8 Wiring diagrams

8 - 1 Notes & Legend

EHVH-E6V
EHVH-E9W
EHVX-E3V
EHVX-E6V(G)
EHVX-E9W

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
: Wiring depending on model
: Not mounted in switch box
: PCB

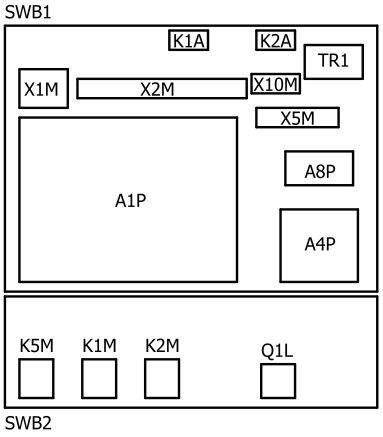
Backup heater power supply
- ☐ 3V (1N~, 230V, 3kW)
- ☐ 6T1 (3~, 230V, 6kW)
- ☐ 6V3 (1N~, 230V, 6kW)
- ☐ 6WN/9WN (3N~, 400V, 6/9kW)

User installed options:
- ☐ Remote user interface
- ☐ Ext. indoor thermistor
- ☐ Ext. outdoor thermistor
- ☐ Digital I/O PCB
- ☐ Demand PCB
- ☐ Safety thermostat
- ☐ Smartgrid
- ☐ WLAN adapter module
- ☐ WLAN cartridge

Main LWT:
- ☐ ON/OFF thermostat (wired)
- ☐ ON/OFF thermostat (wireless)
  - ☐ Ext. thermistor
- ☐ Heat pump convector

Add LWT:
- ☐ ON/OFF thermostat (wired)
- ☐ ON/OFF thermostat (wireless)
  - ☐ Ext. thermistor
- ☐ Heat pump convector

POSITION IN SWITCH BOX



NOTES

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

LEGEND

Part n°		Description
A1P		main PCB
A2P	*	ON/OFF thermostat (PC = power circuit)
A3P	*	heat pump convector
A4P	*	digital I/O PCB
A8P	*	demand PCB
A9P		status indicator
A11P		MMI main PCB
A14P	*	user interface PCB
A15P	*	receiver PCB (wireless ON/OFF thermostat)
A20P	*	WLAN module
B2L		flow sensor
B1PR		refrigerant pressure sensor
B1PW		water pressure sensor
CN* (A4P)	*	connector
DS1 (A8P)	*	dipswitch
E1H		backup heater element (1 kW)
E2H		backup heater element (2 kW)
E*P (A9P)		indication LED
F1B	#	overcurrent fuse backup heater
F1T		thermal fuse backup heater
F1U, F2U (A4P)	*	fuse 5 A 250 V for digital I/O PCB
FU1 (A1P)		fuse T 5 A 250 V for PCB
K1A, K2A	*	high voltage smartgrid relay
K1M, K2M		contactor backup heater
K5M		safety contactor BUH
K*R (A1P-A4P)		relay on PCB
M1P		main supply pump
M2P	#	domestic hot water pump
M2S	#	2 way valve for cooling mode
M3S		3 way valve for spaceheating / domestic hot water
P1M		MMI display
PC (A15P)	*	power circuit

Part n°		Description
PHC1 (A4P)	*	optocoupler input circuit
Q1L		thermal protector backup heater
Q4L	#	safety thermostat
Q*DI	#	earth leakage circuit breaker
R1H (A2P)	*	humidity sensor
R1T (A1P)		outlet water heat exchanger thermistor
R1T (A2P)	*	ambient sensor ON/OFF thermostat
R1T (A14P)	*	ambient sensor user interface
R2T (A1P)		outlet backup heater thermistor
R2T (A2P)	*	external sensor (floor or ambient)
R3T		refrigerant liquid side thermistor
R4T		inlet water thermistor
R5T, R8T		domestic hot water thermistor
R6T	*	external indoor or outdoor ambient thermistor
S1S	#	preferential kWh rate PS contact
S2S	#	electrical meter pulse input 1
S3S	#	electrical meter pulse input 2
S4S	#	smartgrid feed-in
S6S-S9S	*	digital power limitation inputs
S10S-S11S	#	low voltage smartgrid contact
SS1 (A4P)	*	selector switch
SW1~2 (A11P)		turn buttons
SW3~5 (A11P)		push button
TR1		power supply transformer
X6M	#	BUH power supply terminal strip
X10M	*	smartgrid power supply terminal strip
X*, X*A, X*H*, X*Y		connector
X*M		terminal strip

