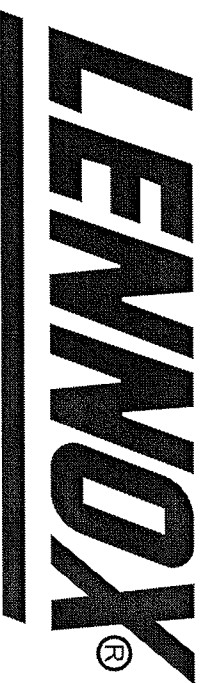


*DOSSIER ELECTRIQUE
ELECTRICAL FILE*



WA 230D K SLN

Num: / Name
CTD
Date: / Date
13/07/2004

SE127558

1/
22

CARACTERISTIQUES MACHINE MACHINE CHARACTERISTICS			
400 V	Pmax (kW)	I _{max} (A)	I _{dem} (A)
	3.50Hz	110.00	182.00
			305.00

**CARACTERISTIQUES MOTEURS
MOTOR CHARACTERISTICS**

REPERE MARKER	DESIGNATION	DESIGNATION	REFERENCE REFERENCE	Pabs. (kW)	Inom. (A)
M1	Compresseur	Compressor motor	ZR19	17.72	28.66
M2	Compresseur	Compressor motor	ZR380	35.24	58.52
M3	Compresseur	Compressor motor	ZR19	17.72	28.66
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

SCHEMA ELECTRIQUE

0 1 2 3 4 5 6 7 8 9

NOMENCLATURE ARMOIRE ELECTRIQUE
ELECTRIC PANEL ASSEMBLY BILL OF MATERIAL

REPERE MARKER	DESIGNATION	DESIGNATION	FOURNISSEUR SUPPLIER	REFERENCE REFERENCE
AP1	Carte interface circuit 1	Interface board circuit1	INF-03b	
AP2	Carte interface circuit 2	Interface board circuit 2	INF-04b	
AZ1	Démarrreur compresseur M1	Démarrreur compresseur M1 AN	ATS01N244Q	
AZ2	Démarrreur compresseur M2	Démarrreur compresseur M2 AN	ATS01N272Q	
AZ3	Démarrreur compresseur M3	Démarrreur compresseur M3 AN	ATS01N244Q	
AZ4	Démarrreur compresseur M4	Démarrreur compresseur M4 AN	ATS01N272Q	
C91	Condensateur C91	Condensateur C91 AN	52417	
C91	Condensateur C91	Condensateur C91 AN	52418	
C91	Condensateur C91	Condensateur C91 AN	52460	
C92	Condensateur C92	Condensateur C92 AN	52417	
C92	Condensateur C92	Condensateur C92 AN	52418	
C92	Condensateur C92	Condensateur C92 AN	52460	
Dép1	Alimentation peigne	Supply cable assembly	GV1G09	
Dép2	Peigne 1	Cable assembly 1	GV2G445	
Dép3	Peigne 2	Cable assembly 2	GV2G345	
KA11	Relais compresseur M1	Compressor relay M1	RXL4A06B1B7	
KA11	Relais compresseur M1	Compressor relay M1	RXZE1S114M	
KA11	Relais compresseur M1	Compressor relay M1	RXZR235	
KA12	Relais compresseur M2	Compressor relay M2	RXL4A06B1B7	
KA12	Relais compresseur M2	Compressor relay M2	RXZE1S114M	
KA12	Relais compresseur M2	Compressor relay M2	RXZR235	
KA13	Relais compresseur M3	Compressor relay M3	RXL4A06B1B7	
KA13	Relais compresseur M3	Compressor relay M3	RXZE1S114M	
KA13	Relais compresseur M3	Compressor relay M3	RXZR235	
KA14	Relais compresseur M4	Compressor relay M4	RXL4A06B1B7	
KA14	Relais compresseur M4	Compressor relay M4	RXZE1S114M	
KA14	Relais compresseur M4	Compressor relay M4	RXZR235	
KM32	Contacteur ventilateur M32	Fan contactor M32	GV2ME06K1B7	
KM32	Antiparasite	Suppressor	LA4KE1B	
KM33	Contacteur ventilateur M33	Fan contactor M33	GV2ME06K1B7	
KM33	Antiparasite	Suppressor	LA4KE1B	
KM35	Contacteur ventilateur M35	Fan contactor M35	GV2ME06K1B7	
KM35	Antiparasite	Suppressor	LA4KE1B	
KM35	Contacteur ventilateur M36	Fan contactor M36	GV2ME06K1B7	
KM36	Antiparasite	Suppressor	LA4KE1B	
KM91	Contacteur condensateur C91	Contacteur condensateur C91 AN	GV2DM122B7	
KM91	Antiparasite	Suppressor	LAD4RCE	
KM92	Contacteur condensateur C92	Contacteur condensateur C92 AN	GV2DM122B7	
KM92	Antiparasite	Suppressor	LAD4RCE	
QF1	Disjoncteur compresseur M1	Compressor circuit breaker M1	GV2ME32	
QF2	Disjoncteur compresseur M2	Compressor circuit breaker M2	GV2ME63	
QF3	Disjoncteur compresseur M3	Compressor circuit breaker M3	GV2ME32	
QF31	Disjoncteur ventilateur M31	Fan circuit breaker M31	GV2ME063	

SCHEMA ELECTRIQUE

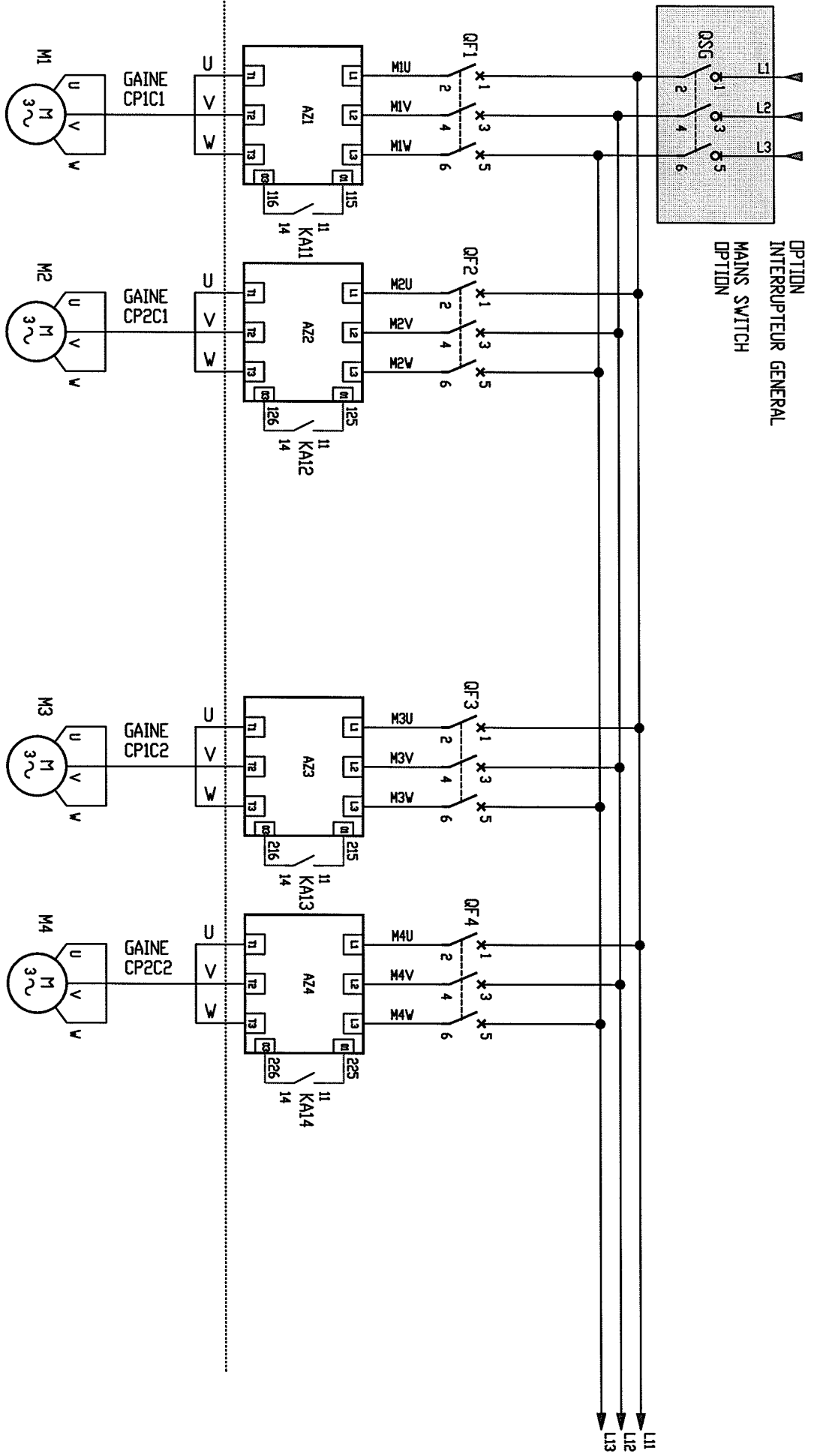
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EH1-->9	Résistance carter Crackcase heater		R	Résistances triphasées 3 phase heater		SP111-->115	Pressostat HP BP combiné HP LP combined switch		
EH11-->15	Résistance bouteille Receiver heater		RC	Circuits RC RC circuit		ST11-->15	Thermostat de commande résistances bouteille Receiver control thermostat		
EH16-->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		ST26-->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		RTTSEG	Température de sortie d'eau glacée Water outlet temperature		ST66-->70	Thermostat de commande ventilateur armoire Electrical panel fan control thermostat		
FR91-->99	Protection moteur compresseur Solid state motor protection		RTTREF	Température de refroidement Discharge temperature		ST71-->75	Thermostat de dégivrage Defrost thermostat		
FU90	Fusibles divers Various fuses		RTTASP	Température d'aspiration Suction temperature		ST76-->85	Thermostat antigel Antifreeze thermostat		
HA	Signalisation sonore Sound signal		RTTBP	Température d'évaporation Evaporating temperature		ST90-->100	Thermostat divers Various thermostats		
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 antigel 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 culasse 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	Electrovannes diverses Various solenoid valves		

