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Login

Summary of	LWV 82 Inverter	Reg. No.	041-K001-23	
Certificate Holder				
Name	ait-deutschland GmbH			
Address	Industriestr. 3	Zip	95359	
City	Kasendorf	Country	Germany	
Certification Body	BRE Global Limited			
Subtype title	LWV 82 Inverter			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410A			
Mass of Refrigerant	3 kg			
Certification Date	27.03.2019			



Model: LWCV 82R1/3

Configure model		
Model name	LWCV 82R1/3	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

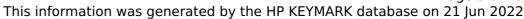
General Data		
Power supply	1x230V 50Hz	

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	2.81 kW	3.28 kW	
El input	0.56 kW	0.87 kW	
СОР	5.02	2.85	

Warmer Climate





EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	48 dB(A)	48 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
η_{s}	214 %	156 %	
Prated	4.10 kW	5.50 kW	
SCOP	5.43	3.99	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = $+2$ °C	4.07 kW	5.55 kW	
$COPTj = +2^{\circ}C$	4.15	2.69	
Pdh Tj = $+7^{\circ}$ C	3.06 kW	3.86 kW	
$COPTj = +7^{\circ}C$	5.65	3.70	
Pdh Tj = 12°C	3.60 kW	3.50 kW	
COP Tj = 12°C	8.43	5.60	
Pdh Tj = Tbiv	4.20 kW	5.55 kW	
COP Tj = Tbiv	4.28	2.69	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	4.20 kW	5.55 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.28	2.69	





Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	o w	0 W
PSB	31 W	31 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1009 kWh	1844 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	48 dB(A)	48 dB(A)	

EN 14825		
Low temperature	Medium temperature	
145 %	127 %	
6.50 kW	5.00 kW	
3.69	3.26	
-15 °C	-15 °C	
	145 % 6.50 kW 3.69	





		The database on 21 Juli 202.
TOL	-22 °C	-22 °C
Pdh Tj = -7° C	5.60 kW	6.25 kW
$COPTj = -7^{\circ}C$	3.17	2.69
Pdh Tj = +2°C	4.02 kW	3.33 kW
COP Tj = +2°C	5.27	4.14
Pdh Tj = $+7^{\circ}$ C	3.12 kW	3.48 kW
$COP Tj = +7^{\circ}C$	6.04	5.25
Pdh Tj = 12°C	4.21 kW	3.70 kW
COP Tj = 12°C	9.50	7.52
Pdh Tj = Tbiv	3.56 kW	4.03 kW
COP Tj = Tbiv	2.43	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.73 kW	5.58 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.56	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	0 W	o w
PSB	31 W	31 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.77 kW	0.00 kW



Annual energy consumption Qhe	4339 kWh	3781 kWh
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Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	180 %	135 %
Prated	6.70 kW	5.65 kW
SCOP	4.57	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.88 kW	5.04 kW
COP Tj = -7°C	3.26	2.31
Pdh Tj = $+2$ °C	3.84 kW	3.48 kW
COP Tj = +2°C	4.70	3.43
Pdh Tj = $+7^{\circ}$ C	3.27 kW	3.04 kW
$COP Tj = +7^{\circ}C$	5.97	4.86
Pdh Tj = 12°C	3.36 kW	3.39 kW





	-	
COP Tj = 12°C	7.92	6.56
Pdh Tj = Tbiv	5.88 kW	5.04 kW
COP Tj = Tbiv	3.26	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.11 kW	4.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	0 W	0 W
PSB	31 W	31 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.42 kW
Annual energy consumption Qhe	3029 kWh	3390 kWh





Model: LWV 82R1/3

Configure model	
Model name	LWV 82R1/3
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data		
Power supply	1x230V 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

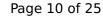
EN 14511-2		
	Low temperature	Medium temperature
Heat output	2.81 kW	3.28 kW
El input	0.56 kW	0.87 kW
СОР	5.02	2.85

Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	214 %	156 %
Prated	4.10 kW	5.50 kW
SCOP	5.43	3.99
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	4.07 kW	5.55 kW
$COPTj = +2^{\circ}C$	4.15	2.69
Pdh Tj = $+7^{\circ}$ C	3.06 kW	3.86 kW
$COPTj = +7^{\circ}C$	5.65	3.70
Pdh Tj = 12°C	3.60 kW	3.50 kW
COP Tj = 12°C	8.43	5.60
Pdh Tj = Tbiv	4.20 kW	5.55 kW
COP Tj = Tbiv	4.28	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	4.20 kW	5.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.28	2.69



