

The Renewable Solutions Provider

Making a World of Difference

NX

Cooling Only Chiller Range



Air Conditioning | Heating
Ventilation | Controls



A Group Company of **MITSUBISHI ELECTRIC**

The name Mitsubishi Electric is synonymous with excellence

Founded in 1921, Mitsubishi Electric is now a global, market leading environmental technologies manufacturer. In the UK, the Living Environmental Systems Division provides pioneering solutions that heat, cool, ventilate and control our buildings in some of the most energy efficient ways possible.

The company has manufactured chillers for over 40 years and in 2015 combined this extensive experience with advanced component technology from the commercial air conditioning sector to produce the e-series modular chiller range.

Later the same year Mitsubishi Electric purchased Climaveneta, enhancing our product line up and marking our full scale entry into the chiller market. Climaveneta is a strong European brand supported by 45 years of customer trust and high quality production, and its range of energy-saving, low-noise and innovative chiller technology further expands the application and customisation capabilities we are now able to offer.

Through our technical expertise, long experience and innovative product range, we enable building operators everywhere to significantly improve energy efficiency, reduce running costs and adhere to increasingly tough legislation. We believe that global climate challenges need local solutions. Our aim is to help individuals and businesses reduce the energy consumption of their buildings and their running costs.



A Group Company of MITSUBISHI ELECTRIC



At Mitsubishi Electric, we have evolved and today we offer advanced environmental systems that really can **make a world of difference**



A new generation of water chiller

Chiller systems have been used for decades to deliver controlled cooling to buildings, but with increasing pressure on energy efficiency and running costs, we now need a low-carbon, cost effective option.

Introducing the

NX Range

Consisting of the NX and NECS models, a new generation of water chiller designed for comfort and process cooling applications.

- Advanced technology
- Scalable and fully customisable
- Air source and water cooled versions
- Plate or Shell & Tube heat exchanger options



Application of the NX range

Modern multi-function buildings, shopping centres, large business centres and process cooling are just some of the examples where increased comfort and precision control are required.

The NX range can deliver all of this and more through its ability to be easily integrated into ever increasingly complex building systems. Fully customisable with a range of configurations and accessories, the NX range is the perfect chiller solution.

Flexible Application Options

Air Source (39 - 352kW)

- NX models
- NECS models

Water Cooled (43 - 371 kW)

- NECS-W models

By providing cooled liquid at a range of temperatures from 15°C all the way down to -10°C, the NX range is perfect for all comfort and process cooling solutions:

Comfort Cooling

By using hydronic terminals, a simple application of a chiller can include cooling a space or environment to a set temperature. By using water as the medium of energy, high sensible cooling and stable room temperatures can be achieved.

- | | |
|------------------------------------|--------------------------|
| ■ Retail stores / Shopping centres | ■ Schools / Universities |
| ■ Airports | ■ Museums |
| ■ Offices | ■ Hotels and Resorts |
| ■ Cinemas / Theatres | ■ Hospitals / Healthcare |

Industrial Process Cooling

During manufacturing processes, many substances become hot and if overheated can negatively effect the productivity and efficiency of the process. By correctly applying a chiller it is possible to ensure optimum temperatures and conditions are maintained at a steady state.

- | | |
|---------------------------------------|-------------------------------|
| ■ Manufacturing processes | ■ Energy and Power generation |
| ■ Automotive and Electronic processes | ■ Industrial technology |



The **NX** Range is perfect for all comfort and process cooling solutions



Exceptional features

In order to maximise performance, reliability and overall system efficiency, the Climaveneta range of products bring advanced technology and know-how together in customisable packages to aid design, specification, installation and on-going operation.

Air Source Key Features

Full-Aluminium Coil

A

The NX range uses microchannel aluminium condenser coils on its V-shaped structured units*. This means less refrigerant is needed compared to traditional copper coils, ensuring the lowest possible ratio between refrigerant volume and cooling capacity is delivered, making this product unique in its reference market and at the same time extending product life due to better resistance to corrosion.

The reduction in weight achieved by using this technology also means the units can be handled easier with increased safety, thus overcoming specific construction restrictions or limits in the positioning and installation of the unit.

Built-In Hydronic Module (optional)

B

Designed to keep on-site installation time, work and costs to a minimum whilst optimising installation space, the integrated hydronic module incorporates all the hydraulic components. Single or twin pumps suitable for low and high pressure heads are available according to the installation needs.

Heat Exchangers

C

Multi-circuit shell and tube heat exchangers designed and built by Climaveneta are available alongside plate heat exchangers. Due to the low pressure drops involved, shell and tube heat exchangers are ideal for particularly hard water or industrial process applications. This allows a large degree of flexibility on the unit's installation, whilst keeping efficiency at the highest level. For this reason, these units represent the best choice for hydronic applications in residential, commercial and industrial markets.

V-Shaped Coil Geometry

D

Open angled V-shaped coils achieve the maximum efficiency at all conditions. The specific design of the condensing modules allows a reduction in both unit footprint as well as clearances, thus facilitating service and maintenance procedures. The structure is also designed to allow the easiest access to all the components in order to simplify maintenance work.

Fan Speed Management

E

By controlling the fan speed according to the condensing pressure, evaporator water temperature and outdoor ambient temperature, the total efficiency of the unit is increased. Voltage phase-cutting and Autotransformers in 3 voltages/speed are strategies used to improve control above regular on/off fans.

Due to the increased accuracy in fan speed, an improvement of sound levels in part load conditions is achieved, as well as an extension of the operating range in lower ambient temperatures.

*Non V-shaped NECS structures have copper tubes mechanically bound to aluminium fins.

Refrigerant Section

- 1 refrigeration circuit with 2 scroll compressors in tandem configuration
 - 2 refrigeration circuits with 4 scroll compressors in tandem configuration
- Electronic expansion valve is standard on CA versions.

Electric Section

W3000 / W3000TE software as standard.

A cover is also available as an option to protect the Compact Controller against:

- UV rays
- Rain and snow
- Dust and pollution

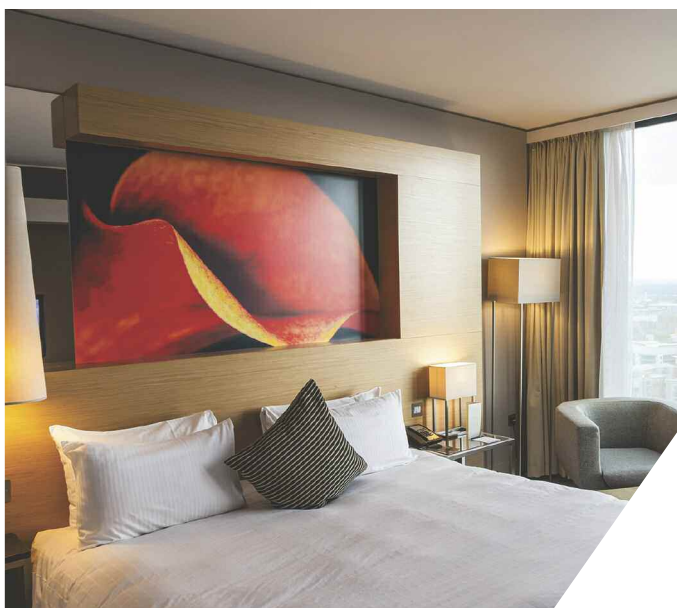


▼ Compact Controller



Heat Exchangers

- Brazed plate heat exchanger, or
- Shell and tube heat exchanger



Water Cooled Key Features

Condensing Pressure Control

Options between pressostatic valves, 2 or 3 way modulating valves or inverter driven pumps coupled with intelligent electronic control, allow the water cooled range to be applied in a variety of different methods.

Examples include: dry air coolers, cooling towers, geothermal probes, as well as water from open loop sources (e.g. waterworks, draw-wells or ground water).

Hydraulic Kits (optional)

In order to minimise installation time, hydraulic kits are available for both the evaporator and condenser. These are fully comprehensive kits that include an expansion vessel, manometer, safety valves, purge valves and drain valves, achieving space reduction and installation cost savings.

Options include: 1 or 2 pumps with high and low pressure heads, allowing the kits to be used for a variety of installations, whilst being practically plug and play.

Refrigerant Section

- 1 refrigeration circuit with 2 scroll compressors in tandem configuration
 - 2 refrigeration circuits with 4 scroll compressors in tandem configuration
- Mechanical expansion valve.

Electric Section

W3000 / W3000TE software as standard.

All models are supplied with the Compact Controller.

Compact Controller



Heat Exchangers

- Brazed plate heat exchangers (Manifold kit is optional on dual circuit configurations)
- Grooved pipe water connection
Grooved coupling kit
(Lock and threaded counter-pipe is optional)

Base and Frame

Hot-galvanised shaped sheet steel.
All parts polyester-painted.

Panelling (optional)

Made from epoxy painted sheet metal (simil peraluman). Acoustic insulation on compressor case (optional).

Other Key Features

▶ Phase Sequence Relay

For peace of mind during installation/commissioning and running of the system, a phase sequence relay is included with all units to ensure complete protection of the compressor should the electrical line phases not match those required.

▶ Compressor(s) On/Off Signal

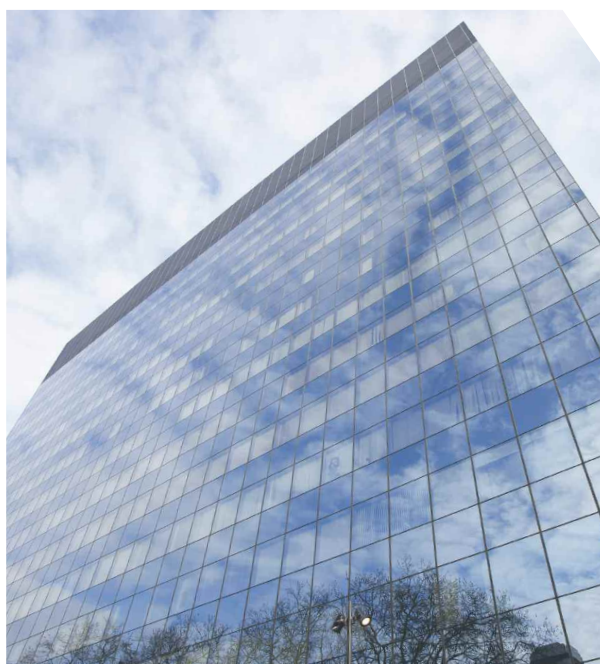
Auxiliary contacts providing a voltage free signal triggered by the activation of the compressors. This can be used in a variety of ways ranging from a simple remote signalling of the compressors activation to remote control of any auxiliary loads.

▶ Compliance with the Strictest European Standards

All NX and NECS models are rated and certified by the Eurovent programme. These values are not only based on the capacity delivered and power consumed by the unit, but also take 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 in isolation is no longer an index for evaluating the unit, but rather Eurovent ratings extend the assessment by considering the unit within the system, consequently taking into account the energy required to pump the water or the heat carrier fluid.

Climaveneta is among the principal players in the air conditioning sector participating in this voluntary certification programme.



