



# UNIDRIVE

## AUTOMATION

Unidrive Automation B.V.  
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7944 HX Meppel  
The Netherlands  
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E-mail: info@unidrive-automation.nl

|                     |              |
|---------------------|--------------|
| Company / customer  | Sitetec B.V. |
| Project description | PM6E (45kW)  |
| Job number          | 2250279      |
| Commission          | Sitetec B.V. |

|                        |                          |
|------------------------|--------------------------|
| Manufacturer (company) | Unidrive Automation B.V. |
| Project name           | 2250279 - PM6E (45kW)    |
| Make                   | Rittal                   |
| Type                   | AX 1010.000              |
| Place of installation  |                          |
| Control cabinet name   | BK1                      |

|                |          |             |      |
|----------------|----------|-------------|------|
| Created on     | 3-9-2024 | Prepared by | A.J. |
| Project status | As-Built | Edit date   |      |

# Applied Wire Colors

| U > 50VAC |                |
|-----------|----------------|
| L1        | Black          |
| L2        | Black          |
| L3        | Black          |
| N*1       | Blue           |
| Earth     | Yellow / green |

| U < 50VDC   |                  |
|-------------|------------------|
| Plus        | Darkblue         |
| Switch wire | Darkblue         |
| Min         | Darkblue / white |
| Earth       | Yellow / green   |

| Analog signals |                |
|----------------|----------------|
| Plus           | Gray           |
| Min            | Gray           |
| Earth          | Yellow / green |

| U < 50VAC |                |
|-----------|----------------|
| Plus      | Gray           |
| Min       | Gray           |
| Earth     | Yellow / green |

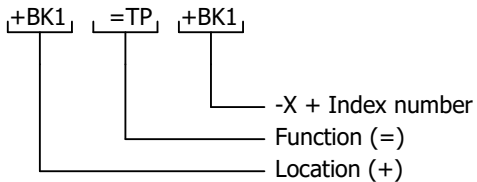
| Safety circuits |        |
|-----------------|--------|
| All             | Yellow |

| External supplies |                 |
|-------------------|-----------------|
| All*2             | Orange or Black |

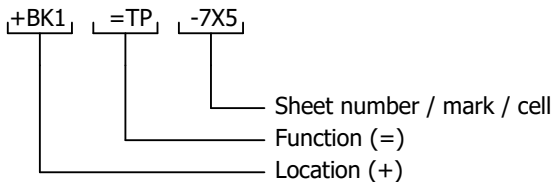
1 \* = If AC voltage is not from a transformer  
in the control cabinet itself the corresponding zero is light blue.  
2 \* = depending on the situation.

0123456789

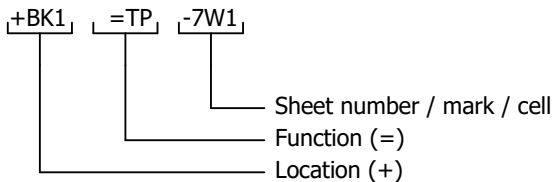
TERMINAL NUMBERING



Component coding



Cable numbering



Normal cable      Shielded cable



Structure

|   |               |
|---|---------------|
| + | Location      |
| & | Document type |
| = | Function      |

Component coding (internal)

|   |                                                                                                          |   |                                                                          |
|---|----------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------|
| A | Assemblies, cabinets (Cabinet, PCB, PLC, amplifier, laser)                                               | W | Cable                                                                    |
| T | Inverters, from non-electric to electric or vice versa (Pt100, proximity switch, photoelectric cell)     | X | Terminals, sockets, plugs                                                |
| C | Capacitors                                                                                               | Y | Electrically operated mechanical device (Brake, clutch, pneumatic valve) |
| E | Several (Heating appliance, lighting appliance, appliances not mentioned elsewhere)                      |   |                                                                          |
| F | Protection devices (Fuse, circuit breaker, surge arrester)                                               |   |                                                                          |
| G | Generator                                                                                                |   |                                                                          |
| P | Signaling (signal lamp, buzzer)                                                                          |   |                                                                          |
| K | Relays & contactors                                                                                      |   |                                                                          |
| R | Coils, reactors                                                                                          |   |                                                                          |
| M | Motors                                                                                                   |   |                                                                          |
| p | Measuring device, test device (Indicator, writer, integrating measuring device, signal generator, clock) |   |                                                                          |
| Q | Switching device for power circuits (motor protection, starter, breaker)                                 |   |                                                                          |
| R | Resistance (Potentiometer, adjustable resistance, rheostat, shunt resistor, thermistor)                  |   |                                                                          |
| S | Control circuit switch, selector (push button, cam switch, limit switch, selector contact)               |   |                                                                          |
| T | Transformer (Voltage transformer, current transformer)                                                   |   |                                                                          |
| T | Modulator, inverter (frequency converter, DC power supply, coder decoder, inverter, signal converter)    |   |                                                                          |

**RATED CURRENTS FOR COPPER CONDUCTORS**

IN ACCORDANCE WITH  
NEN-EN-IEC 61439-1 : 2011 TABLE 11

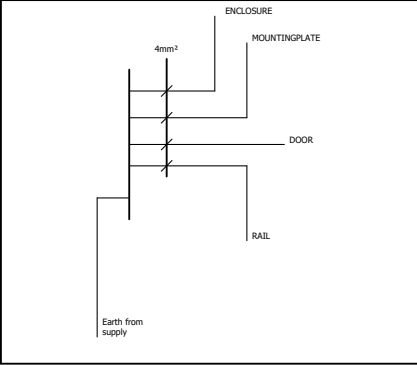
| Cross-sectional<br>mm2 | Current |
|------------------------|---------|
| 1                      | 8       |
| 1,5                    | 12      |
| 2,5                    | 20      |
| 4                      | 25      |
| 6                      | 32      |
| 10                     | 50      |
| 16                     | 65      |
| 25                     | 85      |
| 35                     | 115     |
| 50                     | 150     |
| 70                     | 175     |
| 95                     | 225     |
| 120                    | 250     |
| 150                    | 275     |
| 185                    | 350     |
| 240                    | 400     |

**Enclosure earthing**

**Remark:**

ALL PARTS WHERE 230V COMPONENTS  
TO BE MOUNTED MUST BE EARTHED  
WITH MINIMUM 4mm<sup>2</sup>

EARTH WIRES MUST NOT BE LOOPED.  
ALL EARTH POINTS TO A CENTRAL EARTH POINT





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Voeding - Power supply

|                                    |         |                                                  |             |
|------------------------------------|---------|--------------------------------------------------|-------------|
| Bestel nummer<br>PO number         | 2250279 | Netspanning/frequentie<br>Nom. voltage/frequency | 400V/50Hz   |
| Bouwjaar/week<br>Prod. year/week   | 2025/26 | Fases<br>Phases                                  | L1/L2/L3/PE |
| Schema nr.<br>Drawing number       | 2250279 | Stroom<br>Current                                | 81A         |
| Ip waarde:<br>Degree of protection | IP65    | Hoofd zekering<br>Main fuse                      |             |
|                                    |         | Kortsluitstroom<br>Short-breaking capacity       | <10kA       |

www.unidrive-automation.nl

EG-declaration of conformity

Unidrive Automation B.V.  
Oliemolenweg 3B  
7944 HX Meppel



Client  
Project description  
Project number

Sitetec B.V.  
PM6E (45kW)  
2250279

We, Unidrive Automation,

Declare under their sole responsibility that the product/semi-finished product:  
control panel(s) with components (See bill of materials), for installation where this declaration relates is build according to the following guidelines,  
standards and other documents:

- NEN-EN-IEC 60204-1: Safety of machinery - Electrical equipment of machines
- NEN-EN-IEC 61439-1: Low-voltage switchgear and controlgear assemblies
- Low Voltage Directive (2014/35/EU)
- Electromagnetic Compatibility Directive (EMC) (2014/30/EU)

