

## Subtype Idola S 3.2 12-14-16-12T-14T-16T - Idola ST 3.2 12-14-16-12T-14T-16T

Certificate Holder	Lamborghini Caloreclima
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Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Idola S 3.2 12-14-16-12T-14T-16T - Idola ST 3.2 12-14-16-12T-14T-16T
Registration number	011-1W0601
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.84 kg
Certification Date	03.05.2023
Testing basis	HP KEYMARK certification scheme rules V11

## Model Idola S 3.2 12

Model name	Idola S 3.2 12
Application	Heating (medium 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 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	12.10 kW	11.90 kW
El input	2.44 kW	3.90 kW
COP	4.95	3.05

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.18 kW	3.04 kW
Cooling capacity	11.50	12.00
EER	2.75	3.95

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	135 %
Prated	12.00 kW	11.60 kW
SCOP	4.76	3.41
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.61 kW	10.24 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.69 kW	6.52 kW
COP Tj = +2°C	4.65	3.44
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.44 kW	4.36 kW
COP Tj = +7°C	6.62	4.59
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.74 kW	3.29 kW
COP Tj = 12°C	8.47	6.05
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.61 kW	10.24 kW
COP Tj = Tbiv	2.88	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.74 kW	9.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.26 kW	2.50 kW
Annual energy consumption Qhe	5153 kWh	6927 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	118 %
Prated	11.40 kW	10.30 kW
SCOP	4.03	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.05 kW	6.63 kW
COP Tj = -7°C	3.48	2.63
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.67 kW	4.06 kW

COP Tj = +2°C	4.96	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.14 kW	2.78 kW
COP Tj = +7°C	6.10	4.54
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.87	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.28 kW	8.41 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.01 kW	4.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.39 kW	6.11 kW
Annual energy consumption Qhe	6871 kWh	8419 kWh
Pdh Tj = -15°C (if TOL	9.28	8.41
COP Tj = -15°C (if TOL	2.59	1.84
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	256 %	174 %
Prated	11.10 kW	12.50 kW
SCOP	6.43	4.38
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.09 kW	12.07 kW
COP Tj = +2°C	3.59	2.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.14 kW	8.04 kW
COP Tj = +7°C	5.87	3.86
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	3.55 kW	3.75 kW
COP Tj = 12°C	7.94	5.70
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.14 kW	8.04 kW
COP Tj = Tbiv	5.87	3.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.09 kW	12.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.59	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	62 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.43 kW
Annual energy consumption Qhe	2296 kWh	3776 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.30 kW	11.80 kW
SEER	4.83	7.06
Pdc Tj = 35°C	11.31 kW	11.77 kW
EER Tj = 35°C	2.61	3.87
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.76 kW	9.21 kW
EER Tj = 30°C	3.93	5.50
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.81 kW	5.74 kW
EER Tj = 25°C	5.73	8.66
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	2.63 kW	3.33 kW
EER Tj = 20°C	6.75	10.07
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	1404 kWh	1004 kWh

## Model Idola S 3.2 14

Model name	Idola S 3.2 14
Application	Heating (medium 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 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	14.50 kW	13.80 kW
El input	3.15 kW	4.68 kW
COP	4.60	2.95

## EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.96 kW	3.49 kW
Cooling capacity	12.40	12.90
EER	2.50	3.70

## EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

## EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	185 %	135 %
Prated	13.70 kW	12.08 kW
SCOP	4.66	3.41
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.14 kW	10.68 kW
COP Tj = -7°C	2.79	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.94 kW	6.86 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.20 kW	4.63 kW
COP Tj = +7°C	6.68	4.66
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.75 kW	3.31 kW
COP Tj = 12°C	8.52	6.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.14 kW	10.68 kW
COP Tj = Tbiv	2.79	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.47 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.76
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.23 kW	2.89 kW
Annual energy consumption Qhe	6013 kWh	7202 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	119 %
Prated	12.60 kW	11.00 kW
SCOP	4.03	3.01
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.96 kW	6.89 kW
COP Tj = -7°C	3.44	2.66
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.05 kW	4.32 kW

COP Tj = +2°C	4.92	3.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.15 kW	3.06 kW
COP Tj = +7°C	6.11	4.72
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.82	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.31 kW	8.94 kW
COP Tj = Tbiv	2.53	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.57 kW	4.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.92	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.03 kW	6.80 kW
Annual energy consumption Qhe	7667 kWh	8866 kWh
Pdh Tj = -15°C (if TOL	10.31	8.94
COP Tj = -15°C (if TOL	2.53	1.79
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	260 %	177 %
Prated	12.10 kW	13.70 kW
SCOP	6.53	4.46
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.04 kW	13.04 kW
COP Tj = +2°C	3.44	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.78 kW	8.83 kW
COP Tj = +7°C	5.84	3.91
Cdh Tj = +7 °C	0.900	0.900