A range of configurations

Each chiller model in the NX range is offered in up to 6 different configurations, allowing bespoke application design for individual projects. There are 2 levels of efficiency available and then a further 3 options on sound emission levels.

2 Levels of Efficiency

Efficiency Level	Model Reference	
	NX Models	NECS Models
Standard efficiency	[K]	[B]
Class A / High efficiency	[CA]	[HT]

3 Levels of Sound Emission

Sound Level	Model Reference	
	NX Models	NECS Models
Standard	[-]	[-]
Low Noise	[LN]	[LN]
Super Low Noise	[SL]	[SL]

Definitions

■ High Efficiency [HT]

When energy efficiency is a must have, the high efficiency configuration offers chiller models designed with no compromise on performance.

■ Class A [CA]

The Climaveneta Class A models represent a guaranteed performance level, ensuring some of the highest efficiencies in the market, backed up by Eurovent Class A EER values. Eurovent figures are calculated according to the European standard EN14511.

■ Low Noise [LN]

When installation requirements are a challenge, the low noise models can reduce sound levels by up to 6 dB(A).

■ Super-Low Noise [SL]

The highest level of noise reduction available typically sees the sound level reduce by up to 10 dB(A) from the standard/base model.

Controls

All control algorithms have been specifically developed in house by Climaveneta for this range of units. With over 45 years of experience in the industry, this ensures maximum reliability that can meet the most challenging application requirements.

The compact control unit with LCD display is fitted on all units with the option to have an additional remote controller up to 500 metres away.

With the addition of optional serial cards, controlling and monitoring a chiller from building energy management systems (BEMS) is made simple. The most common protocols are available such as ModBus, Bacnet, and Echelon LonWorks.



▲ Compact Controller

Compact Controller

Control Software	W3000	W3000TE
Programmable daily/weekly timer	×	✓
“Quickmind” logic	✓	✓
Diagnostics	×	✓
Alarm history display	✓	✓

Features

■ Programmable daily/weekly timer

The programmable timer manages a weekly schedule organised into time bands to optimise unit performance by minimising power consumption during periods of inactivity, such as during the night. Up to 10 daily time bands can be associated with different operating set points.

■ “Quickmind” logic

Patented “Quickmind” water temperature regulation logic uses self-adapting control to maintain flow temperatures and optimise performance even in low water content scenarios.

■ Diagnostics

“Black box” diagnostics provides advanced analysis of the unit operation for up to 200 alarm events, which can be accessed via a computer.

■ Alarm history display

Using a real time clock, a log of alarm occurrences are saved and viewable on the LCD display with a date and time stamp.

Pall Mall Medical, Manchester

Hydronic system	Cooling capacity: 984kW	Chillers installed: 3x NX/LN-K 1214P
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Project:

Pall Mall Medical is one of the fastest growing private healthcare providers in the UK, offering both private medical and cosmetic treatments. The company now has three locations in the northwest of the country: Manchester, Liverpool and Newton-le-Willows.

Challenge:

In order to continually improve the service, offer comfort cooling during surgeries and optimise the clinic's energy performance, the HVAC system in Manchester needed to be renewed, with a quiet, compact system that could be readily fitted into existing plant space.

Solution:

Three Climaveneta NX/LN-K 1214P low noise air source chillers with hermetic rotary scroll compressors were installed. These units allow a compact installation, with a qualifying unit efficiency. The design of the retrofit system and subsequent installation was achieved with ease, the compact nature of the units offering premium solution where reduced clearances were an issue.



Berglen Court, London

Hydronic system	Cooling capacity: 118kW	Chillers installed: 1 x NECS/LN 0512T
		Designer: Brinson Staniland Partnership

Project:

Berglen Court is a luxury apartment complex overlooking Limehouse Marina in the heart of London. The flats were completed as part of a project to redevelop the Docklands area. To match the high standards required by tenants, the apartments needed an air conditioning system that delivered modern levels of comfort.

Challenge:

The complex required a replacement chiller to provide cooling to the lounge and bedrooms of 20 apartments. The building owner had specific objectives that the water chiller had to fulfil. The unit had to offer improved ESEER ratings, as well as being low noise when in operation. Another key requirement was that the unit was a sufficient height to fit into an enclosure housed within the car park.

Solution:

One Climaveneta NECS/LN 0512T with built in hydronic module was chosen to serve the building's fan coils. These units were specified by the consultants Brinson Staniland Partnership for their high energy efficiencies, extremely quiet operation and for their compact size.



33 Lombard Street, London

Hydronic system	Cooling capacity: 230kW	Chillers installed: 2 x NECS/LN 0302T
		Designer: Meinhardt UK

Project:

Designed by Househam Henderson Architects and developed by Grainmarket Asset Management, 33 Lombard Street offices are ideally located within the central core of the City of London, and offer its tenants state-of-the-art workspaces and modern levels of energy efficient comfort and control.

Challenge:

This impressive office building has undergone a substantial refurbishment to the highest modern standards. Attention to detail has been at the forefront of this redevelopment, and this included the specification of the air conditioning system.

Solution:

Two NECS air cooled chillers were installed into the office building. The low noise version was selected by the consultant Meinhardt UK for added comfort for the office workers.



Highfield Humanities College, Blackpool

Hydronic system	Cooling capacity: 228kW	Chillers installed: 1 x NECS-W/B 0804
		Designer: RPS Group

Project:

Highfield Humanities College is a secondary school based in Blackpool, Lancashire which specialises in the teaching and study of humanity subjects. The school was eligible for the now obsolete Building Schools for the Future (BSF) Government scheme and underwent a £24 Million redevelopment. The state-of-the-art building provides excellent facilities for 1,120 students and members of its community.

Challenge:

The new school has eight learning zones with a shared area on the ground floor for learning and social events open to pupils and the wider community. These spacious areas required the perfect comfort conditions during lessons, seminars and social gatherings. Another key objective was for the use of energy efficient products throughout the development.

Solution:

A Climaveneta NECS-W/B water cooled chiller was specified by consultants RPS Group to serve chilled beams. The chiller selected was ideal due to its small footprint and added Eurovent certification.



Specifications

NX

NX 0152P - 0812P

39.2 - 227kW / Two Compressors, Plate Heat Exchanger

Air Source outdoor unit for the production of chilled water, equipped with axial-flow fans and two hermetic rotary scroll compressors in a single-circuit configuration, delivering to a plate heat exchanger.



Version

- K** - Standard efficiency, compact
- LN-K** - Standard efficiency, compact and low noise
- SL-K** - Standard efficiency, compact and super low noise
- CA** - Class A efficiency
- LN-CA** - Low noise, Class A efficiency
- SL-CA** - Super low noise, Class A efficiency

Control Software

- W3000** (NX / K 0152P-0352P, LN-K 0152P-0302P, SL-K 0152P-0202P)
- W3000TE** (NX / K 0402P-0802P, LN-K 0352P-0802P, SL-K 0252P-0702P, CA, LN-CA, SL-CA)

Features

■ Electronic expansion valve

Ideal for situations where the application is characterised by several different temperature changes, allowing the system to be independent of continuous calibrations. An electronic expansion valve also allows improved performance at partial loads and an extended operating limit even at seasonal peaks. Standard on all CA versions or available as an option.

■ Full-Aluminium coil with optional E-coating protection

Microchannel aluminium condenser coils are fitted on all V-shaped structured units, meaning less refrigerant is needed compared to traditional copper coils. The coils can also be completely treated by electrolysis to create a protective layer of epoxy polymer against salt spray and UV rays.

■ Class A efficiency available

Represents a guaranteed performance level, ensuring the highest efficiencies in the market, backed up by Eurovent Class A EER values.

■ Optional integrated hydronic module

Designed to keep on-site installation time, work and costs to a minimum whilst optimising installation space, the integrated hydronic module incorporates all the hydraulic components.

■ Extensive range of operation

Full load guaranteed up to 46°C.

NX / K			0152P	0182P	0202P	0252P	0262P	0302P	0352P
Power supply	V/ph/Hz		400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	39.2	44.3	51.9	58.9	65.0	77.6	88.5
Total power input	(1)	kW	13.5	15.6	18.1	20.5	23.5	26.8	31.3
EER	(1)		2.90	2.84	2.87	2.87	2.77	2.90	2.83
ESEER	(1)		4.41	4.37	4.41	4.39	4.33	4.23	4.41
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	39.0	44.0	51.6	58.6	64.7	77.2	87.9
EER	(1)(2)		2.83	2.78	2.80	2.82	2.71	2.84	2.76
ESEER	(1)(2)		4.19	4.15	4.20	4.20	4.17	4.06	4.16
Cooling energy class			C	C	C	C	C	C	C
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	6.76	7.62	8.94	10.1	11.2	13.4	15.2
Pressure drop	(1)	kPa	36.3	34.1	36.3	33.4	33.2	33.9	54.1
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	51	51	52	52	52	53	54
Sound power level in cooling	(4)(5)	dB(A)	83	83	84	84	84	85	86
SIZE AND WEIGHT									
Depth (A)	(6)	mm	1825	1825	1825	2395	2395	2395	2395
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1865	1865	1865	1865	1865	1865	1865
Operating weight	(6)	kg	470	480	490	540	550	570	660

NX / K			0402P	0452P	0502P	0552P	0602P	0702P	0802P
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	102	114	127	144	166	189	207
Total power input	(1)	kW	35.4	40.1	44.9	52.3	57.7	67.9	77.9
EER	(1)		2.88	2.86	2.84	2.76	2.87	2.79	2.65
ESEER	(1)		4.04	4.13	4.13	4.24	4.08	4.15	3.89
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	101	114	127	144	165	189	206
EER	(1)(2)		2.82	2.79	2.78	2.70	2.82	2.74	2.60
ESEER	(1)(2)		3.86	3.96	3.95	4.04	3.92	3.99	3.74
Cooling energy class			C	C	C	C	C	C	D
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	17.6	19.7	21.9	24.8	28.5	32.6	35.6
Pressure drop	(1)	kPa	49.9	51.3	49.1	52.1	49.3	49.8	59.2
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	56	56	56	57	58	58	59
Sound power level in cooling	(4)(5)	dB(A)	88	88	88	89	90	90	91
SIZE AND WEIGHT									
Depth (A)	(6)	mm	2825	2825	2825	3360	3980	3980	3980
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1980	1980	1980	1980	1980	1980	1980
Operating weight	(6)	kg	830	870	900	980	1130	1110	1140

Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511-3:2011.
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NX / LN-K			0152P	0182P	0202P	0252P	0262P	0302P	0352P
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	39.3	44.3	51.7	58.8	65.5	74.7	89.9
Total power input	(1)	kW	13.6	15.8	18.5	20.4	23.2	28.3	31.1
EER	(1)		2.89	2.80	2.79	2.88	2.82	2.64	2.89
ESEER	(1)		4.50	4.44	4.41	4.38	4.39	4.22	4.26
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	39.1	44.0	51.4	58.5	65.2	74.4	89.3
EER	(1)(2)		2.82	2.74	2.73	2.83	2.77	2.60	2.82
ESEER	(1)(2)		4.28	4.22	4.20	4.19	4.21	4.08	4.01
Cooling energy class			C	C	C	C	C	D	C
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	6.76	7.64	8.90	10.1	11.3	12.9	15.5
Pressure drop	(1)	kPa	36.3	34.2	36.0	33.3	33.7	31.4	55.9
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	47	47	47	48	48	48	51
Sound power level in cooling	(4)(5)	dB(A)	79	79	79	80	80	80	83
SIZE AND WEIGHT									
Depth (A)	(6)	mm	1825	1825	2395	2395	2395	2395	2825
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1865	1865	1865	1865	1865	1865	1980
Operating weight	(6)	kg	480	500	540	570	570	580	780

NX / LN-K			0402P	0452P	0502P	0552P	0602P	0702P	0802P
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	99.4	113	125	140	163	179	194
Total power input	(1)	kW	35.9	39.3	44.2	52.9	58.1	70.3	81.9
EER	(1)		2.77	2.87	2.83	2.64	2.80	2.55	2.37
ESEER	(1)		4.11	4.29	4.33	4.36	4.20	4.10	3.83
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	98.8	112	124	139	162	179	193
EER	(1)(2)		2.71	2.81	2.78	2.60	2.75	2.51	2.33
ESEER	(1)(2)		3.92	4.11	4.14	4.17	4.04	3.95	3.70
Cooling energy class			C	C	C	D	C	D	E
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	17.1	19.4	21.6	24.1	28.0	30.9	33.4
Pressure drop	(1)	kPa	47.4	49.8	47.4	49.0	47.6	44.7	52.3
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	51	52	52	52	53	53	53
Sound power level in cooling	(4)(5)	dB(A)	83	84	84	84	85	85	85
SIZE AND WEIGHT									
Depth (A)	(6)	mm	2825	3360	3360	3360	3980	3980	3980
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1980	1980	1980	1980	1980	1980	1980
Operating weight	(6)	kg	880	1000	1030	1060	1180	1150	1180

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NX / SL-K			0152P	0182P	0202P	0252P	0262P	0302P	0352P
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	39.4	44.6	52.3	58.9	65.9	77.7	88.5
Total power input	(1)	kW	13.9	16.1	18.2	20.3	22.9	27.4	30.5
EER	(1)		2.83	2.77	2.87	2.90	2.88	2.84	2.90
ESEER	(1)		4.28	4.25	4.49	4.15	4.22	4.30	4.40
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	39.2	44.3	52.0	58.6	65.6	77.3	87.9
EER	(1)(2)		2.77	2.71	2.81	2.84	2.82	2.78	2.83
ESEER	(1)(2)		4.07	4.05	4.27	3.99	4.05	4.12	4.14
Cooling energy class			C	C	C	C	C	C	C
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	6.78	7.68	9.00	10.1	11.3	13.4	15.2
Pressure drop	(1)	kPa	36.6	34.6	36.8	33.4	34.1	34.0	54.1
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	44	45	45	46	46	46	47
Sound power level in cooling	(4)(5)	dB(A)	76	77	77	78	78	78	79
SIZE AND WEIGHT									
Depth (A)	(6)	mm	2395	2395	2395	2825	2825	2825	3360
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1865	1865	1865	1980	1980	1980	1980
Operating weight	(6)	kg	540	550	560	670	680	680	860

NX / SL-K			0402P	0452P	0502P	0552P	0602P	0702P
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE								
Cooling only (Gross value)								
Cooling capacity	(1)	kW	100	113	124	140	153	175
Total power input	(1)	kW	35.1	39.3	44.8	52.5	61.7	72.1
EER	(1)		2.85	2.89	2.77	2.68	2.48	2.43
ESEER	(1)		4.40	4.38	4.32	4.29	4.08	3.96
Cooling only (EN14511 value)								
Cooling capacity	(1)(2)	kW	99.4	113	124	140	152	175
EER	(1)(2)		2.79	2.82	2.72	2.63	2.44	2.40
ESEER	(1)(2)		4.19	4.18	4.15	4.12	3.95	3.81
Cooling energy class			C	C	C	D	E	E
EXCHANGERS								
Plate Heat Exchanger								
Water flow	(1)	m³/h	17.2	19.5	21.4	24.2	26.3	30.2
Pressure drop	(1)	kPa	48.0	50.3	46.7	49.4	42.0	42.7
COMPRESSORS								
Compressors	No.		2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1
NOISE LEVEL								
Sound pressure level in cooling	(3)	dB(A)	48	49	49	50	50	51
Sound power level in cooling	(4)(5)	dB(A)	80	81	81	82	82	83
SIZE AND WEIGHT								
Depth (A)	(6)	mm	3360	3980	3980	3980	3980	3980
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1980	1980	1980	1980	1980	1980
Operating weight	(6)	kg	960	1070	1080	1110	1180	1150

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NX / CA			0152P	0182P	0202P	0252P	0262P	0302P	0352P
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	41.7	47.4	55.0	62.5	69.6	85.0	96.6
Total power input	(1)	kW	12.8	14.5	16.7	19.3	21.8	26.5	30.2
EER	(1)		3.26	3.27	3.29	3.24	3.19	3.21	3.20
ESEER	(1)		4.56	4.65	4.45	4.45	4.49	4.28	4.41
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	41.4	47.1	54.7	62.2	69.2	84.5	95.9
EER	(1)(2)		3.17	3.18	3.21	3.16	3.12	3.14	3.11
ESEER	(1)(2)		4.30	4.41	4.23	4.26	4.28	4.07	4.13
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	7.18	8.17	9.47	10.8	12.0	14.6	16.6
Pressure drop	(1)	kPa	40,9	39.1	40.7	37.6	38.0	40.7	64.4
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	52	52	53	53	54	56	56
Sound power level in cooling	(4)(5)	dB(A)	84	84	85	85	86	88	88
SIZE AND WEIGHT									
Depth (A)	(6)	mm	1825	2395	2395	2395	2395	2825	3360
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1865	1865	1865	1865	1865	1980	1980
Operating weight	(6)	kg	480	540	550	560	570	680	830

NX / CA			0402P	0452P	0502P	0562P	0612P	0712P	0812P
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	108	122	138	160	178	201	227
Total power input	(1)	kW	33.6	38.3	42.6	48.9	55.4	63.5	70.5
EER	(1)		3.21	3.18	3.23	3.28	3.22	3.17	3.22
ESEER	(1)		4.43	4.54	4.34	4.32	4.31	4.38	4.17
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	107	121	137	159	178	200	226
EER	(1)(2)		3.13	3.10	3.16	3.20	3.15	3.10	3.14
ESEER	(1)(2)		4.19	4.30	4.13	4.08	4.13	4.18	3.96
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	18.6	21.0	23.7	27.6	30.7	34.6	39.1
Pressure drop	(1)	kPa	56.0	58.2	57.4	64.4	57.2	56.2	71.5
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	58	58	58	59	59	60	61
Sound power level in cooling	(4)(5)	dB(A)	90	90	90	91	91	92	93
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3360	3360	3980	3160	3160	3160	4335
Width (B)	(6)	mm	1195	1195	1195	2250	2250	2250	2250
Height (H)	(6)	mm	1980	1980	1980	2170	2170	2170	2170
Operating weight	(6)	kg	960	1000	1080	1510	1550	1570	1810

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NX / LN-CA			0152P	0182P	0202P	0252P	0262P	0302P	0352P
Power supply		V/ph/Hz	400/3+N/50	400/3+N/50	400/3+N/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	41.5	47.0	55.0	63.5	70.7	82.7	94.4
Total power input	(1)	kW	12.6	14.4	17.2	19.5	21.9	26.0	29.3
EER	(1)		3.29	3.26	3.20	3.26	3.23	3.18	3.22
ESEER	(1)		4.56	4.62	4.71	4.31	4.34	4.37	4.52
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	41.2	46.7	54.7	63.1	70.3	82.3	93.8
EER	(1)(2)		3.20	3.18	3.12	3.18	3.15	3.11	3.13
ESEER	(1)(2)		4.29	4.38	4.46	4.11	4.15	4.20	4.25
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	7.14	8.09	9.47	10.9	12.2	14.2	16.3
Pressure drop	(1)	kPa	40.5	38.4	40.7	38.8	39.2	38.5	61.6
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	48	48	48	49	49	50	52
Sound power level in cooling	(4)(5)	dB(A)	80	80	80	81	81	82	84
SIZE AND WEIGHT									
Depth (A)	(6)	mm	2395	2395	2395	2825	2825	3360	3360
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1865	1865	1865	1980	1980	1980	1980
Operating weight	(6)	kg	550	560	560	670	680	750	870

NX / LN-CA			0402P	0452P	0502P	0562P	0612P	0712P	0812P
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	107	121	134	154	173	198	221
Total power input	(1)	kW	33.3	37.9	42.2	47.1	54.4	60.8	67.5
EER	(1)		3.23	3.18	3.18	3.27	3.18	3.26	3.28
ESEER	(1)		4.32	4.41	4.36	4.67	4.48	4.65	4.38
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	107	120	133	153	172	197	220
EER	(1)(2)		3.14	3.10	3.11	3.19	3.11	3.20	3.20
ESEER	(1)(2)		4.10	4.19	4.15	4.40	4.29	4.43	4.16
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	18.5	20.8	23.1	26.5	29.7	34.1	38.1
Pressure drop	(1)	kPa	55.4	56.9	54.4	59.3	53.6	54.6	67.9
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	52	52	53	54	54	55	56
Sound power level in cooling	(4)(5)	dB(A)	84	84	85	86	86	87	88
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3980	3980	3980	3160	3160	4335	4335
Width (B)	(6)	mm	1195	1195	1195	2250	2250	2250	2250
Height (H)	(6)	mm	1980	1980	1980	2170	2170	2170	2170
Operating weight	(6)	kg	1050	1080	1090	1510	1550	1810	1870

Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511-3:2011.
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NX / SL-CA			0152P	0182P	0202P	0252P	0262P	0302P	0352P
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	41.9	47.5	55.3	62.2	69.2	81.9	94.5
Total power input	(1)	kW	12.8	14.5	17.1	19.0	21.4	25.5	29.6
EER	(1)		3.27	3.28	3.23	3.27	3.23	3.21	3.19
ESEER	(1)		4.26	4.39	4.52	4.44	4.46	4.57	4.52
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	41.6	47.2	55.0	61.9	68.8	81.5	93.9
EER	(1)(2)		3.18	3.19	3.15	3.20	3.16	3.14	3.10
ESEER	(1)(2)		4.02	4.16	4.30	4.24	4.26	4.38	4.27
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	7.21	8.18	9.52	10.7	11.9	14.1	16.3
Pressure drop	(1)	kPa	41.3	39.3	41.2	37.3	37.6	37.8	61.7
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	45	46	46	47	47	47	48
Sound power level in cooling	(4)(5)	dB(A)	77	78	78	79	79	79	80
SIZE AND WEIGHT									
Depth (A)	(6)	mm	2825	2825	2825	3360	3360	3360	3980
Width (B)	(6)	mm	1195	1195	1195	1195	1195	1195	1195
Height (H)	(6)	mm	1980	1980	1980	1980	1980	1980	1980
Operating weight	(6)	kg	650	660	670	760	770	780	940

