

Summary of	LWV 122 Inverter	Reg. No.	041-K001-25	
Certificate Holder		·		
Name	ait-deutschland GmbH			
Address	Industriestr. 3	Zip	95359	
City	Kasendorf	Country	Germany	
Certification Body	BRE Energy & Commu	BRE Energy & Communications Division		
Name of testing laboratory	WPZ	WPZ		
Subtype title	LWV 122 Inverter			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R410a			
Mass Of Refrigerant	3.6 kg			
Certification Date	27.03.2019			

Mod	lel:	LWC \	/ 122R3

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	5.29 kW	6.30 kW	
El input	1.19 kW	2.30 kW	
СОР	4.71	2.84	
Indoor water flow rate	0.50 m³/h	0.50 m³/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	

Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	174 %	132 %
Prated	10.00 kW	8.80 kW
SCOP	4.41	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.46 kW	8.30 kW
COP Tj = -7°C	2.60	2.18
Pdh Tj = +2°C	5.30 kW	4.80 kW
COP Tj = +2°C	4.52	3.28
Pdh Tj = +7°C	6.30 kW	5.20 kW
COP Tj = +7°C	6.04	4.54
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	7.34	6.15
Pdh Tj = Tbiv	8.46 kW	8.30 kW
COP Tj = Tbiv	2.60	2.18





Pdh Tj = TOL	7.50 kW	6.70 kW
COP Tj = TOL	2.58	1.94
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.50 kW	2.10 kW
Annual energy consumption Qhe	4681 kWh	5398 kWh

Warmer Climate

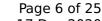
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	181 %	150 %
Prated	6.50 kW	6.50 kW





This information was generated by the HP RETMARK database on 17 Dec 2020			
SCOP	4.60	3.83	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	6.70 kW	6.70 kW	
COP Tj = +2°C	3.26	2.34	
Pdh Tj = +7°C	4.60 kW	4.80 kW	
$COPTj = +7^{\circ}C$	4.12	3.37	
Pdh Tj = 12°C	5.60 kW	5.40 kW	
COP Tj = 12°C	6.26	5.29	
Pdh Tj = Tbiv	6.70 kW	6.70 kW	
COP Tj = Tbiv	3.26	2.34	
Pdh Tj = TOL	6.70 kW	6.70 kW	
COP Tj = TOL	3.26	2.34	
Cdh	1.00	1.00	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	
PSB	20 W	20 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	1887 kWh	2268 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	132 %	112 %
Prated	8.60 kW	7.00 kW
SCOP	3.37	2.88
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.80 kW	8.20 kW
COP Tj = -7°C	2.92	2.48
Pdh Tj = +2°C	5.70 kW	4.70 kW
COP Tj = +2°C	4.49	3.43
Pdh Tj = +7°C	5.50 kW	5.50 kW
COP Tj = +7°C	4.90	5.13
Pdh Tj = 12°C	5.80 kW	5.80 kW





COP Tj = 12°C	6.98	6.52
Pdh Tj = Tbiv	4.60 kW	5.30 kW
COP Tj = Tbiv	2.23	1.71
Pdh Tj = TOL	3.00 kW	2.90 kW
COP Tj = TOL	1.86	1.46
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	5.60 kW	4.10 kW
Annual energy consumption Qhe	6290 kWh	5984 kWh



Model: LWV 122R3

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	5.29 kW	6.30 kW	
El input	1.19 kW	2.30 kW	
СОР	4.71	2.84	
Indoor water flow rate	0.50 m³/h	0.50 m³/h	

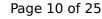
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	174 %	132 %
Prated	10.00 kW	8.80 kW
SCOP	4.41	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.46 kW	8.30 kW
COP Tj = -7°C	2.60	2.18
Pdh Tj = +2°C	5.30 kW	4.80 kW
COP Tj = +2°C	4.52	3.28
Pdh Tj = +7°C	6.30 kW	5.20 kW
COP Tj = +7°C	6.04	4.54
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	7.34	6.15
Pdh Tj = Tbiv	8.46 kW	8.30 kW
COP Tj = Tbiv	2.60	2.18





