SIEMENS






Albatros[2]
Zone controller
User Manual OEM

RVS46..
AVS75..
AVS37..
QAA75..
QAA78..
QAA55..

Edition 3.0

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Building Technologies
HVAC Products

Contents

1 Overview of OEM settings

The table below shows all available settings. However, certain operating lines may be hidden, depending on the type of unit.

Legend E = Enduser I = Commissioning F = Heating engineer O = OEM
BZ = Operating line
[1)] QAA75../78.. only
[4)] RVS46.543 only

Operating line	user level	Function	Default value	Min	Max	Unit
Time of day and date						
1	E	Hours / minutes	-	00:00	23:59	hh:mm
2	E	Day/month	-	01.01	31.12	dd.MM
3	E	Year	-	2004	2099	yyyy
5	F	Start of summertime	25.03	01.01	31.12	dd.MM
6	F	End of summertime	25.10	01.01	31.12	dd.MM
Operator section						
20	E	Language German ¦ …	German			-
21	O	Display special operation Off ¦ On	On			
22	F	Info Temporarily ¦ Permanently	Temporarily			-
26	F	Operation lock Off ¦ On	Off			-
27	F	Programming lock Off ¦ On	Off			-
28	I	Direct adjustment Automatic storage ¦ Save with acknowledgment	Save with acknowledgment			
30	O	Save basic settings No ¦ Yes	No			
31	O	Activate basic settings No ¦ Yes	No			
40[1)]	I	Used as Room unit 1 ¦ Room unit 2 ¦ Room unit P ¦ Operator unit 1 ¦ Operator unit 2 ¦ Operator unit P ¦ Service unit	Room unit 1			-
42	I	Assignment device 1 Heating circuit 1 ¦ Heating circuits 1 and 2 ¦ Heating circuits 1 and P ¦ All heating circuits	Heating circuit 1			-
44	I	Operation HC2 Commonly with HC1 ¦ Independently	Commonly with HC1			-
46	I	Operation HCP Commonly with HC1 ¦ Independently	Commonly with HC1			-
48[1)]	I	Action occupancy button None ¦ Heating circuit 1 ¦ Heating circuit 2 ¦ Commonly	Heating circuit 1			-
54[1)]	F	Readjustment room sensor	0.0	-3	3	°C
70	F	Software version	-	0	99.9	-
Radio						
120	I	Binding No ¦ Yes	No			
121	I	Test mode Off ¦ On	Off			

Operating line	user level	Function	Default value	Min	Max	Unit
130	I	Room unit 1 Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			-
131	I	Room unit 2 Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			-
132	I	Room unit P Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			
133	I	OutsideSens Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			-
134	I	Repeater Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			-
135	I	Operator unit 1 Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			
136	I	Operator unit 2 Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			
137	I	Operator unit P Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			-
138	I	Service unit Missing ¦ Ready ¦ No recept'n ¦ Change batt	-			-
140	I	Delete all devices No ¦ Yes	No			-
Time prog heating circuit 1						
500	E	Preselection Mo - Su ¦ Mo - Fr ¦ Sa - Su ¦ Mo ¦ Tu ¦ We ¦ Th ¦ Fr ¦ Sa ¦Su	Mo - Su			-
501	E	1. phase on	6:00	00:00	24:00	hh:mm
502	E	1. phase off	22:00	00:00	24:00	hh:mm
503	E	2. phase on	24:00	00:00	24:00	hh:mm
504	E	2. phase off	24:00	00:00	24:00	hh:mm
505	E	3. phase on	24:00	00:00	24:00	hh:mm
506	E	3. phase off	24:00	00:00	24:00	hh:mm
516	E	Default values No ¦ Yes	No			-
Time prog heating circuit 2						
520	E	Preselection Mo - Su ¦ Mo - Fr ¦ Sa - Su ¦ Mo ¦ Tu ¦ We ¦ Th ¦ Fr ¦ Sa ¦Su	Mo - Su			-
521	E	1. phase on	6:00	00:00	24:00	hh:mm
522	E	1. phase off	22:00	00:00	24:00	hh:mm
523	E	2. phase on	24:00	00:00	24:00	hh:mm
524	E	2. phase off	24:00	00:00	24:00	hh:mm
525	E	3. phase on	24:00	00:00	24:00	hh:mm
526	E	3. phase off	24:00	00:00	24:00	hh:mm
536	E	Default values No ¦ Yes	No			-
Time program 3/HCP						
540	E	Preselection Mo - Su ¦ Mo - Fr ¦ Sa - Su ¦ Mo ¦ Tu ¦ We ¦ Th ¦ Fr ¦ Sa ¦Su	Mo - Su			-
541	E	1. phase on	6:00	00:00	24:00	hh:mm
542	E	1. phase off	22:00	00:00	24:00	hh:mm
543	E	2. phase on	24:00	00:00	24:00	hh:mm
544	E	2. phase off	24:00	00:00	24:00	hh:mm
545	E	3. phase on	24:00	00:00	24:00	hh:mm
546	E	3. phase off	24:00	00:00	24:00	hh:mm

Operating line	user level	Function	Default value	Min	Max	Unit
556	E	Default values No ¦ Yes	No			-
Time program 4/DHW						
560	E	Preselection Mo - Su ¦ Mo - Fr ¦ Sa - Su ¦ Mo ¦ Tu ¦ We ¦ Th ¦ Fr ¦ Sa ¦Su	Mo - Su			-
561	E	1. phase on	6:00	00:00	24:00	hh:mm
562	E	1. phase off	22:00	00:00	24:00	hh:mm
563	E	2. phase on	24:00	00:00	24:00	hh:mm
564	E	2. phase off	24:00	00:00	24:00	hh:mm
565	E	3. phase on	24:00	00:00	24:00	hh:mm
566	E	3. phase off	24:00	00:00	24:00	hh:mm
576	E	Default values No ¦ Yes	No			-
Time program 5						
600	E	Preselection Mo - Su ¦ Mo - Fr ¦ Sa - Su ¦ Mo ¦ Tu ¦ We ¦ Th ¦ Fr ¦ Sa ¦Su	Mo - Su			-
601	E	1. phase on	6:00	00:00	24:00	hh:mm
602	E	1. phase off	22:00	00:00	24:00	hh:mm
603	E	2. phase on	24:00	00:00	24:00	hh:mm
604	E	2. phase off	24:00	00:00	24:00	hh:mm
605	E	3. phase on	24:00	00:00	24:00	hh:mm
606	E	3. phase off	24:00	00:00	24:00	hh:mm
616	E	Default values No ¦ Yes	No			-
Holidays heating circuit 1						
641	E	Preselection Period 1 ¦ Period 2 ¦ Period 3¦ Period 4¦ Period 5¦ Period 6¦ Period 7¦ Period 8	Period 1			-
642	E	Start	--.--	01.01	31.12	dd.MM
643	E	End	--.--	01.01	31.12	dd.MM
648	E	operating level Frost protection ¦ Reduced	Frost protection			-
Holidays heating circuit 2						
651	E	Preselection Period 1 ¦ Period 2 ¦ Period 3¦ Period 4¦ Period 5¦ Period 6¦ Period 7¦ Period 8	Period 1			-
652	E	Start	--.--	01.01	31.12	dd.MM
653	E	End	--.--	01.01	31.12	dd.MM
658	E	operating level Frost protection ¦ Reduced	Frost protection			-
Holidays heating circuit P						
661	E	Preselection Period 1 ¦ Period 2 ¦ Period 3¦ Period 4¦ Period 5¦ Period 6¦ Period 7¦ Period 8	Period 1			-
662	E	Start	--.--	01.01	31.12	dd.MM
663	E	End	--.--	01.01	31.12	dd.MM
668	E	operating level Frost protection ¦ Reduced	Frost protection			-
Heating circuit 1						
710	E	Comfort cooling setpoint	20.0	Operating line 712	Operating line 716	°C
712	E	Reduced setpoint	16	Operating line 714	Operating line 710	°C
714	E	Frost protection setpoint	10.0	4	Operating line 712	°C

