

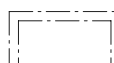
# 8 Wiring diagrams

## 8 - 1 Notes & Legend

EBBH-E6V  
EBBH-E9W  
EBHX-E6V  
EBHX-E9W

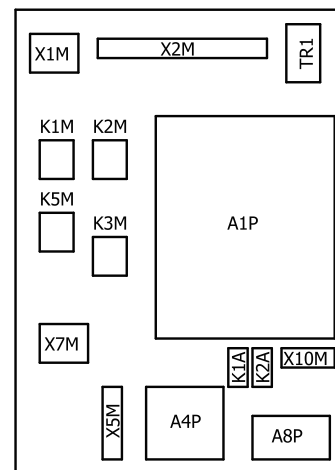
### NOTES to go through before starting the unit

- X1M : Main terminal  
X2M : Field wiring terminal for AC  
X5M : Field wiring terminal for DC  
X6M : BUH Power supply terminal  
X7M, X8M : BSH 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  
User  
installed  
options:

### POSITION IN SWITCH BOX



### NOTES

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

### LEGEND

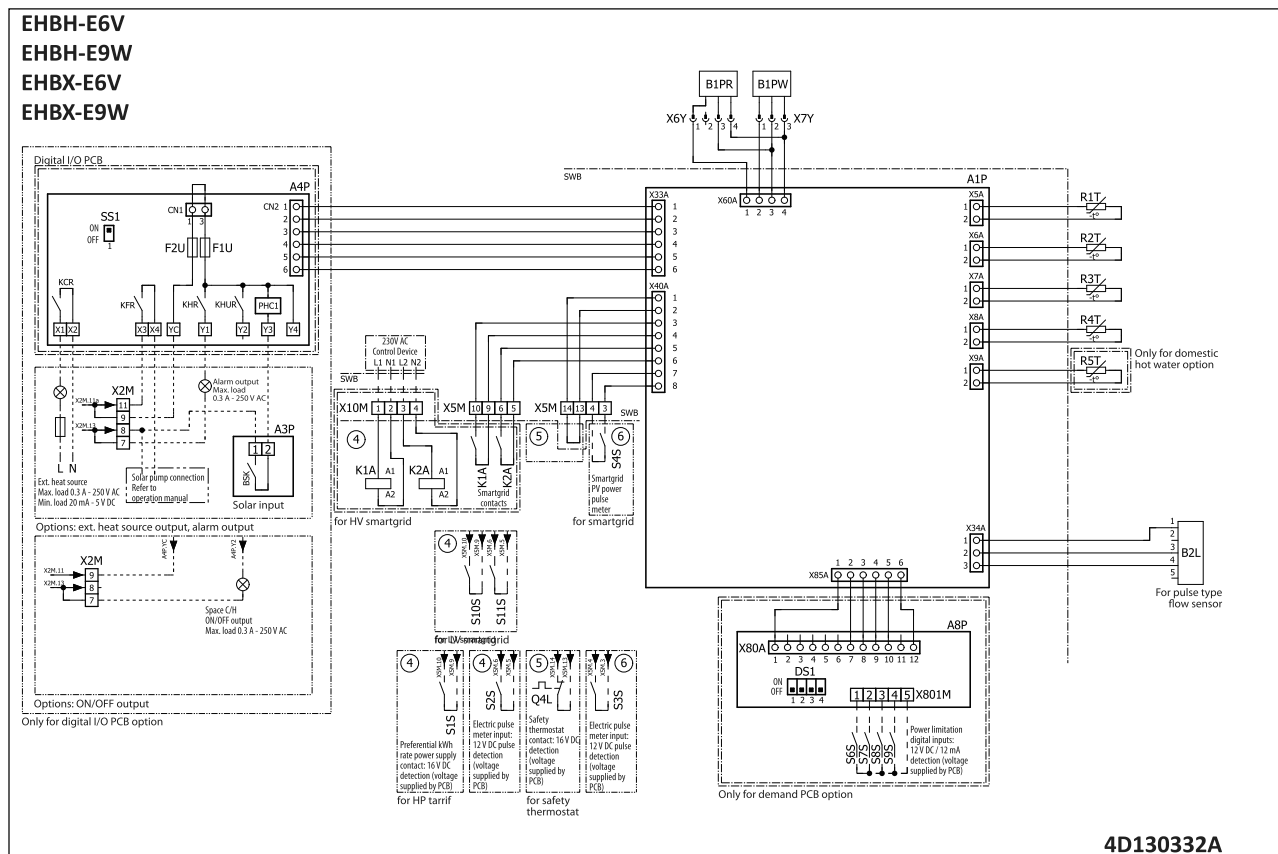
| Part n°        | Description                                          | Part n°            | Description                                     |
|----------------|------------------------------------------------------|--------------------|-------------------------------------------------|
| A1P            | main PCB                                             | P1M                | MMI display                                     |
| A2P            | * ON/OFF thermostat (PC = power circuit)             | PC (A15P)          | * power circuit                                 |
| A3P            | * heat pump convector                                | PHC1 (A4P)         | * optocoupler input circuit                     |
| A4P            | * digital I/O PCB                                    | Q1L                | thermal protector backup heater                 |
| A8P            | * demand PCB                                         | Q2L                | * thermal protector booster heater              |
| A9P            | status indicator                                     | 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            | flow sensor                                          | R1T (A14P)         | * ambient sensor user interface                 |
| B1PR           | refrigerant pressure sensor                          | R2T (A1P)          | outlet backup heater thermistor                 |
| B1PW           | water pressure sensor                                | R2T (A2P)          | * external sensor (floor or ambient)            |
| BSK (A3P)      | solar pump station relay                             | R3T                | refrigerant liquid side thermistor              |
| CN* (A4P)      | * connector                                          | R4T                | inlet water thermistor                          |
