

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

IT COOLING

CHILLERS

NRCS-Z / NR-Z

**NEW GENERATION OF AIR COOLED
CHILLERS FOR IT COOLING APPLICATIONS.
CAPACITY RANGE 39-795 kW,
SCROLL COMPRESSORS AND R410A**



NRCS-Z / NR-Z

THE KEY SOLUTION FOR
YOUR DATA CENTER**Air source chillers for outdoor installation
from 39 to 885 kW**

Outdoor unit for the production of chilled water with hermetic rotary scroll compressors, eco-friendly refrigerant R410A, axial-flow fans, plate or shell & tube heat exchangers and electronic expansion valve.

The range consists of 4 versions from 2 to 8 compressors in single-circuit or multi-circuit configuration.

**HIGHEST STANDARDS OF RELIABILITY
AND LOWEST PUE**

Driven by exponential growth of data exchange and rising power densities, data center design is rapidly changing, always striving to reducing their running costs while ensuring complete infrastructure dependability.

The awareness of the most demanding mission critical application requirements and the commitment to improve their sustainability has led to the development of the NR-Z and NRCS-Z ranges.

**IT COOLING
APPLICATIONS**

- ✓ Data centers and server rooms
- ✓ Technological hubs
- ✓ Telecommunication installations
- ✓ Laboratories and technical rooms

**Cooling dependability
and extended lifetime**

Designed for continuous operation, NR-Z and NRCS-Z ranges meet the needs of the uninterruptible industry.

Devoted devices and functions maximize the unit's uptime even in case of emergency circumstances.

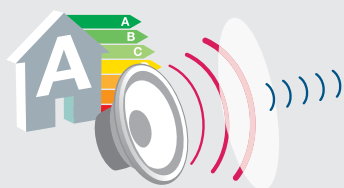
**Reduced
operating costs**

NR-Z and NRCS-Z ranges are optimized to efficiently work with high temperature IT environments, delivering consistent cooling to the most advanced IT infrastructures. This, combined with the chiller's outstanding performance, brings a significant PUE reduction and helps to keep the OPEX (Operating Expenditure) under control.

VERSIONS

NR-Z	0152P-0812P	39,2-227 kW	39,2 ▶	◀ 227									
NR-Z	0614P-1214P	159-327 kW		159 ▶	◀ 327								
NR-Z	0614T-1214T	159-352 kW		159 ▶	◀ 352								
NRCS-Z	0202T-0612T	50,7-159 kW	50,7 ▶	◀ 159									
NRCS-Z	1314-3218	334-885 kW			334 ▶							◀ 885	

Maximum reliability, production of the cooling energy by using multi-circuit and multi-compressor systems, unbeatable energy efficiency, system simplification: these are the advantages of the NR-Z and NRCS-Z ranges.



HIGHEST ENERGY EFFICIENCY

When energy efficiency is key, RC NR-Z/CA represents the best solution in terms of top level performance. With Eurovent class A EER values, calculated on the basis of the restrictive European standard EN14511, NR-Z/CA ensures the highest efficiency values in its category.

NR-Z/CA also features three different versions with regards to sound emissions. In addition to the standard version, two further versions can be selected, LN-CA and SL-CA, which reduce noise by up to 10dB(A) while maintaining the same energy efficiency class.



MAXIMUM RELIABILITY

Unit with multi-circuit chilling section (two to four, depending on the size) designed to ensure maximum efficiency both at full load and part loads, which assures uninterrupted service in the event one out of the two circuits is disrupted.

The number of compressors also ensures an accurate multi-step management of the cooling capacity provided by each unit in order to precisely meet the most demanding needs of IT environments.



LOWEST ENVIRONMENTAL IMPACT

The new NR-Z range uses microchannel aluminum condenser coils on all units.

This means less refrigerant is needed compared to traditional copper coils, ensuring the lowest possible ratio between the refrigerant volume and the cooling capacity delivered, making this product range unique in its reference market.

The result is the ability to provide high cooling capacity units while completely respecting the environment.



EXTRA DURABILITY

Particular attention has been paid to the unit's intensive use (24/7) and long-lasting operation.

Top-quality components and dedicated features such as Fast Restart or the Double power supply are key for an uninterrupted operation of the chiller under any unexpected circumstance.

ABSOLUTE INTEGRABILITY



The availability of pumps and built-in water tanks reduce installation activities. The integrated hydronic module incorporates all the hydraulic components, thus optimizing installation space, time, and costs. All the units can be equipped with a multi-circuit shell and tube heat exchanger, designed and manufactured internally, with low pressure drops, ideal for use with particularly hard water or for serving indoor units.

TECNOLOGICAL CHOICES



FULL-ALUMINUM COIL

The new NR-Z range uses microchannel aluminum condenser coils on all units. This means less refrigerant is needed compared to traditional copper coils, ensuring the lowest possible ratio between refrigerant volume and cooling capacity. Better resistance to corrosion is a key feature of this coil, ensuring a longer unit life cycle.

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



BUILT-IN HYDRONIC MODULE

The integrated hydronic module incorporates all the hydraulic components, thus optimizing installation space, time and costs.

On all versions it is possible to select single or twin pumps suitable for low and high pressure according to the installation needs. All the units can be equipped with a multi-circuit shell and tube heat exchanger, designed and manufactured internally in order to serve indoor units.

The shell and tube exchanger can achieve the highest flexibility during the unit installation, keeping the efficiency at the maximum level.

EXCELLENCE IN RESULTS

Compliance with the strictest European standards

The distinguishing feature of the new NR-Z units regards the calculation methods used to define the energy efficiency values. These values are now not only based on the capacity delivered and power consumed by the unit, but also taking into account heat exchanger pressure drop, or the available pressure head if the unit is installed with pumps, as required by European standard EN14511. In this way, energy efficiency is no longer an index for evaluating the unit alone, but rather extends the assessment by considering the unit within the system, consequently taking into account the energy required to pump the refrigerant or heat carrier fluid used in the system.



UP TO
1500 kW

All NRCS-Z units, as well as the complete range of RC air cooled liquid chillers up to 1.500 kW, are certified by the Eurovent program for units with capacities over 600kW. RC brand products are among the few units which participate in this non compulsory certification program.

This is consistent with RC's commitment for transparency as the best guarantee of quality and reliability for our partners and customers.



ADVANCED CONTROL SYSTEM

The W3000 control unit with liquid crystal display (LCD) is fitted on all the units with a multi-language user interface, available as remote key pad for a remote connection up to 500 metres.

The Internal Clock manages a weekly schedule organised into time bands in order to optimise unit performance in IT applications units work 24/7.

Up to 10 daily time bands can be associated with different operating setpoints.

Supervision can be easily developed via proprietary devices or the integration in third party systems by means of the most common protocols as ModBus, Bacnet and Echelon LonWorks.



ELECTRONIC EXPANSION VALVE

The use of the electronic expansion valve extends the operating conditions even with external temperature seasonal limits.

All the models of the NR-Z/CA high efficiency version and NRCS-Z with a cooling capacity over 350kW make use of electronic valves as standard, for all sizes.

This component brings significant benefits, especially with variable loads and different outdoor climate conditions.

In these specific cases it is possible to make the system independent of continuous calibrations, thus adapting the process to different load conditions in a completely autonomous mode.

Three sound emission levels

NR-Z range features three different sound emission levels for each energy class. This means the best unit can be identified according to its requirements that depends on where the system will be installed and what the application is.

