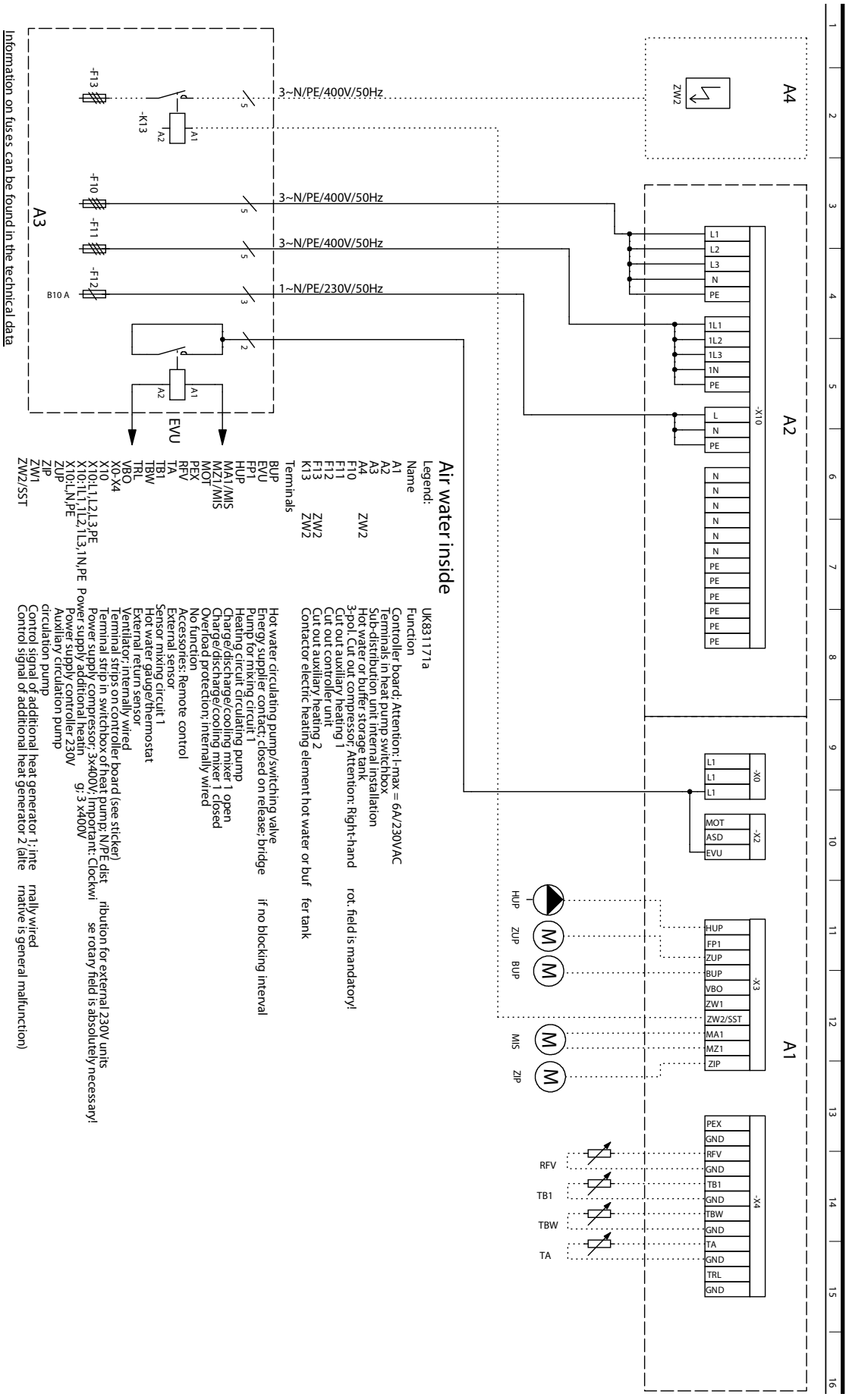
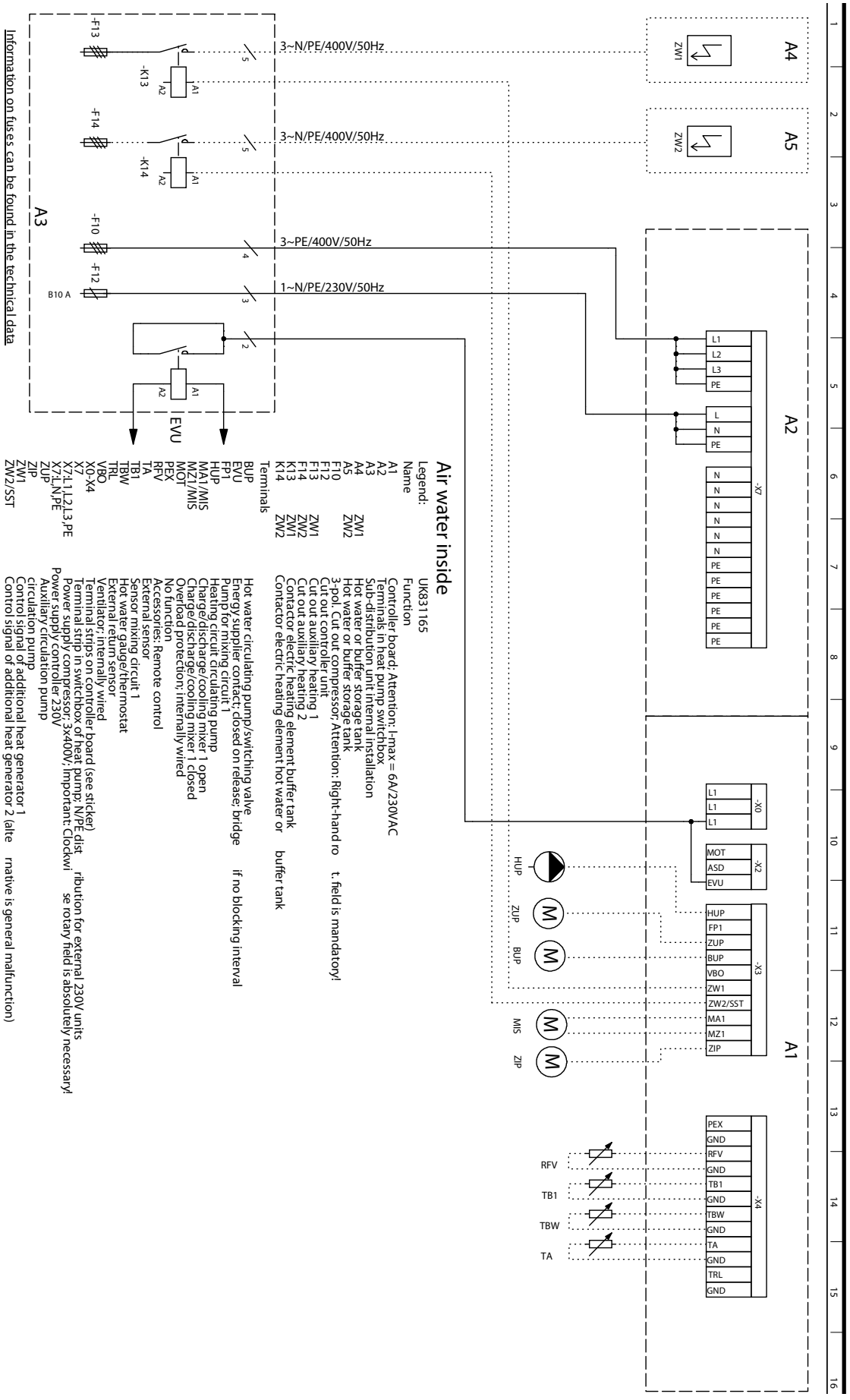
Terminal diagram