Pdh Tj = 12°C	3.75 kW	4.08 kW
COP Tj = 12°C	8.25	5.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.78 kW	8.83 kW
COP Tj = Tbiv	5.84	3.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.04 kW	13.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	62 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.06 kW	0.66 kW
Annual energy consumption Qhe	2462 kWh	4088 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	12.20 kW	13.30 kW
SEER	4.81	6.86
Pdc Tj = 35°C	12.19 kW	13.30 kW
EER Tj = 35°C	2.46	3.47
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	9.41 kW	10.20 kW
EER Tj = 30°C	3.85	5.26
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.16 kW	6.57 kW
EER Tj = 25°C	5.80	8.45
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	2.63 kW	3.33 kW
EER Tj = 20°C	6.74	10.07
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	1523 kWh	1164 kWh

## Model Idola S 3.2 16

Model name	Idola S 3.2 16
Application	Heating (medium 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 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	15.90 kW	16.00 kW
El input	3.53 kW	5.61 kW
COP	4.50	2.85

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.60 kW	3.77 kW
Cooling capacity	14.00	13.60
EER	2.50	3.61

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	182 %	133 %
Prated	15.20 kW	13.00 kW
SCOP	4.58	3.36
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.45 kW	11.52 kW
COP Tj = -7°C	2.72	1.99
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.56 kW	7.18 kW
COP Tj = +2°C	4.41	3.34
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.70 kW	4.67 kW
COP Tj = +7°C	6.56	4.61
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.78 kW	3.31 kW
COP Tj = 12°C	8.51	6.07
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.45 kW	11.52 kW
COP Tj = Tbiv	2.72	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.52 kW	10.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.68 kW	2.67 kW
Annual energy consumption Qhe	6805 kWh	7895 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	158 %	122 %
Prated	13.70 kW	11.80 kW
SCOP	3.98	3.08
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.31 kW	7.64 kW
COP Tj = -7°C	3.37	2.65
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.26 kW	4.42 kW

COP Tj = +2°C	4.86	3.79
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.62 kW	2.97 kW
COP Tj = +7°C	6.49	4.81
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.34 kW	3.43 kW
COP Tj = 12°C	7.40	6.29
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.22 kW	9.61 kW
COP Tj = Tbiv	2.43	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	5.21 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.23
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.82 kW	6.59 kW
Annual energy consumption Qhe	8431 kWh	9309 kWh
Pdh Tj = -15°C (if TOL	11.22	9.61
COP Tj = -15°C (if TOL	2.43	1.86
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	249 %	176 %
Prated	13.10 kW	13.80 kW
SCOP	6.26	4.43
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	13.09 kW	13.38 kW
COP Tj = +2°C	3.35	2.29
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.41 kW	8.86 kW
COP Tj = +7°C	5.36	3.84
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	3.87 kW	4.06 kW
COP Tj = 12°C	8.11	5.86
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.41 kW	8.86 kW
COP Tj = Tbiv	5.36	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.09 kW	13.38 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.29
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	62 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.42 kW
Annual energy consumption Qhe	2786 kWh	4112 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	14.30 kW	15.40 kW
SEER	4.63	6.71
Pdc Tj = 35°C	14.31 kW	15.40 kW
EER Tj = 35°C	2.47	3.50
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	10.68 kW	11.42 kW
EER Tj = 30°C	3.63	5.14
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.76 kW	7.27 kW
EER Tj = 25°C	5.27	7.83
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	3.41 kW	3.40 kW
EER Tj = 20°C	7.29	10.35
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	1853 kWh	1378 kWh

## Model Idola S 3.2 12T

Model name	Idola S 3.2 12T
Application	Heating (medium 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	3x400V 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	12.10 kW	11.90 kW
El input	2.44 kW	3.90 kW
COP	4.95	3.05

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.18 kW	3.04 kW
Cooling capacity	11.50	12.00
EER	2.75	3.95

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	135 %
Prated	12.00 kW	11.60 kW
SCOP	4.76	3.41
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.61 kW	10.24 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.69 kW	6.52 kW
COP Tj = +2°C	4.65	3.44
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.44 kW	4.36 kW
COP Tj = +7°C	6.62	4.59
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.74 kW	3.29 kW
COP Tj = 12°C	8.47	6.05
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.61 kW	10.24 kW
COP Tj = Tbiv	2.88	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.74 kW	9.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.26 kW	2.50 kW
Annual energy consumption Qhe	5153 kWh	6927 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	160 %	118 %
Prated	11.40 kW	10.30 kW
SCOP	4.03	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.05 kW	6.63 kW
COP Tj = -7°C	3.48	2.63
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.67 kW	4.06 kW