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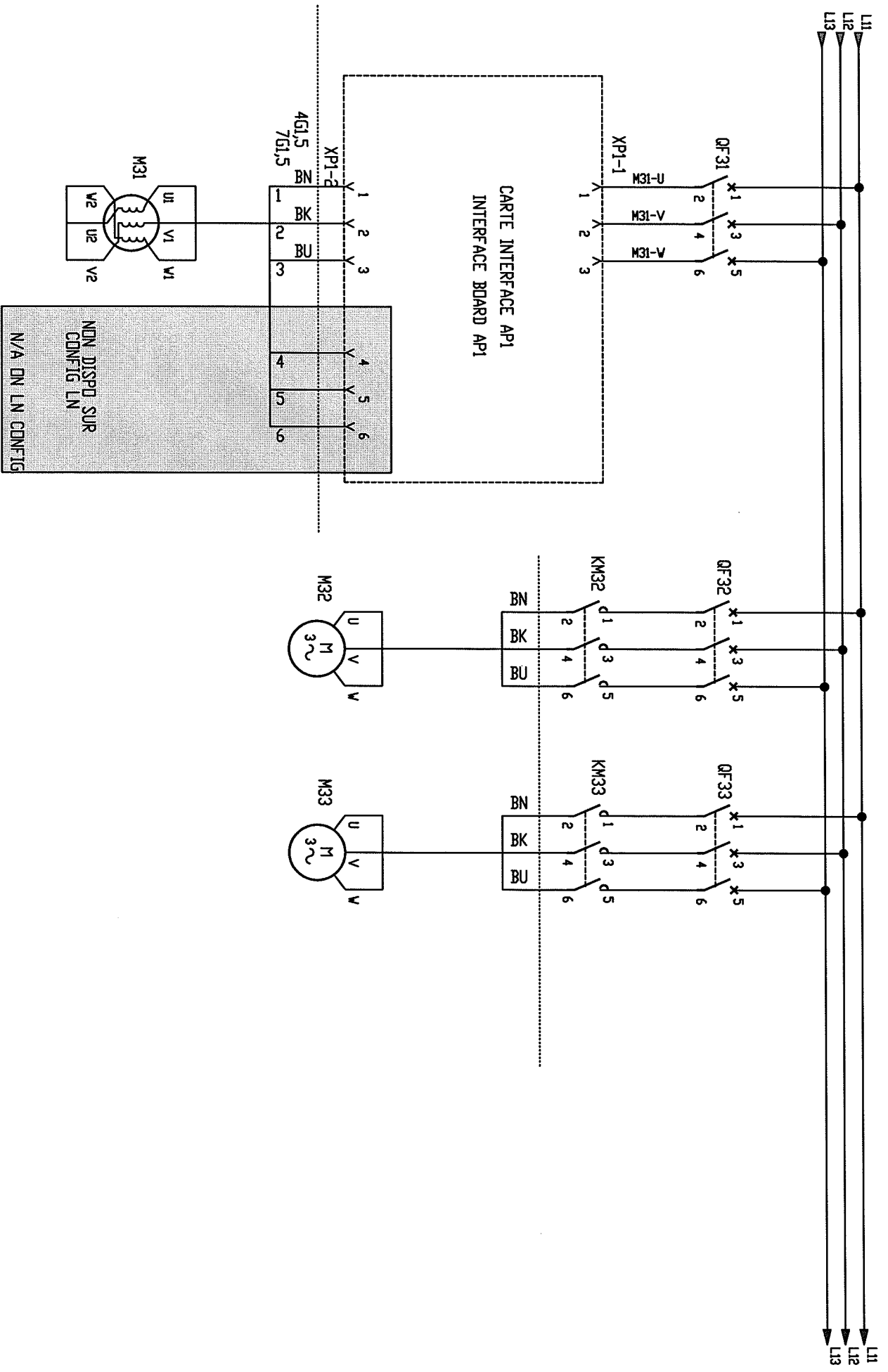
SCHEMA ELECTRIQUE

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		ST26-->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		ST66-->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		VOPT	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		
KAS50-->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		

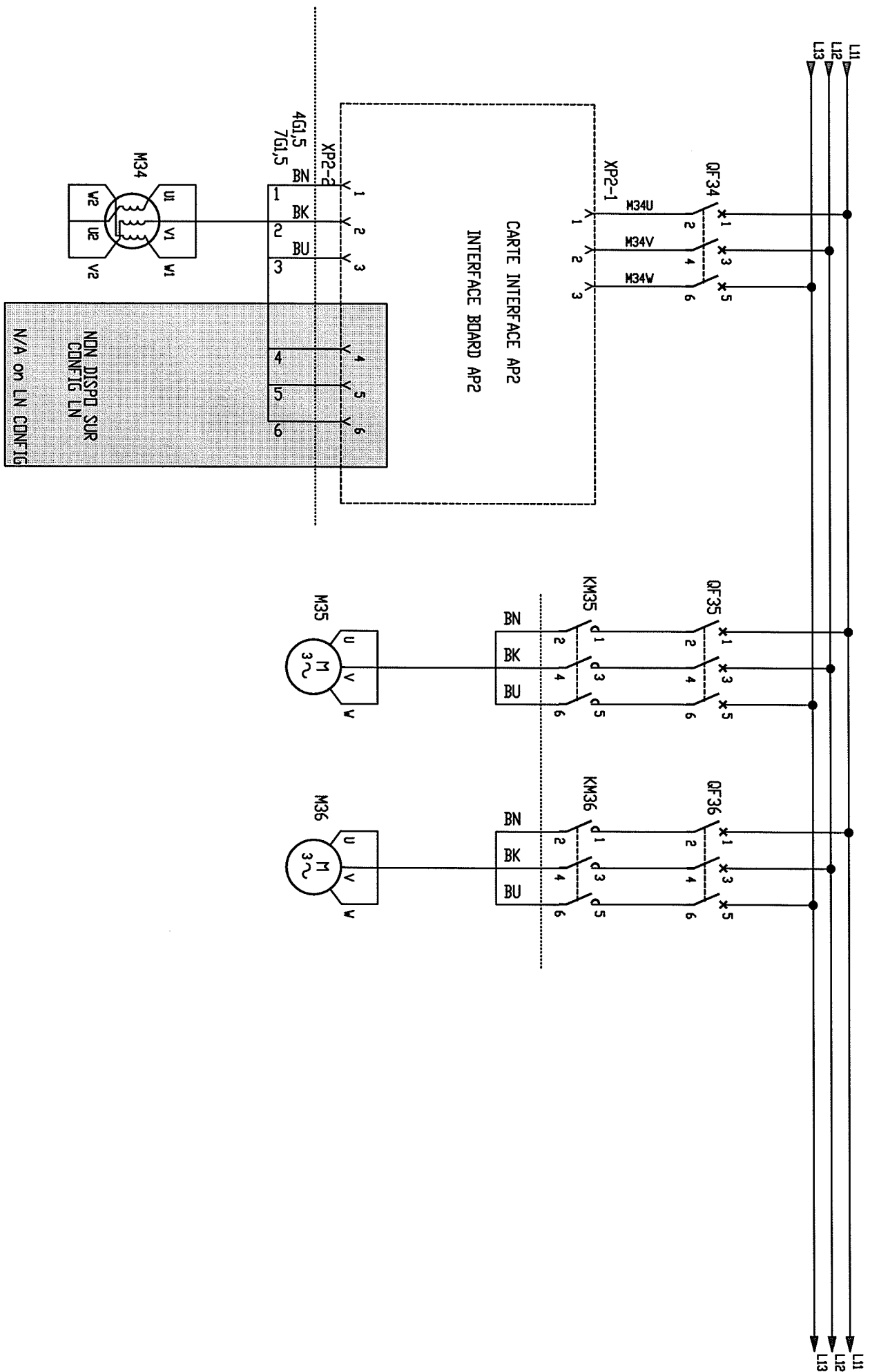
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SCHEMA ELECTRIQUE