Terminal diagram

LW 310(L)

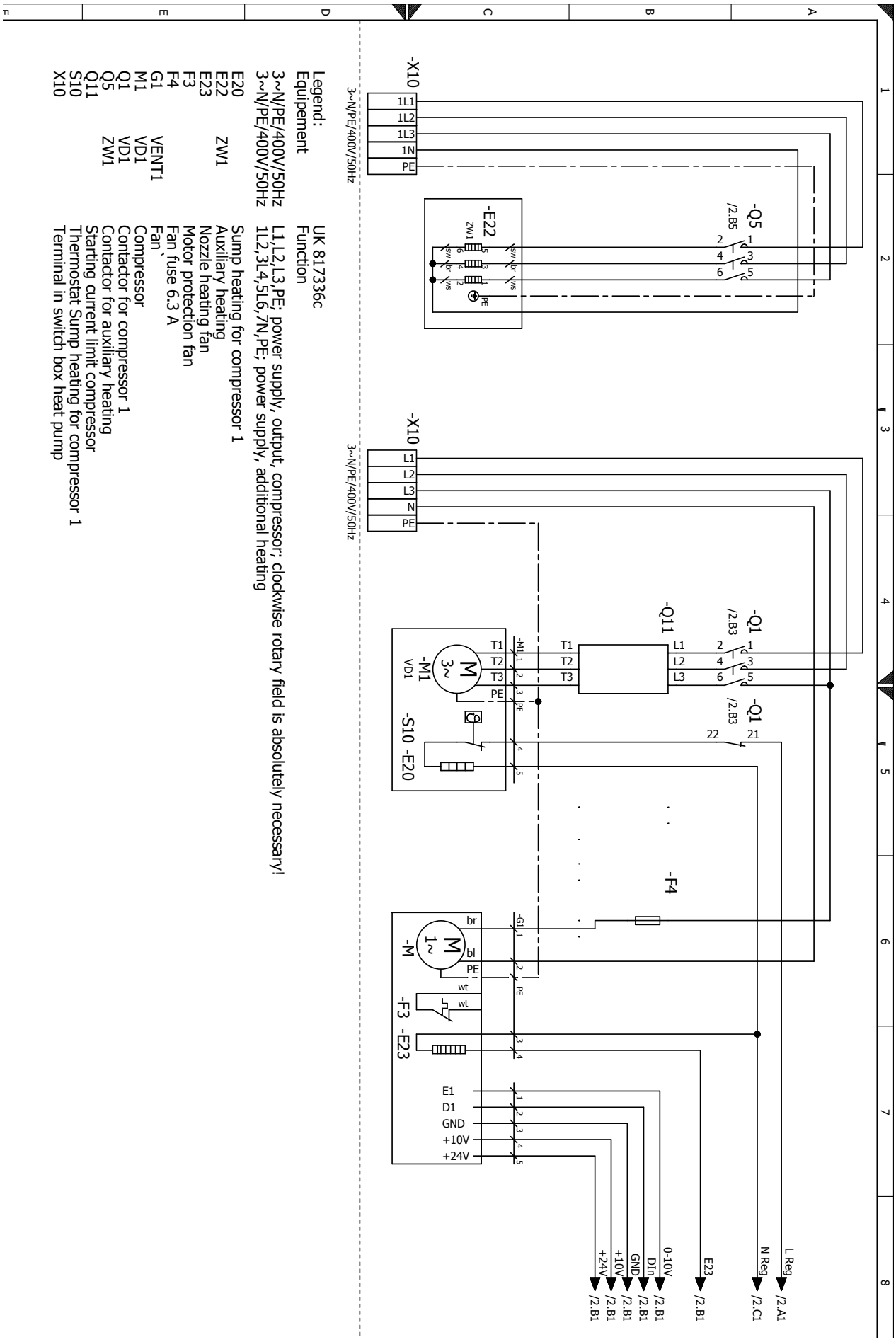


Air water inside

Legend:	UK831165	Function
Name		Controller board; Attention: I-max = 6A/230V/AC
A1		Terminals in heat pump switchbox
A2		Sub-distribution unit internal installation
A3		Hot water or buffer storage tank
A4	ZW1	Hot water or buffer storage tank
A5	ZW2	3-pol. Cut out compressor; Attention: Right-hand ro t. field is mandatory!
F10		Cut out controller unit
F12		Cut out auxiliary heating 1
F13	ZW1	Cut out auxiliary heating 2
F14	ZW2	Contactor electric heating element buffer tank
K13	ZW1	Contactor electric heating element hot water or buffer tank
K14	ZW2	

