

*DOSSIER ELECTRIQUE
ELECTRICAL FILE*

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LENNOX UK

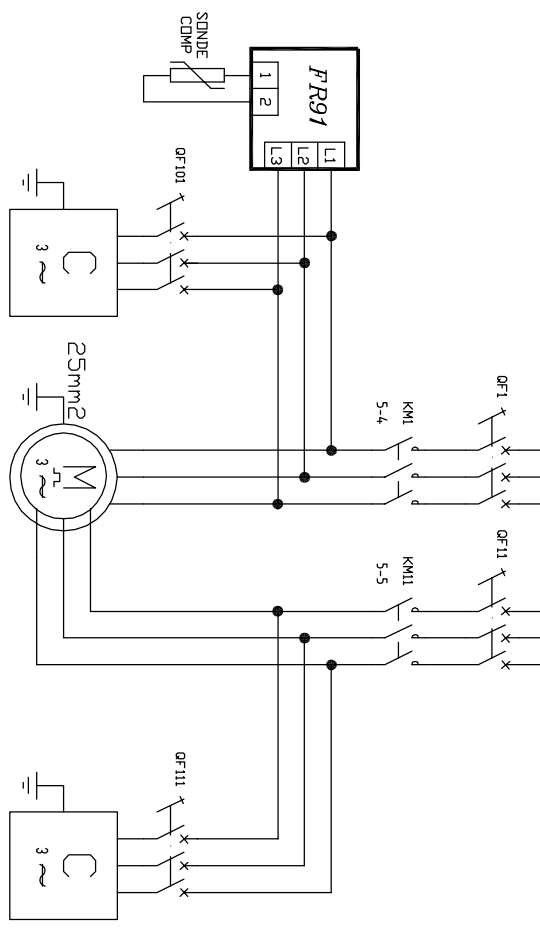
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Date: 23-10-2006

SE133204

0 / 12

L11
L12
L13

L11
L12
L13



3x 6 mm² 3x25 mm² + 3x 25 mm² 3x 6 mm²

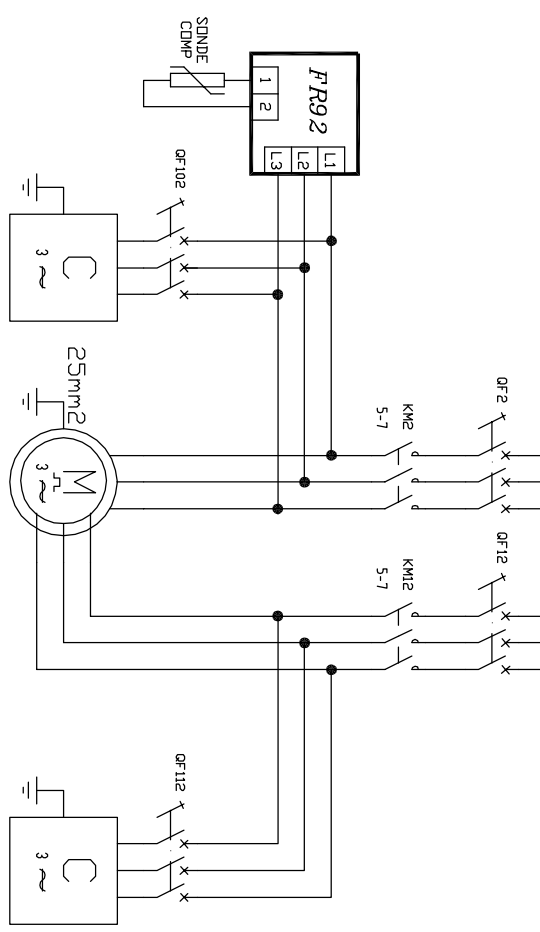
↳ 20A ↳ 80A ↳ 80A ↳ 20A

C101 M1 C111

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|------|----------------------|
| COND | 4x 6 mm ² |
| P | = 6,3 kW |
| In | = 15,8 A |

| | |
|----------------|-------------|
| COND | CSH7571-90V |
| P | = 95 kW |
| In | = 158 A |
| I _Δ | = 423 A |

| | |
|------|----------------------|
| COND | 4x 6 mm ² |
| P | = 6,3 kW |
| In | = 15,8 A |



3x 6 mm² 3x25 mm² + 3x 25 mm² 3x 6 mm²

↳ 20A ↳ 80A ↳ 80A ↳ 20A

C102 M2 C112

| | |
|------|----------------------|
| COND | 4x 6 mm ² |
| P | = 6,3 kW |
| In | = 15,8 A |

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|----------------|-------------|
| COND | CSH7571-90V |
| P | = 95 kW |
| In | = 158 A |
| I _Δ | = 423 A |

| | |
|------|----------------------|
| COND | 4x 6 mm ² |
| P | = 6,3 kW |
| In | = 15,8 A |

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| QF101 | NO | NF |
| 7-0 | | |

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| QF1 | NO | NF |
| 7-0 | | |

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| QF11 | NO | NF |
| 7-0 | | |

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| QF111 | NO | NF |
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| QF102 | NO | NF |
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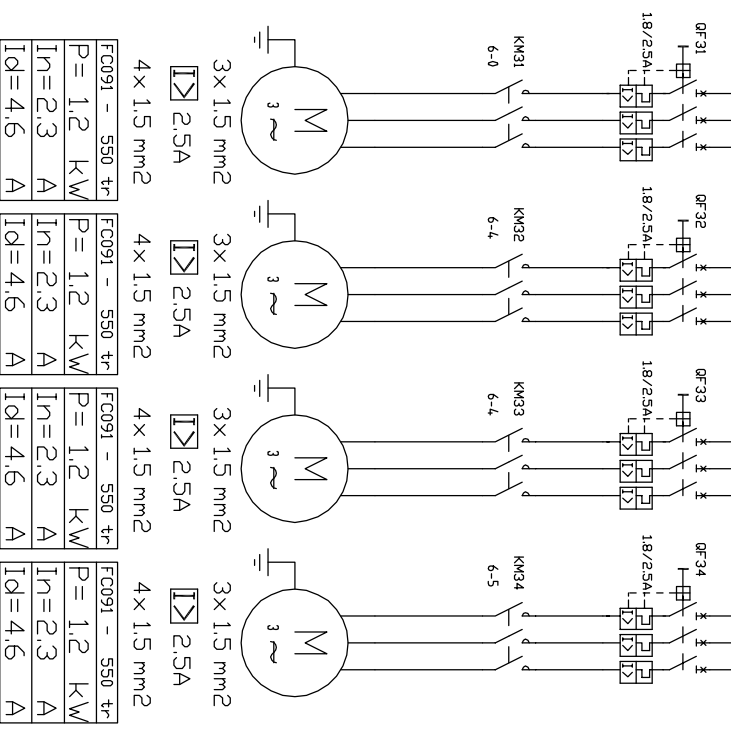
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| 7-2 | | |

