

mitsubishi electric
HYDRONICS & IT COOLING SYSTEMS S.p.A.

PROCESS

CHILLERS

HEAT PUMPS

NX-C-Y
NX-CN-Y

**AIR TO WATER UNITS
WITH SCROLL
COMPRESSORS
AND CENTRIFUGAL
FANS (PLUG FAN),
FOR INDOOR
INSTALLATION
17 - 290 kW**



NX-C-Y

NX-CN-Y



A TRULY UNIQUE SOLUTION FOR INDOOR INSTALLATIONS

Air-cooled Chillers and Air to water Heat Pumps with scroll compressors and centrifugal fans (plug fan), for indoor installation. 17-290 kW

NX-C-Y and NX-CN-Y feature high efficiency scroll compressors, weld-brazed plate evaporator, EC plug fans, full aluminum microchannel coils (chillers) or traditional Cu/Al coils (heat pumps) and in-house developed management software.

NX-C-Y

AIR-COOLED CHILLER

COOLING CAPACITY 17-290 kW

NX-CN-Y

AIR TO WATER HEAT PUMP

COOLING CAPACITY 18-265 kW

HEATING CAPACITY 19-284 kW

0 25 50 75 100 125 150 175 200 225 250 275 300

EXTREMELY VERSATILE INSTALLATION

Traditionally, air condensed units have axial fans and are designed for outdoor installations, requiring a minimum clearance space to ensure a proper airflow through the air heat exchanger.

NX-C-Y and NX-CN-Y revolutionizes this paradigm. Thanks to the adoption of centrifugal fans, these air-condensed units are suitable for indoor installation. Available static pressure provided by the fans allows the use of long ducts for air discharge. Thus, providing easy installation of the units even in the presence of spaces closed by walls with grids.

PROCESS COOLING APPLICATIONS

- ✓ Logistic sites
- ✓ Industrial process
- ✓ Automotive
- ✓ Food and Beverage industry
- ✓ Plastic
- ✓ Pharmaceutical

ACOUSTIC VERSIONS

- Standard Unit with standard ventilation regulation. **Baseline**

SL Super Low Noise The highest level of noise reduction which cuts noise emissions. **-7 dB(A)**

HEAT RECOVERY CONFIGURATIONS

- Standard Unit for the production of chilled (NX-C-Y) or hot water (NX-CN-Y).

D Partial heat recovery Unit equipped with an auxiliary heat exchanger on the compressor discharge for superheat recovery.

NX-C-Y and NX-CN-Y revolutionize the paradigm of air-cooled units for outdoor installation. Thanks to the adoption of centrifugal fans, and a new compact design, the new Climaveneta branded range of air-condensed units for indoor was created.

ErP COMPLIANT



EFFICIENCY AT FULL LOADS

AVERAGE **EER** version A **2,92**
version K **2,73**

SEASONAL COOLING ENERGY EFFICIENCY

AVERAGE **SCOP** version A **3,63**
version K **3,55**

SEASONAL COOLING ENERGY EFFICIENCY

AVERAGE **SEPR AT** version A **5,16**
version K **4,82**

SEASONAL COOLING ENERGY EFFICIENCY

AVERAGE **SEPR MT** version A **3,48**
version K **3,29**

FLEXIBLE AIR FLOW SELECTION

The NX-C-Y and NX-CN-Y units provide a fully configurable air supply, changing the standard vertical supply into horizontal supply. This facilitates the installation and air flow selection the moment the unit is installed.

EASY ACCESSIBILITY DURING MAINTENANCE

NX-C-Y and NX-CN-Y have a casing that is removable and is built to guarantee maximum accessibility for service and maintenance.

EASILY INTEGRATABLE IN EXISTING STRUCTURES

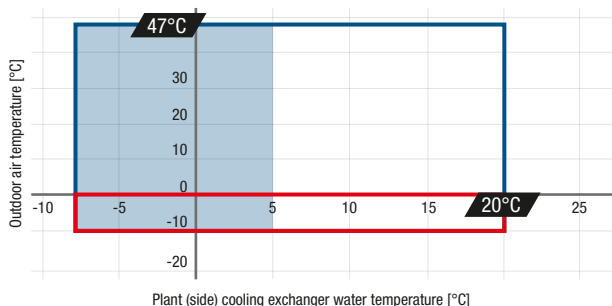
The units integrate seamlessly into surrounding structures. Thanks to the hidden internal installation and a rational design, NX-C-Y and NX-CN-Y are compatible with areas particularly sensitive to noise pollution.

EXTENDED OPERATING LIMITS

NX-C-Y and NX-CN-Y units can operate with outdoor air temperatures from -10°C and -15°C respectively. During summer operation, the maximum inlet air temperature at full load is 47°C (NX-C-Y).

