



NX



0152P - 0812P
39 ÷ 226 kW

Air-source liquid chiller for outdoor installation, with plate heat exchanger



(The photo of the unit is purely indicative and may vary depending on the model)

- Electronic expansion valve
- Unit with low environmental impact and reduced refrigerant charge
- Extensive range of operation
- Contributes to achieving LEED points



SUMMARY

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This company participates in the Eurovent Certification Programme. The products are listed in the Directory of certified products. Eurovent certification applied to units with cooling capacity up to 1500 kW for air cooled water chillers and water cooled liquid chillers.



Company quality system certified to UNI EN ISO 9001 and environmental certification UNI EN ISO 14001

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All work must be performed, components selected and materials used professionally and in complete accordance with the legislation in force in material in the country concerned, and considering the operating conditions and intended uses of the system, by qualified personnel.

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1. CLIMAVENETA, THE MOST PROFITABLE WAY TO IMPROVE THE LEED CERTIFICATION OF YOUR BUILDING

Climaveneta is a Green Building Council Italy member and actively supports the diffusion of LEED practice all around the world.

Climaveneta High and Premium efficiency products and systems are designed with special care to LEED protocol compliance and can help to achieve and improve the LEED certification of the building.

In particular Climaveneta High and Premium efficiency products and systems meet the LEED prerequisites for Energy & Atmosphere (EA) and Indoor Environmental Quality (EQ) and can help to gather LEED points with regard to following areas:



ENERGY & ATMOSPHERE (EA)

24 HVAC related LEED NC (New Construction and major Renovation Projects) points possible:

- EA Prerequisite 2 – Minimum Energy Performance
- EA Prerequisite 3 – Fundamental Refrigerant Management
- EA Credit 1 – Optimize Energy Performance - 1 to 19 Points
- EA Credit 4 - Enhanced Refrigerant Management - 1 to 2 Points
- EA Credit 5 – Measurement & Verification – 1 to 3 Points

INDOOR ENVIRONMENTAL QUALITY (EQ)

6 HVAC related LEED points possible

- EQ Prerequisite 1 – Minimum Indoor Air Quality Performance
- EQ Credit 1 – Outdoor Air Delivery Monitoring – 1 Point
- EQ Credit 2 – Increased Ventilation – 1 Point
- EQ Credit 5 – Indoor Chemical & Pollutant Source Control – 1 Point
- EQ Credit 6.2 – Controllability of Systems: Thermal Comfort – 1 Point
- EQ Credit 7.1 – Thermal Comfort: Design – 1 Point
- EQ Credit 7.1 – Thermal Comfort: Verification – 1 Point

There are already several buildings LEED certified also thanks to Climaveneta HVAC systems. For more information, browse the project list at www.climaveneta.com.

2. DESCRIPTION OF THE UNIT

NX /K: NEW COMPACT LIQUID CHILLERS

NX is the new Climaveneta liquid chiller, available in the new K version, combining the two main features of this unit: efficiency and compactness.

NX in fact achieves excellent levels of energy efficiency while at the same time occupying less area, making this unit the best solution in all installations where there is limited space available.

Along with its compact dimensions, NX also comes in three versions with different sound emission ratings, so as to comply with the strictest installation requirements.

The LN and SL versions reduce noise levels by up to 10dB(A) compared to the most compact version, making the NX the ideal solution for satisfying the most demanding installation needs not only in terms of efficiency and compactness, but also low noise.

This ensures maximum installation flexibility, an essential requirement when operating in restricted spaces or when replacing or upgrading existing systems.

NX/CA: NEW HIGH EFFICIENCY LIQUID CHILLERS WITH ENERGY CLASS A

When energy efficiency is a fundamental prerequisite, the Climaveneta NX/CA represents the best solution, ensuring the highest efficiency in its category, with Eurovent class A EER values, calculated based on the restrictive European standard EN14511.

NX/CA also features three different versions as regards sound emissions.

In addition to the standard version, two further versions can be selected, LN-CA and SL-CA, which reduce noise by up to 10dB(A) while maintaining the same energy efficiency class.

Indeed the main new feature that distinguishes the Climaveneta NX/CA units from other products available on the market is the availability of a complete selection of versions with different sound emissions however without affecting the energy efficiency class, rather maintaining exceptional efficiency, all rated Eurovent class A.

3. MODELS AND VERSIONS

3.1 Compact versions with standard efficiency

NX/K:	liquid chiller with standard efficiency, compact version
NX/LN-K:	liquid chiller with standard efficiency, compact and low noise version
NX/SL-K:	liquid chiller with standard efficiency, compact and Super low noise version
NX/D /K:	liquid chiller with standard efficiency, compact version, including desuperheater for partial recovery of the heat of condensation
NX/D /LN-K:	liquid chiller with standard efficiency, compact and low noise version, including desuperheater for partial recovery of the heat of condensation
NX/D /SL-K:	liquid chiller with standard efficiency, compact and Super low noise version, including desuperheater for partial recovery of the heat of condensation

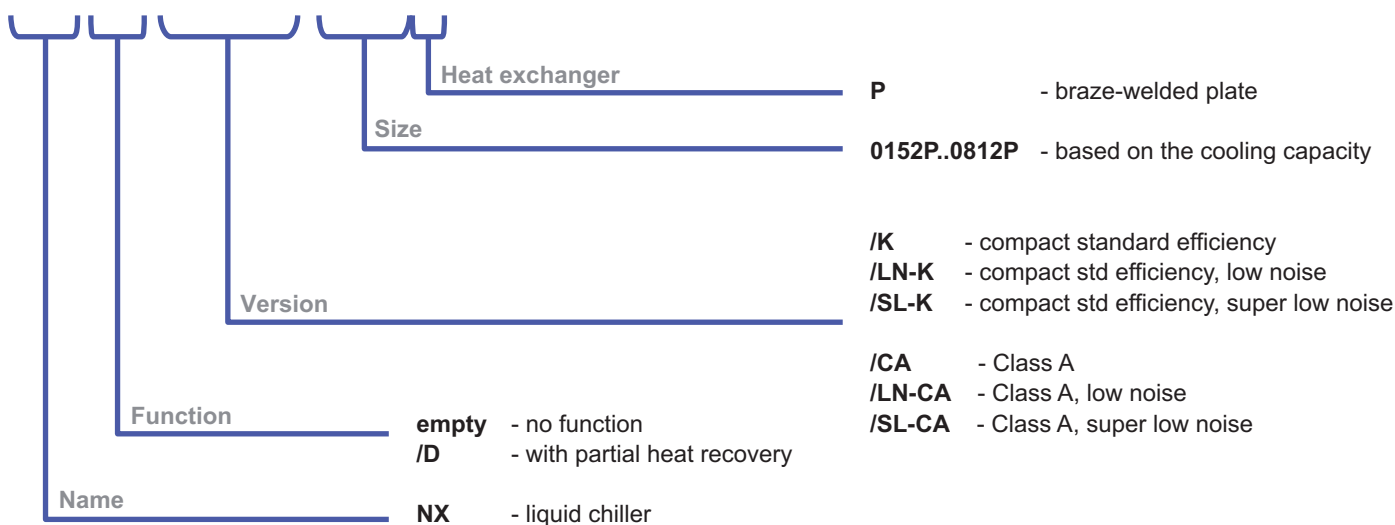
3.2 Compact versions with high efficiency

NX /CA:	liquid chiller with high efficiency, compact version
NX /LN-CA:	liquid chiller with high efficiency, compact and low noise version
NX /SL-CA:	liquid chiller with high efficiency, compact and Super low noise version
NX /D /CA:	liquid chiller with high efficiency, compact version, including desuperheater for partial recovery of the heat of condensation
NX /D /LN-CA:	liquid chiller with high efficiency, compact and low noise version, including desuperheater for partial recovery of the heat of condensation
NX /D /SL-CA:	liquid chiller with high efficiency, compact and Super low noise version, including desuperheater for partial recovery of the heat of condensation

4. HOW TO SELECT THE NX

	NX /K Compact standard efficiency version	NX /KA Class A high efficiency version
Standard version	NX /K	NX /CA
Low noise version (LN)	NX /LN-K Compared to the standard version - retains the same dimensions - noise reduction of up to 6dB(A)	NX /LN-CA Compared to the standard version - retains Class A energy efficiency - noise reduction of up to 6dB(A)
Super low noise version (SL)	NX /SL-K Compared to the low noise version (LN-K) - retains the same dimensions (where possible) - further noise reduction of 4 to 6dB(A) compared to the low noise version (LN-K)	NX /SL-CA Compared to the low noise version (LN) - retains Class A energy efficiency - further noise reduction of 4 to 5dB(A) compared to the low noise version (LN-K)

NX /D /SL-CA 0812P



UNIT STRUCTURE

Please refer to the following table for more details about the type of structure adopted on each size and version.

Model	Size													
Horizontal V-shaped coil module	---	---	---	---	---	---	---	0412P	0462P	0512P	0562P	0612P	0712P	0712P
Longitudinal V-shaped coil module	0152P	0182P	0202P	0252P	0262P	0302P	0352P	0402P	0452P	0502P	0552P	0602P	0702P	0802P

Version	Cooling capacity kW													
K	39	44	52	59	65	78	88	102	115	127	144	166	189	207
LN-K	39	44	52	59	66	75	90	99	112	125	140	163	179	194
SL-K	39	45	52	59	66	78	88	99	113	124	140	153	170	190
CA	42	47	55	62	70	85	96	107	120	138	160	178	201	227
LN-CA	42	47	55	64	71	83	95	108	121	134	154	173	198	221
SL-CA	42	48	55	62	69	82	94	106	119	133	152	172	195	218



“Longitudinal V-shaped” coil module



“Horizontal V-shaped” coil module

5. CROSS-REFERENCE TABLE

The following table shows the corresponding NX models for the current NECS units.

NECS 0152..0612	NX 0152P..0812P
NECS /B	NX /K compact version
NECS /LN	NX /LN-K low noise
NECS /SL	NX /SL-K super low noise
NECS /HT	NX /CA high efficiency version
NECS /HL	NX /LN-K low noise

6. GENERAL CHARACTERISTICS

Compliance with the strictest European standards

The main new feature that distinguishes the new NX 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.

Electronic expansion valve as standard

The electronic expansion valve brings significant benefits, especially with variable loads and different outside climate conditions. Application of the valve on this unit is a result of specific design decisions regarding the refrigerant circuit configuration and optimisation of operation across a range of different operating conditions. The electronic expansion valve is standard on all high efficiency CA versions, and optional on K versions.

Microchannel aluminium coils

This new range of chillers uses aluminium micro-channel condensing coils in all the units, ensuring extremely high efficiency. This means less refrigerant is needed compared to traditional copper coils, ensuring the lowest possible ratio between refrigerant volume and cooling capacity delivered, making this product range unique in its reference market, at the same time extending product life due to better resistance to corrosion by atmospheric agents.

“CLASS A” efficiency

The entire range is available with class A energy rating. All noise-level configurations of the NX/CA guarantee high efficiency, through generous sizing of the heat exchange surfaces and precise management of the ventilating coils.

Built-in hydronic unit

The built-in hydronic unit incorporates all the main water circuit components.

All sizes are in fact available in the configuration with one or two high/low pressure pumps, as well as with storage tank.

Extended operating range

Extended operating range: operation at full load is guaranteed with outside air temperatures up to 46°C.

Three sound emission levels

The new NX appliances have three different sound emission levels. This means the best unit can be identified based on requirements, according to the system where it will be installed and the application.

7. FUNCTIONS

Basic model

(Unit without heat recovery)

Model with partial heat recovery (D)

Air-cooled unit, complete with partial heat recovery.

In this configuration a refrigerant/water heat exchanger is added to the gas discharge line on every refrigerant circuit, compared to the basic configuration.

The heat exchanger, installed in series before the traditional condenser in the refrigerant circuit, is suitably sized to ensure heat recovery for hot water production at medium-high temperatures, for domestic or other uses.

The heating capacity available is approximately equal to compressor power consumption.

8. VERSIONS

K – Compact with standard efficiency

Key efficiency, compact version.

LN-K - Compact with standard efficiency, low noise

Key efficiency, compact and low-noise version. This configuration features special soundproofing for the compressor chamber and pumps (if present) and a reduced fan speed. Fan speed is automatically increased, however, in the event of particularly tough environmental conditions.

SL-K - Compact with standard efficiency, super low noise

Key efficiency, compact and super low-noise version. This configuration features special soundproofing for the compressor chamber and pumps (if present), reduced fan speed and an oversized condensing section. Fan speed is automatically increased, however, in the event of particularly tough environmental conditions.

CA - Class A

Class A high efficiency version according to Eurovent classification. This configuration features a larger condensing section.

LN-CA - Class A low-noise

Class A low-noise version in accordance with Eurovent.

This configuration features special soundproofing for the compressor chamber and pumps (if present) and a reduced fan speed. Fan speed is automatically increased, however, in the event of particularly tough environmental conditions.

SL-CA - Class A super low-noise

Class A super low-noise version in accordance with Eurovent.

This configuration features special soundproofing for the compressor chamber and pumps (if present), reduced fan speed and an oversized condensing section. Fan speed is automatically increased, however, in the event of particularly tough environmental conditions.

9. TECHNICAL SPECIFICATIONS

Air source chiller for outdoor installation

Outdoor unit for the production of chilled water with hermetic rotary Scroll compressors, ozone-friendly refrigerant R410A, axial-flow fans, plate heat exchanger, micro-channel full-aluminum air coils and thermostatic or electronic expansion valve, according to the model. The range is composed by units equipped with two compressors in a single-circuit configuration.

Structure

Structure specifically designed for outdoor installation. Base-ment and frame in hot-galvanised shaped sheet steel with a suitable thickness. All parts polyester-powder painted to assure total weather resistance.

Compressors

Hermetic scroll compressors in tandem layout complete with oil sump heater, electronic overheating protection with centralised manual reset and a two-pole electric motor.

User (side) heat exchanger water

AlSI 316 steel braze-welded plate exchanger.

The heat exchangers are insulated with a closed-cell condensation proof lining in neoprene. A thermostatically controlled electric heater prevents ice from forming inside the evaporator when the unit is not working. When the unit is working, it is protected by a differential pressure switch mounted on the water side. The unit can work with antifreeze mixtures at exchanger outlet temperatures as low as -8°C. The hydronic group includes the differential pressure switch.

Source (side) heat exchanger air

Full-aluminum coil made by aluminum tubes and fins. The aluminum fins are correctly spaced to guarantee optimum heat exchange efficiency. The differentiated circulation suitably distributes the liquid in the coil during the expansion phase. Coil structure made with an open-angle V-geometry layout.

Fan section

Axial electric fans, protected to IP 54, with external rotor and plastic-coated aluminium blades. Housed in aerodynamic hoods complete with safety grille. 6 - pole electric motor with built-in overload protection. Differentiated ventilation control disabling the fan section of inactive circuits.

Fans diameter: 450mm, 800mm, 910mm according to different sizes and versions.

Condensation control with adjustment of fan rotation speed.

Continuous adjustment of the fan speed on units:

- versions K, sizes 0152P..0352P
- versions LN-K, sizes 0152P..0302P
- versions SL-K e LN-CA, sizes 0152P..0202P
- versions CA, sizes 0152P..0262P

Pressostatic fan's control:

- versions K sizes 0402P..0802P

Adjustment of the fan speed with auto-transformer on units:

- versions LN-K sizes 0352P..0802P
- versions SL-K sizes 0252P..0802P
- versions LN-CA sizes 0252P..0812P
- versions SL-CA, sizes 0152P..0812P

Refrigerant circuit

Main components of the cooling circuit:

- single circuit in tandem compressors,

- R410A refrigerant,
- total ratio between refrigerant charge and cooling capacity* lower than 0,12 g/W (versions K, LN-K, SL-K, CA)
- total ratio between refrigerant charge and cooling capacity* lower than 0,15 g/W (versions LN-CA, SL-CA)
- plate heat exchanger,
- anti-freeze heaters on the heat-exchanger,
- dehydrator filter,
- coolant line sight glass with humidity indicator,
- mechanical thermostatic expansion valves (versions K, LN-K, SL-K),
- electronic expansion valves (versions CA, LN-CA, SL-CA),
- high and low pressure transducers,
- high and low pressure gauges,
- high pressure safety valve,
- low pressure safety valve,
- high pressure safety switches,
- crankcase heater on each compressor.

* Cooling capacity according to Eurovent conditions: water(in/out) 12/7°C, outdoor temperature 35°C.

Electrical panel

Electric power and control panel, built to EN 60204-1/EC 204-1 standards, complete with:

- control circuit transformer,
- numbered cables,
- general door lock isolator,
- electric circuit breakers for compressors and fans,
- terminals for cumulative alarm block (BCA),
- relays for remote pump(s) activation for both circuits (only for units without hydronic pumps),
- spring-type control circuit terminal board,
- electric panel with double door and seals for outdoor installation,
- electrical board for outdoor installation,
- electronic controller,
- multi-language user keypad with LCD display,
- IP43 protection,

Power input 400V/3/50HZ+N+PE for units:

- versions K, sizes 0152P..0352P
- versions LN-K, sizes 0152P..0302P
- versions SL-K e LN-CA, sizes 0152P..0202P
- versions CA, sizes 0152P..0262P

Power input 400V/3/50HZ+PE for units:

- versions K sizes 0402P..0812P
- versions LN-K sizes 0352P..0812P
- versions SL-K e LN-CA sizes 0252P..0812P
- versions SL-CA

Certification, Reference standard

The unit complies with the following directives and relative amendments:

- Machinery Directive: 2006/42/EC.
- E.C.D. 89/336/EEC + 2004/108/EC.
- Low Voltage Directive 2006/95/EC.
- Pressure Equipment Directive 97/23/EC. Mod. A1. - TÜV-Italy0948

Tests

Tests performed throughout the production process, as indicated in ISO9001.

Performance or noise tests can be performed by highly qualified staff in the presence of customers.

Performance tests comprise the measurement of:

- electrical data
- water flow rates
- working temperatures
- power input
- power output
- pressure drops on the water-side exchanger both at full load (at the conditions of selection and at the most critical conditions for the condenser) and at part load conditions.

During performance testing it is also possible to simulate the main alarm states.

Noise tests are performed to check noise emissions according to ISO3744.

Electronic Controller (W3000 – W3000SE)

The controller in two different versions according to the unit's type:

W3000: electronic controller complete with keypad features an easy-to-use interface and a complete LCD display, allowing to consult and intervene on the unit by means of a menu up to three languages (Italian and English come standard, a further language can be chosen within French, Spanish, German, Russian and Swedish)

W3000SE: electronic controller complete with 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-language menu, with selectable language setting on site. This controller also includes an internal clock.

The W3000SE controller offers 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.

The regulation is 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.

The diagnostics includes a complete alarm management, with the "black-box" and alarm logging functions for enhanced analysis of the unit operation (available on W3000SE 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.

Supervision can be easily developed via proprietary devices or the integration in third party systems by means of the most common protocols as ModBus, Bacnet, Bacnet-over-IP, Echelon Lon-Works.

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 only, optional on W3000 controller).

The defrost adopts a proprietary self-adaptive logic, which features the monitoring of numerous operational parameters.

This allows to reduce the number and duration of the defrost cycles, with a benefit for the overall energy efficiency.



Please refer to the following table for more details about the type of electronic controller adopted by each size and version.

Model	Size													
Horizontal V-shaped coil module	---	---	---	---	---	---	---	0412P	0462P	0512P	0562P	0612P	0712P	0712P
Longitudinal V-shaped coil module	0152P	0182P	0202P	0252P	0262P	0302P	0352P	0402P	0452P	0502P	0552P	0602P	0702P	0802P

Version	Type of electronic controllor													
K	W3000							W3000SE						
LN-K	W3000						W3000SE							
SL-K	W3000			W3000SE										
CA	W3000SE									W3000SE				
LN-CA	W3000SE									W3000SE				
SL-CA	W3000SE							W3000SE						

10. ACCESSORIES

ACCESSORIES	DESCRIPTION	BENEFIT
Cu/Cu condensing coils	Air-refrigerant heat exchanger with copper fins and tubes.	Recommended for applications in corrosive atmospheres
Condensing coils with epoxy-coated fins	Painted air-refrigerant heat exchanger.	Recommended for applications in medium level pollution atmospheres.
Condensing coils with Fin Guard Silver treatment	Air-refrigerant heat exchanger with epoxidic treatment on coils and fins.	Recommended for marine exposure conditions, with an high level of pollution or other aggressive atmospheres.
Soft start	Electronic device adopted to manage the inrush current.	Break down of the inrush current as soon as the electrical motor is switch on, lower motor's mechanical wear, favourable sizing for the electrical system.
Remote phase-sequence control	Relay for controlling the phase-sequence of mains.	Protects loads against faults due to incorrect connection of the electric line.
Compressors' on/off signal	Auxiliary contacts providing a voltage-free signal	Allows remote signalling of compressor's activation or remote control of any auxiliary loads.
ModBUS connectivity	Interface module for ModBUS protocols	Allows integration with BMS operating with ModBUS protocol
BACnet connectivity	Interface module for BACnet protocols	Allows integration with BMS operating with BACnet protocol
Echelon connectivity	Interface module for Echelon systems	Allows integration with BMS operating with LonWorks protocols
HP AND LP GAUGES	High and low pressure gauges.	Allows immediate reading of the pressure values on both low and high pressure circuits.
COMPRESSOR SUCTION VALVE	Shut-off solenoid valve on compressor's suction circuit.	Simplifies maintenance activities
COMPR. DISCHARGE LINE VALVE	Shut-off solenoid valve on compressor discharge circuit	Simplifies maintenance activities.
Anti-intrusions grills		Avoid the intrusion of solid bodies into the unit's structure
BACnet OVER IP connectivity	Interface module for BACnet OVER-IP protocols	Allows to interconnect BACnet devices over Internet Protocol within wide-area networks
AUX 4-20mA REMOTE D L.C.	4..20mA analogue input, voltage-free digitale input. Allows to change the operating set-point according to value of current applied to 4..20mA input and to limit the unit's power (by activating the digital input).	Enforce Energy Saving policy, ensure safety operation.
DVV	Fan speed control according to the condensing pressure; the use of this device is mandatory in case the unit operates with low evaporator leaving water temperature setpoint further combined with a low outdoor temperature [See the section "Operating limit" for more further information]	Increase of the unit global efficiency thanks to a more accurate fans speed management. Improvement of the quietness in part load operating conditions. Extension of the unit operating range ensuring a safe operation down to -10°C outdoor air temperature.
DVVF	Fan speed control according to the condensing pressure; the use of this device is mandatory in case the unit operates with low evaporator leaving water temperature setpoint further combined with a low outdoor temperature [See the section "Operating limit" for more further information]	Increase of the unit global efficiency thanks to a more accurate fans speed management. Improvement of the quietness in part load operating conditions. Extension of the unit operating range ensuring a safe operation down to -10°C outdoor air temperature. Allows the unit to operate at even most extreme conditions avoiding any risk of low pressure intervention.
DVV2F	Fan speed control according to the condensing pressure; the use of this device is mandatory in case the unit operates with low evaporator leaving water temperature setpoint further combined with a low outdoor temperature [See the section "Operating limit" for more further information]	Increase of the unit global efficiency thanks to a more accurate fans speed management. Improvement of the quietness in part load operating conditions. Extension of the unit operating range ensuring a safe operation down to -10°C outdoor air temperature. Allows the unit to operate at even most extreme conditions avoiding any risk of low pressure intervention.
E-COATING MICROCHANNEL COILS	Air coil with aluminum tubes and fins with e-coating protection	Recommended for medium level of pollution or soft marine atmospheres.
COPPER/ALUMINUM COILS	Air coil with copper tubes and aluminum fins	---
FLUID OUT BELOW -4 ° C	Leaving water temperature lower than -4°C at outdoor temperature lower than 10°C	Allows to the unit to produce leaving water temperature lower than -4°C when the outdoor temperature is lower than 10°C. Without this option the unit can't operate at this specific conditions.
ANTIFREEZE ON PIPES	Electrical heaters on pipes .This option is mandatory if the unit is supposed to work with outdoor temperature below 0°C	It protects the unit against ice formation on its hydraulic components
ANTIFREEZE ON PIPESS + PUMP	Electrical heaters on pipes and other hydraulic unit's components. This option is mandatory if the unit is supposed to work with outdoor temperature below 0°C	It protects the unit against ice formation on its hydraulic components
ANTIFREEZE ON PIPES + PUMPS + TANK	Electrical heaters on pipes and water tank. This option is mandatory if the unit is supposed to work with outdoor temperature below 0°C	It protects the unit against ice formation on its hydraulic components

11. TECHNICAL DATA

NX/K General technical data

SIZE		0152P	0182P	0202P	0252P	0262P	0302P	0352P
NX /K								
COOLING	(1)							
Cooling capacity	kW	39,2	44,3	51,9	58,9	65,0	77,6	88,5
Total power input (unit)	kW	13,5	15,6	18,1	20,5	23,5	26,8	31,3
EER		2,90	2,84	2,87	2,87	2,77	2,90	2,83
ESEER		4,41	4,37	4,41	4,39	4,33	4,23	4,41
Heat exchanger water flow	m³/h	6,76	7,62	8,94	10,1	11,2	13,4	15,2
Heat exchanger pressure drop	kPa	36,3	34,1	36,3	33,4	33,2	33,9	54,1
NX /K								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	39,0	44,0	51,6	58,6	64,7	77,2	87,9
EER		2,83	2,78	2,80	2,82	2,71	2,84	2,76
ESEER		4,19	4,15	4,20	4,20	4,17	4,06	4,16
EUROVENT Class		C	C	C	C	C	C	C
NX /D /K								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	40,7	45,9	53,9	61,1	67,4	80,5	91,8
Total power input (unit)	kW	13,0	15,1	17,5	19,8	22,7	25,9	30,3
Heat exchanger water flow	m³/h	6,76	7,62	8,94	10,1	11,2	13,4	15,2
Heat exchanger pressure drop	kPa	36,3	34,1	36,3	33,4	33,2	33,9	54,1
Heat recovery thermal capacity	kW	11,4	13,3	15,2	17,4	20,0	22,5	26,6
Heat exchanger recovery water flow	m³/h	1,98	2,30	2,65	3,03	3,48	3,92	4,63
Plant side heat exchanger recovery pressure drop	kPa	6,91	9,37	12,4	16,2	21,4	13,4	18,7
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	4,7	5,5	5,6	9,1	9,6	9,8	10,6
Oil charge	kg.	5,4	6,8	6,8	6,8	6,8	6,8	8,1
FANS								
Number	N°.	3	3	4	4	4	6	6
Air flow	m³/s	3,91	3,91	4,92	5,32	5,32	7,41	7,41
Single power input	kW	0,25	0,25	0,25	0,25	0,25	0,25	0,25
NOISE LEVELS	(3)							
Total sound power	dB(A)	83	83	84	84	84	85	86
Total sound pressure	dB(A)	51	51	52	52	52	53	54
DIMENSIONS AND WEIGHTS	(4)							
Length	mm.	1755	1755	1755	2290	2290	2290	2290
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	1885	1885	1885	1885	1885	1885	1885
Weight	kg.	470	480	490	540	550	570	660

