

Subtype AEROTOP SG12 INOX / INOX OPTIC

Certificate Holder	ELCO GmbH
Address	Hohenzollernstrasse 31
ZIP	72379
City	Hechingen
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	AEROTOP SG12 INOX / INOX OPTIC
Registration number	011-1W0475
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	4.27 kg
Certification Date	05.07.2021
Testing basis	HP KEYMARK certification scheme rules rev. 8

Model AEROTOP SG12 INOX / INOX OPTIC

Model name	AEROTOP SG12 INOX / INOX OPTIC
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

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

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	7.15 kW	6.70 kW
EI input	1.32 kW	2.12 kW
COP	5.40	3.16

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	54 dB(A)	54 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	206 %	150 %
Prated	12.63 kW	12.58 kW
SCOP	5.23	3.83
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.17 kW	11.15 kW
COP Tj = -7°C	3.87	2.64
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	6.85 kW	6.76 kW
COP Tj = +2°C	5.27	3.95
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.37 kW	4.36 kW
COP Tj = +7°C	6.75	4.62

Cdh Tj = +7 °C	0.960	0.960
Pdh Tj = 12°C	4.34 kW	4.20 kW
COP Tj = 12°C	8.26	6.35
Cdh Tj = +12 °C	0.960	0.960
Pdh Tj = Tbiv	11.17 kW	11.15 kW
COP Tj = Tbiv	3.87	2.64
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.00 kW	10.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.960	0.960
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	24 W	24 W
PSB	24 W	24 W
PCK	24 W	24 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.63 kW	1.78 kW
Annual energy consumption Qhe	4984 kWh	6793 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	54 dB(A)	54 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	152 %	128 %
Prated	18.64 kW	18.44 kW
SCOP	3.86	3.26
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	11.28 kW	11.16 kW
COP Tj = -7°C	3.63	3.04
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	6.82 kW	6.86 kW
COP Tj = +2°C	5.68	4.40
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	4.38 kW	4.38 kW
COP Tj = +7°C	6.35	5.54
Cdh Tj = +7 °C	0.960	0.960
Pdh Tj = 12°C	4.37 kW	4.47 kW
COP Tj = 12°C	8.25	7.10
Cdh Tj = +12 °C	0.960	0.960
Pdh Tj = Tbiv	11.28 kW	11.16 kW
COP Tj = Tbiv	3.63	3.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.93 kW	6.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.03	1.47
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.960	0.960
WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	24 W	24 W
PSB	24 W	24 W
PCK	24 W	24 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	18.64 kW	18.44 kW
Annual energy consumption Qhe	11889 kWh	13937 kWh
Pdh Tj = -15°C (if TOL)		
COP Tj = -15°C (if TOL)		
Cdh Tj = -15 °C		

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	54 dB(A)	54 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	220 %	154 %
Prated	8.24 kW	7.70 kW
SCOP	5.57	3.93
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.24 kW	7.70 kW
COP Tj = +2°C	4.56	2.95
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	5.30 kW	5.18 kW
COP Tj = +7°C	5.70	3.58
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	4.48 kW	4.30 kW
COP Tj = 12°C	7.47	5.54
Cdh Tj = +12 °C	0.960	0.960
Pdh Tj = Tbiv	8.24 kW	7.70 kW
COP Tj = Tbiv	4.56	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.24 kW	7.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.56	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990

WTOL	60 °C	60 °C
Poff	24 W	24 W
PTO	24 W	24 W
PSB	24 W	24 W
PCK	24 W	24 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1977 kWh	2616 kWh