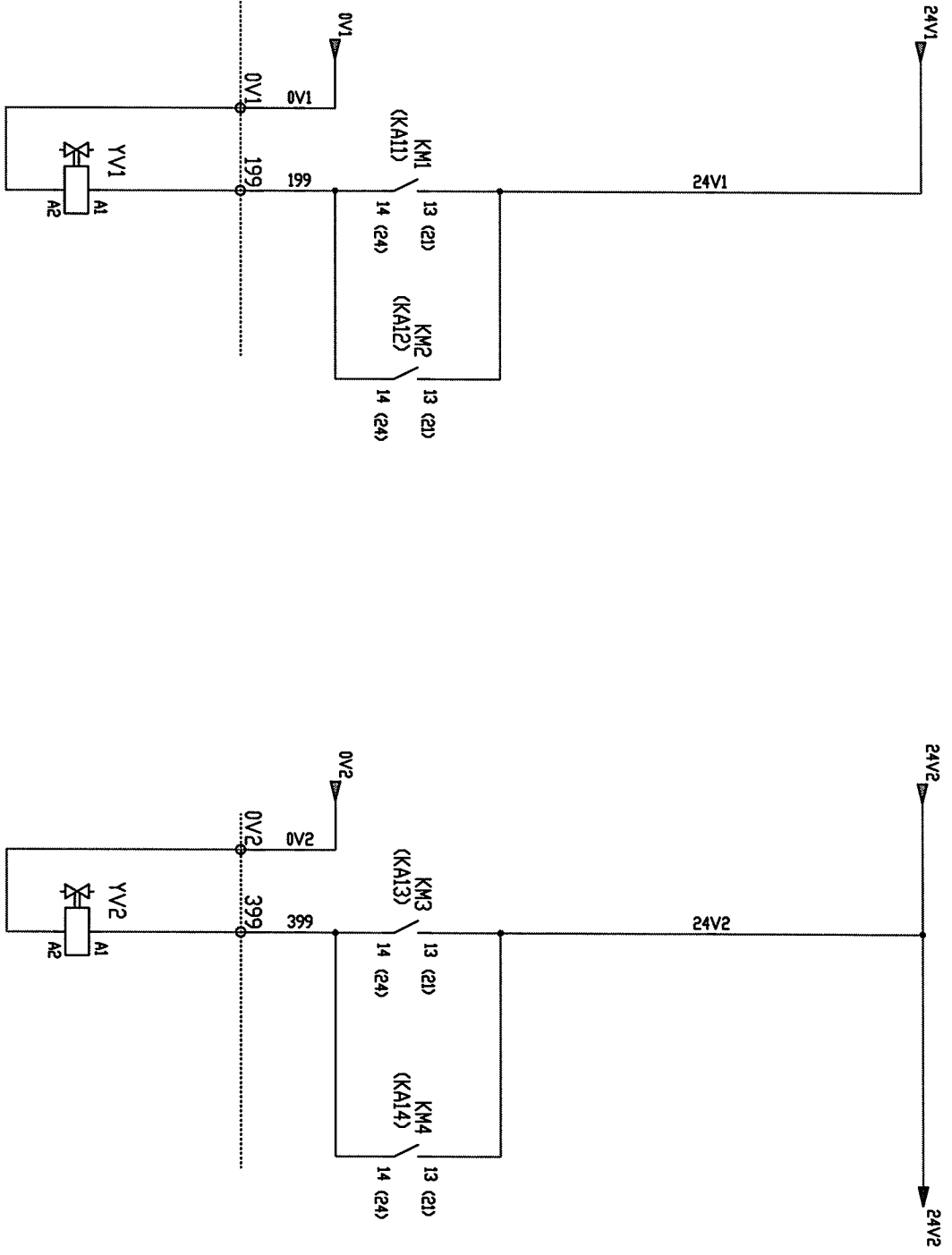


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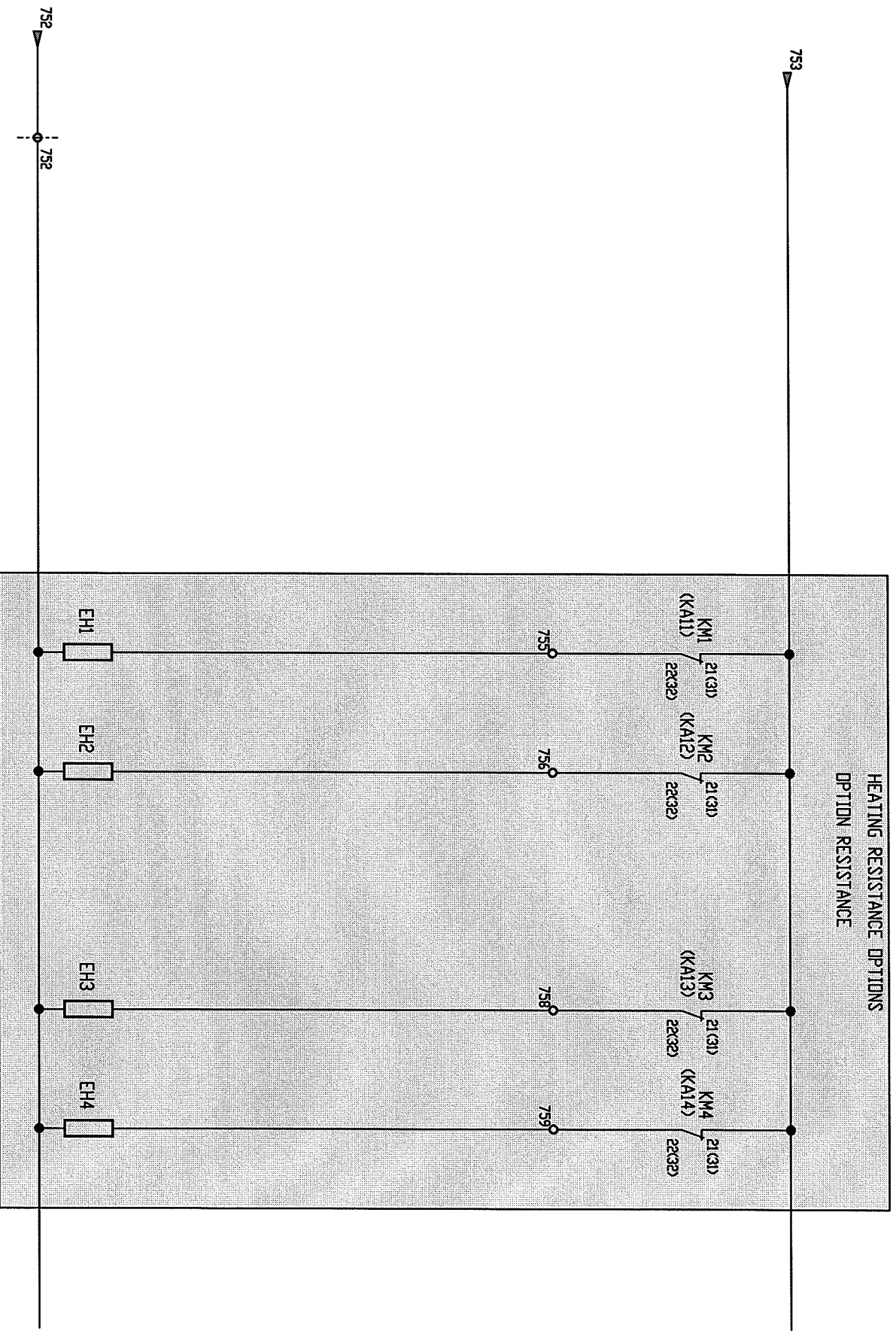


