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Instruction manual

Original instruction manual

High pressure cleaner Batch 94-95-96

Frequency controlled (Optional)

150-500 bar

Rev. Jun. 2020

Warning: Read this manual before operating the product

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EU-OVERENSSTEMMELSESERKLÆRING

Fabrikant: **KENT HØJTRYK A/S**
Skovbrynet 10
DK - 6752 Glejbjerg
Tlf: **+45 75 19 80 33**

Erklærer hermed, at Maskine:

Højtryksrenser Mobil og Stationær

Model: ***94 Series:*** ☐ ***95 Series:*** ☐ ***96 Series:*** ☐

Fabr. nr.: _____ Årgang: _____

Er fremstillet i overensstemmelse med:

☒ *Bestemmelserne i Rådets direktiv af 17. maj 2006 om indbyrdes tilnærmelse af medlemsstaternes lovgivning om maskiner **(2006/42/EF)** under særlig henvisning til direktivets **bilag II, A og bilag I**, om væsentlige sikkerheds- og sundhedskrav i forbindelse med konstruktion og fremstilling af maskiner.*

☒ *Bestemmelserne i Rådets direktiv af 12. december 2006 om indbyrdes tilnærmelse af medlemsstaternes lovgivning om elektrisk materiel bestemt til anvendelse inden for visse spændingsgrænser **(2006/95/EF).***

☒ *Bestemmelserne i Rådets direktiv af 15. december 2004 om indbyrdes tilnærmelse af medlemsstaternes lovgivning om elektromagnetisk kompatibilitet (**2004/108/E).***

Er fremstillet i overensstemmelse med følgende **nationale/internationale standarder og tekniske specifikationer:**

DS/EN 60335-2-79:2012	Sikkerhed - *Særlige krav ti højtryksrensere og damprensere. 2012-11-05*
DS/EN ISO 12100:2011	Maskinsikkerhed - Generelle principper for konstruktion - Risikovurdering og risikonedsættelse.
DS/EN 60204-1:2006	Maskinsikkerhed - Elektrisk udstyr på maskiner - *Del 1: Generelle krav*

Ove Jørgensen

(Underskrift)

Dato: 21/02-2018

EC-DECLARATION OF CONFORMITY FOR MACHINERY

Manufacturer: **KENT HØJTRYK A/S**
Skovbrynet 10
DK - 6752 Glejbjerg
Tel: **+45 75 26 73 00**

CE

Hereby declare that:

High pressure cleaners Stationary and Mobile

Model: ***94 Series:*** ☐ ***95 Series:*** ☐ ***96 Series:*** ☐

Manufacturing no.: _____ Year: _____

Is manufactured in conformity with:

☒ *Provision in the Council Directive of 17. May 2006 on mutual approximation of the laws of the Member States on the safety of machines **(2006/42/EC)** with special reference to Annex II, A and Annex I, of the Directive on essential safety and health requirements in relation to construction and manufacture of machines.*

☒ *Provision in the Council Directive of 12. December 2006 on mutual approximation of the laws of the Member States on electrical equipment intended for apply to some tension limits **(2006/95/EC).***

☒ *Provision in the Council Directive of 15. December 2004 on mutual approximation of the laws of the Member States on electromagnetic compatibility **(2004/108/EC)**.*

Is manufactured in conformity with following national / international standards and technical specifications:

DS/EN 60335-2-79:2012	Safety - *Particular requirements for high pressure cleaneres and stem cleaners. 2012-11-05*
EN ISO 12100:2011	Safety of machinery - *General principles for design - Risk assessment and risk reduction*
DS/EN 60204-1:2006	Safety of machinery - *Electrical equipment of machines - Part 1: General requirements*

Ove Jørgensen

(Sign)

Date: 21/02-2018

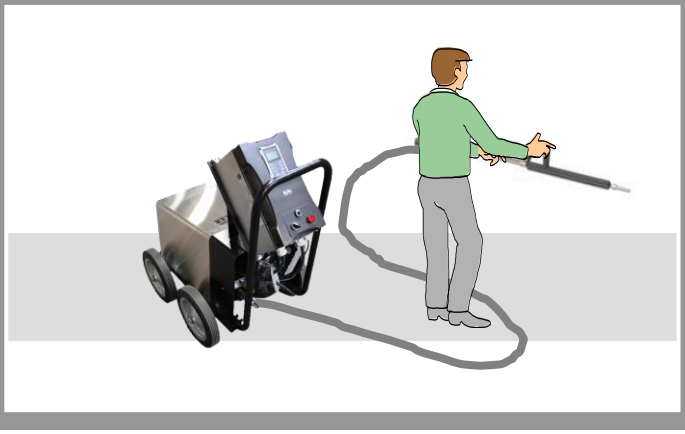
1. Description of the machine

1.1 Use:

Congratulations with your choice of a Kent high-pressure cleaner. You have purchased a unit with high technological value. It is a professional and reliable machine which you can use for many years. Thus, we ask you to read and follow the instruction manual carefully.

This instruction manual is an integral part of the machine and must be read carefully before the unit is installed, turned on and used. The manual contains important information and instructions for the sage usage and maintenance of the machine.

Therefore, it must be kept with care.



KENT

Utilization:
This machine is designed exclusively for washing by means of pressurized water jet, objects, things or surfaces eligible to be treated by the mechanical action of pressurized water jet and by the possible chemical action of liquid detergent additives. The liquid detergent additives must be chosen in accordance with the chemical compatibility of the surfaces to be washed.

High-pressure cleaners can clean with either cold or hot water, but for technical reasons the pumps in the high-pressure cleaners must not run with water temperatures above 60 °C. Higher temperatures require equipment which heats up the water on the outlet side of the high-pressure cleaner. In most cases the water temperature will improve the cleaning process, in particular on greasy surfaces.

The high-pressure cleaner requires either 3 x 400volt 50Hz or 3 x 440volt. Please see the nameplate.

The high-pressure cleaner must only be used with process water or collected rainwater with a purity equal to tap water. The water supply must be equal or greater than the pump output in l/min.

The high-pressure cleaner is relatively noiseless with a noise level below 70 dB. Make sure the operator wears hearing protection if the work is considered damaging to hearing. This means that noise exposure even below 85 dB(A) may require the use of hearing protection (4).

Examples of possible use:
Farming: Intensive keeping- and breeding firms, farms, slaughterhouses.
Workshops: Maintenance of tractors and agricultural machinery.
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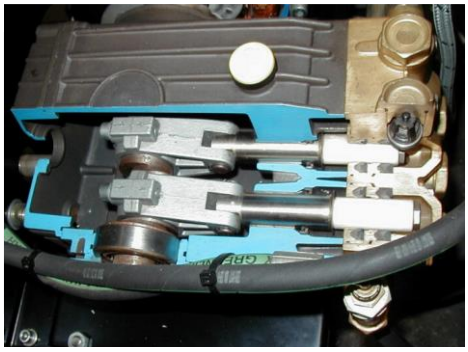
1.2 Function:

Section of 3 cyl. pump piston cycle.



Pump:

3-cylinder, vibrationless and noiseless, oil bath lubricated high-pressure plunger pump made of rust- and acidproof materials. The plungers are made of non-wearing ceramic material. Suitable for temperatures up to 60° C.

Safety valve:

Built-in adjustable by-pass – continuous variable regulation of water volume.

Pressure regulation:

Working pressure adjustable from 40 bar to max. pressure at the lance. The low-pressure injector with dosage regulation for detergents is also controlled from the lance.

Mics:

Epoxy-treated steel frame and stainless steel cover. Big wheels, 10 m high-pressure hose, spray gun, double-lance incl. nozzles, 10 m electric cable.

Optional:

- Auto start/stop.
- Detergent container.

Product range:

Mobile models:

Series 94-95-96 consists of various models in both stationary and mobile versions. The models require either 400V 50Hz or 440V 60Hz. The models can perform between 150 and 500Bar pressure with a waterflow between 15 and 70L/min.

All models have identical designs and only pump, electric motor and some components may vary

For Cleaners with opted frequency converter:

The frequency converter works the following way: The machine maintains a constant pressure regardless the water flow. (For example, multi-user tasks, where multiple hoses are connected to the outlet) The pressure is regulated on the “0-100%” knob. The revolutions in the pump will be controlled by the desired pressure.
”NO INLET” Light will flash if the inlet pressure is too low. This can be adjusted the following way:

1. Check / clean inlet filter.
2. If ”1.” does not solve the problem, adjust the inlet pressure switch to a lower pressure (With a screwdriver, turn against the watch underneath the electric box cap) proceed until the alarm stops while fully operating the device.

2. Instructions for use and maintenance guide

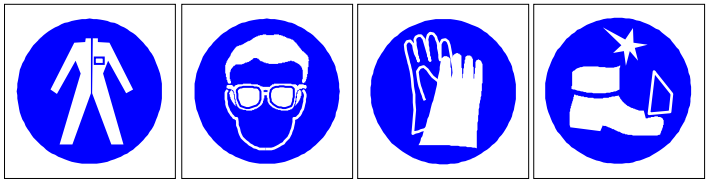
2.1 General Maintenance

The high-pressure cleaner must be moved by use of either a forklift truck, by rigging it directly onto a pallet with the high-pressure cleaner securely fixed,
Lifting by crane can be performed on some models by attaching at marked lifting points.
The high-pressure cleaner must be switched off and, if possible, cooled down during handling.

Weight max 150 kg depending on model. Please see previous list.

Never lift higher than 0,5 m and never lift above persons. Connect power and water only when the unit is placed on a stable and level surface.

This unit has been tested and test-run in the factory, but after transportation it may require a fine adjustment and visual check of all operations. Always check for loose wires, screws and defect joints. Pay particularly attention to thread connections and the equipment fittings at the outlet and inlet connections on the high-pressure cleaner.



Make sure that personal protective equipment is within reach. We recommend that operators wear protective clothing, protective goggles, gloves and safety footwear during operation of the high-pressure cleaner.

The work must always be planned in compliance with good ergonomic principles, and breaks must be organized during large and continuous tasks. Avoid straining of back and arms and plan the work day after consulting management and avoid stress. Vary your work or take appropriate breaks in order to avoid monotonous strain.

Check oil level through pump indicator glass. Change oil after 25 hours of operation. Then after each 200 hours of operation. Use a good motor oil, SAE 20/30.
Check that the machine is plugged into correct mains voltage.
Check water filter, MUST be free of dirt.
Check that the motor protection is switched off.
Connect electric cable (Approved socket or fixed installation).
See Electrical data (annex 4.4)

Connect the water supply to the cold-water cleaner by a 3/4 inch. fabric-reinforced hose. Use tap water or “reject water” (treated wastewater), if available.

2.2 Operating

This machine must only be operated by persons over 18 years.

(Danish At-instruction (At = Danish Working Environment Authority) D. 2.20 November 2006):

Young persons covered by compulsory education must not operate pressure equipment.

Young persons over 15 years not covered by compulsory education must, as a main rule, not operate pressure equipment with a pressure over 7 MPa (70 bar).

However, young persons over 16 years not covered by compulsory education and working within agriculture and horticulture are allowed to work with pressure equipment over 7 MPa (70 bar). The pressure equipment must only be used for cleaning, painting, rust inhibiting or the like.

Young persons under 18 years must only be engaged with work 4 hours daily if wearing self-contained respiratory protective equipment.

