5    | 439,2    | 489,7    | 540,2    | 548,1    | 599,1    |
| EER   | (1)(2) kW/kW | 3,350    | 3,370    | 3,340    | 3,330    | 3,300    | 3,350    | 3,330    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 380      | 400      | 439      | 490      | 540      | 548      | 599      |
| SEER  | (7)(8)       | 4,74     | 4,77     | 4,73     | 4,78     | 4,72     | 4,82     | 4,82     |
| Performance $\eta_s$                                      | (7)(9) %     | 187      | 188      | 186      | 188      | 186      | 190      | 190      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 18,18    | 19,13    | 21,03    | 23,44    | 25,86    | 26,24    | 28,68    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 62,1     | 48,8     | 59,0     | 55,6     | 67,6     | 42,8     | 51,2     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 4        | 4        | 4        | 5        | 6        | 5        | 6        |
| No. Circuits  | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Refrigerant charge  | kg           | 56,1     | 59,9     | 62,7     | 76,5     | 77,9     | 80,8     | 88,8     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 63       | 63       | 63       | 62       | 63       | 63       | 63       |
| Sound power level in cooling                              | (4)(5) dB(A) | 95       | 95       | 95       | 95       | 96       | 96       | 96       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 5080     | 5080     | 5080     | 6255     | 6255     | 6255     | 7430     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 2930     | 2960     | 3000     | 3600     | 3830     | 3900     | 4290     |

| Model   |              | 0676     | 0706     | 0768     | 0808     | 0848     | 0898     | 0928     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 639,0    | 658,6    | 721,1    | 762,2    | 801,1    | 839,7    | 872,3    |
| Total power input   | (1) kW       | 188,0    | 194,1    | 211,0    | 222,5    | 234,3    | 246,4    | 258,3    |
| EER   | (1) kW/kW    | 3,399    | 3,393    | 3,418    | 3,426    | 3,419    | 3,408    | 3,377    |
| ESEER   | (1) kW/kW    |          |          |          |          |          |          |          |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 638,4    | 658,0    | 720,5    | 761,5    | 800,4    | 839,0    | 871,6    |
| EER   | (1)(2) kW/kW | 3,350    | 3,350    | 3,370    | 3,370    | 3,380    | 3,360    | 3,330    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 638      | 658      | 720      | 762      | 800      | 839      | 872      |
| SEER  | (7)(8)       | 4,86     | 4,83     | 4,81     | 4,81     | 4,83     | 4,84     | 4,86     |
| Performance $\eta_s$                                      | (7)(9) %     | 191      | 190      | 189      | 189      | 190      | 190      | 191      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 30,56    | 31,50    | 34,49    | 36,45    | 38,31    | 40,16    | 41,72    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 49,6     | 52,7     | 57,0     | 63,7     | 47,6     | 52,2     | 56,4     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 6        | 6        | 8        | 8        | 8        | 8        | 8        |
| No. Circuits  | N°           | 3        | 2        | 4        | 4        | 4        | 4        | 4        |
| Refrigerant charge  | kg           | 94,1     | 98,8     | 107      | 129      | 129      | 129      | 129      |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 64       | 64       | 64       | 64       | 65       | 65       | 65       |
| Sound power level in cooling                              | (4)(5) dB(A) | 97       | 97       | 97       | 97       | 98       | 98       | 98       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 7430     | 7430     | 9780     | 9780     | 9780     | 9780     | 9780     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 4430     | 4450     | 5660     | 5720     | 5770     | 5810     | 5850     |

## Notes:

- 1 ► Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ► Values in compliance with EN14511
- 3 ► Average sound pressure level at 10m distance, unit in a free field on a reflective surface;  
non-binding value calculated from the sound power level.
- 4 ► Sound power on the basis of measurements made in compliance with ISO 9614.

The units highlighted in this publication contain R410A [GWP100 2088] fluorinated greenhouse gases.