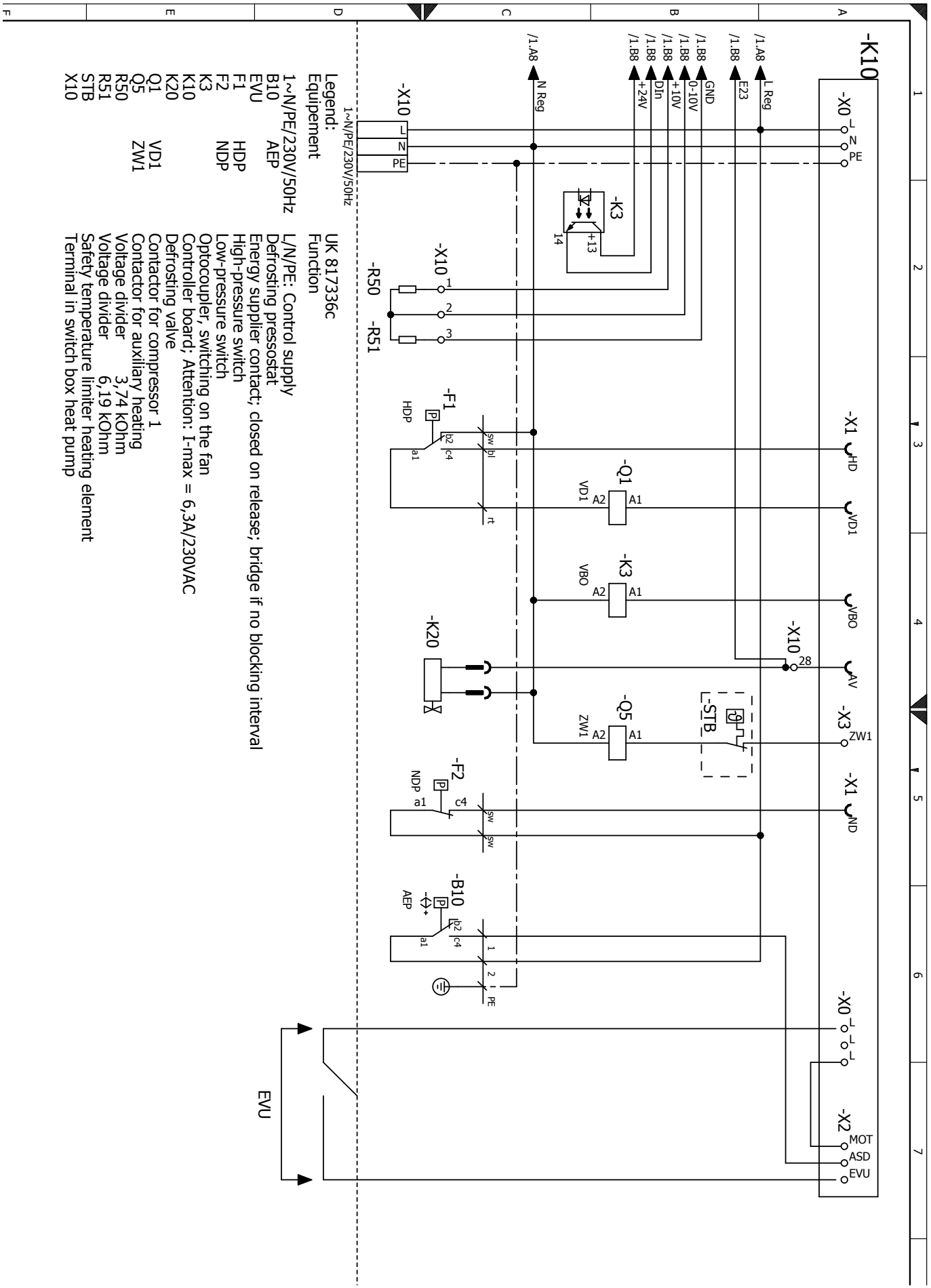
Terminals	
BUP	Hot water circulating pump/switching valve
EVU	Energy supplier contact; closed on release; bridge if no blocking interval
FP1	Pump for mixing circuit 1
HUP	Heating circuit circulating pump
MA1/MIS	Charge/discharge/cooling mixer 1 open
MZ1/MIS	Charge/discharge/cooling mixer 1 closed
MOT	Overload protection; internally wired
PEX	No function
RFV	Accessories: Remote control
TA	External sensor
TB1	Sensor mixing circuit 1
TBW	Hot water gauge/thermostat
TRL	External return sensor
VBO	Ventilator: internally wired
X0-X4	Terminal strips on controller board (see sticker)
X7	Terminal strip in switchbox of heat pump; N/PE distribution for external 230V units
X7:L1,L2,L3,PE	Power supply compressor; 3x400V; important: Clockwise rotary field is absolutely necessary!
X7:L,N,PE	Power supply controller 230V
ZUP	Auxiliary circulation pump
ZIP	circulation pump
ZW1	Control signal of additional heat generator 1
ZW2/SST	Control signal of additional heat generator 2 (alternative is general malfunction)

Circuit diagram 1/3



Circuit diagram 2/3

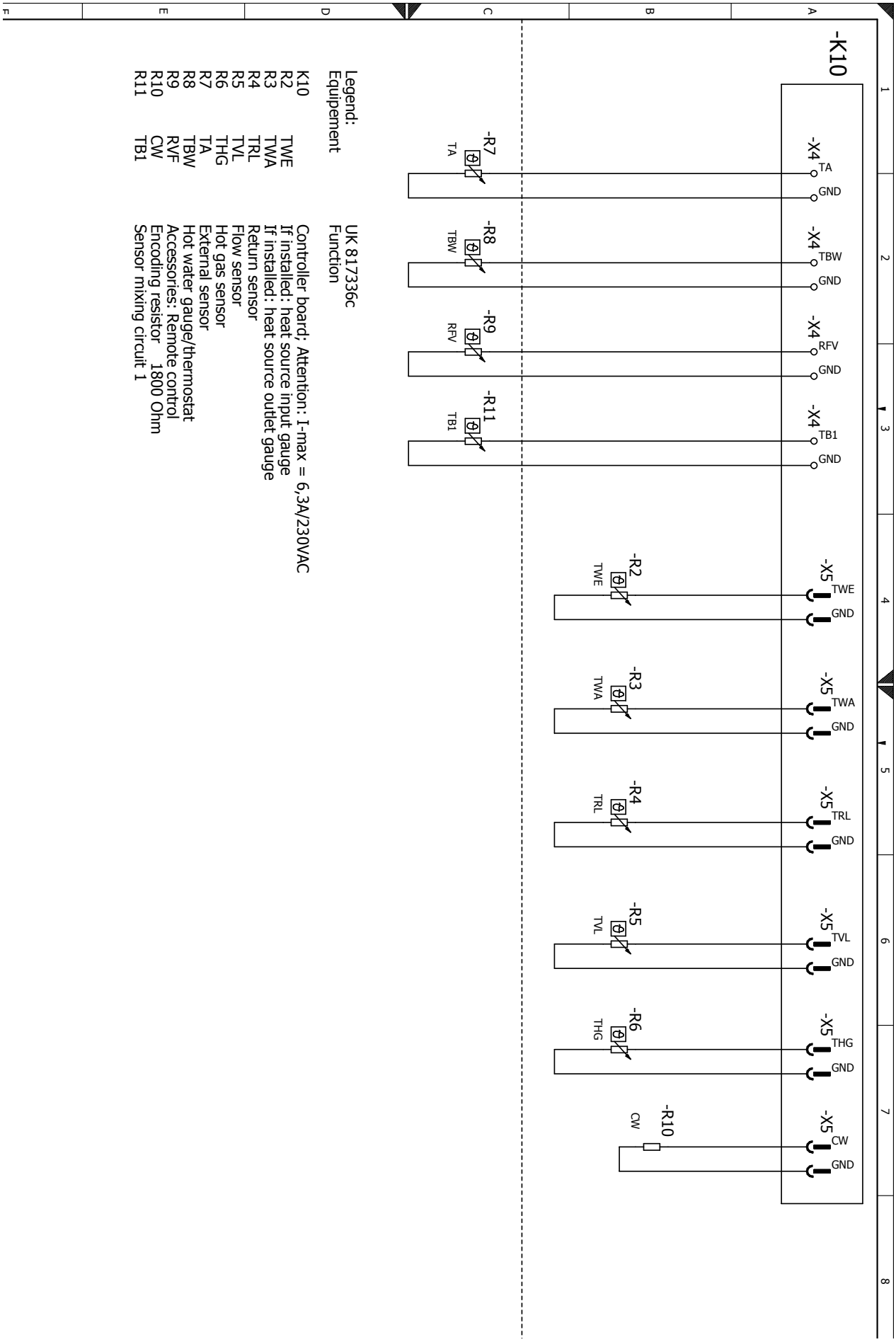
LW 140(L)



