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Summary of	SWCV 162 Inverter	Reg. No.	041-K001-14	
Certificate Holder				
Name	ait-deutschland GmbH	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359	
City	Kasendorf	Country	Germany	
Certification Body	BRE Global Limited	BRE Global Limited		
Subtype title	SWCV 162 Inverter	SWCV 162 Inverter		
Heat Pump Type	Brine/Water	Brine/Water		
Refrigerant	R407c	R407c		
Mass of Refrigerant	2.2 kg	2.2 kg		
Certification Date	12.05.2017	12.05.2017		
Testing basis	HP Keymark Scheme Trans	HP Keymark Scheme Transition Rules		

Model: SWCV 162(H)(K)3

Configure model		
Model name	SWCV 162(H)(K)3	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

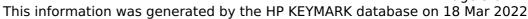
General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	9.42 kW	9.06 kW		
El input	1.91 kW	1.88 kW		
СОР	4.92	3.22		

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	

Average Climate





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	199 %	154 %
Prated	15.90 kW	16.00 kW
SCOP	5.17	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.20 kW	14.20 kW
COP Tj = -7°C	4.19	3.00
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	8.70 kW	8.70 kW
COP Tj = +2°C	5.26	4.10
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	5.70 kW	5.60 kW
COP Tj = +7°C	6.06	4.90
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	5.80 kW	5.50 kW



COP Tj = 12°C	5.88	5.00
Cdh Tj = +12 °C	0.98	0.97
Pdh Tj = Tbiv	15.90 kW	15.40 kW
COP Tj = Tbiv	3.90	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.90 kW	15.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6355 kWh	8154 kWh
		-

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825



	Low temperature	Medium temperature
η_{s}	197 %	151 %
Prated	15.90 kW	16.00 kW
SCOP	5.12	3.98
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.90 kW	15.40 kW
COP Tj = +2°C	3.89	2.80
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.40 kW	10.40 kW
$COP Tj = +7^{\circ}C$	4.93	3.61
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	5.80 kW	5.50 kW
COP Tj = 12°C	6.05	4.92
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	15.90 kW	15.40 kW
COP Tj = Tbiv	3.89	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.90 kW	15.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.89	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00





This information was generated by the in RETHING actabase on 15 Mar 201		
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
РСК	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4150 kWh	5365 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	44 dB(A)	44 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	210 %	160 %
Prated	15.90 kW	16.00 kW
SCOP	5.44	4.19
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C





	TCG by the HI KETMAI	N ualabase on 10 Mai 2022
Pdh Tj = -7°C	9.80 kW	9.80 kW
COP Tj = -7°C	5.10	3.80
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	6.00 kW	6.00 kW
COP Tj = +2°C	6.10	4.70
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	5.70 kW	5.60 kW
$COPTj = +7^{\circ}C$	6.10	5.00
Cdh Tj = +7 °C	0.97	0.97
Pdh Tj = 12°C	5.70 kW	5.60 kW
COP Tj = 12°C	5.60	5.00
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	15.90 kW	15.40 kW
COP Tj = Tbiv	3.90	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.90 kW	15.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
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This information was generated by the HP KEYMARK database on 18 Mar 2022

PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7198 kWh	9415 kWh

Model: WZSV 162(H)(K)3M

Configure model		
Model name WZSV 162(H)(K)3M		
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

EN 14511-2			
Low temperature Medium temperature			
Heat output	9.42 kW	9.06 kW	
El input	1.91 kW	1.88 kW	
СОР	4.92	3.22	

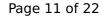
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	199 %	154 %
Prated	15.90 kW	16.00 kW
SCOP	5.17	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.20 kW	14.20 kW
COP Tj = -7°C	4.19	3.00
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	8.70 kW	8.70 kW
COP Tj = +2°C	5.26	4.10
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	5.70 kW	5.60 kW
COP Tj = +7°C	6.06	4.90
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	5.80 kW	5.50 kW





COP Tj = 12°C	5.88	5.00
Cdh Tj = +12 °C	0.98	0.97
Pdh Tj = Tbiv	15.90 kW	15.40 kW
COP Tj = Tbiv	3.90	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.90 kW	15.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6355 kWh	8154 kWh

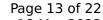
Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825



	Low temperature	Medium temperature
η_{s}	197 %	151 %
Prated	15.90 kW	16.00 kW
SCOP	5.12	3.98
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	15.90 kW	15.40 kW
COP Tj = +2°C	3.89	2.80
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.40 kW	10.40 kW
$COP Tj = +7^{\circ}C$	4.93	3.61
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	5.80 kW	5.50 kW
COP Tj = 12°C	6.05	4.92
Cdh Tj = +12 °C	0.97	0.97
Pdh Tj = Tbiv	15.90 kW	15.40 kW
COP Tj = Tbiv	3.89	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	15.90 kW	15.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.89	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00





WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4150 kWh	5365 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	44 dB(A)	44 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	210 %	160 %
Prated	15.90 kW	16.00 kW
SCOP	5.44	4.19
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
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This information was genera	- · · ,	
Pdh Tj = -7°C	9.80 kW	9.80 kW
COP Tj = -7°C	5.10	3.80
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	6.00 kW	6.00 kW
COP Tj = +2°C	6.10	4.70
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	5.70 kW	5.60 kW
COP Tj = +7°C	6.10	5.00
Cdh Tj = +7 °C	0.97	0.97
Pdh Tj = 12°C	5.70 kW	5.60 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W



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PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7198 kWh	9415 kWh



Model: PWZSV 162H3S

Configure model		
Model name	PWZSV 162H3S	
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

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	9.42 kW	9.06 kW	
El input	1.91 kW	1.88 kW	
СОР	4.92	3.22	

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	

Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	199 %	154 %
Prated	15.90 kW	16.00 kW
SCOP	5.17	4.05
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TOL	-10 °C	-10 °C
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Cdh Tj = +2 °C	1.00	1.00
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COP Tj = +7°C	6.06	4.90
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	5.80 kW	5.50 kW





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WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6355 kWh	8154 kWh
		-

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825



	Low temperature	Medium temperature
η_{s}	197 %	151 %
Prated	15.90 kW	16.00 kW
SCOP	5.12	3.98
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
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COP Tj = +2°C	3.89	2.80
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Pdh Tj = 12°C	5.80 kW	5.50 kW
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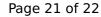


WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4150 kWh	5365 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	210 %	160 %
Prated	15.90 kW	16.00 kW
SCOP	5.44	4.19
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C





	TCG by the HI KETMAI	N ualabase on 10 Mai 2022
Pdh Tj = -7°C	9.80 kW	9.80 kW
$COPTj = -7^{\circ}C$	5.10	3.80
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	6.00 kW	6.00 kW
COP Tj = +2°C	6.10	4.70
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	5.70 kW	5.60 kW
$COP Tj = +7^{\circ}C$	6.10	5.00
Cdh Tj = +7 °C	0.97	0.97
Pdh Tj = 12°C	5.70 kW	5.60 kW
COP Tj = 12°C	5.60	5.00
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.90	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
РТО	20 W	20 W
PSB	7 W	7 W
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PCK	30 W	30 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7198 kWh	9415 kWh