PILECO INC

P-460-V-I Owners Manual-Power Pack

Model:	P-460-V-I
Serial number:	P-460-V-I
Year of manufacture:	2023
Revision:	A

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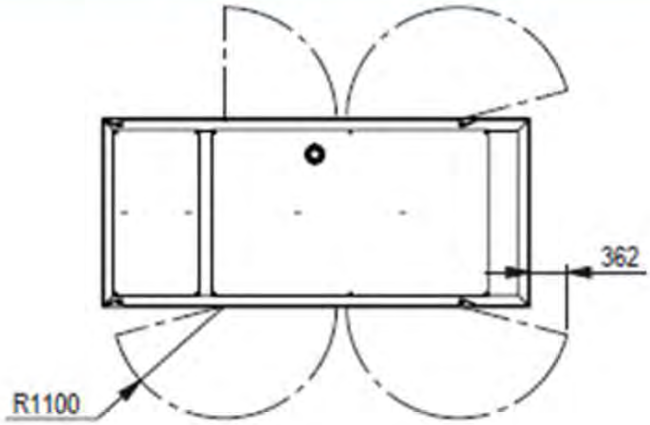
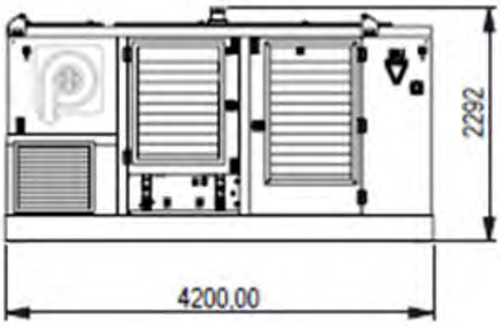
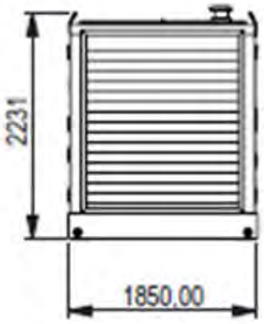
POWER PACK P-460-V-I

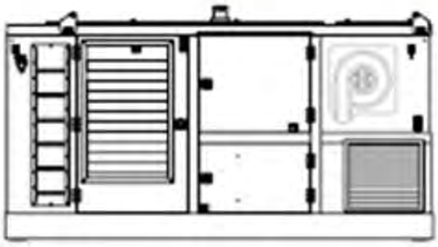
Technical Specifications

Stage V/US T4F









Technical Specifications

Diesel Engine:	Volvo TAD 1384 Dual label
RPM:	1800
Drive Pump:	Sauer Danfoss
Max. Working pressure:	350 bar/ 5076psi
Oil Flow	460 l/min./122 gpm
Fuel Capacity	1500 litre / 396.26 gal
Hydraulic Capacity	1200 litre / 317 gal
Length:	4200 mm/ 165.4 inches
Width	1850 mm/ 72.8 inches
Height:	2292 mm/ 90.2 inches
Weight:	7400 kg/ 16,314 lbs

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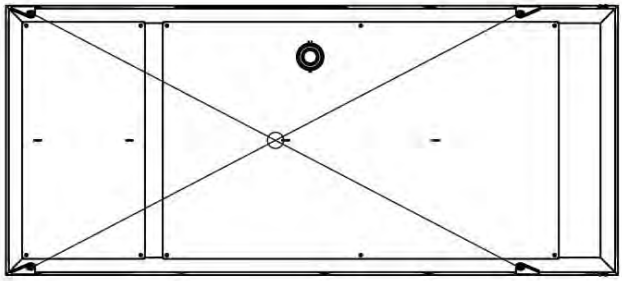

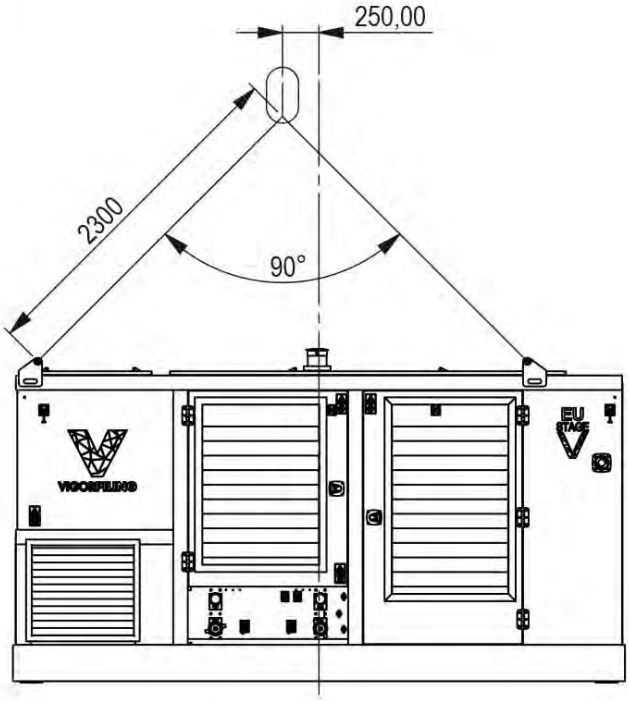

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P-460-V-I OWNERS MANUAL

PILECO INC. has the right to change parts of the equipment at any time without prior or direct notice to the client. The contents of this publication are subject to changes without prior notice.
This publication is to be used for the standard version of the equipment only. PILECO INC.cannot be held responsible for any damage resulting from the application of this publication to the version actually delivered to you.

For extra information as to adjustments, maintenance and repair, please contact the technical department of your supplier.

This publication has been written with great care. However, PILECO INC. cannot be held responsible, either for any errors occurring in this publication or for their consequences.

IMPORTANT:
Important safety instructions are marked as shown below:

CAUTION

The meaning of this safety warning is as follows:
Attention! Become alert! Your safety is involved.

If this situation is not avoided, it MAY result in minor or moderate injury.

WARNING

The meaning of this safety warning is as follows:
Attention! Become alert! Your safety is involved.

If this situation is not avoided, it COULD result in injury or even death.

DANGER

The meaning of this safety warning is as follows:
Attention! Become alert! Your safety is involved.

If this situation is not avoided, it WILL result in injury or even death.

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PILECO INC.

P-460-V-I OWNERS MANUAL

1. Preface

This owner's manual has been written for the users of **PILECO INC.** Hydraulic Power Stations. The owner's manual explains which parts are used in the Hydraulic Power Station. If needed parts can be looked up in the parts manual for reordering.
One copy of the owner's manual will be delivered with the Hydraulic Power Station. The document should be stored in a safe place. If needed an extra copy can be ordered at your local dealer.
For ordering of parts model number, equipment serial number and part number are needed.
Please have these numbers when ordering the parts.
If problems arise which are beyond the scope of this manual, please contact your dealer. They are prepared to assist you in order to make the best use of your equipment.
Please have the following at hand:

Model:	P-460-V-I
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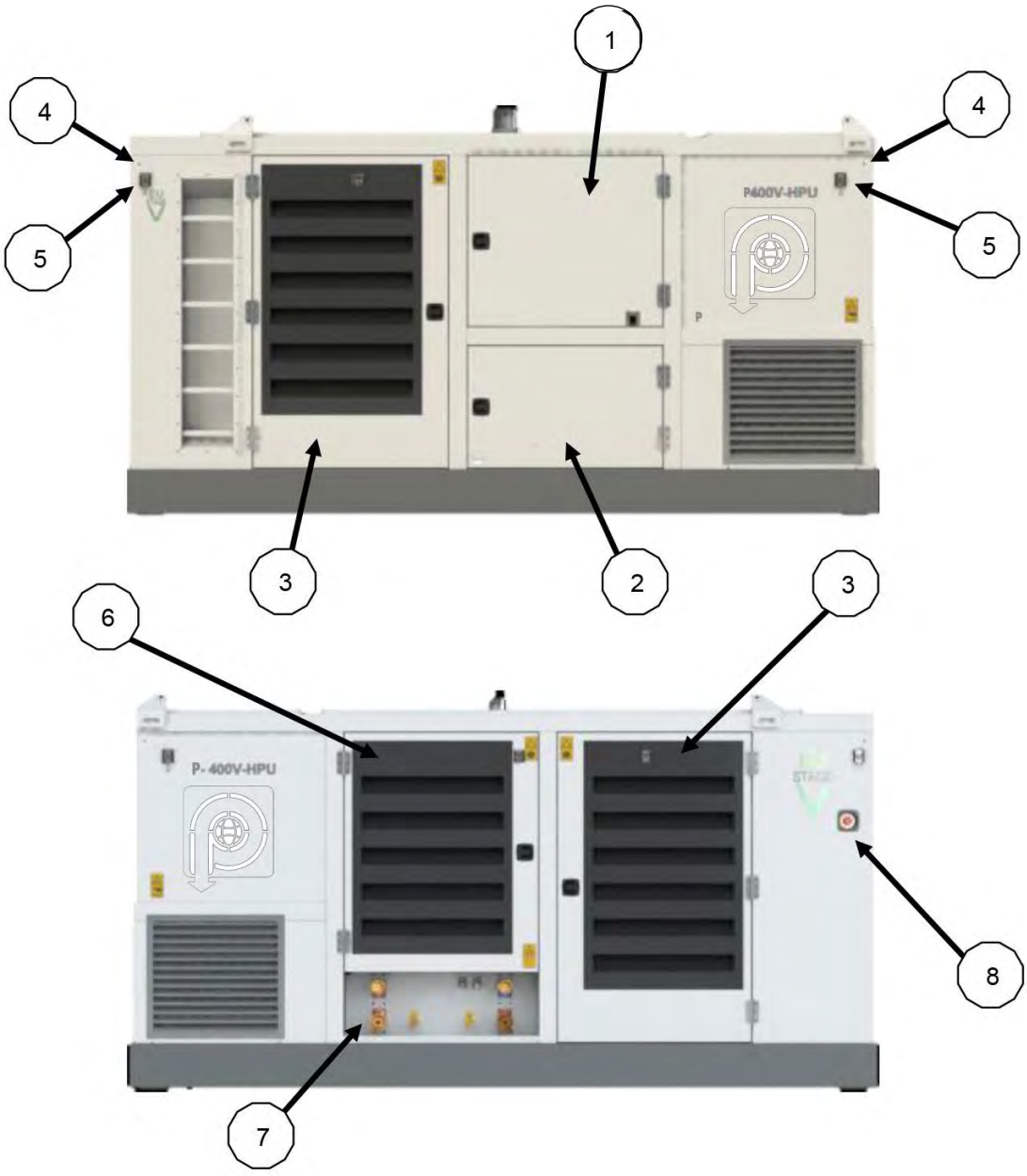
Year of manufacture:	2023
Revision:	-

2. Exterior



1	Control panel door	5	Door holder
2	Service door fuel /ad-blue	6	Hydraulics access door
3	Engine access door	7	Hydraulics quick couplers
4	Warning lights	8	Emergency stop button

3. Safety Instructions

1. Safety precautions

Regular maintenance and skillful operation will not only lengthen the mechanical life but is essential for the safety of the user and possible bystanders.

WARNING

It is the responsibility of the user or operator to ensure that the local health and safety regulations are observed before and during the use of the equipment.

Operators:

- Only trained personnel shall be permitted to operate the machine.
- Temporary employees and trainees shall only be permitted to work with the equipment under the supervision and instruction of trained personnel.

Owner's manual:

- Everyone who works at or with the equipment should be familiar with the contents of this manual and the manuals of the machines which are driven by the Hydraulic Power Station and should follow the instructions accurately.
- One copy of the present manual should at any time be at the location where the unit is in operation.
- The management is under obligation to inform the personnel of the contents of this manual and is obliged to observe all of the regulations and directions.
- Additional manuals are available on request.

Always:

- Lead exhaust fumes outside when operating in a closed area. Continued breathing-in of exhaust fumes may be fatal.
- Pay attention to irregular or unusual noises and analyze where they come from.
- Remove all tools and electrical cords before starting the Hydraulic Power Station.
- Warn colleagues when you feel uncomfortable with the way the Hydraulic Power Station or the driven machine is functioning.

Never:

- Make adjustments or repairs while the system is under pressure.
- Make adjustments or repairs while the engine is running.
- Continue operation when service inspection is due, or when a repair is necessary.
- Continue operation when it is known that any of the safety provisions is out of order or not working properly.
- Leave the remote control unattended.
- Attempt to (dis)connect the quick-disconnect couplers when the engine is running.

Tools:

- Never use defective (maintenance) tools.
- Only use a tool for the purpose it was designed for.

Clothing and footwear:

- When working with the equipment, do NOT wear rings, watches, jewellery or any loose clothing/hair which could be caught in moving or rotating parts.
- Always wear protective goggles, a safety helmet, protective footwear and hearing protection especially suited for the work.
- Keep hands away from moving or rotating parts.
- Take appropriate measures for the ear protection if the sound level of 85 dB(A) is exceeded; always use ear protection when working close to a machine in operation.

Water and Moisture:

- Never direct a jet of water at electrical parts.
- Make sure all protective devices of the electric installation have been installed to guarantee adequate protection from moisture and water. Failure to do so can cause malfunction of safety circuits and cause harm to personnel and equipment components.

Technical specifications:

- The permissible tolerances as stated in the present manual shall NOT be exceeded.

Safeguards:

- All safeguards must be correctly installed and may only be removed for maintenance and service purposes by qualified PILECO INC. service engineers.
- The equipment should never be switched ON when the protective covering is incomplete or when the safeguards are not in place.
- All safeguards must be checked at regular intervals and repaired immediately in case of malfunction.

Safety directions and warnings:

- Any safety direction, warning or instruction fitted on the equipment shall NOT be removed, rendered illegible or covered. They shall be present and legible throughout the entire operating life of the equipment.
- Illegible, damaged or covered safety directions, warnings or instructions shall immediately be replaced or repaired.

Service and maintenance:

- The service and maintenance activities shall only be carried out by qualified PILECO INC. personnel or one of PILECO INC. appointed and certified dealers in full compliance with all safety instructions and service intervals.
- Use original PILECO INC. Parts and liquids.

Electrical system:

- Work on the electrical system or equipment may only be carried out by skilled electricians or by specially instructed personnel under the supervision of such electricians and in accordance with the applicable electrical engineering rules.

Hydraulic system:

- The hydraulic system is a high pressure, high oil flow system. Work on the hydraulic equipment shall only be carried out by persons having special knowledge and experience in high pressure hydraulic systems.
- When bleeding hoses or looking for leaks, take protective measures. Escaping oil under pressure, even a pin-hole size leak, can penetrate body tissue, causing serious injury.

Use according to purpose:

- To guarantee correct operation, the equipment should only be used in accordance with the purpose as described in this owner's manual.

Fire or explosion prevention:

- Hydraulic oil and diesel fuel are flammable. Therefore:
- Do not weld or flame-cut on pipes or tubes that contain flammable fluids. Clean them thoroughly with non-flammable solvent before welding or flame cutting on them.
- Clean and tighten all electrical connections. Check regularly for loose or frayed electrical wires. Wiring must be kept in good condition, properly routed and firmly attached. Routinely inspect wiring for wear or deterioration. Loose, unattached, or unnecessary wiring must be eliminated.

WARNING

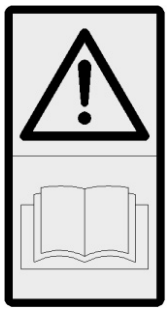
Never smoke when filling the fuel tank or use flames in the vicinity.
Never store flammable liquids near the engine.

Work area:

- Place the Hydraulic Power Station in a safe place.
- Position the Hydraulic Power Station in such a matter that eye contact with the Hydraulic Power Station is assured.
- Keep the work area clean. Keep the equipment accessible and make sure that the area surrounding of the equipment is kept clean.
- Always be extremely careful when using a carbon tetrachloride fire extinguisher in a closed area, as it may produce toxic vapors and/or deplete the area from oxygen.

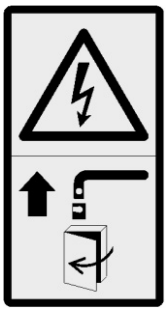
2. Safety instructions

HAZARD DESCRIPTION



Safety sign

Read the operation manual

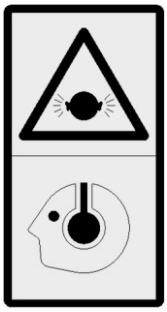


Risk for short circuit

Disconnect power source before opening dashboard

Make sure the machine is in good condition

Read the maintenance instructions in the owner's manual for proper service procedures



High noise level

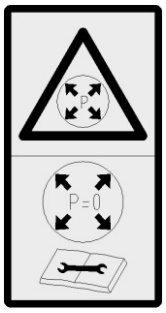
Use ear protection

Surface can be hot

Do not touch, allow the surface to cool down

Fire risk

Keep machine clear of oil rests, be careful when handling fuel and hydraulic oil



Component is pressurized

Depressurize before maintenance

Risk of burns resulting from dangerous liquids or chemicals

Wear protective gloves

HAZARD DESCRIPTION

Risk for imbalance
Slippery surface

Use adequate climbing device

4. Description

The P460 Hydraulic Power Station is designed to drive Fixed moment vibratory hammers and augers.

1. Description of the Hydraulic Power Station

The Hydraulic Power Stations are powered by a diesel engine. The engine is mounted on a tubular sub-base which serves as a fuel tank. The power unit and the driven machine are operated from the control panel or remote-control pendant.

Hydraulic oil is stored in the reservoir. Oil cooling is accomplished by an air-to-oil temperature exchanger. All the above components are contained in a sheet metal enclosure with lockable doors and air vents.

2. Hydraulic system

* (for the circuit, refer to the hydraulic diagram *HD-V-460V-H-1000995*)

The hydraulic circuit of the PILECO INC.power station is a so-called open-loop system. This means that the oil is taken from a reservoir.
The pressure in the return line is low. Each power pack is equipped with several hydraulic pumps.
The main pump(s) are variable displacement pumps and drive the connected equipment.

The Main pump:

When the diesel engine is running and the start button is activated, hydraulic fluid is taken from the reservoir by the drive pump and is pumped to the drive manifold.
The oil is directed through the hoses to the driven machine. It flows back to the power pack through the return line.
The circuit is protected by means of a pressure relief valve and is provided with a return line filter.

The hydraulic hoses can be disconnected at the power pack directly behind the manifold.

The Reservoir:

The hydraulic oil is stored in the hydraulic reservoir. The oil flows into the reservoir via the return filter. The reservoir can be closed with a butterfly valve.

3. Electrical system

*(for the circuitry, refer to the "Electrical diagram")

The power pack contains a 24V DC electrical installation. All main functions are electrically controlled either from the remote control or from the main control panel.

The power pack is equipped with a control module, which will warn the operator in the following cases:

- Hydraulic oil temperature too high, 70°C. The oil flow to the equipment will stop and the engine will run at fixed speed until the oil temperature is 60°C.
- Hydraulic oil level too low.
- All engine faults are shown on the display.
- Emergency stop, this will cut off all power to the diesel engine.
- Limit switch on the main intake valve. If the switch is not activated the engine will not start.

Error indication

When the error is solved the display warning can be closed by pressing the "X" button on the display warning.

If there appears any fault on the display, lights on the outside of the power pack housing will flash indicating a system warning.

5. Assembly and installation

1. Moving the equipment

The power packs are equipped with four lifting eyes. All four lifts must be used for lifting the power station.

WARNING

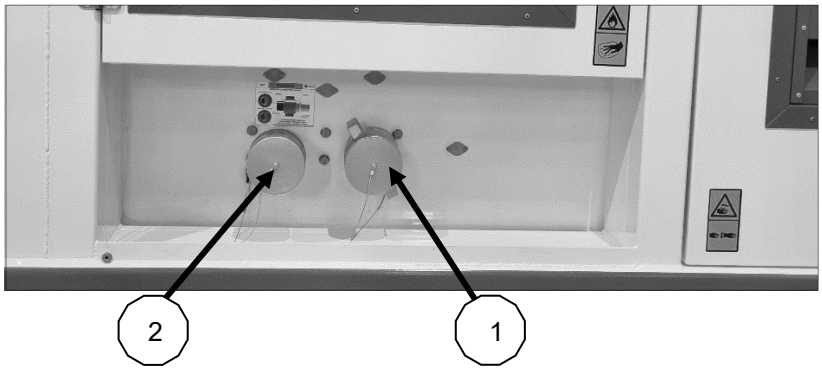
Always lift the power station by its own 4 lifting eyes. Use certified slings and place the power station on a horizontal and stable surface.

2. Connecting the hydraulic hoses

CAUTION

Never connect or disconnect the hoses while the diesel engine is running.

- Make sure the Quick couplers are not pressurized.
- Clean the Quick couplers before connecting.
- Check the (Quick)couplers and hoses for any damage prior to operation.
- Make sure the couplers are FULLY tightened.



1	Pressure Quick coupler
2	Return Quick coupler

3. Connecting the remote control

Connect the cable plug to the control panel of the Hydraulic Power Station (see picture below, item A).

When the pendant / wireless control cable is:

Connected: The hammer can only be operated by means of the remote control.

Disconnected: The hammer can only be operated by means of the Local operating device at the control panel.

CAUTION

The EMERGENCY STOP on the remote control is only operational when the remote control is connected.

6. Operation

1. Emergency stop

CAUTION

Always restart the hydraulic power station after the emergency stop is re-set.
Not re-starting can cause damage to the diesel engine.

The Hydraulic Power Station is equipped with several emergency stop buttons, activating the emergency stop will shut down the diesel engine and cut the main oil-flow.

Do not use the emergency stop buttons for any other use than an emergency stop.

Before operation check that all emergency stop buttons are in operating position, turn the emergency stop button counter clockwise to release.

Emergency stop indication will show on the control panel main display.

If any of the emergency buttons are energized, make sure to restart the hydraulic power station and shut it down in the correct way.

2. Filling the hoses

When the Driven Equipment is delivered the system is usually filled with oil and may be used immediately.
However, if any hoses need to be replaced or connected on site it can be necessary to bleed the hoses prior to operation.

- Start and warm up the engine (read chapter Starting/Stopping).
- Run the HPU at idle for 5 minutes
- Stop the diesel engine.
- Check the oil level in the hydraulic oil tank. Refill if necessary.

3. Control Panel

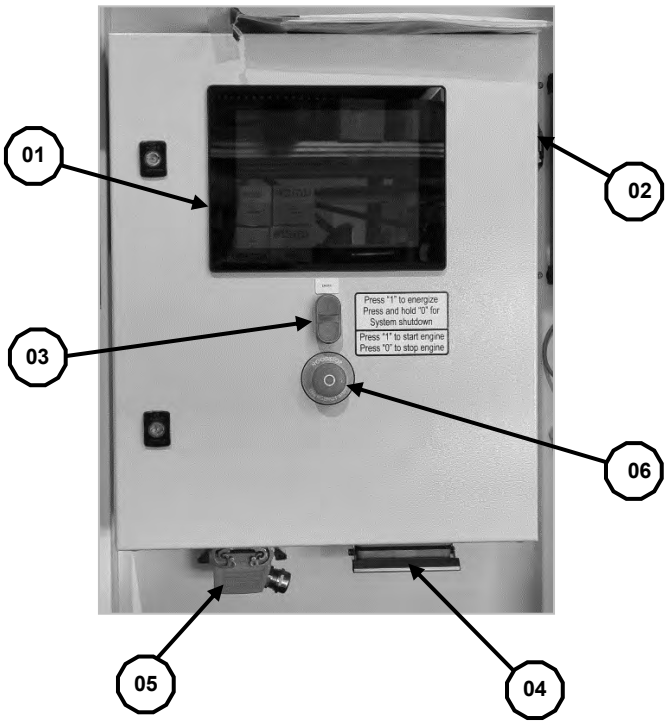
The control panel contains a control module by which the operator can control the Hydraulic Power Station.

CAUTION

Make sure the operator has a clear view on the connected machine(s) and the working area, when operating via the control panel.

IMPORTANT:

The operation / maintenance / safety instructions inside the control panel door serve as quick reference. They are not complete and therefore not intended as a substitute for a thorough understanding of the present manual.

