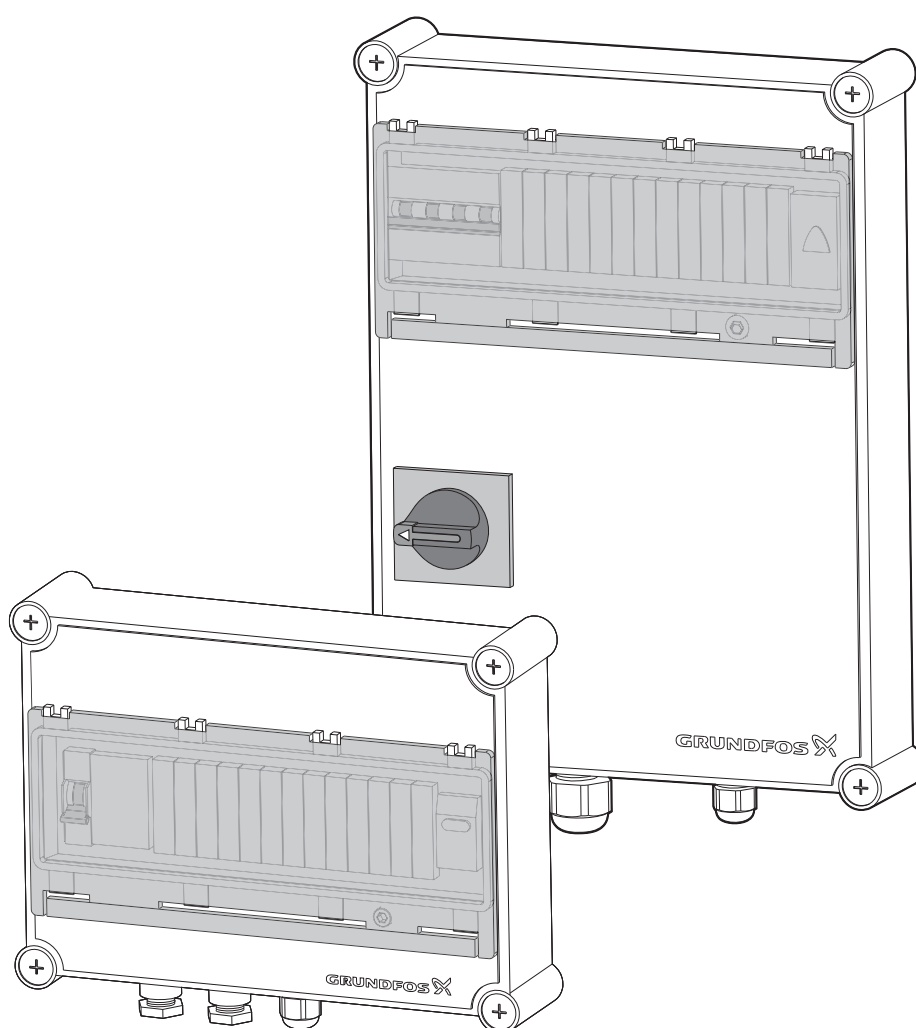


SEG, DP, EF, SL1/SLV AUTO_{ADAPT} fuse box, type ADC

Installation and operating instructions



English (GB) Installation and operating instructions

Original installation and operating instructions.

CONTENTS

	Page
1. General information	2
1.1 General information	2
1.2 Applications	2
2. Product range	2
2.1 Type range	2
2.2 Product setup	3
3. Identification	5
3.1 Type designation	5
4. Transportation and storage	6
5. Mechanical installation	6
5.1 Indoor installation	6
5.2 Outdoor installation	6
6. Electrical installation	6
6.1 Installation options	6
6.2 Startup	6
7. Technical data	6
7.1 Indoor cabinet	6
7.2 Outdoor cabinet	6
7.3 Electrical data	6
7.4 Overview of inputs and outputs	6
8. Dimensional drawings	7
8.1 MNX 125	7
8.2 MNX 200	8
8.3 CAB 2030	9
8.4 Outdoor installation	10
9. Maintenance and service	10

1. General information

1.1 General information

These installation and operating instructions apply to the fuse box for Grundfos SEG, DP, EF, SL1/SLV AUTO_{ADAPT} pumps.

This document is to be used together with the following documentation:

- Wiring diagram for the fuse box inside package.
- Installation and operating instructions for the pump.
- Installation and operating instructions for the CIU communication interface (if a CIU box is used).

For additional information, see the AUTO_{ADAPT} data booklet 97641814 and/or the installation and operation manual.

1.2 Applications

The fuse box is designed to provide a safe power supply for up to two Grundfos AUTO_{ADAPT} pumps in the range of 0.6 to 4.0 kW. Furthermore, the fuse box enables communication from Grundfos Remote Management, GRM, Grundfos GO and SCADA.

2. Product range

You can choose between a one-pump or two-pump installation with or without a CIU box.

2.1 Type range

2.1.1 Confirm your unit

Standard range	Description
98491143	AUTO _{ADAPT} fuse box, one pump without CIU box
98491149	AUTO _{ADAPT} fuse box, one pump with CIU box
98491153	AUTO _{ADAPT} fuse box, two pumps without CIU box
98491155	AUTO _{ADAPT} fuse box, two pumps with CIU box

2.1.2 Choose option

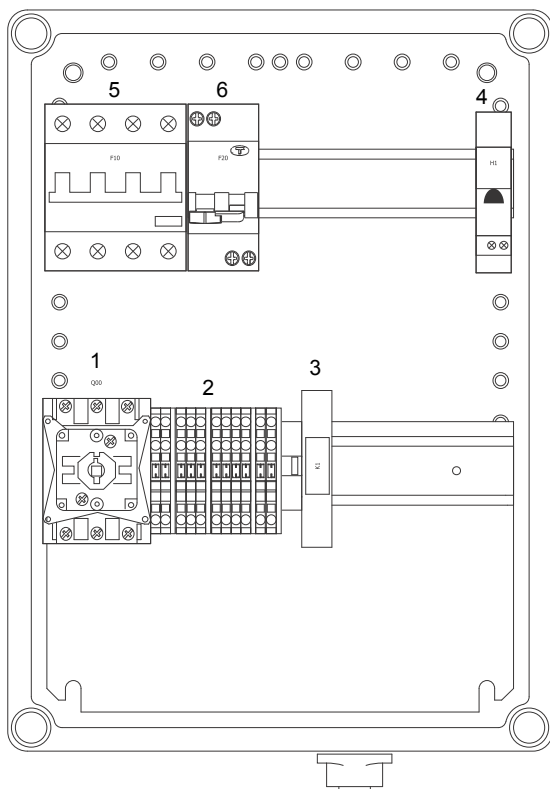
Choose which options you would like to add to your setup.