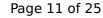


Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	o w	0 W
PSB	31 W	31 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1009 kWh	1844 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)

EN 14825		
Low temperature	Medium temperature	
145 %	127 %	
6.50 kW	5.00 kW	
3.69	3.26	
-15 °C	-15 °C	
	145 % 6.50 kW 3.69	





This information was generated by the HP KEYMARK database on 21 jun 202			
TOL	-22 °C	-22 °C	
Pdh Tj = -7°C	5.60 kW	6.25 kW	
COP Tj = -7°C	3.17	2.69	
Pdh Tj = +2°C	4.02 kW	3.33 kW	
$COPTj = +2^{\circ}C$	5.27	4.14	
Pdh Tj = +7°C	3.12 kW	3.48 kW	
$COP Tj = +7^{\circ}C$	6.04	5.25	
Pdh Tj = 12°C	4.21 kW	3.70 kW	
COP Tj = 12°C	9.50	7.52	
Pdh Tj = Tbiv	3.56 kW	4.03 kW	
COP Tj = Tbiv	2.43	1.98	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.73 kW	5.58 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.56	2.24	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00	
WTOL	60 °C	60 °C	
Poff	31 W	31 W	
РТО	o w	0 W	
PSB	31 W	31 W	
РСК	o w	o w	
Supplementary Heater: Type of energy input	Electricity	Electricity	
Supplementary Heater: PSUP	4.77 kW	0.00 kW	
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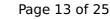


Annual energy consumption Qhe	4339 kWh	3781 kWh	
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Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	48 dB(A)	48 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{S}	180 %	135 %
Prated	6.70 kW	5.65 kW
SCOP	4.57	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.88 kW	5.04 kW
COP Tj = -7°C	3.26	2.31
Pdh Tj = $+2$ °C	3.84 kW	3.48 kW
COP Tj = +2°C	4.70	3.43
Pdh Tj = $+7^{\circ}$ C	3.27 kW	3.04 kW
$COP Tj = +7^{\circ}C$	5.97	4.86
Pdh Tj = 12°C	3.36 kW	3.39 kW





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COP Tj = 12°C	7.92	6.56
Pdh Tj = Tbiv	5.88 kW	5.04 kW
COP Tj = Tbiv	3.26	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.11 kW	4.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	0 W	o w
PSB	31 W	31 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.42 kW
Annual energy consumption Qhe	3029 kWh	3390 kWh



Model: LWAV 82R1/3

Configure model		
Model name	LWAV 82R1/3	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 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	2.81 kW	3.28 kW	
El input	0.56 kW	0.87 kW	
СОР	5.02	2.85	

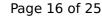
Warmer Climate





EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	48 dB(A)	48 dB(A)	
Sound power level outdoor	50 dB(A)	50 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	214 %	156 %
Prated	4.10 kW	5.50 kW
SCOP	5.43	3.99
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	4.07 kW	5.55 kW
COP Tj = +2°C	4.15	2.69
Pdh Tj = $+7^{\circ}$ C	3.06 kW	3.86 kW
$COPTj = +7^{\circ}C$	5.65	3.70
Pdh Tj = 12°C	3.60 kW	3.50 kW
COP Tj = 12°C	8.43	5.60
Pdh Tj = Tbiv	4.20 kW	5.55 kW
COP Tj = Tbiv	4.28	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.20 kW	5.55 kW



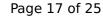


COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.28	2.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	0 W	0 W
PSB	31 W	31 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1009 kWh	1844 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
Low temperature	Medium temperature	
145 %	127 %	
6.50 kW	5.00 kW	
	Low temperature	





	<u> </u>	The database on 21 juli 202.
SCOP	3.69	3.26
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7° C	5.60 kW	6.25 kW
COP Tj = -7°C	3.17	2.69
Pdh Tj = $+2$ °C	4.02 kW	3.33 kW
COP Tj = +2°C	5.27	4.14
Pdh Tj = $+7^{\circ}$ C	3.12 kW	3.48 kW
$COPTj = +7^{\circ}C$	6.04	5.25
Pdh Tj = 12°C	4.21 kW	3.70 kW
COP Tj = 12°C	9.50	7.52
Pdh Tj = Tbiv	3.56 kW	4.03 kW
COP Tj = Tbiv	2.43	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.73 kW	5.58 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.56	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	0 W	o w
PSB	31 W	31 W
РСК	0 W	o w
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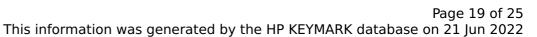


Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.77 kW	0.00 kW
Annual energy consumption Qhe	4339 kWh	3781 kWh

