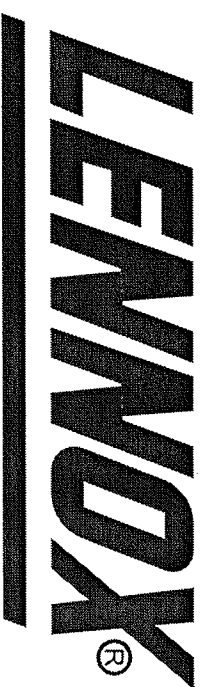


*DOSSIER ELECTRIQUE
ELECTRICAL FILE*



WA 370D K STD

Item / Name
CTD
Date / Date
21/07/2004

SE127589

1/
20

CARACTERISTIQUES MACHINE			
MACHINE CHARACTERISTICS			
400 V	Pmax (kW)	I _{max} (A)	I _{dem} (A)
	3.50HZ	189.00	312.00
			537.00

**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	ZR310	28.68	46.61
M3	Compresseur	Compressor motor	ZR310	28.68	46.61
M4	Compresseur	Compressor motor	ZR310	28.68	46.61
M5	Compresseur	Compressor motor	ZR310	28.68	46.61
M6	Compresseur	Compressor motor	ZR310	28.68	46.61
M31	Ventilateur	Fan motor	ZA_1350	2.5	4.7
M32	Ventilateur	Fan motor	ZA_1350	2.5	4.7
M33	Ventilateur	Fan motor	ZA_1350	2.5	4.7
M34	Ventilateur	Fan motor	ZA_1350	2.5	4.7
M35	Ventilateur	Fan motor	ZA_1350	2.5	4.7
M36	Ventilateur	Fan motor	ZA_1350	2.5	4.7

SCHEMA ELECTRIQUE

NOMENCLATURE ARMOIRE ELECTRIQUE
ELECTRIC PANEL ASSEMBLY BILL OF MATERIAL

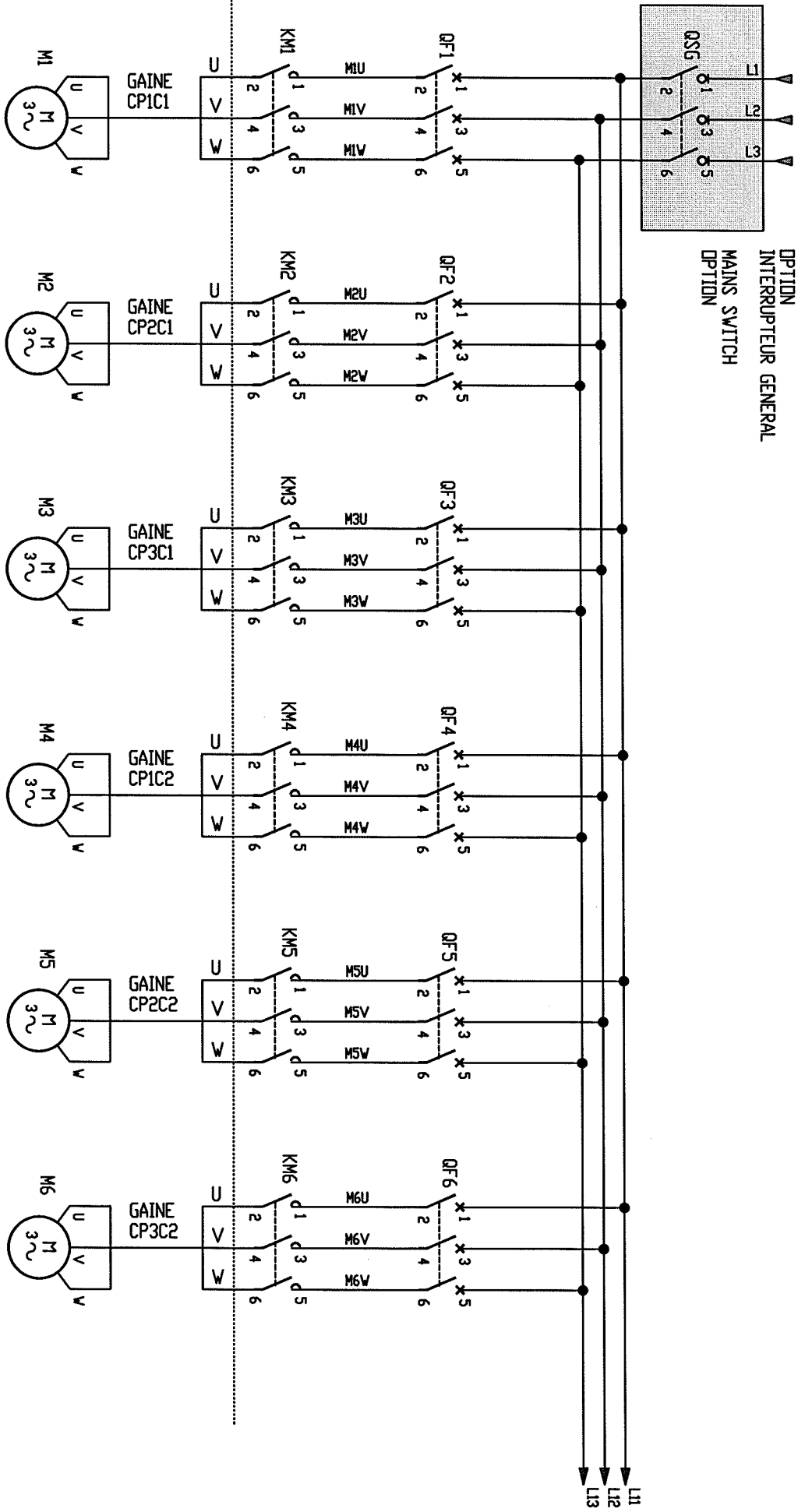
0	1	2	3	4	5	6	7	8	9
REPERE MARKER	DESIGNATION	DESIGNATION	DESIGNATION	DESIGNATION	DESIGNATION	DESIGNATION	FOURNISSEUR SUPPLIER	REFERENCE REFERENCE	
AP1	Carte interface circuit 1	Interface board circuit1					INF-01b/c		
AP2	Carte interface circuit 2	Interface board circuit 2					INF-02b/c		
Dé01	Alimentation peigne	Supply cable assembly					GV1G09		
Dé02	Peigne 1	Cable assembly 1					GV2G445		
KM1	Contacteur compresseur M1	Compressor contactor M1					LC1D40B7		
KM2	Contacteur compresseur M2	Compressor contactor M2					LC1D40B7		
KM3	Contacteur compresseur M3	Compressor contactor M3					LC1D40B7		
KM32	Contacteur ventilateur M32	Fan contactor M32					GV2ME10K1B7		
KM33	Contacteur ventilateur M33	Fan contactor M33					GV2ME10K1B7		
KM35	Contacteur ventilateur M35	Fan contactor M35					GV2ME10K1B7		
KM36	Contacteur ventilateur M36	Fan contactor M36					GV2ME10K1B7		
KM4	Contacteur compresseur M4	Compressor contactor M4					LC1D40B7		
KM5	Contacteur compresseur M5	Compressor contactor M5					LC1D40B7		
KM6	Contacteur compresseur M6	Compressor contactor M6					LC1D40B7		
KT91	Relais temporisé	Time delayed relay					RE8TA31BUTQ		
KT92	Relais temporisé	Time delayed relay					RE8TA31BUTQ		
QF1	Disjoncteur compresseur M1	Compressor circuit breaker M1					GV3ME63		
QF2	Disjoncteur compresseur M2	Compressor circuit breaker M2					GV3ME63		
QF3	Disjoncteur compresseur M3	Compressor circuit breaker M3					GV3ME63		
QF31	Disjoncteur ventilateur M31	Fan circuit breaker M31					GV2ME103		
QF34	Disjoncteur ventilateur M34	Fan circuit breaker M34					GV2ME103		
QF4	Disjoncteur compresseur M4	Compressor circuit breaker M4					GV3ME63		
QF5	Disjoncteur compresseur M5	Compressor circuit breaker M5					GV3ME63		
QF6	Disjoncteur compresseur M6	Compressor circuit breaker M6					GV3ME63		
QF70	Disjoncteur primaire TC1	Primary circuit breaker TC1					GB2DB08		
QF72	Disjoncteur secondaire TC1	Secondary circuit breaker TC1					GB2CD16		
QF73	Disjoncteur secondaire TC1	Secondary circuit breaker TC1					GB2CD16		
QF74	Disjoncteur départ résistances	Fan circuit breaker M38					GV2ME083		
QSG	Interrupleur	Main power switch					31108		
QSG	Répartiteur	Terminal block					REP400A		
QSG	Cde frontale prolongée	Front operated isolator					31052		
QSG	Cache bornes	Terminal block cover					32565		
TC1	Transformateur contrôle	Transformer 24V					ABL6TS63B		