- K:** liquid chiller with standard efficiency, compact version
- LN-K:** liquid chiller with standard efficiency, compact and low-noise version
- SL-K:** liquid chiller with standard efficiency, compact and super low-noise version
- CA:** high efficiency liquid chiller, compact version
- LN-CA:** high efficiency liquid chiller, compact and low-noise version
- SL-CA:** high efficiency liquid chiller, compact and super low-noise version

With the new NR-Z liquid chillers there are no more compromises when choosing the features, high efficiency and low noise can exist side-by-side without having to relinquish one or the other.

Extended operating limits

The full range of RC liquid chillers can operate in the most extreme environmental conditions. All sizes and versions can work at full load up to +46°C outdoor temperature, always ensuring premium levels of energy performance. In addition, the high efficiency CA versions are able to operate in these conditions even in low-noise mode, finding their natural position in urban centres where the most restrictive environmental constraints in terms of noise occur. The new units are also able to ensure leaving water temperatures down to -12°C and, with certain precautions for the very low outdoor temperature, this range represent the ideal solution for most demanding IT Cooling processes.



NR-Z

0152P - 0812P

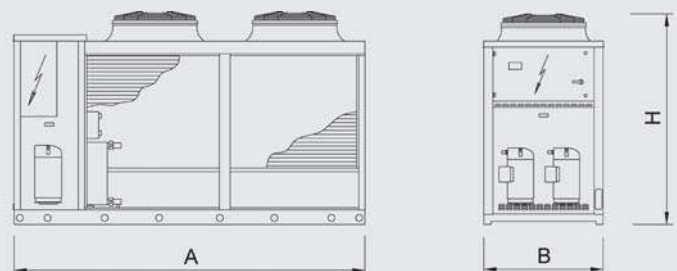
Chiller, air source
for outdoor installation
from 39,2 to 227 kW



NR-Z / 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)	kW/kW	2,90	2,84	2,87	2,87	2,77	2,90	2,83
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)	kW/kW	2,83	2,78	2,80	2,82	2,71	2,84	2,76
Cooling energy class			C	C	C	C	C	C	C
SEPR HT	(3)(4)		5,39	5,41	5,37	5,32	5,29	5,19	5,12
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	42,7	48,2	56,5	63,8	70,3	84,1	96,2
Total power input	(5)	kW	13,8	16,1	18,5	20,9	24,1	27,5	32,3
EER	(5)	kW/kW	3,09	2,99	3,05	3,05	2,92	3,06	2,98
23°C/15°C									
Cooling capacity	(6)	kW	48,5	54,6	64,0	71,8	78,8	94,7	109
Total power input	(6)	kW	14,2	16,8	19,2	21,5	25,1	28,5	33,9
EER	(6)	kW/kW	3,42	3,25	3,33	3,34	3,14	3,32	3,21
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	1,88	2,12	2,48	2,82	3,11	3,71	4,23
Pressure drop	(1)(2)	kPa	36,3	34,1	36,3	33,4	33,2	33,9	54,1
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	5,60	6,00	6,30	7,30	7,80	8,80	9,90
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	51	51	52	52	52	53	54
Sound power level in cooling	(8)(9)	dB(A)	83	83	84	84	84	85	86
SIZE AND WEIGHT									
A	(10)	mm	1825	1825	1825	2395	2395	2395	2395
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1865	1865	1865	1865	1865	1865	1865
Operating weight	(10)	kg	470	480	490	540	550	570	660

Accessories:

- ▶ Microchannel coils with e-coating protection
- ▶ Traditional coils with copper tubes and aluminium fins, also available with prepainted fins or Fin Guard Silver protective treatment.
- ▶ Copper-Copper heat exchanger coils
- ▶ Compressor power factor correction
- ▶ Soft start
- ▶ Compressor suction and discharge valves
- ▶ High and low pressure gauges
- ▶ DVVF and DV2F devices for low air temperature operation
- ▶ Hydronic group with possible storage tank
- ▶ Anti-intrusion grills



NR-Z / 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)	kW/kW	2,88	2,86	2,84	2,76	2,87	2,79	2,65
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	101	114	127	144	165	189	206
EER	(1)(2)	kW/kW	2,82	2,79	2,78	2,70	2,82	2,74	2,60
Cooling energy class			C	C	C	C	C	C	D
SEPR HT	(3)(4)		4,88	4,90	5,00	4,94	4,96	4,85	4,60
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	111	125	138	156	180	205	223
Total power input	(5)	kW	36,3	41,2	46,1	53,8	59,2	69,7	80,1
EER	(5)	kW/kW	3,07	3,02	3,00	2,91	3,04	2,95	2,79
23°C/15°C									
Cooling capacity	(6)	kW	127	141	156	176	204	232	251
Total power input	(6)	kW	37,8	42,8	47,7	56,0	61,5	72,5	83,5
EER	(6)	kW/kW	3,35	3,30	3,27	3,14	3,32	3,19	3,00
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	4,88	5,47	6,09	6,90	7,92	9,06	9,88
Pressure drop	(1)(2)	kPa	49,9	51,3	49,1	52,1	49,3	49,8	59,2
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	11,1	12,4	13,2	13,7	15,4	16,0	16,5
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	56	56	56	57	58	58	59
Sound power level in cooling	(8)(9)	dB(A)	88	88	88	89	90	90	91
SIZE AND WEIGHT									
A	(10)	mm	2825	2825	2825	3360	3980	3980	3980
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1980	1980	1980	1980	1980	1980	1980
Operating weight	(10)	kg	830	870	900	980	1130	1110	1140

NR-Z / 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)	kW/kW	2,89	2,80	2,79	2,88	2,82	2,64	2,89
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)	kW/kW	2,82	2,74	2,73	2,83	2,77	2,60	2,82
Cooling energy class			C	C	C	C	C	D	C
SEPR HT	(3)(4)		5,50	5,47	5,41	5,29	5,34	5,18	5,02
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	42,7	48,3	56,2	63,7	70,9	80,6	97,8
Total power input	(5)	kW	13,9	16,3	19,0	20,8	23,8	29,2	32,0
EER	(5)	kW/kW	3,07	2,96	2,96	3,06	2,98	2,76	3,06
23°C/15°C									
Cooling capacity	(6)	kW	48,3	54,8	63,6	71,8	79,6	90,1	111
Total power input	(6)	kW	14,4	17,1	19,7	21,3	24,8	30,4	33,4
EER	(6)	kW/kW	3,35	3,20	3,23	3,37	3,21	2,96	3,32
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	1,88	2,12	2,47	2,81	3,13	3,57	4,30
Pressure drop	(1)(2)	kPa	36,3	34,2	36,0	33,3	33,7	31,4	55,9
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	5,80	6,00	7,10	7,30	7,80	8,80	10,5
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	47	47	47	48	48	48	51
Sound power level in cooling	(8)(9)	dB(A)	79	79	79	80	80	80	83
SIZE AND WEIGHT									
A	(10)	mm	1825	1825	2395	2395	2395	2395	2825
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1865	1865	1865	1865	1865	1865	1980
Operating weight	(10)	kg	480	500	540	570	570	580	780

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.
- 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.
- Seasonal energy efficiency of the cooling environment in AVERAGE climatic conditions [REGULATION (EU) N. 2016/2281]
- Seasonal space heating energy index
- Seasonal energy efficiency of the space cooling