Operating line	user level	Function	Default value	Min	Max	Unit
716	F	Comfort setpoint maximum	35.0	Operating line 710	35	°C
720	E	Heating curve slope	1.50	0.10	4.00	-
721	F	Heating curve displacement	0.0	-4.5	4.5	°C
726	F	Heating curve adaption Off ¦ On	Off			-
730	E	Summer/winter heating limit	18	– – – / 8	30	°C
732	F	24-hour heating limit	-3	– – – / -10	10	°C
740	I	Flow temp setpoint min	8	8	Operating line 741	°C
741	I	Flow temp setpoint max	80	Operating line 740	95	°C
750	F	Room influence	20	– – – / 1	100	%
760	F	Room temp limitation	1	– – – / 0.5	4	°C
770	F	Boost heating	5	– – – / 0	20	°C
780	F	Quick setback Off ¦ Down to reduced setpoint ¦ Down to frost prot setp	Down to reduced setpoint			-
790	F	Optimum start control max	0	0	360	min
791	F	Optimum top control max	0	0	360	min
800	F	Reduced setp increase start	– – –	– – – / -30	10	°C
801	F	Reduced setp increase end	-15	-30	Operating line 800	°C
820	F	Overtemp prot pump circuit Off ¦ On	On			-
830	F	Mixing valve boost	5	0	50	°C
832	F	Actuator type 2-position ¦ 3-position	3-position			-
833	F	Switching differential 2-pos	2	0	20	°C
834	F	Actuator running time	120	30	873	s
835	O	Mixing valve Xp	32	1	100	°C
836	O	Mixing valve Tn	120	10	873	s
850	I	Floor curing function Off ¦ Functional heating ¦ Curing heating ¦ Functional/ curing heating¦ Curing/functional heating ¦ Manually	Off			-
851	I	Floor curing setp manual	25	0	95	°C
861	F	Excess heat draw Off ¦ Heating mode ¦ Always	Always			-
870	F	With buffer storage tank No ¦ Yes	Yes			-
872	F	With primary controller / system pump No ¦ Yes	Yes			-
900	F	Optg mode changeover None ¦ Protection ¦ Reduced ¦ Comfort ¦ Automatic	Protection mode			-
Cooling circuit 1						
901	E	Operating mode Off ¦ Automatic	Automatically			-
902	E	Comfort cooling setpoint	24.0	15	40	°C
907	E	release 24h/day ¦ Time programs HCs ¦ Time program 5	24 h/day			-
908	I	Flow setpoint at OT 25°C	20	8	35	°C
909	I	Flow setpoint at OT 35°C	16	8	35	°C
912	I	Cooling limit at OT (outside temperature)	20	– – – / 8	355	°C
913	F	Locking period at end of heating	24	– – – / 8	100	h
918	F	Start of summer compensation at OT	26	20	35	°C
919	F	End of summer compensation at OT	35	20	35	°C

Operating line	user level	Function	Default value	Min	Max	Unit
920	F	Summer compensation setpoint increase	4	– – – / 1	10	°C
923	I	Flow setpoint min. OT 25°C	18	8	35	°C
924	I	Flow setpoint min. OT 35°C	18	8	35	°C
928	F	Room influence	80	– – – / 1	100	%
932	F	Room temp limitation	0.5	– – – / 0.5	4	°C
938	F	Mixing valve cooling offset	0	0	20	°C
939	F	Actuator type 2-position ¦ 3-position	3-position			-
940	F	Switching differential 2-pos	2	0	20	°C
941	F	Actuator running time	120	30	873	s
942	O	Mixing valve Xp	12	1	100	°C
943	O	Mixing valve Tn	90	10	873	s
945	F	Mixing valve in heating mode Control ¦ Open	Controls			
946	F	Dewpt monitor locking time	60	– – – / 10	600	min
947	F	Flow setpt increase hygro	3	– – – / 1	10	°C
948	F	Start flow increase at R.H.	60	0	100	%
950	I	Flow temp diff dewpoint	2	– – – / 0	10	°C
962	F	With buffer storage tank No ¦ Yes	No			-
963	F	With primary controller / system pump No ¦ Yes	No			-
969	I	Optg mode changeover None ¦ Off ¦ Automatic	Off			-
Heating circuit 2						
1010	E	Comfort cooling setpoint	20.0	Operating line 1012	Operating line 1016	°C
1012	E	Reduced setpoint	16	Operating line 1014	Operating line 1010	°C
1014	E	Frost protection setpoint	10.0	4	Operating line 1012	°C
1016	F	Comfort setpoint maximum	35.0	Operating line 1010	35	°C
1020	E	Heating curve slope	1.50	0.10	4.00	-
1021	F	Heating curve displacement	0.0	-4.5	4.5	°C
1026	F	Heating curve adaption Off ¦ On	Off			-
1030	E	Summer/winter heating limit	18	– – – / 8	30	°C
1032	F	24-hour heating limit	-3	– – – / -10	10	°C
1040	I	Flow temp setpoint min	8	8	Operating line 1041	°C
1041	I	Flow temp setpoint max	80	Operating line 1040	95	°C
1050	F	Room influence	20	– – – / 1	100	%
1060	F	Room temp limitation	1	– – – / 0.5	4	°C
1070	F	Boost heating	5	– – – / 0	20	°C
1080	F	Quick setback Off ¦ Down to reduced setpoint ¦ Down to frost prot setp	Down to reduced setpoint			-
1090	F	Optimum start control max	0	0	360	min
1091	F	Optimum top control max	0	0	360	min
1100	F	Reduced setp increase start	– – –	– – – / -30	10	°C
1101	F	Reduced setp increase end	-15	-30	Operating line 1100	°C

Operating line	user level	Function	Default value	Min	Max	Unit
1120	F	Overtemp prot pump circuit Off ¦ On	On			-
1130	F	Mixing valve boost	5	0	50	°C
1132	F	Actuator type 2-position ¦ 3-position	3-position			-
1133	F	Switching differential 2-pos	2	0	20	°C
1134	F	Actuator running time	120	30	873	s
1135	O	Mixing valve Xp	32	1	100	°C
1136	O	Mixing valve Tn	120	10	873	s
1150	F	Floor curing function Off ¦ Functional heating ¦ Curing heating ¦ Functional/ curing heating¦ Curing/functional heating ¦ Manually	Off			-
1151	F	Floor curing setp manual	25	0	95	°C
1161	F	Excess heat draw Off ¦ Heating mode ¦ Always	Always			-
1170	F	With buffer storage tank No ¦ Yes	Yes			-
1172	F	With primary controller / system pump No ¦ Yes	Yes			-
1200	F	Optg mode changeover None ¦ Protection ¦ Reduced ¦ Comfort ¦ Automatic	Protection mode			-
Heating circuit P						
1300	E	Operating mode Protection ¦ Automatic ¦ Reduced ¦ Comfort	Automatically			-
1310	E	Comfort cooling setpoint	20.0	Operating line 1312	Operating line 1316	°C
1312	E	Reduced setpoint	16	Operating line 1314	Operating line 1310	°C
1314	E	Frost protection setpoint	10.0	4	Operating line 1312	°C
1316	F	Comfort setpoint maximum	35.0	Operating line 1310	35	°C
1320	E	Heating curve slope	1.50	0.10	4.00	-
1321	F	Heating curve displacement	0.0	-4.5	4.5	°C
1326	F	Heating curve adaption Off ¦ On	Off			-
1330	E	Summer/winter heating limit	18	– – – / 8	30	°C
1332	F	24-hour heating limit	-3	– – – / -10	10	°C
1340	F	Flow temp setpoint min	8	8	Operating line 1341	°C
1341	F	Flow temp setpoint max	80	Operating line 1340	95	°C
1350	F	Room influence	20	– – – / 1	100	%
1360	F	Room temp limitation	1	– – – / 0.5	4	°C
1370	F	Boost heating	5	– – – / 0	20	°C
1380	F	Quick setback Off ¦ Down to reduced setpoint ¦ Down to frost prot setp	Down to reduced setpoint			-
1390	F	Optimum start control max	0	0	360	min
1391	F	Optimum top control max	0	0	360	min
1400	F	Reduced setp increase start	– – –	– – – / -30	10	°C
1401	F	Reduced setp increase end	-15	-30	Operating line 1400	°C
1420	F	Overtemp prot pump circuit Off ¦ On	On			-

