

*DOSSIER ELECTRIQUE
ELECTRICAL FILE*



WA 270D K SLN

Name / Name

Date: / Date
20/07/2006

SE133848

1/
21

CARACTERISTIQUES MACHINE			
MACHINE CHARACTERISTICS			
400 V	Pmax (kW)	Imax (A)	Idem (A)
	133.00	221.00	341.00
3.50Hz			

**CARACTERISTIQUES MOTEURS
MOTOR CHARACTERISTICS**

REPERE MARKER	DESIGNATION	DESIGNATION	REFERENCE REFERENCE	Pabs. (kW)	Inom. (A)
M1	Compresseur	Compressor motor	ZR310	28.68	46.61
M2	Compresseur	Compressor motor	ZR380	35.24	58.52
M3	Compresseur	Compressor motor	ZR310	28.68	46.61
M4	Compresseur	Compressor motor	ZR380	35.24	58.52
M31	Ventilateur	Fan motor	ZA_680	0.42	0.94
M32	Ventilateur	Fan motor	ZA_680	0.42	0.94
M33	Ventilateur	Fan motor	ZA_680	0.42	0.94
M34	Ventilateur	Fan motor	ZA_680	0.42	0.94
M35	Ventilateur	Fan motor	ZA_680	0.42	0.94
M36	Ventilateur	Fan motor	ZA_680	0.42	0.94
M37	Ventilateur	Fan motor	ZA_680	0.42	0.94
M38	Ventilateur	Fan motor	ZA_680	0.42	0.94

0	1	2	3	4	5	6	7	8	9
EHI1-->9	Résistance carter Crankcase heater		R	Résistances triphasée 3 phase heater		SP1111-->115	Pressostat HP BP combiné HP LP combined switch		
EHI1-->15	Résistance bouteille Receiver heater		RC	Circuits RC RC circuit		ST11-->15	Thermostat de commande résistances bouteille Receiver control thermostat		
EHI6-->25	Résistance évaporateur Evaporator heater		RT	Sondes ou Capteurs Temperature or pressure sensor		ST16-->25	Thermostat de commande résistances évaporateur Evaporator resistance control thermostat		
EH26-->35	Résistance condenseur Condenser heater		RTTEA	Température d'entrée d'air Air inlet temperature		ST126-->30	Thermostat de commande résistances condenseur Condenser resistance control thermostat		
EH90-->100	Résistances diverses Various heaters		RTTEEG	Température d'entrée d'eau glacée Water inlet temperature		ST56-->65	Thermostat de surchauffe Overheat thermostat		
EH101	Résistance armoire Electrical panel heater		RTTEEG	Température de sortie d'eau glacée Water outlet temperature		ST166-->70	Thermostat de commande ventilateur armoire Electrical panel fan control thermostat		
FR91-->99	Protection moteur compresseur Solid state motor protection		RTTREF	Température de refoulement Discharge temperature		ST71-->75	Thermostat de dégivrage Defrost thermostat		
FU90	Fusibles divers Various fuses		RTTASP	Température d'aspiration Suction temperature		ST76-->85	Thermostat antiigel Antifreeze thermostat		
HA	Signalisation sonore Sound signal		RTTBP	Température d'évaporation Evaporating temperature		ST90-->100	Thermostat divers Various thermostat		
HL01	Voyant défaut général General fault light		SA90.	Interrupteurs divers Various switches		V	Diode Diode		
HL1-->9	Voyant marche compresseur Compressor operating light		SB90.	Boutons poussoirs divers Various push buttons		VOP1	Optocoupleur Optoelectronic coupler		
HL11-->20	Voyant marche ventilateur Fan running light signal		SD1	Contrôleur de débit Flow switch		XB	Barrette sectionnable Isolator link		
HL25-->29	Voyant défaut pompe Pump fault light signal		SL1-->5	Contrôleur de niveau d'eau Water Level controller		XS90	Prise de courant plug		
HL30	Voyant sous tension Voltage ON light signal		SL16-->20	Contrôleur de niveau d'huile Oil level controller		YP1-->5	Détendeur électronique Electronic expansion valve		
HL31-->39	Voyant arrêt contrôle Control shutdown light signal		SP1-->9	Pressostat HP sécurité HP pressure switch		YV1-->5	Electrovanne liquide liquid line solenoid valve		
HL41-->49	Voyant arrêt sécurité Safety shutdown light signal		SP11-->15	Pressostat BP sécurité BP pressure switch		YV6-->15	Electrovanne réduction de puissance compresseur Compressor capacity reduction solenoid valve		
HL51-->60	Voyant défaut ventilateur Fan shutdown light signal		SP16-->25	Pressostat d'huile Oil pressure switch		YV16-->20	Electrovanne injection de liquide Liquid injection solenoid valve		
HL65-->69	Voyant marche pompe Pump operation light		SP26-->30	Pressostat BP antiigel Antifreeze LP pressure switch		YV21-->25	Electrovanne économiseur Economizer solenoid valve		
HL90	Voyant divers Various light signal		SP31-->50	Pressostat HP de commande ventilateur Fan control HP pressure switch		YV26-->35	Electrovanne by-pass compresseur Compressor by-pass solenoid valve		
KA50-->75	Relais divers Various relays		SP51-->55	Pressostat HP de commande résistance bouteille Receiver heater HP pressure switch		YV36-->40	Electrovanne gaz chauds pressostatique Pressure control hot gas solenoid valve		
KM90	Contacteurs divers Various contactors		SP56-->60	Pressostat HP de commande vanne décharge bouteille Discharge valve HP pressure switch		YV41-->45	Electrovanne gaz chauds thermostatique Thermostatic hot gas solenoid valve		
KT90	Relais temporisés divers Various time delayed relays		SP61-->65	Pressostat HP de commande de délestage Overload control HP pressure switch		YV61-->70	Electrovanne inversion de cycle 4 way reversing solenoid valve		
M111	Ventilateur de classe compresseur Compressor cylinder head fan		SP71-->75	Pressostat de commande by-pass détenteur Expansion valve by-pass control pressure switch		YV71-->75	Electrovanne by-pass détenteur Thermostatic expansion valve by-pass solenoid valve		
P1	Afficheur Display		SP90-->110	Pressostats divers Various pressure switch		YV90	Electrovanne diverses Various solenoid valves		

