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

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	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°C	3.27 kW	3.04 kW
COP Tj = +7°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
PTO	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

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
COP Tj = +2°C	4.15	2.69
Pdh Tj = +7°C	3.06 kW	3.86 kW
COP Tj = +7°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	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)

EN 14825		
	Low temperature	**Medium temperature**
η_s	145 %	127 %
Prated	6.50 kW	5.00 kW
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°C	3.12 kW	3.48 kW
COP Tj = +7°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
PTO	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	4.77 kW	0.00 kW
Annual energy consumption Qhe	4339 kWh	3781 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 14511-2		
	Low temperature	**Medium temperature**
Heat output	2.81 kW	3.28 kW
El input	0.56 kW	0.87 kW
COP	5.02	2.85

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	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°C	3.27 kW	3.04 kW
COP Tj = +7°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
PTO	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

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
COP Tj = +2°C	4.15	2.69
Pdh Tj = +7°C	3.06 kW	3.86 kW
COP Tj = +7°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	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)

EN 14825		
	Low temperature	**Medium temperature**
η_s	145 %	127 %
Prated	6.50 kW	5.00 kW
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°C	3.12 kW	3.48 kW
COP Tj = +7°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
PTO	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	4.77 kW	0.00 kW
Annual energy consumption Qhe	4339 kWh	3781 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 14511-2		
	Low temperature	**Medium temperature**
Heat output	2.81 kW	3.28 kW
El input	0.56 kW	0.87 kW
COP	5.02	2.85

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	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°C	3.27 kW	3.04 kW
COP Tj = +7°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
PTO	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

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°C	3.06 kW	3.86 kW
COP Tj = +7°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	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**
η_s	145 %	127 %
Prated	6.50 kW	5.00 kW
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°C	3.12 kW	3.48 kW
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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
PTO	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	4.77 kW	0.00 kW
Annual energy consumption Qhe	4339 kWh	3781 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 14511-2		
	Low temperature	**Medium temperature**
Heat output	2.81 kW	3.28 kW
El input	0.56 kW	0.87 kW
COP	5.02	2.85

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	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
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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
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WTOL	60 °C	60 °C
Poff	31 W	31 W
PTO	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

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
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Poff	31 W	31 W
PTO	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)
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EN 14825		
	Low temperature	**Medium temperature**
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SCOP	3.69	3.26
Tbiv	-15 °C	-15 °C
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WTOL	60 °C	60 °C
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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