Operating line	user level	Function	Default value	Min	Max	Unit
1450	I	Floor curing function Off ¦ Functional heating ¦ Curing heating ¦ Functional/ curing heating¦ Curing/functional heating ¦ Manually	Off			-
1451	I	Floor curing setp manual	25	0	95	°C
1455	F	Floor curing setp current	0	0	95	°C
1456	F	Floor curing day current	0	0	32	-
1457	F	Floor curing days complete	0	0	32	-
1461	F	Excess heat draw Off ¦ Heating mode ¦ Always	Always			-
1470	F	With buffer storage tank No ¦ Yes	Yes			-
1472	F	With primary controller / system pump No ¦ Yes	Yes			-
1500	F	Optg mode changeover None ¦ Protection ¦ Reduced ¦ Comfort ¦ Automatic	Protection mode			-
DHW						
1610	E	Nominal setpoint	55	Operating line 1612	BZ 1614 OEM	°C
1612	F	Reduced setpoint	40	8	Operating line 1610	°C
1614	O	nominal setpoint max	65	8	80	°C
1620	I	release 24h/day ¦ Time programs HCs ¦ Time program 4/DHW	Time programs HCs			-
1630	I	Charging priority Absolute ¦ Shifting ¦ None ¦ MC shifting, PC absolute	MC shifting, PC absolute			-
1640	F	Legionella function Off ¦ Periodically ¦ Fixed weekday	Fixed weekday			-
1641	F	Legionella funct periodically	3	1	7	Days
1642	F	Legionella funct weekday Monday ¦ Tuesday ¦ Wednesday ¦ Thursday ¦ Friday ¦ Saturday ¦ Sunday	Monday			
1644	F	Legionella function time	– – –	– – – / 00:00	23:50	hh:mm
1645	F	Setpoint of Legionella function	65	55	95	°C
1646	F	Legionella function dwelling time	30	– – – / 10	360	min
1647[4)]	F	Legionella funct circ pump Off ¦ On	On			-
1660[4)]	F	Circulating pump release Time program 3/HCP ¦ DHW release ¦ Time program 4/DHW¦ Time program 5	DHW release			-
1661[4)]	F	Circulating pump cycling Off ¦ On	On			-
1663[4)]	F	Circulation setpoint	45	8	80	°C
Hx pumps						
2008	O	H1 DHW charging priority No ¦ Yes	Yes			-
2010	F	H1 Excess heat draw Off ¦ On	On			-
2012	F	H1 with buffer storage tank No ¦ Yes	Yes			-
2014	F	H1 prim contr/system pump No ¦ Yes	Yes			-
2015	F	H1 Refrig demand 2-pipe system ¦ 4-pipe system	2-pipe system			-
2033	O	H2 DHW charging priority No ¦ Yes	Yes			-

Operating line	user level	Function	Default value	Min	Max	Unit
2035	F	H2 Excess heat draw Off ¦ On	On			-
2037	F	H2 with buffer storage tank No ¦ Yes	Yes			-
2039	F	H2 prim contr/system pump No ¦ Yes	Yes			-
2040	F	H2 Refrig demand 2-pipe system ¦ 4-pipe system	2-pipe system			-
Primary controller / system pump						
2110	O	Flow temp setpoint min	8	8	95	°C
2111	O	Flow temp setpoint max	80	8	95	°C
2112	O	Flow setpoint, cooling min	8	8	20	°C
2130	O	Mixing valve boost	10	0	50	°C
2131	O	Mixing valve cooling offset	0	0	20	°C
2132	O	Actuator type 2-position ¦ 3-position	3-position			-
2133	O	Switching differential 2-pos	2	0	20	°C
2134	O	Actuator running time	120	30	873	s
2135	O	Mixing valve Xp	32	1	100	°C
2136	O	Mixing valve Tn	120	10	873	s
2150	I	Primary controller / system pump Before buffer st tank ¦ After buffer st tank	After buffer st tank			-
Solar						
3810[4)]	F	Temp diff on	8	0	40	°C
3811[4)]	F	Temp diff off	4	0	40	°C
3812[4)]	F	Charg temp min DHW st tank	– – –	– – – / 8	95	°C
3830[4)]	O	Collector start function	– – –	– – – / 5	60	min
3831[4)]	F	Min run time collector pump	20	5	120	s
3832[4)]	O	Collector start function on	07:00	00:00	23:50	hh:mm
3833[4)]	O	Collector start function off	19:00	00:00	23:50	hh:mm
3834[4)]	F	Collector start funct gradient	– – –	– – – / 1	20	Min/°C
3840[4)]	F	Collector frost protection	– – –	– – – / -20	5	°C
3850[4)]	F	Collector overtemp prot	– – –	– – – / 30	350	°C
3860[4)]	F	Evaporation heat carrier	– – –	– – – / 60	350	°C
3880[4)]	F	Antifreeze None ¦ Ethylene glycol ¦ ¦ Propylene glycol ¦ Ethyl and propyl glycol	None			-
3881[4)]	F	Antifreeze concentration	30	1	100	%
3884[4)]	F	Pump capacity	200	10	1500	l/h
DHW storage tank						
5010[4)]	O	Charging Once/day ¦ Several times/day	Several times / day			-
5020[4)]	F	Flow setpoint boost	16	0	30	°C
5021[4)]	F	Increase of transfer boost	8	0	30	°C
5022[4)]	F	Type of charging with B3 ¦ With B3 and B31 ¦ Legio B3 and B31	With B3 and B31			-
5024[4)]	O	Switching differential	5	0	20	°C
5030[4)]	O	Charging time limitation	150	– – – / 10	600	min
5040[4)]	O	Discharging protection Off ¦ Always ¦ Automatically	Automatically			-
5050[4)]	F	Charging temperature max	80	8	BZ 5051 OEM	°C