For prolonged use of high-pressure equipment use vibration dampening gloves like type TEGERA 9185

Before start:
Remove items or goods that may be damaged during high-pressure cleaning.
Use wheel chocks if the high-pressure cleaner is placed on a sloping surface.
The high-pressure cleaner must only be used on a ladder if it is a platform ladder with barriers. The height to the platform must not be more than 3 m. The platform ladder must be designed in compliance with the principles of EN 131 or with a similar safety level.

Connection of the high pressure hose and lance:
1. Connect one end of the high-pressure hose to the gun, the other end has to be connected to the outlet of the pump. After that mount the lance to the gun.
2. Before use of the machine, inspect high pressure hose to make sure it is not damaged. In case of replacement make sure that the new hose has at least the same specifications as the original one. Technical specifications (max. working pressure, date of manufacturing, name of manufacturer) must be marked on the outer sleeve of the hose.

Connection to the water supply
1. The maximum temperature of the inlet water must not exceed 60° C (140° F).
2. Connect the water supply to the INLET port by means of a reinforced hose (min. 15 bar/200 psi) with the internal diameter of not less than 19 mm (3/4”)
3. Considering that the water flow decreases in accordance with the length of the hose, make sure that the quantity of the water reaching the machine is at least 15 l/min at 2 bar.

Important:
Make sure that the machine is fed with clean water during use. Running the machine without water, or with dirty, sandy water, or containing corrosive chemicals, causes serious damage to the machine itself.

Connection to the electrical supply:
1. Make sure that the mains voltage is the same as shown on the identification Label on the machine.
2. Make sure that the plug complies with your local regulations, and that it is proved with ground connection.
3. The power outlet must be protected by a differential magnetic interrupter having a sensitivity of less than 30, mA.
4. Do not connect any other appliances to the same outlet.
5. Insert the plug after making sure that the switch on the machine is in the OFF position.

Start-up of machine:

1. Now you can turn on the water.
2. Hold the gun in open position for venting.
3. Switch the machine on.
4. The pressure can be adjusted on the double nozzle pipe.

Chemicals dosage:
Fill plastic can with desired chemical. Mount injector suction hose in can. Open double nozzle pipe valve, and approx. 10 % chemical will be added to water.

Indoor high-pressure cleaning is only permitted in halls and together with good ventilation. If you feel unwell during cleaning, stop working immediately and go outside. The reason may be the cleaning detergent which you may have used during cleaning. Thus, check carefully if these materials are being used in a safe and environmentally correct way. Information can often be found on the containers of the detergent. Never experiment with additives which can influence the health of the persons present and domestic animals, if any. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Show the label of the cleaning detergent where possible, e.g. bring the container in order to obtain the best medical treatment.

The quality of cleaning detergents may vary and you must make sure they are suitable for high operating temperatures under high pressure. Consider the environment in particular where there is run-off to unprotected drainage. Obtain data sheets, if necessary, with definition of class of danger of the substance and personal protection on a scale of 1 to 6 where 6 is the most hazardous! Never use aggressive substances such as acids, solvents or explosive substances together with this unit. Use a less corrosive cleaning detergent, if possible.

Respiratory protection equipment / hearing protection (Danish At-instruction (At = Danish Working Environment Authority) D. 2.20 November 2006): Employees must wear suitable respiratory protection equipment during work under 2.5 MPa (25 bar) if aggravating factors such as chemicals harmful to health by inhalation, micro-organisms or organic origin residue are present.

Always wear suitable respiratory protection equipment during work over 2.5 MPa (25 bar).

The respiratory protection equipment must contain at least a P2 filter protecting against both solid particles and liquid aerosols. The safest method is to use self-contained respiratory protection equipment. There can often be doubt about the nature and concentration of the air pollution as it is difficult to determine what will detach from the sprayed surfaces. If work is carried out for more than three hours on a daily basis the respiratory protection equipment must be self-contained or filtering by turbo-unit (blower).

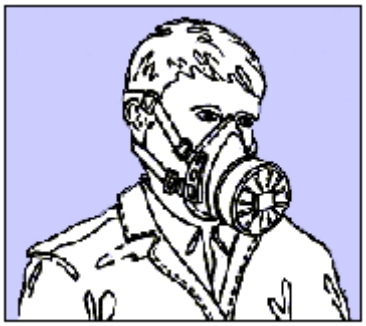
Inhalation of aerosols with surfactants (e.g. soap) and fat and protein residue constitutes a risk of developing respiratory disease and is also mucous membrane irritant (3).

The employer must make sure that the employees wear hearing protection as soon as they start work which is considered to be damaging to hearing. This means that noise exposure even below 85 dB(A) may require the use of hearing protection.

Respiratory protection equipment and hearing protection must fit together and should preferably be tested together.

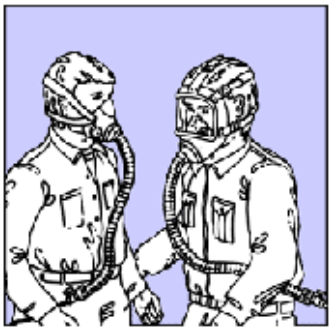
At-instruction (At = Danish Working Environment Authority) D.5.4 January 2008:

Filter face mask.



Filter respiratory protection equipment.
Particulate filters are divided into three classes:

- *P1 low-efficiency filter*
- *P2 medium-efficiency filter*
- *P3 high-efficiency filter*



Self-contained respiratory protection equipment

<u>Class P2</u>
has a better elimination degree and therefore better protection. It can be used against harmful and toxic dust, but not against radioactive dust, bacteria and virus. These filters can protect solely against solids and against both solids and liquid aerosols. If the filter is tested according to EN149:2001 the filter protects against both solids and liquid aerosols. For further information, please see At-instruction (At = Danish Working Environment Authority) D.5.4 January 2008.

Important:
Use only biodegradable detergents with pH value between 7 and 12. These detergents must comply with the laws and regulations applicable in the country in which they are used. The utilization of this machine must be strictly respected. Any other use must be considered as incorrect. The manufacturer cannot be held responsible for damage caused by incorrect use of the machine. The machine must not be tampered with for any reason. In case of tampering the manufacturer declines any responsibility on the functioning and safety of the machine.

During work planning it must be taken into account that aerosols, especially small aerosols, stay in the air for a long time, even after the pressure work has stopped. Thus, it will often be necessary to wear personal protection equipment, even after the actual pressure work has stopped. Very small aerosols may stay in the air for up to 1.5 hours.

Inspection of water filter
It is important to inspect the water filter prior to machine start-up. Please keep in mind that a clean water filter means longer service life and operation of the machine.

Precautions for storage/frost:

We recommend to fill the pump with anti-freeze equal to anti-freeze for cars if the machine will be stored in a place with a risk of being exposed to frost, or will not be used for more than 3 months. In case of low temperatures some parts may freeze or settle if the machine has been stored for a long time. Thus, we recommend that you turn the shaft by the key supplied with the machine prior to start-up. This procedure allows you to check if the machine is frozen or blocked by other reasons. By taking these precautions prior to start-up you can avoid destroying the machine. Please remember to remove the key from the shaft prior to start-up.

General precautions for use:

1. Keep the machine out of the reach of children.

2. High-pressure water jets must not be directed against persons or animals, electrical equipment of the machine itself. Do not use the machine when persons and/or animals are within the reach of the jet.

3. The user must operate the machine in safe conditions and situations avoiding any situations of potential danger to himself or other persons, in particular, the user will have to:
   - Avoid operating in unstable balance conditions.
   - Remember that the high pressure generates a recoil when the gun is operated. The force of this recoil is less than 85 N (approx. 8,5 kg).
   - Use adequate protection clothing.
   - Wear protection goggles and anti-slip rubber shoes.
   - Avoid contaminating the environment with pollution, toxic or harmful substances.

4. This machine is built in compliance with the requirements of the current safety regulations. In any case the use of electrical appliances involves the respect of some basic rules, namely:
   - Do not touch electrical parts or components.
   - All inspection, maintenance or repair operations must be made by qualified personal only. In any case always disconnect the plug from mains before proceeding on any of the above mentioned operations.
   - In case you need to use an extension cord, check that the connection is water tight. Keep all connections off the ground to avoid possible contacts with water.

5. Do not pull power cord to unplug.

6. While the machine is running, do not cover it and do not place it in a closed space with insufficient ventilation.

7. Do not leave the machine running for more than 5 minutes with the gun closed. Should it run for a longer period, the temperature of the recirculating water will increase rapidly and could risk damaging the pump seals.

8. When the machine is not in use, lock gun trigger in safe position to prevent it form being opened by accident.

9. For sake of safety use only original spare parts and accessories
   - Should you need to remove or change the nozzle, turn off the machine and bleed pressure from the hose.

The manufacturer declines any responsibility for damages caused by non-compliance with the destination of use, with the instructions and warnings contained in this instruction manual.

Important:
When application of chemicals/soap has been terminated the suction hose and injector non-return valve MUST be cleaned with pure water. Place injector suction hose in a bucket or similar container with pure water and allow injector to suck water for a few minutes.

Never aim flush jet at electrical installations or live targets.
Never pull machine by high-pressure hose as this may cause damage to machine components and entail forfeit of the warranty.

Beware of the water jet which has a cutting effect on sensitive surfaces under high pressure.

Never point the water jet towards yourself or other persons or animals. It is prohibited to “bath” animals even with a low water temperature as the water jet can cause serious injury to the affected area. Sensitive areas such as eyes and ears can be seriously and painfully injured.

Do not use high-pressure cleaning on electrical installations and live cables and avoid also sensitive parts such as signs and delicate items.

Stop machine:
Turn off water, open gun, and let machine run for 15 – 30 sec.
Switch off at motor protection.
Release hose pressure.
Unplug the power plug.