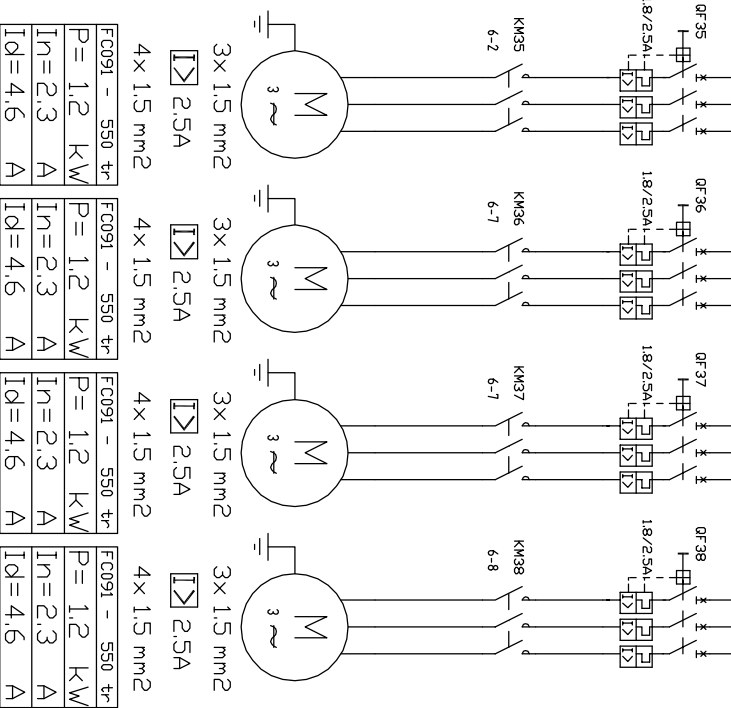
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| 7-2 | | |

SCHEMA ELECTRIQUE

L11
L12
L13
L11
L12
L13



M31 M32 M33 M34



M35 M36 M37 M38

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| QF31 | NO | NF | 10-1 |
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| QF32 | NO | NF | 10-1 |
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| QF33 | NO | NF | 10-1 |
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| QF34 | NO | NF | 10-2 |
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| QF35 | NO | NF | 10-1 |
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| QF36 | NO | NF | 10-1 |
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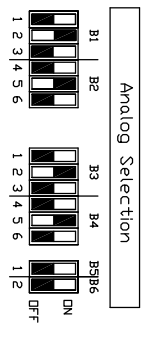
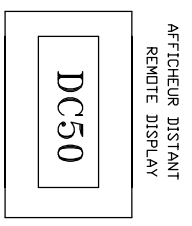
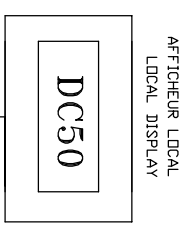
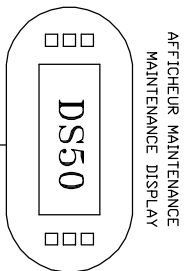
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| QF37 | NO | NF | 10-1 |
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| QF38 | NO | NF | 10-2 |
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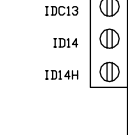
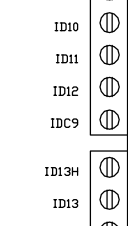
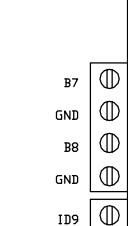
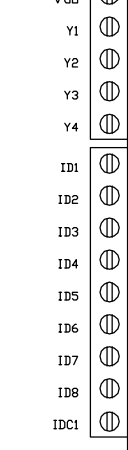
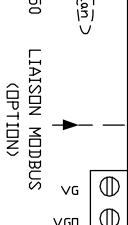
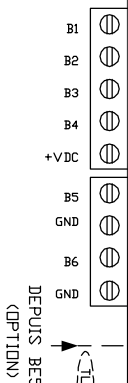
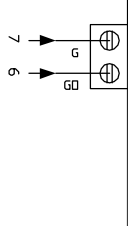
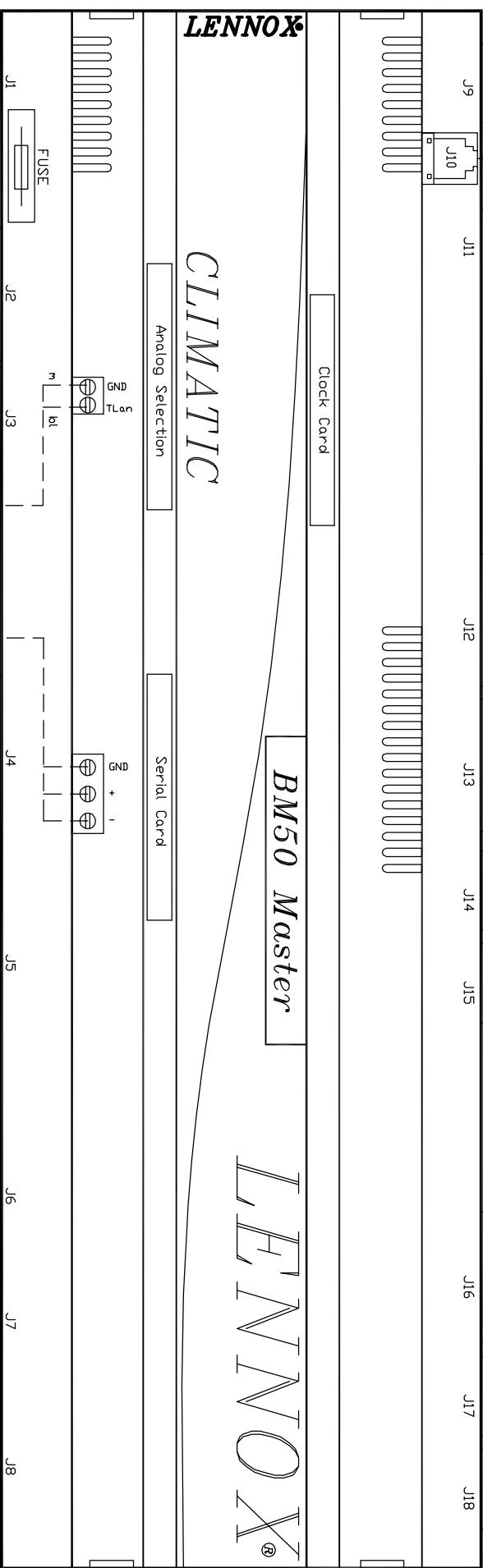
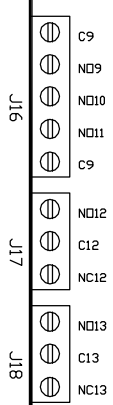
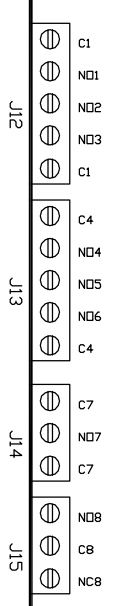
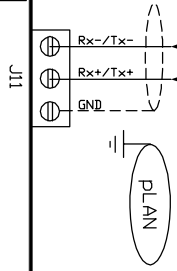
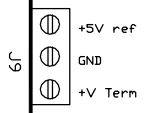
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0 1 2 3 4 5 6 7 8 9