Operating line	user level	Function	Default value	Min	Max	Unit
5051[4)]	O	Storage tank temp max	90	8	95	°C
5055[4)]	F	Recooling temp	80	8	95	°C
5056[4)]	F	Recooling heat gen/HCs Off ¦ On	Off			-
5057[4)]	F	Recooling collector Off ¦ Summer ¦ Always	Off			-
5060[4)]	F	electric immersion heater:operating mode Substitute ¦ Summer ¦ Always	Substitute			-
5061[4)]	F	Electric immersion heater release 24h/day ¦ DHW release¦ Time program4/ DHW	DHW release			-
5062[4)]	F	El immersion heater control External thermostat ¦ DHW sensor	DHW sensor			-
5070[4)]	O	Automatic push Off ¦ On	On			-
5071[4)]	O	Charging prio time push	0	0	120	min
5085[4)]	F	Excess heat draw Off ¦ On	On			-
5090[4)]	F	With buffer storage tank No ¦ Yes	No			-
5092[4)]	F	With primary controller / system pump No ¦ Yes	No			-
5093[4)]	F	With solar integration No ¦ Yes	Yes			-
5120[4)]	O	Mixing valve boost	2	0	50	°C
5124[4)]	O	Actuator running time	120	30	873	s
5125[4)]	O	Mixing valve Xp	32	1	100	°C
5126[4)]	O	Mixing valve Tn	120	10	873	s
5130[4)]	O	Transfer strategy Always ¦ DHW release	Always			
5131[4)]	O	Comparison temp transfer DHW sensor B3 ¦ DHW sensor B31	DHW sensor B3			
Instantaneous DHW heater						
5544[4)]	F	Actuator running time	60	7.5	480	s
5545[4)]	O	Mixing valve Xp	20	1	200	°C
5546[4)]	O	Mixing valve Tn	150	10	873	s
5547[4)]	O	Mixing valve Tv	4.5	0	30	s
Configuration						
5710	I	Heating circuit 1 Off ¦ On	On			-
5711	I	Cooling circuit 1 Off ¦ 4-pipe system ¦ 2-pipe system				-
5712	I	Use of mixing valve 1 Heating ¦ Cooling ¦ Heating and cooling	Heating and cooling			-
5715	I	Heating circuit 2 Off ¦ On	Off			-
5730[4)]	I	DHW sensor B3 Sensor ¦ Thermostat	Sensors			-
5731[4)]	I	DHW control element Q3 None ¦ Charging pump ¦ Diverting valve	Charging pump			-
5890[4)]	I	Relay output QX1 None ¦ Circulating pump Q4 ¦ El imm heater DHW K6 ¦ Collector pump Q5 ¦ H1 pump Q15 ¦ Alarm output K10 ¦ 2nd pump speed HC1 Q21 ¦ 2nd pump speed HC2 Q22 ¦ 2nd pump speed HCP Q23 ¦ Heat circuit pump HCP	None			-

Operating line	user level	Function	Default value	Min	Max	Unit
		Q20 ¦ H2 pump Q18 ¦ System pump Q14 ¦ Scheduler 5 K13 ¦ DHW mixing pump Q35 ¦ DHW iterm circ pump Q33 ¦ Heat request K27 ¦ Refrig request K28 ¦ Air dehumidifier K29 ¦ Diverting valve, cooling Y21				
5930[4)]	I	Sensor input BX1 None ¦ DHW sensor B31 ¦ Collector sensor B6 ¦ DHW circulation sensor B39 ¦ DHW charging sensor B36 ¦ Solar flow sensor B63 ¦ Solar return sensor B64	None			-
5931[4)]	I	Sensor input BX2 None ¦ DHW sensor B31 ¦ Collector sensor B6 ¦ DHW circulation sensor B39 ¦ DHW charging sensor B36 ¦ Solar flow sensor B63 ¦ Solar return sensor B64	None			-
5950	I	Function input H1 Optg mode changeover HCs + DHW ¦ Optg mode changeover HCs ¦ Optg mode changeover HC1 ¦ Optg mode changeover HC2 ¦ Optg mode changeover HCP ¦ Error/alarm message ¦ Min flow temp setpoint ¦ Excess heat discharge ¦ Dewpoint monitor ¦ Flow temp. setpt increase, hygro ¦ Refrig request ¦ Heat request 10V ¦ Refrig. request 10V ¦ Pressure measurement 10V ¦ Rel. room humidity 10V ¦ Room temperature 10V	Optg mode changeover HCs+DHW			-
5951	I	Contact type H1 NC ¦ NO	N/O			-
5952	I	Function value, contact type H1	70	8	130	°C
5953	I	Voltage value 1, H1	0	0	10	Volt
5954	I	Function value 1, H1	0	-100	500	-
5955	I	Voltage value 2, H1	10	0	10	Volt
5956	I	Function value 2, H1	70	-100	500	-
6014	I	Function mixing group 1 Heating circuit 1 ¦ Prim contr/system pump ¦ DHW primary controller[4)] ¦ Instantaneous DHW heater[4)] ¦ Cooling circuit 1 ¦ Heating circuit / Cooling circuit 1	Heating circuit			-
6020	I	Function extension module 1 No function ¦ Multifunctional ¦ Heating circuit 2 ¦ Solar DHW[4)] ¦ Prim contr/system pump ¦ DHW primary controller[4)] ¦ Instantaneous DHW heater[4)] ¦ Cooling circuit 1	None			-
6021	I	Function extension module 2 No function ¦ Multifunctional ¦ Heating circuit 2 ¦ Solar DHW[4)] ¦ Prim contr/system pump ¦ DHW primary controller[4)] ¦ Instantaneous DHW heater[4)] ¦ Cooling circuit 1	None			-
6030	I	Relay output QX21 None ¦ Circulating pump Q4[4)] ¦ None ¦ Circulating pump Q4[4)] ¦ El imm heater DHW K6 ¦ Collector pump Q5[4)] ¦ H1 pump Q15 ¦ Alarm output K10 ¦ 2nd pump speed HC1 Q21 ¦ 2nd pump speed HC2 Q22 ¦ 2nd pump speed HCP Q23 ¦ Heat circuit pump HCP Q20 ¦ H2 pump Q18 ¦ System pump Q14 ¦ Scheduler 5 K13 ¦ DHW mixing pump Q35[4)] ¦ DHW iterm circ pump Q33[4)] ¦ Heat request K27 ¦ Refrig request K28 ¦ Air dehumidifier K29 ¦ Diverting valve, cooling Y21	None			-
6031	I	Relay output QX22 None ¦ Circulating pump Q4[4)] ¦ El imm heater DHW K6 ¦ Collector pump Q5[4)] ¦ H1 pump Q15 ¦ Alarm output K10 ¦ 2nd pump speed HC1 Q21 ¦ 2nd pump speed HC2 Q22 ¦ 2nd pump speed HCP Q23 ¦ Heat circuit pump HCP Q20 ¦ H2 pump Q18 ¦ System pump Q14 ¦ Scheduler 5 K13 ¦ DHW mixing pump Q35[4)] ¦ DHW iterm circ pump Q33[4)] ¦ Heat request K27 ¦ Refrig request K28 ¦ Air dehumidifier K29 ¦ Diverting valve,	None			-

