SIEMENS

Albatros2

Controller, HMI and accessories

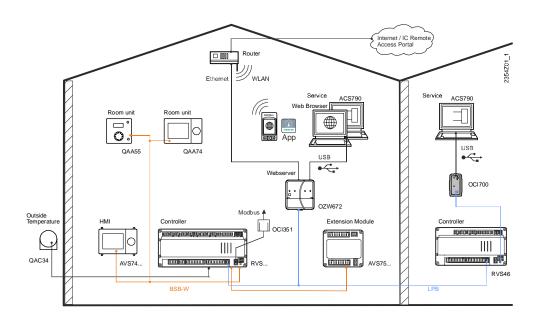
Range Description

Albatros2 product range

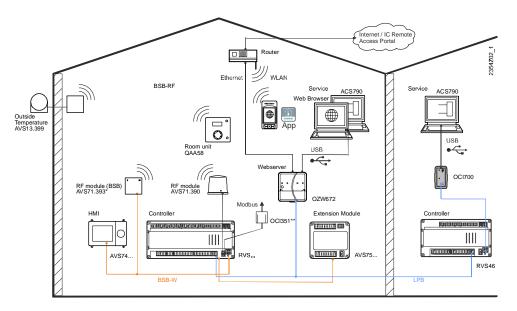
Albatros2, or:

- Intelligent control functions for the highest level of energy efficiency.
- Complete product range for all tasks in the heating segment.
- Scalable, modular concept for simple to complex plants.
- Modern communications and visualization.
- Peripheral devices featuring RF or wired communications.

Wired



Wireless



^{*} RF module and RF Module BSB as alternatives only.

^{**} RF module and OCI351.01 as alternatives only.

Controllers

	RVS21.826	RVS61.843	LMS14/15	RVS43.345	RVS46.530	RVS46.543
Heat pump						
Two-stage heat pumps						
Boilers						
2-stage burner/modulating burner (3-point)						
Modulating fan (PWM output)						
Combustion optimization Sitherm Pro (LMS15 only)						
Residential controlled mechanical ventilation						
Supplementary source						
Solar integration						
Buffer, swimming pool						
Modulating solar pump						
Solid fuel boiler integration						
Cascade						
Heating circuit control						
Cooling circuit control						
DHW control						
Instantaneous DHW heater (down stream of storage tank)						
Buffer storage tank						
LPB	*		*			
Modbus	* **	* **	* **	* **		

^{*} with LPB-Clip-in OCI345.06

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^{**} with Modbus-Clip-in OCI351.01

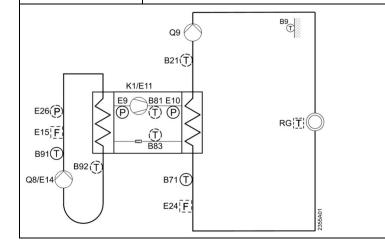
ALBATROS2 HEATF	RVS21.826		
Inputs, number		Outputs, number	
Mains	4 EX	Relay	5 QX
Sensor	4 BX	Digital	3 fixed at X75
Digital-/010V	4 (2 fixed at X75, 2 HX)	Triac	1 ZX
		010V/PWM	3 UX
		5/12V act. sensors	1 GX
	·	•	•



Connection to	Designation	With/on	Designation
Operator units	AVS37, AVS74	Ribbon cable	AVS82.490/109,491/109
Extension modules	AVSx5.39x, AVS75.370 (max. 3 module)	Ribbon cable	AVS82.490/109,491/109
I/O modules	AVS55.19x (max. 1 module)	Ribbon cable	AVS82.496/109
Service tool	OCI700.1 (including ACS790)	"BSB" slot	Cable included in delivery
Radio module	AVS71.390 (for BSB-RF)	"X60" slot	Cable included in delivery
BSB devices	e.g. room units QAAxx	CL-, CL+ to "X86"	
LPB devices	RVS is a cascade or zone controller	LPB clip-in	OCI345.06/101
Modbus devices	RVS is a Modbus slave or master	Modbus clip-in	OCI351.01
Various plugs	AGP5S		

Power	Voltage	230 V ~, 50/60 Hz
IP class	as per EN 60529	IP 00 (no housing)
Climatic conditions (operation)	As per EN 60721-3-3	class 3K5, -2050 °C (non-condensing)
Dimensions	Length x Width x Height	185 x 115 x 42 mm
Weight	Excl. packaging	193 g
Packaging unit	includes	24 pcs.

