

Wiring diagrams

9 - 1 Notes & Legend

EBVH-D6V / EBVH-D9W / EBVH-UD6V / EBVX-D6V / EBVX-D9W

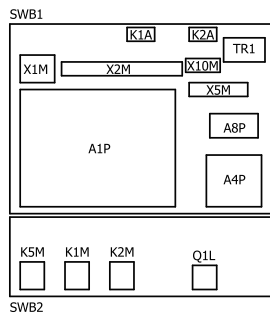
NOTES to go through before starting the unit

- X1M : Main terminal
 X2M : Field wiring terminal for AC
 X5M : Field wiring terminal for DC
 X6M : BUH Power supply terminal
 X10M : Smartgrid terminal
- : Earth wiring
 ----- : Field supply
- ① : Several wiring possibilities
- Option : Option
 Wiring depending on model : Wiring depending on model
 Not mounted in switch box : Not mounted in switch box
 PCB : PCB

1. Connection point of the power supply for the BUH should be foreseen outside the unit.

- Backup heater power supply
- ☐ 6T1 (3~, 230V, 6kW)
 - ☐ 6V3 (1N~, 230V, 6kW)
 - ☐ 6WN/9WN (3N~, 400V, 6/9kW)
- User installed options:
- ☐ Remote user interface
 - ☐ Ext. indoor thermistor
 - ☐ Ext. outdoor thermistor
 - ☐ Digital I/O PCB
 - ☐ Demand PCB
 - ☐ Safety thermostat
 - ☐ Smartgrid kit
 - ☐ WLAN adapter module
 - ☐ WLAN cartridge
 - ☐ Bizzone mixing kit
- Main LWT:
- ☐ ON/OFF thermostat (wired)
 - ☐ ON/OFF thermostat (wireless)
 - ☐ Ext. thermistor
 - ☐ Heat pump convactor
- Add LWT:
- ☐ ON/OFF thermostat (wired)
 - ☐ ON/OFF thermostat (wireless)
 - ☐ Ext. thermistor
 - ☐ Heat pump convactor

POSITION IN SWITCH BOX



LEGEND

Part n°	Description	Part n°	Description
A1P	main PCB	PHC1 (A4P)	* optocoupler input circuit
A2P	* ON/OFF thermostat (PC=power circuit)	Q1L	thermal protector backup heater
A3P	* heat pump convactor	Q4L	# safety thermostat
A4P	* digital I/O PCB	Q*DI	# earth leakage circuit breaker
A8P	* demand PCB	R1H (A2P)	* humidity sensor
A9P	status indicator	R1T (A1P)	* outlet water heat exchanger thermistor
A11P	MMI main PCB	R1T (A2P)	* ambient sensor ON/OFF thermostat
A14P	* user interface PCB	R1T (A14P)	* ambient sensor user interface
A15P	* receiver PCB (wireless ON/OFF thermostat)	R2T (A1P)	outlet backup heater thermistor
A20P	* WLAN module	R2T (A2P)	* external sensor (floor or ambient)
A30P	* Bizzone mixing kit PCB	R3T	refrigerant liquid side thermistor
B2L	pulse type flow sensor	R4T	inlet water thermistor
B1PW	water pressure sensor	R5T, R8T	domestic hot water thermistor
CN* (A4P)	* connector	R6T	* external indoor or outdoor ambient thermistor
DS1 (A8P)	* dipswitch	S1S	# preferential kWh rate PS contact
E1H	backup heater element (1 kW)	S2S	# electrical meter pulse input 1
E2H	backup heater element (2 kW)	S3S	# electrical meter pulse input 2
E*P (A9P)	indication LED	S4S	# smartgrid feed-in
F1B	# overcurrent fuse backup heater	S6S-S9S	* digital power limitation inputs
F1T	thermal fuse backup heater	S10S-S11S	# low voltage smartgrid contact
F1U, F2U (A4P)	* fuse 5 A 250 V for digital I/O PCB	SS1 (A4P)	* selector switch
FU1 (A1P)	fuse T 5 A 250 V for PCB	SW1~2 (A11P)	turn buttons
K1A, K2A	* high voltage smartgrid relay	SW3~5 (A11P)	push button
K1M, K2M	contactor backup heater	TR1	power supply transformer
K5M	safety contactor BUH	X6M	# BUH power supply terminal strip
K*R (A1P-A4P)	relay on PCB	X10M	* smartgrid power supply terminal strip
M1P	main supply pump	X*, X*A, X*H*, X*Y	connector
M2P	# domestic hot water pump	X*M	terminal strip
M2S	# 2 way valve for cooling mode		
M3S	3 way valve for spaceheating/ domestic hot water		
P1M	MMI display		
PC (A15P)	* power circuit		