SE133848

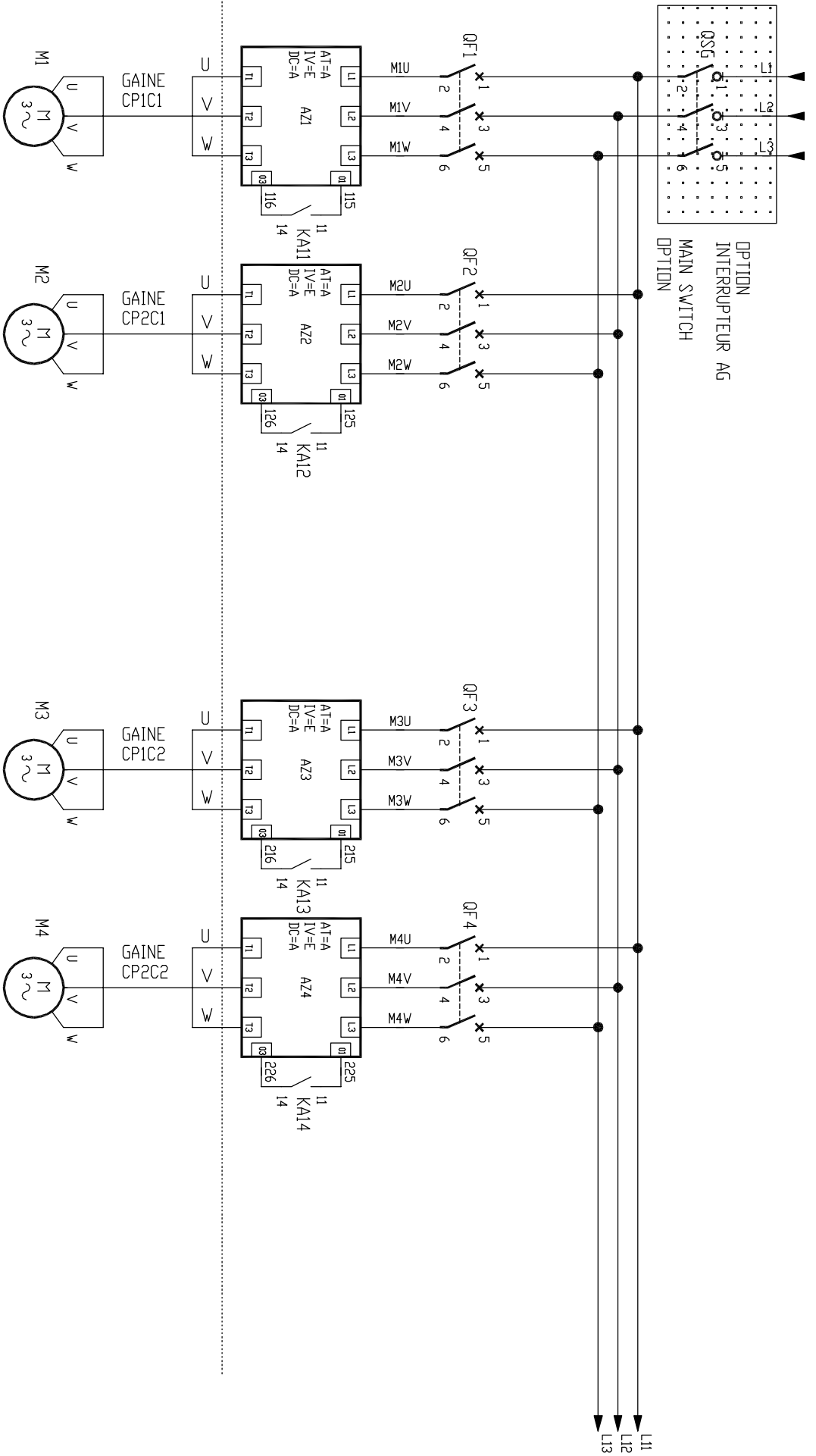
SCHEMA ELECTRIQUE

0	1	2	3	4	5	6	7	8	9
EH1-->9	Crankcase heater		R	3 phase heater		SP111-->115	HP LP combined switch		
EH11-->15	Receiver heater		RC	RC circuit		ST11-->15	Receiver control thermostat		
EH16-->25	Evaporator heater		RT	Temperature or pressure sensor		ST16-->25	Evaporator resistance control thermostat		
EH26-->35	Condenser heater		RTTEA	Air inlet temperature		ST126-->30	Condenser resistance control thermostat		
EH90-->100	Various heaters		RTTEEG	Water inlet temperature		ST56-->65	Overheat thermostat		
EH101	Electrical panel heater		RTTSEG	Water outlet temperature		ST166-->70	Electrical panel fan control thermostat		
FR91-->99	Solid state motor protection		RTTREF	Discharge temperature		ST71-->75	Defrost thermostat		
FU90	Various fuses		RTTASP	Suction temperature		ST76-->85	Antifreeze thermostat		
HA	Sound signal		RTTBP	Evaporating temperature		ST90-->100	Various thermostat		
HL01	General fault light		SA90.	Various switches		V	Diode		
HL1-->9	Compressor operating light		SB90.	Various push buttons		V0PT	Optoelectronic coupler		
HL11-->20	Fan running light signal		SD1	Flow switch		XB	Isolator link		
HL25-->29	Pump fault light signal		SL1-->5	Water level controller		XS90	plug		
HL30	Voltage ON light signal		SL16-->20	Oil level controller		YP1-->5	Electronic expansion valve		
HL31-->39	Control shutdown light signal		SP1-->9	HP pressure switch		YV1-->5	liquid line solenoid valve		
HL41-->49	Safety shutdown light signal		SP11-->15	BP pressure switch		YV6-->15	Compressor capacity reduction solenoid valve		
HL51-->60	Fan shutdown light signal		SP16-->25	Oil pressure switch		YV16-->20	Liquid injection solenoid valve		
HL65-->69	Pump operation light		SP26-->30	Antifreeze LP pressure switch		YV21-->25	Economizer solenoid valve		
HL90	Various light signal		SP31-->50	Fan control HP pressure switch		YV26-->35	Compressor by-pass solenoid valve		
KA50-->75	Various relays		SP51-->55	Receiver heater HP pressure switch		YV36-->40	Pressure control hot gas solenoid valve		
KM90	Various contactors		SP56-->60	Discharge valve HP pressure switch		YV41-->45	Thermostatic hot gas solenoid valve		
KT90	Various time delayed relays		SP61-->65	Overload control HP pressure switch		YV61-->70	4 way reversing solenoid valve		
M111	Compressor cylinder head fan		SP71-->75	Expansion valve by-pass control pressure switch		YV71-->75	Thermostatic expansion valve by-pass solenoid valve		
P1	Display		SP90-->110	Various pressure switch		YV90	Various solenoid valves		

SE133848

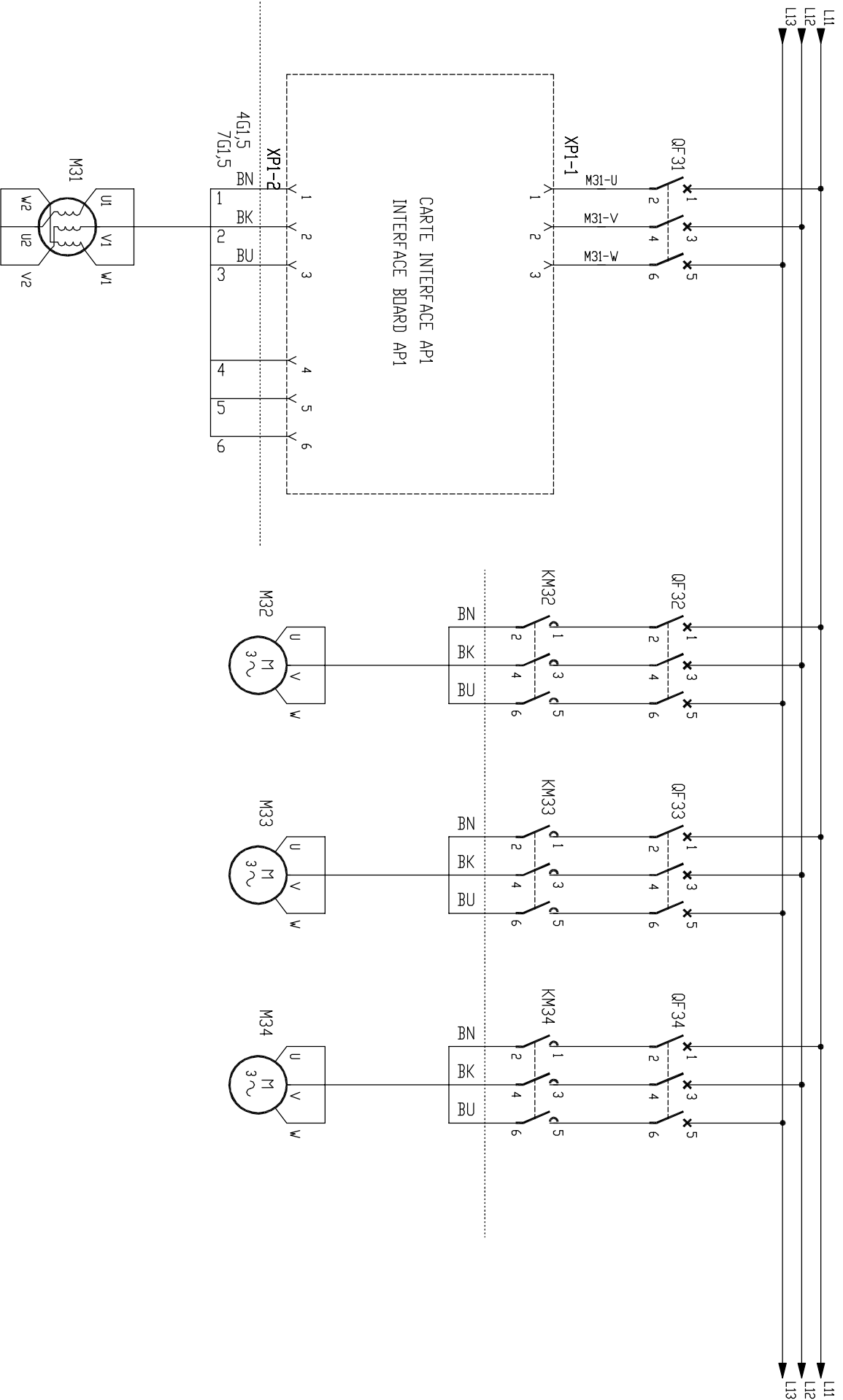
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0 1 2 3 4 5 6 7 8 9