0	1	2	3	4	5	6	7	8	9
EHI-->9	Résistance carter Crankcase heater		R	Résistances triphasées 3 phase heater		SP114-->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		
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 refoulement Discharge temperature		ST71-->75	Thermostat de dégivrage Defrost thermostat		
FU90	Fusibles divers Various fuses		RTTASP	Température d'aspiration Suction temperature		ST76-->85	Thermostat antifigel 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	Électrovanne liquide liquid line solenoid valve		
HL41-->49	Voyant arrêt sécurité Safety shutdown light signal		SP11-->15	Pressostat BP sécurité BP pressure switch		YV6-->15	Électrovanne 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	Électrovanne 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	Électrovanne économiseur Economizer solenoid valve		
HL90	Voyant divers Various light signal		SP31-->50	Pressostat HP de commande ventilateur Fan control HP pressure switch		YV26-->35	Électrovanne 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	Électrovanne 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	Électrovanne 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	Électrovanne 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	Électrovanne by-pass détenteur Thermostatic expansion valve by-pass solenoid valve		
P1	Afficheur Display		SP90-->110	Pressostats divers Various pressure switch		YV90	Électrovanne diverses Various solenoid valves		

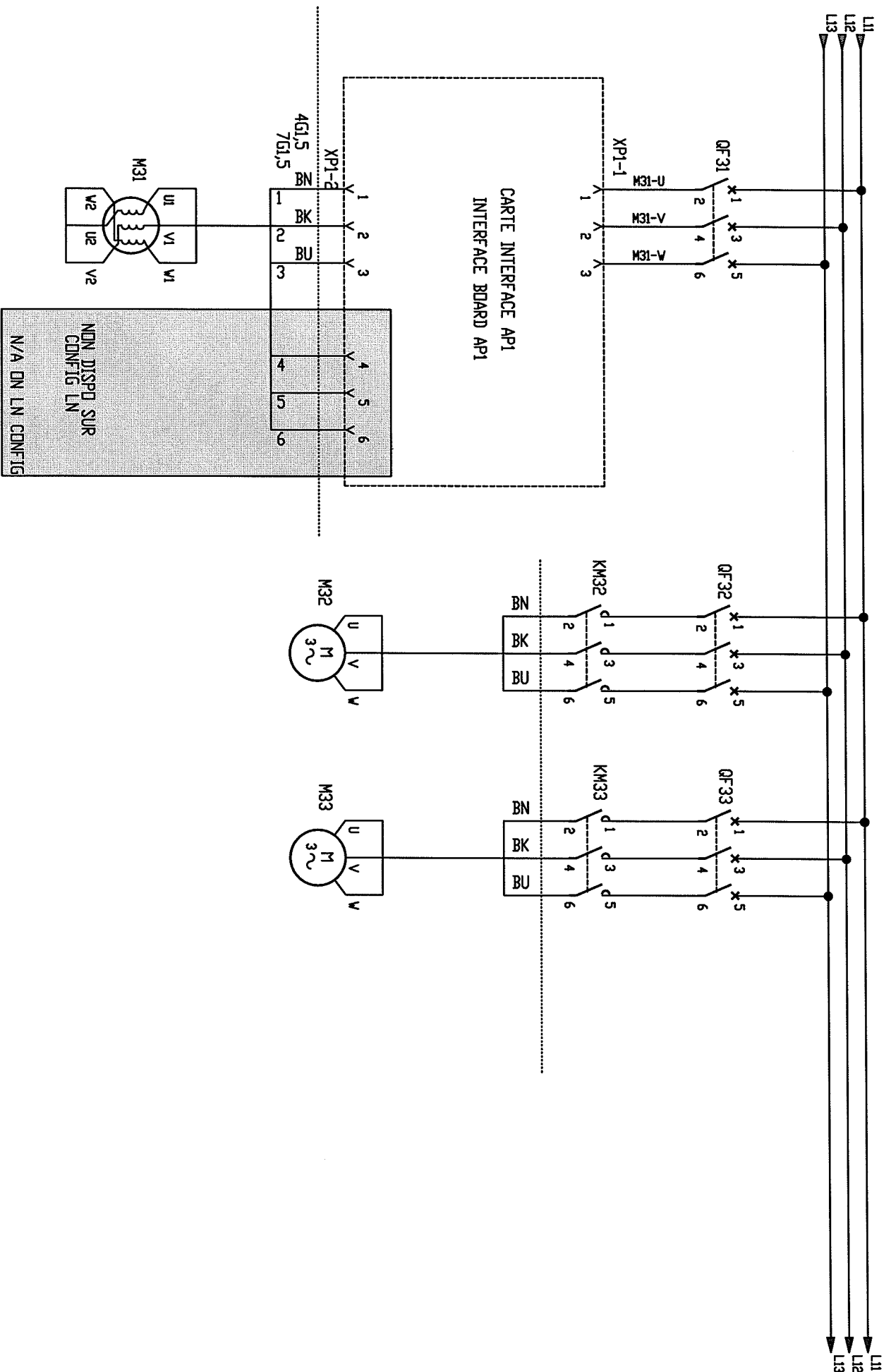
0	1	2	3	4	5	6	7	8	9
EH1-->9	Crankcase heater		R	3 phase heater		SP111-->115	HP LP combined switch		
EH11-->15	Receiver heater		RC	RC circuit		ST11-->15	Receiver control thermostat		
EH16-->25	Evaporator heater		RT	Temperature or pressure sensor		ST16-->25	Evaporator resistance control thermostat		
EH26-->35	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		
KAS0-->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		

