

1 DEFINITIONS

Definições

CONNECTORS

CAD	CONNECTOR ALTERNATOR D+
CCLM	CONNECTOR CENTRAL LOWER MODULE
CCLT	CONNECTOR CLUTCH
CCM	CONNECTOR CONDENSER MODULE
CCTL	CONNECTOR CONTROLLER
CDAE	CONNECTOR DIODE ALTERNATOR EXCITATION
CDC	CONNECTOR DIODE CLUTCH
CDS	CONNECTOR DUCT SENSOR
CEVM	CONNECTOR EVAPORATOR MODULE
CEXT	CONNECTOR EXTERNAL TEMPERATURE
CGND	CONNECTOR GROUND
CHVL	CONNECTOR HEATING VALVE LOWER
CHVU	CONNECTOR HEATING VALVE UPPER
CICE	CONNECTOR ICE SENSOR
CLC	CONNECTOR LOWER CONVECTOR
CLUM	CONNECTOR LEFT UPPER MODULE
CPH	CONNECTOR PUMP HEATING
CRB4	CONNECTOR RADIAL BLOWER 4
CRS	CONNECTOR ROOM SENSOR
CRUM	CONNECTOR RIGHT UPPER MODULE
CSE13	SMART ECU 1 CONNECTOR 3
CSV	CONNECTOR SOLENOID VALVE
CTS	CONNECTOR TEMPERATURE SENSORS
CTSL	CONNECTOR TEMPERATURE SENSORS LOWER
CUC	CONNECTOR UPPER CONVECTOR
CSLS	CONNECTOR SUCTION LINE SENSOR
CLPS	CONNECTOR LOW PRESSURE SENSOR

CVH	CONNECTOR VALVE HEATING
FSAE	FUSE ALTERNATOR EXCITATION
FSPH	FUSE PUMP HEATING
GICM	GROUND INTERFACE CONDENSER MODULE
IAE	INTERFACE ALTERNATOR EXCITATION
IC1	INTERFACE CONNECTOR 1
IC2	INTERFACE CONNECTOR 2
IC3	INTERFACE UPPER HEATING CONNECTOR
IC4	INTERFACE LOWER HEATING CONNECTOR
ICA	INTERFACE COMPRESSOR ALTERNATOR
ICL	INTERFACE CENTRAL LOWER EVAPORATOR
ICM	INTERFACE CONDENSER MODULE
ITS	INTERFACE TEMPERATURE SENSORS
ITSL	INTERFACE TEMPERATURE SENSORS LOWER
IUL	INTERFACE UPPER LEFT EVAPORATOR
IUR	INTERFACE UPPER RIGHT EVAPORATOR
IVS	INTERFACE VEHICLE SIGNALS
RB13	RELAY BOARD 1 CONNECTOR 3
RLPH	RELAY PUMP HEATING
SHP	SWITCH HIGHT PRESSURE
SLP	SWITCH LOW PRESSURE
TMEC	TEMPERATURE EVAPORATOR CONNECTOR
TR1	TERMINATION RESISTOR 1
TR2	TERMINATION RESISTOR 2
SLS	SUCTION LINE SENSOR
PS2	LOW PRESSURE SENSOR

FUSE

FB1 - UPPER BRUSHLESS EVAPORATOR
FB2 - LOWER BRUSHLESS EVAPORATOR
FB3 - BRUSLESS CONDESNSER
FB4 - UPPER BRUSLESS EVAPORATOR
FB5 - LOWER BRUSLESS EVAPORATOR
CFS10 - WATER PUMP
CFS11 - PUMP DOWN VALVE
CFS12 - 5° BRUSH FAN
CFS13 - TWO SPEED OVERLAY
CFS14 - TWO SPEED OVERLAY

RELAY

RL10 - WATER PUMP
RL11 - PUMP DOWN VALVE
RL12 - 5° BRUSH FAN
RL13 - CLUTCH WHEN BRUSHLESS FAN
RL14 - TWO SPEED CONDENSER OVERLAY
RL15 - TWO SPEED CONDENSER OVERLAY
RL16 - TWO SPEED CONDENSER OVERLAY
RL17 - TWO SPEED CONDENSER OVERLAY

ELECTRICAL DIAGRAM

036-00307-000 - INTERFACES DAGRAM
 036-00307-001 - MAIN POWER DIAGRAM
 036-00307-002 - EVAPORATOR AND CONDENSER MODULES

RELAY BOARD

RB1 - UPPER BRUSH EVAP. AND BRUSH CONDENSER
 RB2 - LOWER CENTRAL BRUSH EVAPORATOR
 RB3 - UPPER BRUSH EVAP. AND BRUSH CONDENSER
 RB4 - LOWER CENTRAL BRUSH EVAPORATOR
 RB5 - BRUSH CONDENSER WHEN USING BRUSHLESS EVAP.

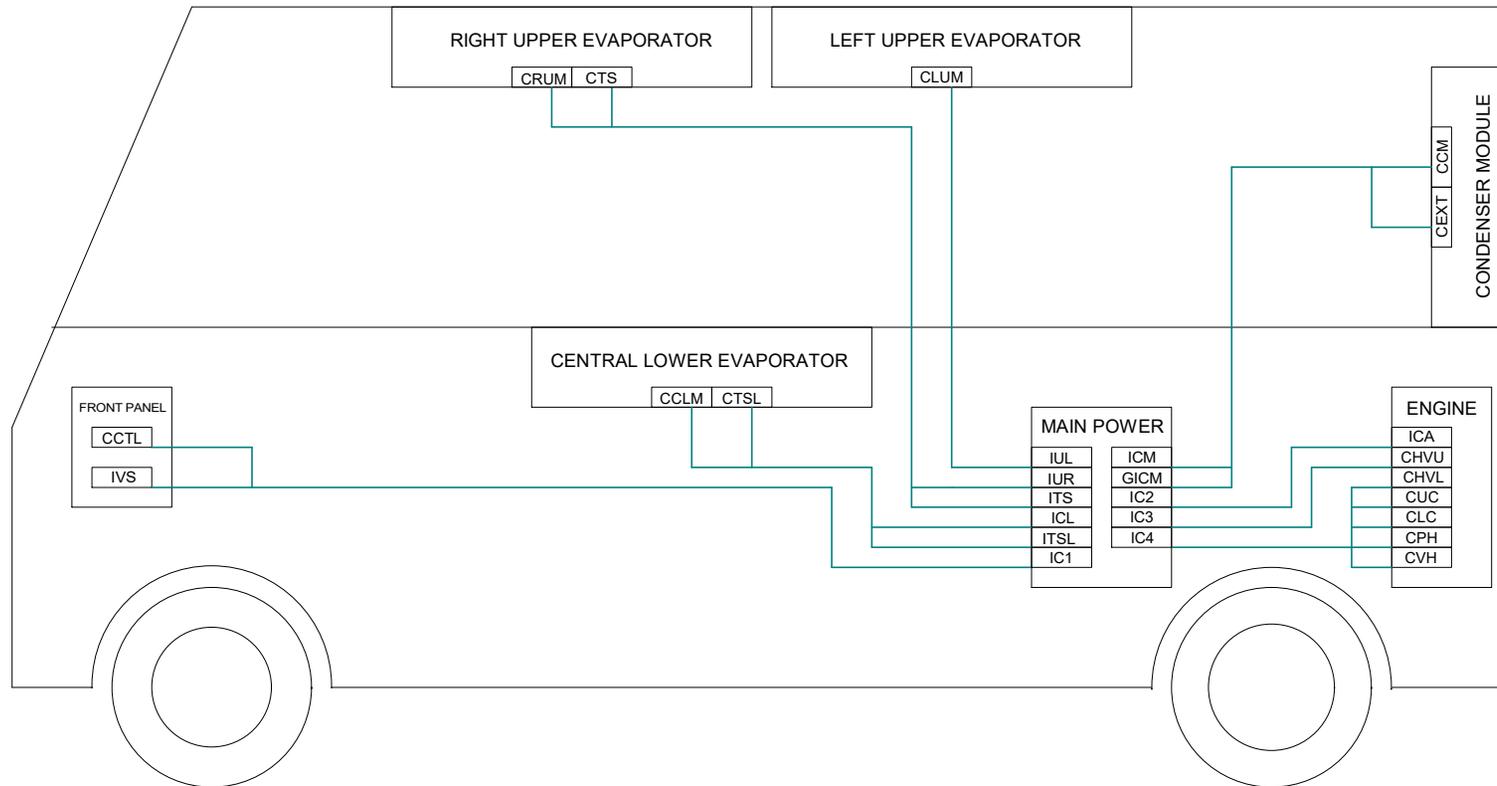
ECU

X100 - CSE15-M
 X101 - N.C.
 X200 - CSE14-M
 X300 - CSE11-M
 X301 - CSE13-M
 X400 - CSE16-M

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						ESQUEMA ELÉTRICO CC430 DD	09/09/2024	DJANUARIO	Voltage:		24V	
							09/09/2024	FKATZ	SPIHEROS	Unit:	CC430	Page: 1
												of 17