NX / SL-CA			0412P	0462P	0512P	0562P	0612P	0712P	0812P
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	106	119	133	152	172	195	218
Total power input	(1)	kW	32.4	36.9	41.9	47.3	52.8	61.6	68.2
EER	(1)		3.27	3.22	3.17	3.21	3.26	3.16	3.19
ESEER	(1)		4.56	4.64	4.67	4.70	4.63	4.72	4.46
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	105	118	132	151	171	194	216
EER	(1)(2)		3.19	3.14	3.10	3.13	3.19	3.10	3.12
ESEER	(1)(2)		4.35	4.39	4.46	4.47	4.42	4.51	4.26
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	18.3	20.4	22.9	26.1	29.7	33.5	37.5
Pressure drop	(1)	kPa	54.0	55.1	53.5	57.6	53.3	52.7	65.7
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	49	50	50	51	52	53	54
Sound power level in cooling	(4)(5)	dB(A)	81	82	82	83	84	85	86
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	3160	3160	4335	4335	4335	5510
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1410	1450	1480	1740	1820	1850	2130

Notes:

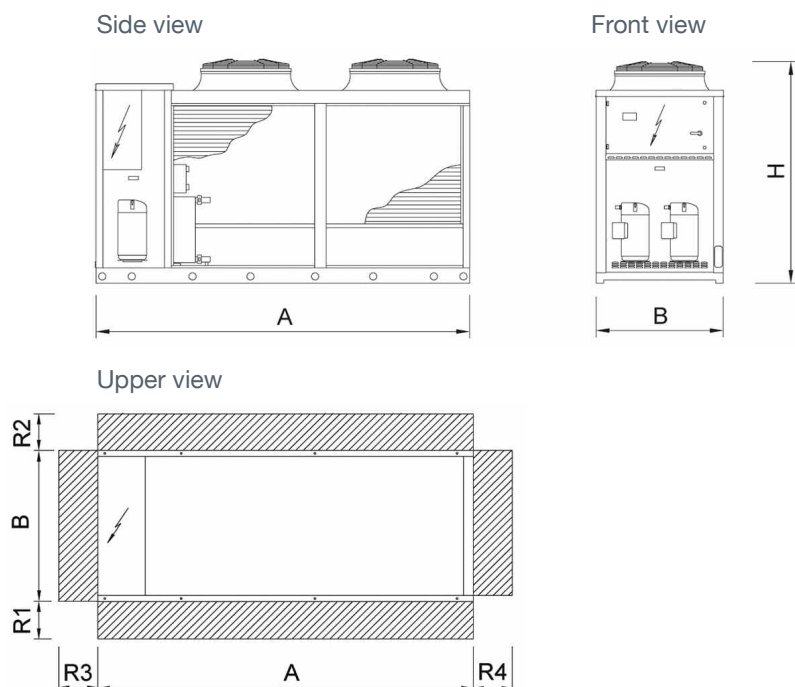
1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT

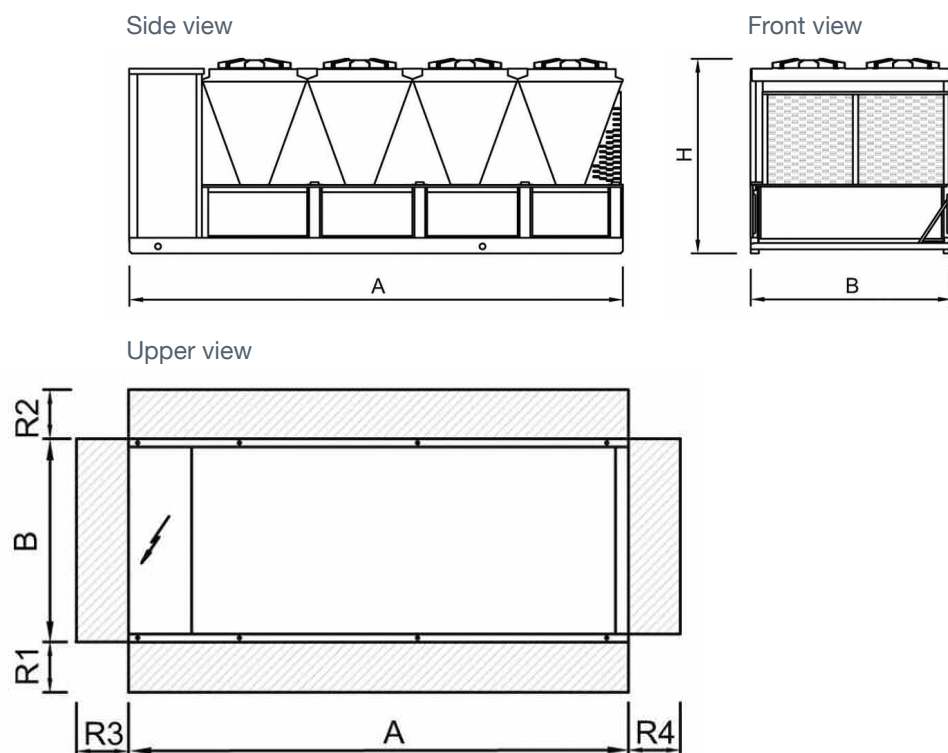


Dimensions

**NX / 0152P, 0182P, 0202P, 0252P, 0262P, 0302P, 0352P,
0402P, 0452P, 0502P, 0552P, 0602P, 0702P, 0802P**



NX / 0412P, 0462P, 0512P, 0562P, 0612P, 0712P, 0812P



Specifications

NX

NX 0614P - 1214P

159 - 327kW / Four Compressors, Plate Heat Exchanger

Air Source outdoor unit for the production of chilled water, equipped with axial-flow fans and four hermetic rotary scroll compressors in tandem configuration, on two independent circuits delivering to a plate heat exchanger.



Version

- K** - Standard efficiency, compact
- LN-K** - Standard efficiency, compact and low noise
- SL-K** - Standard efficiency, compact and super low noise

Control Software

W3000TE

Features

■ Optional electronic expansion valve

Ideal for situations where the application is characterised by several different temperature changes, allowing the system to be independent of continuous calibrations. An electronic expansion valve also allows improved performance at partial loads and an extended operating limit even at seasonal peaks.

■ Full-Aluminium coil with optional E-coating protection

Microchannel aluminium condenser coils are fitted on all V-shaped structured units, meaning less refrigerant is needed compared to traditional copper coils. The coils can also be completely treated by electrolysis to create a protective layer of epoxy polymer against salt spray and UV rays.

■ Optional integrated hydronic module

Designed to keep on-site installation time, work and costs to a minimum whilst optimising installation space, the integrated hydronic module incorporates all the hydraulic components.

■ Extensive range of operation

Full load guaranteed up to 46°C.

NX / K			0614P	0714P	0814P	0914P	1014P	1114P	1214P
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	165	194	218	248	289	308	327
Total power input	(1)	kW	58.3	66.7	78.9	88.6	99.0	108	118
EER	(1)		2.83	2.91	2.76	2.80	2.92	2.85	2.76
ESEER	(1)		4.06	4.39	4.30	4.41	4.26	4.27	4.18
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	164	193	217	247	288	307	325
EER	(1)(2)		2.78	2.86	2.72	2.76	2.87	2.80	2.72
ESEER	(1)(2)		3.85	4.16	4.08	4.18	4.05	4.08	3.99
Cooling energy class			C	C	C	C	C	C	C
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	28.3	33.4	37.5	42.7	49.8	53.1	56.2
Pressure drop	(1)	kPa	45.0	47.1	47.8	50.4	54.8	46.8	52.5
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	60	60	61	62	63	63	63
Sound power level in cooling	(4)(5)	dB(A)	92	92	93	94	95	95	95
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	3160	3160	3160	4335	4335	4335
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1510	1680	1690	1830	2250	2300	2330

NX / LN-K			0614P	0714P	0814P	0914P	1014P	1114P	1214P
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	160	185	208	235	274	290	320
Total power input	(1)	kW	58.1	68.6	79.6	92.2	101	112	118
EER	(1)		2.75	2.70	2.62	2.55	2.71	2.60	2.70
ESEER	(1)		4.13	4.42	4.37	4.41	4.25	4.25	4.37
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	159	185	207	234	273	289	319
EER	(1)(2)		2.70	2.66	2.58	2.51	2.67	2.57	2.66
ESEER	(1)(2)		3.94	4.19	4.16	4.19	4.05	4.06	4.16
Cooling energy class			C	D	D	D	D	D	D
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	27.5	31.9	35.9	40.4	47.2	50.0	55.1
Pressure drop	(1)	kPa	42.4	43.0	43.7	45.2	49.2	41.5	50.5
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	54	54	55	56	57	57	58
Sound power level in cooling	(4)(5)	dB(A)	86	86	87	88	89	89	90
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	3160	3160	3160	4335	4335	4335
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1550	1730	1740	1870	2300	2350	2370

Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- Values in compliance with EN14511-3:2011.
- Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NX / SL-K			0614P	0714P	0814P	0914P	1014P	1114P	1214P
Power supply			V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	159	180	214	241	264	296	312
Total power input	(1)	kW	56.3	70.7	77.8	89.3	104	109	120
EER	(1)		2.82	2.54	2.75	2.70	2.55	2.71	2.61
ESEER	(1)		4.34	4.41	4.40	4.41	4.28	4.34	4.26
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	158	179	213	240	263	295	311
EER	(1)(2)		2.78	2.51	2.71	2.66	2.51	2.68	2.57
ESEER	(1)(2)		4.13	4.21	4.19	4.20	4.09	4.15	4.07
Cooling energy class			C	D	C	D	D	D	D
EXCHANGERS									
Plate Heat Exchanger									
Water flow	(1)	m³/h	27.4	31.0	36.9	41.5	45.5	51.0	53.8
Pressure drop	(1)	kPa	41.9	40.5	46.3	47.6	45.7	43.1	48.0
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	50	51	51	52	52	54	54
Sound power level in cooling	(4)(5)	dB(A)	82	83	83	84	84	86	86
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	3160	4335	4335	4335	5510	5510
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1550	1730	2030	2170	2300	2700	2730

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

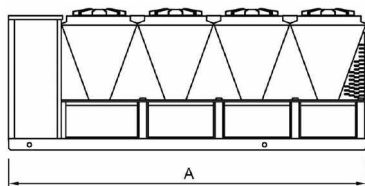
Certified data in EUROVENT



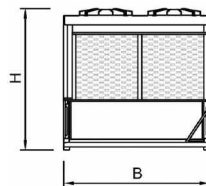
Dimensions

NX 0614P - 1214P

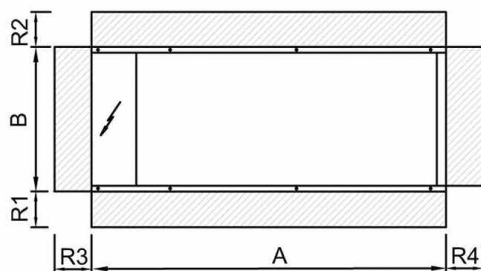
Side view



Front view



Upper view



Specifications

NECS

NECS 0202T - 0612T

47.8 - 159kW / Two Compressors, Shell & Tube Heat Exchanger

Air Source outdoor unit for the production of chilled water, equipped with axial-flow fans and two hermetic rotary scroll compressors on two independent circuits, delivering to a shell and tube heat exchanger.