Operating line	user level	Function	Default value	Min	Max	Unit
		cooling Y21				
6032	I	Relay output QX23 None ¦ Circulating pump Q4[4] ¦ None ¦ Circulating pump Q4[4] ¦ El imm heater DHW K6 ¦ Collector pump Q5[4] ¦ H1 pump Q15 ¦ Alarm output K10 ¦ 2nd pump speed HC1 Q21 ¦ 2nd pump speed HC2 Q22 ¦ 2nd pump speed HCP Q23 ¦ Heat circuit pump HCP Q20 ¦ H2 pump Q18 ¦ System pump Q14 ¦ Scheduler 5 K13 ¦ DHW mixing pump Q35[4] ¦ DHW iterm circ pump Q33[4] ¦ Heat request K27 ¦ Refrig request K28 ¦ Air dehumidifier K29 ¦ Diverting valve, cooling Y21	None			-
6040[4]	I	Sensor input BX21 None ¦ DHW sensor B31 ¦ Collector sensor B6 ¦ DHW circulation sensor B39 ¦ DHW charging sensor B36 ¦ Solar flow sensor B63 ¦ Solar return sensor B64	None			-
6041[4]	I	Sensor input BX22 None ¦ DHW sensor B31 ¦ Collector sensor B6 ¦ DHW circulation sensor B39 ¦ DHW charging sensor B36 ¦ Solar flow sensor B63 ¦ Solar return sensor B64	None			-
6046	I	Function input H2 Optg mode changeover HCs + DHW ¦ Optg mode changeover HCs ¦ Optg mode changeover HC1 ¦ Optg mode changeover HC2 ¦ Optg mode changeover HCP ¦ Error/alarm message ¦ Min flow temp setpoint ¦ Excess heat discharge ¦ Dewpoint monitor ¦ Flow temp. setpt increase, hygro ¦ Refrig request ¦ Heat request 10V ¦ Refrig. request 10V ¦ Pressure measurement 10V ¦ Rel. room humidity 10V ¦ Room temperature 10V	Optg mode changeover HCs+DHW			-
6047	I	Contact type H2 NC ¦ NO	N/O			-
6048	I	Function value, contact H2	70	8	130	°C
6049	I	Voltage value 1, H2	0	0	10	Volt
6050	I	Function value 1, H2	0	-100	500	-
6051	I	Voltage value 2, H2	10	0	10	Volt
6052	I	Function value 2, H2	70	-100	500	-
6097[4]	F	Sensor type collector NTC 10k ¦ Platinum 1000	NTC 10k			
6098[4]	F	Readjustm collector sensor	0	-20	20	°C
6100	F	Readjustm outside sensor	0	-3.0	3.0	°C
6110	F	Time constant building	15	0	50	h
6112	O	Gradient room model	60	0	300	Min/°C
6120	F	Frost protection for the plant Off ¦ On	Off			-
6128	F	Heat request below OT	– – –	– – – / -50	50	°C
6129	F	Heat request above OT	– – –	– – – / -50	50	°C
6131[4]	F	Heat req in economy mode Off ¦ On DHW ¦ On	Off			-
6135	F	Air dehumidifier Off ¦ On	Off			-
6136	F	Air dehumidifier enable 24h/day ¦ Time progr. heating circuit ¦ Time program 5	24 h/day			-
6137	F	Air dehumidifier r.h. EIN	55	0	100	%
6138	F	Air dehumidifier r.h. SD	5	2	50	%
6140	O	Water pressure max	– – –	– – – / 0.0	10.0	bar
6141	O	Water pressure min	– – –	– – – / 0.0	10.0	bar
6142	O	Water pressure critical min	– – –	– – – / 0.0	10.0	bar

Operating line	user level	Function	Default value	Min	Max	Unit
6150	O	Water pressure 2 max	– – –	– – – / 0.0	10.0	bar
6151	O	Water pressure 2 min	– – –	– – – / 0.0	10.0	bar
6152	O	Water press 2 critical min	– – –	– – – / 0.0	10.0	bar
6200	I	Save sensors No ¦ Yes	No			-
6204	O	Save parameters No ¦ Yes	No			-
6205	F	Reset to default parameters No ¦ Yes	No			-
6212[4)]	I	Check-No. heat source 1	-	0	199999	-
6215	I	Check-No. storage tank	-	0	199999	-
6217	I	Check-No. heating circuits	-	0	199999	-
6220	F	Software version	-	0	99.9	-
6222	O	Device hours run	0	0	65535	h
LPB-System						
6600	I	Device address	1	0	16	-
6601	F	Segment address	0	0	14	-
6604	F	Bus power supply function Off ¦ Automatically	Automatically			-
6605	F	Bus power supply state Off ¦ On	On			-
6610	O	Display system messages No ¦ Yes	Yes			-
6612	O	Alarm delay	– – –	– – – / 2	60	min
6620	O	Action changeover functions Segment ¦ System	System			-
6621	F	Summer changeover Locally¦ Centrally	Locally			-
6623	F	Optg mode changeover Locally¦ Centrally	Centrally			-
6625	F	Assignment of DHW heating Local HCs ¦ All HCs in segment ¦ All HCs in system	All HCs in system			-
6627	F	Refrigeration demand Locally¦ Centrally	Locally			-
6640	I	Clock mode Autonomously ¦ Slave without remote ¦ Slave with remote setting ¦ Master	Autonomously			-
6650	F	Outside temp source	0	0	239	-
Faults						
6710	I	Reset alarm relay No ¦ Yes	No			-
6740	F	Flow temp 1 alarm	– – –	– – – / 10	240	min
6741	F	Flow temp 2 alarm	– – –	– – – / 10	240	min
6745[4)]	F	DHW charging alarm	– – –	– – – / 1	48	h
6746	F	Flow temp alarm, cooling 1	– – –	– – – / 10	240	min
6800	F	History 1	-			
	F	Error code 1	-	0	255	-
6802	F	History 2	-			
	F	Error code 2	-	0	255	-
6804	F	History 3	-			
	F	Error code 3	-	0	255	-
6806	F	History 4	-			

Operating line	user level	Function	Default value	Min	Max	Unit
	F	Error code 4	-	0	255	-
6808	F	History 5	-			
	F	Error code 5	-	0	255	-
6810	F	History 6	-			
	F	Error code 6	-	0	255	-
6812	F	History 7	-			
	F	Error code 7	-	0	255	-
6814	F	History 8	-			
	F	Error code 8	-	0	255	-
6816	F	History 9	-			
	F	Error code 9	-	0	255	-
6818	F	History 10	-			
	F	Error code 10	-	0	255	-
6820	O	Reset history No ¦ Yes	No			-
Maintenance / special operation						
7044	F	Maintenance interval	– – –	– – – / 1	240	Months
7045	F	Time since maintenance	0	0	240	Months
7119[4)]	F	Economy function Locked ¦ released	Locked			-
7120[4)]	E	Economy mode Off ¦ On	Off			-
7140	E	manual operation Off ¦ On	Off			-
7150	I	Simulation outside temperature	-	-50.0	50	°C
7170	I	Telephone customer service				-
Input / output test						
7700	I	Relay test No test ¦ Everything off ¦ DHW pump Q3 ¦ Heating circuit pump Q2 ¦ Heating circ mix valve op Y1 ¦ Heat circ mix valve cl Y2 ¦ Relay output QX1[4)] ¦ Relay output QX21 module 1 ¦ Relay output QX22 module 1 ¦ Relay output QX23 module 1 ¦ Relay output QX21 module 2 ¦ Relay output QX22 module 2 ¦ Relay output QX23 module 2	No test			-
7730	I	Outside temp B9	-	-50.0	50	°C
7732	I	Flow temp B1	-	0.0	140	°C
7750[4)]	I	DHW temp B3	-	0.0	140	°C
7820[4)]	I	Sensor temp BX1	-	-28.0	350	°C
7821[4)]	I	Sensor temp BX2	-	-28.0	350	°C
7830[4)]	I	Sensor temp BX21 module 1	0	-28	350	°C
7831[4)]	I	Sensor temp BX22 module 1	0	-28	350	°C
7832[4)]	I	Sensor temp BX21 module 2	0	-28	350	°C
7833[4)]	I	Sensor temp BX22 module 2	0	-28	350	°C
7840	I	Voltage signal H1	-	0	10	Volt
7841	I	Contact state H1 Open ¦ Closed	-			-
7845	I	Voltage signal H2	0	0	10	Volt
7846	I	Contact state H2 Open ¦ Closed	-			-
State						
8000	I	State of heating circuit 1	-			-