2 HVAC WIRING DIAGRAM - P3 OR P4 MODELS

Esquema Elétrico do Ar-Condicionado instalado no ônibus - Modelos P3 ou P4



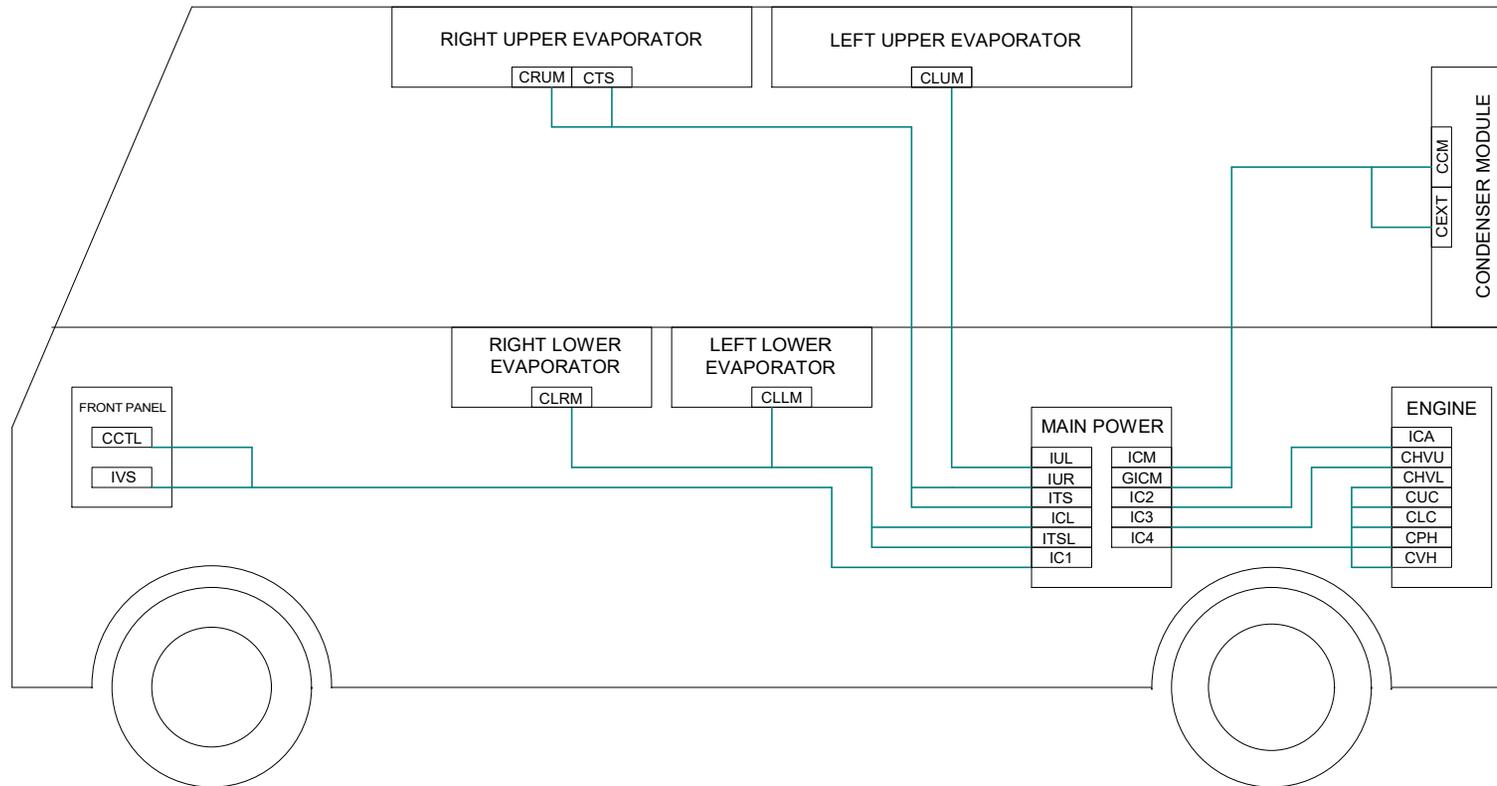
P3 - TWO UPPER EVAPORATORS W/ 3 RADIAL BLOWERS EACH SIDE AND ONE CENTRAL LOWER EVAPORATOR W/ 3 RADIAL BLOWERS
 P4 - TWO UPPER EVAPORATORS W/ 3 RADIAL BLOWERS EACH SIDE AND ONE CENTRAL LOWER EVAPORATOR W/ 4 RADIAL BLOWERS

IVS CONNECTOR IT'S A BODYBUILDER RESPONSIBILITY

Rev. Index	Qty	Rev. No.	Date	Draw	Change Description	Description	Date	Name	Initial Release:	2037-2
						ELECTRICAL DIAGRAM CC430 DD	09/09/2024	RPEDRONI	Part No.:	036-00307-000
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							09/09/2024	FKATZ	Voltage:	24V
									SPIHEROS	Unit: CC430
										Page: 2
										of 17

3 HVAC WIRING DIAGRAM - P2 MODEL

Esquema Elétrico do Ar-Condicionado instalado no ônibus - Modelo P2



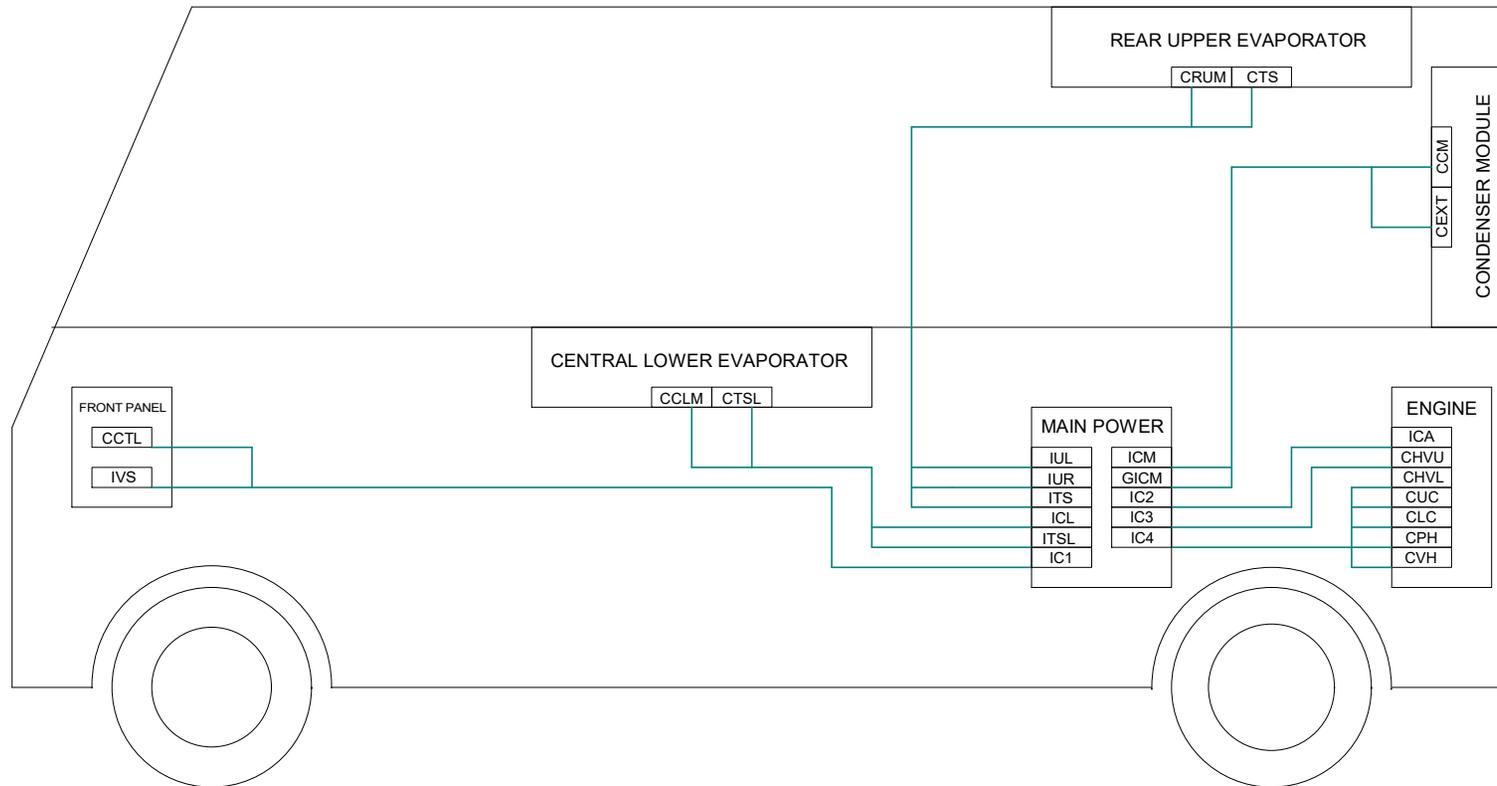
P2 - TWO UPPER EVAPORATORS W/ 3 RADIAL BLOWERS EACH SIDE AND TWO LOWER EVAPORATORS W/ 1 RADIAL BLOWER EACH SIDE

