Subtype SW 82 3~

Certificate Holder	ait-deutschland GmbH
Address	Industriestr. 3
ZIP	95359
City	Kasendorf
Country	DE
Certification Body	BRE Global Limited
Subtype title	SW 82 3~
Registration number	041-K001-03
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	1.72 kg
Certification Date	12.05.2017
Testing basis	Transitional Rules

Model alpha innotec SW 82H3	
Model name	alpha innotec SW 82H3
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.70 kW	6.49 kW
El input	1.57 kW	2.23 kW
COP	4.90	2.91

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.65 kW	7.52 kW
SCOP	5.15	3.71
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.66 kW	6.66 kW
COP Tj = -7°C	5.02	3.13
Pdh Tj = +2°C	7.76 kW	7.08 kW
COP Tj = +2°C	5.29	3.76
Pdh Tj = +7°C	7.87 kW	7.34 kW
COP Tj = +7°C	5.54	4.21
Pdh Tj = 12°C	7.97 kW	7.60 kW
COP Tj = 12°C	5.65	4.63
Pdh Tj = Tbiv	7.66 kW	6.66 kW
COP Tj = Tbiv	5.02	3.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.05 kW	1.03 kW
Annual energy consumption Qhe	3468 kWh	4190 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	205 %	145 %
Prated	8.60 kW	7.47 kW
SCOP	5.31	3.83
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.78 kW	6.99 kW
COP Tj = -7°C	5.35	3.62
Pdh Tj = +2°C	7.87 kW	7.29 kW
COP Tj = +2°C	5.56	4.13
Pdh Tj = +7°C	7.94 kW	7.52 kW
COP Tj = +7°C	5.69	4.54
Pdh Tj = 12°C	7.95 kW	7.69 kW
COP Tj = 12°C	5.44	4.70
Pdh Tj = Tbiv	7.69 kW	6.68 kW
COP Tj = Tbiv	5.13	3.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.98 kW
Annual energy consumption Qhe	3991 kWh	4813 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.97 kW	7.80 kW
SCOP	5.15	3.70
Tbiv	4 °C	4 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	7.60 kW	6.49 kW
COP Tj = +2°C	4.88	2.91
Pdh Tj = +7°C	7.75 kW	6.91 kW
COP Tj = +7°C	5.26	3.48
Pdh Tj = 12°C	7.90 kW	7.43 kW
COP Tj = 12°C	5.63	4.39
Pdh Tj = Tbiv	7.69 kW	6.69 kW
COP Tj = Tbiv	5.11	3.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.37 kW	1.31 kW
Annual energy consumption Qhe	2329 kWh	2815 kWh

Model alpha innotec SWC 82(H)(K)3	
Model name	alpha innotec SWC 82(H)(K)3
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.70 kW	6.49 kW
El input	1.57 kW	2.23 kW
COP	4.90	2.91

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.65 kW	7.52 kW
SCOP	5.15	3.71
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.66 kW	6.66 kW
COP Tj = -7°C	5.02	3.13
Pdh Tj = +2°C	7.76 kW	7.08 kW
COP Tj = +2°C	5.29	3.76
Pdh Tj = +7°C	7.87 kW	7.34 kW
COP Tj = +7°C	5.54	4.21
Pdh Tj = 12°C	7.97 kW	7.60 kW
COP Tj = 12°C	5.65	4.63
Pdh Tj = Tbiv	7.66 kW	6.66 kW
COP Tj = Tbiv	5.02	3.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.05 kW	1.03 kW
Annual energy consumption Qhe	3468 kWh	4190 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	205 %	145 %
Prated	8.60 kW	7.47 kW
SCOP	5.31	3.83
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.78 kW	6.99 kW
COP Tj = -7°C	5.35	3.62
Pdh Tj = +2°C	7.87 kW	7.29 kW
COP Tj = +2°C	5.56	4.13
Pdh Tj = +7°C	7.94 kW	7.52 kW
COP Tj = +7°C	5.69	4.54
Pdh Tj = 12°C	7.95 kW	7.69 kW
COP Tj = 12°C	5.44	4.70
Pdh Tj = Tbiv	7.69 kW	6.68 kW
COP Tj = Tbiv	5.13	3.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.98 kW
Annual energy consumption Qhe	3991 kWh	4813 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.97 kW	7.80 kW
SCOP	5.15	3.70
Tbiv	4 °C	4 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	7.60 kW	6.49 kW
COP Tj = +2°C	4.88	2.91
Pdh Tj = +7°C	7.75 kW	6.91 kW
COP Tj = +7°C	5.26	3.48
Pdh Tj = 12°C	7.90 kW	7.43 kW
COP Tj = 12°C	5.63	4.39
Pdh Tj = Tbiv	7.69 kW	6.69 kW
COP Tj = Tbiv	5.11	3.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.37 kW	1.31 kW
Annual energy consumption Qhe	2329 kWh	2815 kWh