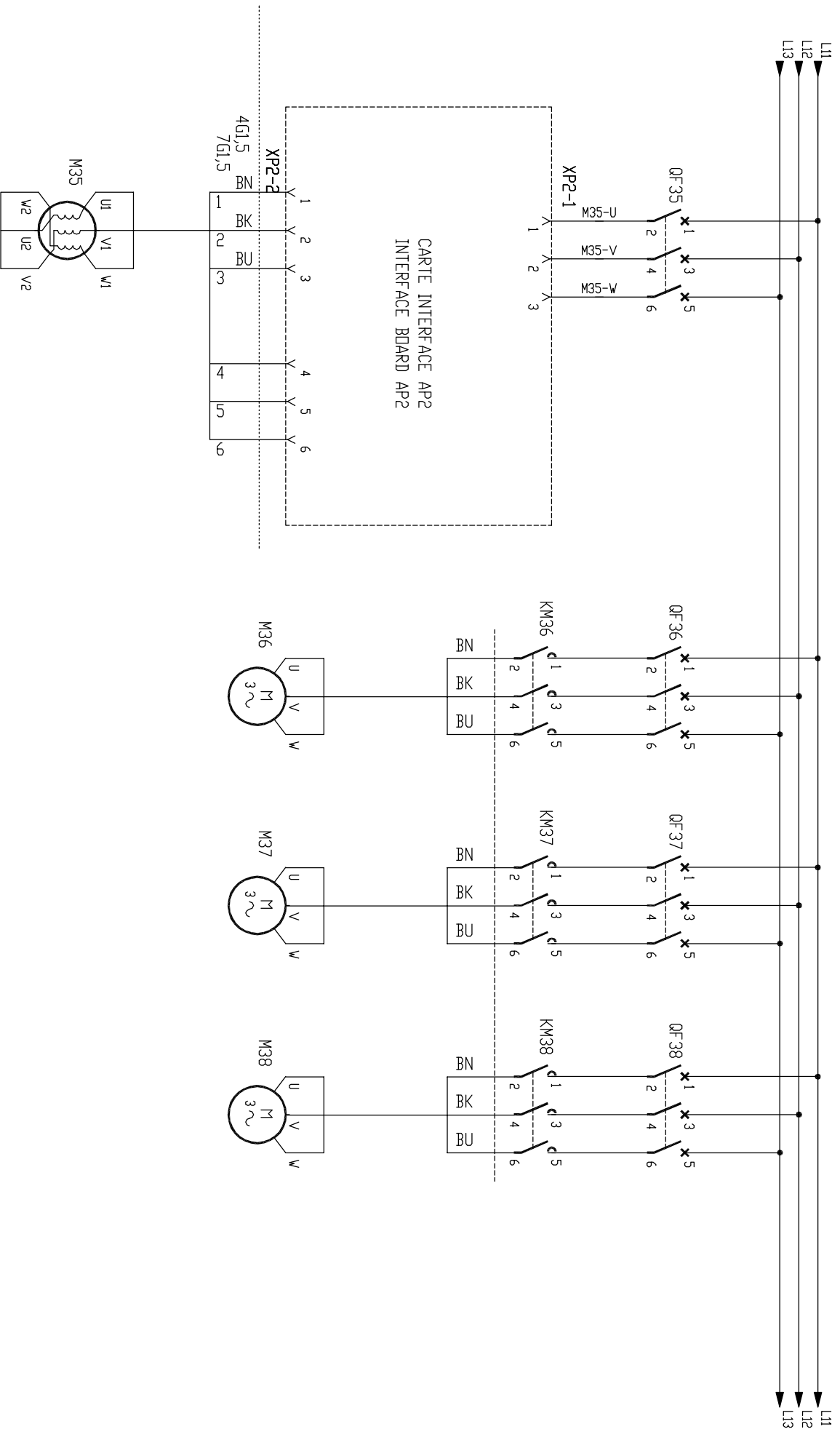
FOR SOFTSTARTER ATSOIN2220N AND ATSOIN2320N
 POUR LES ATSOIN2220N ET ATSOIN2320N
 BORNE 01 = L1+
 BORNE 03 = L12

SCHEMA ELECTRIQUE



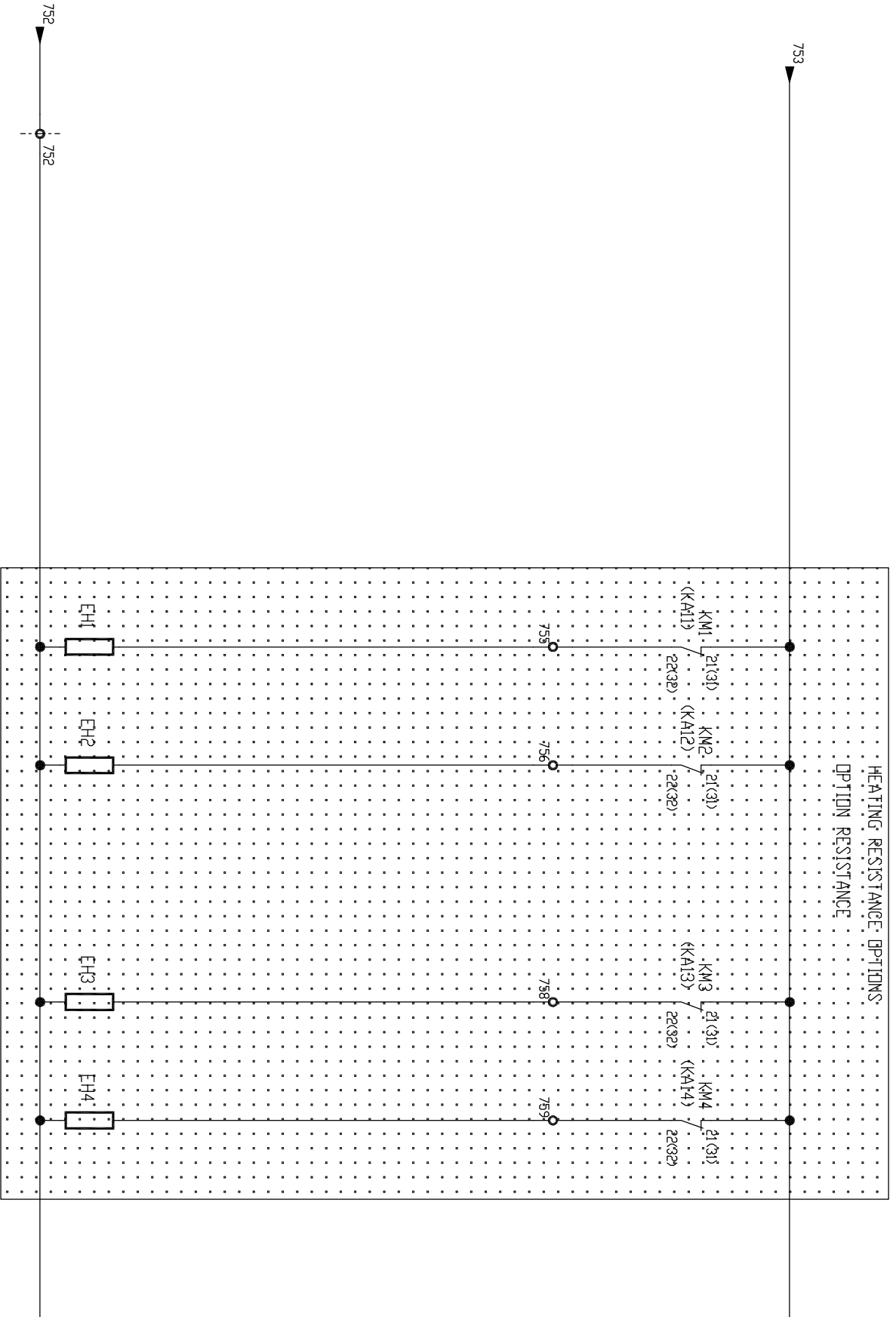
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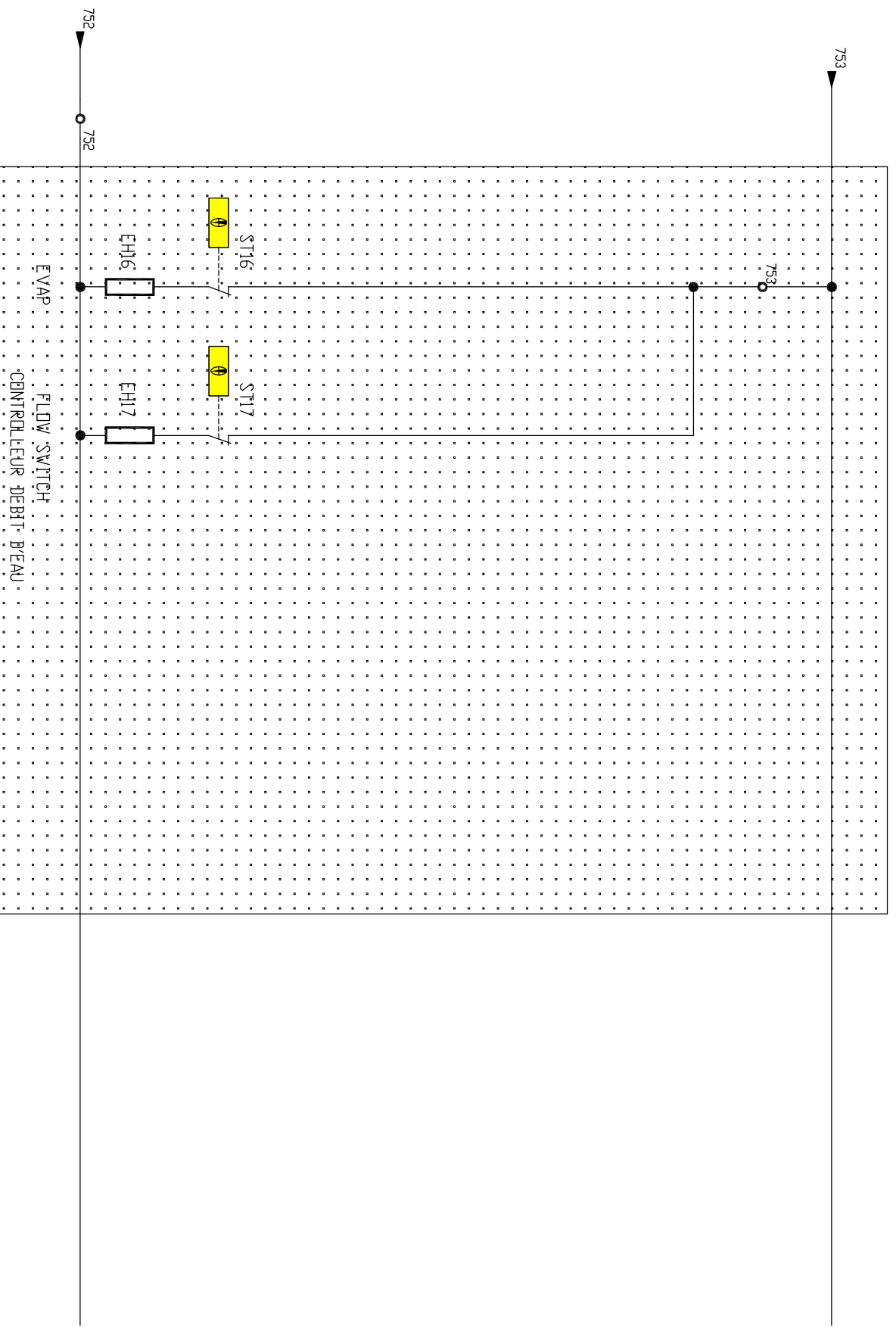