IVS CONNECTOR IT'S A BODYBUILDER RESPONSIBILITY

Rev. Index	Qty	Rev. No.	Date	Draw	Change Description	Description	Date	Name	Initial Release:	2037-2			
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							09/09/2024	FKATZ	SPIHEROS	Unit:	CC430	Page:	3
												of	17

4 HVAC WIRING DIAGRAM - T3 OR T4 MODELS

Esquema Elétrico do Ar-Condicionado instalado no ônibus - Modelos T3 ou T4



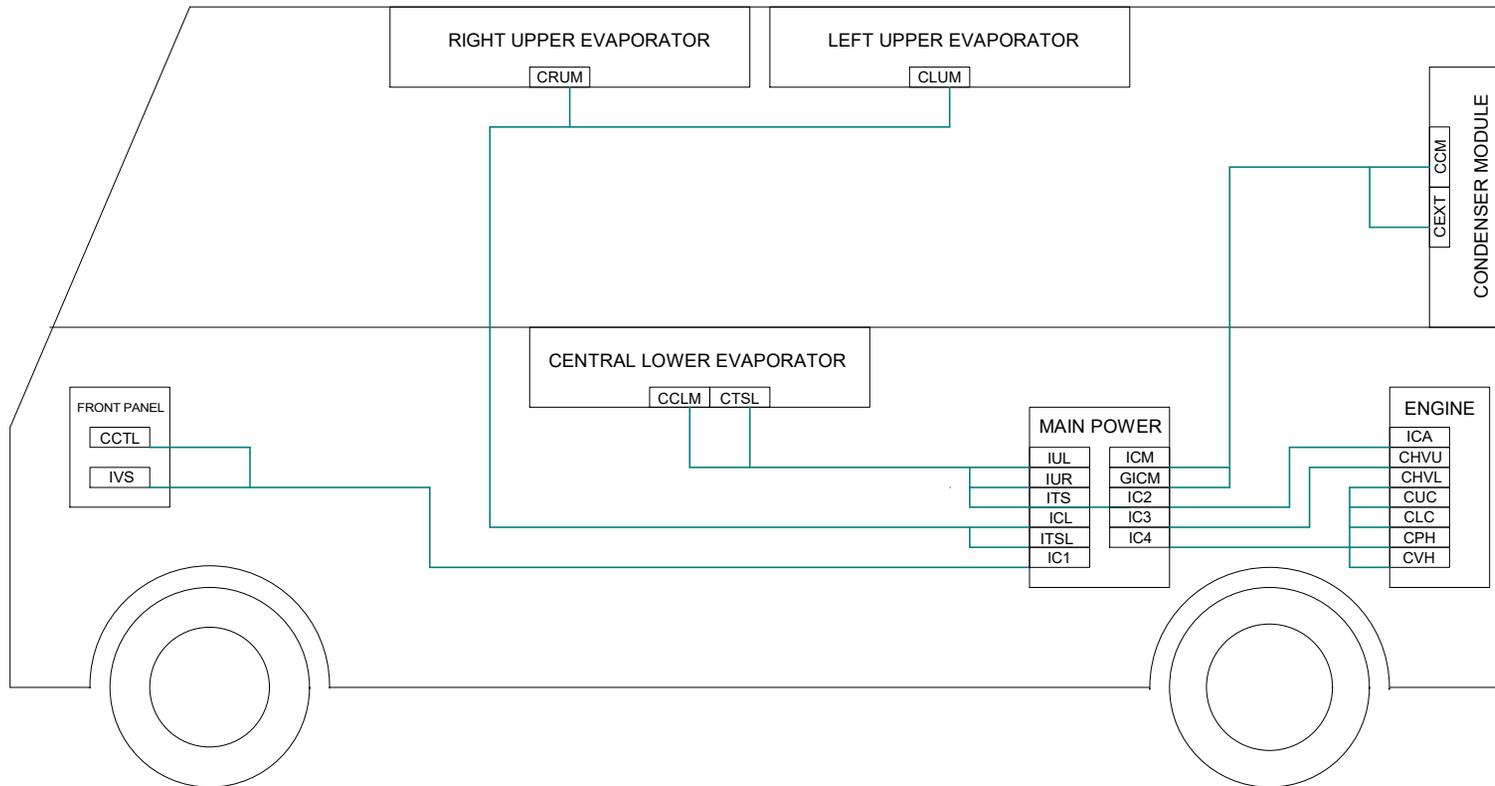
T3 - ONE REAR UPPER EVAPORATOR W/ 6 RADIAL BLOWERS AND ONE CENTRAL LOWER EVAPORATOR W/ 3 RADIAL BLOWERS
 T4 - ONE REAR UPPER EVAPORATOR W/ 6 RADIAL BLOWERS AND ONE CENTRAL LOWER EVAPORATOR W/ 4 RADIAL BLOWERS

IVS CONNECTOR IT'S A BODYBUILDER RESPONSIBILITY

Rev. Index	Qty	Rev. No.	Date	Draw	Change Description	Description	Date	Name	Initial Release:	2037-2	
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							09/09/2024	FKATZ	SPIHEROS	Unit: CC430	of 17

5 HVAC WIRING DIAGRAM - P6 MODEL (CABRIOLET)

Esquema Elétrico do Ar-Condicionado instalado no ônibus - Modelo P6 (Cabriolet)



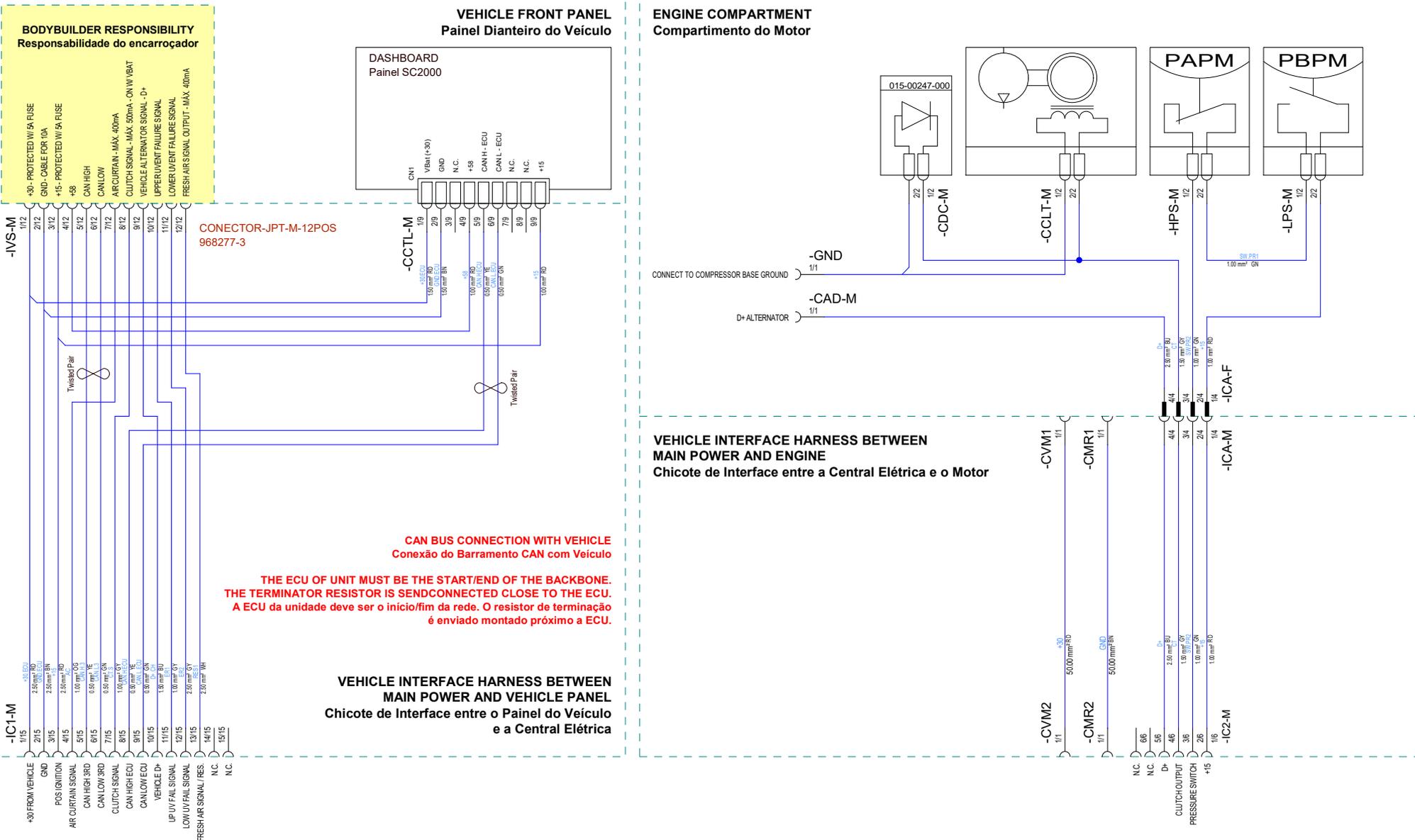
P6 - TWO UPPER EVAPORATORS W/ 1 RADIAL BLOWER EACH SIDE AND ONE CENTRAL LOWER EVAPORATOR W/ 6 RADIAL BLOWERS (CABRIOLET)

