

3.1 GENERAL TECHNICAL DATA

NECS-FC B

SIZE		0604	0704	0804	0904	1004	1104	1204
NECS-FC /B ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	177	207	234	268	293	336	377
Compressor power input	kW	47,7	53,8	60,9	67,0	76,6	88,4	101
Total power input (unit)	kW	56,1	62,2	73,5	79,6	89,2	101	118
E.E.R.		3,16	3,32	3,19	3,36	3,29	3,33	3,21
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	66,0	68,4	79,9	98,7	102	116	129
Percentuale in Free Cooling	%	37	33	34	37	35	35	34
Free Cooling 100 %								
Free Cooling capacity	kW	177	207	234	268	293	336	377
Total power input (unit)	kW	8,40	8,40	12,6	12,6	12,6	12,6	16,8
Total Free Cooling temperature	°C	1,6	-0,1	0,3	1,4	0,6	0,5	0,4
E.E.R.		21,1	24,6	18,6	21,2	23,3	26,7	22,4
Fluid ⁽¹⁾								
ETHYLENE GLYCOL	%	30	30	30	30	30	30	30
Unit water flow	m³/h	33,8	39,4	44,7	51,1	55,9	64,1	71,9
Unit pressure drop	kPa	154	192	222	151	159	174	195
COMPRESSORS								
Number	N°.	4	4	4	4	4	4	4
Number of capacity	N°.	4	4	4	4	4	4	4
Number of circuits	N°.	2	2	2	2	2	2	2
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	25	25	25	25	25	25	25
Type of refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	28	40	41	47	49	60	61
Oil charge	kg.	17	18	19	23	27	26	25
FANS								
Number	N°.	4	4	6	6	6	6	8
Air flow	m³/s	21,7	21,0	26,1	28,5	28,5	31,1	36,6
Singol power input	kW	2,1	2,1	2,1	2,1	2,1	2,1	2,1
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	93	93	94	94	94	95	96
Total sound pressure	dB(A)	61	61	62	62	62	63	64
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	4110	4110	4110	5110	5110	5110	5110
Width	mm.	2220	2220	2220	2220	2220	2220	2220
Height	mm.	2150	2150	2150	2150	2150	2430	2430
Weight	kg.	2200	2330	2510	2880	2940	3260	3400

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C

Fluid: Blend with ETHYLENE GLYCOL at 30 %

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
in compliance with ISO 3744 for non-certified units
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained
from the sound power level

3 Standard configuration

- Not available

GENERAL TECHNICAL DATA

NECS-FC
B

SIZE		1404	1604					
NECS-FC /B ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	430	477					
Compressor power input	kW	113	127					
Total power input (unit)	kW	129	148					
E.E.R.		3,32	3,22					
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	151	164					
Percentuale in Free Cooling	%	35	34					
Free Cooling 100 %								
Free Cooling capacity	kW	430	477					
Total power input (unit)	kW	16,8	21,0					
Total Free Cooling temperature	°C	0,7	0,5					
E.E.R.		25,6	22,7					
Fluid ⁽¹⁾								
ETHYLENE GLYCOL	%	30	30					
Unit water flow	m³/h	82,0	91,0					
Unit pressure drop	kPa	156	172					
COMPRESSORS								
Number	N°.	4	4					
Number of capacity	N°.	4	4					
Number of circuits	N°.	2	2					
Type of regulation		STEPS	STEPS					
Minimum capacity steps	%	25	25					
Type of refrigerant		R410A	R410A					
Refrigerant charge	kg.	77,2	80,4					
Oil charge	kg.	25,2	25,2					
FANS								
Number	N°.	8	10					
Air flow	m³/s	45,0	50,9					
Singol power input	kW	2,1	2,1					
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	96	97					
Total sound pressure	dB(A)	63	64					
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	6110	6110					
Width	mm.	2220	2220					
Height	mm.	2430	2430					
Weight	kg.	3810	3970					

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C

Fluid: Blend with ETHYLENE GLYCOL at 30 %

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
in compliance with ISO 3744 for non-certified units
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level

