

## Subtype AEROTOP SPK16

Certificate Holder	ELCO GmbH
Address	Hohenzollernstrasse 31
ZIP	72379
City	Hechingen
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	AEROTOP SPK16
Registration number	011-1W0990
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	3.8 kg
Certification Date	03.03.2025
Testing basis	HP KEYMARK certification scheme rules rev. 14

## Model AEROTOP SPK16

Model name	AEROTOP SPK16
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
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	20.54 kW	20.60 kW
El input	4.44 kW	7.04 kW
COP	4.63	2.93

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.27 kW	1.68 kW
Cooling capacity	8.35	9.75
EER	3.68	5.82

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	215 %	154 %
Prated	13.52 kW	14.55 kW
SCOP	5.46	3.92
Tbiv	-10 °C	-10 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.17 kW	12.64 kW
COP Tj = -7°C	3.40	2.31
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.30 kW	7.73 kW
COP Tj = +2°C	5.42	3.86
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.33 kW	5.87 kW
COP Tj = +7°C	7.09	5.21
Cdh Tj = +7 °C	0.973	0.979
Pdh Tj = 12°C	7.13 kW	6.80 kW
COP Tj = 12°C	8.53	6.56
Cdh Tj = +12 °C	0.972	0.977
Pdh Tj = Tbiv	13.52 kW	14.55 kW
COP Tj = Tbiv	2.61	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.52 kW	14.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	20 W	20 W
PTO	24 W	24 W
PSB	23 W	23 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	5118 kWh	7675 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	183 %	137 %
Prated	15.64 kW	15.46 kW
SCOP	4.65	3.50
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	9.73 kW	9.84 kW
COP Tj = -7°C	3.95	2.88
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.95 kW	6.17 kW

COP Tj = +2°C	5.84	4.49
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	6.38 kW	6.02 kW
COP Tj = +7°C	7.12	5.60
Cdh Tj = +7 °C	0.974	0.978
Pdh Tj = 12°C	6.69 kW	6.76 kW
COP Tj = 12°C	7.96	6.60
Cdh Tj = +12 °C	0.972	0.977
Pdh Tj = Tbiv	12.76 kW	12.61 kW
COP Tj = Tbiv	2.68	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.06 kW	10.27 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.23	1.35
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	20 W	20 W
PTO	24 W	24 W
PSB	23 W	23 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.58 kW	5.19 kW
Annual energy consumption Qhe	8292 kWh	10876 kWh
Pdh Tj = -15°C (if TOL	12.76	12.61
COP Tj = -15°C (if TOL	2.68	1.87
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	266 %	185 %
Prated	15.17 kW	15.98 kW
SCOP	6.72	4.71
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.17 kW	15.98 kW
COP Tj = +2°C	3.35	2.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	10.21 kW	9.98 kW
COP Tj = +7°C	6.26	4.12
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	7.12 kW	6.62 kW
COP Tj = 12°C	8.15	6.03
Cdh Tj = +12 °C	0.973	0.978
Pdh Tj = Tbiv	15.17 kW	15.98 kW
COP Tj = Tbiv	3.35	2.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.17 kW	15.98 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.30
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	20 W	20 W
PTO	24 W	24 W
PSB	23 W	23 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	3017 kWh	4538 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	14.53 kW	15.80 kW
SEER	3.39	5.09
Pdc Tj = 35°C	14.53 kW	15.80 kW
EER Tj = 35°C	2.74	4.59
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	10.45 kW	11.82 kW
EER Tj = 30°C	4.10	6.12
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.63 kW	7.01 kW
EER Tj = 25°C	3.97	5.49
Cdc Tj = 25 °C	0.250	0.250
Pdc Tj = 20°C	4.94 kW	6.42 kW
EER Tj = 20°C	3.49	4.87
Cdc Tj = 20 °C	0.983	0.982
Poff	20 W	20 W
PTO	24 W	24 W
PSB	23 W	23 W
PCK	0 W	0 W
Annual energy consumption Qce	1499 kWh	1088 kWh