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Summary of	Alféa Excellia Tri 11	Reg. No.	012-003
Certificate Holder			
Name	Groupe Atlantic		
Address	44 boulevard des Etats-Unis	Zip	85000
City	La Roche Sur Yon	Country	France
Certification Body	RISE CERT		
Subtype title	Alféa Excellia Tri 11		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	2.5 kg		
Certification Date	15.07.2016		
Testing basis	EN 14511:2013; EN 16147:2011; EN 14825:2013; EN 12102:2013		

## Model: Alféa Excellia Tri 11

Configure model	
Model name	Alféa Excellia Tri 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

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COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption Q <sub>he</sub>	5930 kWh	6669 kWh

## Model: Alféa Excellia A.I. Tri 11

Configure model	
Model name	Alféa Excellia A.I. Tri 11
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption Q <sub>he</sub>	5930 kWh	6669 kWh

# Model: Alféa Excellia Duo Tri 11

Configure model	
Model name	Alféa Excellia Duo Tri 11
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

## 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

## Average Climate



This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	65 °C	65 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption Q <sub>he</sub>	5930 kWh	6669 kWh

## Domestic Hot Water (DHW)

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	88 %
COP	2.30
Heating up time	0:46 h:min
Standby power input	40.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	250 l

## Model: Alféa Excellia Duo A.I. Tri 11

Configure model	
Model name	Alféa Excellia Duo A.I. Tri 11
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption $Q_{he}$	5930 kWh	6669 kWh

## Domestic Hot Water (DHW)

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	88 %
COP	2.30
Heating up time	0:46 h:min
Standby power input	40.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	250 l

## Model: Hydrapac 11B10

Configure model	
Model name	Hydrapac 11B10
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate



### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption $Q_{he}$	5930 kWh	6669 kWh

## Model: Hydrapac 11B25

Configure model	
Model name	Hydrapac 11B25
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption $Q_{he}$	5930 kWh	6669 kWh

## Model: Hydramax Gaz 11B10

Configure model	
Model name	Hydramax Gaz 11B10
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption Q <sub>he</sub>	5930 kWh	6669 kWh



## Model: Hydramax Gaz 11B25

Configure model	
Model name	Hydramax Gaz 11B25
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption $Q_{he}$	5930 kWh	6669 kWh

## Model: Alféa Excellia Tri 11 BS

Configure model	
Model name	Alféa Excellia Tri 11 BS
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

### 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	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	46 dB(A)	46 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

### EN 14825

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP $T_j = T_{biv}$	2.70	1.90
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.90 kW	8.10 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.30	1.60
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	14 W	14 W
PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption $Q_{he}$	5930 kWh	6669 kWh