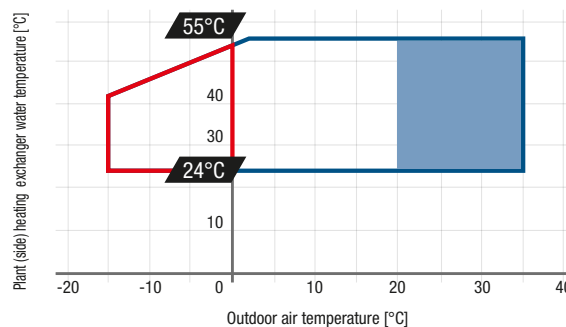
In heating mode, NX-CN-Y can supply hot water between 24°C and 55°C with external air temperature up to 35°C.

CHILLER OPERATING LIMITS



- Required accessories:
EVAPORATOR OUTLET WATER TEMPERATURE <5°C
- Required accessories if hydronic module is present:
ANTIFREEZE PIPING, PUMPS

HEAT PUMP OPERATING LIMITS



- Required accessories:
ELECTRONIC EXPANSION VALVE
- Required accessories if hydronic module is present:
ANTIFREEZE PIPING, PUMPS

TECHNOLOGICAL CHOICES

W3000TE CONTROL and USER-FRIENDLY USER INTERFACE

Fully in-house software developed by Mitsubishi Electric Hydraulics & IT Cooling Systems.

- ▶ 19 supported languages.
- ▶ Optional serial cards with the most common protocols are available: ModBus, Bacnet MS/TP RS485, Bacnet Over IP, Echelon Lonworks.
- ▶ "QUICK MIND" logic: a self-adapting algorithm that activates or deactivates the compressors only when a change in the system load moves the flow temperature out of the setpoint neutral zone.
- ▶ Diagnostics: "BLACK BOX" function for saving more than 100 machine variables for a rapid trouble-shooting.



The keypad W3000 Compact, as standard equipment, features function controls and a complete LCD display for viewing data and activating the unit, via a multilevel menu, with settable display language.

SOURCE SIDE HEAT EXCHANGER

NX-C-Y

- ▶ Full aluminum microchannel coils.
- ▶ Less refrigerant charge.
- ▶ Reduced weight.
- ▶ Sizes 0904/A, 0904/SL-K, 1004/A, 1004/SL-K, 1104/K and 1204/K are realized with copper tubes and aluminium fins heat exchanger coils.

NX-CN-Y

- ▶ Cu/Al traditional coils.
- ▶ Excellent heat conduction
- ▶ Available several surface treatments against corrosion (options).



Electrical panel

- ▶ W3000TE control software, COMPACT keyboard.
- ▶ Numbered cables (std on 2 compressors).
- ▶ Automatic circuit breakers (std on 2 compressors).

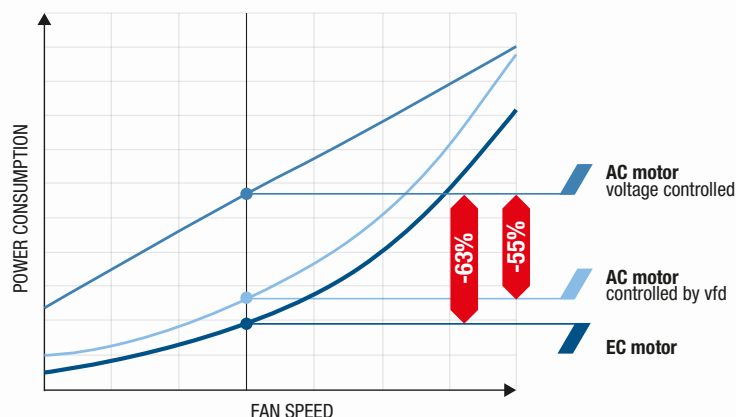
User side heat exchanger

- ▶ Brazed plate heat exchanger.
- ▶ Efficient heat exchange with a small footprint.
- ▶ Dual circuit design for 4 compressor units.



CENTRIFUGAL FAN MOTOR WITH EC MOTOR

- ▶ More air flow at smaller diameter.
- ▶ Energy cost saving by highest efficiency at the operating point.
- ▶ Reduced sound levels at partial loads.
- ▶ Precise control of airflow.
- ▶ Lower consumption in every working condition to achieve a better seasonal efficiency in accordance with ErP Directive.
- ▶ No energy lost due to the transmission (belts and pulleys), thanks to the fan being directly coupled with the motor; economical because no maintenance needed.
- ▶ Continuous speed control by 0-10V signal, easy adaptation to varying operational conditions.