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/K General technical data

SIZE		0402P	0452P	0502P	0552P	0602P	0702P	0802P
NX /K								
COOLING	(1)							
Cooling capacity	kW	102	114	127	144	166	189	207
Total power input (unit)	kW	35,4	40,1	44,9	52,3	57,7	67,9	77,9
EER		2,88	2,86	2,84	2,76	2,87	2,79	2,65
ESEER		4,04	4,13	4,13	4,24	4,08	4,15	3,89
Heat exchanger water flow	m³/h	17,6	19,7	21,9	24,8	28,5	32,6	35,6
Heat exchanger pressure drop	kPa	49,9	51,3	49,1	52,1	49,3	49,8	59,2
NX /K								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	101	114	127	144	165	189	206
EER		2,82	2,79	2,78	2,70	2,82	2,74	2,60
ESEER		3,86	3,96	3,95	4,04	3,92	3,99	3,74
EUROVENT Class		C	C	C	C	C	C	D
NX /D /K								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	106	119	132	150	172	197	214
Total power input (unit)	kW	34,3	38,9	43,5	50,6	55,8	65,7	75,4
Heat exchanger water flow	m³/h	17,6	19,7	21,9	24,8	28,5	32,6	35,6
Heat exchanger pressure drop	kPa	49,9	51,3	49,1	52,1	49,3	49,8	59,2
Heat recovery thermal capacity	kW	28,0	32,3	36,5	43,1	46,1	55,2	64,2
Heat exchanger recovery water flow	m³/h	4,86	5,61	6,35	7,49	8,01	9,60	11,2
Plant side heat exchanger recovery pressure drop	kPa	20,6	19,3	24,7	23,1	26,5	25,5	34,4
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	13,6	15,2	16,6	16,8	17,7	18,1	18,7
Oil charge	kg.	9,4	11,5	13,6	13,1	12,6	10,6	10,6
FANS								
Number	N°.	2	2	2	2	3	3	3
Air flow	m³/s	11,3	11,3	11,3	11,7	17,0	17,0	17,0
Single power input	kW	2	2	2	2	2	2	2
NOISE LEVELS	(3)							
Total sound power	dB(A)	88	88	88	89	90	90	91
Total sound pressure	dB(A)	56	56	56	57	58	58	59
DIMENSIONS AND WEIGHTS	(4)							
Length	mm.	2825	2825	2825	3360	3980	3980	3980
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	2010	2010	2010	2010	2010	2010	2010
Weight	kg.	830	870	900	980	1130	1110	1140

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/LN-K General technical data

SIZE		0152P	0182P	0202P	0252P	0262P	0302P	0352P
NX /LN-K								
COOLING	(1)							
Cooling capacity	kW	39,3	44,3	51,7	58,8	65,5	74,7	89,9
Total power input (unit)	kW	13,6	15,8	18,5	20,4	23,2	28,3	31,1
EER		2,89	2,80	2,79	2,88	2,82	2,64	2,89
ESEER		4,5	4,44	4,41	4,38	4,39	4,22	4,26
Heat exchanger water flow	m³/h	6,76	7,64	8,90	10,1	11,3	12,9	15,5
Heat exchanger pressure drop	kPa	36,3	34,2	36,0	33,3	33,7	31,4	55,9
NX /LN-K								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	39,1	44,0	51,4	58,5	65,2	74,4	89,3
EER		2,82	2,74	2,73	2,83	2,77	2,60	2,82
ESEER		4,28	4,22	4,20	4,19	4,21	4,08	4,01
EUROVENT Class		C	C	C	C	C	D	C
NX /D /LN-K								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	40,7	46,0	53,6	61,0	68,0	77,5	93,3
Total power input (unit)	kW	13,2	15,2	17,9	19,7	22,4	27,4	30,1
Heat exchanger water flow	m³/h	6,76	7,64	8,90	10,1	11,3	12,9	15,5
Heat exchanger pressure drop	kPa	36,3	34,2	36,0	33,3	33,7	31,4	55,9
Heat recovery thermal capacity	kW	11,6	13,5	15,6	17,3	19,8	24,4	25,8
Heat exchanger recovery water flow	m³/h	2,01	2,35	2,72	3,01	3,44	4,24	4,48
Plant side heat exchanger recovery pressure drop	kPa	7,16	9,74	13,0	16,0	20,9	15,7	17,5
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	4,7	5,5	5,9	9,1	9,6	9,8	11
Oil charge	kg.	5,4	6,8	6,8	6,8	6,8	6,8	8,1
FANS								
Number	N°.	4	4	4	6	6	6	2
Air flow	m³/s	3,61	3,61	4,47	5,49	5,49	5,49	8,24
Single power input	kW	0,16	0,16	0,25	0,16	0,16	0,16	1,1
NOISE LEVELS								
Total sound power	dB(A)	79	79	79	80	80	80	83
Total sound pressure	dB(A)	47	47	47	48	48	48	51
DIMENSIONS AND WEIGHTS								
Length	mm.	1755	1755	2290	2290	2290	2290	2825
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	1885	1885	1885	1885	1885	1885	2010
Weight	kg.	480	500	540	570	570	580	780

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/LN-K General technical data

SIZE		0402P	0452P	0502P	0552P	0602P	0702P	0802P
NX /LN-K								
COOLING	(1)							
Cooling capacity	kW	99,4	113	125	140	163	179	194
Total power input (unit)	kW	35,9	39,3	44,2	52,9	58,1	70,3	81,9
EER		2,77	2,87	2,83	2,64	2,80	2,55	2,37
ESEER		4,11	4,29	4,33	4,36	4,2	4,1	3,83
Heat exchanger water flow	m³/h	17,1	19,4	21,6	24,1	28,0	30,9	33,4
Heat exchanger pressure drop	kPa	47,4	49,8	47,4	49,0	47,6	44,7	52,3
NX /LN-K								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	98,8	112	124	139	162	179	193
EER		2,71	2,81	2,78	2,60	2,75	2,51	2,33
ESEER		3,92	4,11	4,14	4,17	4,04	3,95	3,70
EUROVENT Class		C	C	C	D	C	D	E
NX /D /LN-K								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	103	117	130	145	169	186	201
Total power input (unit)	kW	34,8	38,0	42,7	51,2	56,2	68,0	79,2
Heat exchanger water flow	m³/h	17,1	19,4	21,6	24,1	28,0	30,9	33,4
Heat exchanger pressure drop	kPa	47,4	49,8	47,4	49,0	47,6	44,7	52,3
Heat recovery thermal capacity	kW	30,1	33,0	37,4	45,2	48,6	59,5	69,9
Heat exchanger recovery water flow	m³/h	5,23	5,73	6,50	7,86	8,45	10,3	12,1
Plant side heat exchanger recovery pressure drop	kPa	23,9	20,1	25,9	25,4	29,4	29,6	40,9
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	13,6	15,5	16,9	16,8	17,7	18,1	18,7
Oil charge	kg.	9,4	11,5	13,6	13,1	12,6	10,6	10,6
FANS								
Number	N°.	2	2	2	2	3	3	3
Air flow	m³/s	8,24	10,2	10,2	10,2	13,4	13,4	13,4
Single power input	kW	1,1	1,15	1,15	1,15	1,2	1,2	1,2
NOISE LEVELS								
Total sound power	dB(A)	83	84	84	84	85	85	85
Total sound pressure	dB(A)	51	52	52	52	53	53	53
DIMENSIONS AND WEIGHTS								
Length	mm.	2825	3360	3360	3360	3980	3980	3980
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	2010	2025	2025	2025	2010	2010	2010
Weight	kg.	880	1000	1030	1060	1180	1150	1180

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/SL-K General technical data

SIZE		0152P	0182P	0202P	0252P	0262P	0302P	0352P
NX /SL-K								
COOLING ⁽¹⁾								
Cooling capacity	kW	39,4	44,6	52,3	58,9	65,9	77,7	88,5
Total power input (unit)	kW	13,9	16,1	18,2	20,3	22,9	27,4	30,5
EER		2,83	2,77	2,87	2,90	2,88	2,84	2,90
ESEER		4,28	4,25	4,49	4,15	4,22	4,3	4,4
Heat exchanger water flow	m³/h	6,78	7,68	9,00	10,1	11,3	13,4	15,2
Heat exchanger pressure drop	kPa	36,6	34,6	36,8	33,4	34,1	34,0	54,1
NX /SL-K								
COOLING (EN14511 VALUE) ^{(*) (1)}								
Cooling capacity	kW	39,2	44,3	52,0	58,6	65,6	77,3	87,9
EER		2,77	2,71	2,81	2,84	2,82	2,78	2,83
ESEER		4,07	4,05	4,27	3,99	4,05	4,12	4,14
EUROVENT Class		C	C	C	C	C	C	C
NX /D /SL-K								
COOLING WITH PARTIAL RECOVERY ⁽²⁾								
Cooling capacity	kW	40,9	46,3	54,2	61,1	68,3	80,7	91,8
Total power input (unit)	kW	13,4	15,5	17,6	19,6	22,1	26,5	29,5
Heat exchanger water flow	m³/h	6,78	7,68	9,00	10,1	11,3	13,4	15,2
Heat exchanger pressure drop	kPa	36,6	34,6	36,8	33,4	34,1	34,0	54,1
Heat recovery thermal capacity	kW	11,5	13,5	15,4	16,8	19,1	23,1	25,8
Heat exchanger recovery water flow	m³/h	2,01	2,34	2,67	2,91	3,32	4,02	4,49
Plant side heat exchanger recovery pressure drop	kPa	7,11	9,70	12,6	15,0	19,4	14,1	17,5
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation		STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	5	5,8	5,9	9,5	10,1	10,3	11,3
Oil charge	kg.	5,4	6,8	6,8	6,8	6,8	6,8	8,1
FANS								
Number	N°.	6	6	6	2	2	2	2
Air flow	m³/s	3,83	3,83	4,66	6,50	6,50	6,50	8,46
Single power input	kW	0,16	0,16	0,16	0,75	0,75	0,75	0,79
NOISE LEVELS ⁽³⁾								
Total sound power	dB(A)	76	77	77	78	78	78	79
Total sound pressure	dB(A)	44	45	45	46	46	46	47
DIMENSIONS AND WEIGHTS ⁽⁴⁾								
Length	mm.	2290	2290	2290	2825	2825	2825	3360
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	1885	1885	1885	2010	2010	2010	2025
Weight	kg.	540	550	560	670	680	680	860

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/SL-K General technical data

SIZE		0402P	0452P	0502P	0552P	0602P	0702P	0802P
NX /SL-K								
COOLING ⁽¹⁾								
Cooling capacity	kW	100	113	124	140	153	175	189
Total power input (unit)	kW	35,1	39,3	44,8	52,5	61,7	72,1	84,3
EER		2,85	2,89	2,77	2,68	2,48	2,43	2,24
ESEER		4,4	4,38	4,32	4,29	4,08	3,96	3,64
Heat exchanger water flow	m³/h	17,2	19,5	21,4	24,2	26,3	30,2	32,5
Heat exchanger pressure drop	kPa	48,0	50,3	46,7	49,4	42,0	42,7	49,6
NX /SL-K								
COOLING (EN14511 VALUE) ^{(*) (1)}								
Cooling capacity	kW	99,4	113	124	140	152	175	188
EER		2,79	2,82	2,72	2,63	2,44	2,40	2,21
ESEER		4,19	4,18	4,15	4,12	3,95	3,81	3,52
EUROVENT Class		C	C	C	D	E	E	F
NX /D /SL-K								
COOLING WITH PARTIAL RECOVERY ⁽²⁾								
Cooling capacity	kW	104	118	129	146	159	182	196
Total power input (unit)	kW	33,9	38,0	43,3	50,7	59,7	69,7	81,5
Heat exchanger water flow	m³/h	17,2	19,5	21,4	24,2	26,3	30,2	32,5
Heat exchanger pressure drop	kPa	48,0	50,3	46,7	49,4	42,0	42,7	49,6
Heat recovery thermal capacity	kW	29,9	33,1	37,9	44,4	52,7	61,4	72,3
Heat exchanger recovery water flow	m³/h	5,20	5,75	6,59	7,72	9,16	10,7	12,6
Plant side heat exchanger recovery pressure drop	kPa	23,5	20,2	26,7	24,6	34,5	31,5	43,7
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	14	15,9	17,3	17,1	17,7	18,1	18,7
Oil charge	kg.	9,4	11,5	13,6	13,1	12,6	10,6	10,6
FANS								
Number	N°.	2	3	3	3	3	3	3
Air flow	m³/s	8,46	9,88	9,88	10,7	10,7	12,4	12,4
Single power input	kW	0,79	0,75	0,75	0,9	0,9	1,1	1,1
NOISE LEVELS ⁽³⁾								
Total sound power	dB(A)	80	81	81	82	82	83	84
Total sound pressure	dB(A)	48	49	49	50	50	51	52
DIMENSIONS AND WEIGHTS ⁽⁴⁾								
Length	mm.	3360	3980	3980	3980	3980	3980	3980
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	2025	2010	2010	2010	2010	2010	2010
Weight	kg.	960	1070	1080	1110	1180	1150	1180

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/CA General technical data

SIZE		0152P	0182P	0202P	0252P	0262P	0302P	0352P
NX /CA								
COOLING	(1)							
Cooling capacity	kW	41,7	47,4	55,0	62,5	69,6	85,0	96,6
Total power input (unit)	kW	12,8	14,5	16,7	19,3	21,8	26,5	30,2
EER		3,26	3,27	3,29	3,24	3,19	3,21	3,20
ESEER		4,56	4,65	4,45	4,45	4,49	4,28	4,41
Heat exchanger water flow	m³/h	7,18	8,17	9,47	10,8	12,0	14,6	16,6
Heat exchanger pressure drop	kPa	40,9	39,1	40,7	37,6	38,0	40,7	64,4
NX /CA								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	41,4	47,1	54,7	62,2	69,2	84,5	95,9
EER		3,17	3,18	3,21	3,16	3,12	3,14	3,11
ESEER		4,30	4,41	4,23	4,26	4,28	4,07	4,13
EUROVENT Class		A	A	A	A	A	A	A
NX /D /CA								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	43,3	49,2	57,1	64,8	72,2	88,2	100
Total power input (unit)	kW	12,4	14,0	16,2	18,7	21,1	25,7	29,3
Heat exchanger water flow	m³/h	7,18	8,17	9,47	10,8	12,0	14,6	16,6
Heat exchanger pressure drop	kPa	40,9	39,1	40,7	37,6	38,0	40,7	64,4
Heat recovery thermal capacity	kW	10,6	12,0	13,6	15,9	18,1	20,1	23,4
Heat exchanger recovery water flow	m³/h	1,84	2,09	2,36	2,76	3,15	3,49	4,06
Plant side heat exchanger recovery pressure drop	kPa	5,97	7,75	9,86	13,4	17,5	10,6	14,4
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	5,1	6,4	6,5	9,5	10	10,7	12,3
Oil charge	kg.	5,4	6,8	6,8	6,8	6,8	6,8	8,1
FANS								
Number	N°.	4	4	6	6	6	2	2
Air flow	m³/s	4,92	5,32	7,41	7,41	7,41	11,3	11,7
Single power input	kW	0,25	0,25	0,25	0,25	0,25	2	2
NOISE LEVELS								
Total sound power	dB(A)	84	84	85	85	86	88	88
Total sound pressure	dB(A)	52	52	53	53	54	56	56
DIMENSIONS AND WEIGHTS								
Length	mm.	1755	2290	2290	2290	2290	2825	3360
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	1885	1885	1885	1885	1885	2010	2010
Weight	kg.	480	540	550	560	570	680	830

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/CA General technical data

SIZE		0402P	0452P	0502P	0562P	0612P	0712P	0812P
NX /CA								
COOLING	(1)							
Cooling capacity	kW	108	122	138	160	178	201	227
Total power input (unit)	kW	33,6	38,3	42,6	48,9	55,4	63,5	70,5
EER		3,21	3,18	3,23	3,28	3,22	3,17	3,22
ESEER		4,43	4,54	4,34	4,32	4,31	4,38	4,17
Heat exchanger water flow	m³/h	18,6	21,0	23,7	27,6	30,7	34,6	39,1
Heat exchanger pressure drop	kPa	56,0	58,2	57,4	64,4	57,2	56,2	71,5
NX /CA								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	107	121	137	159	178	200	226
EER		3,13	3,10	3,16	3,20	3,15	3,10	3,14
ESEER		4,19	4,30	4,13	4,08	4,13	4,18	3,96
EUROVENT Class		A	A	A	A	A	A	A
NX /D /CA								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	112	126	143	166	185	209	236
Total power input (unit)	kW	32,6	37,0	41,4	47,4	53,8	61,5	68,4
Heat exchanger water flow	m³/h	18,6	21,0	23,7	27,6	30,7	34,6	39,1
Heat exchanger pressure drop	kPa	56,0	58,2	57,4	64,4	57,2	56,2	71,5
Heat recovery thermal capacity	kW	26,7	30,9	32,7	36,5	42,3	49,5	54,0
Heat exchanger recovery water flow	m³/h	4,65	5,36	5,68	6,34	7,36	8,60	9,39
Plant side heat exchanger recovery pressure drop	kPa	18,8	17,6	19,8	16,6	22,3	20,5	24,4
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	15,2	16,9	18,8	19,9	20,5	21,2	22,6
Oil charge	kg.	9,4	11,5	13,6	13,1	12,6	12,6	12,6
FANS								
Number	N°.	2	2	3	4	4	4	5
Air flow	m³/s	12,5	12,5	17,0	22,7	22,7	22,7	28,4
Single power input	kW	1,84	1,84	2	2	2	2	2
NOISE LEVELS								
Total sound power	dB(A)	90	90	90	91	91	92	93
Total sound pressure	dB(A)	58	58	58	59	59	60	61
DIMENSIONS AND WEIGHTS								
Length	mm.	3360	3360	3980	3160	3160	3160	4335
Width	mm.	1195	1195	1195	2250	2250	2250	2250
Height	mm.	2025	2025	2010	2170	2170	2170	2170
Weight	kg.	960	1000	1080	1510	1560	1570	1850

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/LN-CA General technical data

SIZE		0152P	0182P	0202P	0252P	0262P	0302P	0352P
NX /LN-CA								
COOLING	(1)							
Cooling capacity	kW	41,5	47,0	55,0	63,5	70,7	82,7	94,4
Total power input (unit)	kW	12,6	14,4	17,2	19,5	21,9	26,0	29,3
EER		3,29	3,26	3,20	3,26	3,23	3,18	3,22
ESEER		4,56	4,62	4,71	4,31	4,34	4,37	4,52
Heat exchanger water flow	m³/h	7,14	8,09	9,47	10,9	12,2	14,2	16,3
Heat exchanger pressure drop	kPa	40,5	38,4	40,7	38,8	39,2	38,5	61,6
NX /LN-CA								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	41,2	46,7	54,7	63,1	70,3	82,3	93,8
EER		3,20	3,18	3,12	3,18	3,15	3,11	3,13
ESEER		4,29	4,38	4,46	4,11	4,15	4,20	4,25
EUROVENT Class		A	A	A	A	A	A	A
NX /D /LN-CA								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	43,0	48,7	57,1	65,9	73,3	85,8	98,0
Total power input (unit)	kW	12,2	13,9	16,6	18,9	21,2	25,1	28,4
Heat exchanger water flow	m³/h	7,14	8,09	9,47	10,9	12,2	14,2	16,3
Heat exchanger pressure drop	kPa	40,5	38,4	40,7	38,8	39,2	38,5	61,6
Heat recovery thermal capacity	kW	10,4	12,0	14,5	15,4	17,6	21,2	24,1
Heat exchanger recovery water flow	m³/h	1,80	2,08	2,52	2,68	3,05	3,68	4,19
Plant side heat exchanger recovery pressure drop	kPa	5,73	7,68	11,2	12,7	16,5	11,8	15,3
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	5,5	6,4	6,5	9,9	10,5	11,1	12,3
Oil charge	kg.	5,4	6,8	6,8	6,8	6,8	6,8	8,1
FANS								
Number	N°.	6	6	6	2	2	2	2
Air flow	m³/s	5,49	5,49	5,49	8,24	8,24	8,70	10,2
Single power input	kW	0,16	0,16	0,16	1,1	1,1	1,1	1,15
NOISE LEVELS								
Total sound power	dB(A)	80	80	80	81	81	82	84
Total sound pressure	dB(A)	48	48	48	49	49	50	52
DIMENSIONS AND WEIGHTS								
Length	mm.	2290	2290	2290	2825	2825	3360	3360
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	1885	1885	1885	2010	2010	2010	2025
Weight	kg.	550	560	560	670	680	750	870

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/LN-CA General technical data

SIZE		0402P	0452P	0502P	0562P	0612P	0712P	0812P
NX /LN-CA								
COOLING	(1)							
Cooling capacity	kW	107	121	134	154	173	198	221
Total power input (unit)	kW	33,3	37,9	42,2	47,1	54,4	60,8	67,5
EER		3,23	3,18	3,18	3,27	3,18	3,26	3,28
ESEER		4,32	4,41	4,36	4,67	4,48	4,65	4,38
Heat exchanger water flow	m³/h	18,5	20,8	23,1	26,5	29,7	34,1	38,1
Heat exchanger pressure drop	kPa	55,4	56,9	54,4	59,3	53,6	54,6	67,9
NX /LN-CA								
COOLING (EN14511 VALUE)	(*) (1)							
Cooling capacity	kW	107	120	133	153	172	197	220
EER		3,14	3,10	3,11	3,19	3,11	3,20	3,20
ESEER		4,10	4,19	4,15	4,40	4,29	4,43	4,16
EUROVENT Class		A	A	A	A	A	A	A
NX /D /LN-CA								
COOLING WITH PARTIAL RECOVERY	(2)							
Cooling capacity	kW	111	125	139	160	179	206	230
Total power input (unit)	kW	32,2	36,7	40,9	45,6	52,7	58,8	65,3
Heat exchanger water flow	m³/h	18,5	20,8	23,1	26,5	29,7	34,1	38,1
Heat exchanger pressure drop	kPa	55,4	56,9	54,4	59,3	53,6	54,6	67,9
Heat recovery thermal capacity	kW	26,8	30,9	34,5	38,7	45,3	50,1	55,3
Heat exchanger recovery water flow	m³/h	4,65	5,37	5,99	6,72	7,87	8,70	9,60
Plant side heat exchanger recovery pressure drop	kPa	18,8	17,6	22,0	18,6	25,5	21,0	25,5
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	15,6	17,3	18,8	19,9	20,5	22,2	23,6
Oil charge	kg.	9,4	11,5	13,6	13,1	12,6	12,6	12,6
FANS								
Number	N°.	3	3	3	4	4	5	6
Air flow	m³/s	12,4	12,4	13,4	16,9	16,9	21,1	25,3
Single power input	kW	1,1	1,1	1,2	0,93	0,93	0,93	0,93
NOISE LEVELS								
Total sound power	dB(A)	84	84	85	86	86	87	88
Total sound pressure	dB(A)	52	52	53	54	54	55	56
DIMENSIONS AND WEIGHTS								
Length	mm.	3980	3980	3980	3160	3160	4335	4335
Width	mm.	1195	1195	1195	2250	2250	2250	2250
Height	mm.	2010	2010	2010	2170	2170	2170	2170
Weight	kg.	1050	1080	1090	1510	1550	1850	1870

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/SL-CA General technical data

SIZE		0152P	0182P	0202P	0252P	0262P	0302P	0352P
NX /SL-CA								
COOLING ⁽¹⁾								
Cooling capacity	kW	41,9	47,5	55,3	62,2	69,2	81,9	94,5
Total power input (unit)	kW	12,8	14,5	17,1	19,0	21,4	25,5	29,6
EER		3,27	3,28	3,23	3,27	3,23	3,21	3,19
ESEER		4,26	4,39	4,52	4,44	4,46	4,57	4,52
Heat exchanger water flow	m³/h	7,21	8,18	9,52	10,7	11,9	14,1	16,3
Heat exchanger pressure drop	kPa	41,3	39,3	41,2	37,3	37,6	37,8	61,7
NX /SL-CA								
COOLING (EN14511 VALUE) ^{(*) (1)}								
Cooling capacity	kW	41,6	47,2	55,0	61,9	68,8	81,5	93,9
EER		3,18	3,19	3,15	3,20	3,16	3,14	3,10
ESEER		4,02	4,16	4,30	4,24	4,26	4,38	4,27
EUROVENT Class		A	A	A	A	A	A	A
NX /D /SL-CA								
COOLING WITH PARTIAL RECOVERY ⁽²⁾								
Cooling capacity	kW	43,4	49,3	57,4	64,5	71,8	85,0	98,0
Total power input (unit)	kW	12,4	14,0	16,5	18,3	20,7	24,7	28,6
Heat exchanger water flow	m³/h	7,21	8,18	9,52	10,7	11,9	14,1	16,3
Heat exchanger pressure drop	kPa	41,3	39,3	41,2	37,3	37,6	37,8	61,7
Heat recovery thermal capacity	kW	10,0	11,6	13,9	15,5	17,6	21,4	24,4
Heat exchanger recovery water flow	m³/h	1,75	2,02	2,42	2,70	3,07	3,71	4,24
Plant side heat exchanger recovery pressure drop	kPa	5,38	7,17	10,3	12,8	16,6	12,0	15,7
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	5,8	6,8	6,9	10,4	10,9	11,1	12,7
Oil charge	kg.	5,4	6,8	6,8	6,8	6,8	6,8	8,1
FANS								
Number	N°.	2	2	2	2	2	2	3
Air flow	m³/s	6,50	6,50	6,50	8,46	8,46	8,46	9,88
Single power input	kW	0,75	0,75	0,75	0,79	0,79	0,79	0,75
NOISE LEVELS ⁽³⁾								
Total sound power	dB(A)	77	78	78	79	79	79	80
Total sound pressure	dB(A)	45	46	46	47	47	47	48
DIMENSIONS AND WEIGHTS ⁽⁴⁾								
Length	mm.	2825	2825	2825	3360	3360	3360	3980
Width	mm.	1195	1195	1195	1195	1195	1195	1195
Height	mm.	2010	2010	2010	2025	2025	2025	2010
Weight	kg.	650	660	670	760	770	780	940

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

NX/SL-CA General technical data

SIZE		0412P	0462P	0512P	0562P	0612P	0712P	0812P
NX /SL-CA								
COOLING ⁽¹⁾								
Cooling capacity	kW	106	119	133	152	172	195	218
Total power input (unit)	kW	32,4	36,9	41,9	47,3	52,8	61,6	68,2
EER		3,27	3,22	3,17	3,21	3,26	3,16	3,19
ESEER		4,56	4,64	4,67	4,7	4,63	4,72	4,46
Heat exchanger water flow	m³/h	18,3	20,4	22,9	26,1	29,7	33,5	37,5
Heat exchanger pressure drop	kPa	54,0	55,1	53,5	57,6	53,3	52,7	65,7
NX /SL-CA								
COOLING (EN14511 VALUE) ^{(*) (1)}								
Cooling capacity	kW	105	118	132	151	171	194	216
EER		3,19	3,14	3,10	3,13	3,19	3,10	3,12
ESEER		4,35	4,39	4,46	4,47	4,42	4,51	4,26
EUROVENT Class		A	A	A	A	A	A	A
NX /D /SL-CA								
COOLING WITH PARTIAL RECOVERY ⁽²⁾								
Cooling capacity	kW	110	123	138	157	179	202	226
Total power input (unit)	kW	31,3	35,7	40,5	45,7	51,1	59,5	65,9
Heat exchanger water flow	m³/h	18,3	20,4	22,9	26,1	29,7	33,5	37,5
Heat exchanger pressure drop	kPa	54,0	55,1	53,5	57,6	53,3	52,7	65,7
Heat recovery thermal capacity	kW	27,1	31,1	35,5	39,9	44,4	52,2	57,7
Heat exchanger recovery water flow	m³/h	4,71	5,41	6,18	6,94	7,72	9,08	10,0
Plant side heat exchanger recovery pressure drop	kPa	19,3	17,9	23,4	19,8	24,6	22,8	27,8
COMPRESSORS								
Number	N°.	2	2	2	2	2	2	2
Number of capacity	N°.	2	2	2	2	2	2	2
Number of circuits	N°.	1	1	1	1	1	1	1
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	50	50	50	50	50	50	50
Type of refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	16,8	18,5	20	20,9	21,5	23,3	24,6
Oil charge	kg.	9,4	11,5	13,6	13,1	12,6	12,6	12,6
FANS								
Number	N°.	4	4	4	5	6	6	7
Air flow	m³/s	12,2	12,2	12,2	15,3	18,3	18,3	21,4
Single power input	kW	0,51	0,51	0,51	0,51	0,51	0,51	0,51
NOISE LEVELS ⁽³⁾								
Total sound power	dB(A)	81	82	82	83	84	85	86
Total sound pressure	dB(A)	49	50	50	51	52	53	54
DIMENSIONS AND WEIGHTS ⁽⁴⁾								
Length	mm.	3160	3160	3160	4335	4335	4335	5510
Width	mm.	2250	2250	2250	2250	2250	2250	2250
Height	mm.	2170	2170	2170	2170	2170	2170	2170
Weight	kg.	1410	1450	1480	1760	1820	1850	2160

(*) Performance based on EN14511-3:2011

1 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

2 Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Plant (side) heat exchanger recovery water (in/out) 40/45 °C

3 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

4 Standard configuration

- Not available

PERFORMANCE BASED ON EN14511

All the units certified by Eurovent have the performance statements with the traditional index and with new index based on EN1511.