Legend:

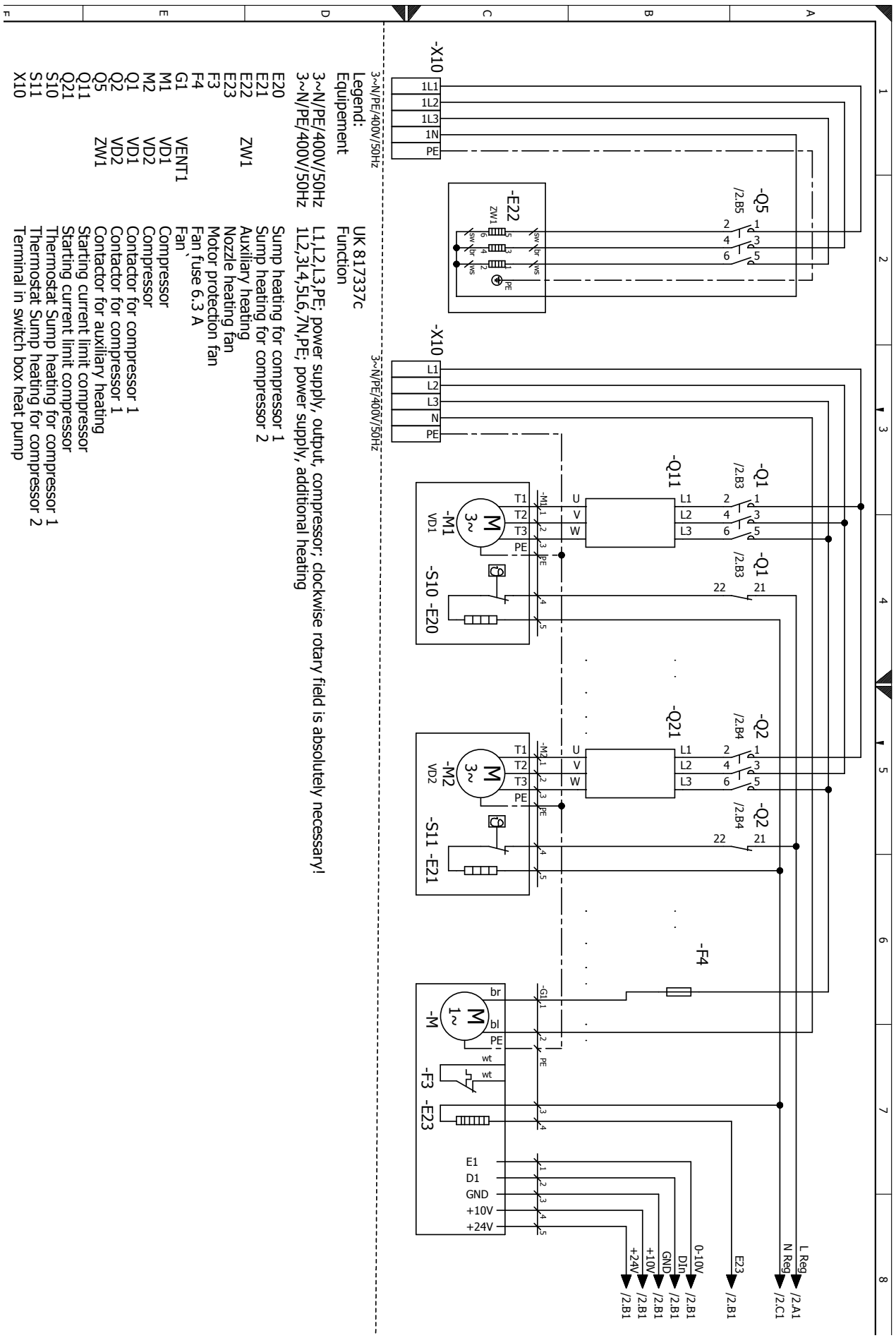
Equipement	Function
1~N/PE/230V/50Hz	L/N/PE: Control supply
B10 AEP	Defrosting pressostat
EVU	Energy supplier contact; closed on release; bridge if no blocking interval
F1 HDP	High-pressure switch
F2 NDP	Low-pressure switch
K3	Optocoupler, switching on the fan
K10	Controller board; Attention: I-max = 6,3A/230VAC
K20	Defrosting valve
Q1 VD1	Contactor for compressor 1
Q5 ZW1	Contactor for auxiliary heating
R50	Voltage divider 3,74 kOhm
R51	Voltage divider 6,19 kOhm
STB	Safety temperature limiter heating element
X10	Terminal in switch box heat pump