Version

- B** - Basic
- HT** - High efficiency, high outdoor temperature
- LN** - Low noise
- SL** - Super low noise

Control Software

W3000

Features

■ Heat exchanger

The shell and tube exchanger allows complete flexibility with regards the unit's installation due to a low pressure drop, whilst keeping the efficiency at the highest level. For this reason, these units represent the ideal choice for hydronic applications in residential, commercial and industrial markets.

■ Optional integrated hydronic module

Designed to keep on-site installation time, work and costs to a minimum whilst optimising installation space, the integrated hydronic module incorporates all the hydraulic components.

■ Maximum reliability

Contains a dual-circuit refrigerant section designed to ensure maximum efficiency at full load, ensuring continuity without interruption of operation in the event of a temporary stop of one of the refrigeration circuits.

NECS / B			0202T	0252T	0302T	0352T	0412T	0452T	0512T	0552T	0612T
Power supply	V/ph/Hz		400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE											
Cooling only (Gross value)											
Cooling capacity	(1)	kW	53.0	58.1	76.0	86.8	96.9	112	127	145	159
Total power input	(1)	kW	18.3	21.5	27.8	31.9	36.3	39.7	43.7	50.2	58.6
EER	(1)		2.90	2.70	2.73	2.72	2.67	2.83	2.90	2.89	2.71
ESEER	(1)		3.72	3.47	3.52	3.49	3.41	3.59	3.65	3.66	3.44
Cooling only (EN14511 value)											
Cooling capacity	(1)(2)	kW	52.9	58.0	75.8	86.5	96.7	112	126	144	158
EER	(1)(2)		2.88	2.68	2.71	2.69	2.65	2.80	2.87	2.85	2.67
ESEER	(1)(2)		3.68	3.41	3.45	3.40	3.36	3.51	3.59	3.58	3.37
Cooling energy class			C	D	C	D	D	C	C	C	D
EXCHANGERS											
Shell & Tube Heat Exchanger											
Water flow	(1)	m³/h	9.13	10.0	13.1	14.9	16.7	19.3	21.8	24.9	27.3
Pressure drop	(1)	kPa	6.25	7.64	13.1	17.2	12.8	17.2	15.7	21.7	25.9
COMPRESSORS											
Compressors	No.		2	2	2	2	2	2	2	2	2
Circuits	No.		2	2	2	2	2	2	2	2	2
NOISE LEVEL											
Sound pressure level in cooling	(3)	dB(A)	53	53	53	54	54	54	55	55	55
Sound power level in cooling	(4)(5)	dB(A)	85	85	85	86	86	86	87	87	87
SIZE AND WEIGHT											
Depth (A)	(6)	mm	2195	2195	2195	2195	2745	2745	3245	3245	3245
Width (B)	(6)	mm	1120	1120	1120	1120	1120	1120	1120	1120	1120
Height (H)	(6)	mm	1465	1465	1465	1465	1465	1465	1665	1665	1665
Operating weight	(6)	kg	625	625	665	765	920	990	1135	1180	1155

NECS / HT			0202T	0252T	0302T	0352T	0412T	0452T	0512T
Power supply	V/ph/Hz		400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	55.0	61.6	80.6	91.4	104	116	130
Total power input	(1)	kW	17.3	20.3	25.9	30.5	33.7	38.6	42.2
EER	(1)		3.18	3.03	3.11	3.00	3.09	3.00	3.08
ESEER	(1)		4.07	3.81	3.93	3.76	3.87	3.76	3.86
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	54.9	61.5	80.4	91.1	104	115	130
EER	(1)(2)		3.16	3.01	3.08	2.96	3.06	2.96	3.05
ESEER	(1)(2)		3.99	3.75	3.85	3.67	3.78	3.69	3.79
Cooling energy class			A	B	B	B	B	B	B
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	9.46	10.6	13.9	15.7	18.0	19.9	22.4
Pressure drop	(1)	kPa	6.72	8.58	14.7	19.1	14.9	18.3	16.5
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	53	54	54	55	55	55	55
Sound power level in cooling	(4)(5)	dB(A)	85	86	86	87	87	87	87
SIZE AND WEIGHT									
Depth (A)	(6)	mm	2195	2745	2745	3245	3245	3245	3245
Width (B)	(6)	mm	1120	1120	1120	1120	1120	1120	1120
Height (H)	(6)	mm	1465	1465	1465	1665	1665	1665	1665
Operating weight	(6)	kg	650	700	750	915	1050	1075	1115

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NECS / LN			0202T	0252T	0302T	0352T	0412T	0452T	0512T	0552T	0612T
Power supply	V/ph/Hz		400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE											
Cooling only (Gross value)											
Cooling capacity	(1)	kW	50.7	57.6	74.2	84.4	96.4	109	122	139	151
Total power input	(1)	kW	18.9	21.2	28.6	33.7	37.1	41.4	45.9	53.1	62.4
EER	(1)		2.68	2.72	2.59	2.50	2.60	2.63	2.66	2.61	2.42
ESEER	(1)		3.50	3.51	3.37	3.22	3.33	3.36	3.38	3.34	3.11
Cooling only (EN14511 value)											
Cooling capacity	(1)(2)	kW	50.6	57.5	74.0	84.2	96.2	108	122	138	150
EER	(1)(2)		2.67	2.70	2.57	2.48	2.58	2.60	2.64	2.59	2.39
ESEER	(1)(2)	k	3.46	3.46	3.30	3.17	3.27	3.30	3.32	3.28	3.04
Cooling energy class			D	C	D	E	D	D	D	D	E
EXCHANGERS											
Shell & Tube Heat Exchanger											
Water flow	(1)	m³/h	8.72	9.92	12.8	14.5	16.6	18.7	21.0	23.9	26.0
Pressure drop	(1)	kPa	5.70	7.50	12.5	16.3	12.7	16.2	14.6	19.9	23.5
COMPRESSORS											
Compressors	No.		2	2	2	2	2	2	2	2	2
Circuits	No.		2	2	2	2	2	2	2	2	2
NOISE LEVEL											
Sound pressure level in cooling	(3)	dB(A)	48	48	49	51	51	51	52	52	52
Sound power level in cooling	(4)(5)	dB(A)	80	80	81	83	83	83	84	84	84
SIZE AND WEIGHT											
Depth (A)	(6)	mm	2195	2195	2745	2745	2745	2745	3245	3245	3245
Width (B)	(6)	mm	1120	1120	1120	1120	1120	1120	1120	1120	1120
Height (H)	(6)	mm	1465	1465	1465	1665	1665	1665	1665	1665	1665
Operating weight	(6)	kg	625	650	715	840	965	1025	1135	1180	1155

NECS / SL			0202T	0252T	0302T	0352T	0412T	0452T	0512T
Power supply	V/ph/Hz		400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	47.8	55.5	69.9	85.4	96.8	106	117
Total power input	(1)	kW	20.3	22.6	30.9	33.6	37.3	43.2	48.1
EER	(1)		2.35	2.46	2.26	2.54	2.60	2.46	2.44
ESEER	(1)		3.13	3.19	3.00	3.25	3.30	3.14	3.14
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	47.7	55.4	69.7	85.2	96.6	106	117
EER	(1)(2)		2.34	2.44	2.25	2.52	2.57	2.43	2.42
ESEER	(1)(2)		3.09	3.14	2.93	3.19	3.25	3.09	3.09
Cooling energy class			E	E	F	D	D	E	E
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	8.23	9.55	12.0	14.7	16.7	18.3	20.2
Pressure drop	(1)	kPa	5.08	6.95	11.1	16.7	12.8	15.4	13.5
COMPRESSORS									
Compressors	No.		2	2	2	2	2	2	2
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	45	46	46	49	49	49	50
Sound power level in cooling	(4)(5)	dB(A)	77	78	78	81	81	81	82
SIZE AND WEIGHT									
Depth (A)	(6)	mm	2195	2745	2745	3245	3245	3245	3245
Width (B)	(6)	mm	1100	1100	1100	1100	1100	1100	1100
Height (H)	(6)	mm	1465	1465	1465	1665	1665	1665	1665
Operating weight	(6)	kg	650	700	750	915	1050	1075	1115

Notes:

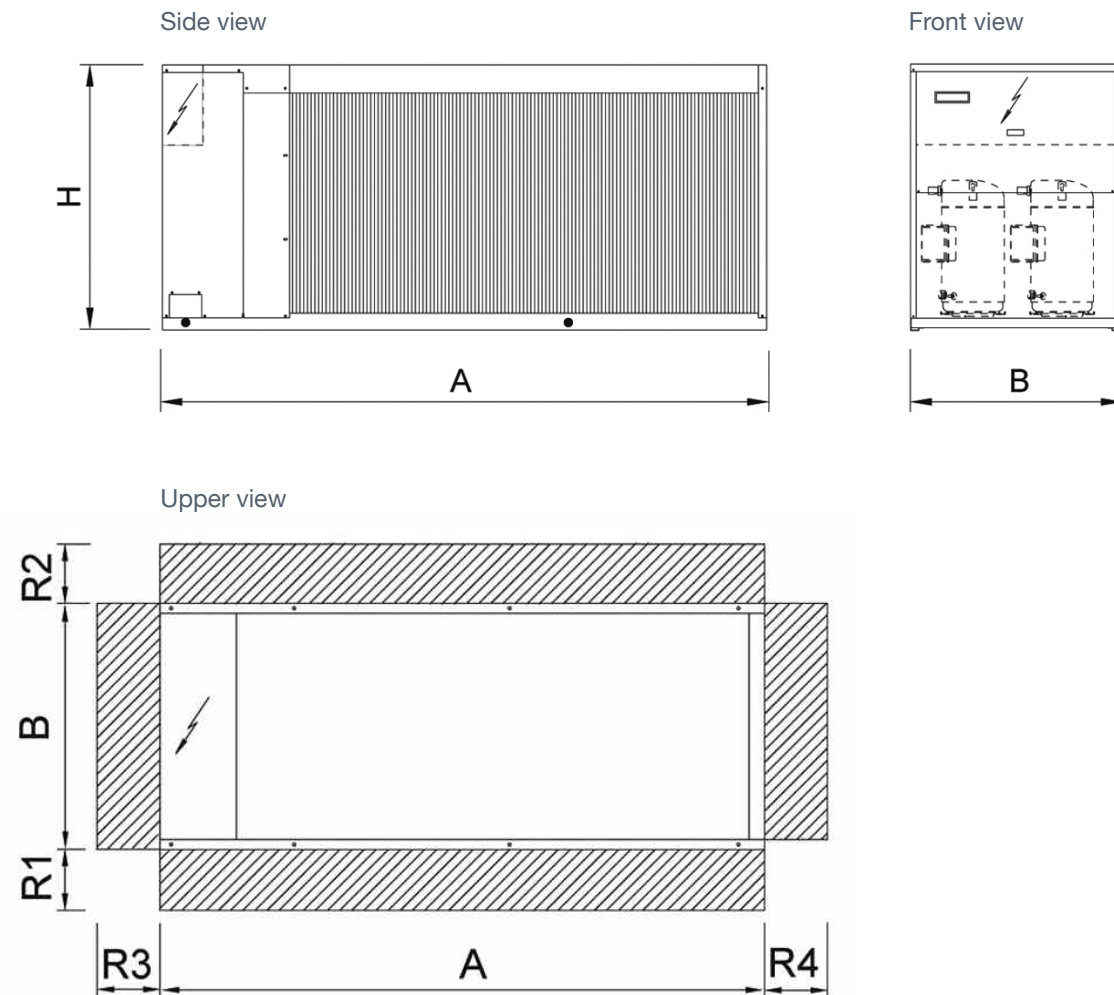
1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



Dimensions

NECS 0202T - 0612T



Specifications

NX

NX 0614T - 1214T

159 - 352kW / Four Compressors, Shell & Tube Heat Exchanger

Air Source outdoor unit for the production of chilled water, equipped with axial-flow fans and four hermetic rotary scroll compressors in tandem configuration on two independent circuits, delivering to a shell and tube heat exchanger.



