

Subtype HPA-O 3/4 CS Plus

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Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	HPA-O 3/4 CS Plus
Registration number	011-1W0283
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	1.1 kg
Certification Date	03.12.2018
Testing basis	HP KEYMARK certification scheme rules rev. no. 5

Model HPA-O 3 CS Plus, low temperature, all climates

Model name	HPA-O 3 CS Plus, low temperature, all climates
Application	Heating (low 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	1x230V 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	2.73 kW	
El input	0.58 kW	
COP	4.70	

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	166 %	
Prated	3.62 kW	
SCOP	4.22	
Tbiv	-7 °C	
TOL	-10 °C	
Pdh Tj = -7°C	3.20 kW	
COP Tj = -7°C	2.88	
Cdh Tj = -7 °C	0.900	
Pdh Tj = +2°C	1.95 kW	
COP Tj = +2°C	4.11	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	1.59 kW	

COP Tj = +7°C	5.81
Cdh Tj = +7 °C	0.900
Pdh Tj = 12°C	1.66 kW
COP Tj = 12°C	6.34
Cdh Tj = +12 °C	0.900
Pdh Tj = Tbiv	3.20 kW
COP Tj = Tbiv	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.58 kW
Annual energy consumption Qhe	1771 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	148 %	
Prated	3.38 kW	
SCOP	3.77	
Tbiv	-15 °C	
TOL	-20 °C	
Pdh Tj = -7°C	2.05 kW	
COP Tj = -7°C	3.20	
Cdh Tj = -7 °C	0.900	
Pdh Tj = +2°C	1.25 kW	
COP Tj = +2°C	4.55	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	1.39 kW	
COP Tj = +7°C	6.03	
Cdh Tj = +7 °C	0.900	
Pdh Tj = 12°C	1.64 kW	
COP Tj = 12°C	6.22	
Cdh Tj = +12 °C	0.900	
Pdh Tj = Tbiv	2.76 kW	

COP Tj = Tbiv	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	3.38 kW
Annual energy consumption Qhe	2208 kWh
Pdh Tj = -15°C (if TOL	
COP Tj = -15°C (if TOL	
Cdh Tj = -15 °C	

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	200 %	
Prated	3.00 kW	
SCOP	5.07	
Tbiv	2 °C	
TOL	2 °C	
Pdh Tj = +2°C	3.04 kW	
COP Tj = +2°C	3.39	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	1.95 kW	
COP Tj = +7°C	5.18	
Cdh Tj = +7 °C	0.900	
Pdh Tj = 12°C	1.63 kW	
COP Tj = 12°C	6.14	
Cdh Tj = +12 °C	0.900	
Pdh Tj = Tbiv	3.04 kW	
COP Tj = Tbiv	3.39	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.39	

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	791 kWh

Model HPA-O 3 CS Plus + HSBB 200 classic, HSBB 200 S classic

Model name	HPA-O 3 CS Plus + HSBB 200 classic, HSBB 200 S classic
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	113 %
COP	2.70
Heating up time	1:50 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	245 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	166 %	116 %

Prated	3.62 kW	3.83 kW
SCOP	4.22	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	3.20 kW	2.79 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	1.95 kW	2.01 kW
COP Tj = +2°C	4.11	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.59 kW	1.25 kW
COP Tj = +7°C	5.81	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.66 kW	1.54 kW
COP Tj = 12°C	6.34	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.20 kW	3.09 kW
COP Tj = Tbiv	2.88	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.58 kW	3.83 kW
Annual energy consumption Qhe	1771 kWh	2672 kWh

Model HPA-O 3 CS Plus + HSBC 200, HSBC 200 S

Model name	HPA-O 3 CS Plus + HSBC 200, HSBC 200 S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	113 %
COP	2.70
Heating up time	1:50 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	245 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	166 %	116 %

Prated	3.62 kW	3.83 kW
SCOP	4.22	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	3.20 kW	2.79 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	1.95 kW	2.01 kW
COP Tj = +2°C	4.11	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.59 kW	1.25 kW
COP Tj = +7°C	5.81	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.66 kW	1.54 kW
COP Tj = 12°C	6.34	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.20 kW	3.09 kW
COP Tj = Tbiv	2.88	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.58 kW	3.83 kW
Annual energy consumption Qhe	1771 kWh	2672 kWh

Model HPA-O 4 CS Plus + HSBC 200, HSBC 200 S

Model name	HPA-O 4 CS Plus + HSBC 200, HSBC 200 S
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	113 %
COP	2.70
Heating up time	1:50 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	245 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	116 %

Prated	4.59 kW	3.83 kW
SCOP	4.20	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	4.03 kW	2.79 kW
COP Tj = -7°C	2.67	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.53 kW	2.01 kW
COP Tj = +2°C	4.00	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.63 kW	1.25 kW
COP Tj = +7°C	6.06	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.67 kW	1.54 kW
COP Tj = 12°C	6.43	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.03 kW	3.09 kW
COP Tj = Tbiv	2.67	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.80 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.79 kW	3.83 kW
Annual energy consumption Qhe	2258 kWh	2672 kWh