SCHEMA ELECTRIQUE

IF SOFTSTARTER OPTION LH4: KM1 --> KA11, KM2 --> KA12, KM3 --> KA13, KM4 --> KA14
 SI DEM ELEC OPTION LH4: KM3 --> KA13



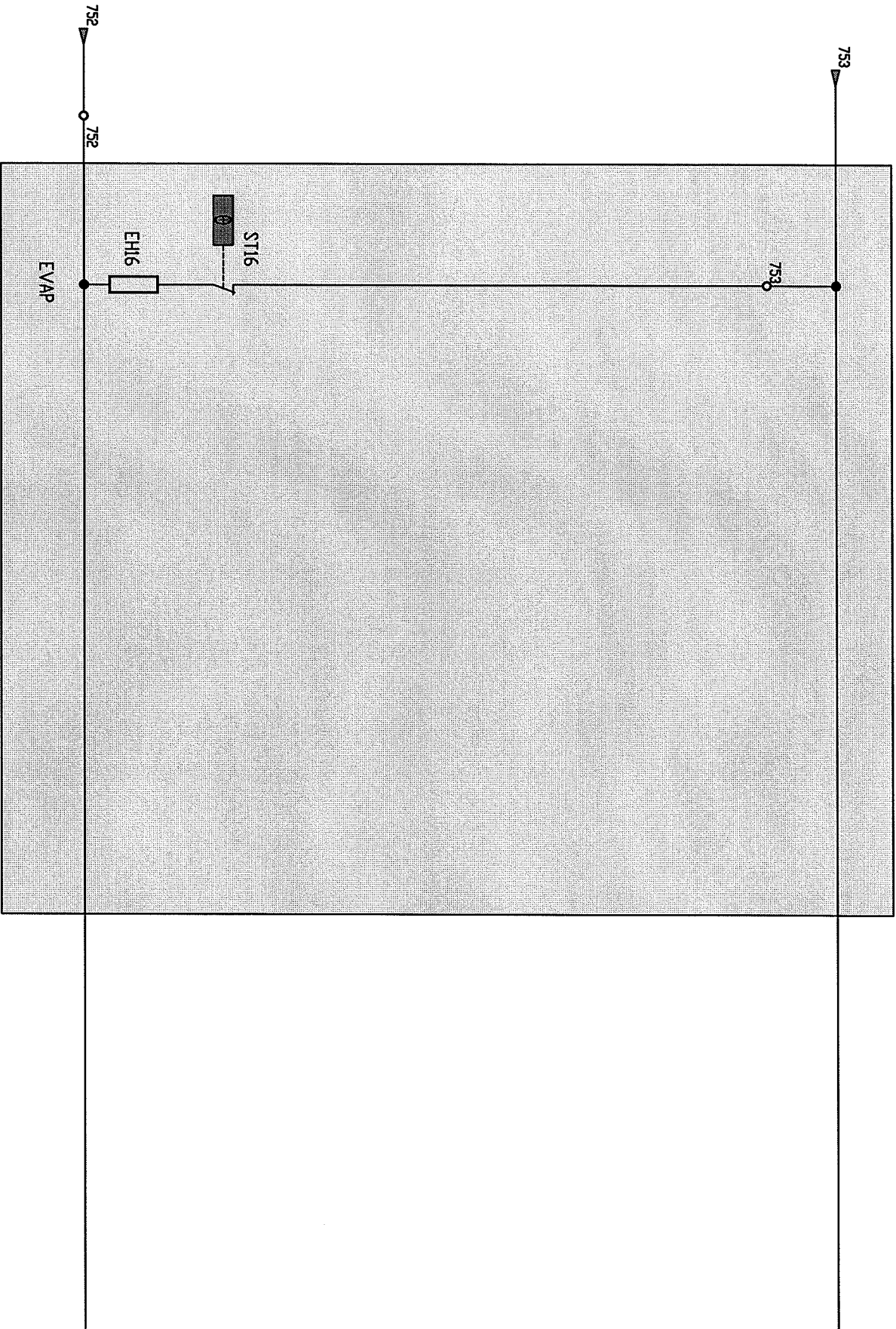
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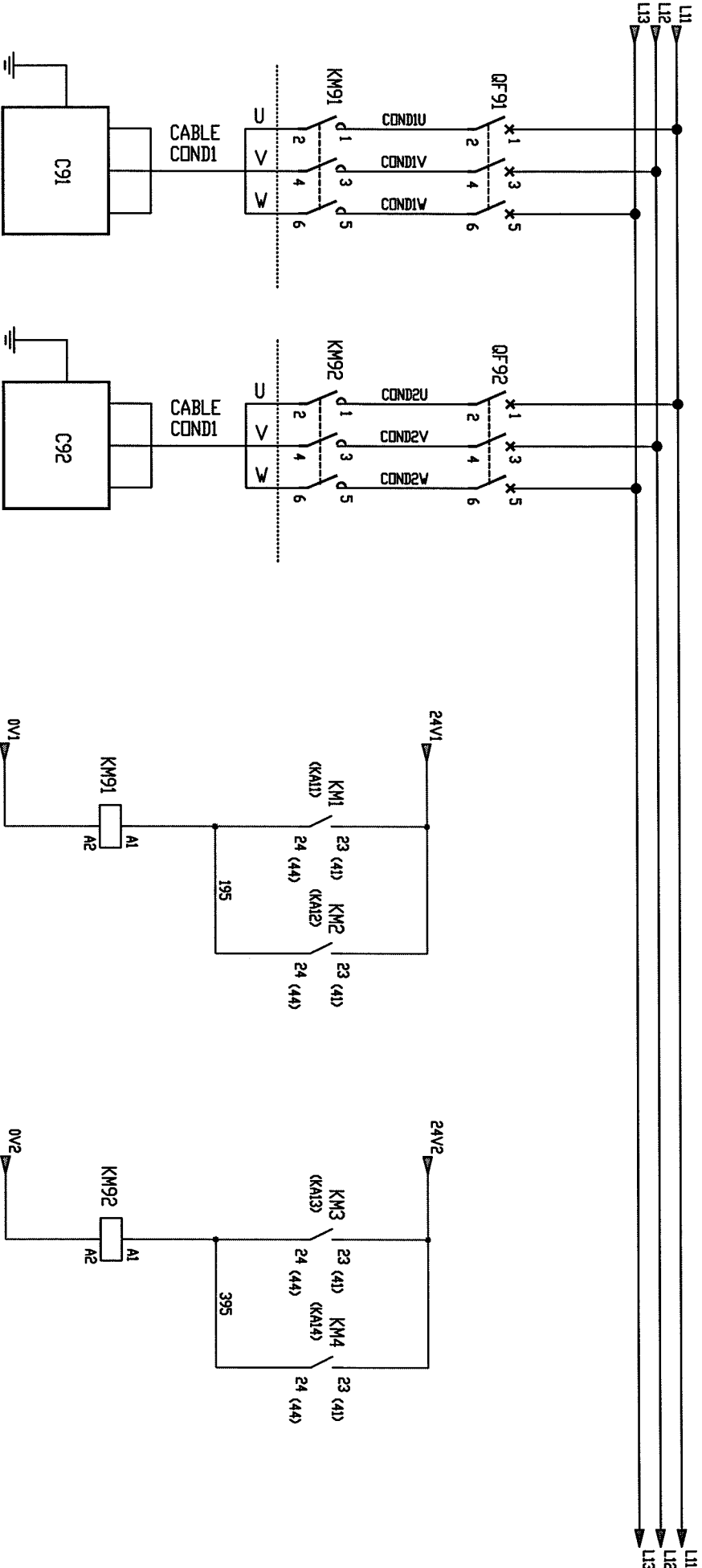
IF SDFSTARTER OPTION LH4: KM1 --> KA11
 SI DEM ELEC OPTION LH4: KM2 --> KA12
 KM3 --> KA13
 KM4 --> KA14