Version

- K** - Standard efficiency, compact
- LN-K** - Standard efficiency, compact and low noise
- SL-K** - Standard efficiency, compact and super low noise
- CA** - Class A efficiency
- LN-CA** - Low noise, Class A efficiency
- SL-CA** - Super low noise, Class A efficiency

Control Software

W3000TE

Features

■ Electronic expansion valve

Ideal for situations where the application is characterised by several different temperature changes, allowing the system to be independent of continuous calibrations. An electronic expansion valve also allows improved performance at partial loads and an extended operating limit even at seasonal peaks. Standard on all CA versions or available as an option.

■ Full-Aluminium coil with optional E-coating protection

Microchannel aluminium condenser coils are fitted on all V-shaped structured units, meaning less refrigerant is needed compared to traditional copper coils. The coils can also be completely treated by electrolysis to create a protective layer of epoxy polymer against salt spray and UV rays.

■ Class A efficiency available

Represents a guaranteed performance level, ensuring the highest efficiencies in the market, backed up by Eurovent Class A EER values.

■ Optional integrated hydronic module

Designed to keep on-site installation time, work and costs to a minimum whilst optimising installation space, the integrated hydronic module incorporates all the hydraulic components.

■ Heat exchanger

The shell and tube exchanger allows complete flexibility with regards the unit's installation due to a low pressure drop, whilst keeping the efficiency at the highest level. For this reason, these units represent the ideal choice for hydronic applications in residential, commercial and industrial markets.

■ Extensive range of operation

Full load guaranteed up to 46°C.

NX / K			0614T	0714T	0814T	0914T	1014T	1114T	1214T
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	165	194	218	248	289	308	327
Total power input	(1)	kW	58.3	66.7	78.9	88.6	99.0	108	118
EER	(1)		2.83	2.91	2.76	2.80	2.92	2.85	2.76
ESEER	(1)		4.06	4.39	4.30	4.41	4.26	4.27	4.18
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	164	193	217	247	288	307	326
EER	(1)(2)		2.79	2.87	2.71	2.76	2.86	2.81	2.73
ESEER	(1)(2)		3.92	4.21	4.08	4.20	4.02	4.11	4.02
Cooling energy class			C	C	C	C	C	C	C
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	28.3	33.4	37.5	42.7	49.8	53.1	56.2
Pressure drop	(1)	kPa	23.3	32.4	50.9	45.5	61.7	38.0	42.7
COMPRESSORS									
Compressor	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	60	60	61	62	63	63	63
Sound power level in cooling	(4)(5)	dB(A)	92	92	93	94	95	95	95
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	3160	3160	3160	4335	4335	4335
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1650	1810	1820	1950	2340	2530	2550

NX / LN-K			0614T	0714T	0814T	0914T	1014T	1114T	1214T
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	160	185	208	235	274	290	320
Total power input	(1)	kW	58.1	68.6	79.6	92.2	101	112	118
EER	(1)		2.75	2.70	2.62	2.55	2.71	2.60	2.70
ESEER	(1)		4.13	4.42	4.37	4.41	4.25	4.25	4.37
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	159	185	207	234	273	290	319
EER	(1)(2)		2.72	2.67	2.57	2.51	2.67	2.57	2.67
ESEER	(1)(2)		3.99	4.25	4.16	4.21	4.04	4.10	4.21
Cooling energy class			C	D	D	D	D	D	D
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	27.5	31.9	35.9	40.4	47.2	50.0	55.1
Pressure drop	(1)	kPa	21.9	29.6	46.5	40.7	55.4	33.7	41.0
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	54	54	55	56	57	57	58
Sound power level in cooling	(4)(5)	dB(A)	86	86	87	88	89	89	90
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	3160	3160	3160	4335	4335	4335
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1700	1860	1870	1990	2380	2580	2600

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



NX / SL-K			0614T	0714T	0814T	0914T	1014T	1114T	1214T
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	159	180	214	241	264	296	312
Total power input	(1)	kW	56.3	70.7	77.8	89.3	104	109	120
EER	(1)		2.82	2.54	2.75	2.70	2.55	2.71	2.61
ESEER	(1)		4.34	4.41	4.40	4.41	4.28	4.34	4.26
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	158	179	213	240	263	295	311
EER	(1)(2)		2.79	2.52	2.71	2.66	2.51	2.68	2.58
ESEER	(1)(2)		4.18	4.24	4.19	4.20	4.07	4.17	4.10
Cooling energy class			C	D	C	D	D	D	D
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	27.4	31.0	36.9	41.5	45.5	51.0	53.8
Pressure drop	(1)	kPa	21.7	27.8	49.3	43.0	51.4	35.1	39.0
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	50	51	51	52	52	54	54
Sound power level in cooling	(4)(5)	dB(A)	82	83	83	84	84	86	86
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	3160	4335	4335	4335	5510	5510
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1700	1860	2160	2290	2380	2930	2950

NX / CA			0614T	0714T	0814T	0914T	1014T	1114T	1214T
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	174	205	235	266	302	330	352
Total power input	(1)	kW	54.4	65.0	72.9	84.1	95.8	103	111
EER	(1)		3.20	3.16	3.23	3.17	3.15	3.21	3.17
ESEER	(1)		4.31	4.26	4.45	4.49	4.43	4.35	4.37
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	174	204	234	265	301	329	351
EER	(1)(2)		3.16	3.11	3.16	3.11	3.11	3.16	3.12
ESEER	(1)(2)		4.17	4.06	4.20	4.24	4.26	4.17	4.18
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	30.0	35.3	40.5	45.9	52.0	56.8	60.6
Pressure drop	(1)	kPa	26.1	36.2	59.5	52.4	36.5	43.6	49.6
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	60	61	62	63	63	64	65
Sound power level in cooling	(4)(5)	dB(A)	92	93	94	95	95	96	97
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	4335	4335	4335	4335	5510	5510
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1700	2150	2160	2290	2550	2930	2950

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

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NX / LN-CA			0614T	0714T	0814T	0914T	1014T	1114T	1214T
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	168	198	227	262	295	318	344
Total power input	(1)	kW	52.8	61.6	70.5	82.8	93.2	99.6	109
EER	(1)		3.17	3.22	3.23	3.17	3.16	3.19	3.17
ESEER	(1)		4.56	4.61	4.70	4.71	4.55	4.63	4.70
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	167	198	226	261	294	317	343
EER	(1)(2)		3.13	3.17	3.16	3.11	3.12	3.15	3.12
ESEER	(1)(2)		4.40	4.40	4.44	4.47	4.39	4.43	4.48
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	28.8	34.2	39.1	45.1	50.7	54.8	59.3
Pressure drop	(1)	kPa	24.1	33.8	55.5	50.7	34.7	40.5	47.5
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	54	55	56	57	58	59	59
Sound power level in cooling	(4)(5)	dB(A)	86	87	88	89	90	91	91
SIZE AND WEIGHT									
Depth (A)	(6)	mm	3160	4335	4335	4335	5510	5510	5510
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1700	2150	2160	2290	2880	2900	2930

NX / SL-CA			0614T	0714T	0814T	0914T	1014T	1114T	1214T
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
Cooling only (Gross value)									
Cooling capacity	(1)	kW	167	195	224	259	292	317	344
Total power input	(1)	kW	52.3	61.0	69.9	82.0	92.6	99.6	109
EER	(1)		3.20	3.20	3.21	3.16	3.15	3.18	3.16
ESEER	(1)		4.69	4.70	4.68	4.72	4.72	4.68	4.70
Cooling only (EN14511 value)									
Cooling capacity	(1)(2)	kW	167	194	223	258	291	316	342
EER	(1)(2)		3.16	3.15	3.14	3.11	3.11	3.13	3.11
ESEER	(1)(2)		4.52	4.49	4.42	4.47	4.55	4.49	4.47
Cooling energy class			A	A	A	A	A	A	A
EXCHANGERS									
Shell & Tube Heat Exchanger									
Water flow	(1)	m³/h	28.8	33.6	38.6	44.6	50.2	54.5	59.2
Pressure drop	(1)	kPa	24.1	32.7	53.9	49.6	34.1	40.1	47.2
COMPRESSORS									
Compressors	No.		4	4	4	4	4	4	4
Circuits	No.		2	2	2	2	2	2	2
NOISE LEVEL									
Sound pressure level in cooling	(3)	dB(A)	51	51	52	53	54	55	55
Sound power level in cooling	(4)(5)	dB(A)	83	83	84	85	86	87	87
SIZE AND WEIGHT									
Depth (A)	(6)	mm	4335	4335	5510	5510	5510	5510	5510
Width (B)	(6)	mm	2250	2250	2250	2250	2250	2250	2250
Height (H)	(6)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(6)	kg	1980	2150	2490	2610	2880	2900	2930

Notes:

1. Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
2. Values in compliance with EN14511-3:2011.
3. Average sound pressure level at 10m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
4. Sound power on the basis of measurements made in compliance with ISO 9614.
5. Sound power level in cooling, outdoors.
6. Unit in standard configuration/execution, without optional accessories.