COP Tj = +2°C	4.96	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.14 kW	2.78 kW
COP Tj = +7°C	6.10	4.54
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.87	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.28 kW	8.41 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.01 kW	4.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.39 kW	6.11 kW
Annual energy consumption Qhe	6871 kWh	8419 kWh
Pdh Tj = -15°C (if TOL	9.28	8.41
COP Tj = -15°C (if TOL	2.59	1.84
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	256 %	174 %
Prated	11.10 kW	12.50 kW
SCOP	6.43	4.38
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.09 kW	12.07 kW
COP Tj = +2°C	3.59	2.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.14 kW	8.04 kW
COP Tj = +7°C	5.87	3.86
Cdh Tj = +7 °C	0.900	0.900



Pdh Tj = 12°C	3.55 kW	3.75 kW
COP Tj = 12°C	7.94	5.70
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.14 kW	8.04 kW
COP Tj = Tbiv	5.87	3.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.09 kW	12.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.59	2.31
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	62 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.43 kW
Annual energy consumption Qhe	2296 kWh	3776 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.30 kW	11.80 kW
SEER	4.83	7.06
Pdc Tj = 35°C	11.31 kW	11.77 kW
EER Tj = 35°C	2.61	3.87
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.76 kW	9.21 kW
EER Tj = 30°C	3.93	5.50
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.81 kW	5.74 kW
EER Tj = 25°C	5.73	8.66
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	2.63 kW	3.33 kW
EER Tj = 20°C	6.75	10.07
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	1404 kWh	1004 kWh

## Model Idola S 3.2 14T

Model name	Idola S 3.2 14T
Application	Heating (medium 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	3x400V 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	14.50 kW	13.80 kW
El input	3.15 kW	4.68 kW
COP	4.60	2.95

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.96 kW	3.49 kW
Cooling capacity	12.40	12.90
EER	2.50	3.70

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	185 %	135 %
Prated	13.70 kW	12.08 kW
SCOP	4.66	3.41
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.14 kW	10.68 kW
COP Tj = -7°C	2.79	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.94 kW	6.86 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.20 kW	4.63 kW
COP Tj = +7°C	6.68	4.66
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.75 kW	3.31 kW
COP Tj = 12°C	8.52	6.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.14 kW	10.68 kW
COP Tj = Tbiv	2.79	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.47 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.76
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.23 kW	2.89 kW
Annual energy consumption Qhe	6013 kWh	7202 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	119 %
Prated	12.60 kW	11.00 kW
SCOP	4.03	3.01
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.96 kW	6.89 kW
COP Tj = -7°C	3.44	2.66
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.05 kW	4.32 kW

COP Tj = +2°C	4.92	3.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.15 kW	3.06 kW
COP Tj = +7°C	6.11	4.72
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.82	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.31 kW	8.94 kW
COP Tj = Tbiv	2.53	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.57 kW	4.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.92	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.03 kW	6.80 kW
Annual energy consumption Qhe	7667 kWh	8866 kWh
Pdh Tj = -15°C (if TOL	10.31	8.94
COP Tj = -15°C (if TOL	2.53	1.79
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	260 %	177 %
Prated	12.10 kW	13.70 kW
SCOP	6.53	4.46
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.04 kW	13.04 kW
COP Tj = +2°C	3.44	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.78 kW	8.83 kW
COP Tj = +7°C	5.84	3.91
Cdh Tj = +7 °C	0.900	0.900

Pdh Tj = 12°C	3.75 kW	4.08 kW
COP Tj = 12°C	8.25	5.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.78 kW	8.83 kW
COP Tj = Tbiv	5.84	3.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.04 kW	13.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	62 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.06 kW	0.66 kW
Annual energy consumption Qhe	2462 kWh	4088 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	12.20 kW	13.30 kW
SEER	4.81	6.86
Pdc Tj = 35°C	12.19 kW	13.30 kW
EER Tj = 35°C	2.46	3.47
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	9.41 kW	10.20 kW
EER Tj = 30°C	3.85	5.26
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.16 kW	6.57 kW
EER Tj = 25°C	5.80	8.45
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	2.63 kW	3.33 kW
EER Tj = 20°C	6.74	10.07
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	1523 kWh	1164 kWh

## Model Idola S 3.2 16T

Model name	Idola S 3.2 16T
Application	Heating (medium 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	3x400V 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	15.90 kW	16.00 kW
El input	3.53 kW	5.61 kW
COP	4.50	2.85

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.60 kW	3.77 kW
Cooling capacity	14.00	13.60
EER	2.50	3.61

