



Outdoor reversible unit for the production of chilled/hot water with hermetic rotary Scroll compressors, ozone-friendly refrigerant R410A, axial-flow fans, copper tubes aluminum fins air coils, braze-welded plate-type exchanger and thermostatic expansion valve. External panels in pre-clad sheet steel and base in galvanised steel with paint finish. The range is composed by units equipped with four compressors in tandem configuration on two independent refrigerant circuits.



Refrigerant

Versions

K	Key efficiency, compact version	SL-K	Super Low noise, Key efficiency and compact version
LN-K	Low Noise, Key efficiency and compact version		

Configurations

-	Basic function	D	Partial condensing heat recovery function
---	----------------	---	---

Features

REFRIGERANT GAS R410A

The use of R410A allowed to achieve better energy efficiencies with environment full respect (ODP = 0)

INTEGRATED HYDRONIC GROUP

The optional built-in hydronic module already contains the main water circuit components; it is available with single or twin in-line, for achieving both low or high head.

Accessories

- Set-up for remote connectivity with ModBus/Echelon protocol cards
- Remote control keyboard (distance to 200m and to 500m)
- Soft starters
- Rubber anti-vibration mounting kit. Spring anti-vibration mounting kit (4 compressors models only)

Control



W3000SE Compact

W3000SE Compact offers advanced functions and algorithms. The keypad features an easy-to-use interface and a LCD display, allowing to consult and intervene on the unit by means of a multi-level menu, with selectable language setting.

Regulation based on the exclusive QuickMind algorithm, including self-adaptive control logics, beneficial in low water content systems. As alternatives the proportional- or proportional-integral regulations are also available.

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

For multiple units' systems, the regulation of the resources, via optional proprietary devices, can be implemented. Energy metering, for both consumption and capacity, can also be developed. Supervision can be easily developed via proprietary devices or the integration in third party systems by means of the most common protocols as ModBus, Bacnet, Bacnet-over-IP, Echelon LonWorks.

- Compatibility with the remote keyboard managing up to 10 units.

- Internal real time clock available for operation scheduling (4-day profiles with 10 hour belts).

The defrost adopts a proprietary self-adaptive logic, which features the monitoring of numerous operational parameters. This allows to reduce the number and duration of the defrost cycles, with a benefit for the overall energy efficiency.

NX-N / K		0604P	0704P	0804P	0904P	1004P	1104P	1204P
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	160,1	185,8	211,0	245,2	274,1	298,0	319,3
Total power input	(1) kW	56,89	67,41	75,89	88,76	99,42	106,4	115,9
EER	(1) kW/kW	2,814	2,757	2,780	2,761	2,758	2,801	2,755
ESEER	(1) kW/kW	3,870	4,010	4,070	3,950	3,990	4,050	4,040
COOLING ONLY (EN14511 VALUE)								
Cooling capacity	(1)(2) kW	159,4	185,0	210,1	244,1	272,9	296,9	318,0
EER	(1)(2) kW/kW	2,770	2,710	2,740	2,720	2,710	2,760	2,710
ESEER	(1)(2) kW/kW	3,700	3,830	3,890	3,770	3,810	3,880	3,870
Cooling energy class		C	C	C	C	C	C	C
HEATING ONLY (GROSS VALUE)								
Total heating capacity	(3) kW	173,5	201,7	230,4	271,3	299,5	324,0	344,6
Total power input	(3) kW	56,39	66,40	75,45	89,20	98,31	105,7	112,8
COP	(3) kW/kW	3,076	3,038	3,056	3,041	3,047	3,065	3,055
HEATING ONLY (EN14511 VALUE)								
Total heating capacity	(3)(2) kW	174,4	202,6	231,5	272,7	301,0	325,4	346,3
COP	(3)(2) kW/kW	3,040	3,010	3,030	3,010	3,020	3,040	3,020
Cooling energy class		B	B	B	B	B	B	B
ENERGY EFFICIENCY								
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)								
Ambient refrigeration								
Prated,c	(10) kW	-	-	-	-	-	-	-
SEER	(10)(11)	-	-	-	-	-	-	-
Performance ηs	(10)(12) %	-	-	-	-	-	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)								
PDesign	(4) kW	127	148	172	200	226	242	260
SCOP	(4)(13)	3,23	3,27	3,27	3,21	3,24	3,26	3,21
Performance ηs	(4)(14) %	126	128	128	125	126	127	125
Seasonal efficiency class	(15)	-	-	-	-	-	-	-
EXCHANGERS								
HEAT EXCHANGER USER SIDE IN REFRIGERATION								
Water flow	(1) l/s	7,655	8,885	10,09	11,73	13,11	14,25	15,27
Pressure drop	(1) kPa	42,5	43,2	44,9	49,2	49,2	43,7	50,1
HEAT EXCHANGER USER SIDE IN HEATING								
Water flow	(3) l/s	8,375	9,738	11,12	13,09	14,45	15,64	16,64
Pressure drop	(3) kPa	50,9	51,9	54,5	61,3	59,8	52,6	59,5
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	35,8	55,6	79,1	79,2	82,8	104	104
NOISE LEVEL								
Sound Pressure	(5) dB(A)	73	72	73	74	75	75	75
Sound power level in cooling	(6)(7) dB(A)	92	92	93	94	95	95	95
Sound power level in heating	(6)(8) dB(A)	92	92	93	94	95	95	95
SIZE AND WEIGHT								
Operating weight	(9) kg	1640	1990	2120	2360	2500	2850	2880
A	(9) mm	3110	4110	4110	4110	4110	5110	5110
B	(9) mm	2220	2220	2220	2220	2220	2220	2220
H	(9) mm	2150	2150	2150	2150	2150	2150	2150

