



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

MODEL : SK3336.410 - SK3336.419  
KRAE0121TT00V000EG - V412

DRAWING NUMBER : EP25014 -

POWER SUPPLY : 400V 3 50Hz - 460V 3 60Hz

AUXILIARY SUPPLY : 24VAC

CUSTOMER :

REFERENCE :

CONTROL PANEL PART NR : 928931

CREATED THE : 07/02/2025 BY AL1

CHANGED ON THE : BY

NUMBER OF PAGES 24



CHANGE TRANSFORMER WIRING ACCORDING POWER SUPPLY VOLTAGE





# PAGE OVERVIEW

2LP8\_PAGKEL\_22

| DOCUMENT TYPE | FUNCTION DEFINITION | LOCATION DESIGNATION | PAGE | PAGE DESCRIPTION                          | DATE REVISION | EDITED BY |
|---------------|---------------------|----------------------|------|---|---------------|-----------|
| &EAA          |                     |                      | 1    | COVER                                     | 11/02/2025    | AL1       |
| &EAB          |                     |                      | 1    | PAGE OVERVIEW                             | 18/11/2025    | AL1       |
| &EFS          | =PWC                | +EC01                | 1    | POWER CIRCUIT                             | 30/09/2025    | FF2       |
| &EFS          | =PWC                | +EC01                | 2    | POWER CIRCUIT                             | 04/06/2025    | AL1       |
| &EFS          | =AUA                | +EC01                | 1    | AUXILIARY WIRING                          | 18/11/2025    | AL1       |
| &EFS          | =AUA                | +EC01                | 2    | AUXILIARY WIRING                          | 27/02/2025    | AL1       |
| &EFS          | =AUA                | +EC01                | 4    | DIGITAL INPUT                             | 26/05/2025    | AL1       |
| &EFS          | =AIN                | +EC01                | 1    | ANALOG INPUT                              | 27/02/2025    | AL1       |
| &EFS          | =ISN                | +EC01                | 1    | IN/OUT SIGNALS                            | 27/02/2025    | AL1       |
| &EMZ          |                     | +EC01                | 1    | UPC OVERVIEW                              | 07/02/2025    | AL1       |
| &EMA          |                     |                      | 1    | TERMINAL STRIP SUMMARY                    | 10/02/2025    | AL1       |
| &EMA          |                     |                      | 2    | PLUGS SUMMARY                             | 11/02/2025    | AL1       |
| &EMA          |                     |                      | 3    | TERMINAL DIAGRAM +EC01-X2                 | 26/05/2025    | AL1       |
| &EMA          |                     |                      | 4    | TERMINAL DIAGRAM +EC01-X2                 | 24/02/2025    | AG1       |
| &EMA          |                     |                      | 5    | PLUG DIAGRAM =PWC+ELM-XS1                 | 10/02/2025    | AL1       |
| &EMA          |                     |                      | 6    | PLUG DIAGRAM =ISN+ELM-XS2                 | 10/02/2025    | AL1       |
| &EMA          |                     |                      | 7    | PLUG DIAGRAM =ISN+ELM-XS2                 | 11/02/2025    | AL1       |
| &EMB          |                     |                      | 1    | CABLE OVERVIEW =PWC+EC01-W0-=AUA+EC01-W38 | 18/11/2025    | AL1       |
| &EPC          |                     |                      | 1    | BILL OF PLUGS                             | 11/02/2025    | AL1       |
| &EPC          |                     |                      | 2    | BILL OF MATERIAL                          | 18/11/2025    | AL1       |
| &EPC          |                     |                      | 3    | BILL OF MATERIAL                          | 27/02/2025    | AL1       |
| &EPC          |                     |                      | 4    | BILL OF MATERIAL                          | 18/11/2025    | AL1       |
| &EPC          |                     |                      | 5    | BILL OF MATERIAL                          | 27/02/2025    | AL1       |
| &EPC          |                     |                      | 6    | BILL OF MATERIAL                          | 27/02/2025    | AL1       |

&EAA/1

&EFS=PWC+EC01/1

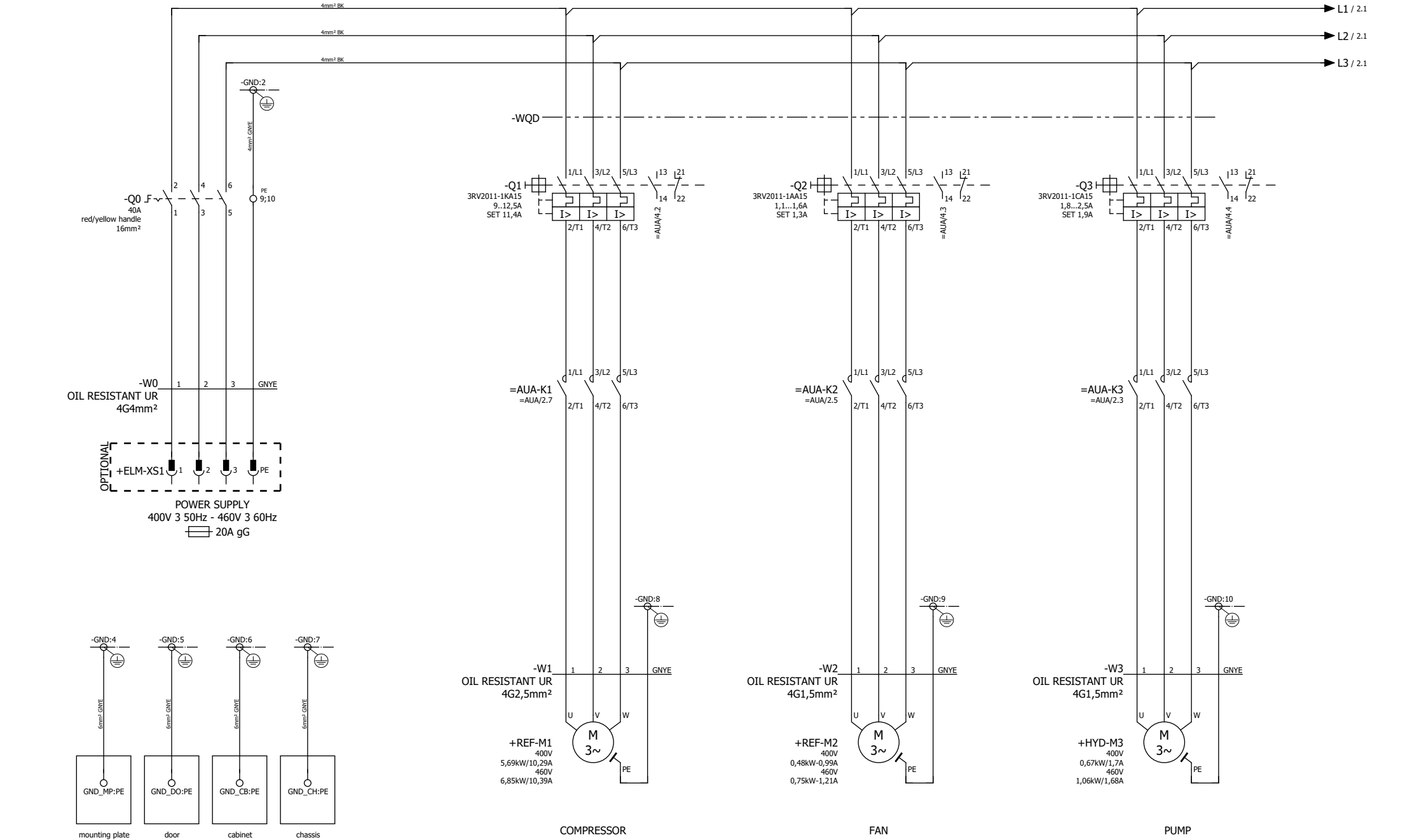
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|------------|-----|--------|---------------|
| CREATED BY | AL1 | ON THE | 07/02/2025    |
| REVISOR    |     | ON THE | LAST REVISION |



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SK3336.410 - SK3336.419  
KRAE0121TT00V000EG - V412  
PAGE OVERVIEW

|                |  |         |  |                   |          |
|----------------|--|---------|--|-------------------|----------|
| DRAWING NUMBER |  | EP25014 |  | EPLAN Electric P8 | 2025.0.3 |
| CONTROL PANEL  |  | 928931  |  | 3D REVISION       |          |
| &EAB           |  | =       |  | +                 |          |
|                |  |         |  | NUMBER OF PAGES   | 24       |
|                |  |         |  |                   | 1        |