User Manual	CE1U2355en_04x			
Plant diagram	 Selection of 17 preset diagrams of complete plants. Compilation of partial diagrams as per CE1P2359_20. 			
Examples	Plant diagram 1: Brine-to-water heat pump with pump heating circuit.			



ricating circuit.	
EX1 EX2 QX3 QX5 ZX6 BX1 BX2 BX3 BX3	Low-pressure switch E9 High-pressure switch E10 Compressor stage 1 K1 Condenser pump Q9 Source pump Q8/Fan K19 Source inlet B91 HP flow sensor B21 HP return sensor B71 Outside sensor B9

ALBATROS2 HEATPUMP C	CONTROLLER		RVS61.843	(as of series C		
Inputs, number		Outputs, number	er		CHANGE CONTRACTOR OF THE PROPERTY OF THE PROPE	
Mains	10 EX	Relay	12 QX			
Sensor	11 BX	Triac	1 ZX			
Digital-/010V	2 HX	010V/PWM	2 UX			
	_					
Connection to	Designation		With/on		Designation	
Operator units	AVS37, AVS74	Ribbon cable		AVS82.490/109,491/109		
Extension modules	AVSx5.39x (max. 3 modules)		Ribbon cable		AVS82.490/109,491/109	
Service tool	OCI700.1 (including AC	S790)	"BSB" slot		Cable included in delivery	
Radio module	AVS71.390 (for BSB-RF	=)	"X60" slot			
BSB devices	e.g. room units QAAxx		Terminals CL-,	CL+		
Service tool	OCI700.1 (including AC	S790)	"LPB" slot		Cable included in delivery	
LPB devices	RVS is a cascade or zo	ne controller	Terminals MB, [DВ		
Modbus devices	RVS is a Modbus slave	or master	Modbus clip-in		OCI351.01	
Various plugs	AGP4S, AGP8S					
Power	Voltage	ge 230 V ~, 50/60 Hz				
IP class	as per EN 60529		IP 00			
Climatic conditions (operation)	As per EN 60721-3-3	As per EN 60721-3-3		class 3K5, -2050 ℃ (non-condensing)		
Dimensions	Length x Width x Height	t	281 x 121 x 70	281 x 121 x 70 mm		
Weight	Excl. packaging		650 g			
Packaging units	Contents		1 piece or 20 pie	eces		
User Manual	CE1U2355en_05x					
Plant diagram	Selection of 24 pre	_				
	Compilation of part	ial diagrams as p	oer CE1P2359_20			
Examples		Plant diagram 5: Brine-to-water heat pump with buffer storage tank, DHW storage tank with charging pu Q3, and mixing or pump heating circuit.				
B21(T) K1/E11 E26(P) E15(F) B91(T) B92(T) B92(T) B92(T) E24(F)	09 03 B41 T		22 (Î)B1 (○)[Î]RG	BX2 BX7 BX8 BX9 BX10 BX11 BX12 BX13	Buffer storage tank sensor B4 Buffer storage tank sensor B41 Hot-gas sensor B81 DHW sensor B3 Outside sensor B9 HP flow sensor B21 B1 HP return sensor B71 Source inlet sensor B91 etc.	