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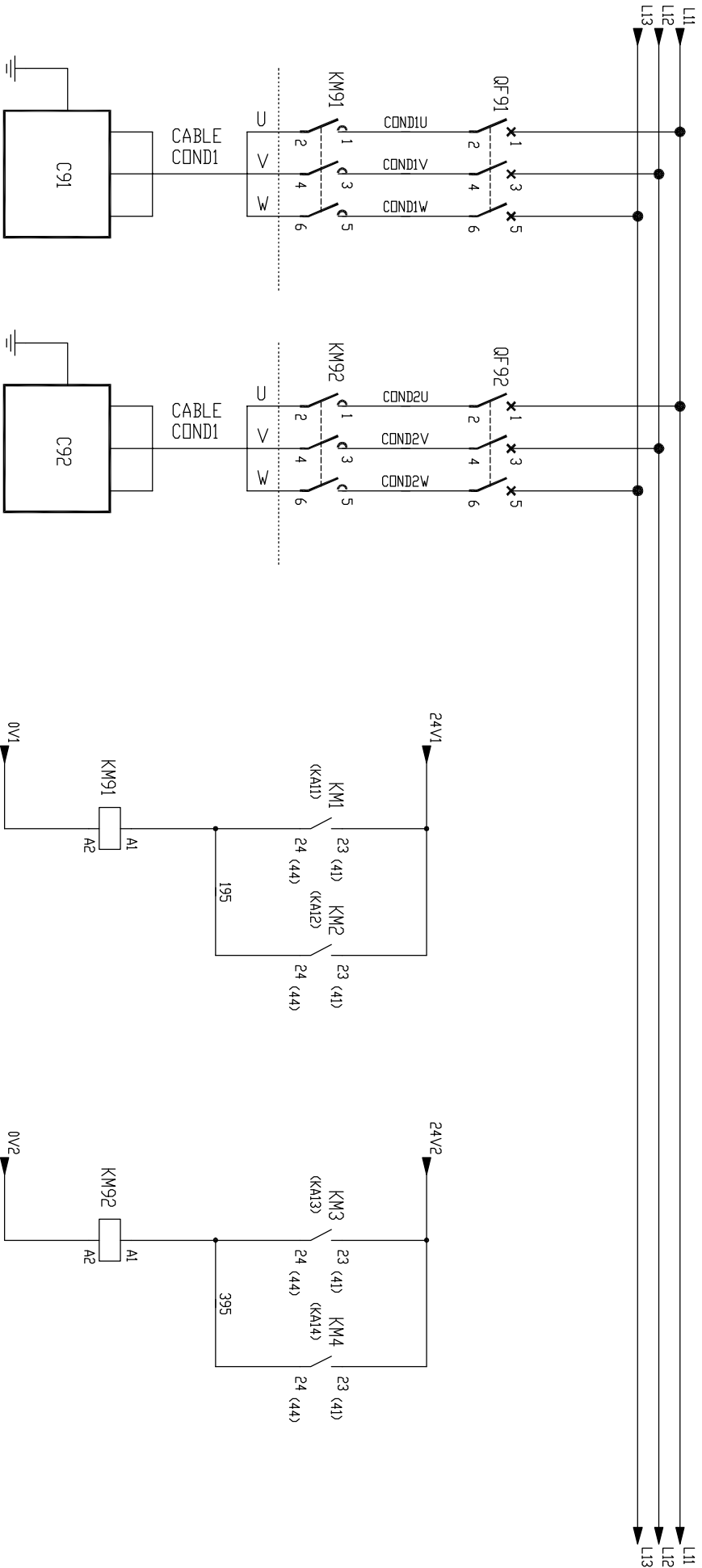
HF · SOFTSTARTER · OPTION · LH4 · KM1 → · KA11 · KM3 → · KA13 · . . .
 ST · DEM · ELEC · OPTION · CH4 · . . . KM2 → · KA12 · KM4 → · KA14 · . . .



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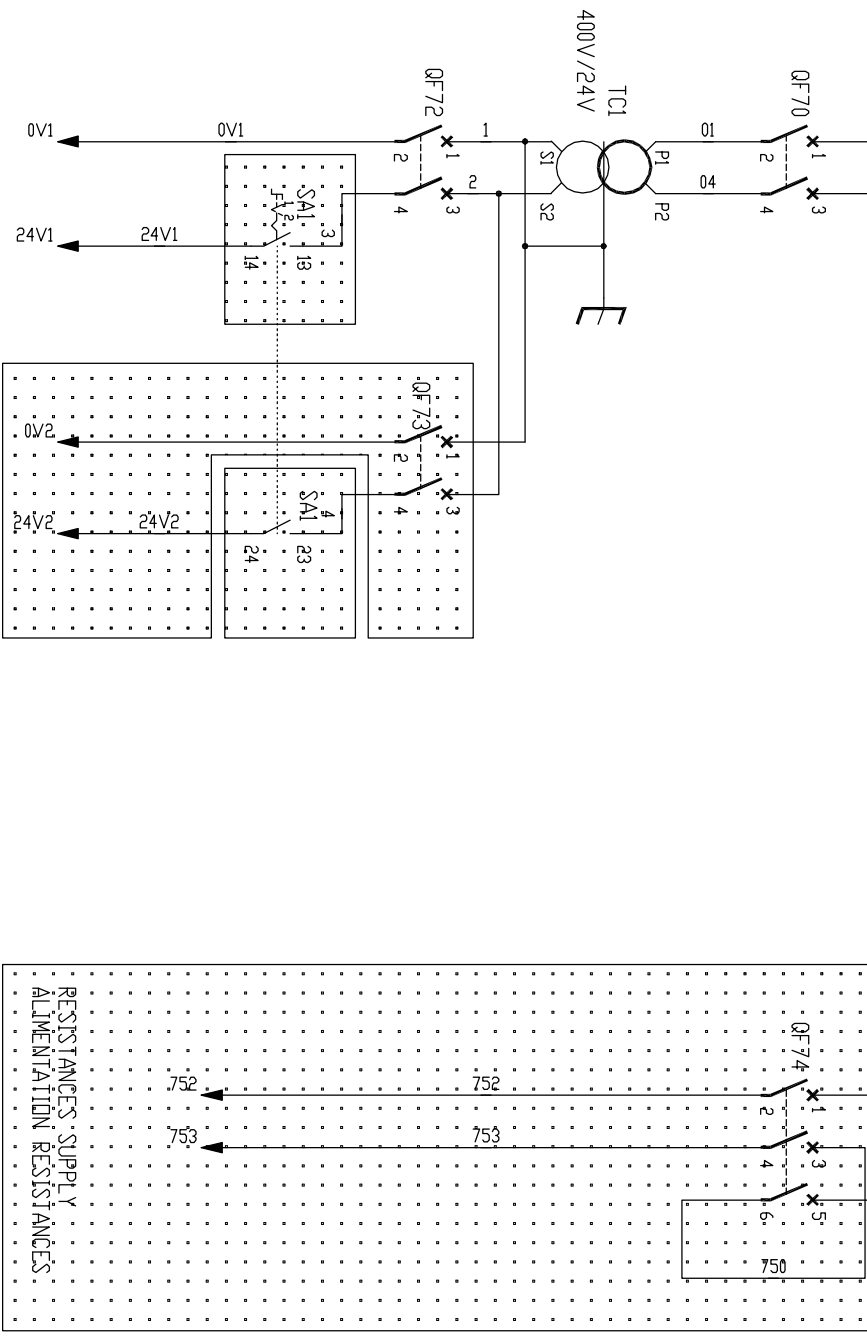
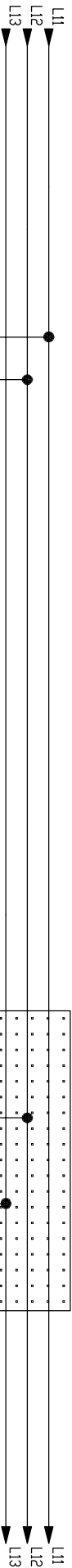


