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Login

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 Global Limited		
Subtype title	LWV 122 Inverter		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	3.6 kg		
Certification Date	27.03.2019		



Model: LWCV 122R3

Configure model			
Model name	LWCV 122R3		
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

COP

4.71

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	5.29 kW	6.30 kW	
El input	1.19 kW	2.30 kW	

2.84

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	7.50 kW	6.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	0 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





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
$COP Tj = +7^{\circ}C$	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 or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.26	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	0 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)	

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 = $+2^{\circ}$ C	5.70 kW	4.70 kW
$COP Tj = +2^{\circ}C$	4.49	3.43
Pdh Tj = $+7^{\circ}$ 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 or Pdh Tj = Tdesignh if TOL < Tdesignh	3.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.86	1.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	o 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: LWV 122R3

Configure model		
Model name	LWV 122R3	
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

ΕN	145	11	-2
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	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

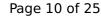
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

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 or Pdh Tj = Tdesignh if TOL < Tdesignh	7.50 kW	6.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	0 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

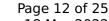
EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	47 dB(A)	47 dB(A)	

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





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
$COP Tj = +7^{\circ}C$	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 or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.26	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	0 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)

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 = $+2^{\circ}$ C	5.70 kW	4.70 kW	
$COP Tj = +2^{\circ}C$	4.49	3.43	
Pdh Tj = $+7^{\circ}$ 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	



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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 or Pdh Tj = Tdesignh if TOL < Tdesignh	3.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.86	1.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	5.60 kW	4.10 kW
Annual energy consumption Qhe	6290 kWh	5984 kWh

Model: LWAV 122R3

Configure model	
Model name	LWAV 122R3
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data		
Power supply	3x400V 50Hz	

EN 14511-2

Low temperature

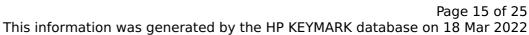
Heating

Medium temperature

6.30 kW Heat output 5.29 kW 1.19 kW 2.30 kW El input COP 4.71 2.84

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

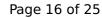
Average Climate



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)

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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



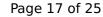


COP Tj = Tbiv	2.60	2.18
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.50 kW	6.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	20 W	20 W
PTO	20 W	20 W
PSB	20 W	20 W
PCK	o w	0 W
Supplementary 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





This information was genera	ted by the HI KETMAI	TR database on 10 Mar 2022
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 = $+2^{\circ}$ 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
$COPTj = +7^{\circ}C$	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 or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.26	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	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
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
$COP Tj = +2^{\circ}C$	4.49	3.43



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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 or Pdh Tj = Tdesignh if TOL < Tdesignh	3.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.86	1.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	5.60 kW	4.10 kW
Annual energy consumption Qhe	6290 kWh	5984 kWh

Model: LWAV+ 122R3

Configure model		
Model name	LWAV+ 122R3	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

ΕN	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

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	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
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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 or Pdh Tj = Tdesignh if TOL < Tdesignh	7.50 kW	6.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.58	1.94
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	2.50 kW	2.10 kW
Annual energy consumption Qhe	4681 kWh	5398 kWh

Warmer Climate

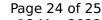
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	51 dB(A)	51 dB(A)

EN 14825		
	Low temperature	Medium temperature





This information was genera	T	RK database on 18 Mar 2022
η_{s}	181 %	150 %
Prated	6.50 kW	6.50 kW
SCOP	4.60	3.83
Tbiv	2 °C	2 °C
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.26	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	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	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
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



CEN heat pump KEYMARK

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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 or Pdh Tj = Tdesignh if TOL < Tdesignh	3.00 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.86	1.46
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	5.60 kW	4.10 kW
Annual energy consumption Qhe	6290 kWh	5984 kWh