- 5 ► Sound power level in cooling, outdoors.
- 6 ► Unit in standard configuration/execution, without optional accessories.
- 7 ► Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ► Seasonal energy efficiency ratio
- 9 ► Seasonal space cooling energy efficiency

Certified data in EUROVENT



NX2-G06 / A

NR

| Model   |              | 0404     | 0424     | 0464     | 0515     | 0576     | 0585     | 0636     |
|---|--------------|----------|----------|----------|----------|----------|----------|----------|
| 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       | 379,7    | 399,2    | 437,6    | 487,8    | 538,8    | 546,4    | 597,3    |
| Total power input   | (1) kW       | 111,9    | 118,6    | 132,5    | 148,5    | 164,5    | 165,6    | 181,6    |
| EER   | (1) kW/kW    | 3,393    | 3,366    | 3,303    | 3,285    | 3,275    | 3,300    | 3,289    |
| ESEER   | (1) kW/kW    | -        | -        | -        | -        | -        | -        | -        |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 379,2    | 398,7    | 437,0    | 487,3    | 538,1    | 545,9    | 596,7    |
| EER   | (1)(2) kW/kW | 3,330    | 3,320    | 3,250    | 3,240    | 3,220    | 3,260    | 3,240    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 379      | 399      | 437      | 487      | 538      | 546      | 597      |
| SEER  | (7)(8)       | 4,73     | 4,76     | 4,72     | 4,76     | 4,70     | 4,81     | 4,80     |
| Performance ηs  | (7)(9) %     | 186      | 187      | 186      | 188      | 185      | 190      | 189      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 18,16    | 19,09    | 20,92    | 23,33    | 25,76    | 26,13    | 28,56    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 62,0     | 48,6     | 58,4     | 55,0     | 67,1     | 42,5     | 50,8     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 4        | 4        | 4        | 5        | 6        | 5        | 6        |
| No. Circuits  | N°           | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Refrigerant charge  | kg           | 56,1     | 59,9     | 62,7     | 76,5     | 77,9     | 80,8     | 88,8     |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 54       | 54       | 55       | 54       | 54       | 55       | 55       |
| Sound power level in cooling                              | (4)(5) dB(A) | 86       | 86       | 87       | 87       | 87       | 88       | 88       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 5080     | 5080     | 5080     | 6255     | 6255     | 6255     | 7430     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 2930     | 2960     | 3000     | 3600     | 3830     | 3900     | 4290     |
| Model   |              | 0676     | 0706     | 0768     | 0808     | 0848     | 0898     | 0928     |
| 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       | 636,5    | 655,3    | 720,4    | 760,7    | 798,7    | 837,2    | 868,8    |
| Total power input   | (1) kW       | 191,7    | 198,7    | 210,9    | 223,9    | 237,3    | 250,9    | 264,5    |
| EER   | (1) kW/kW    | 3,320    | 3,298    | 3,416    | 3,397    | 3,366    | 3,337    | 3,285    |
| ESEER   | (1) kW/kW    | -        | -        | -        | -        | -        | -        | -        |