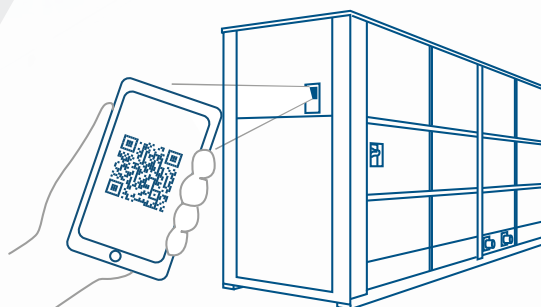
Casing

- ▶ Base and frame in hot-galvanized steel sheet.
- ▶ Panels are easy to remove for quick and easy access to all inner components.
- ▶ The self-supporting frame is built to guarantee maximum accessibility for servicing and maintenance operations.
- ▶ Total weather resistance.

Fixed speed scroll compressors

- ▶ Designed for superior efficiency and performance.
- ▶ Single circuit unit - 2 compressors.
- ▶ Dual circuit unit - 4 compressors.

KIPLink user interface



Innovative Wi-Fi interface for an easy and enhanced unit management.

As an option, the direct control over the unit comes through the innovative KIPLink interface. Based on Wi-Fi technology, KIPLink gets rid of the standard keyboard and allows one to operate on the unit directly from a mobile device

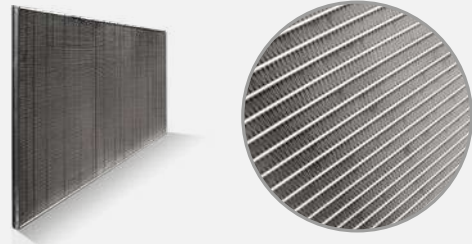
(smartphone, tablet, notebook) just by scanning the QR code positioned on the side of the unit.

- ▶ Communication based on Wi-Fi technology (no internet connection needed)
- ▶ User-friendly components monitoring
- ▶ Real-time graphs and key trends

COILS AND COATINGS

MICROCHANNEL COILS

Al- Regular (std NX-C-Y)



Al - E-coating



✓ Excellent resistance to **UV** rays

E- coating process



alkaline cleaning



deionized water rinse



E-coat treatment



Final rinse



Oven bake



UV topcoat

TUBE & FIN COILS

Cu/Al - Regular (std NX-CN-Y)

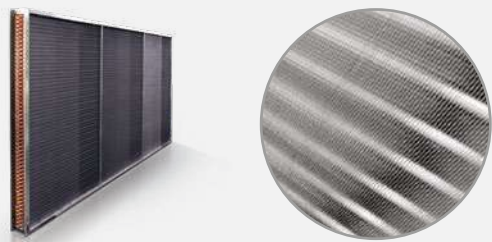
Cu/Al - Pre-painted fins

Cu/Al - Fin Guard Silver

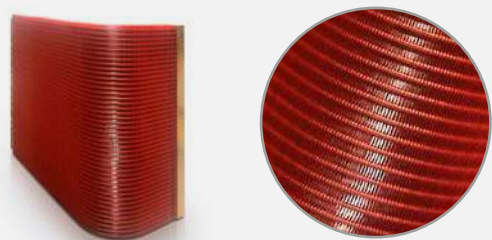
Fin Guard Silver SB

polyurethane paint with metallic emulsion;

- ✓ **3000 h** ASTM B117
- ✓ excellent resistance to **UV** rays



Cu/Cu - Tube & fin coil



HYDRONIC MODULES AND FLOW CONTROLS

NX-C-Y and NX-CN-Y units are available with two hydronic configurations:

- ▶ factory-mounted complete pump group, which optimizes hydraulic and electrical installation space, time and costs.
- ▶ or with terminals to control the external pumps with the unit control logic.

FACTORY MOUNTED PUMP GROUP

1 or 2 pumps (duty/standby) provide low or high head (available head approx. 100 or 200kPa).

Speed regulation	Type		Available Head
Fixed Speed (2 pole motors)	Single-head in-line pump	twin-head in-line pump	▶ Low head
			▶ High head
Variable speed EC motor (2 pole motors)	Single-head in-line pump	twin-head in-line pump	▶ Low head

CONNECTIONS FOR THE MANAGEMENT OF EXTERNAL PUMPS

The unit controls the activation of 1 or 2 external pumps

ON / OFF signal (1 or 2 pumps)

The unit is supplied with 1 or 2 relays that control the activation of 1 or 2 external pumps (duty / standby) via ON / OFF signals.

Modulating signal (1 or 2 pumps)

The unit is supplied with 1 or 2 relays and a contact with signal modulating 0-10V that controls the activation and the speed of 1 or 2 external pumps with variable speed.