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	182 %	133 %
Prated	15.20 kW	13.00 kW
SCOP	4.58	3.36
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.45 kW	11.52 kW
COP Tj = -7°C	2.72	1.99
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.56 kW	7.18 kW
COP Tj = +2°C	4.41	3.34
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.70 kW	4.67 kW
COP Tj = +7°C	6.56	4.61
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.78 kW	3.31 kW
COP Tj = 12°C	8.51	6.07
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.45 kW	11.52 kW
COP Tj = Tbiv	2.72	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.52 kW	10.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.68 kW	2.67 kW
Annual energy consumption Qhe	6805 kWh	7895 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	158 %	122 %
Prated	13.70 kW	11.80 kW
SCOP	3.98	3.08
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.31 kW	7.64 kW
COP Tj = -7°C	3.37	2.65
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.26 kW	4.42 kW

COP Tj = +2°C	4.86	3.79
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.62 kW	2.97 kW
COP Tj = +7°C	6.49	4.81
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.34 kW	3.43 kW
COP Tj = 12°C	7.40	6.29
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.22 kW	9.61 kW
COP Tj = Tbiv	2.43	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	5.21 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.23
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.82 kW	6.59 kW
Annual energy consumption Qhe	8431 kWh	9309 kWh
Pdh Tj = -15°C (if TOL	11.22	9.61
COP Tj = -15°C (if TOL	2.43	1.86
Cdh Tj = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	249 %	176 %
Prated	13.10 kW	13.80 kW
SCOP	6.26	4.43
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	13.09 kW	13.38 kW
COP Tj = +2°C	3.35	2.29
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.41 kW	8.86 kW
COP Tj = +7°C	5.36	3.84
Cdh Tj = +7 °C	0.900	0.900



Pdh Tj = 12°C	3.87 kW	4.06 kW
COP Tj = 12°C	8.11	5.86
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.41 kW	8.86 kW
COP Tj = Tbiv	5.36	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.09 kW	13.38 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.35	2.29
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	62 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.42 kW
Annual energy consumption Qhe	2786 kWh	4112 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	14.30 kW	15.40 kW
SEER	4.63	6.71
Pdc Tj = 35°C	14.31 kW	15.40 kW
EER Tj = 35°C	2.47	3.50
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	10.68 kW	11.42 kW
EER Tj = 30°C	3.63	5.14
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	6.76 kW	7.27 kW
EER Tj = 25°C	5.27	7.83
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	3.41 kW	3.40 kW
EER Tj = 20°C	7.29	10.35
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	1853 kWh	1378 kWh

## Model Idola ST 3.2 12

Model name	Idola ST 3.2 12
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	XL
Efficiency $\eta_{DHW}$	131 %
COP	3.12
Heating up time	4:18 h:min
Standby power input	56.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.55
Heating up time	5:15 h:min
Standby power input	69.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	150 %
COP	3.56
Heating up time	3:46 h:min
Standby power input	49.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 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	12.10 kW	11.90 kW
El input	2.44 kW	3.90 kW
COP	4.95	3.05

#### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.18 kW	3.04 kW
Cooling capacity	11.50	12.00
EER	2.75	3.95

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	135 %
Prated	12.00 kW	11.60 kW
SCOP	4.76	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.61 kW	10.24 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.69 kW	6.52 kW
COP Tj = +2°C	4.65	3.44
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.44 kW	4.36 kW
COP Tj = +7°C	6.62	4.59
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.74 kW	3.29 kW
COP Tj = 12°C	8.47	6.05
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.61 kW	10.24 kW
COP Tj = Tbiv	2.88	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.74 kW	9.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.79

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.26 kW	2.50 kW
Annual energy consumption Qhe	5153 kWh	6927 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	118 %
Prated	11.40 kW	10.30 kW
SCOP	4.03	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.05 kW	6.63 kW
COP Tj = -7°C	3.48	2.63
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.67 kW	4.06 kW
COP Tj = +2°C	4.96	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.14 kW	2.78 kW
COP Tj = +7°C	6.10	4.54
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.87	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.28 kW	8.41 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.01 kW	4.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W

PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.39 kW	6.11 kW
Annual energy consumption Q <sub>he</sub>	6871 kWh	8419 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	9.28	8.41
COP T <sub>j</sub> = -15°C (if TOL	2.59	1.84
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	256 %	174 %
Prated	11.10 kW	12.50 kW
SCOP	6.43	4.38
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	11.09 kW	12.07 kW
COP T <sub>j</sub> = +2°C	3.59	2.31
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	7.14 kW	8.04 kW
COP T <sub>j</sub> = +7°C	5.87	3.86
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.55 kW	3.75 kW
COP T <sub>j</sub> = 12°C	7.94	5.70
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.14 kW	8.04 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.87	3.86
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	11.09 kW	12.07 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.59	2.31
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	60 °C	62 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.43 kW

