

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

Summary of	Vitocal 2xx-S ODU3	Reg. No.	011-1W0201
Certificate Holder			
Name	Viessmann Wärmepumpen GmbH		
Address	Viessmannstr. 1	Zip	35107
City	Allendorf/Eder	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Universität Stuttgart Institut für GebäudeEnergetik		
Subtype title	Vitocal 2xx-S ODU3		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	3.6 kg		

# Model: Vitocal 200-S AWB-M-E-AC 201.D10

## General Data

Power supply	1x230V 50Hz
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## Average Climate

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	176 %	129 %
Prated	9.32 kW	9.35 kW
SCOP	4.47	3.29
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.25 kW	8.27 kW
COP Tj = -7°C	3.24	2.26
Pdh Tj = +2°C	5.32 kW	6.07 kW
COP Tj = +2°C	4.32	3.15
Pdh Tj = +7°C	6.60 kW	5.37 kW
COP Tj = +7°C	5.81	4.21
Pdh Tj = 12°C	6.63 kW	6.41 kW
COP Tj = 12°C	7.51	5.70
Pdh Tj = Tbiv	8.25 kW	8.27 kW
COP Tj = Tbiv	3.24	2.26

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Pdh Tj = TOL	7.51 kW	8.04 kW
COP Tj = TOL	2.90	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.86 kW	1.36 kW
Annual energy consumption Qhe	4314 kWh	5689 kWh

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

## Heating

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

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.01 kW	7.93 kW
El input	1.49 kW	2.73 kW
COP	4.69	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

### EN 14825

P <sub>designh</sub>	9.32 kW
Rated airflow rate	4500 m <sup>3</sup> /h

# Model: Vitocal 200-S AWB-M-E-AC 201.D13

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.85 kW	7.93 kW
El input	1.66 kW	2.73 kW
COP	4.72	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.99 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	9.99 kW	10.07 kW
SCOP	4.46	3.32
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.83 kW	8.91 kW
COP T <sub>j</sub> = -7°C	3.19	2.27
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.90 kW
COP T <sub>j</sub> = +2°C	4.30	3.17

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

Pdh Tj = +7°C	8.86 kW	5.38 kW
COP Tj = +7°C	5.63	4.24
Pdh Tj = 12°C	6.65 kW	6.42 kW
COP Tj = 12°C	7.64	5.72
Pdh Tj = Tbiv	8.83 kW	8.91 kW
COP Tj = Tbiv	3.19	2.27
Pdh Tj = TOL	8.06 kW	8.59 kW
COP Tj = TOL	2.86	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.98 kW	1.54 kW
Annual energy consumption Qhe	4625 kWh	6275 kWh

# Model: Vitocal 200-S AWB-M-E-AC 201.D16

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.64 kW	8.42 kW
El input	1.90 kW	2.89 kW
COP	4.54	2.92
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h



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

<b>EN 14825</b>	
P <sub>designh</sub>	10.61 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	10.61 kW	10.72 kW
SCOP	4.46	3.34
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.39 kW	9.49 kW
COP T <sub>j</sub> = -7°C	3.12	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.72 kW	5.91 kW
COP T <sub>j</sub> = +2°C	4.29	3.19

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

Pdh Tj = +7°C	8.88 kW	5.39 kW
COP Tj = +7°C	5.68	4.27
Pdh Tj = 12°C	6.67 kW	6.42 kW
COP Tj = 12°C	7.74	5.75
Pdh Tj = Tbiv	9.39 kW	9.49 kW
COP Tj = Tbiv	3.12	2.26
Pdh Tj = TOL	8.55 kW	9.21 kW
COP Tj = TOL	2.80	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	59 W	59 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.11 kW	1.57 kW
Annual energy consumption Qhe	4917 kWh	6638 kWh

# Model: Vitocal 200-S AWB-M 201.D10

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.01 kW	7.93 kW
El input	1.49 kW	2.73 kW
COP	4.69	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

