



Carel Industries SPA

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power**solution**

Project code CM000MB018 Rev 0
Project description EP HEOS BOX CE WITH INVERTER PSD2 12A AND POWER BOARD

Supply voltage 1P+N+E - 230V - 50/60Hz Operating temperature 60°C
Rated current 50A
Auxiliary voltage 230Vac

Designed by FrancoMeneghetti on 29/06/2021
Checked by Matteo Mazzocco on 03/06/2021
Approved by Matteo Mazzocco on 30/06/2021

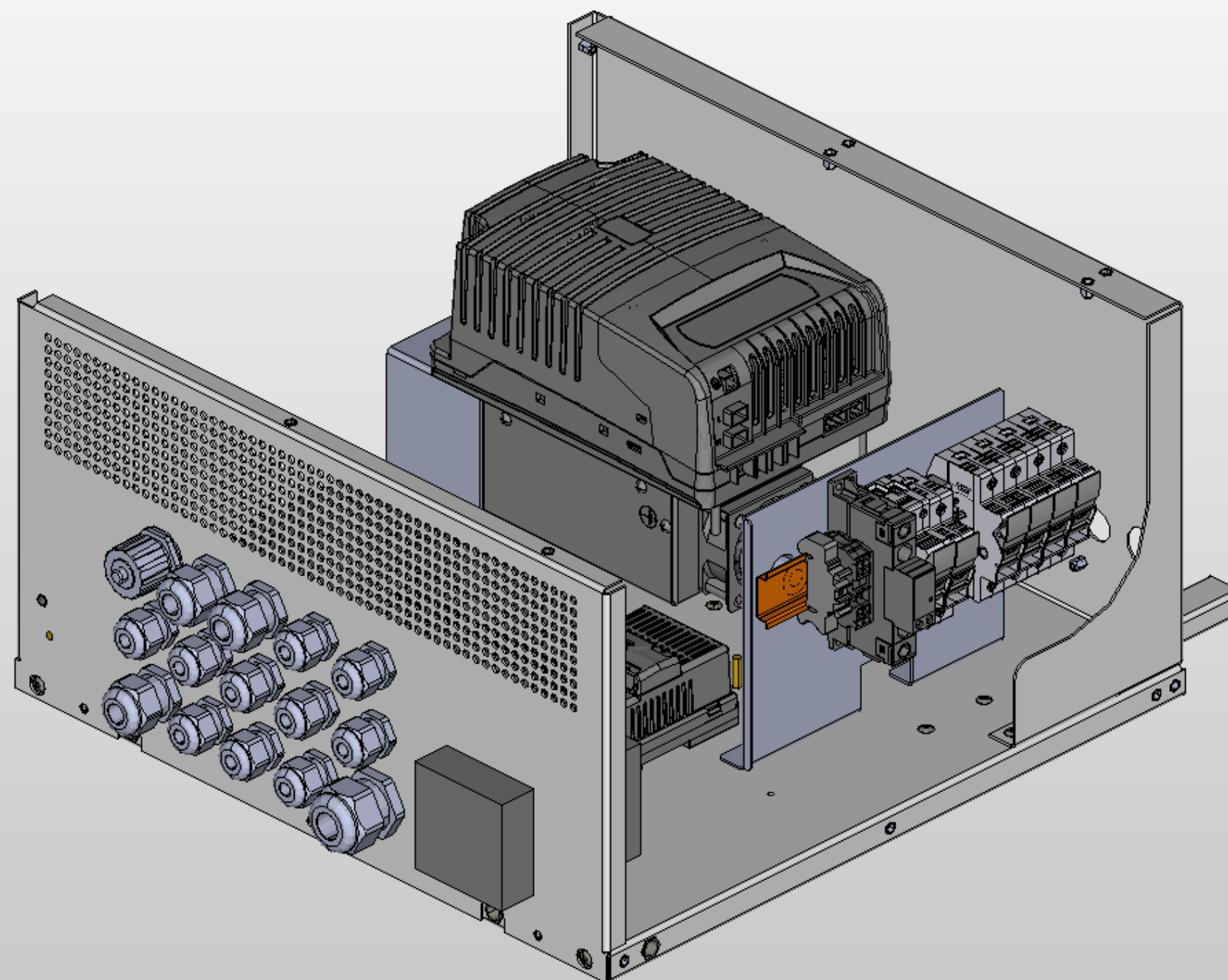
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			Date	29/06/2021	CM000MB018		Title page	Mounting locations	+	Page	&EAA/1
			Elab	FrancoMeneghetti	EP HEOS BOX CE WITH INVERTER PSD2 12A AND POWER BOARD					Next	2
Modification	Date	Name	Rev.	0				Function	=	Total pages	28

F06_003

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			Date	29/06/2021	CM000MB018		Table of contents	Mounting locations +	Page	&EAB/1
			Elab	FrancoMeneghetti					Next	+QE&ETL/1
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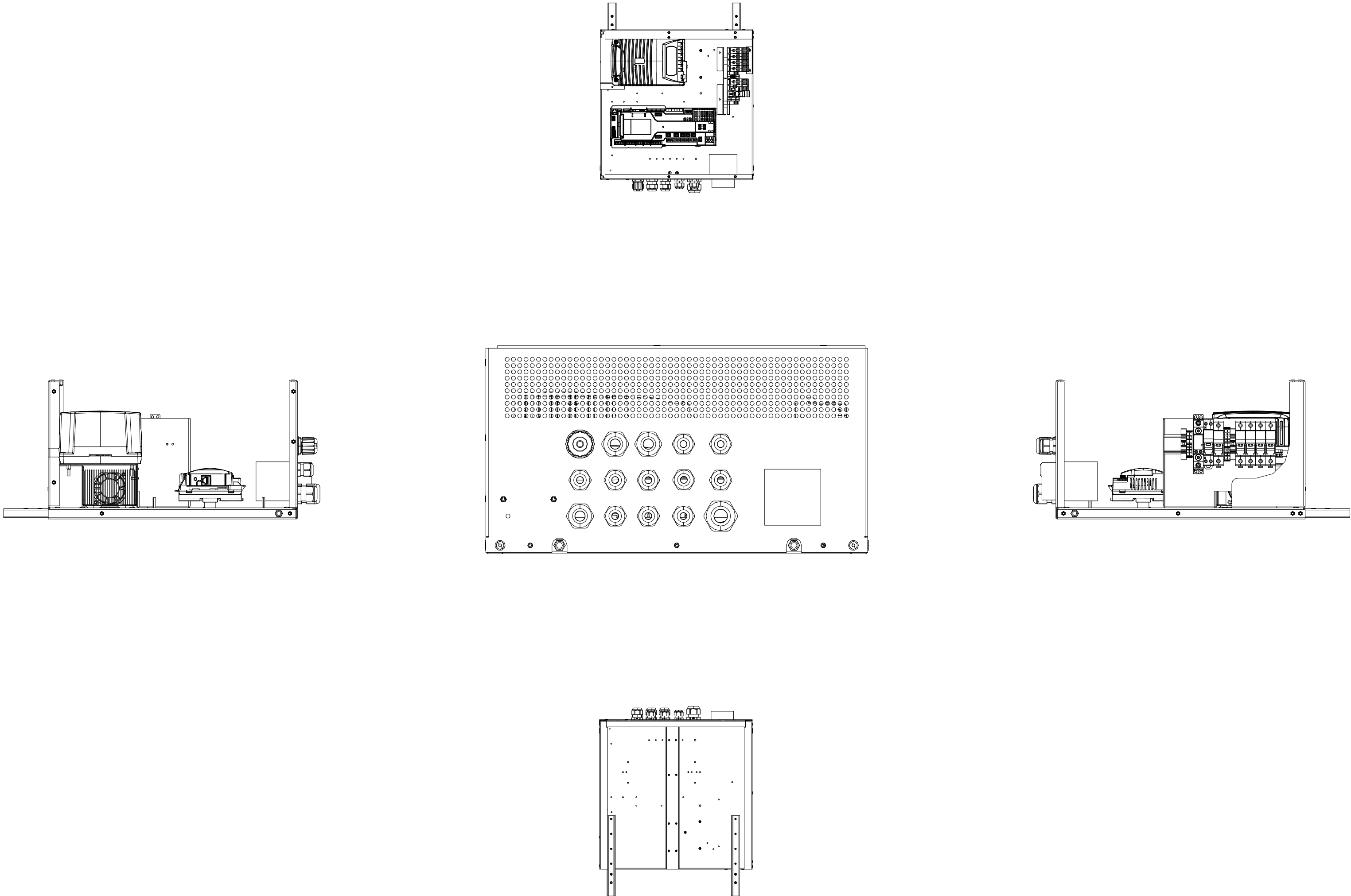