Model alpha innotec WZS 82(H)(K)3M	
Model name	alpha innotec WZS 82(H)(K)3M
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.70 kW	6.49 kW
El input	1.57 kW	2.23 kW
COP	4.90	2.91

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.65 kW	7.52 kW
SCOP	5.15	3.71
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.66 kW	6.66 kW
COP Tj = -7°C	5.02	3.13
Pdh Tj = +2°C	7.76 kW	7.08 kW
COP Tj = +2°C	5.29	3.76
Pdh Tj = +7°C	7.87 kW	7.34 kW
COP Tj = +7°C	5.54	4.21
Pdh Tj = 12°C	7.97 kW	7.60 kW
COP Tj = 12°C	5.65	4.63
Pdh Tj = Tbiv	7.66 kW	6.66 kW
COP Tj = Tbiv	5.02	3.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.05 kW	1.03 kW
Annual energy consumption Qhe	3468 kWh	4190 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	205 %	145 %
Prated	8.60 kW	7.47 kW
SCOP	5.31	3.83
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.78 kW	6.99 kW
COP Tj = -7°C	5.35	3.62
Pdh Tj = +2°C	7.87 kW	7.29 kW
COP Tj = +2°C	5.56	4.13
Pdh Tj = +7°C	7.94 kW	7.52 kW
COP Tj = +7°C	5.69	4.54
Pdh Tj = 12°C	7.95 kW	7.69 kW
COP Tj = 12°C	5.44	4.70
Pdh Tj = Tbiv	7.69 kW	6.68 kW
COP Tj = Tbiv	5.13	3.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.98 kW
Annual energy consumption Qhe	3991 kWh	4813 kWh

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

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.97 kW	7.80 kW
SCOP	5.15	3.70
Tbiv	4 °C	4 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	7.60 kW	6.49 kW
COP Tj = +2°C	4.88	2.91
Pdh Tj = +7°C	7.75 kW	6.91 kW
COP Tj = +7°C	5.26	3.48
Pdh Tj = 12°C	7.90 kW	7.43 kW
COP Tj = 12°C	5.63	4.39
Pdh Tj = Tbiv	7.69 kW	6.69 kW
COP Tj = Tbiv	5.11	3.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.37 kW	1.31 kW
Annual energy consumption Qhe	2329 kWh	2815 kWh

Model alpha innotec PWZS 82H3S

Model name	alpha innotec PWZS 82H3S
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.70 kW	6.49 kW
El input	1.57 kW	2.23 kW
COP	4.90	2.91