3 Standard configuration

- Not available

GENERAL TECHNICAL DATA

NECS-FC
SL

SIZE		0604	0704	0804	0904	1004	1104	1204
NECS-FC /SL ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	166	193	216	243	274	313	351
Compressor power input	kW	53,5	60,7	69,7	78,0	84,7	98,3	112
Total power input (unit)	kW	56,9	65,8	74,8	83,1	89,8	103	119
E.E.R.		2,92	2,93	2,88	2,92	3,05	3,02	2,95
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	50,1	57,6	58,9	73,0	77,0	87,0	97,9
Percentuale in Free Cooling	%	30	30	27	30	28	28	28
Free Cooling 100 %								
Free Cooling capacity	kW	166	193	216	243	274	313	351
Total power input (unit)	kW	3,44	5,16	5,16	5,16	5,16	5,16	6,88
Total Free Cooling temperature	°C	-1,6	-1,7	-3,3	-1,6	-2,8	-3	-2,9
E.E.R.		48,3	37,3	41,8	47,0	53,1	60,7	51,0
Fluid ⁽¹⁾								
ETHYLENE GLYCOL	%	30	30	30	30	30	30	30
Unit water flow	m³/h	31,7	36,7	41,1	46,3	52,2	59,7	66,9
Unit pressure drop	kPa	135	167	188	124	139	151	169
COMPRESSORS								
Number	N°.	4	4	4	4	4	4	4
Number of capacity	N°.	4	4	4	4	4	4	4
Number of circuits	N°.	2	2	2	2	2	2	2
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	25	25	25	25	25	25	25
Type of refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	39	40	52	47	62	76	77
Oil charge	kg.	17	18	19	23	27	26	25
FANS								
Number	N°.	4	6	6	6	6	6	8
Air flow	m³/s	11,7	14,3	13,6	15,5	14,9	16,5	18,8
Singol power input	kW	0,86	0,86	0,86	0,86	0,86	0,86	0,86
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	82	83	83	84	84	85	86
Total sound pressure	dB(A)	50	51	51	52	52	53	54
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	4110	4110	4110	5110	5110	5110	5110
Width	mm.	2220	2220	2220	2220	2220	2220	2220
Height	mm.	2150	2150	2150	2150	2150	2430	2430
Weight	kg.	2280	2410	2580	2880	3040	3380	3520

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C

Fluid: Blend with ETHYLENE GLYCOL at 30 %

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
in compliance with ISO 3744 for non-certified units
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained
from the sound power level

3 Standard configuration

- Not available

GENERAL TECHNICAL DATA

NECS-FC
SL

SIZE		1404	1604					
NECS-FC /SL ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	402	445					
Compressor power input	kW	125	142					
Total power input (unit)	kW	132	150					
E.E.R.		3,04	2,96					
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	113	124					
Percentuale in Free Cooling	%	28	28					
Free Cooling 100 %								
Free Cooling capacity	kW	402	445					
Total power input (unit)	kW	6,88	8,60					
Total Free Cooling temperature	°C	-2,8	-2,9					
E.E.R.		58,4	51,8					
Fluid ⁽¹⁾								
ETHYLENE GLYCOL	%	30	30					
Unit water flow	m³/h	76,7	84,9					
Unit pressure drop	kPa	136	149					
COMPRESSORS								
Number	N°.	4	4					
Number of capacity	N°.	4	4					
Number of circuits	N°.	2	2					
Type of regulation	STEPS	STEPS	STEPS					
Minimum capacity steps	%	25	25					
Type of refrigerant	R410A	R410A	R410A					
Refrigerant charge	kg.	97,8	98,9					
Oil charge	kg.	25,2	25,2					
FANS								
Number	N°.	8	10					
Air flow	m³/s	23,9	26,4					
Singol power input	kW	0,86	0,86					
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	86	87					
Total sound pressure	dB(A)	53	54					
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	6110	6110					
Width	mm.	2220	2220					
Height	mm.	2430	2430					
Weight	kg.	3960	4120					

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C

Fluid: Blend with ETHYLENE GLYCOL at 30 %

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
in compliance with ISO 3744 for non-certified units
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained
from the sound power level