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

Certified data in EUROVENT



NR-Z 0152P - 0812P

Chiller, air source for outdoor installation
39,2-227 kW

NR-Z / 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)	kW/kW	2,77	2,87	2,83	2,64	2,80	2,55	2,37
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	98,8	112	124	139	162	179	193
EER	(1)(2)	kW/kW	2,71	2,81	2,78	2,60	2,75	2,51	2,33
Cooling energy class			C	C	C	D	C	D	E
SEPR HT	(3)(4)		5,01	5,10	5,23	5,05	5,14	4,79	4,58
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	108	123	136	151	177	194	223
Total power input	(5)	kW	37,2	40,4	45,4	54,6	59,8	72,6	80,1
EER	(5)	kW/kW	2,91	3,04	2,99	2,77	2,95	2,67	2,79
23°C/15°C									
Cooling capacity	(6)	kW	123	139	153	180	199	232	251
Total power input	(6)	kW	39,1	42,1	47,1	54,6	62,6	72,5	83,5
EER	(6)	kW/kW	3,16	3,30	3,24	3,30	3,18	3,19	3,00
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	4,75	5,40	5,99	6,69	7,78	8,58	9,28
Pressure drop	(1)(2)	kPa	47,4	49,8	47,4	49,0	47,6	44,7	52,3
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	11,1	12,7	13,6	13,7	15,4	16,0	16,5
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	51	52	52	52	53	53	53
Sound power level in cooling	(8)(9)	dB(A)	83	84	84	84	85	85	85
SIZE AND WEIGHT									
A	(10)	mm	2825	3360	3360	3360	3980	3980	3980
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1980	1980	1980	1980	1980	1980	1980
Operating weight	(10)	kg	880	1000	1030	1060	1180	1150	1180
NR-Z / SL-K									
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)	kW/kW	2,83	2,77	2,87	2,90	2,88	2,84	2,90
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)	kW/kW	2,77	2,71	2,81	2,84	2,82	2,78	2,83
Cooling energy class			C	C	C	C	C	C	C
SEPR HT	(3)(4)		5,28	5,32	5,48	5,07	5,17	5,27	5,14
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	42,9	48,6	56,8	64,1	71,4	84,1	96,2
Total power input	(5)	kW	14,2	16,6	18,6	20,6	23,5	28,2	31,4
EER	(5)	kW/kW	3,02	2,93	3,05	3,11	3,04	2,98	3,06
23°C/15°C									
Cooling capacity	(6)	kW	48,6	55,1	64,4	72,6	80,5	94,4	109
Total power input	(6)	kW	14,6	17,3	19,3	21,1	24,3	29,3	32,8
EER	(6)	kW/kW	3,33	3,18	3,34	3,44	3,31	3,22	3,33
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	1,88	2,13	2,50	2,82	3,15	3,72	4,23
Pressure drop	(1)(2)	kPa	36,6	34,6	36,8	33,4	34,1	34,0	54,1
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	5,90	7,00	7,10	7,60	8,50	9,30	10,8
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	44	45	45	46	46	46	47
Sound power level in cooling	(8)(9)	dB(A)	76	77	77	78	78	78	79
SIZE AND WEIGHT									
A	(10)	mm	2395	2395	2395	2825	2825	2825	3360
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1865	1865	1865	1980	1980	1980	1980
Operating weight	(10)	kg	540	550	560	670	680	680	860



NR-Z / 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)	kW/kW	2,85	2,89	2,77	2,68	2,48	2,43
COOLING ONLY (EN14511 VALUE)								
Cooling capacity	(1)(2)	kW	99,4	113	124	140	152	175
EER	(1)(2)	kW/kW	2,79	2,82	2,72	2,63	2,44	2,40
Cooling energy class			C	C	C	D	E	E
SEPR HT	(3)(4)		5,31	5,18	5,24	5,02	5,03	4,66
COOLING ONLY								
16°C/10°C								
Cooling capacity	(5)	kW	109	123	135	152	177	205
Total power input	(5)	kW	36,3	40,5	46,0	54,0	59,8	69,7
EER	(5)	kW/kW	3,00	3,04	2,92	2,81	2,95	2,95
23°C/15°C								
Cooling capacity	(6)	kW	124	140	151	182	199	232
Total power input	(6)	kW	38,2	42,2	47,7	53,2	62,6	72,5
EER	(6)	kW/kW	3,25	3,31	3,17	3,42	3,18	3,19
EXCHANGERS								
HEAT EXCHANGER USER SIDE IN REFRIGERATION								
Water flow	(1)	l/s	4,78	5,42	5,95	6,72	7,32	8,39
Pressure drop	(1)(2)	kPa	48,0	50,3	46,7	49,4	42,0	42,7
REFRIGERANT CIRCUIT								
Compressors nr.		N°	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1
Refrigerant charge		kg	11,9	13,1	14,0	14,5	15,4	16,0
NOISE LEVEL								
Sound Pressure	(7)	dB(A)	48	49	49	50	50	51
Sound power level in cooling	(8)(9)	dB(A)	80	81	81	82	82	83
SIZE AND WEIGHT								
A	(10)	mm	3360	3980	3980	3980	3980	3980
B	(10)	mm	1195	1195	1195	1195	1195	1195
H	(10)	mm	1980	1980	1980	1980	1980	1980
Operating weight	(10)	kg	960	1070	1080	1110	1180	1150

NR-Z / 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)	kW/kW	3,26	3,27	3,29	3,24	3,19	3,21	3,20
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)	kW/kW	3,17	3,18	3,21	3,16	3,12	3,14	3,11
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,58	5,81	5,50	5,44	5,47	5,24	5,18
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	45,5	51,6	60,0	68,1	75,6	92,6	105
Total power input	(5)	kW	13,1	14,9	17,0	19,6	22,3	27,0	30,9
EER	(5)	kW/kW	3,47	3,46	3,53	3,47	3,39	3,43	3,41
23°C/15°C									
Cooling capacity	(6)	kW	51,9	58,5	68,3	77,4	85,4	105	120
Total power input	(6)	kW	13,4	15,4	17,5	20,0	23,1	27,8	31,9
EER	(6)	kW/kW	3,87	3,80	3,90	3,87	3,70	3,78	3,76
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	1,99	2,27	2,63	2,99	3,33	4,07	4,62
Pressure drop	(1)(2)	kPa	40,9	39,1	40,7	37,6	38,0	40,7	64,4
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	6,30	7,90	8,00	8,10	8,70	10,0	12,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	52	52	53	53	54	56	56
Sound power level in cooling	(8)(9)	dB(A)	84	84	85	85	86	88	88
SIZE AND WEIGHT									
A	(10)	mm	1825	2395	2395	2395	2395	2825	3360
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1865	1865	1865	1865	1865	1980	1980
Operating weight	(10)	kg	480	540	550	560	570	680	830



