

Subtype SW 232 3~

Certificate Holder	ait-deutschland GmbH
Address	Industriestr. 3
ZIP	95359
City	Kasendorf
Country	DE
Certification Body	BRE Global Limited
Subtype title	SW 232 3~
Registration number	041-K001-09
Heat Pump Type	Brine/Water
Refrigerant	R410A
Mass of Refrigerant	3.2 kg
Certification Date	12.05.2017
Testing basis	Transitional Rules

Model alpha innotec SW 232H3

Model name	alpha innotec SW 232H3
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	22.35 kW	20.16 kW
El input	4.51 kW	6.55 kW
COP	4.95	3.08

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	206 %	143 %
Prated	22.00 kW	20.00 kW
SCOP	5.35	3.78
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	22.40 kW	20.40 kW
COP Tj = -7°C	5.01	3.22
Pdh Tj = +2°C	22.60 kW	21.10 kW
COP Tj = +2°C	5.33	3.75
Pdh Tj = +7°C	22.90 kW	21.60 kW
COP Tj = +7°C	5.66	4.15
Pdh Tj = 12°C	23.10 kW	22.10 kW
COP Tj = 12°C	6.01	4.63
Pdh Tj = Tbiv	22.40 kW	20.20 kW
COP Tj = Tbiv	4.96	3.08

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	22.40 kW	20.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.96	3.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	65 °C	65 °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	0.00 kW	0.00 kW
Annual energy consumption Qhe	8494 kWh	10925 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 %	147 %
Prated	22.00 kW	20.00 kW
SCOP	5.50	3.87
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	22.70 kW	21.00 kW
COP Tj = -7°C	5.39	3.63
Pdh Tj = +2°C	22.90 kW	21.50 kW
COP Tj = +2°C	5.67	4.08
Pdh Tj = +7°C	23.00 kW	21.90 kW
COP Tj = +7°C	5.90	4.48
Pdh Tj = 12°C	23.00 kW	22.20 kW
COP Tj = 12°C	5.97	4.82
Pdh Tj = Tbiv	22.40 kW	20.20 kW
COP Tj = Tbiv	4.96	3.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	22.40 kW	20.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.96	3.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	65 °C	65 °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	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	9858 kWh	12728 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	22.00 kW	20.00 kW
SCOP	5.38	3.79
T _{biv}	2 °C	2 °C
TOL	0 °C	0 °C
P _{dh} T _j = +2°C	22.40 kW	20.20 kW
COP T _j = +2°C	4.96	3.08
P _{dh} T _j = +7°C	22.60 kW	20.80 kW
COP T _j = +7°C	5.26	3.50
P _{dh} T _j = 12°C	22.90 kW	21.80 kW
COP T _j = 12°C	5.77	4.31
P _{dh} T _j = T _{biv}	22.40 kW	20.20 kW
COP T _j = T _{biv}	4.96	3.08
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	22.40 kW	20.20 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.96	3.08
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.90	0.90
WTOL	65 °C	65 °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	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	5459 kWh	7044 kWh

Model NOVELAN SI 23.2H3

Model name	NOVELAN SI 23.2H3
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

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