| <b>COOLING ONLY (EN14511 VALUE)</b>                       |              |          |          |          |          |          |          |          |
| Cooling capacity  | (1)(2) kW    | 635,9    | 654,7    | 719,8    | 760,0    | 798,1    | 836,5    | 868,1    |
| EER   | (1)(2) kW/kW | 3,280    | 3,250    | 3,370    | 3,340    | 3,320    | 3,290    | 3,240    |
| ESEER   | (1)(2) kW/kW | -        | -        | -        | -        | -        | -        | -        |
| Cooling energy class                                      | -            | -        | -        | -        | -        | -        | -        | -        |
| <b>ENERGY EFFICIENCY</b>                                  |              |          |          |          |          |          |          |          |
| <b>SEASONAL EFFICIENCY IN COOLING (REG. EU 2016/2281)</b> |              |          |          |          |          |          |          |          |
| <b>AMBIENT REFRIGERATION</b>                              |              |          |          |          |          |          |          |          |
| Prated,c  | (7) kW       | 636      | 655      | 720      | 760      | 798      | 836      | 868      |
| SEER  | (7)(8)       | 4,85     | 4,81     | 4,81     | 4,81     | 4,82     | 4,83     | 4,85     |
| Performance ηs  | (7)(9) %     | 191      | 189      | 189      | 189      | 190      | 190      | 191      |
| <b>EXCHANGERS</b>   |              |          |          |          |          |          |          |          |
| <b>HEAT EXCHANGER USER SIDE IN REFRIGERATION</b>          |              |          |          |          |          |          |          |          |
| Water flow  | (1) l/s      | 30,44    | 31,34    | 34,45    | 36,38    | 38,20    | 40,04    | 41,55    |
| Pressure drop at the heat exchanger                       | (1) kPa      | 49,2     | 52,2     | 56,9     | 63,5     | 47,3     | 51,9     | 55,9     |
| <b>REFRIGERANT CIRCUIT</b>                                |              |          |          |          |          |          |          |          |
| Compressors nr.   | N°           | 6        | 6        | 8        | 8        | 8        | 8        | 8        |
| No. Circuits  | N°           | 3        | 2        | 4        | 4        | 4        | 4        | 4        |
| Refrigerant charge  | kg           | 94,1     | 98,8     | 107      | 129      | 129      | 129      | 129      |
| <b>NOISE LEVEL</b>  |              |          |          |          |          |          |          |          |
| Sound Pressure  | (3) dB(A)    | 55       | 56       | 57       | 57       | 57       | 57       | 57       |
| Sound power level in cooling                              | (4)(5) dB(A) | 88       | 89       | 90       | 90       | 90       | 90       | 90       |
| <b>SIZE AND WEIGHT</b>                                    |              |          |          |          |          |          |          |          |
| A   | (6) mm       | 7430     | 7430     | 9780     | 9780     | 9780     | 9780     | 9780     |
| B   | (6) mm       | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     | 2260     |
| H   | (6) mm       | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     | 2560     |
| Operating weight  | (6) kg       | 4430     | 4450     | 5660     | 5720     | 5770     | 5810     | 5850     |

