Subtype SW 42 1~

Certificate Holder	ait-deutschland GmbH
Address	Industriestr. 3
ZIP	95359
City	Kasendorf
Country	DE
Certification Body	BRE Global Limited
Subtype title	SW 42 1~
Registration number	041-K001-15
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	1.05 kg
Certification Date	12.05.2017
Testing basis	Transitional Rules

This information was generated by the HP KEYMARK database on 25.09.2025

Model alpha innotec SW 42H1	
Model name	alpha innotec SW 42H1
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	1x230V 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
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.89 kW	4.53 kW
El input	1.08 kW	1.61 kW
COP	4.54	2.80

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	185 %	133 %
Prated	5.82 kW	5.41 kW
SCOP	4.81	3.52
Tbiv	-6 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.90 kW	4.60 kW
COP Tj = -7°C	4.66	2.98
Pdh Tj = +2°C	4.90 kW	4.70 kW
COP Tj = +2°C	4.97	3.57
Pdh Tj = +7°C	5.00 kW	4.80 kW
COP Tj = +7°C	5.26	4.03
Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.59	4.60
Pdh Tj = Tbiv	4.90 kW	4.60 kW

This information was generated by the HP KEYMARK database on 25.09.2025

COP Tj = Tbiv	4.72	3.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	0.92 kW	0.91 kW
Annual energy consumption Qhe	2498 kWh	3179 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	191 %	138 %
Prated	6.07 kW	5.66 kW
SCOP	4.98	3.64
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.00 kW	4.70 kW
COP Tj = -7°C	5.05	3.46
Pdh Tj = +2°C	5.00 kW	4.80 kW
COP Tj = +2°C	5.30	3.95
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	5.51	4.41
Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.54	4.83
Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.95	3.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	15 W	15 W
PTO	15 W	15 W

This information was generated by the HP KEYMARK database on 25.09.2025

PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.17 kW	1.16 kW
Annual energy consumption Qhe	3007 kWh	3837 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	182 %	131 %
Prated	5.75 kW	5.33 kW
SCOP	4.76	3.48
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.90 kW	4.50 kW
COP Tj = +2°C	4.53	2.80
Pdh Tj = +7°C	4.90 kW	4.70 kW
COP Tj = +7°C	4.91	3.30
Pdh Tj = 12°C	5.00 kW	4.80 kW
COP Tj = 12°C	5.37	4.20
Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.74	3.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	0.85 kW	0.83 kW
Annual energy consumption Qhe	1615 kWh	2047 kWh

This information was generated by the HP KEYMARK database on 25.09.2025

Model alpha innotec SWC 42H1	
Model name	alpha innotec SWC 42H1
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	1x230V 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
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.89 kW	4.53 kW
El input	1.08 kW	1.61 kW
COP	4.54	2.80

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	185 %	133 %
Prated	5.82 kW	5.41 kW
SCOP	4.81	3.52
Tbiv	-6 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.90 kW	4.60 kW
COP Tj = -7°C	4.66	2.98
Pdh Tj = +2°C	4.90 kW	4.70 kW
COP Tj = +2°C	4.97	3.57
Pdh Tj = +7°C	5.00 kW	4.80 kW
COP Tj = +7°C	5.26	4.03
Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.59	4.60
Pdh Tj = Tbiv	4.90 kW	4.60 kW

This information was generated by the HP KEYMARK database on 25.09.2025

COP Tj = Tbiv	4.72	3.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	0.92 kW	0.91 kW
Annual energy consumption Qhe	2498 kWh	3179 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	191 %	138 %
Prated	6.07 kW	5.66 kW
SCOP	4.98	3.64
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.00 kW	4.70 kW
COP Tj = -7°C	5.05	3.46
Pdh Tj = +2°C	5.00 kW	4.80 kW
COP Tj = +2°C	5.30	3.95
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	5.51	4.41
Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.54	4.83
Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.95	3.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	1.17 kW	1.16 kW
Annual energy consumption Qhe	3007 kWh	3837 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	182 %	131 %
Prated	5.75 kW	5.33 kW
SCOP	4.76	3.48
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.90 kW	4.50 kW
COP Tj = +2°C	4.53	2.80
Pdh Tj = +7°C	4.90 kW	4.70 kW
COP Tj = +7°C	4.91	3.30
Pdh Tj = 12°C	5.00 kW	4.80 kW
COP Tj = 12°C	5.37	4.20
Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.74	3.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	0.85 kW	0.83 kW
Annual energy consumption Qhe	1615 kWh	2047 kWh

