

This information was generated by the HP KEYMARK database on 18 Mar 2022

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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		
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

Configure model

Model name	AEROTOP S09.2
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

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

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
η_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 Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.59 kW	4.60 kW
COP Tj = +2°C	4.99	3.13
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	3.58 kW	3.07 kW
COP Tj = +7°C	6.28	4.95
Cdh Tj = +7 °C	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 Tj = +12 °C	0.93	0.93
Pdh Tj = Tbiv	8.77 kW	7.25 kW
COP Tj = Tbiv	3.18	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.47 kW	9.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

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

EN 14825		
	Low temperature	Medium temperature

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η_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 Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	6.75 kW	6.34 kW
COP Tj = +7°C	5.04	3.89
Cdh Tj = +7 °C	0.94	0.94
Pdh Tj = 12°C	3.01 kW	2.94 kW
COP Tj = 12°C	7.34	5.35
Cdh Tj = +12 °C	0.93	0.93
Pdh Tj = Tbiv	9.05 kW	9.78 kW
COP Tj = Tbiv	3.79	2.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.05 kW	9.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.79	2.68
WTOL	63 °C	63 °C
Poff	35 W	35 W

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PTO	36 W	36 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	2081 kWh	2983 kWh

Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
η_s	151 %	117 %
Prated	10.69 kW	10.02 kW
SCOP	3.84	3.01
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	6.83 kW	6.40 kW
COP T _j = -7°C	3.12	2.44

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Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.25 kW	3.79 kW
COP Tj = +2°C	5.38	4.21
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.62 kW	2.58 kW
COP Tj = +7°C	6.24	4.96
Cdh Tj = +7 °C	0.94	0.94
Pdh Tj = 12°C	3.03 kW	3.03 kW
COP Tj = 12°C	7.77	6.45
Cdh Tj = +12 °C	0.93	0.93
Pdh Tj = Tbiv	6.83 kW	6.40 kW
COP Tj = Tbiv	3.12	2.44
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.91 kW	6.54 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

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Annual energy consumption Q_{he}	7241 kWh	8667 kWh
$P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$)		
$COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$)		
$C_{dh} T_j = -15^{\circ}\text{C}$		

Model: AEROTOP S09.2_2-parts

Configure model	
Model name	AEROTOP S09.2_2-parts
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

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

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

EN 12102-1

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

EN 14825

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Pdh Tj = +7°C	2.62 kW	2.58 kW
COP Tj = +7°C	6.24	4.96
Cdh Tj = +7 °C	0.94	0.94
Pdh Tj = 12°C	3.03 kW	3.03 kW
COP Tj = 12°C	7.77	6.45
Cdh Tj = +12 °C	0.93	0.93
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