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I.F. SOFT STARTER: OPTION LHA: KM1 --> KA11: KM4 --> KA14:
 S.F. OPTION DEMARREUR: LHA: KM2 --> KA12: KM3 --> KA13:

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IF ND OPTIION
 MAINS SWITCH
 SAI DOOR MOUNTED

SI PAS OPTIION
 INTERRUPTEUR AG
 SAI SUR PORTE

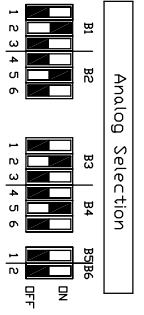
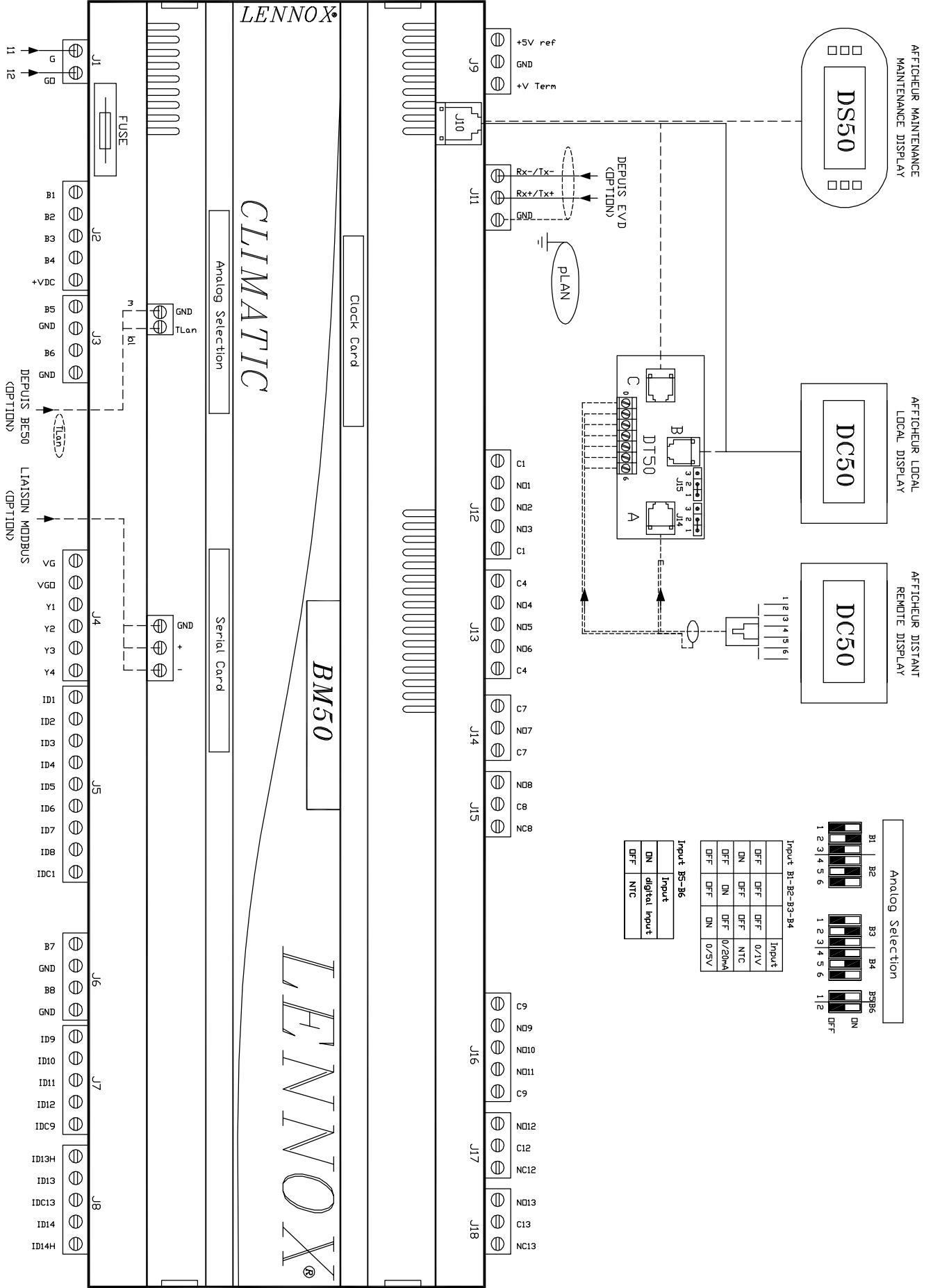
SI POWER
 TRANSFD >250 VA

RESISTANCES SUPPLY
 ALIMENTATION RESISTANCES.

CONTROL POWER SUPPLY
 ALIMENTATION CONTRLE

SCHEMA ELECTRIQUE

0 1 2 3 4 5 6 7 8 9



Input B1-B2-B3-B4	Input
OFF	OFF
DN	0/1V
OFF	NTC
DN	0/20mA
OFF	DN
DN	0/5V

Input B5-B6	Input
DN	digital input
OFF	NTC

LENNOX®

CLIMATIC

BM50

LENNOX®

J1
11 12

J2
B1 B2 B3 B4 +VDC B5 GND B6 GND B7 GND

J3
GND TLG n 1 2 3 4 5 6 7 8 9 10 11 12

J4
V5 V6 V7 V8 V9 V10 V11 V12 V13 V14 V15 V16 V17 V18 V19 V20 V21 V22 V23 V24 V25 V26

J5
ID1 ID2 ID3 ID4 ID5 ID6 ID7 ID8 ID9 ID10 ID11 ID12 ID13 ID14 ID15 ID16 ID17 ID18 ID19 ID20 ID21 ID22 ID23 ID24 ID25 ID26