ALBATROS2 BOILER MAN	AGEMENT UNIT, PCB		LMS1	4/15 (as of R6.3				
Inputs, number		Outputs, r		· · · · · · · · · · · · · · · · · · ·	- II (
Mains	1 fix (STB)	Relay		3 QX				
Sensor	7 (3 fix, 4 BX)	Stepping i	notor	1 QX				
Digital-/010V/Frequency	cy 6 HX PWM 1 PX		PWM					
		-						
Connection to	Designation	With/on			Designation			
Operator units	AVS37, AVS74	Ribbon cable			AVS82.490/109,491/109			
Extension modules	AVSx5.39x, AGU2.55x (max. 3 modules)	Ribbon cable		Ribbon cable			AVS82.490/109,491/109 AGU2.110A109	
Service tool	OCI700.1 (including ACS790)	"BSB,LPB	" slot		Cable included in delivery			
Radio module	AVS71.390 (for BSB-RF)	"X60" slot						
BSB devices	e.g. room units QAAxx	Terminals	CL-, CL+	-				
Lab tool	OCI430 (including ACS420)	"X13" slot			Cable included in delivery			
Parameter stick	AGU2.56x	"X12" slot			Docking station for programming OCI432			
LPB devices	LMS is a cascade or zone controller	LPB clip-in			OCI345.06/101			
Modbus devices	LMS is a Modbus slave	Modbus clip-in			OCI351.01			
Various plugs	AGP4S, AGP8S							
Power	Voltage	230 V ~, 50 Hz; 115 V ~, 60 Hz						
IP class	as per EN 60529	IP 00						
Climatic conditions (operation)	As per EN 60721-3-3	Class 3K5	, 060 °C	C (non-condensi	ng)			
Dimensions	Length x Width x Height	203 x 150	x 30 mm					
Weight	Excl. packaging	254 g						
Packaging unit	includes	24 pcs.						
User Manual	CC1U7471en							
Plant diagram	Compilation of partial diagrams as	per CE1P23	59_30.					
Examples	Partial diagrams OeG12 and TWW	/DI6 and Rh1						
B2 (T) UX	B38			TWWDI6	B2, Q1 B38, Q34 (+ 1 configuration) 1 configuration			

Q1

Q34

ALBATROS2 BOILER C	CONTROLLER		RVS43.34	5 (as of series C)	D T S R Q	
Inputs, number		Outputs, number			STATE OF THE STATE	
Mains	4 (3 fix, 1 EX)	Mains	1 fix		MODELSON OF THE PROPERTY OF TH	
Sensor	6 (2 fix, 4 BX)	Relay	5 QX			
Digital-/010V	2 HX	5/12V act. sensors	1 GX			
		PWM	1 fix			
	1	1			1	
Connection to	Designation		With/on		Designation	
Operator units	AVS37, AVS74		Ribbon cab	ole	AVS82.490/109,491/109	
Extension modules	AVSx5.39x (max. 3 r	modules)	Ribbon cab	ole	AVS82.490/109,491/109	
Service tool	OCI700.1 (including	ACS790)	"BSB" slot		Cable included in delivery	
Radio module	AVS71.390 (for BSB	-RF)	X60 slot		Cable included in delivery	
BSB devices	e.g. room units QAA	xx	Terminals (CL-, CL+		
Service tool	OCI700.1 (including	ACS790)	"LPB" slot		Cable included in delivery	
LPB devices	RVS is a cascade or	zone controller	Terminals I	MB, DB		
Modbus devices	RVS is a Modbus sla	ive	Modbus cli	p-in	OCI351.01	
Various plugs	AGP4S, AGP8S					
Power	Voltage		230 V ~, 50	230 V ~, 50/60 Hz		
IP class	as per EN 60529		IP 00	IP 00		
Climatic conditions (operation)	As per EN 60721-3-3		Class 3K5,	Class 3K5, -2050 °C (non-condensing)		
Dimensions	Length x Width x Hei	ght	181 x 121 x	181 x 121 x 52 mm		
Weight	Excl. packaging		400 g	400 g		
Packaging unit	includes		20 pieces	20 pieces		
	1					
User Manual	CE1U2354en_02x					
Plant diagram		diagrams as per CE1P235	9_30.			
Examples	Partial diagrams Oed	G2 and TWWSp4 and Rh3		T T		
T8 T2 T2	03 B3 T	D	Y1/Y2 D2 B1 T RG1	TWWSp4 E	32 (+ 1 configuration) 33, Q3 (+ 2 configurations) 2 configurations	



ALBATROS2 ZONE CONTROLLER			RVS46.	530
Inputs, number		Outputs, numb	per	
Sensor	2 fixed	Relay	3 fix	
Digital-/010V	1 HX			