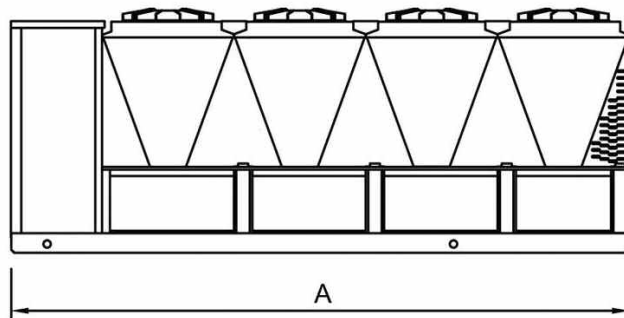
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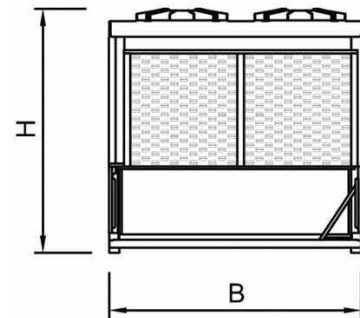
Dimensions

NX 0614T - 1214T

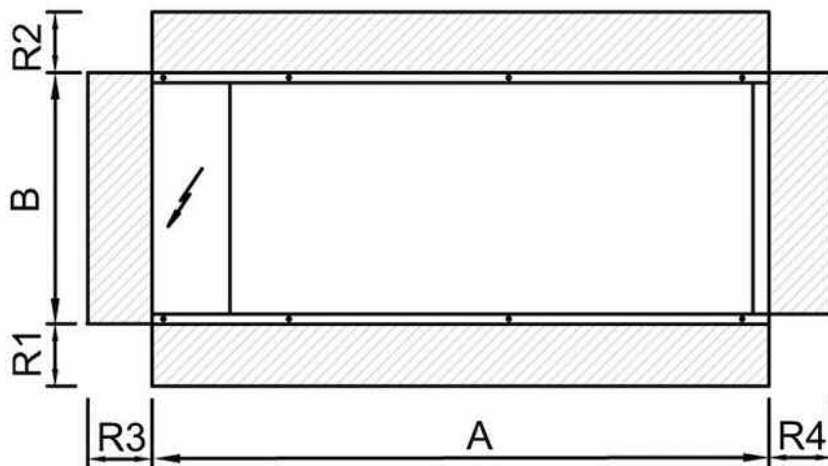
Side view



Front view



Upper view



Specifications

NECS-W

NECS-W 0152 - 1204

43.4 - 371kW / Two & Four Compressors, Plate Heat Exchanger

Water cooled indoor unit for the production of chilled water, with hermetic rotary scroll compressors delivering to a plate heat exchanger. The range includes single-circuit two-compressor and dual-circuit four-compressor configurations.



Version

B - Basic

Control Software

W3000 (Two compressors)

W3000TE (Four compressors)

Features

■ High seasonal efficiency

A unit will regularly work at partial loads between 50% and 75% over the course of the year, making partial load efficiencies key. Designed with this in mind, an ESEER of up to 6.01 has been achieved on these units.

■ Optional evaporator and condenser hydraulic kits

Hydraulic kits are available on both evaporator and condenser sides for ease of installation. Various pump set-ups ensure a perfect fit for every application.

■ Integrated condensing pressure control

Inbuilt logic to readily manage the chosen condensing pressure control device, making application of the unit to different source methods as easy as possible.

NECS-W / B			0152	0182	0202	0252	0262	0302	0352	0412	0452	0512
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE												
Cooling only (Gross value)												
Cooling capacity	(1)	kW	43.4	50.1	58.9	66.4	72.6	86.7	101	115	129	144
Total power input	(1)	kW	10.0	11.3	13.0	15.2	16.6	19.5	22.7	25.9	28.9	32.2
EER	(1)		4.34	4.43	4.53	4.37	4.37	4.45	4.46	4.43	4.45	4.46
ESEER	(1)		5.81	5.98	6.01	5.69	5.59	5.66	5.80	5.71	5.79	5.78
Cooling only (EN14511 value)												
Cooling capacity	(1)(2)	kW	43.0	49.7	58.5	66.0	72.1	86.3	101	114	128	143
EER	(1)(2)		4.04	4.15	4.24	4.10	4.08	4.23	4.26	4.22	4.25	4.27
ESEER	(1)(2)		4.98	5.17	5.22	5.02	4.88	5.13	5.23	5.19	5.24	5.29
Cooling energy class			D	D	D	D	D	D	C	D	C	C
EXCHANGERS												
Plate Heat Exchanger - Evaporator												
Water flow	(1)	m³/h	7.46	8.62	10.1	11.4	12.5	14.9	17.4	19.7	22.1	24.7
Pressure drop	(1)	kPa	57.8	49.4	49.5	47.0	56.2	34.3	32.8	42.1	39.7	38.5
Plate Heat Exchanger - Condenser												
Water flow	(1)	m³/h	9.14	10.5	12.3	14.0	15.3	18.2	21.2	24.1	27.0	30.1
Pressure drop	(1)	kPa	35.9	37.5	42.0	44.1	52.8	36.7	36.0	36.0	36.4	33.5
COMPRESSORS												
Compressors	No.		2	2	2	2	2	2	2	2	2	2
Circuits	No.		1	1	1	1	1	1	1	1	1	1
NOISE LEVEL												
Sound pressure level in cooling	(3)	dB(A)	58	59	59	59	60	60	61	61	62	62
Sound power level in cooling	(4)(5)	dB(A)	73	74	74	74	75	76	77	77	78	78
SIZE AND WEIGHT												
Width (A)	(6)	mm	1055	1055	1055	1055	1055	1222	1222	1222	1222	1222
Depth (B)	(6)	mm	649	649	649	649	649	873	873	873	873	873
Height (H)	(6)	mm	1255	1255	1255	1255	1255	1496	1496	1496	1496	1496
Operating weight	(6)	kg	285	300	310	320	325	570	610	640	680	725

NECS-W / B			0552	0612	0604	0704	0804	0904	1004	1104	1204
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE											
Cooling only (Gross value)											
Cooling capacity	(1)	kW	165	186	174	203	228	258	288	329	371
Total power input	(1)	kW	36.9	41.6	38.9	45.2	51.6	58.0	64.0	74.0	83.5
EER	(1)		4.47	4.48	4.47	4.48	4.42	4.45	4.50	4.44	4.44
ESEER	(1)		5.93	5.80	5.79	5.92	5.82	5.93	5.93	5.99	5.89
Cooling only (EN14511 value)											
Cooling capacity	(1)(2)	kW	164	186	173	202	227	257	287	328	370
EER	(1)(2)		4.29	4.29	4.29	4.32	4.25	4.29	4.35	4.30	4.28
ESEER	(1)(2)		5.40	5.30	5.20	5.33	5.27	5.34	5.40	5.47	5.33
Cooling energy class			C	C	C	C	C	C	C	C	C
EXCHANGERS											
Plate Heat Exchanger - Evaporator											
Water flow	(1)	m³/h	28.4	32.1	29.9	34.9	39.2	44.4	49.6	56.6	63.9
Pressure drop	(1)	kPa	34.6	44.2	35.0	32.9	41.6	39.4	39.4	35.2	44.9
Plate Heat Exchanger - Condenser											
Water flow	(1)	m³/h	34.6	39.0	36.5	42.5	47.9	54.1	60.3	68.9	77.9
Pressure drop	(1)	kPa	35.8	38.1	37.0	36.1	35.5	36.6	33.7	35.6	37.9
COMPRESSORS											
Compressors	No.		2	2	4	4	4	4	4	4	4
Circuits	No.		1	1	2	2	2	2	2	2	2
NOISE LEVEL											
Sound pressure level in cooling	(3)	dB(A)	63	63	69	70	71	72	73	74	74
Sound power level in cooling	(4)(5)	dB(A)	79	79	86	87	88	89	90	91	91
SIZE AND WEIGHT											
Width (A)	(6)	mm	1222	1222	2227	2227	2227	2227	2227	2227	2227
Depth (B)	(6)	mm	873	873	877	877	877	877	877	877	877
Height (H)	(6)	mm	1496	1496	1780	1780	1780	1780	1780	1780	1780
Operating weight	(6)	kg	770	800	1050	1125	1190	1270	1355	1445	1510

Notes:

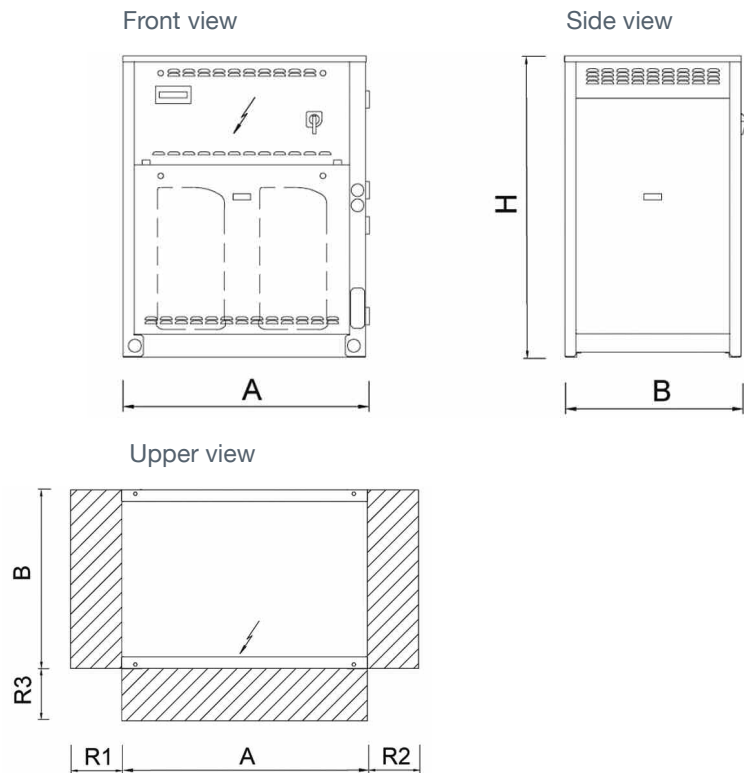
- Plant (side) cooling exchanger water (in/out) = 12°C/7°C; Source (side) heat exchanger water (in/out) = 30°C/35°C.
- Values in compliance with EN14511-3:2011.
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, indoors.
- Unit in standard configuration/execution, without optional accessories.