This set of rules redefines the method to calculate the chillers and heat pumps performance. The news is that, according to the EN14511-2011, water pressure drops on heat exchangers and fans and pumps available head (for ducted and pumps on board units) enter in the unit efficiency calculation. Up to now they have not been considered since an effective method was not defined yet.

From 2012, February the 1st, Eurovent declares the units cooling and heating capacity, efficiency (EER, COP and ESEER) and product classification **based on EN14511**

Here below the technical background for the performance based on EN1511 calculation:

$$P_{cooling_{EN14511}} = P_{cooling} - P_{abs.\Delta p}$$

$$P_{heating_{EN14511}} = P_{heating} + P_{abs.\Delta p}$$

$$P_{abs_{EN14511}} = P_{abs} + P_{abs.\Delta p}$$

$$EER_{EN14511} = \frac{P_{cooling_{EN14511}}}{P_{abs_{EN14511}}}$$

$$COP_{EN14511} = \frac{P_{heating_{EN14511}}}{P_{abs_{EN14511}}}$$

$$ESEER_{EN14511} = 0.03 * EER_{100\%_{EN14511}} + 0.33 * EER_{75\%_{EN14511}} + 0.41 * EER_{50\%_{EN14511}} + 0.23 * EER_{25\%_{EN14511}}$$

with:

$P_{cooling}, P_{heating}$ cooling and heating capacity [kW]

$P_{cooling_{EN14511}}, P_{heating_{EN14511}}, P_{abs_{EN14511}}, EER_{EN14511}, COP_{EN14511}, ESEER_{EN14511}$

performance based on EN14511

P_{abs} electrical absorbed power, compressors and (if present) fans [kW]

$P_{abs.\Delta p}$ electrical absorbed power for an ideal fluid circulator to face the heat exchangers water pressure drops

12. FAN STRUCTURE AND CONTROL

The table shows the dimensions of the fans used on the different unit sizes and versions.

Fan diameter [mm]		NX																				
	VERSION	0152P	0182P	0202P	0252P	0262P	0302P	0352P	0402P	0412P	0452P	0462P	0502P	0512P	0552P	0562P	0602P	0612P	0702P	0712P	0802P	0812P
450	K	CONT	CONT	CONT	CONT	CONT	CONT	CONT	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LN-K	CONT	CONT	CONT	CONT	CONT	CONT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SL-K	CONT	CONT	CONT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CA	CONT	CONT	CONT	CONT	CONT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LN-CA	CONT	CONT	CONT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SL-CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
800	K	-	-	-	-	-	-	-	PRES	-	PRES	-	PRES	-	PRES	-	PRES	-	PRES	-	PRES	-
	LN-K	-	-	-	-	-	-	TRA	TRA	-	-	-	-	-	-	-	TRA	-	TRA	-	TRA	-
	SL-K	-	-	-	TRA	TRA	TRA	-	-	-	TRA	-	TRA	-	TRA	-	TRA	-	TRA	-	TRA	-
	CA	-	-	-	-	-	TRA	TRA	-	-	-	-	TRA	-	-	TRA	-	TRA	-	TRA	-	TRA
	LN-CA	-	-	-	TRA	TRA	TRA	-	TRA	-	TRA	-	TRA	-	-	TRA	-	TRA	-	TRA	-	TRA
	SL-CA	TRA	TRA	TRA	-		-	TRA	-	TRA	-	TRA	-	TRA	-	TRA	-	TRA	-	TRA	-	TRA
910	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LN-K	-	-	-	-	-	-	-	-	-	TRA	-	-	-	TRA	-	-	-	-	-	-	-
	SL-K	-	-	-	-	-	-	TRA	TRA	-	-	-	-	-	-	-	-	-	-	-	-	-
	CA	-	-	-	-	-	-	-	TRA	-	TRA	-	-	-	-	-	-	-	-	-	-	-
	LN-CA	-	-	-	-	-	-	TRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SL-CA	-	-	-	TRA	TRA	TRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

The table shows the type of fan control adopted on the new NX units:

CONT = continuous fan control by phase-cutting

PRES = fan control by pressure, deactivates one or more fans.

Fan control by autotransformer can also be chosen for these units (option code 802)

TRA = fan control by autotransformer

Important

Units with fan control by pressure [PRES] have an operating range limited to above-zero water and outside air temperatures

Minimum water temperature produced 5°C

Minimum outside air temperature 5°C

To extend the operating temperature range to below-zero temperatures, fan control by autotransformer, code 802 [TRA] must be used.

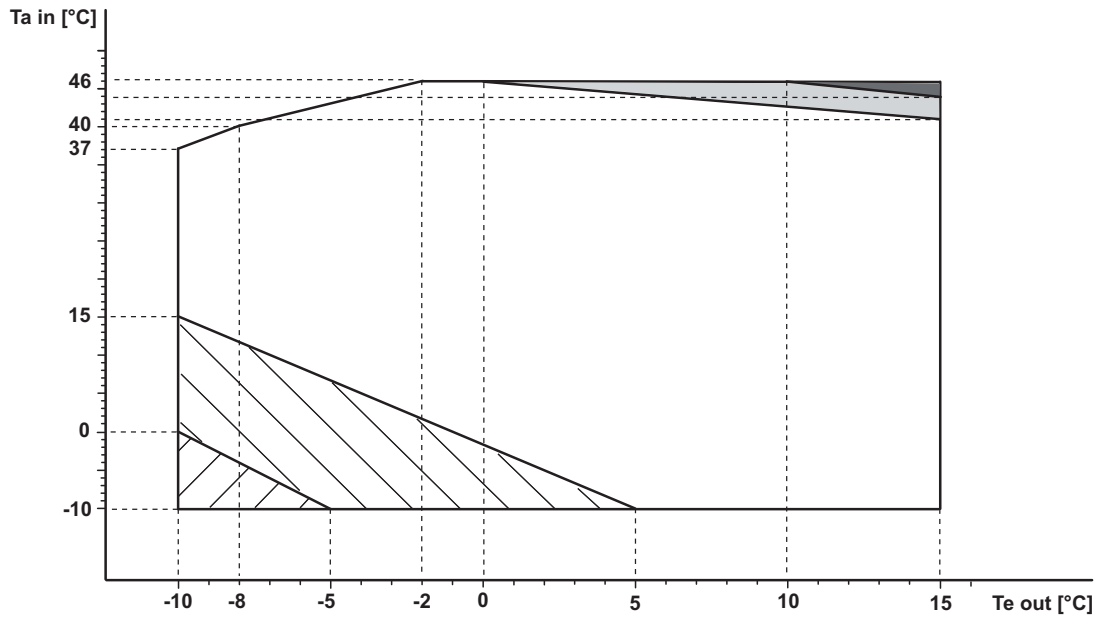
See the section on operating limits for further details.

13. OPERATION LIMITS

The following graph shows the operating limits of all the units listed hereunder.

NX /K 0152P ÷ 0352P
NX /LN-K 0152P ÷ 0802P
NX /SL-K 0152P ÷ 0802P

NX /CA 0152P ÷ 0812P
NX /LN-CA 0152P ÷ 0812P
NX /SL-CA 0152P ÷ 0812P



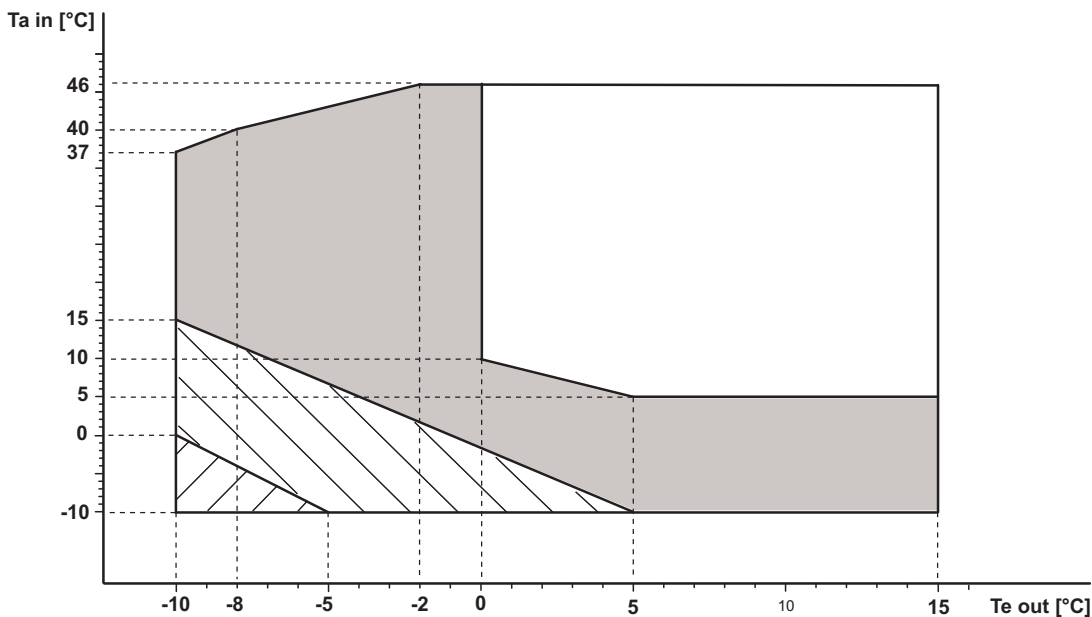
Ta in Outdoor air temperature [°C]

Te out Evaporator outlet temperature [°C]

- Operating area of standard units equipped with variable fans speed control [DVV] option
- Operating area with [DVVF] option
- Operating area with [DVV2F] option
- LN-K and LN-CA version only: non-silent-mode operating area
- SL-K and SL-CA version only: non-silent-mode operating area

The following graph shows the operating limits of all the units listed hereunder.

NX /K - 0402P ÷ 0802P



Ta in Outdoor air temperature [°C]

Te out Evaporator outlet temperature [°C]

- Operating area of standard units equipped with pressostatic control [DP] option
- Operating area with [DVVF] option
- Operating area with [DVVF] option
- Operating area with [DVV2F] option

14. ETHYLENE GLYCOL MIXTURE

Ethylene glycol and water mixture, used as a heat-conveying fluid, cause a variation in unit performance. For correct data, use the factors indicated in the following table.

	Freezing point (°C)							
	0	-5	-10	-15	-20	-25	-30	-35
	Ethylene glycol percentage by weight							
	0	12%	20%	30%	35%	40%	45%	50%
cPf	1	0,985	0,98	0,974	0,97	0,965	0,964	0,96
cQ	1	1,02	1,04	1,075	1,11	1,14	1,17	1,2
cdp	1	1,07	1,11	1,18	1,22	1,24	1,27	1,3

cPf: cooling power correction factor

cQ: flow correction factor

cdp: pressure drop correction factor

For data concerning other kind of anti-freeze solutions (e.g. propylene glycol) please contact our Sale Department.

15. FOULING FACTORS

Performances are based on clean condition of tubes (fouling factor = 1). For different fouling values, performance should be adjusted using the correction factors shown in the following table.

FOULING FACTORS	EVAPORATOR			CONDENSER/RECOVERY			DESUPERHEATER
ff (m ² °CW)	F1	FK1	KE [°C]	F1	FK1	KE [°C]	R3
0	1,000	1,000	0,0	1,000	1,000	0,0	1,00
1,80 x 10 ⁻⁵	1,000	1,000	0,0	1,000	1,000	0,0	1,00
4,40 x 10 ⁻⁵	1,000	1,000	0,0	0,990	1,030	1,0	0,990
8,80 x 10 ⁻⁵	0,960	0,990	0,7	0,980	1,040	1,5	0,980
13,20 x 10 ⁻⁵	0,944	0,985	1,0	0,964	1,050	2,3	0,964
17,20 x 10 ⁻⁵	0,930	0,980	1,5	0,950	1,050	3,0	0,950

ff: fouling factors

f1 - f2: potential correction factors

fk1 - fk2: compressor power input correction factors

r3: capacity correction factors

KE: minimum condenser outlet temperature increase

KC: maximum condenser outlet temperature decrease

16. HYDRAULIC DATA

Water flow and pressure drop

Water flow in the heat exchangers is given by: $Q = P \times 0,86 / Dt$

Q: water flow (m³/h)

Dt: difference between inlet and outlet water temp. (°C)

P: heat exchanger capacity (kW)

Pressure drop is given by: $Dp = K \times Q^2 / 1000$

Q: water flow (m³/h)

Dp: pressure drop (kPa)

K: unit size ratio

SIZE	PLANT SIDE COLD HEAT EXCHANGER					-				AUXILIARY SIDE HEAT EXCHANGER			
	K	Q min m³/h	Q max m³/h	C.A.S. dm³	C.a. min m³	K	Q min m³/h	C.A.S. dm³	Q max m³/h	K	Q min m³/h	C.A.S. dm³	Q max m³/h
NX /CA 0152P	795	4	12,2	2,2	0,104	-	-	-	-	-	-	-	-
NX /CA 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	-	-	-	-
NX /CA 0202P	454	5,4	13,3	3	0,138	-	-	-	-	-	-	-	-
NX /CA 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	-	-	-	-
NX /CA 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	-	-	-	-
NX /CA 0302P	190	8,1	17,4	5	0,213	-	-	-	-	-	-	-	-
NX /CA 0352P	233	9,3	22	5,8	0,242	-	-	-	-	-	-	-	-
NX /CA 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	-	-	-	-
NX /CA 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	-	-	-	-
NX /CA 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	-	-	-	-
NX /CA 0562P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	-	-	-	-
NX /CA 0612P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	-	-	-	-
NX /CA 0712P	46,8	20,2	43	13,6	0,503	-	-	-	-	-	-	-	-
NX /CA 0812P	46,8	22	43	13,6	0,568	-	-	-	-	-	-	-	-
NX /K 0152P	795	4	12,2	2,16	0,104	-	-	-	-	-	-	-	-
NX /K 0182P	587	4,6	13,3	2,56	0,119	-	-	-	-	-	-	-	-
NX /K 0202P	454	5,4	13,3	2,96	0,138	-	-	-	-	-	-	-	-
NX /K 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	-	-	-	-
NX /K 0262P	265	6,8	17,4	4,05	0,174	-	-	-	-	-	-	-	-
NX /K 0302P	190	8,1	17,4	4,95	0,213	-	-	-	-	-	-	-	-
NX /K 0352P	233	9,3	22	5,77	0,242	-	-	-	-	-	-	-	-
NX /K 0402P	162	10,8	31,2	6,56	0,27	-	-	-	-	-	-	-	-
NX /K 0452P	132	12,1	35,1	7,36	0,305	-	-	-	-	-	-	-	-
NX /K 0502P	102	13,5	39,1	8,48	0,345	-	-	-	-	-	-	-	-
NX /K 0552P	84,5	15,3	39,1	9,44	0,401	-	-	-	-	-	-	-	-
NX /K 0602P	60,6	17,6	39,1	11,52	0,446	-	-	-	-	-	-	-	-
NX /K 0702P	46,8	20,2	43	13,6	0,503	-	-	-	-	-	-	-	-
NX /K 0802P	46,8	22	43	13,6	0,568	-	-	-	-	-	-	-	-
NX /LN-CA 0152P	795	4	12,2	2,2	0,104	-	-	-	-	-	-	-	-
NX /LN-CA 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	-	-	-	-
NX /LN-CA 0202P	454	5,4	13,3	3	0,138	-	-	-	-	-	-	-	-
NX /LN-CA 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	-	-	-	-
NX /LN-CA 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	-	-	-	-
NX /LN-CA 0302P	190	8,1	17,4	5	0,213	-	-	-	-	-	-	-	-
NX /LN-CA 0352P	233	9,3	22	5,8	0,242	-	-	-	-	-	-	-	-
NX /LN-CA 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	-	-	-	-
NX /LN-CA 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	-	-	-	-
NX /LN-CA 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	-	-	-	-
NX /LN-CA 0562P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	-	-	-	-
NX /LN-CA 0612P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	-	-	-	-

Q min: minimum water flow admitted to the heat exchanger

Q max: maximum water flow admitted to the heat exchanger

C.a. min: minimum water content admitted in the plant, using traditional control logic

C.A.S.: heat exchanger water content

SIZE	PLANT SIDE COLD HEAT EXCHANGER					-				AUXILIARY SIDE HEAT EXCHANGER			
	K	Q min m ³ /h	Q max m ³ /h	C.A.S. dm ³	C.a. min m ³	K	Q min m ³ /h	C.A.S. dm ³	Q max m ³ /h	K	Q min m ³ /h	C.A.S. dm ³	Q max m ³ /h
NX /LN-CA 0712P	46,8	20,2	43	13,6	0,503	-	-	-	-	-	-	-	-
NX /LN-CA 0812P	46,8	22	43	13,6	0,568	-	-	-	-	-	-	-	-
NX /LN-K 0152P	795	4	12,2	2,2	0,104	-	-	-	-	-	-	-	-
NX /LN-K 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	-	-	-	-
NX /LN-K 0202P	454	5,4	13,3	3	0,138	-	-	-	-	-	-	-	-
NX /LN-K 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	-	-	-	-
NX /LN-K 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	-	-	-	-
NX /LN-K 0302P	190	8,1	17,4	5	0,213	-	-	-	-	-	-	-	-
NX /LN-K 0352P	233	9,3	22	5,8	0,242	-	-	-	-	-	-	-	-
NX /LN-K 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	-	-	-	-
NX /LN-K 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	-	-	-	-
NX /LN-K 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	-	-	-	-
NX /LN-K 0552P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	-	-	-	-
NX /LN-K 0602P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	-	-	-	-
NX /LN-K 0702P	46,8	20,2	43	13,6	0,503	-	-	-	-	-	-	-	-
NX /LN-K 0802P	46,8	22	43	13,6	0,568	-	-	-	-	-	-	-	-
NX /SL-CA 0152P	795	4	12,2	2,2	0,104	-	-	-	-	-	-	-	-
NX /SL-CA 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	-	-	-	-
NX /SL-CA 0202P	454	5,4	13,3	3	0,138	-	-	-	-	-	-	-	-
NX /SL-CA 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	-	-	-	-
NX /SL-CA 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	-	-	-	-
NX /SL-CA 0302P	190	8,1	17,4	5	0,213	-	-	-	-	-	-	-	-
NX /SL-CA 0352P	233	9,3	22	5,8	0,242	-	-	-	-	-	-	-	-
NX /SL-CA 0412P	162	10,8	31,2	6,6	0,27	-	-	-	-	-	-	-	-
NX /SL-CA 0462P	132	12,1	35,1	7,4	0,305	-	-	-	-	-	-	-	-
NX /SL-CA 0512P	102	13,5	39,1	8,5	0,345	-	-	-	-	-	-	-	-
NX /SL-CA 0562P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	-	-	-	-
NX /SL-CA 0612P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	-	-	-	-
NX /SL-CA 0712P	46,8	20,2	43	13,6	0,503	-	-	-	-	-	-	-	-
NX /SL-CA 0812P	46,8	22	43	13,6	0,568	-	-	-	-	-	-	-	-
NX /SL-K 0152P	795	4	12,2	2,2	0,104	-	-	-	-	-	-	-	-
NX /SL-K 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	-	-	-	-
NX /SL-K 0202P	454	5,4	13,3	3	0,138	-	-	-	-	-	-	-	-
NX /SL-K 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	-	-	-	-
NX /SL-K 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	-	-	-	-
NX /SL-K 0302P	190	8,1	17,4	5	0,213	-	-	-	-	-	-	-	-
NX /SL-K 0352P	233	9,3	22	5,8	0,242	-	-	-	-	-	-	-	-
NX /SL-K 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	-	-	-	-
NX /SL-K 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	-	-	-	-
NX /SL-K 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	-	-	-	-
NX /SL-K 0552P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	-	-	-	-
NX /SL-K 0602P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	-	-	-	-
NX /SL-K 0702P	46,8	20,2	43	13,6	0,503	-	-	-	-	-	-	-	-
NX /SL-K 0802P	46,8	22	43	13,6	0,568	-	-	-	-	-	-	-	-
NX /D /CA 0152P	795	4	12,2	2,2	0,104	-	-	-	-	1767	-	0,43	2,7
NX /D /CA 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	1767	-	0,43	3,1
NX /D /CA 0202P	454	5,4	13,3	3	0,138	-	-	-	-	1767	-	0,43	3,5
NX /D /CA 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	1767	-	0,43	3,8

Q min: minimum water flow admitted to the heat exchanger
Q max: maximum water flow admitted to the heat exchanger
C.a. min: minimum water content admitted in the plant, using traditional control logic
C.A.S.: heat exchanger water content

SIZE	PLANT SIDE COLD HEAT EXCHANGER					-				AUXILIARY SIDE HEAT EXCHANGER			
	K	Q min m ³ /h	Q max m ³ /h	C.A.S. dm ³	C.a. min m ³	K	Q min m ³ /h	C.A.S. dm ³	Q max m ³ /h	K	Q min m ³ /h	C.A.S. dm ³	Q max m ³ /h
NX /D /CA 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	1767	-	0,43	4,3
NX /D /CA 0302P	190	8,1	17,4	5	0,213	-	-	-	-	871	-	0,61	5,2
NX /D /CA 0352P	233	9,3	22	5,8	0,242	-	-	-	-	871	-	0,61	5,7
NX /D /CA 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	871	-	0,61	6,6
NX /D /CA 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	613	-	0,73	7,3
NX /D /CA 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	613	-	0,73	8,3
NX /D /CA 0562P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	412	-	0,92	9,7
NX /D /CA 0612P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	412	-	0,92	11,5
NX /D /CA 0712P	46,8	20,2	43	13,6	0,503	-	-	-	-	277	-	1,22	13,4
NX /D /CA 0812P	46,8	22	43	13,6	0,568	-	-	-	-	277	-	1,22	15,7
NX /D /K 0152P	795	4	12,2	2,16	0,104	-	-	-	-	1767	-	0,43	2,7
NX /D /K 0182P	587	4,6	13,3	2,56	0,119	-	-	-	-	1767	-	0,43	3,1
NX /D /K 0202P	454	5,4	13,3	2,96	0,138	-	-	-	-	1767	-	0,43	3,5
NX /D /K 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	1767	-	0,43	3,8
NX /D /K 0262P	265	6,8	17,4	4,05	0,174	-	-	-	-	1767	-	0,43	4,3
NX /D /K 0302P	190	8,1	17,4	4,95	0,213	-	-	-	-	871	-	0,61	5,2
NX /D /K 0352P	233	9,3	22	5,77	0,242	-	-	-	-	871	-	0,61	5,7
NX /D /K 0402P	162	10,8	31,2	6,56	0,27	-	-	-	-	871	-	0,61	6,6
NX /D /K 0452P	132	12,1	35,1	7,36	0,305	-	-	-	-	613	-	0,73	7,3
NX /D /K 0502P	102	13,5	39,1	8,48	0,345	-	-	-	-	613	-	0,73	8,3
NX /D /K 0552P	84,5	15,3	39,1	9,44	0,401	-	-	-	-	412	-	0,92	9,7
NX /D /K 0602P	60,6	17,6	39,1	11,52	0,446	-	-	-	-	412	-	0,92	11,5
NX /D /K 0702P	46,8	20,2	43	13,6	0,503	-	-	-	-	277	-	1,22	13,4
NX /D /K 0802P	46,8	22	43	13,6	0,568	-	-	-	-	277	-	1,22	15,7
NX /D /LN-CA 0152P	795	4	12,2	2,2	0,104	-	-	-	-	1767	-	0,43	2,7
NX /D /LN-CA 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	1767	-	0,43	3,1
NX /D /LN-CA 0202P	454	5,4	13,3	3	0,138	-	-	-	-	1767	-	0,43	3,5
NX /D /LN-CA 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	1767	-	0,43	3,8
NX /D /LN-CA 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	1767	-	0,43	4,3
NX /D /LN-CA 0302P	190	8,1	17,4	5	0,213	-	-	-	-	871	-	0,61	5,2
NX /D /LN-CA 0352P	233	9,3	22	5,8	0,242	-	-	-	-	871	-	0,61	5,7
NX /D /LN-CA 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	871	-	0,61	6,6
NX /D /LN-CA 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	613	-	0,73	7,3
NX /D /LN-CA 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	613	-	0,73	8,3
NX /D /LN-CA 0562P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	412	-	0,92	9,7
NX /D /LN-CA 0612P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	412	-	0,92	11,5
NX /D /LN-CA 0712P	46,8	20,2	43	13,6	0,503	-	-	-	-	277	-	1,22	13,4
NX /D /LN-CA 0812P	46,8	22	43	13,6	0,568	-	-	-	-	277	-	1,22	15,7
NX /D /LN-K 0152P	795	4	12,2	2,2	0,104	-	-	-	-	1767	-	0,43	2,7
NX /D /LN-K 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	1767	-	0,43	3,1
NX /D /LN-K 0202P	454	5,4	13,3	3	0,138	-	-	-	-	1767	-	0,43	3,5
NX /D /LN-K 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	1767	-	0,43	3,8
NX /D /LN-K 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	1767	-	0,43	4,3
NX /D /LN-K 0302P	190	8,1	17,4	5	0,213	-	-	-	-	871	-	0,61	5,2
NX /D /LN-K 0352P	233	9,3	22	5,8	0,242	-	-	-	-	871	-	0,61	5,7
NX /D /LN-K 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	871	-	0,61	6,6
NX /D /LN-K 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	613	-	0,73	7,3
NX /D /LN-K 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	613	-	0,73	8,3