Model alpha innotec PWZS 42H1S	
Model name	alpha innotec PWZS 42H1S
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	1x230V 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
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.89 kW	4.53 kW
El input	1.08 kW	1.61 kW
COP	4.54	2.80

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	185 %	133 %
Prated	5.82 kW	5.41 kW
SCOP	4.81	3.52
Tbiv	-6 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.90 kW	4.60 kW
COP Tj = -7°C	4.66	2.98
Pdh Tj = +2°C	4.90 kW	4.70 kW
COP Tj = +2°C	4.97	3.57
Pdh Tj = +7°C	5.00 kW	4.80 kW
COP Tj = +7°C	5.26	4.03
Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.59	4.60
Pdh Tj = Tbiv	4.90 kW	4.60 kW

This information was generated by the HP KEYMARK database on 25.09.2025

COP Tj = Tbiv	4.72	3.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	0.92 kW	0.91 kW
Annual energy consumption Qhe	2498 kWh	3179 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	191 %	138 %
Prated	6.07 kW	5.66 kW
SCOP	4.98	3.64
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.00 kW	4.70 kW
COP Tj = -7°C	5.05	3.46
Pdh Tj = +2°C	5.00 kW	4.80 kW
COP Tj = +2°C	5.30	3.95
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	5.51	4.41
Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.54	4.83
Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.95	3.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	1.17 kW	1.16 kW
Annual energy consumption Qhe	3007 kWh	3837 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	182 %	131 %
Prated	5.75 kW	5.33 kW
SCOP	4.76	3.48
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.90 kW	4.50 kW
COP Tj = +2°C	4.53	2.80
Pdh Tj = +7°C	4.90 kW	4.70 kW
COP Tj = +7°C	4.91	3.30
Pdh Tj = 12°C	5.00 kW	4.80 kW
COP Tj = 12°C	5.37	4.20
Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.74	3.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	0.85 kW	0.83 kW
Annual energy consumption Qhe	1615 kWh	2047 kWh

Model alpha innotec PWZS 42H2S	
Model name	alpha innotec PWZS 42H2S
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	1x230V 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
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.89 kW	4.53 kW
El input	1.08 kW	1.61 kW
COP	4.54	2.80

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	185 %	133 %
Prated	5.82 kW	5.41 kW
SCOP	4.81	3.52
Tbiv	-6 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.90 kW	4.60 kW
COP Tj = -7°C	4.66	2.98
Pdh Tj = +2°C	4.90 kW	4.70 kW
COP Tj = +2°C	4.97	3.57
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Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.59	4.60
Pdh Tj = Tbiv	4.90 kW	4.60 kW

This information was generated by the HP KEYMARK database on 25.09.2025

COP Tj = Tbiv	4.72	3.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	0.92 kW	0.91 kW
Annual energy consumption Qhe	2498 kWh	3179 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	191 %	138 %
Prated	6.07 kW	5.66 kW
SCOP	4.98	3.64
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.00 kW	4.70 kW
COP Tj = -7°C	5.05	3.46
Pdh Tj = +2°C	5.00 kW	4.80 kW
COP Tj = +2°C	5.30	3.95
Pdh Tj = +7°C	5.00 kW	4.90 kW
COP Tj = +7°C	5.51	4.41
Pdh Tj = 12°C	5.00 kW	4.90 kW
COP Tj = 12°C	5.54	4.83
Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.95	3.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °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	1.17 kW	1.16 kW
Annual energy consumption Qhe	3007 kWh	3837 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	182 %	131 %
Prated	5.75 kW	5.33 kW
SCOP	4.76	3.48
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.90 kW	4.50 kW
COP Tj = +2°C	4.53	2.80
Pdh Tj = +7°C	4.90 kW	4.70 kW
COP Tj = +7°C	4.91	3.30
Pdh Tj = 12°C	5.00 kW	4.80 kW
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Pdh Tj = Tbiv	4.90 kW	4.60 kW
COP Tj = Tbiv	4.74	3.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.90 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.53	2.80
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WTOL	60 °C	60 °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	0.85 kW	0.83 kW
Annual energy consumption Qhe	1615 kWh	2047 kWh