* : optional
# : field supply

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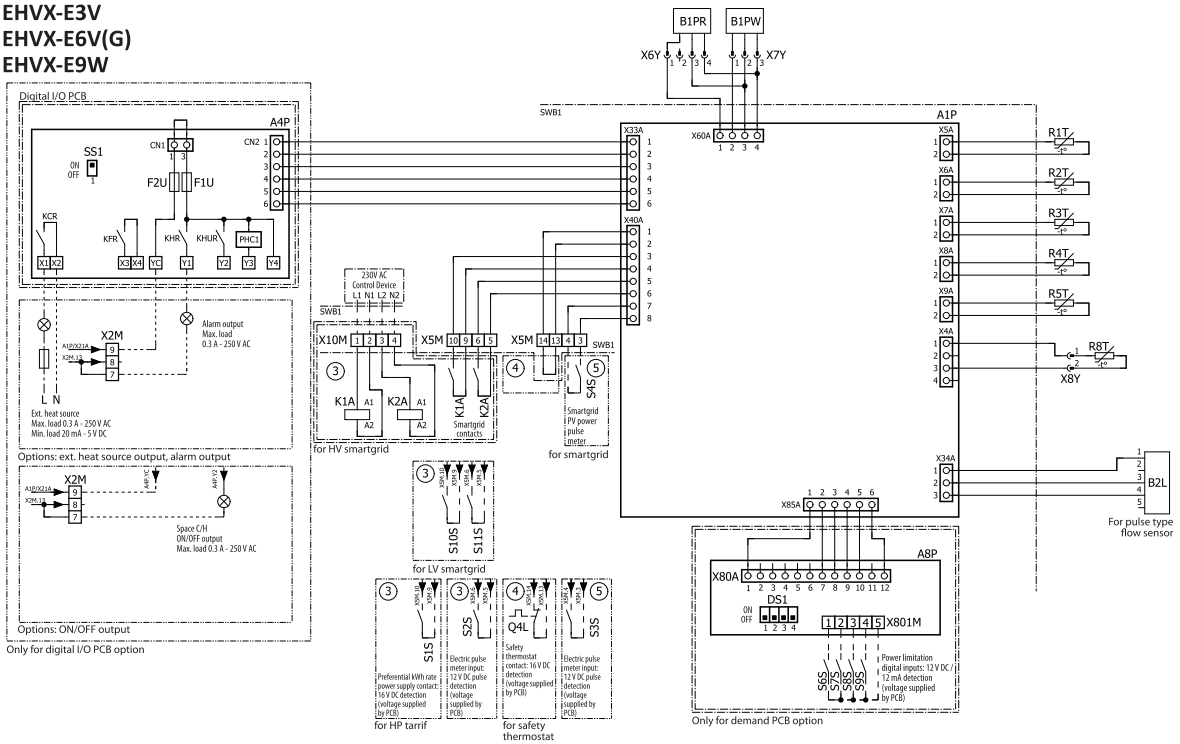
8 Wiring diagrams