Q min: minimum water flow admitted to the heat exchanger
Q max: maximum water flow admitted to the heat exchanger
C.a. min: minimum water content admitted in the plant, using traditional control logic
C.A.S.: heat exchanger water content

SIZE	PLANT SIDE COLD HEAT EXCHANGER					-				AUXILIARY SIDE HEAT EXCHANGER			
	K	Q min m ³ /h	Q max m ³ /h	C.A.S. dm ³	C.a. min m ³	K	Q min m ³ /h	C.A.S. dm ³	Q max m ³ /h	K	Q min m ³ /h	C.A.S. dm ³	Q max m ³ /h
NX /D /LN-K 0552P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	412	-	0,92	9,7
NX /D /LN-K 0602P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	412	-	0,92	11,5
NX /D /LN-K 0702P	46,8	20,2	43	13,6	0,503	-	-	-	-	277	-	1,22	13,4
NX /D /LN-K 0802P	46,8	22	43	13,6	0,568	-	-	-	-	277	-	1,22	15,7
NX /D /SL-CA 0152P	795	4	12,2	2,2	0,104	-	-	-	-	1767	-	0,43	2,7
NX /D /SL-CA 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	1767	-	0,43	3,1
NX /D /SL-CA 0202P	454	5,4	13,3	3	0,138	-	-	-	-	1767	-	0,43	3,5
NX /D /SL-CA 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	1767	-	0,43	3,8
NX /D /SL-CA 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	1767	-	0,43	4,3
NX /D /SL-CA 0302P	190	8,1	17,4	5	0,213	-	-	-	-	871	-	0,61	5,2
NX /D /SL-CA 0352P	233	9,3	22	5,8	0,242	-	-	-	-	871	-	0,61	5,7
NX /D /SL-CA 0412P	162	10,8	31,2	6,6	0,27	-	-	-	-	871	-	0,61	6,6
NX /D /SL-CA 0462P	132	12,1	35,1	7,4	0,305	-	-	-	-	613	-	0,73	7,3
NX /D /SL-CA 0512P	102	13,5	39,1	8,5	0,345	-	-	-	-	613	-	0,73	8,3
NX /D /SL-CA 0562P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	412	-	0,92	9,7
NX /D /SL-CA 0612P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	412	-	0,92	11,5
NX /D /SL-CA 0712P	46,8	20,2	43	13,6	0,503	-	-	-	-	277	-	1,22	13,4
NX /D /SL-CA 0812P	46,8	22	43	13,6	0,568	-	-	-	-	277	-	1,22	15,7
NX /D /SL-K 0152P	795	4	12,2	2,2	0,104	-	-	-	-	1767	-	0,43	2,7
NX /D /SL-K 0182P	587	4,6	13,3	2,6	0,119	-	-	-	-	1767	-	0,43	3,1
NX /D /SL-K 0202P	454	5,4	13,3	3	0,138	-	-	-	-	1767	-	0,43	3,5
NX /D /SL-K 0252P	325	6,1	17,4	3,6	0,156	-	-	-	-	1767	-	0,43	3,8
NX /D /SL-K 0262P	265	6,8	17,4	4,1	0,174	-	-	-	-	1767	-	0,43	4,3
NX /D /SL-K 0302P	190	8,1	17,4	5	0,213	-	-	-	-	871	-	0,61	5,2
NX /D /SL-K 0352P	233	9,3	22	5,8	0,242	-	-	-	-	871	-	0,61	5,7
NX /D /SL-K 0402P	162	10,8	31,2	6,6	0,27	-	-	-	-	871	-	0,61	6,6
NX /D /SL-K 0452P	132	12,1	35,1	7,4	0,305	-	-	-	-	613	-	0,73	7,3
NX /D /SL-K 0502P	102	13,5	39,1	8,5	0,345	-	-	-	-	613	-	0,73	8,3
NX /D /SL-K 0552P	84,5	15,3	39,1	9,4	0,401	-	-	-	-	412	-	0,92	9,7
NX /D /SL-K 0602P	60,6	17,6	39,1	11,5	0,446	-	-	-	-	412	-	0,92	11,5
NX /D /SL-K 0702P	46,8	20,2	43	13,6	0,503	-	-	-	-	277	-	1,22	13,4
NX /D /SL-K 0802P	46,8	22	43	13,6	0,568	-	-	-	-	277	-	1,22	15,7

Q min: minimum water flow admitted to the heat exchanger
Q max: maximum water flow admitted to the heat exchanger
C.a. min: minimum water content admitted in the plant, using traditional control logic
C.A.S.: heat exchanger water content

17. HYDRONIC GROUP (Optional)

The units can be supplied with a hydronic group. This includes all the main hydraulic components, thereby optimising hydraulic and electric installation space, time and cost.

Storage tank combinations

NX	VERSION	WATER TANK
		Capacity [litre]
0152P	K	90
	LN-K	
	SL-K	140
	CA	90
	LN-CA	140
	SL-CA	
0182P	K	90
	LN-K	
	SL-K	140
	CA	
	LN-CA	
	SL-CA	
0202P	K	90
	LN-K	140
	SL-K	
	CA	
	LN-CA	
	SL-CA	
0252P	K	140
	LN-K	
	SL-K	
	CA	
	LN-CA	
	SL-CA	200
0262P	K	140
	LN-K	
	SL-K	
	CA	
	LN-CA	
	SL-CA	200
0302P	K	140
	LN-K	
	SL-K	
	CA	
	LN-CA	
	SL-CA	200
0352P	K	140
	LN-K	200
	SL-K	
	CA	
	LN-CA	
	SL-CA	250
0402P	K	140
	LN-K	200
	SL-K	
	CA	
	LN-CA	250
	SL-CA	500
0412P	K	140
	LN-K	200
	SL-K	250
	CA	200
	LN-CA	250
	SL-CA	500
0452P	K	140
	LN-K	200
	SL-K	250
	CA	200
	LN-CA	250
	SL-CA	500
0462P	K	140
	LN-K	200
	SL-K	250
	CA	
	LN-CA	
	SL-CA	500
0502P	K	140
	LN-K	200
	SL-K	250
	CA	
	LN-CA	
	SL-CA	500
0512P	K	200
	LN-K	
	SL-K	250
	CA	
	LN-CA	500
	SL-CA	
0552P	K	250
	LN-K	
	SL-K	500
	CA	
	LN-CA	500
	SL-CA	
0602P	K	250
	LN-K	
	SL-K	
	CA	500
	LN-CA	
	SL-CA	
0612P	K	250
	LN-K	
	SL-K	
	CA	500
	LN-CA	
	SL-CA	
0702P	K	250
	LN-K	
	SL-K	
	CA	500
	LN-CA	
	SL-CA	
0712P	K	250
	LN-K	
	SL-K	
	CA	500
	LN-CA	
	SL-CA	
0802P	K	250
	LN-K	
	SL-K	
	CA	500
	LN-CA	
	SL-CA	
0812P	K	250
	LN-K	
	SL-K	
	CA	500
	LN-CA	
	SL-CA	

“LONGITUDINAL V-SHAPED” STRUCTURE UNIT

Available pump configurations:

- Hydronic kit with one 2-pole low-head pump
- Hydronic kit with one 2-pole high-head pump
- Hydronic kit with two 2-pole low-head pumps
- Hydronic kit with two 2-pole high-head pumps

Storage tank (upon request)

The storage tank system features:

- 90 to 250 litres tank for the sizes and versions shown in the table of combinations,
- expansion vessel (EPDM membrane), with 1.5 bar pre-charge,
- pressure gauge,
- safety valve calibrated to 6 bars,
- storage tank with 20 mm lining,
- tank frost protection heater upon request.

2-pole low-head pump

Horizontal one-piece centrifuge pump with one impeller, axial suction and radial delivery, AISI 304L stainless steel pump body impeller. The section of shaft in contact with the liquid is made of stainless steel. Mechanical seal made of components in ceramics/carbon/NBR/AISI304. Three-phase electric motor protected to IP55, insulation class F, suitable for continuous service.

2-pole high-head pump

All versions of the hydronic unit can be supplied with a high-head pump. In these cases, the pump features a two-pole motor even in the silent-running versions.

Second pump

A second stand-by pump for high or low pressures is available on request. The pumps are automatically exchanged on the basis of a rotation program and the stand-by pump cuts in automatically if the primary pump fails. The two-pump hydronic assembly is also fitted with check valves to ensure the unit works correctly

“HORIZONTAL V-SHAPED” STRUCTURE UNIT

Available pump configurations:

- Hydronic kit with one IN-LINE 2-pole low-head pump
- Hydronic kit with one IN-LINE 2-pole high-head pump
- Hydronic kit with IN-LINE 2-pole low-head twin pumps
- Hydronic kit with IN-LINE 2-pole high-head twin pumps

Storage tank (upon request)

The storage tank system features:

- 500 litre tank for the sizes and versions shown in the table of combinations,
- expansion vessel (EPDM membrane), with 1.5 bar pre-charge,
- pressure gauge,
- safety valve calibrated to 6 bars,
- storage tank with 20 mm lining,
- tank frost protection heater upon request.

2-pole low-head pump

Centrifugal pumps with in-line suction and delivery flanges, in single and twin versions. Pump body in cast iron and impeller in AISI 316L stainless steel or cast-iron, entirely laser technology welded. Mechanical seal with components in ceramics, carbon and EPDM elastomers. Three-phase electric motor protected to IP55, insulation class F, suitable for continuous service.

2-pole high-head pump

All versions of the hydronic unit can be supplied with a high head pump. In these cases, the pump features a two-pole motor even in the silent-running versions.

Twin pump

A second stand-by pump for high or low pressures is available on request. The pumps are automatically exchanged on the basis of a rotation programme and the stand-by pump cuts in automatically if the primary pump fails.

GENERAL CHARACTERISTICS**Water connections**

In the units without pumps, standard version, the connections for the water inlet and outlet both in the evaporator and in the desuperheater are inside the unit. As an accessory one can request these connections flush with the unit.

For units with pumps, the connections are always flush with the unit.

Water-side mechanical filter (optional)

Y-filter designed and built to capture the impurities in the hydraulic circuit. It is fitted with a 0.9 mm stainless steel mesh cartridge which can be replaced without removing the valve body from the piping.

Unit electrical panel

The unit electrical panel is fitted with fuses and a circuit breaker contactor.

Special pumps

For pumps with different configurations, please contact our sales department.

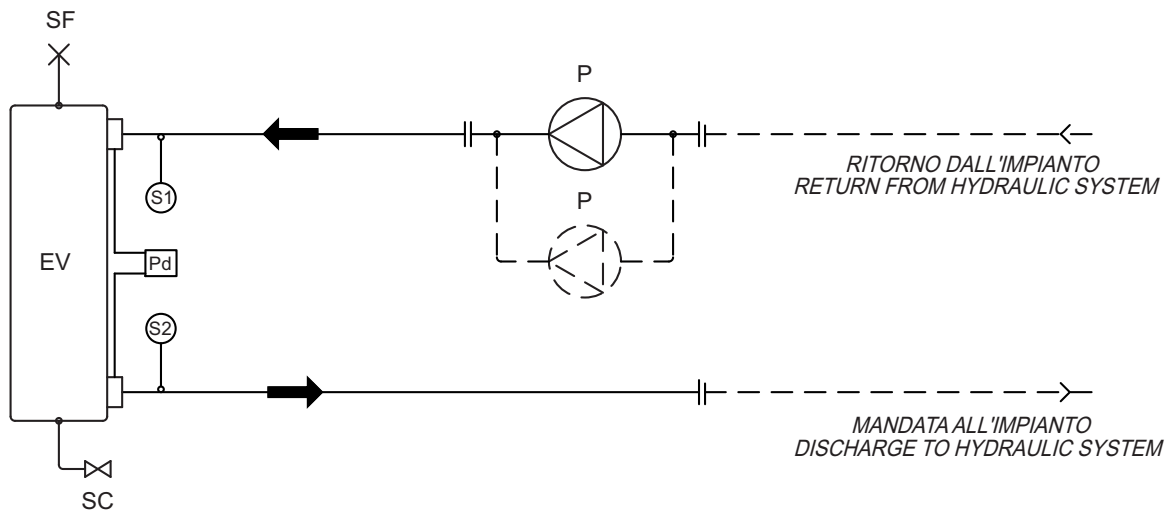
Additional components

The supply does not include the following accessories though these are recommended to ensure correct system operation:

- MA Pressure gauges upline and downline from the unit
- GF Flexible joints on piping
- RI On-off valves
- T Outlet control thermometer

HYDRONIC GROUP (Optional)

17.1 Hydraulic diagram



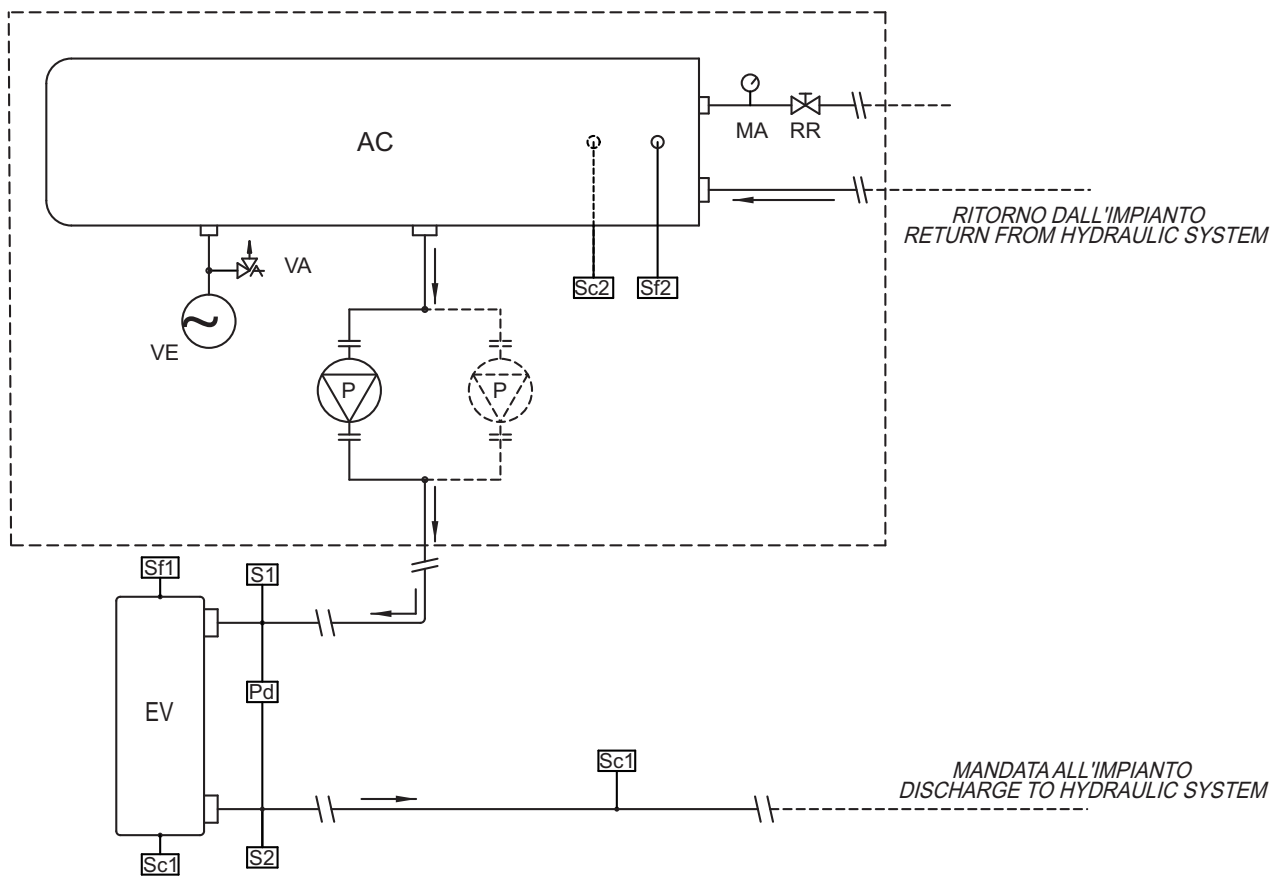
LEGENDA - LEGEND

COMPONENTI DEL KIT IDRONICO COMPONENTS OF THE HYDRONIC KIT

EV	Evaporatore Evaporator
P	Pompa Water pump
Pd	Pressostato differenziale lato acqua Water Differential pressure switch
SC	Valvola di scarico Drain valve
SF	Valvola di sfiato Purge valve
S1	Sonda ingresso acqua scambiatore Exchanger water inlet probe
S2	Sonda uscita acqua scambiatore Exchanger water outlet probe

HYDRONIC GROUP (Optional)

17.2 Hydraulic diagram with water tank



LEGENDA - LEGEND

AC	Accumulo Water tank
EV	Evaporatore Evaporator
MA	Manometro Water pressure gauge
P	Pompa Water pump
Pd	Pressostato differenziale Differential pressure switch
RR	Rubinetto reintegro Filling valve
S1	Sonda ingresso acqua evaporatori/condensatori Evaporators/Condensers water inlet probe
S2	Sonda uscita acqua evaporatori/condensatori Evaporators/Condensers water outlet probe
Sc1	Scarico Evaporatore/Condensatore Evaporator/Condenser drain valve
Sc2	Scarico acqua accumulo Water tank drain valve
Sf1	Sfiato Evaporatore/Condensatore Evaporator/Condenser breather valve
Sf2	Sfiato accumulo Tank breather valve
VA	Valvola di sicurezza Safety valve
VE	Vaso di espansione Expansion tank

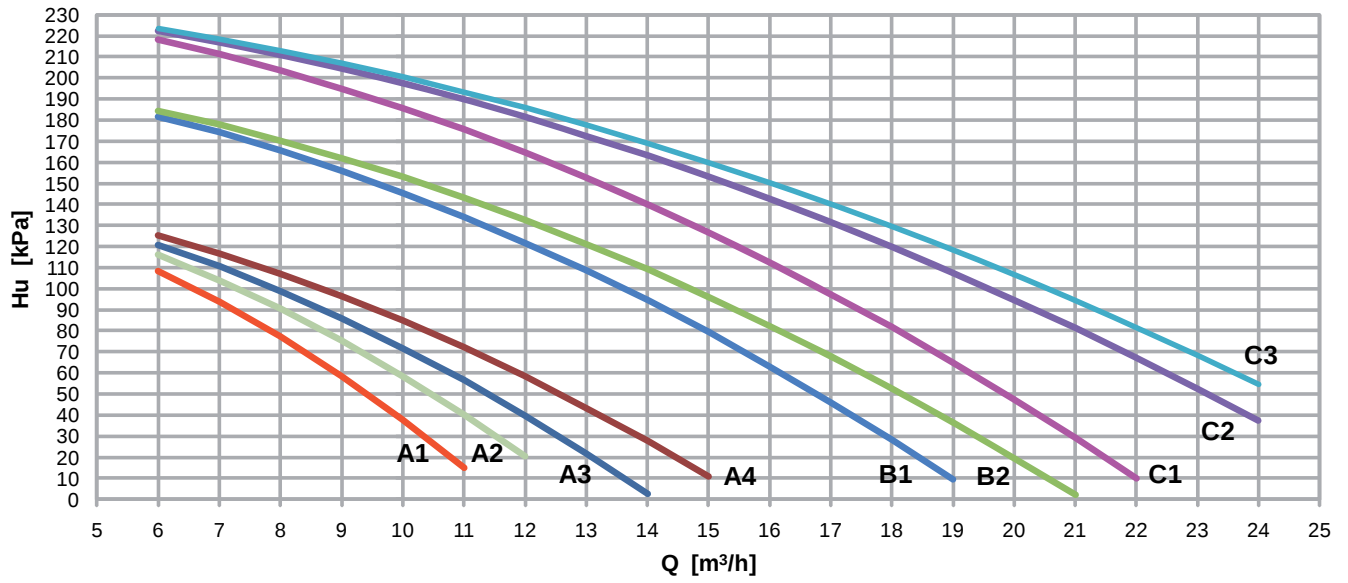
1 PUMP - LOW HEAD PUMP WITH OR WITHOUT WATER TANK (Longitudinal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]	
0152P	K	39,2	6,75	A1	DWC-V 300/1.1(R)*	2	1,1	3,2	855,9	39	98	130,0
	SL-K	39,3	6,76							39	97	
	LN-K	39,4	6,78							39	97	
	CA	41,6	7,16							44	91	
	LN-CA	41,5	7,14							44	92	
	SL-CA	41,9	7,21							44	91	
0182P	K	44,3	7,62	A2					647,9	38	96	
	SL-K	44,3	7,62							38	96	
	LN-K	44,6	7,67							38	95	
	CA	47,4	8,15							43	89	
	LN-CA	47,0	8,08							42	90	
	SL-CA	47,5	8,17							43	88	
0202P	K	51,9	8,93	A3	DWC-V 300/1.1(R)	2	1,1	3,2	514,9	41	87	
	SL-K	51,7	8,89							41	88	
	LN-K	52,3	9,00							42	87	
	CA	55,0	9,46							46	80	
	LN-CA	54,9	9,44							46	80	
	SL-CA	55,3	9,51							47	79	
0252P	K	58,9	10,13	A4					386,0	40	84	
	SL-K	58,8	10,11							39	84	
	LN-K	58,9	10,13							40	84	
	CA	62,5	10,75							45	76	
	LN-CA	63,5	10,92							46	73	
	SL-CA	62,2	10,70							44	76	
0262P	K	65,1	11,19	B1					326,0	41	133	130,0
	SL-K	65,5	11,27							41	132	
	LN-K	65,9	11,33							42	131	
	CA	69,6	11,97							47	123	
	LN-CA	70,7	12,16							48	121	
	SL-CA	69,2	11,90							46	124	
0302P	K	77,6	13,35	B2	DWC-V 300/1.1	2	1,1	3,2	251,0	45	118	78,5
	SL-K	74,7	12,85							41	124	
	LN-K	77,7	13,36							45	118	
	CA	85,2	14,65							54	102	
	LN-CA	82,7	14,22							51	107	
	SL-CA	81,9	14,09							50	109	
0352P	K	88,4	15,21	C1					294,5	68	124	78,5
	SL-K	90,0	15,48							71	120	
	LN-K	88,5	15,22							68	124	
	CA	96,6	16,62							81	103	
	LN-CA	94,4	16,24							78	109	
	SL-CA	94,4	16,24							78	109	
0402P	K	102,0	17,55	C2	DWC-V 300/1.5	2	1,5	3,7	176,6	54	125	47,9
	LN-K	99,4	17,10							52	130	
	SL-K	100,0	17,20							52	129	
	CA	108,0	18,58							61	113	
	LN-CA	107,5	18,49							60	114	
0452P	K	114,5	19,70	C3					146,6	57	110	
	LN-K	112,9	19,42							55	114	
	SL-K	113,4	19,50							56	113	
	CA	121,9	20,97							64	95	
	LN-CA	120,6	20,74							63	98	

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES

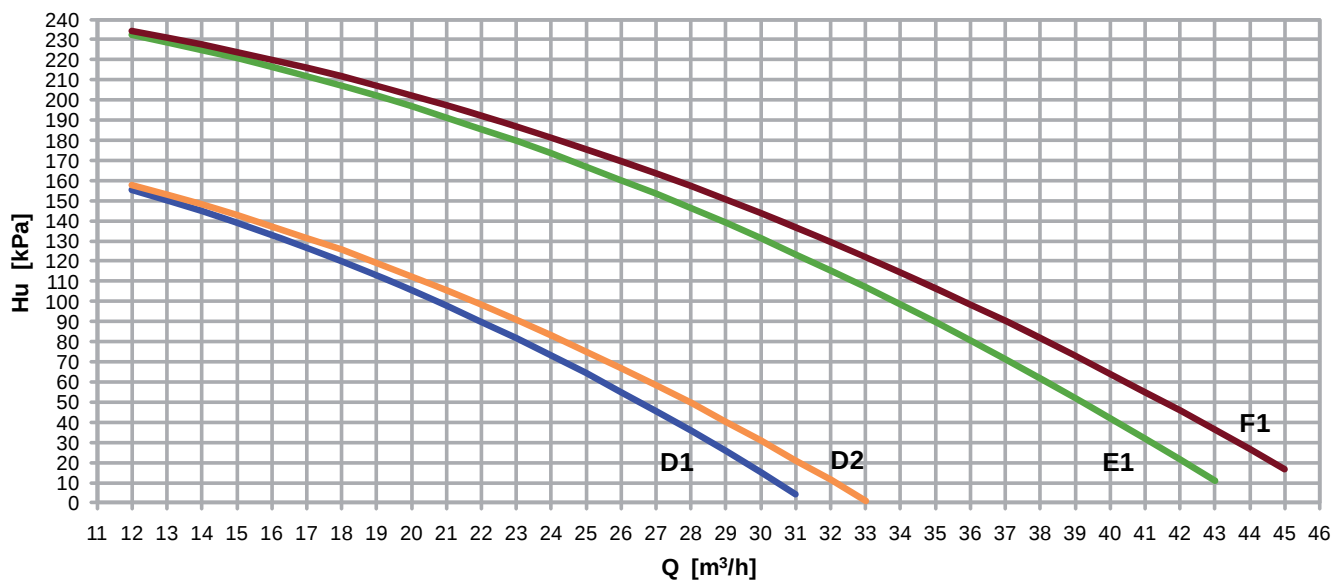


SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi									
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]										
0502P	K	127,4	21,91	D1	DWC-V 500/1,5	2	1,5	3,7	116,6	56	91	23,7									
	LN-K	125,2	21,53							54	94										
	SL-K	124,4	21,40							53	95										
	CA	137,8	23,69							65	76										
	LN-CA	134,0	23,05							62	81										
0552P	K	144,2	24,80	D2					DWC-V 500/2.2	2	2,2		4,5	99,1	61	77	23,7				
	LN-K	139,9	24,06												57	83					
	SL-K	140,5	24,17												58	82					
0602P	K	165,6	28,49	E1	DWC-V 500/3	2	3	6,1				75,4		61	130	23,7					
	LN-K	162,8	28,00											59	134						
	SL-K	153,0	26,32											52	146						
0702P	K	189,4	32,58	F1								DWC-V 500/3		2	3	6,1		61,6	65	124	23,7
	LN-K	179,4	30,86																59	137	
	SL-K	175,4	30,17						56	142											
0802P	K	206,6	35,54						78	101	4,9										
	LN-K	194,0	33,37						69	118											
	SL-K	189,1	32,53		65	125															

(1) Values refer to rated operating conditions
Pf Cooling capacity of unit
Pt Heating capacity of unit
Q Flow of water to evaporator
F.L.I. Power absorbed by pump
F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
Unit with hydronic unit without network filter and 3 way valve
Kfi Coefficients filter for calculating pressure drops
Dps Total pressure drop of hydronic group
Hu Residual head