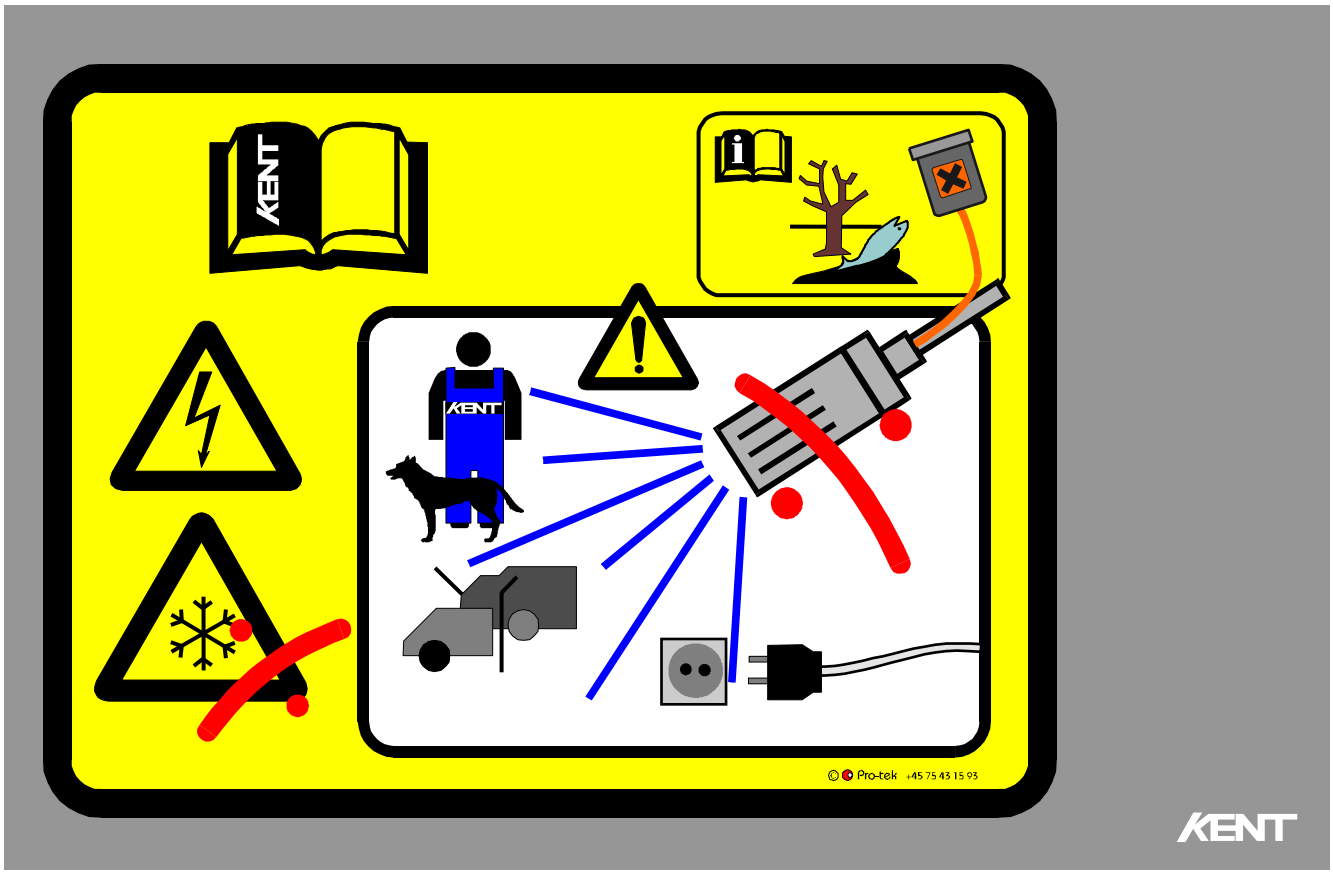
Frost proofing:
The cleaner must be stored frost free; if this is impossible, the pump and pump components must be frost proofed as follows: Mount short ¾” hose on water inlet, place other end in a 5-litre can of anti-freeze. Start cleaner, open the gun, close again when anti-freeze comes out at nozzles. Switch off power at motor protection, and the cleaner is frost proofed.

If the machine has been exposed to frost, never start it again until it has thawed out completely. Let your supplier check it for any damage that might have occurred.

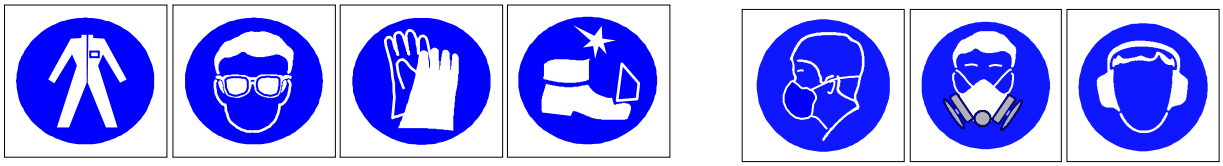
Although the high-pressure cleaner has only been operating on “clean” tap water you should never drink the water due to a possible high bacteria content from a previous heating.

Hot water that has been through the high-pressure cleaner must not be used in connection with production or preparation of food as there exists extraordinary requirements for machines being used in connection with food processing.

2.3 Safety rules



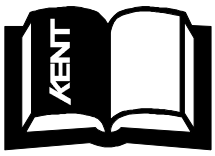
1. Always wear protective equipment as described in the work instructions. This applies in particular for the use of suitable working clothes, safety goggles, gloves, safety footwear, respiratory protection equipment and hearing protection. Remember your assistants. Never splash on boots and protective clothing for the purpose of cleaning.



2. Accidents are significantly reduced if proper work lighting is established around the work area.

3. Only instructed personnel is allowed to stay near the hot-water cleaner when it is running.

4. This instruction manual must be available for all persons using the device.



5. The high-pressure cleaner must not be used if the safety devices are defective. All electrical connections must be waterproof.

6. High-pressure hoses and lance must be approved types without defects.

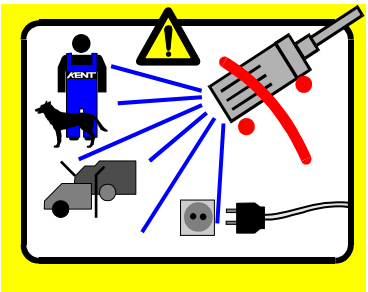
7. Never point the water jet towards yourself, other persons or animals. Cleaning of clothes on persons.

8. Avoid splashes on electrical wires and installations.

9. Be careful with sensitive and expensive installations.

10. Avoid cleaning of parts in contact with food.

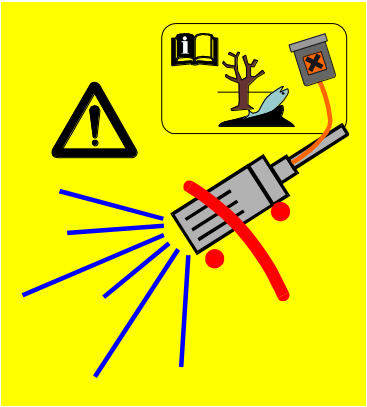
11. Use only approved detergents suitable for hot-water or cold-water cleaning.



12. Choose according to eco-friendly considerations and dispose of empty containers by delivering them to approved local receiving stations.

13. Wear respiratory protective device, if necessary, if there is a risk of inhaling vapours. Please read about the hazard class on the label on the detergent.

14. Frost may cause burst pipes and will immediately destroy the high-pressure cleaner. Always keep the machine on a frost-free location. If this is not possible, you must frost-proof the machine as described in the following section.



15. High-pressure cleaning in freezing weather requires immediate start-up after which the hot water must be used immediately. Please note that cleaning may cause ice accumulation.

16. Never leave the high-pressure cleaner running.

17. You can break the high-pressure cleaner by placing wheel chocks, if necessary.

18. No persons must stay under the high-pressure cleaner when it is being lifted.

19. Any repair or adjustment must take place only when the main power has been secured against accidental start-up of the machine. E.g. by disconnecting the power plug.

20. Assembly and handling by non-skilled persons can cause serious accidents.

Design changes of the machine's devices is at one's own risk. Impairment of the safety and health functions may put the owner in a judicial unfavourable position especially where the changes or the changes carried out by the owner himself have caused accidents. Significant changes usually require a new CE marking of the hot-water cleaner.

3. Maintenance guide

3.1 General maintenance

Any repair or adjustment must take place only when the main power has been locked and the high-pressure cleaner has been secured against accidental start-up. A removable power plug makes the technician even safer.

Make sure that **all** pressure has been compensated prior to disassembly of high-pressure pipes and hoses.

Every start-up:
Testing of start and stop functions by activating pistol.
Visual check of hoses for cracks and deterioration.
Visual check for oil leakage.
Visual check for water leakage during start-up.
Check if pump is noisy.

Every year:
Inspection of frame and lifting brackets, visual inspection for cracks and loose bolts.
Test of flow meter.
Thread connection at input stud.
Seals at all electrical installations.
Overall check of frame for rust and impact damages.
A light oil lubrication of wheel hub, if necessary.

Frost proofing:
The cleaner must be stored frost free; if this is impossible, the pump and pump components must be frost proofed as follows: Mount short ¾” hose on water inlet, place other end in a 5-litre can of alcohol. Start cleaner, open the gun, close again when alcohol comes out at nozzles. Switch off power at motor protection, and the cleaner is frost proofed.

If the machine has been exposed to frost, never start it again until it has thawed out completely. Let your supplier check it for any damage that might have occurred.

General:
Repeated fuse drop-outs may be due to faults in the control or the electrical devices, and fault current can cause electric shock. (400 volt or 440 volt)

Maintenance must only be carried out by an authorized technician who can detect the fault and carry out a correct repair prior to using the high-pressure cleaner again.

The machine itself can be washed with e.g. standard auto shampoo, but the electrical parts must only be cleaned by high-pressure air and wiped off with a clean cloth. Only when cold.

Damages on the varnish on the frame must be polished, thereafter primer plus finishing paint (single component finishing paint).

Disposal of machine:
- If you decide not to use the machine any longer, we recommend that you make the machine unusable by removing the electrical wire.
- It must always be kept out of reach of children.
- The machine cannot be disposed of as is, therefore the most uniform parts must be dismantled and collected for disposal at a public collection station.
- Dismantled parts must not be used as spare parts.

3.2 Troubleshooting

Troubleshooting on the high pressure cleaners

Troubleshooting:	Cause	Remedy
Cleaner does not start	Fuse defective.	Replace fuse.
	Electric plug dirty.	Clean plug.
	Motor protection has been released.	Turn the red stop knob until it jumps out.
Does no supply pressure	Insufficient water supply.	Wrong hose diameter.
	Hose pinched.	See section: Before start.
	Water filter choked.	Dismount and clean.
	Leaks at couplings	Retighten / replace gaskets.
	V-belt slips	Tighten / replace.
	Nozzles worn	Replace
	Pump valves dirty or worn. (pulsate)	Clean / replace, see spare parts drawing.
	Flow valve dirty or worn.	Take apart and clean valve, replace defective parts. X) see spare parts drawing.
Check flow through hose, gun and nozzle pipes.		
Injector cannot suck chemicals	Non-return valve gone slack sucks dead air.	Retighten, replaces nylon gasket.
	Ball hangs (old soap residue)	Dismount chemicals hose, loosen ball from top with match or similar object.
	Low pressure nozzle on double nozzle pipe choked	Clean / replace.
	Injector nozzle worn.	Replace.
Flow valve shuts off during operation (pressure increase)	Valve or double nozzle pipe pinched or dirty.	Clean / replace.
	Wrong nozzle mounted.	Change to right size.
	Spring in flow valve gone slack.	Replace *)
	Dirt in flow valve.	Take apart / clean *)
	Dirt in injector.	Take apart / clean
Motor protection switches off	Check plug / fuse / cable Defect motor / pump. – Dismount V-belt or pump (inlet and outlet hoses must be disconnected). Pump movement must be even and free of metallic sounds. If abnormally heavy when turning: Call your dealer's service department. Electric motor must run smoothly, without noise.	

*) Let your dealer makes repairs and adjustments.

3.3 Spare parts

Note model number and name-plate on the high-pressure cleaner so that we can deliver the ordered spare parts to your machine. Always use original spare parts.

Example of identification label:

Overleaf the high-pressure cleaner is shown with part numbers on all spare parts.