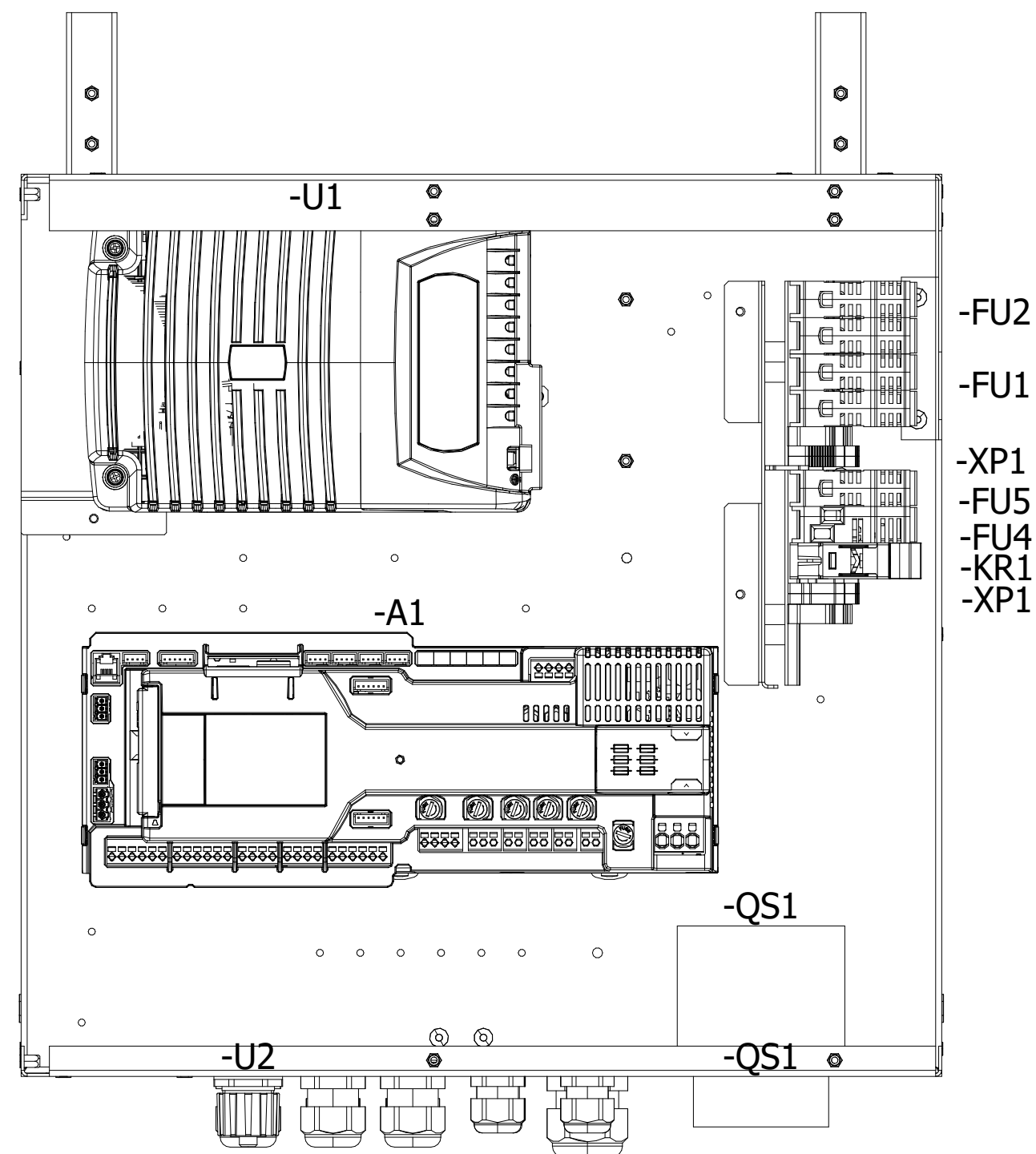
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			Elab	FrancoMeneghetti	
					EP HEOS BOX CE WITH INVERTER PSD2 12A AND POWER BOARD
Modification	Date	Name	Rev.	0	



General view

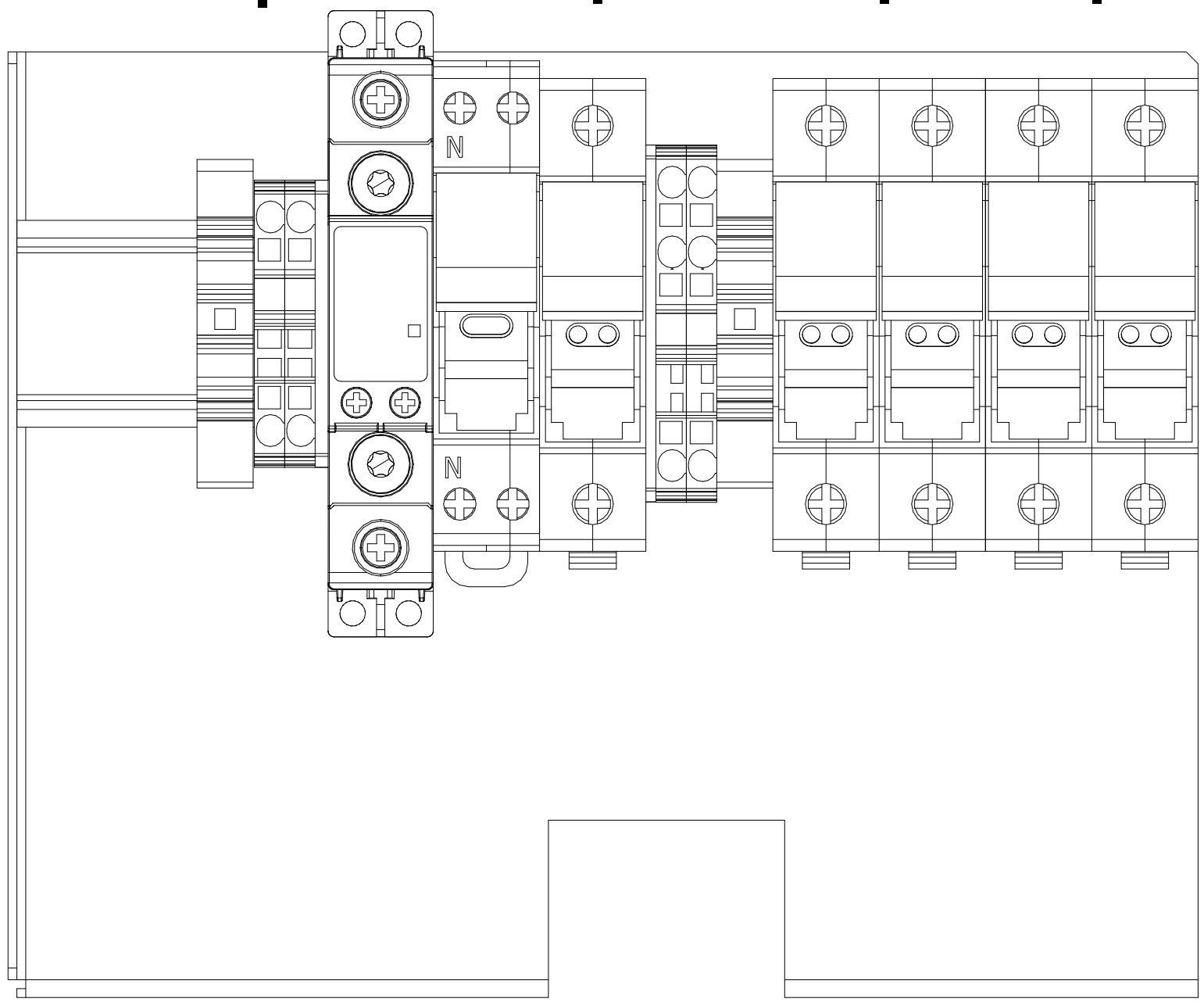
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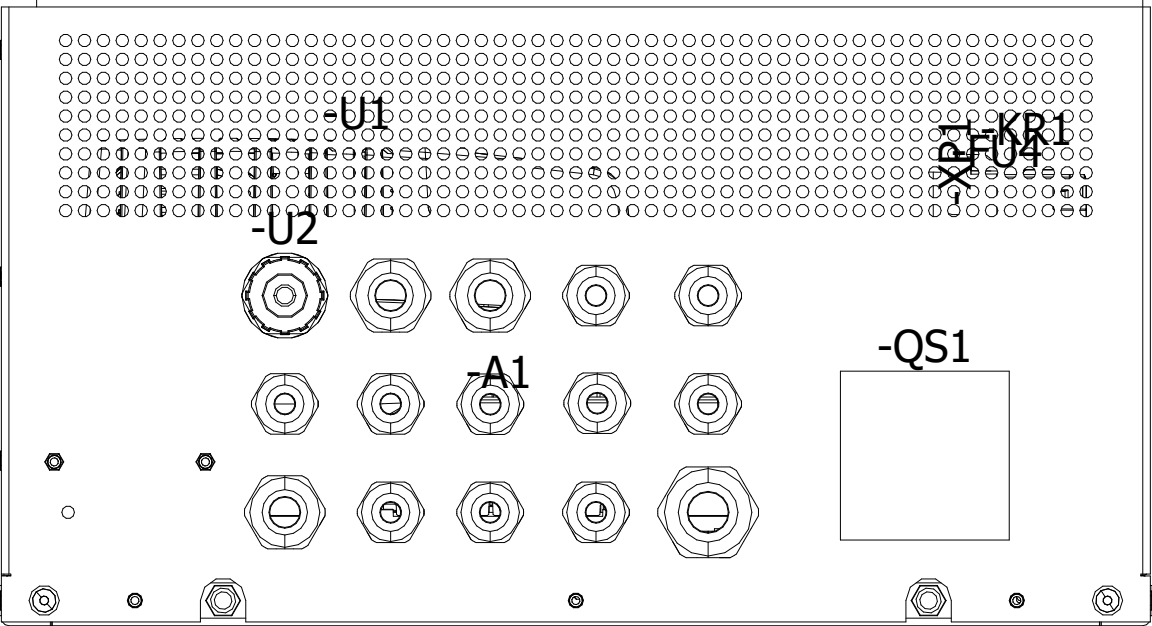