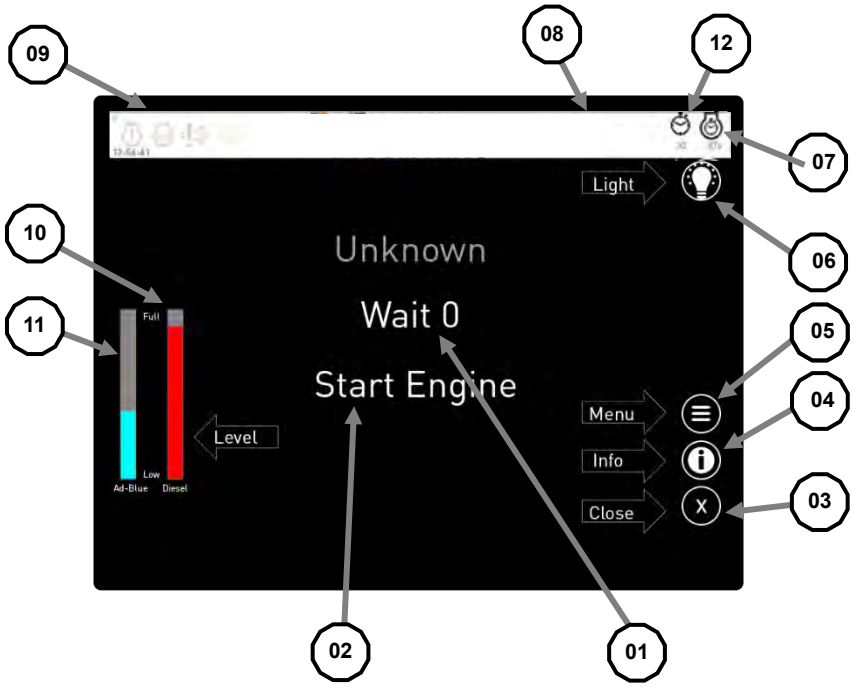


Control panel layout			
01	Main Display	04	Remote control connector 24 pin
02	Bluetooth Modem	05	Remote control connector 10 pin
03	Start/Stop button	06	Emergency stop button

HMI-Display

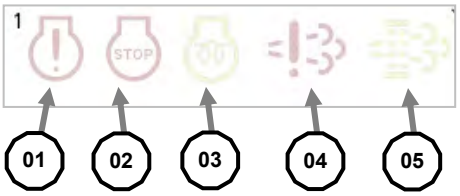
This Hydraulic Power Station is driven by a Parker IQAN system, all settings and value read-out can be accessed from the touch screen HMI Display.

Start-up display



Control panel buttons			
01	Countdown timer	07	Diesel engine shutdown timer
02	Text shows wait or start	08	Current display page
03	Close Page button	09	Engine status lights
04	Info Button / shows info page	10	Diesel Fuel Level
05	Menu button / show settings menu	11	AdBlue Level
06	Button Panel Light	12	Power station shutdown timer

Engine status lights

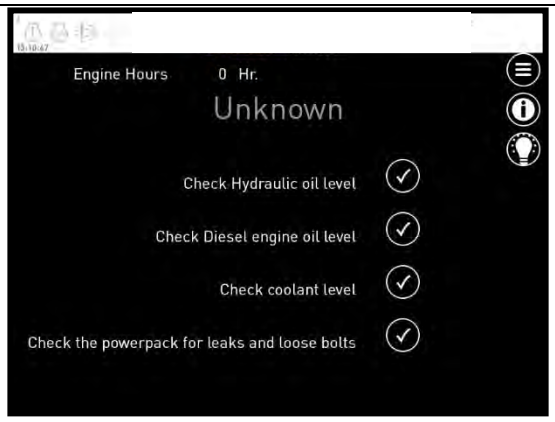


Engine status lights			
01	Engine failure	03	Preheat (wait to start) Not installed
02	Stop by engine active	04	Emission system error
05	Exhaust regeneration active		

4. Display pages

Display buttons

	Menu button		Diesel RPM Lower
	Info button		Diesel RPM Raise
	Panel light button		Open clamp button
	Close page button		Close clamp button
	Back button		Stop hydraulic operation
	Diesel engine info button		Start hydraulic operation
	Hydraulic info button		Auger CCW rotation
			Auger CW rotation



Service checklist

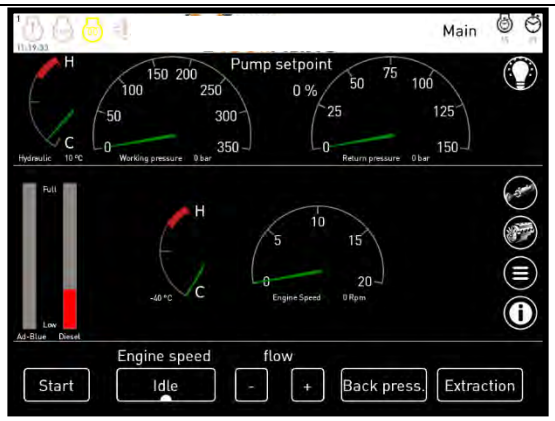
This is the start-up page after power-on

The checkmarks can be tapt with you finger to confirm the check has been done

Countdown

This page shows after the checklist has been done wait for the counter to reach 0 and the display to show start engine

Main pages

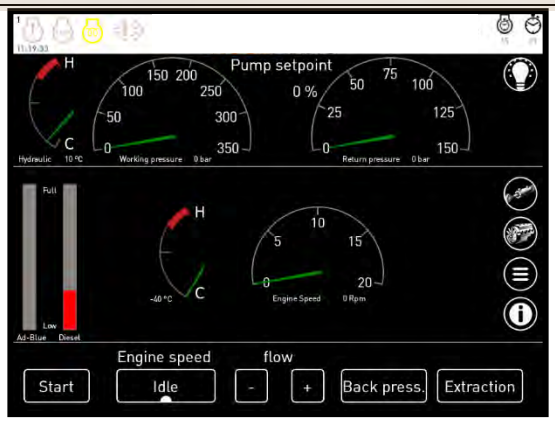


Main display (local operation)

If the Hydraulic power station is ready for operation it will show the main display.

In this display the engine speed, pressures and temperatures are shown.

If any of the remote controls are connected, the buttons on the bottom off the screen will be hidden.



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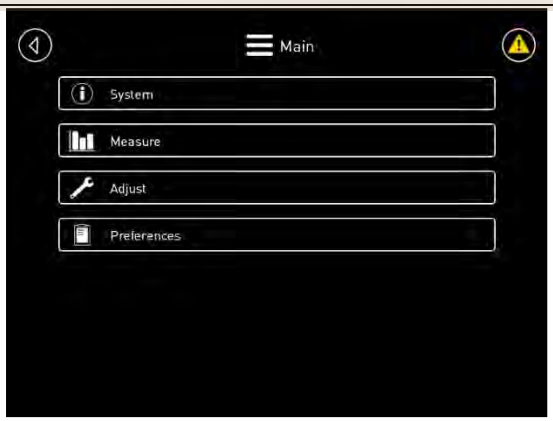
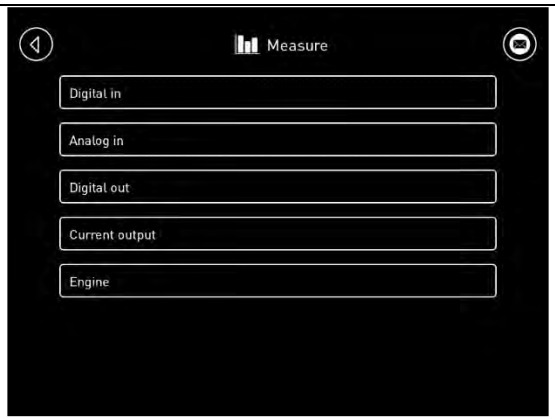


Main menu

This pages is an selection menu

The system menu is for checking system information, module status and log files

Close page, Page back one level

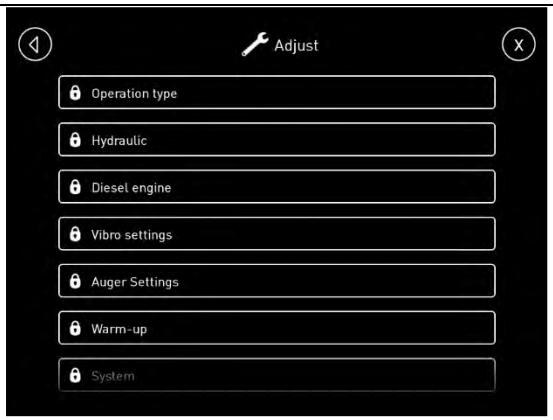


Measure menu

This page is used for fault finding.

Digital and analogue values can be monitored in raw and scaled value

Close page, Page back one level



Adjust menu

The adjustment operation type is free to use in this menu you can make the selection between vibro and auger use (only for local operation)

And the pre-set flow selection pin code "2022"

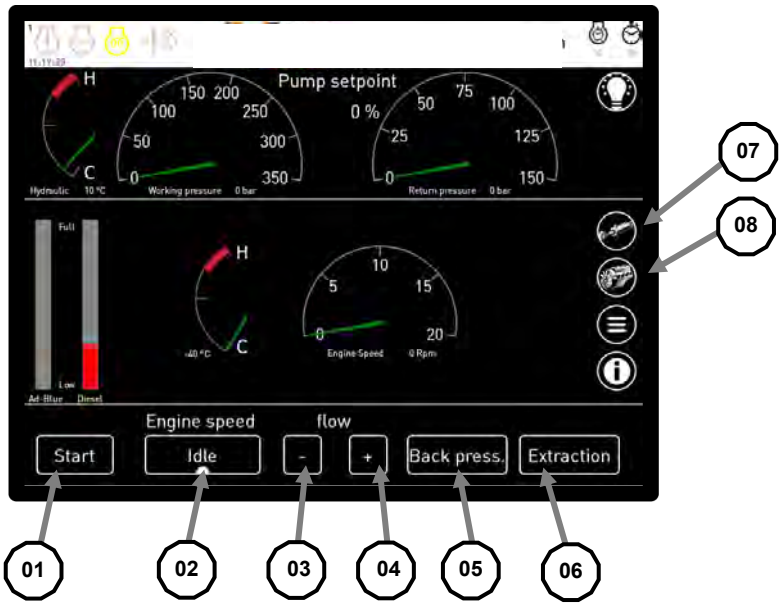
All other menu's are locked for PILECO INC. use only.

Close page, Page back one level

After starting the diesel engine, the HMI-display switches over to the main display or warm-up if the system temperature is too low.

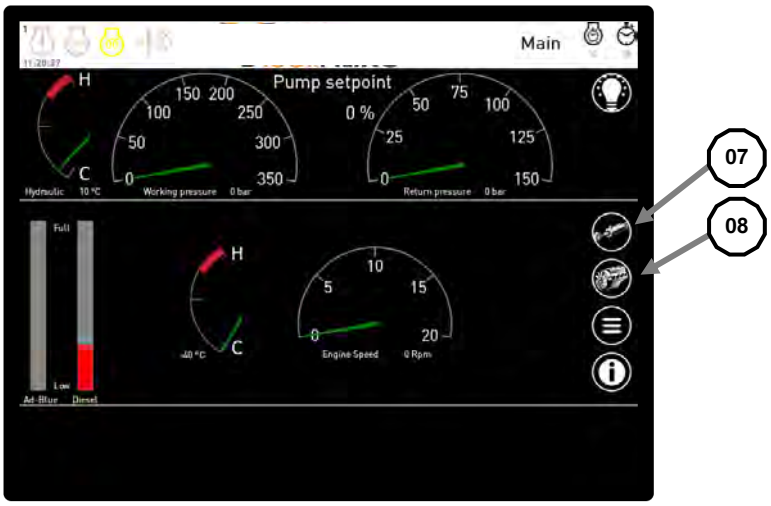
Main display

(Local operation - without remote control connected)



Control panel buttons			
01	Start hydraulic operation	05	Back pressure
02	Engine speed selection	06	Extraction
03	Lower flow	07	Hydraulic info button
04	Raise flow	08	Diesel engine info button

(Remote control operation - with remote control connected)



Control panel buttons			
07	Show display page Diesel engine	08	Show display page hydraulics

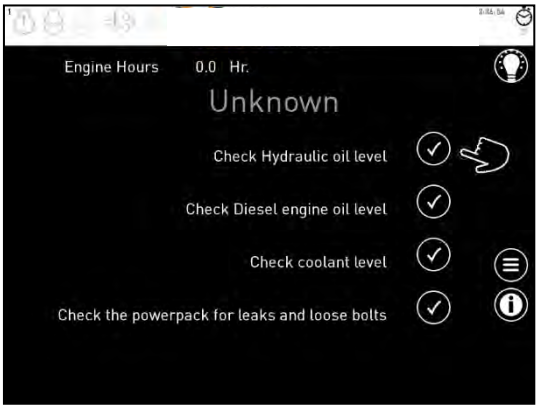
5. Starting/Stopping Procedure

CAUTION

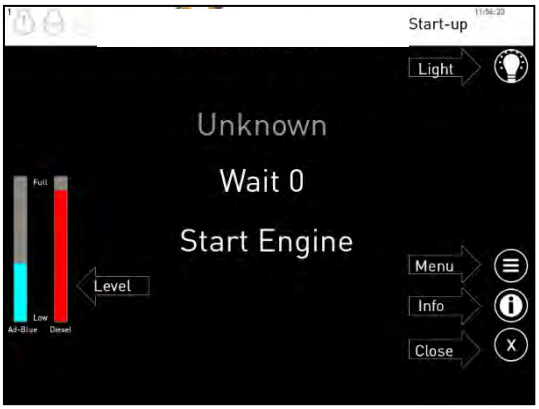
To prevent severe damage to the attached equipment, make sure that the right flow is set for equipment you are using. If you are not sure please contact your local dealer.

Start Procedure

- Press the green start button to energize the Hydraulic Power Station 



- Follow the checklist and confirm the checkmarks after checks.
- Wait for the "wait to start countdown" to reach 0 and the display shows "start engine"



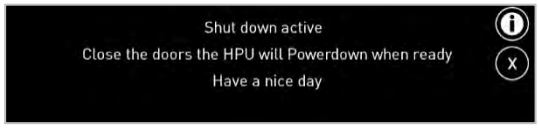
- Press the green button to start the diesel engine 

Stop Procedure

- Allow the diesel engine to run at low idle for at least 5 minutes
- Press the red button to stop the diesel engine 
- Hold the red button to shut down the Hydraulic Power Station 

When the stop button is pressed and the engine is shutdown, the display will show

the display will count down to 0 and then shows the following



You can now close the power station, it will shut down completely when the diesel engine is finished with flushing the Ad-Blue system.

6. Troubleshooting

Most breakdowns and/or malfunctions can be prevented by proper periodic inspection, lubrication and maintenance.
If the malfunction cannot be corrected, contact your local PILECO service location.
For malfunctions of the impact hammer or other equipment, we refer to the relating owner's manuals.

Engine does not start

Make sure the emergency stop is deactivated. Check if the IQAN PLC display shows any messages. Solve the cause if necessary.
If the engine does not turn over, check the battery and check if the connectors of the battery are fully tightened.
If the engine turns over, check the fuel supply and the fuel filter.
Consult the Caterpillar Operation & Maintenance Manual.
Contact your local Caterpillar dealer.

Make sure all engine compartment doors are closed, open doors will stop the engine and prevent it from starting.

Engine does not stop

If there is an emergency, push the emergency stop button.
Check the electrical components and connections.

7. Maintenance

CAUTION

All maintenance work is strictly only for qualified and authorized personnel. Except for visual inspections, all maintenance work must be carried out when the diesel engine is stopped. Make sure that the main power switch is in the OFF position and take off the battery cables.
Install a DO NOT OPERATE or similar warning label to the main control panel.

1. General

Preventive maintenance includes normal servicing that keeps the power station in good operating condition and prevents unnecessary breakdown.

Lubrication is essential for the system, determining to a great extent the lifespan of the Hydraulic Power Station.
Therefore, it is important that the instructions regarding types of oils and exchange intervals are closely adhered to.

- Prevent dirt from entering lubricants and the hydraulic system.
- Thoroughly clean all lubrication fittings, caps, filter plugs and level plugs and their surrounding surfaces before servicing.

CAUTION

Regular maintenance increases the lifespan and the output of the power pack and is essential for the safety of the user and possible bystanders. Before starting maintenance, make sure the machine has cooled down, the working area is safe and clean, and the system is depressurized. Install a DO NOT OPERATE or similar warning label to the ignition switch. Turn off the mass switch prior to maintenance work on the electrical system.

New or stored Hydraulic Power Stations

For new or stored power packs, refer to the diesel engine Operations Manual (section "Preparation for Starting Engine, First Time").

2. Service intervals

Every 500 running hours, the **MAINTENANCE WARNING SIGN** will appear on the display.

- Contact your nearest PILECO INC. dealer for a service appointment or more information.
- For more detailed information regarding the engine, refer to the "Operation and maintenance manual" (M0102230-2) of the engine.

3. Daily maintenance

The daily instructions apply to routine or daily starting of a Hydraulic Power Station.

Quick guide available in the dashboard of the hydraulic PowerStation

Before start-up:

- Check the coolant level in the radiator *(engine should be cooled down)*.
- Check the air filter service indicator.
- Check the engine oil level.
- Inspect the water separator of the Fuel filter. Drain if necessary.
- Check for leaks and loose connections.
- Check the fuel level.
- Check the hydraulic oil level.
- Clean the bottom plate of the power pack
- Inspect hydraulic system for leaks.
- Visually check all couplers and hoses for signs of damage or cuts.
- Make sure all hydraulic connections are fully tightened, especially the quick-disconnect couplers.

CAUTION

Damaged hoses and couplings must be replaced immediately.
Never attempt to repair hoses or coupling yourself, repairs may only be carried out by certified personnel.

After start-up:

- Check hoses for leaks.
- Check all hydraulic components for leaks.

4. Inspection and replacement intervals

Filter back pressure warnings appear on the main display.
Replace filters when warnings appear or on interval schedule.

REPLACE INTERVALS BASED ON OPERATING HOURS POWER PACKS					
	Normal conditions		Heavy conditions		Min.
	First	Interval	First	Interval	
Engine	According engine service manual				Yearly
Hydraulic return filter	500	500	500	500	Every 6 months
Hydraulic oil	Sample yearly		Sample every 6 months		Sample Yearly
Hoses	Exchange when first layer is damaged				Every 5 years

5. Remaining service intervals

Engine:

- Refer to the diesel engine "operation and maintenance manual".

Other components:

- Have the hydraulic fluid analyzed by a local hydraulic service center. Replace fluid if required.
- Have the hydraulic system inspected by PILECO INC.(authorized) service personnel.

Severe conditions:

The intervals are based on normal operation. Perform these services more often in operation under heavy or severe circumstances.

The specified intervals are based on normal operating conditions. Operating under severe or unusual conditions will require some adjustments in service intervals.

In the following circumstances, the service intervals should be reduced by one-half of those specified.

- when the average ambient temperature is above 35°C (95°F) or below -23°C (-10°F)
- when operating in the presence of dust or sand
- when operating more than twelve hours per day

When operating in air with high salt or moisture, the service intervals do not need to be changed. However, the unit should be inspected weekly to determine if additional servicing is required. Also, the hydraulic oil must be tested quarterly.

For extended inactive periods, the engine should be started at least once a week and run until thoroughly warm. Service intervals may be extended from those specified. For stored power stations, refer to the diesel engine Operation's Manual (section "Preparation for Starting Engine").

Additional inspections:

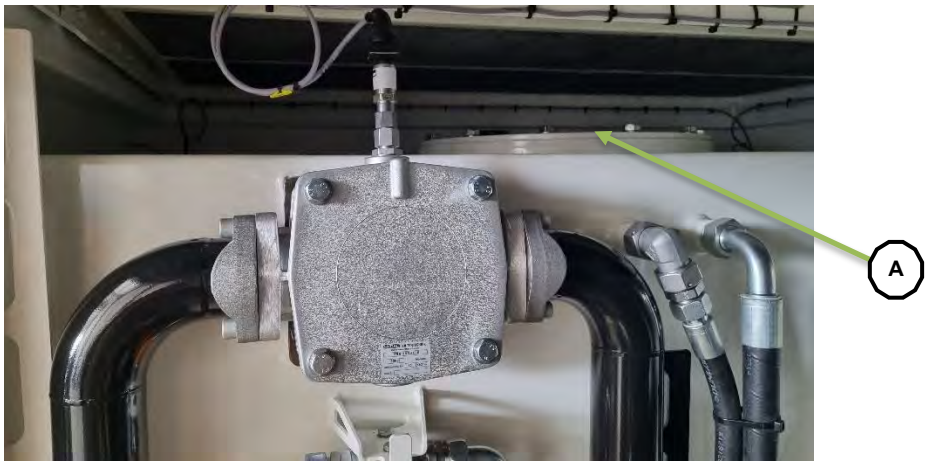
Additional inspections			
1	long inactive period		Inspection before operation
2	Environment with high salt and/ or moisture content		Weekly inspection
3	Heavy driving conditions		Inspection of the engine filters every 250 hours

High temperature or offshore conditions can decrease the lifetime of the hydraulic hoses.

Visually inspect the hydraulic hoses for damage or cracks in the rubber outer layer. Replace the hose when the outer layer is damaged.

Draining and filling the hydraulic reservoir

The hydraulic reservoir is drained by removing the manhole cover(A) and removing the roof plate above the hydraulic reservoir. If you open the reservoir, make sure you clean fully before closing it again. The hydraulic reservoir is filled by connecting a pump the drain coupling. All oil is pumped to the reservoir through the return filter.



The diesel engine can be drained by opening the drain valve (C) on the engine pan, the manual pump on the frame can be used to drain the oil sump.

Refill volumes

The refill volumes of the engine oil, diesel oil & hydraulic oil can be found in the parts manual of the power pack.

Hydraulic reservoir refill capacity is 1200 Liter.

6. Recommended fluids

	Normal ambient	High ambient		
	-10°C / 55°C	T > 55°C		
HYDRAULIC OIL	Kennoco Hydra 46	Kennoco Hydra 32		
BIO OIL				
ENGINE OIL	CAT DEO ULS engine oil (ultra-low sulphur) - 25 l			
COOLANT	Cat-Ready mix 60 L			

Severe circumstances:

- Engine: refer to the "Operation and maintenance manual" engine.
- Hydraulic system: contact your local specialist

7. Welding

DANGER

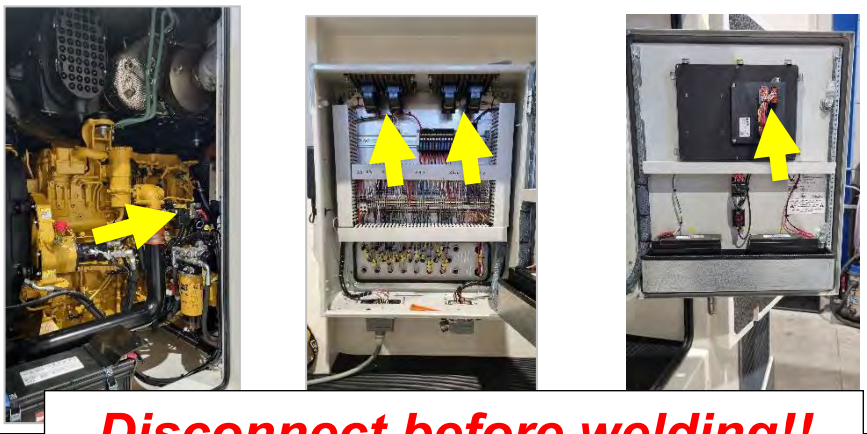
The Hydraulic Power Station is filled with flammable liquids, make sure the power station is clean before welding and make sure that the parts that need to be welded are free of flammable liquid

WARNING

Do not weld or flame-cut on pipes or tubes that contain flammable fluids. Clean them thoroughly with nonflammable solvent before welding or flame cutting on them. Proper welding procedures are necessary in order to avoid damage to the engine's computer, sensors and associated components. When possible, remove the component from the unit and then weld the component. If this is not possible, follow the instructions below:

8. Before welding:

- Stop the engine.
- Turn the main power off.
- Disconnect the negative battery cable from the batteries.
- ***Always disconnect the connector from the Engine Control Module that goes to the dashboard. Move the harness to a position that will not allow the harness to accidentally move back and make contact with any of the ECM pins.***
- ***Always disconnect the connectors from the IQAN modules in the control panel.***
- Connect the welding ground cable directly to the part that needs to be welded. Place the ground cable as close as possible to the weld.
- Protect the wiring harness from welding debris and spatter.
- Use standard welding practices to weld the materials.
- Make sure to have the correct fire extinguisher within reach



Disconnect before welding!!

8. Ordering parts

1. Procedure

When ordering parts, be sure to include the model and serial number of the unit or component. Confirm all telephone and/or e-mail orders immediately to avoid duplicating shipment.

2. Original equipment

Where serial numbers are given, these numbers only apply to equipment and components originally furnished with the unit. Where equipment has been changed or added to, these numbers may not necessarily apply.
Replace broken parts only with PILECO Original replacement parts.

3. Shipment

State to whom shipment is to be made and method of shipment desired, otherwise our own judgment will be made.

4. Shortages

Claims for shortages or errors shall be made immediately on receipt of parts. No responsibility will be assumed for delay, damage or loss of material while in transit. Broken, damaged or loss of material shall be refused or a full description made of damage or loss to the carrier agent on the freight or express bill.

5. Return of parts

If for any reason you desire to return parts to the factory or to any distributor from whom these parts were obtained, first ask permission to return the parts. Shipping instructions will be given along with this permission.

6. Screws and bolts

Almost all connections on the unit are made with metrical threads. These screws are available at most industrial supply houses.
Some screws or bolts require a specific torque when replacing. For identification of these bolts and a more thorough understanding of torque look in the operating manual of the engine or from the impact hammer.