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.65 kW	7.52 kW
SCOP	5.15	3.71
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.66 kW	6.66 kW
COP Tj = -7°C	5.02	3.13
Pdh Tj = +2°C	7.76 kW	7.08 kW
COP Tj = +2°C	5.29	3.76
Pdh Tj = +7°C	7.87 kW	7.34 kW
COP Tj = +7°C	5.54	4.21
Pdh Tj = 12°C	7.97 kW	7.60 kW
COP Tj = 12°C	5.65	4.63
Pdh Tj = Tbiv	7.66 kW	6.66 kW
COP Tj = Tbiv	5.02	3.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.05 kW	1.03 kW
Annual energy consumption Qhe	3468 kWh	4190 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	205 %	145 %
Prated	8.60 kW	7.47 kW
SCOP	5.31	3.83
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.78 kW	6.99 kW
COP Tj = -7°C	5.35	3.62
Pdh Tj = +2°C	7.87 kW	7.29 kW
COP Tj = +2°C	5.56	4.13
Pdh Tj = +7°C	7.94 kW	7.52 kW
COP Tj = +7°C	5.69	4.54
Pdh Tj = 12°C	7.95 kW	7.69 kW
COP Tj = 12°C	5.44	4.70
Pdh Tj = Tbiv	7.69 kW	6.68 kW
COP Tj = Tbiv	5.13	3.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.98 kW
Annual energy consumption Qhe	3991 kWh	4813 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.97 kW	7.80 kW
SCOP	5.15	3.70
Tbiv	4 °C	4 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	7.60 kW	6.49 kW
COP Tj = +2°C	4.88	2.91
Pdh Tj = +7°C	7.75 kW	6.91 kW
COP Tj = +7°C	5.26	3.48
Pdh Tj = 12°C	7.90 kW	7.43 kW
COP Tj = 12°C	5.63	4.39
Pdh Tj = Tbiv	7.69 kW	6.69 kW
COP Tj = Tbiv	5.11	3.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.37 kW	1.31 kW
Annual energy consumption Qhe	2329 kWh	2815 kWh

Model NOVELAN SI 8.2H3

Model name	NOVELAN SI 8.2H3
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.70 kW	6.49 kW
El input	1.57 kW	2.23 kW
COP	4.90	2.91

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.65 kW	7.52 kW
SCOP	5.15	3.71
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.66 kW	6.66 kW
COP Tj = -7°C	5.02	3.13
Pdh Tj = +2°C	7.76 kW	7.08 kW
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COP Tj = +7°C	5.54	4.21
Pdh Tj = 12°C	7.97 kW	7.60 kW
COP Tj = 12°C	5.65	4.63
Pdh Tj = Tbiv	7.66 kW	6.66 kW
COP Tj = Tbiv	5.02	3.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.05 kW	1.03 kW
Annual energy consumption Qhe	3468 kWh	4190 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	205 %	145 %
Prated	8.60 kW	7.47 kW
SCOP	5.31	3.83
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.78 kW	6.99 kW
COP Tj = -7°C	5.35	3.62
Pdh Tj = +2°C	7.87 kW	7.29 kW
COP Tj = +2°C	5.56	4.13
Pdh Tj = +7°C	7.94 kW	7.52 kW
COP Tj = +7°C	5.69	4.54
Pdh Tj = 12°C	7.95 kW	7.69 kW
COP Tj = 12°C	5.44	4.70
Pdh Tj = Tbiv	7.69 kW	6.68 kW
COP Tj = Tbiv	5.13	3.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.98 kW
Annual energy consumption Qhe	3991 kWh	4813 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.97 kW	7.80 kW
SCOP	5.15	3.70
Tbiv	4 °C	4 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	7.60 kW	6.49 kW
COP Tj = +2°C	4.88	2.91
Pdh Tj = +7°C	7.75 kW	6.91 kW
COP Tj = +7°C	5.26	3.48
Pdh Tj = 12°C	7.90 kW	7.43 kW
COP Tj = 12°C	5.63	4.39
Pdh Tj = Tbiv	7.69 kW	6.69 kW
COP Tj = Tbiv	5.11	3.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.37 kW	1.31 kW
Annual energy consumption Qhe	2329 kWh	2815 kWh

Model NOVELAN SIC 8.2H3

Model name	NOVELAN SIC 8.2H3
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.70 kW	6.49 kW
El input	1.57 kW	2.23 kW
COP	4.90	2.91

