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Summary of	Vitocal 2xx-G B10	Reg. No.	011-1W0287
Certificate Holder			
Name	Viessmann Wärmepumpen GmbH		
Address	Viessmannstr. 1	Zip	35107
City	Allendorf/Eder	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	Vitocal 2xx-G B10		
Heat Pump Type	Brine/Water		
Refrigerant	R410A		
Mass of Refrigerant	2.4 kg		
Certification Date	11.07.2019		

Model: VITOCAL 200-G BWC 201.B10

Configure model	
Model name	VITOCAL 200-G BWC 201.B10
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.36 kW	9.42 kW
El input	2.16 kW	3.32 kW
COP	4.81	2.85

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

This information was generated by the HP KEYMARK database on 22 Jun 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	208 %	145 %
Prated	10.27 kW	9.39 kW
SCOP	5.41	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.27 kW	9.39 kW
COP Tj = +2°C	4.95	3.00
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.33 kW	9.66 kW
COP Tj = +7°C	5.24	3.50
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.46 kW	10.02 kW
COP Tj = 12°C	5.79	4.40
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.27 kW	9.39 kW

This information was generated by the HP KEYMARK database on 22 Jun 2022

COP Tj = Tbiv	4.95	3.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.27 kW	9.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.95	3.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2536 kWh	3281 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	206 %	143 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	17.18 kW	15.83 kW
SCOP	5.36	3.78
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.44 kW	9.78 kW
COP Tj = -7°C	5.76	3.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.48 kW	9.99 kW
COP Tj = +2°C	6.47	4.37
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.55 kW	10.16 kW
COP Tj = +7°C	6.78	4.84
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.55 kW	10.26 kW
COP Tj = 12°C	6.85	5.25
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.44 kW	9.78 kW
COP Tj = Tbiv	5.76	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.44 kW	9.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.12	3.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.73 kW	6.35 kW
Annual energy consumption Qhe	7907 kWh	10312 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.47	9.65
COP Tj = -15°C (if TOL<-20°C)	6.39	3.51
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	11.72 kW		
η_s	204 %	150 %	

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	11.72 kW	10.81 kW
SCOP	5.32	3.97
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.31 kW	9.51 kW
COP Tj = -7°C	4.99	3.23
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.40 kW	9.78 kW
COP Tj = +2°C	5.33	3.84
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.48 kW	9.96 kW
COP Tj = +7°C	5.67	4.31
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.58 kW	10.15 kW
COP Tj = 12°C	6.02	4.83
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.31 kW	9.51 kW
COP Tj = Tbiv	4.99	3.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.31 kW	9.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.96	3.07

This information was generated by the HP KEYMARK database on 22 Jun 2022

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.41 kW	1.39 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	4554 kWh	5630 kWh

Model: VITOCAL 200-G BWC 201.B10 SC

Configure model

Model name	VITOCAL 200-G BWC 201.B10 SC
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	n/a
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	10.36 kW	9.42 kW
El input	2.16 kW	3.32 kW
COP	4.81	2.85

EN 14511-4

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

This information was generated by the HP KEYMARK database on 22 Jun 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	208 %	145 %
Prated	10.27 kW	9.39 kW
SCOP	5.41	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.27 kW	9.39 kW
COP Tj = +2°C	4.95	3.00
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.33 kW	9.66 kW
COP Tj = +7°C	5.24	3.50
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.46 kW	10.02 kW
COP Tj = 12°C	5.79	4.40
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.27 kW	9.39 kW

This information was generated by the HP KEYMARK database on 22 Jun 2022

COP Tj = Tbiv	4.95	3.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.27 kW	9.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.95	3.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2536 kWh	3281 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	206 %	143 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	17.18 kW	15.83 kW
SCOP	5.36	3.78
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.44 kW	9.78 kW
COP Tj = -7°C	5.76	3.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.48 kW	9.99 kW
COP Tj = +2°C	6.47	4.37
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.55 kW	10.16 kW
COP Tj = +7°C	6.78	4.84
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.55 kW	10.26 kW
COP Tj = 12°C	6.85	5.25
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.44 kW	9.78 kW
COP Tj = Tbiv	5.76	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.44 kW	9.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.12	3.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.73 kW	6.35 kW
Annual energy consumption Qhe	7907 kWh	10312 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.47	9.65
COP Tj = -15°C (if TOL<-20°C)	6.39	3.51
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	11.72 kW		
η_s	204 %	150 %	

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	11.72 kW	10.81 kW
SCOP	5.32	3.97
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.31 kW	9.51 kW
COP Tj = -7°C	4.99	3.23
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.40 kW	9.78 kW
COP Tj = +2°C	5.33	3.84
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.48 kW	9.96 kW
COP Tj = +7°C	5.67	4.31
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.58 kW	10.15 kW
COP Tj = 12°C	6.02	4.83
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.31 kW	9.51 kW
COP Tj = Tbiv	4.99	3.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.31 kW	9.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.96	3.07

This information was generated by the HP KEYMARK database on 22 Jun 2022

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.41 kW	1.39 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	4554 kWh	5630 kWh

Model: VITOCAL 222-G BWT 221.B10

Configure model	
Model name	VITOCAL 222-G BWT 221.B10
Application	Heating + DHW + low temp
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz
Off-peak product	Yes

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	10.36 kW	9.42 kW
El input	2.16 kW	3.32 kW
COP	4.81	2.85

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

This information was generated by the HP KEYMARK database on 22 Jun 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	208 %	145 %
Prated	10.27 kW	9.39 kW
SCOP	5.41	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.27 kW	9.39 kW
COP Tj = +2°C	4.95	3.00
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.33 kW	9.66 kW
COP Tj = +7°C	5.24	3.50
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.46 kW	10.02 kW
COP Tj = 12°C	5.79	4.40
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.27 kW	9.39 kW