IVS CONNECTOR IT'S A BODYBUILDER RESPONSIBILITY

Rev. Index	Qty	Rev. No.	Date	Draw	Change Description	Description	Date	Name	Initial Release:	2037-2		
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							09/09/2024	FKATZ	SPIHEROS	Unit:	CC430	Page: 5
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7 VEHICLE FRONT PANEL / ENGINE COMPARTMENT

Interfaces no Painel Frontel do Veículo / Compartimento do Motor



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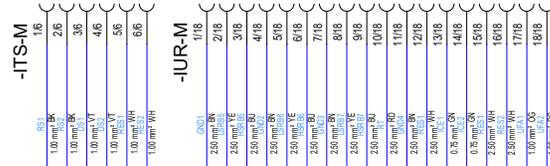
8 INTERFACE HARNESS BETWEEN MAIN POWER AND EVAPORATOR MODULES WITH BRUSH BLOWER - P3 AND P4

Chicotes de Interface entre a Central Elétrica e os Módulos Evaporadores com Ventilador Escova - P3 e P4

INTERFACE HARNESS BETWEEN MAIN POWER AND UPPER EVAPORATOR MODULE WITH BRUSH BLOWER Chicote de Interface entre a Central Elétrica e o Módulo Evaporador Superior com Ventilador Escova

INTERFACE HARNESS BETWEEN MAIN POWER AND CENTRAL LOWER EVAPORATOR MODULE WITH BRUSH BLOWER Chicote de Interface entre a Central Elétrica e o Módulo Evaporador Inferior com Ventilador Escova

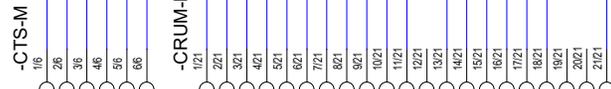
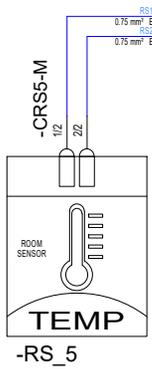
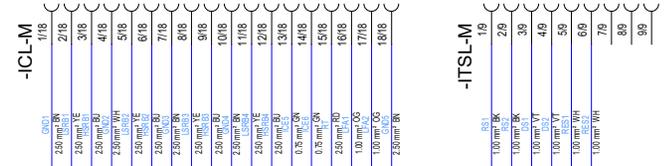
MAIN POWER / Central Elétrica



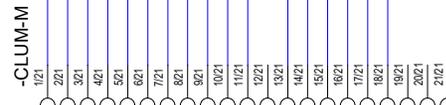
MAIN POWER / Central Elétrica



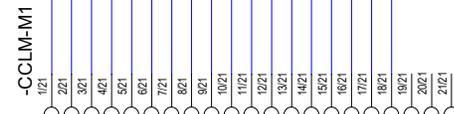
MAIN POWER / Central Elétrica



UPPER RIGHT EVAP. MODULE
Módulo Evap. Superior Direito



UPPER LEFT EVAP. MODULE
Módulo Evap. Superior Esquerdo



CENTRAL LOWER EVAP. MODULE
Módulo Evap. Inferior Central

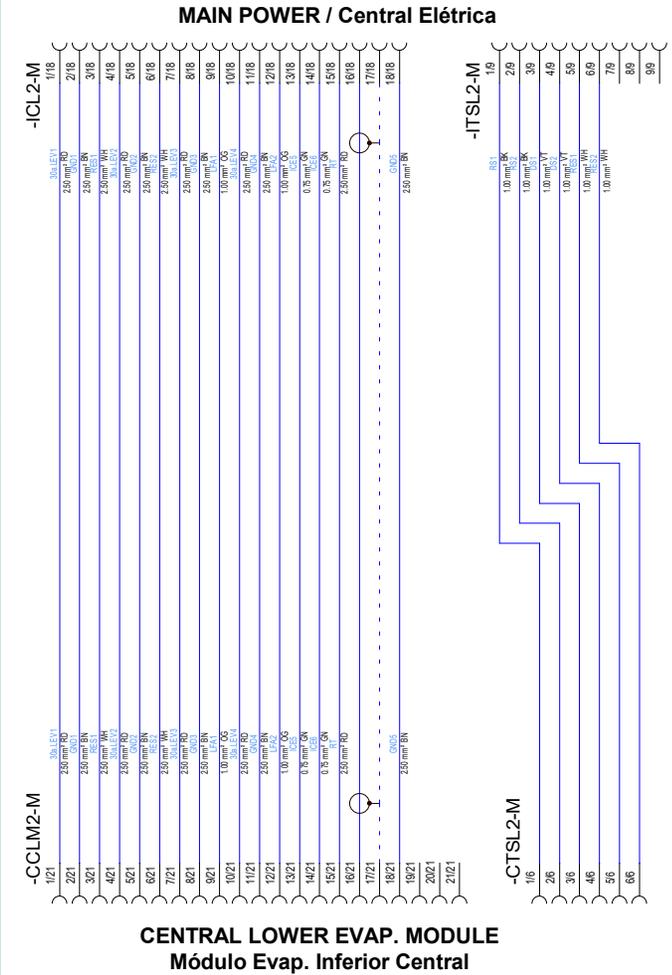
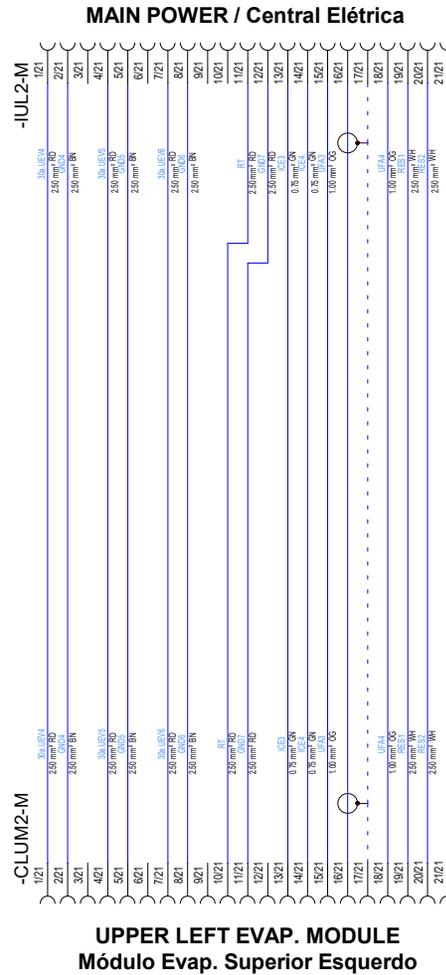
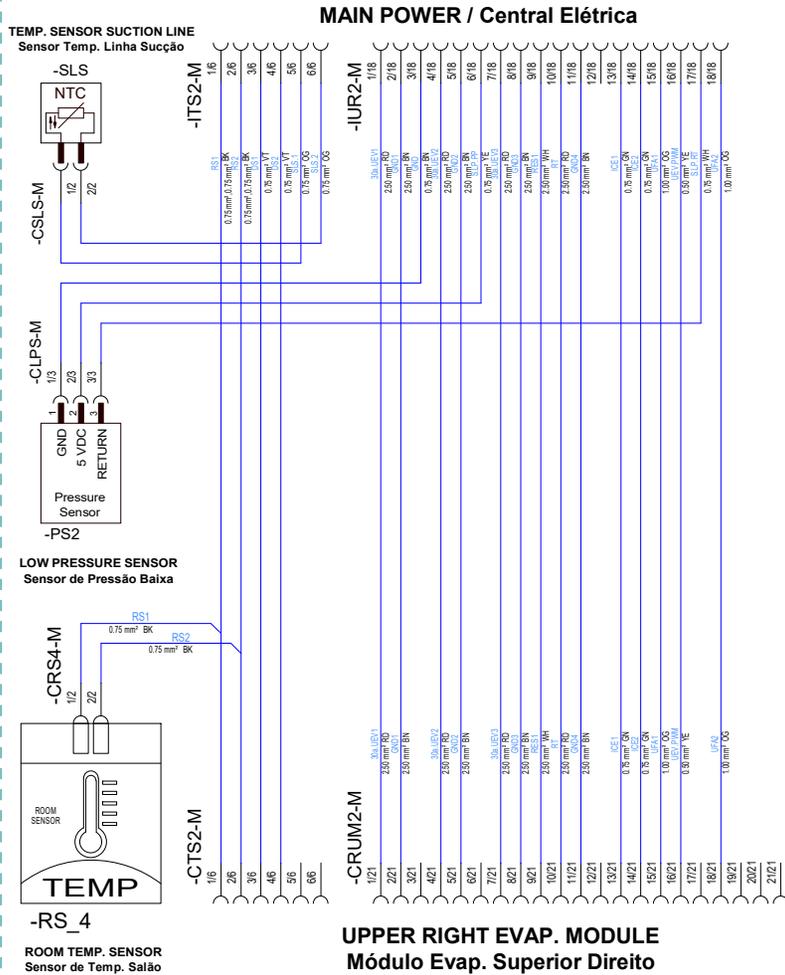
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							09/09/2024	FKATZ	Voltage:		24V	of	17