If you have chosen a fuse box with a CIU box, choose which CIM module to use here.

Standard option	Description
98492214	AUTO _{ADAPT} alarm 100 dB
98492189	AUTO _{ADAPT} CIU 202 MODBUS RTU
98492207	AUTO _{ADAPT} CIU 252 GSM incl. antenna
98492205	AUTO _{ADAPT} CIU 272 GRM incl. antenna
98492206	AUTO _{ADAPT} CIU 902
98492212	AUTO _{ADAPT} fault light mounted on top
98492209	AUTO _{ADAPT} plug PC Tool link box
98492208	AUTO _{ADAPT} service plug 230 V / 50 Hz CEE (max. 5 A)
98581648	AUTO _{ADAPT} outdoor cabinet
97644690	AUTO _{ADAPT} CIU 902 IR
97644730	AUTO _{ADAPT} CIU 272 GRM
96787106	AUTO _{ADAPT} CIU 250 GSM/GPRS
97644728	AUTO _{ADAPT} CIU 202 Modbus
98128063	AUTO _{ADAPT} CIU 152 Profibus
97631956	GSM/GPRS antenna roof mounting for use on top of metal cabinets. Vandal-proof, 4 metre cable, QUAD band for global use

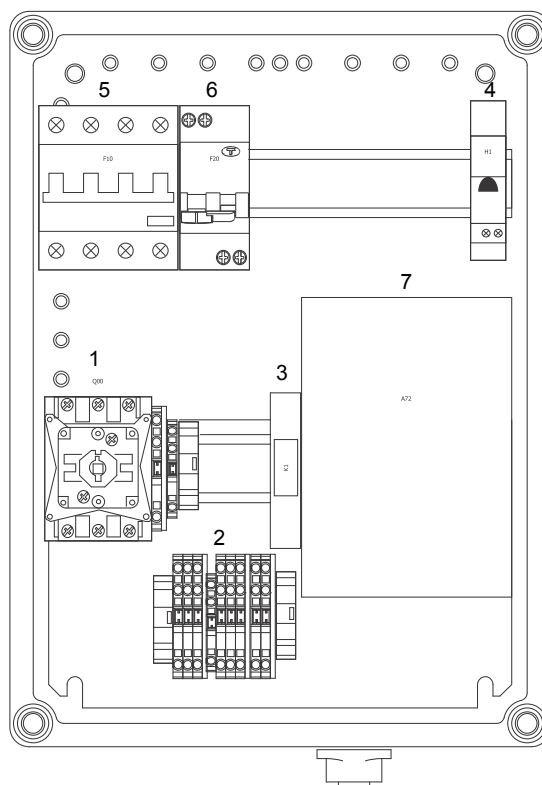
2.2 Product setup

One-pump installation without CIU box



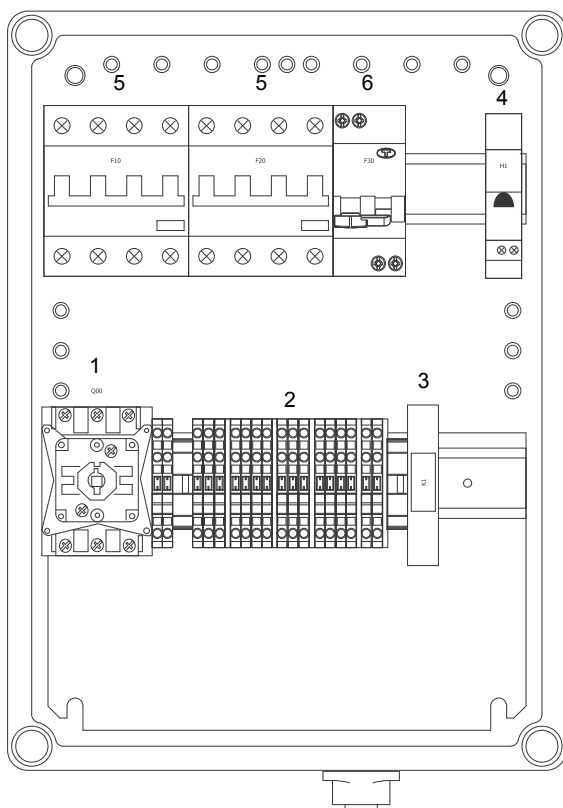
Position	Description	Pieces
1	Rotary power switch	1
2	Terminal box	1
3	Relay 230 V	1
4	Indicator light (LED)	1
5	Earth leakage circuit breaker (16 A)	1
6	Earth leakage circuit breaker (10 A)	1

One-pump installation with CIU box



Position	Description	Pieces
1	Rotary power switch	1
2	Terminal box	1
3	Relay 230 V	1
4	Indicator light (LED)	1
5	Earth leakage circuit breaker (16 A)	1
6	Earth leakage circuit breaker (10 A)	1
7	CIU 902	1