| DS1 (A8P)      | * dipswitch                                          | R5T                | * domestic hot water thermistor                 |
| E1H            | backup heater element (1 kW)                         | R6T                | * external indoor or outdoor ambient thermistor |
| E2H            | backup heater element (2 kW)                         | S1S                | # preferential kWh rate PS contact              |
| E4H            | * booster heater (3 kW)                              | S2S                | # electrical meter pulse input 1                |
| E*P (A9P)      | indication LED                                       | S3S                | # electrical meter pulse input 2                |
| F1B            | # overcurrent fuse backup heater                     | S4S                | # smartgrid feed-in                             |
| F2B            | # overcurrent fuse booster 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 6.3 A 250 V for PCB                           | SW1~2 (A12P)       | turn buttons                                    |
| K1A, K2A       | * high voltage smartgrid relay                       | SW3~5 (A12P)       | push button                                     |
| K1M, K2M       | contactor backup heater                              | TR1                | power supply transformer                        |
| K3M            | * contactor booster heater                           | X6M                | # BUH power supply terminal strip               |
| K5M            | safety contactor BUH                                 | X6M                | * BSH power supply connector                    |
| K*R (A1P-A4P)  | relay on PCB                                         | X7M, X8M           | BSH power supply terminal strip                 |
| M1P            | main supply pump                                     | X10M               | * smartgrid power supply terminal strip         |
| M2P            | # domestic hot water pump                            | X*, X*A, X*H*, X*Y | connector                                       |
| M2S            | # 2 way valve for cooling mode                       | X*M                | terminal strip                                  |
| M3S            | * 3 way valve for space heating / domestic hot water |                    |                                                 |