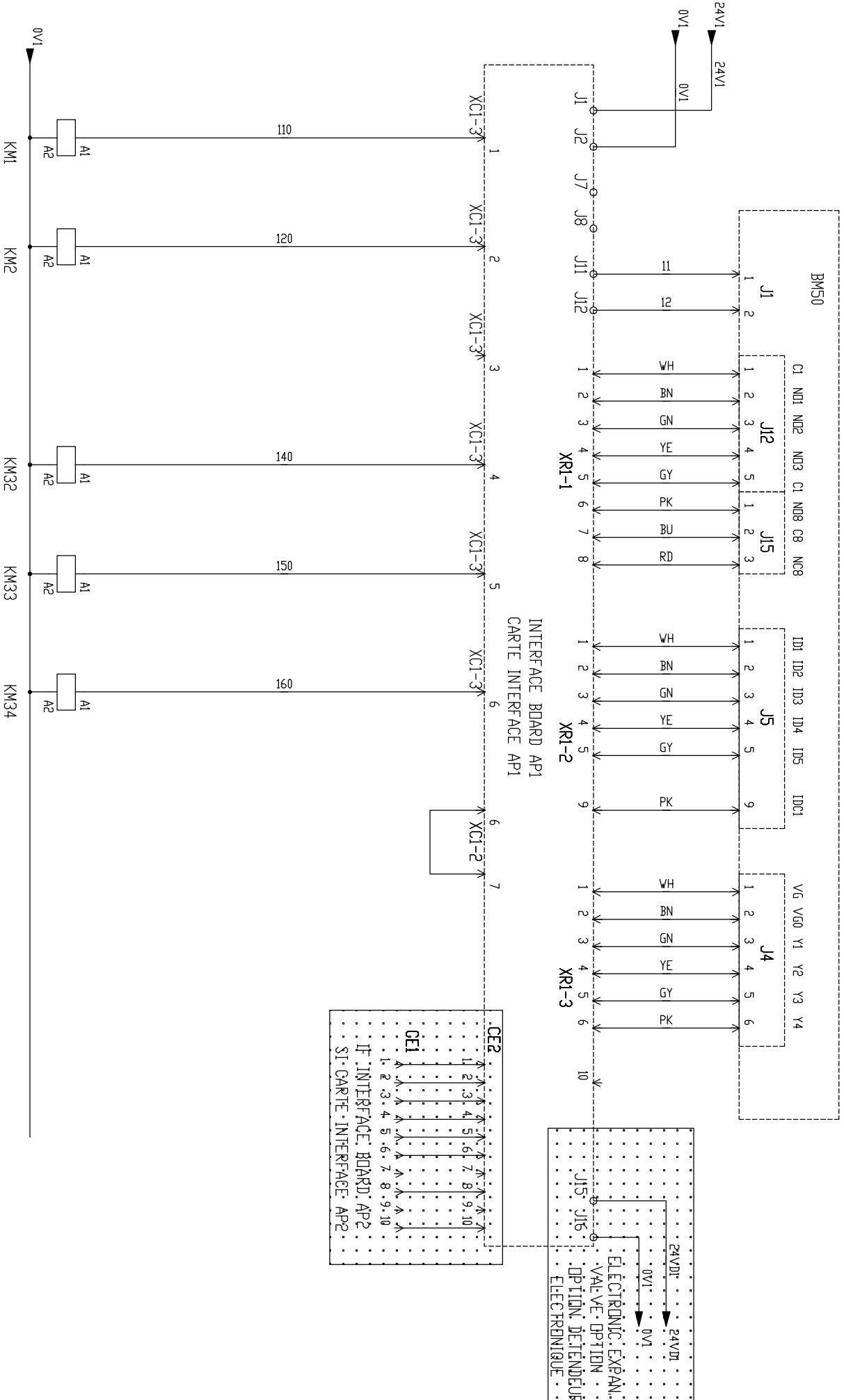
J6
A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22 A23 A24 A25 A26

