

Subtype HPA-O 05.1 CS Premium, HPA-O 07.1 CS Premium

Certificate Holder	STIEBEL ELTRON GmbH & Co KG
Address	Dr. Stiebel Straße 33
ZIP	37603
City	Holzminden
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	HPA-O 05.1 CS Premium, HPA-O 07.1 CS Premium
Registration number	011-1W0406
Heat Pump Type	Outdoor Air/Water
Refrigerant	R454C
Mass of Refrigerant	3 kg
Certification Date	20.05.2021
Testing basis	HP KEYMARK certification scheme rules rev. 8

Model HPA-O 05.1 CS Premium

Model name	HPA-O 05.1 CS Premium
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x230V 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	185 %	151 %
Prated	5.50 kW	5.60 kW
SCOP	4.70	3.85
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.86 kW	4.89 kW
COP Tj = -7°C	3.40	2.64
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	2.95 kW	3.03 kW
COP Tj = +2°C	4.58	3.80
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.16 kW	2.99 kW
COP Tj = +7°C	6.32	4.84
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.74 kW	3.57 kW
COP Tj = 12°C	8.19	6.09
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	4.68 kW	4.89 kW
COP Tj = Tbiv	3.40	2.64

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.43 kW	4.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.22
WTOL	75 °C	75 °C
Poff	12 W	12 W
PTO	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.07 kW	1.50 kW
Annual energy consumption Qhe	2415 kWh	3021 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	151 %	126 %
Prated	8.20 kW	7.80 kW
SCOP	3.84	3.23
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.94 kW	4.70 kW
COP Tj = -7°C	3.67	2.94
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	3.00 kW	2.86 kW
COP Tj = +2°C	5.03	4.30
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.21 kW	3.08 kW
COP Tj = +7°C	6.81	5.42
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.74 kW	3.63 kW
COP Tj = 12°C	8.20	6.56
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	4.94 kW	4.70 kW
COP Tj = Tbiv	3.67	2.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW	2.58 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.93	2.20
WTOL	75 °C	75 °C
Poff	12 W	12 W
PTO	10 W	10 W
PSB	12 W	12 W

PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.13 kW	5.19 kW
Annual energy consumption Q _{he}	5239 kWh	5927 kWh
P _{dh} T _j = -15°C (if TOL	4.00	3.64
COP T _j = -15°C (if TOL	2.93	2.20
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	208 %	143 %
Prated	3.00 kW	3.00 kW
SCOP	5.26	3.66
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	3.03 kW	2.97 kW
COP T _j = +2°C	4.29	2.86
C _{dh} T _j = +2 °C	0.90	0.90
P _{dh} T _j = +7°C	3.07 kW	2.72 kW
COP T _j = +7°C	5.52	3.61
C _{dh} T _j = +7 °C	0.90	0.90
P _{dh} T _j = 12°C	3.69 kW	3.46 kW
COP T _j = 12°C	7.51	5.33
C _{dh} T _j = +12 °C	0.90	0.90
P _{dh} T _j = T _{biv}	3.03 kW	2.97 kW
COP T _j = T _{biv}	4.29	2.86
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	3.03 kW	2.97 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.29	2.86
WTOL	75 °C	75 °C
P _{off}	12 W	12 W
PTO	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	768 kWh	1085 kWh

Model HPA-O 07.1 CS Premium

Model name	HPA-O 07.1 CS Premium
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x230V 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	192 %	153 %
Prated	8.10 kW	8.00 kW
SCOP	4.88	3.90
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.13 kW	7.04 kW
COP Tj = -7°C	3.00	2.43
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	4.34 kW	4.28 kW
COP Tj = +2°C	4.82	3.79
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.19 kW	3.05 kW
COP Tj = +7°C	6.66	5.22
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.75 kW	3.60 kW
COP Tj = 12°C	8.40	6.33
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	7.13 kW	7.04 kW
COP Tj = Tbiv	3.00	2.43

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.86 kW	6.53 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.43
WTOL	75 °C	75 °C
Poff	12 W	12 W
PTO	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.43 kW
Annual energy consumption Qhe	3413 kWh	4219 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	151 %	128 %
Prated	11.80 kW	11.90 kW
SCOP	3.84	3.26
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.15 kW	7.21 kW
COP Tj = -7°C	3.17	2.70
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	4.35 kW	4.39 kW
COP Tj = +2°C	5.24	4.31
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.24 kW	3.15 kW
COP Tj = +7°C	7.18	5.99
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.75 kW	3.66 kW
COP Tj = 12°C	8.41	6.88
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	7.15 kW	7.21 kW
COP Tj = Tbiv	3.17	2.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.49 kW	6.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.74	2.22
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	75 °C	75 °C
Poff	12 W	12 W

PTO	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.90 kW	6.90 kW
Annual energy consumption Q _{he}	7574 kWh	9005 kWh
P _{dh} T _j = -15°C (if TOL	6.49	6.29
COP T _j = -15°C (if TOL	2.74	2.22
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	230 %	163 %
Prated	4.30 kW	4.30 kW
SCOP	5.84	4.14
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	4.30 kW	4.30 kW
COP T _j = +2°C	4.30	2.93
C _{dh} T _j = +2 °C	0.90	0.90
P _{dh} T _j = +7°C	3.10 kW	2.80 kW
COP T _j = +7°C	5.77	3.90
C _{dh} T _j = +7 °C	0.90	0.90
P _{dh} T _j = 12°C	3.70 kW	3.49 kW
COP T _j = 12°C	7.69	5.53
C _{dh} T _j = +12 °C	0.90	0.90
P _{dh} T _j = T _{biv}	4.30 kW	4.30 kW
COP T _j = T _{biv}	4.30	2.93
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	4.30 kW	4.30 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.30	2.93
WTOL	75 °C	75 °C
P _{off}	12 W	12 W
PTO	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	984 kWh	1388 kWh