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.65 kW	7.52 kW
SCOP	5.15	3.71
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.66 kW	6.66 kW
COP Tj = -7°C	5.02	3.13
Pdh Tj = +2°C	7.76 kW	7.08 kW
COP Tj = +2°C	5.29	3.76
Pdh Tj = +7°C	7.87 kW	7.34 kW
COP Tj = +7°C	5.54	4.21
Pdh Tj = 12°C	7.97 kW	7.60 kW
COP Tj = 12°C	5.65	4.63
Pdh Tj = Tbiv	7.66 kW	6.66 kW
COP Tj = Tbiv	5.02	3.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.05 kW	1.03 kW
Annual energy consumption Qhe	3468 kWh	4190 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	205 %	145 %
Prated	8.60 kW	7.47 kW
SCOP	5.31	3.83
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.78 kW	6.99 kW
COP Tj = -7°C	5.35	3.62
Pdh Tj = +2°C	7.87 kW	7.29 kW
COP Tj = +2°C	5.56	4.13
Pdh Tj = +7°C	7.94 kW	7.52 kW
COP Tj = +7°C	5.69	4.54
Pdh Tj = 12°C	7.95 kW	7.69 kW
COP Tj = 12°C	5.44	4.70
Pdh Tj = Tbiv	7.69 kW	6.68 kW
COP Tj = Tbiv	5.13	3.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.98 kW
Annual energy consumption Qhe	3991 kWh	4813 kWh

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

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.97 kW	7.80 kW
SCOP	5.15	3.70
Tbiv	4 °C	4 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	7.60 kW	6.49 kW
COP Tj = +2°C	4.88	2.91
Pdh Tj = +7°C	7.75 kW	6.91 kW
COP Tj = +7°C	5.26	3.48
Pdh Tj = 12°C	7.90 kW	7.43 kW
COP Tj = 12°C	5.63	4.39
Pdh Tj = Tbiv	7.69 kW	6.69 kW
COP Tj = Tbiv	5.11	3.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.37 kW	1.31 kW
Annual energy consumption Qhe	2329 kWh	2815 kWh

Model NOVELAN WS 8.2H3M	
Model name	NOVELAN WS 8.2H3M
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.70 kW	6.49 kW
El input	1.57 kW	2.23 kW
COP	4.90	2.91

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.65 kW	7.52 kW
SCOP	5.15	3.71
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.66 kW	6.66 kW
COP Tj = -7°C	5.02	3.13
Pdh Tj = +2°C	7.76 kW	7.08 kW
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COP Tj = +7°C	5.54	4.21
Pdh Tj = 12°C	7.97 kW	7.60 kW
COP Tj = 12°C	5.65	4.63
Pdh Tj = Tbiv	7.66 kW	6.66 kW
COP Tj = Tbiv	5.02	3.13

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.05 kW	1.03 kW
Annual energy consumption Qhe	3468 kWh	4190 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	205 %	145 %
Prated	8.60 kW	7.47 kW
SCOP	5.31	3.83
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.78 kW	6.99 kW
COP Tj = -7°C	5.35	3.62
Pdh Tj = +2°C	7.87 kW	7.29 kW
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Pdh Tj = +7°C	7.94 kW	7.52 kW
COP Tj = +7°C	5.69	4.54
Pdh Tj = 12°C	7.95 kW	7.69 kW
COP Tj = 12°C	5.44	4.70
Pdh Tj = Tbiv	7.69 kW	6.68 kW
COP Tj = Tbiv	5.13	3.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW	6.49 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	70 °C	70 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.00 kW	0.98 kW
Annual energy consumption Qhe	3991 kWh	4813 kWh

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

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	198 %	140 %
Prated	8.97 kW	7.80 kW
SCOP	5.15	3.70
Tbiv	4 °C	4 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	7.60 kW	6.49 kW
COP Tj = +2°C	4.88	2.91
Pdh Tj = +7°C	7.75 kW	6.91 kW
COP Tj = +7°C	5.26	3.48
Pdh Tj = 12°C	7.90 kW	7.43 kW
COP Tj = 12°C	5.63	4.39
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PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.37 kW	1.31 kW
Annual energy consumption Qhe	2329 kWh	2815 kWh