<b>EN 14825</b>	
P <sub>designh</sub>	9.32 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	176 %	129 %
Prated	9.32 kW	9.35 kW
SCOP	4.47	3.29
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.25 kW	8.27 kW
COP T <sub>j</sub> = -7°C	3.24	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.32 kW	6.07 kW
COP T <sub>j</sub> = +2°C	4.32	3.15

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

Pdh Tj = +7°C	6.60 kW	5.37 kW
COP Tj = +7°C	5.81	4.21
Pdh Tj = 12°C	6.63 kW	6.41 kW
COP Tj = 12°C	7.51	5.70
Pdh Tj = Tbiv	8.25 kW	8.27 kW
COP Tj = Tbiv	3.24	2.26
Pdh Tj = TOL	7.51 kW	8.04 kW
COP Tj = TOL	2.90	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.86 kW	1.36 kW
Annual energy consumption Qhe	4314 kWh	5867 kWh

# Model: Vitocal 200-S AWB-M 201.D13

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.85 kW	7.93 kW
El input	1.66 kW	2.73 kW
COP	4.72	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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<b>EN 14825</b>	
P <sub>designh</sub>	9.99 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	9.99 kW	10.07 kW
SCOP	4.46	3.32
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.83 kW	8.91 kW
COP T <sub>j</sub> = -7°C	3.19	2.27
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.90 kW
COP T <sub>j</sub> = +2°C	4.30	3.17

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

Pdh Tj = +7°C	8.86 kW	5.38 kW
COP Tj = +7°C	5.63	4.24
Pdh Tj = 12°C	6.65 kW	6.42 kW
COP Tj = 12°C	7.64	5.72
Pdh Tj = Tbiv	8.83 kW	8.91 kW
COP Tj = Tbiv	3.19	2.27
Pdh Tj = TOL	8.06 kW	8.59 kW
COP Tj = TOL	2.86	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.98 kW	1.54 kW
Annual energy consumption Qhe	4625 kWh	6275 kWh



## Model: Vitocal 200-S AWB-M 201.D16

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.64 kW	8.42 kW
El input	1.90 kW	2.89 kW
COP	4.54	2.92
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	10.61 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	10.61 kW	10.72 kW
SCOP	4.46	3.34
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.39 kW	9.49 kW
COP T <sub>j</sub> = -7°C	3.12	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.72 kW	5.91 kW
COP T <sub>j</sub> = +2°C	4.29	3.19

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Pdh Tj = +7°C	8.88 kW	5.39 kW
COP Tj = +7°C	5.68	4.27
Pdh Tj = 12°C	6.67 kW	6.42 kW
COP Tj = 12°C	7.74	5.75
Pdh Tj = Tbiv	9.39 kW	9.49 kW
COP Tj = Tbiv	3.12	2.26
Pdh Tj = TOL	8.55 kW	9.21 kW
COP Tj = TOL	2.80	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	59 W	59 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.11 kW	1.57 kW
Annual energy consumption Qhe	4917 kWh	6638 kWh

# Model: Vitocal 200-S AWB-E-M 201.D10

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.01 kW	7.93 kW
El input	1.49 kW	2.73 kW
COP	4.69	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.32 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	176 %	129 %
Prated	9.32 kW	9.35 kW
SCOP	4.47	3.29
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.25 kW	8.27 kW
COP T <sub>j</sub> = -7°C	3.24	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.32 kW	6.07 kW
COP T <sub>j</sub> = +2°C	4.32	3.15

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Pdh Tj = +7°C	6.60 kW	5.37 kW
COP Tj = +7°C	5.81	4.21
Pdh Tj = 12°C	6.63 kW	6.41 kW
COP Tj = 12°C	7.51	5.70
Pdh Tj = Tbiv	8.25 kW	8.27 kW
COP Tj = Tbiv	3.24	2.26
Pdh Tj = TOL	7.51 kW	8.04 kW
COP Tj = TOL	2.90	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.86 kW	1.36 kW
Annual energy consumption Qhe	4314 kWh	5867 kWh