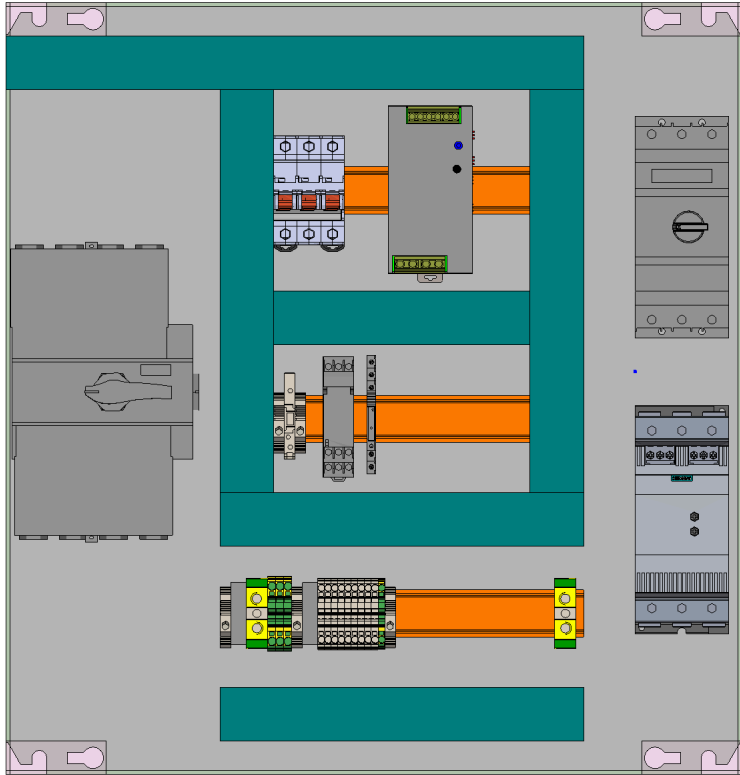
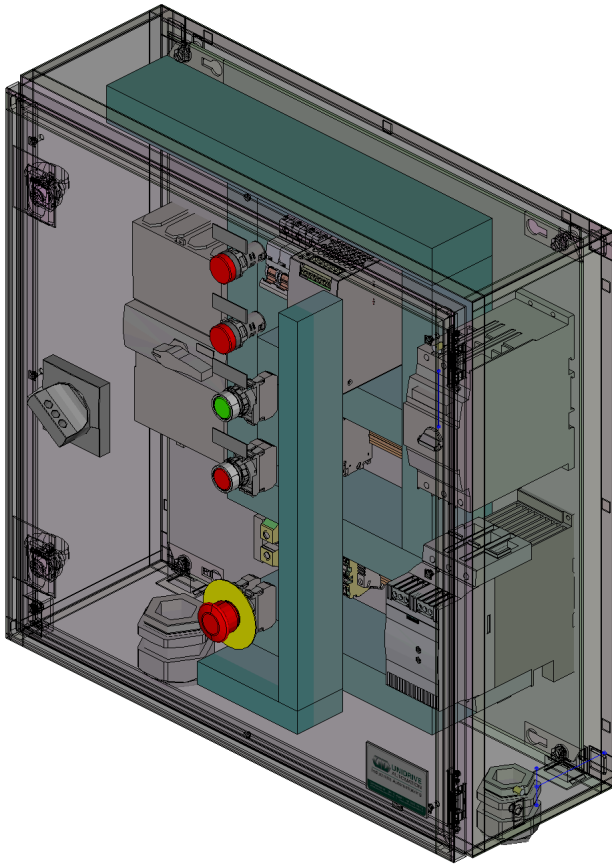
Declare without prejudice to the manufacturer's intellectual property rights provide  
relevant information of the partly completed machinery upon a reasoned  
request from the national authorities.

We inform you about that is not allowed to commission a control panel  
until the control panel is included in the CE-declaration of  
the complete machine.

Unidrive Automation B.V., Meppel  
The Netherlands

Marco Zanen

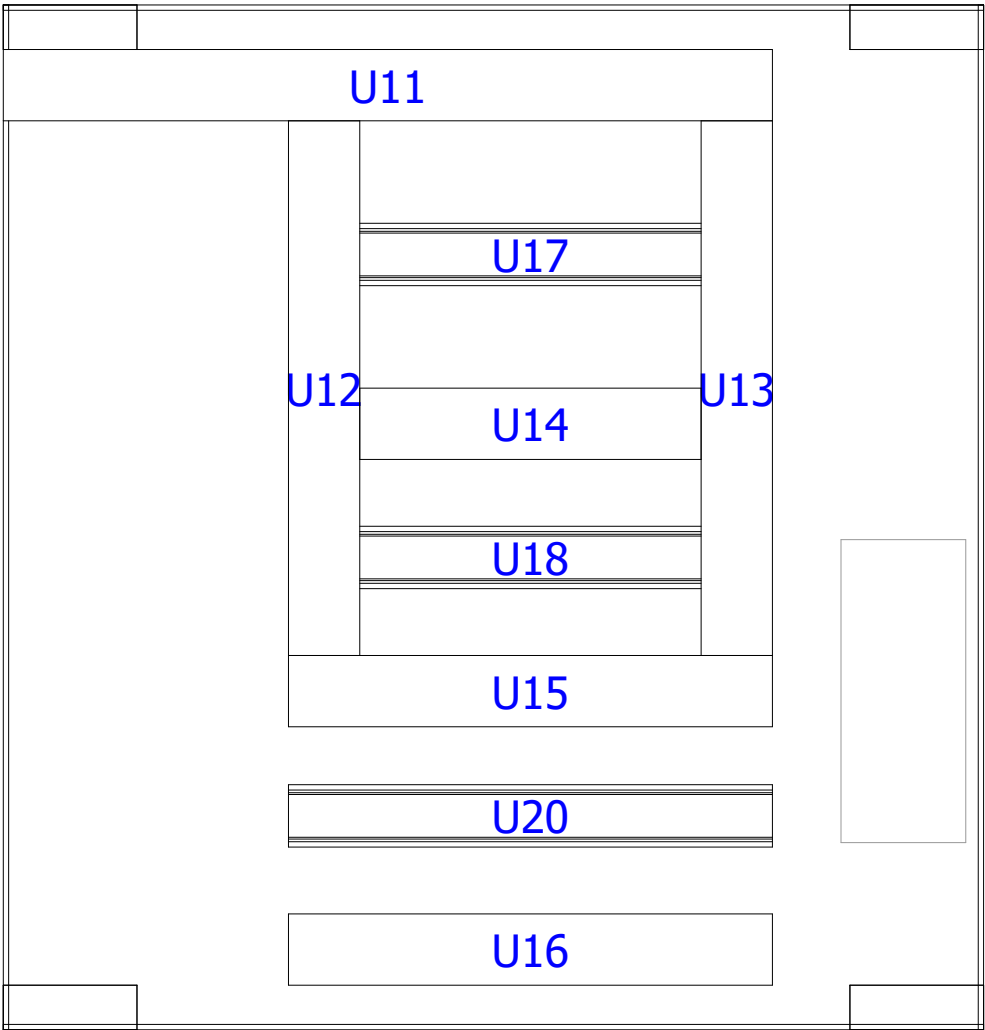
15-5-2025



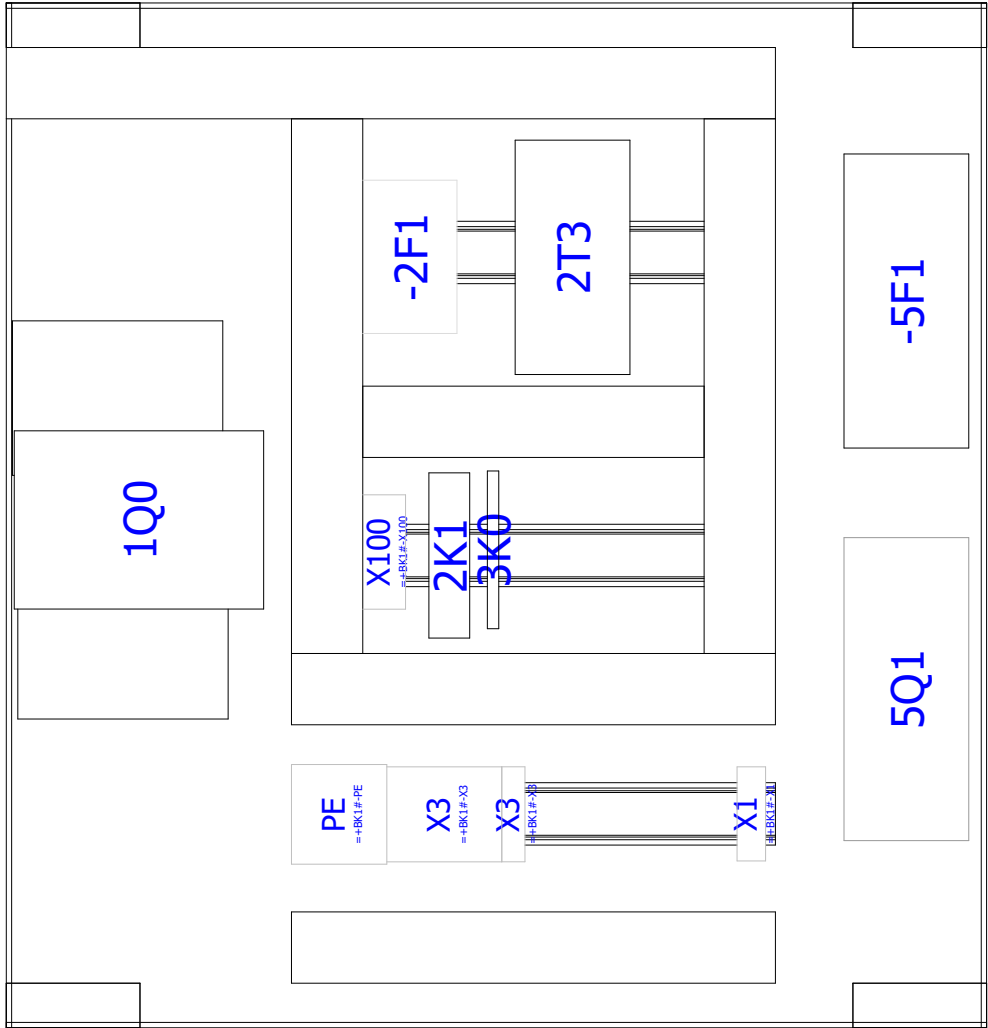
Wandkast AX  
AX Wandkast, BHD: 600x600x210 mm, roestvaststaal 1.4301, met montageplaat, met één deur, twee knevelsluitingen