WORKING HEAD CURVES



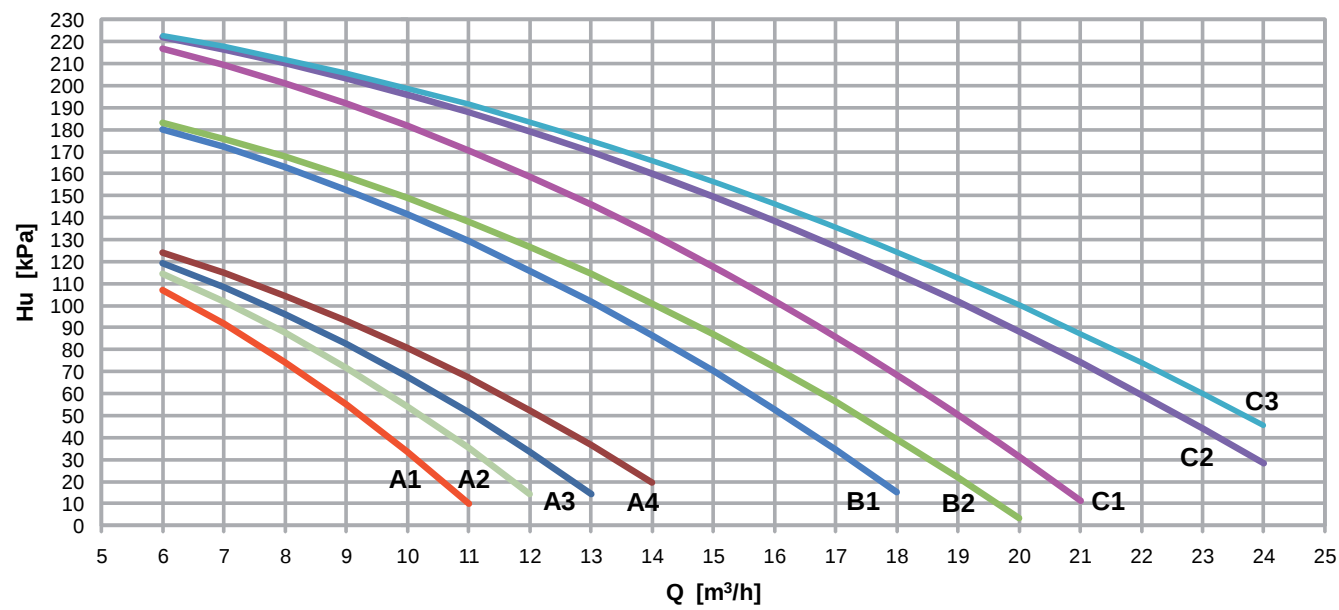
2 PUMPS - LOW HEAD PUMP WITH OR WITHOUT WATER TANK (Longitudinal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]	
0152P	K	39,2	6,75	A1	DWC-V 300/1.1(R)*	2	1,1	3,2	898,5	41	96	130
	SL-K	39,3	6,76							41	96	
	LN-K	39,4	6,78							41	95	
	CA	41,6	7,16							46	89	
	LN-CA	41,5	7,14							46	90	
	SL-CA	41,9	7,21							47	88	
0182P	K	44,3	7,62	A2	DWC-V 300/1.1(R)	2	1,1	3,2	690,5	40	94	
	SL-K	44,3	7,62							40	94	
	LN-K	44,6	7,67							41	93	
	CA	47,4	8,15							46	86	
	LN-CA	47,0	8,08							45	87	
	SL-CA	47,5	8,17							46	85	
0202P	K	51,9	8,93	A3	DWC-V 300/1.1(R)	2	1,1	3,2	557,5	44	84	
	SL-K	51,7	8,89							44	85	
	LN-K	52,3	9,00							45	83	
	CA	55,0	9,46							50	76	
	LN-CA	54,9	9,44							50	77	
	SL-CA	55,3	9,51							50	76	
0252P	K	58,9	10,13	A4	DWC-V 300/1.1(R)	2	1,1	3,2	426,9	44	79	
	SL-K	58,8	10,11							44	80	
	LN-K	58,9	10,13							44	79	
	CA	62,5	10,75							49	71	
	LN-CA	63,5	10,92							51	69	
	SL-CA	62,2	10,70							49	72	
0262P	K	65,1	11,19	B1	DWC-V 300/1.1	2	1,1	3,2	366,9	46	128	130,0
	SL-K	65,5	11,27							47	127	
	LN-K	65,9	11,33							47	126	
	CA	69,6	11,97							53	118	
	LN-CA	70,7	12,16							54	115	
	SL-CA	69,2	11,90							52	119	
0302P	K	77,6	13,35	B2	DWC-V 300/1.1	2	1,1	3,2	291,9	52	111	78,5
	SL-K	74,7	12,85							48	118	
	LN-K	77,7	13,36							52	111	
	CA	85,2	14,65							63	93	
	LN-CA	82,7	14,22							59	99	
	SL-CA	81,9	14,09							58	101	
0352P	K	88,4	15,21	C1	DWC-V 300/1.5	2	1,5	3,7	334,9	77	115	78,5
	SL-K	90,0	15,48							80	111	
	LN-K	88,5	15,22							78	115	
	CA	96,6	16,62							92	92	
	LN-CA	94,4	16,24							88	99	
	SL-CA	94,4	16,24							88	99	
0402P	K	102,0	17,55	C2	DWC-V 300/1.5	2	1,5	3,7	192,6	59	120	47,9
	LN-K	99,4	17,10							56	126	
	SL-K	100,0	17,20							57	125	
	CA	108,0	18,58							66	107	
	LN-CA	107,5	18,49							66	108	
0452P	K	114,5	19,70	C3	DWC-V 300/1.5	2	1,5	3,7	162,6	63	104	
	LN-K	112,9	19,42							61	108	
	SL-K	113,4	19,50							62	106	
	CA	121,9	20,97							71	88	
	LN-CA	120,6	20,74							70	91	

(1) Values refer to rated operating conditions
Pf Cooling capacity of unit
Pt Heating capacity of unit
Q Flow of water to evaporator
F.L.I. Power absorbed by pump
F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
Unit with hydronic unit without network filter and 3 way valve
Kfi Coefficients filter for calculating pressure drops
Dps Total pressure drop of hydronic group
Hu Residual head

WORKING HEAD CURVES

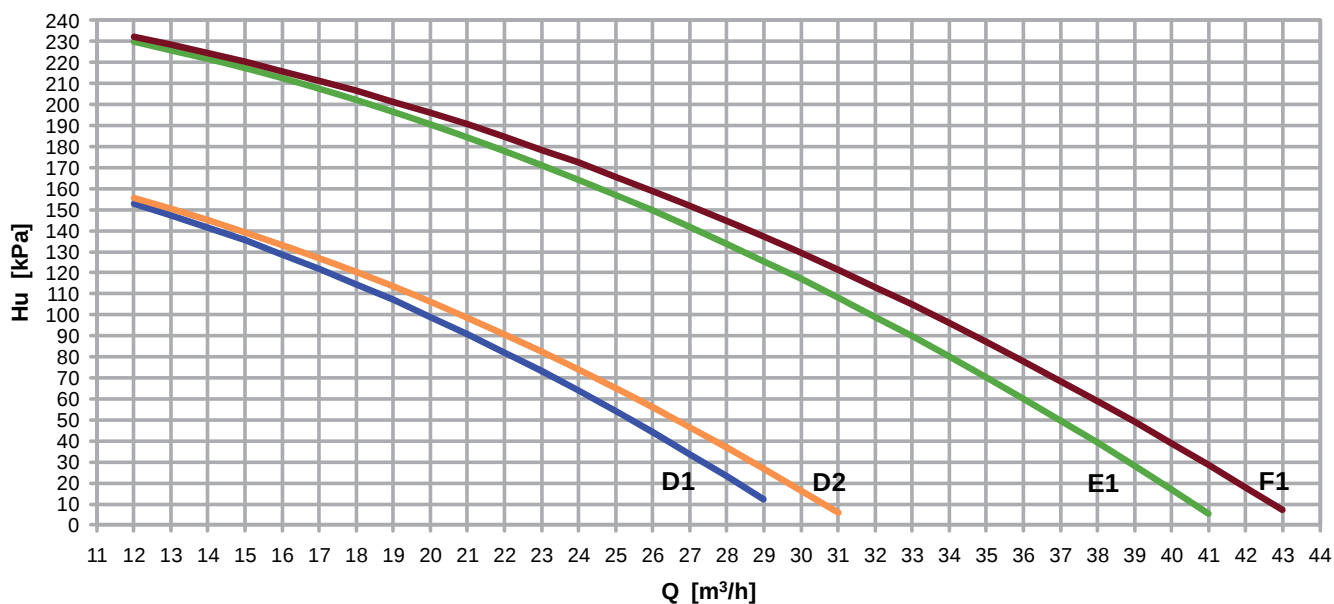


SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi									
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]										
0502P	K	127,4	21,91	D1	DWC-V 500/1,5	2	1,5	3,7	132,6	64	83	23,7									
	LN-K	125,2	21,53							61	86										
	SL-K	124,4	21,40							61	87										
	CA	137,8	23,69							74	67										
	LN-CA	134,0	23,05							70	73										
0552P	K	144,2	24,80	D2					DWC-V 500/2.2	2	2,2		4,5	115,1	71	67	23,7				
	LN-K	139,9	24,06												67	73					
	SL-K	140,5	24,17												67	73					
0602P	K	165,6	28,49	E1	DWC-V 500/3	2	3	6,1				91,2		74	117	23,7					
	LN-K	162,8	28,00											72	121						
	SL-K	153,0	26,32											63	135						
0702P	K	189,4	32,58	F1								DWC-V 500/3		2	3	6,1		77,4	82	108	23,7
	LN-K	179,4	30,86																74	122	
	SL-K	175,4	30,17						70	128											
0802P	K	206,6	35,54						98	81	4,9										
	LN-K	194,0	33,37						86	101											
	SL-K	189,1	32,53		82	108															

(1) Values refer to rated operating conditions
Pf Cooling capacity of unit
Pt Heating capacity of unit
Q Flow of water to evaporator
F.L.I. Power absorbed by pump
F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
Unit with hydronic unit without network filter and 3 way valve
Kfi Coefficients filter for calculating pressure drops
Dps Total pressure drop of hydronic group
Hu Residual head

WORKING HEAD CURVES



1 PUMP - HIGH HEAD PUMP WITH OR WITHOUT WATER TANK (Longitudinal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi									
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]										
0152P	K	39,2	6,75	E1	DWC-V 500/2,2*	2	2,2	4,5	855,9	39	203	130									
	SL-K	39,3	6,76							39	202										
	LN-K	39,4	6,78							39	202										
	CA	41,6	7,16							44	196										
	LN-CA	41,5	7,14							44	196										
	SL-CA	41,9	7,21							44	196										
0182P	K	44,3	7,62	E2					DWC-V 500/2,2*	2	2,2		4,5	647,9	38	202	130				
	SL-K	44,3	7,62												38	202					
	LN-K	44,6	7,67												38	201					
	CA	47,4	8,15												43	196					
	LN-CA	47,0	8,08												42	196					
	SL-CA	47,5	8,17												43	195					
0202P	K	51,9	8,93	E3	DWC-V 500/2,2*	2	2,2	4,5				514,9		41	196	130					
	SL-K	51,7	8,89											41	197						
	LN-K	52,3	9,00											42	196						
	CA	55,0	9,46											46	190						
	LN-CA	54,9	9,44											46	190						
	SL-CA	55,3	9,51											47	190						
0252P	K	58,9	10,13	F1					DWC-V 500/3	2	3	6,1	386,0	40	204		130,0				
	SL-K	58,8	10,11											39	204						
	LN-K	58,9	10,13											40	204						
	CA	62,5	10,75											45	199						
	LN-CA	63,5	10,92											46	197						
	SL-CA	62,2	10,70											44	199						
0262P	K	65,1	11,19	F2	DWC-V 500/3	2	3	6,1					326,0	41	202	130,0					
	SL-K	65,5	11,27											41	202						
	LN-K	65,9	11,33											42	201						
	CA	69,6	11,97											47	196						
	LN-CA	70,7	12,16											48	194						
	SL-CA	69,2	11,90											46	196						
0302P	K	77,6	13,35	F3									DWC-V 500/3	2	3		6,1	251,0	45	196	78,5
	SL-K	74,7	12,85																41	200	
	LN-K	77,7	13,36																45	196	
	CA	85,2	14,65																54	185	
	LN-CA	82,7	14,22																51	189	
	SL-CA	81,9	14,09																50	190	

(1) Values refer to rated operating conditions

Pf Cooling capacity of unit

Pt Heating capacity of unit

Q Flow of water to evaporator

F.L.I. Power absorbed by pump

F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops

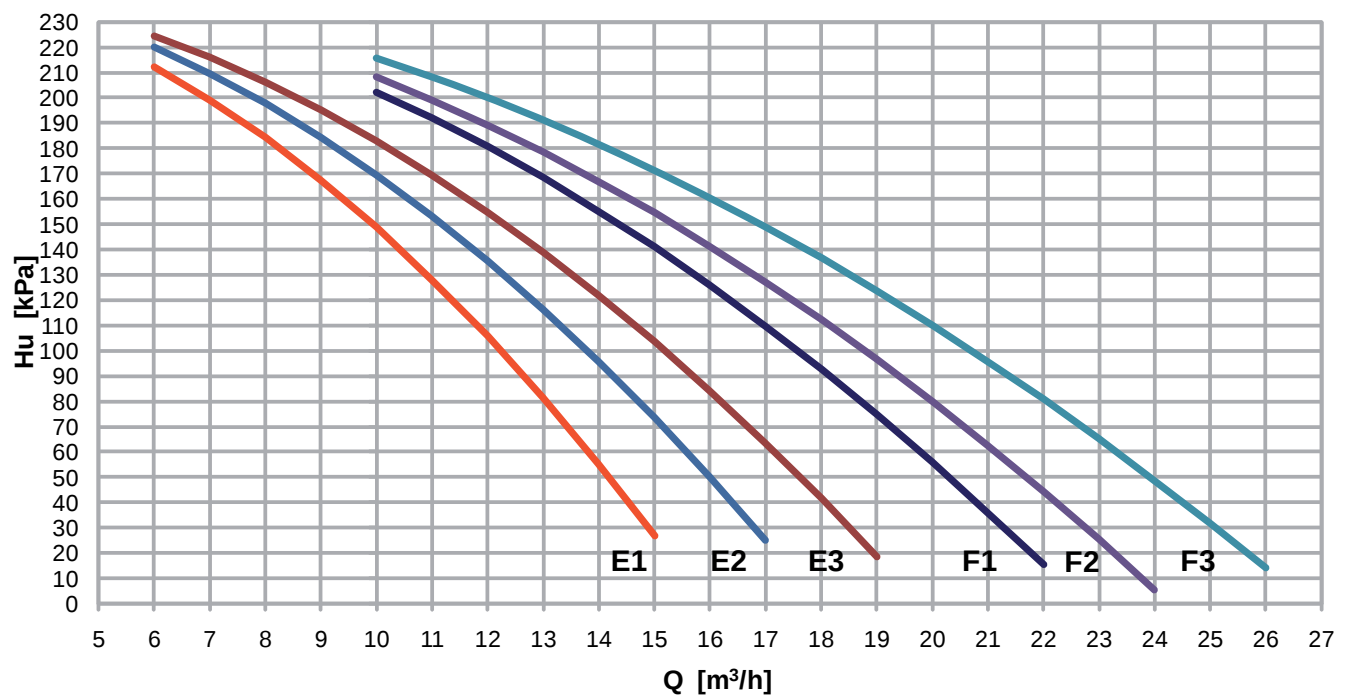
Unit with hydronic unit without network filter and 3 way valve

Kfi Coefficients filter for calculating pressure drops

Dps Total pressure drop of hydronic group

Hu Residual head

WORKING HEAD CURVES



SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]	
0352P	K	88,4	15,21	G1	FHE 32-160/22**	2	2,2	4,64	294,5	68	205	78,5
	SL-K	90,0	15,48							71	199	
	LN-K	88,5	15,22							68	204	
	CA	96,6	16,62							81	179	
	LN-CA	94,4	16,24							78	187	
	SL-CA	94,4	16,24							78	187	
0402P	K	102,0	17,55	G2	FHE 32-160/22**	2	2,2	4,64	176,6	54	199	47,9
	LN-K	99,4	17,10							52	203	
	SL-K	100,0	17,20							52	203	
	CA	108,0	18,58							61	182	
	LN-CA	107,5	18,49							60	183	
0452P	K	114,5	19,70	H1	FHE 40-160/30	2	3	6,14	146,6	59	224	47,9
	LN-K	112,9	19,42							57	227	
	SL-K	113,4	19,50							58	226	
	CA	121,9	20,97							67	212	
	LN-CA	120,6	20,74							65	214	
0502P	K	127,4	21,91	H2	FHE 40-160/30	2	3	6,14	116,6	59	217	23,7
	LN-K	125,2	21,53							57	220	
	SL-K	124,4	21,40							56	222	
	CA	137,8	23,69							68	201	
	LN-CA	134,0	23,05							65	207	
0552P	K	144,2	24,80	H3	FHE 40-160/30	2	3	6,14	99,1	64	201	23,7
	LN-K	139,9	24,06							61	207	
	SL-K	140,5	24,17							61	206	
0602P	K	165,6	28,49	H4	FHE 40-160/30	2	3	6,14	75,4	66	184	23,7
	LN-K	162,8	28,00							63	188	
	SL-K	153,0	26,32							56	203	
0702P	K	189,4	32,58	I1	FHE 40-160/40	2	4	7,63	61,6	71	226	23,7
	LN-K	179,4	30,86							64	242	
	SL-K	175,4	30,17							61	248	
0802P	K	206,6	35,54	I1	FHE 40-160/40	2	4	7,63	61,6	85	196	4,9
	LN-K	194,0	33,37							75	218	
	SL-K	189,1	32,53							71	226	

(1) Values refer to rated operating conditions

Pf Cooling capacity of unit

Pt Heating capacity of unit

Q Flow of water to evaporator

F.L.I. Power absorbed by pump

F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops

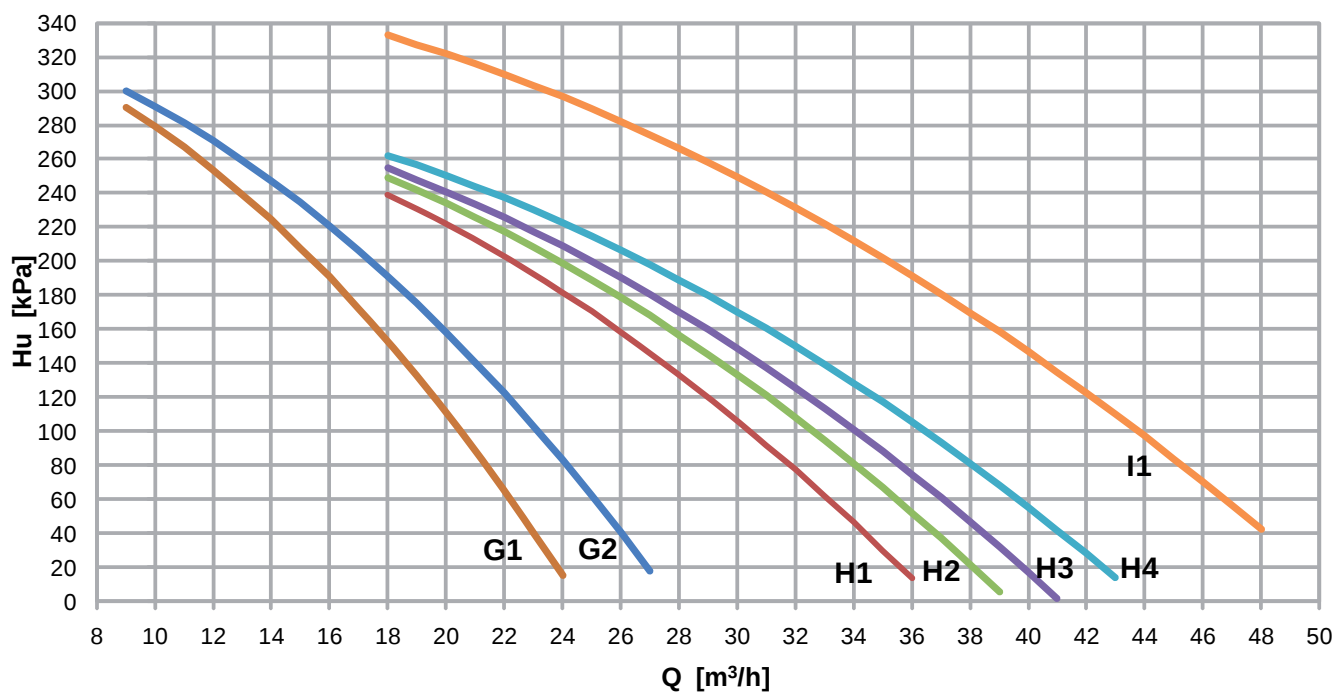
Unit with hydronic unit without network filter and 3 way valve

Kfi Coefficients filter for calculating pressure drops

Dps Total pressure drop of hydronic group

Hu Residual head

WORKING HEAD CURVES



2 PUMPS - HIGH HEAD PUMP WITH OR WITHOUT WATER TANK (Longitudinal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi										
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]											
0152P	K	39,2	6,75	E1	DWC-V 500/2,2*	2	2,2	4,5	898,5	41	201	130										
	SL-K	39,3	6,76							41	200											
	LN-K	39,4	6,78							41	200											
	CA	41,6	7,16							46	194											
	LN-CA	41,5	7,14							46	194											
	SL-CA	41,9	7,21							47	194											
0182P	K	44,3	7,62	E2					DWC-V 500/2,2*	2	2,2		4,5	690,5	40	199	130					
	SL-K	44,3	7,62												40	199						
	LN-K	44,6	7,67												41	198						
	CA	47,4	8,15												46	193						
	LN-CA	47,0	8,08												45	193						
	SL-CA	47,5	8,17												46	192						
0202P	K	51,9	8,93	E3										DWC-V 500/2,2*	2	2,2		4,5	557,5	44	193	130
	SL-K	51,7	8,89																	44	193	
	LN-K	52,3	9,00																	45	192	
	CA	55,0	9,46																	50	186	
	LN-CA	54,9	9,44																	50	187	
	SL-CA	55,3	9,51																	50	186	
0252P	K	58,9	10,13	F1	DWC-V 500/3	2	3	6,1				426,9							44	200	130,0	
	SL-K	58,8	10,11																44	200		
	LN-K	58,9	10,13																44	200		
	CA	62,5	10,75																49	194		
	LN-CA	63,5	10,92																51	192		
	SL-CA	62,2	10,70																49	195		
0262P	K	65,1	11,19	F2					DWC-V 500/3	2	3	6,1	366,9				46		197	130,0		
	SL-K	65,5	11,27														47		196			
	LN-K	65,9	11,33														47		196			
	CA	69,6	11,97														53		190			
	LN-CA	70,7	12,16														54		188			
	SL-CA	69,2	11,90														52		190			
0302P	K	77,6	13,35	F3									DWC-V 500/3	2	3	6,1	291,9	52	189			78,5
	SL-K	74,7	12,85															48	193			
	LN-K	77,7	13,36															52	189			
	CA	85,2	14,65															63	176			
	LN-CA	82,7	14,22															59	180			
	SL-CA	81,9	14,09															58	182			

(1) Values refer to rated operating conditions

Pf Cooling capacity of unit

Pt Heating capacity of unit

Q Flow of water to evaporator

F.L.I. Power absorbed by pump

F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops

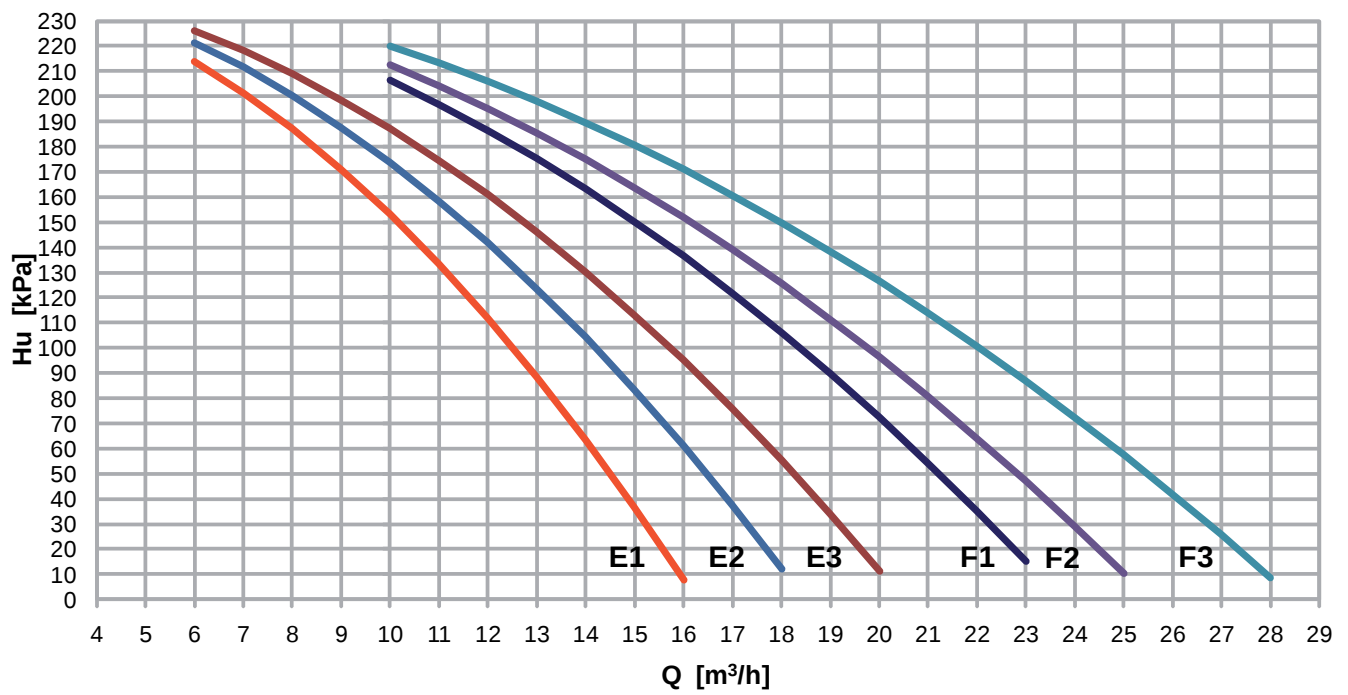
Unit with hydronic unit without network filter and 3 way valve