Circuit diagram 3/3

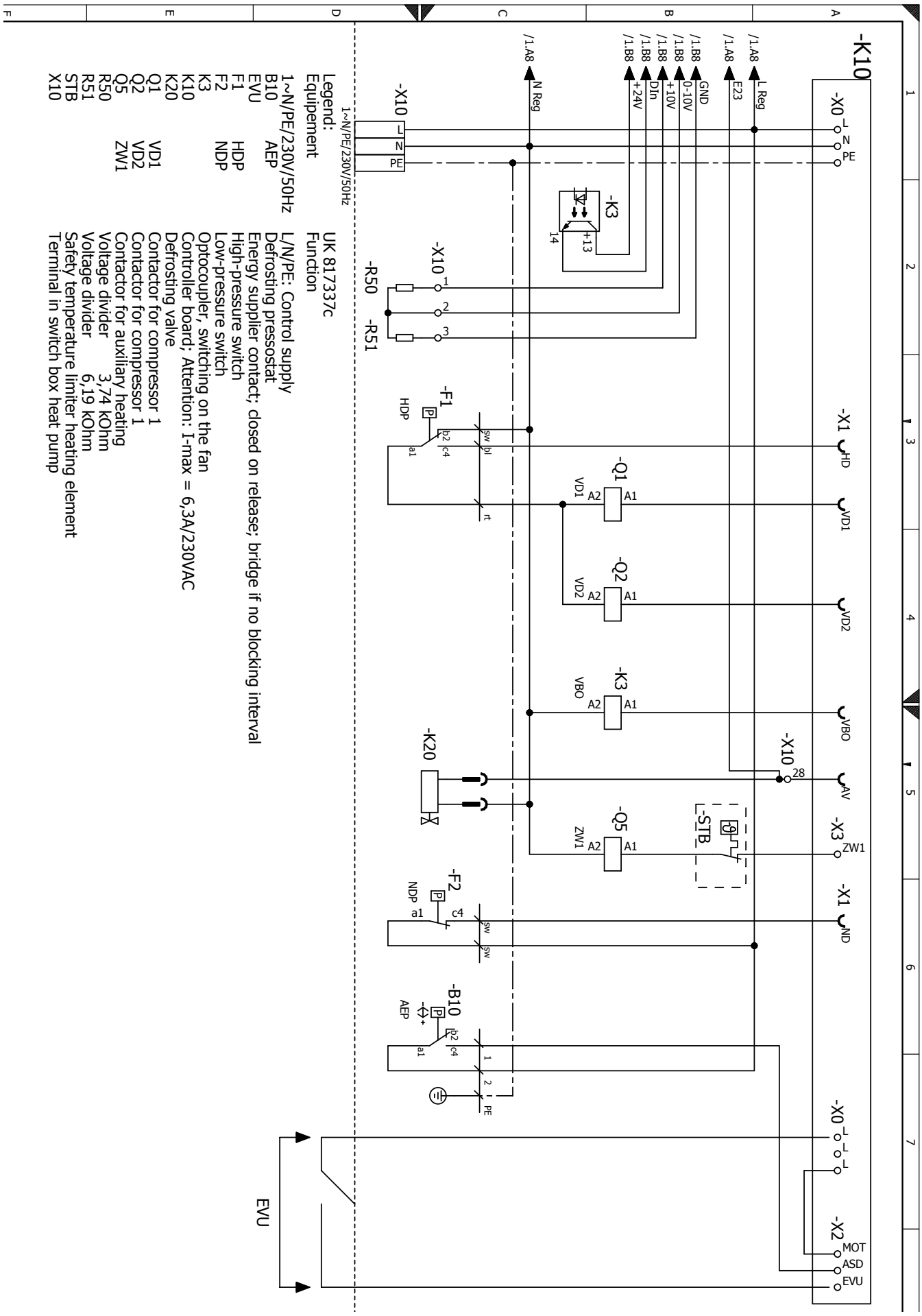


Circuit diagram 1/3

LW 180(L)