Average Climate

EN 12102-1				
Low temperature Medium temperature				
Sound power level indoor	48 dB(A)	48 dB(A)		
Sound power level outdoor 50 dB(A) 50 dB(A)				

EN 14825		
	Low temperature	Medium temperature
η_{s}	180 %	135 %
Prated	6.70 kW	5.65 kW
SCOP	4.57	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.88 kW	5.04 kW
COP Tj = -7°C	3.26	2.31
Pdh Tj = $+2$ °C	3.84 kW	3.48 kW
$COP Tj = +2^{\circ}C$	4.70	3.43





This information was gener	acea by the in Reinin	Till database on 21 jun 202
Pdh Tj = +7°C	3.27 kW	3.04 kW
$COP Tj = +7^{\circ}C$	5.97	4.86
Pdh Tj = 12°C	3.36 kW	3.39 kW
COP Tj = 12°C	7.92	6.56
Pdh Tj = Tbiv	5.88 kW	5.04 kW
COP Tj = Tbiv	3.26	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.11 kW	4.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	o w	0 W
PSB	31 W	31 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.42 kW
Annual energy consumption Qhe	3029 kWh	3390 kWh



Model: LWAV+ 82R1/3

Configure model		
Model name LWAV+ 82R1/3		
Application	Heating (medium temp)	
Units Outdoor		
Climate Zone Colder Climate + Warmer Climate		
Reversibility No		
Cooling mode application (optional) n/a		

General Data		
Power supply 1x230V 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	2.81 kW	3.28 kW	
El input	0.56 kW	0.87 kW	
СОР	5.02	2.85	

Warmer Climate



EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	48 dB(A)	48 dB(A)	
Sound power level outdoor	50 dB(A)	50 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	214 %	156 %
Prated	4.10 kW	5.50 kW
SCOP	5.43	3.99
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	4.07 kW	5.55 kW
$COPTj = +2^{\circ}C$	4.15	2.69
Pdh Tj = $+7$ °C	3.06 kW	3.86 kW
$COPTj = +7^{\circ}C$	5.65	3.70
Pdh Tj = 12°C	3.60 kW	3.50 kW
COP Tj = 12°C	8.43	5.60
Pdh Tj = Tbiv	4.20 kW	5.55 kW
COP Tj = Tbiv	4.28	2.69
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.20 kW	5.55 kW



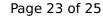


COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.28	2.69
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	o w	0 W
PSB	31 W	31 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1009 kWh	1844 kWh

Colder Climate

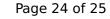
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	145 %	127 %
Prated	6.50 kW	5.00 kW





_	<u> </u>	The database on 21 juli 202.
SCOP	3.69	3.26
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.60 kW	6.25 kW
COP Tj = -7°C	3.17	2.69
Pdh Tj = +2°C	4.02 kW	3.33 kW
COP Tj = +2°C	5.27	4.14
Pdh Tj = $+7^{\circ}$ C	3.12 kW	3.48 kW
$COP Tj = +7^{\circ}C$	6.04	5.25
Pdh Tj = 12°C	4.21 kW	3.70 kW
COP Tj = 12°C	9.50	7.52
Pdh Tj = Tbiv	3.56 kW	4.03 kW
COP Tj = Tbiv	2.43	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.73 kW	5.58 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.56	2.24
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	0 W	o w
PSB	31 W	31 W
РСК	0 W	o w





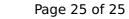
This information was generated by the HP KEYMARK database on 21 Jun 202			
ementary Heater: Type of energy input	Electricity	Electricity	

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.77 kW	0.00 kW
Annual energy consumption Qhe	4339 kWh	3781 kWh

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	180 %	135 %
Prated	6.70 kW	5.65 kW
SCOP	4.57	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	5.88 kW	5.04 kW
COP Tj = -7° C	3.26	2.31
Pdh Tj = $+2$ °C	3.84 kW	3.48 kW
COP Tj = +2°C	4.70	3.43





	, -	
Pdh Tj = $+7^{\circ}$ C	3.27 kW	3.04 kW
$COP Tj = +7^{\circ}C$	5.97	4.86
Pdh Tj = 12°C	3.36 kW	3.39 kW
COP Tj = 12°C	7.92	6.56
Pdh Tj = Tbiv	5.88 kW	5.04 kW
COP Tj = Tbiv	3.26	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.11 kW	4.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	31 W	31 W
РТО	0 W	0 W
PSB	31 W	31 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.59 kW	1.42 kW
Annual energy consumption Qhe	3029 kWh	3390 kWh