Login

Summary of	F1x45-5	Reg. No.	012-037
Certificate Holder			
Name	Nibe AB		
Address	Box 14	Zip	S-28521
City	Markaryd	Country	Sweden
Certification Body	RISE CERT		
Subtype title	F1x45-5		
Heat Pump Type	Brine/Water		
Refrigerant	R407c		
Mass of Refrigerant	1.2 kg		

Model: F1145-5 1x230

Configure model	
Model name	F1145-5 1x230
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
Prated	5.80 kW	5.00 kW
SCOP	4.50	3.40
Tbiv	-5 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.70 kW	3.50 kW
COP Tj = -7°C	4.41	2.99
Pdh Tj = +2°C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = +7°C	5.00 kW	4.30 kW
COP Tj = +7°C	4.75	3.84
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.78	4.04
Pdh Tj = Tbiv	4.80 kW	3.80 kW
COP Tj = Tbiv	4.46	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

SCOP	4.63	3.53
Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.90 kW	4.10 kW
COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
COP Tj = +2°C	4.77	3.77
Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
Pdh Tj = Tbiv	4.80 kW	3.90 kW
COP Tj = Tbiv	4.52	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Model: F1145-5 PC 1x230

Configure model	
Model name	F1145-5 PC 1x230
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
Prated	5.80 kW	5.00 kW
SCOP	4.50	3.40
Tbiv	-5 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.70 kW	3.50 kW
COP Tj = -7°C	4.41	2.99
Pdh Tj = +2°C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = +7°C	5.00 kW	4.30 kW
COP Tj = +7°C	4.75	3.84
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.78	4.04
Pdh Tj = Tbiv	4.80 kW	3.80 kW
COP Tj = Tbiv	4.46	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

SCOP	4.63	3.53
Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.90 kW	4.10 kW
COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
COP Tj = +2°C	4.77	3.77
Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
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COP Tj = Tbiv	4.52	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Model: F1145-5 3x400

Configure model	
Model name	F1145-5 3x400
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
Prated	5.80 kW	5.00 kW
SCOP	4.50	3.40
Tbiv	-5 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.70 kW	3.50 kW
COP Tj = -7°C	4.41	2.99
Pdh Tj = +2°C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = +7°C	5.00 kW	4.30 kW
COP Tj = +7°C	4.75	3.84
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.78	4.04
Pdh Tj = Tbiv	4.80 kW	3.80 kW
COP Tj = Tbiv	4.46	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

SCOP	4.63	3.53
Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.90 kW	4.10 kW
COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
COP Tj = +2°C	4.77	3.77
Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Model: F1145-5 PC 3x400

Configure model	
Model name	F1145-5 PC 3x400
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
Prated	5.80 kW	5.00 kW
SCOP	4.50	3.40
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COP Tj = -7°C	4.41	2.99
Pdh Tj = +2°C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = +7°C	5.00 kW	4.30 kW
COP Tj = +7°C	4.75	3.84
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.78	4.04
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COP Tj = Tbiv	4.46	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
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WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

SCOP	4.63	3.53
Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.90 kW	4.10 kW
COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
COP Tj = +2°C	4.77	3.77
Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
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COP Tj = Tbiv	4.52	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Model: F1245-5 1x230

Configure model	
Model name	F1245-5 1x230
Application	Heating + DHW + low temp
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz
Off-peak product	No

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
Prated	5.80 kW	5.00 kW
SCOP	4.50	3.40
Tbiv	-5 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.70 kW	3.50 kW
COP Tj = -7°C	4.41	2.99
Pdh Tj = +2°C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = +7°C	5.00 kW	4.30 kW
COP Tj = +7°C	4.75	3.84
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.78	4.04
Pdh Tj = Tbiv	4.80 kW	3.80 kW
COP Tj = Tbiv	4.46	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

SCOP	4.63	3.53
Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.90 kW	4.10 kW
COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
COP Tj = +2°C	4.77	3.77
Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

Model: F1245-5 PC 1x230

Configure model	
Model name	F1245-5 PC 1x230
Application	Heating + DHW + low temp
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz
Off-peak product	No

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
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Tbiv	-5 °C	-4 °C
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Pdh Tj = +2°C	4.90 kW	4.10 kW
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COP Tj = +7°C	4.75	3.84
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.78	4.04
Pdh Tj = Tbiv	4.80 kW	3.80 kW
COP Tj = Tbiv	4.46	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

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Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.90 kW	4.10 kW
COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
COP Tj = +2°C	4.77	3.77
Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
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COP Tj = Tbiv	4.52	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

Model: F1245-5 3x400

Configure model	
Model name	F1245-5 3x400
Application	Heating + DHW + low temp
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz
Off-peak product	No

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
Prated	5.80 kW	5.00 kW
SCOP	4.50	3.40
Tbiv	-5 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.70 kW	3.50 kW
COP Tj = -7°C	4.41	2.99
Pdh Tj = +2°C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = +7°C	5.00 kW	4.30 kW
COP Tj = +7°C	4.75	3.84
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.78	4.04
Pdh Tj = Tbiv	4.80 kW	3.80 kW
COP Tj = Tbiv	4.46	3.26

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

SCOP	4.63	3.53
Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.90 kW	4.10 kW
COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
COP Tj = +2°C	4.77	3.77
Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
Pdh Tj = Tbiv	4.80 kW	3.90 kW
COP Tj = Tbiv	4.52	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

Model: F1245-5 PC 3x400

Configure model	
Model name	F1245-5 PC 3x400
Application	Heating + DHW + low temp
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz
Off-peak product	No

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.65 kW	3.42 kW
El input	1.13 kW	1.27 kW
COP	4.12	2.69

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	172 %	128 %
Prated	5.80 kW	5.00 kW
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Tbiv	-5 °C	-4 °C
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Pdh Tj = 12°C	5.10 kW	4.60 kW
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Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	177 %	133 %
Prated	5.80 kW	5.00 kW

SCOP	4.63	3.53
Tbiv	-16 °C	-13 °C
TOL	-22 °C	-22 °C
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COP Tj = -7°C	4.65	3.48
Pdh Tj = +2°C	5.00 kW	4.30 kW
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Pdh Tj = +7°C	5.10 kW	4.50 kW
COP Tj = +7°C	4.83	4.02
Pdh Tj = 12°C	5.10 kW	4.60 kW
COP Tj = 12°C	4.64	4.07
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
COP	2.50
Heating up time	02:50 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l