9 INTERFACE HARNESS BETWEEN MAIN POWER AND EVAPORATOR MODULES WITH BRUSHLESS BLOWER - P3 AND P4

Chicotes de Interface entre a Central Elétrica e os Módulos Evaporadores com Ventilador Eletrônico - P3 e P4

INTERFACE HARNESS BETWEEN MAIN POWER AND UPPER EVAPORATOR MODULE WITH BRUSHLESS BLOWER Chicote de Interface entre a Central Elétrica e o Módulo Evaporador Superior com Ventilador Eletrônico

INTERFACE HARNESS BETWEEN MAIN POWER AND CENTRAL LOWER EVAPORATOR MODULE WITH BRUSHLESS BLOWER Chicote de Interface entre a Central Elétrica e o Módulo Evaporador Inferior com Ventilador Eletrônico

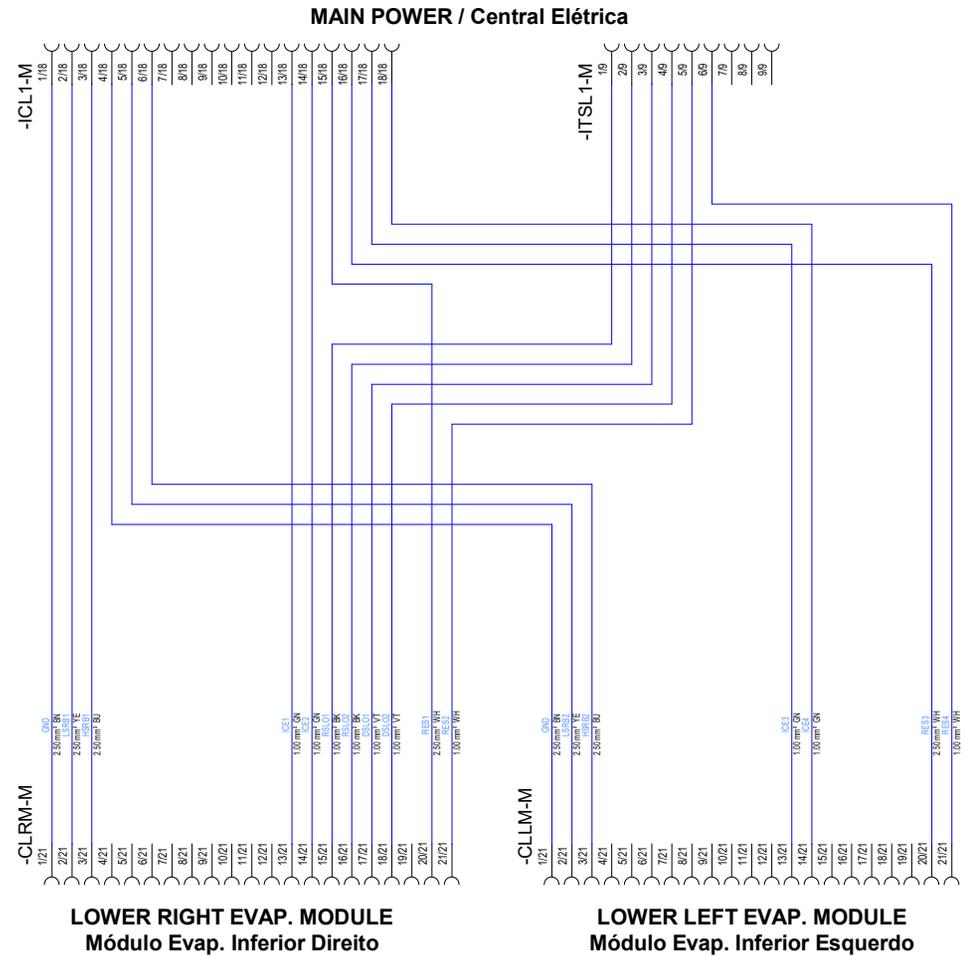


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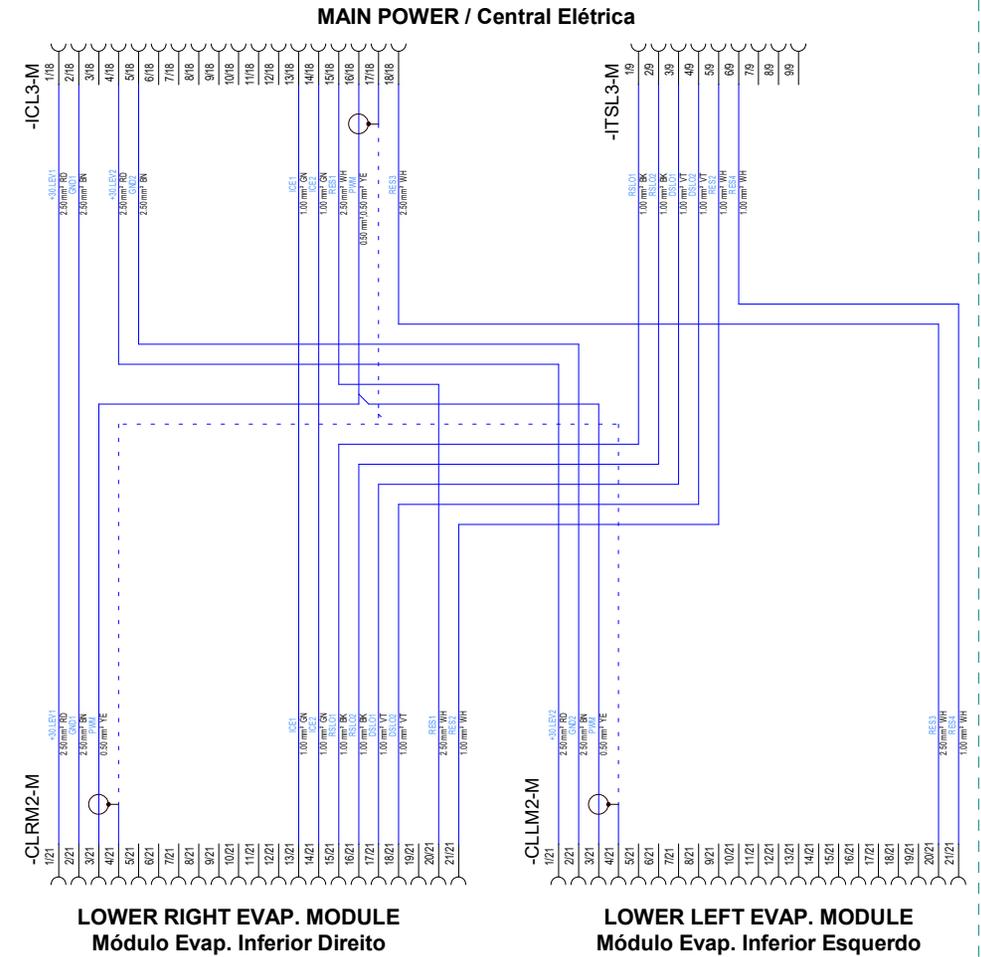
10 INTERFACE HARNESS BETWEEN MAIN POWER AND LOWERS EVAPORATORS MODULE - P2