SCHEMA ELECTRIQUE

0 1 2 3 4 5 6 7 8 9



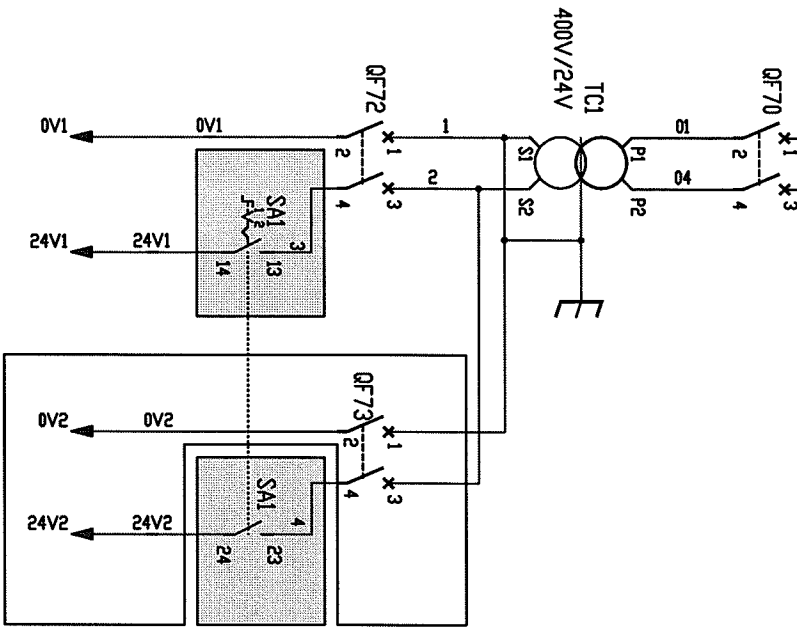
SCHEMA ELECTRIQUE



IF SOFTSTARTER OPTION LH4: KM1 --> KA11
 SI OPTION DEMARREUR LH4: KM2 --> KA12
 KM3 --> KA13
 KM4 --> KA14

SCHEMA ELECTRIQUE

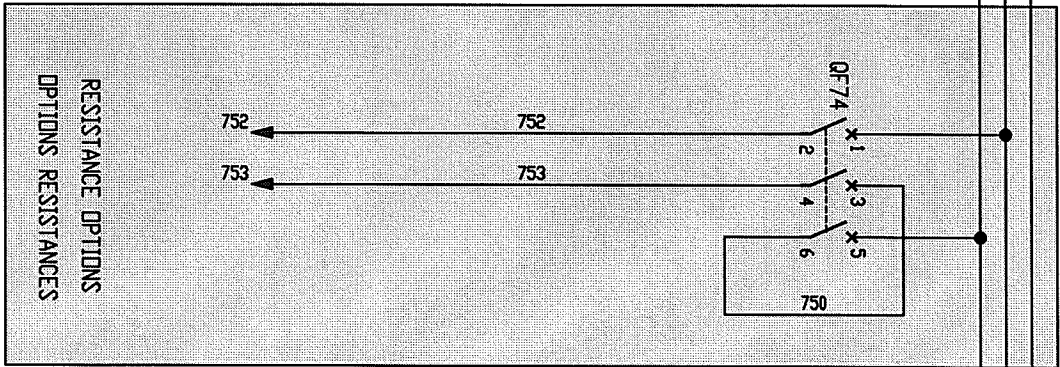
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IF NO OPTION
 MAINS SWITCH
 SAI DDOR MOUNTED
 SI PAS OPTION
 INTERUPTEUR AG
 SAI SUR PORTE

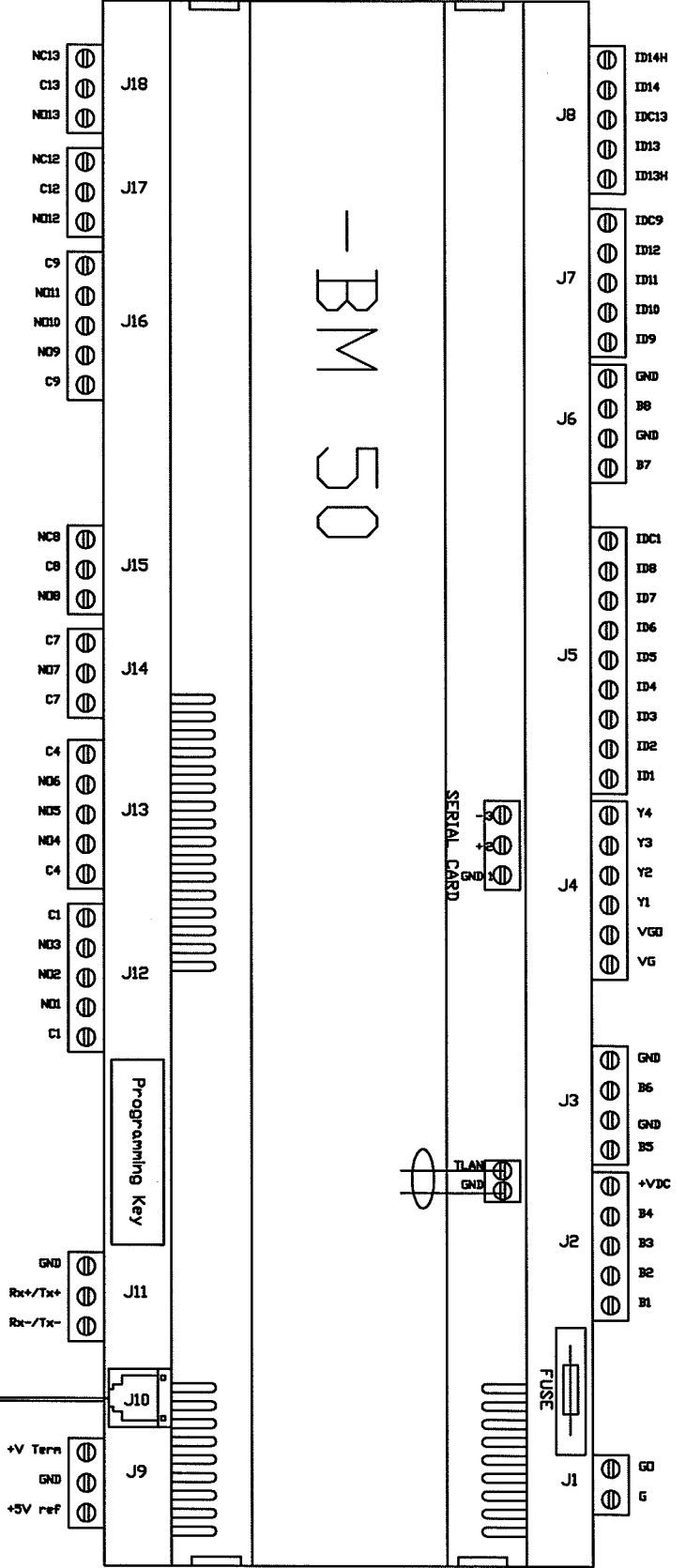
MAINS POWER
 ALIMENTATION CONTROL

IF 2 INTERFACE BOARDS
 SI 2 CARTES INTERFACES

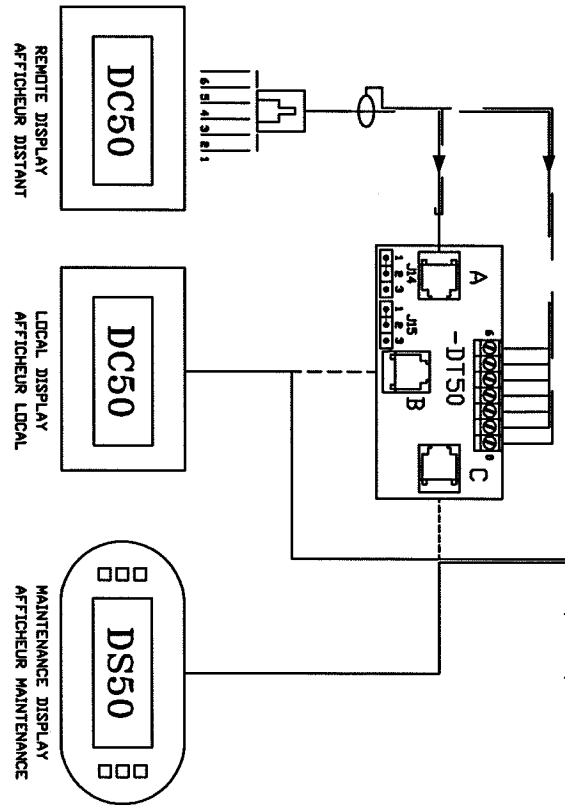
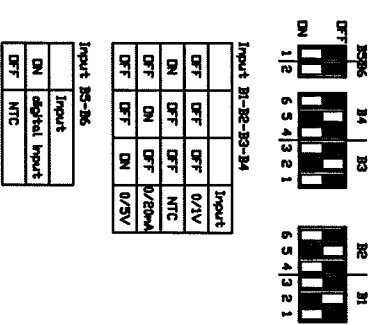


