

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	AEROTOP S09.2	Reg. No.	011-1W0392
Certificate Holder			
Name	ELCO GmbH		
Address	Hohenzollernstrasse 31	Zip	72379
City	Hechingen	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Heat Pump Test Center WPZ		
Subtype title	AEROTOP S09.2		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	4 kg		
Certification Date	28.07.2020		

## Model: AEROTOP S09.2

### General Data

Power supply	3x400V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	6.75 kW	7.25 kW
El input	1.34 kW	3.23 kW
COP	5.05	2.24
Indoor water flow rate	1.17 m <sup>3</sup> /h	1.25 m <sup>3</sup> /h

### EN 14511-4

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## Average Climate

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### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	196 %	134 %
Prated	9.91 kW	8.20 kW
SCOP	4.99	3.42
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.77 kW	7.25 kW
COP Tj = -7°C	3.18	2.24
Cdh	0.99	0.99
Pdh Tj = +2°C	5.59 kW	4.60 kW
COP Tj = +2°C	4.99	3.13
Cdh	0.98	0.98
Pdh Tj = +7°C	3.58 kW	3.07 kW
COP Tj = +7°C	6.28	4.95
Cdh	0.94	0.94
Pdh Tj = 12°C	3.03 kW	3.00 kW

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COP Tj = 12°C	7.77	6.00
Cdh	0.93	0.93
Pdh Tj = Tbiv	8.77 kW	7.25 kW
COP Tj = Tbiv	3.18	2.24
Pdh Tj = TOL	9.47 kW	9.03 kW
COP Tj = TOL	2.72	1.80
WTOL	63 °C	63 °C
Poff	35 W	35 W
PTO	36 W	36 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.44 kW	0.00 kW
Annual energy consumption Qhe	4108 kWh	4948 kWh

## Warmer Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	45 dB(A)	45 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>

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$\eta_s$	230 %	172 %
Prated	9.05 kW	9.78 kW
SCOP	5.81	4.38
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	9.05 kW	9.78 kW
COP Tj = +2°C	3.79	2.68
Cdh	0.98	0.98
Pdh Tj = +7°C	6.75 kW	6.34 kW
COP Tj = +7°C	5.04	3.89
Cdh	0.94	0.94
Pdh Tj = 12°C	3.01 kW	2.94 kW
COP Tj = 12°C	7.34	5.35
Cdh	0.93	0.93
Pdh Tj = Tbiv	9.05 kW	9.78 kW
COP Tj = Tbiv	3.79	2.68
Pdh Tj = TOL	9.05 kW	9.78 kW
COP Tj = TOL	3.79	2.68
WTOL	63 °C	63 °C
Poff	35 W	35 W
PTO	36 W	36 W

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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 <sub>he</sub>	2081 kWh	2983 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	45 dB(A)	45 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	151 %	117 %
Prated	10.69 kW	10.02 kW
SCOP	3.84	3.01
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	6.83 kW	6.40 kW
COP T <sub>j</sub> = -7°C	3.12	2.44
C <sub>dh</sub>	0.99	0.99

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Pdh Tj = +2°C	4.25 kW	3.79 kW
COP Tj = +2°C	5.38	4.21
Cdh	0.98	0.98
Pdh Tj = +7°C	2.62 kW	2.58 kW
COP Tj = +7°C	6.24	4.96
Cdh	0.94	0.94
Pdh Tj = 12°C	3.03 kW	3.03 kW
COP Tj = 12°C	7.77	6.45
Cdh	0.93	0.93
Pdh Tj = Tbiv	6.83 kW	6.40 kW
COP Tj = Tbiv	3.12	2.44
Pdh Tj = TOL	6.91 kW	6.54 kW
COP Tj = TOL	2.02	1.33
WTOL	63 °C	63 °C
Poff	35 W	35 W
PTO	36 W	36 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.78 kW	3.48 kW
Annual energy consumption Qhe	7241 kWh	8667 kWh

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Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL<-20°C)		
Cdh		



## Model: AEROTOP S09.2\_2-parts

### General Data

Power supply	3x400V 50Hz
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### Heating

#### EN 14511-2

	Low temperature	Medium temperature
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El input	1.34 kW	3.23 kW
COP	5.05	2.24
Indoor water flow rate	1.17 m <sup>3</sup> /h	1.25 m <sup>3</sup> /h

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