Kfi Coefficients filter for calculating pressure drops

Dps Total pressure drop of hydronic group

Hu Residual head

WORKING HEAD CURVES

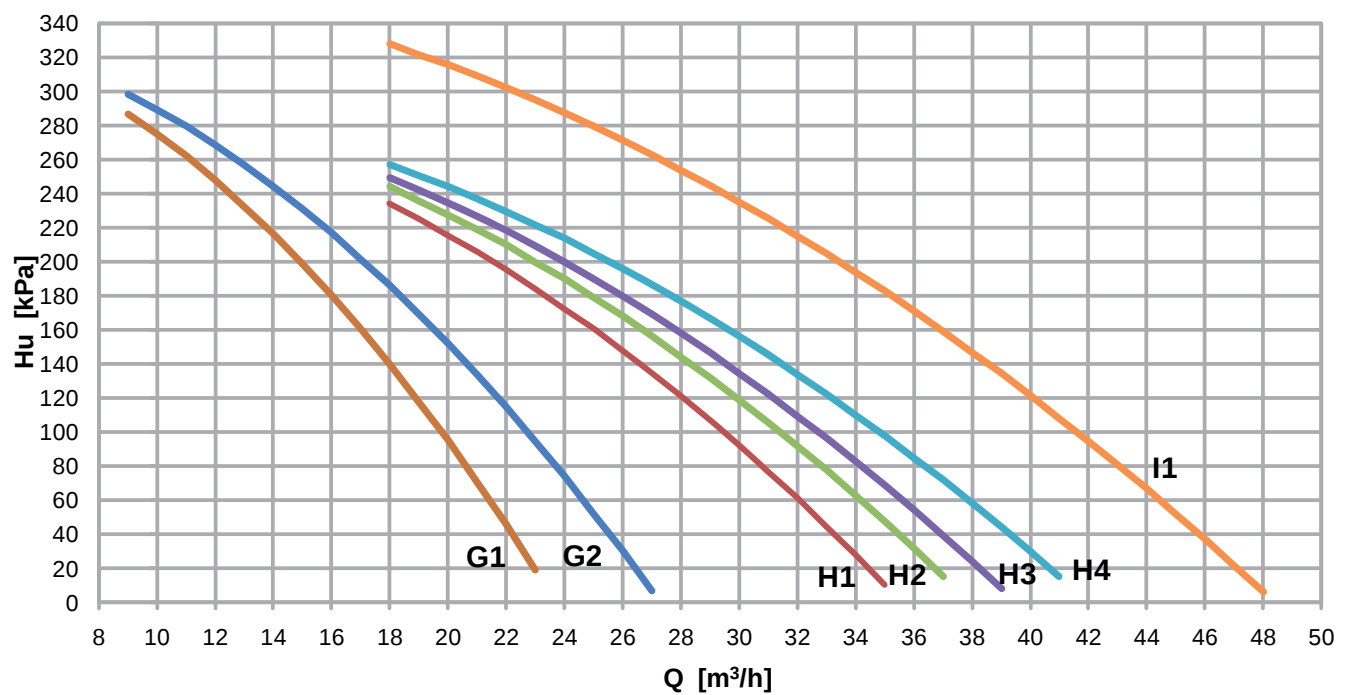


SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi										
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]											
0352P	K	88,4	15,21	G1	FHE 32-160/22**	2	2,2	4,64	334,9	77	195	78,5										
	SL-K	90,0	15,48							80	189											
	LN-K	88,5	15,22							78	195											
	CA	96,6	16,62							92	168											
	LN-CA	94,4	16,24							88	177											
	SL-CA	94,4	16,24							88	177											
0402P	K	102,0	17,55	G2					FHE 32-160/22**	2	2,2	4,64	192,6	59	194	47,9						
	LN-K	99,4	17,10											56	199							
	SL-K	100,0	17,20											57	198							
	CA	108,0	18,58											66	177							
	LN-CA	107,5	18,49											66	177							
0452P	K	114,5	19,70	H1									FHE 40-160/30	2	3		6,14	167,9	65	217	47,9	
	LN-K	112,9	19,42		63	221																
	SL-K	113,4	19,50		64	220																
	CA	121,9	20,97		74	205																
	LN-CA	120,6	20,74		72	207																
0502P	K	127,4	21,91	H2	FHE 40-160/30	2	3	6,14										137,9	66	209		23,7
	LN-K	125,2	21,53													64			213			
	SL-K	124,4	21,40						63	214												
	CA	137,8	23,69						77	192												
	LN-CA	134,0	23,05						73	198												
0552P	K	144,2	24,80	H3					FHE 40-160/30	2	3	6,14				120,5		74	191	23,7		
	LN-K	139,9	24,06															70	198			
	SL-K	140,5	24,17										70	196								
0602P	K	165,6	28,49	H4									FHE 40-160/30	2	3	6,14	96,7	78	171		23,7	
	LN-K	162,8	28,00															76	175			
	SL-K	153,0	26,32															67	192			
0702P	K	189,4	32,58	I1													FHE 40-160/40	2	4		7,63	82,9
	LN-K	179,4	30,86		79	227																
	SL-K	175,4	30,17		75	234																
0802P	K	206,6	35,54		82,9	105	176	4,9														
	LN-K	194,0	33,37			92	200															
	SL-K	189,1	32,53			88	210															

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



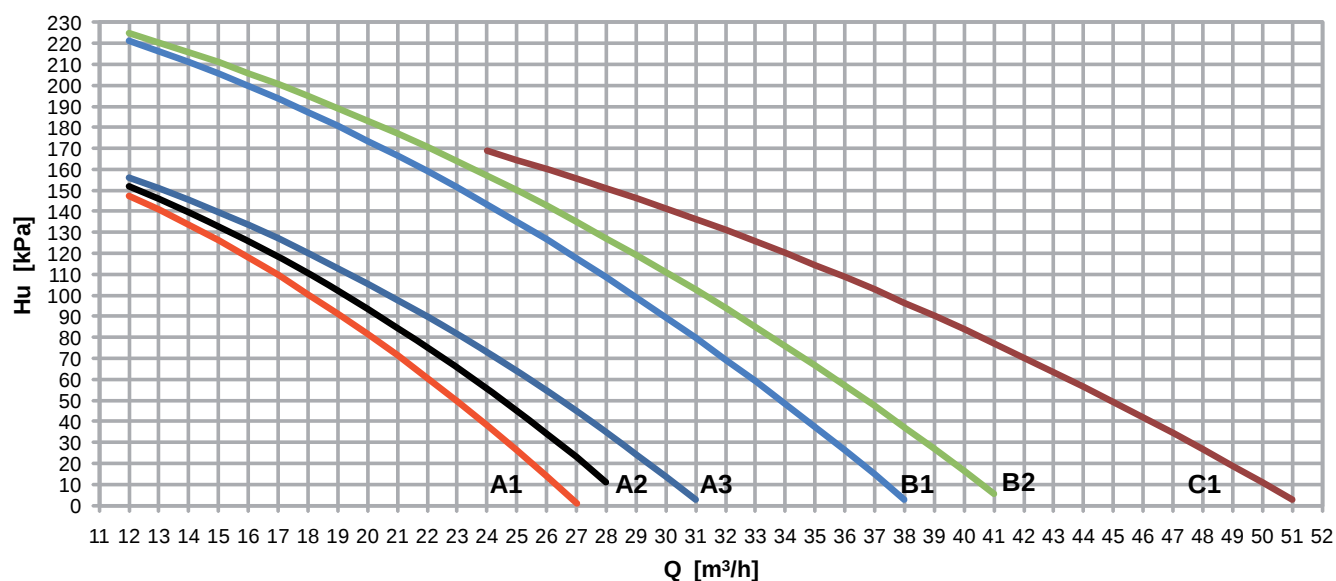
1 PUMP - LOW HEAD PUMP (Horizontal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi	
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]		
0412P	SL-CA	106,0	18,23	A1	FCE 50-125/15	2	1,5	3,02	169,2	72	83	47,9	
0462P	SL-CA	118,8	20,43	A2					139,1	78	70		
0512P	SL-CA	133,0	22,88	A3					109	69	70		23,7
0562P	CA	160,3	27,58	B1	FCE 50-160/22	2	2,2	4,64	91,3	87	94	23,7	
	LN-CA	153,9	26,48							81	106		
	SL-CA	151,6	26,08							78	110		
0612P	CA	178,4	30,68	B2					67,4	86	83		23,7
	LN-CA	172,8	29,72							80	92		
	SL-CA	172,3	29,64							80	94		
0712P	CA	201,2	34,61	C1	FCE 65-125/30	2	3,0	6,14	53,0	92	89	23,7	
	LN-CA	198,3	34,12							89	92		
	SL-CA	194,9	33,52							86	93		
0812P	CA	227,1	39,06						52,9	88	82	4,9	
	LN-CA	221,2	38,04							84	90		
	SL-CA	217,6	37,42							81	94		

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



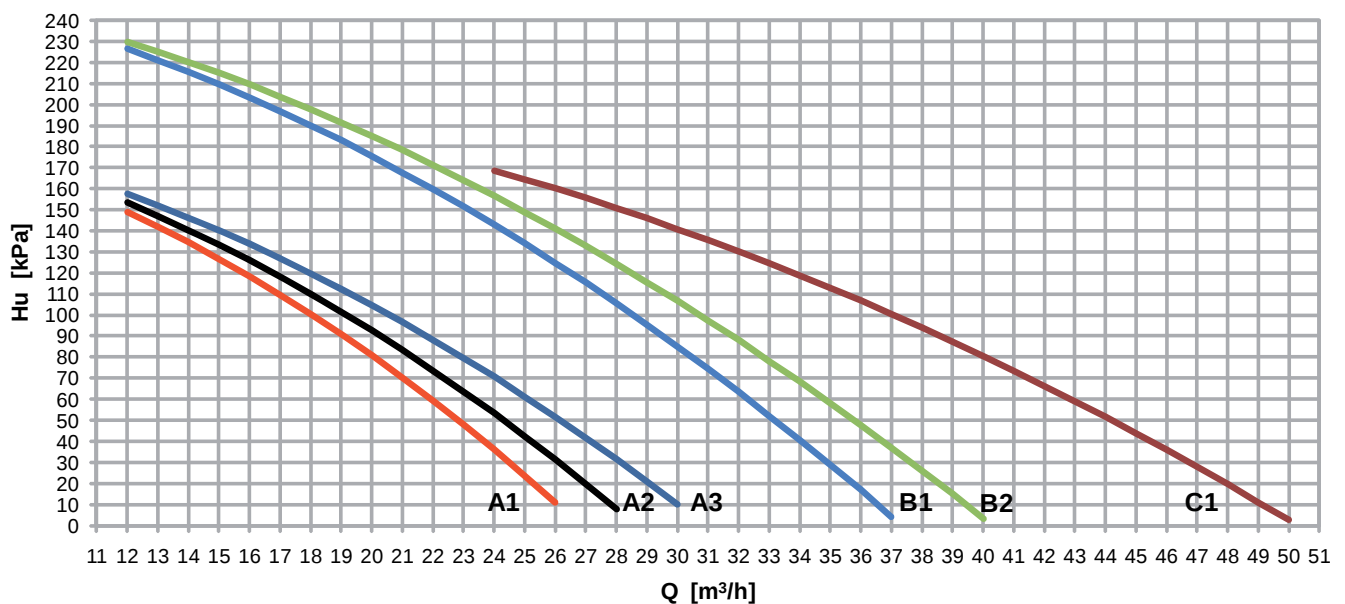
2 PUMPS - LOW HEAD PUMP (Horizontal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi		
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]			
0412P	SL-CA	106,0	18,23	A1	FCTE 50-125/15	2	1,5	3,02	169,2	56	99	47,9		
0462P	SL-CA	118,8	20,43	A2					139,1	58	89			
0512P	SL-CA	133,0	22,88	A3					109	57	80		23,7	
0562P	CA	160,3	27,58	B1	FCTE 50-160/22	2	2,2	4,64	91,3	69	109	23,7		
	LN-CA	153,9	26,48							64	119			
	SL-CA	151,6	26,08							62	124			
0612P	CA	178,4	30,68	B2					67,4	63	99		59	110
	LN-CA	172,8	29,72							60	108			
	SL-CA	172,3	29,64											
0712P	CA	201,2	34,61	C1	FCTE 65-125/30	2	3,0	6,14	53,0	63	116	23,7		
	LN-CA	198,3	34,12							62	119			
	SL-CA	194,9	33,52							60	122			
0812P	CA	227,1	39,06						52,9	81	88	4,9		
	LN-CA	221,2	38,04							77	95			
	SL-CA	217,6	37,42							74	98			

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



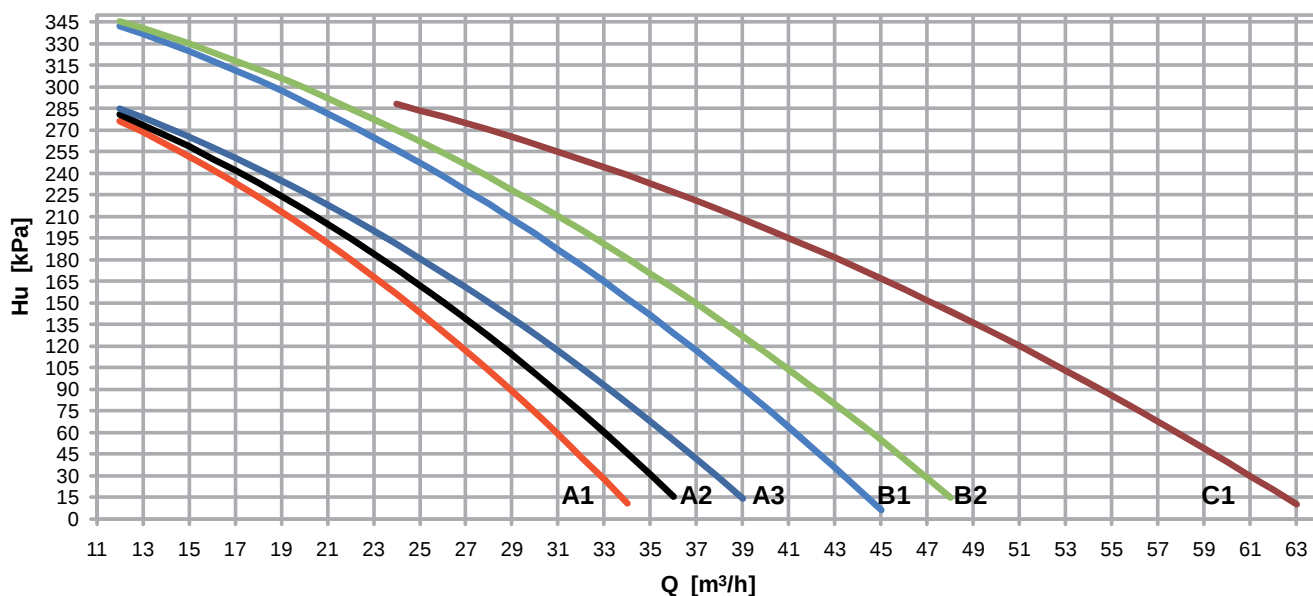
1 PUMP - HIGH HEAD PUMP (Horizontal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi	
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]		
0412P	SL-CA	106,0	18,23	A1	FCE 50-160/30	2	3	6,14	169,2	56	222	47,9	
0462P	SL-CA	118,8	20,43	A2					139,1	58	212		
0512P	SL-CA	133,0	22,88	A3					109	57	202		23,7
0562P	CA	160,3	27,58	B1	FCE 50-160/40	2	4	7,63	91,3	69	223	23,7	
	LN-CA	153,9	26,48							64	233		
	SL-CA	151,6	26,08							62	238		
0612P	CA	178,4	30,68	B2					67,4	63	212		23,7
	LN-CA	172,8	29,72							60	222		
	SL-CA	172,3	29,64							59	223		
0712P	CA	201,2	34,61	C1	FCE 65-160/55	2	5,5	10,4	53,0	63	235	23,7	
	LN-CA	198,3	34,12							62	238		
	SL-CA	194,9	33,52							60	242		
0812P	CA	227,1	39,06						52,9	81	208	4,9	
	LN-CA	221,2	38,04							77	215		
	SL-CA	217,6	37,42							74	218		

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



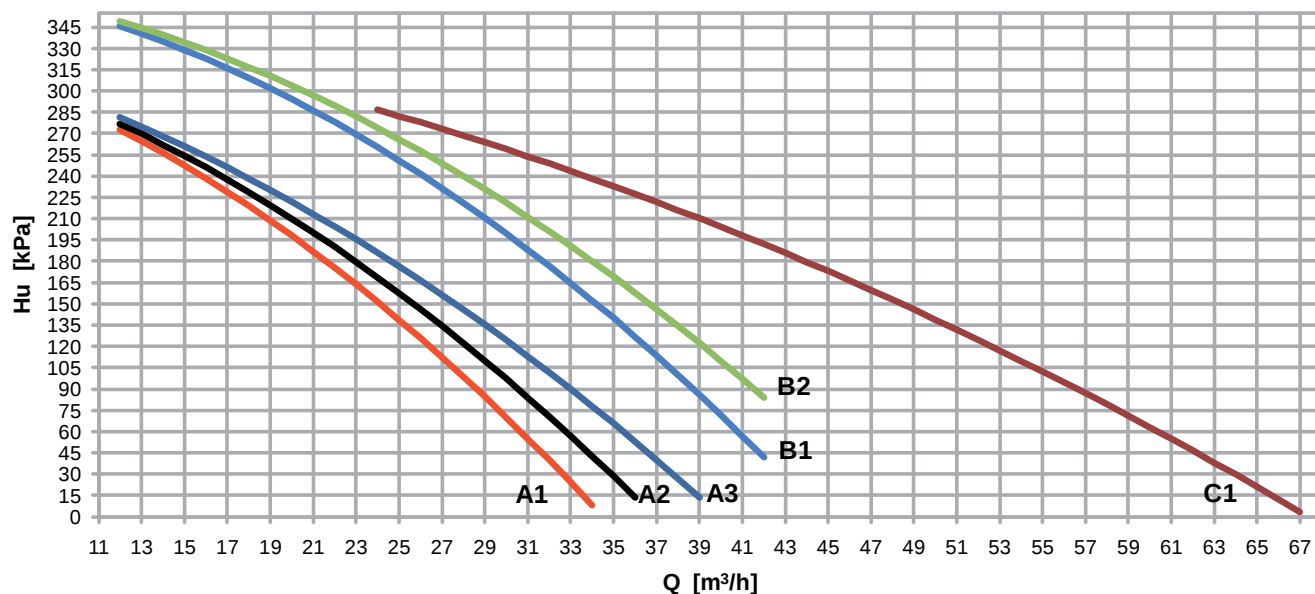
2 PUMPS - HIGH HEAD PUMP (Horizontal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]	
0412P	SL-CA	106,0	18,23	A1	FCTE 50-160/30	2	3	6,14	169,2	56	220	47,9
0462P	SL-CA	118,8	20,43	A2					139,1	58	210	
0512P	SL-CA	133,0	22,88	A3					109	57	200	
0562P	CA	160,3	27,58	B1	FCTE 50-160/40	2	4	7,63	91,3	69	226	23,7
	LN-CA	153,9	26,48							64	236	
	SL-CA	151,6	26,08							62	240	
0612P	CA	178,4	30,68	B2					67,4	63	214	
	LN-CA	172,8	29,72							60	224	
	SL-CA	172,3	29,64							59	225	
0712P	CA	201,2	34,61	C1	FCTE 65-160/55	2	5,5	10,4	53,0	63	239	23,7
	LN-CA	198,3	34,12							62	241	
	SL-CA	194,9	33,52							60	245	
0812P	CA	227,1	39,06						52,9	81	210	4,9
	LN-CA	221,2	38,04							77	217	
	SL-CA	217,6	37,42							74	221	

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



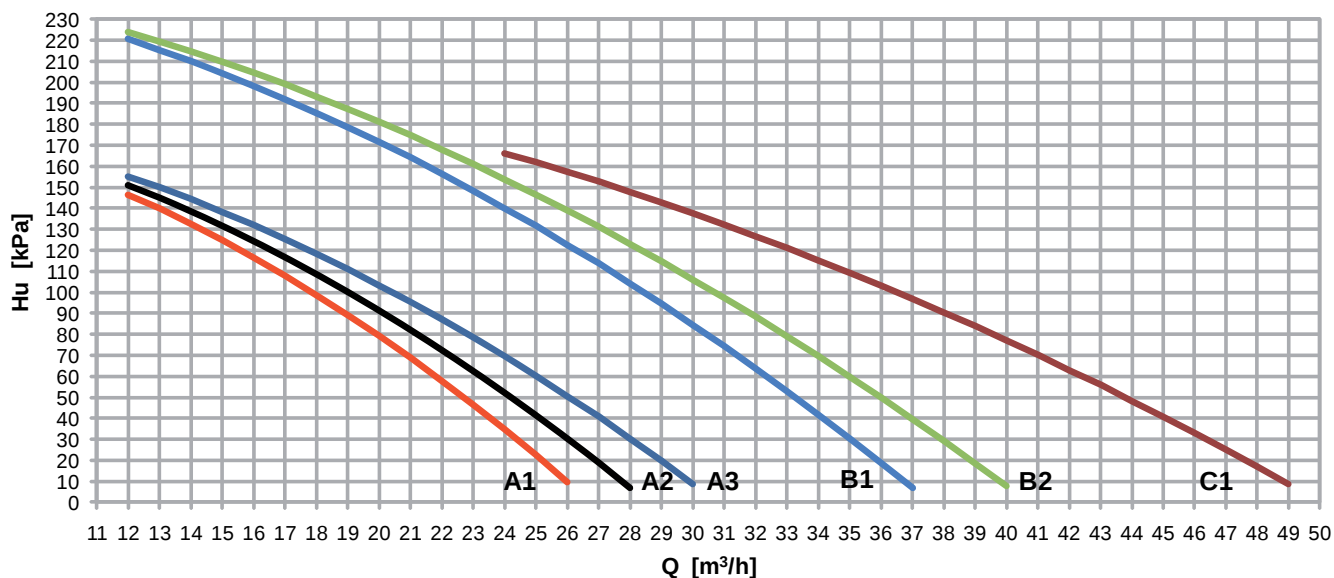
1 PUMP - LOW HEAD PUMP WITH WATER TANK (Horizontal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi	
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]		
0412P	SL-CA	106,0	18,23	A1	FCE 50-125/15	2	1,5	3,02	175,2	58	97	47,9	
0462P	SL-CA	118,8	20,43	A2					144,8	61	88		
0512P	SL-CA	133,0	22,88	A3					114,6	60	79		23,7
0562P	CA	160,3	27,58	B1	FCE 50-160/22	2	2,2	4,64	96,9	74	108	23,7	
	LN-CA	153,9	26,48						12,4	68	118		
	SL-CA	151,6	26,08						12,4	66	122		
0612P	CA	178,4	30,68	B2					72,9	69	100		23,7
	LN-CA	172,8	29,72						12,3	64	108		
	SL-CA	172,3	29,64						12,3	64	110		
0712P	CA	201,2	34,61	C1	FCE 65-125/30	2	3,0	6,14	57,2	69	112	23,7	
	LN-CA	198,3	34,12						10,4	67	115		
	SL-CA	194,9	33,52						10,4	64	115		
0812P	CA	227,1	39,06						57,1	87	84	4,9	
	LN-CA	221,2	38,04						10,3	83	91		
	SL-CA	217,6	37,42						10,3	80	95		

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



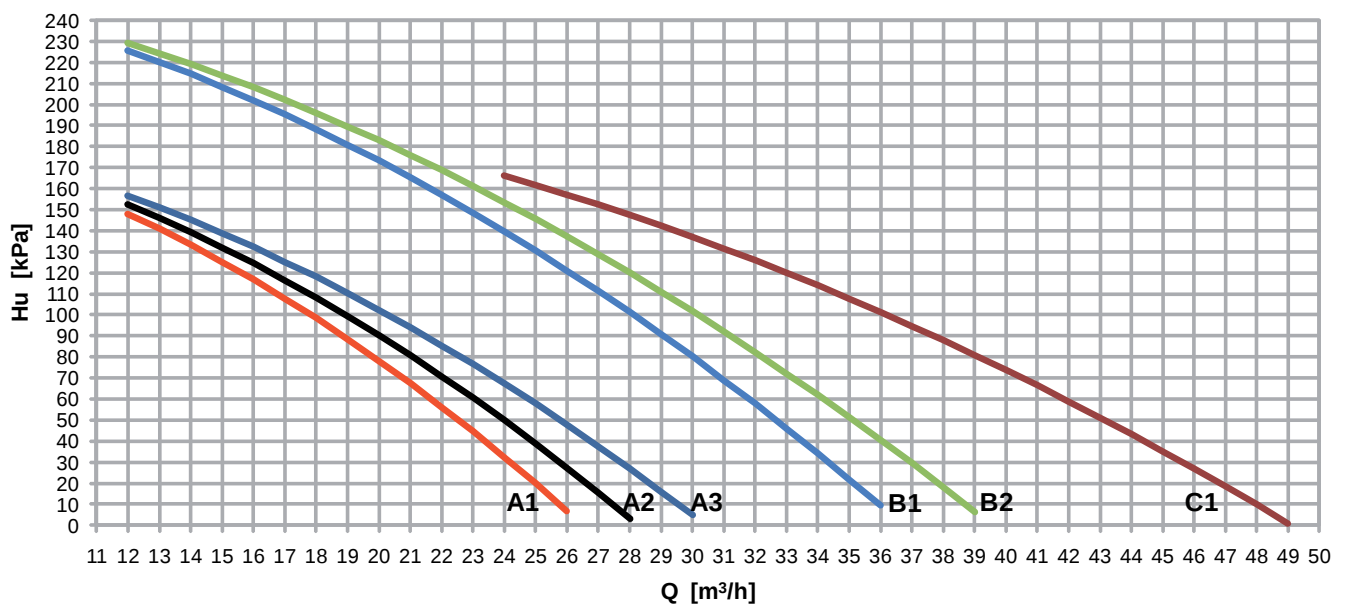
2 PUMPS - LOW HEAD PUMP WITH WATER TANK (Horizontal V-shaped coil module)

SIZE	VERSION	Pf (1)	Q (1)	Rif. Pump	Type Pump	N. Poles	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]	
0412P	SL-CA	106,0	18,23	A1	FCTE 50-125/15	2	1,5	3,02	175,2	58	97	47,9
0462P	SL-CA	118,8	20,43	A2					144,8	61	87	
0512P	SL-CA	133,0	22,88	A3					114,6	60	77	
0562P	CA	160,3	27,58	B1	FCTE 50-160/22	2	2,2	4,64	96,9	74	105	23,7
	LN-CA	153,9	26,48						12,4	68	116	
	SL-CA	151,6	26,08						12,4	66	120	
0612P	CA	178,4	30,68	B2					72,9	69	94	
	LN-CA	172,8	29,72						12,3	64	103	
	SL-CA	172,3	29,64						12,3	64	105	
0712P	CA	201,2	34,61	C1	FCTE 65-125/30	2	3,0	6,14	57,2	69	111	23,7
	LN-CA	198,3	34,12						10,4	67	114	
	SL-CA	194,9	33,52						10,4	64	117	
0812P	CA	227,1	39,06						57,1	87	82	4,9
	LN-CA	221,2	38,04						10,3	83	89	
	SL-CA	217,6	37,42						10,3	80	93	