Abbreviations used			
BHCS	Button Head Cap Screw	HSSS	Hex. Socket Set Screw
FHCS	Flat Head Cap Screw	PHMS	Philips Head Machine Screw
FLCS	Flanged head Cap Screw	RHMS	Round Head Machine Screw
HC	High Collar	SHCS	Socket Head Cap Screw
HHCS	Hex. Head Cap Screw	SHPP	Socket Head Pipe Plug
HHPP	Hex. Head Pipe Plug	SHSS	Socket Head Shaller Screw

7. Hoses

For the right hoses see the parts manual from the Hydraulic Power Station or call PILECO for the right hose.

Wireless remote quick start

Connect the receiver multi connector to the control panel

Make sure a fully charged battery is placed

Before start-up
Set switch to vibro !
Set emergency-stop to Off

Press the Green start-button once

Led flashes slow *(1x sec)*

Led flashes Fast *(2x sec)*

Press the Green start-button once

Led is ON

Transmitter is connected

PILECO INC.
1-800-409-0018

491 Conroe Park W. Dr.
Conroe, TX 77303
main: 936.494.4200
fax: 936.494.4517
email:sales@pileco.com

Customer	
Project	P210366 V250HPU
Document number	V250HPU
Reference number	
Manufacturer	Gooiland Elektro

CSP - V250HPU

Panel	
Tag	
Location	
Project Manager	
Controlled by	R. Kramer
Created by	L.J. Kleisen

Creation date	16-9-2021	GE Reference	P210366
Revision Date	12-12-2022	Edit date	12-12-2022
Revision	D.2	by	T. van Straalen

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300	Control circuit diagram - Engine	ELD	D.1	14-02-2022	L.J. Kleisen
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802	Parts List	PL	D.1	14-02-2022	L.J. Kleisen
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Clarifications and Final Check

Supply Voltage

- ☒ 24 VDC
- ☐ 230 VAC
- ☐ 3 x 400 VAC
- ☐ 3 x 440 VAC
- ☐ Neutral
- ☐ Other;

.....
.....
.....
.....

Internally generated Voltage

- ☐ 24 VDC
- ☐ 24 VAC
- ☐ 110 VAC
- ☐ 230 VAC
- ☐ 230 VAC
- ☐ Other;

.....
.....
.....
.....

Frequency

- ☐ 50 Hz
- ☐ 60 Hz
- ☐ Other;

.....

Others

Current: .....25 A

Weight: .....45 kg

Short-circuit current (Ic): .....25 kA

Power system: .....

Site conditions

- ☒ Inside
- ☐ Outside
- ☐ Non-Ex
- ☐ Ex
- ☐ H²S
- ☐ Other;

.....

Ambient Temperature

Outside: ..... °C

Inside cabinet: ..... °C

Installation report cabinet

This control cabinet is completely checked for transport and installation.
It is possible during transport and installation that failures are generated.
Before starting up the installation, the installer must check the complete installation, cable works and control cabinet for failures

Important! Check all the connections
Prevent the contactors from becoming dusty

Cable design based on

Bureau Veritas: Rules for the classification of steel ships. Part C, Chapter 2, Section 3 Tabel 6:
Current carrying capacity, in A, in continuous service for cables based on maximum conductor operating temperature of 85°C (ambient temperature 45°C).
The electrical installer must check all these installation conditions and can be held responsible for this cable design.

Cabinet Material

- ☐ Plastic
- ☐ Aluminium
- ☒ Sheet Steel
- ☐ Stainless Steel 1.4301
- ☐ Stainless Steel 1.4404 (316L)
- ☐ Other;

.....

Cabinet Colour

- ☒ RAL 7035 Light Grey
- ☐ RAL 7032 Pebble Grey
- ☐ RAL 5015 Sky Blue
- ☐ RAL 9003 Signal White
- ☐ Other;

.....

Ingress Protection

- ☒ IP 54
- ☐ IP 55
- ☐ IP 66
- ☐ IP 67
- ☐ Other;

.....

Mounting

- ☐ Wall bracket
- ☐ Socket 100mm
- ☐ Socket 200mm
- ☐ Vibration Dampers
- ☐ Pole Clamp
- ☐ Other;

.....

Cabinet Accessories

- ☐ Wirenumbering
- ☐ Forced Ventilation
- ☐ Natural Ventilation
- ☐ Cabinet heater
- ☐ Thermostat
- ☐ Hygrostat
- ☐ Cabinet Light
- ☐ Cable Connection Rail
- ☐ Lifting Lugs
- ☐ Door stay
- ☒ Other;

External Cable Numbering

Cable Entry

- ☒ Cable Entry from Back
- ☐ Cable Entry from Bottom
- ☐ Cable Entry from Top

- ☐ Cable Entry Grommets
- ☒ Cable Glands
- ☐ Open Bottom
- ☐ IP 67
- ☐ Other;

.....

- ☒ Plastic
- ☐ Aluminium
- ☐ Nickel Plated/Brass
- ☐ Stainless Steel
- ☐ Alternative Clamping Ring
- ☐ non-Ex
- ☐ Ex e
- ☐ Ex d

Internal panel wiring color & size

Main Current: Minimum size (mm²): 1,5mm²

Control Current: Minimum size (mm²): 0,75mm²
Colors:
Red = Supply +24Vdc
Grey = Supply 0Vdc
Black = Switched
Green/Yellow = Earth

Communication: Minimum size (mm²): 0,75mm²
Colors:
Black/Orange = CAN A
Black/Violet = CAN B
Black/Green = CAN C
Black/Yellow = CAN D

Terminal description

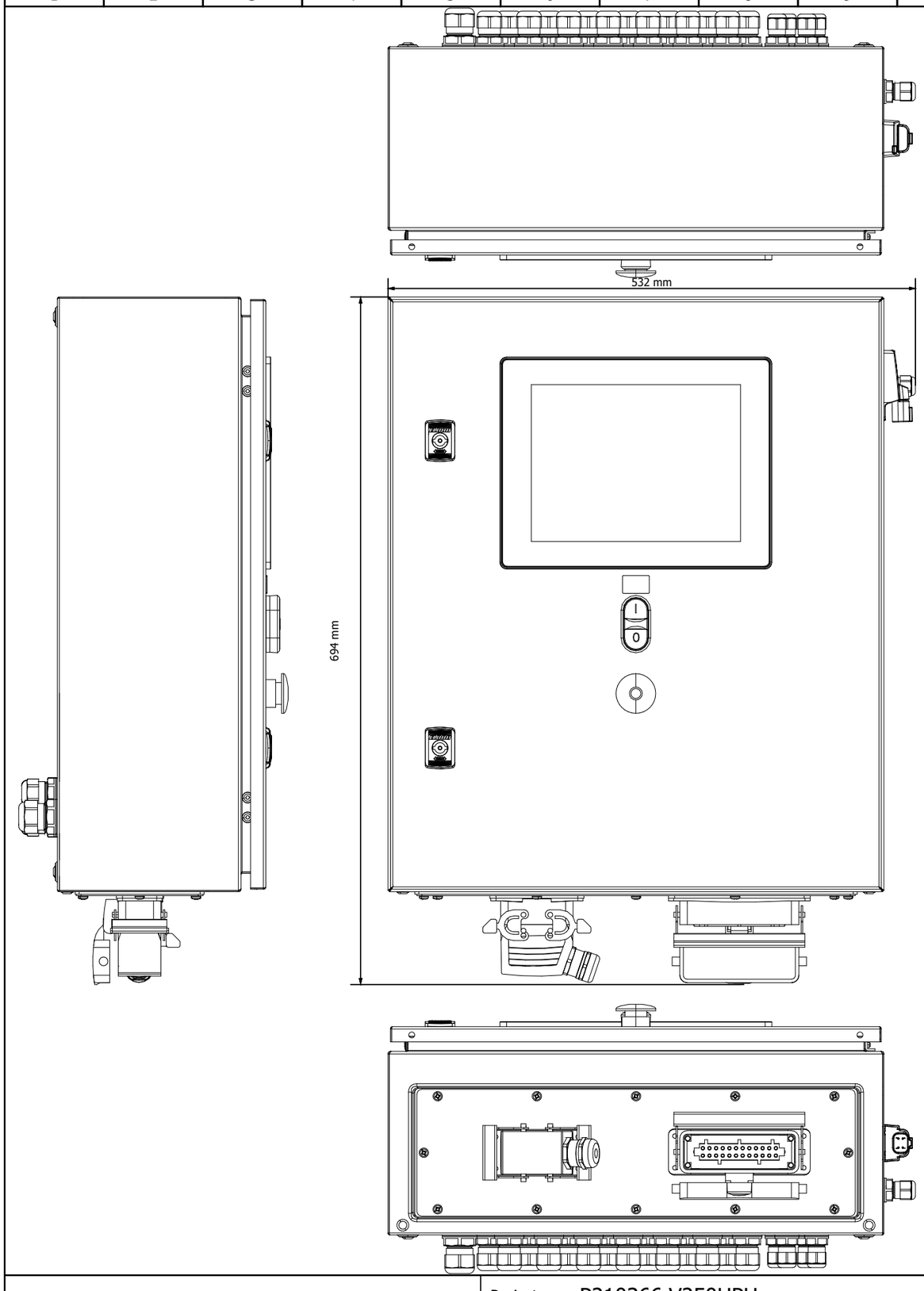
-X = Control Current 24Vdc
-X0 = Control Current 24Vdc (Panel Supply)
-LX1 = Control Current 24Vdc
-LX2 = Control Current 24Vdc (Digital Out)
-LX3 = CAN Network
-99C1 = MDL4-10 C1
-99C2 = MDL4-10 C2
-100X2 = Connector XC44 -100A2
-101X2 = Connector XC44 -101A2
-102X2 = Connector XC43 -102A2
-103X2 = Connector XC43 -103A2
-XR1 = Diagnostic Connector
-XR2 = Remote 2
-XK3 = CAN Fieldbus Coupler
-XM = Modem

Type of Terminal Connection

- ☒ Push In technology
- ☐ Tension clamp technology
- ☐ Screw connection technology

State of diagram

A - Offer
B - Issued for Approval
C - Approved for Construction
D - As Constructed
E - Final



Panel Name	Manufacturer	Type number	Width	Heigth	Depth
01.01	Eldon	MAS0605021R5	500,00 mm	600,00 mm	210,00 mm

The Neerlands

Project : P210366 V250HPU
: CSP - V250HPU
Page : Cabinet

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	V250HPU			POV	A3
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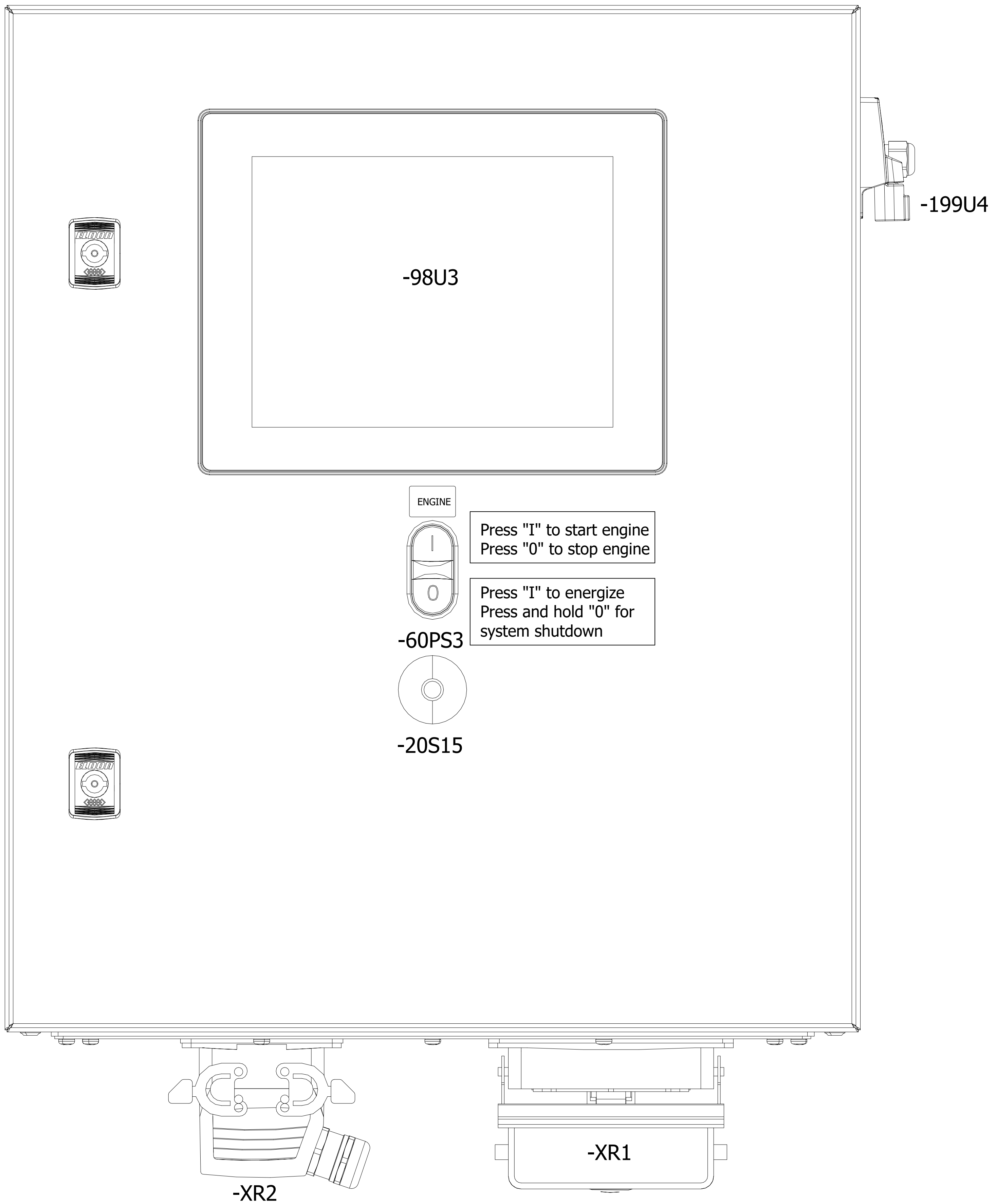
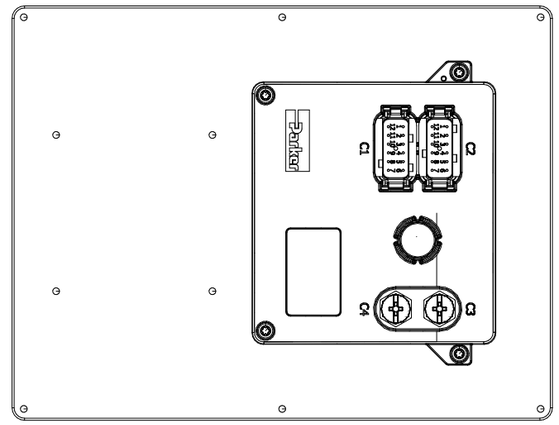

-199U4
-98U3
ENGINE
Press "I" to start engine
Press "0" to stop engine
Press "I" to energize
Press and hold "0" for
system shutdown
-60PS3
-20S15
-XR1
-XR2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

-98U3



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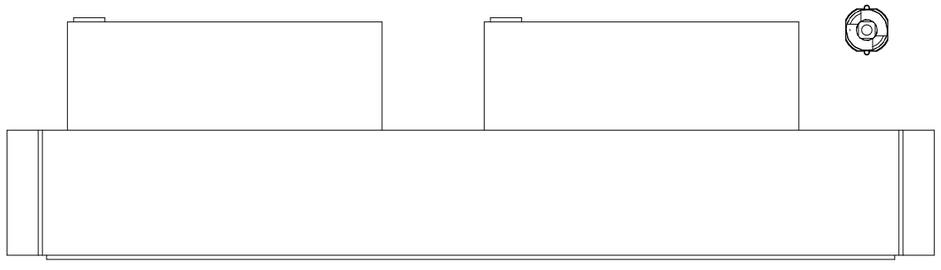

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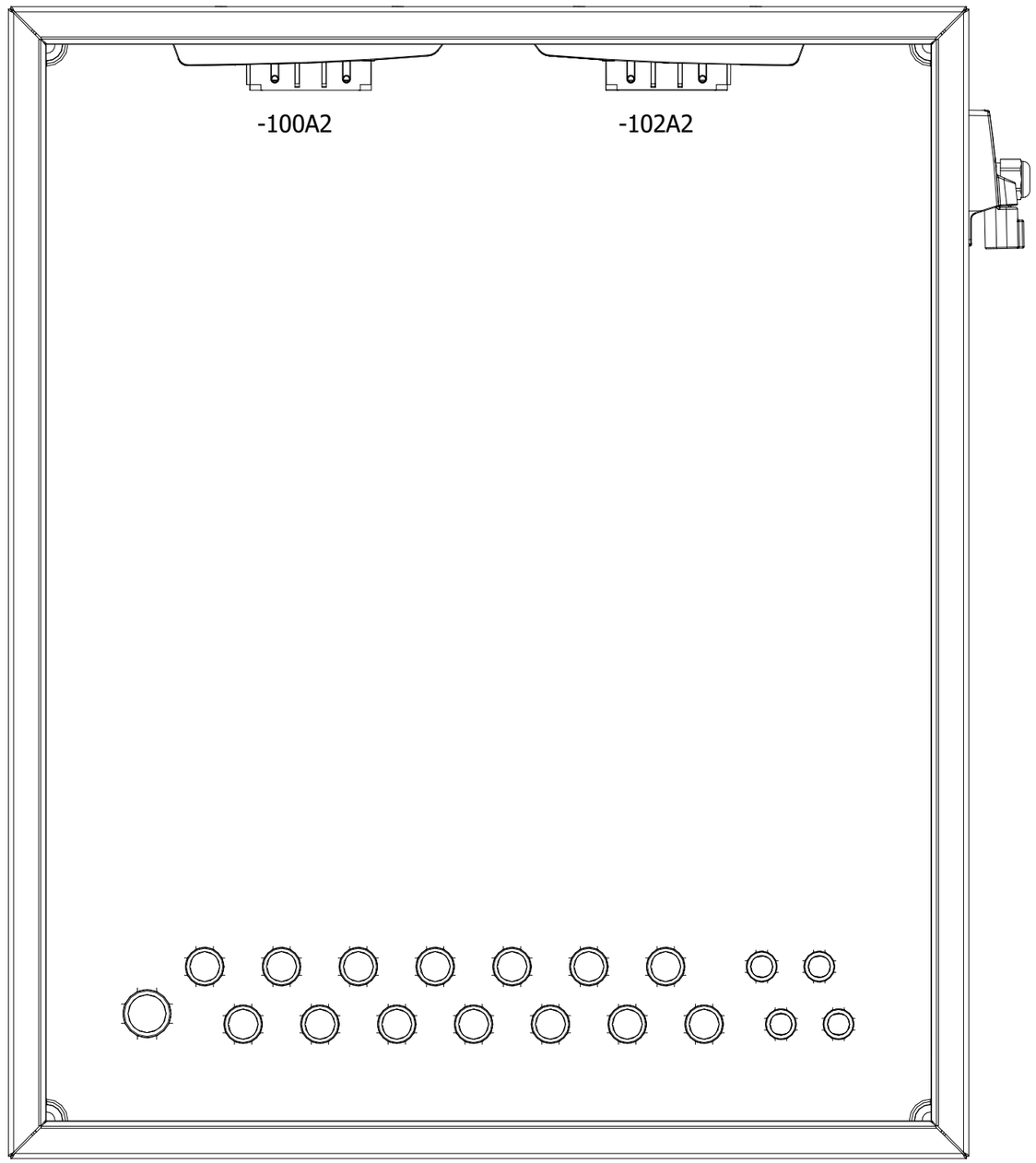
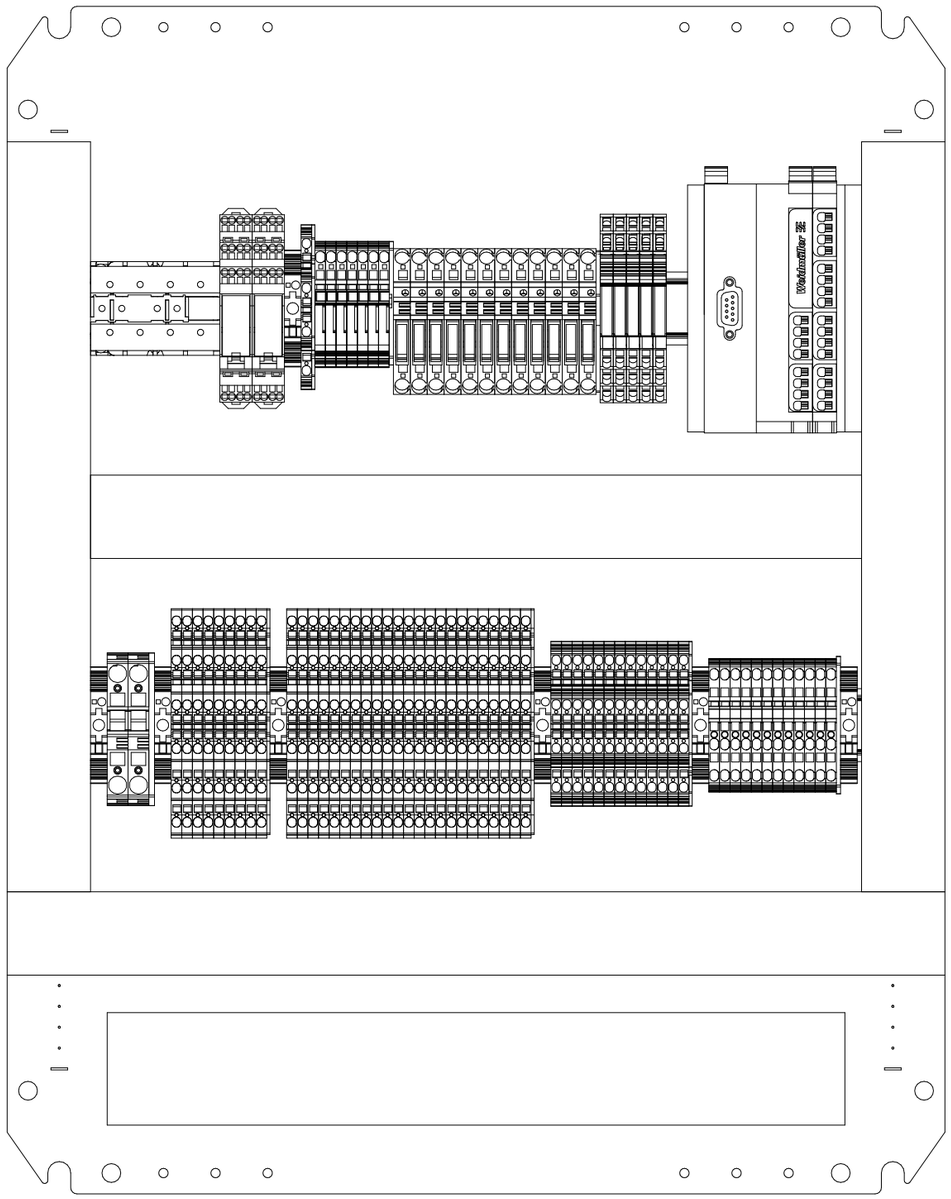
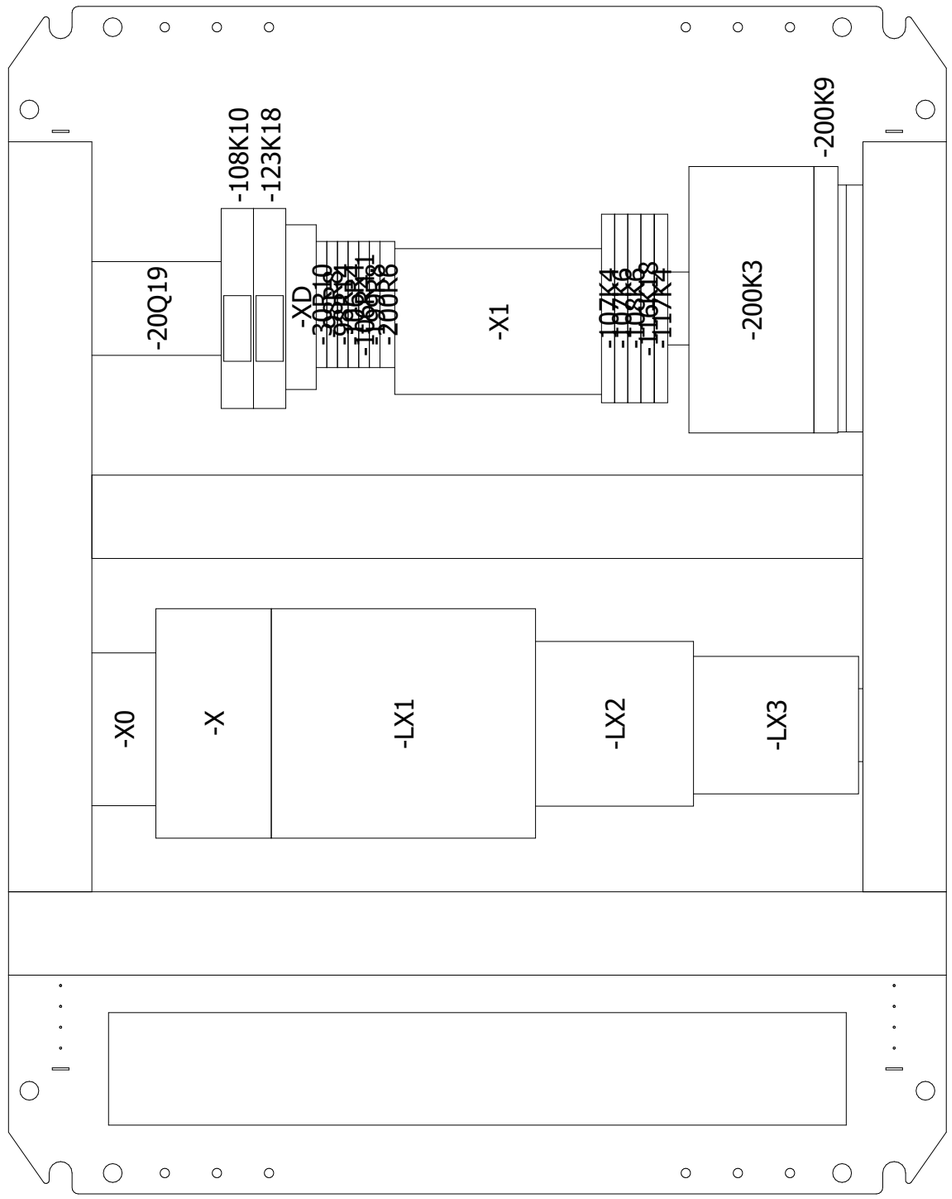


Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Panel Inside	Project number	Document number V250HPU			Document Type POV	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 13	Next page 21	Page 14





info@vigopilin.co	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Mounting Panel	Project number	Document number V250HPU			Document Type POV	Sheet Size A3
		GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 14	Next page &WP/51	Page 21

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24V.Supply / 21.2

107.8
ENGINE_START

-X1 1 Weidmüller ZSI 6-2_FC LD 0287030 Main Fuse 30A
-X1 2 Weidmüller ZSI 6-2_FC LD 0287025 Engine Fuse 1 25A
-X1 3 Weidmüller ZSI 6-2_FC LD 0287005 Engine Fuse 2 5A
-X1 4 Weidmüller ZSI 6-2_FC LD 0287005 Fuel Pump Fuse 3 5A
-X1 5 Weidmüller ZSI 6-2_FC LD 0287015 Supply XR1 15A
-X1 6 Weidmüller ZSI 6-2_FC LD 0287015 Supply XR2 15A
-X1 7 Weidmüller ZSI 6-2_FC LD 0287005 Start Engine Fuse 5A

-20Q19 /20.19
-123K18 /123.18
-20Q19 /20.19
-20Q19 /20.19

-20S15 IMO BS3 BS3P34RED_O Emergency Stop

60.4 4
60.6 5
60.8 9

-X0 ZDU 10
-20W2 2x6 BN
-LX1 RD 2,5
-LX1 RD 2,5
-LX1 RD 2,5
-LX1 YE 1

+EXT
-20U2 24Vdc Main Power Supply
-20M4 24Vdc Engine ECM
2 11 38 41 57 70
13 35 45 47 65

+EXT Remote
-XR1 24

+EXT
-XR2 2

+EXT
-XR2 3

-X 1
-20W19 2x1 1

+EXT
-20S19 Frame Emergency Stop

CANH CANL

-XR1 1
-XR1 Weidmüller HDC 24B ADLU HDC HE 24 FP

-XR2 7
-XR2 Weidmüller HDC 10B ABU HDC HE 10 FT HDC HE 10 MT HDC 10B TSBU 1M25G

-20W14 U-HFAT m (C) 2x0,75 mm²
-LX3

CANL-A / 98.10
CANH-A / 98.10

-20W19 2
-LX2 2
-20Q19 Omron G7Z-4A-11Z DC24 Main Relay 24Vdc
A1 A2

-20W2 BU
-X0 ZDU 10
-LX1 -LX1
-LX1 -LX1
-LX1
-LX1
-LX2 1

GND / 40.2

1 2 /20.7
3 4 /20.9
5 6 /20.5
7 8
53 54 /111.10
61 62 /98.8

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Main circuit diagram - Power Supply	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page &WP/53	Next page 21	Page 20

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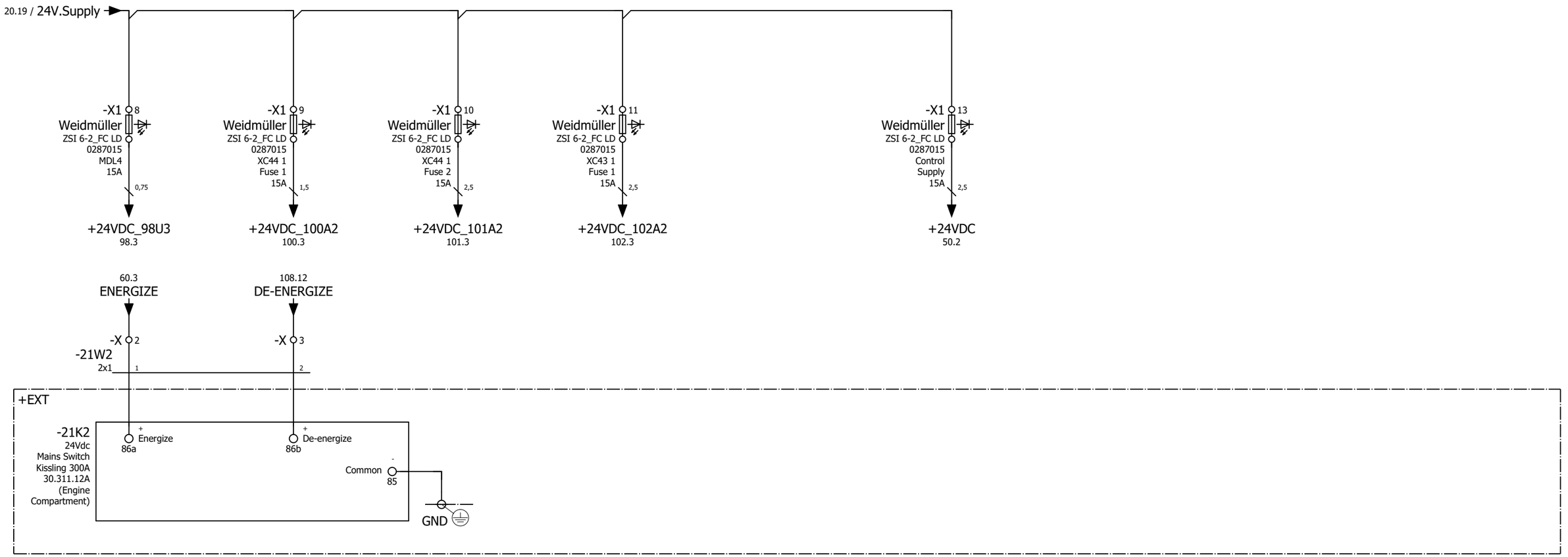

Project : P210366 V250HPU	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
Cabinet : CSP - V250HPU	GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 20	Next page 40	Page 21
Page : Main circuit diagram - Power Supply						

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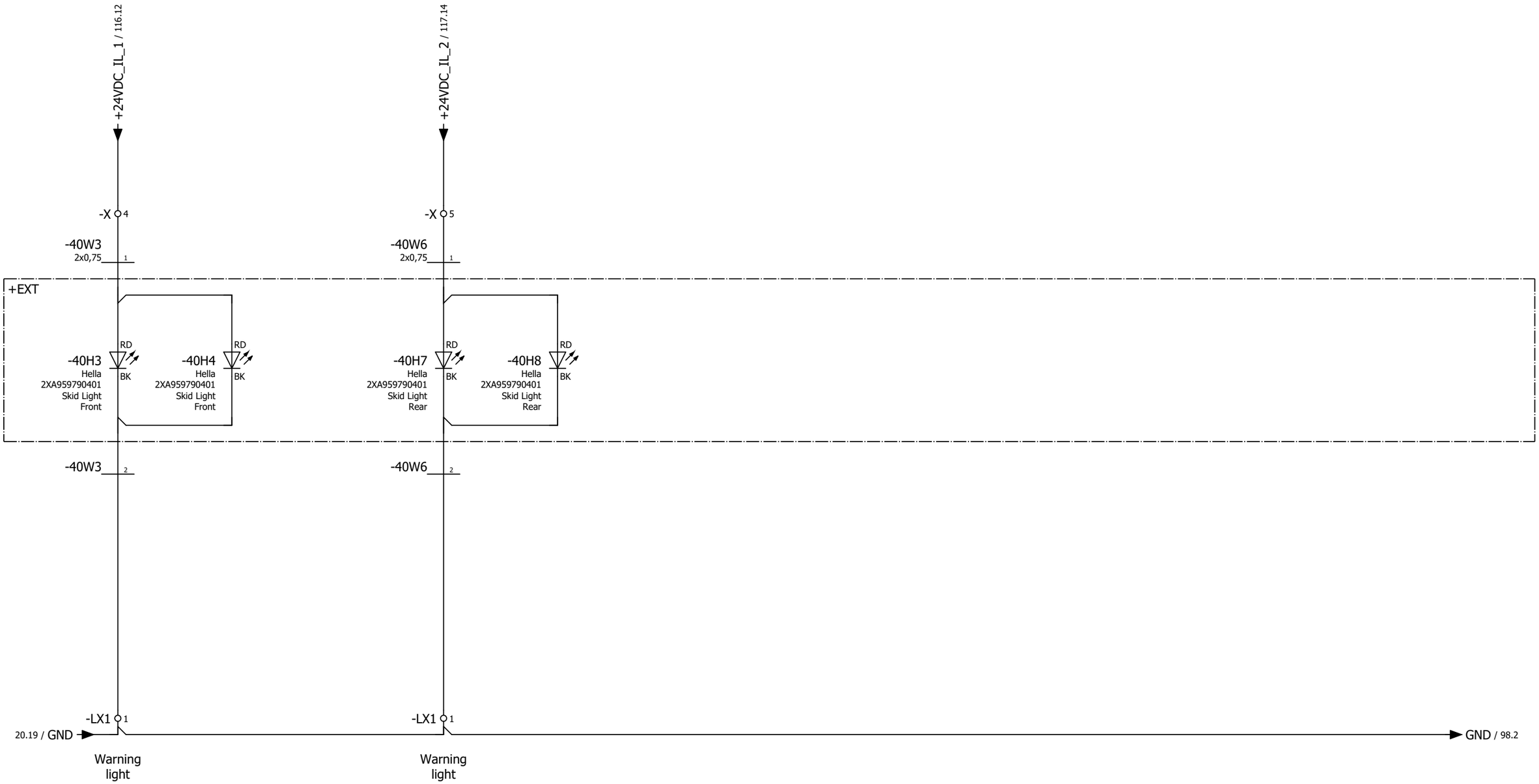

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - Skid lights	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 21	Next page 50	Page 40

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21.13 / +24VDC

-LX1 2 | -LX1 2 | -LX1 2 | -LX1 2

+24VDC / 60.2

-50W6
3x0,75 1

-50W10
3x0,75 1

+EXT

-50S4
Oil Level
Not Low
Switch

-50S6
Oil Level
Low
Switch

-50S8
Oil Level
Not High
Switch

-50S10
Oil Level
High
Switch

-50W6 3 2

-50W10 3 2

-X 6 | -X 7 | -X 8 | -X 9

110.6 / OL_Not_Low

110.4 / OL_Low

114.14 / OL_Not_High

104.8 / OL_High

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - Oil Tank	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 40	Next page 60	Page 50

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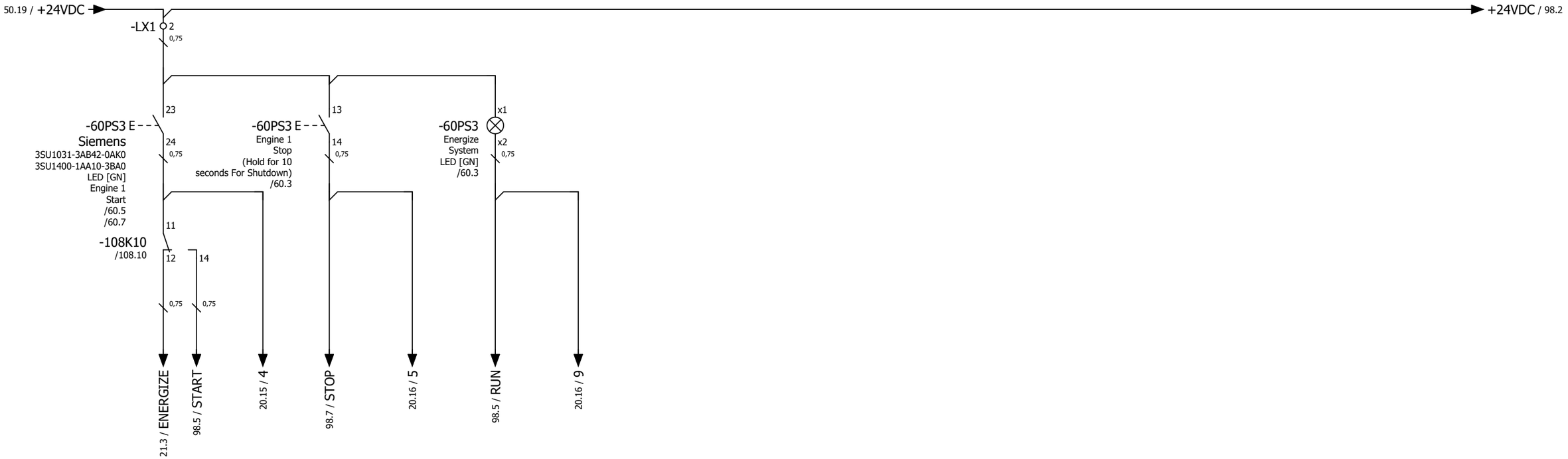

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - Engine Start	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 50	Next page 98	Page 60

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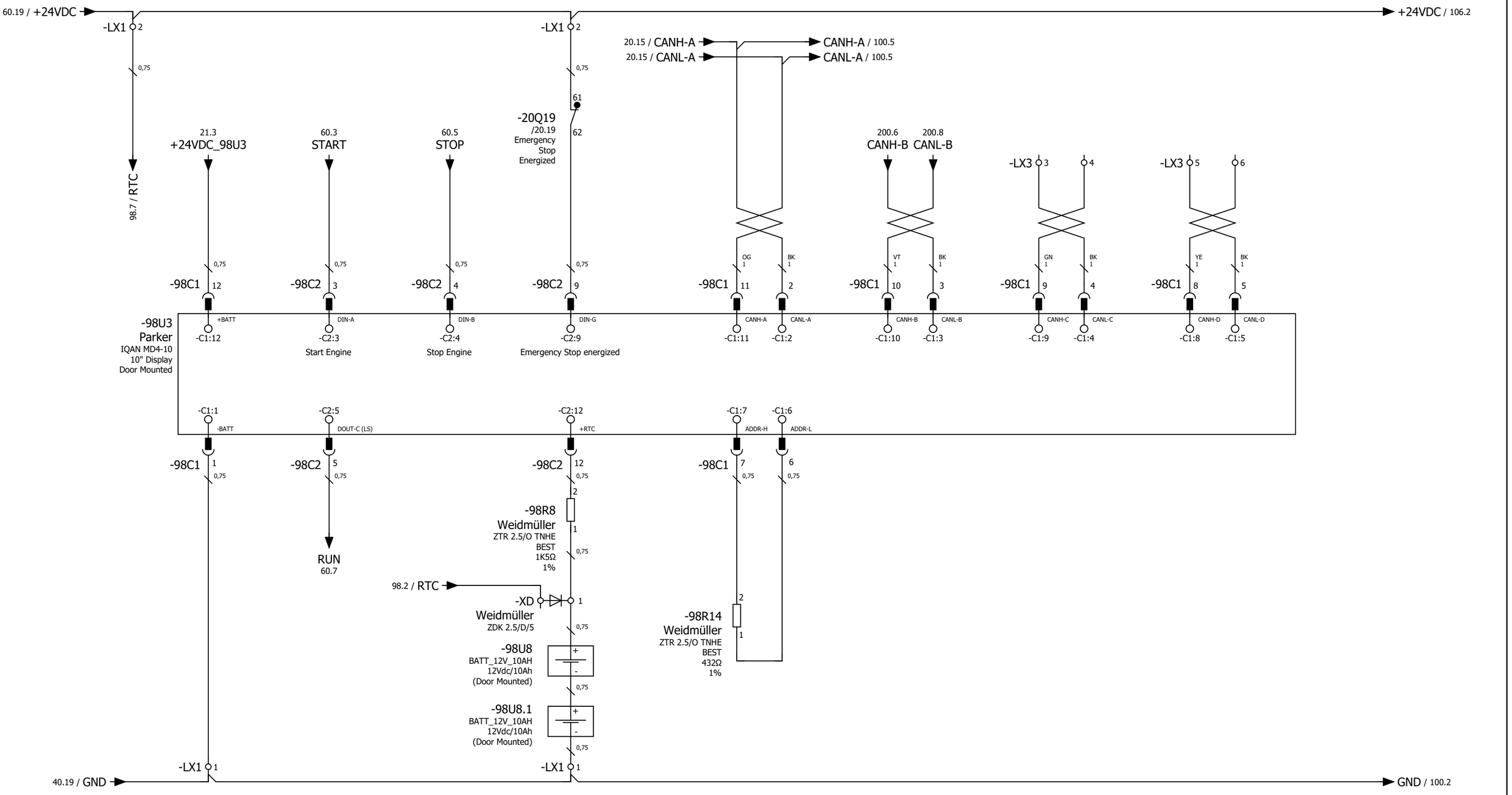

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - MD4 10"Screen	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 60	Next page 100	Page 98

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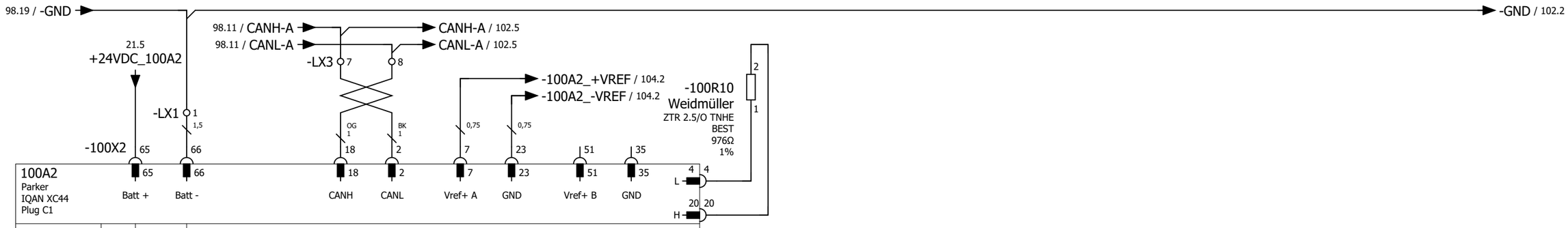
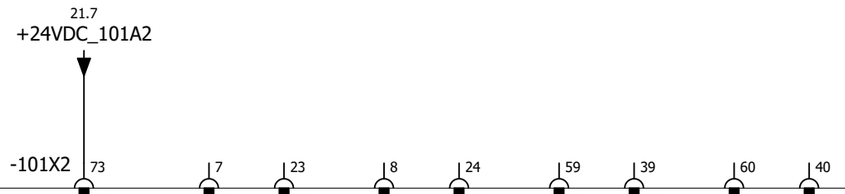


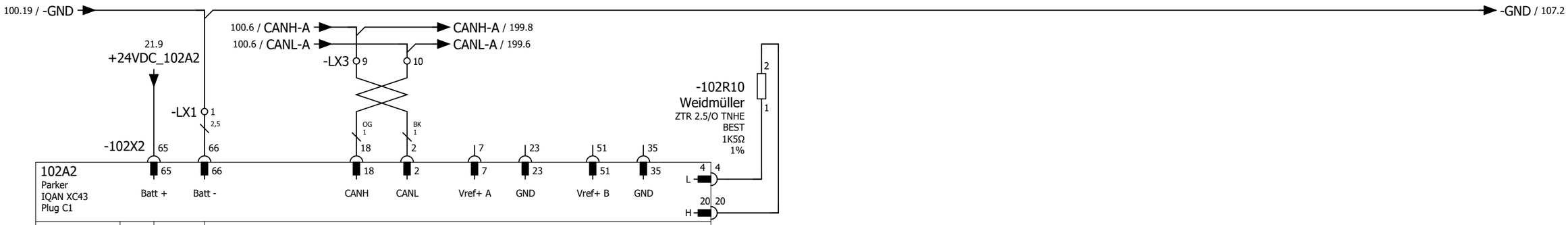
Address	PIN	Page	Description
	8	/104.4	Return Pressure
	9	/104.6	Filter Pressure Cooler Flow
	10	/104.8	Hydraulic Oil Level Too High
	11	/104.10	Spare
	12	/104.12	Spare
	13	/104.14	Spare
	14	/107.4	Remote Hydraulic Oil level
	16	/107.6	Remote Hydraulic Filter
	24	/105.4	Hydraulic Temperature
	25	/105.6	Remote Back Pressure
	26	/105.8	Filter Pressure (Main Flow)
	27	/105.10	Spare
	28	/105.12	Spare
	29	/105.14	Spare
	31	/107.8	Emgergency Stop Relay Supply
	36	/106.4	Spare
	37	/106.6	Fuel Level
	38	/106.8	Spare
	39	/107.10	Spare
	40	/107.12	Spare
	41	/107.14	Spare
	42	/107.16	Spare
	43	/107.18	Spare
	44	/108.4	Spare
	45	/108.6	Remote Oil Pressure Too High
	46	/108.8	High pressure Valve
	47	/108.10	Mains Relay
	48	/108.12	De-Energize
	52	/106.10	Working Pressure
	53	/106.12	Spare
	54	/106.14	Spare
	55	/108.14	Spare
	56	/108.16	Spare
	57	/108.18	Spare
	58	/109.4	Spare
	59	/109.6	Spare
	60	/109.8	Spare
	61	/109.10	Spare
	62	/109.12	Spare
	63	/109.14	Spare
	64	/109.16	Spare



Address	PIN	Page	Description
	3	/110.4	Hydraulic Oil level Too Low
	4	/110.6	Hydraulic oil Level not Too Low
	5	/110.8	Main Intake Vlave Open
	6	/110.10	Door 4 Closed Switch
	9	/110.12	Remote Control Connected
	10	/110.14	Remote Start
	11	/111.4	Remote Automatic
	12	/111.6	Remote Flow -
	13	/115.4	Spare
	14	/115.6	Spare
	15	/115.8	Spare
	16	/115.10	Spare
	19	/111.8	Main Intake Valve Closed
	20	/111.10	Emergency Stop Energized
	21	/111.12	Spare
	22	/111.14	Spare
	25	/112.4	Remote Flow
	26	/112.6	Remote Emergency Stop
	27	/112.8	Door 1 Closed Switch
	28	/112.10	Door 2 Closed Switch
	29	/115.12	Spare
	30	/115.14	Spare
	31	/115.16	Spare
	32	/115.18	Spare
	34	/112.12	Spare
	35	/112.14	Spare
	36	/113.4	Spare
	37	/113.6	Spare
	38	/113.8	Spare
	41	/113.10	Remote Extract
	42	/113.12	Door 3 Closed Switch
	43	/116.4	Spare
	44	/116.6	Spare
	45	/116.8	Spare
	46	/116.10	Spare
	47	/116.12	Warning light
	49	/116.14	Back Pressure Valve
	50	/116.16	Extract Pressure Valve
	51	/116.18	Remote Emergency Stop out
	52	/117.4	Remote Engine Alarm
	54	/113.14	Spare

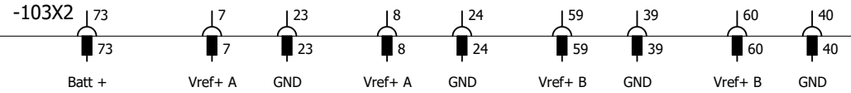
100A2
Plug C2
/100.2

Address	PIN	Page	Description
	55	/114.4	Spare
	56	/114.6	Spare
	57	/114.8	Spare
	58	/114.10	Spare
	61	/114.12	Remote Run
	62	/114.14	Hydraulic Oil level Not Too high
	63	/117.6	Spare
	64	/117.8	Spare
	65	/117.10	Spare
	66	/117.12	Spare
	67	/117.14	Warning light
	69	/117.16	Spare
	70	/117.18	Spare
	71	/118.4	Spare
	72	/118.6	Spare