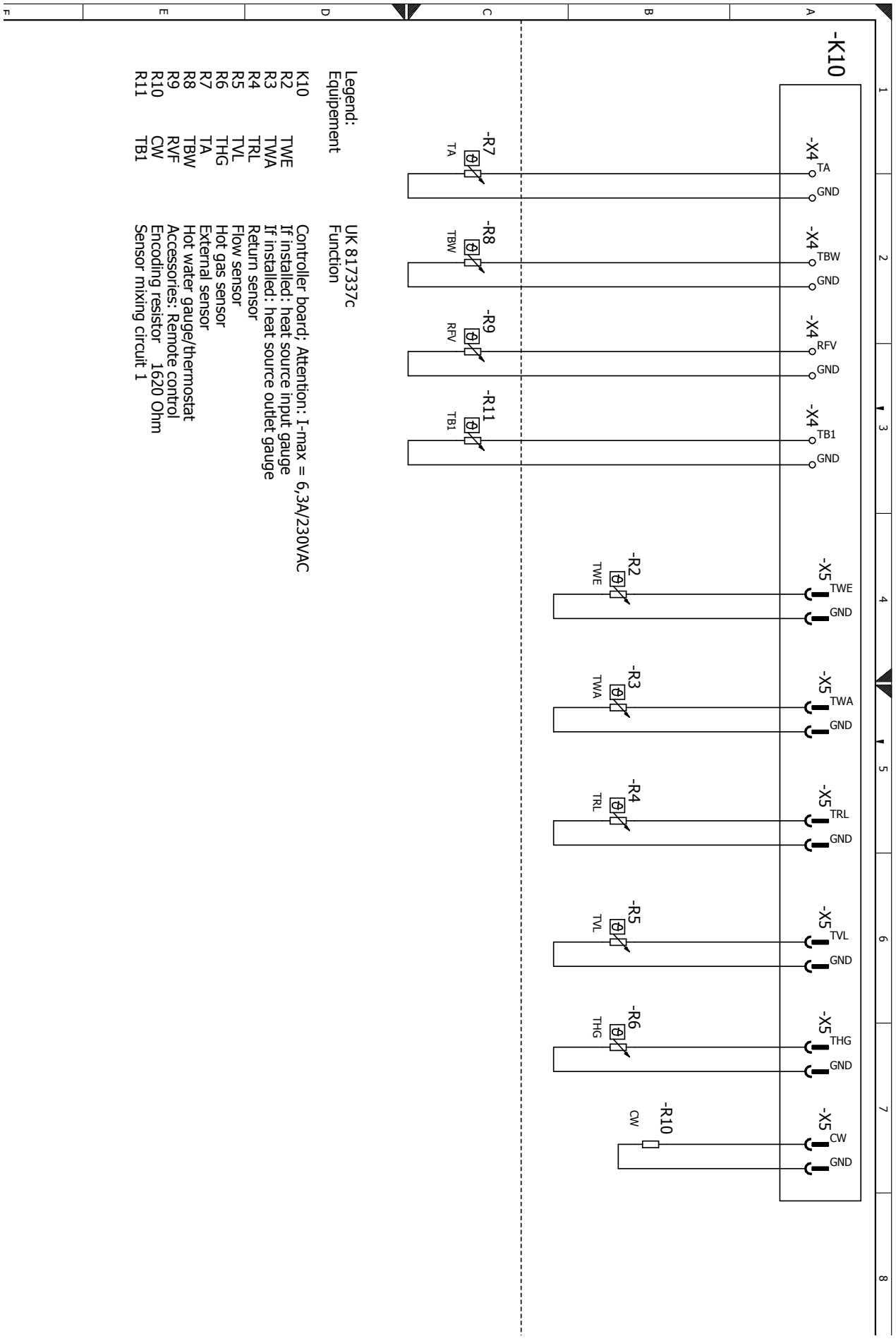


Circuit diagram 2/3

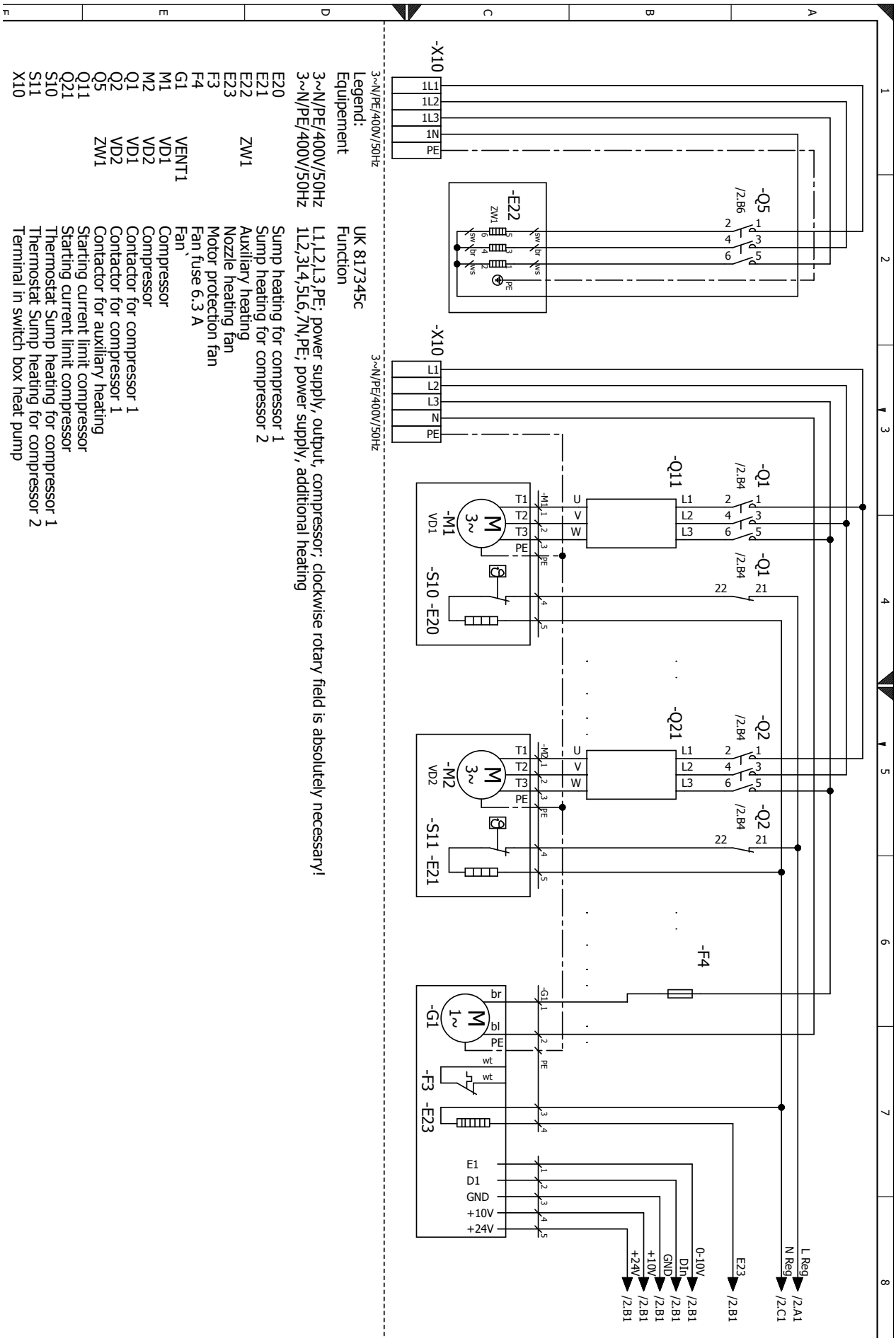


Circuit diagram 3/3

LW 180(L)