&EAB=+/1

2

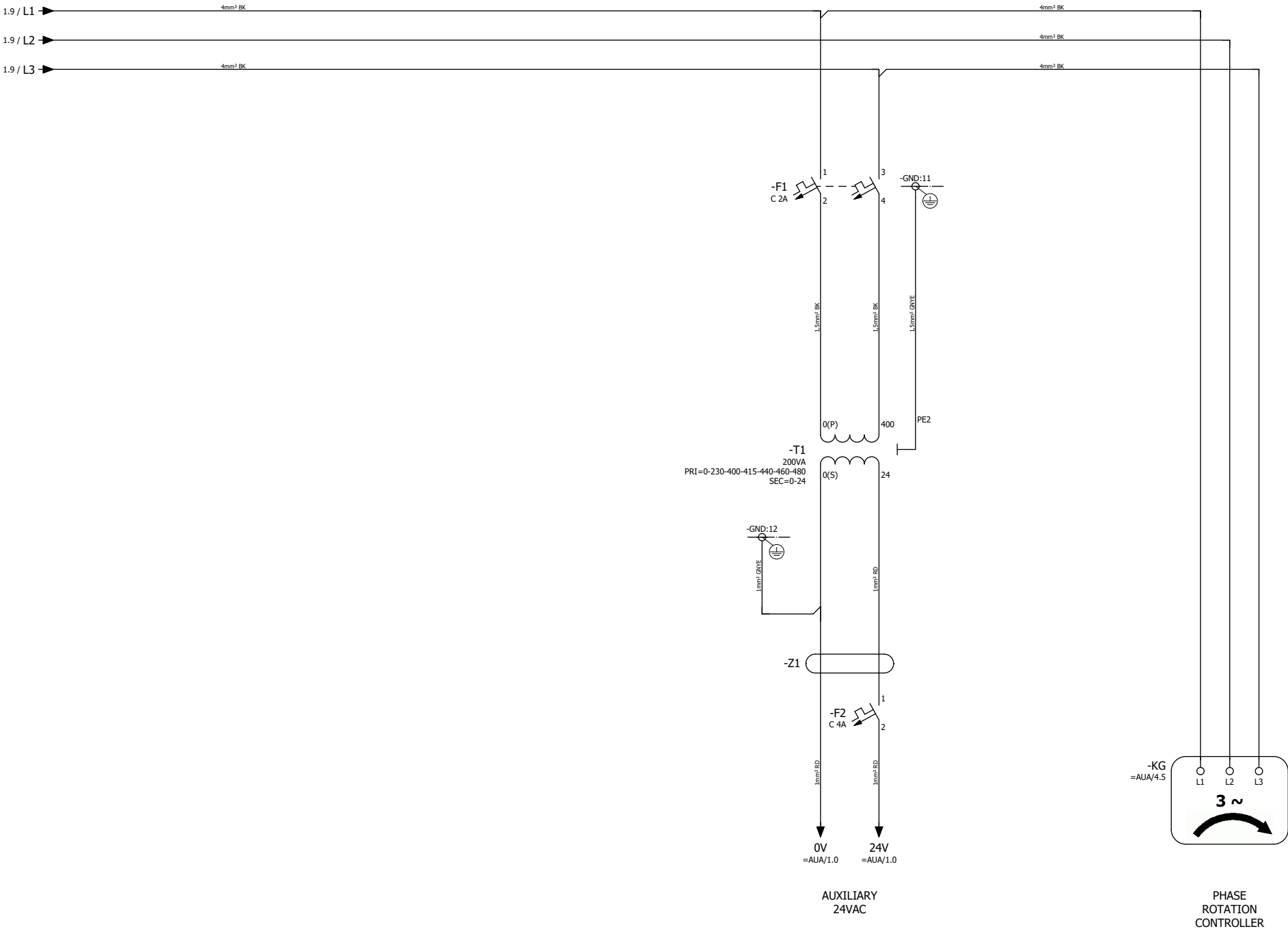
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| CREATED BY | AL1 | ON THE | 07/02/2025    |
| REVISOR    |     | ON THE | LAST REVISION |

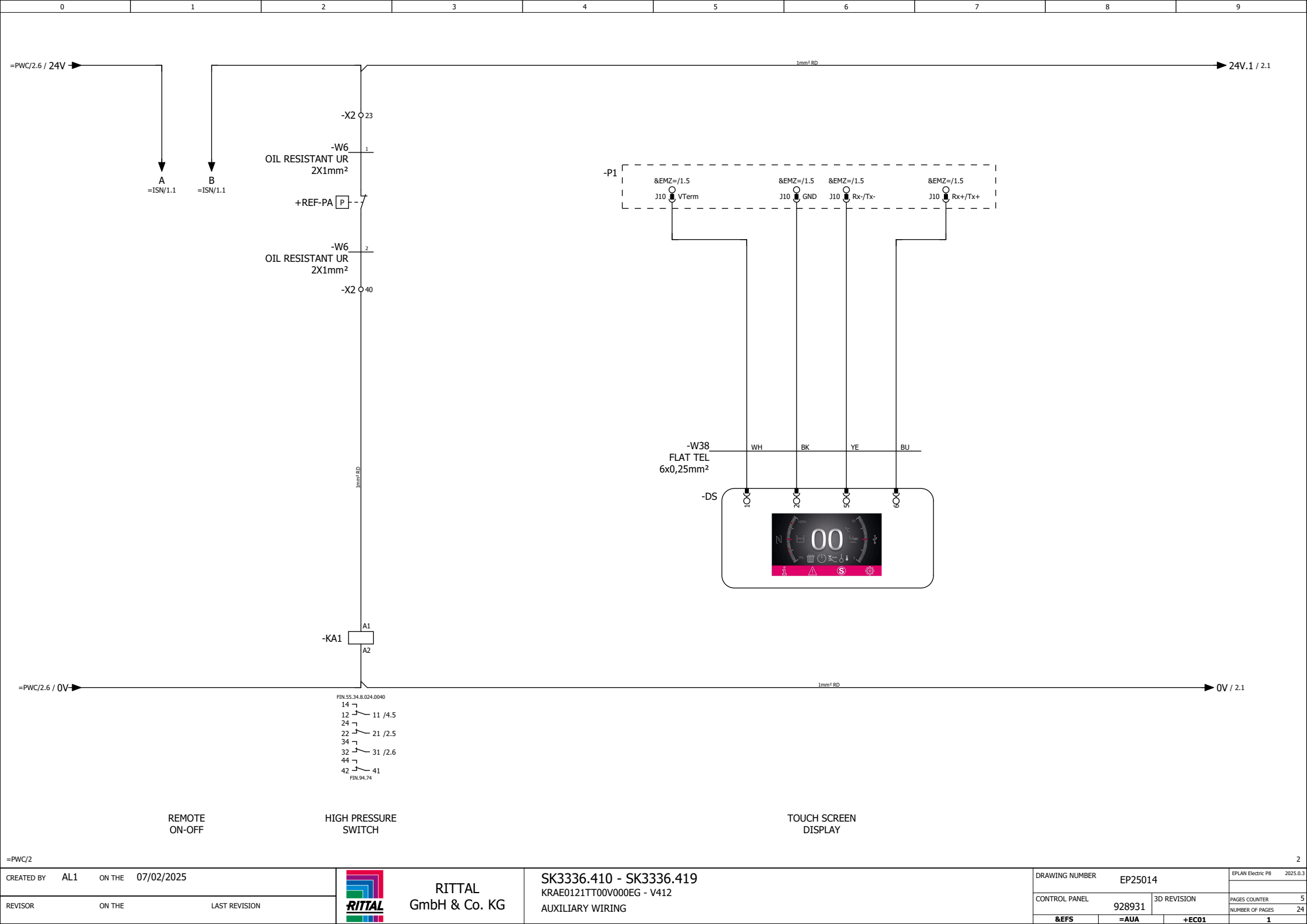


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SK3336.410 - SK3336.419  
KRAE0121TT00V000EG - V412  
POWER CIRCUIT

|                |         |                   |                 |
|----------------|---------|-------------------|-----------------|
| DRAWING NUMBER | EP25014 | EPLAN Electric P8 | 2025.0.3        |
| CONTROL PANEL  | 928931  | 3D REVISION       | PAGES COUNTER   |
| &EFS           | =PWC    | +EC01             | NUMBER OF PAGES |
|                |         |                   | 24              |
|                |         |                   | 1               |





=PWC/2

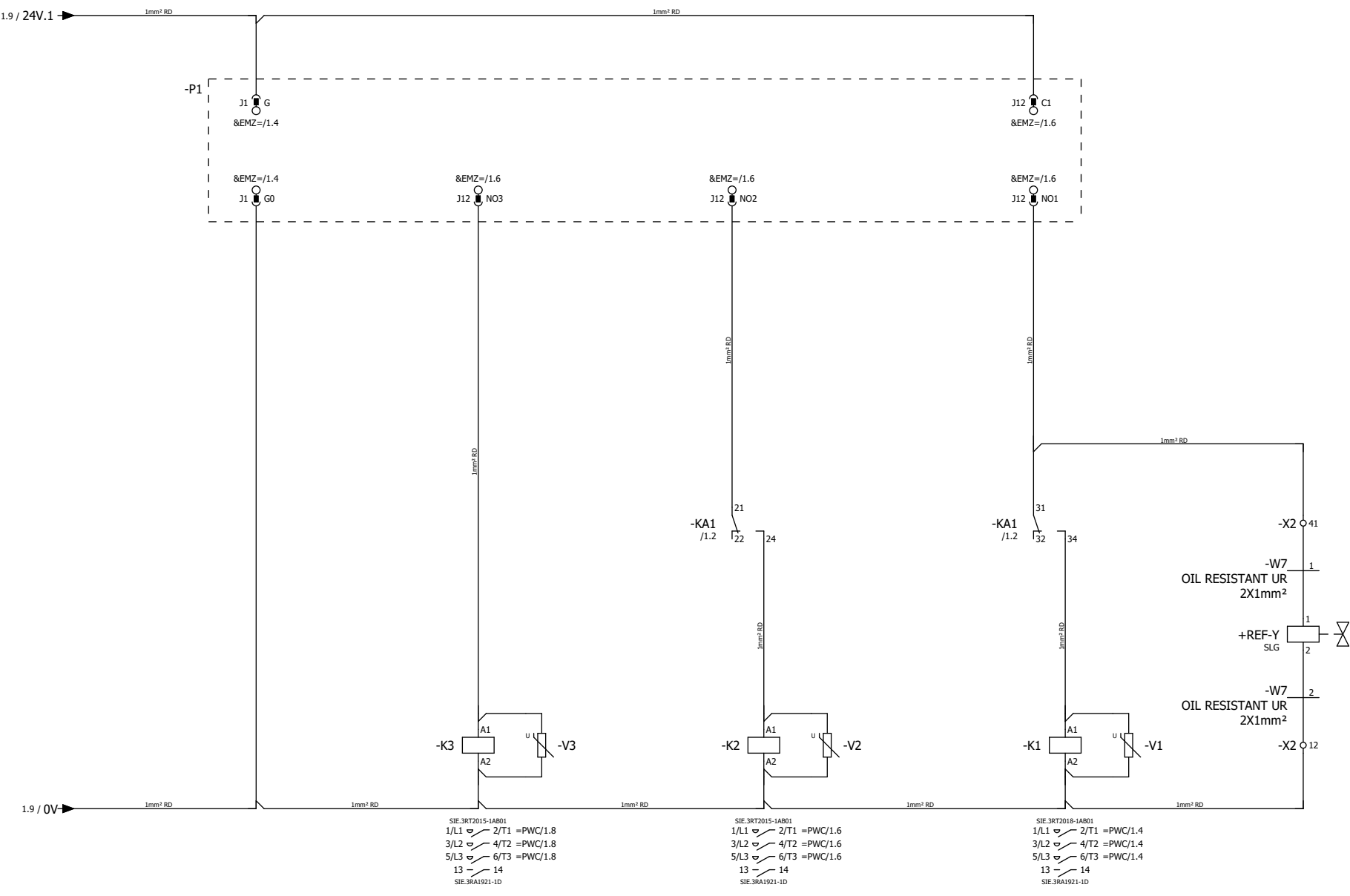
|            |     |        |               |
|------------|-----|--------|---------------|
| CREATED BY | AL1 | ON THE | 07/02/2025    |
| REVISOR    |     | ON THE | LAST REVISION |