RESISTANCE OPTIONS
 OPTIONS RESISTANCES

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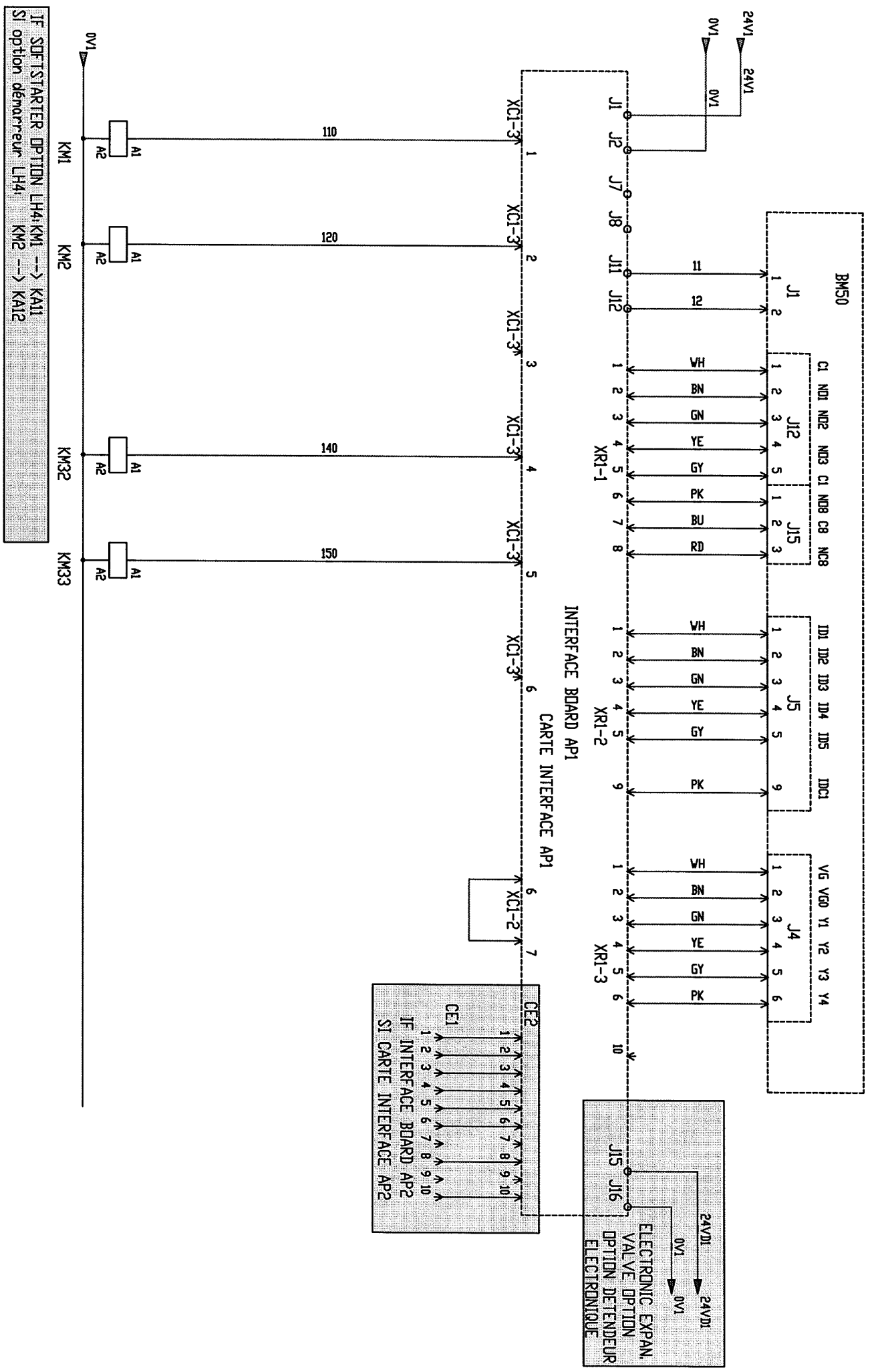


-BM 50



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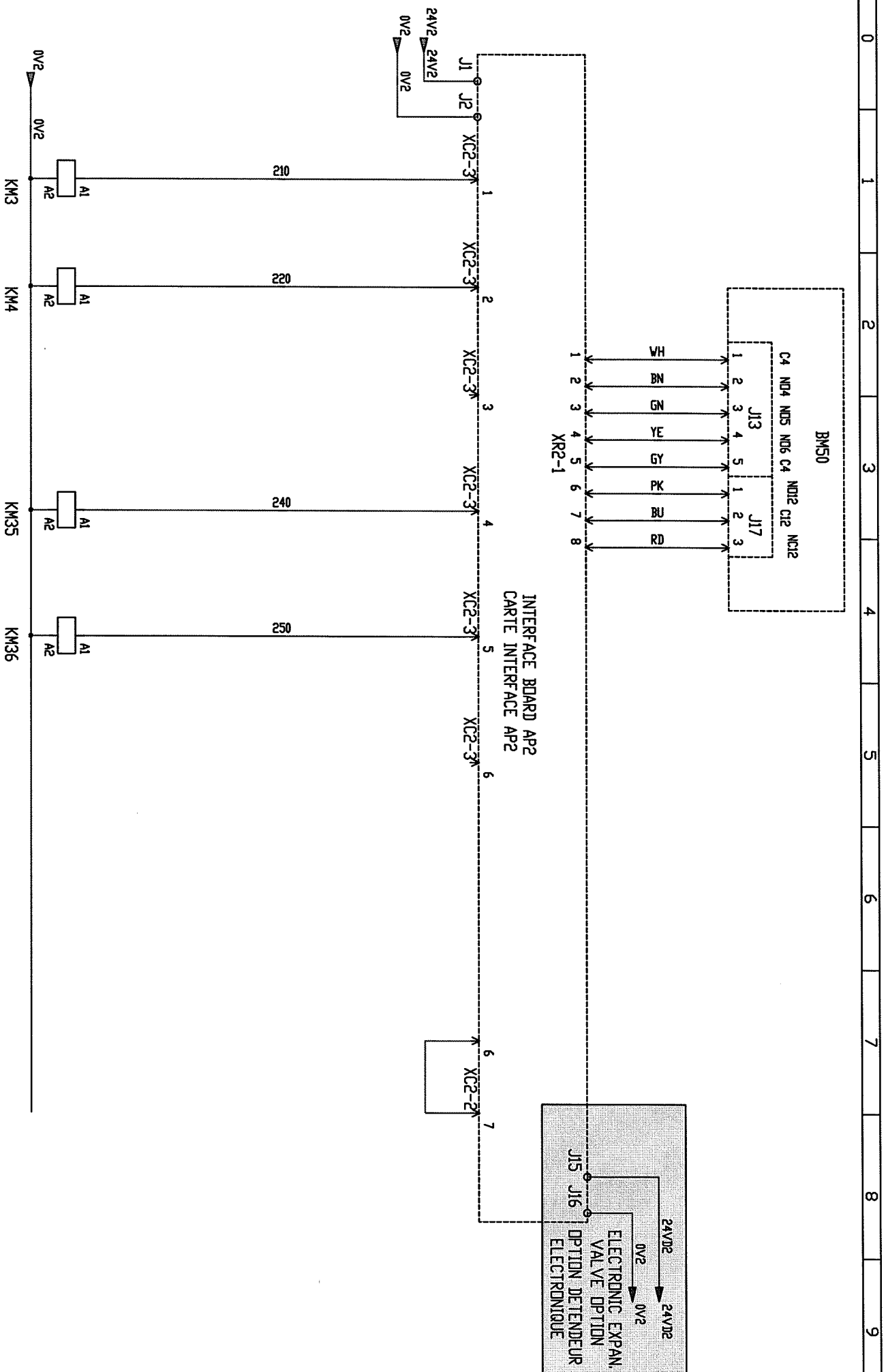
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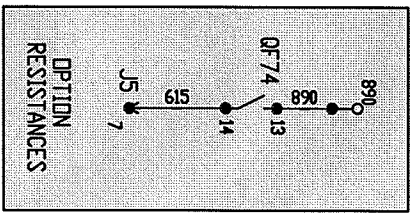
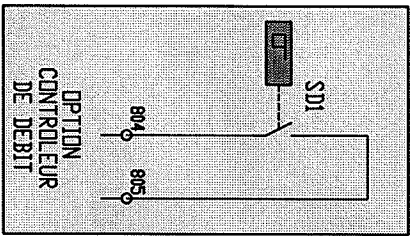
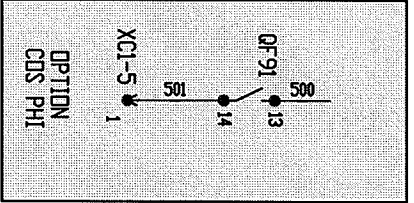
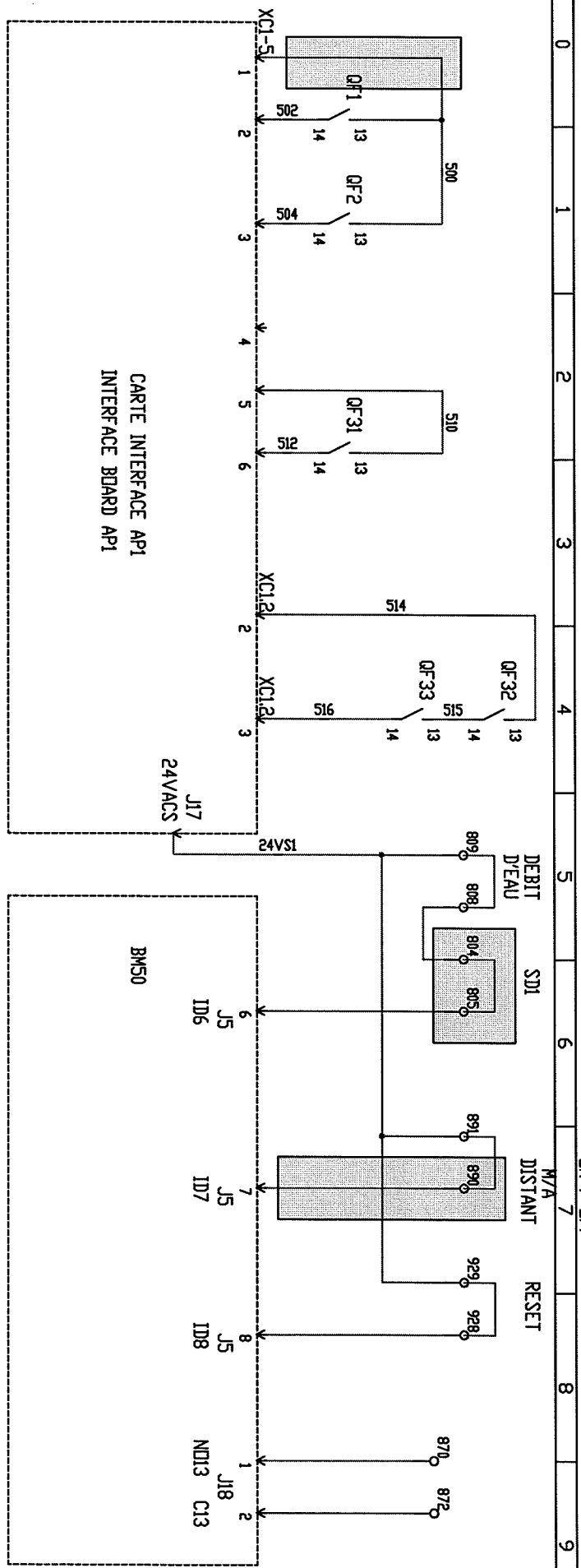
IF SDFSTARTER OPTION LH4:KM1 --> KA11
 SI option démarreur LH4: KM2 --> KA12