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



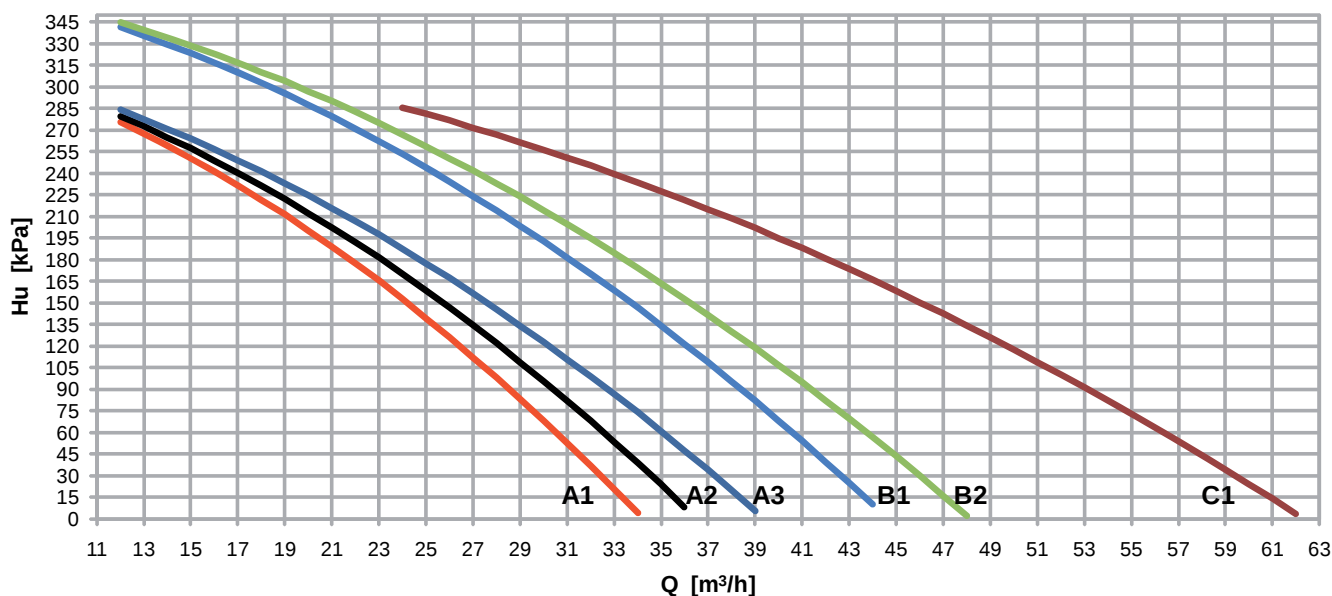
1 PUMP - HIGH HEAD PUMP WITH WATER TANK (Horizontal V-shaped coil module)

SIZE	VERSIONE	Pf (1)	Q (1)	Rif. Pompa	Tipo Pompa	N. Poli	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi	
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]		
0412P	SL-CA	106,0	18,23	A1	FCE 50-160/30	2	3	6,14	175,2	58	220	47,9	
0462P	SL-CA	118,8	20,43	A2					144,8	61	209		
0512P	SL-CA	133,0	22,88	A3					114,6	60	199		23,7
0562P	CA	160,3	27,58	B1	FCE 50-160/40	2	4	7,63	96,9	74	219	23,7	
	LN-CA	153,9	26,48						12,4	68	229		
	SL-CA	151,6	26,08						12,4	66	234		
0612P	CA	178,4	30,68	B2					72,9	69	207		23,7
	LN-CA	172,8	29,72						12,3	64	217		
	SL-CA	172,3	29,64						12,3	64	218		
0712P	CA	201,2	34,61	C1	FCE 65-160/55	2	5,5	10,4	57,2	69	230	23,7	
	LN-CA	198,3	34,12						10,4	67	233		
	SL-CA	194,9	33,52						10,4	64	237		
0812P	CA	227,1	39,06						57,1	87	201	4,9	
	LN-CA	221,2	38,04						10,3	83	209		
	SL-CA	217,6	37,42						10,3	80	212		

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



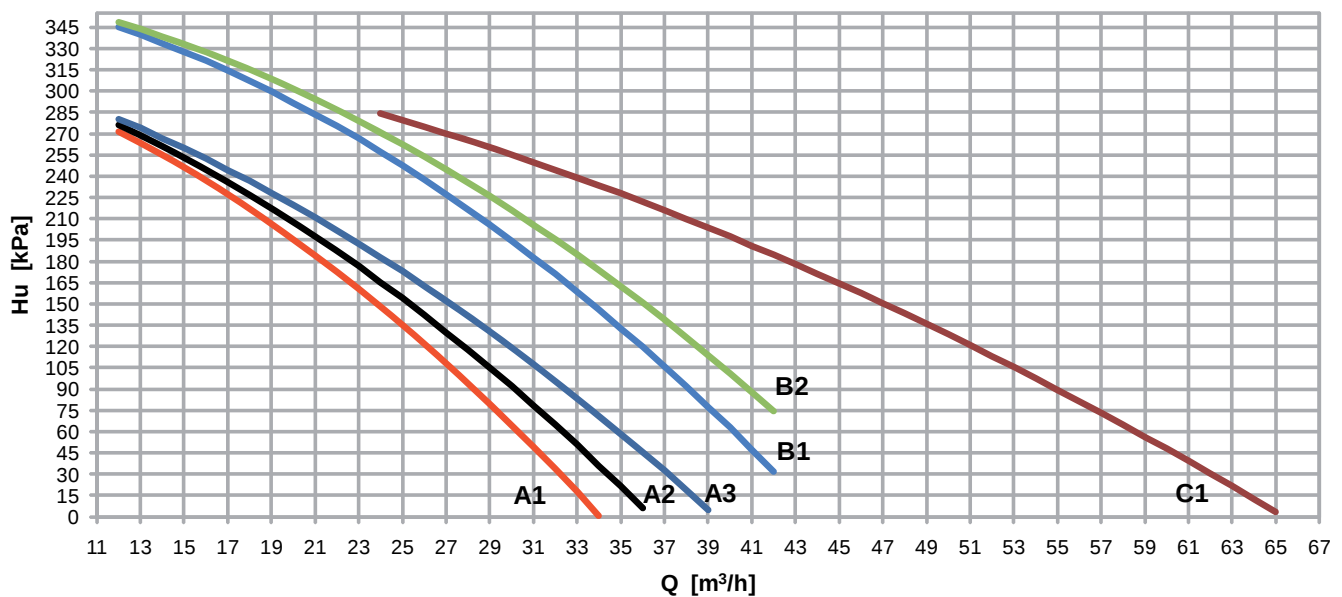
2 PUMPS - HIGH HEAD PUMP WITH WATER TANK (Horizontal V-shaped coil module)

SIZE	VERSIONE	Pf (1)	Q (1)	Rif. Pompa	Tipo Pompa	N. Poli	F.L.I.	F.L.A.	Ks	Dps	Hu	Kfi
		[kW]	[m3/h]				[kW]	[A]		[kPa]	[kPa]	
0412P	SL-CA	106,0	18,23	A1	FCTE 50-160/30	2	3	6,14	175,2	58	218	47,9
0462P	SL-CA	118,8	20,43	A2					144,8	61	207	
0512P	SL-CA	133,0	22,88	A3					114,6	60	197	
0562P	CA	160,3	27,58	B1	FCTE 50-160/40	2	4	7,63	96,9	74	222	23,7
	LN-CA	153,9	26,48						12,4	68	232	
	SL-CA	151,6	26,08						12,4	66	236	
0612P	CA	178,4	30,68	B2					72,9	69	209	
	LN-CA	172,8	29,72						12,3	64	219	
	SL-CA	172,3	29,64						12,3	64	220	
0712P	CA	201,2	34,61	C1	FCTE 65-160/55	2	5,5	10,4	57,2	69	234	23,7
	LN-CA	198,3	34,12						10,4	67	237	
	SL-CA	194,9	33,52						10,4	64	240	
0812P	CA	227,1	39,06						57,1	87	203	4,9
	LN-CA	221,2	38,04						10,3	83	211	
	SL-CA	217,6	37,42						10,3	80	215	

(1) Values refer to rated operating conditions
 Pf Cooling capacity of unit
 Pt Heating capacity of unit
 Q Flow of water to evaporator
 F.L.I. Power absorbed by pump
 F.L.A. Current absorbed by pump

Ks Coefficients for calculating pressure drops
 Unit with hydronic unit without network filter and 3 way valve
 Kfi Coefficients filter for calculating pressure drops
 Dps Total pressure drop of hydronic group
 Hu Residual head

WORKING HEAD CURVES



18. ELECTRICAL DATA

18.1 NX /K Electrical data

SIZE	Power supply V/ph/Hz	Maximum values								
		Compressor				Fans (1)		Total (1) (2)		
		n	F.L.I. [kW]	F.L.A. [A]	L.R.A. [A]	F.L.I. [kW]	F.L.A. [A]	F.L.I. [kW]	F.L.A. [A]	S.A. [A]
0152P	400/3/50+N	2	2 x 9	2 x 15,3	2 x 95	0,25	1,1	18,8	33,9	114
0182P		2	2 x 10,1	2 x 16,4	2 x 111	0,25	1,1	21	36,1	131
0202P		2	2 x 11,8	2 x 20,4	2 x 118	0,25	1,1	24,6	45,2	143
0252P		2	2 x 13,2	2 x 22,6	2 x 118	0,25	1,1	27,4	49,6	145
0262P		2	2 x 14,4	2 x 25,5	2 x 140	0,25	1,1	29,8	55,4	170
0302P		2	2 x 17	2 x 30,5	2 x 173	0,25	1,1	35,5	67,6	210
0352P		2	1 x 17 + 1 x 22,3	1 x 30,5 + 1 x 36,1	1 x 173 + 1 x 225	0,25	1,1	40,8	73,2	262
0402P	400/3/50	2	2 x 22,3	2 x 36,1	2 x 225	2	3,9	48,6	80	269
0452P		2	1 x 22,3 + 1 x 27,4	1 x 36,1 + 1 x 45,8	1 x 225 + 1 x 272	2	3,9	53,7	89,7	316
0502P		2	2 x 27,4	2 x 45,8	2 x 272	2	3,9	58,8	99,4	326
0552P		2	1 x 27,4 + 1 x 35,8	1 x 45,8 + 1 x 58,9	1 x 272 + 1 x 310	2	3,9	67,2	112,5	364
0602P		2	2 x 35,8	2 x 58,9	2 x 310	2	3,9	77,6	129,5	381
0702P		2	2 x 42,9	2 x 70,4	2 x 267	2	3,9	91,8	152,5	349
0802P		2	2 x 46,4	2 x 75,6	2 x 298	2	3,9	98,8	162,9	385

18.2 NX /LN-K Electrical data

SIZE	Power supply V/ph/Hz	Maximum values								
		Compressor				Fans (1)		Total (1) (2)		
		n	F.L.I. [kW]	F.L.A. [A]	L.R.A. [A]	F.L.I. [kW]	F.L.A. [A]	F.L.I. [kW]	F.L.A. [A]	S.A. [A]
0152P	400/3/50+N	2	2 x 9	2 x 15,3	2 x 95	0,16	0,64	18,6	33,2	113
0182P		2	2 x 10,1	2 x 16,4	2 x 111	0,16	0,64	20,8	35,4	130
0202P		2	2 x 11,8	2 x 20,4	2 x 118	0,25	1,1	24,6	45,2	143
0252P		2	2 x 13,2	2 x 22,6	2 x 118	0,16	0,64	27,4	49	144
0262P		2	2 x 14,4	2 x 25,5	2 x 140	0,16	0,64	29,8	54,8	169
0302P		2	2 x 17	2 x 30,5	2 x 173	0,16	0,64	35	64,8	207
0352P		2	1 x 17 + 1 x 22,3	1 x 30,5 + 1 x 36,1	1 x 173 + 1 x 225	2	3,9	43,3	74,4	263
0402P	400/3/50	2	2 x 22,3	2 x 36,1	2 x 225	2	3,9	48,6	80	269
0452P		2	1 x 22,3 + 1 x 27,4	1 x 36,1 + 1 x 45,8	1 x 225 + 1 x 272	1,84	3,76	53,4	89,4	316
0502P		2	2 x 27,4	2 x 45,8	2 x 272	1,84	3,76	58,5	99,1	325
0552P		2	1 x 27,4 + 1 x 35,8	1 x 45,8 + 1 x 58,9	1 x 272 + 1 x 310	1,84	3,76	66,9	112,2	363
0602P		2	2 x 35,8	2 x 58,9	2 x 310	2	3,9	77,6	129,5	381
0702P		2	2 x 42,9	2 x 70,4	2 x 267	2	3,9	91,8	152,5	349
0802P		2	2 x 46,4	2 x 75,6	2 x 298	2	3,9	98,8	162,9	385

F.L.I.: Full load power

F.L.A.: Full load current

L.R.A.: Locked rotor amperes for single compressor

S.A.: Inrush current

(1) (2) Safety values to be considered when cabling the unit for power supply and line-protections

(1) Values calculated referring to the version with the maximum number of fans working at the max absorbed current

Power supply: 400/3/50, 400/3/50+N depending on the model

Voltage tolerance: 10%

Maximum voltage unbalance: 3%

Give the typical operating conditions of units designed for outdoor installation, which can be associated (according to reference document IEC 60721) to the following classes:

- climatic conditions class 4K4H: air temperature range from -20 up to 55°C (*), relative humidity range from 4 up to 100%, with possible precipitations, at air-pressure from 70 and 106 kPa and a maximum solar radiation of 1120 W/m²
- special climatic conditions negligible
- biological conditions class 4B1 and 4C2: locations in a generic urban area
- mechanically active substances class 4S2: locations in areas with sand or dust representative of urban areas
- mechanical conditions class 4M1: locations protected from significant vibrations or shocks

The required protection level for safe operation, according to reference document IEC 60529, is IP43XW (protection against access, to the most critical unit's parts, of external devices with diameter larger than 1 mm and rain).

The unit can be considered IP44XW protected, i.e. protected against access of external devices (with diameter larger than 1 mm) and water in general.

(*) for the unit's operating limits, see "selection limits" section

18.3 NX /SL-K Electrical data

SIZE	Power supply V/ph/Hz	Maximum values								
		Compressor				Fans (1)		Total (1) (2)		
		n	F.L.I. [kW]	F.L.A. [A]	L.R.A. [A]	F.L.I. [kW]	F.L.A. [A]	F.L.I. [kW]	F.L.A. [A]	S.A. [A]
0152P	400/3/50+N	2	2 x 9	2 x 15,3	2 x 95	0,16	0,64	19	34,4	114
0182P		2	2 x 10,1	2 x 16,4	2 x 111	0,16	0,64	21,2	36,6	131
0202P		2	2 x 11,8	2 x 20,4	2 x 118	0,16	0,64	24,6	44,6	142
0252P	400/3/50	2	2 x 13,2	2 x 22,6	2 x 118	1,2	3,9	28,8	53	148
0262P		2	2 x 14,4	2 x 25,5	2 x 140	1,2	3,9	31,2	58,8	173
0302P		2	2 x 17	2 x 30,5	2 x 173	1,2	3,9	36,4	68,8	211
0352P		2	1 x 17 + 1 x 22,3	1 x 30,5 + 1 x 36,1	1 x 173 + 1 x 225	1,15	2,24	41,6	71,1	260
0402P		2	2 x 22,3	2 x 36,1	2 x 225	1,15	2,24	46,9	76,7	266
0452P		2	1 x 22,3 + 1 x 27,4	1 x 36,1 + 1 x 45,8	1 x 225 + 1 x 272	1,2	3,9	52,1	89,7	316
0502P		2	2 x 27,4	2 x 45,8	2 x 272	1,2	3,9	58,4	103,3	330
0552P		2	1 x 27,4 + 1 x 35,8	1 x 45,8 + 1 x 58,9	1 x 272 + 1 x 310	1,2	3,9	66,8	116,4	368
0602P		2	2 x 35,8	2 x 58,9	2 x 310	1,2	3,9	75,2	129,5	381
0702P		2	2 x 42,9	2 x 70,4	2 x 267	2	3,9	91,8	152,5	349
0802P		2	2 x 46,4	2 x 75,6	2 x 298	2	3,9	98,8	162,9	385

18.4 NX /CA Electrical data

SIZE	Power supply V/ph/Hz	Maximum values								
		Compressor				Fans (1)		Total (1) (2)		
		n	F.L.I. [kW]	F.L.A. [A]	L.R.A. [A]	F.L.I. [kW]	F.L.A. [A]	F.L.I. [kW]	F.L.A. [A]	S.A. [A]
0152P	400/3/50+N	2	2 x 9	2 x 15,3	2 x 95	0,25	1,1	19	35	115
0182P		2	2 x 10,1	2 x 16,4	2 x 111	0,25	1,1	21,2	37,2	132
0202P		2	2 x 11,8	2 x 20,4	2 x 118	0,25	1,1	25,1	47,4	145
0252P		2	2 x 13,2	2 x 22,6	2 x 118	0,25	1,1	27,9	51,8	147
0262P		2	2 x 14,4	2 x 25,5	2 x 140	0,25	1,1	30,3	57,6	172
0302P	400/3/50	2	2 x 17	2 x 30,5	2 x 173	2	3,9	38	68,8	211
0352P		2	1 x 17 + 1 x 22,3	1 x 30,5 + 1 x 36,1	1 x 173 + 1 x 225	2	3,9	43,3	74,4	263
0402P		2	2 x 22,3	2 x 36,1	2 x 225	1,84	3,76	48,3	79,7	269
0452P		2	1 x 22,3 + 1 x 27,4	1 x 36,1 + 1 x 45,8	1 x 225 + 1 x 272	1,84	3,76	53,4	89,4	316
0502P		2	2 x 27,4	2 x 45,8	2 x 272	2	3,9	60,8	103,3	330
0562P		2	1 x 27,4 + 1 x 35,8	1 x 45,8 + 1 x 58,9	1 x 272 + 1 x 310	2	4,1	71,2	121,1	372
0612P		2	2 x 35,8	2 x 58,9	2 x 310	2	4,1	79,6	134,2	385
0712P		2	1 x 35,8 + 1 x 44,7	1 x 58,9 + 1 x 73,3	1 x 310 + 1 x 394	2	4,1	88,5	148,6	469
0812P		2	2 x 44,7	2 x 73,3	2 x 394	2	4,1	99,4	167,1	488

F.L.I.: Full load power

F.L.A.: Full load current

L.R.A.: Locked rotor amperes for single compressor

S.A.: Inrush current

(1) (2) Safety values to be considered when cabling the unit for power supply and line-protections

(1) Values calculated referring to the version with the maximum number of fans working at the max absorbed current

Power supply: 400/3/50, 400/3/50+N depending on the model

Voltage tolerance: 10%

Maximum voltage unbalance: 3%

Give the typical operating conditions of units designed for outdoor installation, which can be associated (according to reference document IEC 60721) to the following classes:

- climatic conditions class 4K4H: air temperature range from -20 up to 55°C (*), relative humidity range from 4 up to 100%, with possible precipitations, at air-pressure from 70 and 106 kPa and a maximum solar radiation of 1120 W/m²
- special climatic conditions negligible
- biological conditions class 4B1 and 4C2: locations in a generic urban area
- mechanically active substances class 4S2: locations in areas with sand or dust representative of urban areas
- mechanical conditions class 4M1: locations protected from significant vibrations or shocks

The required protection level for safe operation, according to reference document IEC 60529, is IP43XW (protection against access, to the most critical unit's parts, of external devices with diameter larger than 1 mm and rain).

The unit can be considered IP44XW protected, i.e. protected against access of external devices (with diameter larger than 1 mm) and water in general.

(*) for the unit's operating limits, see "selection limits" section

18.5 NX /LN-CA Electrical data

SIZE	Power supply V/ph/Hz	Maximum values								
		Compressor				Fans (1)		Total (1) (2)		
		n	F.L.I. [kW]	F.L.A. [A]	L.R.A. [A]	F.L.I. [kW]	F.L.A. [A]	F.L.I. [kW]	F.L.A. [A]	S.A. [A]
0152P	400/3/50+N	2	2 x 9	2 x 15,3	2 x 95	0,16	0,64	19	34,4	114
0182P		2	2 x 10,1	2 x 16,4	2 x 111	0,16	0,64	21,2	36,6	131
0202P		2	2 x 11,8	2 x 20,4	2 x 118	0,16	0,64	24,6	44,6	142
0252P	400/3/50	2	2 x 13,2	2 x 22,6	2 x 118	2	3,9	30,4	53	148
0262P		2	2 x 14,4	2 x 25,5	2 x 140	2	3,9	32,8	58,8	173
0302P		2	2 x 17	2 x 30,5	2 x 173	2	3,9	38	68,8	211
0352P		2	1 x 17 + 1 x 22,3	1 x 30,5 + 1 x 36,1	1 x 173 + 1 x 225	1,84	3,76	43	74,1	263
0402P		2	2 x 22,3	2 x 36,1	2 x 225	2	3,9	50,6	83,9	273
0452P		2	1 x 22,3 + 1 x 27,4	1 x 36,1 + 1 x 45,8	1 x 225 + 1 x 272	2	3,9	53,7	89,7	316
0502P		2	2 x 27,4	2 x 45,8	2 x 272	2	3,9	60,8	103,3	330
0562P		2	1 x 27,4 + 1 x 35,8	1 x 45,8 + 1 x 58,9	1 x 272 + 1 x 310	0,93	2,3	66,9	113,9	365
0612P		2	2 x 35,8	2 x 58,9	2 x 310	0,93	2,3	75,3	127	378
0712P		2	1 x 35,8 + 1 x 44,7	1 x 58,9 + 1 x 73,3	1 x 310 + 1 x 394	0,93	2,3	85,2	143,7	464
0812P		2	2 x 44,7	2 x 73,3	2 x 394	0,93	2,3	95	160,4	481

18.6 NX /SL-CA Electrical data

SIZE	Power supply V/ph/Hz	Maximum values								
		Compressor				Fans (1)		Total (1) (2)		
		n	F.L.I. [kW]	F.L.A. [A]	L.R.A. [A]	F.L.I. [kW]	F.L.A. [A]	F.L.I. [kW]	F.L.A. [A]	S.A. [A]
0152P	400/3/50	2	2 x 9	2 x 15,3	2 x 95	1,2	3,9	20,4	38,4	118
0182P		2	2 x 10,1	2 x 16,4	2 x 111	1,2	3,9	22,6	40,6	135
0202P		2	2 x 11,8	2 x 20,4	2 x 118	1,2	3,9	26	48,6	146
0252P		2	2 x 13,2	2 x 22,6	2 x 118	1,15	2,24	28,7	49,7	145
0262P		2	2 x 14,4	2 x 25,5	2 x 140	1,15	2,24	31,1	55,5	170
0302P		2	2 x 17	2 x 30,5	2 x 173	1,15	2,24	36,3	65,5	208
0352P		2	1 x 17 + 1 x 22,3	1 x 30,5 + 1 x 36,1	1 x 173 + 1 x 225	1,2	3,9	42,9	78,3	267
0412P		2	2 x 22,3	2 x 36,1	2 x 225	0,93	2,3	48,3	81,4	270
0462P		2	1 x 22,3 + 1 x 27,4	1 x 36,1 + 1 x 45,8	1 x 225 + 1 x 272	0,93	2,3	53,4	91,1	317
0512P		2	2 x 27,4	2 x 45,8	2 x 272	0,93	2,3	58,5	100,8	327
0562P		2	1 x 27,4 + 1 x 35,8	1 x 45,8 + 1 x 58,9	1 x 272 + 1 x 310	0,93	2,3	67,9	116,2	367
0612P		2	2 x 35,8	2 x 58,9	2 x 310	0,93	2,3	77,2	131,6	383
0712P		2	1 x 35,8 + 1 x 44,7	1 x 58,9 + 1 x 73,3	1 x 310 + 1 x 394	0,93	2,3	86,1	146	467
0812P		2	2 x 44,7	2 x 73,3	2 x 394	0,93	2,3	95,9	162,7	483

F.L.I.: Full load power

F.L.A.: Full load current

L.R.A.: Locked rotor amperes for single compressor

S.A.: Inrush current

(1) (2) Safety values to be considered when cabling the unit for power supply and line-protections

(1) Values calculated referring to the version with the maximum number of fans working at the max absorbed current

Power supply: 400/3/50, 400/3/50+N depending on the model

Voltage tolerance: 10%

Maximum voltage unbalance: 3%

Give the typical operating conditions of units designed for outdoor installation, which can be associated (according to reference document IEC 60721) to the following classes:

- climatic conditions class 4K4H: air temperature range from -20 up to 55°C (*), relative humidity range from 4 up to 100%, with possible precipitations, at air-pressure from 70 and 106 kPa and a maximum solar radiation of 1120 W/m²
- special climatic conditions negligible
- biological conditions class 4B1 and 4C2: locations in a generic urban area
- mechanically active substances class 4S2: locations in areas with sand or dust representative of urban areas
- mechanical conditions class 4M1: locations protected from significant vibrations or shocks

The required protection level for safe operation, according to reference document IEC 60529, is IP43XW (protection against access, to the most critical unit's parts, of external devices with diameter larger than 1 mm and rain).

The unit can be considered IP44XW protected, i.e. protected against access of external devices (with diameter larger than 1 mm) and water in general.

(*) for the unit's operating limits, see "selection limits" section

19. FULL LOAD SOUND LEVEL

19.1 NX /K Full load sound level

SOUND POWER									
SIZE	Octave band [Hz]								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound power level dB								
0152P	84	84	80	79	79	76	68	56	83
0182P	84	84	80	79	79	76	68	56	83
0202P	85	85	81	80	80	77	69	57	84
0252P	85	85	81	80	80	77	69	57	84
0262P	85	85	81	80	80	77	69	57	84
0302P	86	86	82	81	81	78	70	58	85
0352P	87	87	83	82	82	79	71	59	86
0402P	89	89	85	84	84	81	73	61	88
0452P	89	89	85	84	84	81	73	61	88
0502P	89	89	85	84	84	81	73	61	88
0552P	90	90	86	85	85	82	74	62	89
0602P	91	91	87	86	86	83	75	63	90
0702P	91	91	87	86	86	83	75	63	90
0802P	92	92	88	87	87	84	76	64	91

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Such certification refers specifically to the sound Power Level in dB(A). This is therefore the only acoustic data to be considered as binding.

SOUND PRESSURE LEVEL									
SIZE	Octave band [Hz] at 10 m								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound pressure level dB								
0152P	52	52	48	47	47	44	36	24	51
0182P	52	52	48	47	47	44	36	24	51
0202P	53	53	49	48	48	45	37	25	52
0252P	53	53	49	48	48	45	37	25	52
0262P	53	53	49	48	48	45	37	25	52
0302P	54	54	50	49	49	46	38	26	53
0352P	55	55	51	50	50	47	39	27	54
0402P	57	57	53	52	52	49	41	29	56
0452P	57	57	53	52	52	49	41	29	56
0502P	57	57	53	52	52	49	41	29	56
0552P	58	58	54	53	53	50	42	30	57
0602P	59	59	55	54	54	51	43	31	58
0702P	59	59	55	54	54	51	43	31	58
0802P	60	60	56	55	55	52	44	32	59

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

19.2 NX /LN-K Full load sound level

SOUND POWER									
SIZE	Octave band [Hz]								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound power level dB								
0152P	80	80	77	76	75	71	65	50	79
0182P	80	80	77	76	75	71	65	50	79
0202P	80	80	77	76	75	71	65	50	79
0252P	81	81	78	77	76	72	66	51	80
0262P	81	81	78	77	76	72	66	51	80
0302P	81	81	78	77	76	72	66	51	80
0352P	85	83	84	83	77	72	66	60	83
0402P	85	83	84	83	77	72	66	60	83
0452P	86	84	85	84	78	73	67	61	84
0502P	86	84	85	84	78	73	67	61	84
0552P	86	84	85	84	78	73	67	61	84
0602P	87	85	86	85	79	74	68	62	85
0702P	87	85	86	85	79	74	68	62	85
0802P	87	85	86	85	79	74	68	62	85

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Such certification refers specifically to the sound Power Level in dB(A). This is therefore the only acoustic data to be considered as binding.

