

Subtype SW 192 3~

Certificate Holder	ait-deutschland GmbH
Address	Industriestr. 3
ZIP	95359
City	Kasendorf
Country	DE
Certification Body	BRE Global Limited
Subtype title	SW 192 3~
Registration number	041-K001-08
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	2.8 kg
Certification Date	12.05.2017
Testing basis	Transitional Rules

Model alpha innotec SW 192H3

Model name	alpha innotec SW 192H3
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
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EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	18.60 kW	16.36 kW
El input	3.82 kW	5.68 kW
COP	4.87	2.88

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	205 %	143 %
Prated	20.99 kW	18.85 kW
SCOP	5.33	3.77
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	18.57 kW	16.67 kW
COP Tj = -7°C	5.04	3.09
Pdh Tj = +2°C	18.77 kW	17.48 kW
COP Tj = +2°C	5.35	3.75
Pdh Tj = +7°C	18.97 kW	17.98 kW
COP Tj = +7°C	5.67	4.25
Pdh Tj = 12°C	19.16 kW	18.48 kW
COP Tj = 12°C	5.95	4.81
Pdh Tj = Tbiv	18.57 kW	16.67 kW
COP Tj = Tbiv	5.04	3.08

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.46 kW	16.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.53 kW	2.49 kW
Annual energy consumption Qhe	8139 kWh	10328 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	212 %	148 %
Prated	20.83 kW	18.69 kW
SCOP	5.50	3.89
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	18.81 kW	17.32 kW
COP Tj = -7°C	5.42	3.60
Pdh Tj = +2°C	18.98 kW	17.90 kW
COP Tj = +2°C	5.69	4.15
Pdh Tj = +7°C	19.11 kW	18.32 kW
COP Tj = +7°C	5.90	4.64
Pdh Tj = 12°C	19.14 kW	18.66 kW
COP Tj = 12°C	5.81	5.00
Pdh Tj = Tbiv	18.64 kW	16.72 kW
COP Tj = Tbiv	5.15	3.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.46 kW	16.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.37 kW	2.33 kW
Annual energy consumption Q _{he}	9334 kWh	11851 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	207 %	144 %
Prated	21.73 kW	19.53 kW
SCOP	5.38	3.80
T _{biv}	4 °C	4 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	18.46 kW	16.36 kW
COP T _j = +2°C	4.88	2.88
P _{dh} T _j = +7°C	18.75 kW	17.16 kW
COP T _j = +7°C	5.31	3.46
P _{dh} T _j = 12°C	19.04 kW	18.16 kW
COP T _j = 12°C	5.79	4.45
P _{dh} T _j = T _{biv}	18.63 kW	16.73 kW
COP T _j = T _{biv}	5.13	3.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	18.46 kW	16.36 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.88	2.88
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.90	0.90
WTOL	70 °C	70 °C
P _{off}	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	3.27 kW	3.17 kW
Annual energy consumption Q _{he}	5394 kWh	6864 kWh

Model alpha innotec SWC 192(H)(K)3

Model name	alpha innotec SWC 192(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
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EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	18.60 kW	16.36 kW
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EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	205 %	143 %
Prated	20.99 kW	18.85 kW
SCOP	5.33	3.77
Tbiv	-7 °C	-7 °C
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Pdh Tj = +7°C	18.97 kW	17.98 kW
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Pdh Tj = 12°C	19.16 kW	18.48 kW
COP Tj = 12°C	5.95	4.81
Pdh Tj = Tbiv	18.57 kW	16.67 kW
COP Tj = Tbiv	5.04	3.09