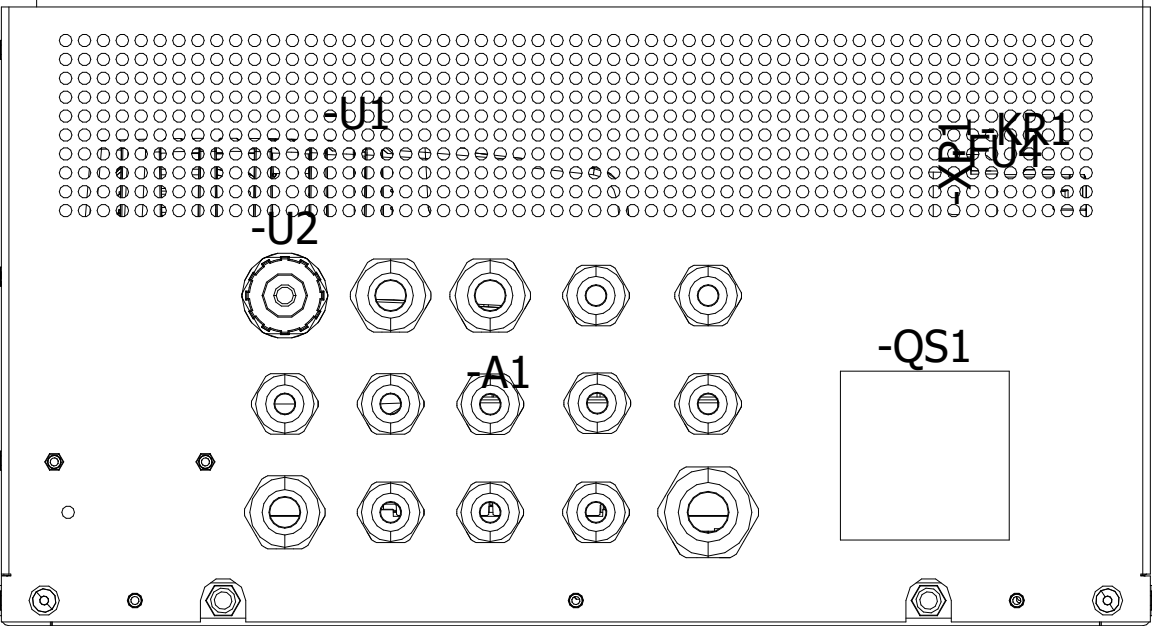


-XP1
-KR1
-FU4
-FU5
-XP1

-FU1
-FU2

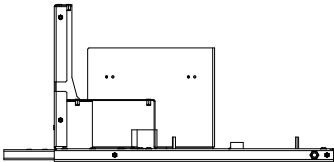
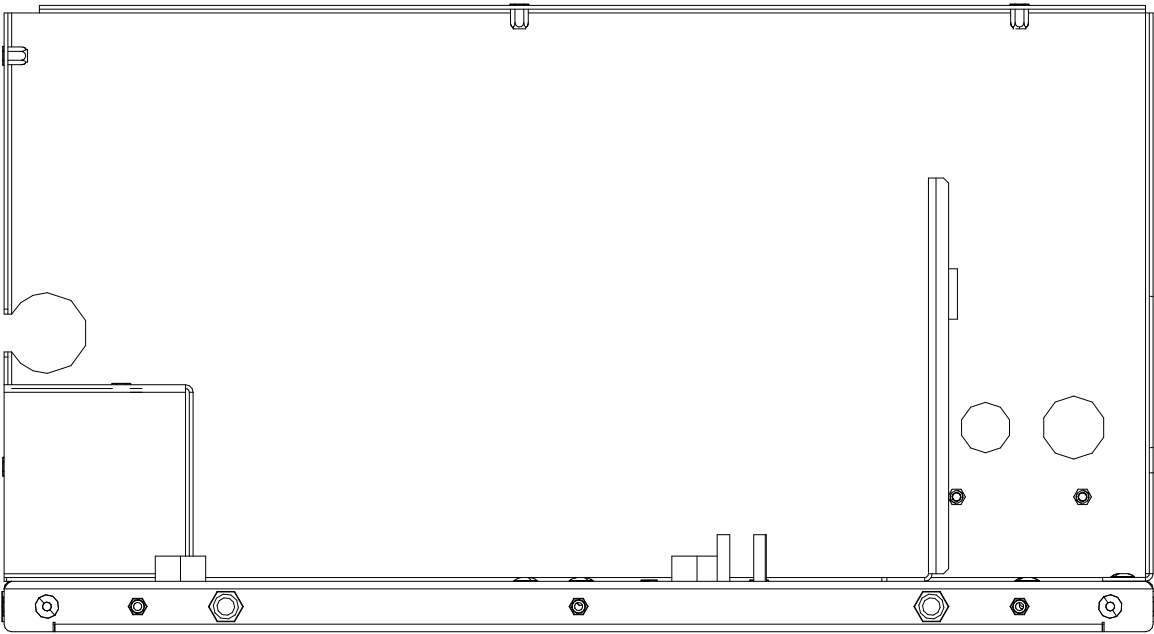