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
- Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Sound power level in heating, outdoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency
- Energy efficiency class referred to LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 811/2013]

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

NX-N / LN-K		0604P	0704P	0804P	0904P	1004P	1104P	1204P
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	152,7	174,4	200,7	234,3	258,2	282,8	303,1
Total power input	(1) kW	56,90	68,54	78,32	90,02	101,4	108,7	119,2
EER	(1) kW/kW	2,684	2,546	2,563	2,603	2,546	2,602	2,543
ESEER	(1) kW/kW	3,960	4,080	4,120	4,080	4,020	4,060	4,050
COOLING ONLY (EN14511 VALUE)								
Cooling capacity	(1)(2) kW	152,0	173,7	199,9	233,4	257,2	281,8	301,9
EER	(1)(2) kW/kW	2,640	2,510	2,530	2,570	2,510	2,570	2,510
ESEER	(1)(2) kW/kW	3,780	3,900	3,950	3,900	3,860	3,910	3,880
Cooling energy class		D	D	D	D	D	D	D
HEATING ONLY (GROSS VALUE)								
Total heating capacity	(3) kW	165,4	192,2	221,4	255,0	283,8	310,1	329,1
Total power input	(3) kW	52,69	62,99	71,89	83,89	92,88	100,4	107,3
COP	(3) kW/kW	3,139	3,051	3,079	3,039	3,055	3,089	3,067
HEATING ONLY (EN14511 VALUE)								
Total heating capacity	(3)(2) kW	166,2	193,1	222,4	256,2	285,1	311,4	330,6
COP	(3)(2) kW/kW	3,110	3,020	3,050	3,010	3,030	3,060	3,040
Cooling energy class		B	B	B	B	B	B	B
ENERGY EFFICIENCY								
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)								
Ambient refrigeration								
Prated,c	(10) kW	-	-	-	-	-	-	-
SEER	(10)(11)	-	-	-	-	-	-	-
Performance ηs	(10)(12) %	-	-	-	-	-	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)								
PDesign	(4) kW	126	132	170	196	223	239	257
SCOP	(4)(13)	3,34	3,30	3,51	3,37	3,38	3,42	3,43
Performance ηs	(4)(14) %	130	129	137	132	132	134	134
Seasonal efficiency class	(15)	-	-	-	-	-	-	-
EXCHANGERS								
HEAT EXCHANGER USER SIDE IN REFRIGERATION								
Water flow	(1) l/s	7,304	8,339	9,597	11,20	12,35	13,52	14,49
Pressure drop	(1) kPa	38,7	38,0	40,6	44,9	43,7	39,3	45,2
HEAT EXCHANGER USER SIDE IN HEATING								
Water flow	(3) l/s	7,982	9,279	10,69	12,31	13,70	14,97	15,88
Pressure drop	(3) kPa	46,2	47,1	50,3	54,2	53,7	48,2	54,3
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	35,8	55,6	79,1	79,2	82,8	104	104
NOISE LEVEL								
Sound Pressure	(5) dB(A)	67	66	67	68	69	70	70
Sound power level in cooling	(6)(7) dB(A)	86	86	87	88	89	90	90
Sound power level in heating	(6)(8) dB(A)	87	87	88	89	90	91	91
SIZE AND WEIGHT								
Operating weight	(9) kg	1690	2040	2170	2410	2550	2900	2930
A	(9) mm	3110	4110	4110	4110	4110	5110	5110
B	(9) mm	2220	2220	2220	2220	2220	2220	2220
H	(9) mm	2150	2150	2150	2150	2150	2150	2150