This information was generated by the HP KEYMARK database on 22 Jun 2022

COP Tj = Tbiv	4.95	3.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.27 kW	9.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.95	3.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2536 kWh	3281 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	206 %	143 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	17.18 kW	15.83 kW
SCOP	5.36	3.78
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.44 kW	9.78 kW
COP Tj = -7°C	5.76	3.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.48 kW	9.99 kW
COP Tj = +2°C	6.47	4.37
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.55 kW	10.16 kW
COP Tj = +7°C	6.78	4.84
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.55 kW	10.26 kW
COP Tj = 12°C	6.85	5.25
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.44 kW	9.78 kW
COP Tj = Tbiv	5.76	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.44 kW	9.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.12	3.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.73 kW	6.35 kW
Annual energy consumption Qhe	7907 kWh	10312 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.47	9.65
COP Tj = -15°C (if TOL<-20°C)	6.39	3.51
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	11.72 kW		
η_s	204 %	150 %	

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	11.72 kW	10.81 kW
SCOP	5.32	3.97
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.31 kW	9.51 kW
COP Tj = -7°C	4.99	3.23
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.40 kW	9.78 kW
COP Tj = +2°C	5.33	3.84
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.48 kW	9.96 kW
COP Tj = +7°C	5.67	4.31
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.58 kW	10.15 kW
COP Tj = 12°C	6.02	4.83
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.31 kW	9.51 kW
COP Tj = Tbiv	4.99	3.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.31 kW	9.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.96	3.07

This information was generated by the HP KEYMARK database on 22 Jun 2022

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.41 kW	1.39 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	4554 kWh	5630 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency η_{DHW}	130 %
COP	3.11
Heating up time	1:14 h:min
Standby power input	63.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	302 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency η_{DHW}	130 %
COP	3.11
Heating up time	1:14 h:min
Standby power input	63.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	302 l

Average Climate

This information was generated by the HP KEYMARK database on 22 Jun 2022

EN 16147	
Declared load profile	XL
Efficiency η_{DHW}	130 %
COP	3.11
Heating up time	1:14 h:min
Standby power input	63.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	302 l

Model: VITOCAL 222-G BWT 221.B10 SC

Configure model

Model name	VITOCAL 222-G BWT 221.B10 SC
Application	Heating + DHW + low temp
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
Off-peak product	Yes

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	10.36 kW	9.42 kW
El input	2.16 kW	3.32 kW
COP	4.81	2.85

EN 14511-4

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

This information was generated by the HP KEYMARK database on 22 Jun 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	208 %	145 %
Prated	10.27 kW	9.39 kW
SCOP	5.41	3.82
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.27 kW	9.39 kW
COP Tj = +2°C	4.95	3.00
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.33 kW	9.66 kW
COP Tj = +7°C	5.24	3.50
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.46 kW	10.02 kW
COP Tj = 12°C	5.79	4.40
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.27 kW	9.39 kW

This information was generated by the HP KEYMARK database on 22 Jun 2022

COP Tj = Tbiv	4.95	3.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.27 kW	9.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.95	3.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2536 kWh	3281 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	206 %	143 %

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	17.18 kW	15.83 kW
SCOP	5.36	3.78
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.44 kW	9.78 kW
COP Tj = -7°C	5.76	3.84
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.48 kW	9.99 kW
COP Tj = +2°C	6.47	4.37
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.55 kW	10.16 kW
COP Tj = +7°C	6.78	4.84
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.55 kW	10.26 kW
COP Tj = 12°C	6.85	5.25
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.44 kW	9.78 kW
COP Tj = Tbiv	5.76	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.44 kW	9.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.12	3.15
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99

This information was generated by the HP KEYMARK database on 22 Jun 2022

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.73 kW	6.35 kW
Annual energy consumption Qhe	7907 kWh	10312 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.47	9.65
COP Tj = -15°C (if TOL<-20°C)	6.39	3.51
Cdh Tj = -15 °C	0.99	0.99

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)

EN 14825			
		Low temperature	Medium temperature
Pdesignh	11.72 kW		
η_s	204 %	150 %	

This information was generated by the HP KEYMARK database on 22 Jun 2022

Prated	11.72 kW	10.81 kW
SCOP	5.32	3.97
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.31 kW	9.51 kW
COP Tj = -7°C	4.99	3.23
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	10.40 kW	9.78 kW
COP Tj = +2°C	5.33	3.84
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	10.48 kW	9.96 kW
COP Tj = +7°C	5.67	4.31
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.58 kW	10.15 kW
COP Tj = 12°C	6.02	4.83
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	10.31 kW	9.51 kW
COP Tj = Tbiv	4.99	3.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.31 kW	9.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.96	3.07

This information was generated by the HP KEYMARK database on 22 Jun 2022

$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.41 kW	1.39 kW
Backup Heater	0.00 kW	
Annual energy consumption Q_{he}	4554 kWh	5630 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147	
Declared load profile	XL
Efficiency η_{DHW}	130 %
COP	3.11
Heating up time	1:14 h:min
Standby power input	63.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	302 l

Colder Climate

EN 16147	
Declared load profile	XL
Efficiency η_{DHW}	130 %
COP	3.11
Heating up time	1:14 h:min
Standby power input	63.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	302 l

Average Climate

EN 16147	
Declared load profile	XL
Efficiency η_{DHW}	130 %
COP	3.11
Heating up time	1:14 h:min
Standby power input	63.0 W
Reference hot water temperature	54.2 °C
Mixed water at 40°C	302 l