\* : optional  
# : field supply

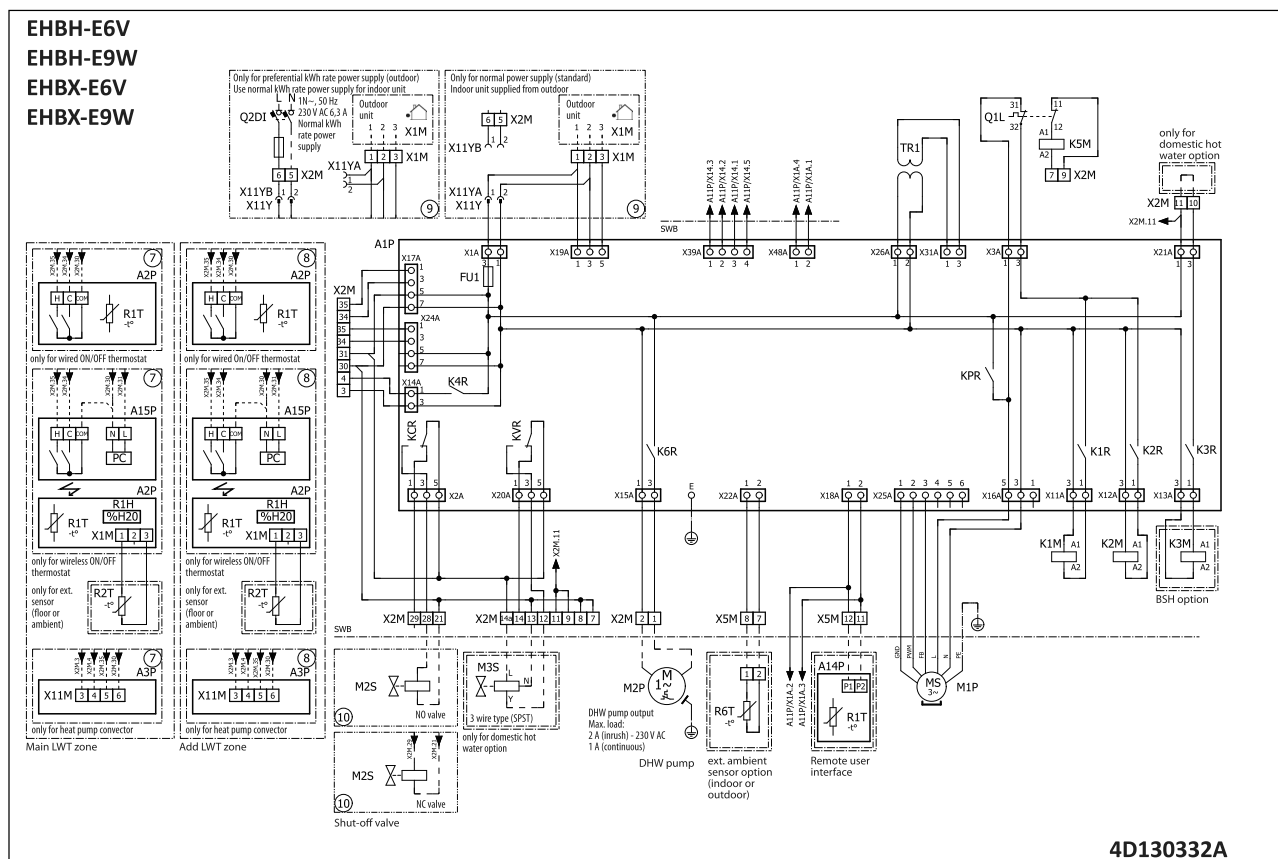
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## 8 - 2 Control Circuit

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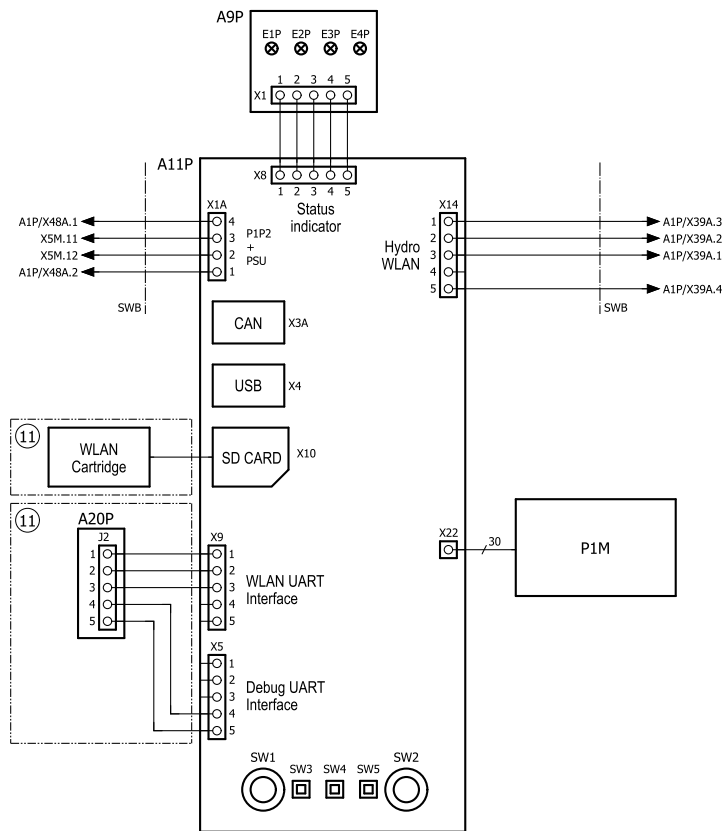