Operating line	user level	Function	Default value	Min	Max	Unit
8001	I	State of heating circuit 2	-			-
8002	I	State heating circuit P	-			-
8003	I	State of DHW	-			-
8004	I	State of cooling circuit 1	-			-
8007[4)]	I	State of solar	-			-
Diagnostics, heat generation						
8510[4)]	I	Collector temp 1	-	-28.0	350	°C
8511[4)]	I	Collector temp 1 max	0	-28.0	350	°C
8512[4)]	I	Collector temp 1 min	0	-28.0	350	°C
8513[4)]	I	dT collector 1/DHW	-	-168.0	350	°C
8519[4)]	I	Solar flow temp	0	-28.0	350	°C
8520[4)]	I	Solar return temp	0	-28.0	350	°C
8526[4)]	E	24-hour yield solar energy	0	0	999.9	kWh
8527[4)]	E	Total yield solar energy	0	0	9999999.9	kWh
8530[4)]	F	Hours run solar yield	-	0	65535	h
8531[4)]	F	Hours run collect overtemp	-	0	65535	h
Diagnostics, consumers						
8700	I	Outside temperature (OT)	-	-50.0	50.0	°C
8703	I	Outside temp attenuated	-	-50.0	50.0	°C
8704	I	Outside temperature composite	-	-50.0	50.0	°C
8720	I	Relative room humidity	-	0	100	%
8721	I	Outside temperature (OT)	-	0	50.0	°C
8722	I	Dewpoint temperature 1	-	0	50.0	°C
8730	I	Heating circuit pump Q2 Off ¦ On	-			-
8731	I	Heating circ mix valve op Y1 Off ¦ On	-			-
8732	I	Heat circ mix valve cl Y2 Off ¦ On	-			-
8740	I	Room temp 1	-	0.0	50.0	°C
8741	I	Room setpoint 1	-	4.0	35.0	°C
8742	O	Room temp 1 model	-	0.0	50.0	°C
8743	I	Flow temperature 1	-	0.0	140.0	°C
8744	I	Flow temp setpoint 1	-	0.0	140.0	°C
8751	I	Cooling circuit pump 1 Off ¦ On	-			-
8752	I	Cooling circuit mixing valve 1 Open Off ¦ On	-			-
8753	I	Cooling circuit mixing valve 1 Closed Off ¦ On	-			-
8754	I	Cooling diverting valve 1 Off ¦ On	-			-
8756	I	Flow temperature, cooling 1	-	0	140	°C
8757	I	Flow temperature, cooling 1	-	0	140	°C
8760	I	Heating circuit pump 2 Off ¦ On	-			-
8761	I	Heat circ mix valve 2 open Off ¦ On	-			-
8762	I	Heat circ mix valve 2 close Off ¦ On	-			-

Operating line	user level	Function	Default value	Min	Max	Unit
8770	I	Room temp 2	-	0.0	50	°C
8771	I	Room setpoint 2	-	4.0	35	°C
8772	O	Room temp 2 model	-	0.0	50	°C
8773	I	Flow temperature 2	-	0.0	140	°C
8774	I	Flow temp setpoint 2	-	0.0	140	°C
8800	I	Room temp P	-	0.0	50	°C
8801	I	Room setpoint P	-	4.0	35	°C
8802	O	Room temp P model	-	0.0	50	°C
8803	I	Flow temp setpoint P	-	0.0	140	°C
8820[4)]	I	DHW pump Q3 Off ¦ On	-			-
8830	I	DHW temp 1	-	0.0	140	°C
8831	I	DHW temp setpoint	-	8.0	80	°C
8832[4)]	I	DHW temp 2	-	0.0	140	°C
8835[4)]	I	DHW circulation temp	-	0.0	140	°C
8836[4)]	I	DHW charging temp	0	0	140	°C
8850[4)]	I	DHW primary controller temp	0	0	140	°C
8851[4)]	I	DHW primary controller setp	0	0	140	°C
8852[4)]	I	Instant DHW heater temp	0	0	140	°C
8853[4)]	I	Instant DHW heater setpoint	0	0	140	°C
8930	I	Primary controller temp	-	0.0	140.0	°C
8931	I	Primary controller setpoint	-	0.0	140.0	°C
8950[4)]	I	Common flow temp	-	0.0	140.0	°C
8951[4)]	I	Common flow temp setpoint	-	0.0	140.0	°C
8957[4)]	I	Common flow temp setpoint refrig	0	0	140	°C
9000	I	Flow temperature setpoint H1	-	5.0	130.0	°C
9001	I	Flow temp setpoint H2	-	5.0	130.0	°C
9005	I	Water pressure H1	-	0.0	10.0	bar
9006	I	Water pressure H2	-	0.0	10.0	bar
9031[4)]	I	Relay output QX1 Off ¦ On	-			-
9050	I	Relay output QX21 module 1 Off ¦ On	-			-
9051	I	Relay output QX22 module 1 Off ¦ On	-			-
9052	I	Relay output QX23 module 1 Off ¦ On	-			-
9053	I	Relay output QX21 module 2 Off ¦ On	-			-
9054	I	Relay output QX22 module 2 Off ¦ On	-			-
9055	I	Relay output QX23 module 2 Off ¦ On	-			-

2 The settings in detail

2.1 Operator section

Operation and display

Line no.	*Operating line*
21	**Display special operation** Off On
30	**Save basic settings** No Yes
31	**Activate basic settings** No Yes

Save basic settings

The setting data of all operating levels are copied from the controller to the memory of the operator unit. This means that previous data in the operator unit are overwritten.

Activate basic settings

With the exception of the data listed below, the setting data of all operating levels are transferred from the memory of the operator unit to the connected controller. Previous setting data in the controller are overwritten.

The following operating lines will not be overwritten:

Line no.	*Operating line*
6600	Device address
6601	Segment address
6222	Device hours run

The following data will not be overwritten either:
RF list, hours run / start counter, yield meter, maintenance meter, slave pointer, and error history.

2.2 Heating circuits

Mixing valve control

Line no.				*Operating line*
HC1	*HC2*	*HC3P*		
835	**1135**			**Mixing valve Xp**
836	**1136**			**Mixing valve Tn**

Mixing valve Xp

By setting the right proportional band, the control action of the mixing valve actuator is matched to the behavior of the plant (controlled system).

Xp influences the controller's P-action.

Mixing valve Tn

By setting the right integral action time, the control action of the mixing valve's actuator is matched to the behavior of the plant (controlled system).

Tn influences the controller's I-action.

2.3 Cooling circuit

Mixing valve control

Line no.	*Operating line*
942	**Mixing valve Xp**
943	**Mixing valve Tn**

Mixing valve Xp

By setting the right proportional band, the control action of the mixing valve actuator is matched to the behavior of the plant (controlled system).

Xp influences the controller's P-action.

Mixing valve Tn

By setting the right integral action time, the control action of the mixing valve's actuator is matched to the behavior of the plant (controlled system).

Tn influences the controller's I-action.

2.4 DHW

Setpoints

Line no.	*Operating line*
1614	**nominal setpoint max**

This operating line is used to limit the "Nominal setpoint" (operating line 1610) at the top.

2.5 Hx pumps

Pump Hx

Line no.				*Operating line*
H1	*H2*			
2008	**2033**			**H1/H2 DHW charging priority** Off ¦ On

H1/H2 DHW charging priority

When using this setting, the connected pump H can be excluded from / included in the effect of DHW charging priority.
In the case of a ventilation system, for example, it is thus possible to ensure a constant supply of heat with no impact from the DHW charging priority.