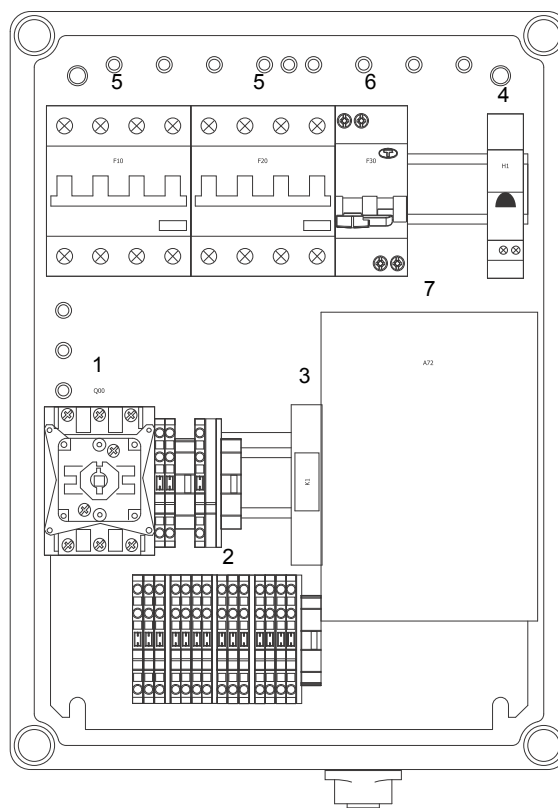
Two-pump installation without CIU box



TM061678 2614

Position	Description	Pieces
1	Rotary power switch	1
2	Terminal box	1
3	Relay 230 V	1
4	Indicator light (LED)	1
5	Earth leakage circuit breaker (16 A)	2
6	Earth leakage circuit breaker (10 A)	1

Two-pump installation with CIU box



TM061681 2614

Position	Description	Pieces
1	Rotary power switch	1
2	Terminal box	1
3	Relay 230 V	1
4	Indicator light (LED)	1
5	Earth leakage circuit breaker (16 A)	2
6	Earth leakage circuit breaker (10 A)	1
7	CIU 902	1

3. Identification

3.1 Type designation

Example	Control ADC	2x	1-10	DOL	3 x 400	IP	OPT
Type range							
Number of pumps							
Current range of pumps in ampere							
Starting method:							
DOL: Direct on line							
Supply voltage							
Panel type:							
IP: Indoor, plastic							
OS: Outdoor, single-door							
OPT: Options (if any, see nameplate for details)							
1: CIU 202 MODBUS RTU							
2: CIU 252 GSM (complete)							
3: CIU 272 GRM							
4: CIU 902							

4. Transportation and storage

Leave the fuse box in the packaging in which it is delivered until the time of installation.



Warning

Observe local regulations setting limits for manual lifting or handling.

5. Mechanical installation

5.1 Indoor installation

Mount the fuse box on a wall. Use suitable screws for the wall type.

For drilling holes, see [Dimensional drawings](#) page 7.

The indoor cabinet must not be exposed to direct sunlight while operating.

5.2 Outdoor installation

For more information about outdoor installation, see [Dimensional drawings](#) page 10.

6. Electrical installation



Warning

During electrical installation, make sure that the power supply cannot be accidentally switched on.

Carry out the electrical connection according to local regulations. Check that the supply voltage and frequency correspond to the values stated on the nameplate.



Warning

Before starting work on the product, switch off the power supply.

Lock the main switch with a padlock to ensure that the power supply cannot be accidentally switched on.



Warning

The electrical installation must be carried out by an authorised person in accordance with local regulations and the relevant wiring diagram.



Warning

The fuse box must be connected to an external mains switch with a minimum contact gap of 3 mm in all poles.

6.1 Installation options

Any additional equipment ordered with the fuse box is fitted from factory. For application-dependent installations, see the installation and operating instructions of the equipment in question, for example on how to insert a SIM-card in the CIU.

Motor protection has been set for the pump size stated on the nameplate, and no additional settings have to be made.

6.2 Startup

Switch on the equipment.

To configure monitoring and communication of the pump, see the installation and operating instructions for the equipment in question.

7. Technical data

7.1 Indoor cabinet

Altitude above sea level

Maximum 2000 m.

Ambient temperature

During operation: 0 to 50 °C.

NOTE: Must not be exposed to direct sunlight.

In stock: -20 to 60 °C.

During transportation: -20 to 60 °C.

Relative air humidity

5 to 95 %.

Enclosure class

See product description in [Dimensional drawings](#) on page 7.

7.2 Outdoor cabinet

Altitude above sea level

Maximum 2000 m.

Ambient temperature

During operation: -20 to 50 °C

In stock: -20 to 60 °C

During transportation: -20 to 60 °C

Relative air humidity

5 to 95 %.

Enclosure class

See product description in [Dimensional drawings](#) on page 7.

7.3 Electrical data

Supply voltage

230-400 VAC

50/60 Hz.

Power consumption

0.9 - 4.0 kW.

7.4 Overview of inputs and outputs

See electrical diagram for the cabinet which is delivered from Grundfos.