3 Standard configuration

- Not available

GENERAL TECHNICAL DATA

NECS-FC NG
B

SIZE		0604	0704	0804	0904	1004	1104	1204
NECS-FC /NG /B ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	182	212	241	275	301	345	387
Compressor power input	kW	48,0	54,1	61,2	67,3	77,0	88,9	101
Total power input (unit)	kW	56,4	62,5	73,8	79,9	89,6	101	118
E.E.R.		3,23	3,40	3,26	3,44	3,36	3,40	3,28
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	55,5	58,6	68,0	82,6	86,5	98,7	110
Percentuale in Free Cooling	%	30	28	28	30	29	29	28
Free Cooling 100 %								
Free Cooling capacity	kW	182	212	241	275	301	345	387
Total power input (unit)	kW	8,40	8,40	12,6	12,6	12,6	12,6	16,8
Total Free Cooling temperature	°C	-1,4	-3,1	-2,7	-1,6	-2,4	-2,5	-2,6
E.E.R.		21,7	25,3	19,1	21,8	23,9	27,4	23,0
Fluid ⁽¹⁾								
Unit water flow	m³/h	31,4	36,6	41,4	47,4	51,9	59,5	66,7
Unit pressure drop	kPa	112	125	131	125	124	131	137
COMPRESSORS								
Number	N°.	4	4	4	4	4	4	4
Number of capacity	N°.	4	4	4	4	4	4	4
Number of circuits	N°.	2	2	2	2	2	2	2
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	25	25	25	25	25	25	25
Type of refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	28	40	41	47	49	60	61
Oil charge	kg.	17	18	19	23	27	26	25
FANS								
Number	N°.	4	4	6	6	6	6	8
Air flow	m³/s	21,7	21,0	26,1	28,5	28,5	31,1	36,6
Singol power input	kW	2,1	2,1	2,1	2,1	2,1	2,1	2,1
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	93	93	94	94	94	95	96
Total sound pressure	dB(A)	61	61	62	62	62	63	64
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	4110	4110	4110	5110	5110	5110	5110
Width	mm.	2220	2220	2220	2220	2220	2220	2220
Height	mm.	2150	2150	2150	2150	2150	2430	2430
Weight	kg.	2510	2650	2840	3250	3320	3700	3850

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C
Fluid: Water

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
in compliance with ISO 3744 for non-certified units
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained
from the sound power level

3 Standard configuration
- Not available

GENERAL TECHNICAL DATA

NECS-FC NG
B

SIZE		1404	1604					
NECS-FC /NG /B ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	442	490					
Compressor power input	kW	113	128					
Total power input (unit)	kW	130	149					
E.E.R.		3,40	3,29					
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	128	140					
Percentuale in Free Cooling	%	29	28					
Free Cooling 100 %								
Free Cooling capacity	kW	442	490					
Total power input (unit)	kW	16,8	21,0					
Total Free Cooling temperature	°C	-2,3	-2,6					
E.E.R.		26,3	23,3					
Fluid ⁽¹⁾								
Unit water flow	m³/h	76,1	84,4					
Unit pressure drop	kPa	131	134					
COMPRESSORS								
Number	N°.	4	4					
Number of capacity	N°.	4	4					
Number of circuits	N°.	2	2					
Type of regulation		STEPS	STEPS					
Minimum capacity steps	%	25	25					
Type of refrigerant		R410A	R410A					
Refrigerant charge	kg.	77,2	80,4					
Oil charge	kg.	25,2	25,2					
FANS								
Number	N°.	8	10					
Air flow	m³/s	45,0	50,9					
Singol power input	kW	2,1	2,1					
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	96	97					
Total sound pressure	dB(A)	63	64					
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	6110	6110					
Width	mm.	2220	2220					
Height	mm.	2430	2430					
Weight	kg.	4290	4480					

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C
Fluid: Water

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
in compliance with ISO 3744 for non-certified units
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained
from the sound power level