NR-Z 0152P - 0812P

Chiller, air source for outdoor installation
39,2-227 kW

NR-Z / 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)	kW/kW	3,21	3,18	3,23	3,28	3,22	3,17	3,22
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	107	121	137	159	178	200	226
EER	(1)(2)	kW/kW	3,13	3,10	3,16	3,20	3,15	3,10	3,14
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,30	5,35	5,22	5,11	5,24	5,12	4,82
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	118	133	150	175	195	219	247
Total power input	(5)	kW	34,5	39,2	43,5	49,8	56,6	64,9	71,8
EER	(5)	kW/kW	3,42	3,39	3,45	3,51	3,44	3,37	3,44
23°C/15°C									
Cooling capacity	(6)	kW	134	151	171	199	222	248	279
Total power input	(6)	kW	35,8	40,7	44,8	51,2	58,5	66,9	73,6
EER	(6)	kW/kW	3,75	3,71	3,81	3,90	3,79	3,71	3,80
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	5,16	5,83	6,59	7,67	8,53	9,62	10,86
Pressure drop	(1)(2)	kPa	56,0	58,2	57,4	64,4	57,2	56,2	71,5
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	13,3	14,3	15,3	18,8	20,3	23,0	24,5
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	58	58	58	59	59	60	61
Sound power level in cooling	(8)(9)	dB(A)	90	90	90	91	91	92	93
SIZE AND WEIGHT									
A	(10)	mm	3360	3360	3980	3160	3160	3160	4335
B	(10)	mm	1195	1195	1195	2250	2250	2250	2250
H	(10)	mm	1980	1980	1980	2170	2170	2170	2170
Operating weight	(10)	kg	960	1000	1080	1510	1550	1570	1810
NR-Z / LN-CA									
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)	kW/kW	3,29	3,26	3,20	3,26	3,23	3,18	3,22
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)	kW/kW	3,20	3,18	3,12	3,18	3,15	3,11	3,13
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,57	5,78	5,75	5,28	5,33	5,42	5,37
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	45,3	51,1	59,9	69,3	76,8	89,8	103
Total power input	(5)	kW	12,8	14,7	17,6	19,8	22,4	26,6	30,1
EER	(5)	kW/kW	3,54	3,48	3,40	3,50	3,43	3,38	3,42
23°C/15°C									
Cooling capacity	(6)	kW	51,8	57,9	68,0	78,9	87,0	101	117
Total power input	(6)	kW	13,1	15,3	18,1	20,2	23,1	27,5	31,3
EER	(6)	kW/kW	3,95	3,78	3,76	3,91	3,77	3,69	3,73
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	1,98	2,25	2,63	3,04	3,38	3,95	4,52
Pressure drop	(1)(2)	kPa	40,5	38,4	40,7	38,8	39,2	38,5	61,6
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	6,70	7,90	8,00	8,50	9,60	10,5	12,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	48	48	48	49	49	50	52
Sound power level in cooling	(8)(9)	dB(A)	80	80	80	81	81	82	84
SIZE AND WEIGHT									
A	(10)	mm	2395	2395	2395	2825	2825	3360	3360
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1865	1865	1865	1980	1980	1980	1980
Operating weight	(10)	kg	550	560	560	670	680	750	870



NR-Z / LN-CA			0402P	0452P	0502P	0562P	0612P	0712P	0812P
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
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)	kW/kW	3,23	3,18	3,18	3,27	3,18	3,26	3,28
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	107	120	133	153	172	197	220
EER	(1)(2)	kW/kW	3,14	3,10	3,11	3,19	3,11	3,20	3,20
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,25	5,27	5,30	5,44	5,46	5,40	5,07
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	117	131	146	168	188	216	240
Total power input	(5)	kW	34,1	38,9	43,3	48,2	55,9	62,2	68,9
EER	(5)	kW/kW	3,44	3,38	3,37	3,48	3,36	3,47	3,49
23°C/15°C									
Cooling capacity	(6)	kW	134	149	165	190	213	244	272
Total power input	(6)	kW	35,5	40,3	44,7	49,9	58,2	64,3	70,9
EER	(6)	kW/kW	3,77	3,70	3,70	3,81	3,66	3,80	3,83
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	5,14	5,77	6,42	7,36	8,26	9,49	10,58
Pressure drop	(1)(2)	kPa	55,4	56,9	54,4	59,3	53,6	54,6	67,9
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	13,5	14,5	15,3	18,8	20,3	24,3	25,8
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	52	52	53	54	54	55	56
Sound power level in cooling	(8)(9)	dB(A)	84	84	85	86	86	87	88
SIZE AND WEIGHT									
A	(10)	mm	3980	3980	3980	3160	3160	4335	4335
B	(10)	mm	1195	1195	1195	2250	2250	2250	2250
H	(10)	mm	1980	1980	1980	2170	2170	2170	2170
Operating weight	(10)	kg	1050	1080	1090	1510	1550	1810	1870

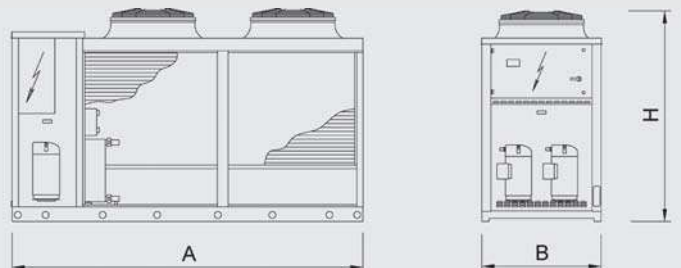
NR-Z / SL-CA			0152P	0182P	0202P	0252P	0262P	0302P	0352P
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE									
COOLING ONLY (GROSS VALUE)									
Cooling capacity	(1)	kW	41,9	47,5	55,3	62,2	69,2	81,9	94,5
Total power input	(1)	kW	12,8	14,5	17,1	19,0	21,4	25,5	29,6
EER	(1)	kW/kW	3,27	3,28	3,23	3,27	3,23	3,21	3,19
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)	kW/kW	3,18	3,19	3,15	3,20	3,16	3,14	3,10
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,30	5,58	5,58	5,41	5,44	5,61	5,38
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	45,8	51,7	60,3	67,9	75,2	89,0	103
Total power input	(5)	kW	13,0	14,8	17,4	19,3	21,9	26,2	30,4
EER	(5)	kW/kW	3,52	3,49	3,47	3,52	3,43	3,40	3,38
23°C/15°C									
Cooling capacity	(6)	kW	52,4	58,6	68,6	77,4	85,2	100	117
Total power input	(6)	kW	13,2	15,2	17,9	19,6	22,6	27,1	31,6
EER	(6)	kW/kW	3,97	3,86	3,83	3,95	3,77	3,71	3,70
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	2,00	2,27	2,65	2,97	3,31	3,92	4,52
Pressure drop	(1)(2)	kPa	41,3	39,3	41,2	37,3	37,6	37,8	61,7
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	7,10	8,30	8,40	8,90	10,1	10,5	12,2
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	45	46	46	47	47	47	48
Sound power level in cooling	(8)(9)	dB(A)	77	78	78	79	79	79	80
SIZE AND WEIGHT									
A	(10)	mm	2825	2825	2825	3360	3360	3360	3980
B	(10)	mm	1195	1195	1195	1195	1195	1195	1195
H	(10)	mm	1980	1980	1980	1980	1980	1980	1980
Operating weight	(10)	kg	650	660	670	760	770	780	940



NR-Z 0152P - 0812P

Chiller, air source for outdoor installation
39,2-227 kW

NR-Z / 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)	kW/kW	3,27	3,22	3,17	3,21	3,26	3,16	3,19
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	105	118	132	151	171	194	216
EER	(1)(2)	kW/kW	3,19	3,14	3,10	3,13	3,19	3,10	3,12
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,52	5,46	5,63	5,51	5,61	5,49	5,17
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	116	129	144	165	188	211	236
Total power input	(5)	kW	33,3	37,9	42,9	48,5	54,2	63,2	69,9
EER	(5)	kW/kW	3,47	3,41	3,37	3,40	3,46	3,34	3,37
23°C/15°C									
Cooling capacity	(6)	kW	132	147	163	187	213	239	266
Total power input	(6)	kW	34,6	39,4	44,5	50,4	56,4	65,7	72,4
EER	(6)	kW/kW	3,82	3,72	3,67	3,71	3,78	3,64	3,67
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	5,07	5,67	6,36	7,25	8,24	9,32	10,40
Pressure drop	(1)(2)	kPa	54,0	55,1	53,5	57,6	53,3	52,7	65,7
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1	1	1
Refrigerant charge		kg	14,1	15,0	18,5	20,1	22,7	25,6	27,1
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	49	50	50	51	52	53	54
Sound power level in cooling	(8)(9)	dB(A)	81	82	82	83	84	85	86
SIZE AND WEIGHT									
A	(10)	mm	3160	3160	3160	4335	4335	4335	5510
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	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 EN14511-3:2013.
- 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.
- 7 Seasonal energy efficiency of the cooling environment in AVERAGE climatic conditions [REGULATION (EU) N. 2016/2281]
- 8 Seasonal space heating energy index
- 9 Seasonal energy efficiency of the space cooling