Cutlist

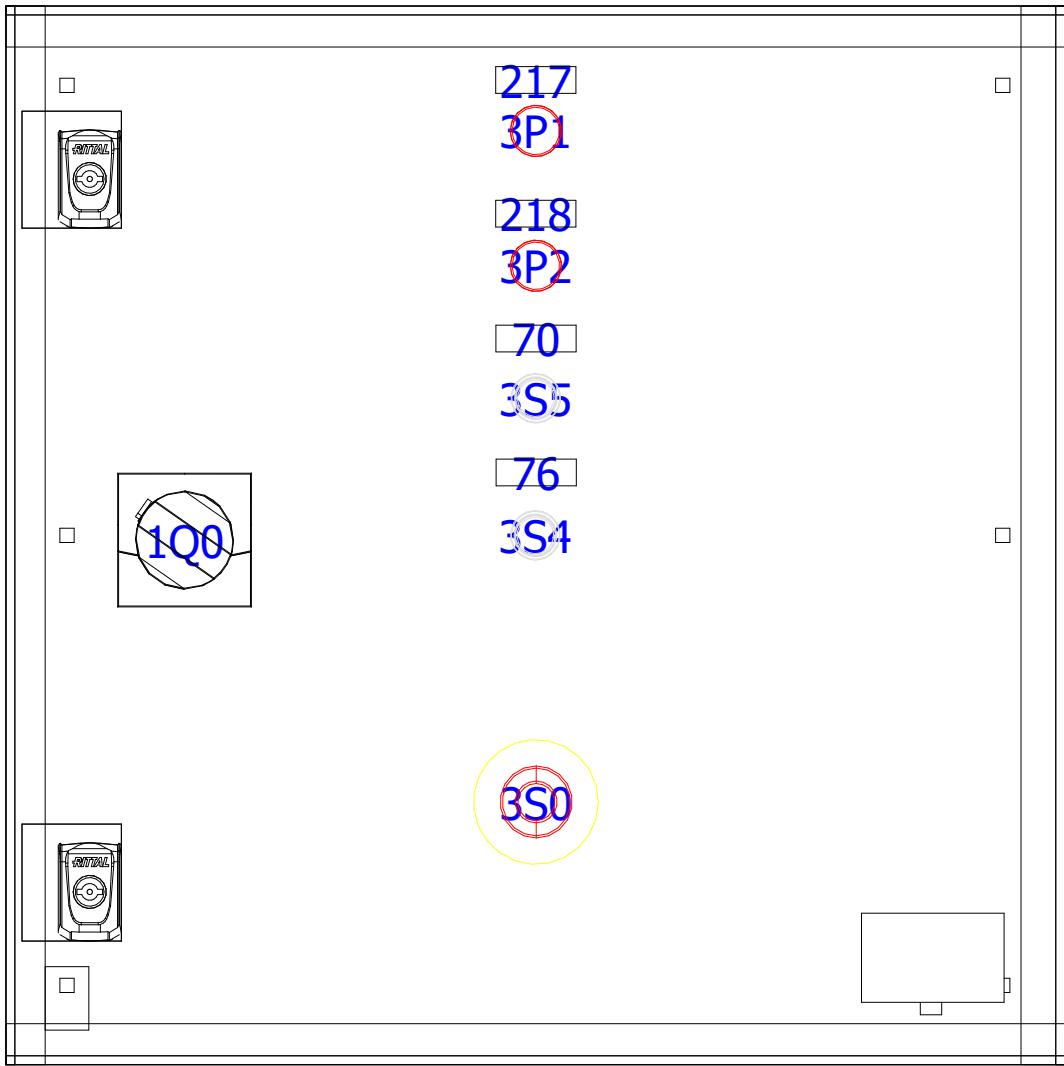
| DT  | Artikel                | Length |
|-----|------------------------|--------|
| U17 | Support rail TS 35/7.5 | 192 mm |
| U20 | Support rail TS 35/7.5 | 272 mm |
| U13 | LIC 40 x 80            | 300 mm |
| U15 | LIC 40 x 80            | 272 mm |
| U11 | LIC 40 x 80            | 432 mm |
| U16 | LIC 40 x 80            | 272 mm |
| U18 | Support rail TS 35/7.5 | 192 mm |
| U12 | LIC 40 x 80            | 300 mm |
| U14 | LIC 40 x 80            | 192 mm |



S1:Montageplaat



S1:Montageplaat



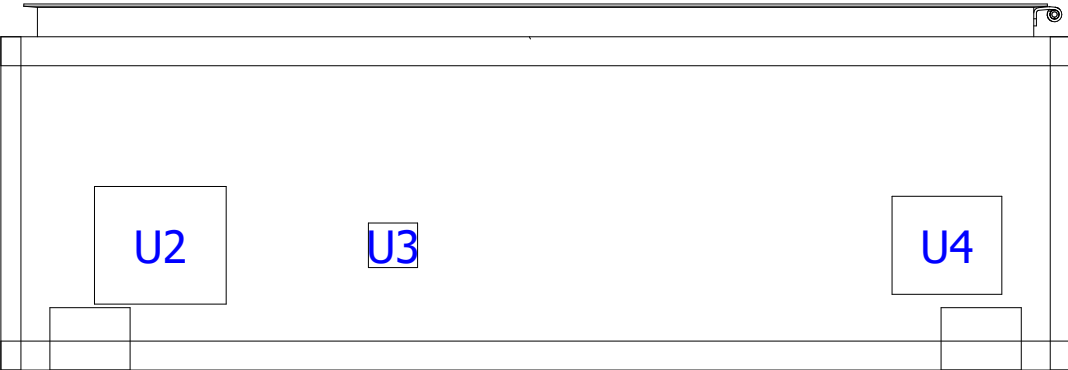
# Engraving

| Legend item | DT         | Artikel               | Text           |
|-------------|------------|-----------------------|----------------|
| 70          | =+BK1#-3S5 | TTP 45x15 Tekst plate | Start          |
| 76          | =+BK1#-3S4 | TTP 45x15 Tekst plate | Stop           |
| 217         | =+BK1#-3P1 | TTP 45x15 Tekst plate | Phase sequence |
| 218         | =+BK1#-3P2 | TTP 45x15 Tekst plate | Fault          |