SCHEMA ELECTRIQUE

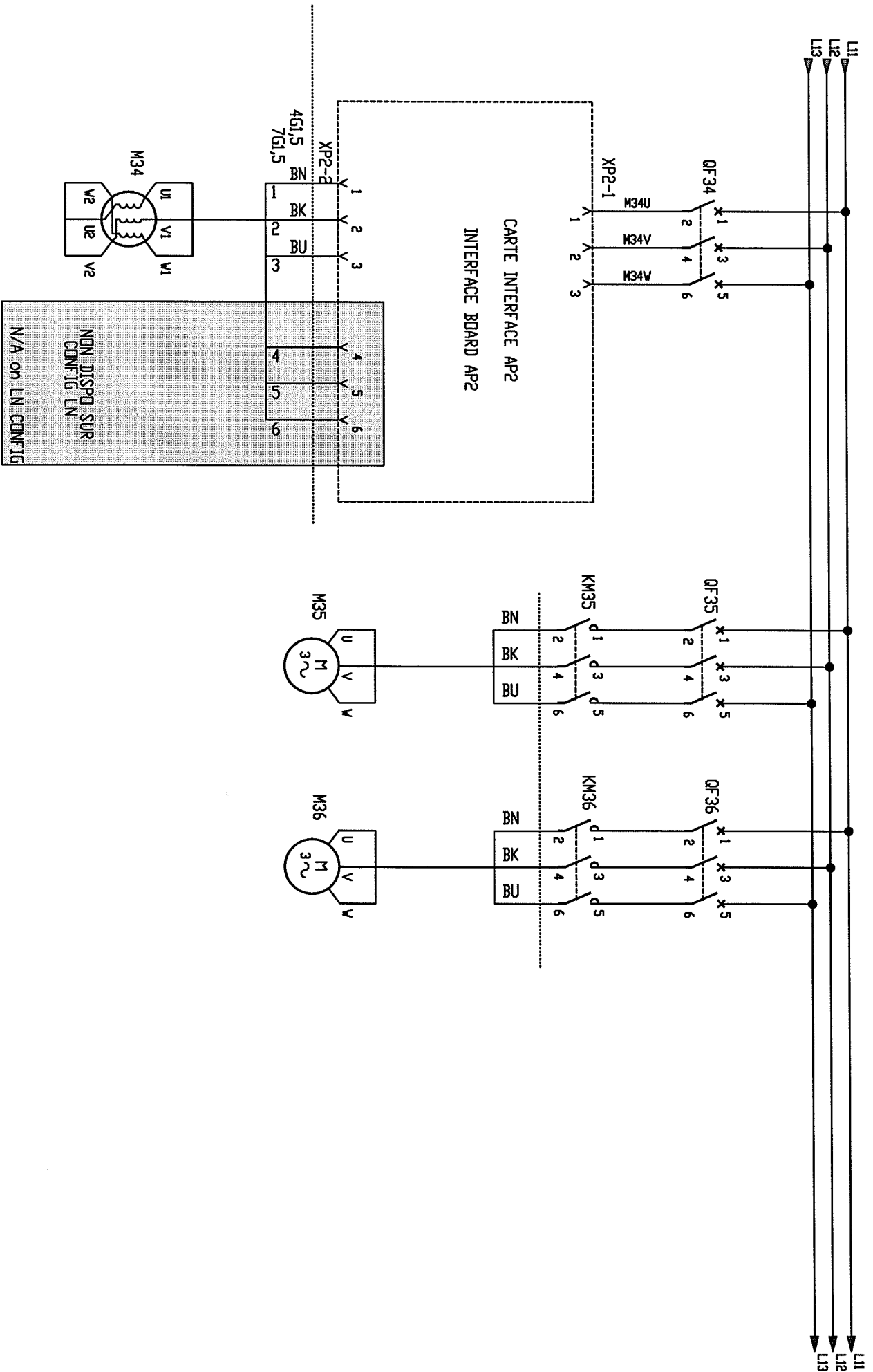
0 1 2 3 4 5 6 7 8 9



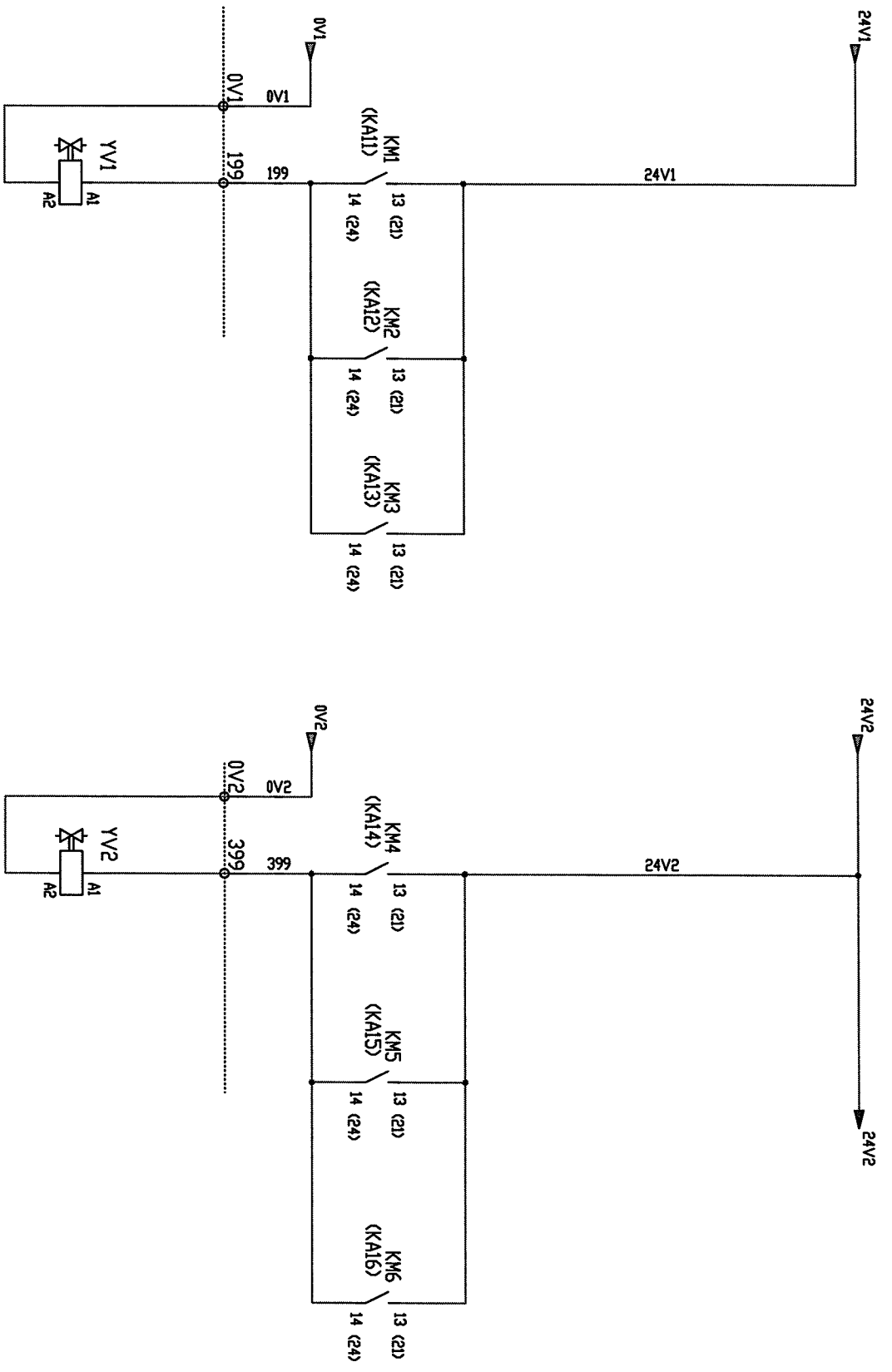
SCHEMA ELECTRIQUE



SCHEMA ELECTRIQUE