*: optional # : field supply

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EBVZ-D6V EBVZ-D9W

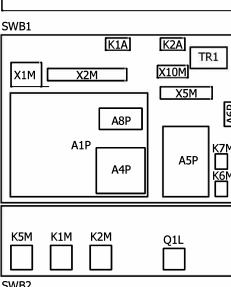
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- User installed options:
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 - ☐ Ext. indoor thermistor
 - ☐ Ext. outdoor thermistor
 - ☐ Digital I/O PCB
 - ☐ Demand PCB
 - ☐ Safety thermostat
 - ☐ Smartgrid
 - ☐ WLAN adapter module
 - ☐ WLAN cartridge
- Main LWT:
- ☐ On/OFF thermostat (wired)
 - ☐ On/OFF thermostat (wireless)
 - ☐ Ext. thermistor
 - ☐ Heat pump convactor
- Add LWT:
- ☐ On/OFF thermostat (wired)
 - ☐ On/OFF thermostat (wireless)
 - ☐ Ext. thermistor
 - ☐ Heat pump convactor

POSITION IN SWITCH BOX



LEGEND



Translation can be found in the installation manual.

* : optional
 # : field supply

Part n°	Description	Part n°	Description
A1P	main PCB	M2S	# 2 way valve for cooling mode
A2P	* On/OFF thermostat (PC=power circuit)	M3P	# main zone pump
A3P	* heat pump convactor	M3S	3 way valve for space heating /domestic hot water
A4P	* digital I/O PCB	P1M	MMI display
A5P	bizzone PCB	PC (A15P)	* power circuit
A6P	current loop PCB	PHC1 (A4P)	* optocoupler input circuit
A8P	* demand PCB	Q1L	thermal protector backup heater
A9P	status indicator	Q3L, Q4L	# safety thermostat
A11P	MMI main PCB	Q*DI	# earth leakage circuit breaker
A14P	* user interface PCB	R1H (A2P)	* humidity sensor
A15P	* receiver PCB (wireless On/OFF thermostat)	R1T (A1P)	* outlet water heat exchanger thermistor
A20P	* WLAN module	R1T (A2P)	* ambient sensor On/OFF thermostat
B2L	pulse type flow sensor	R1T (A14P)	* ambient sensor user interface
B1PW	water pressure sensor	R2T (A1P)	outlet backup heater thermistor
CN* (A4P)	* connector	R2T (A2P)	* external sensor (floor or ambient)
DS1 (A8P)	* dipswitch	R3T	refrigerant liquid side thermistor
DS1 (A8P)	* dipswitch	R4T	inlet water thermistor
E1H	backup heater element (1 kW)	R5T, R8T	domestic hot water thermistor
E2H	backup heater element (2 kW)	R6T	* external indoor or outdoor ambient thermistor
E*P (A9P)	indication LED	R7T	mixed leaving water thermistor
F1B	# overcurrent fuse backup heater	S1S	# preferential kWh rate PS contact
F1T	thermal fuse backup heater	S2S	# electrical meter pulse input 1
F1U, F2U (A4P)	* fuse 5 A 250 V for digital I/O PCB	S3S	# electrical meter pulse input 2
F1U, F2U (A5P)	* fuse T 3.15 A 250 V for PCB	S4S	# smartgrid feed-in
FU1 (A1P)	fuse T 5 A 250 V for PCB	S6S-S9S	* digital power limitation inputs
K1A, K2A	* high voltage smartgrid relay	S10S-S11S	# low voltage smartgrid contact
K1M, K2M	contactor backup heater	SS1 (A4P)	* selector switch
K5M	safety contactor BUH	SW1~2 (A11P)	turn buttons
K6M	relay 3 way valve bypass	SW3~5 (A11P)	push button
K7M	relay 3 way valve flow	TR1	power supply transformer
K*R (A1P, A4P)	relay on PCB	X6M	# BUH power supply terminal strip
M1P	additional zone pump	X10M	* smartgrid power supply terminal strip
M1S	mixing 3 way valve	X*, X*A, X*H*, X*Y	connector
M2P	# domestic hot water pump	X*M	terminal strip

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9 Wiring diagrams

9 - 2 Control Circuit

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