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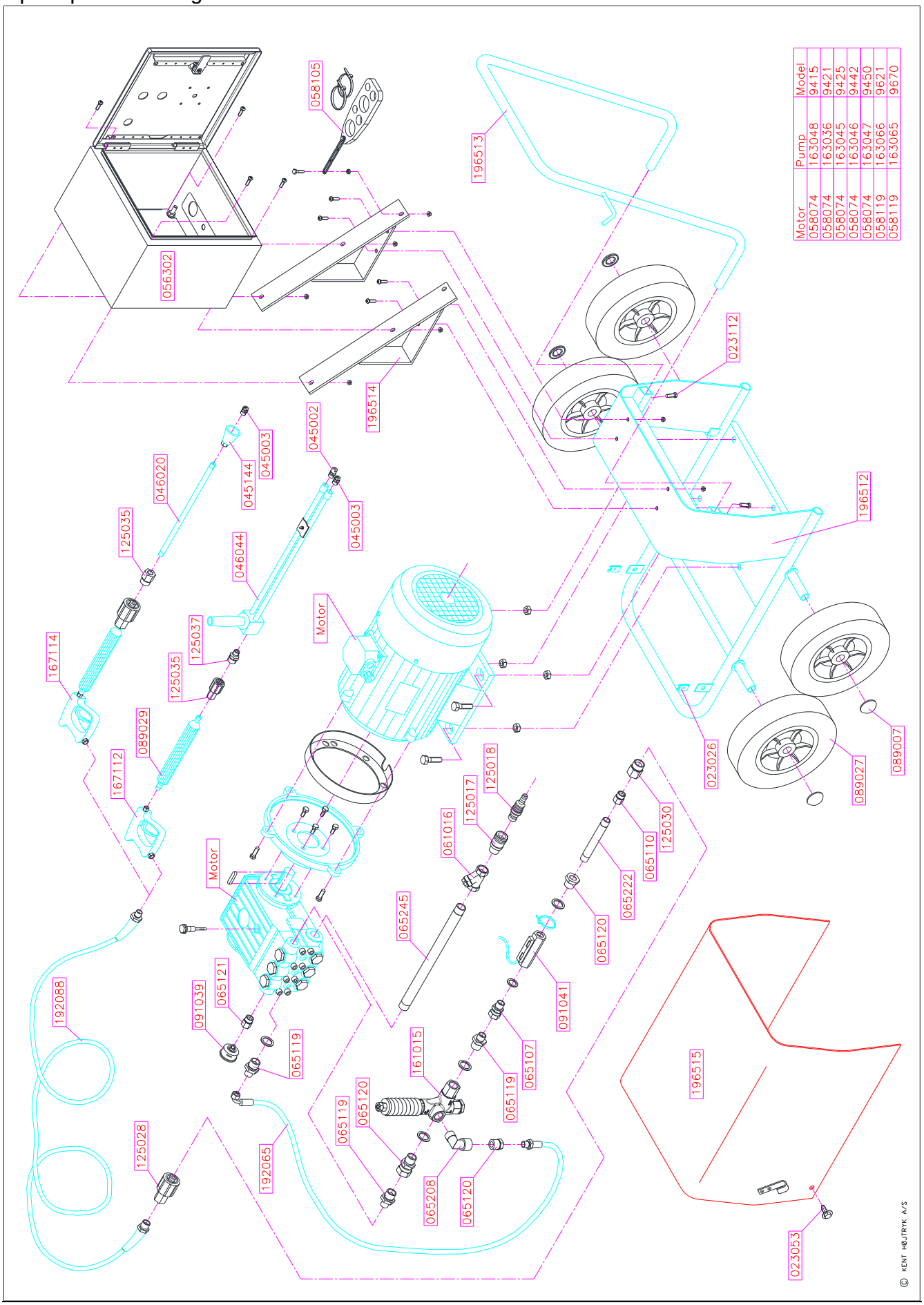
Spare parts drawing for: Batch 94-96



Motor	Pump	Model
058074	163048	9415
058074	163036	9421
058074	163045	9425
058074	163046	9442
058074	163047	9450
058119	163066	9621
058119	163065	9670

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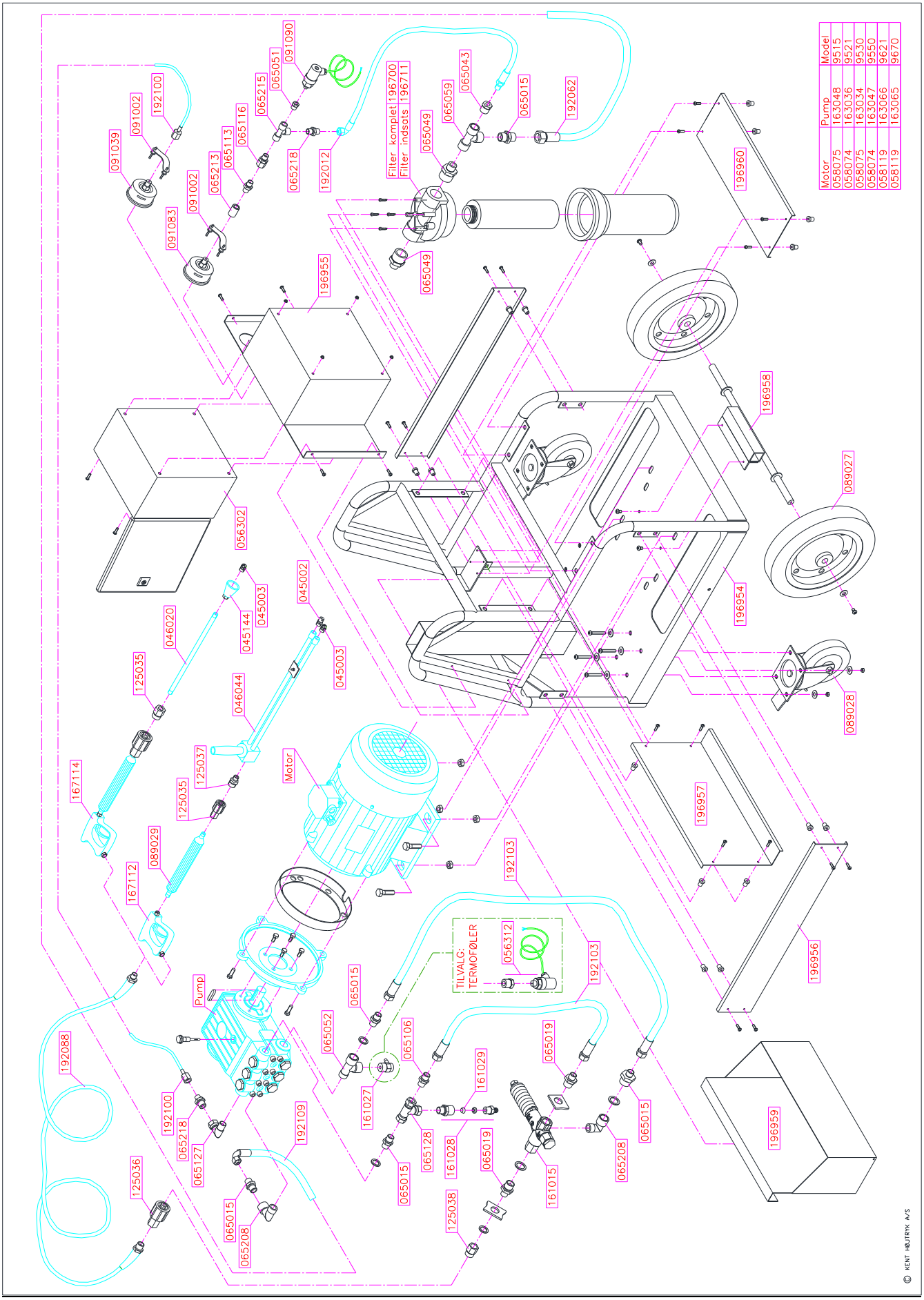
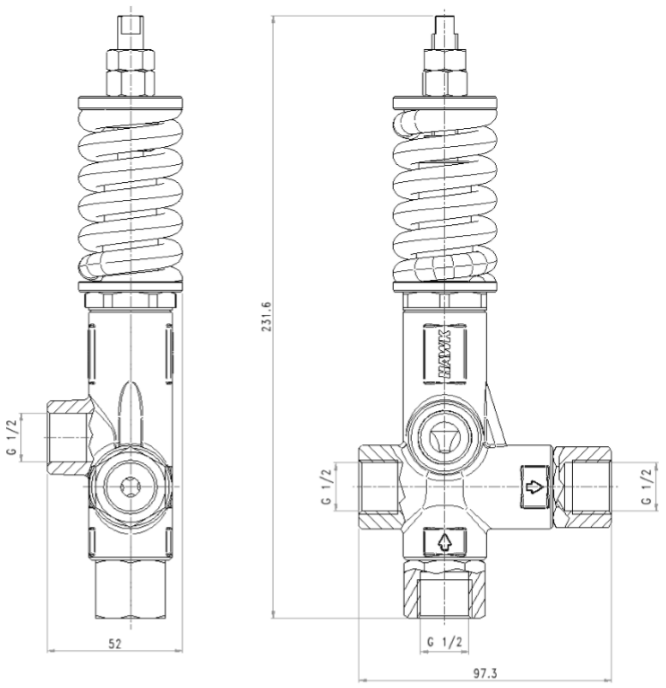
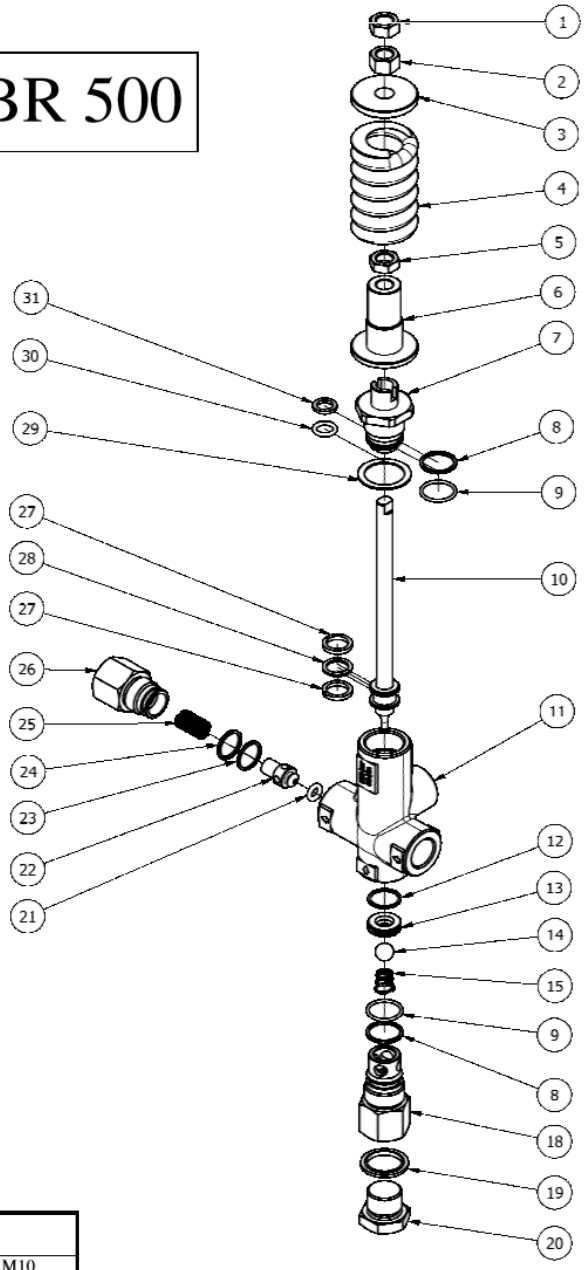
Spare parts drawing for: Batch 95-96