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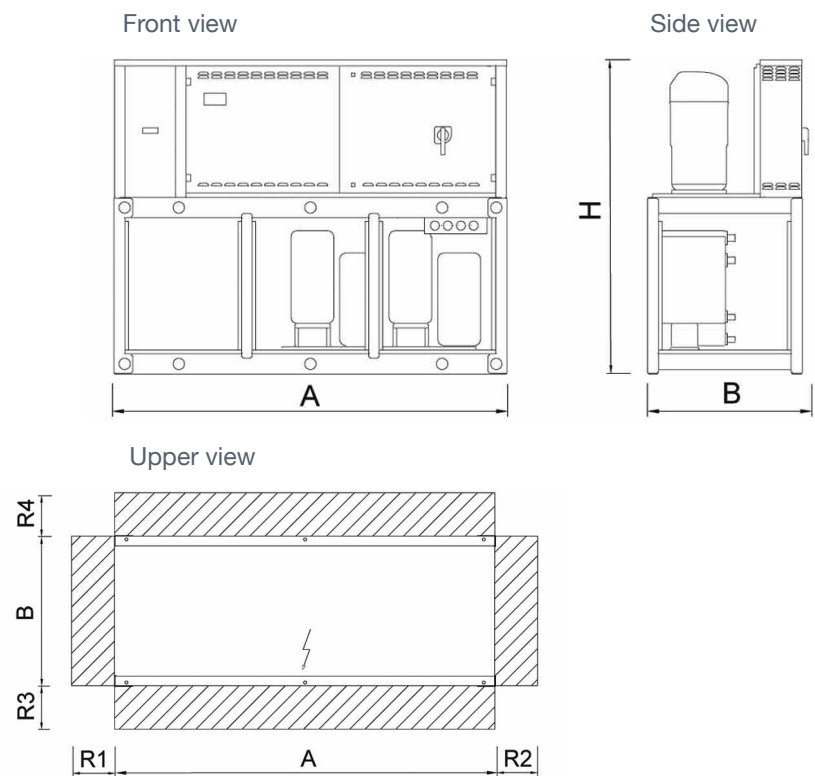


Dimensions

NECS-W 0152 – 0552, 0612



NECS-W 0604, 0704 – 1204



Accessories

[XXXX] = Part Number

An extensive list of accessories exist to help tailor the selected unit to the projects requirements.

- ▶ **Low ambient control** - Using either of the following two accessories to increase the level of fan control above the standard (DVV), units can operate safely to even lower ambient temperatures. Other benefits include lower sound levels at part load and improved efficiency.
 - ▶ **DVVF** - By combining the standard fan control with additional pressostatic control, the two strategies work together to precisely maintain condensing pressure (1 step). [819]
 - ▶ **DVV2F** - An even higher level of control can be achieved with inverter controlled fans or additional double pressostatic control, giving access to the most extreme low ambient operating range (2 step). [821]
- ▶ **Numbered wiring** - For easier installation and maintenance, numbered wires come as standard on 2 compressor units and are optional on 4 compressor units. [381]
- ▶ **Compressor rephasing** - Compressor power factor correction device. [3301]
- ▶ **Automatic circuit breakers** - To protect compressors and/or fans from possible current peaks an over current switch is provided - Standard on all 2 compressor units and optional on 4 compressor units. [3412]
- ▶ **Building Energy Management Systems (BEMS)** - Serial card interface module to allow integration with BEMS system protocols.

ModBUS	[4181]
Echelon	[4182]
BACnet	[4184]
BACnet Over IP	[4185] - Subject to compatibility
- ▶ **Auxiliary input** - Optional methods of remotely enforcing energy saving policies, as well as ensuring safe operation under certain conditions.
 - ▶ **Remote Signal Double Set point** - Allows activation of an energy saving set-point (W3000TE only). [6162]
 - ▶ **Auxiliary remote D L.C.** - 4-20mA analogue input and voltage-free digital input. Allows changes to the operating set-point according to current applied and to limit the units power (2 compressor only). [6163]
 - ▶ **Remote demand limit** - Voltage free digital input to limit the units power consumption temporarily or for safety reasons. Only available for 4 compressor models. [6171]
 - ▶ **Display options** - Several options are available to protect the compact controller from different weather environments. As well as this, kits can be supplied from the factory to enable the compact controller to be used as a remote controller (up to 500m with dedicated power supply).

Further protection against rain/snow and dust/pollution	[6311]
200m Remote Controller Kit (additional controller included)	[C9261063]
500m Remote Controller Kit (additional controller and dedicated power supply included)	[C9261064]
- ▶ **Liquid line solenoid valve** - Solenoid valve on the refrigerant circuit to prevent liquid migrating towards the compressors when turned off. [601]
- ▶ **Pressure relief valve** - Dual relief valve with switch allowing the ability to unselect a valve, avoiding longer inoperative periods. [1961]
- ▶ **High Pressure (HP) and Low Pressure (LP) gauges** - High and low pressure gauges allowing immediate reading of pressure values on both the high and low pressure circuits. [1401]
- ▶ **Compressor suction/discharge valves** - Shut off valves available on both compressor suction [1901] and discharge [1911] lines to simplify maintenance activities.

- ▶ **Electronic expansion valves** - Ideal for situations where the application is characterised by several different temperature changes, allowing the system to be independent of continuous calibrations. An electronic expansion valve also allows improved performance at partial loads and an extended operating limit even at seasonal peaks. [1926] - Subject to compatibility.

- ▶ **Condensing coil options** - From different materials to different coatings on the condensing coil, many options are available to ensure the unit is a perfect fit for even the harshest of environments.

E-coating protection of microchannel coil - protective layer of epoxy polymer providing over 3,120 hours of salt spray protection as per ASTM G85-02 A3 (SWAAT) as well as polyurethane surface protection against UV rays (NX models) [876]

Copper-Aluminium heat exchanger coils [879]

Pre-painted copper pipes and aluminium fins - chemical cleaning treatment and protective polyester resin paint providing over 1,000 hours of salt spray protection as per ASTM B117 with excellent resistance to UV rays [894]

Copper-Copper heat exchanger coils [881]

Polyurethane paint, Fin Guard Silver treatment [895]

Metal condensing coil protection net (factory fitted) [2032]

- ▶ **Hydronic modules** - Pre-plumbed internal components on the hydraulic side to minimise installation time and costs. Multiple options are available to ensure the needs of each project are met (subject to compatibility).

1 Pump (2 poles) Low Head & Buffer Vessel [3152]

1 Pump (2 poles) High Head & Buffer Vessel [3153]

2 Pumps (2 poles) Low Head & Buffer Vessel [3155]

2 Pumps (2 poles) High Head & Buffer Vessel [3156]

1 Pump (2 poles) Low Head [3164] [3342]

1 Pump (2 poles) High Head [3165] [3343]

2 Pumps (2 poles) Low Head [3167] [3345]

2 Pumps (2 poles) High Head [3168] [3346]

- ▶ **Piping kit antifreeze heater** - Electrical anti-freeze heater installed onto pipes and hydronic modules to prevent frost formation on units that are intended to work below outdoor temperatures of 0°C.

Electrical heater on pipes & pump [2432]

Electrical heater on pipes, pump and buffer vessel [2433]

- ▶ **Additional heat-exchanger insulation** - Extra insulation for low temperatures consisting of 20mm thick closed-cell expanded polyurethane. Designed to prevent any problems related to condensate and recommended for applications where flow temperature is below -8°C. [2641]

- ▶ **Anti-intrusion grilles** - To protect against the intrusion of solid bodies into the v-shaped unit's structure. [2021]

- ▶ **Enclosure panels** - Metallic panels on the side of the coils (piping side only) to improve protection and aesthetics. [1981]

- ▶ **Acoustical enclosure** - A standard feature on all SL and NX/LN models, and available as an option on other models. Extra insulation on the compressor enclosure panels can help reduce sound levels on compatible models. [2621]

- ▶ **Anti-vibration mountings (spring & rubber)** - Options for spring & rubber mounts designed to reduce vibration through structures helping to keep noise transmission to a minimum. Various models are available for maximum coverage of compatibility over the unit range. [subject to compatibility]

- ▶ **Lifting spread bars** - Lifting bars to be used in conjunction with the installation manual to ensure safe and secure movement of the units. [subject to compatibility]

- ▶ **Evaporator water flow switch** - Flow switch designed to protect the unit where the water flow across the evaporator is not sufficient and falls outside of the operating parameters. [C5140120] [C5140131]

- ▶ **Water filters** - Water filters supplied alongside the unit ensuring the correct size is selected. Available on 2 compressor V-Shaped coil structure models.

1 ½"	[C7420821]
2"	[C7420831]
2 ½"	[C7420841]
3"	[C7420851]
4"	[C7420861]

- ▶ **Soft Start** - An electronic device to manage the inrush of start-up current, providing a beneficial electric profile for both the end user and the electrical network operators. [1511]

- ▶ **Condensing pressure control device (water cooled)** - Options are available for controlling the water pressure on the condensing side to allow the units to work with cooling towers, dry coolers, geothermal probes, as well as open loop sources.

Pressostatic water valve	[1241]
With 2 way modulating valve	[1242]
With 3 way modulating valve	[1243]
With inverter (1 pump)	[1244]
With inverter (2 pumps)	[1245]

- ▶ **Evaporator and condenser hydraulic kit (water cooled)** - Hydraulic kits are available on both evaporator and condenser sides to aid installation. Various pump set ups are available to ensure a perfect fit for every application.

Evaporator Kits

1 Pump Low Head	[3281]
1 Pump High Head	[3282]
2 Pumps Low Head	[3283]
2 Pumps High Head	[3284]

Condenser Kits

1 Pump Low Head	[3291]
1 Pump High Head	[3292]
2 Pumps Low Head	[3293]
2 Pumps High Head	[3294]

Expansion vessel, manometer, safety valve, purge valve, and drain valves included with all hydraulic kits.

- ▶ **Water connection orientation (water cooled)** - For water cooled 2 compressor units with on board hydraulic kits, external water connections on the side come as standard. Using this kit, top connections can be made if required. [2962]
- ▶ **Integral acoustic enclosure base (water cooled)** - On 4 compressor water cooled units it is optional to have additional panels added to the base of the unit where the hydraulic module would usually be exposed. These are made from epoxy painted sheet metal to help dampen the sound further. [2313]
- ▶ **Water connection kits (water cooled)** - To combine both evaporators on twin circuit units, manifold kits are available to ensure correct sizing and functionality. [F4005140 / F4005142 / F4005144]
Grooved pipe water connection kits with grooved couplings are also available as an option (lock & threaded counter-pipe). [subject to compatibility].

Responsible, sustainable manufacturing

As a leading provider of environmental technologies, Mitsubishi Electric and its group companies prides itself on using responsible, sustainable manufacturing processes that take energy use, efficiency and the impact on the environment very seriously.

Our production facilities are committed to sustainable business practices such as energy and resource efficiency, minimising ecological impacts and reducing greenhouse gas emissions.

In line with our aim to improve all round performance and energy efficiency throughout all our operations, we set and adhere to the highest environmental standards to protect the world in which we live.

Witness Testing

Performance witness testing is available to order as an additional service with the unit. This service is often a requirement, for the end client and consultant to physically see the unit being tested fully prior to delivery. If a full witness test is not required, then as all units are fully tested prior to leaving the factory, a copy of the test report is available for a nominal fee.

Carried out within modern and sophisticated facilities, Climaveneta offers the most extensive and reliable range of witness test options in the market.

Global Environmental Vision 2021

Mitsubishi Electric's Global Environmental Vision 2021 sets a goal for a lower emission future that influences all our policy decisions. For further information visit the following website: mitsubishielectric.com/eco



Green Gateway

Green Gateway is Mitsubishi Electric Living Environmental Systems UK's commitment to the environment. It strives to instill positive changes in Mitsubishi Electric's own operations as well as seeking to influence those of its customers. For further information visit the following website: greengateway.mitsubishielectric.co.uk



Mitsubishi Electric Climaveneta chillers offer an efficient, cost effective solution, meeting the energy demands of today and beyond



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Mitsubishi Electric UK's commitment
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