Address	PIN	Page	Description
	8	/119.4	Spare
	9	/119.6	Spare
	10	/119.8	Spare
	11	/119.10	Spare
	12	/119.12	Spare
	13	/119.14	Spare
	14	/122.4	Pump Current Out
	15	/122.6	Oil Cooler
	16	/122.8	Spare
	24	/120.4	Spare
	25	/120.6	Spare
	26	/120.8	Spare
	27	/120.10	Spare
	28	/120.12	Spare
	29	/120.14	Spare
	30	/122.10	Spare
	31	/122.12	Spare
	32	/122.14	Spare
	36	/121.4	Spare
	37	/121.6	Spare
	38	/121.8	Spare
	39	/122.16	Pump Current Out
	40	/122.18	Oil Cooler
	41	/123.4	Spare
	42	/123.6	Spare
	43	/123.8	Spare
	44	/123.10	Spare
	45	/123.12	Interiour Light Front
	46	/123.14	Interiour Light Rear
	47	/123.16	Panel Light
	48	/123.18	Spare
	52	/121.10	Spare
	53	/121.12	Spare
	54	/121.14	Spare
	55	/124.4	Spare
	56	/124.6	Spare
	57	/124.8	Spare
	58	/124.10	Spare
	59	/124.12	Spare
	60	/124.14	Spare
	61	/124.16	Spare
	62	/124.18	Spare
	63	/125.4	Spare
	64	/125.6	Spare

-103X2



102A2
Plug C2
/102.2

Address	PIN	Page	Description
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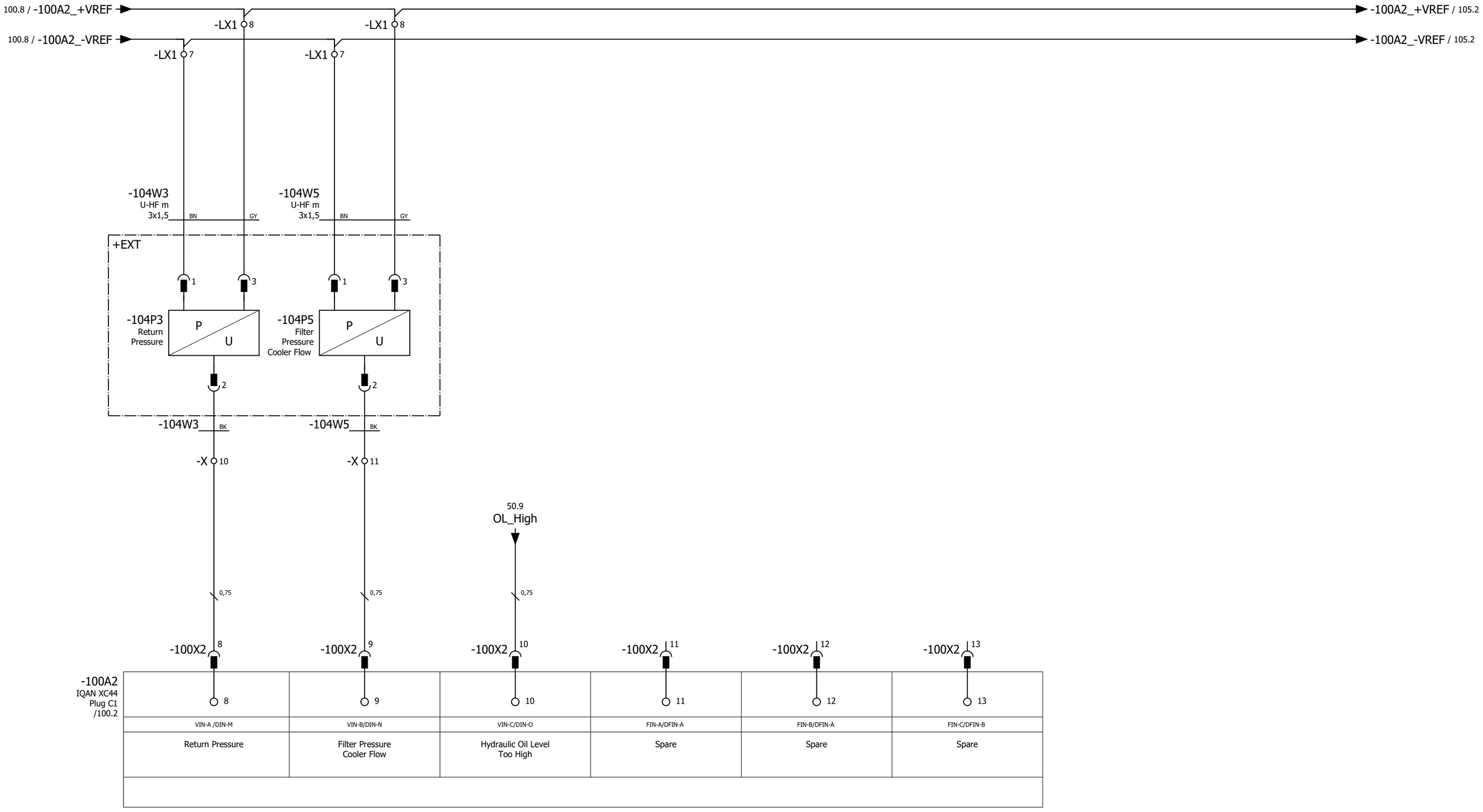
	4	/126.6	Spare
	5	/126.8	Spare
	6	/126.10	Spare
	9	/126.12	Spare
	10	/126.14	Spare
	11	/127.4	Spare
	12	/127.6	Spare
	13	/131.4	Spare
	14	/131.6	Spare
	15	/131.8	Spare
	16	/131.10	Spare
	19	/127.8	Spare
	20	/127.10	Spare
	21	/127.12	Spare
	22	/127.14	Spare
	25	/128.4	Spare
	26	/128.6	Spare
	27	/128.8	Spare
	28	/128.10	Spare
	29	/131.12	Spare
	30	/131.14	Spare
	31	/131.16	Spare
	32	/131.18	Spare
	34	/128.12	Spare
	35	/128.14	Spare
	36	/129.4	Spare
	37	/129.6	Spare
	38	/129.8	Spare
	41	/129.10	Spare
	42	/129.12	Spare
	43	/132.4	Spare
	44	/132.6	Spare
	45	/132.8	Spare
	46	/132.10	Spare
	47	/132.12	Spare
	48	/132.14	Spare
	49	/132.16	Spare
	50	/132.18	Spare
	51	/133.4	Spare
	52	/133.6	Spare

102A2
Plug C2
/102.2

Address	PIN	Page	Description
	54	/129.14	Spare
	55	/130.4	Spare
	56	/130.6	Spare
	57	/130.8	Spare
	58	/130.10	Spare
	61	/130.12	Spare
	62	/130.14	Spare
	63	/133.8	Spare
	64	/133.10	Spare
	65	/133.12	Spare
	66	/133.14	Spare
	67	/133.16	Spare
	68	/133.18	Spare
	69	/134.4	Spare
	70	/134.6	Spare
	71	/134.8	Spare
	72	/134.10	Spare

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C1 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 103	Next page 105	Page 104

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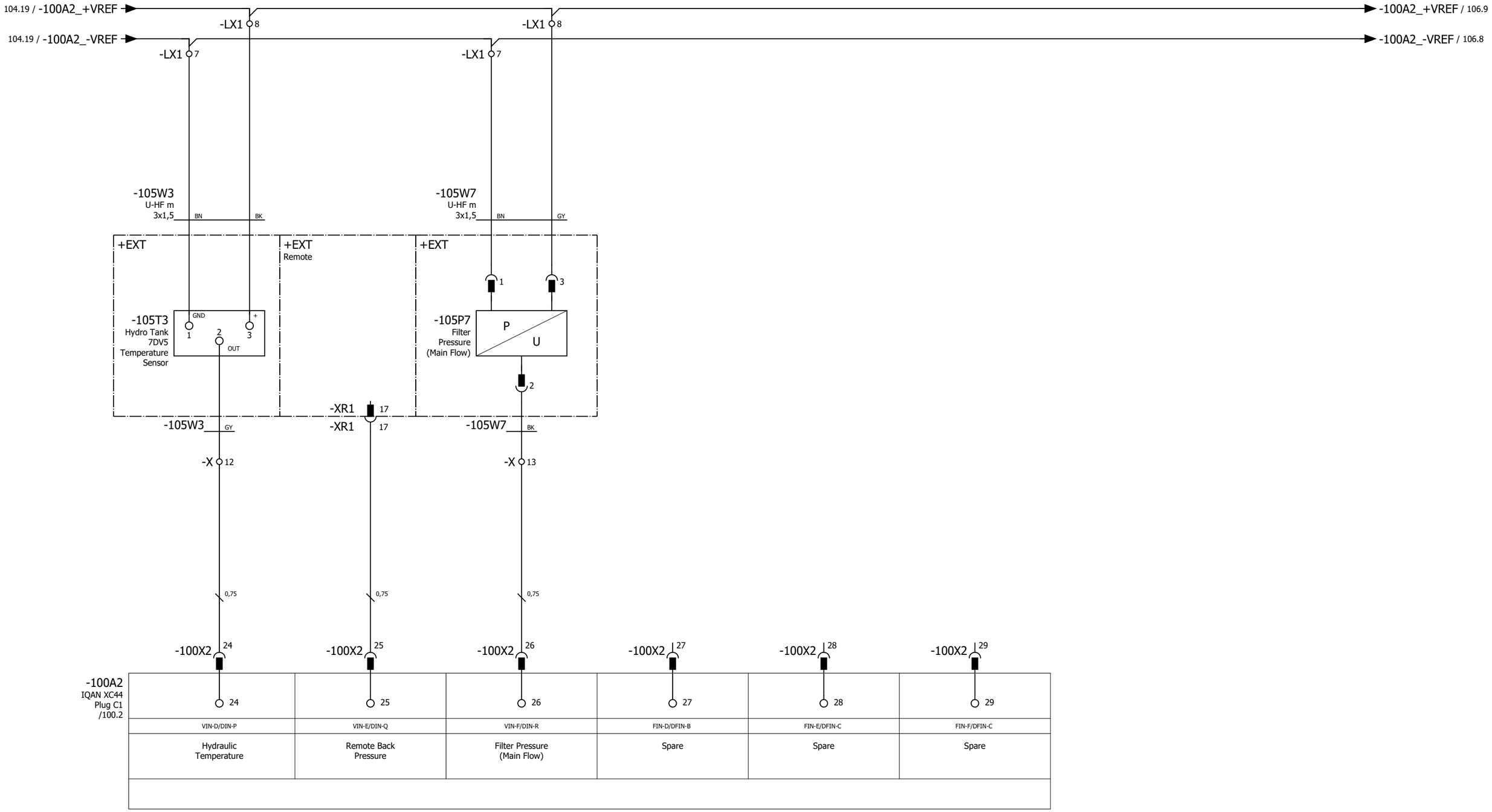
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



Project : P210366 V250HPU	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
Cabinet : CSP - V250HPU	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 104	Next page 106	Page 105
Page : Control circuit diagram - XC44 C1 I/O Inputs						

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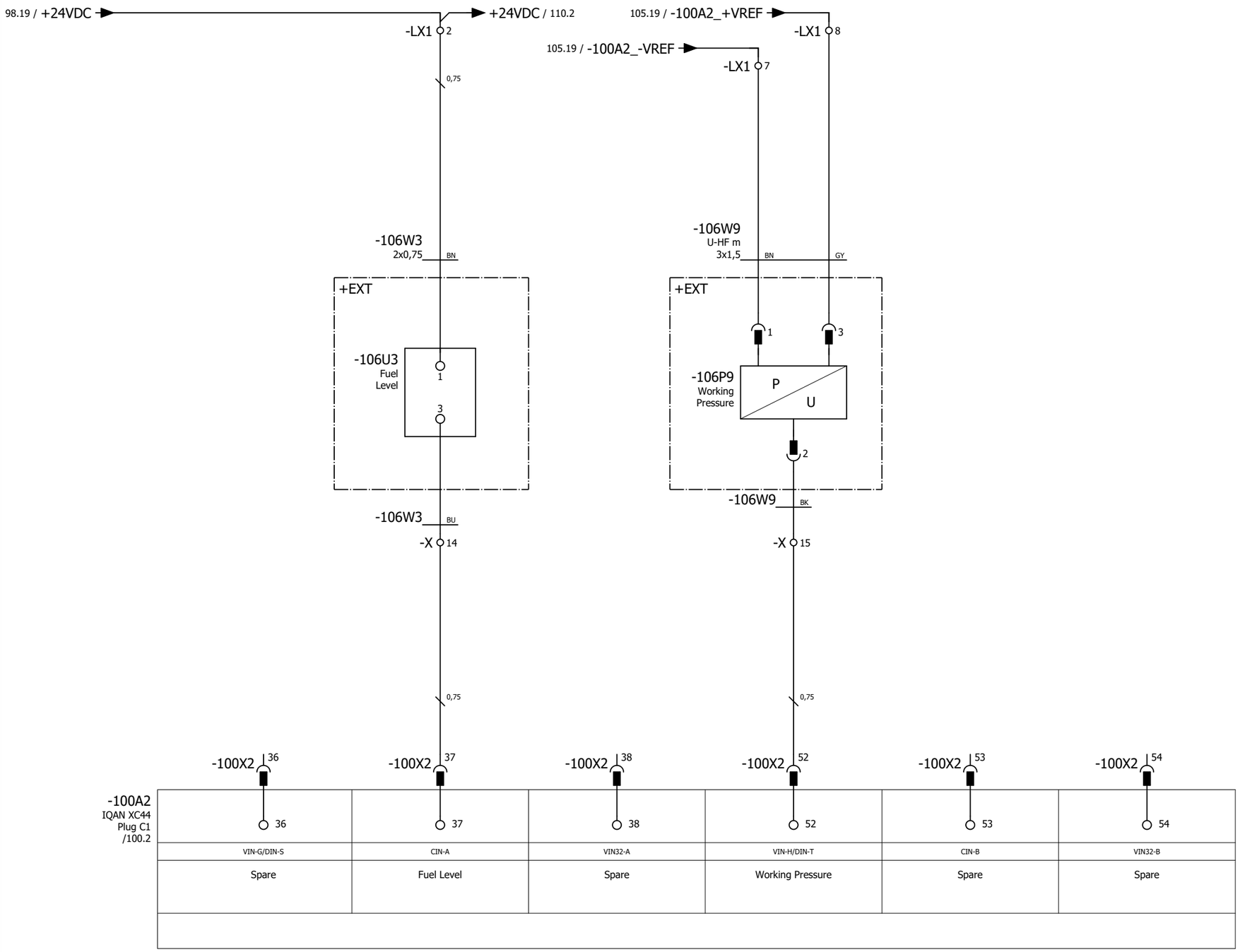

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C1 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 105	Next page 107	Page 106

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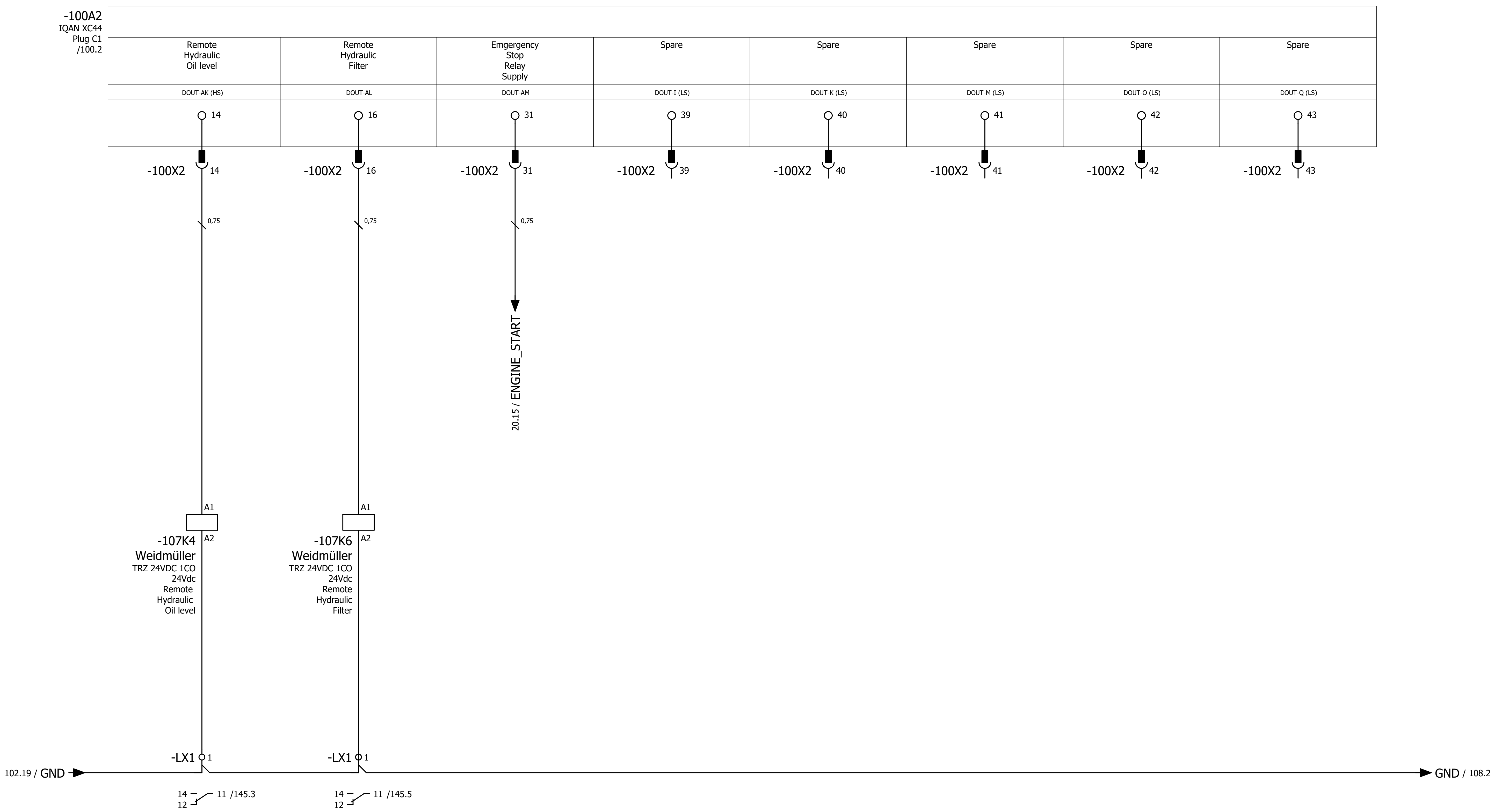
-100A2
IQAN XC44
Plug C1
/100.2
Remote Hydraulic Oil level
Remote Hydraulic Filter
Emergency Stop Relay Supply
Spare
Spare
Spare
Spare
Spare
DOUT-AK (HS)
DOUT-AL
DOUT-AM
DOUT-I (LS)
DOUT-K (LS)
DOUT-M (LS)
DOUT-O (LS)
DOUT-Q (LS)
14
16
31
39
40
41
42
43
-100X2 14
-100X2 16
-100X2 31
-100X2 39
-100X2 40
-100X2 41
-100X2 42
-100X2 43
0,75
0,75
0,75
20.15 / ENGINE_START
A1
A2
-107K4
Weidmüller
TRZ 24VDC 1CO
24Vdc
Remote
Hydraulic
Oil level
A1
A2
-107K6
Weidmüller
TRZ 24VDC 1CO
24Vdc
Remote
Hydraulic
Filter
-LX1 1
-LX1 1
102.19 / GND
GND / 108.2
14 11 /145.3
12
14 11 /145.5
12

Project : P210366 V250HPU	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
Cabinet : CSP - V250HPU						
Page : Control circuit diagram - XC44 C1 I/O Outputs	GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 106	Next page 108	Page 107

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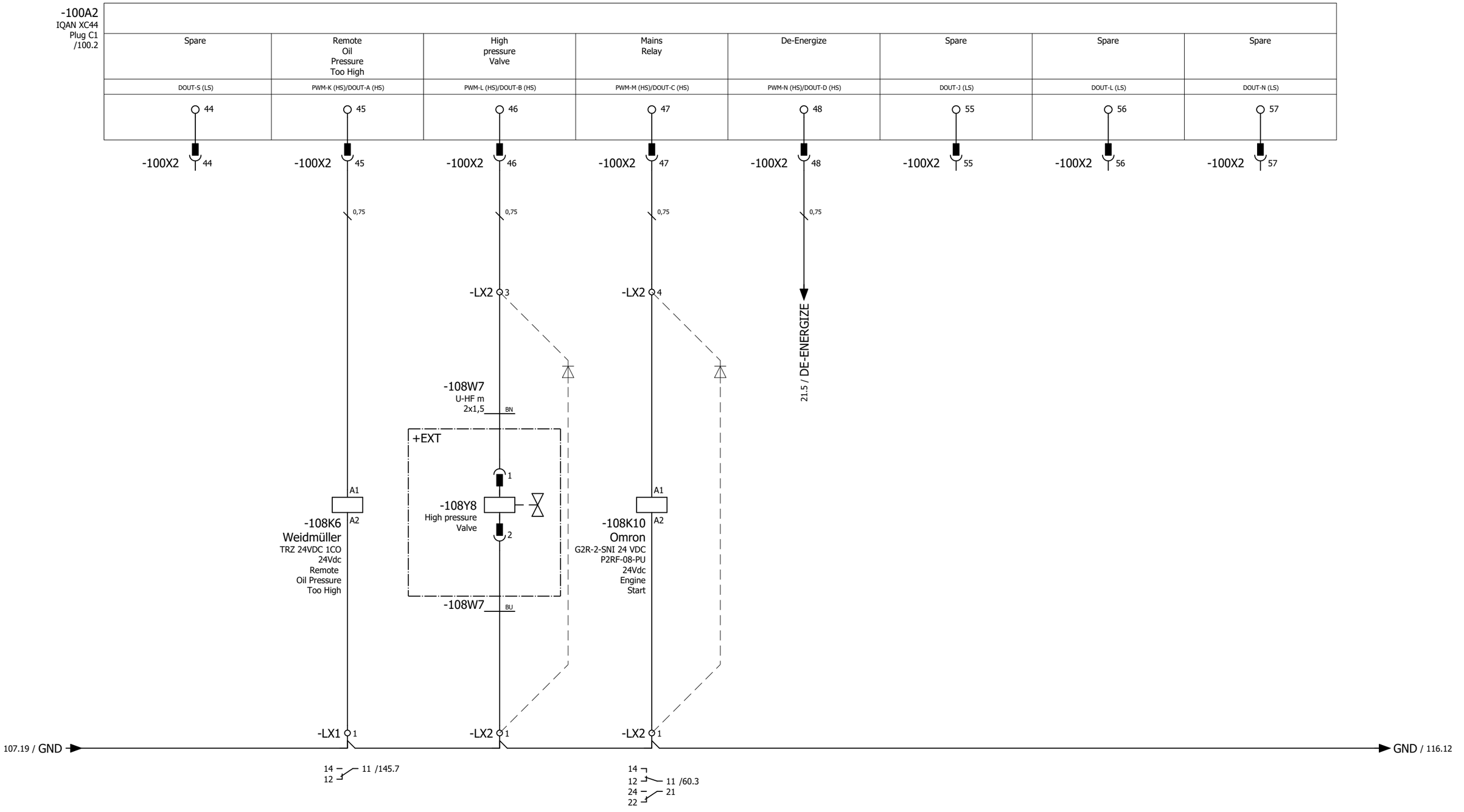

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C1 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 107	Next page 109	Page 108

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-100A2
IQAN XC44
Plug C1
/100.2

Spare	Spare	Spare	Spare	Spare	Spare	Spare	
DOUT-P (LS)	DOUT-R (LS)	DOUT-T (LS)	PWM-K (HS)/DOUT-A (HS)	PWM-L (HS)/DOUT-B (HS)	PWM-M (HS)/DOUT-C (HS)	PWM-N (HS)/DOUT-D (HS)	
58	59	60	61	62	63	64	
-100X2 58	-100X2 59	-100X2 60	-100X2 61	-100X2 62	-100X2 63	-100X2 64	

106.6 / +24VDC → +24VDC / 111.2

-LX1 2 -LX1 2

-110W8 U-HF m 3x1,5 BN

-110W9 U-HF m 2x1,5 BN

+EXT

+EXT Remote

-110S8 Main Intake Valve Open/ Closed

-110S10 Door 4 Closed

-XR1 12 -XR1 12

-XR1 13 -XR1 13

-110W8 BK GY -110W9 BU

-X 16 -X 17 -X 18

Valve.Closed 111.8

50.5 OL_Low

50.3 OL_Not_Low

0,75

-101X2 3 -101X2 4 -101X2 5 -101X2 6 -101X2 9 -101X2 10

-100A2 IQAN XC44 Plug C2 /100.2

3	4	5	6	9	10
VIN-I/DIN-U	VIN-J/DIN-V	VIN-K/DIN-W	VIN-L/DIN-X	DIN-A	DIN-B
Hydraulic Oil level Too Low	Hydraulic oil Level not Too Low	Main Intake Vlave Open	Door 4 Closed Switch	Remote Control Connected	Remote Start