8. Dimensional drawings

8.1 MNX 125

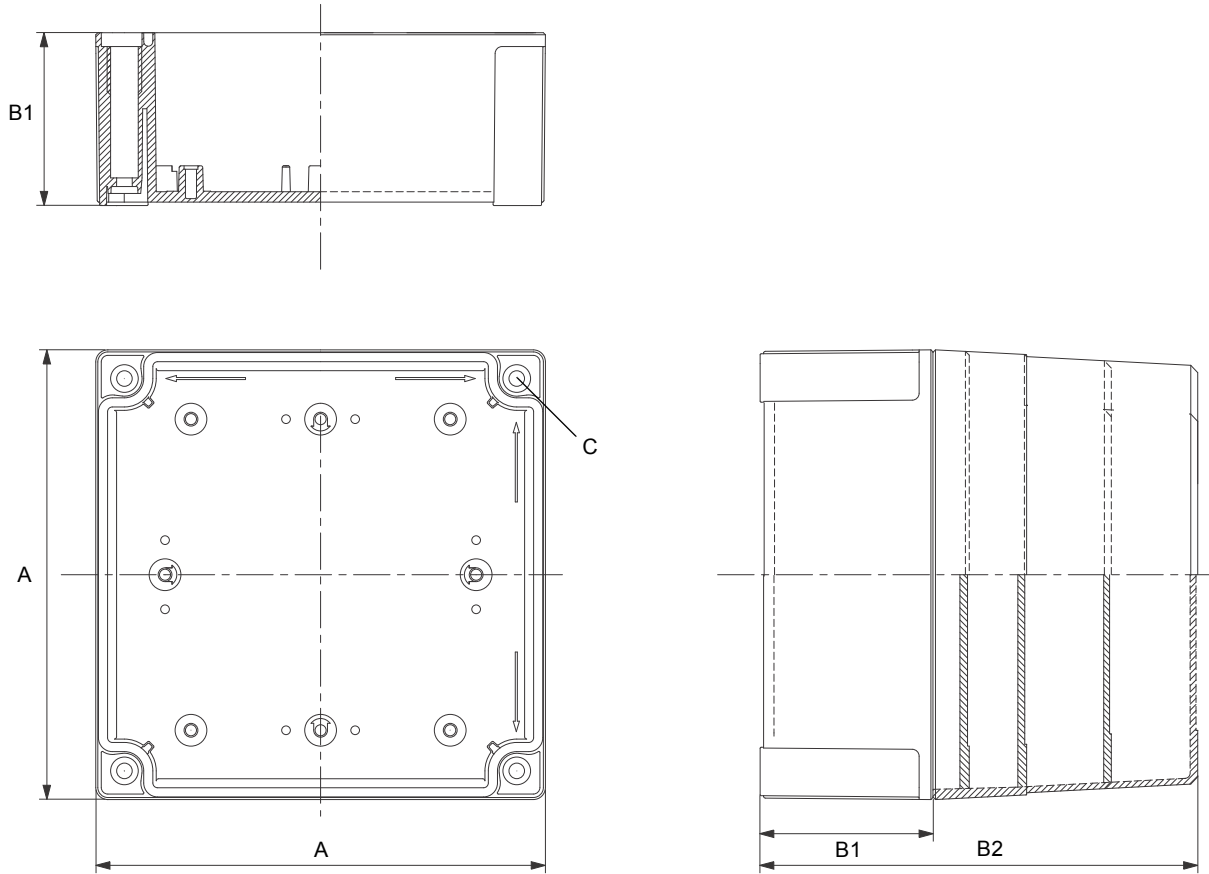


Fig. 1 MNX 125 enclosure

MNX 125	A	B1	B2	C	Mounting holes	IP class
	[mm]	[mm]	[mm]	[mm]	[mm]	-
	130	60	125	Ø4.5	113.5 x 113.5	IP66 / IP67

TM06 0952 1314

8.2 MNX 200

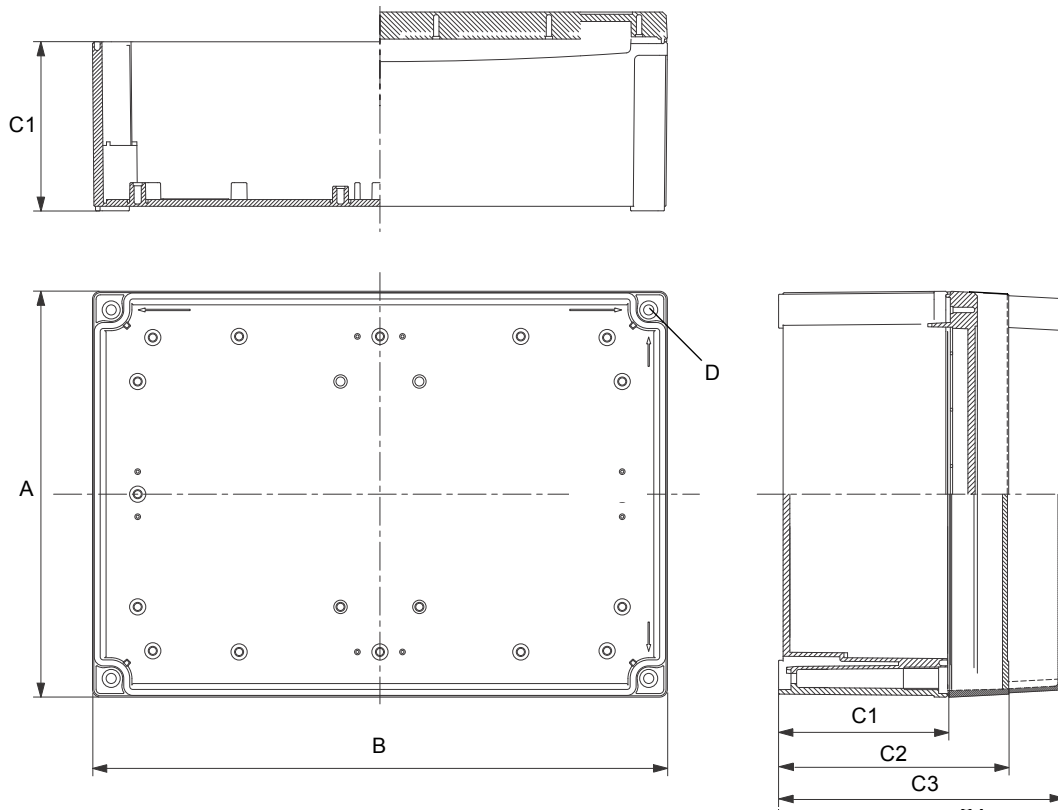


Fig. 2 MNX 200

MNX 200	A	B	C1	C2	C3	D	Space between mounting holes	IP class
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	-
	180	255	75	88.2	102.1	Ø4.5	238.5 x 163.5	IP66 / IP67