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SK3336.410 - SK3336.419  
KRAE0121TT00V000EG - V412  
AUXILIARY WIRING

|                |         |                   |          |
|----------------|---------|-------------------|----------|
| DRAWING NUMBER | EP25014 | EPLAN Electric P8 | 2025.0.3 |
| CONTROL PANEL  | 928931  | 3D REVISION       |          |
| &EFS           | =AUA    | +EC01             | 1        |
| PAGES COUNTER  | 5       | NUMBER OF PAGES   | 24       |



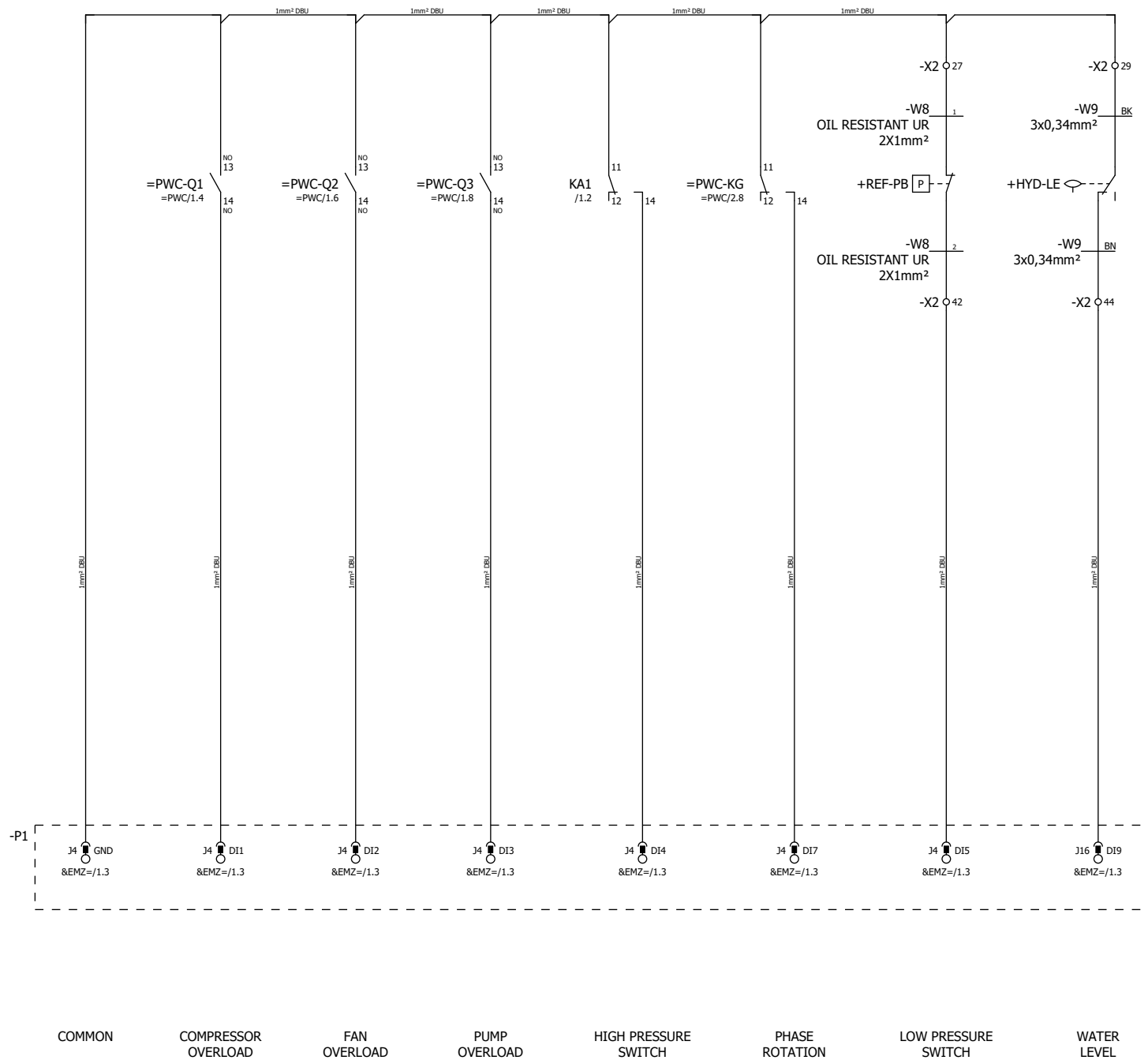
UPC  
POWER  
SUPPLY

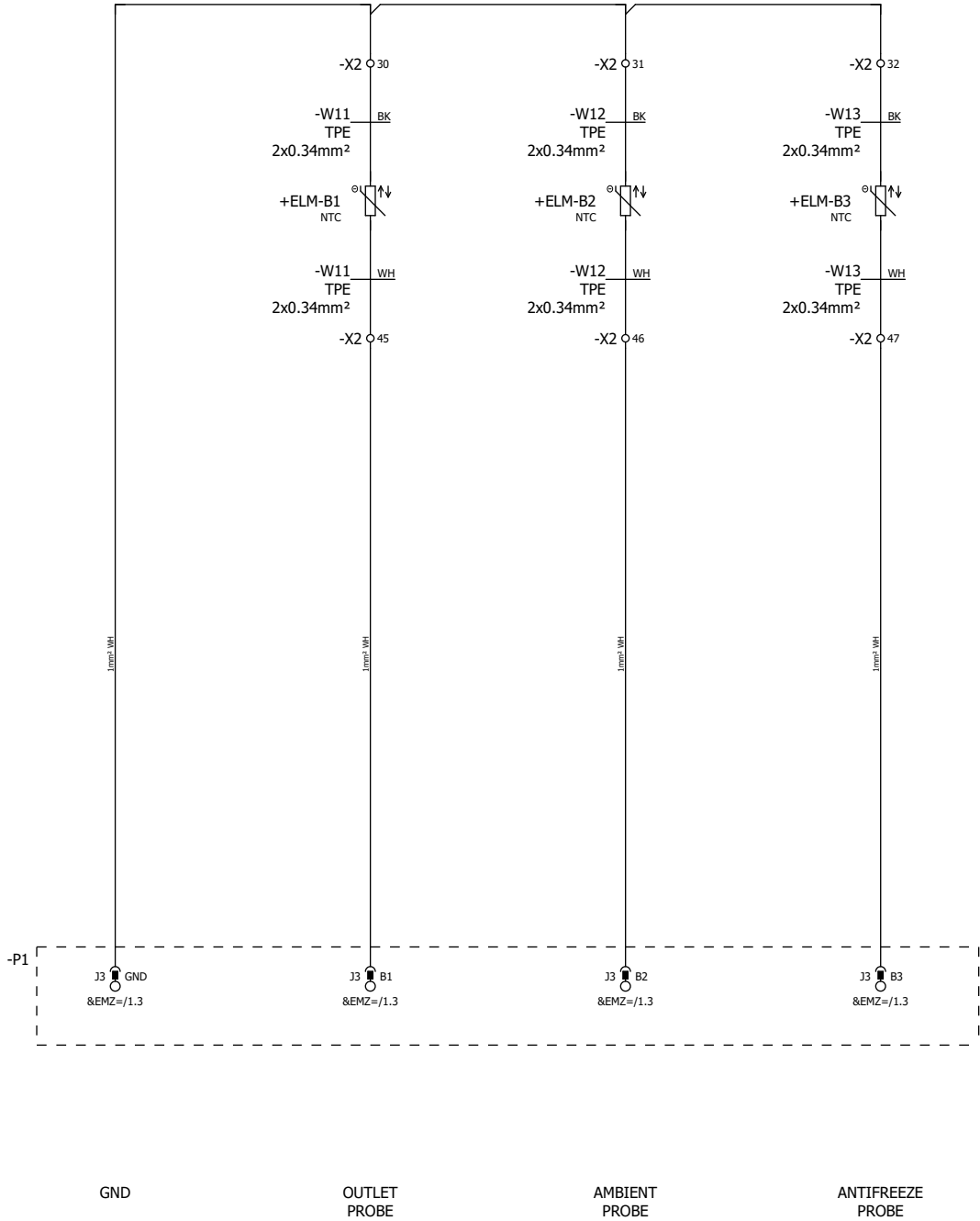
START  
PUMP

START  
FAN

START  
COMPRESSOR

SOLENOID  
VALVE





=AJA/4

|            |     |        |               |
|------------|-----|--------|---------------|
| CREATED BY | AL1 | ON THE | 07/02/2025    |
| REVISOR    |     | ON THE | LAST REVISION |