Unloader: HAWK VBR 500

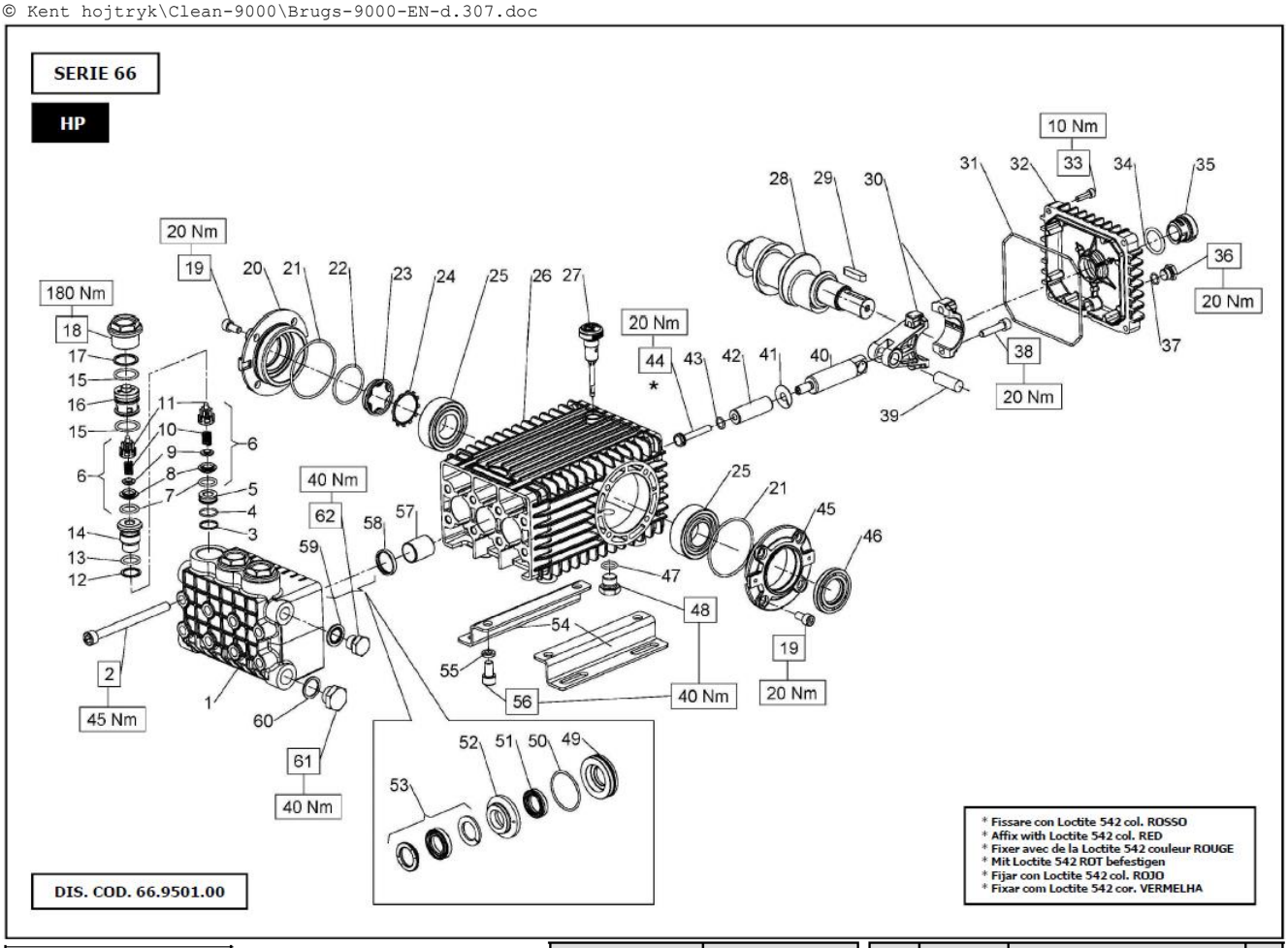
VBR 500





#	Q.TA' Q.TY	CODICE	DESCRIZIONE	DESCRIPTION
1	1	9.850-561.0	DADO M10 UNI5588 INOX	STAINLESS STEEL NUT M10
2	1	9.850-559.0	DADO M10 ALTO UNI5587 INOX	STAINLESS STEEL NUT M10
3	1	9.851-071.0	PIATTELLO MOLLA	PLATE
4	1	9.850-889.0	MOLLA DI REGOLAZIONE	SPRING
5	1	9.850-569.0	DADO BASSO M10 UNI5589 INOX	STAINLESS STEEL NUT M10
6	1	9.850-329.0	BOCCOLA DI GUIDA	STEM GUIDE
7	1	9.851-892.0	RACCORDO DI GUIDA	CONNECTOR
8	2	9.850-287.0	ANELLO ANTIESTR.	BACK RING
9	2	9.850-676.0	OR Ø1.78x18.77	OR Ø1.78x18.77
10	1	9.850-100.0	ASTA GUIDA PISTONE	STEM
11	1	9.850-428.0	CORPO VALVOLA	BODY
12	1	9.850-690.0	OR Ø1.78x17.17	OR Ø1.78x17.17
13	1	9.851-239.0	SEDE	SEAT
14	1	9.851-248.0	SFERA 7/16" (Ø11.11)	BALL 7/16" (Ø11.11)
15	1	9.850-876.0	MOLLA CONICA	SPRING
18	1	9.851-181.0	RACCORDO INFERIORE	CONNECTOR
19	1	9.851-192.0	BONDED SEAL 21.54x28.58x2.5	BONDED SEAL 21.54x28.58x2.5
20	1	9.851-328.0	TAPPO G ½ INOX	STAINLESS STEEL PLUG G1/2
21	1	9.850-722.0	ORM Ø3x6 90SH	ORM Ø3x6 90SH
22	1	9.850-956.0	OTTURATORE INOX	STAINELESS STEEL POPPET
23	1	9.850-702.0	OR Ø1.78x15.60	OR Ø1.78x15.60
24	1	9.850-292.0	ANELLO ANTIESTR.	BACK RING
25	1	9.850-873.0	MOLLA OTTURATORE	POPPET SPRING
26	1	9.851-186.0	RACCORDO MANDATA	CONNECTOR
27	2	9.850-294.0	ANELLO ANTIESTR.	BACK RING
28	1	9.850-684.0	OR Ø2.61x13.10 90Sh	OR Ø2.61x13.10 90Sh
29	1	9.851-121.0	ROSETTA AISI304 Ø32x24,2x1	SPACER AISI304 Ø32x24,2x1
30	1	9.850-688.0	OR 112 Ø2,62x9,92 90 Sh	OR 112 Ø2,62x9,92 90 Sh
31	1	9.850-293.0	ANELLO ANTIESTR.	BACK RING

Codice Code	Descrizione/Description #	Componente / Parts	Q.tà Q.ty
1.099-970.0		Kit Ritegno / Kit Outlet	1
	24	9.850-292.0	1
	23	9.850-702.0	1
	21	9.850-722.0	1
	25	9.850-873.0	1
	22	9.850-956.0	1
1.904-230.0		Kit Entrata / Kit Inlet	1
	8	9.850-287.0	1
	9	9.850-676.0	1
	12	9.850-690.0	1
	15	9.850-876.0	1
	13	9.851-239.0	1
	14	9.851-248.0	1
1.904-231.0		Kit guarnizioni asta / Kit stem seals	1
	8	9.850-287.0	1
	31	9.850-293.0	1
	27	9.850-294.0	2
	9	9.850-676.0	1
	28	9.850-684.0	1
	30	9.850-688.0	1
1.904-232.0		Kit asta / Kit stem	1
	10	9.850-100.0	1
	6	9.850-329.0	1
	4	9.850-889.0	1
	3	9.851-071.0	1
	7	9.851-892.0	1



9415, 9515

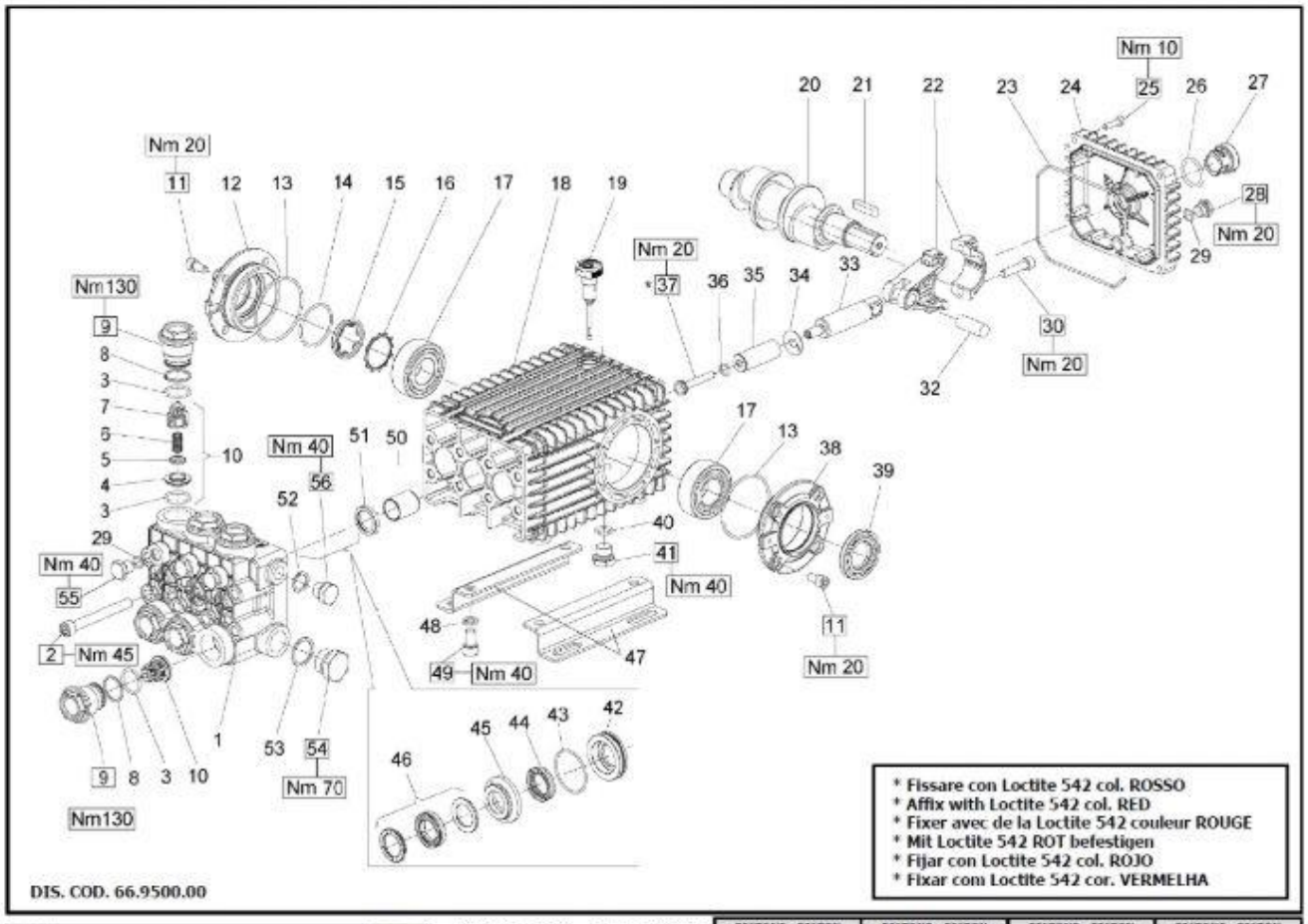
KIT RICAMBI – SPARE KITS				PISTONE - PISTON D. 16		PISTONE - PISTON D. 18	
KIT Nr.	KIT 2	KIT 3	KIT 150	KIT 174	KIT 175	KIT 180	KIT 176
Posizioni incluse Positions included	58	46	7 - 8 9 - 10 11 (6)	51- 53	49 - 50 51 - 52 53	51- 53	49 - 50 51 - 52 53
Nr. Pcs.	3	2	6	3	1	3	1