VPF control logic



The VPF control series (Variable Primary Flow) doesn't only adjust the pump speed on the basis of the plant's thermal load, but also dynamically optimizes the unit's thermoregulation for variable flow operation, thus ensuring both the highest pump energy savings and chiller stable operation.

VPF: constant ΔP on the plant side

For systems with only the primary circuit.

VPF.D: constant ΔT on the plant side

For systems with primary and secondary circuits separated by a hydraulic decoupler.

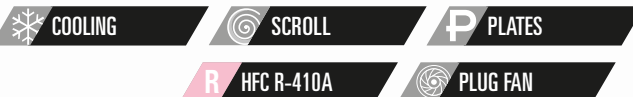


NX-C-Y 0072-1204

Chiller, air source
for indoor installation
17-290 kW

NX-C-Y / A		0072	0092	0102	0122	0152	0182	0202	0232	
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	
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
Cooling capacity	(1)	kW	18,1	22,9	27,4	31,6	38,8	46,0	53,0	59,2
Total power input	(1)	kW	5,94	7,83	8,56	10,2	12,6	14,4	17,2	19,8
EER	(1)	kW/kW	3,05	2,92	3,20	3,10	3,08	3,19	3,08	2,99
ESEER	(1)	kW/kW	4,56	4,49	4,83	4,83	4,44	4,49	4,39	4,39
COOLING ONLY (EN14511 VALUE)										
Cooling capacity	(1)(2)	kW	18,0	22,8	27,2	31,4	38,6	45,8	52,8	58,9
EER	(1)(2)	kW/kW	3,05	2,93	3,21	3,10	3,09	3,22	3,10	3,00
ESEER	(1)(2)	kW/kW	4,47	4,41	4,73	4,68	4,33	4,44	4,31	4,30
Cooling energy class			A	A	A	A	A	A	A	A
ENERGY EFFICIENCY										
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)										
Process refrigeration at high temperature										
Prated,c	(6)	kW	18,0	22,8	27,2	31,4	38,6	45,8	52,8	58,9
SEPR HT	(6)(8)		5,73	5,68	6,18	5,79	5,52	5,48	5,36	5,21
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2015/1095)										
Process refrigeration at medium temperature										
Prated,c	(7)	kW	9,91	12,6	15,6	18,2	22,6	26,8	31,2	35,1
SEPR MT	(7)(8)		3,39	3,47	3,81	3,71	3,49	3,56	3,54	3,50
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
Water flow	(1)	l/s	0,87	1,10	1,31	1,51	1,86	2,20	2,54	2,83
Pressure drop	(1)	kPa	25,8	25,3	26,8	27,9	27,8	25,5	26,6	26,6
REFRIGERANT CIRCUIT										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,50	3,70	6,80	7,00	7,30	8,30	9,20	9,40
FANS										
Air flow		m³/s	2,50	2,92	3,75	4,17	4,86	6,11	6,53	6,94
Available static pressure		Pa	30	30	30	30	30	30	30	30
NOISE LEVEL										
Sound power level in cooling	(3)(4)	dB(A)	74	77	82	84	86	83	84	84
SIZE AND WEIGHT										
A	(5)	mm	1500	1500	2480	2480	2480	2480	2480	2480
B	(5)	mm	900	900	1100	1100	1100	1100	1100	1100
H	(5)	mm	1910	1910	2100	2100	2100	2100	2100	2100
Operating weight	(5)	kg	423	431	795	798	868	928	930	949

NX-C-Y / A		0072	0092	0102	0122	0152	0182	0202	0232	
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	
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
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EER	(1)	kW/kW	3,05	2,92	3,20	3,10	3,08	3,19	3,08	2,99
ESEER	(1)	kW/kW	4,56	4,49	4,83	4,83	4,44	4,49	4,39	4,39
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Cooling energy class			A	A	A	A	A	A	A	A
ENERGY EFFICIENCY										
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)										
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Prated,c	(6)	kW	18,0	22,8	27,2	31,4	38,6	45,8	52,8	58,9
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Pressure drop	(1)	kPa	25,8	25,3	26,8	27,9	27,8	25,5	26,6	26,6
REFRIGERANT CIRCUIT										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1	1
Refrigerant charge		kg	3,50	3,70	6,80	7,00	7,30	8,30	9,20	9,40
FANS										
Air flow		m³/s	2,50	2,92	3,75	4,17	4,86	6,11	6,53	6,94
Available static pressure		Pa	30	30	30	30	30	30	30	30
NOISE LEVEL										
Sound power level in cooling	(3)(4)	dB(A)	74	77	82	84	86	83	84	84
SIZE AND WEIGHT										
A	(5)	mm	1500	1500	2480	2480	2480	2480	2480	2480
B	(5)	mm	900	900	1100	1100	1100	1100	1100	1100
H	(5)	mm	1910	1910	2100	2100	2100	2100	2100	2100
Operating weight	(5)	kg	423	431	795	798	868	928	930	949