8 - 2 Control Circuit

EHVH-E6V
EHVH-E9W
EHVX-E3V
EHVX-E6V(G)
EHVX-E9W



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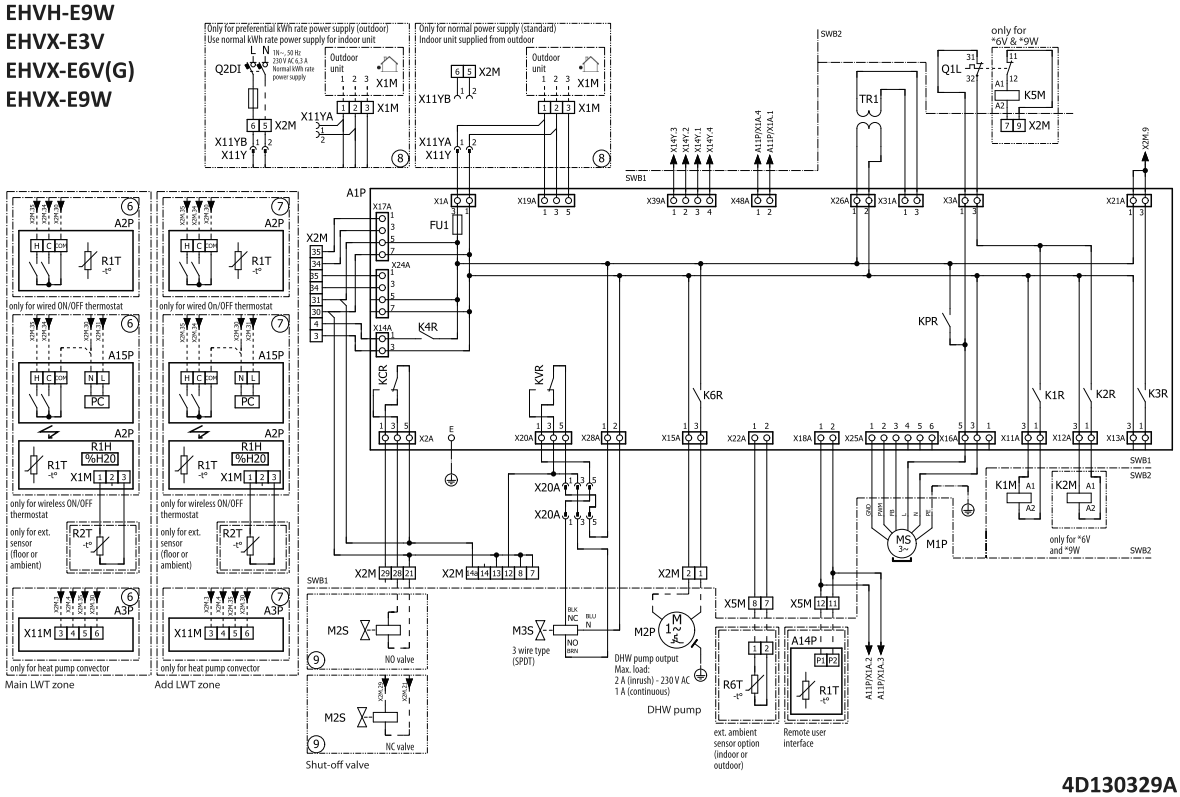
EHVH-E6V
EHVH-E9W
EHVX-E3V
EHVX-E6V(G)
EHVX-E9W