Pdh Tj = TOL	7.50 kW	6.70 kW
COP Tj = TOL	2.58	1.94
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.50 kW	2.10 kW
Annual energy consumption Qhe	4681 kWh	5398 kWh

Warmer Climate

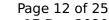
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	181 %	150 %
Prated	6.50 kW	6.50 kW





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SCOP	4.60	3.83	
Tbiv	2 °C	2 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	6.70 kW	6.70 kW	
COP Tj = +2°C	3.26	2.34	
Pdh Tj = +7°C	4.60 kW	4.80 kW	
$COPTj = +7^{\circ}C$	4.12	3.37	
Pdh Tj = 12°C	5.60 kW	5.40 kW	
COP Tj = 12°C	6.26	5.29	
Pdh Tj = Tbiv	6.70 kW	6.70 kW	
COP Tj = Tbiv	3.26	2.34	
Pdh Tj = TOL	6.70 kW	6.70 kW	
COP Tj = TOL	3.26	2.34	
Cdh	1.00	1.00	
WTOL	60 °C	60 °C	
Poff	20 W	20 W	
РТО	20 W	20 W	
PSB	20 W	20 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	1887 kWh	2268 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	132 %	112 %
Prated	8.60 kW	7.00 kW
SCOP	3.37	2.88
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.80 kW	8.20 kW
COP Tj = -7°C	2.92	2.48
Pdh Tj = +2°C	5.70 kW	4.70 kW
COP Tj = +2°C	4.49	3.43
Pdh Tj = +7°C	5.50 kW	5.50 kW
COP Tj = +7°C	4.90	5.13
Pdh Tj = 12°C	5.80 kW	5.80 kW



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COP Tj = 12°C	6.98	6.52
Pdh Tj = Tbiv	4.60 kW	5.30 kW
COP Tj = Tbiv	2.23	1.71
Pdh Tj = TOL	3.00 kW	2.90 kW
COP Tj = TOL	1.86	1.46
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	5.60 kW	4.10 kW
Annual energy consumption Qhe	6290 kWh	5984 kWh



Model: LWAV 122R3

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.29 kW	6.30 kW
El input	1.19 kW	2.30 kW
СОР	4.71	2.84
Indoor water flow rate	0.50 m³/h	0.50 m³/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	

Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	174 %	132 %
Prated	10.00 kW	8.80 kW
SCOP	4.41	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.46 kW	8.30 kW
COP Tj = -7°C	2.60	2.18
Pdh Tj = +2°C	5.30 kW	4.80 kW
COP Tj = +2°C	4.52	3.28
Pdh Tj = +7°C	6.30 kW	5.20 kW
COP Tj = +7°C	6.04	4.54
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	7.34	6.15
Pdh Tj = Tbiv	8.46 kW	8.30 kW



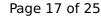


COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL	7.50 kW	6.70 kW
COP Tj = TOL	2.58	1.94
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.50 kW	2.10 kW
Annual energy consumption Qhe	4681 kWh	5398 kWh

Warmer Climate

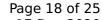
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature





η_{s}	181 %	150 %
Prated	6.50 kW	6.50 kW
SCOP	4.60	3.83
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	6.70 kW	6.70 kW
COP Tj = +2°C	3.26	2.34
Pdh Tj = +7°C	4.60 kW	4.80 kW
$COPTj = +7^{\circ}C$	4.12	3.37
Pdh Tj = 12°C	5.60 kW	5.40 kW
COP Tj = 12°C	6.26	5.29
Pdh Tj = Tbiv	6.70 kW	6.70 kW
COP Tj = Tbiv	3.26	2.34
Pdh Tj = TOL	6.70 kW	6.70 kW
COP Tj = TOL	3.26	2.34
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	o w





Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1887 kWh	2268 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
Low temperature	Medium temperature	
132 %	112 %	
8.60 kW	7.00 kW	
3.37	2.88	
-15 °C	-15 °C	
-22 °C	-22 °C	
7.80 kW	8.20 kW	
2.92	2.48	
5.70 kW	4.70 kW	
4.49	3.43	
	132 % 8.60 kW 3.37 -15 °C -22 °C 7.80 kW 2.92 5.70 kW	