Annual energy consumption Q <sub>he</sub>	2296 kWh	3776 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	11.30 kW	11.80 kW
SEER	4.83	7.06
P <sub>dc</sub> T <sub>j</sub> = 35°C	11.31 kW	11.77 kW
EER T <sub>j</sub> = 35°C	2.61	3.87
C <sub>dc</sub> T <sub>j</sub> = 35 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 30°C	8.76 kW	9.21 kW
EER T <sub>j</sub> = 30°C	3.93	5.50
C <sub>dc</sub> T <sub>j</sub> = 30 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 25°C	5.81 kW	5.74 kW
EER T <sub>j</sub> = 25°C	5.73	8.66
C <sub>dc</sub> T <sub>j</sub> = 25 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 20°C	2.63 kW	3.33 kW
EER T <sub>j</sub> = 20°C	6.75	10.07
C <sub>dc</sub> T <sub>j</sub> = 20 °C	0.900	0.900
P <sub>off</sub>	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Q <sub>ce</sub>	1404 kWh	1004 kWh

## Model Idola ST 3.2 14

Model name	Idola ST 3.2 14
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	XL
Efficiency $\eta_{DHW}$	129 %
COP	3.06
Heating up time	4:03 h:min
Standby power input	59.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.51
Heating up time	4:56 h:min
Standby power input	72.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	148 %
COP	3.51
Heating up time	3:32 h:min
Standby power input	51.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 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	14.50 kW	13.80 kW
El input	3.15 kW	4.68 kW
COP	4.60	2.95

#### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.96 kW	3.49 kW
Cooling capacity	12.40	12.90
EER	2.50	3.70

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	185 %	135 %
Prated	13.70 kW	12.08 kW
SCOP	4.66	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.14 kW	10.68 kW
COP Tj = -7°C	2.79	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.94 kW	6.86 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.20 kW	4.63 kW
COP Tj = +7°C	6.68	4.66
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.75 kW	3.31 kW
COP Tj = 12°C	8.52	6.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.14 kW	10.68 kW
COP Tj = Tbiv	2.79	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.47 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.76



Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.23 kW	2.89 kW
Annual energy consumption Qhe	6013 kWh	7202 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	119 %
Prated	12.60 kW	11.00 kW
SCOP	4.03	3.01
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.96 kW	6.89 kW
COP Tj = -7°C	3.44	2.66
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.05 kW	4.32 kW
COP Tj = +2°C	4.92	3.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.15 kW	3.06 kW
COP Tj = +7°C	6.11	4.72
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.82	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.31 kW	8.94 kW
COP Tj = Tbiv	2.53	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.57 kW	4.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.92	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W

PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.03 kW	6.80 kW
Annual energy consumption Q <sub>he</sub>	7667 kWh	8866 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	10.31	8.94
COP T <sub>j</sub> = -15°C (if TOL	2.53	1.79
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	260 %	177 %
Prated	12.10 kW	13.70 kW
SCOP	6.53	4.46
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	12.04 kW	13.04 kW
COP T <sub>j</sub> = +2°C	3.44	2.20
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	7.78 kW	8.83 kW
COP T <sub>j</sub> = +7°C	5.84	3.91
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.75 kW	4.08 kW
COP T <sub>j</sub> = 12°C	8.25	5.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.78 kW	8.83 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.84	3.91
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	12.04 kW	13.04 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.44	2.20
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	60 °C	62 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.06 kW	0.66 kW

Annual energy consumption Q <sub>he</sub>	2462 kWh	4088 kWh
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# EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	12.20 kW	13.30 kW
SEER	4.81	6.86
P <sub>dc</sub> T <sub>j</sub> = 35°C	12.19 kW	13.30 kW
EER T <sub>j</sub> = 35°C	2.46	3.47
C <sub>dc</sub> T <sub>j</sub> = 35 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 30°C	9.41 kW	10.20 kW
EER T <sub>j</sub> = 30°C	3.85	5.26
C <sub>dc</sub> T <sub>j</sub> = 30 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 25°C	6.16 kW	6.57 kW
EER T <sub>j</sub> = 25°C	5.80	8.45
C <sub>dc</sub> T <sub>j</sub> = 25 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 20°C	2.63 kW	3.33 kW
EER T <sub>j</sub> = 20°C	6.74	10.07
C <sub>dc</sub> T <sub>j</sub> = 20 °C	0.900	0.900
P <sub>off</sub>	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Q <sub>ce</sub>	1523 kWh	1164 kWh

## Model Idola ST 3.2 16

Model name	Idola ST 3.2 16
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	3x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	131 %
COP	3.09
Heating up time	3:52 h:min
Standby power input	62.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.53
Heating up time	4:43 h:min
Standby power input	76.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	149 %
COP	3.53
Heating up time	3:23 h:min
Standby power input	54.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 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	15.90 kW	16.00 kW
El input	3.53 kW	5.61 kW
COP	4.50	2.85

#### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.60 kW	3.77 kW
Cooling capacity	14.00	13.60
EER	2.50	3.61