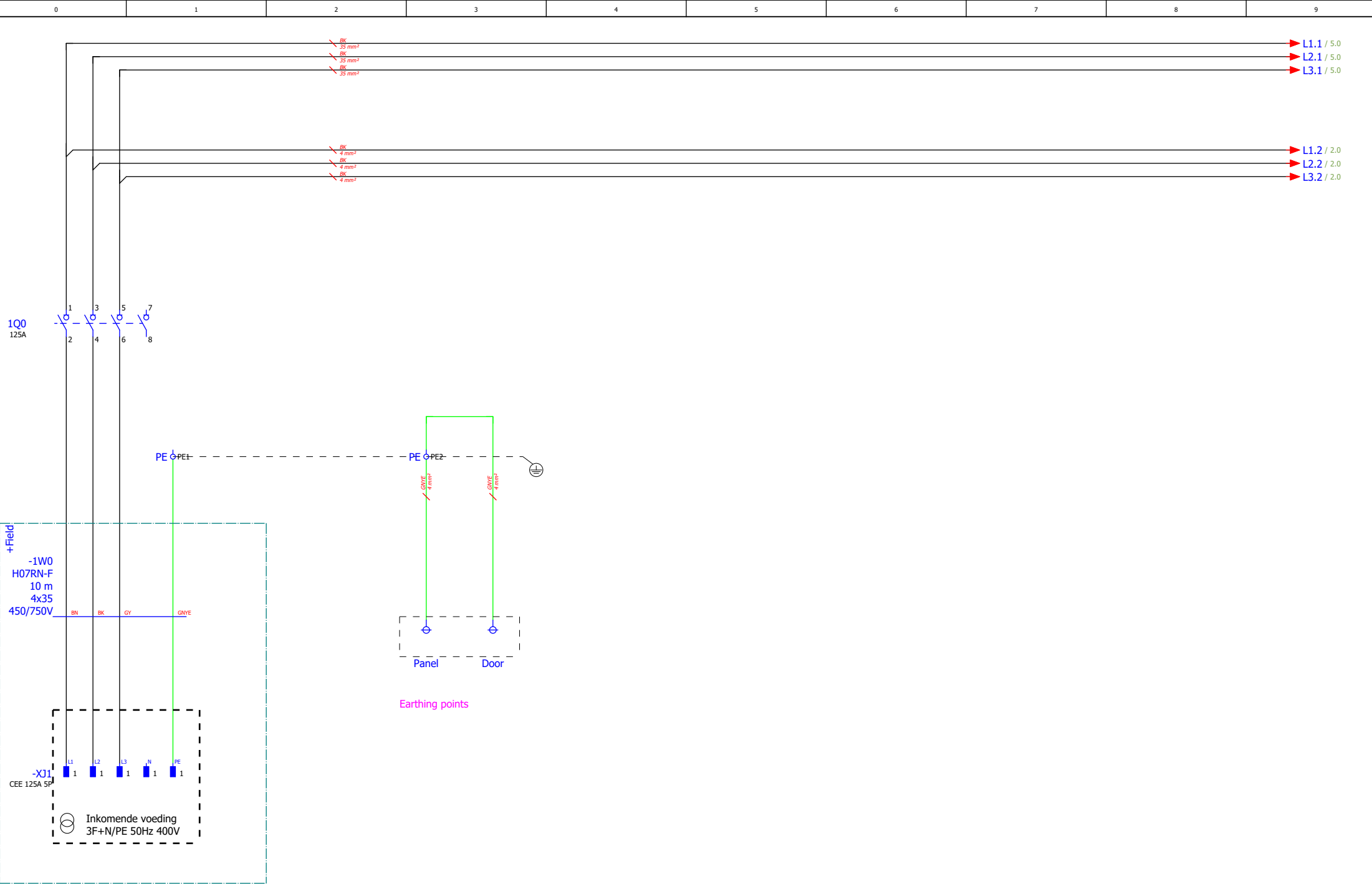
S1:Deur

Wartelijst

| DT | Artikel                                                  | Diameter |
|----|----------------------------------------------------------|----------|
| U2 | Lapp Skintop ST-M M63 Cable Gland,<br>Polyamide RAL 7035 | M63      |
| U3 | Lapp Skintop ST-M M20 Cable Gland,<br>Polyamide RAL 7035 | M20      |
| U4 | Lapp Skintop ST-M M50 Cable Gland,<br>Polyamide RAL 7035 | M50      |



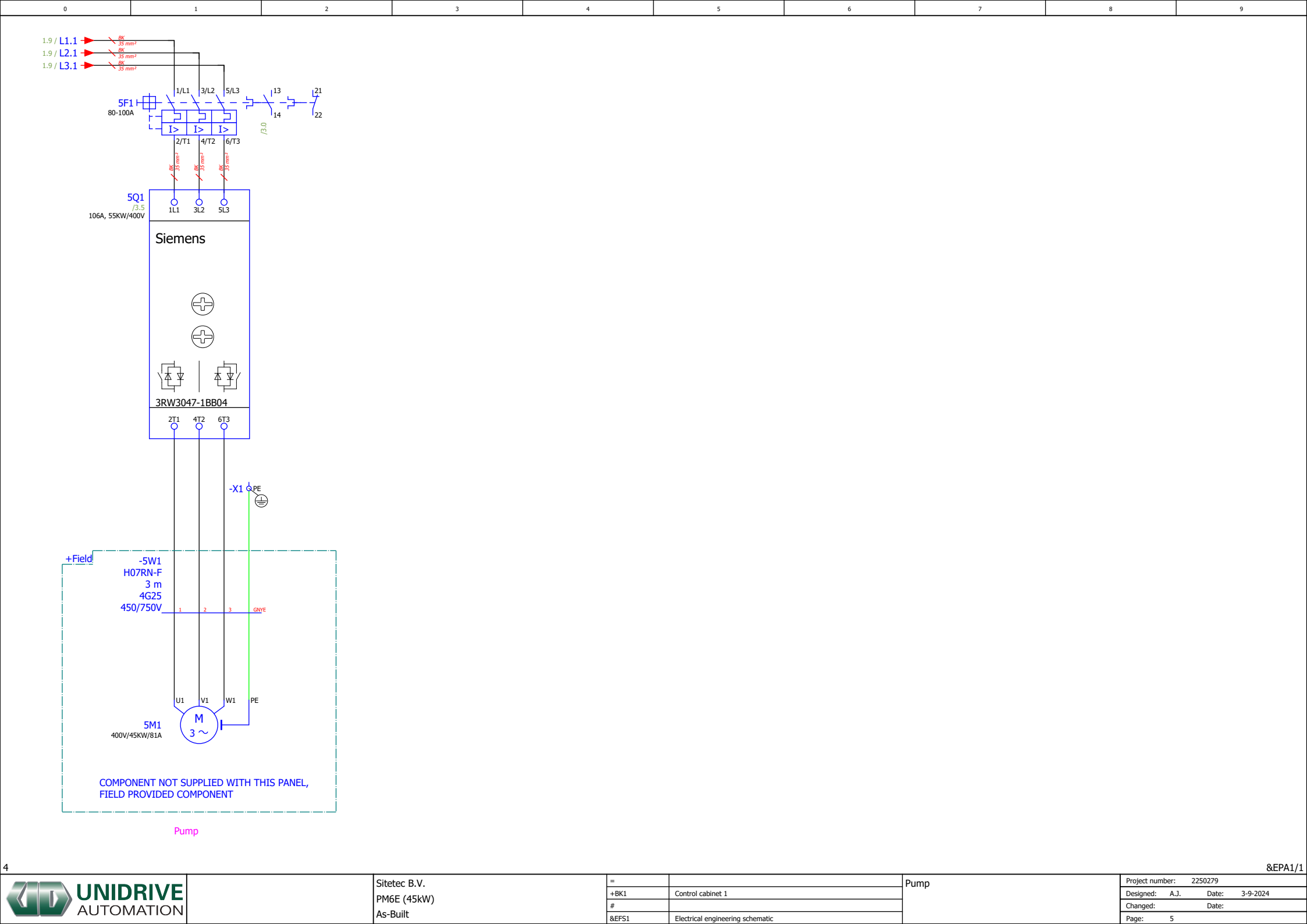
S1:Bodem buiten











Summarized parts list

F02\_UDA\_V2

| Afbeelding                                                                          | Order number     | Supplier               | Designation                                                             | Type number      | Quantity |
|-------------------------------------------------------------------------------------|------------------|------------------------|-------------------------------------------------------------------------|------------------|----------|
|    | B10C3006A        | IMO Precision Controls | MCB 10kA, C Curve 3 Pole, 6 Amp                                         | B10C3006A        | 1        |
|    | C4/100R-100      | IMO Precision Controls | Thermal Magnetic Motor Circuit Breaker 80-100A Magn. 1300A              | C4/100R-100      | 1        |
|    | C4HQ11           | IMO Precision Controls | Auxiliary Contact Block 1 NO 1NC Top Mounting For C4/32/63/100 Breakers | C4HQ11           | 1        |
|    | C4/100R-90       | IMO Precision Controls | Thermal Magnetic Motor Circuit Breaker 70-90A Magn. 1170A               | C4/100R-90       | 1        |
|    | RM22TG20         | Schneider Electric     | Three-Phase control relay 183...528Vac, 2 C/O                           | RM22TG20         | 1        |
|    | SRSI-24AC/DC     | IMO Precision Controls | Relay Socket (Base) For ETS Relays, Slim, 6mm Input 12-24V AC/DC        | SRSI-24AC/DC     | 1        |
|    | ETS-1CN-SL-24VDC | IMO Precision Controls | IMO Subminiature Power Relay SPCO, 6A, 24VDC, 170mW                     | ETS-1CN-SL-24VDC | 1        |
|    | LMB-24-RED       | IMO Precision Controls | Signal lamp red 24VAC/24VDC                                             | LMB-24-RED       | 2        |
|   | 53000074         | Altec                  | TTP 45x15 Tekst plate                                                   | 53000074         | 4        |
|  | ES1              | IMO Precision Controls | End clamp                                                               | ES1              | 5        |
|  | GMBEIGE          | IMO Precision Controls | Tag Car                                                                 | GMBEIGE          | 2        |
|  | SCPE4            | IMO Precision Controls | Ground modular terminal block                                           | SCPE4            | 3        |

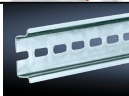
Summarized parts list

F02\_UDA\_V2

| Afbeelding                                                                          | Order number  | Supplier               | Designation                                                    | Type number   | Quantity |
|-------------------------------------------------------------------------------------|---------------|------------------------|----------------------------------------------------------------|---------------|----------|
|    | ERPE35P       | IMO Precision Controls | Earth terminal 35mm²                                           | ERPE35        | 2        |
|    | 28911         | Schneider Electric     | Switch-disconnector Compact INS125 - 4 poles - 125 A           | 28911         | 1        |
|    | LV428941      | Schneider Electric     | Control knob INS40-160                                         | LV428941      | 1        |
|    | 28958         | Schneider Electric     | 2 terminal shrouds - 3 poles/4 poles - for INS40..160          | 28958         | 2        |
|    | 3RW3047-1BB04 | Siemens                | SIRIUS SOFT STARTER, S3, 106A, 55KW/400V, 40 DEGR.             | 3RW3047-1BB04 | 1        |
|    | BS3P44RED     | IMO Precision Controls | Emergency stop button 30MM                                     | BS3P44RED     | 1        |
|    | B3S           | IMO Precision Controls | Contact frame                                                  | B3S           | 3        |
|    | B3T01         | IMO Precision Controls | Contact NC                                                     | B3T01         | 3        |
|   | B3-7603-2     | IMO Precision Controls | Push Button Yellow Disc Emergency Stop Label                   | B3-7603-2     | 1        |
|  | B3DRED        | IMO Precision Controls | Pushbutton red                                                 | B3DRED        | 1        |
|  | B3DLGREEN     | IMO Precision Controls | Illuminable Push Button, Spring Return, Green, Aluminium Bezel | B3DLGREEN     | 1        |
|  | B3T10         | IMO Precision Controls | Contact NO                                                     | B3T10         | 1        |