TM06 0953 1314

8.3 CAB 2030

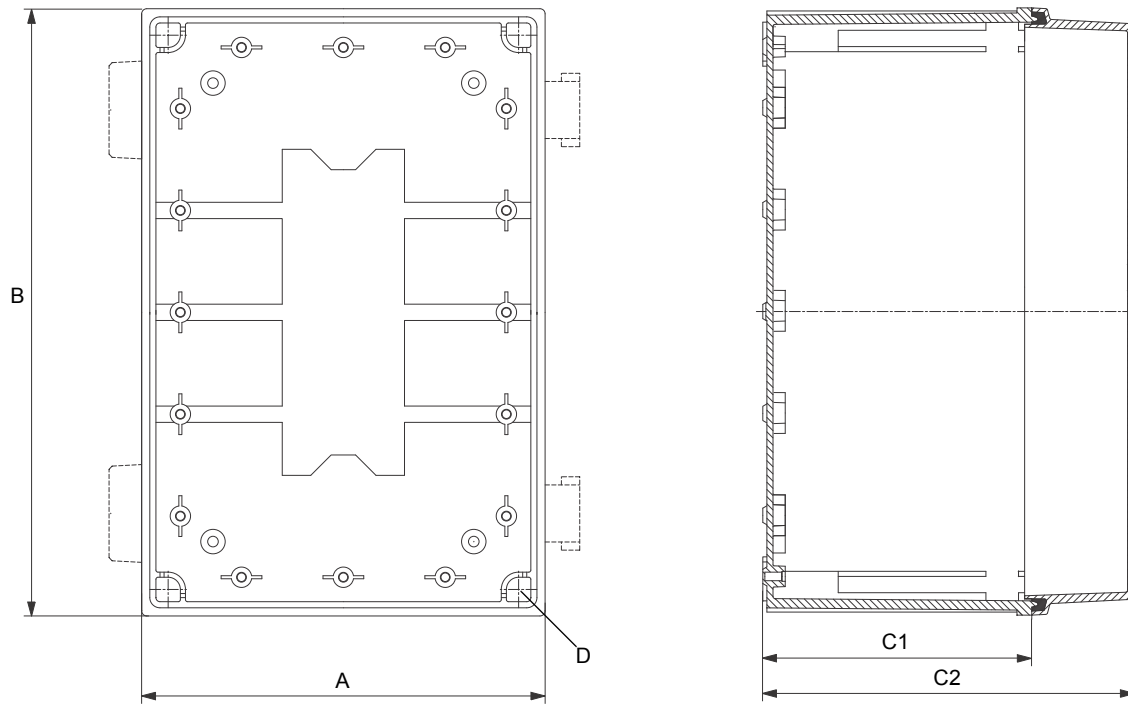


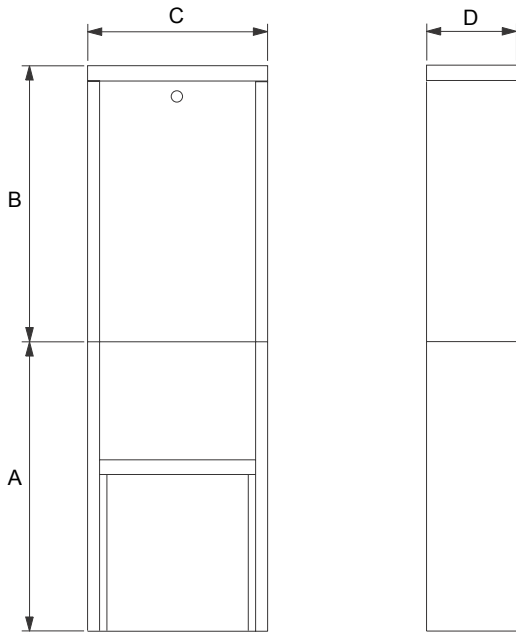
Fig. 3 CAB 2030 enclosure

CAB 2030	A*	B	C1	C2	D	Mounting holes	IP class
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	-
	200	300	132	182	∅4.5	172 x 272	IP66 / IP67

* Maximum width (A) including sockets at 231 mm.

TM06 0954 1314

8.4 Outdoor installation



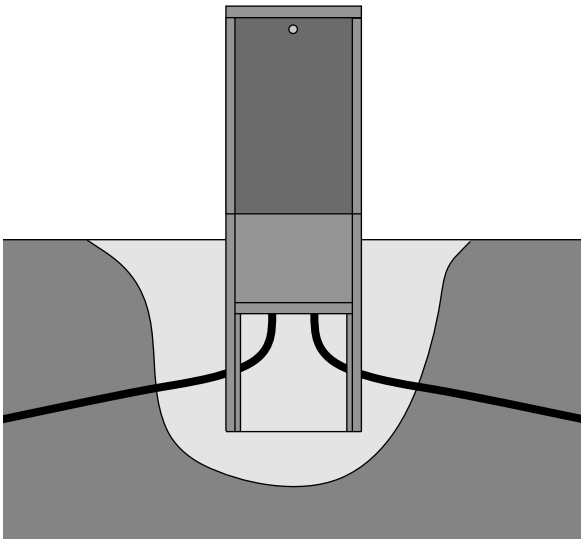
TM06 1000 1314

Fig. 4 Outdoor enclosure

TS-350S	A*	B	C	D	IP class
	[mm]	[mm]	[mm]	[mm]	-
	719	777	360	238	IP2X

* A is the socket and installation depth, B is the top cabinet.