SOUND PRESSURE LEVEL									
SIZE	Octave band [Hz] at 10 m								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound pressure level dB								
0152P	48	48	45	44	43	39	33	18	47
0182P	48	48	45	44	43	39	33	18	47
0202P	48	48	45	44	43	39	33	18	47
0252P	49	49	46	45	44	40	34	19	48
0262P	49	49	46	45	44	40	34	19	48
0302P	49	49	46	45	44	40	34	19	48
0352P	53	51	52	51	45	40	34	28	51
0402P	53	51	52	51	45	40	34	28	51
0452P	54	52	53	52	46	41	35	29	52
0502P	54	52	53	52	46	41	35	29	52
0552P	54	52	53	52	46	41	35	29	52
0602P	55	53	54	53	47	42	36	30	53
0702P	55	53	54	53	47	42	36	30	53
0802P	55	53	54	53	47	42	36	30	53

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

19.3 NX /SL-K Full load sound level

SOUND POWER									
SIZE	Octave band [Hz]								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound power level dB								
0152P	81	79	77	74	71	66	60	56	76
0182P	82	80	78	75	72	67	61	57	77
0202P	82	80	78	75	72	67	61	57	77
0252P	83	81	79	76	73	68	62	58	78
0262P	83	81	79	76	73	68	62	58	78
0302P	83	81	79	76	73	68	62	58	78
0352P	84	82	80	77	74	69	63	59	79
0402P	85	83	81	78	75	70	64	60	80
0452P	85	84	82	79	76	71	65	61	81
0502P	85	84	82	79	76	71	65	61	81
0552P	87	85	83	81	76	72	66	62	82
0602P	87	85	83	81	76	72	66	62	82
0702P	88	86	84	82	76	73	67	63	83
0802P	89	87	85	83	77	74	68	64	84

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Such certification refers specifically to the sound Power Level in dB(A). This is therefore the only acoustic data to be considered as binding.

SOUND PRESSURE LEVEL									
SIZE	Octave band [Hz] at 10 m								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound pressure level dB								
0152P	49	47	45	42	39	34	28	24	44
0182P	50	48	46	43	40	35	29	25	45
0202P	50	48	46	43	40	35	29	25	45
0252P	51	49	47	44	41	36	30	26	46
0262P	51	49	47	44	41	36	30	26	46
0302P	51	49	47	44	41	36	30	26	46
0352P	52	50	48	45	42	37	31	27	47
0402P	53	51	49	46	43	38	32	28	48
0452P	53	52	50	47	44	39	33	29	49
0502P	53	52	50	47	44	39	33	29	49
0552P	55	53	51	49	44	40	34	30	50
0602P	55	53	51	49	44	40	34	30	50
0702P	56	54	52	50	44	41	35	31	51
0802P	57	55	53	51	45	42	36	32	52

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

19.4 NX /CA Full load sound level

SOUND POWER									
SIZE	Octave band [Hz]								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound power level dB								
0152P	85	85	81	80	80	77	69	57	84
0182P	85	85	81	80	80	77	69	57	84
0202P	86	86	82	81	81	78	70	58	85
0252P	86	86	82	81	81	78	70	58	85
0262P	87	87	83	82	82	79	71	59	86
0302P	89	89	85	84	84	81	73	61	88
0352P	89	89	85	84	84	81	73	61	88
0402P	91	91	87	86	86	83	75	63	90
0452P	91	91	87	86	86	83	75	63	90
0502P	91	91	87	86	86	83	75	63	90
0562P	92	92	88	87	87	84	76	64	91
0612P	92	92	88	87	87	84	76	64	91
0712P	93	93	89	88	88	85	77	65	92
0812P	94	94	90	89	89	86	78	66	93

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Such certification refers specifically to the sound Power Level in dB(A). This is therefore the only acoustic data to be considered as binding.

SOUND PRESSURE LEVEL									
SIZE	Octave band [Hz] at 10 m								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound pressure level dB								
0152P	53	53	49	48	48	45	37	25	52
0182P	53	53	49	48	48	45	37	25	52
0202P	54	54	50	49	49	46	38	26	53
0252P	54	54	50	49	49	46	38	26	53
0262P	55	55	51	50	50	47	39	27	54
0302P	57	57	53	52	52	49	41	29	56
0352P	57	57	53	52	52	49	41	29	56
0402P	59	59	55	54	54	51	43	31	58
0452P	59	59	55	54	54	51	43	31	58
0502P	59	59	55	54	54	51	43	31	58
0562P	60	60	56	55	55	52	44	32	59
0612P	60	60	56	55	55	52	44	32	59
0712P	61	61	57	56	56	53	45	33	60
0812P	62	62	58	57	57	54	46	34	61

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

19.5 NX /LN-CA Full load sound level

SOUND POWER									
SIZE	Octave band [Hz]								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound power level dB								
0152P	81	81	78	77	76	72	66	51	80
0182P	81	81	78	77	76	72	66	51	80
0202P	81	81	78	77	76	72	66	51	80
0252P	83	81	82	81	75	70	64	58	81
0262P	83	81	82	81	75	70	64	58	81
0302P	84	82	83	82	76	71	65	59	82
0352P	86	84	85	84	78	73	67	61	84
0402P	86	84	85	84	78	73	67	61	84
0452P	86	84	85	84	78	73	67	61	84
0502P	87	85	86	85	79	74	68	62	85
0562P	88	86	87	86	80	75	69	63	86
0612P	88	86	87	86	80	75	69	63	86
0712P	89	87	88	87	81	76	70	64	87
0812P	90	88	89	88	82	77	71	65	88

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Such certification refers specifically to the sound Power Level in dB(A). This is therefore the only acoustic data to be considered as binding.

SOUND PRESSURE LEVEL									
SIZE	Octave band [Hz] at 10 m								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound pressure level dB								
0152P	49	49	46	45	44	40	34	19	48
0182P	49	49	46	45	44	40	34	19	48
0202P	49	49	46	45	44	40	34	19	48
0252P	51	49	50	49	43	38	32	26	49
0262P	51	49	50	49	43	38	32	26	49
0302P	52	50	51	50	44	39	33	27	50
0352P	54	52	53	52	46	41	35	29	52
0402P	54	52	53	52	46	41	35	29	52
0452P	54	52	53	52	46	41	35	29	52
0502P	55	53	54	53	47	42	36	30	53
0562P	56	54	55	54	48	43	37	31	54
0612P	56	54	55	54	48	43	37	31	54
0712P	57	55	56	55	49	44	38	32	55
0812P	58	56	57	56	50	45	39	33	56

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

19.6 NX /SL-CA Full load sound level

SOUND POWER									
SIZE	Octave band [Hz]								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound power level dB								
0152P	82	80	78	75	72	67	61	57	77
0182P	83	81	79	76	73	68	62	58	78
0202P	83	81	79	76	73	68	62	58	78
0252P	84	82	80	77	74	69	63	59	79
0262P	84	82	80	77	74	69	63	59	79
0302P	84	82	80	77	74	69	63	59	79
0352P	85	83	81	78	75	70	64	60	80
0412P	85	84	82	79	76	71	65	61	81
0462P	87	85	83	81	76	72	66	62	82
0512P	87	85	83	81	76	72	66	62	82
0562P	88	86	84	82	76	73	67	63	83
0612P	89	87	85	83	77	74	68	64	84
0712P	89	88	86	84	79	74	68	64	85
0812P	89	89	87	85	80	75	69	64	86

Working conditions

Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units

Such certification refers specifically to the sound Power Level in dB(A). This is therefore the only acoustic data to be considered as binding.

SOUND PRESSURE LEVEL									
SIZE	Octave band [Hz] at 10 m								Total sound level dB(A)
	63	125	250	500	1000	2000	4000	8000	
	Sound pressure level dB								
0152P	50	48	46	43	40	35	29	25	45
0182P	51	49	47	44	41	36	30	26	46
0202P	51	49	47	44	41	36	30	26	46
0252P	52	50	48	45	42	37	31	27	47
0262P	52	50	48	45	42	37	31	27	47
0302P	52	50	48	45	42	37	31	27	47
0352P	53	51	49	46	43	38	32	28	48
0412P	53	52	50	47	44	39	33	29	49
0462P	55	53	51	49	44	40	34	30	50
0512P	55	53	51	49	44	40	34	30	50
0562P	56	54	52	50	44	41	35	31	51
0612P	57	55	53	51	45	42	36	32	52
0712P	57	56	54	52	47	42	36	32	53
0812P	57	57	55	53	48	43	37	32	54

Working conditions

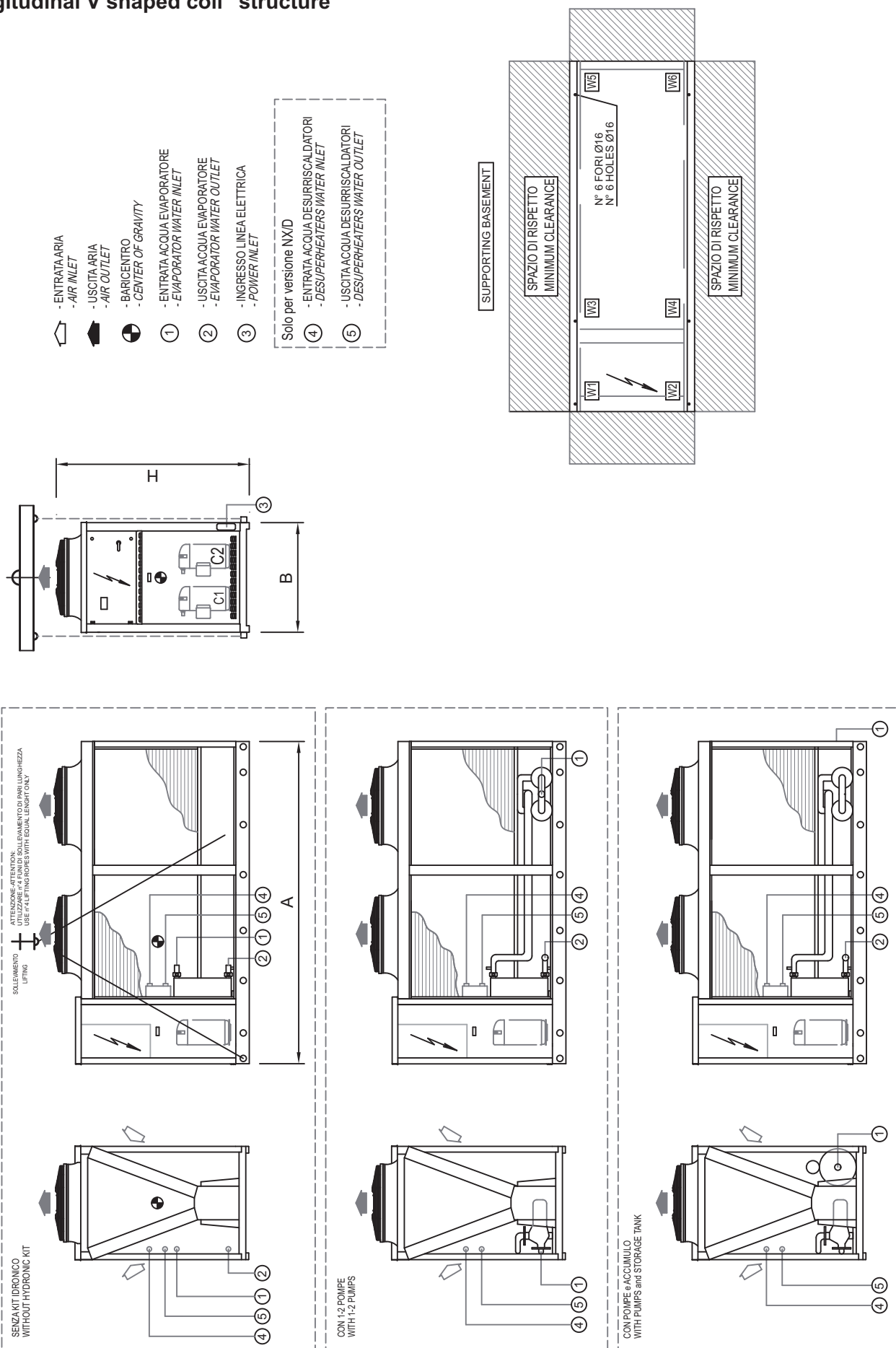
Plant (side) cooling exchanger water (in/out) 12/7 °C

Source (side) heat exchanger air (in) 35 °C

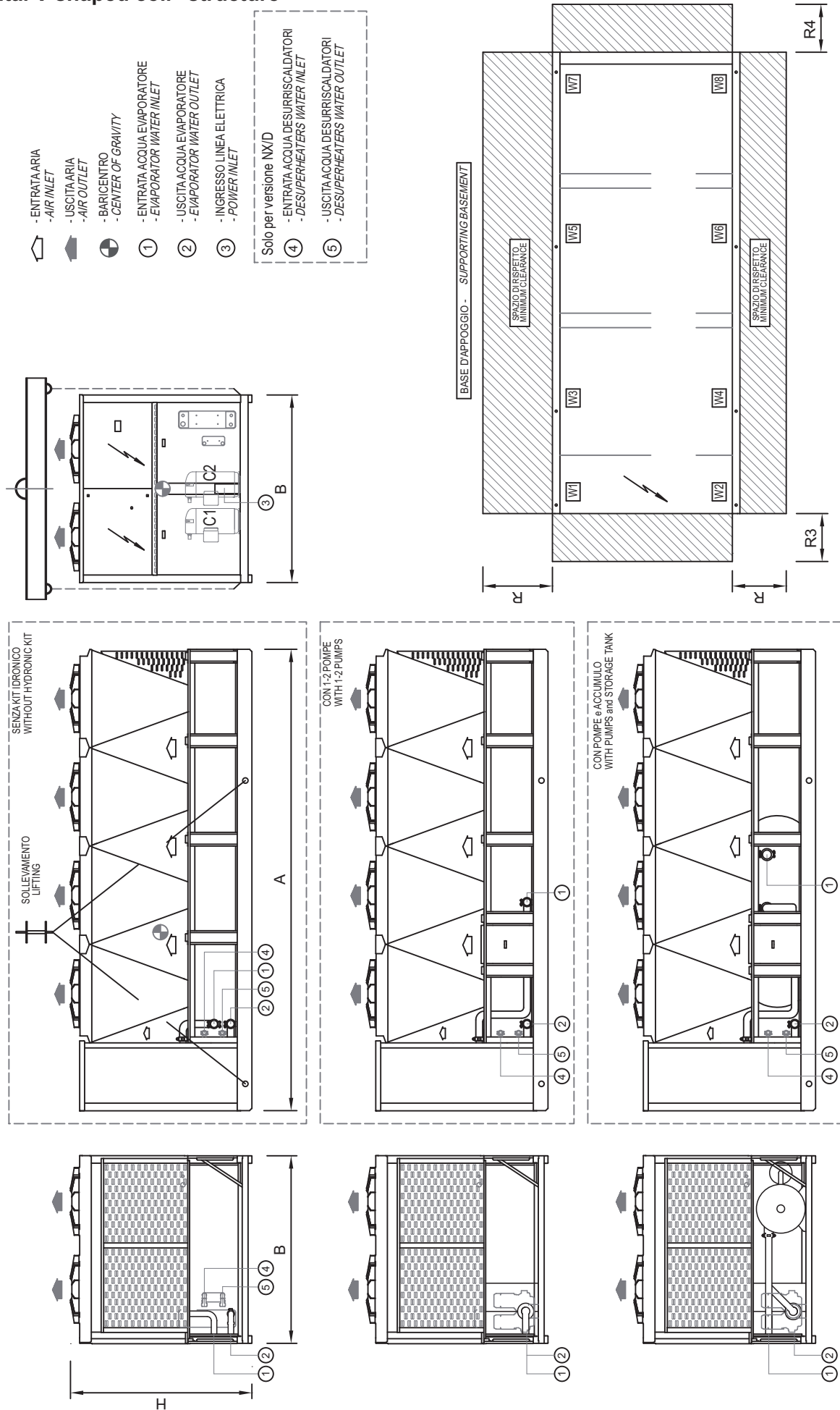
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

20. DIMENSIONAL DRAWINGS

"Longitudinal V shaped coil" structure



"Horizontal V shaped coil" structure



SIZE	DIMENSIONS AND				CLEARANCE				PLANT SIDE COLD HEAT EXCHANGER		-		AUXILIARY SIDE HEAT EXCHANGER	
	A	B	H	PESO	R1	R2	R3	R4	IN/OUT		IN/OUT		IN/OUT	
	[mm]	[mm]	[mm]	[kg]	[mm]	[mm]	[mm]	[mm]	TYPE	Ø	TYPE	Ø	TYPE	Ø
NX /CA 0152P	1755	1195	1885	480	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /CA 0182P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /CA 0202P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /CA 0252P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /CA 0262P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /CA 0302P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /CA 0352P	3360	1195	2010	830	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /CA 0402P	3360	1195	2025	960	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /CA 0452P	3360	1195	2025	1000	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /CA 0502P	3980	1195	2010	1080	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /CA 0562P	3160	2250	2170	1510	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /CA 0612P	3160	2250	2170	1560	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /CA 0712P	3160	2250	2170	1570	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /CA 0812P	4335	2250	2170	1850	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /K 0152P	1755	1195	1885	470	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /K 0182P	1755	1195	1885	480	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /K 0202P	1755	1195	1885	490	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /K 0252P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /K 0262P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /K 0302P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /K 0352P	2290	1195	1885	660	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /K 0402P	2825	1195	2010	830	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /K 0452P	2825	1195	2010	870	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /K 0502P	2825	1195	2010	900	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /K 0552P	3360	1195	2010	980	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /K 0602P	3980	1195	2010	1130	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /K 0702P	3980	1195	2010	1110	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /K 0802P	3980	1195	2010	1140	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-CA 0152P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-CA 0182P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-CA 0202P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-CA 0252P	2825	1195	2010	670	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-CA 0262P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-CA 0302P	3360	1195	2010	750	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /LN-CA 0352P	3360	1195	2025	870	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /LN-CA 0402P	3980	1195	2010	1050	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-CA 0452P	3980	1195	2010	1080	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-CA 0502P	3980	1195	2010	1090	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-CA 0562P	3160	2250	2170	1510	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /LN-CA 0612P	3160	2250	2170	1550	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /LN-CA 0712P	4335	2250	2170	1850	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /LN-CA 0812P	4335	2250	2170	1870	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /LN-K 0152P	1755	1195	1885	480	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-K 0182P	1755	1195	1885	500	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-K 0202P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-K 0252P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-K 0262P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /LN-K 0302P	2290	1195	1885	580	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /LN-K 0352P	2825	1195	2010	780	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /LN-K 0402P	2825	1195	2010	880	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-K 0452P	3360	1195	2025	1000	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-K 0502P	3360	1195	2025	1030	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-K 0552P	3360	1195	2025	1060	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-K 0602P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-K 0702P	3980	1195	2010	1150	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /LN-K 0802P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /SL-CA 0152P	2825	1195	2010	650	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-CA 0182P	2825	1195	2010	660	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-CA 0202P	2825	1195	2010	670	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-CA 0252P	3360	1195	2025	760	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-CA 0262P	3360	1195	2025	770	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-CA 0302P	3360	1195	2025	780	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /SL-CA 0352P	3980	1195	2010	940	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /SL-CA 0412P	3160	2250	2170	1410	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /SL-CA 0462P	3160	2250	2170	1450	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /SL-CA 0512P	3160	2250	2170	1480	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /SL-CA 0562P	4335	2250	2170	1760	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /SL-CA 0612P	4335	2250	2170	1820	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /SL-CA 0712P	4335	2250	2170	1850	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /SL-CA 0812P	5510	2250	2170	2160	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	-	-
NX /SL-K 0152P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-K 0182P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-K 0202P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-K 0252P	2825	1195	2010	670	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-K 0262P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	-	-
NX /SL-K 0302P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-

NX

NX /SL-K 0352P	3360	1195	2025	860	1000	1000	1000	1000	VICTAULIC	2"	-	-	-	-
NX /SL-K 0402P	3360	1195	2025	960	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /SL-K 0452P	3980	1195	2010	1070	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /SL-K 0502P	3980	1195	2010	1080	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /SL-K 0552P	3980	1195	2010	1110	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /SL-K 0602P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /SL-K 0702P	3980	1195	2010	1150	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /SL-K 0802P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	-	-
NX /D /CA 0152P	1755	1195	1885	480	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /CA 0182P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /CA 0202P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /CA 0252P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /CA 0262P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /CA 0302P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /CA 0352P	3360	1195	2010	830	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /CA 0402P	3360	1195	2025	960	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /CA 0452P	3360	1195	2025	1000	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /CA 0502P	3980	1195	2010	1080	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /CA 0562P	3160	2250	2170	1510	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /CA 0612P	3160	2250	2170	1560	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /CA 0712P	3160	2250	2170	1570	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /CA 0812P	4335	2250	2170	1850	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /K 0152P	1755	1195	1885	470	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /K 0182P	1755	1195	1885	480	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /K 0202P	1755	1195	1885	490	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /K 0252P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /K 0262P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /K 0302P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /K 0352P	2290	1195	1885	660	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /K 0402P	2825	1195	2010	830	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /K 0452P	2825	1195	2010	870	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /K 0502P	2825	1195	2010	900	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /K 0552P	3360	1195	2010	980	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /K 0602P	3980	1195	2010	1130	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /K 0702P	3980	1195	2010	1110	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /K 0802P	3980	1195	2010	1140	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0152P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0182P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0202P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0252P	2825	1195	2010	670	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0262P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0302P	3360	1195	2010	750	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /LN-CA 0352P	3360	1195	2025	870	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /LN-CA 0402P	3980	1195	2010	1050	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0452P	3980	1195	2010	1080	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0502P	3980	1195	2010	1090	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0562P	3160	2250	2170	1510	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0612P	3160	2250	2170	1550	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0712P	4335	2250	2170	1850	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-CA 0812P	4335	2250	2170	1870	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0152P	1755	1195	1885	480	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0182P	1755	1195	1885	500	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0202P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0252P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0262P	2290	1195	1885	570	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0302P	2290	1195	1885	580	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /LN-K 0352P	2825	1195	2010	780	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /LN-K 0402P	2825	1195	2010	880	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0452P	3360	1195	2025	1000	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0502P	3360	1195	2025	1030	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0552P	3360	1195	2025	1060	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0602P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0702P	3980	1195	2010	1150	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /LN-K 0802P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0152P	2825	1195	2010	650	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0182P	2825	1195	2010	660	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0202P	2825	1195	2010	670	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0252P	3360	1195	2025	760	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0262P	3360	1195	2025	770	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0302P	3360	1195	2025	780	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /SL-CA 0352P	3980	1195	2010	940	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /SL-CA 0412P	3160	2250	2170	1410	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0462P	3160	2250	2170	1450	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0512P	3160	2250	2170	1480	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0562P	4335	2250	2170	1760	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0612P	4335	2250	2170	1820	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0712P	4335	2250	2170	1850	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-CA 0812P	5510	2250	2170	2160	1500	2300	1500	1500	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0152P	2290	1195	1885	540	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0182P	2290	1195	1885	550	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0202P	2290	1195	1885	560	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4

NX /D /SL-K 0252P	2825	1195	2010	670	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0262P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	1"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0302P	2825	1195	2010	680	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /SL-K 0352P	3360	1195	2025	860	1000	1000	1000	1000	VICTAULIC	2"	-	-	GAS	1" 1/4
NX /D /SL-K 0402P	3360	1195	2025	960	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0452P	3980	1195	2010	1070	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0502P	3980	1195	2010	1080	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0552P	3980	1195	2010	1110	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0602P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0702P	3980	1195	2010	1150	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4
NX /D /SL-K 0802P	3980	1195	2010	1180	1000	1000	1000	1000	VICTAULIC	2"1/2	-	-	GAS	1" 1/4

LEGEND OF PIPE CONNECTIONS

UNI ISO 228/1

Pipe threads where pressure-tight joints are not made on the threads - Designation, dimensions and tolerances

Used terminology:

G: Pipe threads where pressure-tight joints are not made on the threads

A: Close tolerance class for external pipe threads where pressure-tight joints are not made on the threads

B: Wider tolerance class for external pipe threads where pressure-tight joints are not made on the threads

Internal threads: G letter followed by thread mark (only tolerance class)

External threads: G letter followed by thread mark and by A letter for A class external threads or by B letter for B class external threads.

UNI ISO 7/1

Pipe threads where pressure-tight joints are made on the threads - Designation, dimensions and tolerances

Used terminology:

Rp: Internal cylindrical threads where pressure-tight joints are made on the threads

Rc: Internal conical threads where pressure-tight joints are made on the threads

R: External conical threads where pressure-tight joints are made on the threads

Internal cylindrical threads: R letter followed by p letter

Internal conical threads: R letter followed by c letter

External conical threads: R letter

Designation	Description
UNI ISO 7/1 - Rp 1 1/2	Internal cylindrical threads where pressure-tight joints are made on the threads, defined by standard UNI ISO 7/1 Conventional $\varnothing$ 1 1/2"
UNI ISO 7/1 - Rp 2 1/2	Internal cylindrical threads where pressure-tight joints are made on the threads, defined by standard UNI ISO 7/1 Conventional $\varnothing$ 2 1/2"
UNI ISO 7/1 - Rp 3	Internal cylindrical threads where pressure-tight joints are made on the threads, defined by standard UNI ISO 7/1 Conventional $\varnothing$ 3"
UNI ISO 7/1 - R 3	External conical threads where pressure-tight joints are made on the threads, defined by standard UNI ISO 7/1 Conventional $\varnothing$ 3"
UNI ISO 228/1 - G 4 B	Internal cylindrical threads where pressure-tight joints are not made on the threads, defined by standard UNI ISO 228/1 Tolerance class B for external thread Conventional $\varnothing$ 4"
DN 80 PN 16	Flange Nominal Diameter: 80 mm Nominal Pressure: 16 bar

Notes:

Conventional diameter value [in inches] identifies short thread designation, based upon the relative standard.

All relative values are defined by standards.

As example, here below some values:

	UNI ISO 7/1	UNI ISO 228/1
Conventional $\varnothing$	1"	1"
Pitch	2.309 mm	2.309 mm
External $\varnothing$	33.249 mm	33.249 mm
Core $\varnothing$	30.291 mm	30.291 mm
Thread height	1.479 mm	1.479 mm

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