# Model: Vitocal 200-S AWB-E-M 201.D13

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.85 kW	7.93 kW
El input	1.66 kW	2.73 kW
COP	4.72	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.99 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	9.99 kW	10.07 kW
SCOP	4.46	3.32
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.83 kW	8.91 kW
COP T <sub>j</sub> = -7°C	3.19	2.27
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.90 kW
COP T <sub>j</sub> = +2°C	4.30	3.17



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Pdh Tj = +7°C	8.86 kW	5.38 kW
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Pdh Tj = 12°C	6.65 kW	6.42 kW
COP Tj = 12°C	7.64	5.72
Pdh Tj = Tbiv	8.83 kW	8.91 kW
COP Tj = Tbiv	3.19	2.27
Pdh Tj = TOL	8.06 kW	8.59 kW
COP Tj = TOL	2.86	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.98 kW	1.54 kW
Annual energy consumption Qhe	4625 kWh	6275 kWh

# Model: Vitocal 200-S AWB-E-M 201.D16

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.64 kW	8.42 kW
El input	1.90 kW	2.89 kW
COP	4.54	2.92
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	10.61 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	10.61 kW	10.72 kW
SCOP	4.46	3.34
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.39 kW	9.49 kW
COP T <sub>j</sub> = -7°C	3.12	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.72 kW	5.91 kW
COP T <sub>j</sub> = +2°C	4.29	3.19

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

Pdh Tj = +7°C	8.88 kW	5.39 kW
COP Tj = +7°C	5.68	4.27
Pdh Tj = 12°C	6.67 kW	6.42 kW
COP Tj = 12°C	7.74	5.75
Pdh Tj = Tbiv	9.39 kW	9.49 kW
COP Tj = Tbiv	3.12	2.26
Pdh Tj = TOL	8.55 kW	9.21 kW
COP Tj = TOL	2.80	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	59 W	59 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.11 kW	1.57 kW
Annual energy consumption Qhe	4917 kWh	6638 kWh

# Model: Vitocal 222-S AWBT-M 221.C10

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.01 kW	7.93 kW
El input	1.49 kW	2.73 kW
COP	4.69	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.32 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	176 %	129 %
Prated	9.32 kW	9.35 kW
SCOP	4.47	3.29
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.25 kW	8.27 kW
COP T <sub>j</sub> = -7°C	3.24	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.32 kW	6.07 kW
COP T <sub>j</sub> = +2°C	4.32	3.15

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

Pdh Tj = +7°C	6.60 kW	5.37 kW
COP Tj = +7°C	5.81	4.21
Pdh Tj = 12°C	6.63 kW	6.41 kW
COP Tj = 12°C	7.51	5.70
Pdh Tj = Tbiv	8.25 kW	8.27 kW
COP Tj = Tbiv	3.24	2.26
Pdh Tj = TOL	7.51 kW	8.04 kW
COP Tj = TOL	2.90	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.86 kW	1.36 kW
Annual energy consumption Qhe	4314 kWh	5867 kWh

# Model: Vitocal 222-S AWBT-M 221.C13

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.85 kW	7.93 kW
El input	1.66 kW	2.73 kW
COP	4.72	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h



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

<b>EN 14825</b>	
P <sub>designh</sub>	9.99 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	9.99 kW	10.07 kW
SCOP	4.46	3.32
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.83 kW	8.91 kW
COP T <sub>j</sub> = -7°C	3.19	2.27
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.90 kW
COP T <sub>j</sub> = +2°C	4.30	3.17

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

Pdh Tj = +7°C	8.86 kW	5.38 kW
COP Tj = +7°C	5.63	4.24
Pdh Tj = 12°C	6.65 kW	6.42 kW
COP Tj = 12°C	7.64	5.72
Pdh Tj = Tbiv	8.83 kW	8.91 kW
COP Tj = Tbiv	3.19	2.27
Pdh Tj = TOL	8.06 kW	8.59 kW
COP Tj = TOL	2.86	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.98 kW	1.54 kW
Annual energy consumption Qhe	4625 kWh	6275 kWh