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.46 kW	16.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.53 kW	2.49 kW
Annual energy consumption Qhe	8139 kWh	10328 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	212 %	148 %
Prated	20.83 kW	18.69 kW
SCOP	5.50	3.89
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	18.81 kW	17.32 kW
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COP Tj = +2°C	5.69	4.15
Pdh Tj = +7°C	19.11 kW	18.32 kW
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Pdh Tj = 12°C	19.14 kW	18.66 kW
COP Tj = 12°C	5.81	5.00
Pdh Tj = Tbiv	18.64 kW	16.72 kW
COP Tj = Tbiv	5.15	3.13
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.46 kW	16.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.37 kW	2.33 kW
Annual energy consumption Q _{he}	9334 kWh	11851 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	207 %	144 %
Prated	21.73 kW	19.53 kW
SCOP	5.38	3.80
T _{biv}	4 °C	4 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	18.46 kW	16.36 kW
COP T _j = +2°C	4.88	2.88
P _{dh} T _j = +7°C	18.75 kW	17.16 kW
COP T _j = +7°C	5.31	3.46
P _{dh} T _j = 12°C	19.04 kW	18.16 kW
COP T _j = 12°C	5.79	4.45
P _{dh} T _j = T _{biv}	18.63 kW	16.73 kW
COP T _j = T _{biv}	5.13	3.14
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	18.46 kW	16.36 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.88	2.88
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.90	0.90
WTOL	70 °C	70 °C
P _{off}	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	3.27 kW	3.17 kW
Annual energy consumption Q _{he}	5394 kWh	6864 kWh

Model NOVELAN SI 19.2H3

Model name	NOVELAN SI 19.2H3
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
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EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	18.60 kW	16.36 kW
El input	3.82 kW	5.68 kW
COP	4.87	2.88

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	205 %	143 %
Prated	20.99 kW	18.85 kW
SCOP	5.33	3.77
Tbiv	-7 °C	-7 °C
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Pdh Tj = -7°C	18.57 kW	16.67 kW
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Pdh Tj = +2°C	18.77 kW	17.48 kW
COP Tj = +2°C	5.35	3.75
Pdh Tj = +7°C	18.97 kW	17.98 kW
COP Tj = +7°C	5.67	4.25
Pdh Tj = 12°C	19.16 kW	18.48 kW
COP Tj = 12°C	5.95	4.81
Pdh Tj = Tbiv	18.57 kW	16.67 kW
COP Tj = Tbiv	5.04	3.08

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.46 kW	16.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.53 kW	2.49 kW
Annual energy consumption Qhe	8139 kWh	10328 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	212 %	148 %
Prated	20.83 kW	18.69 kW
SCOP	5.50	3.89
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	18.81 kW	17.32 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.37 kW	2.33 kW
Annual energy consumption Q _{he}	9334 kWh	11851 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	207 %	144 %
Prated	21.73 kW	19.53 kW
SCOP	5.38	3.80
T _{biv}	4 °C	4 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	18.46 kW	16.36 kW
COP T _j = +2°C	4.88	2.88
P _{dh} T _j = +7°C	18.75 kW	17.16 kW
COP T _j = +7°C	5.31	3.46
P _{dh} T _j = 12°C	19.04 kW	18.16 kW
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COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.88	2.88
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.90	0.90
WTOL	70 °C	70 °C
P _{off}	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	3.27 kW	3.17 kW
Annual energy consumption Q _{he}	5394 kWh	6864 kWh

Model NOVELAN SIC 19.2H3

Model name	NOVELAN SIC 19.2H3
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
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EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	18.60 kW	16.36 kW
El input	3.82 kW	5.68 kW
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	Low temperature	Medium temperature
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	18.46 kW	16.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.53 kW	2.49 kW
Annual energy consumption Qhe	8139 kWh	10328 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

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ηs	212 %	148 %
Prated	20.83 kW	18.69 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	2.88
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	2.37 kW	2.33 kW
Annual energy consumption Q _{he}	9334 kWh	11851 kWh

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	Low temperature	Medium temperature
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COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.88	2.88
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.90	0.90
WTOL	70 °C	70 °C
P _{off}	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	3.27 kW	3.17 kW
Annual energy consumption Q _{he}	5394 kWh	6864 kWh