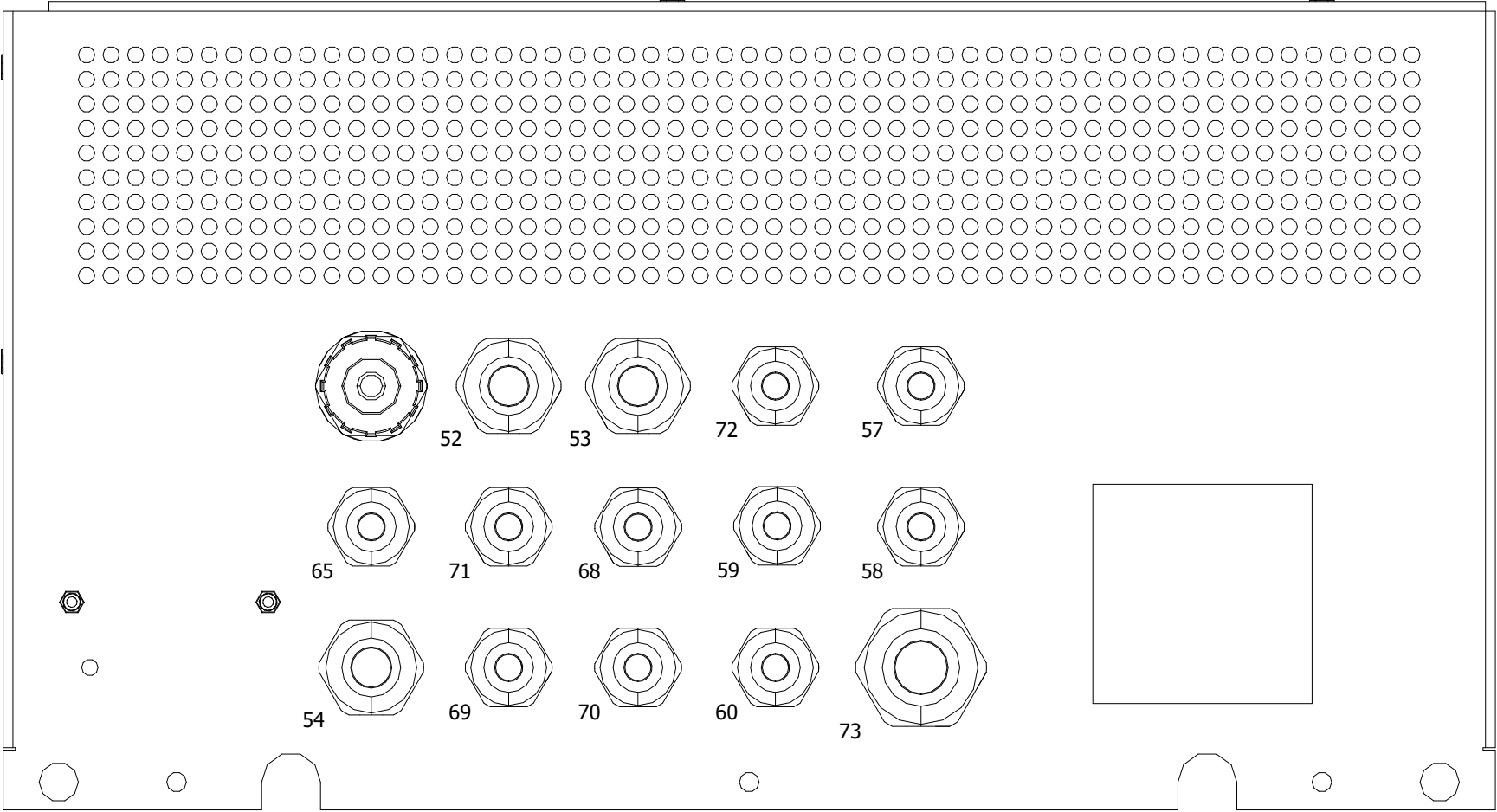
Layout guides and channels

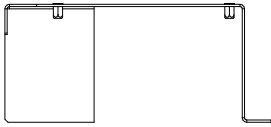
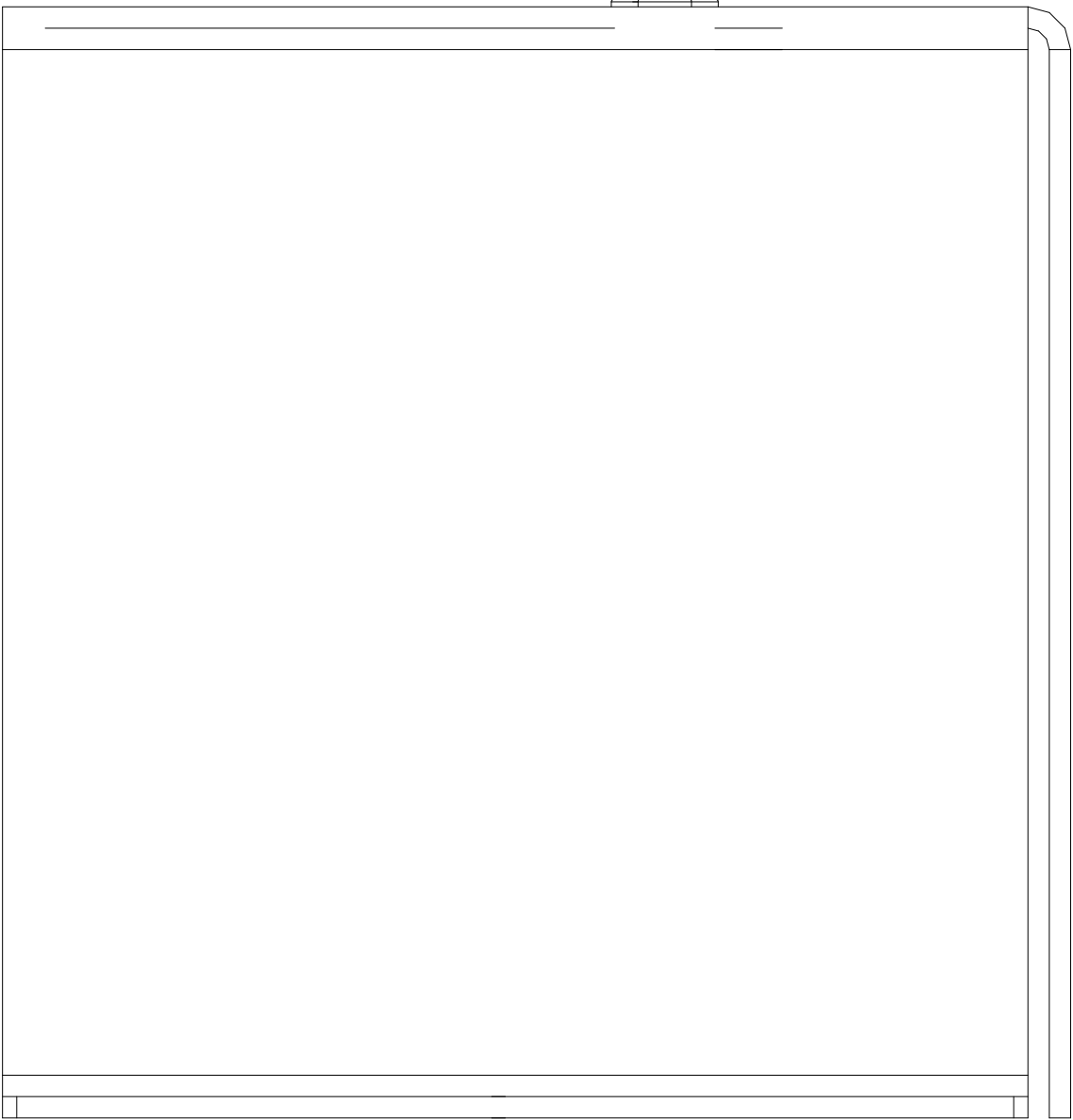
Sign	Type	Length (Tolerance -5mm)
U7	Rise 1cm	
U8	Rise 1cm	
U10	Rise 1cm	
U11	Rise 1cm	



Cable entry/exit components

Item number	Component tipe	Drilling (Tollerance +/-0.5mm)
52	M25 Gland	Ø 25.5mm
53	M25 Gland	Ø 25.5mm
54	M25 Gland	Ø 25.5mm
57	M20 Gland	Ø 20.5mm
58	M20 Gland	Ø 20.5mm
59	M20 Gland	Ø 20.5mm
60	M20 Gland	Ø 20.5mm
65	M20 Gland	Ø 20.5mm
68	M20 Gland	Ø 20.5mm
69	M20 Gland	Ø 20.5mm
70	M20 Gland	Ø 20.5mm
71	M20 Gland	Ø 20.5mm
72	M20 Gland	Ø 20.5mm
73	M32 Gland	Ø 32.5mm





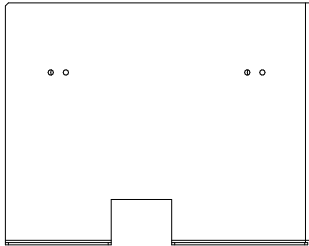
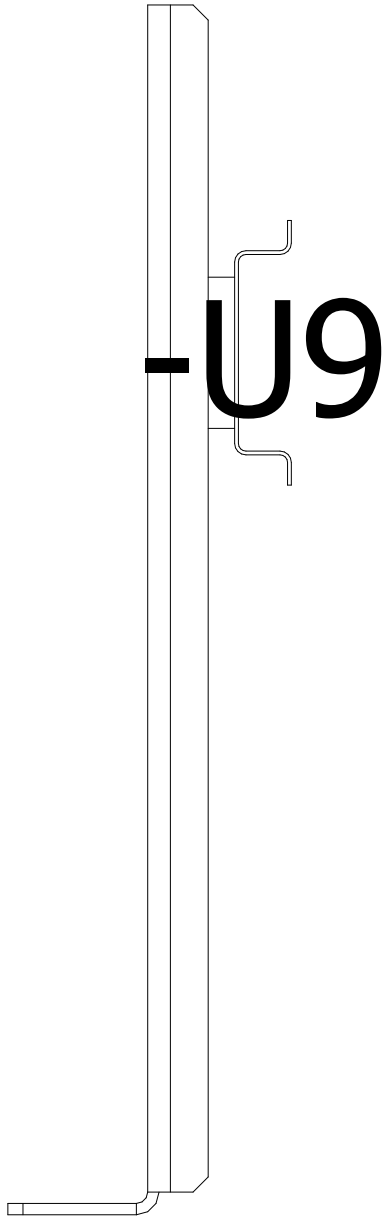
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			Elab	FrancoMeneghetti	EP HEOS BOX CE WITH INVERTER PSD2 12A AND POWER BOARD				Next 10
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Layout guides and channels

Sign	Type	Length (Tolerance -5mm)
U9	35x7.5	199,998 mm

U7	Rise 1cm	
U8	Rise 1cm	

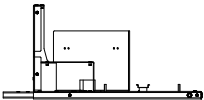
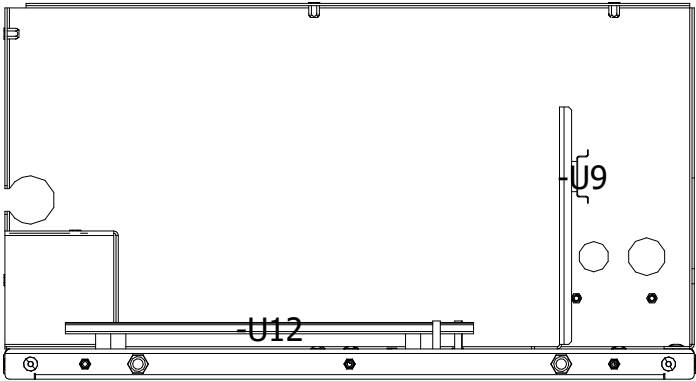