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 109	Next page 111	Page 110

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

110.19 / +24VDC → -LX1 2 → +24VDC / 112.2

0,75

+EXT
Remote

-XR1 14
-XR1 14

-XR1 19
-XR1 19

-20Q19
/20.19

53
54

110.8
Valve.Closed

0,75 -101X2 11 → -100A2 IQAN XC44 Plug C2 /100.2 : 11 — DIN-C — Remote Automatic

0,75 -101X2 12 → 12 — DIN-D — Remote Flow -

0,75 -101X2 19 → 19 — VIN-M/DIN-Y — Main Intake Valve Closed

0,75 -101X2 52 → 20 — VIN-N/DIN-Z — Emergency Stop Energized

-101X2 53 → 21 — VIN-O/DIN-AA — Spare

-101X2 54 → 22 — VIN-P/DIN-AB — Spare

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 110	Next page 112	Page 111

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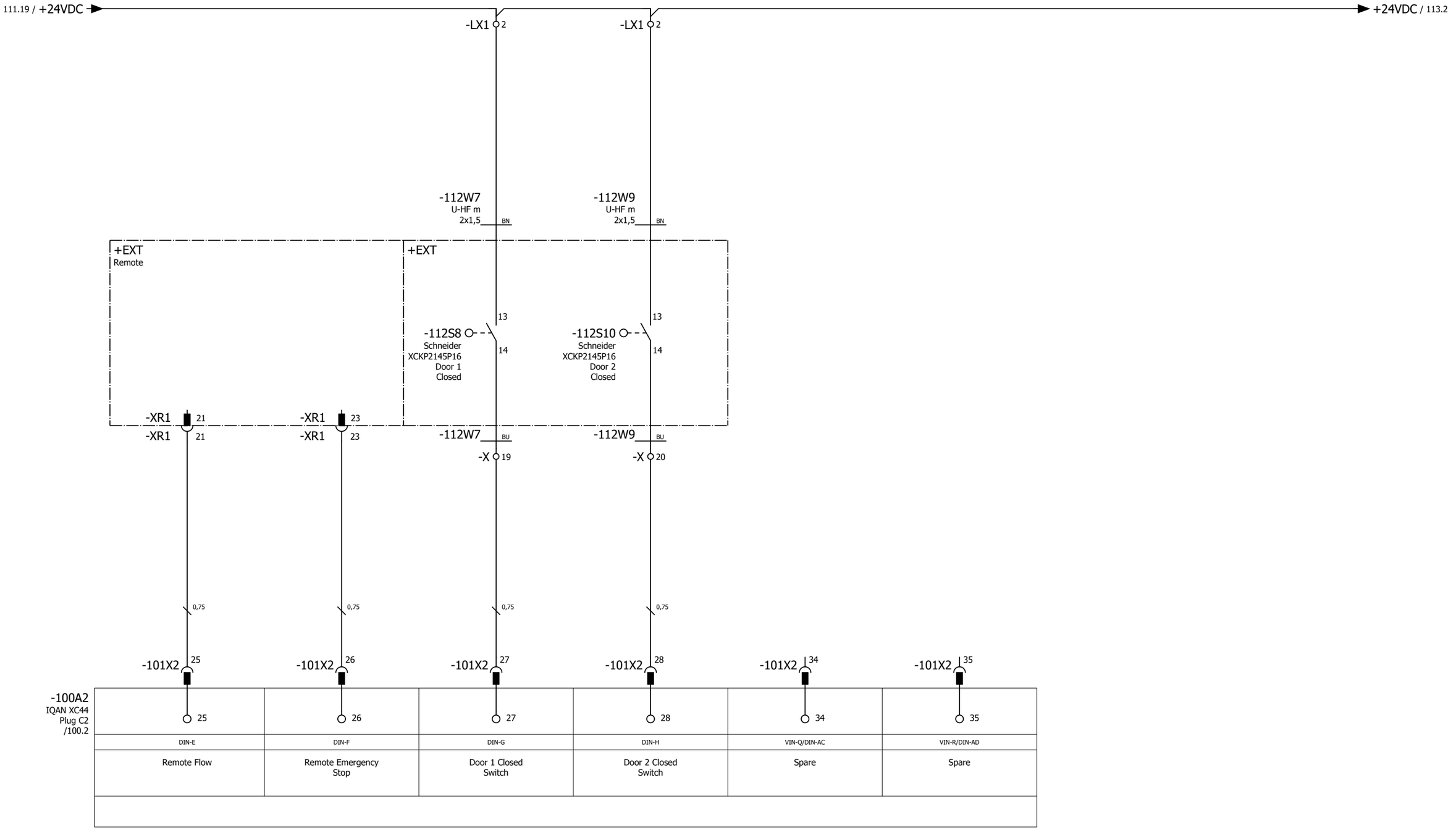

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 111	Next page 113	Page 112

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112.19 / +24VDC → +24VDC / 116.7

-LX1 2

-113W11
U-HF m
2x1,5 BN

+EXT
Remote

+EXT

-113S12
Door 3
Closed

-XR1 15
-XR1 15

-113W11 BU

-X 21

0,75

0,75

-101X2 36
-101X2 37
-101X2 38
-101X2 41
-101X2 42
-101X2 54

-100A2
IQAN XC44
Plug C2
/100.2

36	37	38	41	42	54
VIN-S/DIN-AE	VIN-T/DIN-AF	DIN-AG	DIN-I	DIN-J	DIN-AH
Spare	Spare	Spare	Remote Extract	Door 3 Closed Switch	Spare

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 112	Next page 114	Page 113

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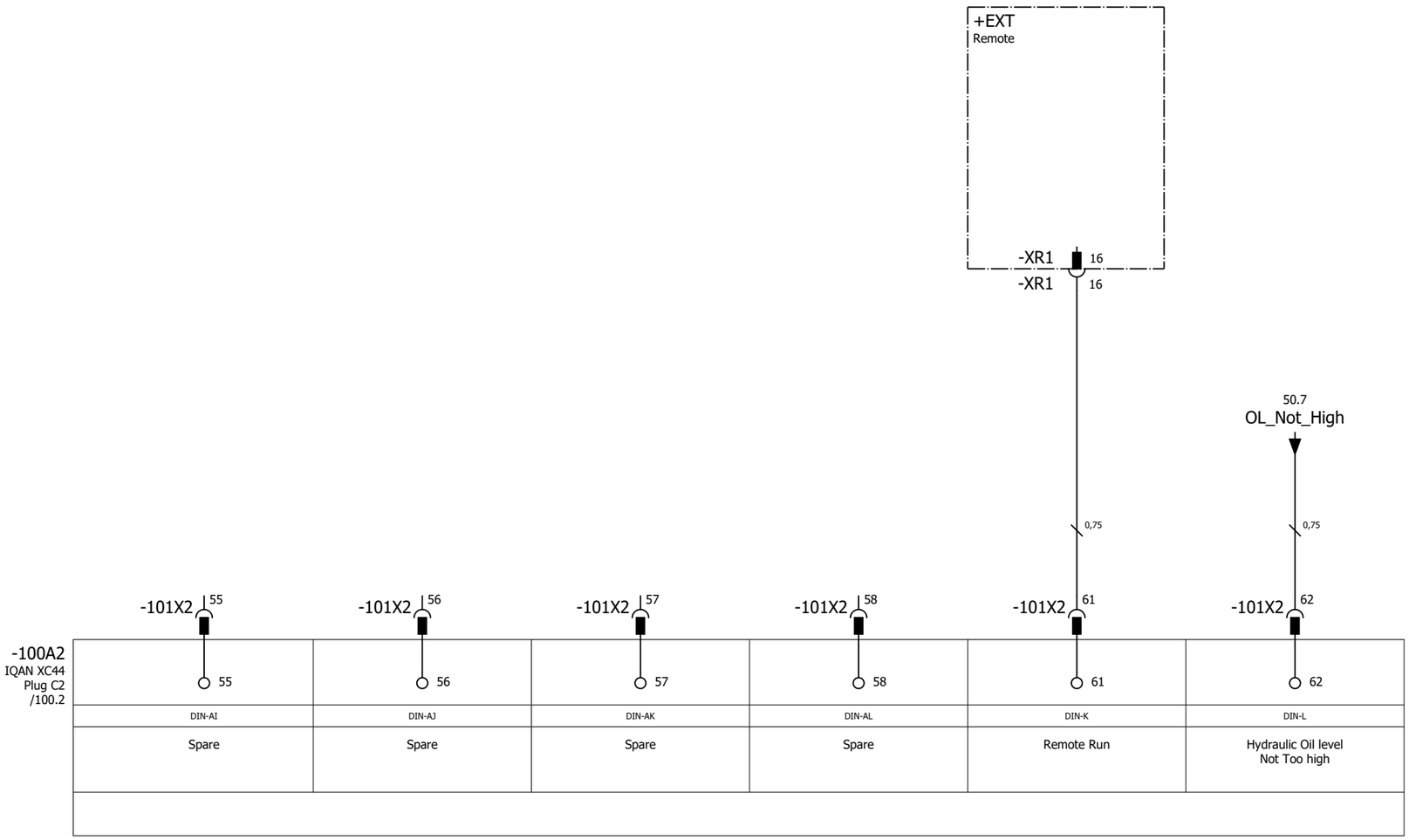

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 113	Next page 115	Page 114

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-100A2
IQAN XC44
Plug C2
/100.2

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare
DOUT-U (LS)	DOUT-W (LS)	DOUT-Y (LS)	DOUT-AA (LS)	DOUT-V (LS)	DOUT-X (LS)	DOUT-Z (LS)	DOUT-AB (LS)
13	14	15	16	29	30	31	32
-101X2 13	-101X2 14	-101X2 15	-101X2 16	-101X2 29	-101X2 30	-101X2 31	-101X2 32

Project : P210366 V250HPU	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
Cabinet : CSP - V250HPU	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 114	Next page 116	Page 115
Page : Control circuit diagram - XC44 C2 I/O Outputs						

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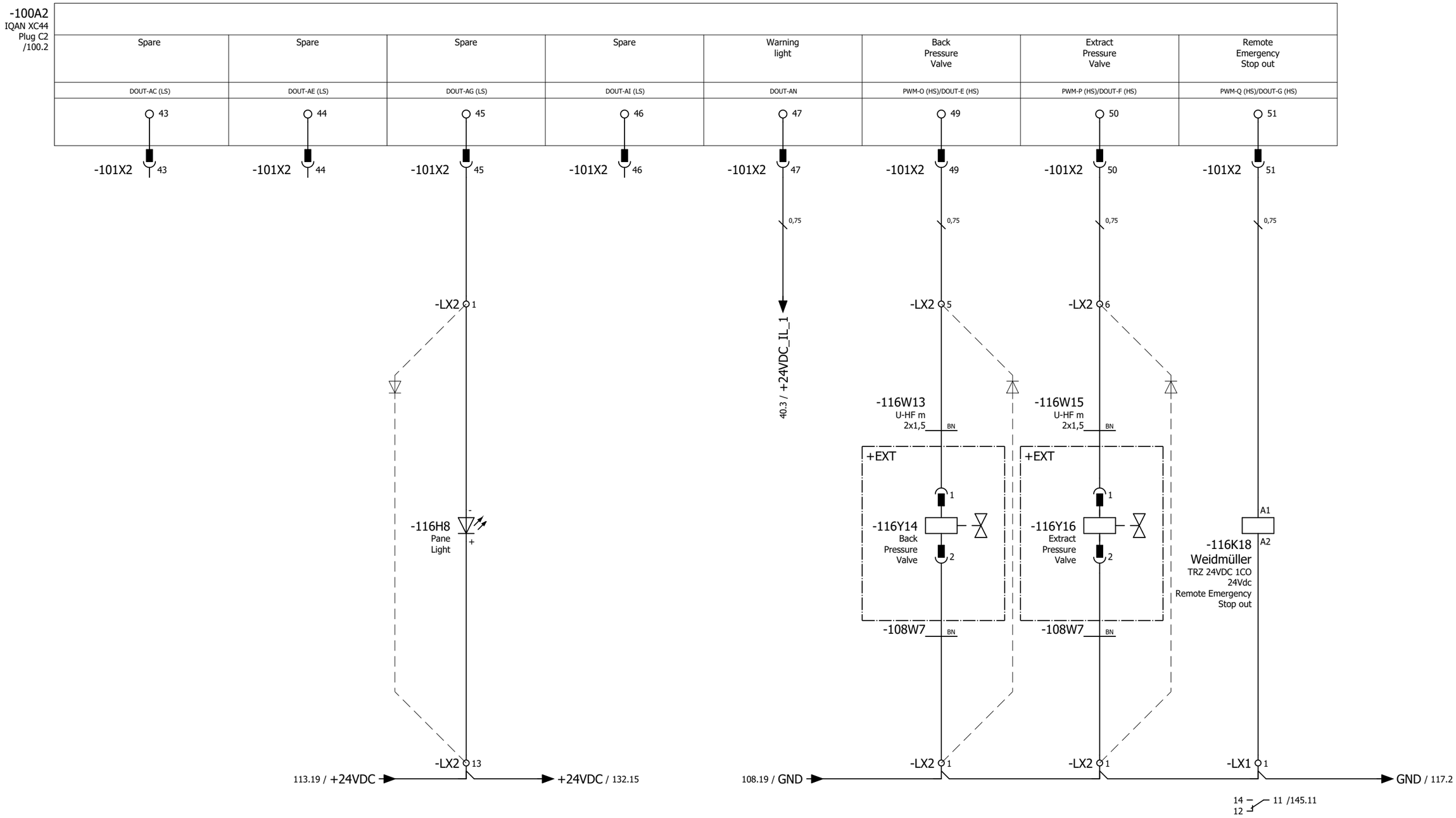

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC44 C2 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 115	Next page 117	Page 116

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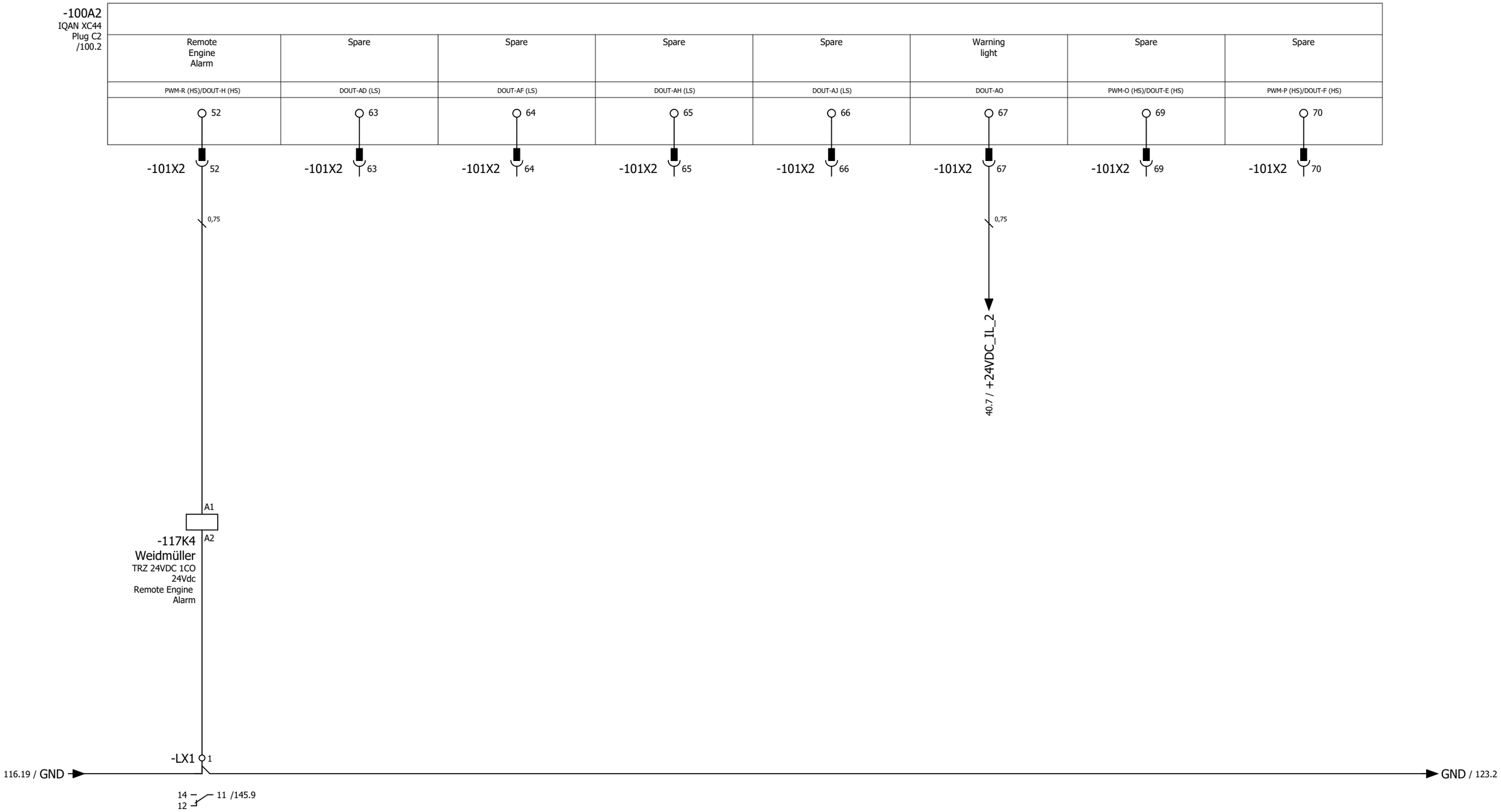

Project : P210366 V250HPU	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
Cabinet : CSP - V250HPU	GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 116	Next page 118	Page 117
Page : Control circuit diagram - XC44 C2 I/O Outputs						

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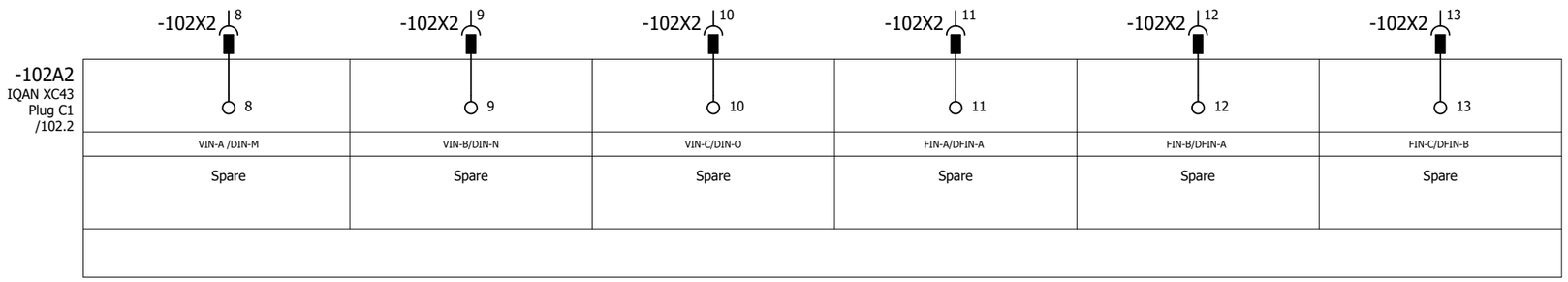
-100A2
IQAN XC44
Plug C2
/100.2

Spare	Spare						
PWM-Q (HS)/DOUT-G (HS)	PWM-R (HS)/DOUT-H (HS)						
71	72						

-101X2 71

-101X2 72

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C1 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 118	Next page 120	Page 119

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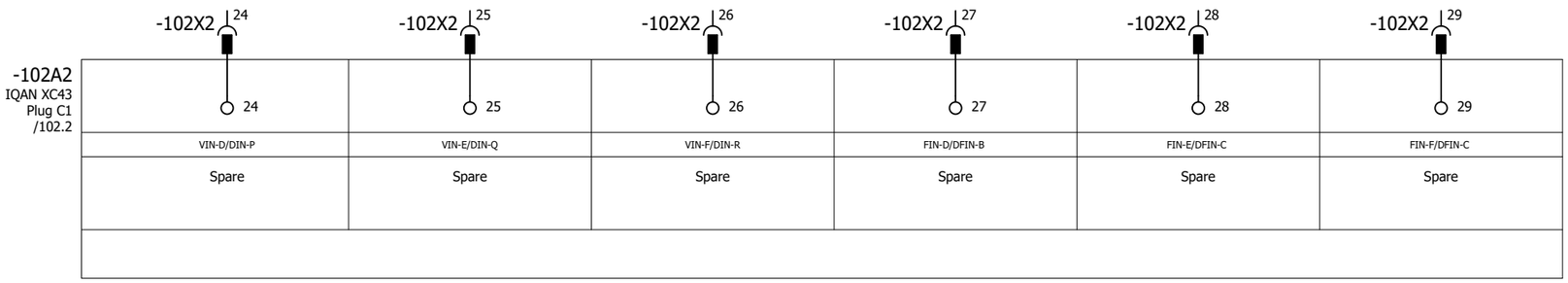

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		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 119	Next page 121	Page 120

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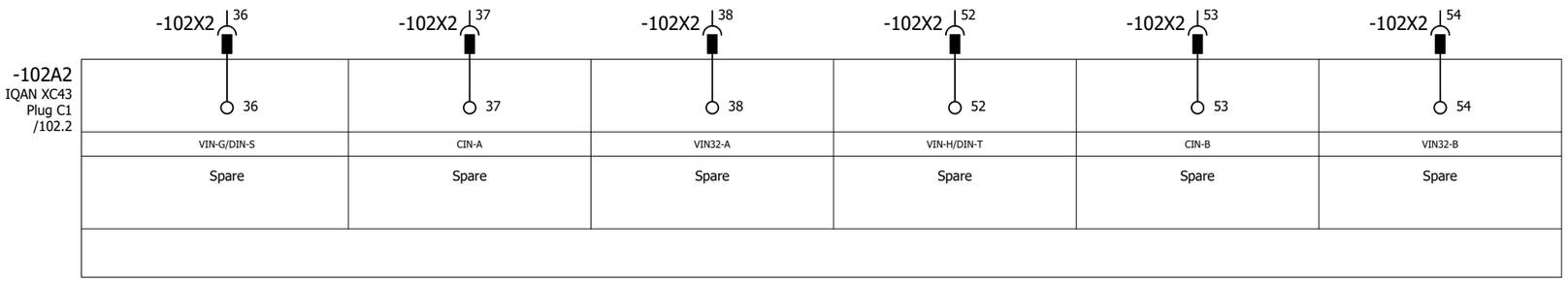

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C1 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 120	Next page 122	Page 121

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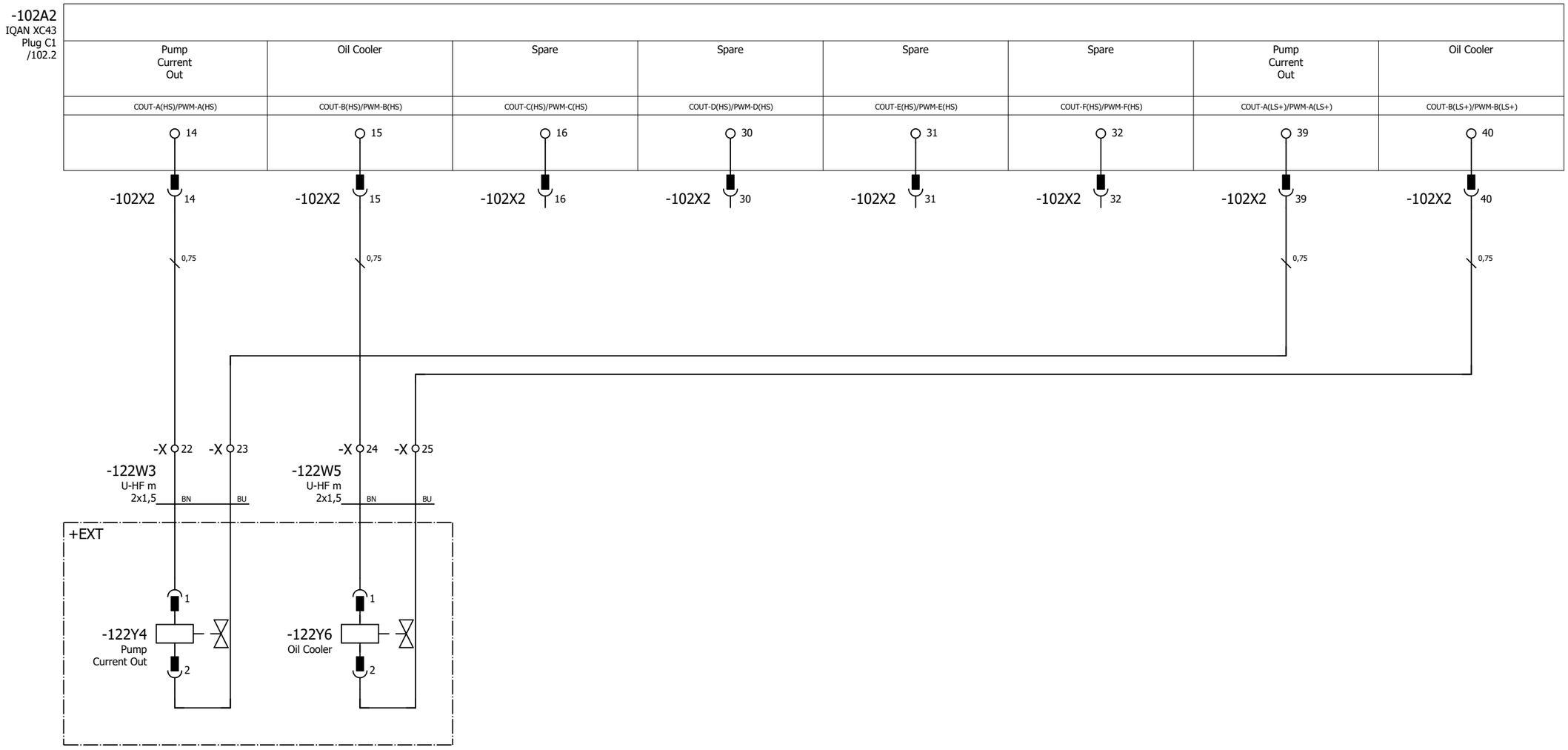