Chicote de Interface entre a Central Elétrica e os Módulos Evaporadores Inferior - P2

LOWER EVAPORATOR MODULE WITH BRUS BLOWER - P2 Módulo Evaporador Inferior com Ventilador Escova - P2



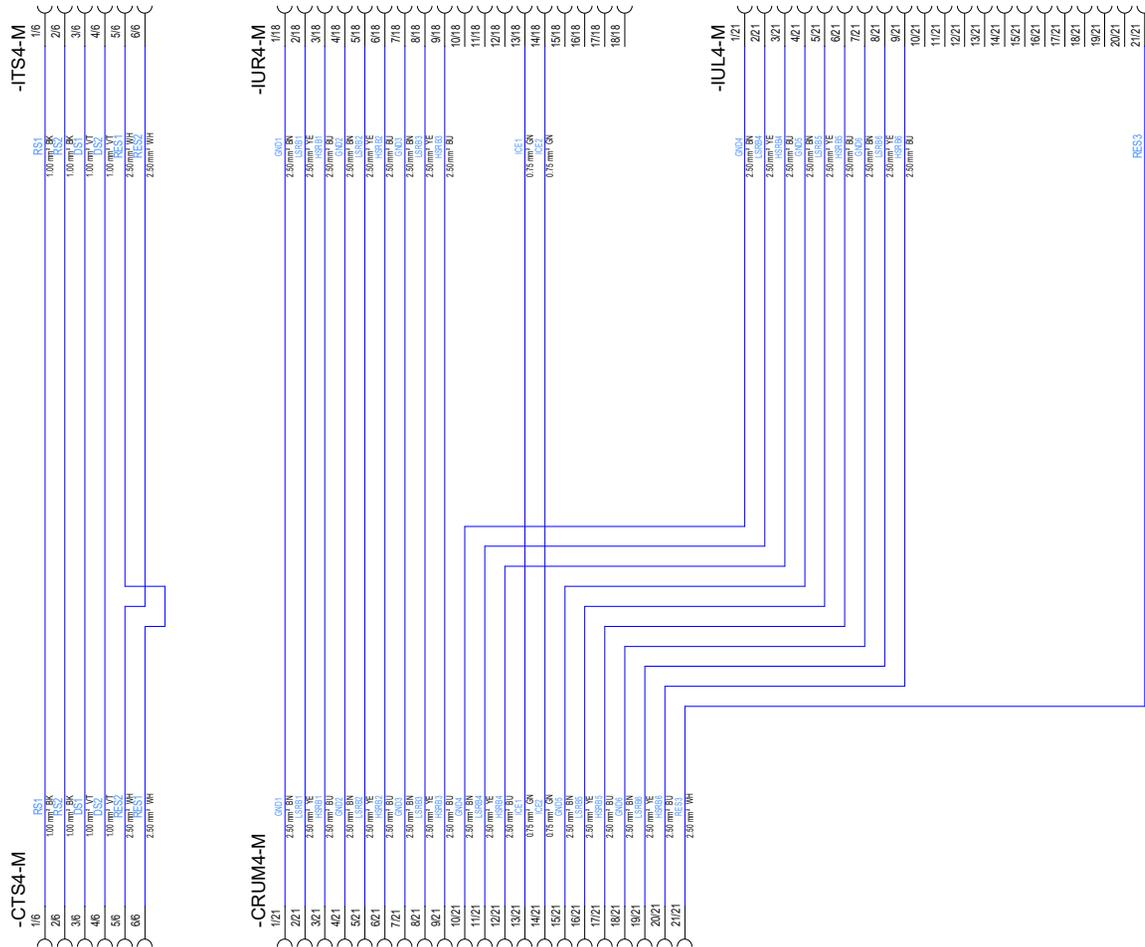
LOWER EVAPORATOR MODULE WITH BRUSLESS BLOWER - P2 Módulo Evaporador Inferior com Ventilador Eletrônico - P2



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							APPROVE	09/09/2024	FKATZ	SPIHEROS		Page:	10
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11 REAR UPPER EVAPORATOR INTERFACE WITH 6 BRUSH RADIAL BLOWERS - T3 AND T4
Interface Módulo Evaporador Superior Traseiro com 6 Ventiladores Radiais com Escova - T3 e T4

MAIN POWER / Central Elétrica

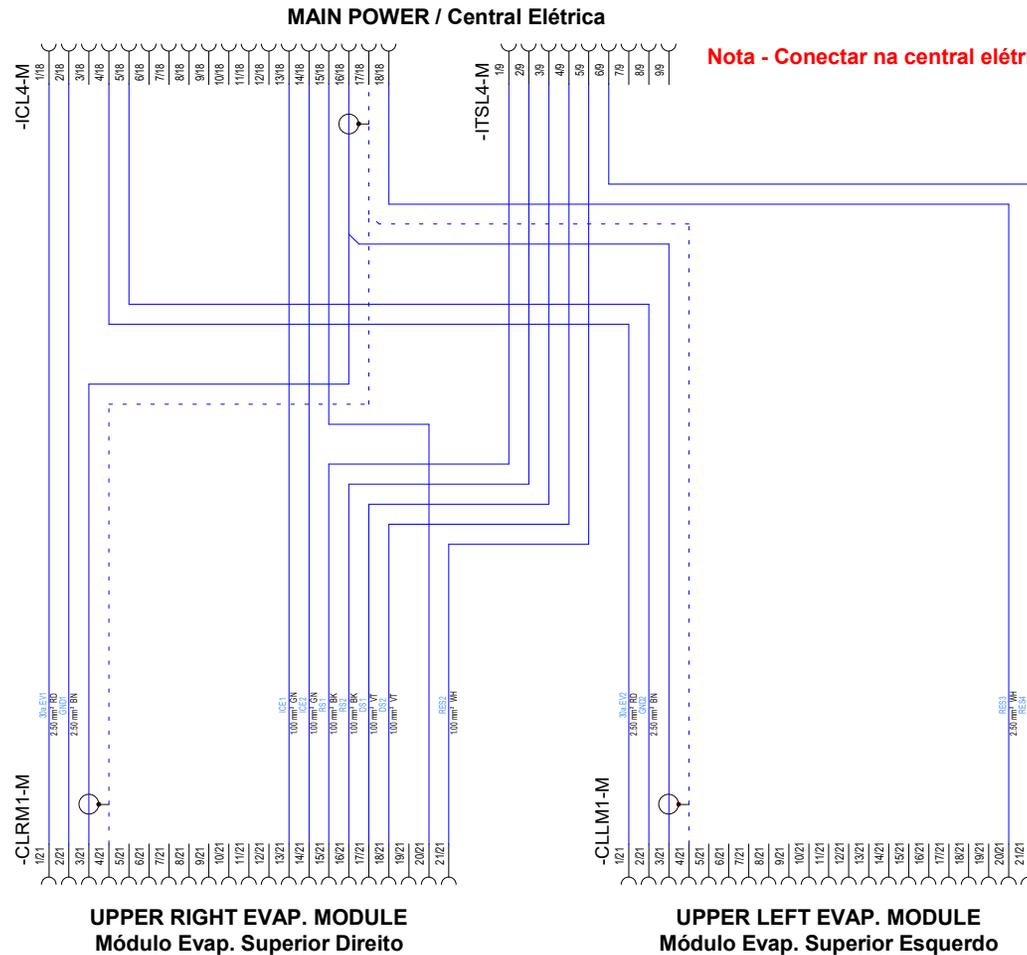


UPPER REAR EVAP. MODULE
Módulo Evap. Superior Traseiro

Rev. Index	Qty	Rev. No.	Date	Draw	Change Description	Description	Date	Name	Initial Release:	2037-2		
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							09/09/2024	FKATZ	SPIHEROS			Page: 11 of 17