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	182 %	133 %
Prated	15.20 kW	13.00 kW
SCOP	4.58	3.36
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.45 kW	11.52 kW
COP Tj = -7°C	2.72	1.99
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.56 kW	7.18 kW
COP Tj = +2°C	4.41	3.34
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.70 kW	4.67 kW
COP Tj = +7°C	6.56	4.61
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.78 kW	3.31 kW
COP Tj = 12°C	8.51	6.07
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.45 kW	11.52 kW
COP Tj = Tbiv	2.72	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.52 kW	10.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.80

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.68 kW	2.67 kW
Annual energy consumption Qhe	6805 kWh	7895 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	158 %	122 %
Prated	13.70 kW	11.80 kW
SCOP	3.98	3.08
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.31 kW	7.64 kW
COP Tj = -7°C	3.37	2.65
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.26 kW	4.42 kW
COP Tj = +2°C	4.86	3.79
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.62 kW	2.97 kW
COP Tj = +7°C	6.49	4.81
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.34 kW	3.43 kW
COP Tj = 12°C	7.40	6.29
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.22 kW	9.61 kW
COP Tj = Tbiv	2.43	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	5.21 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.23
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W

PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.82 kW	6.59 kW
Annual energy consumption Q <sub>he</sub>	8431 kWh	9309 kWh
P <sub>dh</sub> T <sub>j</sub> = -15 °C (if TOL	11.22	9.61
COP T <sub>j</sub> = -15 °C (if TOL	2.43	1.86
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	249 %	176 %
Prated	13.10 kW	13.80 kW
SCOP	6.26	4.43
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2 °C	13.09 kW	13.38 kW
COP T <sub>j</sub> = +2 °C	3.35	2.29
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7 °C	8.41 kW	8.86 kW
COP T <sub>j</sub> = +7 °C	5.36	3.84
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12 °C	3.87 kW	4.06 kW
COP T <sub>j</sub> = 12 °C	8.11	5.86
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	8.41 kW	8.86 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.36	3.84
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	13.09 kW	13.38 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.35	2.29
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	60 °C	62 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.42 kW

Annual energy consumption Q <sub>he</sub>	2786 kWh	4112 kWh
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#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	14.30 kW	15.40 kW
SEER	4.63	6.71
P <sub>dc</sub> T <sub>j</sub> = 35°C	14.31 kW	15.40 kW
EER T <sub>j</sub> = 35°C	2.47	3.50
C <sub>dc</sub> T <sub>j</sub> = 35 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 30°C	10.68 kW	11.42 kW
EER T <sub>j</sub> = 30°C	3.63	5.14
C <sub>dc</sub> T <sub>j</sub> = 30 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 25°C	6.76 kW	7.27 kW
EER T <sub>j</sub> = 25°C	5.27	7.83
C <sub>dc</sub> T <sub>j</sub> = 25 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 20°C	3.41 kW	3.40 kW
EER T <sub>j</sub> = 20°C	7.29	10.35
C <sub>dc</sub> T <sub>j</sub> = 20 °C	0.900	0.900
P <sub>off</sub>	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Q <sub>ce</sub>	1853 kWh	1378 kWh



## Model Idola ST 3.2 12T

Model name	Idola ST 3.2 12T
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	3x400V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	131 %
COP	3.12
Heating up time	4:18 h:min
Standby power input	56.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.55
Heating up time	5:15 h:min
Standby power input	69.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	150 %
COP	3.56
Heating up time	3:46 h:min
Standby power input	49.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 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	12.10 kW	11.90 kW
El input	2.44 kW	3.90 kW
COP	4.95	3.05

#### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.18 kW	3.04 kW
Cooling capacity	11.50	12.00
EER	2.75	3.95

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	189 %	135 %
Prated	12.00 kW	11.60 kW
SCOP	4.76	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.61 kW	10.24 kW
COP Tj = -7°C	2.88	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.69 kW	6.52 kW
COP Tj = +2°C	4.65	3.44
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.44 kW	4.36 kW
COP Tj = +7°C	6.62	4.59
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.74 kW	3.29 kW
COP Tj = 12°C	8.47	6.05
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.61 kW	10.24 kW
COP Tj = Tbiv	2.88	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.74 kW	9.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	1.79

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.26 kW	2.50 kW
Annual energy consumption Qhe	5153 kWh	6927 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	118 %
Prated	11.40 kW	10.30 kW
SCOP	4.03	2.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.05 kW	6.63 kW
COP Tj = -7°C	3.48	2.63
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.67 kW	4.06 kW
COP Tj = +2°C	4.96	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.14 kW	2.78 kW
COP Tj = +7°C	6.10	4.54
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.87	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.28 kW	8.41 kW
COP Tj = Tbiv	2.59	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.01 kW	4.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W

PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.39 kW	6.11 kW
Annual energy consumption Q <sub>he</sub>	6871 kWh	8419 kWh
P <sub>dh</sub> T <sub>j</sub> = -15 °C (if TOL	9.28	8.41
COP T <sub>j</sub> = -15 °C (if TOL	2.59	1.84
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	256 %	174 %
Prated	11.10 kW	12.50 kW
SCOP	6.43	4.38
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2 °C	11.09 kW	12.07 kW
COP T <sub>j</sub> = +2 °C	3.59	2.31
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7 °C	7.14 kW	8.04 kW
COP T <sub>j</sub> = +7 °C	5.87	3.86
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12 °C	3.55 kW	3.75 kW
COP T <sub>j</sub> = 12 °C	7.94	5.70
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.14 kW	8.04 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.87	3.86
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	11.09 kW	12.07 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.59	2.31
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	60 °C	62 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.43 kW

Annual energy consumption Q <sub>he</sub>	2296 kWh	3776 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	11.30 kW	11.80 kW
SEER	4.83	7.06
P <sub>dc Tj = 35°C</sub>	11.31 kW	11.77 kW
EER T <sub>j</sub> = 35°C	2.61	3.87
C <sub>dc Tj = 35 °C</sub>	0.900	0.900
P <sub>dc Tj = 30°C</sub>	8.76 kW	9.21 kW
EER T <sub>j</sub> = 30°C	3.93	5.50
C <sub>dc Tj = 30 °C</sub>	0.900	0.900
P <sub>dc Tj = 25°C</sub>	5.81 kW	5.74 kW
EER T <sub>j</sub> = 25°C	5.73	8.66
C <sub>dc Tj = 25 °C</sub>	0.900	0.900
P <sub>dc Tj = 20°C</sub>	2.63 kW	3.33 kW
EER T <sub>j</sub> = 20°C	6.75	10.07
C <sub>dc Tj = 20 °C</sub>	0.900	0.900
P <sub>off</sub>	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Q <sub>ce</sub>	1404 kWh	1004 kWh

## Model Idola ST 3.2 14T

Model name	Idola ST 3.2 14T
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	3x400V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	129 %
COP	3.06
Heating up time	4:03 h:min
Standby power input	59.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	106 %
COP	2.51
Heating up time	4:56 h:min
Standby power input	72.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	148 %
COP	3.51
Heating up time	3:32 h:min
Standby power input	51.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 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	14.50 kW	13.80 kW
El input	3.15 kW	4.68 kW
COP	4.60	2.95

#### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	4.96 kW	3.49 kW
Cooling capacity	12.40	12.90
EER	2.50	3.70

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	185 %	135 %
Prated	13.70 kW	12.08 kW
SCOP	4.66	3.41
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.14 kW	10.68 kW
COP Tj = -7°C	2.79	2.01
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.94 kW	6.86 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.20 kW	4.63 kW
COP Tj = +7°C	6.68	4.66
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.75 kW	3.31 kW
COP Tj = 12°C	8.52	6.13
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.14 kW	10.68 kW
COP Tj = Tbiv	2.79	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.47 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.76

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.23 kW	2.89 kW
Annual energy consumption Qhe	6013 kWh	7202 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	160 %	119 %
Prated	12.60 kW	11.00 kW
SCOP	4.03	3.01
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.96 kW	6.89 kW
COP Tj = -7°C	3.44	2.66
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.05 kW	4.32 kW
COP Tj = +2°C	4.92	3.66
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.15 kW	3.06 kW
COP Tj = +7°C	6.11	4.72
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.57 kW	3.33 kW
COP Tj = 12°C	7.82	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.31 kW	8.94 kW
COP Tj = Tbiv	2.53	1.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.57 kW	4.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.92	1.13
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W



PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.03 kW	6.80 kW
Annual energy consumption Q <sub>he</sub>	7667 kWh	8866 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	10.31	8.94
COP T <sub>j</sub> = -15°C (if TOL	2.53	1.79
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	260 %	177 %
Prated	12.10 kW	13.70 kW
SCOP	6.53	4.46
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	12.04 kW	13.04 kW
COP T <sub>j</sub> = +2°C	3.44	2.20
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7°C	7.78 kW	8.83 kW
COP T <sub>j</sub> = +7°C	5.84	3.91
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12°C	3.75 kW	4.08 kW
COP T <sub>j</sub> = 12°C	8.25	5.90
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	7.78 kW	8.83 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.84	3.91
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	12.04 kW	13.04 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.44	2.20
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	60 °C	62 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.06 kW	0.66 kW