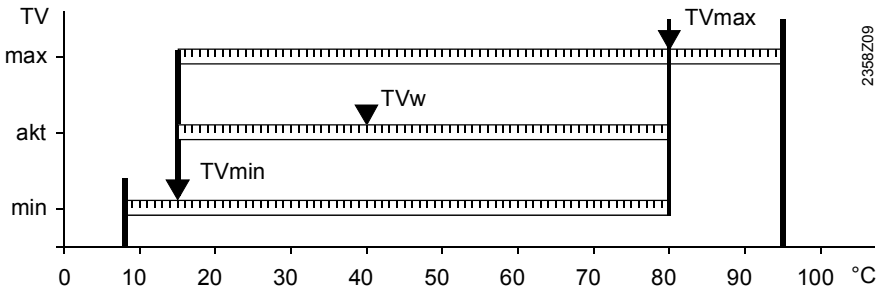
2.6 Primary controller / system pump

Flow temperature setpoint limits

Line no.	*Operating line*
2110	**Flow temp setpoint min**
2111	**Flow temp setpoint max**
2112	**Flow setpoint, cooling min**

Flow temp setpoint minimum/maximum

These limit values can be used to define a temperature range for the heating flow temperature setpoint.



TVw Current flow temperature setpoint
TVmax Flow temp setpoint max
Tvmin Flow temp setpoint minimum

Flow setpoint, cooling min

This limit value can be used to define the low limit for the flow temperature setpoint for cooling.

Mixing valve control

Line no.	*Operating line*
2130	**Mixing valve boost**
2131	**Mixing valve cooling offset**
2132	**Actuator type**
2133	**Switching differential 2-pos**
2134	**Actuator running time**
2135	**Mixing valve Xp**
2136	**Mixing valve Tn**

Mixing valve boostFor mixing, the actual value of the boiler flow temperature must be higher than the required setpoint of the mixing valve flow temperature since otherwise that temperature cannot be controlled. The controller generates the boiler temperature setpoint based on the increase set here and the current flow temperature setpoint.

Mixing valve cooling offset

To ensure proper mixing, the actual flow temperature of the cooling aggregate must be lower than the required mixing valve flow temperature setpoint. The cooling demand is reduced by the value set here.

RVS46.543 only

2.7 Solar

Start function

Line no.	*Operating line*
3830	**Collector start function**
3832	**Collector start function on**
3833	**Collector start function off**

Collector start function

If the temperature at the collector (especially in the case of vacuum tubes) cannot be correctly acquired when the pump is deactivated, the pump can be activated from time to time.

RVS46.543 only

2.8 DHW storage tank

Release

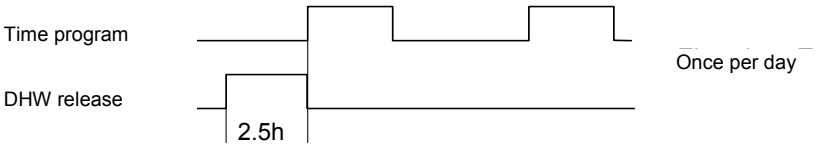
Line no.	*Operating line*
5010	**Charging** Once/day ¦ Several times/day

Charging

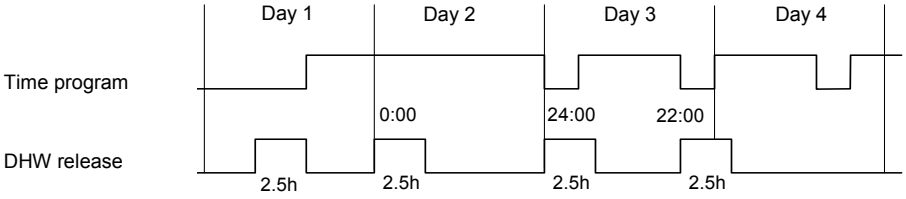
Selection of charging “Once/day“ or “Several times/day” is active only if DHW release is set according to the time programs of the heating circuits

Once / day

Release of DHW charging is given 2.5 hours before the first heat request from the heating circuit is received. Then, the reduced DHW setpoint applies for the whole day.

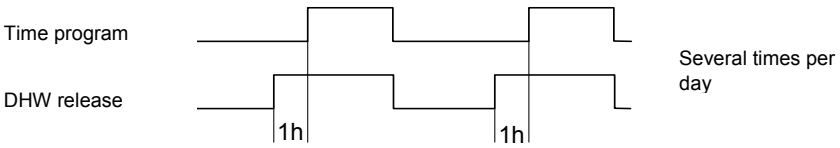


In the case of continuous heating (with no setback periods), release of DHW charging is given at 0:00. The same rule also applies if the first request for heat from the heating circuit is received before 02:30. If a request for heat is received at midnight, DHW charging is released after the first setback period, but no earlier than 2.5 hours before midnight.



Several times / day

When selecting “Several times/day“, release of DHW charging is put forward in time by 1 hour against the periods of time the heating circuit calls for heat, and is then maintained during those periods of time.



Charging control

Line no.	*Operating line*
5024	**Switching differential**

Switching differential

If the DHW temperature is lower than the current setpoint minus the switching differential set here, DHW charging will be started.
DHW charging will be terminated when the temperature reaches the current setpoint.

When DHW heating is released for the first time in a 24-hour period, forced charging will be initiated. DHW charging is also started when the DHW temperature lies within the switching differential, provided it does not lie less than K below the setpoint.

Charging time limitation

Line no.	*Operating line*
5030	**Charging time limitation**

Charging time limitation

During DHW charging, space heating may obtain no or too little energy, depending on the selected charging priority (operating line 1630) and the type of hydraulic circuit. For this reason, it is often practical to set a time limit to DHW charging.

- - -
Charging time limitation is deactivated. The DHW is heated up to the nominal setpoint, even if space heating cannot draw sufficient amounts of heat for a certain period of time.

10 – 600
DHW charging is stopped after the set period of time in minutes and then locked for the same period of time before it is resumed. During this period of time, the heat produced by the boiler is made available for space heating. This cycle is repeated until the nominal DHW setpoint is reached.

When space heating is switched off (summer operation, Eco function, etc.), DHW charging will not be stopped, independent of the selected setting.

Discharging protection

Line no.	*Operating line*
5040	**Discharging protection**

Discharging protection

This function ensures that the DHW charging pump (Q3) will be activated only when the boiler temperature is high enough.

- With sensor
  The charging pump will be activated only when the boiler temperature reaches the level of the DHW temperature plus one half the charging boost. If, during charging, the boiler temperature drops to a level below the DHW temperature plus 1/8 the charging boost, the charging pump will be deactivated again. If 2 DHW sensors are parameterized for DHW charging, the lower temperature is used for the discharging protection function (usually sensor B31).

- With thermostat
  The charging pump will be activated only when the boiler temperature lies above the nominal DHW setpoint. If, during charging, the boiler temperature drops below the nominal DHW temperature minus the DHW switching differential, the charging pump will be deactivated again.

Off
Function is deactivated.
Always
The function is always active.
Automatically
The function is active only if the heat source is not able to deliver heat, or is not available (fault, heat generation lock).