12 INTERFACE HARNESS BETWEEN MAIN POWER AND UPPER EVAPORATOR MODULE WITH BRUSHLESS BLOWER - P6 (CABRIOLET)

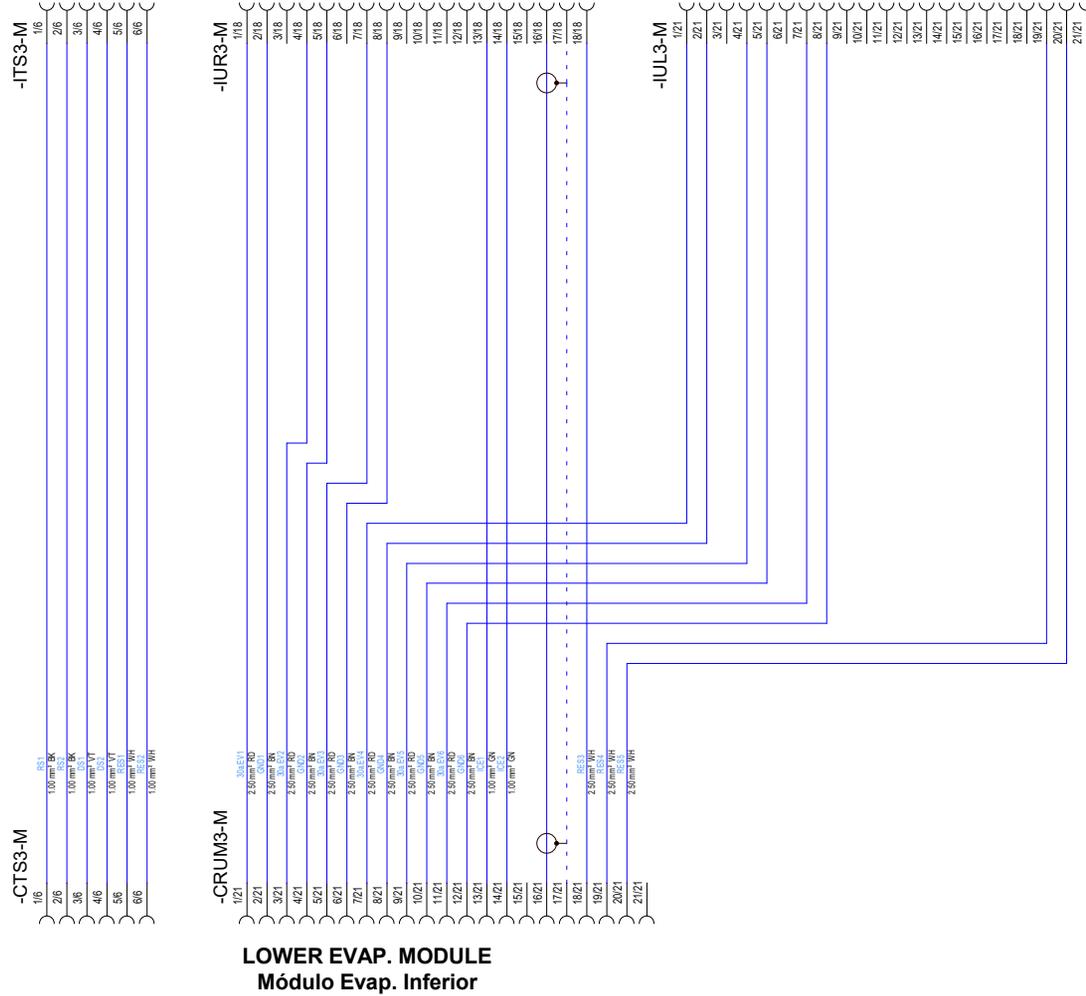
Chicote de Interface entre a Central Elétrica e o Módulo Evaporador Superior c/ Ventilador Eletrônico - P6 (Cabriolet)



Nota - Diagrama desenvolvido para DD Cabriolet. Conexão invertida entre os evaporadores dos pisos superior e inferior. Nessa aplicação o piso inferior é o mestre e o superior é escravo.

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							09/09/2024		APPROVE		Unit:	CC430
									SPIHEROS		Page:	12
											of	17

13 INTERFACE EVAPORATOR LOWER MODULE WITH BRUSHLESS BLOWER - P6 (CABRIOLET)
Interface Módulo Evaporador Inferior com Blower Eletrônico - P6 (Cabriolet)



Nota - Conectar na central elétrica nas saídas para os módulos evaporadores superiores

Nota - Diagrama desenvolvido para DD Cabriolet. Conexão invertida entre os evaporadores dos pisos superior e inferior. Nessa aplicação o piso inferior é o mestre e o superior é escravo.

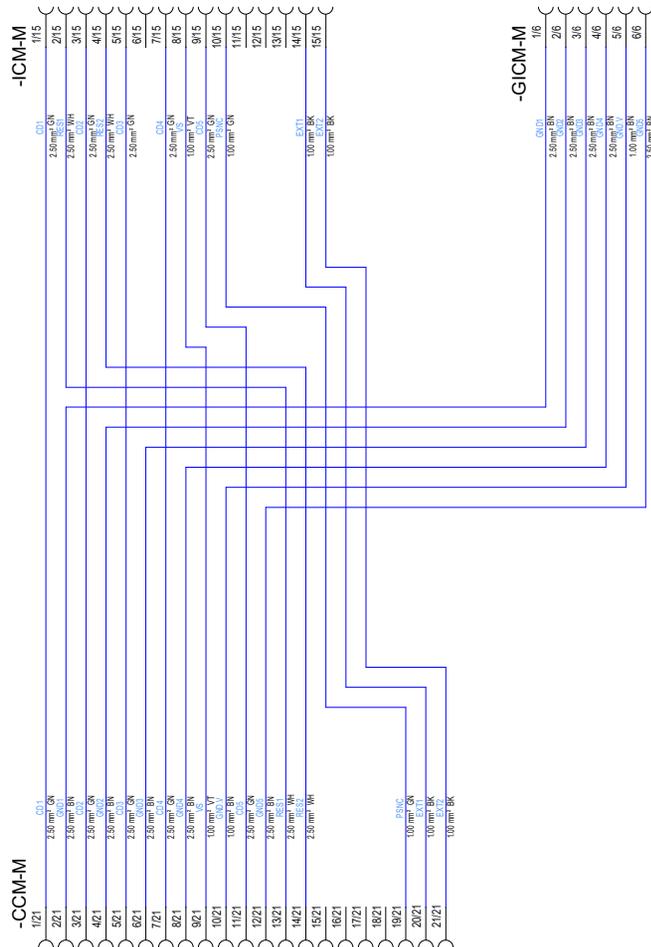
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							09/09/2024		SPIHEROS		Page:	13
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14 INTERFACE HARNESS BETWEEN MAIN POWER AND CONDENSER MODULE

Chicote de Interface entre a Central Elétrica e o Módulo Condensador

INTERFACE HARNESS CONDENSER MODULE W/ BRUSH FAN
Chicote de Interface Módulo Condensador c/ Ventilador Escova

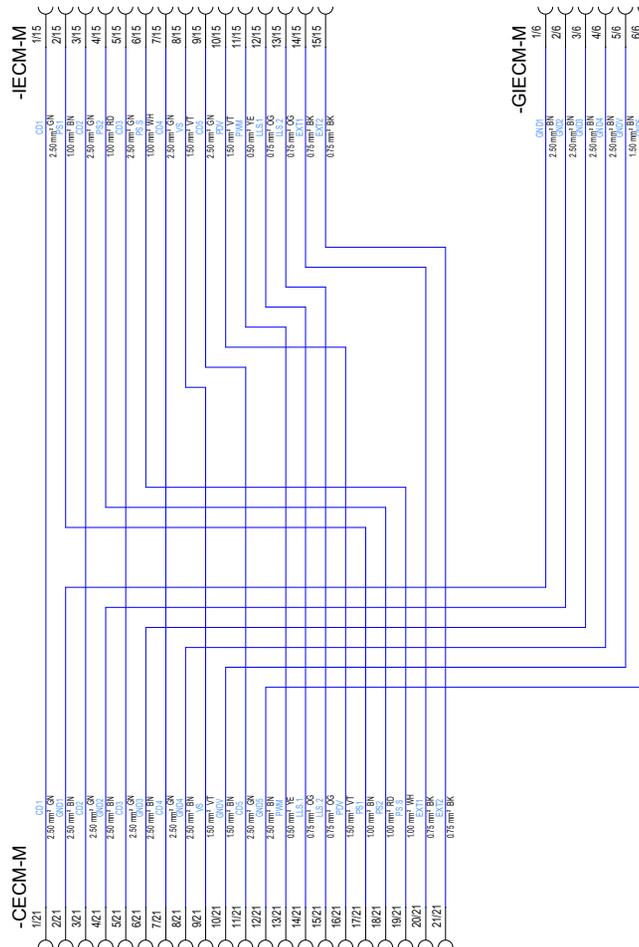
MAIN POWER / Central Elétrica



FAN BRUSH CONDENSER MODULE
Módulo Condensador com Ventilador Escova

INTERFACE HARNESS CONDENSER MODULE W/ BRUSHLESS FAN
Chicote de Interface Módulo Condensador c/ Ventilador Eletrônico