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

Certified data in EUROVENT

NR-Z

0614P - 1214P

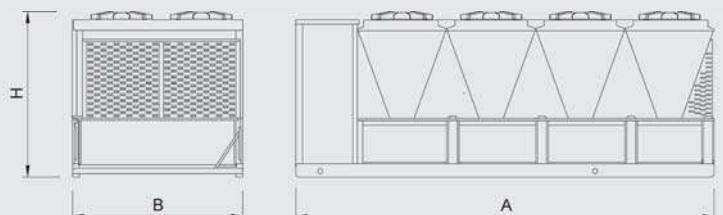
Chiller, air source for outdoor installation from 159 to 327 kW



NR-Z / 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)	kW/kW	2,83	2,91	2,76	2,80	2,92	2,85	2,76
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	164	193	217	247	288	307	325
EER	(1)(2)	kW/kW	2,78	2,86	2,72	2,76	2,87	2,80	2,72
Cooling energy class			C	C	C	C	C	C	C
SEPR HT	(3)(4)		4,78	5,17	5,20	5,21	5,01	5,02	5,02
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	179	212	237	270	315	335	354
Total power input	(5)	kW	59,8	68,1	80,8	90,7	101	111	121
EER	(5)	kW/kW	2,99	3,11	2,93	2,97	3,12	3,02	2,93
23°C/15°C									
Cooling capacity	(6)	kW	202	240	268	305	357	379	400
Total power input	(6)	kW	62,0	70,1	83,4	93,6	104	114	125
EER	(6)	kW/kW	3,26	3,43	3,21	3,26	3,45	3,32	3,19
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	7,87	9,28	10,41	11,87	13,83	14,75	15,62
Pressure drop	(1)(2)	kPa	45,0	47,1	47,8	50,4	54,8	46,8	52,5
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	17,0	18,4	19,6	21,6	26,8	29,0	29,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	60	60	61	62	63	63	63
Sound power level in cooling	(8)(9)	dB(A)	92	92	93	94	95	95	95
SIZE AND WEIGHT									
A	(10)	mm	3160	3160	3160	3160	4335	4335	4335
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1510	1680	1690	1830	2250	2300	2330

Accessories:

- ▶ Microchannel coils with e-coating protection
- ▶ Traditional coils with copper tubes and aluminium fins, also available with prepainted fins or Fin Guard Silver protective treatment.
- ▶ Copper-Copper heat exchanger coils
- ▶ Electronic expansion valve
- ▶ Compressor power factor correction
- ▶ Soft start
- ▶ Compressor suction and discharge valves
- ▶ High and low pressure gauges
- ▶ DVVF and DVV2F devices for low air temperature operation
- ▶ Hydronic group with possible storage tank
- ▶ Anti-intrusion grills



NR-Z / 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)	kW/kW	2,75	2,70	2,62	2,55	2,71	2,60	2,70
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	159	185	207	234	273	289	319
EER	(1)(2)	kW/kW	2,70	2,66	2,58	2,51	2,67	2,57	2,66
Cooling energy class			C	D	D	D	D	D	D
SEPR HT	(3)(4)		4,98	5,29	5,33	5,20	5,09	5,05	5,27
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	173	201	226	254	297	314	347
Total power input	(5)	kW	59,9	70,3	81,8	94,7	103	115	122
EER	(5)	kW/kW	2,89	2,87	2,76	2,69	2,87	2,74	2,85
23°C/15°C									
Cooling capacity	(6)	kW	194	228	255	286	335	353	389
Total power input	(6)	kW	62,4	72,9	84,9	98,4	107	119	126
EER	(6)	kW/kW	3,11	3,12	3,00	2,91	3,13	2,97	3,08
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	7,64	8,87	9,96	11,24	13,10	13,89	15,32
Pressure drop	(1)(2)	kPa	42,4	43,0	43,7	45,2	49,2	41,5	50,5
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	17,0	18,4	19,6	21,6	26,8	29,0	29,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	54	54	55	56	57	57	58
Sound power level in cooling	(8)(9)	dB(A)	86	86	87	88	89	89	90
SIZE AND WEIGHT									
A	(10)	mm	3160	3160	3160	3160	4335	4335	4335
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1550	1730	1740	1870	2300	2350	2370

NR-Z / 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	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)	kW/kW	2,82	2,54	2,75	2,70	2,55	2,71	2,61
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	158	179	213	240	263	295	311
EER	(1)(2)	kW/kW	2,78	2,51	2,71	2,66	2,51	2,68	2,57
Cooling energy class			C	D	C	D	D	D	D
SEPR HT	(3)(4)		5,20	5,30	5,41	5,31	5,12	5,17	5,15
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	172	195	233	262	286	321	338
Total power input	(5)	kW	58,0	72,7	79,8	91,7	107	112	123
EER	(5)	kW/kW	2,97	2,68	2,92	2,85	2,68	2,87	2,75
23°C/15°C									
Cooling capacity	(6)	kW	194	235	263	295	345	361	379
Total power input	(6)	kW	60,5	70,2	82,6	94,9	103	116	128
EER	(6)	kW/kW	3,20	3,35	3,18	3,11	3,34	3,11	2,96
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	7,60	8,60	10,25	11,54	12,63	14,16	14,93
Pressure drop	(1)(2)	kPa	41,9	40,5	46,3	47,6	45,7	43,1	48,0
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	17,0	18,4	25,2	27,2	26,8	34,6	34,6
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	50	51	51	52	52	54	54
Sound power level in cooling	(8)(9)	dB(A)	82	83	83	84	84	86	86
SIZE AND WEIGHT									
A	(10)	mm	3160	3160	4335	4335	4335	5510	5510
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	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 EN14511-3:2013.
- 3 Seasonal space heating energy index
- 4 Seasonal energy efficiency of high temperature process cooling [REGULATION (EU) N. 2016/2281]
- 5 Plant (side) cooling exchanger water (in/out) 16°C/ 10°C; Source (side) heat exchanger air (in) 35°C.
- 6 Plant (side) cooling exchanger water (in/out) 23°C/ 15°C; Source (side) heat exchanger air (in) 35°C.
- 7 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.
- 8 Sound power on the basis of measurements made in compliance with ISO 9614.
- 9 Sound power level in cooling, outdoors.
- 10 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

NR-Z

0614T - 1214T

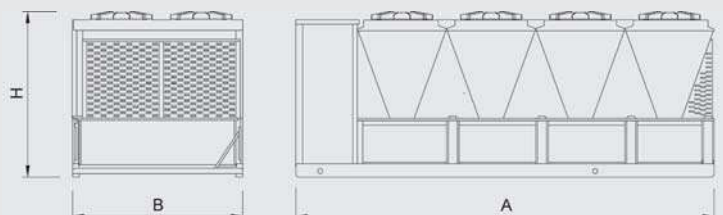
Chiller, air source for outdoor installation from 159 to 352 kW



NR-Z / 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)	kW/kW	2,83	2,91	2,76	2,80	2,92	2,85	2,76
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	164	193	217	247	288	307	326
EER	(1)(2)	kW/kW	2,79	2,87	2,71	2,76	2,86	2,81	2,73
Cooling energy class			C	C	C	C	C	C	C
SEPR HT	(3)(4)		4,84	5,21	5,20	5,22	4,99	5,04	5,04
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	179	212	237	270	315	335	354
Total power input	(5)	kW	59,8	68,1	80,8	90,7	101	111	121
EER	(5)	kW/kW	2,99	3,11	2,93	2,97	3,12	3,02	2,93
23°C/15°C									
Cooling capacity	(6)	kW	202	240	268	305	357	379	400
Total power input	(6)	kW	62,0	70,1	83,4	93,6	104	114	125
EER	(6)	kW/kW	3,26	3,43	3,21	3,26	3,45	3,32	3,19
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	7,87	9,28	10,41	11,87	13,83	14,75	15,62
Pressure drop	(1)(2)	kPa	23,3	32,4	50,9	45,5	61,7	38,0	42,7
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	22,0	22,0	24,6	26,0	31,6	35,4	35,4
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	60	60	61	62	63	63	63
Sound power level in cooling	(8)(9)	dB(A)	92	92	93	94	95	95	95
SIZE AND WEIGHT									
A	(10)	mm	3160	3160	3160	3160	4335	4335	4335
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1650	1810	1820	1950	2340	2530	2550