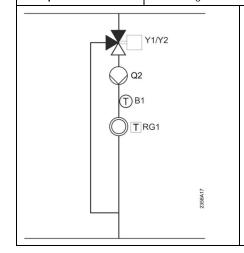


Connection to	Designation	With/on	Designation
Operator units	AVS37, AVS74	Ribbon cable	AVS82.490/109,491/109
Extension modules	AVSx5.39x (max. 2 modules)	Ribbon cable	AVS82.490/109,491/109
Service tool	OCI700.1 (including ACS790)	"BSB" slot	Cable included in delivery
Radio module	AVS71.390 (for BSB-RF)	X60 slot	Cable included in delivery
BSB devices	e.g. room units QAAxx	Terminals CL-, CL+	
Service tool	OCI700.1 (including ACS790)	"LPB" slot	Cable included in delivery
LPB devices	RVS is a generation or zone controller	Terminals MB, DB	
Various plugs	AGP4S, AGP8S		
various plugs	AGP45, AGP85		

Power	Voltage	AC 230 V ~, 50/60 Hz
IP class	as per EN 60529	IP 00
Climatic conditions (operation)	As per EN 60721-3-3	Class 3K5, -2050 °C (non-condensing)
Dimensions	Length x Width x Height	109 x 121 x 52 mm
Weight	Excl. packaging	431 g
Packaging units	Contents	1 piece or 20 pieces
1		

User Manual CE1U2353en_01, CE1U2353en_01a		
Plant diagram Compilation of partial diagrams as per CE1P2359_20, 30.		
Examples Partial diagram Rh3		

Rh3



1 configuration

ALBATROS2 ZONE CO			RVS46.	543	
Inputs, number		Outputs, number	Outputs, number		GOUNE STATE OF STATE
Sensor	5 (3 fix, 4 BX) Relay		5 (4 fix,	1 QX)	PORT MAN INCOME TO BOOK TO BOO
Digital-/010V	1 HX				Children Challennean E
	1				
Connection to	Designation	Designation			Designation
Operator units	AVS37, AVS74		Ribbon	cable	AVS82.490/109,491/109
Extension modules	AVSx5.39x (max. 2 mo	dules)	Ribbon	cable	AVS82.490/109,491/109
Service tool	OCI700.1 (including AC	S790)	"BSB" s	lot	Cable included in delivery
Radio module	AVS71.390 (for BSB-R	F)	X60 slot		Cable included in delivery
BSB devices	e.g. room units QAAxx		Termina	ls CL-, CL+	
Service tool	OCI700.1 (including AC	S790)	"LPB" sl	ot	Cable included in delivery
LPB devices	RVS is a generation or	zone controller	Termina	ls MB, DB	
Various plugs	AGP4S, AGP8S				
Power	Voltage	230 V ~	230 V ~, 50/60 Hz		
IP class	as per EN 60529	as per EN 60529		IP 00	
Climatic conditions (operation)	As per EN 60721-3-3		Class 3	ss 3K5, -2050 °C (non-condensing)	
Dimensions	Length x Width x Height		181 x 12	31 x 121 x 52 mm	
Weight	Excl. packaging	Excl. packaging		87 g	
Packaging unit	includes 1 pc.				
User Manual	CE1U2353en_01, CE1U	J2353en_01a			
Plant diagram	Compilation of partial di	agrams as per CE1P2	359_20, 30.		
Examples	mples Partial diagrams Sol1 and TWWSp5 and Rh3				
B6 (T) Q5	03 B3 T		Y1/Y2 Q2 B1 T RG1		Q5, B6 Q3, B3 + 2 configurations 1 configuration