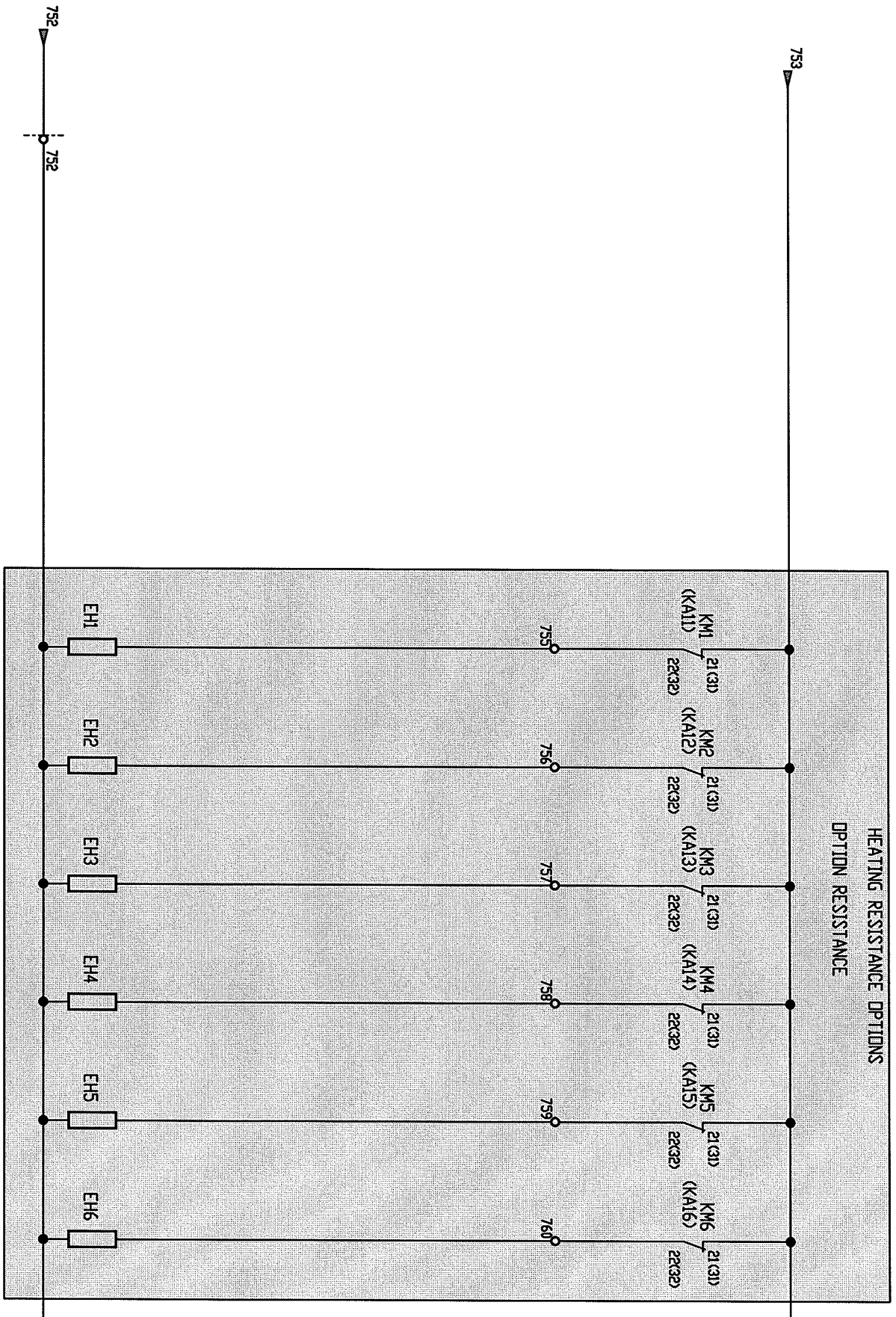


SCHEMA ELECTRIQUE



IF STARTER OPTION LH4: KM1 --> KA11 KM4 --> KA14
 SI DEM ELEC OPTION LH4: KM2 --> KA12 KM5 --> KA15
 KM3 --> KA13 KM6 --> KA16