J7
ID9 ID10 ID11 ID12 ID13 ID14 ID15 ID16 ID17 ID18 ID19 ID20 ID21 ID22 ID23 ID24 ID25 ID26

J8
ID13 ID14 ID15 ID16 ID17 ID18 ID19 ID20 ID21 ID22 ID23 ID24 ID25 ID26

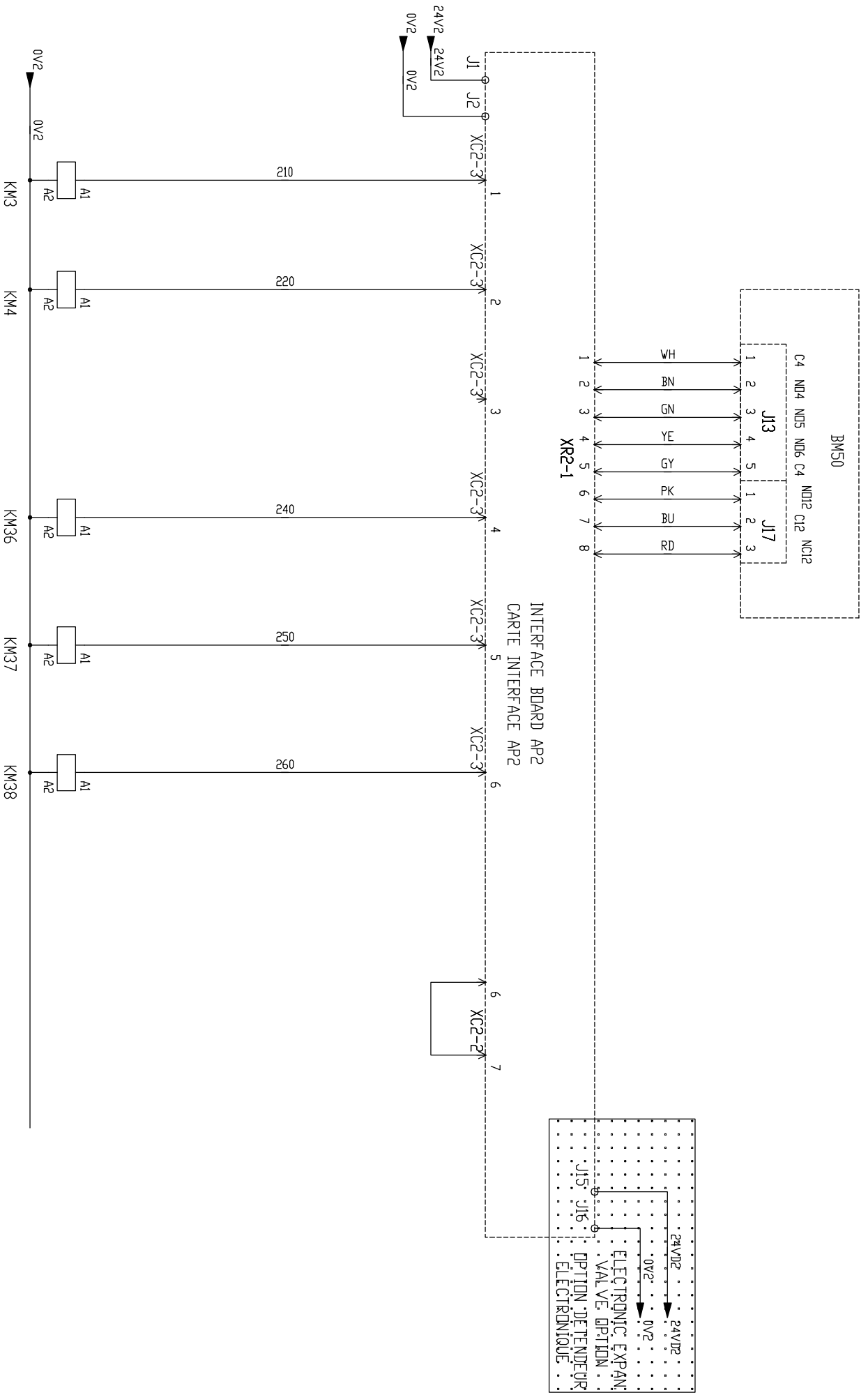
SCHEMA ELECTRIQUE

IF SOFTSTARTER OPTION LH4 KM1 → KAL1
 Si option démarreur LH4 : KM2 → KAL2



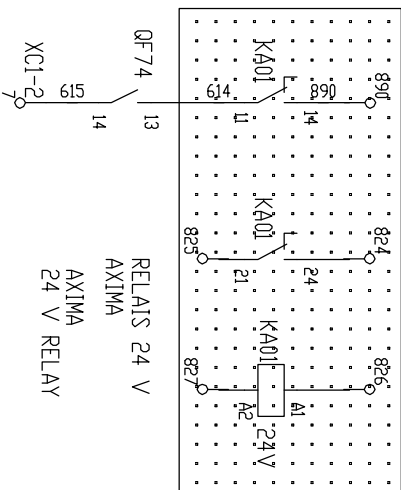
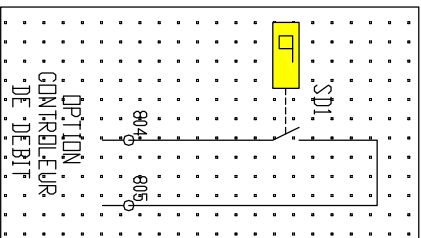
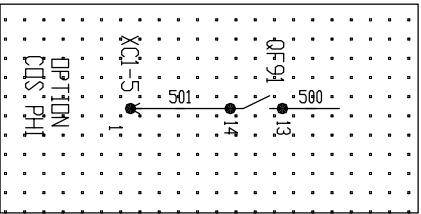
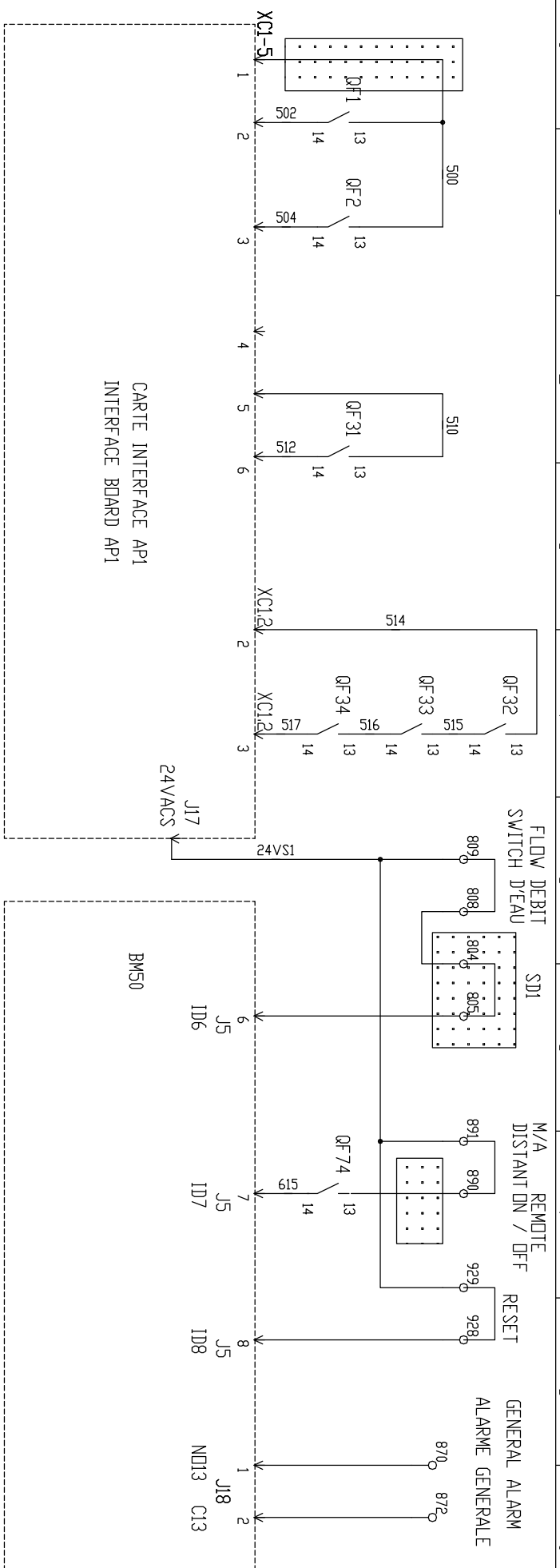
SCHEMA ELECTRIQUE

-IF SOFTSTARTER OPTION LH4: KM3 -> KA13
 Si option démarreur LH4: KM4 -> KA14

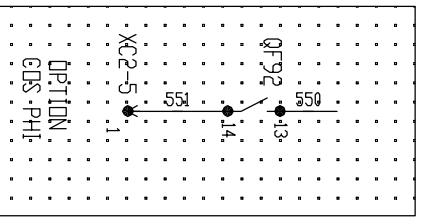
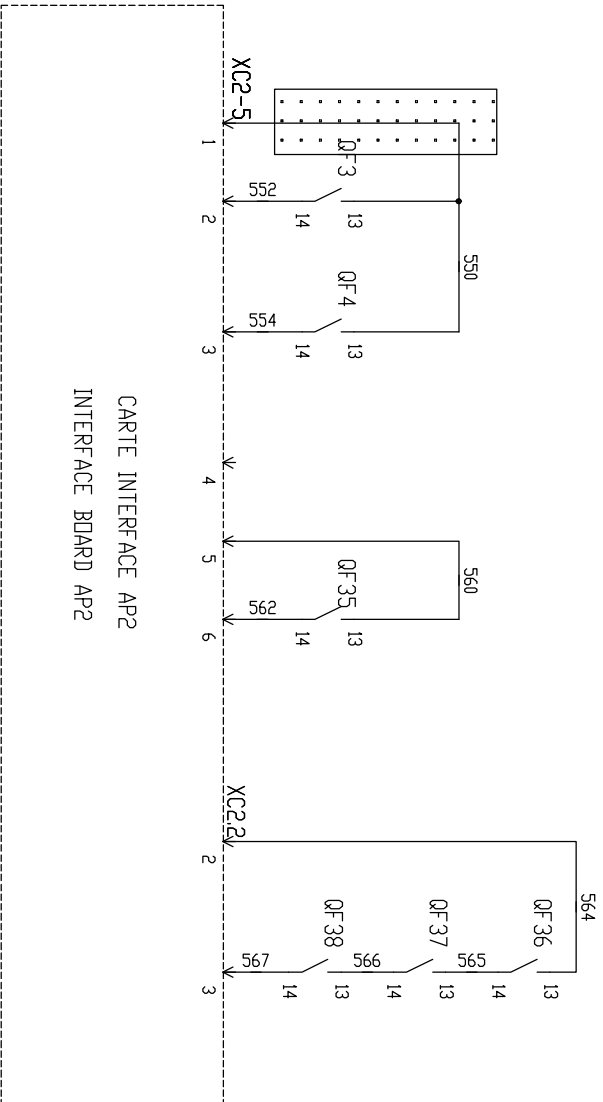


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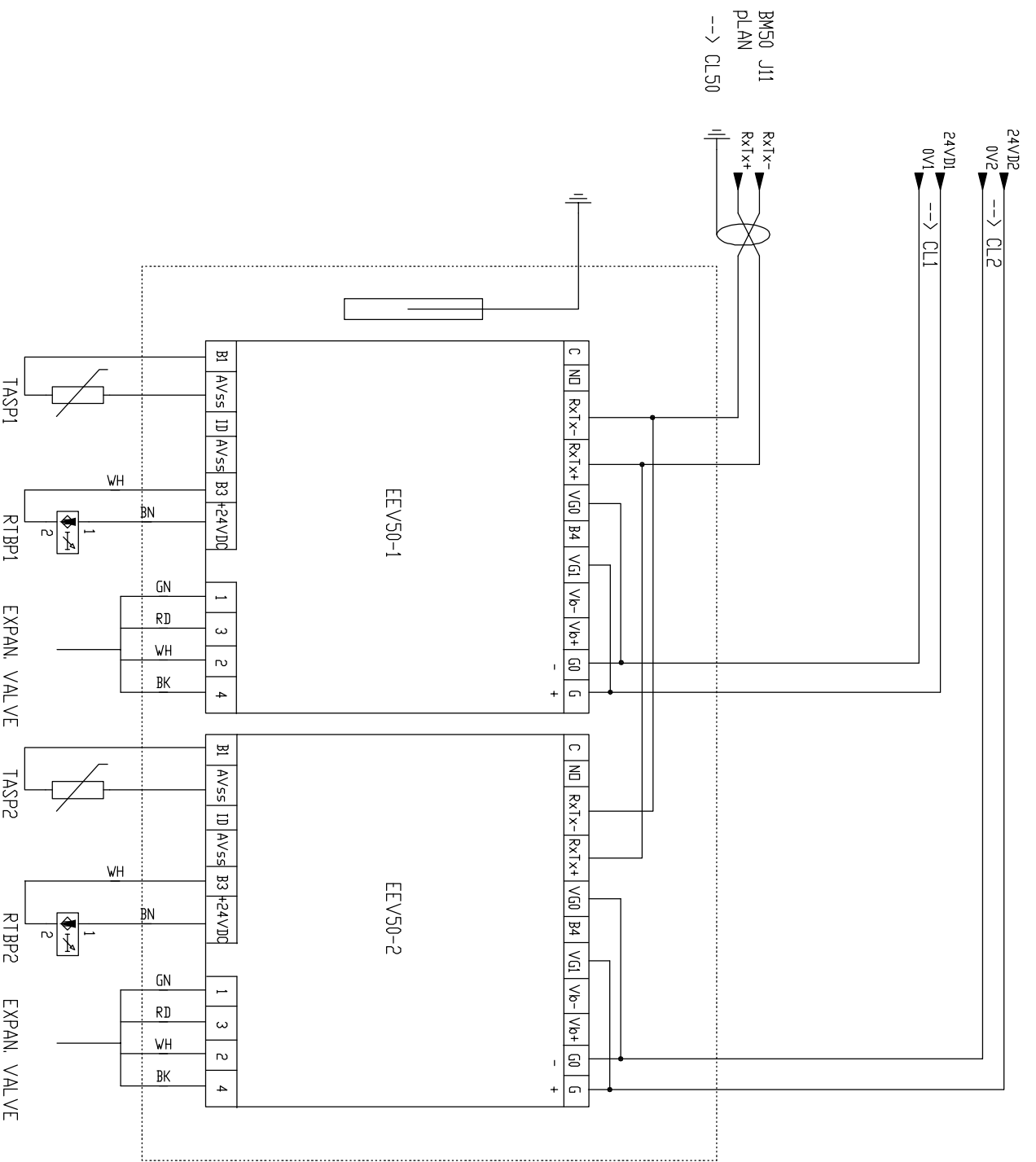