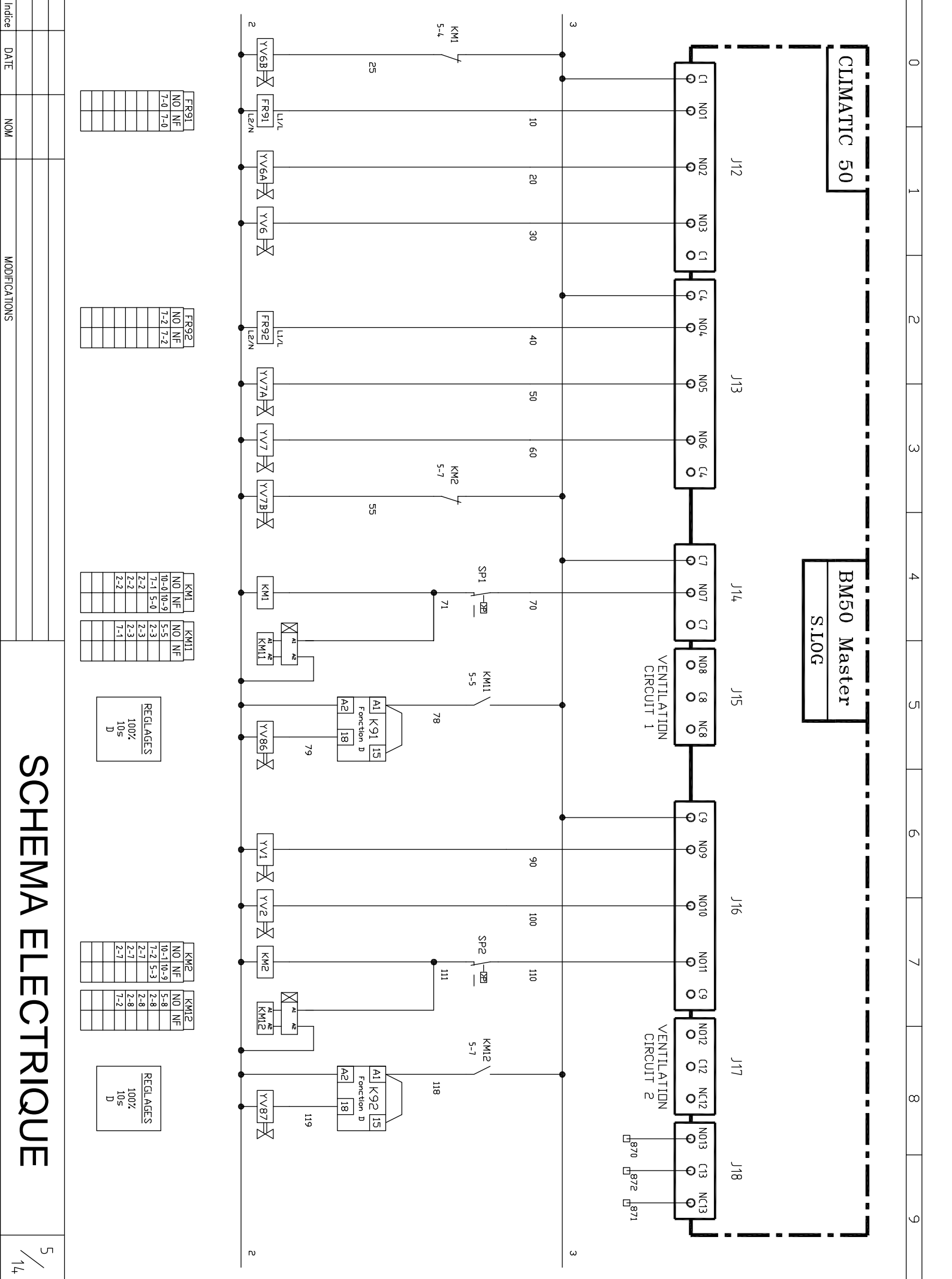


| Input B1-B2-B3-B4 | |
|-------------------|--------|
| DN | Input |
| DN | 0/1V |
| DN | NTC |
| DN | 0/20mA |
| DN | 0/5V |

| Input B5-B6 | |
|-------------|---------------|
| DN | Input |
| DN | digital input |
| DN | NTC |