In-ground installation



TM06 1279 2114

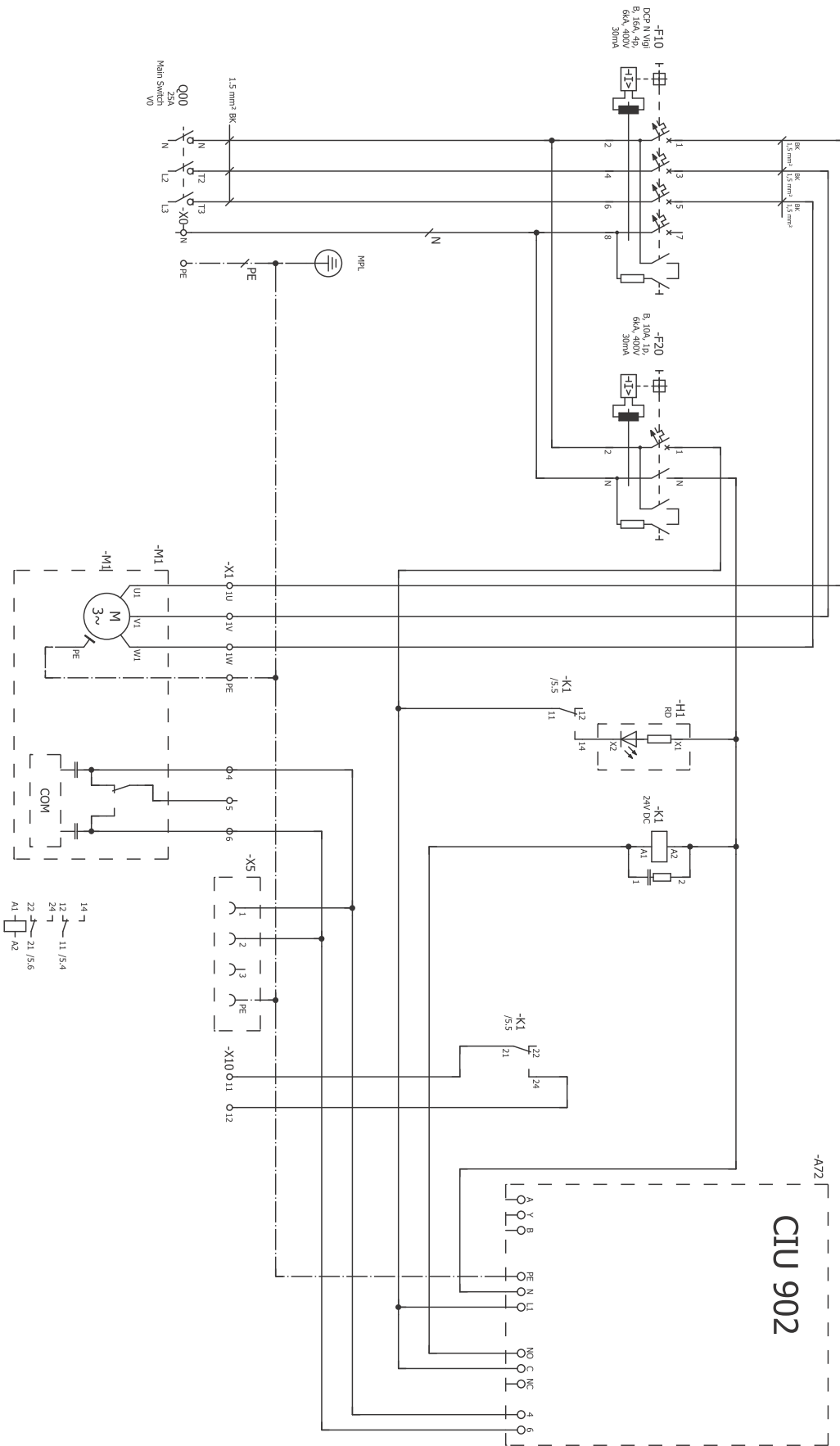
The outdoor cabinet is to be installed in sand and must cover the socket. Make sure the cabinet door can open without any problems.

9. Maintenance and service

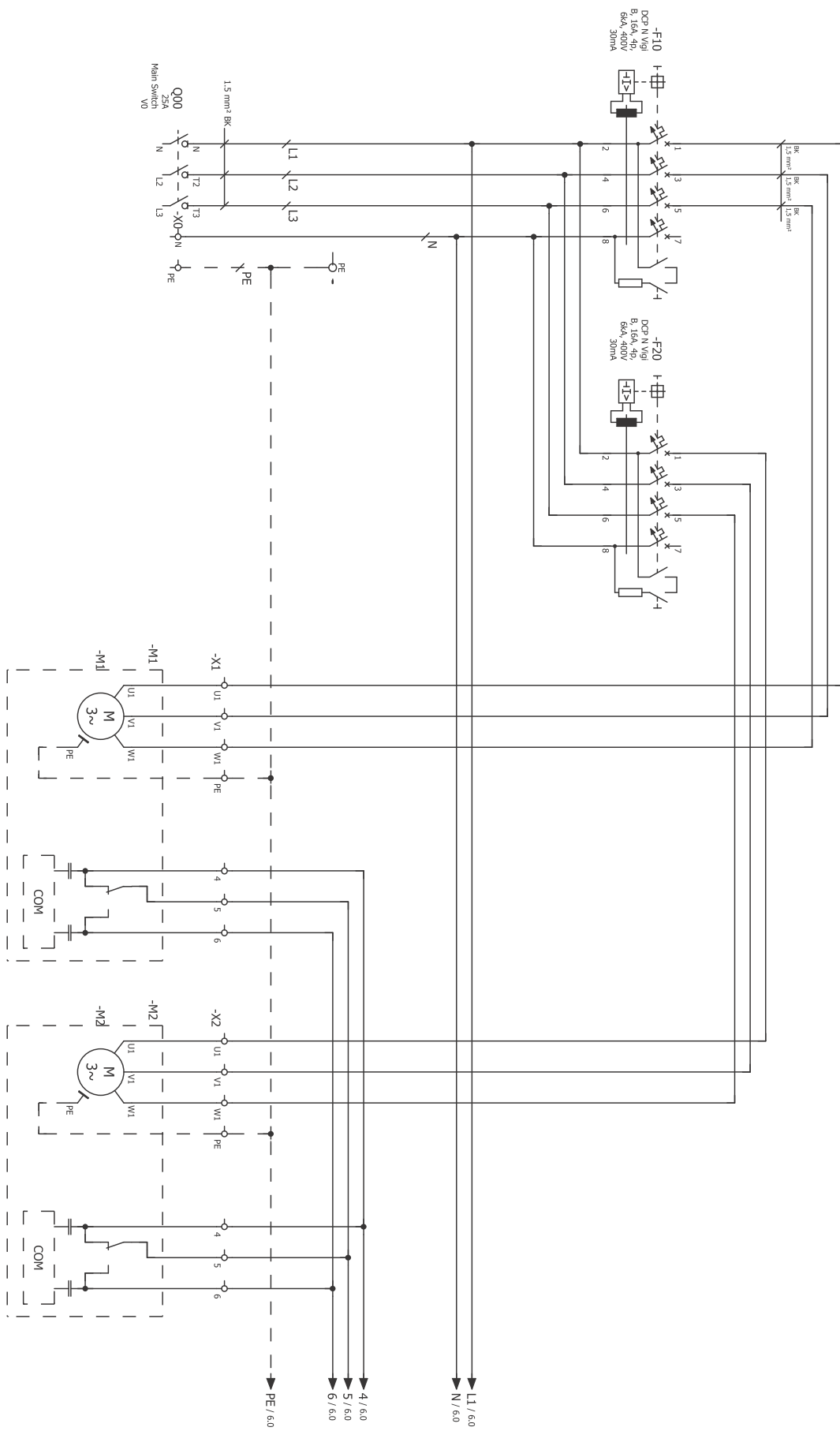
The product is maintenance-free during normal use and operation. Only clean the product with a wet cloth. Replace units if faulty. Use only original spare parts.

