Subtype AEROTOP SPK10

Certificate Holder	ELCO GmbH
Address	Hohenzollernstrasse 31
ZIP	72379
City	Hechingen
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	AEROTOP SPK10
Registration number	011-1W0773
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	3.4 kg
Certification Date	07.02.2024
Testing basis	HP KEYMARK certification scheme rules V12

Model AEROTOP SPK10	
Model name	AEROTOP SPK10
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
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	4.10 kW	3.99 kW
El input	0.75 kW	1.29 kW
COP	5.54	3.09

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	191 %	141 %
Prated	7.58 kW	7.40 kW
SCOP	4.86	3.60
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.25 kW	7.03 kW
COP Tj = -7°C	2.92	2.09
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	4.33 kW	4.28 kW
COP Tj = +2°C	4.69	3.45
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.72 kW	3.54 kW

COP Tj = +7°C	6.89	5.07
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	3.75 kW	4.09 kW
COP Tj = 12°C	7.43	6.60
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	7.58 kW	7.40 kW
COP Tj = Tbiv	2.52	1.75
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.58 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.52	1.75
WTOL	35 °C	55 °C
Poff	13 W	13 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	3225 kWh	4255 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	177 %	135 %
Prated	8.78 kW	8.17 kW
SCOP	4.50	3.44
Tbiv	-17 °C	-17 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.32 kW	5.44 kW
COP Tj = -7°C	4.00	2.84
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	3.36 kW	3.30 kW
COP Tj = +2°C	5.10	4.25
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.73 kW	3.61 kW
COP Tj = +7°C	7.24	5.52
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	4.03 kW	3.90 kW
COP Tj = 12°C	7.70	6.57
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	7.62 kW	7.09 kW
COP Tj = Tbiv	2.47	1.70

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	5.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.19	1.35
WTOL	35 °C	55 °C
Poff	13 W	13 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	4812 kWh	5852 kWh
Pdh Tj = -15°C (if TOL	7.10	7.28
COP Tj = -15°C (if TOL	2.77	1.99
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	272 %	185 %
Prated	8.57 kW	8.64 kW
SCOP	6.88	4.71
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	8.57 kW	8.64 kW
COP Tj = +2°C	3.51	2.40
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.99 kW	5.93 kW
COP Tj = +7°C	6.41	4.14
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.14 kW	3.82 kW
COP Tj = 12°C	8.36	5.99
Cdh Tj = +12 °C	0.97	0.98
Pdh Tj = Tbiv	8.57 kW	8.64 kW
COP Tj = Tbiv	3.51	2.40
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.57 kW	8.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.40
WTOL	35 °C	55 °C
Poff	13 W	13 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	1665 kWh	2451 kWh