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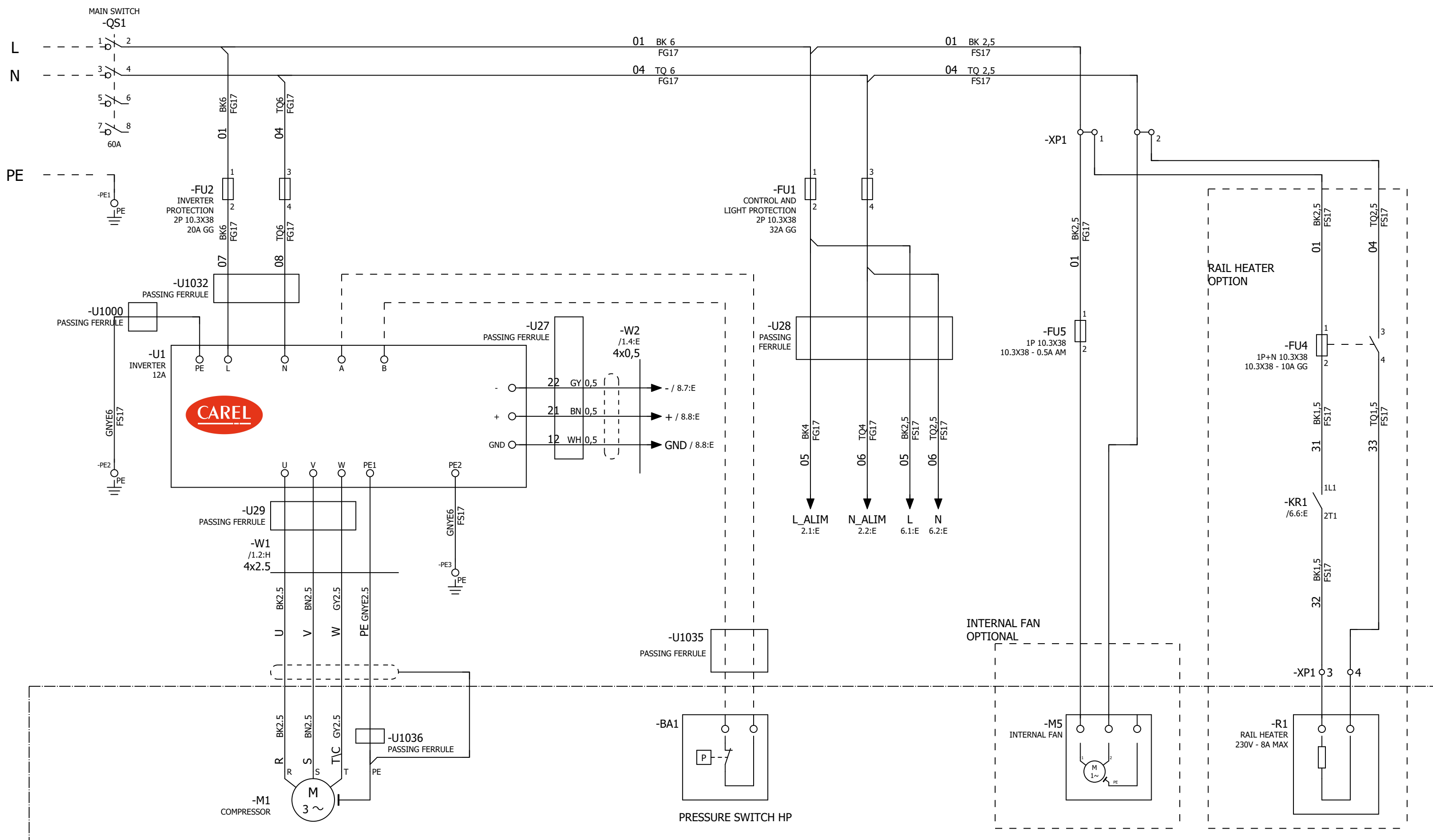
Layout guides and channels