Summarized parts list

F02\_UDA\_V2

| Afbeelding                                                                          | Order number   | Supplier               | Designation                                                      | Type number    | Quantity |
|-------------------------------------------------------------------------------------|----------------|------------------------|------------------------------------------------------------------|----------------|----------|
|    | B3F            | IMO Precision Controls | Lamp holder                                                      | B3F            | 1        |
|    | B3-L24A-GREEN  | IMO Precision Controls | Green LED Lamp 24V AC/DC For B3F Lamp Holders (BA9S)             | B3-L24A-GREEN  | 1        |
|    | LPS-3-240-24DC | IMO Precision Controls | Power Supply 340-575AC input 24VDC Output, 240W 10A Din Rail Mtg | LPS-3-240-24DC | 1        |
|    | 1010000        |                        | Compact enclosure AX                                             | AX.1010000     | 1        |
|    | 53111470       | LAPP                   | Lapp Skintop ST-M M63 Cable Gland, Polyamide RAL 7035            | 53111470       | 1        |
|    | 53111420       | LAPP                   | Lapp Skintop ST-M M20 Cable Gland, Polyamide RAL 7035            | 53111420       | 1        |
|    | 53111460       | LAPP                   | Lapp Skintop ST-M M50 Cable Gland, Polyamide RAL 7035            | 53111460       | 1        |
|    | 7331-1         | Licatec                | LIC 40 x 80                                                      | 40 x 80        | 6        |
|   | 34-TS35/FSZ-1  | Calpe                  | Support rail TS 35/7.5                                           | 34-TS35/FSZ-1  | 3        |
|  | D8050          | Unidrive Automation    | Unidrive Automation domingsticker                                | D8050          | 1        |
|  | 7319-1         | Licatec                | LIC 25 x 60                                                      | 25 x 60        | 2        |
|  | SC2.5          | IMO Precision Controls | Spring Clamp Terminal 2.5mm², 600V, 20A Beige                    | SC2.5          | 9        |

Summarized parts list

F02\_UDA\_V2

| Afbeelding                                                                        | Order number | Supplier               | Designation                   | Type number | Quantity |
|-----------------------------------------------------------------------------------|--------------|------------------------|-------------------------------|-------------|----------|
|  | SCPE2.5      | IMO Precision Controls | Ground modular terminal block | SCPE2.5     | 1        |
|  | ERF2         | IMO Precision Controls | Fuse modular terminal block   | ERF2        | 1        |
|  | 522517       | Solar                  | Fuse 1A                       | 522517      | 1        |

| Device tag | Quantity | Designation                                                             | Type number      | Supplier               | Part number          |
|------------|----------|-------------------------------------------------------------------------|------------------|------------------------|----------------------|
| -2F1       | 1        | MCB 10kA, C Curve 3 Pole, 6 Amp                                         | B10C3006A        | IMO Precision Controls | IMO.B10C3006A        |
| -5F1       | 1        | Thermal Magnetic Motor Circuit Breaker 80-100A Magn. 1300A              | C4/100R-100      | IMO Precision Controls | IMO.C4/100R-100      |
| -5F1       | 1        | Auxiliary Contact Block 1 NO 1NC Top Mounting For C4/32/63/100 Breakers | C4HQ11           | IMO Precision Controls | IMO.C4HQ11           |
| -5F1       | 1        | Thermal Magnetic Motor Circuit Breaker 70-90A Magn. 1170A               | C4/100R-90       | IMO Precision Controls | IMO.C4/100R-90       |
| -2K1       | 1        | Three-Phase control relay 183...528Vac, 2 C/O                           | RM22TG20         | Schneider Electric     | SE.RM22TG20          |
| -3K0       | 1        | Relay Socket (Base) For ETS Relays, Slim, 6mm Input 12-24V AC/DC        | SRSI-24AC/DC     | IMO Precision Controls | IMO.SRSI-24AC/DC     |
| -3K0       | 1        | IMO Subminiature Power Relay SPCO, 6A, 24VDC, 170mW                     | ETS-1CN-SL-24VDC | IMO Precision Controls | IMO.ETS-1CN-SL-24VDC |
| -3P1       | 1        | Signal lamp red 24VAC/24VDC                                             | LMB-24-RED       | IMO Precision Controls | IMO.LMB-24-RED       |
| -3P1       | 1        | TTP 45x15 Tekst plate                                                   | 53000074         | Altec                  | ALT.53000074         |
| -3P2       | 1        | Signal lamp red 24VAC/24VDC                                             | LMB-24-RED       | IMO Precision Controls | IMO.LMB-24-RED       |
| -3P2       | 1        | TTP 45x15 Tekst plate                                                   | 53000074         | Altec                  | ALT.53000074         |
| -PE        | 1        | End clamp                                                               | ES1              | IMO Precision Controls | IMO.ES1              |
| -PE        | 1        | Tag Car                                                                 | GMBEIGE          | IMO Precision Controls | IMO.GMBEIGE          |
| -PE        | 3        | Ground modular terminal block                                           | SCPE4            | IMO Precision Controls | IMO.SCPE4            |
| -PE        | 1        | Earth terminal 35mm²                                                    | ERPE35           | IMO Precision Controls | IMO.ERPE35           |
| -1Q0       | 1        | Switch-disconnector Compact INS125 - 4 poles - 125 A                    | 28911            | Schneider Electric     | SE.28911             |
| -1Q0       | 1        | Control knob INS40-160                                                  | LV428941         | Schneider Electric     | SE.LV428941          |
| -1Q0       | 2        | 2 terminal shrouds - 3 poles/4 poles - for INS40...160                  | 28958            | Schneider Electric     | SE.28958             |
| -5Q1       | 1        | SIRIUS SOFT STARTER, S3, 106A, 55KW/400V, 40 DEGR.                      | 3RW3047-1BB04    | Siemens                | SIE.3RW3047-1BB04    |
| -3S0       | 1        | Emergency stop button 30MM                                              | BS3P44RED        | IMO Precision Controls | IMO.BS3P44RED        |
| -3S0       | 1        | Contact frame                                                           | B3S              | IMO Precision Controls | IMO.B3S              |
| -3S0       | 2        | Contact NC                                                              | B3T01            | IMO Precision Controls | IMO.B3T01            |
| -3S0       | 1        | Push Button Yellow Disc Emergency Stop Label                            | B3-7603-2        | IMO Precision Controls | IMO.B3-7603-2        |
| -3S4       | 1        | Pushbutton red                                                          | B3DRED           | IMO Precision Controls | IMO.B3DRED           |
| -3S4       | 1        | Contact frame                                                           | B3S              | IMO Precision Controls | IMO.B3S              |
| -3S4       | 1        | Contact NC                                                              | B3T01            | IMO Precision Controls | IMO.B3T01            |
| -3S4       | 1        | TTP 45x15 Tekst plate                                                   | 53000074         | Altec                  | ALT.53000074         |
| -3S5       | 1        | Illuminable Push Button, Spring Return, Green, Aluminium Bezel          | B3DLGREEN        | IMO Precision Controls | IMO.B3DLGREEN        |
| -3S5       | 1        | Contact frame                                                           | B3S              | IMO Precision Controls | IMO.B3S              |
| -3S5       | 1        | Contact NO                                                              | B3T10            | IMO Precision Controls | IMO.B3T10            |
| -3S5       | 1        | Lamp holder                                                             | B3F              | IMO Precision Controls | IMO.B3F              |
| -3S5       | 1        | Green LED Lamp 24V AC/DC For B3F Lamp Holders (BA9S)                    | B3-L24A-GREEN    | IMO Precision Controls | IMO.B3-L24A-GREEN    |
| -3S5       | 1        | TTP 45x15 Tekst plate                                                   | 53000074         | Altec                  | ALT.53000074         |
| -2T3       | 1        | Power Supply 340-575AC input 24VDC Output, 240W 10A Din Rail Mtg        | LPS-3-240-24DC   | IMO Precision Controls | IMO.LPS-3-240-24DC   |
| -U1        | 1        | Compact enclosure AX                                                    | AX.1010000       |                        | RIT.1010000          |
| -U2        | 1        | Lapp Skintop ST-M M63 Cable Gland, Polyamide RAL 7035                   | 53111470         | LAPP                   | LAPP.53111470        |
| -U3        | 1        | Lapp Skintop ST-M M20 Cable Gland, Polyamide RAL 7035                   | 53111420         | LAPP                   | LAPP.53111420        |
| -U4        | 1        | Lapp Skintop ST-M M50 Cable Gland, Polyamide RAL 7035                   | 53111460         | LAPP                   | LAPP.53111460        |
| -U11       | 1        | LIC 40 x 80                                                             | 40 x 80          | Licatec                | LIC.7331-1           |
| -U12       | 1        | LIC 40 x 80                                                             | 40 x 80          | Licatec                | LIC.7331-1           |
| -U13       | 1        | LIC 40 x 80                                                             | 40 x 80          | Licatec                | LIC.7331-1           |
| -U14       | 1        | LIC 40 x 80                                                             | 40 x 80          | Licatec                | LIC.7331-1           |
| -U15       | 1        | LIC 40 x 80                                                             | 40 x 80          | Licatec                | LIC.7331-1           |
| -U16       | 1        | LIC 40 x 80                                                             | 40 x 80          | Licatec                | LIC.7331-1           |
| -U17       | 1        | Support rail TS 35/7.5                                                  | 34-TS35/FSZ-1    | Calpe                  | CAL.34-TS35/FSZ-1    |
| -U18       | 1        | Support rail TS 35/7.5                                                  | 34-TS35/FSZ-1    | Calpe                  | CAL.34-TS35/FSZ-1    |
| -U20       | 1        | Support rail TS 35/7.5                                                  | 34-TS35/FSZ-1    | Calpe                  | CAL.34-TS35/FSZ-1    |
| -U30       | 1        | Unidrive Automation domingsticker                                       | D8050            | Unidrive Automation    | UDA.D8050            |
| -U31       | 1        | LIC 25 x 60                                                             | 25 x 60          | Licatec                | LIC.7319-1(1)        |
| -U32       | 1        | LIC 25 x 60                                                             | 25 x 60          | Licatec                | LIC.7319-1(1)        |
| -X1        | 1        | Earth terminal 35mm²                                                    | ERPE35           | IMO Precision Controls | IMO.ERPE35           |
| -X3        | 2        | End clamp                                                               | ES1              | IMO Precision Controls | IMO.ES1              |
| -X3        | 1        | Tag Car                                                                 | GMBEIGE          | IMO Precision Controls | IMO.GMBEIGE          |
| -X3        | 9        | Spring Clamp Terminal 2.5mm², 600V, 20A Beige                           | SC2.5            | IMO Precision Controls | IMO.SC2.5            |
| -X3        | 1        | Ground modular terminal block                                           | SCPE2.5          | IMO Precision Controls | IMO.SCPE2.5          |
| -X100      | 2        | End clamp                                                               | ES1              | IMO Precision Controls | IMO.ES1              |