# Model: Vitocal 222-S AWBT-M 221.C16

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.64 kW	8.42 kW
El input	1.90 kW	2.89 kW
COP	4.54	2.92
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	10.61 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	10.61 kW	10.72 kW
SCOP	4.46	3.34
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.39 kW	9.49 kW
COP T <sub>j</sub> = -7°C	3.12	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.72 kW	5.91 kW
COP T <sub>j</sub> = +2°C	4.29	3.19

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

Pdh Tj = +7°C	8.88 kW	5.39 kW
COP Tj = +7°C	5.68	4.27
Pdh Tj = 12°C	6.67 kW	6.42 kW
COP Tj = 12°C	7.74	5.75
Pdh Tj = Tbiv	9.39 kW	9.49 kW
COP Tj = Tbiv	3.12	2.26
Pdh Tj = TOL	8.55 kW	9.21 kW
COP Tj = TOL	2.80	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	59 W	59 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.11 kW	1.57 kW
Annual energy consumption Qhe	4917 kWh	6638 kWh

# Model: Vitocal 222-S AWBT-M-E -AC 221.C10

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.01 kW	7.93 kW
El input	1.49 kW	2.73 kW
COP	4.69	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.32 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	176 %	129 %
Prated	9.32 kW	9.35 kW
SCOP	4.47	3.29
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.25 kW	8.27 kW
COP T <sub>j</sub> = -7°C	3.24	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.32 kW	6.07 kW
COP T <sub>j</sub> = +2°C	4.32	3.15

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

Pdh Tj = +7°C	6.60 kW	5.37 kW
COP Tj = +7°C	5.81	4.21
Pdh Tj = 12°C	6.63 kW	6.41 kW
COP Tj = 12°C	7.51	5.70
Pdh Tj = Tbiv	8.25 kW	8.27 kW
COP Tj = Tbiv	3.24	2.26
Pdh Tj = TOL	7.51 kW	8.04 kW
COP Tj = TOL	2.90	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.86 kW	1.36 kW
Annual energy consumption Qhe	4314 kWh	5867 kWh



# Model: Vitocal 222-S AWBT-M-E-AC 221.C13

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.85 kW	7.93 kW
El input	1.66 kW	2.73 kW
COP	4.72	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.99 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	9.99 kW	10.07 kW
SCOP	4.46	3.32
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.83 kW	8.91 kW
COP T <sub>j</sub> = -7°C	3.19	2.27
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.90 kW
COP T <sub>j</sub> = +2°C	4.30	3.17

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

Pdh Tj = +7°C	8.86 kW	5.38 kW
COP Tj = +7°C	5.63	4.24
Pdh Tj = 12°C	6.65 kW	6.42 kW
COP Tj = 12°C	7.64	5.72
Pdh Tj = Tbiv	8.83 kW	8.91 kW
COP Tj = Tbiv	3.19	2.27
Pdh Tj = TOL	8.06 kW	8.59 kW
COP Tj = TOL	2.86	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.98 kW	1.54 kW
Annual energy consumption Qhe	4625 kWh	6275 kWh

# Model: Vitocal 222-S AWBT-M-E-AC 221.C16

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.64 kW	8.42 kW
El input	1.90 kW	2.89 kW
COP	4.54	2.92
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	10.61 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	10.61 kW	10.72 kW
SCOP	4.46	3.34
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.39 kW	9.49 kW
COP T <sub>j</sub> = -7°C	3.12	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.72 kW	5.91 kW
COP T <sub>j</sub> = +2°C	4.29	3.19

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

Pdh Tj = +7°C	8.88 kW	5.39 kW
COP Tj = +7°C	5.68	4.27
Pdh Tj = 12°C	6.67 kW	6.42 kW
COP Tj = 12°C	7.74	5.75
Pdh Tj = Tbiv	9.39 kW	9.49 kW
COP Tj = Tbiv	3.12	2.26
Pdh Tj = TOL	8.55 kW	9.21 kW
COP Tj = TOL	2.80	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	59 W	59 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.11 kW	1.40 kW
Annual energy consumption Qhe	4917 kWh	6638 kWh