NX-C-Y / A		0072	0092	0102	0122	0152	0182	0202	0232
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
PERFORMANCE									
COOLING ONLY (GROSS VALUE)									
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Total power input	(1) kW	5,94	7,83	8,56	10,2	12,6	14,4	17,2	19,8
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ESEER	(1) kW/kW	4,56	4,49	4,83	4,83	4,44	4,49	4,39	4,39
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2) kW	18,0	22,8	27,2	31,4	38,6	45,8	52,8	58,9
EER	(1)(2) kW/kW	3,05	2,93	3,21	3,10	3,09	3,22	3,10	3,00
ESEER	(1)(2) kW/kW	4,47	4,41	4,73	4,68	4,33	4,44	4,31	4,30
Cooling energy class		A	A	A	A	A	A	A	A
ENERGY EFFICIENCY									
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)									
Process refrigeration at high temperature									
Prated,c	(6) kW	18,0	22,8	27,2	31,4	38,6	45,8	52,8	58,9
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SEASONAL EFFICIENCY IN COOLING (Reg. EU 2015/1095)									
Process refrigeration at medium temperature									
Prated,c	(7) kW	9,91	12,6	15,6	18,2	22,6	26,8	31,2	35,1
SEPR MT	(7)(8)	3,39	3,47	3,81	3,71	3,49	3,56	3,54	3,50
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1) l/s	0,87	1,10	1,31	1,51	1,86	2,20	2,54	2,83
Pressure drop	(1) kPa	25,8	25,3	26,8	27,9	27,8	25,5	26,6	26,6
REFRIGERANT CIRCUIT									
Compressors nr.	N°	2	2	2	2	2	2	2	2
No. Circuits	N°	1	1	1	1	1	1	1	1
Refrigerant charge	kg	3,50	3,70	6,80	7,00	7,30	8,30	9,20	9,40
FANS									
Air flow	m³/s	2,50	2,92	3,75	4,17	4,86	6,11	6,53	6,94
Available static pressure	Pa	30	30	30	30	30	30	30	30
NOISE LEVEL									
Sound power level in cooling	(3)(4) dB(A)	74	77	82	84	86	83	84	84
SIZE AND WEIGHT									
A	(5) mm	1500	1500	2480	2480	2480	2480	2480	2480
B	(5) mm	900	900	1100	1100	1100	1100	1100	1100
H	(5) mm	1910	1910	2100	2100	2100	2100	2100	2100
Operating weight	(5) kg	423	431	795	798	868	928	930	949

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 EN14511-3:2013.

3 Total sound power of fans, as declared by the maker, at the rated speed of rotation and a useful static head of nominal on the delivery side.

4 Sound power level in cooling, outdoors.

5 Unit in standard configuration/execution, without optional accessories.

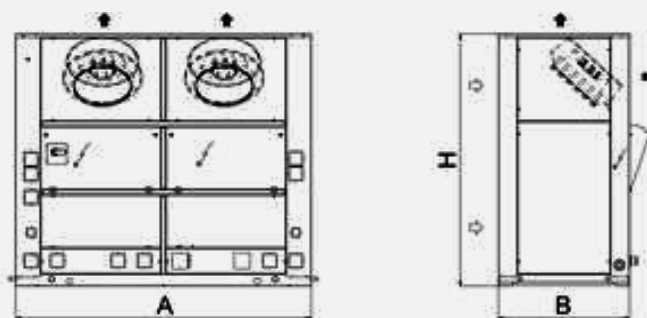
6 Seasonal energy efficiency of high temperature process cooling [REGULATION (EU) N. 2016/2281]