SCHEMA ELECTRIQUE



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| FR91 | NO | NF |
| 7-0 | 7-0 | |
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| FR92 | NO | NF |
| 7-2 | 7-2 | |
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| KM1 | NO | NF |
| 10-0 | 10-9 | |
| 7-1 | 5-0 | |
| 2-2 | 2-3 | |
| 2-2 | 2-3 | |
| 2-2 | 2-3 | |
| 2-2 | 7-1 | |
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|------|----|----|
| KM11 | NO | NF |
| 5-5 | | |
| 2-3 | | |
| 2-3 | | |
| 2-3 | | |
| 7-1 | | |
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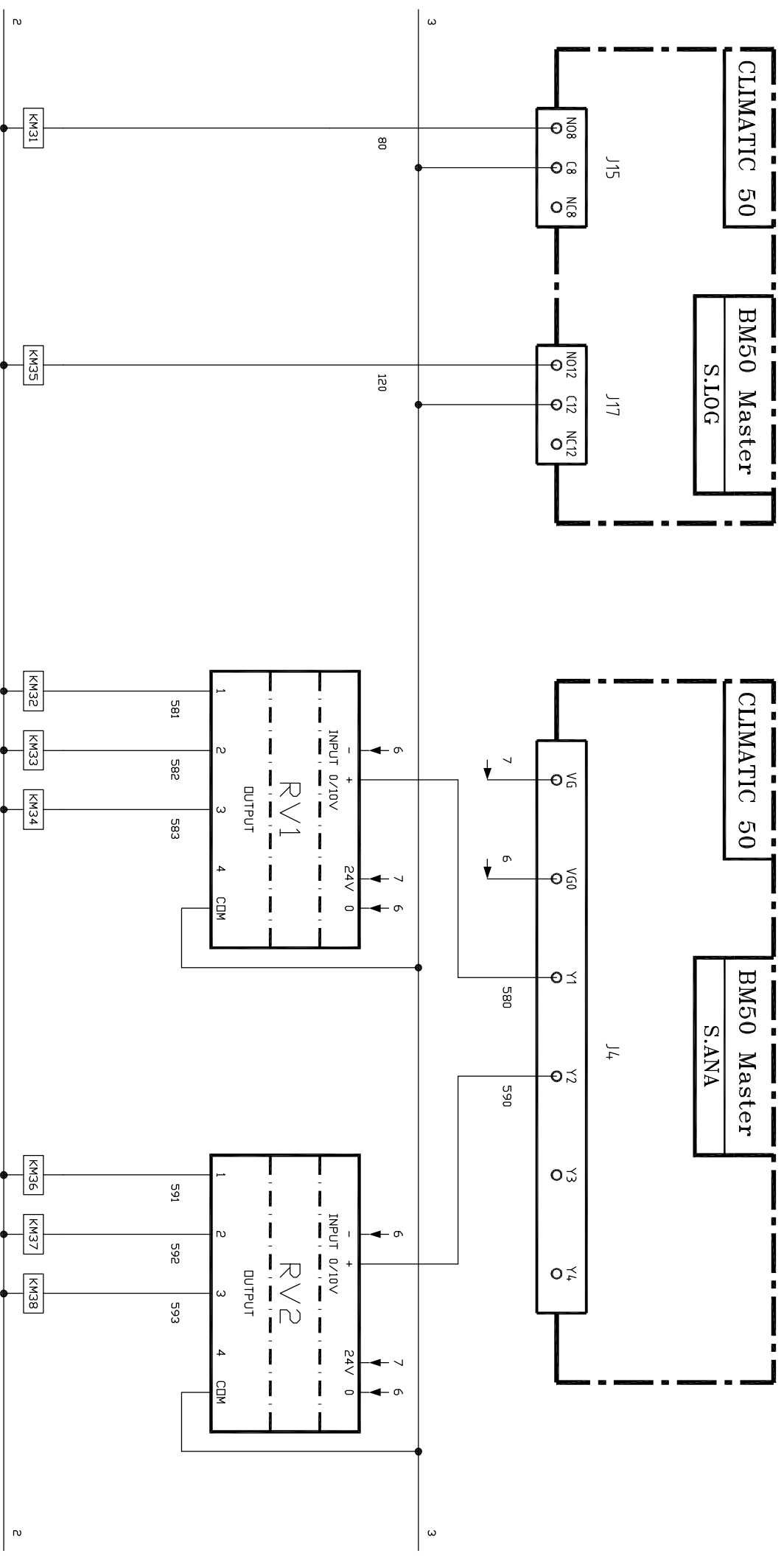
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| KM2 | NO | NF |
| 10-1 | 10-9 | |
| 7-2 | 5-3 | |
| 2-7 | 2-8 | |
| 2-7 | 2-8 | |
| 2-7 | 2-8 | |
| 7-2 | | |
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| KM12 | NO | NF |
| 5-8 | | |
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| KM31 | NO | NF |
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| KM35 | NO | NF |
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| | 3-6 | |
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| KM32 | NO | NF |
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| | 3-2 | |
| | 3-2 | |
| | 3-2 | |