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	Theracea by the Thi RETH	ATTR database on 17 Dec 202
Pdh Tj = +7°C	5.50 kW	5.50 kW
COP Tj = +7°C	4.90	5.13
Pdh Tj = 12°C	5.80 kW	5.80 kW
COP Tj = 12°C	6.98	6.52
Pdh Tj = Tbiv	4.60 kW	5.30 kW
COP Tj = Tbiv	2.23	1.71
Pdh Tj = TOL	3.00 kW	2.90 kW
COP Tj = TOL	1.86	1.46
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	5.60 kW	4.10 kW
Annual energy consumption Qhe	6290 kWh	5984 kWh



Model: LWAV+ 122R3

General Data	
Power supply 3x400V 50Hz	

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.29 kW	6.30 kW
El input	1.19 kW	2.30 kW
СОР	4.71	2.84
Indoor water flow rate	0.50 m³/h	0.50 m³/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

Average Climate



 $$\operatorname{\textit{Page}}\xspace$ 21 of 25 This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	51 dB(A)	51 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	174 %	132 %
Prated	10.00 kW	8.80 kW
SCOP	4.41	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.46 kW	8.30 kW
COP Tj = -7°C	2.60	2.18
Pdh Tj = +2°C	5.30 kW	4.80 kW
COP Tj = +2°C	4.52	3.28
Pdh Tj = +7°C	6.30 kW	5.20 kW
COP Tj = +7°C	6.04	4.54
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	7.34	6.15
Pdh Tj = Tbiv	8.46 kW	8.30 kW





$$\operatorname{\textit{Page}}\xspace$ 22 of 25 This information was generated by the HP KEYMARK database on 17 Dec 2020

COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL	7.50 kW	6.70 kW
COP Tj = TOL	2.58	1.94
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.50 kW	2.10 kW
Annual energy consumption Qhe	4681 kWh	5398 kWh

Warmer Climate

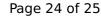
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	51 dB(A)	51 dB(A)

EN 14825		
	Low temperature	Medium temperature





This information was get	icracca by the rill RETM	ARK database on 17 Dec 2020
η_{s}	181 %	150 %
Prated	6.50 kW	6.50 kW
SCOP	4.60	3.83
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.70 kW	6.70 kW
COP Tj = +2°C	3.26	2.34
Pdh Tj = $+7^{\circ}$ C	4.60 kW	4.80 kW
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Pdh Tj = 12°C	5.60 kW	5.40 kW
COP Tj = 12°C	6.26	5.29
Pdh Tj = Tbiv	6.70 kW	6.70 kW
COP Tj = Tbiv	3.26	2.34
Pdh Tj = TOL	6.70 kW	6.70 kW
COP Tj = TOL	3.26	2.34
Cdh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
РСК	o w	o w





Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1887 kWh	2268 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	47 dB(A)	47 dB(A)	
Sound power level outdoor	51 dB(A)	51 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	132 %	112 %
Prated	8.60 kW	7.00 kW
SCOP	3.37	2.88
Tbiv	-15 °C	-15 °C
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COP Tj = -7°C	2.92	2.48
Pdh Tj = +2°C	5.70 kW	4.70 kW
COP Tj = +2°C	4.49	3.43





This information was generated by the fir KETHATIK database on 17 Dec 2021		
Pdh Tj = +7°C	5.50 kW	5.50 kW
$COP Tj = +7^{\circ}C$	4.90	5.13
Pdh Tj = 12°C	5.80 kW	5.80 kW
COP Tj = 12°C	6.98	6.52
Pdh Tj = Tbiv	4.60 kW	5.30 kW
COP Tj = Tbiv	2.23	1.71
Pdh Tj = TOL	3.00 kW	2.90 kW
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WTOL	60 °C	60 °C
Poff	20 W	20 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	5.60 kW	4.10 kW
Annual energy consumption Qhe	6290 kWh	5984 kWh