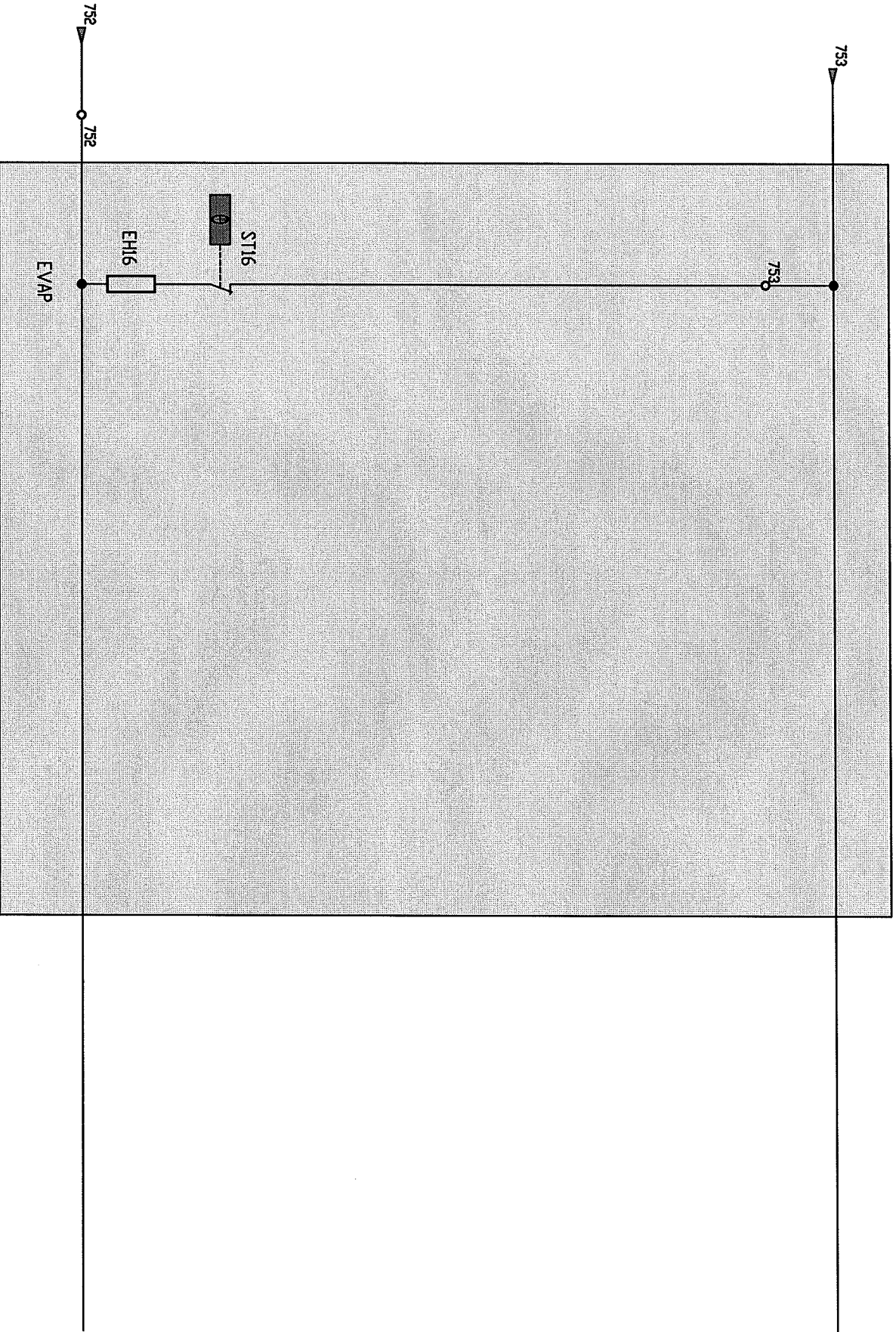
SCHEMA ELECTRIQUE



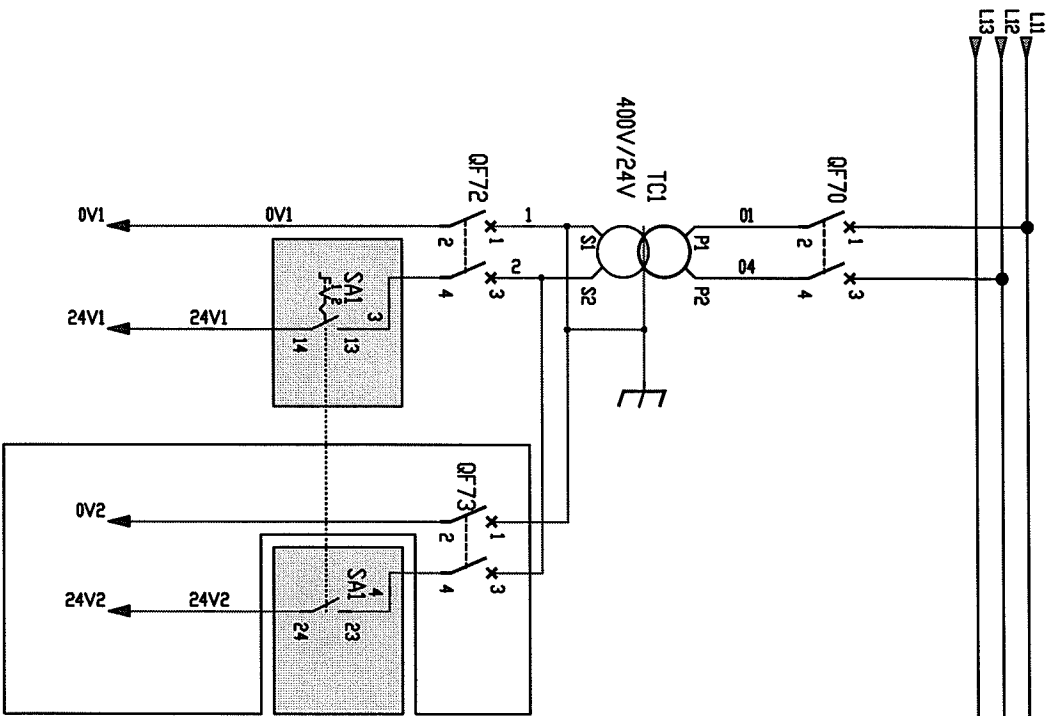
IF SDFSTARTER OPTION LH4: KM1 --> KAI1
 SI DEM ELEC OPTION LH4: KM2 --> KAI2
 KM3 --> KAI3
 KM4 --> KAI4
 KM5 --> KAI5
 KM6 --> KAI6

SCHEMA ELECTRIQUE

0 1 2 3 4 5 6 7 8 9



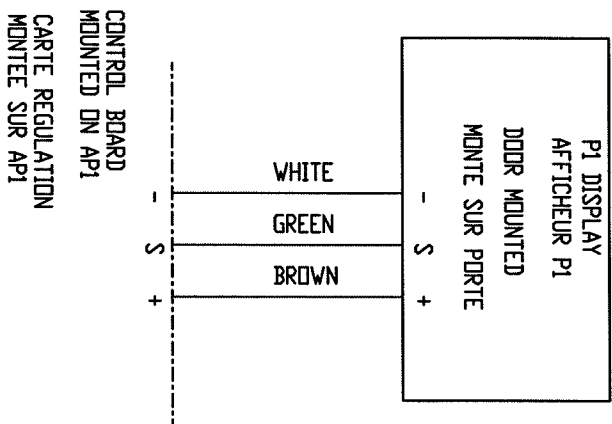
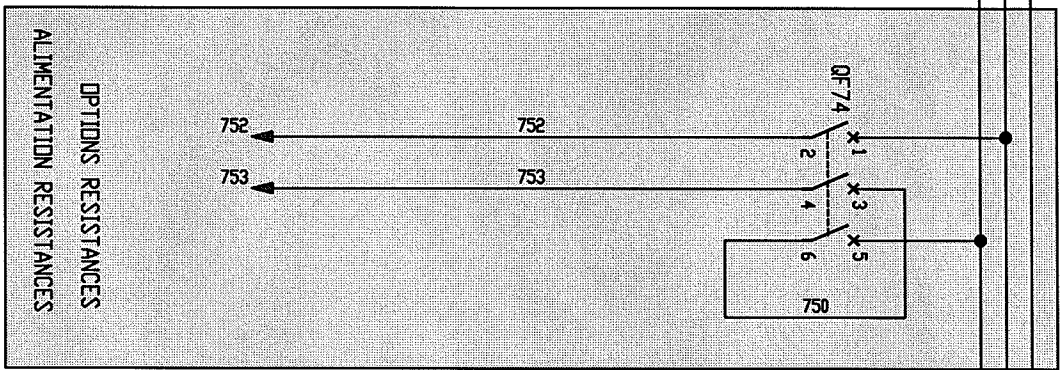
SCHEMA ELECTRIQUE