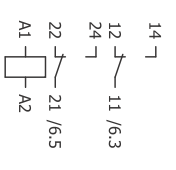
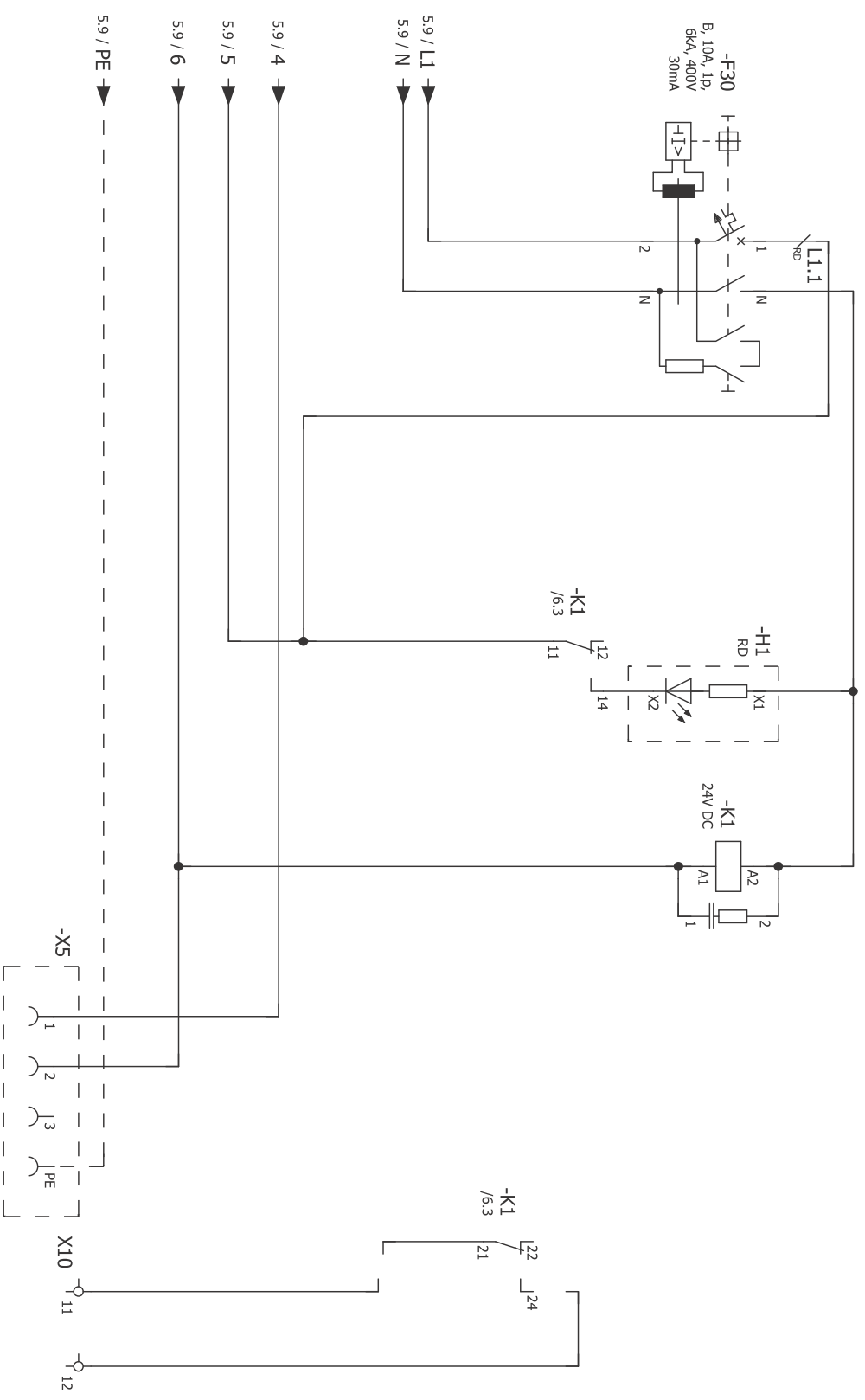
Subject to alterations.

Wiring diagram for a fuse box for one-pump installation with CIU box.