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
- Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
- Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- Sound power on the basis of measurements made in compliance with ISO 9614.
- Sound power level in cooling, outdoors.
- Sound power level in heating, outdoors.
- Unit in standard configuration/execution, without optional accessories.
- Parameter calculated according to [REGULATION (EU) N. 2016/2281]
- Seasonal energy efficiency ratio
- Seasonal space cooling energy efficiency
- Seasonal coefficient of performance
- Seasonal space heating energy efficiency
- Energy efficiency class referred to LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 811/2013]

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

NX-N / SL-K		0604P	0704P	0804P	0904P	1004P	1104P	1204P	
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	148,0	175,5	201,7	232,0	255,7	281,1	303,4
Total power input	(1)	kW	57,83	68,54	78,93	88,21	100,4	110,5	119,3
EER	(1)	kW/kW	2,561	2,562	2,556	2,630	2,547	2,544	2,543
ESEER	(1)	kW/kW	4,070	4,070	4,110	4,120	4,120	4,090	4,090
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	147,4	174,8	200,9	231,1	254,7	280,1	302,2
EER	(1)(2)	kW/kW	2,520	2,530	2,520	2,590	2,510	2,510	2,510
ESEER	(1)(2)	kW/kW	3,900	3,890	3,930	3,930	3,950	3,940	3,920
Cooling energy class			D	D	D	D	D	D	D
HEATING ONLY (GROSS VALUE)									
Total heating capacity	(3)	kW	160,2	193,0	223,2	256,8	282,7	307,3	330,1
Total power input	(3)	kW	51,18	63,61	72,49	82,20	91,24	100,2	108,2
COP	(3)	kW/kW	3,129	3,035	3,079	3,124	3,100	3,067	3,051
HEATING ONLY (EN14511 VALUE)									
Total heating capacity	(3)(2)	kW	160,9	193,9	224,2	258,0	284,0	308,5	331,6
COP	(3)(2)	kW/kW	3,100	3,010	3,050	3,090	3,070	3,040	3,020
Cooling energy class			B	B	B	B	B	B	B
ENERGY EFFICIENCY									
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)									
Ambient refrigeration									
Prated,c	(10)	kW	-	-	-	-	-	-	-
SEER	(10)(11)		-	-	-	-	-	-	-
Performance ηs	(10)(12)	%	-	-	-	-	-	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)									
PDesign	(4)	kW	125	135	172	197	219	239	258
SCOP	(4)(13)		3,45	3,24	3,47	3,54	3,46	3,40	3,41
Performance ηs	(4)(14)	%	135	127	136	139	136	133	133
Seasonal efficiency class	(15)		-	-	-	-	-	-	-
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	l/s	7,079	8,392	9,645	11,10	12,23	13,44	14,51
Pressure drop	(1)	kPa	36,4	38,5	41,0	44,0	42,8	38,9	45,3
HEAT EXCHANGER USER SIDE IN HEATING									
Water flow	(3)	l/s	7,734	9,316	10,78	12,40	13,65	14,83	15,93
Pressure drop	(3)	kPa	43,4	47,5	51,2	55,0	53,3	47,3	54,6
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	35,8	59,6	79,1	79,2	82,8	104	104
NOISE LEVEL									
Sound Pressure	(5)	dB(A)	63	63	63	64	65	66	67
Sound power level in cooling	(6)(7)	dB(A)	82	83	83	84	85	86	87
Sound power level in heating	(6)(8)	dB(A)	83	84	84	85	86	87	88
SIZE AND WEIGHT									
Operating weight	(9)	kg	1690	2130	2260	2690	2830	3020	3040
A	(9)	mm	3110	4110	4110	5110	5110	5110	5110
B	(9)	mm	2220	2220	2220	2220	2220	2220	2220
H	(9)	mm	2150	2150	2150	2150	2150	2150	2150

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
 - Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
 - Parameter calculated for LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 813/2013]
 - Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
 - Sound power on the basis of measurements made in compliance with ISO 9614.
 - Sound power level in cooling, outdoors.
 - Sound power level in heating, outdoors.
 - Unit in standard configuration/execution, without optional accessories.
 - Parameter calculated according to [REGULATION (EU) N. 2016/2281]
 - Seasonal energy efficiency ratio
 - Seasonal space cooling energy efficiency
 - Seasonal coefficient of performance
 - Seasonal space heating energy efficiency
 - Energy efficiency class referred to LOW-TEMPERATURE application in AVERAGE climate conditions according to [REGULATION (EU) N. 811/2013]
- The units highlighted in this publication contain HFC R410A [GWP₁₀₀ 2088] fluorinated greenhouse gases.
Certified data in EUROVENT

Dimensional drawing