7 Seasonal Energy Efficiency of Process Cooling at Medium Temperature [REGULATION (EU) N. 2015/1095]

8 Seasonal space heating energy index

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

Certified data in EUROVENT





NX-CN-Y 0072-1104

Reversible unit, air source
for indoor installation
18-265 kW

NX-CN-Y /A		0072	0092	0102	0122	0152	0182	0202	0232	
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	
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
Cooling capacity	(1)	kW	18,7	23,0	26,0	30,9	38,3	45,4	52,5	58,3
Total power input	(1)	kW	6,09	8,04	8,82	10,6	12,5	14,5	17,3	19,9
EER	(1)	kW/kW	3,07	2,86	2,95	2,92	3,06	3,13	3,03	2,93
ESEER	(1)	kW/kW	4,61	4,37	4,52	4,60	4,37	4,38	4,29	4,27
COOLING ONLY (EN14511 VALUE)										
Cooling capacity	(1)(2)	kW	18,6	22,9	25,9	30,8	38,1	45,2	52,3	58,1
EER	(1)(2)	kW/kW	3,09	2,87	2,98	2,94	3,09	3,17	3,06	2,95
ESEER	(1)(2)	kW/kW	4,55	4,29	4,51	4,53	4,29	4,34	4,24	4,23
Cooling energy class			A	A	A	A	A	A	A	A
HEATING ONLY (GROSS VALUE)										
Total heating capacity	(3)	kW	19,4	24,2	28,3	32,3	41,8	48,9	56,3	62,6
Total power input	(3)	kW	6,88	8,79	9,83	11,4	13,7	15,9	18,6	21,2
COP	(3)	kW/kW	2,82	2,75	2,88	2,83	3,05	3,08	3,03	2,95
HEATING ONLY (EN14511 VALUE)										
Total heating capacity	(2)(3)	kW	19,5	24,3	28,4	32,4	42,0	49,1	56,5	62,8
COP	(2)(3)	kW/kW	2,86	2,79	2,93	2,87	3,09	3,12	3,07	2,99
Cooling energy class			B	C	B	B	A	A	A	B
ENERGY EFFICIENCY										
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)										
PDesign	(7)	kW	14,8	18,2	21,7	24,9	32,4	37,8	43,6	48,6
SCOP	(7)(8)		3,65	3,60	3,86	3,80	3,76	3,76	3,74	3,69
Performance ηs	(7)(9)	%	143	141	151	149	147	147	147	145
Seasonal efficiency class	(7)		A+	A+	A++	A+	A+	A+	A+	A+
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
Water flow	(1)	l/s	0,90	1,10	1,25	1,48	1,83	2,17	2,51	2,79
Pressure drop	(1)	kPa	17,4	18,9	17,0	19,0	19,4	16,9	17,8	17,4
HEAT EXCHANGER USER SIDE IN HEATING										
Water flow	(3)	l/s	0,94	1,17	1,36	1,56	2,02	2,36	2,72	3,02
Pressure drop	(3)	kPa	19,1	21,3	20,4	21,1	23,5	20,0	20,9	20,5
REFRIGERANT CIRCUIT										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1	1
Refrigerant charge		kg	8,20	8,50	18,3	18,5	19,0	20,2	21,1	21,5
FANS										
Air flow		m³/s	2,50	2,92	3,75	4,17	4,86	6,11	6,53	6,94
Available static pressure		Pa	30	30	30	30	30	30	30	30
NOISE LEVEL										
Sound power level in cooling	(10)(11)(12)	dB(A)	76	79	82	84	86	83	84	85
Sound power level in heating	(10)(12)(13)	dB(A)	66	68	70	66	76	79	80	79
Sound power level in heating	(10)(12)(14)	dB(A)	76	79	82	84	86	83	84	85
SIZE AND WEIGHT										
A	(15)	mm	1500	1500	2480	2480	2480	2480	2480	2480
B	(15)	mm	900	900	1100	1100	1100	1100	1100	1100
H	(15)	mm	1910	1910	2100	2100	2100	2100	2100	2100
Operating weight	(15)	kg	450	460	840	850	910	970	970	1000

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 EN14511-3:2013.

3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.

7 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (EU) N. 813/2013]

8 Seasonal performance coefficient

9 Seasonal space heating energy efficiency

10 Total sound power of fans, as declared by the maker, at the rated speed of rotation and a useful static head of nominal on the delivery side.