**Notes:**

- 1 ► Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 ► Values in compliance with EN14511
- 3 ► Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 4 ► Sound power on the basis of measurements made in compliance with ISO 9614.

The units highlighted in this publication contain R410A [GWP100 2088] fluorinated greenhouse gases.

- 5 ► Sound power level in cooling, outdoors.
- 6 ► Unit in standard configuration/execution, without optional accessories.
- 7 ► Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- 8 ► Seasonal energy efficiency ratio
- 9 ► Seasonal space cooling energy efficiency

Certified data in EUROVENT

# “BY FAR THE BEST PROOF IS EXPERIENCE”

Sir Francis Bacon  
British Philosopher (1561 - 1626)

## GRAN THEATRE DE RABAT

2018 Rabat - Morocco

**Application:**  
Theatres

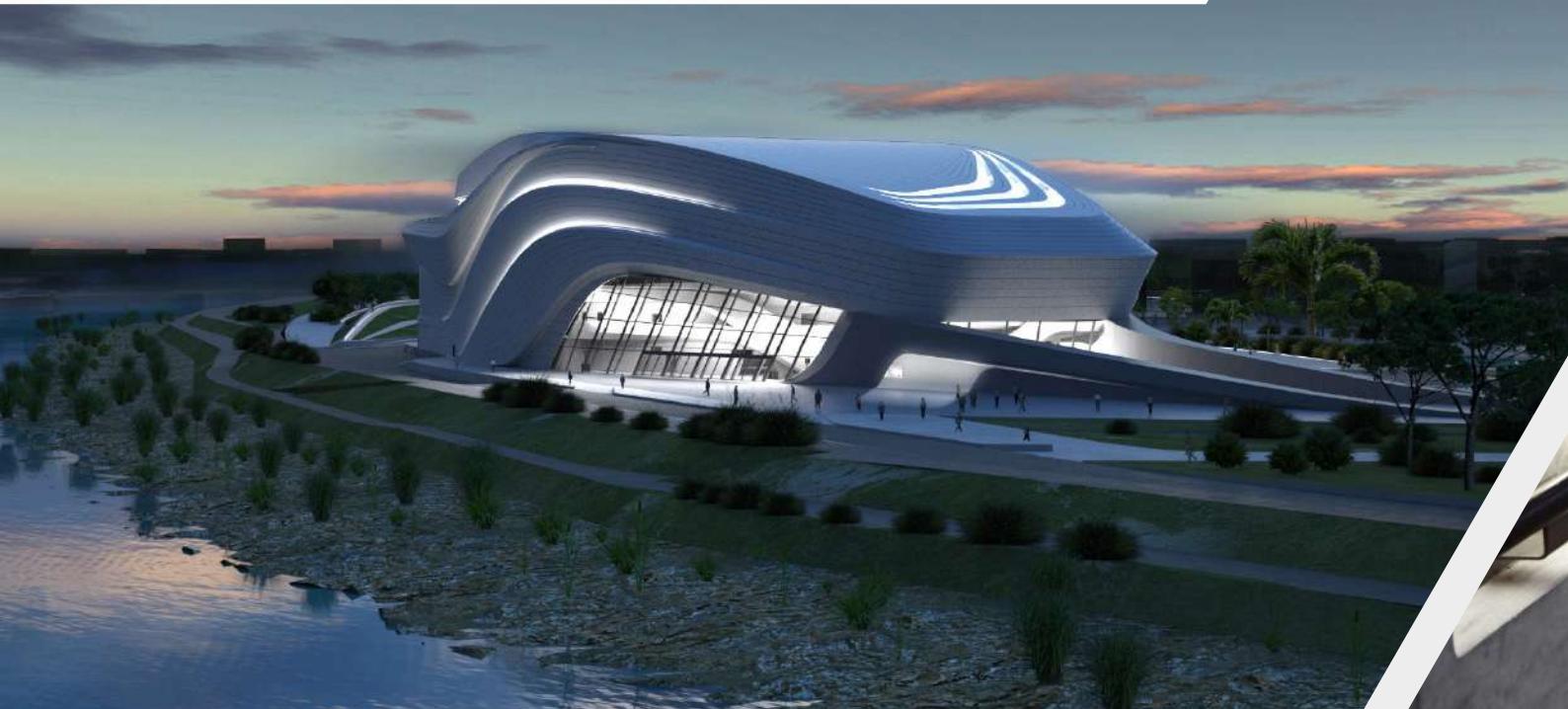
**Cooling capacity:**  
2500 kW

**Installed units:**  
2x NECS-Q 3218,  
1x NECS/B 3218

**Plant type:**  
Hydronic System

**Heating capacity:**  
1786 kW

**Architect:**  
Zaha Hadid



### PROJECT

The futuristic building has been designed by Zaha Hadid Architects and its shape is inspired by the nearby Bouregreg River. The project, part of a national programme of cultural development, includes a 1800-seat theatre, an open-air theatre with a capacity of 7,000 people, a second experimental performance / rehearsal spaces and a restaurant for 350 people.

### CHALLENGE

To combine perfect internal comfort and high energy performance of the building, the HVAC system has been designed starting from Climaveneta high efficiency units: 2 multi-purpose heat pumps NECS-Q/B 3218 and 1 air cooled chiller NECS/B 3218.

### SOLUTION

The system is able to provide the ideal temperature and humidity level inside the building all year round, even producing simultaneous cooling and heating when necessary, thanks to the multi-purpose units installed. The system has a total cooling capacity of 2,500 kW, thus granting an ideal temperature even in the Moroccan hot summers.

