

Subtype KITA SP 8-10-12 R290

Certificate Holder	Templari S.p.A.
Address	Via C. Battisti, n° 169
ZIP	35031
City	Abano Terme (PD)
Country	IT
Certification Body	ICIM S.p.A.
Subtype title	KITA SP 8-10-12 R290
Registration number	ICIM-PDC-000224
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.4 kg
Certification Date	02.11.2023
Testing basis	V12

Model Unità esterna KITA-SP-12, 1Ph, vers. MONOBLOCCO R-290

Model name	Unità esterna KITA-SP-12, 1Ph, vers. MONOBLOCCO R-290
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	215 %	159 %
Prated	12.41 kW	11.59 kW
SCOP	5.44	4.05
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.98 kW	10.25 kW
COP Tj = -7°C	3.09	2.18
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.68 kW	6.24 kW
COP Tj = +2°C	5.39	4.03
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.35 kW	4.16 kW
COP Tj = +7°C	7.51	5.62
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.07 kW
COP Tj = 12°C	10.35	8.16
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.98 kW	10.25 kW
COP Tj = Tbiv	3.09	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.20 kW	2.20 kW
Annual energy consumption Qhe	4712 kWh	5918 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	190 %	144 %
Prated	10.91 kW	10.32 kW
SCOP	4.83	3.68
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.61 kW	6.24 kW
COP Tj = -7°C	4.03	3.04
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.85 kW	4.66 kW
COP Tj = +2°C	6.30	4.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.38 kW	4.26 kW
COP Tj = +7°C	8.17	7.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.11 kW
COP Tj = 12°C	10.35	8.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.90 kW	8.42 kW
COP Tj = Tbiv	2.66	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.14 kW	6.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.09	1.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.50 kW	3.50 kW
Annual energy consumption Q_{he}	5563 kWh	6907 kWh
$P_{dh} T_j = -15^{\circ}\text{C}$ (if TOL	8.90	8.42
$COP T_j = -15^{\circ}\text{C}$ (if TOL	2.66	1.94
$C_{dh} T_j = -15^{\circ}\text{C}$	0.900	0.900

Model Unità esterna KITA-SP-12, 3Ph, vers. MONOBLOCCO R-290

Model name	Unità esterna KITA-SP-12, 3Ph, vers. MONOBLOCCO R-290
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	215 %	159 %
Prated	12.41 kW	11.59 kW
SCOP	5.44	4.05
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.98 kW	10.25 kW
COP Tj = -7°C	3.09	2.18
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.68 kW	6.24 kW
COP Tj = +2°C	5.39	4.03
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.35 kW	4.16 kW
COP Tj = +7°C	7.51	5.62
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.07 kW
COP Tj = 12°C	10.35	8.16
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.98 kW	10.25 kW
COP Tj = Tbiv	3.09	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.12 kW	9.36 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.20 kW	2.20 kW
Annual energy consumption Qhe	4712 kWh	5918 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	190 %	144 %
Prated	10.91 kW	10.32 kW
SCOP	4.83	3.68
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.61 kW	6.24 kW
COP Tj = -7°C	4.03	3.04
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.85 kW	4.66 kW
COP Tj = +2°C	6.30	4.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.38 kW	4.26 kW
COP Tj = +7°C	8.17	7.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.11 kW
COP Tj = 12°C	10.35	8.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.90 kW	8.42 kW
COP Tj = Tbiv	2.66	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.14 kW	6.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.09	1.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.50 kW	3.50 kW
Annual energy consumption Q_{he}	5563 kWh	6907 kWh
$P_{dh} T_j = -15^{\circ}\text{C}$ (if TOL	8.90	8.42
$COP T_j = -15^{\circ}\text{C}$ (if TOL	2.66	1.94
$C_{dh} T_j = -15^{\circ}\text{C}$	0.900	0.900

Model Unità esterna KITA-SP-8, 1Ph, vers. MONOBLOCCO R-290

Model name	Unità esterna KITA-SP-8, 1Ph, vers. MONOBLOCCO R-290
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	224 %	161 %
Prated	6.53 kW	6.02 kW
SCOP	5.61	4.09
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.78 kW	5.32 kW
COP Tj = -7°C	3.78	2.69
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.79 kW	4.52 kW
COP Tj = +2°C	5.84	4.19
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.34 kW	4.15 kW
COP Tj = +7°C	7.64	5.77
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.07 kW
COP Tj = 12°C	10.37	8.16
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.78 kW	5.32 kW
COP Tj = Tbiv	3.78	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.41 kW	4.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.33	2.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.20 kW	1.20 kW
Annual energy consumption Qhe	2404 kWh	3039 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	188 %	138 %
Prated	5.69 kW	5.26 kW
SCOP	4.78	3.54
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.08 kW	4.81 kW
COP Tj = -7°C	4.31	3.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.84 kW	4.65 kW
COP Tj = +2°C	6.54	4.74
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.37 kW	4.25 kW
COP Tj = +7°C	8.20	6.50
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.11 kW
COP Tj = 12°C	10.37	8.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.64 kW	4.29 kW
COP Tj = Tbiv	3.20	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.70 kW	3.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.46	1.74
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.00 kW	2.00 kW
Annual energy consumption Q _{he}	2937 kWh	3667 kWh
P _{dh} T _j = -15°C (if TOL	4.64	4.29
COP T _j = -15°C (if TOL	3.20	2.36
C _{dh} T _j = -15 °C	0.900	0.900