Extension and I/O modules

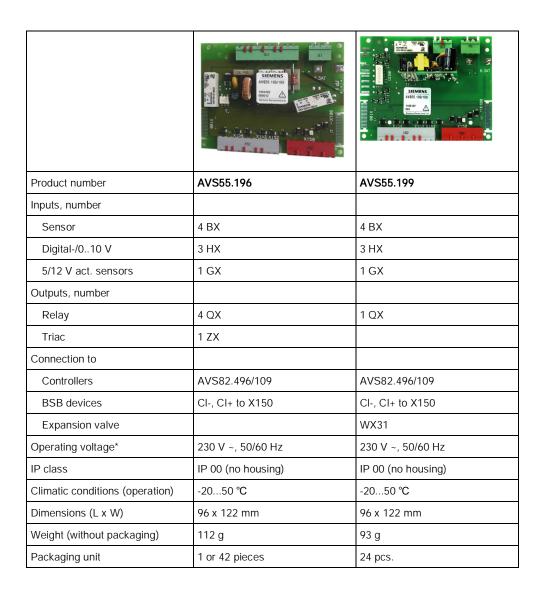
Extension modules

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Product number	AVS75.370	AVS75.39x **	AGU2.550	AGU2.551
Inputs, number				
Mains	1 EX	1 EX (AVS75.391 only)		
Sensor	2 BX	2 BX	2 BX	
Digital-/010 V	2 HX	1 HX	1 HX	
5/12 V act. sensors	1 GX		1 U+ (12 V)	
Outputs, number				
Relay	3 QX	3 QX	3 QX	2 QX
010V/PWM	2 UX			2 UX
Connection to				
Controllers	AVS82.490,491	AVS82.490,491	AVS82.490,491 AGU2.110	AVS82.490,491 AGU2.110
Extension modules	AVS82.490,491	AVS82.490,491	AVS82.490,491 AGU2.110	AVS82.490,491 AGU2.110
BSB devices	Terminals CL-, CL+		CI-, CI+ to X50	CI-, CI+ to X50
Expansion valve	WX21			
Operating voltage*	230 V ~, 50/60 Hz	230 V ~, 50/60 Hz	12 V DC (via LMS)	12 V DC (via LMS)
IP class	IP 00	IP 00	IP 00	IP 00
Climatic conditions (operation)	-2050 °C	-2050 ℃	060 °C	060 °C
Dimensions (L x W)	109 x 121 mm	109 x 121 mm	108 x 55 mm	108 x 55 mm
Weight (without packaging)	248 g	293 g	84 g	100 g
Packaging unit	1 or 20 pieces	1 or 20 pieces	60 pcs.	60 pcs.

^{*} Additional technical data is available in the user guides for the controllers.

^{**} The identical device, from a technology standpoint, can be ordered under order number AVS55.391 (without housing).

I/O modules

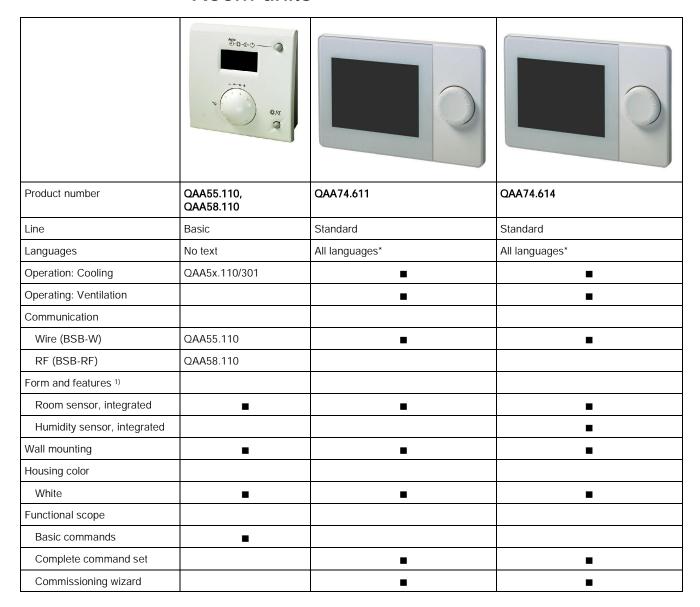


^{*} Additional technical data is available in the user guides for the controllers.