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KRAE0121TT00V000EG - V412

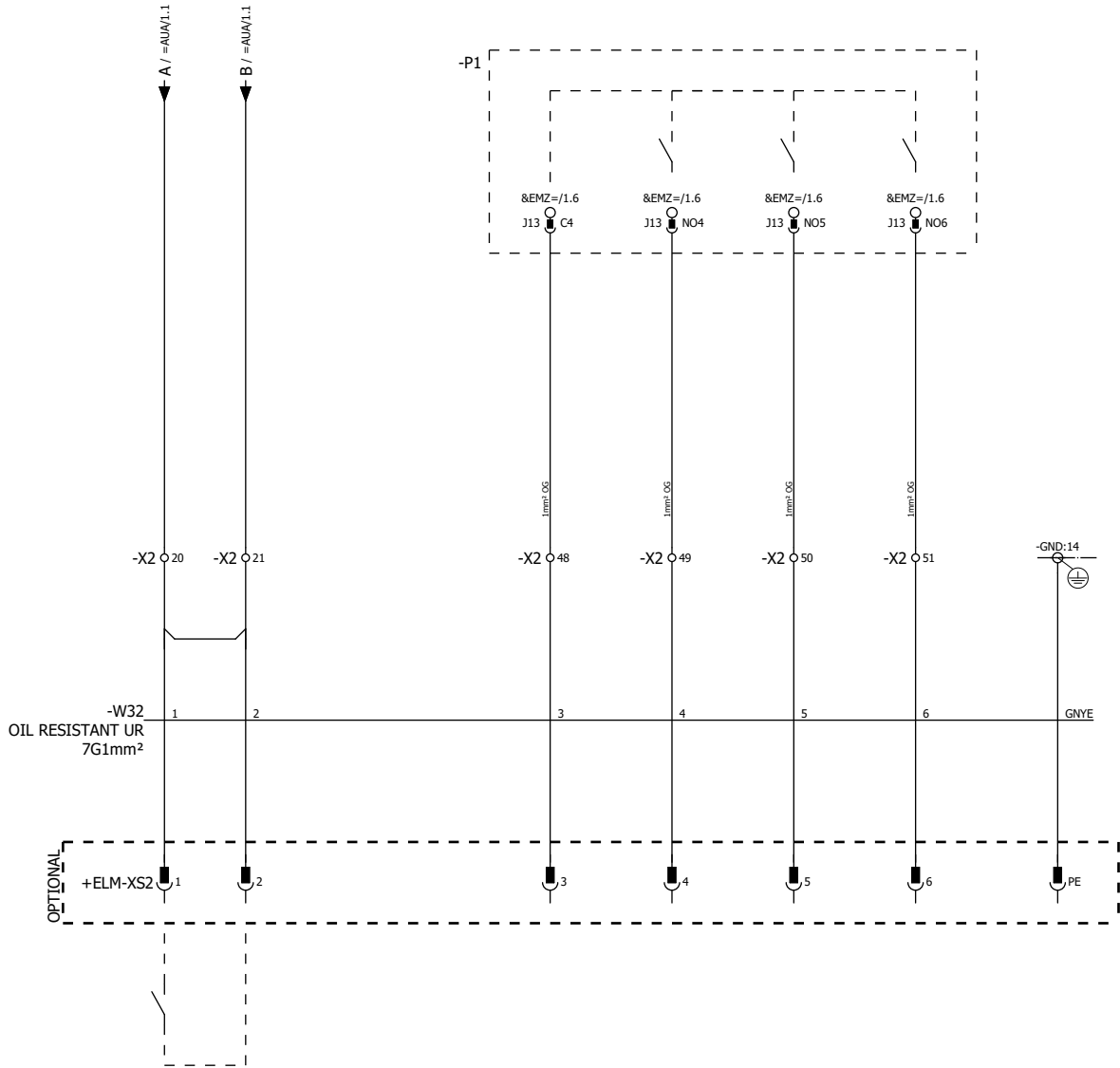
ANALOG INPUT

|                |         |
|----------------|---------|
| DRAWING NUMBER | EP25014 |
| CONTROL PANEL  | 928931  |
| &EFS           | =AIN    |

|                   |          |
|-------------------|----------|
| EPLAN Electric P8 | 2025.0.3 |
| PAGES COUNTER     | 8        |
| NUMBER OF PAGES   | 24       |
|                   | 1        |

=ISN/1





REMOTE ON/OFF  
(EXTERNAL FROM CUSTOMER)

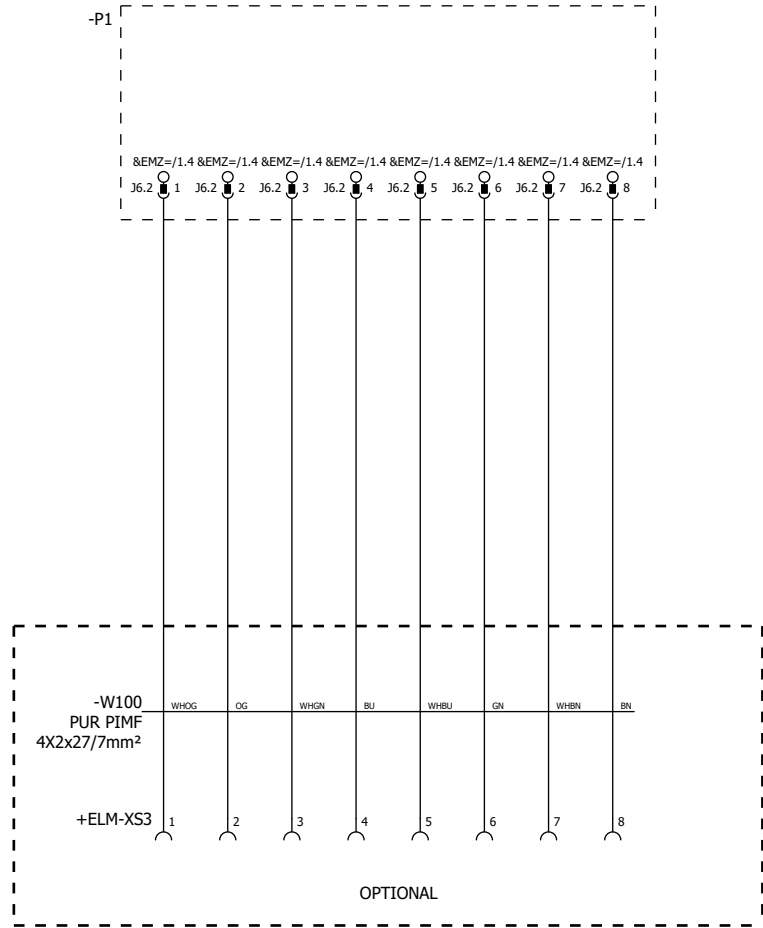
COMMON

WARNING  
SIGNAL

ALARM  
SIGNAL

TEMPERATURE  
ALARM

GND




ETHERNET  
NETWORK

=AIN/1

&EMZ=/1

|            |     |        |               |
|------------|-----|--------|---------------|
| CREATED BY | AL1 | ON THE | 07/02/2025    |
| REVISOR    |     | ON THE | LAST REVISION |



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SK3336.410 - SK3336.419  
KRAE0121TT00V000EG - V412  
IN/OUT SIGNALS

|                |         |                   |          |
|----------------|---------|-------------------|----------|
| DRAWING NUMBER | EP25014 | EPLAN Electric P8 | 2025.0.3 |
| CONTROL PANEL  | 928931  | 3D REVISION       |          |
| &EFS           | =ISN    | +EC01             | 1        |
| PAGES COUNTER  | 9       | NUMBER OF PAGES   | 24       |

ETHERNET &EFS=ISN/1.6 J6.2:1  
ETHERNET &EFS=ISN/1.7 J6.2:2  
ETHERNET &EFS=ISN/1.7 J6.2:3  
ETHERNET &EFS=ISN/1.7 J6.2:4  
ETHERNET &EFS=ISN/1.7 J6.2:5  
ETHERNET &EFS=ISN/1.8 J6.2:6  
ETHERNET &EFS=ISN/1.8 J6.2:7  
ETHERNET &EFS=ISN/1.8 J6.2:8