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C1 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
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-102A2
IQAN XC43
Plug C1
/102.2

Spare	Spare	Spare	Spare	Interiour Light Front	Interiour Light Rear	Panel Light	Spare
COUT-C(LS+)/PWM-C(LS+)	COUT-D(LS+)/PWM-D(LS+)	COUT-E(LS+)/PWM-E(LS+)	COUT-F(LS+)/PWM-F(LS+)	PWM-K (HS)/DOUT-A(HS)	PWM-L (HS)/DOUT-B(HS)	PWM-M (HS)/DOUT-C(HS)	PWM-N (HS)/DOUT-D(HS)
41	42	43	44	45	46	47	48

-102X2 41 -102X2 42 -102X2 43 -102X2 44 -102X2 45 -102X2 46 -102X2 47 -102X2 48

0,75

-LX2 7 -LX2 8 -LX2 9 -LX2 10

-123W11 U-HF m 2x1,5 BN
-123W13 U-HF m 2x1,5 BU
-123W15 U-HF m 2x1,5 BU

+EXT

-123H12 Interiour Light Front
-123H14 Interiour Light Front
-123H16 Interiour Light Front

-123W11 BU
-123W13 BN
-123W15 BN

-123K18 Omron G2R-2-SNI 24 VDC P2RF-08-PU 24Vdc Engine Start
A1
A2

-LX2 1 -LX2 1 -LX2 1 -LX2 1

117.19 / GND

GND / 199.2

14 12 — 11 /20.7
24 22 — 21

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C1 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
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-102A2
IQAN XC43
Plug C1
/102.2

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare
COUT-A (LS-)/PWM-A (LS-)	COUT-B (LS-)/PWM-B (LS-)	COUT-C (LS-)/PWM-C (LS-)	COUT-D (LS-)/PWM-D (LS-)	COUT-E (LS-)/PWM-E (LS-)	COUT-F (LS-)/PWM-F (LS-)	PWM-K (HS)/DOUT-A(HS)	PWM-L (HS)/DOUT-B(HS)
55	56	57	58	59	60	61	62
-102X2 55	-102X2 56	-102X2 57	-102X2 58	-102X2 59	-102X2 60	-102X2 61	-102X2 62

-102A2
IQAN XC43
Plug C1
/102.2

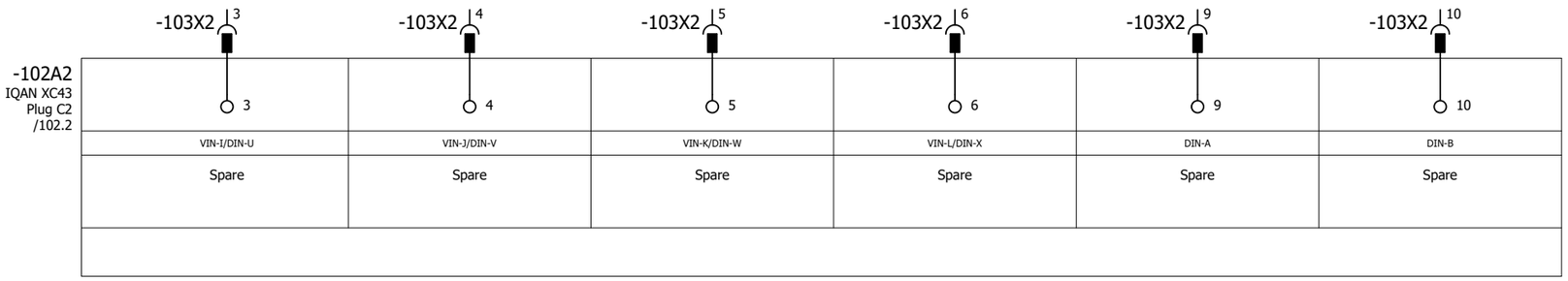
Spare	Spare						
PWM-M (HS)/DOUT-C(HS)	PWM-N (HS)/DOUT-D(HS)						
63	64						

-102X2 63

-102X2 64

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C1 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 124	Next page 126	Page 125

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 125	Next page 127	Page 126

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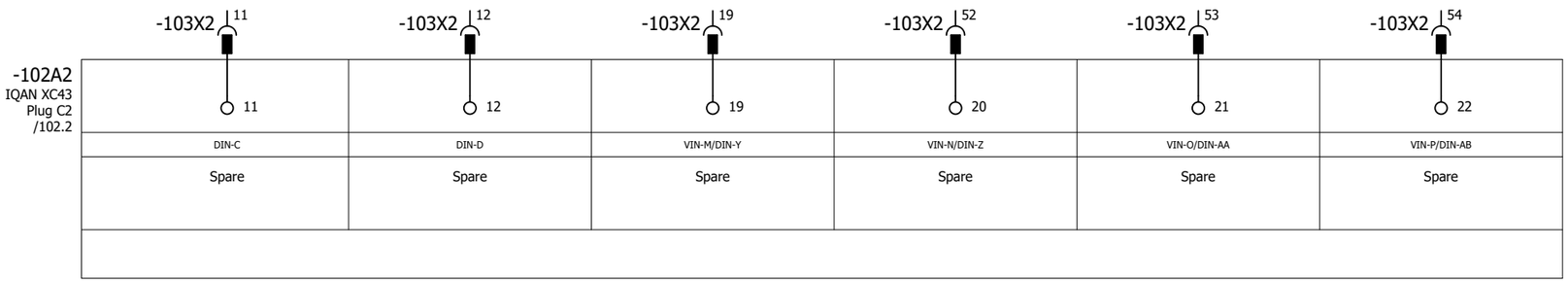
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3	
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 126	Next page 128	Page 127	

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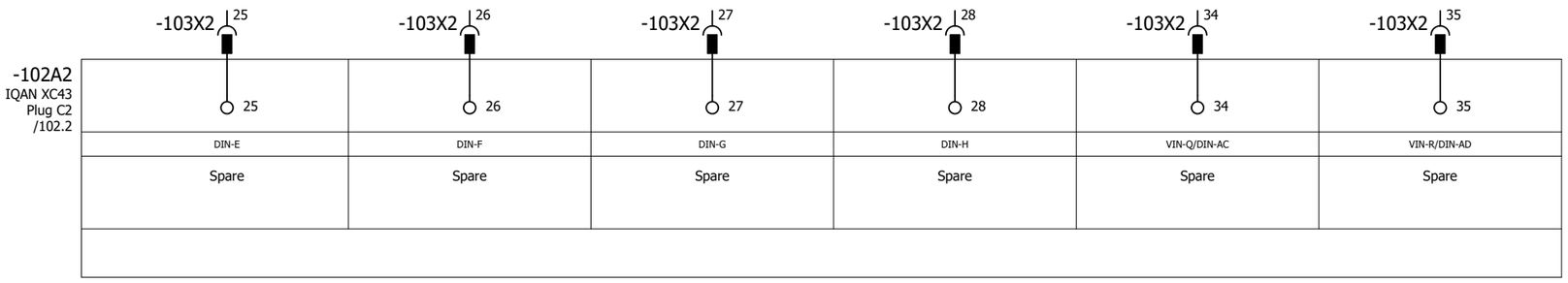
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 127	Next page 129	Page 128

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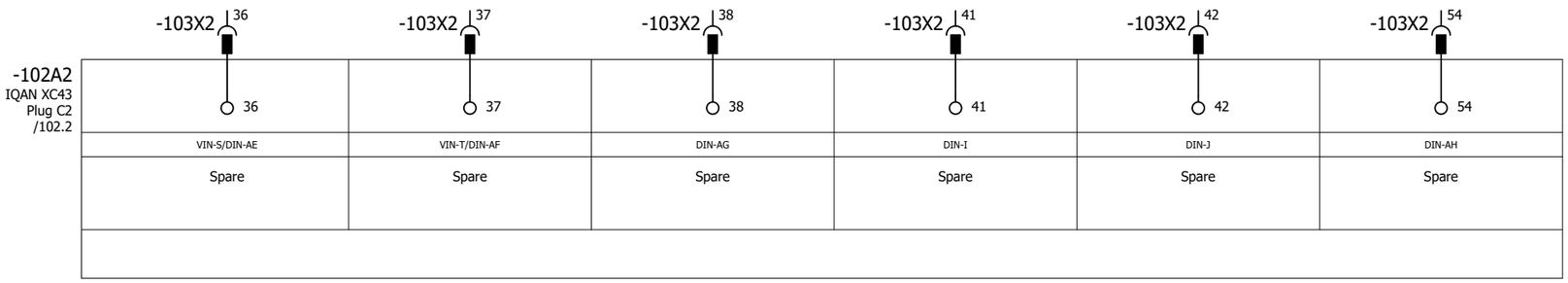
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



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		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 128	Next page 130	Page 129

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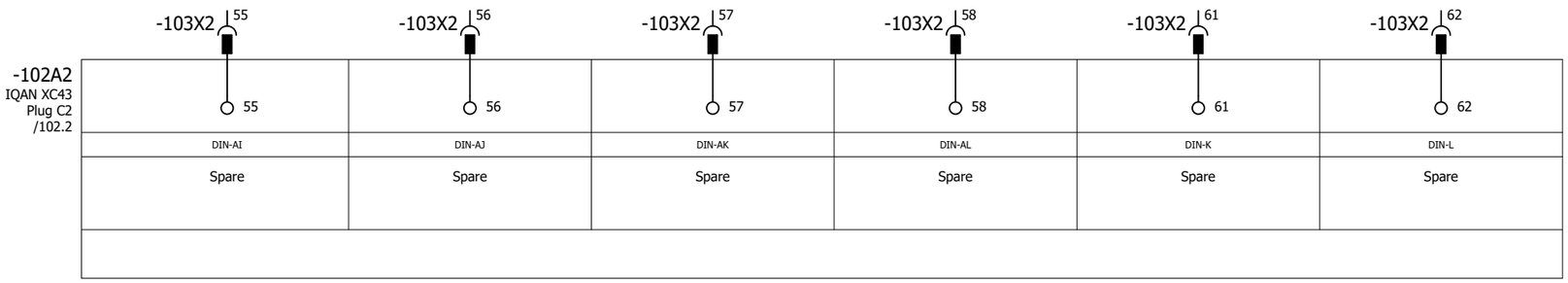

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C2 I/O Inputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3	
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 129	Next page 131	Page 130	

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-102A2
IQAN XC43
Plug C2
/102.2

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare
COUT-G (LS+)/PWM-G (LS+)	COUT-H (LS+)/PWM-H (LS+)	COUT-I (LS+)/PWM-I (LS+)	COUT-J (LS+)/PWM-J (LS+)	COUT-G (LS-)/PWM-G (LS-)	COUT-H (LS-)/PWM-H (LS-)	COUT-I (LS-)/PWM-I (LS-)	COUT-J (LS-)/PWM-J (LS-)
13	14	15	16	29	30	31	32
-103X2 13	-103X2 14	-103X2 15	-103X2 16	-103X2 29	-103X2 30	-103X2 31	-103X2 32

Project : P210366 V250HPU	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
Cabinet : CSP - V250HPU	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 130	Next page 132	Page 131
Page : Control circuit diagram - XC43 C2 I/O Outputs						

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

-102A2
IQAN XC43
Plug C2
/102.2

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare
DOUT-AC (LS)	DOUT-AE (LS)	DOUT-AG (LS)	DOUT-AI (LS)	COUT-G (HS)/PWM-G (HS)	COUT-H (HS)/PWM-H (HS)	PWM-O (HS)/DOUT-E (HS)	PWM-P (HS)/DOUT-F (HS)
43	44	45	46	47	48	49	50
-103X2 43	-103X2 44	-103X2 45	-103X2 46	-103X2 47	-103X2 48	-103X2 49	-103X2 50

-LX2 1

-LX2 1

-LX2 11

-LX2 12

116.9 / +24VDC

+24VDC / 133.2

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C2 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 131	Next page 133	Page 132

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

-102A2
IQAN XC43
Plug C2
/102.2

Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare
PWM-Q (HS)/DOUT-G (HS)	PWM-R (HS)/DOUT-H (HS)	DOUT-AD (LS)	DOUT-AF (LS)	DOUT-AH (LS)	DOUT-AJ (LS)	COUT-I (HS)/PWM-I (HS)	COUT-J (HS)/PWM-J (HS)
51	52	63	64	65	66	67	68
-103X2 51	-103X2 52	-103X2 63	-103X2 64	-103X2 65	-103X2 66	-103X2 67	-103X2 68

-LX2 1

-LX2 14

132.19 / +24VDC → +24VDC / 145.2

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C2 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 12-12-2022 D.2		Previous page 132	Next page 134	Page 133

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-102A2
IQAN XC43
Plug C2
/102.2

Spare	Spare	Spare	Spare				
PWM-O (HS)/DOUT-E (HS)	PWM-P (HS)/DOUT-F (HS)	PWM-Q (HS)/DOUT-G (HS)	PWM-R (HS)/DOUT-H (HS)				
69	70	71	72				

-103X2 69 -103X2 70 -103X2 71 -103X2 72

	Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - XC43 C2 I/O Outputs	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
		GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 133	Next page 145	Page 134

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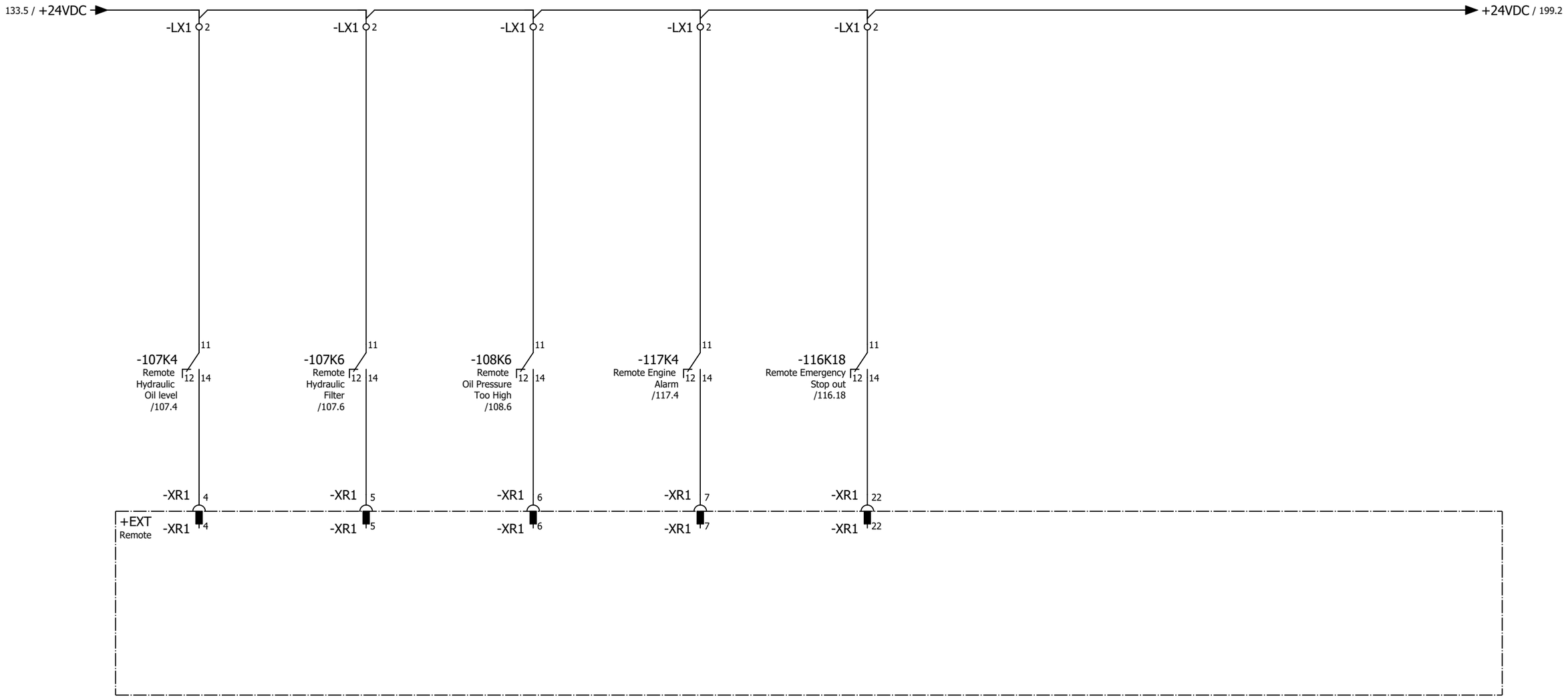

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - Remote	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 134	Next page 199	Page 145

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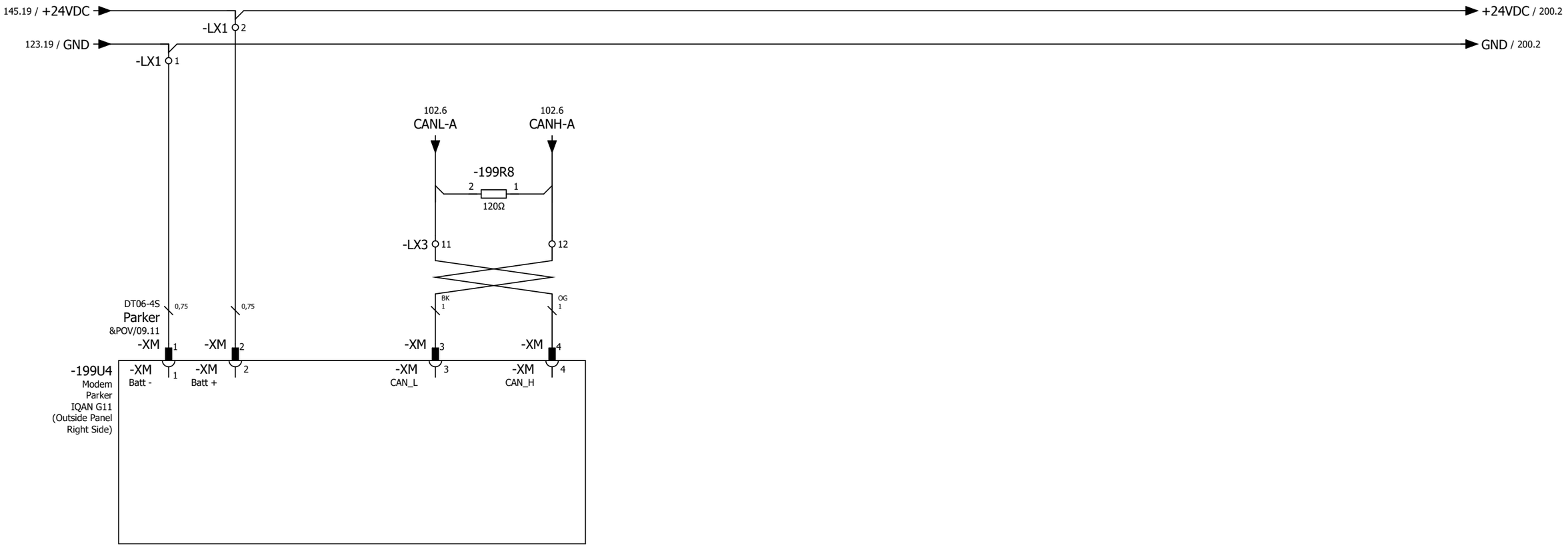

Project : P210366 V250HPU	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3	
Cabinet : CSP - V250HPU	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 145	Next page 200	Page 199	
Page : Control circuit diagram - Modem							

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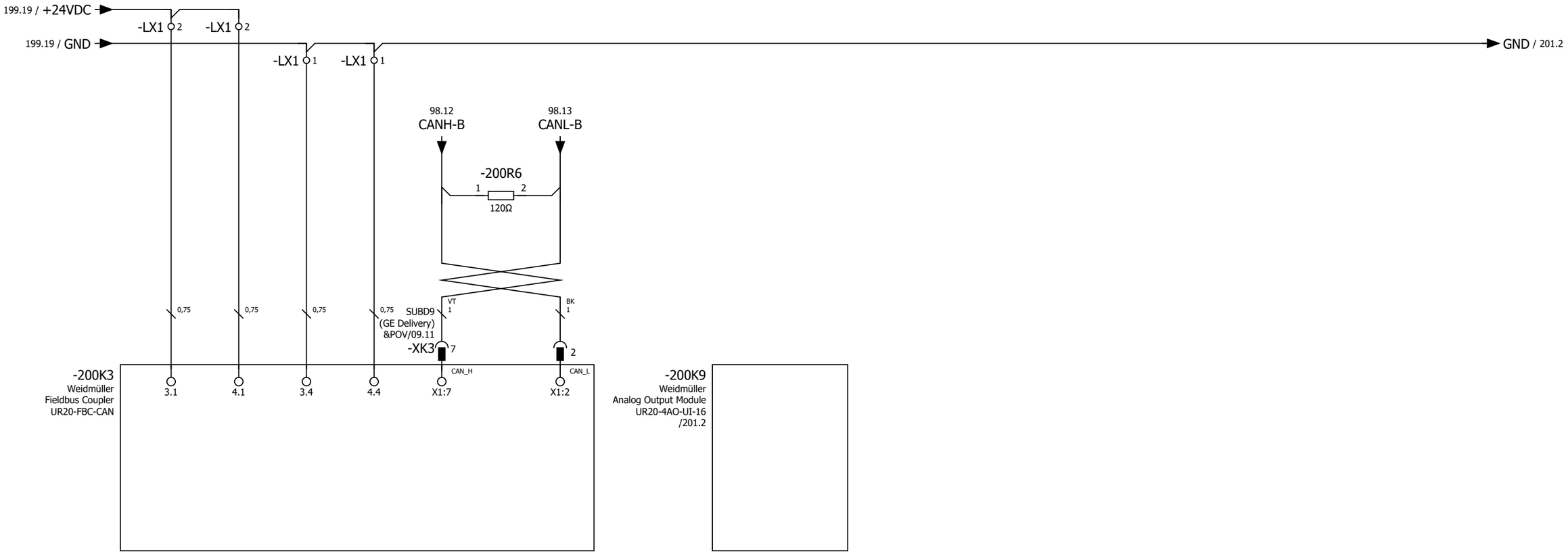

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - Overview Fieldbus Coupler	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 199	Next page 201	Page 200