SCHEMA ELECTRIQUE

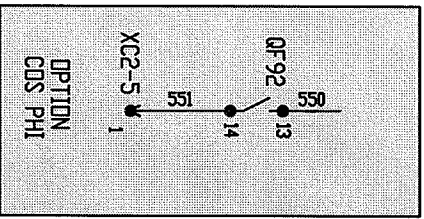
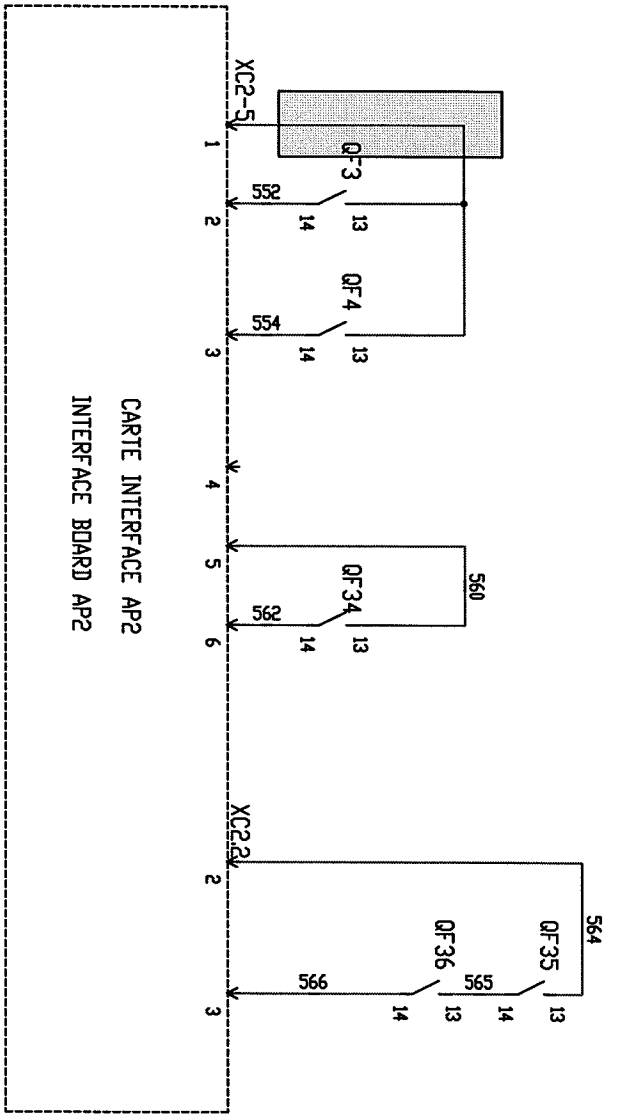
IF SDF1STARTER OPTION LH4 KM3 --> KA13
 Si option démarreur LH4, KM4 --> KA14