J7:1  
J7:2  
J7:3  
J7:4  
J7:5  
J7:6

JCS:1  
JCS:2

J6.1:1  
J6.1:2  
J6.1:3  
J6.1:4  
J6.1:5  
J6.1:6  
J6.1:7  
J6.1:8

J17:1  
J17:2  
J17:3  
J17:4  
J17:5  
J17:6

J11:1  
J11:2  
J11:3  
J11:4  
J11:5  
J11:6

-P1

J2:+SVR  
J2:GND  
J2:+Vdc

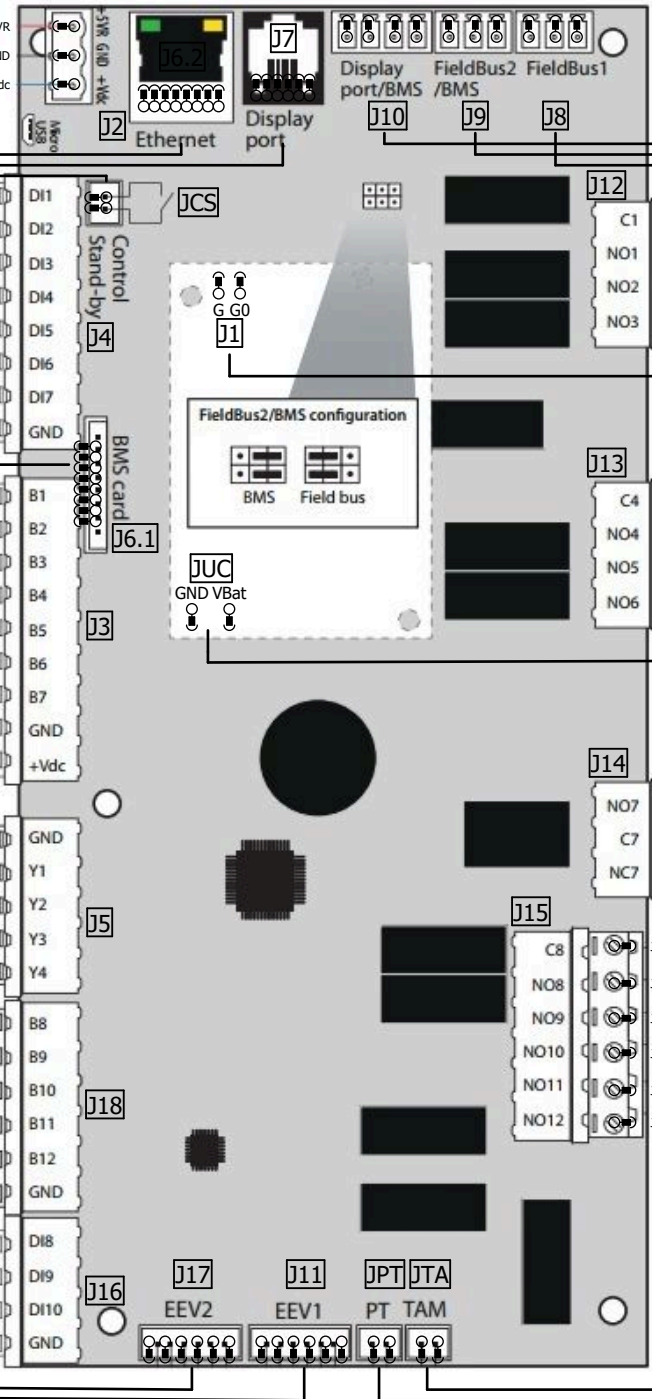
COMPRESSOR OVERLOAD &EFS=AUA/4.2 J4:DI1  
FAN OVERLOAD &EFS=AUA/4.3 J4:DI2  
PUMP OVERLOAD &EFS=AUA/4.4 J4:DI3  
HIGH PRESSURE SWITCH &EFS=AUA/4.5 J4:DI4  
LOW PRESSURE SWITCH &EFS=AUA/4.6 J4:DI5  
J4:DI6  
PHASES ROTATION &EFS=AUA/4.6 J4:DI7  
COMMON GND &EFS=AUA/4.2 J4:GND

OUTLET PROBE &EFS=AIN/1.4 J3:B1  
AMBIENT PROBE &EFS=AIN/1.5 J3:B2  
ANTIFREEZE PROBE &EFS=AIN/1.7 J3:B3  
J3:B4  
J3:B5  
J3:B6  
J3:B7  
GND &EFS=AIN/1.3 J3:GND  
J3:+Vdc

J5:GND  
J5:Y1  
J5:Y2  
J5:Y3  
J5:Y4

J18:B8  
J18:B9  
J18:B10  
J18:B11  
J18:B12  
J18:GND

J16:DI8  
J16:DI9  
J16:DI10  
J16:GND



J10:GND &EFS=AUA/1.6 GND  
J10:Rx+/Tx+ &EFS=AUA/1.7 Rx+/Tx+ / BMS  
J10:Rx-/Tx- &EFS=AUA/1.6 Rx-/Tx- / BMS  
J10:VTerm &EFS=AUA/1.5 VTerm

J9:GND  
J9:Rx+/Tx+  
J9:Rx-/Tx-  
J8:GND  
J8:Rx+/Tx+  
J8:Rx-/Tx-

J12:C1 &EFS=AUA/2.6 COMMON C1  
J12:NO1 &EFS=AUA/2.6 START COMPRESSOR  
J12:NO2 &EFS=AUA/2.5 START FANS  
J12:NO3 &EFS=AUA/2.3 START PUMP

J1:G &EFS=AUA/2.2 UPC POWER SUPPLY  
J1:G0 &EFS=AUA/2.2 UPC POWER SUPPLY

J13:C4 &EFS=ISN/1.2 COMMON C4  
J13:NO4 &EFS=ISN/1.3 WARNING SIGNAL  
J13:NO5 &EFS=ISN/1.4 ALARM SIGNAL  
J13:NO6 &EFS=ISN/1.4 TEMPERATURE ALARM SIGNAL

JUC:GND  
JUC:VBat

J14:NO7  
J14:C7  
J14:NC7


J15:C8  
J15:NO8  
J15:NO9  
J15:NO10  
J15:NO11  
J15:NO12

JTA:1  
JTA:2  
JPT:1  
JPT:2

&EFS=ISN/1

&EMA+/1

|            |     |        |               |
|------------|-----|--------|---------------|
| CREATED BY | AL1 | ON THE | 07/02/2025    |
| REVISOR    |     | ON THE | LAST REVISION |



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SK3336.410 - SK3336.419  
KRAE0121TT00V000EG - V412  
UPC OVERVIEW

|                |         |                   |          |
|----------------|---------|-------------------|----------|
| DRAWING NUMBER | EP25014 | EPLAN Electric P8 | 2025.0.3 |
| CONTROL PANEL  | 928931  | 3D REVISION       |          |
| &EMZ           | =       | +EC01             | 1        |
| PAGES COUNTER  | 10      | NUMBER OF PAGES   | 24       |



# TERMINAL STRIP SUMMARY

2LP8\_INMORKEL\_22

| TERMINAL STRIP | FUNCTION TEXT                   | TERMINALS |      |               |              |              | TERMINAL BOARD SCHEME PAGE |
|----------------|---------------------------------|-----------|------|---------------|--------------|--------------|----------------------------|
|                |                                 | FIRST     | LAST | SUM OF ALL PE | SUM OF ALL N | TOTAL NUMBER |                            |
| +EC01-X2       | AUXILIARY SUPPLY TERMINAL BOARD | 12        | 51   | 0             | 0            | 20           | &EMA/3                     |



PLUG SUMMARY

2LP8\_INCONKEL\_22

| PLUG DESIGNATION | FUNCTION TEXT       | TOTAL NUMBER | SUM OF ALL PE | CURRENT<br>[A] | CONNECTION    | IMAGE | GRAPHICS PAGE OF THE PLUG |
|------------------|---------------------|--------------|---------------|----------------|---------------|-------|---------------------------|
| =PWC+ELM-XS1     | POWER SUPPLY PLUG   | 7            | 1             | 35             | 1,5 ... 6 mm² |       | &EMA/5                    |
| =ISN+ELM-XS2     | IN/OUT SIGNALS PLUG | 11           | 1             |                |               |       | &EMA/6                    |



# TERMINAL DIAGRAM

2LP8\_SCHMOKE\_22

|    |          |                              |
|----|----------|------------------------------|
| 1  | =AUA-W7  | OIL RESISTANT UR 2X1mm² 1,3m |
| 2  | =ISN-W32 | OIL RESISTANT UR 7G1mm² 5,5m |
| 3  | =AUA-W6  | OIL RESISTANT UR 2X1mm² 2m   |
| 4  | =AUA-W8  | OIL RESISTANT UR 2X1mm² 2m   |
| 5  | =AUA-W9  | 3x0,34mm²                    |
| 6  | =AIN-W11 | TPE 2x0.34mm²                |
| 7  | =AIN-W12 | TPE 2x0.34mm²                |
| 8  | =AIN-W13 | TPE 2x0.34mm²                |
| 9  |          |                              |
| 10 |          |                              |
| 11 |          |                              |

| FUNCTION TEXT            | 1 | 2 | 3 | 4 | 5  | 6  | 7  | 8  | 9 | 10 | 11 |
|--------------------------|---|---|---|---|----|----|----|----|---|----|----|
|                          |   |   |   |   |    |    |    |    |   |    |    |
|                          |   |   |   |   |    |    |    |    |   |    |    |
|                          |   |   |   |   |    |    |    |    |   |    |    |
| GAS VALVE (-)            | 2 |   |   |   |    |    |    |    |   |    |    |
| REMOTE ON/OFF            |   | 1 |   |   |    |    |    |    |   |    |    |
| REMOTE ON/OFF            |   | 2 |   |   |    |    |    |    |   |    |    |
| HIGH PRESSURE SWITCH (+) |   |   | 1 |   |    |    |    |    |   |    |    |
| LOW PRESSURE SWITCH (-)  |   |   |   | 1 |    |    |    |    |   |    |    |
| WATER LEVEL (-)          |   |   |   |   | BK |    |    |    |   |    |    |
| OUTLET PROBE (-)         |   |   |   |   |    | BK |    |    |   |    |    |
| AMBIENT PROBE (-)        |   |   |   |   |    |    | BK |    |   |    |    |
| ANTIFREEZE PROBE (-)     |   |   |   |   |    |    |    | BK |   |    |    |
| HIGH PRESSURE SWITCH (-) |   |   | 2 |   |    |    |    |    |   |    |    |
| GAS VALVE (+)            | 1 |   |   |   |    |    |    |    |   |    |    |
| LOW PRESSURE SWITCH (+)  |   |   |   | 2 |    |    |    |    |   |    |    |