Model HPA-O 4 CS Plus + HSBB 200 classic, HSBB 200 S classic

Model name	HPA-O 4 CS Plus + HSBB 200 classic, HSBB 200 S classic
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	113 %
COP	2.70
Heating up time	1:50 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	245 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	116 %

Prated	4.59 kW	3.83 kW
SCOP	4.20	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	4.03 kW	2.79 kW
COP Tj = -7°C	2.67	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.53 kW	2.01 kW
COP Tj = +2°C	4.00	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.63 kW	1.25 kW
COP Tj = +7°C	6.06	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.67 kW	1.54 kW
COP Tj = 12°C	6.43	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.03 kW	3.09 kW
COP Tj = Tbiv	2.67	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.80 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.79 kW	3.83 kW
Annual energy consumption Qhe	2258 kWh	2672 kWh

Model HPA-O 4 CS Plus, low temperature, all climates

Model name	HPA-O 4 CS Plus, low temperature, all climates
Application	Heating (low 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	1x230V 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	2.73 kW	
El input	0.58 kW	
COP	4.70	

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	
Prated	4.59 kW	
SCOP	4.20	
Tbiv	-7 °C	
TOL	-10 °C	
Pdh Tj = -7°C	4.03 kW	
COP Tj = -7°C	2.67	
Cdh Tj = -7 °C	0.900	
Pdh Tj = +2°C	2.53 kW	
COP Tj = +2°C	4.00	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	1.63 kW	

COP Tj = +7°C	6.06
Cdh Tj = +7 °C	0.900
Pdh Tj = 12°C	1.67 kW
COP Tj = 12°C	6.43
Cdh Tj = +12 °C	0.900
Pdh Tj = Tbiv	4.03 kW
COP Tj = Tbiv	2.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.79 kW
Annual energy consumption Qhe	2258 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	147 %	
Prated	4.29 kW	
SCOP	3.76	
Tbiv	-15 °C	
TOL	-20 °C	
Pdh Tj = -7°C	2.94 kW	
COP Tj = -7°C	3.12	
Cdh Tj = -7 °C	0.900	
Pdh Tj = +2°C	1.75 kW	
COP Tj = +2°C	4.61	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	1.42 kW	
COP Tj = +7°C	6.34	
Cdh Tj = +7 °C	0.900	
Pdh Tj = 12°C	1.65 kW	
COP Tj = 12°C	6.27	
Cdh Tj = +12 °C	0.900	
Pdh Tj = Tbiv	3.48 kW	

COP Tj = Tbiv	2.52
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	4.29 kW
Annual energy consumption Qhe	2812 kWh
Pdh Tj = -15°C (if TOL	
COP Tj = -15°C (if TOL	
Cdh Tj = -15 °C	

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	203 %	
Prated	3.48 kW	
SCOP	5.14	
Tbiv	2 °C	
TOL	2 °C	
Pdh Tj = +2°C	3.48 kW	
COP Tj = +2°C	3.23	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	2.51 kW	
COP Tj = +7°C	5.18	
Cdh Tj = +7 °C	0.900	
Pdh Tj = 12°C	1.64 kW	
COP Tj = 12°C	6.23	
Cdh Tj = +12 °C	0.900	
Pdh Tj = Tbiv	3.48 kW	
COP Tj = Tbiv	3.23	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.48 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.23	

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	904 kWh

Model HPA-O 4 CS Plus Int

Model name	HPA-O 4 CS Plus Int
Application	Heating (low 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	n/a
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	2.73 kW	
El input	0.58 kW	
COP	4.70	

EN 12102-1 | Average Climate

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

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	
Prated	4.59 kW	
SCOP	4.20	
Tbiv	-7 °C	
TOL	-10 °C	
Pdh Tj = -7°C	4.03 kW	
COP Tj = -7°C	2.67	
Cdh Tj = -7 °C	0.900	
Pdh Tj = +2°C	2.53 kW	
COP Tj = +2°C	4.00	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	1.63 kW	

COP Tj = +7°C	6.06
Cdh Tj = +7 °C	0.900
Pdh Tj = 12°C	1.67 kW
COP Tj = 12°C	6.43
Cdh Tj = +12 °C	0.900
Pdh Tj = Tbiv	4.03 kW
COP Tj = Tbiv	2.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.79 kW
Annual energy consumption Qhe	2258 kWh