Accessories:

- ▶ Microchannel coils with e-coating protection
- ▶ Traditional coils with copper tubes and aluminium fins, also available with prepainted fins or Fin Guard Silver protective treatment.
- ▶ Copper-Copper heat exchanger coils
- ▶ Electronic expansion valve
- ▶ Compressor power factor correction
- ▶ Soft start
- ▶ Compressor suction and discharge valves
- ▶ High and low pressure gauges
- ▶ DVVF and DV2F devices for low air temperature operation
- ▶ Hydronic group with possible storage tank
- ▶ Anti-intrusion grills



NR-Z / 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)	kW/kW	2,75	2,70	2,62	2,55	2,71	2,60	2,70
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	159	185	207	234	273	290	319
EER	(1)(2)	kW/kW	2,72	2,67	2,57	2,51	2,67	2,57	2,67
Cooling energy class			C	D	D	D	D	D	D
SEPR HT	(3)(4)		5,03	5,33	5,33	5,22	5,08	5,08	5,31
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	173	201	226	254	297	314	347
Total power input	(5)	kW	59,9	70,3	81,8	94,7	103	115	122
EER	(5)	kW/kW	2,89	2,87	2,76	2,69	2,87	2,74	2,85
23°C/15°C									
Cooling capacity	(6)	kW	194	228	255	286	335	353	389
Total power input	(6)	kW	62,4	72,9	84,9	98,4	107	119	126
EER	(6)	kW/kW	3,11	3,12	3,00	2,91	3,13	2,97	3,08
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	7,64	8,87	9,96	11,24	13,10	13,89	15,32
Pressure drop	(1)(2)	kPa	21,9	29,6	46,5	40,7	55,4	33,7	41,0
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	22,0	22,0	24,6	26,0	31,6	35,4	35,4
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	54	54	55	56	57	57	58
Sound power level in cooling	(8)(9)	dB(A)	86	86	87	88	89	89	90
SIZE AND WEIGHT									
A	(10)	mm	3160	3160	3160	3160	4335	4335	4335
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1700	1860	1870	1990	2380	2580	2600

NR-Z / 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)	kW/kW	2,82	2,54	2,75	2,70	2,55	2,71	2,61
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	158	179	213	240	263	295	311
EER	(1)(2)	kW/kW	2,79	2,52	2,71	2,66	2,51	2,68	2,58
Cooling energy class			C	D	C	D	D	D	D
SEPR HT	(3)(4)		5,25	5,32	5,41	5,31	5,11	5,19	5,17
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	172	195	233	262	286	321	338
Total power input	(5)	kW	58,0	72,7	79,8	91,7	107	112	123
EER	(5)	kW/kW	2,97	2,68	2,92	2,85	2,68	2,87	2,75
23°C/15°C									
Cooling capacity	(6)	kW	194	235	263	295	345	361	379
Total power input	(6)	kW	60,5	70,2	82,6	94,9	103	116	128
EER	(6)	kW/kW	3,20	3,35	3,18	3,11	3,34	3,11	2,96
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	7,60	8,60	10,25	11,54	12,63	14,16	14,93
Pressure drop	(1)(2)	kPa	21,7	27,8	49,3	43,0	51,4	35,1	39,0
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	22,0	22,0	30,2	31,6	31,6	41,0	41,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	50	51	51	52	52	54	54
Sound power level in cooling	(8)(9)	dB(A)	82	83	83	84	84	86	86
SIZE AND WEIGHT									
A	(10)	mm	3160	3160	4335	4335	4335	5510	5510
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1700	1860	2160	2290	2380	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 EN14511-3:2013.
- 3 Seasonal space heating energy index
- 4 Seasonal energy efficiency of high temperature process cooling [REGULATION (EU) N. 2016/2281]
- 5 Plant (side) cooling exchanger water (in/out) 16°C/ 10°C; Source (side) heat exchanger air (in) 35°C.
- 6 Plant (side) cooling exchanger water (in/out) 23°C/ 15°C; Source (side) heat exchanger air (in) 35°C.
- 7 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.
- 8 Sound power on the basis of measurements made in compliance with ISO 9614.
- 9 Sound power level in cooling, outdoors.
- 10 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



NR-Z 0614T - 1214T

Chiller, air source for outdoor installation from 159 to 352 kW

NR-Z / 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)	kW/kW	3,20	3,16	3,23	3,17	3,15	3,21	3,17
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	174	204	234	265	301	329	351
EER	(1)(2)	kW/kW	3,16	3,11	3,16	3,11	3,11	3,16	3,12
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,19	5,06	5,28	5,25	5,27	5,13	5,22
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	190	224	257	291	329	360	384
Total power input	(5)	kW	55,6	66,0	74,0	85,5	97,5	104	113
EER	(5)	kW/kW	3,41	3,40	3,48	3,40	3,38	3,45	3,39
23°C/15°C									
Cooling capacity	(6)	kW	216	257	294	331	375	411	437
Total power input	(6)	kW	57,3	67,2	75,5	87,4	99,8	107	116
EER	(6)	kW/kW	3,77	3,82	3,89	3,79	3,75	3,85	3,77
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	8,33	9,81	11,26	12,74	14,44	15,78	16,83
Pressure drop	(1)(2)	kPa	26,1	36,2	59,5	52,4	36,5	43,6	49,6
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	22,0	27,6	30,2	31,6	35,4	41,0	41,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	60	61	62	63	63	64	65
Sound power level in cooling	(8)(9)	dB(A)	92	93	94	95	95	96	97
SIZE AND WEIGHT									
A	(10)	mm	3160	4335	4335	4335	4335	5510	5510
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1700	2150	2160	2290	2550	2930	2950
NR-Z / LN-CA									
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)	kW/kW	3,17	3,22	3,23	3,17	3,16	3,19	3,17
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	167	198	226	261	294	317	343
EER	(1)(2)	kW/kW	3,13	3,17	3,16	3,11	3,12	3,15	3,12
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,54	5,68	5,76	5,76	5,51	5,58	5,68
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	182	217	248	285	321	346	374
Total power input	(5)	kW	54,3	62,8	71,9	84,6	95,1	102	111
EER	(5)	kW/kW	3,35	3,45	3,45	3,37	3,37	3,41	3,37
23°C/15°C									
Cooling capacity	(6)	kW	206	247	282	324	364	393	424
Total power input	(6)	kW	56,3	64,5	73,9	87,1	97,7	105	115
EER	(6)	kW/kW	3,66	3,83	3,82	3,72	3,73	3,76	3,70
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	8,01	9,49	10,87	12,53	14,08	15,21	16,47
Pressure drop	(1)(2)	kPa	24,1	33,8	55,5	50,7	34,7	40,5	47,5
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	22,0	27,6	30,2	31,6	41,0	41,0	41,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	54	55	56	57	58	59	59
Sound power level in cooling	(8)(9)	dB(A)	86	87	88	89	90	91	91
SIZE AND WEIGHT									
A	(10)	mm	3160	4335	4335	4335	5510	5510	5510
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1700	2150	2160	2290	2880	2900	2930