Compatibility

	RVS21	RVS61	LMS1x	RVS43	RVS63	RVS46
AVS75.370	Yes	Yes		Yes		
AVS75.39x	Yes	Yes	Yes	Yes	Yes	Yes
AVS55.196	Yes					
AVS55.199	Yes					
AGU2.550			Yes			
AGU2.551			Yes			

Room units



^{*} Includes: DE, EN, FR, IT, NL, ES, DA, SV, FI, PT, PL, CS, SK, SL, HU, EL, TR, RU, SR

Device dimensions and technical data in CE1U2358en_xx or. CE1U2348en. Interfaces on partner devices are available in this document.

Operator units

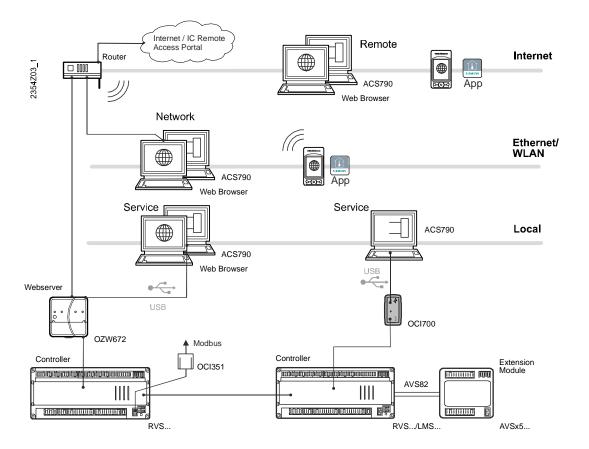
Product number	AVS37.x9x	AVS74.261	AVS74.661	AVS74.761
Line	Standard	Standard	Standard	Standard
Language set 1 **	AVS37.x9x/ 1 0x,/ 3 0x	All languages*	All languages*	All languages*
Language set 2 ***	AVS37.x9x/ 5 0x,/ 7 0x			
Suited for plants				
Boilers	1)	Universal	Universal	Universal
Heat pump	AVS37.x9x/ 309 ,/ 709			
Operation cooling			•	-
Operating: Ventilation			•	-
Form and housing 2)	With housing	With cover	Without cover, air tight	With cover, IP44, air tight
Installation				
Front plate	AVS37. 2 9x ³⁾			
Rear view	AVS37. 3 9x ³⁾			
Housing color				
Basalt grey	AVS37.29 4 , AVS37.29 6			
White	AVS37.29 5 , AVS37.29 7		-	-
Functional scope				
Basic commands				
Extended operation	4)			
Commissioning wizard			•	•

- * Includes: DE, EN, FR, IT, NL, ES, DA, SV, FI, PT, PL, CS, SK, SL, HU, EL, TR, RU, SR
- ** Language set 1 contains: DE, EN, FR, IT, NL, ES, DA, SV, FI, PT
- Language set 2 contains: EN, PL, CS, SK, SL, HU, EL, TR, RU, SR
- 1) Reset button for LMS14/15: AVS37.x96 und AVS37.x97
- Device dimensions and technical data in CE1U2358en_xx or. CE1U2348en. Interfaces on partner devices are available in this document.
- 3) On AVS37.296 the service buttons are on different, on AVS37.396 on the same level.
- 4) Without ventilation function

Albatros2 communications

Albatros2, communications, means:

- Modern communications and visualization.
- Access up to the controller's energy savings functions.
- Apps for mobile end devices.
- Design by drag&drop own Web plant visualizations.
- IC Remote Access Portal



	SIEMENS ① AG+	• 15
Product number	OZW672	OC1700
Designation	Web server for LPB/BSB	Service interface
Possible connections:		
Direct connection	USB, type A to mini-B	USB, type A to B
Direct dial connection	No	No
IP connection (Internet)	Yes	No
GSM.	No	No
Operating	Web browser GUIACS790HomeControl App	• ACS790
Protocol interface	LPB/BSB on EthernetWeb API	LPB/BSB on USB
Power	230 V ~, 50/60 HZ	DC 5 V (as per USB specification)
IP class	IP30	IP20
Climatic conditions (operation)	050 °C	050 °C
Dimensions (LxWxH)	88 x 90 x 40 mm	126 x 70 x 32 mm
Weight	136 g (without packaging)	1200 g (including case with ACS790 and packaging)
Data sheet	CE1N5712en	CE1N5655en
Commissioning instructions	CE1C5712en	
Packaging unit	1 pc.	1 pc.