Sign	Type	Length (Tolerance -5mm)
U9	35x7.5	199,998 mm
U12	35x7.5	270 mm

U7	Rise 1cm	
U8	Rise 1cm	
U10	Rise 1cm	
U11	Rise 1cm	

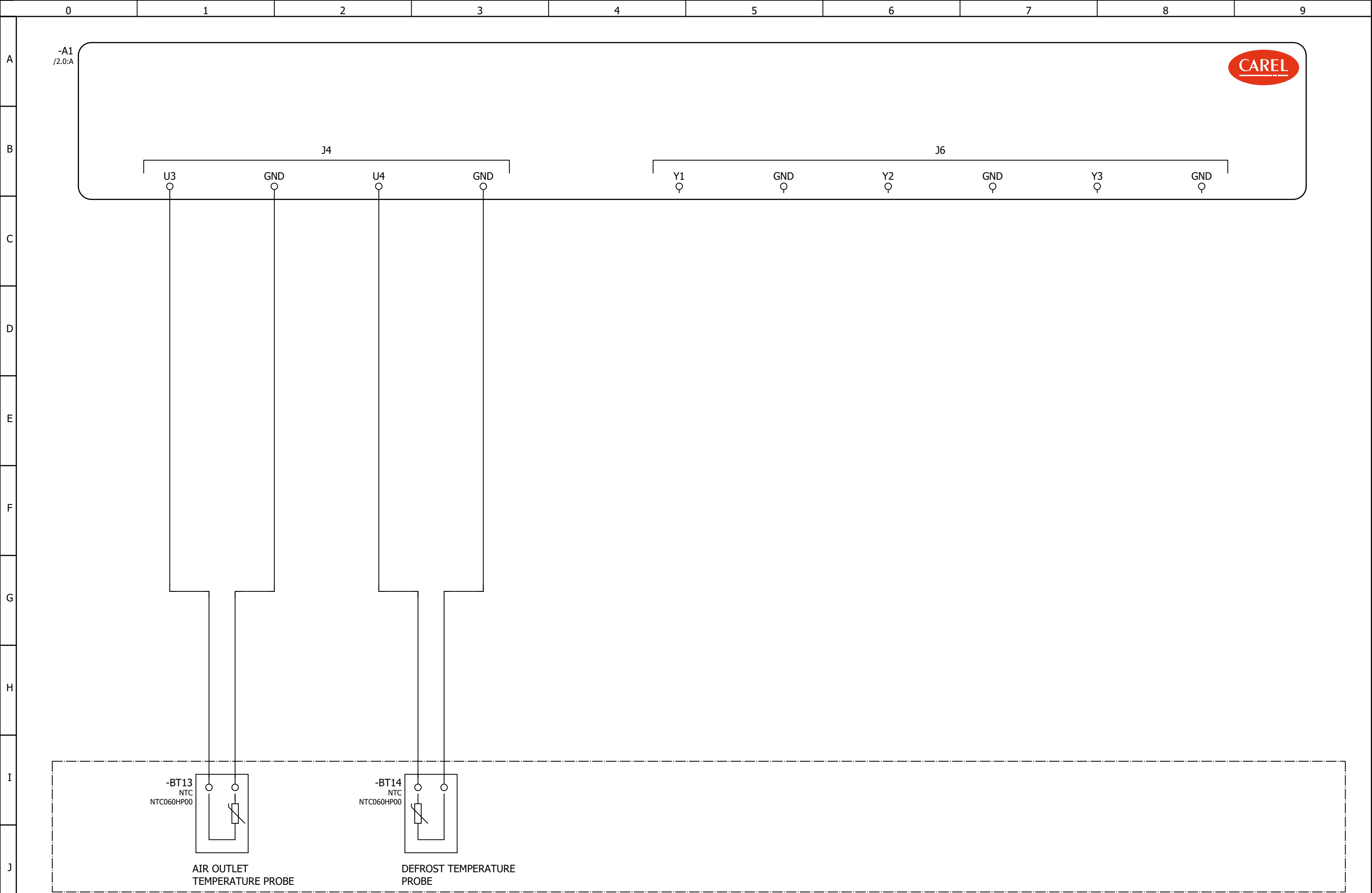


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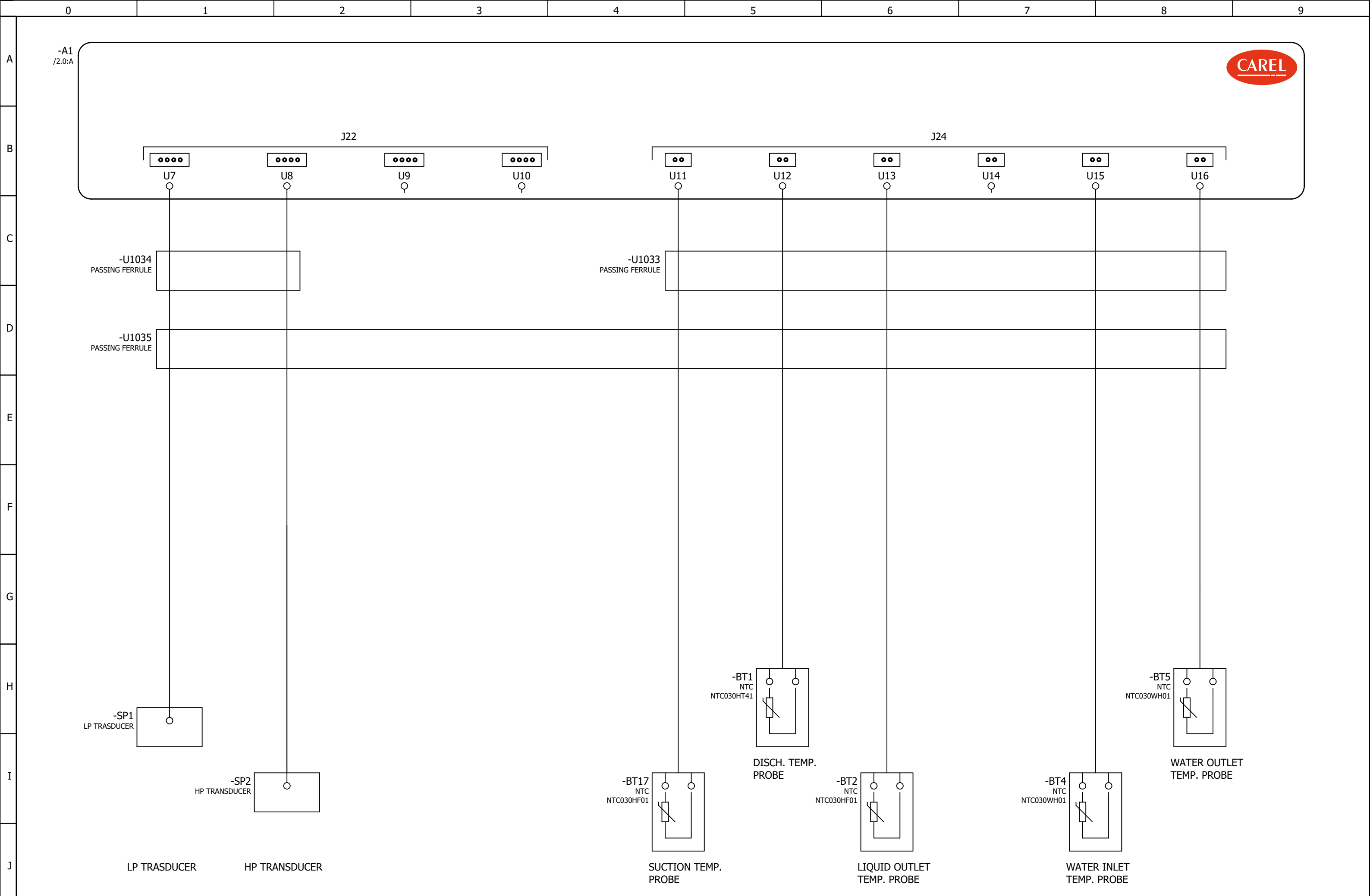
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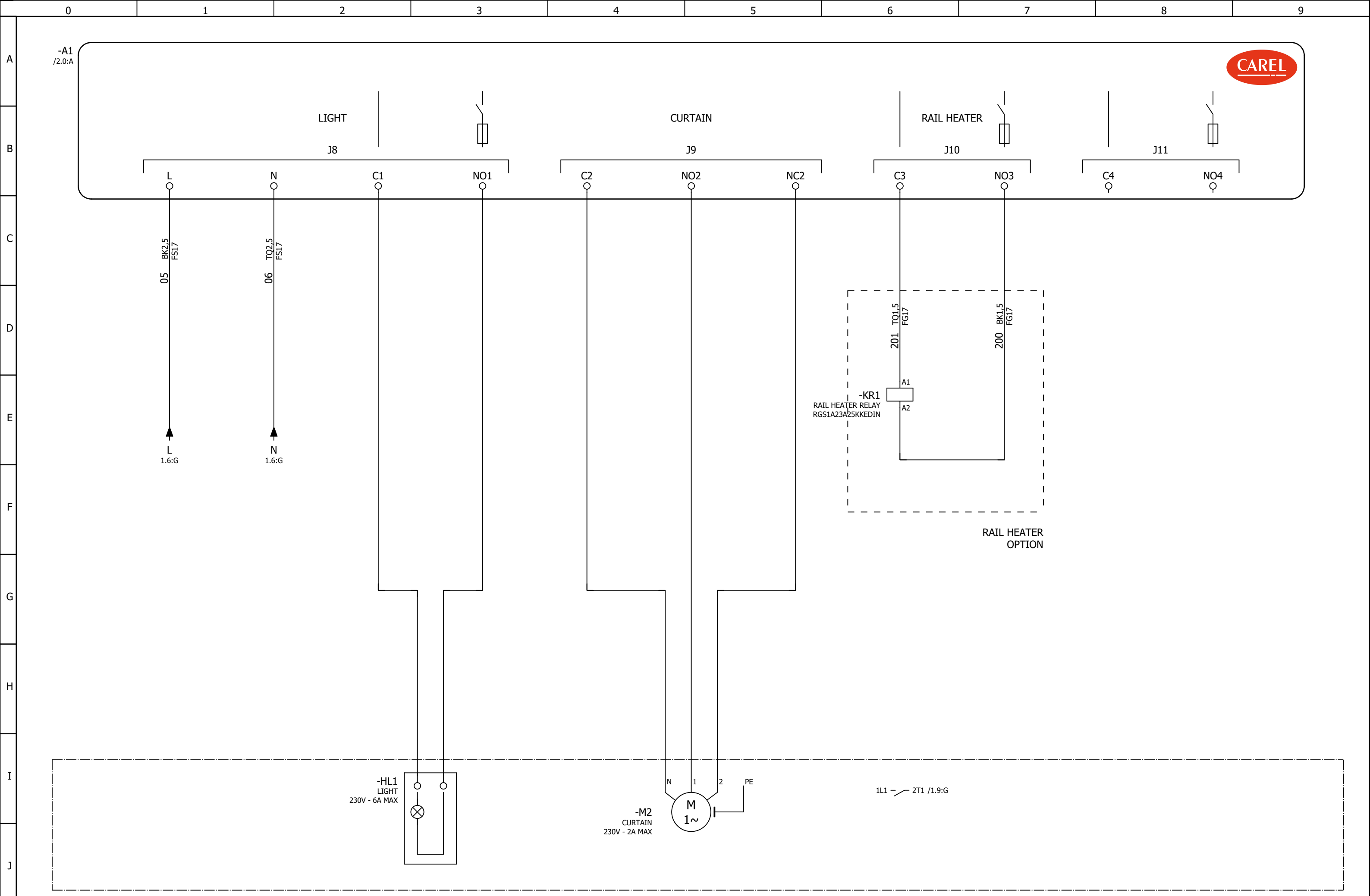


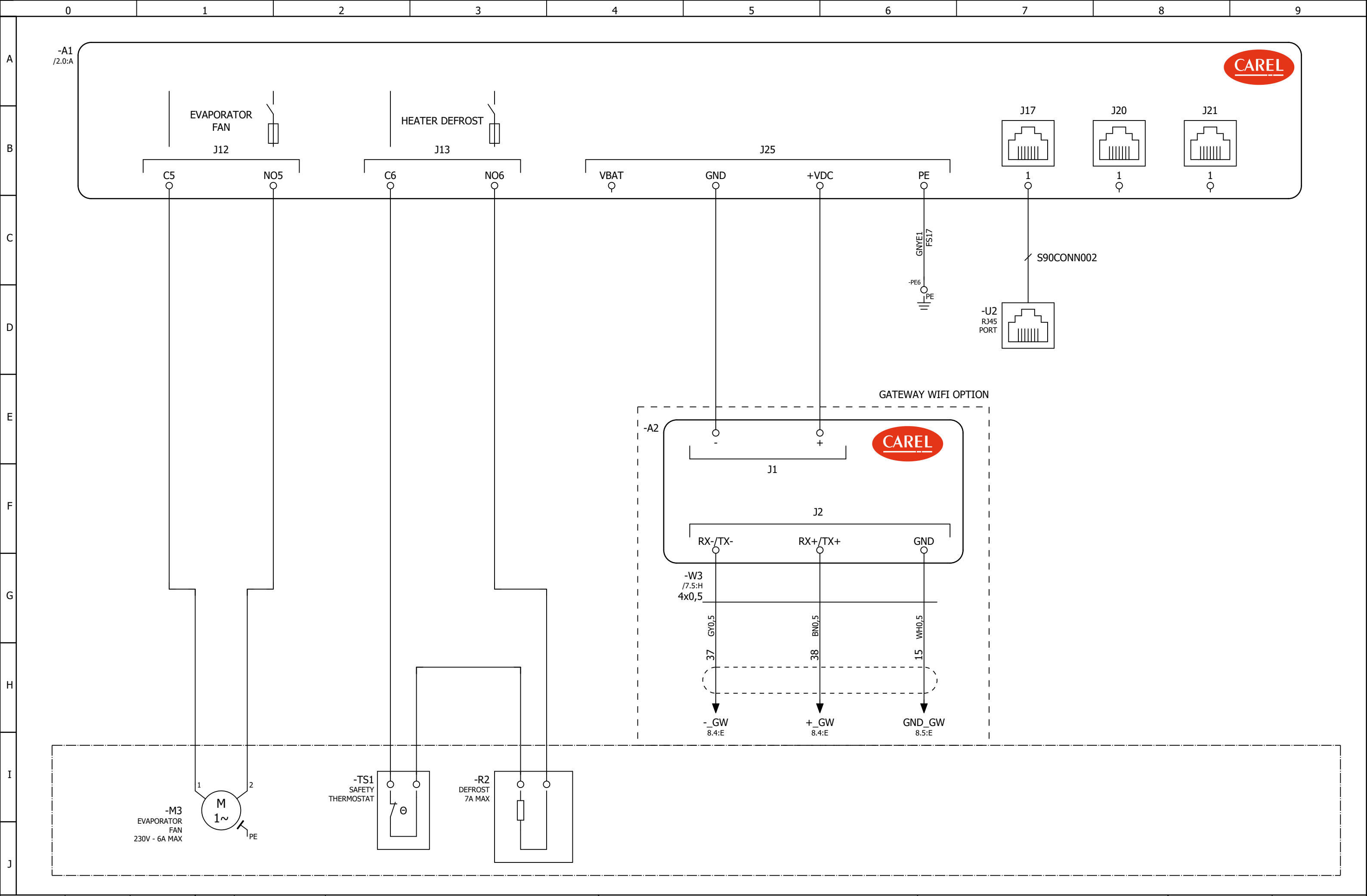
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Modification	Date	Name	Rev.	0						
EP HEOS BOX CE WITH INVERTER PSD2 12A AND POWER BOARD										