EN 12102-1 | Colder Climate

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

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	147 %	
Prated	4.29 kW	
SCOP	3.76	
Tbiv	-15 °C	
TOL	-20 °C	
Pdh Tj = -7°C	2.94 kW	
COP Tj = -7°C	3.12	
Cdh Tj = -7 °C	0.900	
Pdh Tj = +2°C	1.75 kW	
COP Tj = +2°C	4.61	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	1.42 kW	
COP Tj = +7°C	6.34	
Cdh Tj = +7 °C	0.900	
Pdh Tj = 12°C	1.65 kW	
COP Tj = 12°C	6.27	
Cdh Tj = +12 °C	0.900	
Pdh Tj = Tbiv	3.48 kW	

COP Tj = Tbiv	2.52
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.91 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	4.29 kW
Annual energy consumption Qhe	2812 kWh
Pdh Tj = -15°C (if TOL	
COP Tj = -15°C (if TOL	
Cdh Tj = -15 °C	

EN 12102-1 | Warmer Climate

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

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	203 %	
Prated	3.48 kW	
SCOP	5.14	
Tbiv	2 °C	
TOL	2 °C	
Pdh Tj = +2°C	3.48 kW	
COP Tj = +2°C	3.23	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	2.51 kW	
COP Tj = +7°C	5.18	
Cdh Tj = +7 °C	0.900	
Pdh Tj = 12°C	1.64 kW	
COP Tj = 12°C	6.23	
Cdh Tj = +12 °C	0.900	
Pdh Tj = Tbiv	3.48 kW	
COP Tj = Tbiv	3.23	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.48 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.23	

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	904 kWh

Model HPA-O 4 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile M"

Model name	HPA-O 4 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile M"
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	M
Efficiency η_{DHW}	91 %
COP	2.08
Heating up time	1:58 h:min
Standby power input	39.8 W
Reference hot water temperature	48.9 °C
Mixed water at 40°C	226 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	116 %

Prated	4.59 kW	3.83 kW
SCOP	4.20	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	4.03 kW	2.79 kW
COP Tj = -7°C	2.67	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.53 kW	2.01 kW
COP Tj = +2°C	4.00	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.63 kW	1.25 kW
COP Tj = +7°C	6.06	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.67 kW	1.54 kW
COP Tj = 12°C	6.43	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.03 kW	3.09 kW
COP Tj = Tbiv	2.67	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.80 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.79 kW	3.83 kW
Annual energy consumption Qhe	2258 kWh	2672 kWh

Model HPA-O 4 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile L"

Model name	HPA-O 4 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile L"
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	116 %
COP	2.76
Heating up time	1:50 h:min
Standby power input	39.8 W
Reference hot water temperature	49.1 °C
Mixed water at 40°C	219 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	165 %	116 %

Prated	4.59 kW	3.83 kW
SCOP	4.20	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	4.03 kW	2.79 kW
COP Tj = -7°C	2.67	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.53 kW	2.01 kW
COP Tj = +2°C	4.00	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.63 kW	1.25 kW
COP Tj = +7°C	6.06	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.67 kW	1.54 kW
COP Tj = 12°C	6.43	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.03 kW	3.09 kW
COP Tj = Tbiv	2.67	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.80 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.79 kW	3.83 kW
Annual energy consumption Qhe	2258 kWh	2672 kWh

Model HPA-O 3 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile L"

Model name	HPA-O 3 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile L"
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	116 %
COP	2.76
Heating up time	1:50 h:min
Standby power input	39.8 W
Reference hot water temperature	49.1 °C
Mixed water at 40°C	219 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	166 %	116 %

Prated	3.62 kW	3.83 kW
SCOP	4.22	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	3.20 kW	2.79 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	1.95 kW	2.01 kW
COP Tj = +2°C	4.11	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.59 kW	1.25 kW
COP Tj = +7°C	5.81	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.66 kW	1.54 kW
COP Tj = 12°C	6.34	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.20 kW	3.09 kW
COP Tj = Tbiv	2.88	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.58 kW	3.83 kW
Annual energy consumption Qhe	1771 kWh	2672 kWh

Model HPA-O 3 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile M"

Model name	HPA-O 3 CS Plus + HSBB/HSBC 180 (S) Plus (GB) "Profile M"
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	M
Efficiency η_{DHW}	91 %
COP	2.08
Heating up time	1:58 h:min
Standby power input	39.8 W
Reference hot water temperature	48.9 °C
Mixed water at 40°C	226 l

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	2.73 kW	1.92 kW
El input	0.58 kW	0.74 kW
COP	4.70	2.59

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	166 %	116 %

Prated	3.62 kW	3.83 kW
SCOP	4.22	2.96
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	3.20 kW	2.79 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	1.95 kW	2.01 kW
COP Tj = +2°C	4.11	2.94
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.59 kW	1.25 kW
COP Tj = +7°C	5.81	4.13
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.66 kW	1.54 kW
COP Tj = 12°C	6.34	5.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	3.20 kW	3.09 kW
COP Tj = Tbiv	2.88	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW	2.79 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.51	2.01
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	17 W	17 W
PTO	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.58 kW	3.83 kW
Annual energy consumption Qhe	1771 kWh	2672 kWh