| +EC01-X2<br>AUXILIARY SUPPLY TERMINAL BOARD |            |                 |         |                     |       |            |
|---|------------|-----------------|---------|---------------------|-------|------------|
| EXT DESIGN                                  | CONNECTION | TERMINAL NUMBER | JUMPERS | TERM. CROSS SECTION | LEVEL | INT DESIGN |
|   |            |                 |         |                     |       |            |
|   |            |                 |         |                     |       |            |
|   |            |                 |         |                     |       |            |
|   |            |                 |         |                     |       |            |
| =AUA+REF-Y                                  | 2          | 12              | •       | 2,5 mm²             | 0     | =AUA-K1    |
|   |            |                 |         |                     |       | A2         |
| =ISN+ELM-XS2                                | 1          | 20              | •       | 2,5 mm²             | 0     | =PWC-F2    |
|   |            |                 |         |                     |       | 2          |
| =ISN+ELM-XS2                                | 2          | 21              | •       | 2,5 mm²             | 0     |            |
|   |            |                 |         |                     |       |            |
| =AUA+REF-PA                                 |            | 23              | •       | 2,5 mm²             | 0     | -P1        |
|   |            |                 |         |                     |       | J1:G       |
| =AUA+REF-PB                                 |            | 27              | •       | 2,5 mm²             | 0     | =PWC-KG    |
|   |            |                 |         |                     |       | 11         |
| =AUA+HYD-LE                                 |            | 29              | •       | 2,5 mm²             | 0     |            |
|   |            |                 |         |                     |       |            |
| =AIN+ELM-B1                                 |            | 30              | •       | 2,5 mm²             | 0     | -P1        |
|   |            |                 |         |                     |       | J3:GND     |
| =AIN+ELM-B2                                 |            | 31              | •       | 2,5 mm²             | 0     |            |
|   |            |                 |         |                     |       |            |
| =AIN+ELM-B3                                 |            | 32              | •       | 2,5 mm²             | 0     |            |
|   |            |                 |         |                     |       |            |
| =AUA+REF-PA                                 |            | 40              | •       | 2,5 mm²             | 0     | =AUA-KA1   |
|   |            |                 |         |                     |       | A1         |
| =AUA+REF-Y                                  | 1          | 41              | •       | 2,5 mm²             | 0     | =AUA-KA1   |
|   |            |                 |         |                     |       | 31         |
| =AUA+REF-PB                                 |            | 42              | •       | 2,5 mm²             | 0     | -P1        |
|   |            |                 |         |                     |       | J4:DI5     |

|    |    |   |   |   |   |   |   |   |   |   |              |
|----|----|---|---|---|---|---|---|---|---|---|--------------|
| 1  |    |   |   |   |   |   |   |   |   |   |              |
| 2  |    |   |   |   |   |   |   |   |   |   |              |
| 3  |    |   |   |   |   |   |   |   |   |   |              |
| 4  |    |   |   |   |   |   |   |   |   |   |              |
| 5  |    |   |   |   |   |   |   |   |   |   |              |
| 6  |    |   |   |   |   |   |   |   |   |   |              |
| 7  |    |   |   |   |   |   |   |   |   |   |              |
| 8  |    |   |   |   |   |   |   |   |   |   |              |
| 9  |    |   |   |   |   |   |   |   |   |   |              |
| 10 |    |   |   |   |   |   |   |   |   |   |              |
| 11 |    |   |   |   |   |   |   |   |   |   |              |
| 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | PAGE / PATH  |
|    |    |   |   |   |   |   |   |   |   |   |              |
|    |    |   |   |   |   |   |   |   |   |   |              |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AUA/2.8 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=ISN/1.1 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=ISN/1.1 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AUA/1.2 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AUA/4.6 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AUA/4.7 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AIN/1.4 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AIN/1.5 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AIN/1.7 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AUA/1.2 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AUA/2.8 |
|    |    |   |   |   |   |   |   |   |   |   | &EFS=AUA/4.6 |







2LP8\_SCHMOKEK\_22

[illegible]







|           |   |   |   |   |   |   |   |   |   |   |   |  |  |           |  |               |
|-----------|---|---|---|---|---|---|---|---|---|---|---|--|--|-----------|--|---------------|
| 0         | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8   | 9 | 2LP8_CONKEL_22  |   |  |  |           |  |               |
| BASE SIDE |  |   |   |   |   |   |   |  <div>PLUG DIAGRAM<br/>=ISN+ELM-XS2<br/>IN/OUT SIGNALS PLUG</div> |   |   |  |  |  | HOOD SIDE |  |               |
|           |   |   |   |   |   |   |   |   |   |   |   |  |  |           |  |               |
|           | FUNCTION TEXT   |   |   |   |   |   |   | TARGET  |   |   | PAGE / PATH   |  |  |           |  |               |
| GND       |   |   |   |   |   |   |   | +EC01-GND   |   | <div>PE</div>  |   |  |  |           |  | &EFS+EC01/1.5 |



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|                 |          |          |             |                    |          |
|-----------------|----------|----------|-------------|--------------------|----------|
| DRAWING NUMBER  |          |          | EP25014     | EPPLAN Electric P8 | 2025.0.1 |
|                 |          |          |             | 2LP8_CAVIKEL_22    |          |
| CONTROL PANEL   |          | 928931   | 3D REVISION | PAGES COUNTER      | 18       |
|                 |          |          |             | NUMBER OF PAGES    | 24       |
| <b>&amp;EMB</b> | <b>=</b> | <b>+</b> | <b>1</b>    |                    |          |



# BILL OF PLUGS

2LP8\_RICKEL\_CONN\_22

| DESIGNATION         | AMOUNT  | ARTICLE NUMBER | DESIGNATION    | NUMBER OF WAYS | MANUFACTURER | INTERNAL NO | PICTURE |
|---------------------|---------|----------------|----------------|----------------|--------------|-------------|---------|
| =PWC+ELM-XS1        |         |                |                |                |              |             |         |
| POWER SUPPLY PLUG   | 1<br>ST | 09310062601    | Inserts        | 6              | Harting      | 921716      |         |
| =PWC+ELM-XS1        |         |                |                |                |              |             |         |
| POWER SUPPLY PLUG   | 1<br>ST | 09310062701    | Inserts        |                | Harting      | 921661      |         |
| =PWC+ELM-XS1        |         |                |                |                |              |             |         |
| POWER SUPPLY PLUG   | 1<br>ST | 19300161271    | Hoods/Housings |                | Harting      | 907614      |         |
| =PWC+ELM-XS1        |         |                |                |                |              |             |         |
| POWER SUPPLY PLUG   | 1<br>ST | 19300161521    | Hoods/Housings |                | Harting      | 908281      |         |
|                     |         |                |                |                |              |             |         |
| =ISN+ELM-XS2        |         |                |                |                |              |             |         |
| IN/OUT SIGNALS PLUG | 1<br>ST | 09330102601    | Inserts        |                | Harting      | 903740      |         |
| =ISN+ELM-XS2        |         |                |                |                |              |             |         |
| IN/OUT SIGNALS PLUG | 1<br>ST | 09330102701    | Inserts        |                | Harting      | 906632      |         |
| =ISN+ELM-XS2        |         |                |                |                |              |             |         |
| IN/OUT SIGNALS PLUG | 1<br>ST | 19300101270    | Hoods/Housings |                | Harting      | 900106      |         |
| =ISN+ELM-XS2        |         |                |                |                |              |             |         |
| IN/OUT SIGNALS PLUG | 1<br>ST | 19300101520    | Hoods/Housings |                | Harting      | 918071      |         |

|            |     |        |               |
|------------|-----|--------|---------------|
| CREATED BY | AL1 | ON THE | 07/02/2025    |
| REVISOR    |     | ON THE | LAST REVISION |



RITTAL  
GmbH & Co. KG

SK3336.410 - SK3336.419  
KRAE0121TT00V000EG - V412  
BILL OF PLUGS

|                |  |         |  |                     |          |
|----------------|--|---------|--|---------------------|----------|
| DRAWING NUMBER |  | EP25014 |  | EPLAN Electric P8   | 2025.0.3 |
| CONTROL PANEL  |  | 928931  |  | 2LP8_RICKEL_CONN_22 |          |
|                |  |         |  | PAGES COUNTER       | 19       |
|                |  |         |  | NUMBER OF PAGES     | 24       |
| &EPC           |  | =       |  | +                   |          |
|                |  |         |  | 1                   |          |