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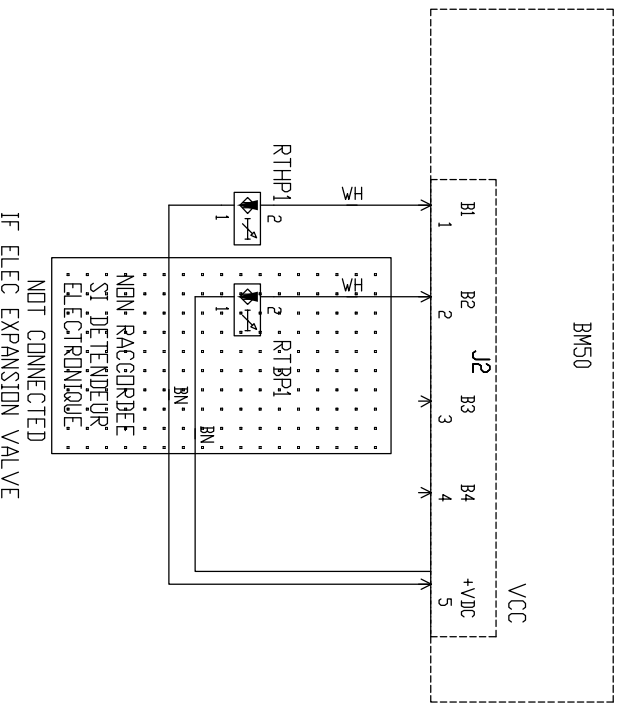
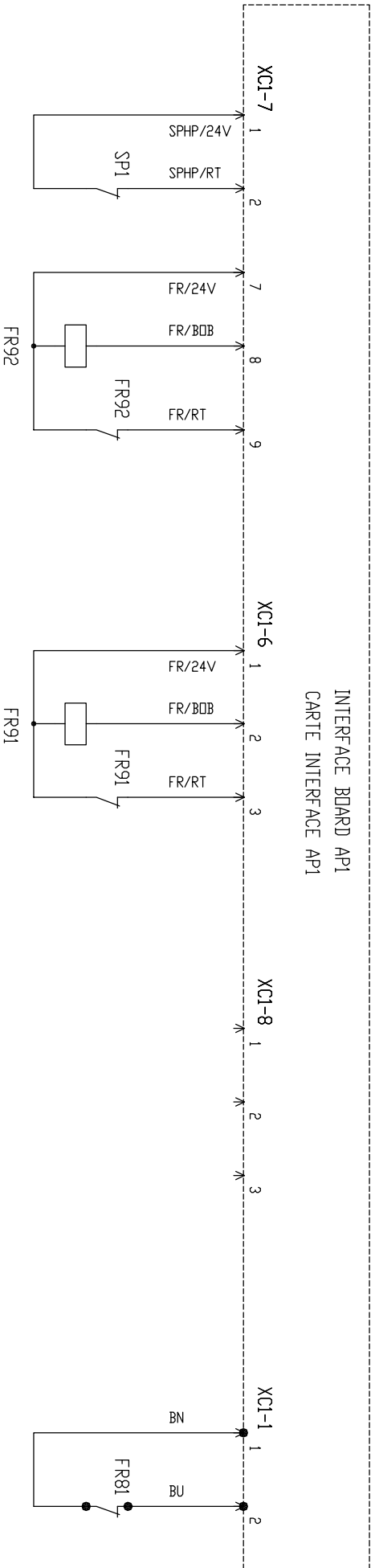


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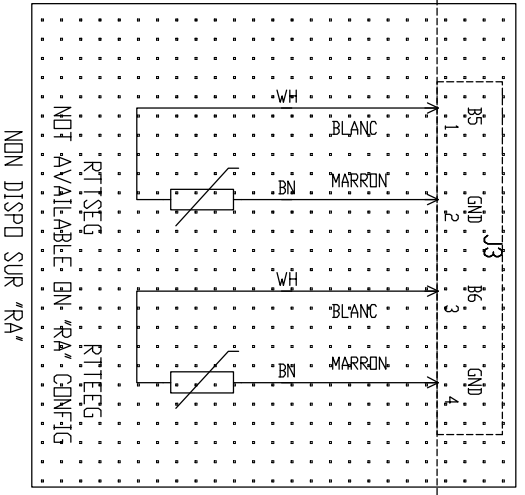
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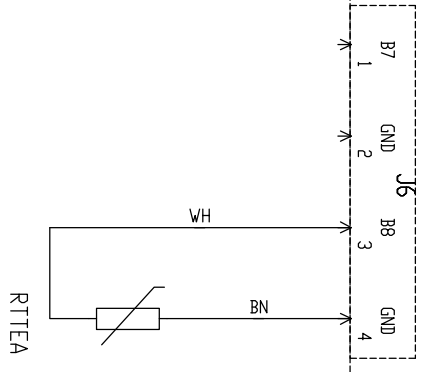
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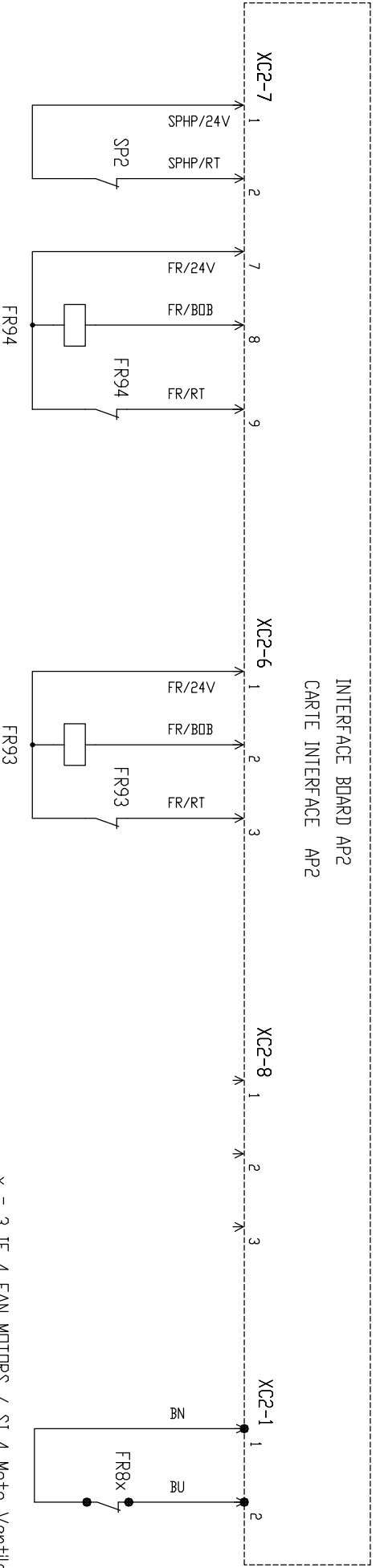
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BM50

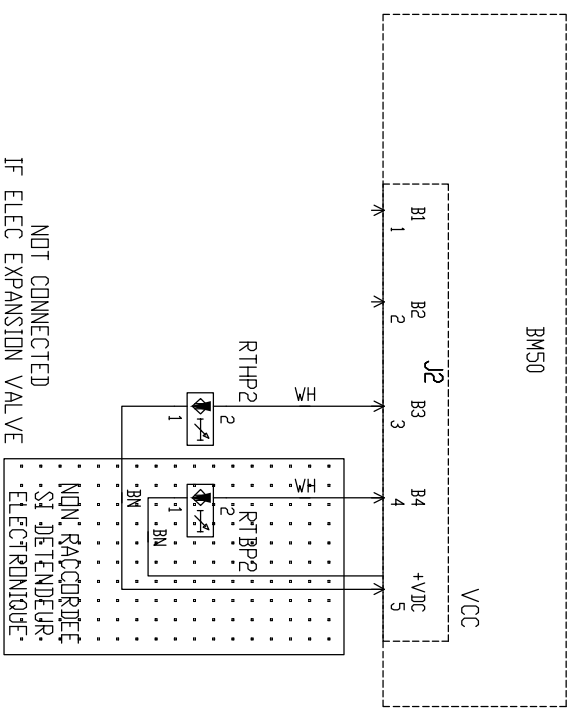


SCHEMA ELECTRIQUE



INTERFACE BOARD AP2
CARTI INTERFACE AP2

x = 3 IF 4 FAN MOTORS / SI 4 Moto Ventilateurs
 x = 4 IF 6 FAN MOTORS / SI 6 Moto Ventilateurs



NON RACCORDARE
 SI DETECTOR
 ELECTRONIQUE

SCHEMA ELECTRIQUE