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

Summary of	AEROTOP S05.2	Reg. No.	011-1W0390
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 S05.2		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	4 kg		
Certification Date	28.07.2020		

Model: AEROTOP S05.2

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.91 kW	4.19 kW
El input	1.14 kW	1.55 kW
COP	4.31	2.77
Indoor water flow rate	0.84 m³/h	0.72 m³/h

Average Climate

EN 14825		
	Low temperature	**Medium temperature**

η_s	180 %	129 %
Prated	5.97 kW	4.75 kW
SCOP	4.58	3.29
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	5.28 kW	4.20 kW
COP Tj = -7°C	3.57	2.21
Cdh	0.98	0.98
Pdh Tj = +2°C	3.11 kW	2.67 kW
COP Tj = +2°C	4.64	3.46
Cdh	0.96	0.96
Pdh Tj = +7°C	2.60 kW	2.51 kW
COP Tj = +7°C	5.65	4.18
Cdh	0.94	0.94
Pdh Tj = 12°C	3.07 kW	3.00 kW
COP Tj = 12°C	3.57	5.66
Cdh	0.93	0.93
Pdh Tj = Tbiv	5.28 kW	4.20 kW
COP Tj = Tbiv	3.57	2.21
Pdh Tj = TOL	5.84 kW	5.44 kW
COP Tj = TOL	2.95	1.96

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	0.13 kW	0.00 kW
Annual energy consumption Qhe	2691 kWh	2977 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	226 %	163 %
Prated	5.83 kW	5.75 kW
SCOP	5.74	4.14
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C

Pdh Tj = +2°C	5.83 kW	5.75 kW
COP Tj = +2°C	3.20	2.86
Cdh	0.98	0.98
Pdh Tj = +7°C	3.70 kW	3.74 kW
COP Tj = +7°C	5.61	3.70
Cdh	0.96	0.96
Pdh Tj = 12°C	3.04 kW	2.97 kW
COP Tj = 12°C	7.24	5.21
Cdh	0.94	0.94
Pdh Tj = Tbiv	5.83 kW	5.75 kW
COP Tj = Tbiv	3.20	2.86
Pdh Tj = TOL	5.83 kW	5.75 kW
COP Tj = TOL	3.20	2.86
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	0.00 kW	0.00 kW
Annual energy consumption Qhe	1358 kWh	1854 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	156 %	122 %
Prated	7.00 kW	5.81 kW
SCOP	3.98	3.13
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.47 kW	3.71 kW
COP Tj = -7°C	3.92	2.56
Cdh	0.98	0.98
Pdh Tj = +2°C	2.64 kW	2.33 kW
COP Tj = +2°C	5.28	4.24

Cdh	0.96	0.96
Pdh Tj = +7°C	2.63 kW	2.59 kW
COP Tj = +7°C	6.12	4.71
Cdh	0.94	0.94
Pdh Tj = 12°C	3.07 kW	3.05 kW
COP Tj = 12°C	7.49	6.09
Cdh	0.93	0.93
Pdh Tj = Tbiv	4.47 kW	3.71 kW
COP Tj = Tbiv	3.92	2.56
Pdh Tj = TOL	4.32 kW	4.03 kW
COP Tj = TOL	2.32	1.55
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	2.68 kW	1.78 kW
Annual energy consumption Qhe	4575 kWh	4824 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL<-20°C)		

Cdh		

Model: AEROTOP S05.2_2-parts

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.91 kW	4.19 kW
El input	1.14 kW	1.55 kW
COP	4.31	2.77
Indoor water flow rate	0.84 m³/h	0.72 m³/h

Average Climate

EN 14825		
	Low temperature	**Medium temperature**

η_s	180 %	129 %
Prated	5.97 kW	4.75 kW
SCOP	4.58	3.29
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	5.28 kW	4.20 kW
COP Tj = -7°C	3.57	2.21
Cdh	0.98	0.98
Pdh Tj = +2°C	3.11 kW	2.67 kW
COP Tj = +2°C	4.64	3.46
Cdh	0.96	0.96
Pdh Tj = +7°C	2.60 kW	2.51 kW
COP Tj = +7°C	5.65	4.18
Cdh	0.94	0.94
Pdh Tj = 12°C	3.07 kW	3.00 kW
COP Tj = 12°C	3.57	5.66
Cdh	0.93	0.93
Pdh Tj = Tbiv	5.28 kW	4.20 kW
COP Tj = Tbiv	3.57	2.21
Pdh Tj = TOL	5.84 kW	5.44 kW
COP Tj = TOL	2.95	1.96

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	0.13 kW	0.00 kW
Annual energy consumption Qhe	2691 kWh	2977 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	226 %	163 %
Prated	5.83 kW	5.75 kW
SCOP	5.74	4.14
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C

Pdh Tj = +2°C	5.83 kW	5.75 kW
COP Tj = +2°C	3.20	2.86
Cdh	0.98	0.98
Pdh Tj = +7°C	3.70 kW	3.74 kW
COP Tj = +7°C	5.61	3.70
Cdh	0.96	0.96
Pdh Tj = 12°C	3.04 kW	2.97 kW
COP Tj = 12°C	7.24	5.21
Cdh	0.94	0.94
Pdh Tj = Tbiv	5.83 kW	5.75 kW
COP Tj = Tbiv	3.20	2.86
Pdh Tj = TOL	5.83 kW	5.75 kW
COP Tj = TOL	3.20	2.86
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	0.00 kW	0.00 kW
Annual energy consumption Qhe	1358 kWh	1854 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	156 %	122 %
Prated	7.00 kW	5.81 kW
SCOP	3.98	3.13
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.47 kW	3.71 kW
COP Tj = -7°C	3.92	2.56
Cdh	0.98	0.98
Pdh Tj = +2°C	2.64 kW	2.33 kW
COP Tj = +2°C	5.28	4.24

Cdh	0.96	0.96
Pdh Tj = +7°C	2.63 kW	2.59 kW
COP Tj = +7°C	6.12	4.71
Cdh	0.94	0.94
Pdh Tj = 12°C	3.07 kW	3.05 kW
COP Tj = 12°C	7.49	6.09
Cdh	0.93	0.93
Pdh Tj = Tbiv	4.47 kW	3.71 kW
COP Tj = Tbiv	3.92	2.56
Pdh Tj = TOL	4.32 kW	4.03 kW
COP Tj = TOL	2.32	1.55
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	2.68 kW	1.78 kW
Annual energy consumption Qhe	4575 kWh	4824 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL<-20°C)		

Cdh		