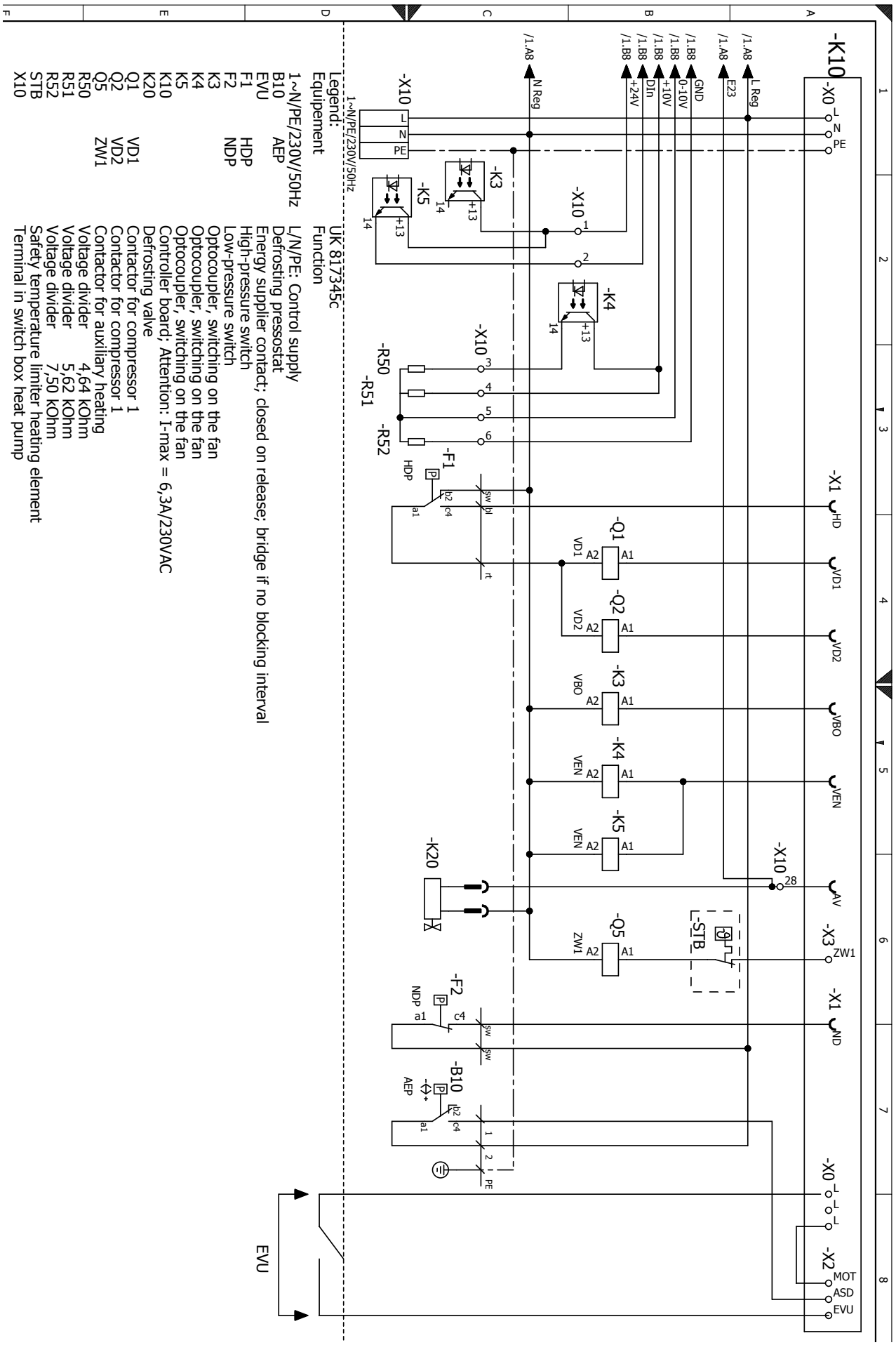


Circuit diagram 1/3

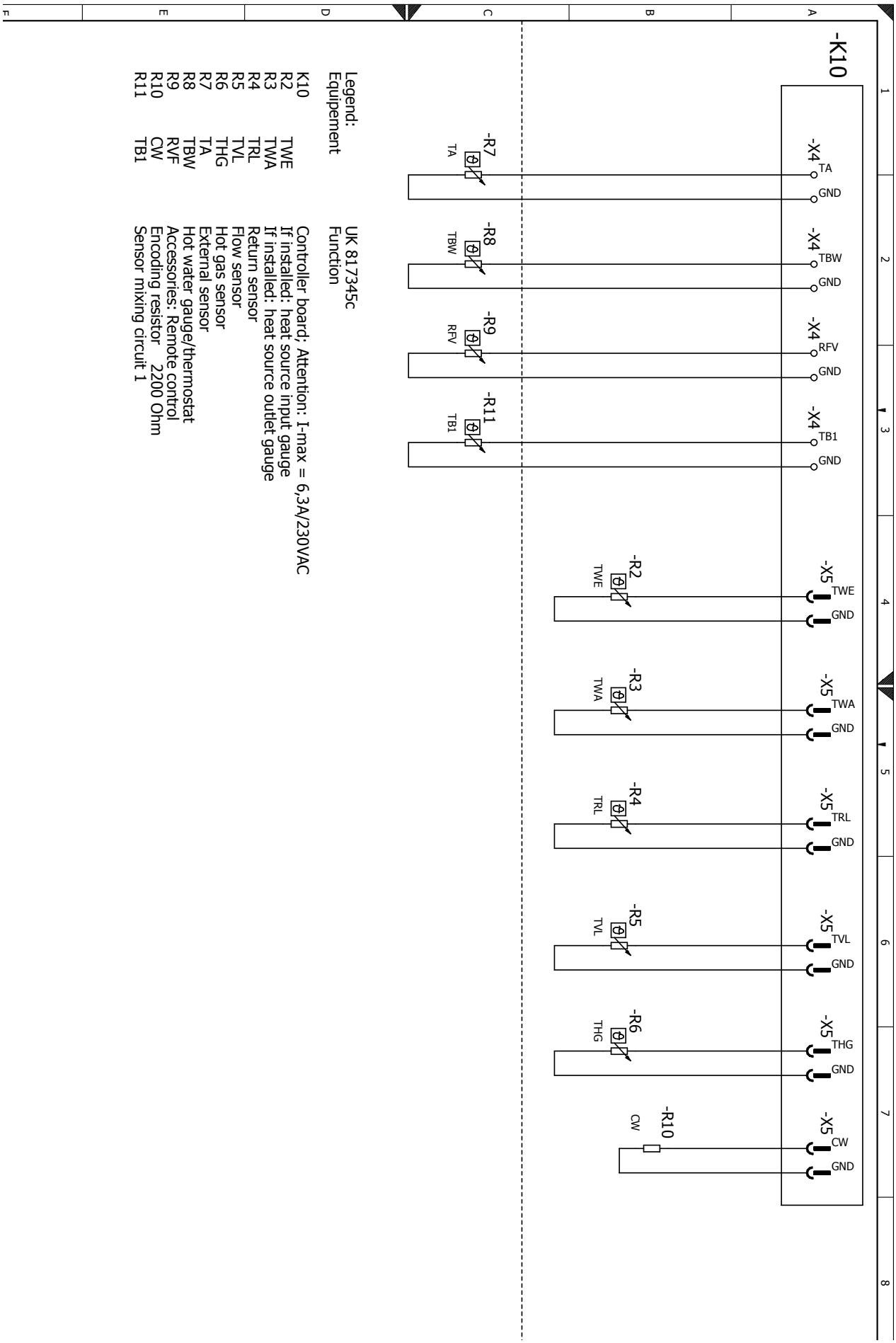


Circuit diagram 2/3

LW 251(L)