	PISTONE – PISTON – D. 16	PISTONE – PISTON – D. 18
OTTONE BRASS	W5015 - W4518 - W4015 W4018 - T4018 - T5015	W3521 - W3523
NICKEL	W5018 - T5018	-

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT	NR
1	66.1210.41 66.1211.41 66.1240.41 66.1247.41	Testata pompa D. 16 Testata pompa D. 18 Testata pompa D. 16 - W5015 W4518 Testata pompa D. 16 – NICKEL	1
2	99.3820.00	Vite M10x120 UNI 5931	8
3	90.5118.00	Anello antiest. D. 19.5x22.0x1.5	3
4	90.3596.00	OR D. 18.77x1.78 NBR SH. 70 2075	3
5	66.2102.70	Distanziale	3
6	36.7121.01	Gr. valvola aspiraz./mandata 150	6
7	90.3841.00	OR D. 17.13x2.62 NBR SH. 70 3068 150	6
8	36.2003.66	Sede valvola 150	6
9	36.2032.66	Valvola sferica 150	6
10	94.7376.00	Molla Dm. 9.4x14.8 150	6
11	36.2025.51	Guida valvola 150	6
12	90.5115.00	Anello antiest. D. 18.7x23.0x1.5	3
13	90.3843.00	OR D. 17.86x2.62 NBR SH. 70 123	3
14	66.2101.66	Bussola	3
15	90.3857.00	OR D. 23.81x2.62 NBR SH. 70 132	6
16	66.2100.70	Tappo D. 29	3
17	90.5165.00	Anello antiest. D. 24.7x29.0x1.5	3

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT	NR
18	66.1301.41 66.1310.41	Tappo valvole M32x1.5x18.5 Tappo valvole M32x1.5x18.5 – NK	3
19	99.3039.00	Vite M8x16 UNI 5931	8
20	47.1512.22	Coperchio laterale lato spia	1
21	90.3913.00	OR D. 67.95x2.62 NBR SH. 70 3268	2
22	90.3877.00	OR D. 39.34x2.62 NBR SH. 70 3156	1
23	70.2118.01	Spia livello olio	1
24	90.0756.00	Anello d'arresto ZJ45	1
25	91.8380.00	Cuscinetto a rulli	2
26	66.0100.22	Carter pompa	1
27	98.2106.00	Tappo con asta G 3/8"x64	1
28	66.0200.35 66.0204.35 66.0211.35	Albero ecc. C.19 - W5015 W4015 W3521 T4018 T5018 Albero ecc. C.21 - W4518 W4018 W3523 W5018 Albero ecc. C.16 - T5015	1
29	91.4892.00	Linguetta 9.0x7.0x35.0	1
30	66.0300.01	Biella completa	3
31	90.3922.00	OR D. 133.02x2.62 NBR SH. 70 3525	1
32	66.1600.22	Coperchio posteriore	1
33	99.1884.00	Vite M6x20 UNI 5931	4
34	90.4051.00	OR D. 26.58x3.53 NBR SH. 70 4106	1
35	63.2100.51	Spia livello olio	1
36	98.2042.50	Tappo G 1/4"x9 TE17 – Zinc.	1
37	90.3585.00	OR D. 10.82x1.78 NBR SH. 70 2043	1
38	99.3099.00	Vite serraggio biella	6

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT	NR
39	97.7405.00	Spinotto D. 14x39	3
40	66.0500.66	Guida pistone	3
41	96.7101.00	Rosetta D. 10.0x28.0x0.5	3
42	66.0402.09 66.0403.09	Pistone D. 16x54 Pistone D. 18x54	3
43	90.3584.00	OR D. 10.82x1.78 NBR SH. 90 2043	3
44	66.2195.66	Vite fissaggio pistone	3
45	47.1510.22	Coperchio laterale lato PTO	1
46	90.1648.00	Anello rad. D. 30.0x56.0x7.0 3	1
47	90.3833.00	OR D. 13.95x2.62 NBR SH. 70 3056	1
48	98.2100.50	Tappo G 3/8"x13 TE22 – Zinc.	1
49	66.0802.70 66.0803.70	Anello di fondo D. 16 175 Anello di fondo D. 18 176	3
50	90.3616.00	OR D. 34.65x1.78 NBR SH. 70 2137 175-176	3
51	90.2631.00 90.2652.00	Anello tenuta D. 16x24x6.5 LP 174-175 Anello tenuta D. 18x26x6.5 LP 180-176	3
52	66.2162.70 66.2163.70	Anello intermedio D. 16 175 Anello intermedio D. 18 176	3
53	90.2634.00 90.2655.00	Anello tenuta D. 16x26x9.5 HP 174-175 Anello tenuta D. 18x28x10 HP 180-176	3
54	47.2000.74	Piedino pompa	2
55	96.7106.00	Rosetta D. 10.2x16.0x2.5	4
56	99.3644.00	Vite M10x18 UNI 5931	4
57	90.9126.00	Boccola D. 22x25x30	3
58	90.1625.00	Anello rad. D. 22.0x32.0x5.5 2	3
59	93.1858.00	Rondella di tenuta G 3/8"	1
60	96.7514.00	Rosetta D. 21.5x27.0x1.5	1
61	98.2176.00	Tappo G 1/2"x10	1
62	98.2100.00	Tappo G 3/8"x13	1



9425, 9525, 9430, 9530, 9442

PISTONE - PISTON Ø 18	PISTONE - PISTON Ø 20
W3021 - T3025	W2525 – W3025 T2530 – T2535 - T2830
PISTONE - PISTON Ø 22	PISTONE - PISTON Ø 24
W2030 – W2035 - T2040	W2141 - T1750

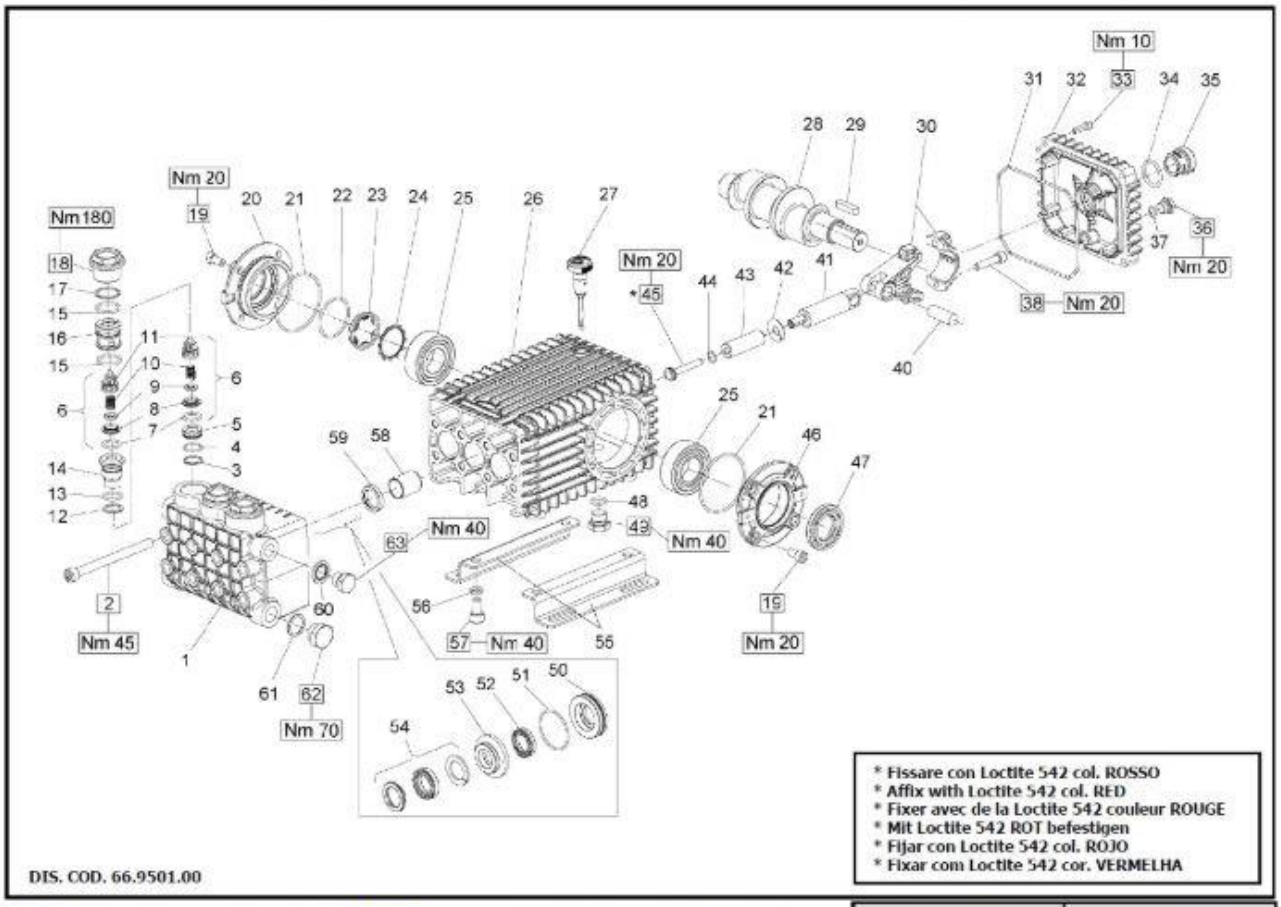
POS	COD.	DESCRIZIONE – DESCRIPTION - KIT		NR
1	66.1245.41 66.1200.41 66.1201.41 66.1202.41	Testata Ø 18 Testata Ø 20 Testata Ø 22 Testata Ø 24		1 1 1 1
2	99.3801.00	Vite M10x90 UNI 5931		8
3	90.3857.00	OR Ø 23.81x2.62 (132)	169	12
4	36.2033.66	Sede valvola sferica	169	6
5	36.2034.76	Valvola	169	6
6	94.7388.00	Molla Ø 10x18.5	169	6
7	36.2035.51	Guida valvola	169	6
8	90.5165.00	Anello antiest. Ø 24.7x29x1.5		6
9	66.1300.41	Tappo M32x1.5x29.5		6
10	36.7127.01	Gruppo valvola aspiraz. / mand.	169	6
11	99.3039.00	Vite M8x16 UNI 5931		8
12	47.1512.22	Coperchio cuscinetto lato spia		1
13	90.3913.00	OR Ø 67.95x2.62 (3268)		2
14	90.3877.00	OR Ø 39.34x2.62 (3156)		1
15	70.2118.01	Spia livello olio		1
16	90.0756.00	Anello seeger Ø 45		1
17	91.8380.00	Cuscinetto a rulli NJ 2206 EC		2