| KM33 | NO | NF |
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| | 3-3 | |
| | 3-3 | |
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| KM34 | NO | NF |
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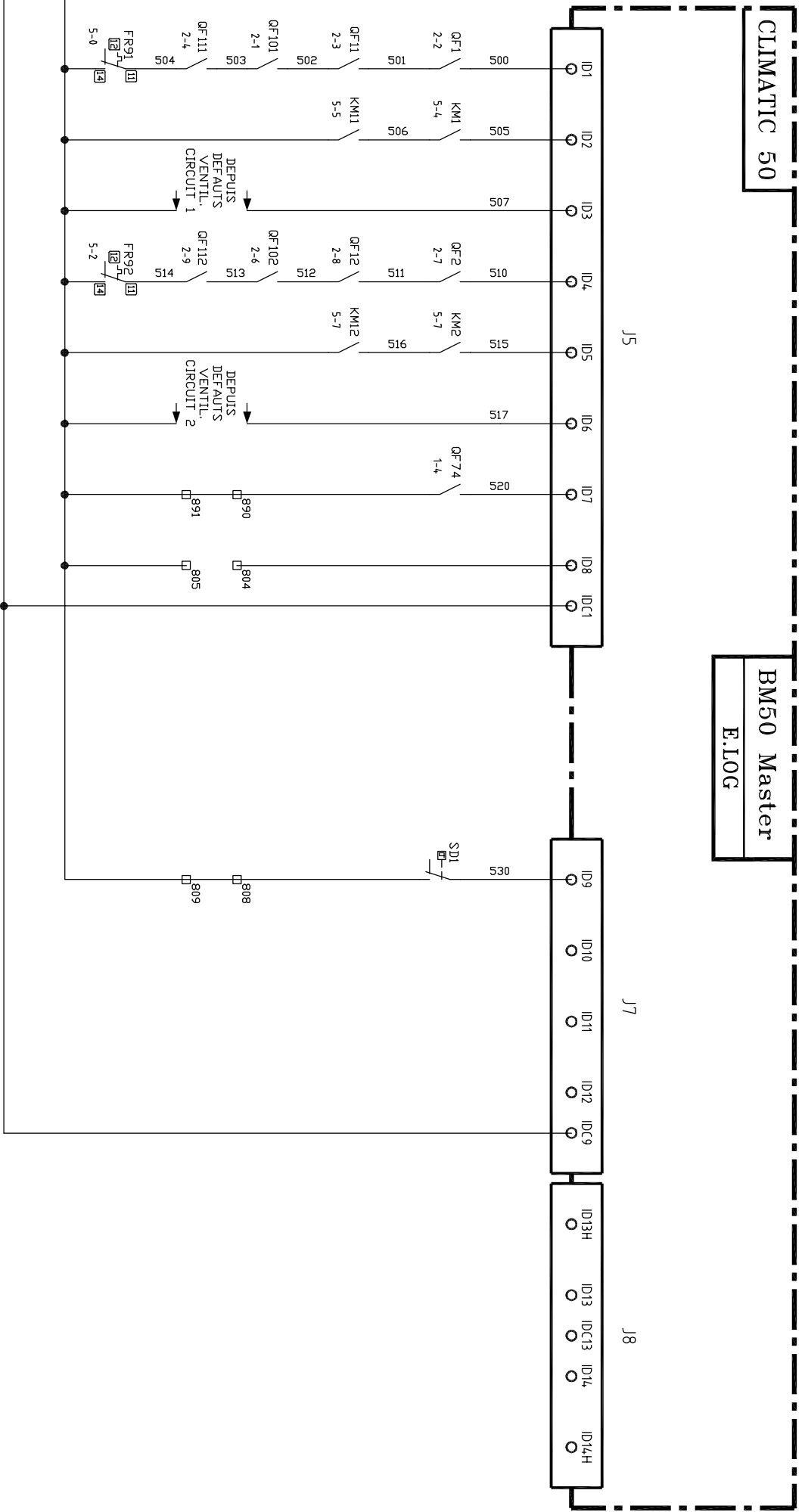
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| | 3-6 | |

| KM37 | NO | NF |
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| | 3-7 | |
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| KM38 | NO | NF |
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| | 3-8 | |
| | 3-8 | |
| | 3-8 | |