3 Standard configuration
- Not available

GENERAL TECHNICAL DATA

NECS-FC NG
SL

SIZE		0604	0704	0804	0904	1004	1104	1204
NECS-FC /NG /SL ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	171	198	221	249	281	322	361
Compressor power input	kW	53,7	61,0	70,1	78,4	85,1	98,9	113
Total power input (unit)	kW	57,2	66,2	75,2	83,5	90,3	104	120
E.E.R.		2,98	2,99	2,94	2,99	3,12	3,09	3,01
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	43,5	50,2	52,0	63,6	67,5	76,6	86,3
Percentuale in Free Cooling	%	25	25	23	26	24	24	24
Free Cooling 100 %								
Free Cooling capacity	kW	171	198	221	249	281	322	361
Total power input (unit)	kW	3,44	5,16	5,16	5,16	5,16	5,16	6,88
Total Free Cooling temperature	°C	-4,6	-4,7	-6,3	-4,6	-5,8	-6	-5,9
E.E.R.		49,6	38,3	42,9	48,3	54,5	62,3	52,4
Fluid ⁽¹⁾								
Unit water flow	m³/h	29,4	34,1	38,1	43,0	48,5	55,4	62,1
Unit pressure drop	kPa	98,7	109	111	103	108	114	118
COMPRESSORS								
Number	N°.	4	4	4	4	4	4	4
Number of capacity	N°.	4	4	4	4	4	4	4
Number of circuits	N°.	2	2	2	2	2	2	2
Type of regulation	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS	STEPS
Minimum capacity steps	%	25	25	25	25	25	25	25
Type of refrigerant	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg.	39	40	52	47	62	76	77
Oil charge	kg.	17	18	19	23	27	26	25
FANS								
Number	N°.	4	6	6	6	6	6	8
Air flow	m³/s	11,7	14,3	13,6	15,5	14,9	16,5	18,8
Singol power input	kW	0,86	0,86	0,86	0,86	0,86	0,86	0,86
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	82	83	83	84	84	85	86
Total sound pressure	dB(A)	50	51	51	52	52	53	54
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	4110	4110	4110	5110	5110	5110	5110
Width	mm.	2220	2220	2220	2220	2220	2220	2220
Height	mm.	2150	2150	2150	2150	2150	2430	2430
Weight	kg.	2590	2730	2910	3250	3420	3820	3970

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C
Fluid: Water

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
in compliance with ISO 3744 for non-certified units
Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained
from the sound power level

3 Standard configuration
- Not available

GENERAL TECHNICAL DATA

NECS-FC NG
SL

SIZE		1404	1604					
NECS-FC /NG /SL ⁽¹⁾								
Free Cooling OFF								
Cooling capacity	kW	413	457					
Compressor power input	kW	126	143					
Total power input (unit)	kW	133	151					
E.E.R.		3,11	3,03					
Free Cooling (Tae = 10 °C)								
Free Cooling capacity	kW	98,9	110					
Percentuale in Free Cooling	%	24	24					
Free Cooling 100 %								
Free Cooling capacity	kW	413	457					
Total power input (unit)	kW	6,88	8,60					
Total Free Cooling temperature	°C	-5,9	-5,9					
E.E.R.		60,0	53,2					
Fluid ⁽¹⁾								
Unit water flow	m³/h	71,1	78,8					
Unit pressure drop	kPa	114	117					
COMPRESSORS								
Number	N°.	4	4					
Number of capacity	N°.	4	4					
Number of circuits	N°.	2	2					
Type of regulation		STEPS	STEPS					
Minimum capacity steps	%	25	25					
Type of refrigerant		R410A	R410A					
Refrigerant charge	kg.	97,8	98,9					
Oil charge	kg.	25,2	25,2					
FANS								
Number	N°.	8	10					
Air flow	m³/s	23,9	26,4					
Singol power input	kW	0,86	0,86					
NOISE LEVELS ⁽²⁾								
Total sound power	dB(A)	86	87					
Total sound pressure	dB(A)	53	54					
DIMENSIONS AND WEIGHTS ⁽³⁾								
Length	mm.	6110	6110					
Width	mm.	2220	2220					
Height	mm.	2430	2430					
Weight	kg.	4440	4630					

1 Plant (side) cooling exchanger water (in/out) 15/10 °C
Source (side) heat exchanger air (in) 30 °C

Fluid: Water

2 Sound power on the basis of measurements made in compliance with ISO 9614 and Eurovent 8/1 for Eurovent certified units;
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Average sound pressure level, at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value obtained
from the sound power level

3 Standard configuration

- Not available