KIT RICAMBI – SPARE KITS

				PISTONE - PISTON Ø18		PISTONE - PISTON Ø20		PISTONE - PISTON Ø22		PISTONE - PISTON Ø24	
KIT Nr.	KIT 2	KIT 3	KIT 169	KIT 180	KIT 176	KIT 170	KIT 171	KIT 172	KIT 173	KIT 181	KIT 182
Posizioni incluse Positions included	51	39	3 - 4 4 – 5 6 (10)	44 – 46	42 – 43 44 – 45 46	44 – 46	42 – 43 44 – 45 46	44 – 46	42 – 43 44 – 45 46	44 – 46	42 – 43 44 – 45 46
Nr. Pcs.	3	2	6	3	1	3	1	3	1	3	1

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT		NR
18	66.0100.22	Carter pompa		1
19	98.2106.00	Tappo carico olio G 3/8"		1
20	66.0200.35 66.0204.35	Albero – W2525-W2030-W3021-W3025 T2530-T3025-T2830 Albero – W2035-W2141-T2535-T2040-T1750		1 1
21	91.4092.00	Linguetta 9x7x35 UNI 6604		1
22	66.0300.01	Biella completa		3
23	90.3922.00	OR Ø 133.02x2.62 (3525)		1
24	66.1600.22	Coperchio posteriore		1
25	99.1884.00	Vite M6x20 UNI 5931		4
26	90.4051.00	OR Ø 26.58x3.53 (4106)		1
27	63.2100.51	Spia livello olio		1
28	98.2042.50	Tappo G 1/4"x9 TE17 – Zinc.		1
29	90.3585.00	OR Ø 10.82x1.78 (2043)		4
30	99.3099.00	Vite M8x35 UNI 5931		6
32	97.7405.00	Spinotto Ø 14x39		3
33	66.0500.66	Guida pistone		3
34	96.7101.00	Rosetta Ø 10x28x0.5		3
35	66.0403.09 66.0400.09 66.0401.09 66.0404.09	Pistone Ø 18x54 Pistone Ø 20x54 Pistone Ø 22x54 Pistone Ø 24x54		3 3 3 3
36	90.3584.00	OR Ø 10.82x1.78 (2043) - 90 Sh.		3
37	66.2195.66	Vite fissaggio pistone		3
38	47.1510.22	Coperchio cuscinetto aperto		1
39	90.1648.00	Anello rad. Ø 30x55x7	3	1

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT		NR
40	90.3833.00	OR Ø 13.95x2.62 (3056)		1
41	98.2100.50	Tappo G 3/8"x13 TE22 – Zinc.		1
42	66.0803.70 66.0800.70 66.0801.70 66.0804.70	Anello di fondo Ø 18 Anello di fondo Ø 20 Anello di fondo Ø 22 Anello di fondo Ø 24	176 171 173 182	3 3 3 3
43	90.3616.00	OR Ø34.65x1.78 (2137)171-173-176-182		3
44	90.2652.00 90.2690.00 90.2715.00 90.2738.00	Anello tenuta Ø18x26x6.5 LP Anello tenuta Ø20x28x6.5 LP Anello tenuta Ø22x30x6.5 LP Anello tenuta Ø24x32x6.5 LP	180-176 170-171 172-173 181-182	3 3 3 3
45	66.2163.70 66.2160.70 66.2161.70 66.2164.70	Anello intermedio Ø 18 Anello intermedio Ø 20 Anello intermedio Ø 22 Anello intermedio Ø 24	176 171 173 182	3 3 3 3
46	90.2655.00 90.2692.00 90.2717.00 90.2741.00	Anello tenuta Ø18x28x10 HP Anello tenuta Ø20x30x10 HP Anello tenuta Ø22x32x10 HP Anello tenuta Ø24x34x10 HP	180-176 170-171 172-173 181-182	3 3 3 3
47	47.2000.74	Piedino fissaggio pompa		2
48	96.7106.00	Rosetta Ø 10.2 DIN 7980		4
49	99.3644.00	Vite M10x18 UNI 5931		4
50	90.9126.00	Boccola Ø 22x25x30		3
51	90.1625.00	Anello rad. Ø 22x32x5.5	2	3
52	96.7380.00	Rosetta Ø 17.5x23x1.5		1
53	96.7700.00	Rosetta Ø 26.5x32x1.5		1
54	98.2268.00	Tappo G 3/4"x16		1
55	98.2043.00	Tappo G 1/4"x13		3
56	98.2100.00	Tappo G 3/8"x13		1



DIS. COD. 66.9501.00

9421, 9521

	PISTONE – PISTON - Ø16	PISTONE – PISTON - Ø18
OTTONE BRASS	W5015 - W4518 W4015 - W4018 - T4018	W3521 - W3523
NICKEL	W5018 – T5018	-

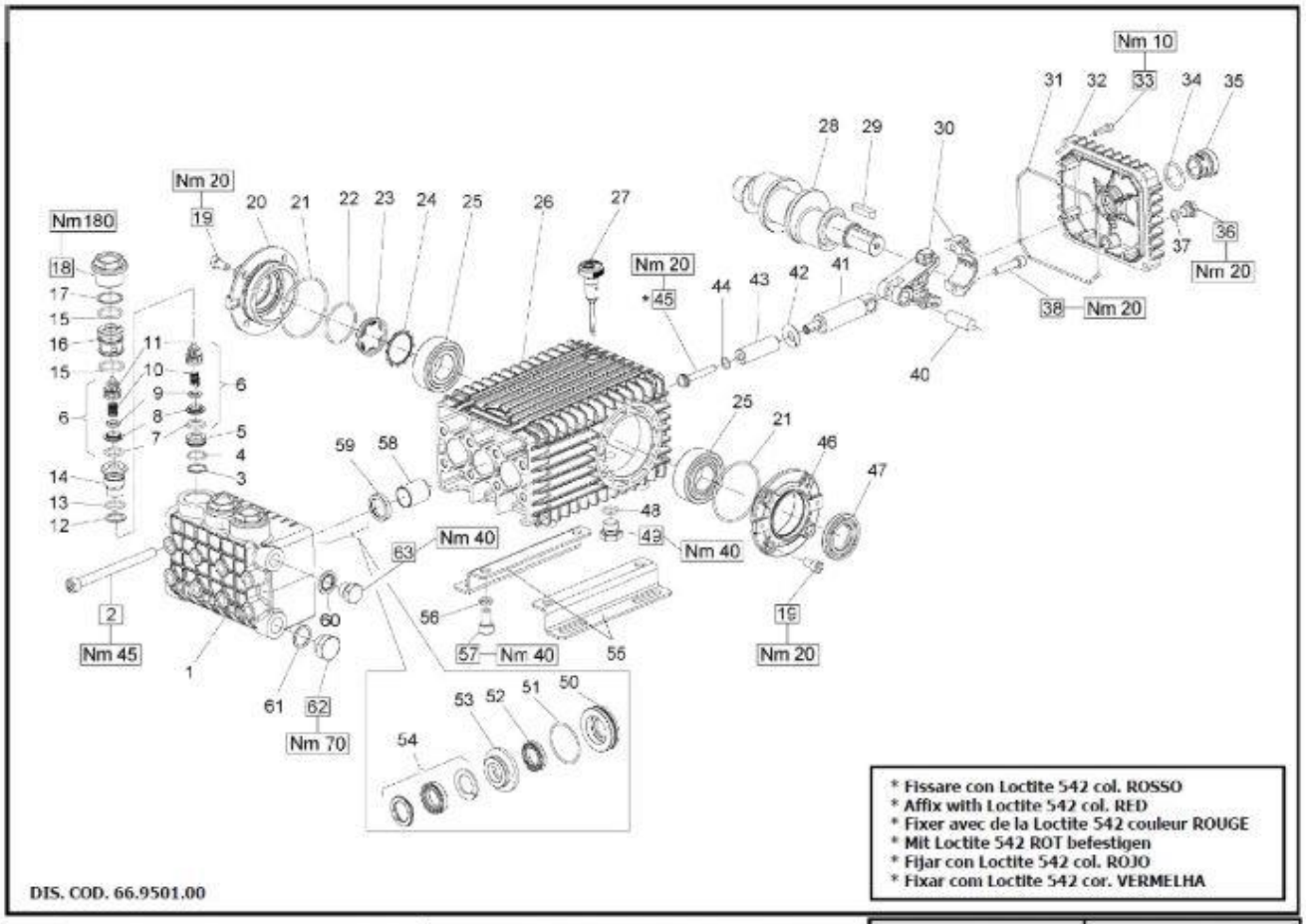
POS	COD.	DESCRIZIONE – DESCRIPTION - KIT	NR
1	66.1210.41 66.1211.41 66.1240.41 66.1247.41	Testata Ø 16 Testata Ø 18 Testata Ø 16 – W5015 – W4518 Testata Ø 16 – NICKEL	1 1 1 1
2	99.3820.00	Vite M10x120 UNI 5931	8
3	90.5118.00	Anello antiest. Ø 19.5x22x1.5	3
4	90.3596.00	OR Ø 18.77x1.78 (2075)	3
5	66.2102.70	Distanziale	3
6	36.7121.01	Gruppo valvola aspiraz. / mand. 150	6
7	90.3841.00	OR Ø 17.13x2.62 (3068) 150	6
8	36.2003.66	Sede valvola 150	6
9	36.2032.66	Valvola sferica 150	6
10	94.7376.00	Molla Ø 9.4x14.8 150	6
11	36.2025.51	Guida valvola 150	6
12	90.5115.00	Anello antiest. Ø 18.7x23x1.5	3
13	90.3843.00	OR Ø 17.86x2.62 (123)	3
14	66.2101.66	Bussola	3
15	90.3857.00	OR Ø 23.81x2.62 (132)	6
16	66.2100.70	Tappo Ø 29	3
17	90.5165.00	Anello antiest. Ø 24.7x29x1.5	3
18	66.1301.41 66.1310.41	Tappo valvole M32x1.5x18.5 Tappo valvole M32x1.5x18.5 - NICKEL	3 3
19	99.3039.00	Vite M8x16 UNI 5931	8

KIT RICAMBI – SPARE KITS

KIT Nr.	KIT 2	KIT 3	KIT 150	PISTONE - PISTON Ø16 KIT 174	PISTONE - PISTON Ø16 KIT 175	PISTONE - PISTON Ø18 KIT 180	PISTONE - PISTON Ø18 KIT 176
Posizioni incluse Positions included	59	47	7 – 8 9 – 10 11 (6)	52 - 54	50 – 51 52 – 53 54	52 - 54	50 – 51 52 – 53 54
Nr. Pcs.	3	2	6	3	1	3	1

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT	NR
20	47.1512.22	Coperchio cuscinetto lato spia	1
21	90.3913.00	OR Ø 67.95x2.62 (3268)	2
22	90.3877.00	OR Ø 39.34x2.62 (3156)	1
23	70.2118.01	Spia livello olio	1
24	90.0756.00	Anello seeger Ø 45	1
25	91.8380.00	Cuscinetto a rulli NJ 2206 EC	2
26	66.0100.22	Carter pompa	1
27	98.2106.00	Tappo carico olio	1
28	66.0200.35 66.0204.35	Albero – W5015-W4015-W3521-T4018-T5018 Albero – W4518-W4018-W3523-W5018	1 1
29	91.4892.00	Linguetta 9x7x35 UNI 6604	1
30	66.0300.01	Biella compiuta	3
31	90.3922.00	OR Ø 133.02x2.62 (3525)	1
32	66.1600.22	Coperchio posteriore	1
33	99.1884.00	Vite M6x20 UNI 5931	4
34	90.4051.00	OR Ø 26.58x3.53 (4106)	1
35	63.2100.51	Spia livello olio	1
36	98.2042.50	Tappo G 1/4"x9 TE17 – Zinc.	1
37	90.3585.00	OR Ø 10.82x1.78 (2043)	1
38	99.3099.00	Vite M8x35 UNI 5931	6
40	97.7405.00	Spinotto Ø 14x39	3
41	66.0500.66	Guida pistone	3
42	96.7101.00	Rosetta Ø 10x28x0.5	3