NR-Z / 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)	kW/kW	3,20	3,20	3,21	3,16	3,15	3,18	3,16
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	167	194	223	258	291	316	342
EER	(1)(2)	kW/kW	3,16	3,15	3,14	3,11	3,11	3,13	3,11
Cooling energy class			A	A	A	A	A	A	A
SEPR HT	(3)(4)		5,67	5,80	5,69	5,73	5,67	5,62	5,73
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	182	213	245	282	318	345	373
Total power input	(5)	kW	53,7	62,3	71,3	83,8	94,6	102	111
EER	(5)	kW/kW	3,39	3,41	3,43	3,37	3,36	3,39	3,35
23°C/15°C									
Cooling capacity	(6)	kW	206	242	278	321	360	391	423
Total power input	(6)	kW	55,8	64,0	73,2	86,1	97,3	105	115
EER	(6)	kW/kW	3,69	3,79	3,80	3,73	3,70	3,74	3,68
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	8,00	9,32	10,72	12,40	13,95	15,14	16,43
Pressure drop	(1)(2)	kPa	24,1	32,7	53,9	49,6	34,1	40,1	47,2
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	4	4	4	4
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	27,6	27,6	35,8	37,2	41,0	41,0	41,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	51	51	52	53	54	55	55
Sound power level in cooling	(8)(9)	dB(A)	83	83	84	85	86	87	87
SIZE AND WEIGHT									
A	(10)	mm	4335	4335	5510	5510	5510	5510	5510
B	(10)	mm	2250	2250	2250	2250	2250	2250	2250
H	(10)	mm	2170	2170	2170	2170	2170	2170	2170
Operating weight	(10)	kg	1980	2150	2490	2610	2880	2900	2930

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.
- Seasonal space heating energy index
- Seasonal energy efficiency of high temperature process cooling [REGULATION (EU) N. 2016/2281]
- Plant (side) cooling exchanger water (in/out) 16°C/ 10°C; Source (side) heat exchanger air (in) 35°C.
- Plant (side) cooling exchanger water (in/out) 23°C/ 15°C; Source (side) heat exchanger air (in) 35°C.
- 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.

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

Certified data in EUROVENT

NRCS-Z

0202T - 0612T

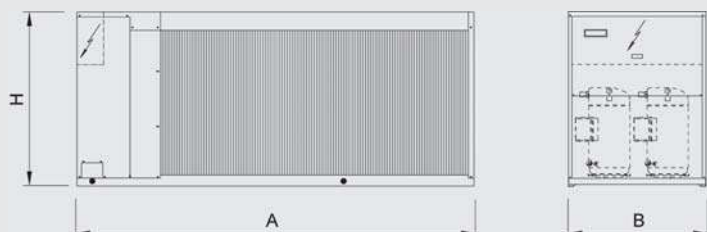
Chiller, air source for outdoor installation from 50,7 to 159 kW



NRCS-Z / 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/50 400/3+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)	kW/kW	2,90	2,70	2,73	2,72	2,67	2,83	2,90	2,89	2,71
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)	kW/kW	2,88	2,68	2,71	2,69	2,65	2,80	2,87	2,85	2,67
Cooling energy class			C	D	C	D	D	C	C	C	D
SEPR HT	(3)(4)		5,01	4,61	4,65	4,60	4,56	4,73	4,80	4,82	4,56
COOLING ONLY											
16°C/10°C											
Cooling capacity	(5)	kW	57,7	63,0	82,5	94,4	106	122	137	157	172
Total power input	(5)	kW	18,7	21,9	28,6	32,9	37,6	40,8	44,9	51,6	60,4
EER	(5)	kW/kW	3,09	2,88	2,88	2,87	2,81	2,99	3,06	3,04	2,84
23°C/15°C											
Cooling capacity	(6)	kW	65,4	70,8	93,4	107	120	138	155	177	193
Total power input	(6)	kW	19,3	22,5	29,7	34,4	39,6	42,6	46,5	53,7	63,3
EER	(6)	kW/kW	3,39	3,15	3,14	3,11	3,03	3,24	3,33	3,30	3,05
EXCHANGERS											
HEAT EXCHANGER USER SIDE IN REFRIGERATION											
Water flow	(1)	l/s	2,54	2,78	3,63	4,15	4,63	5,37	6,06	6,93	7,58
Pressure drop	(1)(2)	kPa	6,25	7,64	13,1	17,2	12,8	17,2	15,7	21,7	25,9
REFRIGERANT CIRCUIT											
Compressors nr.		N°	2	2	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2	2	2
Refrigerant charge		kg	10,3	10,3	12,6	13,7	16,2	17,8	21,4	25,1	22,9
NOISE LEVEL											
Sound Pressure	(7)	dB(A)	53	53	53	54	54	54	55	55	55
Sound power level in cooling	(8)(9)	dB(A)	85	85	85	86	86	86	87	87	87
SIZE AND WEIGHT											
A	(10)	mm	2195	2195	2195	2195	2745	2745	3245	3245	3245
B	(10)	mm	1120	1120	1120	1120	1120	1120	1120	1120	1120
H	(10)	mm	1465	1465	1465	1465	1465	1465	1665	1665	1665
Operating weight	(10)	kg	625	625	665	765	920	990	1135	1180	1155

Accessories:

- ▶ Traditional coils available with prepainted fins or Fin Guard Silver protective treatment.
- ▶ Copper-Copper heat exchanger coils
- ▶ Compressor power factor correction
- ▶ Soft start
- ▶ Compressor suction and discharge valves
- ▶ High and low pressure gauges
- ▶ Compact keyboard with LCD display and multi-language user interface (referred to the shown picture)
- ▶ Hydronic group



NRCS-Z / LN			0202T	0252T	0302T	0412T	0452T	0512T	0552T
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	50,7	57,6	74,2	96,4	109	122	139
Total power input	(1)	kW	18,9	21,2	28,6	37,1	41,4	45,9	53,1
EER	(1)	kW/kW	2,68	2,72	2,59	2,60	2,63	2,66	2,61
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	50,6	57,5	74,0	96,2	108	122	138
EER	(1)(2)	kW/kW	2,67	2,70	2,57	2,58	2,60	2,64	2,59
Cooling energy class			D	C	D	D	D	D	D
SEPR HT	(3)(4)		4,78	4,72	4,51	4,52	4,51	4,50	4,51
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	55,0	62,4	80,5	105	118	132	157
Total power input	(5)	kW	19,4	21,7	29,4	38,4	42,7	47,1	51,6
EER	(5)	kW/kW	2,84	2,88	2,74	2,73	2,76	2,80	3,04
23°C/15°C									
Cooling capacity	(6)	kW	62,1	70,0	91,3	124	139	155	177
Total power input	(6)	kW	20,1	22,3	30,6	38,2	41,9	46,5	53,7
EER	(6)	kW/kW	3,09	3,14	2,98	3,24	3,33	3,33	3,30
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	2,42	2,75	3,55	4,61	5,20	5,83	6,64
Pressure drop	(1)(2)	kPa	5,70	7,50	12,5	12,7	16,2	14,6	19,9
REFRIGERANT CIRCUIT									
Compressors nr.		N°	2	2	2	2	2	2	2
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	10,3	12,6	11,9	17,8	19,6	21,4	25,1
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	48	48	49	51	51	52	52
Sound power level in cooling	(8)(9)	dB(A)	80	80	81	83	83	84	84
SIZE AND WEIGHT									
A	(10)	mm	2195	2195	2745	2745	2745	3245	3245
B	(10)	mm	1120	1120	1120	1120	1120	1120	1120
H	(10)	mm	1465	1465	1465	1665	1665	1665	1665
Operating weight	(10)	kg	625	650	715	965	1025	1135	1180

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.
- Seasonal space heating energy index
- Seasonal energy efficiency of high temperature process cooling [REGULATION (EU) N. 2016/2281]
- Plant (side) cooling exchanger water (in/out) 16°C/ 10°C; Source (side) heat exchanger air (in) 35°C.
- Plant (side) cooling exchanger water (in/out) 23°C/ 15°C; Source (side) heat exchanger air (in) 35°C.
- 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.