Sensor

Overview



* 2 additional order numbers are available relating to outside sensor QAC34/101:		
AVS13.399/101 RF module including outside sensor QAC34		
AVS13.399/201 RF module for outside sensor QAC34; without the outside sensor.		

Accessories

Product number	AVS82.490/109 AVS82.491/109	AVS82.590/109	AVS82.496/109	AGU2.110A/109
Designation	Ribbon cable	Adapter cable	Ribbon cable	Bus cable
Length	490/109: 400 mm 491/109: 1000 mm	< 3000 mm*	100 mm	840 mm
Protocol	BSB	BSB	BSB	BSB
Links	Controllers	Controllers	Controllers	BMU LMS1
With	Operator unit or extension modules	Operator unit or extension modules	I/O module	Operator unit or extension modules

^{*} Cable between 2 adapters cannot exceed 3 meters for EMC reasons.



^{*} RF module (AVS71.390) and RF module BSB (AVS71.393) as alternative only

Housing, covers, spacer

Wall-mount housing AGS7A.100



- 1 controller with width 181 mm
- 2 controllers, 109 mm in width
- HMI AVS37...

Blanking cover AVS38.291



- e.g. with AGS7A.100
- Dimensions: 138 x 92 mm

HMI cover (rear side) AVS92.290



- For AVS37.x9x (not AVS37.390)
- Dimensions: 116 x 86 mm

Spacer AVS92.280/109



- For extension module AVS55.19x
- For mounting on the basic module (RVS21...)

Power section

Power supply AVS16.290



- Boiler control panel for floor-standing boilers
- Is connected using the supplied 5-pin plug to the controller's power input.
- Additional information is available in CE1U2358en

Demo case

Demo case KF8921.1



- Demo case for heat pump controller RVS61
- Includes, in addition to the room unit QAA75, the RF module AVS71.390, as well as potentiometer for plant simulation.
- Case dimensions: 47 x 44 x 20 cm (L x W x D)
- Case weight:: 8.5 kg

Demo case KF8900



- Demo case for heating controller RVS...
- Includes, in addition to the room unit QAA75, the RF module AVS71.390, as well as potentiometer for plant simulation.
- Case dimensions: 47 x 44 x 20 cm (L x W x D)
- Case weight: 8 kg

Additional information

Albatros2 documentation landscape

This product range description is a component of the Albatros2 documentation landscape.

Documentation type	Content		
User guides for Albatros2 controllers [code letter U]	Hardware and parameter description of controllers (see as well Section "Controllers [→ 3]", line "User's Guide")		
User guides for Albatros2 operator, room, and peripheral devices [code letter U]	Mounting and operating instructions, parameter description, and technical data in CE1U2358en_xx		
User guides for Albatros2 room and operator units (QAA74, AVS74) [code letter U]	Mounting and operating instructions, parameter description, and technical data in CE1U2348en.		
Cross-product range basic documents [code letter P]	e.g. "Hydraulic partial diagrams and supplemental functions"		
Sensor datasheets [code letter Q]	Technical data and functions (see Section "Sensor [→ 16]", line "Datasheet")		
Product inserts [code letters B and G]	Delivered operating and mounting instructions		
Environmental declarations [code letter E]	Material product components, environmental compatibility, and compliance with environmental laws (e.g. RoHS)		
CE declaration of conformity [code letter T]	Declaration on the compliance with applicable electrical standards.		

Additional support For questions on the described products, please contact your point-of-contact at

the responsible Siemens offices.

Additional information www.siemens.com/buildingtechnologies-oem

Notes on disposal

The following notes apply in the event that disposal is required when exchanging individual components (e.g. AVS13.399 or QAA55/58) as part of a service call:

Individual components without batteries



The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

Individual components with batteries



The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.
- Dispose of empty batteries in designated collection points.

Issued by
Siemens Switzerland Ltd
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Document ID: CE1S2359en Edition: 2019-04-02