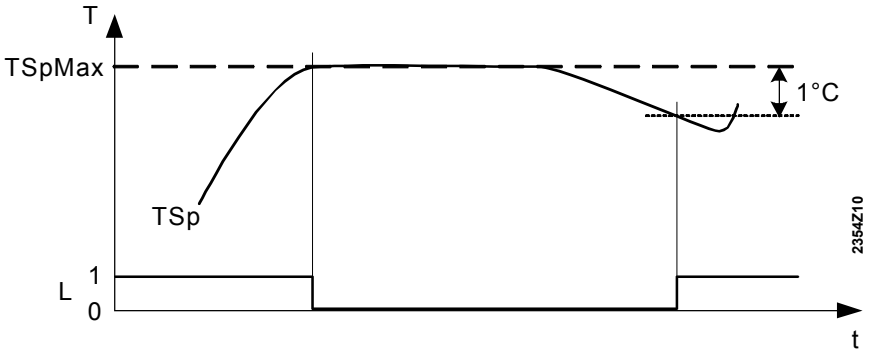
Overtemperature protection

Line no.	*Operating line*
5051	**Storage tank temp max**

Storage tank temp max

If the storage tank reaches the maximum storage tank temperature set here, charging is aborted. It will be released again when the storage tank temperature has dropped 1 °C below the maximum storage tank temperature.

The protective collector overtemperature function can reactivate the collector pump until the storage tank's safety temperature is reached.



TSpMax Storage tank temp max (operating line 5051)
TSp Actual value of the storage tank temperature
L Storage tank charging: 1 = on, 0 = off

DHW push

Line no.	*Operating line*
5070	**Automatic push** Off On
5071	**Charging prio time push**

Automatic push

The DHW push can be triggered either manually or automatically.
In that case, the DHW is heated up once to the nominal setpoint.

Off
The DHW push must be triggered manually.

On
If the DHW temperature falls below the reduced setpoint (operating line 1612) by at least 2 switching differentials (operating line 5024), one-time charging to the nominal DHW setpoint (operating line 1610) will take place again.

The automatic DHW push only works when the DHW operating mode is activated.

Charging prio time push

In the case of a DHW push, the DHW storage tank is charged with absolute priority for the period of time set here.

Mixing valve precontrol

Line no.	*Operating line*
5120	**Mixing valve boost**
5124	**Actuator running time**
5125	**Mixing valve Xp**
5126	**Mixing valve Tn**

Mixing valve boost

To ensure proper mixing valve flow temperature control, the flow temperature must be higher than the demanded setpoint of the mixing valve flow temperature. The value set here is added to the request.

Actuator running time

Setting the running time of the actuator used with the mixing valve.

Mixing valve Xp

By setting the right proportional band, the control action of the mixing valve's actuator is matched to the behavior of the plant (controlled system).

Xp influences the controller's P-action.

Mixing valve Tn

By setting the right integral action time, the control action of the mixing valve's actuator is matched to the behavior of the plant (controlled system).

Tn influences the controller's I-action.

Transfer

Line no.	*Operating line*
5130	**Transfer strategy** Always ¦ DHW release
5131	**Comparison temp transfer** DHW sensor B3 ¦ DHW sensor B31

Transfer strategy

Transfer is permitted either always or at the release times set (operating line 1620).

Comparison temp transfer

For the transfer, the respective DHW sensor can be selected to get a comparative temperature.

RVS46.543 only

2.9 Instantaneous DHW heater

Mixing valve control

Line no.	*Operating line*
5545	**Mixing valve Xp**
5546	**Mixing valve Tn**
5547	**Mixing valve Tv**

Mixing valve Xp

By setting the right proportional band, the control action of the mixing valve's actuator is matched to the behavior of the plant (controlled system).

Xp influences the controller's P-action.

Mixing valve Tn

By setting the right integral action time, the control action of the mixing valve's actuator is matched to the behavior of the plant (controlled system).

Tn influences the controller's I-action.

Mixing valve Tv

By setting the right derivative action time, the control action is matched to the behavior of the plant (controlled system).

Tv influences the controller's D-action. With Tv = 0, the D-action is deactivated.

2.10 Configuration

Building and room model

Line no.	*Operating line*
6112	**Gradient room model**

Gradient room model

The room model gradient gives the period of time in minutes room heating needs to raise the temperature by 1 °C. The settings made applies to all circuits.

The setting is used to calculate the fictive room temperature of rooms that have no room temperature sensor installed (operating lines 8742, 8772, and 8802).

Pressure acquisition H1, H2

Line no.				*Operating line*
H1	*H2*			
6140	**6150**			**Water pressure max**
6141	**6151**			**Water pressure min**
6142	**6152**			**Water pressure critical min**

Water pressure max

If the pressure acquired at input H1 or H2 exceeds the limit value set here, an error message will be delivered.

117: Water pressure too high
176: Water pressure 2 too high
If the pressure drops below the limit value by one switching differential, the error will be cancelled.

Water pressure min

If the pressure acquired at input Hx drops below the set limit value (parameter *"Water pressure min"*), the appropriate maintenance alarm will be delivered.

5: Water pressure too low
18: Water pressure 2 too low
If the pressure exceeds the limit value by one switching differential, the error is cancelled.

Water pressure critical min

If the pressure acquired at input H1 or H2 falls below the limit value set here, an appropriate error message will be delivered and both burner stages immediately shut down.

118: Water pressure too low
177: Water pressure 2 too low
If the pressure exceeds the limit value by one switching differential, the error is cancelled.

Device hours run

Line no.	*Operating line*
6222	**Device hours run**

This indicates the total number of hours run since the controller was first commissioned.

2.11 LPB system

Error/maintenance/alarms

Line no.	*Operating line*
6610	**Display system messages**
6612	**Alarm delay**

Display system messages

This setting enables system messages transmitted via LPB to be suppressed at the connected operator unit.

Alarm delay

Delivery of the alarm to the OCI can be delayed in the basic unit by setting a delay. This ensures that unnecessary notifications of a service center resulting from short-time errors (e.g. temperature limiter cut out, communication error) can be prevented.
It is to be noted, however, that errors occurring for a short period of time, and reoccurring constantly and rapidly, will also be filtered.

Action changeover functions

Line no.	*Operating line*
6620	**Action changeover functions** Segment ¦ System

⚠ The setting is only relevant for device address 1.

Range of action of changeover

The range of action of central changeover can be defined.
This concerns:
Summer changeover (when selecting ”Central“ on line 6623)
Summer changeover (with ”Central“ setting on operating line 6621)
Entries:
Segment: Changeover takes place with all controllers in the same segment.
System: Changeover takes place with all controllers in the entire system (in all segments). The controller must be located in segment 0!

2.12 Faults

History 1..10

Line no.	*Operating line*
6820	**Reset history** No Yes

Reset history

The error history with the last 10 errors will be deleted.

2.13 Diagnostics, consumers

Heating circuit 1, heating circuit 2, heating circuit P

Line no.	*Operating line*
8742	**Room temp 1 model**
8772	**Room temp 2 model**
8802	**Room temp P model**

Room temperature 1 / 2 / P model

The room model calculates a fictive room temperature for rooms that have no room temperature sensor. The value calculated for each heating circuit is indicated on these operating lines.

This allows boost heating, quick setback and optimum start and stop control to be implemented with no need for using a room temperature sensor.
The calculation takes into account the attenuated outside temperature (operating line 8703), the room model gradient (operating line 6112) for switching to a higher setpoint and the building's time constant (operating line 6110) for switching to a lower setpoint.

Index

3 Revision history

All changes made to the document since the last issue (see front page) are identified with the Winword function "Highlight". To show such text, use the following key combinations:

Display: Ctrl Shift (Num) +
Hide: Ctrl Shift (Num) -

Or select the same functionality with the following Winword menu:
Menu: [Tools] - [Options]
Command: [Highlight]

The revision history is not visible in the print file (PDF).

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