Terminal diagram

| Function text      |  |  |  |  |  |  |  | +Field-TWO | Cable name | Strip<br>= +BK1 #-PE<br>PE bonding |                  |          |        |                    |                  | Cable name |  |  |  |  |  | Page / column |
|--------------------|--|--|--|--|--|--|--|------------|------------|------------------------------------|------------------|----------|--------|--------------------|------------------|------------|--|--|--|--|--|---------------|
|                    |  |  |  |  |  |  |  |            |            | Target designation                 | Connection point | Terminal | Jumper | Target designation | Connection point |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  | GNYE       |            | +Field-XJ1                         | 1:PE             | PE1      | •      |                    |                  |            |  |  |  |  |  | EFS1/1.1      |
| Earthing points    |  |  |  |  |  |  |  |            |            | -PE_Kast                           | PE               | PE2      | •      | -PE_Deur           | PE               |            |  |  |  |  |  | EFS1/1.3      |
| Power supply 24VDC |  |  |  |  |  |  |  |            |            | -2T3                               | -'               | PE3      | •      | -2T3               | PE               |            |  |  |  |  |  | EFS1/2.5      |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  | PE4      | •      |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |
|                    |  |  |  |  |  |  |  |            |            |                                    |                  |          |        |                    |                  |            |  |  |  |  |  |               |

[illegible]

[illegible]

## Terminal diagram

[illegible]



| Terminal strip        =+BK1#-PE |             |             |        |               |                               |                       |                      |        |
|---------------------------------|-------------|-------------|--------|---------------|-------------------------------|-----------------------|----------------------|--------|
| Terminal                        | Type number | Part number | Jumper | Cross-section | Terminal label<br>Part number | Jumper<br>Part number | Cover<br>Part number | Remark |
|                                 | ES1         | IMO.ES1     |        |               |                               |                       |                      |        |
|                                 | GMBEIGE     | IMO.GMBEIGE |        |               | IMO.GMBEIGE                   |                       |                      |        |
| PE1                             | ERPE35      | IMO.ERPE35  | ┆      |               |                               |                       |                      |        |
| PE2                             | SCPE4       | IMO.SCPE4   | ┆      |               |                               |                       |                      |        |
| PE3                             | SCPE4       | IMO.SCPE4   | ┆      |               |                               |                       |                      |        |
| PE4                             |             |             | ┆      |               |                               |                       |                      |        |

| Terminal strip        =+BK1#-X1 |             |             |        |               |                               |                       |                      |        |
|---------------------------------|-------------|-------------|--------|---------------|-------------------------------|-----------------------|----------------------|--------|
| Terminal                        | Type number | Part number | Jumper | Cross-section | Terminal label<br>Part number | Jumper<br>Part number | Cover<br>Part number | Remark |
| PE                              | ERPE35      | IMO.ERPE35  | •      |               |                               |                       |                      |        |

Terminal line-up diagram

F12\_002

| Terminal strip =+BK1#-X3 |             |             |        |               |                               |                       |                      |        |
|--------------------------|-------------|-------------|--------|---------------|-------------------------------|-----------------------|----------------------|--------|
| Terminal                 | Type number | Part number | Jumper | Cross-section | Terminal label<br>Part number | Jumper<br>Part number | Cover<br>Part number | Remark |
|                          | ES1         | IMO.ES1     |        |               |                               |                       |                      |        |
|                          | GMBEIGE     | IMO.GMBEIGE |        |               | IMO.GMBEIGE                   |                       |                      |        |
| 1                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 2                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 3                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 4                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 5                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 6                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 7                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 8                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| 9                        | SC2.5       | IMO.SC2.5   | ┆      |               |                               |                       |                      |        |
| PE                       | SCPE2.5     | IMO.SCPE2.5 | ┆      |               |                               |                       |                      |        |
|                          | ES1         | IMO.ES1     |        |               |                               |                       |                      |        |

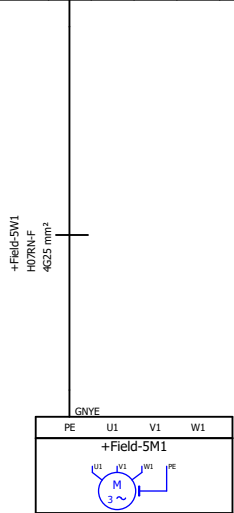
Terminal line-up diagram

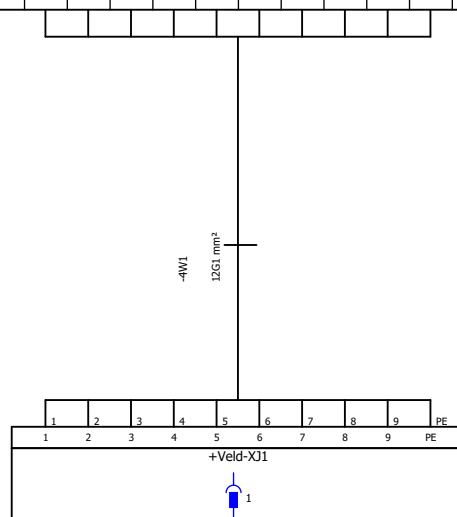
F12\_002

| Terminal strip        =+BK1#-X100 |             |             |        |               |                               |                       |                      |        |
|-----------------------------------|-------------|-------------|--------|---------------|-------------------------------|-----------------------|----------------------|--------|
| Terminal                          | Type number | Part number | Jumper | Cross-section | Terminal label<br>Part number | Jumper<br>Part number | Cover<br>Part number | Remark |
|                                   | ES1         | IMO.ES1     |        |               |                               |                       |                      |        |
| 1                                 | ERF2;522517 | IMO.ERF2    | •      |               |                               |                       |                      |        |
|                                   | ES1         | IMO.ES1     |        |               |                               |                       |                      |        |

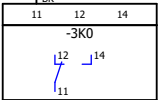


F11\_004



[illegible]

F11\_004





**UNIDRIVE**  
AUTOMATION

Unidrive Automation B.V.  
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7944 HX Meppel  
The Netherlands  
Tel: +31 (0)522 245713  
E-mail: info@unidrive-automation.nl

|                     |              |
|---------------------|--------------|
| Company / customer  | Sitetec B.V. |
| Project description | PM6E (45kW)  |
| Job number          | 2250279      |
| Commission          | Sitetec B.V. |

|                        |                          |
|------------------------|--------------------------|
| Manufacturer (company) | Unidrive Automation B.V. |
| Project name           | 2250279 - PM6E (45kW)    |
| Make                   | Rose                     |
| Type                   | 01141409                 |
| Place of installation  |                          |
| Control cabinet name   | BK2                      |

|                |          |             |      |
|----------------|----------|-------------|------|
| Created on     | 3-9-2024 | Prepared by | A.J. |
| Project status | As-Built | Edit date   |      |

# Applied Wire Colors

| U > 50VAC |                |
|-----------|----------------|
| L1        | Black          |
| L2        | Black          |
| L3        | Black          |
| N*1       | Blue           |
| Earth     | Yellow / green |

| U < 50VDC   |                  |
|-------------|------------------|
| Plus        | Darkblue         |
| Switch wire | Darkblue         |
| Min         | Darkblue / white |
| Earth       | Yellow / green   |

| Analog signals |                |
|----------------|----------------|
| Plus           | Gray           |
| Min            | Gray           |
| Earth          | Yellow / green |

| U < 50VAC |                |
|-----------|----------------|
| Plus      | Gray           |
| Min       | Gray           |
| Earth     | Yellow / green |

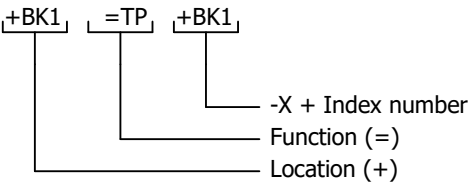
| Safety circuits |        |
|-----------------|--------|
| All             | Yellow |

| External supplies |                 |
|-------------------|-----------------|
| All*2             | Orange or Black |

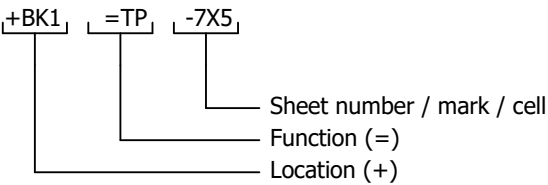
1 \* = If AC voltage is not from a transformer  
in the control cabinet itself the corresponding zero is light blue.  
2 \* = depending on the situation.