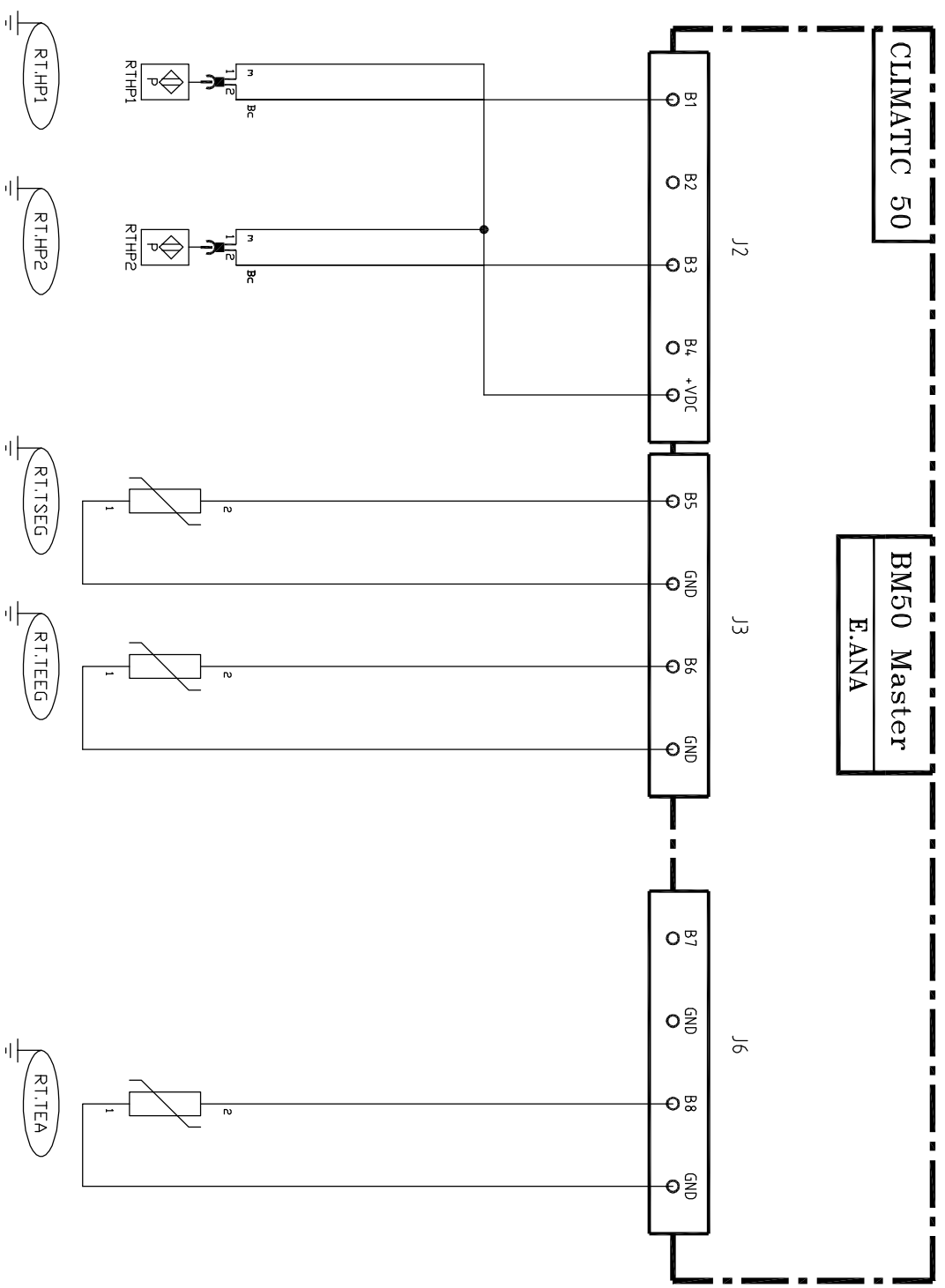
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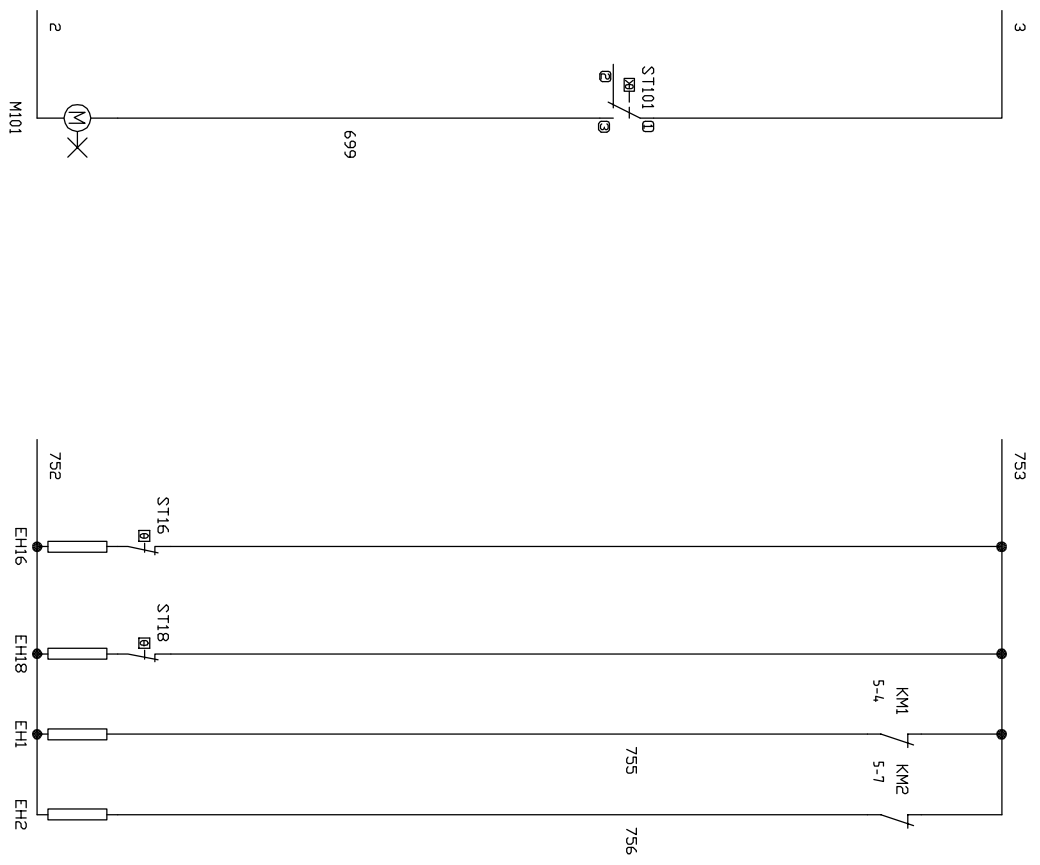
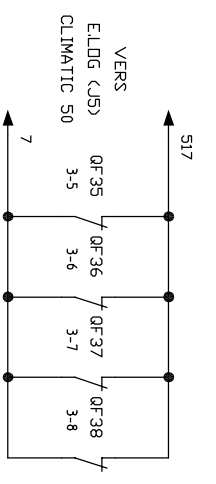
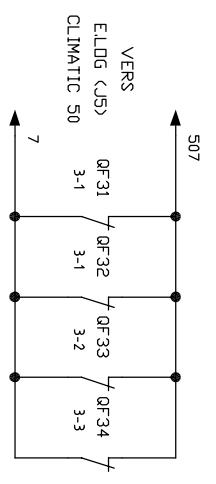
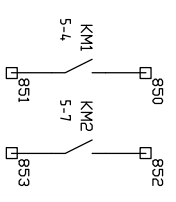
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| 9 |

ALIMENTATION
GENERALE
GENERAL
SUPPLY

| | | |
|---------|-----------------|----|
| NEUTRAL | (OPTION) NEUTRE | N |
| PHASE 1 | PHASE 1 | L1 |
| PHASE 2 | PHASE 2 | L2 |
| PHASE 3 | PHASE 3 | L3 |
| EARTH | TERRE | PE |

| | | |
|--|--|-------------------|
| FAULTS RESET NC=RESET | RESET DES DEFAUTS NF=RESET | 804 805 |
| CUSTOMER 'S WATER FLOW OF EVAPORATOR | DEBIT EVAPORATEUR CLIENT (CONTACT SEC) | 808 809 |
| REMOTE CONTACT FOR COMPRESSOR 1 | REPORT CONTACT SEC DE MARCHE COMPRESSEUR 1 | 850 851 |
| REMOTE CONTACT FOR COMPRESSOR 2 | REPORT CONTACT SEC DE MARCHE COMPRESSEUR 2 | 852 853 |
| REMOTE CONTACT NORMALLY OPEN REMOTE CONTACT NORMALLY CLOSED GENERAL FAILURE UNIT | REPORT CONTACT SEC N.O REPORT CONTACT SEC N.F DE DEFAUT GENERAL GROUPE | 870 871 872 |
| REMOTE ON/OFF FOR THE UNIT | MARCHE/ARRET A DISTANCE GROUPE (CONTACT SEC) | 890 891 |