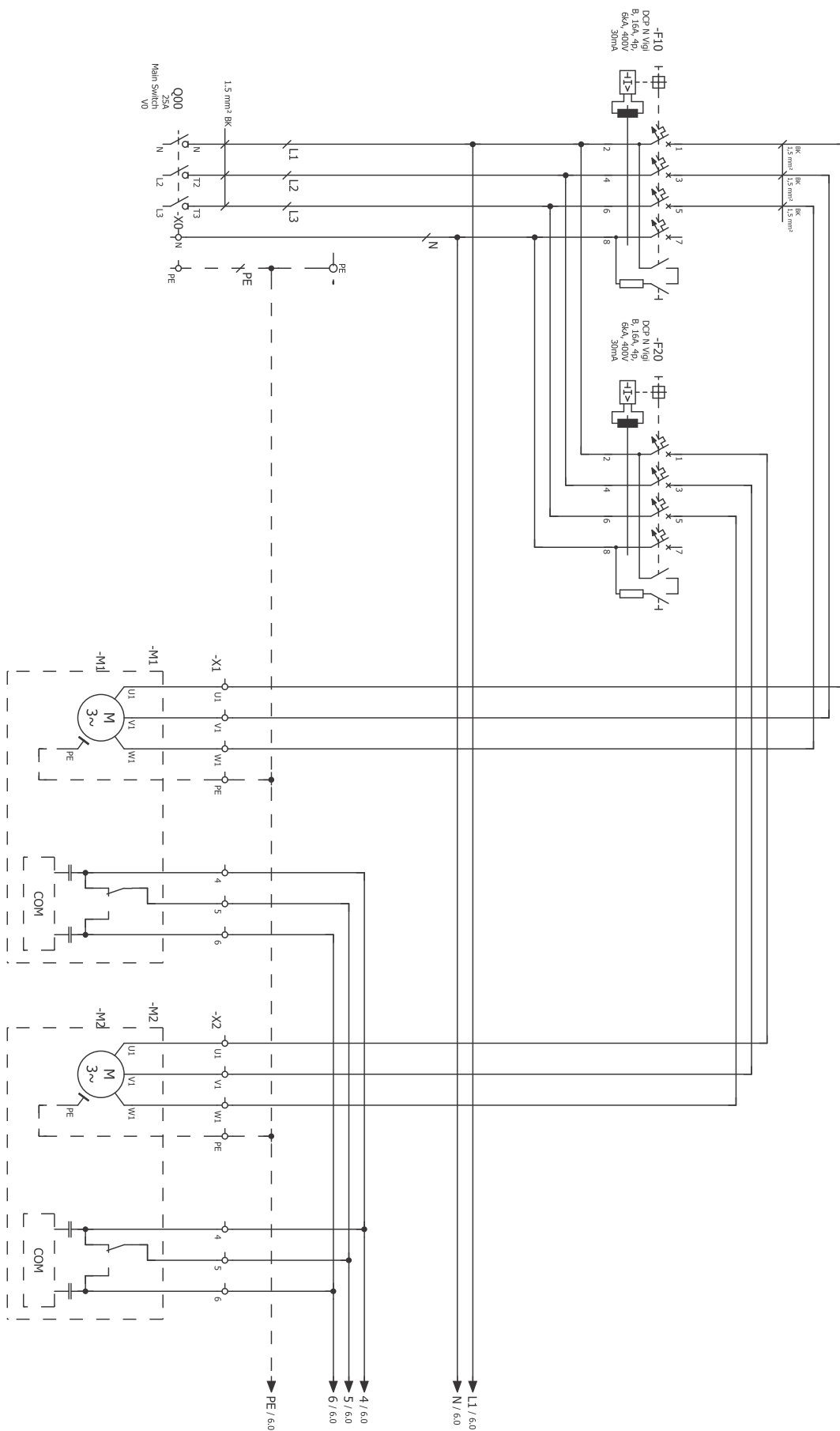


Wiring diagram for a fuse box for two-pump installation without CIU box.

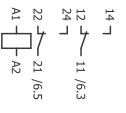
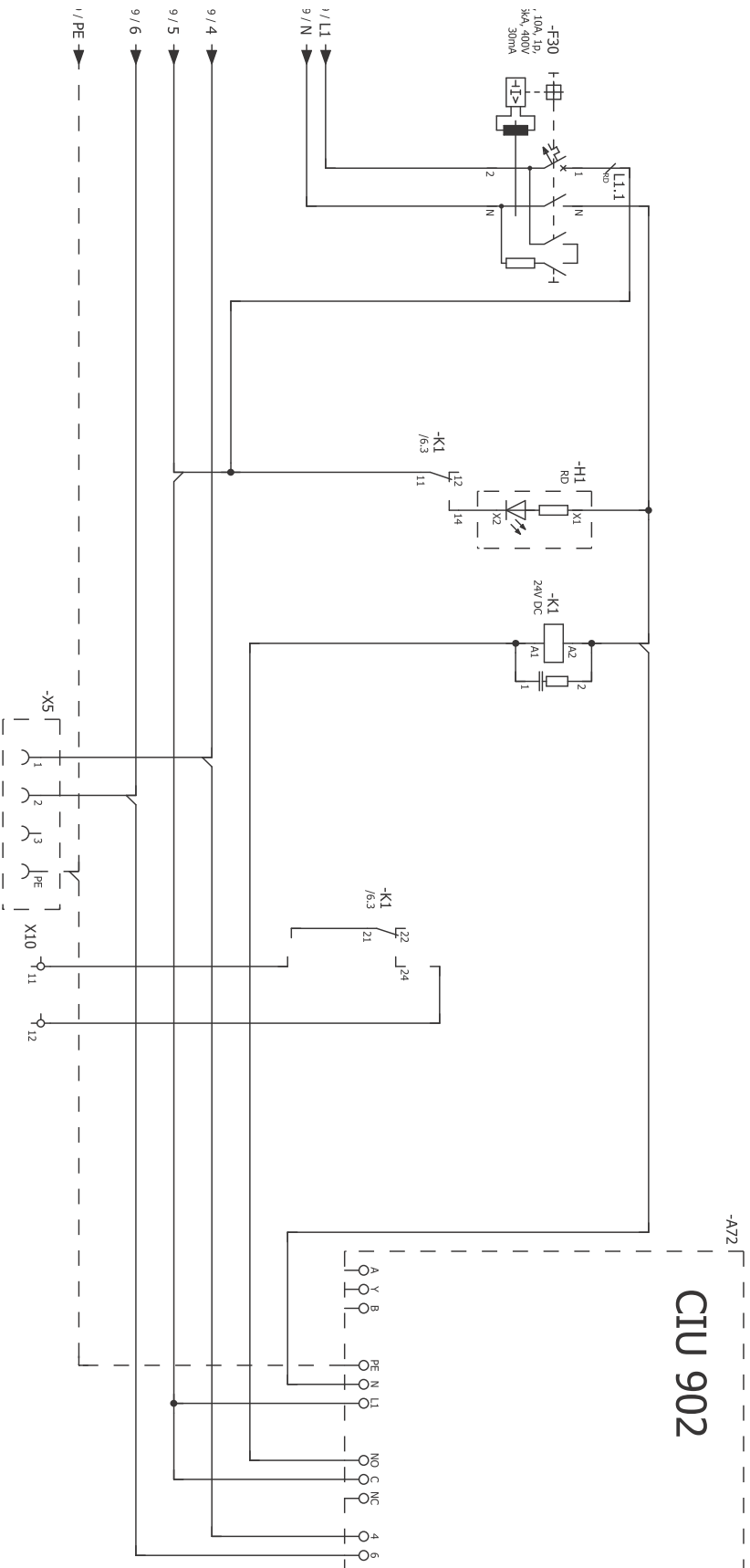




Wiring diagram for a fuse box for two-pump installation with CIU box.



TM06 1679 2614



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