Model Unità esterna KITA-SP-8, 3Ph, vers. MONOBLOCCO R-290

Model name	Unità esterna KITA-SP-8, 3Ph, vers. MONOBLOCCO R-290
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	224 %	161 %
Prated	6.53 kW	6.02 kW
SCOP	5.61	4.09
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.78 kW	5.32 kW
COP Tj = -7°C	3.78	2.69
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.79 kW	4.52 kW
COP Tj = +2°C	5.84	4.19
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.34 kW	4.15 kW
COP Tj = +7°C	7.64	5.77
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.07 kW
COP Tj = 12°C	10.37	8.16
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.78 kW	5.32 kW
COP Tj = Tbiv	3.78	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.41 kW	4.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.33	2.37
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.20 kW
Annual energy consumption Q _{he}	2404 kWh	3039 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	188 %	138 %
Prated	5.69 kW	5.26 kW
SCOP	4.78	3.54
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.08 kW	4.81 kW
COP T _j = -7°C	4.31	3.17
C _{dh} T _j = -7 °C	0.900	0.900
P _{dh} T _j = +2°C	4.84 kW	4.65 kW
COP T _j = +2°C	6.54	4.74
C _{dh} T _j = +2 °C	0.900	0.900
P _{dh} T _j = +7°C	4.37 kW	4.25 kW
COP T _j = +7°C	8.20	6.50
C _{dh} T _j = +7 °C	0.900	0.900
P _{dh} T _j = 12°C	4.19 kW	4.11 kW
COP T _j = 12°C	10.37	8.80
C _{dh} T _j = +12 °C	0.900	0.900
P _{dh} T _j = T _{biv}	4.64 kW	4.29 kW
COP T _j = T _{biv}	3.20	2.36
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	3.70 kW	3.33 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.46	1.74
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.900	0.900
WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.00 kW	2.00 kW
Annual energy consumption Q _{he}	2937 kWh	3667 kWh
P _{dh} T _j = -15°C (if TOL	4.64	4.29
COP T _j = -15°C (if TOL	3.20	2.36
C _{dh} T _j = -15 °C	0.900	0.900

Model Unità esterna KITA-SP-10, 3Ph, vers. MONOBLOCCO R-290

Model name	Unità esterna KITA-SP-10, 3Ph, vers. MONOBLOCCO R-290
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	227 %	165 %
Prated	8.34 kW	7.75 kW
SCOP	5.75	4.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.38 kW	6.86 kW
COP Tj = -7°C	3.59	2.56
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.79 kW	4.52 kW
COP Tj = +2°C	5.84	4.19
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.34 kW	4.15 kW
COP Tj = +7°C	7.64	5.77
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.07 kW
COP Tj = 12°C	10.37	8.16
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.38 kW	6.86 kW
COP Tj = Tbiv	3.59	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.88 kW	6.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	2.26
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.50 kW	1.50 kW
Annual energy consumption Qhe	2999 kWh	3811 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	193 %	142 %
Prated	7.28 kW	6.82 kW
SCOP	4.92	3.63
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.08 kW	4.81 kW
COP Tj = -7°C	4.31	3.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.84 kW	4.65 kW
COP Tj = +2°C	6.54	4.74
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.37 kW	4.25 kW
COP Tj = +7°C	8.18	6.64
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.11 kW
COP Tj = 12°C	10.37	8.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.94 kW	5.57 kW
COP Tj = Tbiv	3.04	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.75 kW	4.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	2.50 kW	2.50 kW
Annual energy consumption Q _{he}	3647 kWh	4628 kWh
P _{dh} T _j = -15°C (if TOL	5.94	5.57
COP T _j = -15°C (if TOL	3.04	2.23
C _{dh} T _j = -15 °C	0.900	0.900

Model Unità esterna KITA-SP-10, 1Ph, vers. MONOBLOCCO R-290

Model name	Unità esterna KITA-SP-10, 1Ph, vers. MONOBLOCCO R-290
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	227 %	165 %
Prated	8.34 kW	7.75 kW
SCOP	5.75	4.20
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.38 kW	6.86 kW
COP Tj = -7°C	3.59	2.56
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.79 kW	4.52 kW
COP Tj = +2°C	5.84	4.19
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.34 kW	4.15 kW
COP Tj = +7°C	7.64	5.77
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.07 kW
COP Tj = 12°C	10.37	8.16
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.38 kW	6.86 kW
COP Tj = Tbiv	3.59	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.88 kW	6.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.20	2.26
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900

WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	1.50 kW
Annual energy consumption Qhe	2999 kWh	3811 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	50 dB(A)	50 dB(A)

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	Low temperature	Medium temperature
η_s	193 %	142 %
Prated	7.28 kW	6.82 kW
SCOP	4.92	3.63
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.08 kW	4.81 kW
COP Tj = -7°C	4.31	3.10
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.84 kW	4.65 kW
COP Tj = +2°C	6.54	4.74
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.37 kW	4.25 kW
COP Tj = +7°C	8.18	6.64
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.19 kW	4.11 kW
COP Tj = 12°C	10.37	8.80
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.94 kW	5.57 kW
COP Tj = Tbiv	3.04	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.75 kW	4.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	24 W	24 W
PTO	31 W	31 W
PSB	24 W	24 W
PCK	35 W	35 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.50 kW	2.50 kW
Annual energy consumption Q_{he}	3647 kWh	4628 kWh
$P_{dh} T_j = -15^{\circ}\text{C}$ (if TOL	5.94	5.57
COP $T_j = -15^{\circ}\text{C}$ (if TOL	3.04	2.23
$C_{dh} T_j = -15^{\circ}\text{C}$	0.900	0.900