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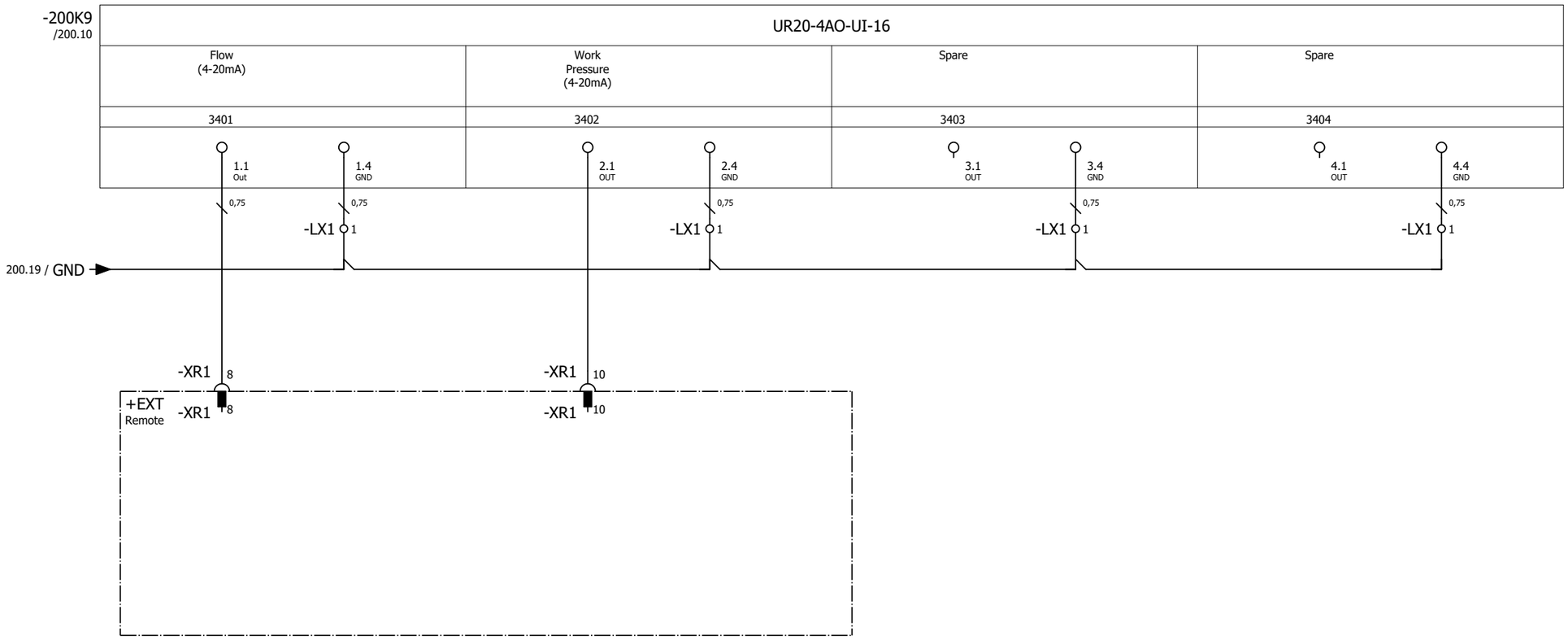

Project : P210366 V250HPU Cabinet : CSP - V250HPU Page : Control circuit diagram - Analog Out	Project number	Document number V250HPU			Document Type ELD	Sheet Size A3
	GE Reference P210366 01.01	Revision 14-02-2022 D.1		Previous page 200	Next page 300	Page 201

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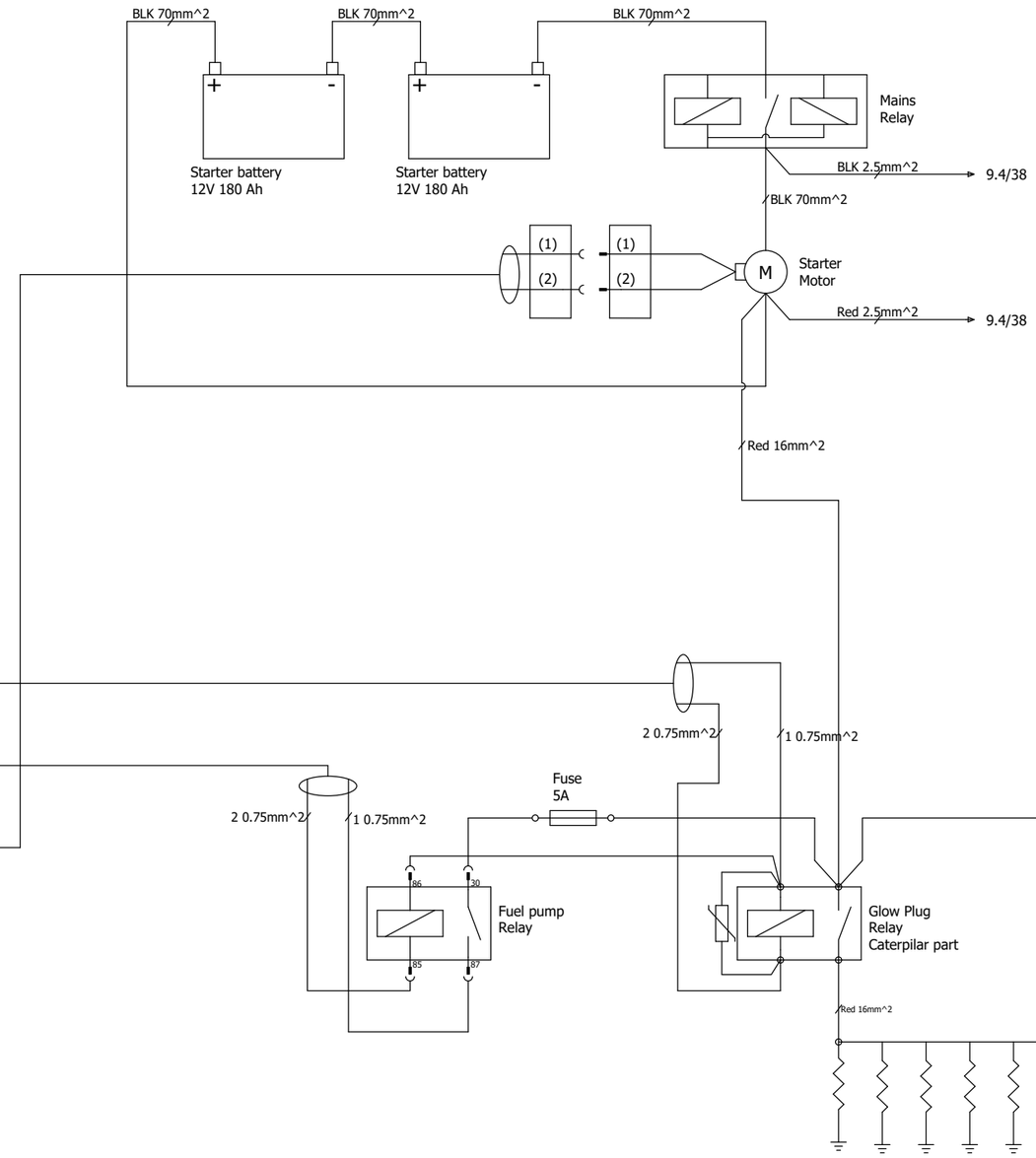
Engine ECM

Battery +	(2)	Red 2.5mm^2	Red 2.5mm^2	20.9/Lx1.3
Battery +	(11)	Red 2.5mm^2	Red 2.5mm^2	20.9/Lx1.3
Battery +	(38)	Red 2.5mm^2	Red 2.5mm^2	20.9/Lx1.3
Battery +	(41)	Red 2.5mm^2	Red 2.5mm^2	20.9/Lx1.3
Battery +	(57)	Red 2.5mm^2	Red 2.5mm^2	20.9/Lx1.3
Battery -	(13)	BLK 2.5mm^2	BLK 2.5mm^2	20.9/Lx1.1
Battery -	(35)	BLK 2.5mm^2	BLK Hose 25 mm / BLK 2.5mm^2	20.9/Lx1.1
Battery -	(45)	BLK 2.5mm^2	BLK 2.5mm^2	20.9/Lx1.1
Battery -	(47)	BLK 2.5mm^2	BLK 2.5mm^2	20.9/Lx1.1
Battery -	(65)	BLK 2.5mm^2	BLK 2.5mm^2	20.9/Lx1.1
Battery +Switched	(70)	WHT 1.5mm^2	WHT 1.5mm^2	Nog geen klem nummer
CAN H	(25)	Purple 1.5mm^2	Purple 1.5mm^2	30.9/Lx3.3
CAN L	(26)	WHT 1.5mm^2	WHT 1.5mm^2	30.10/Lx3.4
Sourcing Return	(30)	1 0.75mm^2	2x 0.75mm^2	
Glow Plug Relay +	(8)	2 0.75mm^2		
Fuel Pump +	(22)	1 0.75mm^2	2x 0.75mm^2	
Fuel Pump Relay -	(20)	2 0.75mm^2		
Start Relay +	(19)	1 0.75mm^2	2x 0.75mm^2	
Start Relay -	(17)	2 0.75mm^2		



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Parts List — CSP - V250HPU

Device tag	Type	Qty.	Manufacturer	Technical Data	Description
-1	MAS0605021R5	1	Eldon		Cabinet
-1	BATTERY_BRACKET_500_WIDE (ELDON)	1	Galensloot		Brackets
-?W0	M25 CLICK	1	Lapp		Cable Gland
-?W0.1	M20 CLICK	1	Lapp		Cable Gland
-100A2	IQAN XC44	1	Parker		PLC
-102A2	IQAN XC43	1	Parker		PLC
-99C1	DTM06-12-SB	1	Parker		Connectrion Kit
-99C1	WM12S	1	Parker		Wedge Lock
-99C2	DTM06-12-SA	1	Parker		Connectrion Kit
-99C2	WM12S	1	Parker		Wedge Lock
-108K10	G2R-2-SNI 24 VDC	1	Omron	24Vdc	Relay
-108K10	P2RF-08-PU	1	Omron		Socket
-123K18	G2R-2-SNI 24 VDC	1	Omron	24Vdc	Relay
-123K18	P2RF-08-PU	1	Omron		Socket
-200K3	UR20-FBC-CAN	1	Weidmüller		Fieldbus Coupler
-200K9	UR20-4AO-UI-16	1	Weidmüller		Analog Output Module
-LX1	ZDLD 2.5-2N	23	Weidmüller		Terminal
-LX1	WEW 35/2	1	Weidmüller		End Bracket
-LX2	WEW 35/2	1	Weidmüller		End Bracket
-LX3	WEW 35/2	5	Weidmüller		End Bracket
-LX2	ZDK 2.5/D/1	13	Weidmüller		Diode terminal
-LX3	ZDU 2.5\3AN	12	Weidmüller		Terminal
-LX3	ZAP\TW2 DB	3	Weidmüller		End Plate
-LX2	ZAP/TW ZDK 2.5	1	Weidmüller		End Plate
-LX1	ZAP\TW ZDLD2,5-2N	1	Weidmüller		End Plate
-60PS3	3SU1031-3AB42-0AK0	1	Siemens		Pushbutton Illuminated
-60PS3	3SU1500-0AA10-0AA0	1	Siemens		Holder 3 Modules
-60PS3	3SU1400-1AA10-3BA0	2	Siemens		Contact Element
-60PS3	3SU1401-1BB40-3AA0	1	Siemens	24Vac/dc	LED Element
-60PS3	SM 27\18 K MC NE WS	1	Weidmüller		Text Plate
-20Q19	G7Z-4A-11Z DC24	1	Omron	24Vdc	Relay
-R2	WEW 35/2	2	Weidmüller		End Bracket
-30R10	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-30R10	BEST	1	Weidmüller		Component plug
-106R4	ZTR 2.5/O TNHE	1	Weidmüller		Terminal

Parts List — CSP - V250HPU

Device tag	Type	Qty.	Manufacturer	Technical Data	Description
-106R4	BEST	1	Weidmüller		Component plug
-106R4.1	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-106R4.1	BEST	1	Weidmüller		Component plug
-98R8	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-98R8	BEST	1	Weidmüller		Component plug
-98R8	1.5KOhm	1	TU		Resistor
-98R14	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-98R14	BEST	1	Weidmüller		Component plug
-98R14	432Ohm	1	TU		Resistor
-100R10	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-100R10	BEST	1	Weidmüller		Component plug
-100R10		1			
-102R10	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-102R10	BEST	1	Weidmüller		Component plug
-102R10	1.5KOhm	1	TU		Resistor
-199R8	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-199R8	BEST	1	Weidmüller		Component plug
-199R8	120Ohm	1	TU		Resistor
-200R6	ZTR 2.5/O TNHE	1	Weidmüller		Terminal
-200R6	BEST	1	Weidmüller		Component plug
-200R6	120Ohm	1	TU		Resistor
-200R6	ZAP\TW1	1	Weidmüller		End Plate
-20S15	BS3	1	IMO		Holder 3 Modules
-20S15	B3T01	1	IMO		Auxiliary Contact
-20S15	BS3P34RED_O	1	IMO		Pushbutton Emergency Stop
-98U3	IQAN MD4-10	1	Parker	10" Display	Display
-98U8	BATT_12V_10AH	1		12Vdc/10Ah	Battery Module
-98U8.1	BATT_12V_10AH	1		12Vdc/10Ah	Battery Module
-199U4	IQAN G11	1	Parker		Modem
-20W2	M20 CLICK	1	Lapp		Cable Gland
-20W18	M20 CLICK	1	Lapp		Cable Gland
-30W11	M20 CLICK	1	Lapp		Cable Gland
-40W3	M20 CLICK	1	Lapp		Cable Gland
-50W4	M20 CLICK	1	Lapp		Cable Gland
-50W8	M20 CLICK	1	Lapp		Cable Gland

Parts List — CSP - V250HPU

Device tag	Type	Qty.	Manufacturer	Technical Data	Description
-99W13	M20 CLICK	1	Lapp		Cable Gland
-101W9	M16 CLICK	1	Lapp		Cable Gland
-102W13	M20 CLICK	1	Lapp		Cable Gland
-111W3	M20 CLICK	1	Lapp		Cable Gland
-111W5	M16 CLICK	1	Lapp		Cable Gland
-111W7	M16 CLICK	1	Lapp		Cable Gland
-111W9	M16 CLICK	1	Lapp		Cable Gland
-111W11	M20 CLICK	1	Lapp		Cable Gland
-111W13	M20 CLICK	1	Lapp		Cable Gland
-111W15	M20 CLICK	1	Lapp		Cable Gland
-111W17	M20 CLICK	1	Lapp		Cable Gland
-X	WEW 35/2	1	Weidmüller		End Bracket
-X0	WEW 35/2	2	Weidmüller		End Bracket
-100X2	IQAN XA2 Connector Kit 42P	1	Parker		Connection kit
-101X2	IQAN XA2 Connector Kit 42P	1	Parker		Connection kit
-102X2	IQAN XA2 Connector Kit 42P	1	Parker		Connection kit
-103X2	IQAN XA2 Connector Kit 42P	1	Parker		Connection kit
-X	ZDLD 2.5-2N	9	Weidmüller		Terminal
-X0	ZDU 10	2	Weidmüller		Terminal
-X0	ZAP\TW ZDU10	1	Weidmüller		End Plate
-X1	ZSI 6-2_FC LD	13	Weidmüller		Fuse Terminal
-X1	0287030	1	TU		Blade Fuse
-X1	ZQV 6/24 GE	1	Weidmüller		Cross Connector
-X1	0287025	1	TU		Blade Fuse
-X1	0287005	4	TU		Blade Fuse
-X1	0287015	7	TU		Blade Fuse
-X1	ZAP ZDU6-2 SW	1	Weidmüller		End Plate
-X	ZAP\TW ZDLD2,5-2N	1	Weidmüller		End Plate
-XD	WEW 35/2	2	Weidmüller		End Bracket
-XD	ZDK 2.5/D/5	1	Weidmüller		Diode terminal
-XD	ZAP/TW ZDK 2.5	1	Weidmüller		End Plate
-XM		1			
-XM	M16 CLICK	1	Lapp		Cable Gland
-XM	DT06-4S	1	Parker		Connectrion Kit
-XR1	HDC 24B ADLU	1	Weidmüller		Plug housing

Parts List — CSP - V250HPU

Device tag	Type	Qty.	Manufacturer	Technical Data	Description
-XR1	HDC HE 24 FP	1	Weidmüller		Plug insert F
-XR2	HDC 10B ABU	1	Weidmüller		Plug housing
-XR2	HDC HE 10 FT	1	Weidmüller		Plug insert F
-XR2	HDC HE 10 MT	1	Weidmüller		Plug insert M
-XR2	HDC 10B TSBU 1M25G	1	Weidmüller		Plug cover
-XR2		1			
-XR2	M25 MS-M	1	Lapp		Cable Gland

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Part number	Type	Qty.	Manufacturer	Description	Technical Data
		1			
		1			
GE9999066	BATT_12V_10AH	2		Battery Module	12Vdc/10Ah
	33-7393-1	4	Calpe	Wiring Duct	
GE00120025	MAS0605021R5	1	Eldon	Cabinet	
	BATTERY_BRACKET_500_WIDE (ELDON)	1	Galensloot	Brackets	
GE99990014	B3T01	1	IMO	Auxiliary Contact	
GE99990016	BS3	1	IMO	Holder 3 Modules	
GE99990015	BS3P34RED_O	1	IMO	Pushbutton Emergency Stop	
		1			
GE31080409	M16 CLICK	5	Lapp	Cable Gland	
GE31080410	M20 CLICK	14	Lapp	Cable Gland	
GE31080411	M25 CLICK	1	Lapp	Cable Gland	
GE31080003	M25 MS-M	1	Lapp	Cable Gland	
GE11050220	G2R-2-SNI 24 VDC	2	Omron	Relay	24Vdc
GE07050001	G7Z-4A-11Z DC24	1	Omron	Relay	24Vdc
GE11050277	P2RF-08-PU	2	Omron	Socket	
GE99990065	DT06-4S	1	Parker	Connectrion Kit	
GE99990060	DTM06-12-SA	1	Parker	Connectrion Kit	
GE99990061	DTM06-12-SB	1	Parker	Connectrion Kit	
	IQAN G11	1	Parker	Modem	
	IQAN MD4-10	1	Parker	Display	10" Display
GE99990062	IQAN XA2 Connector Kit 42P	4	Parker	Connection kit	
	IQAN XC43	1	Parker	PLC	
	IQAN XC44	1	Parker	PLC	
GE99990059	WM12S	2	Parker	Wedge Lock	
GE12020049	3SU1031-3AB42-0AK0	1	Siemens	Pushbutton Illuminated	
GE12020094	3SU1400-1AA10-3BA0	2	Siemens	Contact Element	
GE12020123	3SU1401-1BB40-3AA0	1	Siemens	LED Element	24Vac/dc
GE12020283	3SU1500-0AA10-0AA0	1	Siemens	Holder 3 Modules	
GE99990039	1.5KOhm	2	TU	Resistor	
GE99990035	120Ohm	2	TU	Resistor	
GE99990037	432Ohm	1	TU	Resistor	
GE99990048	0287005	4	TU	Blade Fuse	
GE99990050	0287015	7	TU	Blade Fuse	
GE99990052	0287025	1	TU	Blade Fuse	
GE99990053	0287030	1	TU	Blade Fuse	
GE82090001	7915060000	2	Weidmüller	Mounting Rail	

Part number	Type	Qty.	Manufacturer	Description	Technical Data
GE10090723	BEST	9	Weidmüller	Component plug	
GE30090144	HDC 10B ABU	1	Weidmüller	Plug housing	
GE30090149	HDC 10B TSBU 1M25G	1	Weidmüller	Plug cover	
GE30090152	HDC 24B ADLU	1	Weidmüller	Plug housing	
GE30090145	HDC HE 10 FT	1	Weidmüller	Plug insert F	
GE30090146	HDC HE 10 MT	1	Weidmüller	Plug insert M	
GE30090150	HDC HE 24 FP	1	Weidmüller	Plug insert F	
GE10090291	SM 27\18 K MC NE WS	1	Weidmüller	Text Plate	
GE17090033	UR20-4AO-UI-16	1	Weidmüller	Analog Output Module	
GE17090039	UR20-FBC-CAN	1	Weidmüller	Fieldbus Coupler	
GE10090295	WEW 35/2	14	Weidmüller	End Bracket	
GE10090798	ZAP ZDU6-2 SW	1	Weidmüller	End Plate	
GE10090275	ZAP/TW ZDK 2.5	2	Weidmüller	End Plate	
GE10090228	ZAP\TW1	1	Weidmüller	End Plate	
GE10090229	ZAP\TW2 DB	3	Weidmüller	End Plate	
GE10090258	ZAP\TW ZDLD2,5-2N	2	Weidmüller	End Plate	
GE10090233	ZAP\TW ZDU10	1	Weidmüller	End Plate	
GE10090791	ZDK 2.5/D/1	13	Weidmüller	Diode terminal	
GE10090795	ZDK 2.5/D/5	1	Weidmüller	Diode terminal	
GE10090257	ZDLD 2.5-2N	32	Weidmüller	Terminal	
GE10090014	ZDU 2.5\3AN	12	Weidmüller	Terminal	
GE10090057	ZDU 10	2	Weidmüller	Terminal	
GE10090430	ZQV 6/24 GE	1	Weidmüller	Cross Connector	
GE10090799	ZSI 6-2_FC LD	13	Weidmüller	Fuse Terminal	
GE10090161	ZTR 2.5/O TNHE	9	Weidmüller	Terminal	

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Page : Summarized Parts List

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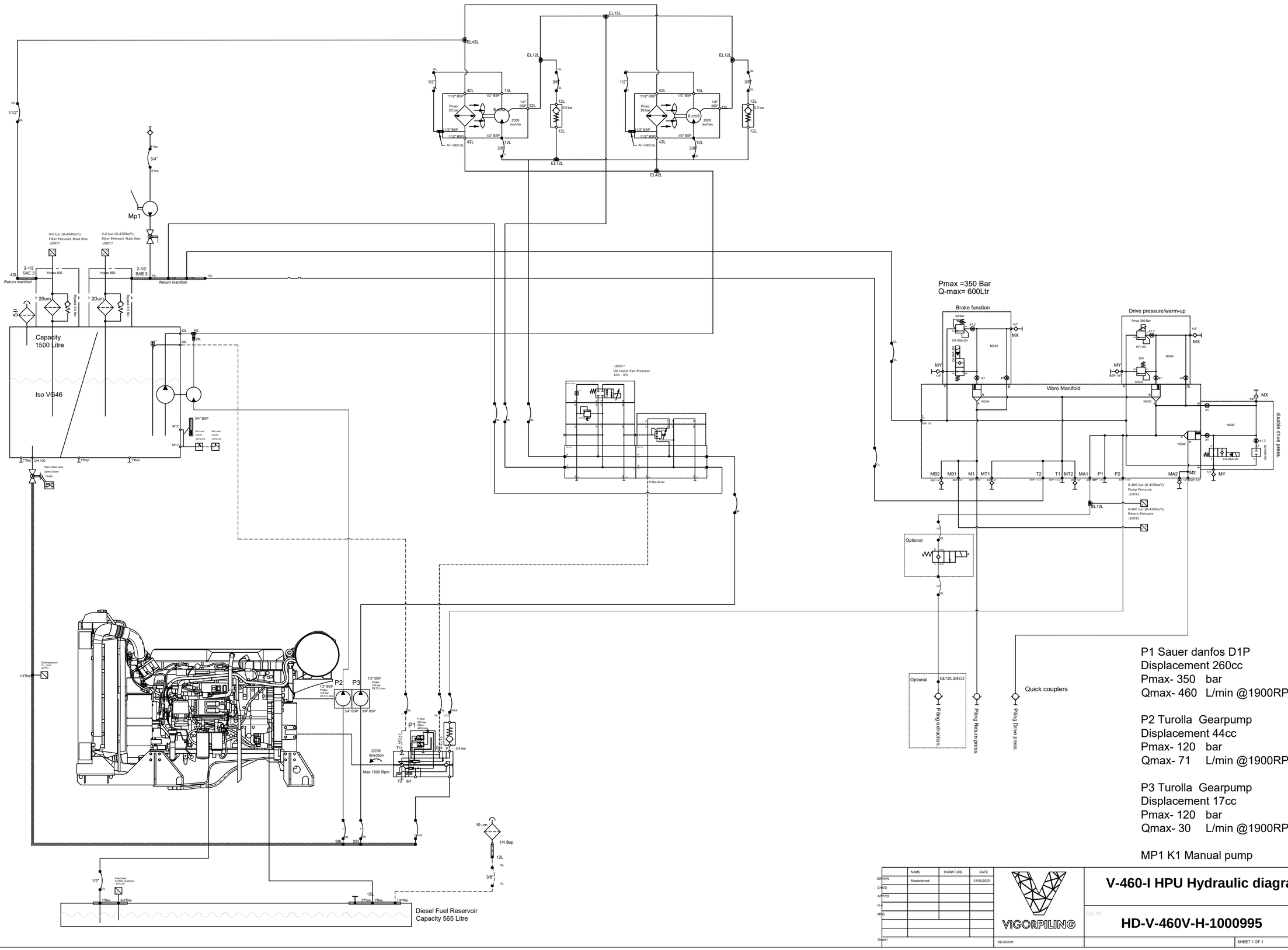

P1 Sauer danfos D1P
Displacement 260cc
Pmax- 350 bar
Qmax- 460 L/min @1900RPM

P2 Turolla Gearpump
Displacement 44cc
Pmax- 120 bar
Qmax- 71 L/min @1900RPM

P3 Turolla Gearpump
Displacement 17cc
Pmax- 120 bar
Qmax- 30 L/min @1900RPM

MP1 K1 Manual pump

	NAME	SIGNATURE	DATE
DRAWN	Mastenbroek		31/08/2023
CHK'D			
APPV'D			
Q.A.			
MFG			
Sheet1			

VIGORPILING

V-460-I HPU Hydraulic diagram

DWG NO.

HD-V-460V-H-1000995

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REVISION:

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