BILL OF MATERIALS

2LP8\_RICKEL\_22

| DESIGNATION | AMOUNT | LENGTH | ARTICLE NUMBER   | DESIGNATION 1   | MANUFACTURER | INTERNAL NO | PAGE / PATH   |
|-------------|--------|--------|------------------|---|--------------|-------------|---|
|             | 4      | 2,09 m | 4520004K         | H07V-K EMBOSS 1X6 GNYE  | LAPP KABEL   | 928344      | &EFS=PWC+EC01/1.0...&EFS=PWC+EC01/1.2   |
|             | 8      | 3,74 m | 4520013K         | H07V-K EMBOSS 1X4 BK  | LAPP KABEL   | 928340      | &EFS=PWC+EC01/1.2;&EFS=PWC+EC01/2.2;&EFS=PWC+EC01/2.7                                       |
|             | 1      | 1,26 m | 4520003K         | H07V-K EMBOSS 1X4 GNYE  | LAPP KABEL   | 928339      | &EFS=PWC+EC01/1.1   |
|             | 2      | 1,36 m | 4520011K         | H07V-K EMBOSS 1X1,5 BK  | LAPP KABEL   | 928323      | &EFS=PWC+EC01/2.6   |
|             | 1      | 1,65 m | 4510003K         | H05V-K EMBOSS 1X1 GNYE  | LAPP KABEL   | 928313      | &EFS=PWC+EC01/2.5   |
|             | 17     | 9,39 m | 4510043K         | H05V-K EMBOSS 1X1 RD  | LAPP KABEL   | 928321      | &EFS=AUA+EC01/1.2;&EFS=AUA+EC01/1.6;&EFS=AUA+EC01/2.2...&EFS=AUA+EC01/2.7;&EFS=PWC+EC01/2.6 |
|             | 1      | 1,66 m | 4520001K         | H07V-K EMBOSS 1X1,5 GNYE  | LAPP KABEL   | 928322      | &EFS=PWC+EC01/2.6   |
|             | 13     | 6,68 m | 4510143K         | H05V-K EMBOSS 1X1 DBU   | LAPP KABEL   | 928316      | &EFS=AUA+EC01/4.2...&EFS=AUA+EC01/4.7   |
|             | 4      | 3,02 m | 4510053K         | H05V-K EMBOSS 1X1 WH  | LAPP KABEL   | 928320      | &EFS=AIN+EC01/1.3...&EFS=AIN+EC01/1.5;&EFS=AIN+EC01/1.7                                     |
|             | 4      | 2,36 m | 4510093K         | H05V-K EMBOSS 1X1 OG  | LAPP KABEL   | 928318      | &EFS=ISN+EC01/1.2...&EFS=ISN+EC01/1.4   |
| 0001        | 1      |        | 249-116          | Screwless end stop  | WAGO         | 904502      | (AMB1.S1)   |
| +ELM-B1     | 1      |        | NTC030WP00       | PROBE NTC, IP68, WIRE 3m, -50/+105°C                                | CAREL        | 903060      | &EFS=AIN+EC01/1.4   |
| +ELM-B2     | 1      |        | NTC030WP00       | PROBE NTC, IP68, WIRE 3m, -50/+105°C                                | CAREL        | 903060      | &EFS=AIN+EC01/1.5   |
| +ELM-B3     | 1      |        | NTC030WP00       | PROBE NTC, IP68, WIRE 3m, -50/+105°C                                | CAREL        | 903060      | &EFS=AIN+EC01/1.7   |
| -DS         | 1      |        | 927206           | GR DISPLAY TOUCH BLU-E CHILLER                                      | CAREL        | 927206      | &EFS=AUA+EC01/1.5   |
| -F1         | 1      |        | 5SY6202-7        | CIRCUIT BREAKER 6KA 2POL C2   | Siemens      | 906346      | &EFS=PWC+EC01/2.6   |
| -F2         | 1      |        | 5SY6104-7        | CIRCUIT BREAKER 6KA 1POL C4   | Siemens      | 903661      | &EFS=PWC+EC01/2.6   |
| GND         | 25     |        |                  | SCREW TC M5x10 ZN-ST 4.8  | ---          | 915741      | (AMB1.S1)   |
| -K1         | 1      |        | 3RT2018-1AB01    | CONTACTOR,AC3:7,5KW 1NO AC24V 50/60HZ                               | Siemens      | 919997      | &EFS=AUA+EC01/2.7   |
| -K1         | 1      |        | 3RA1921-1D       | LINK MODULE F.3RV S00/S0, 3RT S00                                   | Siemens      | 920186      | &EFS=AUA+EC01/2.7   |
| -K2         | 1      |        | 3RT2015-1AB01    | CONTACTOR,AC3:3KW 1NO AC24V 50/60HZ                                 | Siemens      | 919835      | &EFS=AUA+EC01/2.5   |
| -K2         | 1      |        | 3RA1921-1D       | LINK MODULE F.3RV S00/S0, 3RT S00                                   | Siemens      | 920186      | &EFS=AUA+EC01/2.5   |
| -K3         | 1      |        | 3RT2015-1AB01    | CONTACTOR,AC3:3KW 1NO AC24V 50/60HZ                                 | Siemens      | 919835      | &EFS=AUA+EC01/2.3   |
| -K3         | 1      |        | 3RA1921-1D       | LINK MODULE F.3RV S00/S0, 3RT S00                                   | Siemens      | 920186      | &EFS=AUA+EC01/2.3   |
| -KA1        | 1      |        | 55.34.8.024.0040 | MINIATURE GENERAL PURPOSE RELAY, 4 POLE, 7 A - AC (50/60 HZ) - 24 V | Finder       | 903668      | &EFS=AUA+EC01/1.2   |
| -KA1        | 1      |        | 94.74            | SOCKET FOR 55.34 RELAY  | Finder       | 903669      | &EFS=AUA+EC01/1.2   |
| -KG         | 1      |        | 3UG5511-1AR20    | PHASE CONTROL RELAY   | Siemens      | 917383      | &EFS=PWC+EC01/2.8   |
| -P1         | 1      |        | UP3B02200TBM0    | TERMOREG PROGRAM CAREL UP3B02200TBM0                                | CAREL        | 928216      | &EMZ+EC01/1.0   |



BILL OF MATERIALS

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| DESIGNATION | AMOUNT | LENGTH | ARTICLE NUMBER  | DESIGNATION 1  | MANUFACTURER  | INTERNAL NO | PAGE / PATH       |
|-------------|--------|--------|-----------------|--|---------------|-------------|-------------------|
| -P1         | 1      |        | UP3CON0M00      | TERMOREG ACCESS CAREL UP3CON0M00                             | CAREL         | 928217      | &EMZ+EC01/1.0     |
| -Q0         | 1      |        | 22003004        | MANUALLY OPERATED AND MODULAR MULTIPOLAR LOAD BREAK SWITCHES | SOCOMEK       | 921975      | &EFS=PWC+EC01/1.1 |
| -Q0         | 1      |        | 1474 1111       | RED KNOB TYPE S00  | SOCOMEK       | 921673      | &EFS=PWC+EC01/1.1 |
| -Q0         | 1      |        | 1407 0532       | OPERATING SHAFT 320mm  | SOCOMEK       | 911759      | &EFS=PWC+EC01/1.1 |
| -Q0         | 1      |        | 2294 3005       | 3 POLE TERMINALS COVER 16...40                               | SOCOMEK       | 921726      | &EFS=PWC+EC01/1.1 |
| -Q0         | 1      |        | 2200 9005       | GROUND POLE 16...40  | SOCOMEK       | 925147      | &EFS=PWC+EC01/1.1 |
| -Q1         | 1      |        | 3RV2011-1KA15   | CIRCUIT-BREAKER SCREW CONNECTION 12.5A                       | Siemens       | 919999      | &EFS=PWC+EC01/1.4 |
| -Q2         | 1      |        | 3RV2011-1AA15   | CIRCUIT-BREAKER SCREW CONNECTION 1.6A                        | Siemens       | 920233      | &EFS=PWC+EC01/1.6 |
| -Q3         | 1      |        | 3RV2011-1CA15   | CIRCUIT-BREAKER SCREW CONNECTION 2.5A                        | Siemens       | 919426      | &EFS=PWC+EC01/1.8 |
| -T1         | 1      |        | TCN80000200.057 | 200VA 0-230-400-415-440-460-480/0-24                         | TECNOCABLAGGI | 905560      | &EFS=PWC+EC01/2.6 |
| U1          | 1      |        | 1057000         | Compact enclosure AX 500x700x250                             | Rittal        | 1057000     | (AMB1.S1)         |
| U2          | 1      | 0,45 m | 25x80 / 4x6     | WIRING DUCT 25x80 PLASTIC 4X6                                | ---           | 909218      | (AMB1.S1)         |
| U3          | 1      | 0,45 m | 40x80 / 4x6     | WIRING DUCT 40x80 PLASTIC 4X6                                | ---           | 909700      | (AMB1.S1)         |
| U4          | 1      | 0,39 m | 40x80 / 4x6     | WIRING DUCT 40x80 PLASTIC 4X6                                | ---           | 909700      | (AMB1.S1)         |
| U5          | 1      | 0,23 m | 25x80 / 4x6     | WIRING DUCT 25x80 PLASTIC 4X6                                | ---           | 909218      | (AMB1.S1)         |
| U6          | 1      | 0,23 m | 35x7,5          | DIN RAIL OMEGA 35x7,5  | ---           | 905499      | (AMB1.S1)         |
| U7          | 1      | 0,23 m | 35x7,5          | DIN RAIL OMEGA 35x7,5  | ---           | 905499      | (AMB1.S1)         |
| U8          | 1      |        |                 | STAND OFFS H Mx F L20 M6 ZN-ST                               | ---           | 904235      | (AMB1.S1)         |
| U9          | 1      |        |                 | STAND OFFS H Mx F L20 M6 ZN-ST                               | ---           | 904235      | (AMB1.S1)         |
| U10         | 1      | 0,32 m | 35x7,5          | DIN RAIL OMEGA 35x7,5  | ---           | 905499      | (AMB1.S1)         |
| U11         | 1      |        |                 | STAND OFFS H Mx F L20 M6 ZN-ST                               | ---           | 904235      | (AMB1.S1)         |
| U12         | 1      |        |                 | STAND OFFS H Mx F L20 M6 ZN-ST                               | ---           | 904235      | (AMB1.S1)         |
| U13         | 1      | 0,33 m | 35x7,5          | DIN RAIL OMEGA 35x7,5  | ---           | 905499      | (AMB1.S1)         |
| U119        | 1      |        |                 | STAND OFFS H Fx F 19x25x5 PE                                 | ---           | 909454      | (AMB1.S1)         |
| U120        | 1      |        |                 | STAND OFFS H Fx F 19x25x5 PE                                 | ---           | 909454      | (AMB1.S1)         |
| U199        | 1      |        | 2563300         | Plastic gland plate  | Rittal        | 2563300     | (AMB1.S1)         |
| U262        | 1      |        |                 | STAND OFFS H Mx F L20 M6 ZN-ST                               | ---           | 904235      | (AMB1.S1)         |
| U263        | 1      |        |                 | STAND OFFS H Mx F L20 M6 ZN-ST                               | ---           | 904235      | (AMB1.S1)         |