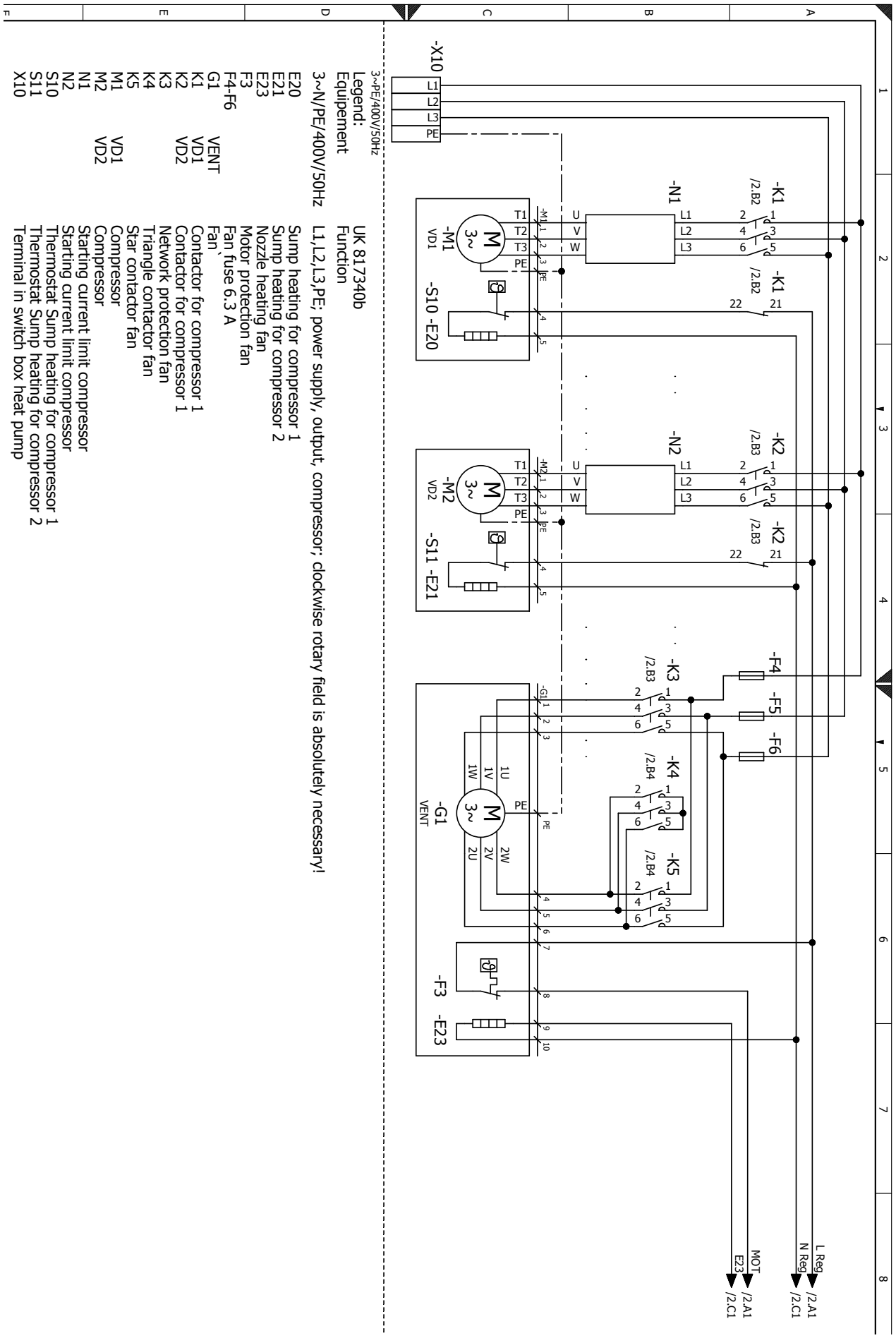


Circuit diagram 3/3

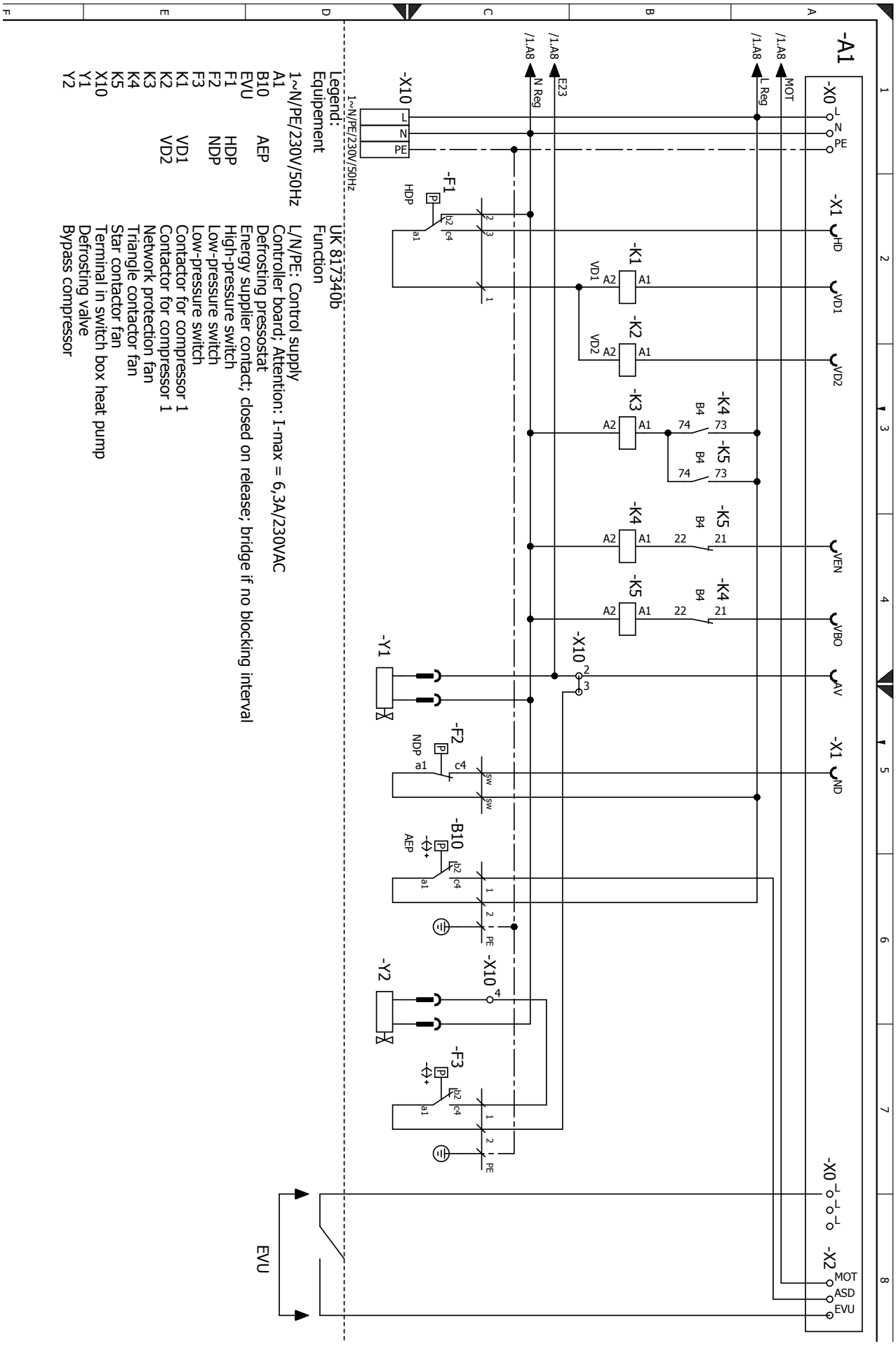


Circuit diagram 1/3

LW 310(L)



Circuit diagram 2/3



Circuit diagram 3/3

LW 310(L)