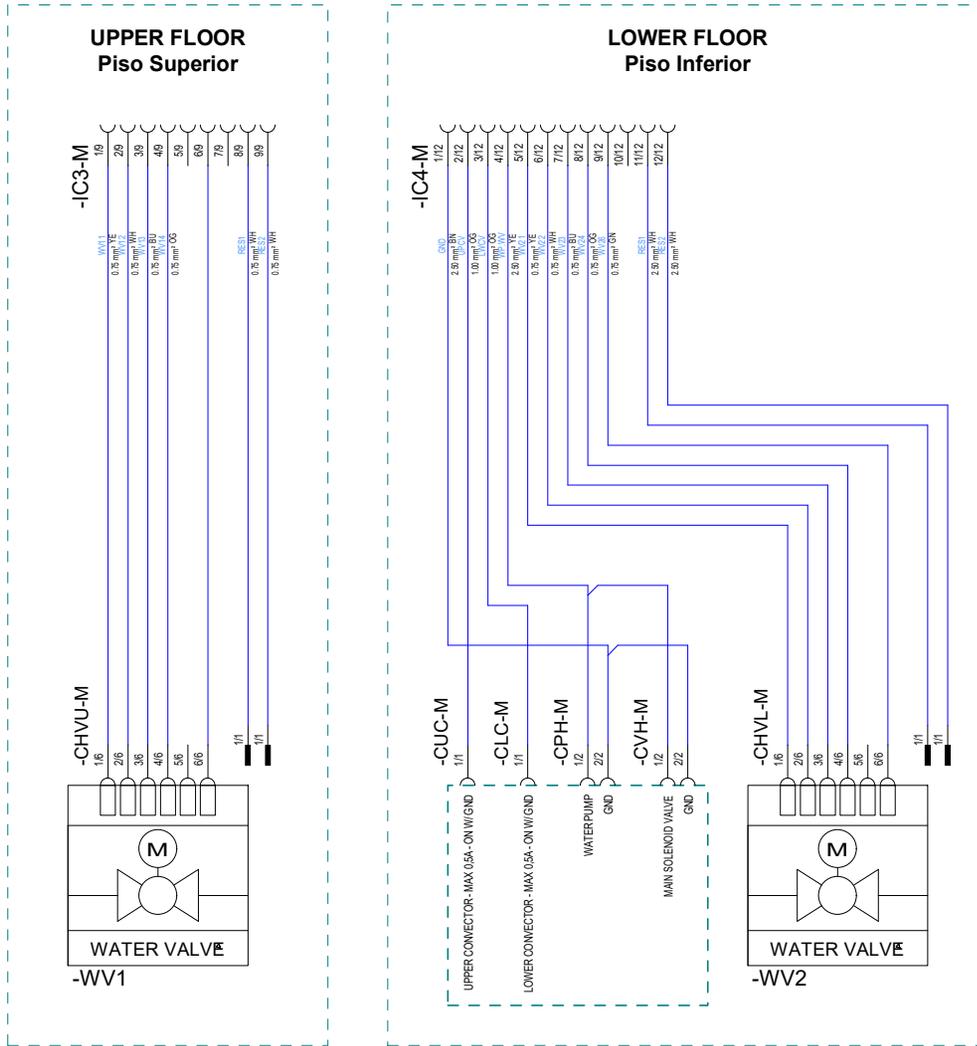
MAIN POWER / Central Elétrica



FAN BRUSHLESS CONDENSER MODULE
Módulo Condensador com Ventilador Eletrônico

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							APPROVE	09/09/2024	FKATZ	SPIHEROS			Page:	14
													of	17

15 HEATING INTERFACE
Interfaces de Aquecimento



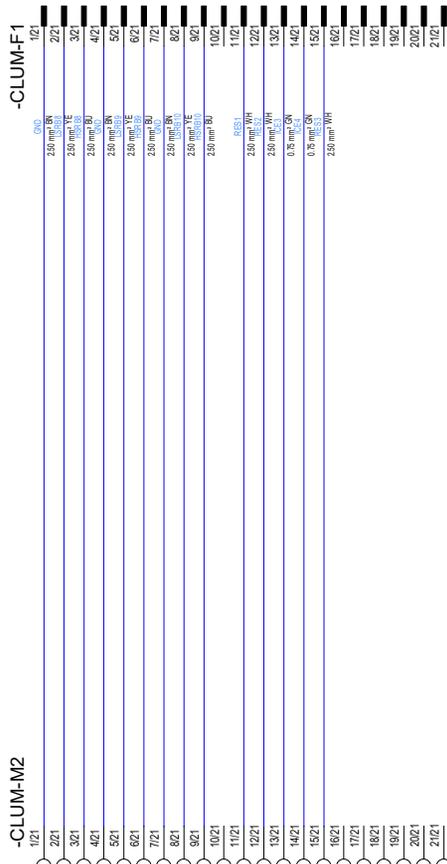
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					APPROVE		09/09/2024	FKATZ	Unit: CC430		of 17	

16 WIRING HARNESS OVERLAY UPPER LEFT EVAPORATOR FOR VEHICLES 15m
Chicote Complemento para Evaporador Superior Esquerdo para Carros 15m

UPPER LEFT HARNESS OVERLAY FOR VEHICLES 15m - BRUSH BLOWERS
Complemento Evap. Superior Esquerdo Carro 15m - Vent. Escova

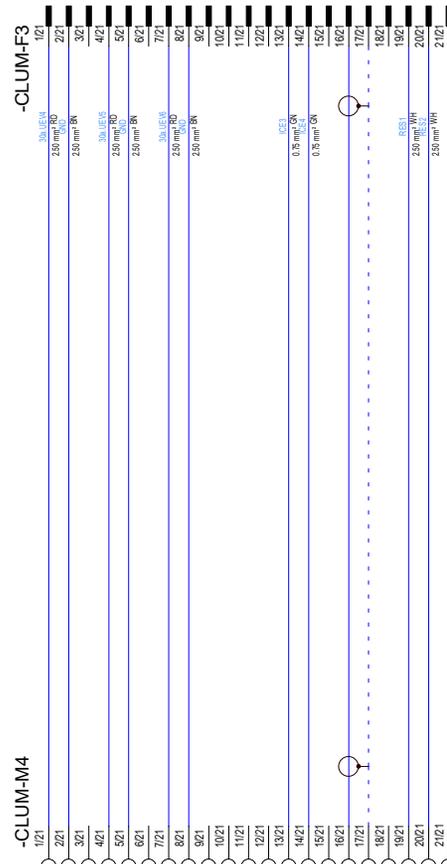
UPPER LEFT HARNESS OVERLAY FOR VEHICLES 15m - BRUSHLESS BLOWERS
Complemento Evap. Superior Esquerdo Carro 15m - Vent. Eletrônico

Complemento chicote 016-00516-002



UPPER LEFT EVAP. MODULE
Módulo Evap. Superior Esquerdo

Complemento chicote 016-00516-008



UPPER LEFT EVAP. MODULE
Módulo Evap. Superior Esquerdo

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17 CHANGES HISTORY
Histórico de Modificações

CHANGES HISTORY - Histórico de Modificações

REVIEW Revisão	NAME Nome	RELEASE DATE Data Liberação	RELEASE IDE	CHANGES HISTORY Histórico de Alterações	CHECKED BY Verificado por	APPROVED BY Aprovador por	ARE THERE CHANGES FOR BODY? Há alterações para carroceria?
							NO / Não
B	RPEDRONI	03/12/2020	2171-24	Adicionado diagrama elétrico para o chicote de interface para evaporador com ventilador eletrônico P2	DJANUARIO	FKATZ	NO / Não
C	RPEDRONI	16/12/2020	2171-27	Alterado funcionalidade do pino IVS-M:12 para ser utilizado também como sinal de acionamento do ventilador da renovação de ar	DJANUARIO	FKATZ	YES / Sim
D	RPEDRONI	01/03/2022	2278-9	Alteração da forma de alimentação dos pressostatos, inclusão da alimentação pelo +15 (página 7)	RCOMIN	FKATZ	YES / Sim
E	FKAUFMANN	04/09/2024	7202-10	Pg 9 - Retirado a malha e Incluso Sinais Sensor de Temp. Linha de Sucção e Pressostato de Baixa: ITS2-M/5 e 6 para CSLS-M/1 e 2; IUR2-M/3 e 6 e 17 para CLPS-M/1 e 2 e 3. Retirado RES2 entre IUR2-M/12 até CRUM2-M/12. Cabo dos sensores para 0,75mm. Pg 14 - Retirado a malha e Incluso Sinais Sensor de Temp. Linha de Liquido IEC-M/12 e 13 para CECM-M/14 e 15.	RPEDRONI	RCOMIN	NO / Não

Rev. Index	Qty	Rev. No.	Date	Draw	Change Description	Description	Date	Name	Initial Release:	2037-2		
						ELECTRICAL DIAGRAM CC430 DD	09/09/2024	RPEDRONI	Part No.:	036-00307-000		Page Size: A3
						ESQUEMA ELÉTRICO CC430 DD	09/09/2024	DJANUARIO			Voltage: 24V	Page: 17
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