11 Sound power level in cooling, outdoors.

12 Sound power on the basis of measurements made in compliance with ISO 9614.

13 Sound power level in heating, indoors.

14 Sound power level in heating, outdoors.

15 Unit in standard configuration/execution, without optional accessories.

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

Certified data in EUROVENT



NX-CN-Y /A		0072	0092	0102	0122	0152	0182	0202	0232
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
PERFORMANCE									
COOLING ONLY (GROSS VALUE)									
Cooling capacity	(1) kW	18,7	23,0	26,0	30,9	38,3	45,4	52,5	58,3
Total power input	(1) kW	6,09	8,04	8,82	10,6	12,5	14,5	17,3	19,9
EER	(1) kW/kW	3,07	2,86	2,95	2,92	3,06	3,13	3,03	2,93
ESEER	(1) kW/kW	4,61	4,37	4,52	4,60	4,37	4,38	4,29	4,27
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2) kW	18,6	22,9	25,9	30,8	38,1	45,2	52,3	58,1
EER	(1)(2) kW/kW	3,09	2,87	2,98	2,94	3,09	3,17	3,06	2,95
ESEER	(1)(2) kW/kW	4,55	4,29	4,51	4,53	4,29	4,34	4,24	4,23
Cooling energy class		A	A	A	A	A	A	A	A
HEATING ONLY (GROSS VALUE)									
Total heating capacity	(3) kW	19,4	24,2	28,3	32,3	41,8	48,9	56,3	62,6
Total power input	(3) kW	6,88	8,79	9,83	11,4	13,7	15,9	18,6	21,2
COP	(3) kW/kW	2,82	2,75	2,88	2,83	3,05	3,08	3,03	2,95
HEATING ONLY (EN14511 VALUE)									
Total heating capacity	(2)(3) kW	19,5	24,3	28,4	32,4	42,0	49,1	56,5	62,8
COP	(2)(3) kW/kW	2,86	2,79	2,93	2,87	3,09	3,12	3,07	2,99
Cooling energy class		B	C	B	B	A	A	A	B
ENERGY EFFICIENCY									
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)									
PDesign	(7) kW	14,8	18,2	21,7	24,9	32,4	37,8	43,6	48,6
SCOP	(7)(8)	3,65	3,60	3,86	3,80	3,76	3,76	3,74	3,69
Performance ηs	(7)(9) %	143	141	151	149	147	147	147	145
Seasonal efficiency class	(7)	A+	A+	A++	A+	A+	A+	A+	A+
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1) l/s	0,90	1,10	1,25	1,48	1,83	2,17	2,51	2,79
Pressure drop	(1) kPa	17,4	18,9	17,0	19,0	19,4	16,9	17,8	17,4
HEAT EXCHANGER USER SIDE IN HEATING									
Water flow	(3) l/s	0,94	1,17	1,36	1,56	2,02	2,36	2,72	3,02
Pressure drop	(3) kPa	19,1	21,3	20,4	21,1	23,5	20,0	20,9	20,5
REFRIGERANT CIRCUIT									
Compressors nr.	N°	2	2	2	2	2	2	2	2
No. Circuits	N°	1	1	1	1	1	1	1	1
Refrigerant charge	kg	8,20	8,50	18,3	18,5	19,0	20,2	21,1	21,5
FANS									
Air flow	m³/s	2,50	2,92	3,75	4,17	4,86	6,11	6,53	6,94
Available static pressure	Pa	30	30	30	30	30	30	30	30
NOISE LEVEL									
Sound power level in cooling	(10)(11)(12) dB(A)	76	79	82	84	86	83	84	85
Sound power level in heating	(10)(12)(13) dB(A)	66	68	70	66	76	79	80	79
Sound power level in heating	(10)(12)(14) dB(A)	76	79	82	84	86	83	84	85
SIZE AND WEIGHT									
A	(15) mm	1500	1500	2480	2480	2480	2480	2480	2480
B	(15) mm	900	900	1100	1100	1100	1100	1100	1100
H	(15) mm	1910	1910	2100	2100	2100	2100	2100	2100
Operating weight	(15) kg	450	460	840	850	910	970	970	1000

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 EN14511-3:2013.

3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.

7 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (EU) N. 813/2013]

8 Seasonal performance coefficient

9 Seasonal space heating energy efficiency

10 Total sound power of fans, as declared by the maker, at the rated speed of rotation and a useful static head of nominal on the delivery side.

11 Sound power level in cooling, outdoors.

12 Sound power on the basis of measurements made in compliance with ISO 9614.

13 Sound power level in heating, indoors.

14 Sound power level in heating, outdoors.

15 Unit in standard configuration/execution, without optional accessories.

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NX-CN-Y 0072-1104

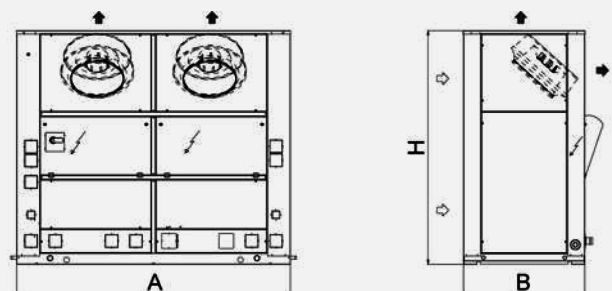
Reversible unit, air source
for indoor installation
18-265 kW