IF NO OPTION
 MAINS SWITCH
 SAI DOOR MOUNTED
 SI PAS OPTION
 INTERRUPTEUR AG
 SAI SUR PORTE

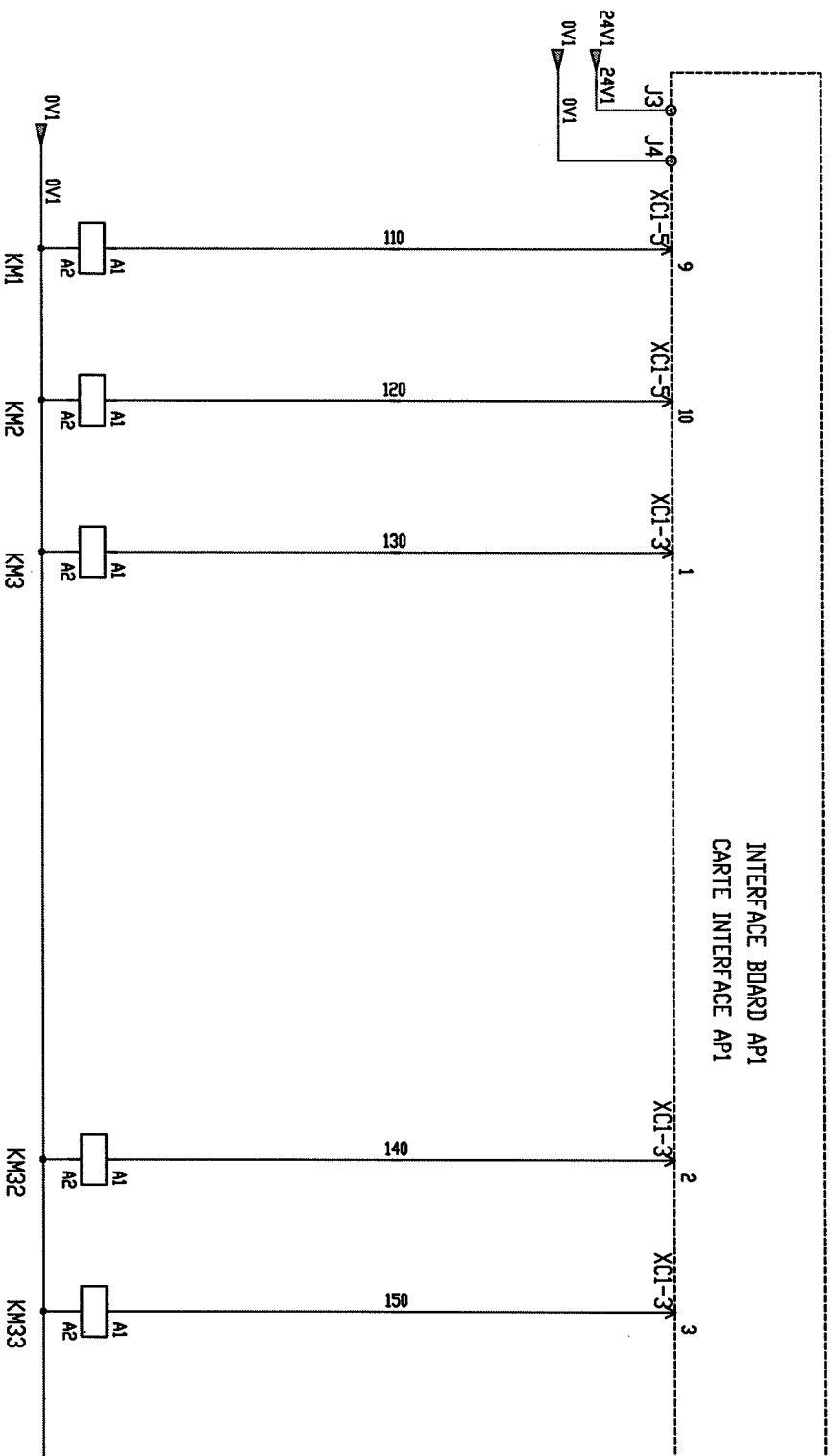
SI POWER
 TRANSFO >250 VA
 SI PUissance
 TRANSFO >250 VA

CONTROL POWER SUPPLY
 ALIMENTATION CONTRÔLE

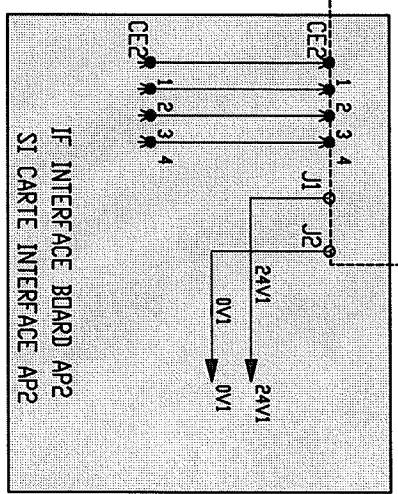
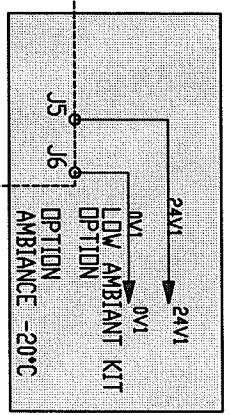


CONTROL BOARD
 MOUNTED ON AP1
 CARTE REGULATION
 MONTÉE SUR AP1

SCHEMA ELECTRIQUE



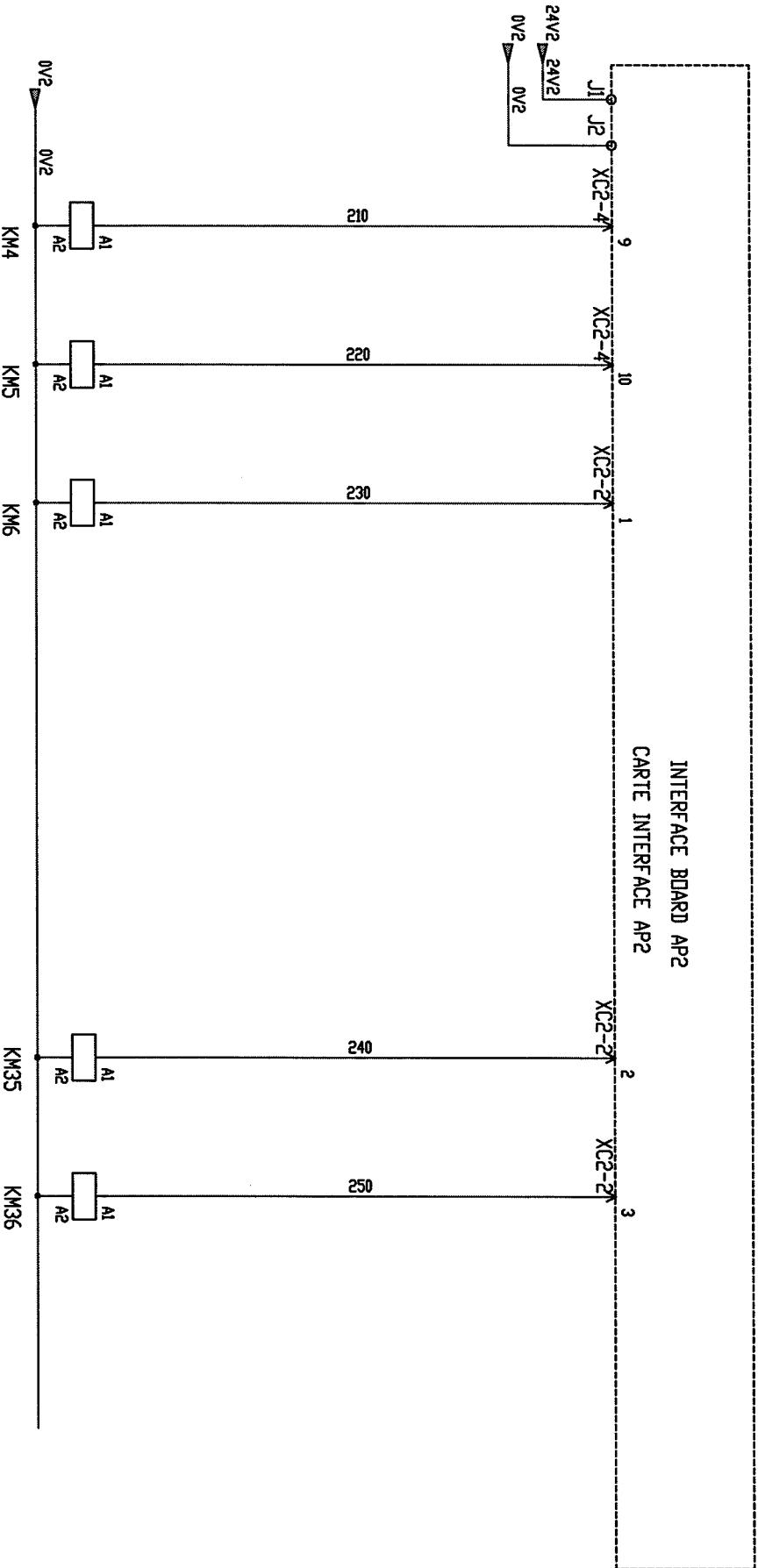
INTERFACE BOARD AP1
 CARTE INTERFACE AP1



IF SDF STARTER OPTION LH4: KM1 --> KA11
 SI option démarreur LH4: KM2 --> KA12
 KM3 --> KA13