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| DESIGNATION | AMOUNT | LENGTH | ARTICLE NUMBER | DESIGNATION 1                       | MANUFACTURER | INTERNAL NO | PAGE / PATH   |
|-------------|--------|--------|----------------|-------------------------------------|--------------|-------------|---|
| U264        | 1      | 0,45 m | 35x7,5         | DIN RAIL OMEGA 35x7,5               | ---          | 905499      | (AMB1.S1)   |
| -V1         | 1      |        | 3RT29161BB00   | SURGE SUPPRESSOR, VARISTOR,         | Siemens      | 919432      | &EFS=AUA+EC01/2.7   |
| -V2         | 1      |        | 3RT29161BB00   | SURGE SUPPRESSOR, VARISTOR,         | Siemens      | 919432      | &EFS=AUA+EC01/2.5   |
| -V3         | 1      |        | 3RT29161BB00   | SURGE SUPPRESSOR, VARISTOR,         | Siemens      | 919432      | &EFS=AUA+EC01/2.4   |
| -W0         | 1      | 6,40 m | 1119504        | 4G4mm² OIL RESISTANT UR             | ---          | 926261      | &EFS=PWC+EC01/1.1   |
| -W1         | 1      | 2,00 m |                | 4G2,5mm² OIL RESISTANT UR           | ---          | 926168      | &EFS=PWC+EC01/1.3   |
| -W2         | 1      | 3,20 m |                | 4G1,5mm² OIL RESISTANT UR           | ---          | 926163      | &EFS=PWC+EC01/1.5   |
| -W3         | 1      | 2,00 m |                | 4G1,5mm² OIL RESISTANT UR           | ---          | 926163      | &EFS=PWC+EC01/1.7   |
| -W6         | 1      | 2,00 m |                | 2X1mm² OIL RESISTANT UR             | ---          | 926161      | &EFS=AUA+EC01/1.2   |
| -W7         | 1      | 1,30 m |                | 2X1mm² OIL RESISTANT UR             | ---          | 926161      | &EFS=AUA+EC01/2.8   |
| -W8         | 1      | 2,00 m |                | 2X1mm² OIL RESISTANT UR             | ---          | 926161      | &EFS=AUA+EC01/4.6   |
| -W32        | 1      | 5,50 m | 1119207        | 7G1mm² OIL RESISTANT UR             | ---          | 926164      | &EFS=ISN+EC01/1.0   |
| -W38        | 1      | 2,27 m | 929160         | CABLE WIRED KRAE-TTC3 DISPLAY TOUCH | ---          | 929160      | &EFS=AUA+EC01/1.5   |
| +EC01-W401  | 1      | 0,46 m |                | CU BAR 12X3                         | ---          | 909453      | (AMB1.S1)   |
| -WQD        | 1      |        | 3RV1915-1BB    | 3-PHASE BUSBARS                     | Siemens      | 909357      | &EFS=PWC+EC01/1.3   |
| +EC01-X2    | 4      |        | 280-402        | Cross-connector for terminal block  | WAGO         | 909228      | (AMB1.S1)   |
| -X2         | 20     |        | 280-901        | 2-conductor through terminal block  | WAGO         | 903680      | &EFS=AIN+EC01/1.4;&EFS=AIN+EC01/1.5;&EFS=AIN+EC01/1.7;&EFS=AUA+EC01/1.2;&EFS=AUA+EC01/2.8;&EFS=AUA+EC01/4.6;&EFS=AUA+EC01/4.7;&EFS=ISN+EC01/1.1.&EFS=ISN+EC01/1.2 |
| -X2         | 2      |        | 249-116        | Screwless end stop                  | WAGO         | 904502      | &EFS=AUA+EC01/2.8;&EFS=ISN+EC01/1.4   |
| -X2         | 1      |        | 280-309        | End and intermediate plate          | WAGO         | 904525      | &EFS=AUA+EC01/2.8   |
| -Z1         | 1      |        | 0475178281     | FERRITE CABLE 21X21X39.4            |              | 927281      | &EFS=PWC+EC01/2.6   |
| Z_MIN_EL    | 4      |        |                | SCREW TCB M6x12 ZN-ST               | ---          | 903408      | &EFS=PWC+EC01/1.9   |
| Z_MIN_EL    | 4      |        |                | SCREW TCB M6x16 ZN-ST 8.8           | ---          | 903409      | &EFS=PWC+EC01/1.9   |
| Z_MIN_EL    | 20     |        |                | SCREW TC FLAN 4.2X13                | ---          | 922277      | &EFS=PWC+EC01/1.9   |
| Z_MIN_EL    | 1      |        |                | SCREW TE M6x16 PG ZN-ST 8.8         | ---          | 216955      | &EFS=PWC+EC01/1.9   |
| Z_MIN_EL    | 26     |        |                | SCREW TC M5x10 ZN-ST 4.8            | ---          | 915741      | &EFS=PWC+EC01/1.9   |
| Z_MIN_EL    | 28     |        |                | WASHER P 5,3-10 ZN-ST               | ---          | 903585      | &EFS=PWC+EC01/1.9   |
| Z_MIN_EL    | 1      |        |                | WASHER P 6,4-12 ZN-ST               | ---          | 200004      | &EFS=PWC+EC01/1.9   |
| Z_MIN_EL    | 1      |        |                | WASHER TOOTH 4,3-8 ZN-ST            | ---          | 200144      | &EFS=PWC+EC01/1.9   |



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| DESIGNATION | AMOUNT | LENGTH | ARTICLE NUMBER | DESIGNATION 1                                      | MANUFACTURER | INTERNAL NO | PAGE / PATH       |
|-------------|--------|--------|----------------|--|--------------|-------------|-------------------|
| Z_MIN_EL    | 27     |        |                | WASHER TOOTH 5,3-10 ZN-ST                          | ---          | 200206      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 9      |        |                | WASHER TOOTH 6,4x11 ZN-ST                          | ---          | 200294      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        |                | NUT E M5x4 6S ZN-ST                                | ---          | 200202      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 4      |        |                | NUT E M6x5 PG 6S ZN-ST                             | ---          | 200295      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 4      |        |                | GASKET NYLON PA6.6 D12.5-6.4                       | ---          | 201320      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 2      |        |                | SCREW STEI M5x10 PG ZN-ST                          | ---          | 915261      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | SIT0A07        | LABEL-SUP GENERIC 52X17                            | 3M           | 907060      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | SIT0V02        | LABEL-SUP GLAS 52X17                               | 3M           | 907062      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | SI2K1550W      | PRINT-LABEL 50X15 WHITE NO-FIX                     | 3M           | 907057      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | TCS95X100BK    | SLEEVE HEATSHRINK CEMBRE TCS95X100BK               | CEMBRE       | 904698      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | 2595000        | Cable conduit / SZ Cable conduit, ø 16 mm, L: 25 m | Rittal       | 923767      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 3      |        | BF-U4          | CABLE-TERMINAL FORK CEMBRE BF-U4                   | CEMBRE       | 903323      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 2      |        | 9037450000     | END-SLEEVE TWIN CEMBRE PKT110                      | CEMBRE       | 909225      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 56     |        | PKT108         | END-SLEEVE TWIN CEMBRE PKT108                      | CEMBRE       | 903346      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 10     |        | PKD2508        | END-SLEEVE SINGLE CEMBRE PKD 2508                  | CEMBRE       | 904250      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | GF-M4          | CABLE-TEMINAL RING CEMBRE GF-M4                    | CEMBRE       | 903318      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | GF-M5          | CABLE-TEMINAL RING CEMBRE GF-M5                    | CEMBRE       | 903319      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | GF-M5          | CABLE-TERMINAL RING CEMBRE RF-M5                   | CEMBRE       | 903313      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 20     |        |                | CABLE TIE 140 X 3,6 MM                             | WÜRTH SRL    | 206597      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 24     |        | SI2KT85210CW   | PRINT-LABEL 10X5 WHITE FRAME-UP                    | 3M           | 906924      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 8      |        | SI2K40720W     | PRINT-LABEL 20X5 WHITE ADHESIVE                    | 3M           | 909278      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 95     |        | 201/10         | LABEL-SUP SLEEVE 1,5-2,5 X 10                      | 3M           | 909280      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 95     |        | SI2K02W/10N    | PRINT-LABEL 10X4 WHITE NO-FIX                      | 3M           | 906481      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 3      |        |                | ETI FINISH ADHESIVE GROUND                         | ---          | 200023      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 16     |        | SI2KFX0615W    | PRINT-LABEL 15X6 WHITE ADHESIVE                    | 3M           | 909279      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 1      |        | PKT1512        | END-SLEEVE TWIN CEMBRE PKT1512                     | CEMBRE       | 909226      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 12     |        | PKD412         | END-SLEEVE SINGLE CEMBRE PKD412                    | CEMBRE       | 903341      | &EFS=PWC+EC01/1.9 |
| Z_MIN_EL    | 6      |        | GF-U4          | CABLE-TERMINAL FORK CEMBRE GF-U4                   | CEMBRE       | 921698      | &EFS=PWC+EC01/1.9 |



BILL OF MATERIALS

2LP8\_RICKEL\_22

| DESIGNATION | AMOUNT | LENGTH | ARTICLE NUMBER | DESIGNATION 1                        | MANUFACTURER | INTERNAL NO | PAGE / PATH       |
|-------------|--------|--------|----------------|--------------------------------------|--------------|-------------|-------------------|
| Z_PUNT      | 22     |        | AS 4050.783    | Wire end ferrules loose 4mm² L=12mm  | Rittal       | 4050783     | &EFS=PWC+EC01/1.8 |
| Z_PUNT      | 88     |        | AS 4050.732    | Wire end ferrules loose 1mm² L=8mm   | Rittal       | 4050732     | &EFS=PWC+EC01/1.8 |
| Z_PUNT      | 14     |        | AS 4050.733    | Wire end ferrules loose 1,5mm² L=8mm | Rittal       | 4050733     | &EFS=PWC+EC01/1.8 |
| Z_PUNT      | 8      |        | AS 4050.736    | Wire end ferrules loose 6mm² L=12mm  | Rittal       | 4050736     | &EFS=PWC+EC01/1.8 |