# IKEA MUSEUM

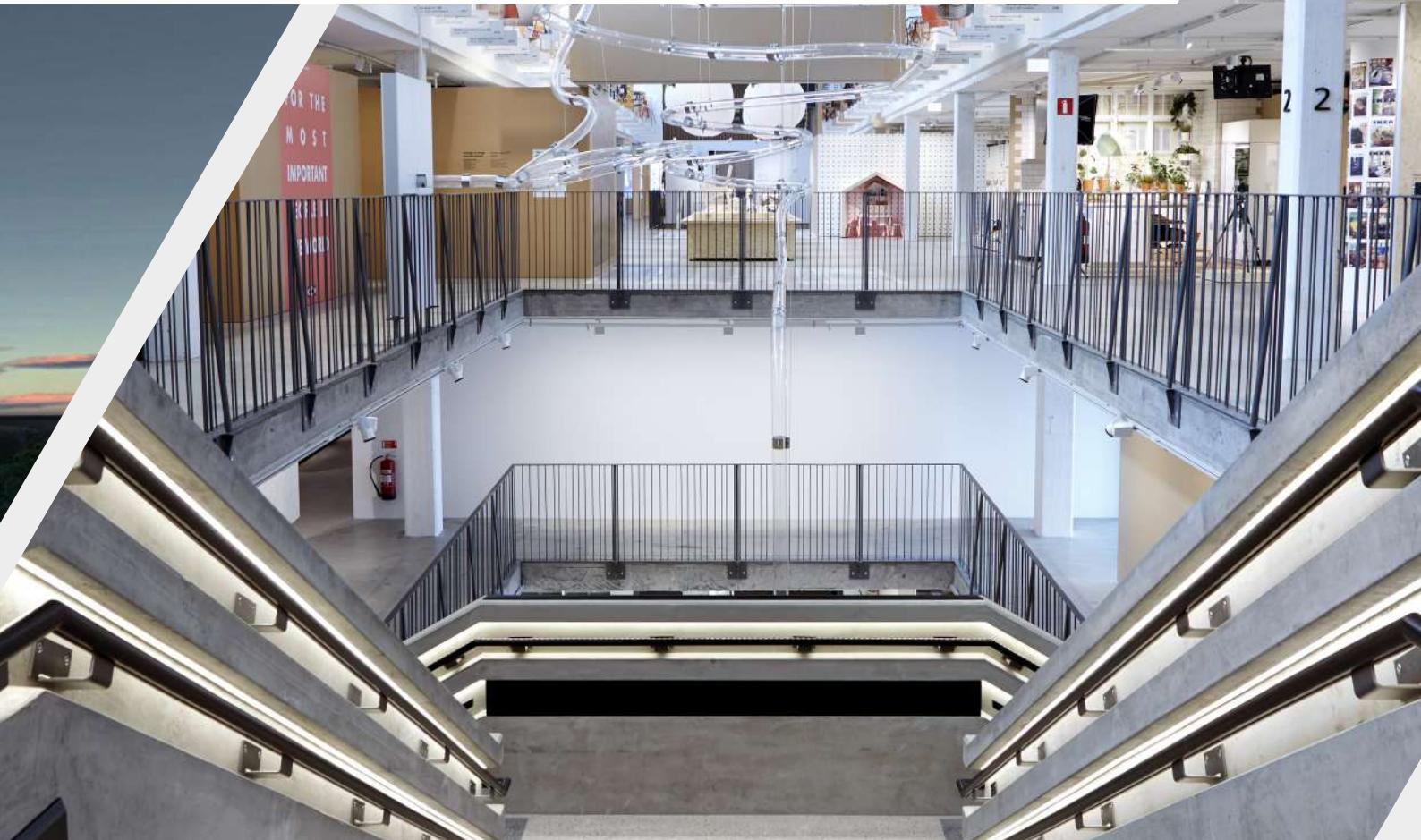
2016-2018 Almhult - Sweden

**Application:**  
Retail - Museum

**Cooling capacity:**  
880 kW

**Plant type:**  
Hydronic System

**Installed units:**  
1x NX/K 1214P, 2x NECS-FC/SL/S 0904



## PROJECT

The Ikea Museum is a 7,000 sqm structure located in Almhult, Ikea's historical headquarters. It celebrates the 70-year history of the firm through its products and the stories of people who have bought Ikea furniture over the years and is expected to become a tourist attraction. The four floors include fully furnished rooms, old catalogues, living spaces of the future, and exhibits dedicated to the store's most popular and not-so-popular items.

## CHALLENGE

The structure required a reliable and efficient HVAC system both in visitors areas and in technical rooms, in order to ensure a pleasant visiting experience, in line with the values celebrated by Ikea all over the world through a unique shopping experience.

## SOLUTION

The M&E consultants opted for Climaveneta units for this prestigious project. A NX air source chiller with scroll compressors was installed for the air conditioning of the museum. The local temperate climate has made possible to equip the cooling system of the technical rooms with 2 NECS-FC chillers. Thanks to Climaveneta's advanced free cooling technology system, they use outdoor temperature as a free source for cooling, thus maximising energy savings.



for a greener tomorrow



Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

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[www.melcohit.com](http://www.melcohit.com)