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| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------------|---|---|--------------|--|--------------------------------|---|--------------|---|---|---|
| A1->9 | Horloge de degivrage Defrost timer | | | FU90 | Fusible divers Various fuse | | | KA01 | Relais auxiliaire d'alarme (sauf SULZER) Alarm auxiliary relay (except Sulzer) | |
| AP4 | Carte de permutation Sequence switch card | | FV | Relais seuil tension Voltage level relay | | | KA02 | Relais auxiliaire M/A à distance (24 V ou autre) Remote Start/Stop auxiliary relay (24V or else) | | |
| C | Condensateur Capacitor | | HA | Signalisation sonore Sound signal | | | KA1->9 | Relais chaîne de securite compresseur ou circuit Compressor or circuit safety line relay | | |
| D1 | Relais anti-court cycle Anti-short cycle relay | | HL01 | Voyant défaut general General fault lamp | | | KA10->12 | Relais Marche / Arrêt ON / OFF relay | | |
| EH1->10 | Resistance carter Crankcase heater | | HL1->9 | Voyant marche compresseur Compressor operating lamp | | | KA15 | Relais pump down au demarrage Pump down relay | | |
| EH11->15 | Resistance bouteille Receiver heater | | HL11->20 | Voyant marche ventilateur Fan operating lamp | | | KA31->34 | Relais marche forcee vanne liquide Solenoid liquid valve forced operation relay | | |
| EH16->25 | Resistance evapora-teur Evaporator heater | | HL25->29 | Voyant défaut pompe Pump fault lamp | | | KA40 | Presence tension On line relay | | |
| EH26->35 | Resistance condenseur Condenser heater | | HL30 | Voyant sous tension Power On lamp | | | KA41->49 | Relais renvoi défaut compresseur Remote compressor fault relay | | |
| EH65->70 | Resistance pompe Pump heater | | HL31->39 | Voyant arrêt contrôle Control thermostat stop lamp | | | KA50->75 | Relais divers Various relay | | |
| EH90->100 | Resistance diverse Various heater | | HL41->49 | Voyant arrêt securite Safety stop lamp | | | KA76 | Relais thermostat antigel Antifreeze thermostat relay | | |
| EH101 | Resistance armoire Electrical panel heater | | HL51->60 | Voyant défaut ventilateur Fan fault lamp | | | KA80 | Relais contrôleur de debit Flow switch relay | | |
| EL | Eclairage Lighting | | HL65->69 | Voyant marche pompe Pump operation lamp | | | KA91->99 | Relais protection interne compresseur Solid-state motor protection relay | | |
| FA | Relais seuil de courant Current limit relay | | HL90 | Voyant divers Various lamp | | | KM1->24 | Contacteur compresseur Compressor contactor | | |
| FR1->19 | Relais thermique compresseur Compressor motor thermal overload contactor | | K1->9 | Inter temporise demarrage compresseur Compressor start timer | | | KM31->64 | Contacteur ventilateur Fan contactor | | |
| FR31->64 | Relais thermique ventilateur Fan motor thermal overload contactor | | K15->22 | Inter temporise pump down au demarrage Pump down timer | | | KM65->85 | Contacteur pompe Pump contactor | | |
| FR65->70 | Relais thermique pompe Pump motor thermal overload contactor | | K31->34 | Inter temporise passage ventilation GV / PV Fan HS / LS permutation timer | | | KM90 | Contacteur divers Various contactor | | |
| FR80->90 | Relais thermique divers Various motor protector | | K41->49 | Inter temporise renvoi défaut compresseur Remote compressor fault timer | | | KT1->9 | Relais temporise demarrage compresseur Compressor start time delayed relay | | |
| FR91->99 | Protection moteur compresseur Solid-state motor protector | | K61->65 | Inter temporise by-pass pressostat B.P. L.P. pressostat by-pass timer | | | KT11->14 | Relais temporise decalage demarrages compresseurs Time delayed relay for compressor start gap | | |
| FU1->50 | Fusible moteur Motor fuse | | K71->75 | Inter temporise vanne by pass detendeur Expansion valve by-pass timer | | | KT15 | Relais temporise arrêt groupe "type laiterie" Unit stop time delayed relay (dairy industry) | | |
| FU60->69 | Fusible contrôle Control fuse | | K80 | Inter temporise défaut debit Flow switch timer | | | KT21->24 | Relais temporise coupure BP LP cut off time delayed relay | | |
| FU70->78 | Fusible protection transformateur Transformer protection fuse | | K90 | Inter temporise divers Various timers | | | KT37 | Relais cliignoteur Cliignoteur relay | | |

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| | KT41->49 | Relais temporisé renvoi defaut Remote fault time delayed relay | | QF70->89 | Disjoncteur protection circuit commande Control circuit protection circuit breaker | | | SA11 | Interrupteur local/distance Local/remote switch | |
| | KT90 . . . | Relais temporisé divers Various time delayed relay | | QF90 . . . | Disjoncteur divers Various circuit breaker | | | SA12->16 | Interrupteur marche pompe Pump on/off switch | |
| | M1->9 | Compresseur Compressor motor | | QS1->30 | Porte fusible compresseur Compressor fuse breaker | | | SA17 | Permutateur compresseur Compressor permutation switch | |
| | M11->M15 | Anti-court cycle Anti-short cycle | | QS31->64 | Porte fusible ventilateur Fan fuse breaker | | | SA18-19 | Permutateur pompe Pump permutation switch | |
| | M31->64 | Ventilateur Fan motor | | QS65->69 | Porte fusible pompe Pump fuse breaker | | | SA20 | Permutateur ete/hiver Summer/winter switch | |
| | M65->70 | Pompe Pump | | QS90 . . . | Porte fusible divers Various fuse breaker | | | SA21 | Permutateur M/A Klaxon Horn switch ON/OFF | |
| | M90->100 | Moteur divers Various motors | | QSG | Interrupteur general Main power interrupter | | | SA90 . . . | Interrupteur divers Various switches | |
| | M101-102 | Ventilateur d'armoire Electrical panel fan | | | ouSectionneur general orMain power switch | | | SB1 | Bouton poussoir hors tension Off line push button | |
| | M111->109 | Ventilateur de cuvette compresseur Compressor cylinder head fan | | | ouDisjoncteur general orMain power circuit breaker | | | SB2 | Bouton poussoir sous tension On line push button | |
| | UCHILLER | Regulateur Regulator | | R . . . | Resistance triphasee 3 phase heater | | | SB3->6 | Bouton poussoir marche Start push button | |
| | AP2 | Module supplementaire (CP2) Extra regulator module (CP2) | | RC . . . | Circuit RC RC circuit | | | SB7->9 | Bouton poussoir arrêt Stop push button | |
| | AP31-32 (RV1-2) | Relais de commande ventilateur monophasé Command relay for single phase fan motor | | RT . . . | Sonde ou capteur Temperature or pressure sensor | | | SB10 | Bouton poussoir arrêt d'urgence Emergency stop push button | |
| | AP1 | Module de base (CP1) Basic module (CP1) | | RTTEA | Temperature d'entree d'air Air inlet temperature | | | SB11 | Bouton poussoir arrêt klaxon Horn stop push button | |
| | P1 . . . | Afficheur D27 ouPC905 D27 or PC905 display | | RTTEEG | Temperature d'entree d'eau glatee Cold water inlet temperature | | | SB12 | Bouton poussoir test lampe Lamp test push button | |
| | PA . . . | Ampèremètre Ammeter | | RTTSEG | Temperature de sortie d'eau glatee Cold water outlet temperature | | | SB16->24 | Bouton poussoir rearmement huile Oil pressostat reset push button | |
| | PJ . . . | Wattmètre (compteur d'energie) Wattmeter | | RTTREF . . . | Temperature de refroidissement Discharge temperature | | | SB25->29 | Bouton poussoir arrêt pompe Pump stop push button | |
| | PT1->9 | Compteur horaire Hour meter | | RTTASP . . . | Temperature d'aspiration Suction temperature | | | SB41 | Bouton poussoir effacement défaut Fault reset push button | |
| | PV . . . | Voltmètre | | RTTBP . . . | Temperature d'evaporation Evaporating temperature | | | SB65->69 | Bouton poussoir marche pompe Start pump push button | |
| | QF1->14 | Disjoncteur compresseur Compressor circuit breaker | | RV1 . . . | Variateur de vitesse Speed regulator | | | SB76->80 | Bouton poussoir rearmement antigel Antifreeze reset push button | |
| | QF31->64 | Disjoncteur ventilateur Fan circuit breaker | | SA1->5 | Interrupteur sous tension On-off switch | | | SB90 . . . | Bouton poussoir divers Various push button | |
| | QF65->69 | Disjoncteur pompe Pump circuit breaker | | SA6->10 | Interrupteur marche circuit Circuit start switch | | | SD1 . . . | Contrôleur de débit Flow switch | |