0123456789

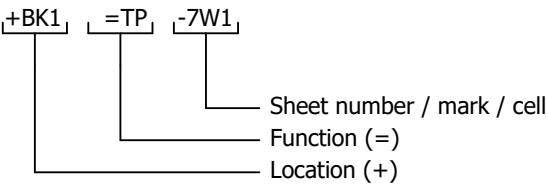
TERMINAL NUMBERING



Component coding



Cable numbering



Normal cable      Shielded cable



Structure

|   |               |
|---|---------------|
| + | Location      |
| & | Document type |
| = | Function      |

Component coding (internal)

|   |                                                                                                          |   |                                                                          |
|---|----------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------|
| A | Assemblies, cabinets (Cabinet, PCB, PLC, amplifier, laser)                                               | W | Cable                                                                    |
| T | Inverters, from non-electric to electric or vice versa (Pt100, proximity switch, photoelectric cell)     | X | Terminals, sockets, plugs                                                |
| C | Capacitors                                                                                               | Y | Electrically operated mechanical device (Brake, clutch, pneumatic valve) |
| E | Several (Heating appliance, lighting appliance, appliances not mentioned elsewhere)                      |   |                                                                          |
| F | Protection devices (Fuse, circuit breaker, surge arrester)                                               |   |                                                                          |
| G | Generator                                                                                                |   |                                                                          |
| P | Signaling (signal lamp, buzzer)                                                                          |   |                                                                          |
| K | Relays & contactors                                                                                      |   |                                                                          |
| R | Coils, reactors                                                                                          |   |                                                                          |
| M | Motors                                                                                                   |   |                                                                          |
| p | Measuring device, test device (Indicator, writer, integrating measuring device, signal generator, clock) |   |                                                                          |
| Q | Switching device for power circuits (motor protection, starter, breaker)                                 |   |                                                                          |
| R | Resistance (Potentiometer, adjustable resistance, rheostat, shunt resistor, thermistor)                  |   |                                                                          |
| S | Control circuit switch, selector (push button, cam switch, limit switch, selector contact)               |   |                                                                          |
| T | Transformer (Voltage transformer, current transformer)                                                   |   |                                                                          |
| T | Modulator, inverter (frequency converter, DC power supply, coder decoder, inverter, signal converter)    |   |                                                                          |

**RATED CURRENTS FOR COPPER CONDUCTORS**

IN ACCORDANCE WITH  
NEN-EN-IEC 61439-1 : 2011 TABLE 11

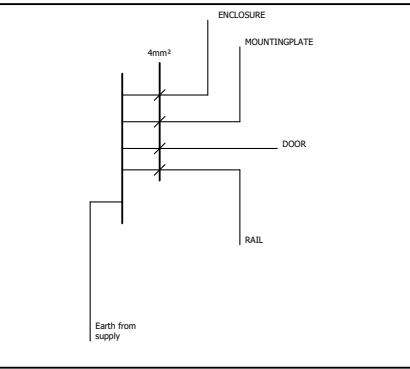
| Cross-sectional<br>mm2 | Current |
|------------------------|---------|
| 1                      | 8       |
| 1,5                    | 12      |
| 2,5                    | 20      |
| 4                      | 25      |
| 6                      | 32      |
| 10                     | 50      |
| 16                     | 65      |
| 25                     | 85      |
| 35                     | 115     |
| 50                     | 150     |
| 70                     | 175     |
| 95                     | 225     |
| 120                    | 250     |
| 150                    | 275     |
| 185                    | 350     |
| 240                    | 400     |

**Enclosure earthing**

**Remark:**

ALL PARTS WHERE 230V COMPONENTS  
TO BE MOUNTED MUST BE EARTHED  
WITH MINIMUM 4mm<sup>2</sup>

EARTH WIRES MUST NOT BE LOOPED.  
ALL EARTH POINTS TO A CENTRAL EARTH POINT





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Voeding - Power supply

|                                    |         |                                                  |  |
|------------------------------------|---------|--------------------------------------------------|--|
| Bestel nummer<br>PO number         | 2250279 | Netspanning/frequentie<br>Nom. voltage/frequency |  |
| Bouwjaar/week<br>Prod. year/week   | 2025/26 | Fases<br>Phases                                  |  |
| Schema nr.<br>Drawing number       | 2250279 | Stroom<br>Current                                |  |
| Ip waarde:<br>Degree of protection |         | Hoofd zekering<br>Main fuse                      |  |
|                                    |         | Kortsluitstroom<br>Short-breaking capacity       |  |

www.unidrive-automation.nl

EG-declaration of conformity

Unidrive Automation B.V.  
Oliemolenweg 3B  
7944 HX Meppel



UNIDRIVE  
AUTOMATION

Client  
Project description  
Project number

Sitetec B.V.  
PM6E (45kW)  
2250279

We, Unidrive Automation,

Declare under their sole responsibility that the product/semi-finished product:  
control panel(s) with components (See bill of materials), for installation where this declaration relates is build according to the following guidelines,  
standards and other documents:

- NEN-EN-IEC 60204-1: Safety of machinery - Electrical equipment of machines

- NEN-EN-IEC 61439-1: Low-voltage switchgear and controlgear assemblies

- Low Voltage Directive (2014/35/EU)

- Electromagnetic Compatibility Directive (EMC) (2014/30/EU)

**Declare without prejudice to the manufacturer's intellectual property rights provide relevant information of the partly completed machinery upon a reasoned request from the national authorities.**

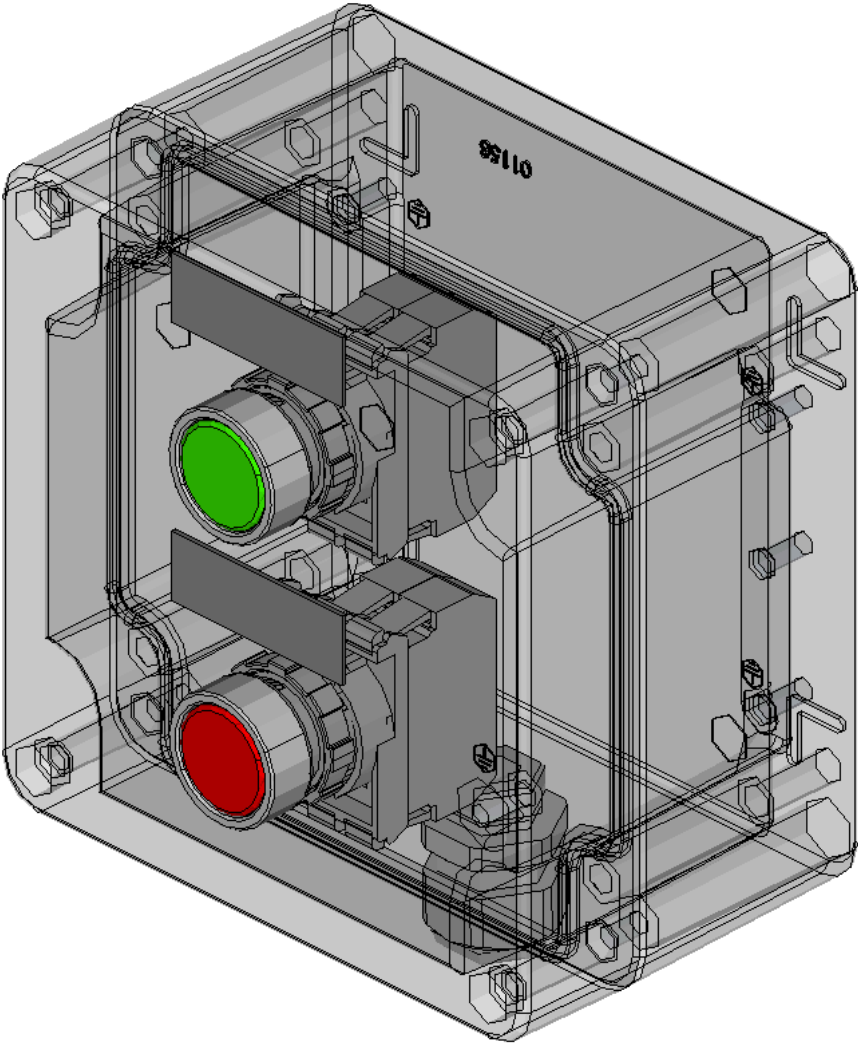
**We inform you about that is not allowed to commission a control panel until the control panel is included in the CE-declaration of the complete machine.**