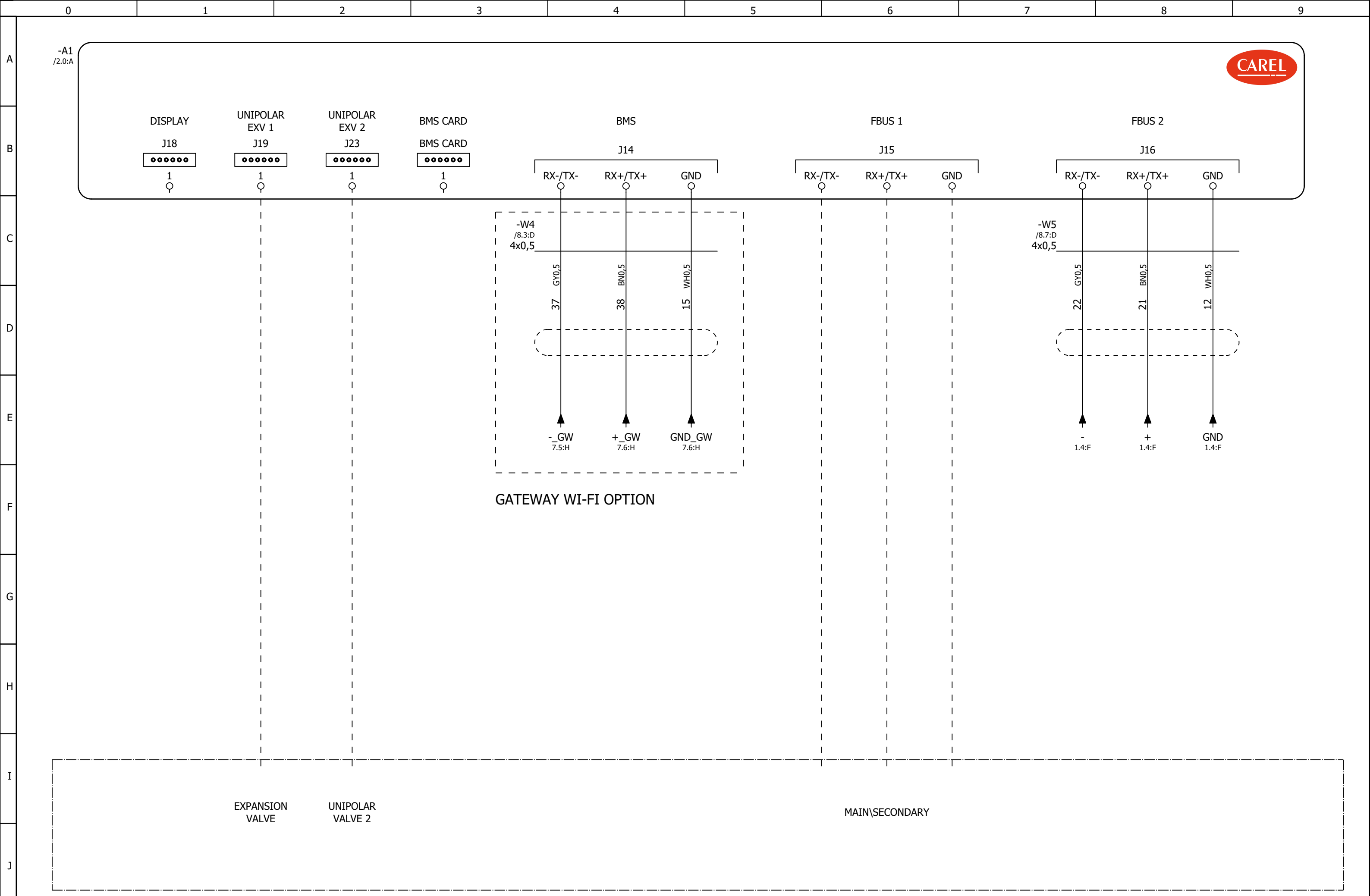


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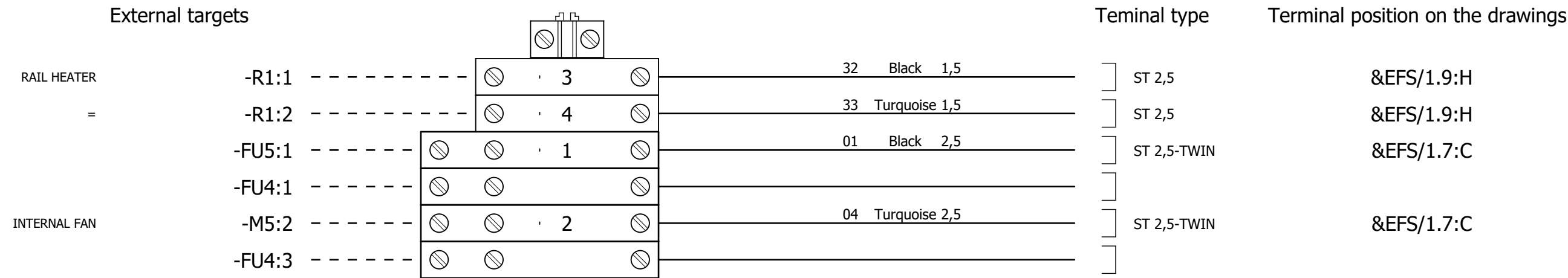
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			Elab	FrancoMeneghetti						Next	8
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Terminal diagram

Terminal strip

+QE-XP1



			Date	29/06/2021	CM000MB018		Terminal strip	Mounting locations + QE	Page +QE&EMA/1
			Elab	FrancoMeneghetti					Next &EMB/1
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Cable name

+QE-W1

Cable type

4x2.5 mm²

Free conductors

1

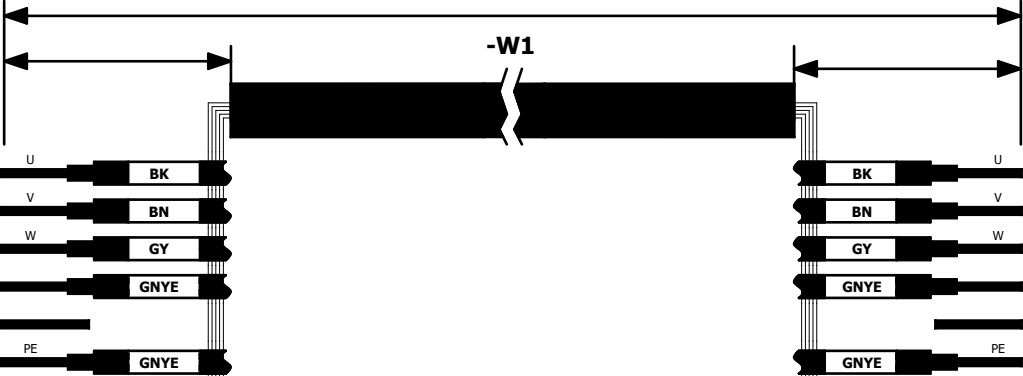
Cable parts

B08C04250

Order number

1008277AXX

Mounting location:	Origin	Function text source	Display
Elettrical panel	-M1:R	COMPRESSOR	
Elettrical panel	-M1:S	=	
Elettrical panel	-M1:T	=	
Elettrical panel	-M1:PE	COMPRESSOR	
Elettrical panel	-M1:PE	=	



Display	Function text target	Target	Mounting location:
		-U1:U	Elettrical panel
		-U1:V	Elettrical panel
		-U1:W	Elettrical panel
		-W1	Elettrical panel
		-U1:PE1	Elettrical panel

Cable name

+QE-W2

Cable type

4x0,5 mm²

Free conductors

3

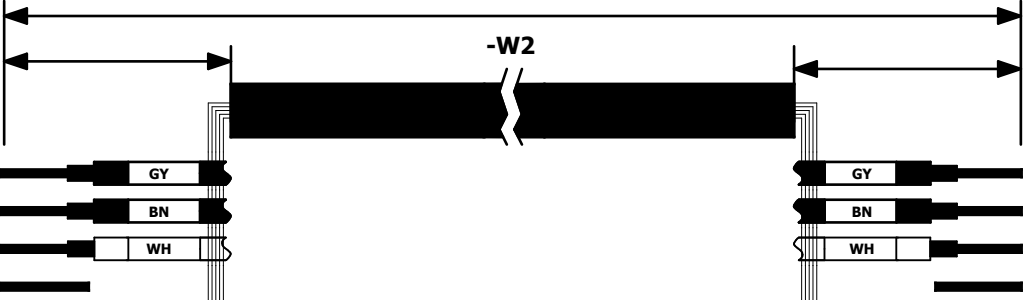
Cable parts

Shielded 3x0.5

Order number

1008019AXX

Mounting location:	Origin	Function text source	Display



Display	Function text target	Target	Mounting location:

Cable name

+QE-W3

Cable type

4x0,5 mm²

Free conductors

3

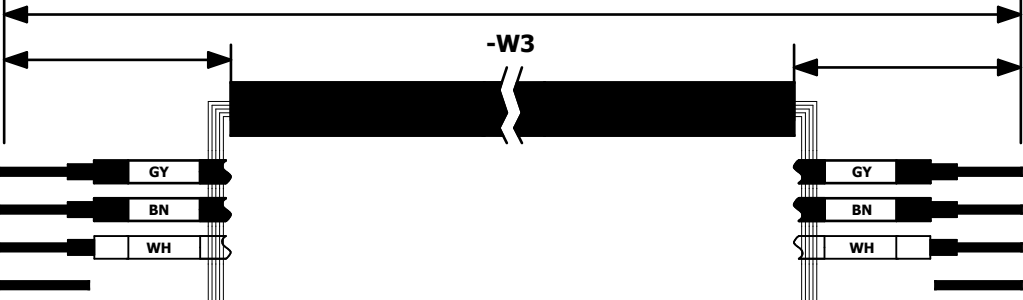
Cable parts

Shielded 3x0.5

Order number

1008019AXX

Mounting location:	Origin	Function text source	Display



Display	Function text target	Target	Mounting location:

Cable name

+QE-W4

Cable type

4x0,5 mm²

Free conductors

3

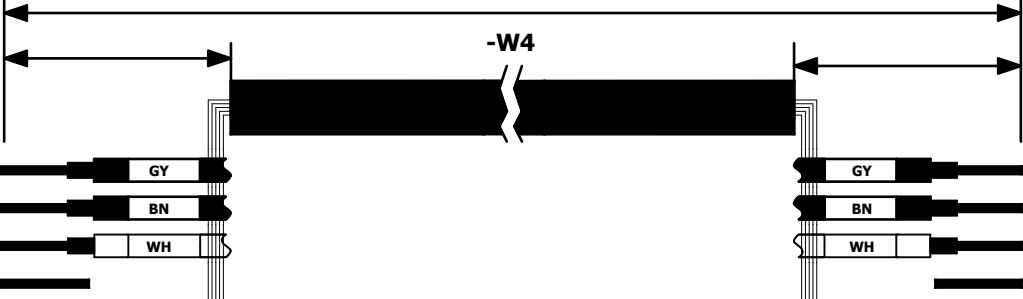
Cable parts

Shielded 3x0.5

Order number

1008019AXX

Mounting location:	Origin	Function text source	Display



Display	Function text target	Target	Mounting location:

Cable name

+QE-W5

Cable type

4x0,5 mm²

Free conductors

3

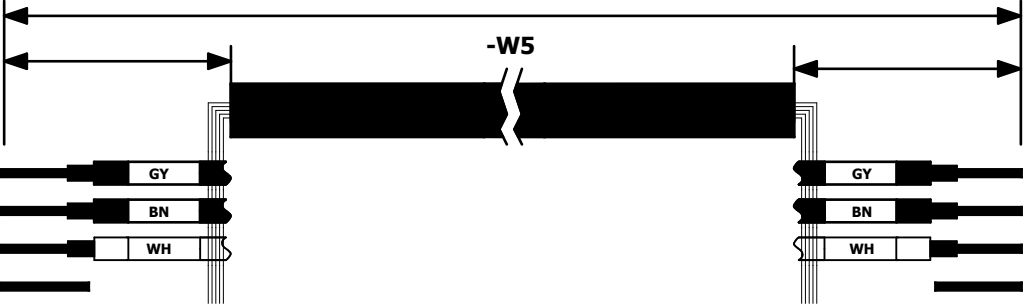
Cable parts

Shielded 3x0.5

Order number

1008019AXX

Mounting location:	Origin	Function text source	Display



Display	Function text target	Target	Mounting location:

BOM internal panel

InternoQE_F01_003

Short name	Designation	Function text	Position	Manufacturer	Component tipe	Oracle code
A1	HEOS ELECTRONIC CONTROL		&EFS/2.0:A	CAREL	HEC00001113E2	HEC00001113E2
A2	GATEWAY WI-FI		&EFS/7.4:E	Carel	GTW0000WT0	GTW0000WT0
BA1		PRESSURE SWITCH HP	&EFS/1.4:I			
BT1	TEMPERATURE PROBE	DISCH. TEMP. PROBE	&EFS/5.5:H	CAREL	NTC030HT41	NTC030HT41
BT2	TEMPERATURE PROBE	LIQUID OUTLET TEMP. PROBE	&EFS/5.6:I	CAREL	NTC030HF01	NTC030HF01
BT4	TEMPERATURE PROBE	WATER INLET TEMP. PROBE	&EFS/5.7:I	CAREL	NTC030WH01	NTC030WH01
BT5	TEMPERATURE PROBE	WATER OUTLET TEMP. PROBE	&EFS/5.8:H	CAREL	NTC030WH01	NTC030WH01
BT13	TEMPERATURE PROBE	NTC060HP00	&EFS/3.1:I	CAREL	NTC060HP00	NTC060HP00
BT14	TEMPERATURE PROBE	=	&EFS/3.3:I	CAREL	NTC060HP00	NTC060HP00
BT15	TEMPERATURE PROBE	=	&EFS/4.6:I	CAREL	NTC060HP00	NTC060HP00
BT16	TEMPERATURE PROBE	NTC060HF01	&EFS/4.8:I	CAREL	NTC060HF01	NTC060HF01
BT17	TEMPERATURE PROBE	SUCTION TEMP. PROBE	&EFS/5.4:I	CAREL	NTC030HF01	NTC030HF01
FU1	Fuse holder	CONTROL AND LIGHT PROTECTION	&EFS/1.5:D		2P 10.3X38	0606198AXX
FU1	Safety fuse	=	&EFS/1.5:D		10.3X38 - 32A GG	0605368CEL
FU2	Fuse holder	INVERTER PROTECTION	&EFS/1.1:D		2P 10.3X38	0606198AXX
FU2	Safety fuse	=	&EFS/1.1:D		10.3X38 - 20A GG	0605365AUN
FU4	Fuse holder		&EFS/1.9:E		1P+N 10.3X38	0606194AXX
FU4	Safety fuse		&EFS/1.9:E		10.3X38 - 10A GG	0605362AUN
FU5	Fuse holder		&EFS/1.7:E		1P 10.3X38	0606197AXX
FU5	Safety fuse		&EFS/1.7:E		10.3X38 - 0.5A AM	0605408AUN
HL1		LIGHT	&EFS/6.3:I			
KR1	SSR Relay	RAIL HEATER RELAY	&EFS/6.6:E	CARLO GAVAZZI	RGS1A23A25KKEDIN	0110133AXX
M1		COMPRESSOR	&EFS/1.2:J			

BOM internal panel

InternoQE_F01_003

Short name	Designation	Function text	Position	Manufacturer	Component tipe	Oracle code
M2		CURTAIN	&EFS/6.4:I			
M3		EVAPORATOR FAN	&EFS/7.1:I			
M5		INTERNAL FAN	&EFS/1.7:I			
PE1	GROUND		&EFS/1.0:D		PE	PE
PE2	GROUND		&EFS/1.0:F		PE	PE
PE3	GROUND		&EFS/1.3:G		PE	PE
PE5	GROUND		&EFS/2.2:D		PE	PE
PE6	GROUND		&EFS/7.6:C		PE	PE
QS1	Disconnect switch	MAIN SWITCH	&EFS/1.0:B	GIOVENZANA INTERNATIONAL	REGOLUS 4P 80A	0402120AXX
QS1	Operation	=	&EFS/1.0:B	GIOVENZANA INTERNATIONAL	MANOVRA G/N 67X67 LUCCH. SERIE REGOLUS 4P 50A	0402118AXX
R1		RAIL HEATER	&EFS/1.8:I			
R2		DEFROST	&EFS/7.3:I			
SP1	CABLE FOR PRESSURE TRANSDUCER	LP TRASDUCER	&EFS/5.1:H	CAREL	Trasduttore	SPKC002310
SP2	CABLE FOR PRESSURE TRANSDUCER	HP TRANSDUCER	&EFS/5.1:I	CAREL	Trasduttore	SPKC002310
TS1		SAFETY THERMOSTAT	&EFS/7.2:I			
U1	POWER+ 12 A, 200-240 VAC 1PH, IP20/IP44 WITH COVER	INVERTER	&EFS/1.1:E	CAREL	PS20012204110	PS20012204110
U2	Passaparete RJ45	RJ45 PORT	&EFS/7.7:D	CONEC	PASSAPARETE RJ45	0510180AXX
U27		PASSING FERRULE	&EFS/1.3:E		FERRITE	0910268AXX
U28		PASSING FERRULE	&EFS/1.5:E		FERRITE	0910322AXX
U29		PASSING FERRULE	&EFS/1.2:G		FERRITE	0910269AXX
U1000		=	&EFS/1.1:E		FERRITE	0910268AXX
U1032		=	&EFS/1.1:D		FERRITE	0910269AXX
U1033		=	&EFS/5.4:C		FERRITE	0910269AXX

BOM internal panel

InternoQE_F01_003

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			Date	29/06/2021	CM000MB018		Parts list	Mounting locations + QE	Page +QE&EPA/1.b
			Elab	FrancoMeneghetti					Next
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