NX-CN-Y /A			0072	0092	0102	0122	0152	0182	0202	0232
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
PERFORMANCE										
COOLING ONLY (GROSS VALUE)										
Cooling capacity	(1)	kW	18,7	23,0	26,0	30,9	38,3	45,4	52,5	58,3
Total power input	(1)	kW	6,09	8,04	8,82	10,6	12,5	14,5	17,3	19,9
EER	(1)	kW/kW	3,07	2,86	2,95	2,92	3,06	3,13	3,03	2,93
ESEER	(1)	kW/kW	4,61	4,37	4,52	4,60	4,37	4,38	4,29	4,27
COOLING ONLY (EN14511 VALUE)										
Cooling capacity	(1)(2)	kW	18,6	22,9	25,9	30,8	38,1	45,2	52,3	58,1
EER	(1)(2)	kW/kW	3,09	2,87	2,98	2,94	3,09	3,17	3,06	2,95
ESEER	(1)(2)	kW/kW	4,55	4,29	4,51	4,53	4,29	4,34	4,24	4,23
Cooling energy class			A	A	A	A	A	A	A	A
HEATING ONLY (GROSS VALUE)										
Total heating capacity	(3)	kW	19,4	24,2	28,3	32,3	41,8	48,9	56,3	62,6
Total power input	(3)	kW	6,88	8,79	9,83	11,4	13,7	15,9	18,6	21,2
COP	(3)	kW/kW	2,82	2,75	2,88	2,83	3,05	3,08	3,03	2,95
HEATING ONLY (EN14511 VALUE)										
Total heating capacity	(2)(3)	kW	19,5	24,3	28,4	32,4	42,0	49,1	56,5	62,8
COP	(2)(3)	kW/kW	2,86	2,79	2,93	2,87	3,09	3,12	3,07	2,99
Cooling energy class			B	C	B	B	A	A	A	B
ENERGY EFFICIENCY										
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)										
PDesign	(7)	kW	14,8	18,2	21,7	24,9	32,4	37,8	43,6	48,6
SCOP	(7)(8)		3,65	3,60	3,86	3,80	3,76	3,76	3,74	3,69
Performance ηs	(7)(9)	%	143	141	151	149	147	147	147	145
Seasonal efficiency class	(7)		A+	A+	A++	A+	A+	A+	A+	A+
EXCHANGERS										
HEAT EXCHANGER USER SIDE IN REFRIGERATION										
Water flow	(1)	l/s	0,90	1,10	1,25	1,48	1,83	2,17	2,51	2,79
Pressure drop	(1)	kPa	17,4	18,9	17,0	19,0	19,4	16,9	17,8	17,4
HEAT EXCHANGER USER SIDE IN HEATING										
Water flow	(3)	l/s	0,94	1,17	1,36	1,56	2,02	2,36	2,72	3,02
Pressure drop	(3)	kPa	19,1	21,3	20,4	21,1	23,5	20,0	20,9	20,5
REFRIGERANT CIRCUIT										
Compressors nr.		N°	2	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1	1
Refrigerant charge		kg	8,20	8,50	18,3	18,5	19,0	20,2	21,1	21,5
FANS										
Air flow		m³/s	2,50	2,92	3,75	4,17	4,86	6,11	6,53	6,94
Available static pressure		Pa	30	30	30	30	30	30	30	30
NOISE LEVEL										
Sound power level in cooling	(10)(11)(12)	dB(A)	76	79	82	84	86	83	84	85
Sound power level in heating	(10)(12)(13)	dB(A)	66	68	70	66	76	79	80	79
Sound power level in heating	(10)(12)(14)	dB(A)	76	79	82	84	86	83	84	85
SIZE AND WEIGHT										
A	(15)	mm	1500	1500	2480	2480	2480	2480	2480	2480
B	(15)	mm	900	900	1100	1100	1100	1100	1100	1100
H	(15)	mm	1910	1910	2100	2100	2100	2100	2100	2100
Operating weight	(15)	kg	450	460	840	850	910	970	970	1000

Notes:

- Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
 - Values in compliance with EN14511-3:2013.
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Certified data in EUROVENT



“BY FAR THE BEST PROOF IS EXPERIENCE”

Sir Francis Bacon
British Philosopher
(1561 - 1626)

ABB

2009 Karlskrona - Sweden

Application: Electronic & automation

Plant type: Hydronic System

Cooling capacity: 628 kW

Installed machines: 1x screw compressor chiller with free-cooling technology, 1x scroll compressor chiller with centrifugal fans



AKYUZ PLASTIK

2008 Istanbul - Turkey

Application: Plastic

Plant type: Hydronic System

Cooling capacity: 75 kW

Installed machines: 1x scroll compressor chiller with centrifugal fans

Only the experience of the Climaveneta brand in the industrial segment can deliver dedicated cooling solutions for the most critical processes. For any single HVAC plant, Climaveneta solutions can make your industrial processes efficient, safe and sustainable.



SHT - MOBIS
2008 Žilina - Slovakia

Application: Automotive
Plant type: Hydronic System
Cooling capacity: 220 kW
Installed machines: 2x scroll compressor chillers with centrifugal fans



HERAEUS PLANT
2009 Hanau - Germany

Application: Industrial technology
Plant type: Hydronic System
Cooling capacity: 52 kW
Installed machines: 1x scroll compressor chiller with centrifugal fans



for a greener tomorrow

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



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