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8 Wiring diagrams

8 - 2 Control Circuit

EHVH-E6V
EHVH-E9W
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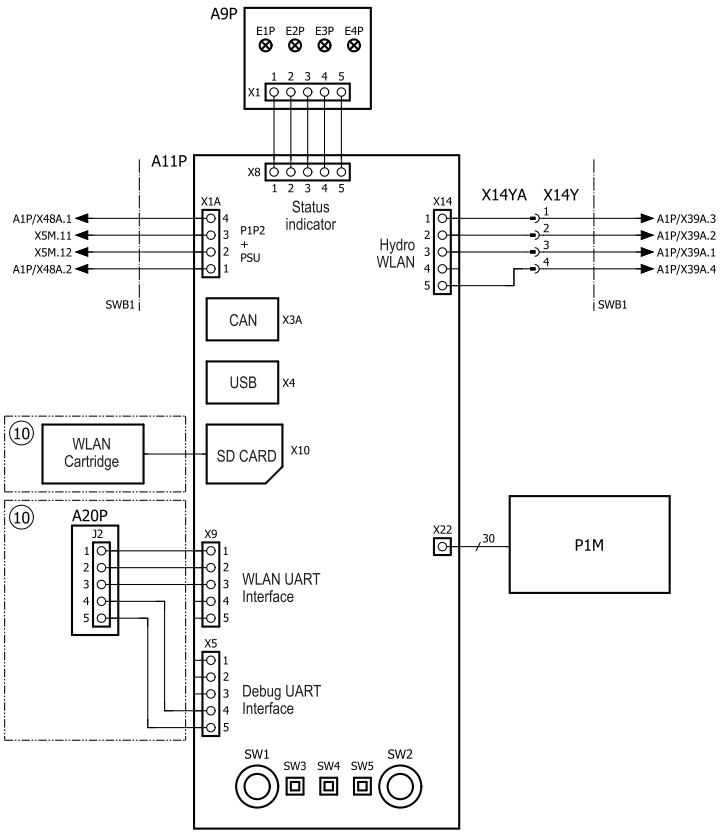

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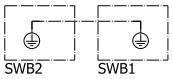
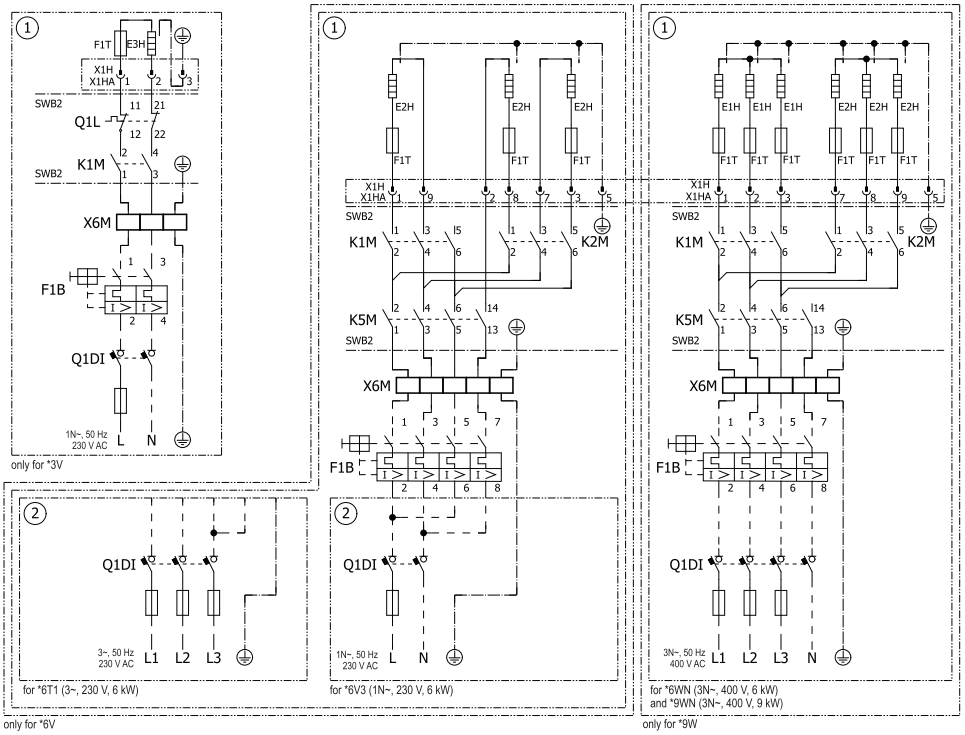
8 Wiring diagrams

8 - 3 Power Supply, Back-up Heater

EHVH-E6V
EHVH-E9W
EHVX-E3V
EHVX-E6V(G)
EHVX-E9W





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