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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 14511-4		
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	

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

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	
177 %	133 %	
5.80 kW	5.00 kW	
4.63	3.53	
-16 °C	-13 °C	
-22 °C	-22 °C	
4.90 kW	4.10 kW	
4.65	3.48	
5.00 kW	4.30 kW	
4.77	3.77	
5.10 kW	4.50 kW	
4.83	4.02	
5.10 kW	4.60 kW	
4.64	4.07	
4.80 kW	3.90 kW	
4.52	3.29	
	Low temperature 177 % 5.80 kW 4.63 -16 °C -22 °C 4.90 kW 4.65 5.00 kW 4.77 5.10 kW 4.83 5.10 kW 4.64 4.80 kW	

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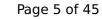




Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

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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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
$COP Tj = -7^{\circ}C$	4.41	2.99
Pdh Tj = $+2$ °C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = $+7^{\circ}$ C	5.00 kW	4.30 kW
$COP Tj = +7^{\circ}C$	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
РТО	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W



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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



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 14511-4	
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

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

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

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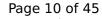




Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

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
$COP Tj = -7^{\circ}C$	4.41	2.99
Pdh Tj = $+2$ °C	4.90 kW	4.10 kW
COP Tj = +2°C	4.60	3.57
Pdh Tj = $+7^{\circ}$ C	5.00 kW	4.30 kW
$COP Tj = +7^{\circ}C$	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
РТО	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W



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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

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 14511-4		
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	

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

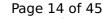
Colder Climate



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

EN 14825		
Low temperature	Medium temperature	
177 %	133 %	
5.80 kW	5.00 kW	
4.63	3.53	
-16 °C	-13 °C	
-22 °C	-22 °C	
4.90 kW	4.10 kW	
4.65	3.48	
5.00 kW	4.30 kW	
4.77	3.77	
5.10 kW	4.50 kW	
4.83	4.02	
5.10 kW	4.60 kW	
4.64	4.07	
4.80 kW	3.90 kW	
4.52	3.29	
	Low temperature 177 % 5.80 kW 4.63 -16 °C -22 °C 4.90 kW 4.65 5.00 kW 4.77 5.10 kW 4.83 5.10 kW 4.64 4.80 kW	

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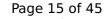




Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

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
$COP Tj = +2^{\circ}C$	4.60	3.57
Pdh Tj = +7°C	5.00 kW	4.30 kW
$COPTj = +7^{\circ}C$	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
РТО	8 W	8 W
PSB	7 W	7 W
РСК	12 W	12 W



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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

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

CEN heat pump

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	

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

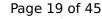
Colder Climate



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

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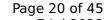




Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

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
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Pdh Tj = $+7^{\circ}$ C	5.00 kW	4.30 kW
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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
РТО	8 W	8 W
PSB	7 W	7 W
PCK	12 W	12 W



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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



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 14511-4		
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	

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

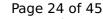
Colder Climate



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

EN 14825	
Low temperature	Medium temperature
177 %	133 %
5.80 kW	5.00 kW
4.63	3.53
-16 °C	-13 °C
-22 °C	-22 °C
4.90 kW	4.10 kW
4.65	3.48
5.00 kW	4.30 kW
4.77	3.77
5.10 kW	4.50 kW
4.83	4.02
5.10 kW	4.60 kW
4.64	4.07
4.80 kW	3.90 kW
4.52	3.29
	Low temperature 177 % 5.80 kW 4.63 -16 °C -22 °C 4.90 kW 4.65 5.00 kW 4.77 5.10 kW 4.83 5.10 kW 4.64 4.80 kW

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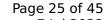




Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
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WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

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





	<u> </u>	
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
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COP Tj = +2°C	4.60	3.57
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COP Tj = 12°C	4.78	4.04
Pdh Tj = Tbiv	4.80 kW	3.80 kW
COP Tj = Tbiv	4.46	3.26
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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
РТО	8 W	8 W
PSB	7 W	7 W
РСК	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

Domestic Hot Water (DHW)

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
СОР	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 I



EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
СОР	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



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 14511-4	
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

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

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	
177 %	133 %	
5.80 kW	5.00 kW	
4.63	3.53	
-16 °C	-13 °C	
-22 °C	-22 °C	
4.90 kW	4.10 kW	
4.65	3.48	
5.00 kW	4.30 kW	
4.77	3.77	
5.10 kW	4.50 kW	
4.83	4.02	
5.10 kW	4.60 kW	
4.64	4.07	
4.80 kW	3.90 kW	
4.52	3.29	
	Low temperature 177 % 5.80 kW 4.63 -16 °C -22 °C 4.90 kW 4.65 5.00 kW 4.77 5.10 kW 4.83 5.10 kW 4.64 4.80 kW	

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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
РТО	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

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
$COP Tj = +7^{\circ}C$	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
РТО	8 W	8 W
PSB	7 W	7 W
РСК	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

Domestic Hot Water (DHW)

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
СОР	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



EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
СОР	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



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 14511-4		
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	

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

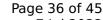
Colder Climate



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

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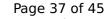




Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.70 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	10 W	8 W
PSB	7 W	7 W
PCK	8 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	3097 kWh	3495 kWh

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
$COP Tj = -7^{\circ}C$	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
$COP Tj = +7^{\circ}C$	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
РТО	8 W	8 W
PSB	7 W	7 W
РСК	12 W	12 W



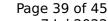


Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.10 kW	1.80 kW
Annual energy consumption Qhe	2669 kWh	3027 kWh

Domestic Hot Water (DHW)

Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	100 %	
СОР	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	





EN 16147		
Declared load profile	XL	
Efficiency ηDHW	100 %	
СОР	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	



Model: F1245-5 PC 3x400

Configure model		
Model name	F1245-5 PC 3x400	
Application	tation 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 14511-4		
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	

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

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
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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 = Tbiv	4.52	3.29

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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

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
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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
$COP Tj = +7^{\circ}C$	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
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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
РТО	8 W	8 W
PSB	7 W	7 W
РСК	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

Domestic Hot Water (DHW)

Colder Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	100 %	
СОР	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 I	



EN 16147	
Declared load profile	XL
Efficiency ηDHW	100 %
СОР	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