# Model: Vitocal 222-S AWBT-M-E 221.C10

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.01 kW	7.93 kW
El input	1.49 kW	2.73 kW
COP	4.69	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.32 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	176 %	129 %
Prated	9.32 kW	9.35 kW
SCOP	4.47	3.29
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.25 kW	8.27 kW
COP T <sub>j</sub> = -7°C	3.24	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.32 kW	6.07 kW
COP T <sub>j</sub> = +2°C	4.32	3.15



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

Pdh Tj = +7°C	6.60 kW	5.37 kW
COP Tj = +7°C	5.81	4.21
Pdh Tj = 12°C	6.63 kW	6.41 kW
COP Tj = 12°C	7.51	5.70
Pdh Tj = Tbiv	8.25 kW	8.27 kW
COP Tj = Tbiv	3.24	2.26
Pdh Tj = TOL	7.51 kW	8.04 kW
COP Tj = TOL	2.90	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.86 kW	1.36 kW
Annual energy consumption Qhe	4314 kWh	5867 kWh

# Model: Vitocal 222-S AWBT-M-E 221.C13

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

### EN 14511-2

	Low temperature	Medium temperature
Heat output	7.85 kW	7.93 kW
El input	1.66 kW	2.73 kW
COP	4.72	2.90
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

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

<b>EN 14825</b>	
P <sub>designh</sub>	9.99 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	9.99 kW	10.07 kW
SCOP	4.46	3.32
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	8.83 kW	8.91 kW
COP T <sub>j</sub> = -7°C	3.19	2.27
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.71 kW	5.90 kW
COP T <sub>j</sub> = +2°C	4.30	3.17

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

Pdh Tj = +7°C	8.86 kW	5.38 kW
COP Tj = +7°C	5.63	4.24
Pdh Tj = 12°C	6.65 kW	6.42 kW
COP Tj = 12°C	7.64	5.72
Pdh Tj = Tbiv	8.83 kW	8.91 kW
COP Tj = Tbiv	3.19	2.27
Pdh Tj = TOL	8.06 kW	8.59 kW
COP Tj = TOL	2.86	2.04
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	50 W	50 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	1.98 kW	1.54 kW
Annual energy consumption Qhe	4625 kWh	6275 kWh

# Model: Vitocal 222-S AWBT-M-E 221.C16

## General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.64 kW	8.42 kW
El input	1.90 kW	2.89 kW
COP	4.54	2.92
Indoor water flow rate	1.40 m <sup>3</sup> /h	1.40 m <sup>3</sup> /h

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

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

<b>EN 14825</b>	
P <sub>designh</sub>	10.61 kW
Rated airflow rate	4500 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	39 dB(A)	39 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	130 %
Prated	10.61 kW	10.72 kW
SCOP	4.46	3.34
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	9.39 kW	9.49 kW
COP T <sub>j</sub> = -7°C	3.12	2.26
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.72 kW	5.91 kW
COP T <sub>j</sub> = +2°C	4.29	3.19

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

Pdh Tj = +7°C	8.88 kW	5.39 kW
COP Tj = +7°C	5.68	4.27
Pdh Tj = 12°C	6.67 kW	6.42 kW
COP Tj = 12°C	7.74	5.75
Pdh Tj = Tbiv	9.39 kW	9.49 kW
COP Tj = Tbiv	3.12	2.26
Pdh Tj = TOL	8.55 kW	9.21 kW
COP Tj = TOL	2.80	2.05
Cdh	0.98	0.99
WTOL	60 °C	60 °C
Poff	59 W	59 W
PTO	0 W	0 W
PSB	25 W	25 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electrical	electrical
Supplementary Heater: PSUP	2.11 kW	1.57 kW
Annual energy consumption Qhe	4917 kWh	6638 kWh