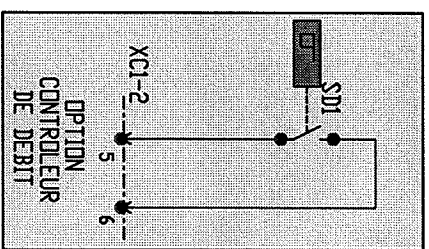
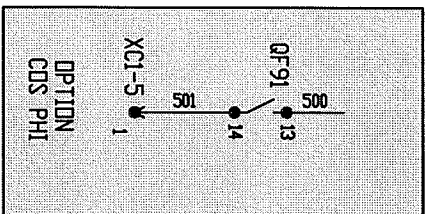
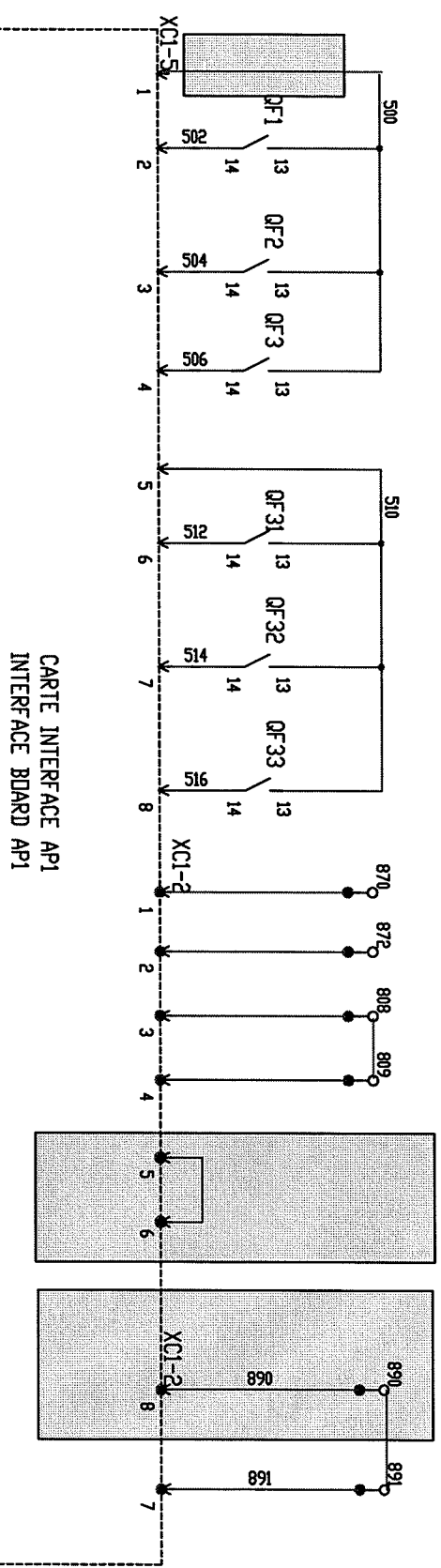
SCHEMA ELECTRIQUE

IF SDF STARTER OPTION LH4:KM4 --> KA14
 SI option démarreur LH4: KM5 --> KA15 KM6 --> KA16

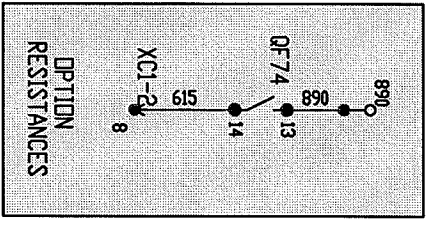


INTERFACE BOARD AP2
 CARTe INTERFACE AP2

SCHEMA ELECTRIQUE

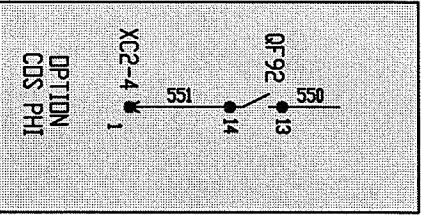
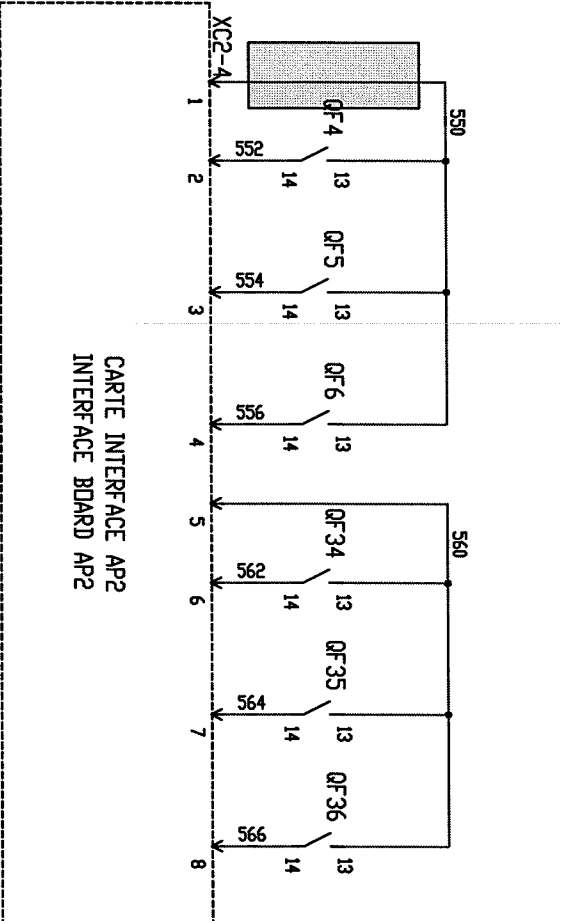