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# 8 Wiring diagrams

## 8 - 2 Control Circuit

EHBH-E6V  
EHBH-E9W  
EHBX-E6V  
EHBX-E9W



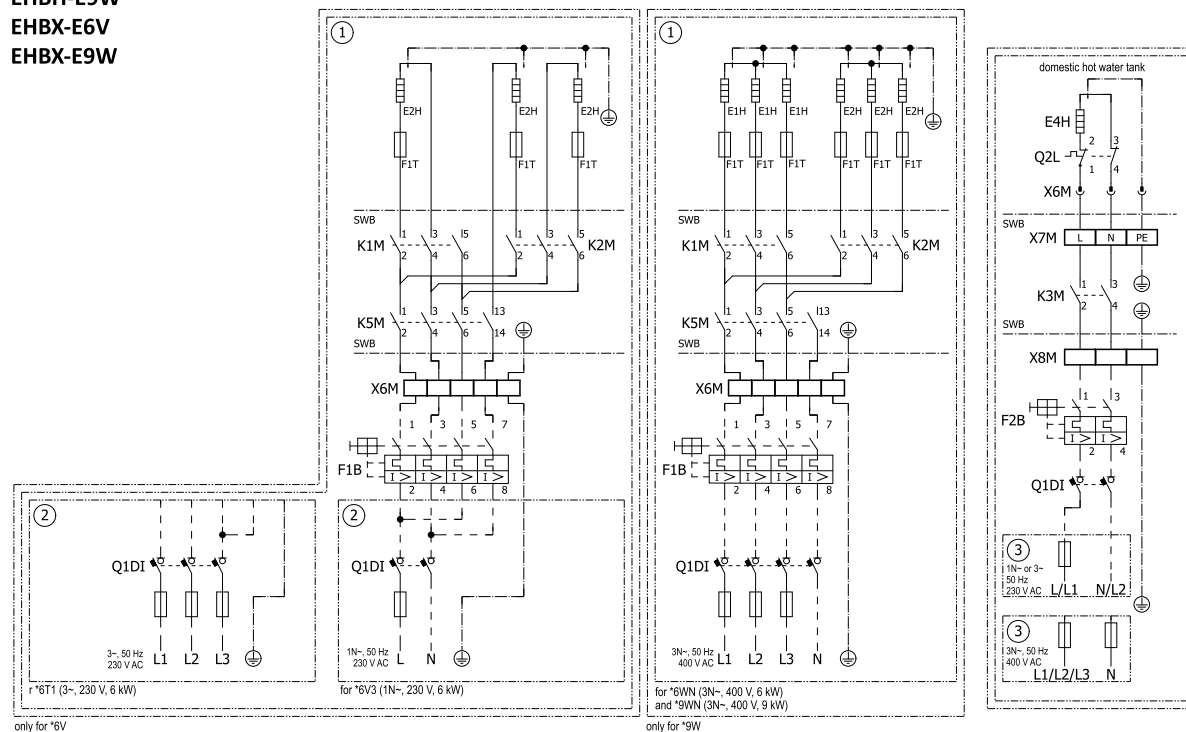
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## 8

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## Power Supply, Back-up Heater

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