Annual energy consumption Q <sub>he</sub>	2462 kWh	4088 kWh
EN 14825   Cooling		
	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	12.20 kW	13.30 kW
SEER	4.81	6.86
P <sub>dc</sub> T <sub>j</sub> = 35°C	12.19 kW	13.30 kW
EER T <sub>j</sub> = 35°C	2.46	3.47
C <sub>dc</sub> T <sub>j</sub> = 35 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 30°C	9.41 kW	10.20 kW
EER T <sub>j</sub> = 30°C	3.85	5.26
C <sub>dc</sub> T <sub>j</sub> = 30 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 25°C	6.16 kW	6.57 kW
EER T <sub>j</sub> = 25°C	5.80	8.45
C <sub>dc</sub> T <sub>j</sub> = 25 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 20°C	2.63 kW	3.33 kW
EER T <sub>j</sub> = 20°C	6.74	10.07
C <sub>dc</sub> T <sub>j</sub> = 20 °C	0.900	0.900
P <sub>off</sub>	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Q <sub>ce</sub>	1523 kWh	1164 kWh

## Model Idola ST 3.2 16T

Model name	Idola ST 3.2 16T
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	3x400V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	131 %
COP	3.09
Heating up time	3:52 h:min
Standby power input	62.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	107 %
COP	2.53
Heating up time	4:43 h:min
Standby power input	76.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 l

### EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	149 %
COP	3.53
Heating up time	3:23 h:min
Standby power input	54.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	270 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	15.90 kW	16.00 kW
El input	3.53 kW	5.61 kW
COP	4.50	2.85

#### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	5.60 kW	3.77 kW
Cooling capacity	14.00	13.60
EER	2.50	3.61

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	182 %	133 %
Prated	15.20 kW	13.00 kW
SCOP	4.58	3.36
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.45 kW	11.52 kW
COP Tj = -7°C	2.72	1.99
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.56 kW	7.18 kW
COP Tj = +2°C	4.41	3.34
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.70 kW	4.67 kW
COP Tj = +7°C	6.56	4.61
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.78 kW	3.31 kW
COP Tj = 12°C	8.51	6.07
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	13.45 kW	11.52 kW
COP Tj = Tbiv	2.72	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.52 kW	10.33 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.48	1.80

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.68 kW	2.67 kW
Annual energy consumption Qhe	6805 kWh	7895 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	158 %	122 %
Prated	13.70 kW	11.80 kW
SCOP	3.98	3.08
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.31 kW	7.64 kW
COP Tj = -7°C	3.37	2.65
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.26 kW	4.42 kW
COP Tj = +2°C	4.86	3.79
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.62 kW	2.97 kW
COP Tj = +7°C	6.49	4.81
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.34 kW	3.43 kW
COP Tj = 12°C	7.40	6.29
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.22 kW	9.61 kW
COP Tj = Tbiv	2.43	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	5.21 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.23
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	51 °C
Poff	14 W	14 W
PTO	24 W	24 W

PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.82 kW	6.59 kW
Annual energy consumption Q <sub>he</sub>	8431 kWh	9309 kWh
P <sub>dh</sub> T <sub>j</sub> = -15 °C (if TOL	11.22	9.61
COP T <sub>j</sub> = -15 °C (if TOL	2.43	1.86
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.900	0.900

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	40 dB(A)	40 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	249 %	176 %
Prated	13.10 kW	13.80 kW
SCOP	6.26	4.43
T <sub>biv</sub>	7 °C	7 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2 °C	13.09 kW	13.38 kW
COP T <sub>j</sub> = +2 °C	3.35	2.29
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = +7 °C	8.41 kW	8.86 kW
COP T <sub>j</sub> = +7 °C	5.36	3.84
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = 12 °C	3.87 kW	4.06 kW
COP T <sub>j</sub> = 12 °C	8.11	5.86
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.900	0.900
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	8.41 kW	8.86 kW
COP T <sub>j</sub> = T <sub>biv</sub>	5.36	3.84
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	13.09 kW	13.38 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.35	2.29
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.900	0.900
WTOL	60 °C	62 °C
P <sub>off</sub>	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.42 kW

Annual energy consumption Q <sub>he</sub>	2786 kWh	4112 kWh
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#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	14.30 kW	15.40 kW
SEER	4.63	6.71
P <sub>dc</sub> T <sub>j</sub> = 35°C	14.31 kW	15.40 kW
EER T <sub>j</sub> = 35°C	2.47	3.50
C <sub>dc</sub> T <sub>j</sub> = 35 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 30°C	10.68 kW	11.42 kW
EER T <sub>j</sub> = 30°C	3.63	5.14
C <sub>dc</sub> T <sub>j</sub> = 30 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 25°C	6.76 kW	7.27 kW
EER T <sub>j</sub> = 25°C	5.27	7.83
C <sub>dc</sub> T <sub>j</sub> = 25 °C	0.900	0.900
P <sub>dc</sub> T <sub>j</sub> = 20°C	3.41 kW	3.40 kW
EER T <sub>j</sub> = 20°C	7.29	10.35
C <sub>dc</sub> T <sub>j</sub> = 20 °C	0.900	0.900
P <sub>off</sub>	14 W	14 W
PTO	10 W	10 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Q <sub>ce</sub>	1853 kWh	1378 kWh