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|------------|--|---|---|-----------|---|---|---|----------|---|---|
| SL1->5 | Contrôleur de niveau d'eau Water level controller | | | ST36->40 | Thermostat départ d'eau Water outlet thermostat | | | YV36->40 | Electrovanne gaz chauds pressostatique Pressostatic hot gas solenoid valve | |
| SL16->20 | Contrôleur de niveau d'huile Oil level controller | | | ST41->45 | Thermostat retour d'eau Water inler thermostat | | | YV41->45 | Electrovanne gaz chauds thermostatique Thermostatic hot gas solenoid valve | |
| SP1->9 | Pressostat HP HP pressostat | | | ST46->55 | Thermostat d'huile Oil thermostat | | | YV46->50 | Electrovanne décharge bouteille Receiver by-pass valve | |
| SP1->15 | Pressostat BP LP pressostat | | | ST56->64 | Thermostat de surchauffe Overheat thermostat | | | YV51->55 | Electrovanne aspiration Suction solenoid valve | |
| SP16->25 | Pressostat d'huile Oil pressostat | | | ST71->75 | Thermostat de degivrage Defrosting thermostat | | | YV56->60 | Electrovanne by pass condenseur (ete/hiver) Condenser by-pass solenoid valve (winter/summer) | |
| SP26->30 | Pressostat BP antigel Antifreeze pressostat | | | ST76->85 | Thermostat antigel Antifreeze thermostat | | | YV61->70 | Electrovanne inversion cycle Reverse cycle solenoid valve | |
| SP31->50 | Pressostat HP de commande ventilateur Fan control HP pressostat | | | ST90->100 | Thermostat divers Various thermostat | | | YV71->75 | Electrovanne by pass détendeur Expansion valve by-pass solenoid valve | |
| SP51->55 | Pressostat HP de commande résistance bouteille Receiver heater control pressostat | | | ST101... | Thermostat résistance et ventilateur d'airnoire Electrical panel fan and heater control thermostat | | | YV90... | Electrovanne diverse Various solenoid valve | |
| SP56->60 | Pressostat HP de commande vanne decharge bouteille Discharge valve control pressostat | | | T1... | Transformateur CLIMATIC CLIMATIC transformer | | | | | |
| SP61->65 | Pressostat HP de commande delestage Overload control pressostat | | | TA... | Transformateur d'intensité Current transformer | | | | | |
| SP66->70 | Pressostat HP de commande degivrage Defrosting pressostat | | | TC1... | Transformateur Transformer | | | | | |
| SP71->75 | Pressostat de commande by-pass détendeur Expansion valve by-pass control pressostat | | | V... | Diode Diode | | | | | |
| SP90->110 | Pressostat divers Various pressostat | | | V0PT... | Optocoupleur Optoelectronic coupler | | | | | |
| SP111->115 | Pressostat HP/BP combine HP/LP pressostat | | | XB... | Barette sectionnable Isolator link | | | | | |
| SQ1... | Contact de porte Door contact | | | XS90... | Prise de courant Plug | | | | | |
| SR91... | Contrôleur de phase Phase controller | | | YP1... | Détendeur électronique Electronic expansion valve | | | | | |
| ST1->5 | Thermostat de contrôle Control thermostat | | | YV1->5 | Electrovanne liquide Liquid solenoid valve | | | | | |
| ST11->15 | Thermostat de commande résistance bouteille Receiver heater control thermostat | | | YV6->15 | Electrovanne réduction de puissance compresseur Compressor capacity control valve | | | | | |
| ST16->25 | Thermostat de commande résistance évaporateur Evaporator heater control thermostat | | | YV16->20 | Electrovanne injection de liquide Liquid injection solenoid valve | | | | | |
| ST26->30 | Thermostat de commande résistance condenseur Condenser heater control thermostat | | | YV21->25 | Electrovanne économiseur Economizer solenoid valve | | | | | |
| ST31->35 | Thermostat de commande ventilateur Fan control thermostat | | | YV26->35 | Electrovanne by-pass compresseur Compressor by-pass solenoid valve | | | | | |

INDICES

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MODIFICATIONS

SCHEMA ELECTRIQUE

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