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

Certified data in EUROVENT



NRCS-Z

1314 - 3218

Chiller, air source for
outdoor installation
from 334 to 795 kW
 COOLING

 SCROLL

 ENERGY CLASS

 R HFC R-410A

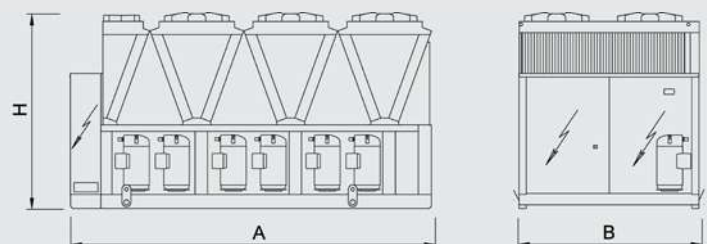
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 T SHELL & TUBES

NRCS-Z / B			1314	1414
Power supply	V/ph/Hz		400/3/50	400/3/50
PERFORMANCE				
COOLING ONLY (GROSS VALUE)				
Cooling capacity	(1)	kW	354	379
Total power input	(1)	kW	124	130
EER	(1)	kW/kW	2,85	2,91
COOLING ONLY (EN14511 VALUE)				
Cooling capacity	(1)(2)	kW	353	377
EER	(1)(2)	kW/kW	2,80	2,87
Cooling energy class			C	C
SEPR HT	(3)(4)		4,86	4,86
COOLING ONLY				
16°C/10°C				
Cooling capacity	(5)	kW	384	410
Total power input	(5)	kW	128	134
EER	(5)	kW/kW	3,00	3,07
23°C/15°C				
Cooling capacity	(6)	kW	433	462
Total power input	(6)	kW	133	139
EER	(6)	kW/kW	3,25	3,33
EXCHANGERS				
HEAT EXCHANGER USER SIDE IN REFRIGERATION				
Water flow	(1)	l/s	16,94	18,12
Pressure drop	(1)(2)	kPa	54,0	43,8
REFRIGERANT CIRCUIT				
Compressors nr.		N°	4	4
No. Circuits		N°	2	2
Refrigerant charge		kg	39,0	45,0
NOISE LEVEL				
Sound Pressure	(7)	dB(A)	64	64
Sound power level in cooling	(8)(9)	dB(A)	96	96
SIZE AND WEIGHT				
A	(10)	mm	3905	3905
B	(10)	mm	2260	2260
H	(10)	mm	2450	2450
Operating weight	(10)	kg	2730	2770

Accessories:

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



NRCS-Z / SL			1314	1414	1614	1715	1816	2015	2116
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	334	358	397	431	465	498	532
Total power input	(1)	kW	129	137	153	168	183	192	206
EER	(1)	kW/kW	2,58	2,61	2,60	2,57	2,55	2,60	2,58
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	332	357	396	430	463	496	531
EER	(1)(2)	kW/kW	2,55	2,58	2,56	2,53	2,51	2,57	2,55
Cooling energy class			D	D	D	D	D	D	D
SEPR HT	(3)(4)		5,14	5,04	5,02	5,03	5,11	5,00	5,05
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	360	387	428	465	502	536	574
Total power input	(5)	kW	133	142	158	174	189	198	213
EER	(5)	kW/kW	2,70	2,73	2,71	2,68	2,66	2,71	2,70
23°C/15°C									
Cooling capacity	(6)	kW	427	433	510	552	597	639	680
Total power input	(6)	kW	132	148	153	171	187	192	210
EER	(6)	kW/kW	3,25	2,92	3,33	3,23	3,20	3,33	3,24
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	15,95	17,13	19,01	20,63	22,24	23,80	25,46
Pressure drop	(1)(2)	kPa	47,8	39,2	48,2	43,0	50,0	35,2	40,3
REFRIGERANT CIRCUIT									
Compressors nr.		N°	4	4	4	5	6	5	6
No. Circuits		N°	2	2	2	2	2	2	2
Refrigerant charge		kg	42,0	45,0	54,0	57,0	55,0	72,0	71,0
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	54	54	54	54	54	54	54
Sound power level in cooling	(8)(9)	dB(A)	86	86	86	87	87	87	87
SIZE AND WEIGHT									
A	(10)	mm	5080	5080	5080	6255	6255	6255	7430
B	(10)	mm	2260	2260	2260	2260	2260	2260	2260
H	(10)	mm	2450	2450	2450	2450	2450	2450	2450
Operating weight	(10)	kg	3060	3160	3200	3900	4110	4190	4640

NRCS-Z / SL			2316	2416	2418	2618	2818	3018	3218
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	579	596	616	666	718	758	795
Total power input	(1)	kW	220	230	245	258	275	288	306
EER	(1)	kW/kW	2,63	2,59	2,52	2,58	2,61	2,63	2,60
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	577	594	614	664	716	755	792
EER	(1)(2)	kW/kW	2,60	2,56	2,49	2,55	2,58	2,60	2,56
Cooling energy class			D	D	E	D	D	D	D
SEPR HT	(3)(4)		5,01	5,01	5,20	5,20	5,12	5,05	5,03
COOLING ONLY									
16°C/10°C									
Cooling capacity	(5)	kW	625	642	665	719	775	817	856
Total power input	(5)	kW	227	237	253	267	284	298	316
EER	(5)	kW/kW	2,75	2,71	2,63	2,70	2,73	2,75	2,71
23°C/15°C									
Cooling capacity	(6)	kW	741	765	799	854	868	965	1020
Total power input	(6)	kW	222	230	246	263	297	293	306
EER	(6)	kW/kW	3,33	3,33	3,24	3,25	2,92	3,29	3,33
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	27,70	28,49	29,45	31,87	34,32	36,24	38,00
Pressure drop	(1)(2)	kPa	40,8	43,1	41,6	48,7	38,2	42,6	46,8
REFRIGERANT CIRCUIT									
Compressors nr.		N°	6	6	8	8	8	8	8
No. Circuits		N°	3	2	4	4	4	4	4
Refrigerant charge		kg	77,0	86,0	89,0	89,0	93,0	103	112
NOISE LEVEL									
Sound Pressure	(7)	dB(A)	55	55	55	56	57	57	57
Sound power level in cooling	(8)(9)	dB(A)	88	88	88	89	90	90	90
SIZE AND WEIGHT									
A	(10)	mm	7430	7430	7430	8605	9780	9780	9780
B	(10)	mm	2260	2260	2260	2260	2260	2260	2260
H	(10)	mm	2450	2450	2450	2450	2450	2450	2450
Operating weight	(10)	kg	4730	4790	5410	5810	6160	6200	6250

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 Seasonal space heating energy index
- 4 Seasonal energy efficiency of high temperature process cooling [REGULATION (EU) N. 2016/2281]
- 5 Plant (side) cooling exchanger water (in/out) 16°C/ 10°C; Source (side) heat exchanger air (in) 35°C.
- 6 Plant (side) cooling exchanger water (in/out) 23°C/ 15°C; Source (side) heat exchanger air (in) 35°C.
- 7 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.
- 8 Sound power on the basis of measurements made in compliance with ISO 9614.
- 9 Sound power level in cooling, outdoors.
- 10 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



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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