Unidrive Automation B.V., Meppel  
The Netherlands

Marco Zanen



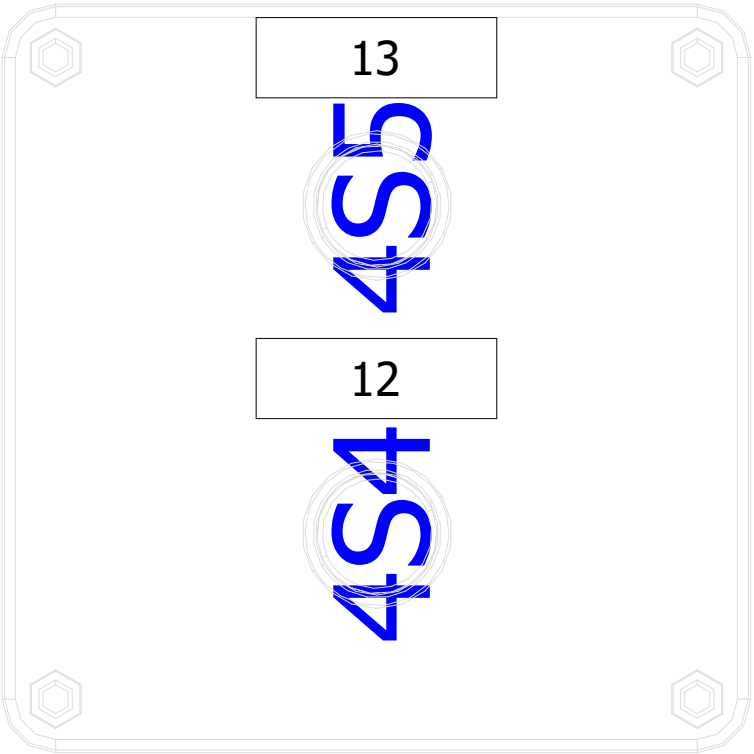
15-5-2025

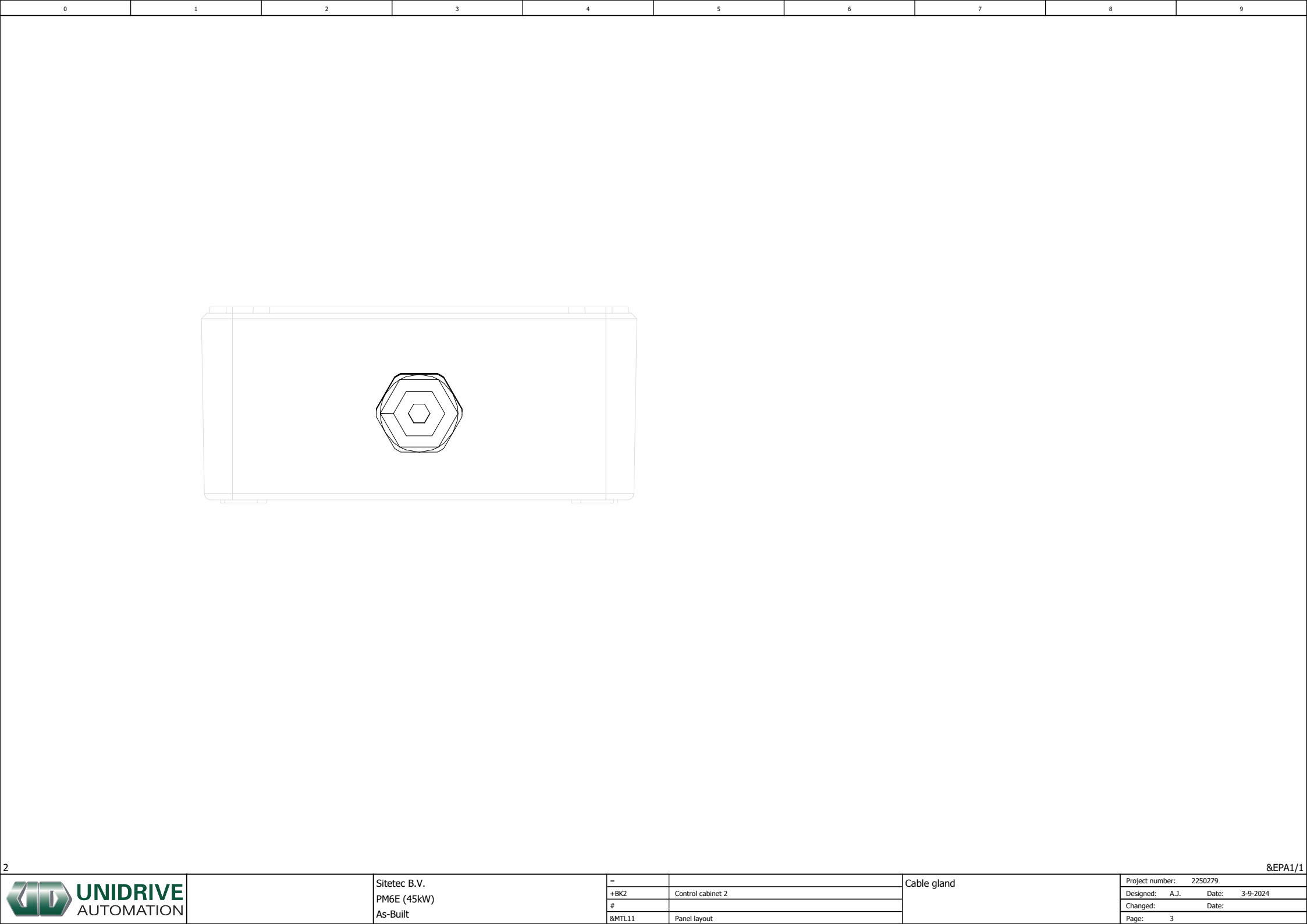


Klemmen kast Aluminium 140x140x91

Engraving

| Legend item | DT         | Artikel               | Text  |
|-------------|------------|-----------------------|-------|
| 12          | =+BK2#-4S4 | TTP 45x15 Tekst plate | Stop  |
| 13          | =+BK2#-4S5 | TTP 45x15 Tekst plate | Start |





Summarized parts list

F02\_UDA\_V2

| Afbeelding                                                                          | Order number  | Supplier               | Designation                                                    | Type number   | Quantity |
|-------------------------------------------------------------------------------------|---------------|------------------------|----------------------------------------------------------------|---------------|----------|
|    | B3DLGRED      | IMO Precision Controls | Illuminable Push Button, Spring Return, Red, Aluminium Bezel   | B3DLGRED      | 1        |
|    | B3S           | IMO Precision Controls | Contact frame                                                  | B3S           | 2        |
|    | B3T01         | IMO Precision Controls | Contact NC                                                     | B3T01         | 1        |
|    | B3F           | IMO Precision Controls | Lamp holder                                                    | B3F           | 2        |
|    | B3-L24A-RED   | IMO Precision Controls | Red LED Lamp 24V AC/DC For B3F Lamp Holders (BA9S)             | B3-L24A-RED   | 1        |
|    | 53000074      | Altec                  | TTP 45x15 Tekst plate                                          | 53000074      | 2        |
|    | B3DLGREEN     | IMO Precision Controls | Illuminable Push Button, Spring Return, Green, Aluminium Bezel | B3DLGREEN     | 1        |
|    | B3T10         | IMO Precision Controls | Contact NO                                                     | B3T10         | 1        |
|  | B3-L24A-GREEN | IMO Precision Controls | Green LED Lamp 24V AC/DC For B3F Lamp Holders (BA9S)           | B3-L24A-GREEN | 1        |
|  | 53111420      | LAPP                   | Lapp Skintop ST-M M20 Cable Gland, Polyamide RAL 7035          | 53111420      | 1        |
|  | 1141409       | BOPLA                  | Terminal box Aluminum 140x140x91                               | 1141409       | 1        |





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|                     |              |
|---------------------|--------------|
| Company / customer  | Sitetec B.V. |
| Project description | PM6E (45kW)  |
| Job number          | 2250279      |
| Commission          | Sitetec B.V. |

|                        |                          |
|------------------------|--------------------------|
| Manufacturer (company) | Unidrive Automation B.V. |
| Project name           | 2250279 - PM6E (45kW)    |
| Make                   |                          |
| Type                   |                          |
| Place of installation  |                          |
| Control cabinet name   | Field                    |

|                |          |             |      |
|----------------|----------|-------------|------|
| Created on     | 3-9-2024 | Prepared by | A.J. |
| Project status | As-Built | Edit date   |      |

Summarized parts list

F02\_UDA\_V2

| Afbeelding                                                                        | Order number | Supplier | Designation       | Type number | Quantity |
|-----------------------------------------------------------------------------------|--------------|----------|-------------------|-------------|----------|
|  | 3381         | Mennekes | MENN PLUG 5P 125A | 3381        | 1        |



## Cable overview

[illegible]