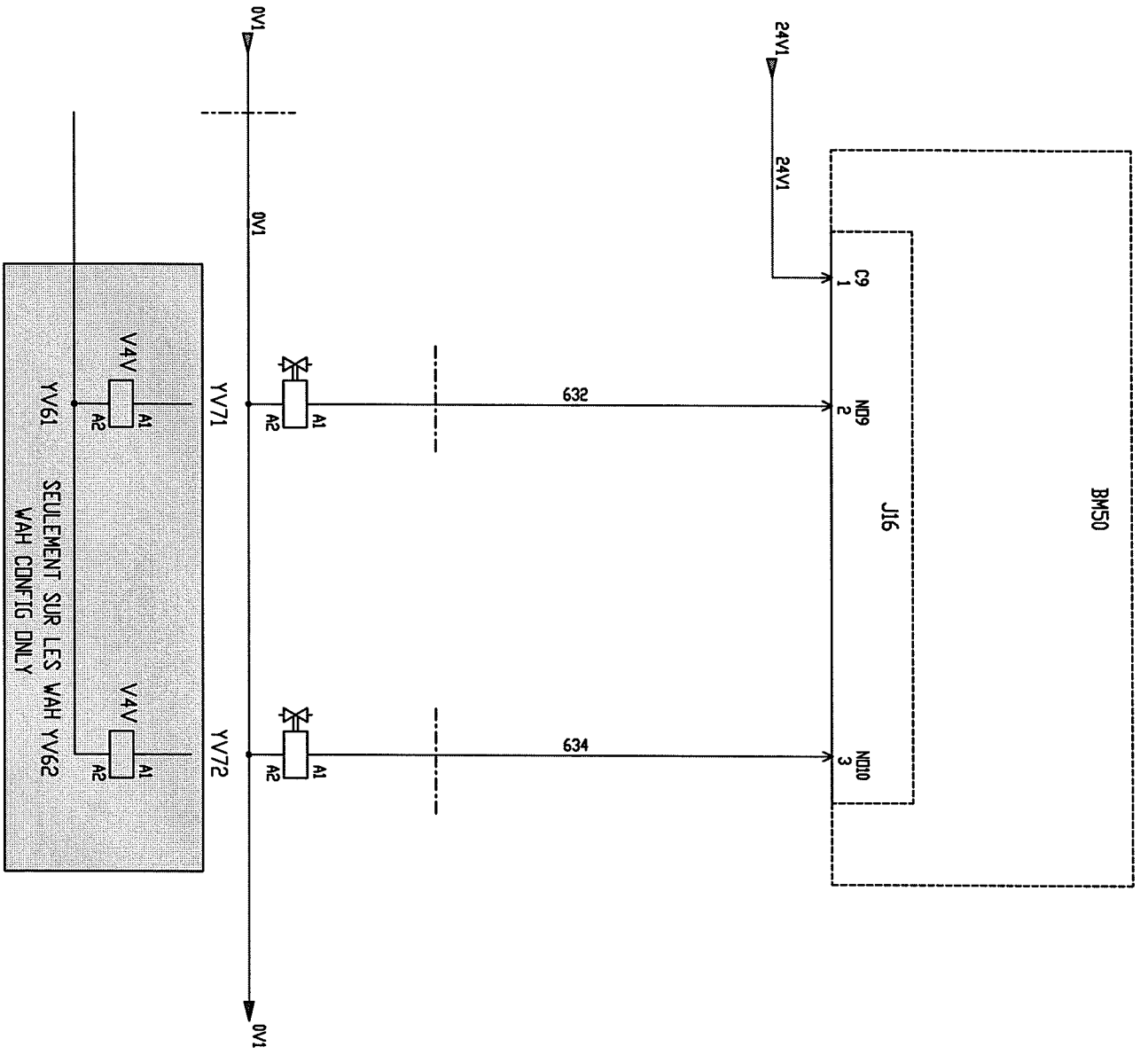
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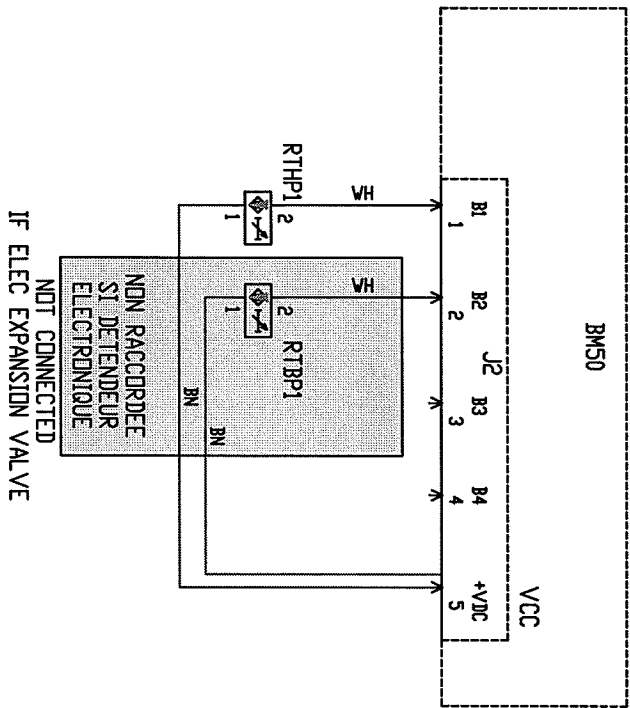
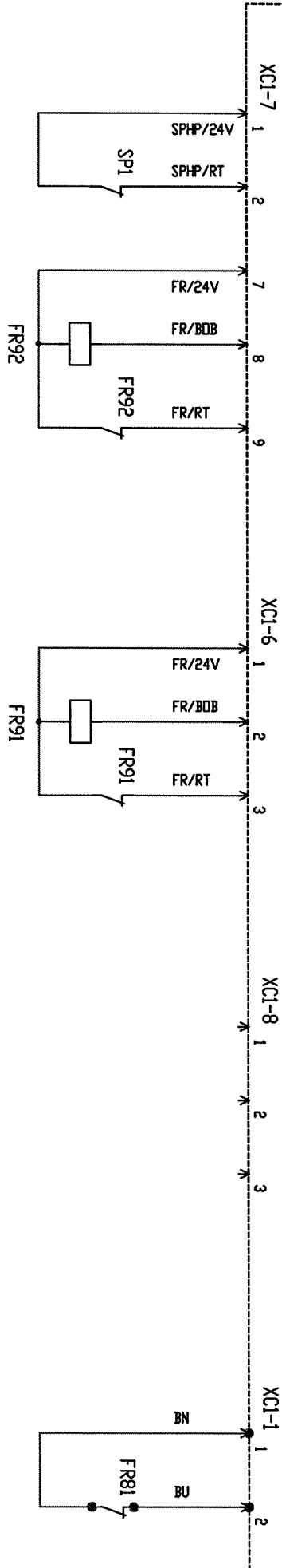


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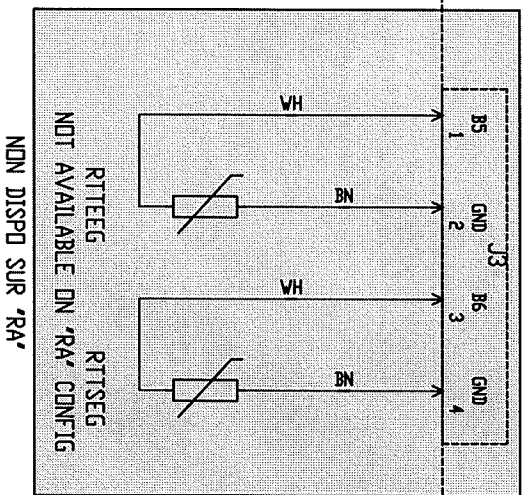


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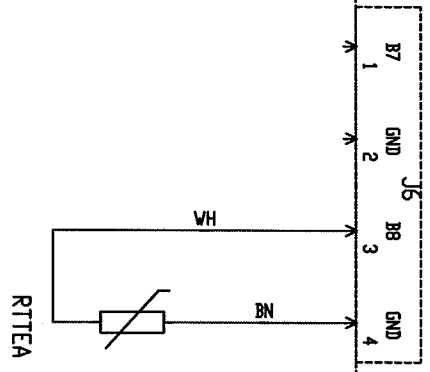
INTERFACE BOARD AP1
 CARTE INTERFACE AP1



SCHEMA ELECTRIQUE



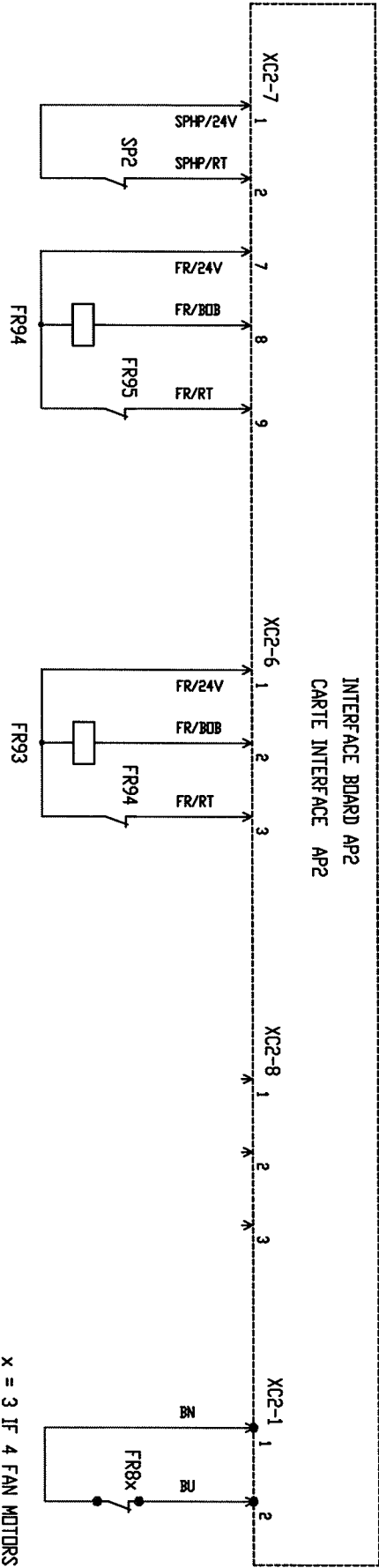
BMSO



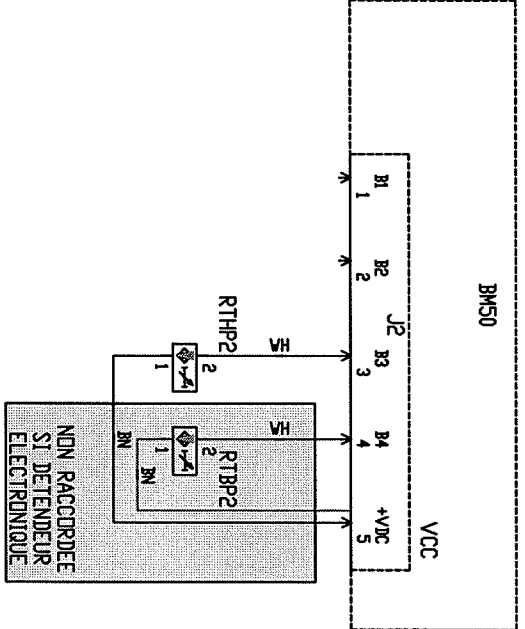
SCHEMA ELECTRIQUE

0 1 2 3 4 5 6 7 8 9

INTERFACE BOARD AP2
 CARTE INTERFACE AP2



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



NOT CONNECTED
 IF ELEC. EXPANSION VALVE

SCHEMA ELECTRIQUE