FLOW SWITCH
OPTION

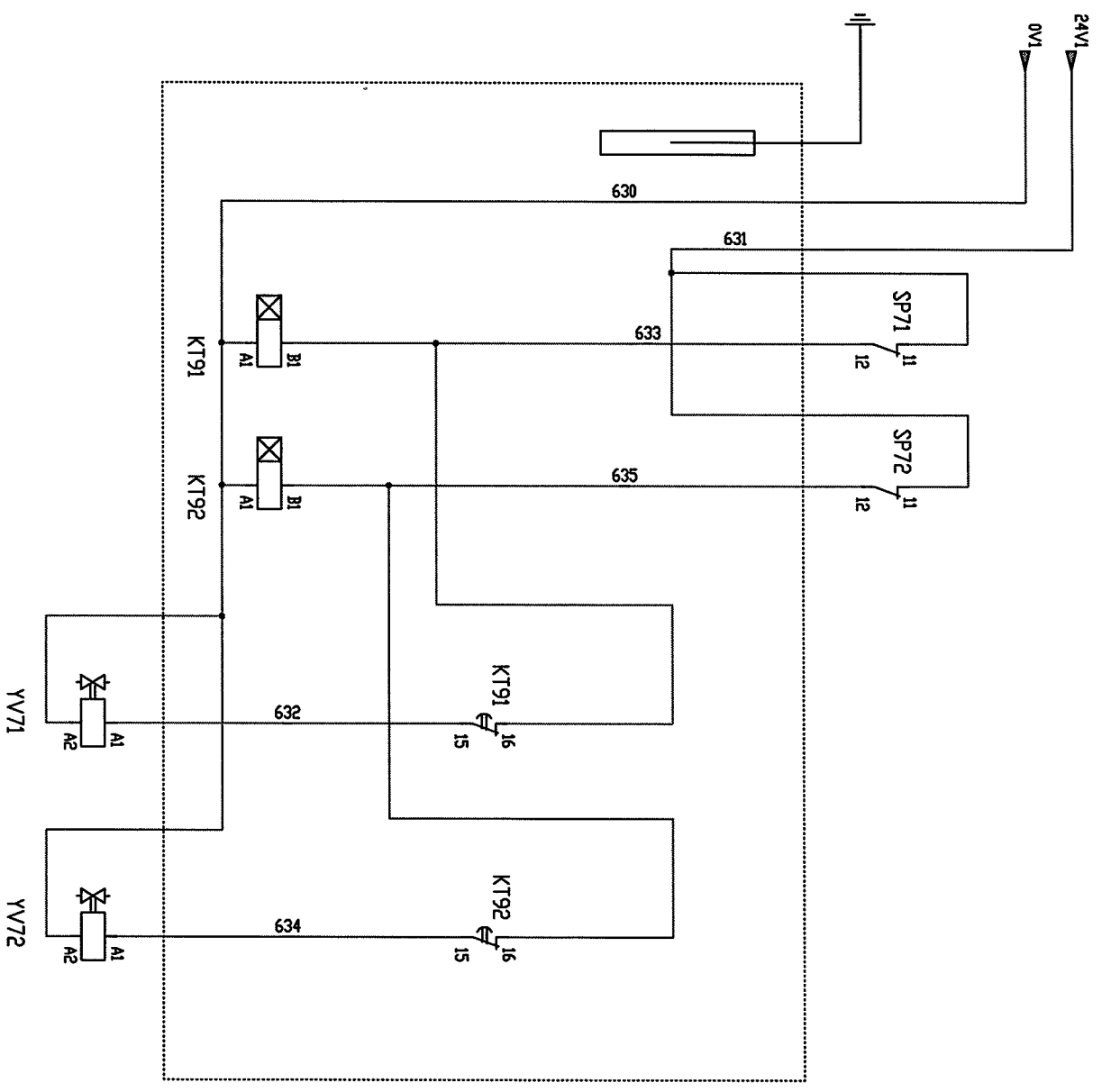


RESISTANCE
OPTION

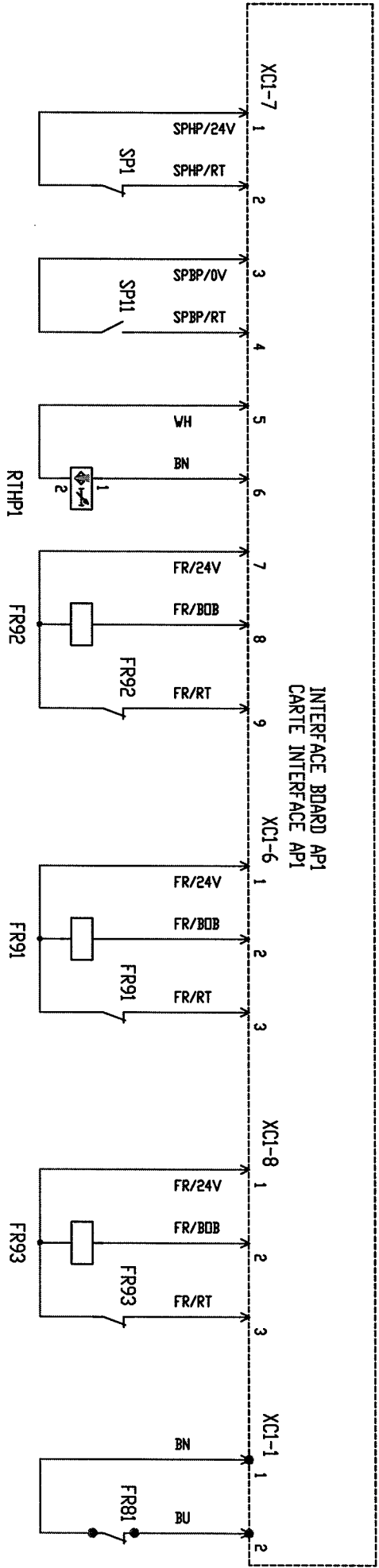
SCHEMA ELECTRIQUE



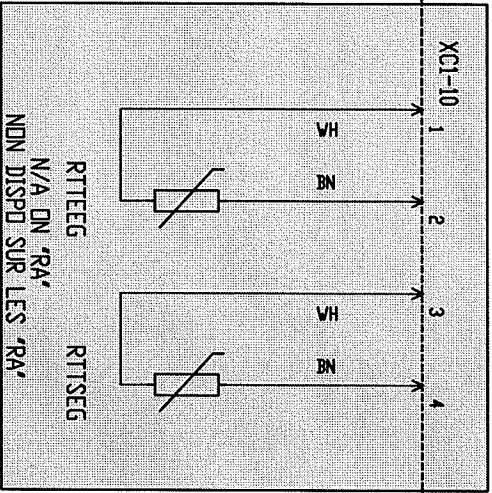
SCHEMA ELECTRIQUE



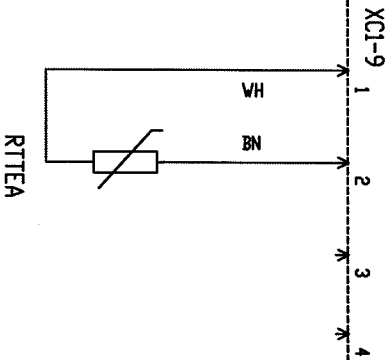
SCHEMA ELECTRIQUE



SCHEMA ELECTRIQUE

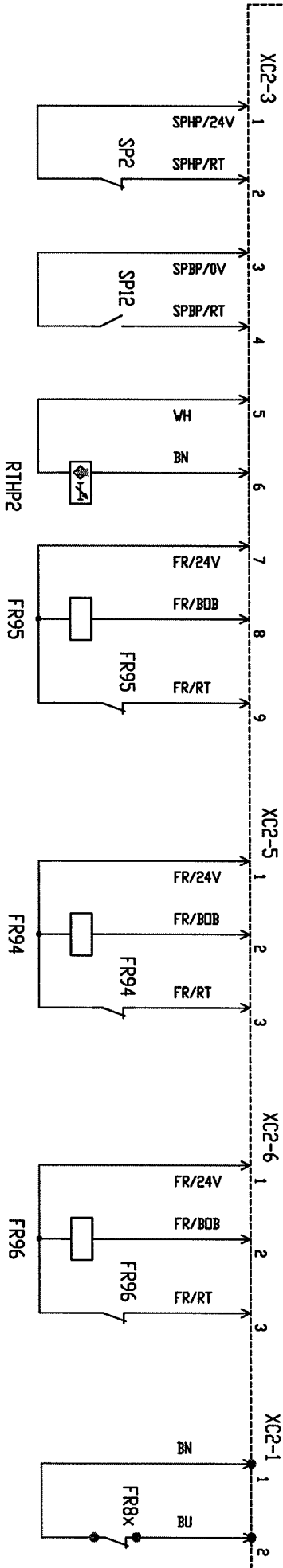


INTERFACE BOARD AP1
CARTIE INTERFACE AP1



SCHEMA ELECTRIQUE

INTERFACE BOARD AP2
 CARTE INTERFACE AP2



x = 3 IF 4 FAN MOTORS / SI 4 Moto - Ventilateur
 x = 4 IF 6 FAN MOTORS / SI 6 Moto - Ventilateur

SCHEMA ELECTRIQUE