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT	NR
43	66.0402.09 66.0403.09	Pistone Ø 16x54 Pistone Ø 18x54	3 3
44	90.3584.00	OR Ø 10.82x1.78 (2043) – 90 Sh.	3
45	66.2195.66	Vite fissaggio pistone	3
46	47.1510.22	Coperchio cuscinetto aperto	1
47	90.1648.00	Anello rad. Ø 30x56x7 3	1
48	90.3833.00	OR Ø 13.95x2.62 (3056)	1
49	98.2100.50	Tappo G 3/8"x13 TE22 – Zinc.	1
50	66.0802.70 66.0803.70	Anello di fondo Ø 16 175 Anello di fondo Ø 18 176	3 3
51	90.3616.00	OR Ø 34.65x1.78 (2137) 175-176	3
52	90.2631.00 90.2632.00	Anello tenuta Ø 16x24x6.5 LP 174-175 Anello tenuta Ø 18x26x6.5 LP 180-176	3 3
53	66.2162.70 66.2163.70	Anello intermedio Ø 16 175 Anello intermedio Ø 18 176	3 3
54	90.2634.00 90.2655.00	Anello tenuta Ø 16x26x9.5 HP 174-175 Anello tenuta Ø 18x28x10 HP 180-176	3 3
55	47.2000.74	Piedino fissaggio pompa	2
56	96.7106.00	Rosetta Ø 10.2 DIN 7980	4
57	99.3644.00	Vite M10x18 UNI 5931	4
58	90.9126.00	Boccola Ø 22x25x30	3
59	90.1625.00	Anello rad. Ø 22x32x5.5 2	3
60	93.1858.00	Rondella di tenuta G 3/8" Ø 15x27x2	1
61	96.7514.00	Rosetta Ø 21.5x27x1.5	1
62	98.2176.00	Tappo G 1/2"x10	1
63	98.2100.00	Tappo G 3/8"x13	1



9450, 9550, 9621

	PISTONE – PISTON - Ø16	PISTONE – PISTON - Ø18
OTTONE BRASS	W5015 - W4518 W4015 - W4018 - T4018	W3521 – W3523
NICKEL	W5018 – T5018	-

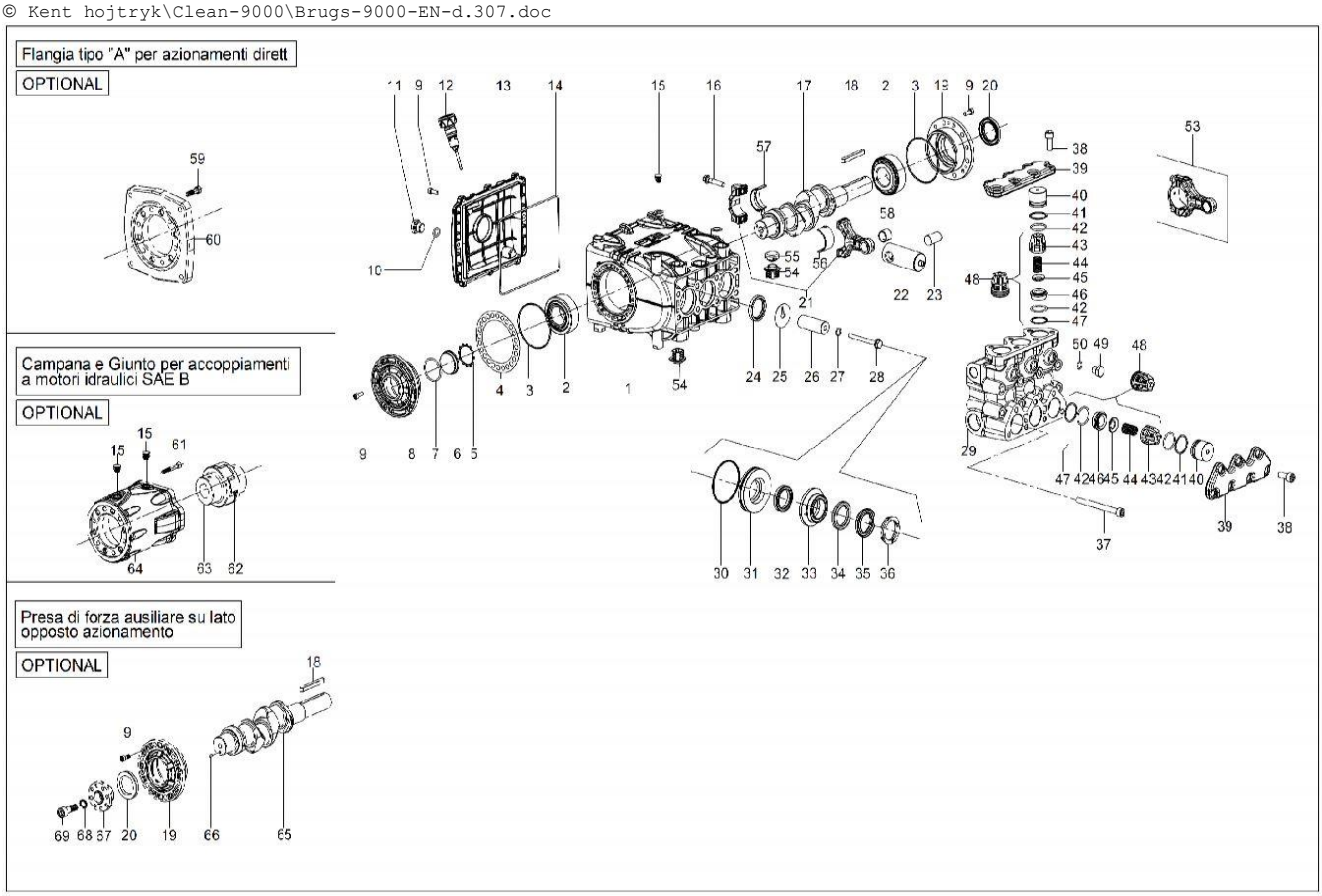
POS	COD.	DESCRIZIONE – DESCRIPTION - KIT		NR
1	66.1210.41 66.1211.41 66.1240.41 66.1247.41	Testata Ø 16 Testata Ø 18 Testata Ø 16 – W5015 – W4518 Testata Ø 16 – NICKEL		1 1 1 1
2	99.3820.00	Vite M10x120 UNI 5931		8
3	90.5118.00	Anello antiest. Ø 19.5x22x1.5		3
4	90.3596.00	OR Ø 18.77x1.78 (2075)		3
5	66.2102.70	Distanziale		3
6	36.7121.01	Gruppo valvola aspiraz. / mand.	150	6
7	90.3841.00	OR Ø 17.13x2.62 (3068)	150	6
8	36.2003.66	Sede valvola	150	6
9	36.2032.66	Valvola sferica	150	6
10	94.7376.00	Molla Ø 9.4x14.8	150	6
11	36.2025.51	Guida valvola	150	6
12	90.5115.00	Anello antiest. Ø 18.7x23x1.5		3
13	90.3843.00	OR Ø 17.86x2.62 (123)		3
14	66.2101.66	Bussola		3
15	90.3857.00	OR Ø 23.81x2.62 (132)		6
16	66.2100.70	Tappo Ø 29		3
17	90.5165.00	Anello antiest. Ø 24.7x29x1.5		3
18	66.1301.41 66.1310.41	Tappo valvole M32x1.5x18.5 Tappo valvole M32x1.5x18.5 - NICKEL		3 3
19	99.3039.00	Vite M8x16 UNI 5931		8

KIT RICAMBI – SPARE KITS

KIT Nr.	KIT 2	KIT 3	KIT 150	PISTONE - PISTON Ø16 KIT 174	PISTONE - PISTON Ø16 KIT 175	PISTONE - PISTON Ø18 KIT 180	PISTONE - PISTON Ø18 KIT 176
Posizioni incluse Positions included	59	47	7 – 8 9 – 10 11 (6)	52 - 54	50 – 51 52 – 53 54	52 - 54	50 – 51 52 – 53 54
Nr. Pcs.	3	2	6	3	1	3	1

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT	NR
20	47.1512.22	Coperchio cuscinetto lato spia	1
21	90.3913.00	OR Ø 67.95x2.62 (3268)	2
22	90.3877.00	OR Ø 39.34x2.62 (3156)	1
23	70.2118.01	Spia livello olio	1
24	90.0756.00	Anello seeger Ø 45	1
25	91.8380.00	Cuscinetto a rulli NJ 2206 EC	2
26	66.0100.22	Carter pompa	1
27	98.2106.00	Tappo carico olio	1
28	66.0200.35 66.0204.35	Albero – W5015-W4015-W3521-T4018-T5018 Albero – W4518-W4018-W3523-W5018	1 1
29	91.4892.00	Linguetta 9x7x35 UNI 6604	1
30	66.0300.01	Biella completa	3
31	90.3922.00	OR Ø 133.02x2.62 (3525)	1
32	66.1600.22	Coperchio posteriore	1
33	99.1884.00	Vite M6x20 UNI 5931	4
34	90.4051.00	OR Ø 26.58x3.53 (4106)	1
35	63.2100.51	Spia livello olio	1
36	98.2042.50	Tappo G 1/4"x9 TE17 – Zinc.	1
37	90.3585.00	OR Ø 10.82x1.78 (2043)	1
38	99.3099.00	Vite M8x35 UNI 5931	6
40	97.7405.00	Spinotto Ø 14x39	3
41	66.0500.66	Guida pistone	3
42	96.7101.00	Rosetta Ø 10x28x0.5	3

POS	COD.	DESCRIZIONE – DESCRIPTION - KIT		NR
43	66.0402.09 66.0403.09	Pistone Ø 16x54 Pistone Ø 18x54		3 3
44	90.3584.00	OR Ø 10.82x1.78 (2043) – 90 Sh.		3
45	66.2195.66	Vite fissaggio pistone		3
46	47.1510.22	Coperchio cuscinetto aperto		1
47	90.1648.00	Anello rad. Ø 30x56x7	3	1
48	90.3833.00	OR Ø 13.95x2.62 (3056)		1
49	98.2100.50	Tappo G 3/8"x13 TE22 – Zinc.		1
50	66.0802.70 66.0803.70	Anello di fondo Ø 16 Anello di fondo Ø 18	175 176	3 3
51	90.3616.00	OR Ø 34.65x1.78 (2137)	175-176	3
52	90.2631.00 90.2632.00	Anello tenuta Ø 16x24x6.5 LP 174-175 Anello tenuta Ø 18x26x6.5 LP 180-176		3 3
53	66.2162.70 66.2163.70	Anello intermedio Ø 16 Anello intermedio Ø 18	175 176	3 3
54	90.2634.00 90.2635.00	Anello tenuta Ø 16x26x9.5 HP 174-175 Anello tenuta Ø 18x28x10 HP 180-176		3 3
55	47.2000.74	Piedino fissaggio pompa		2
56	96.7106.00	Rosetta Ø 10.2 DIN 7980		4
57	99.3644.00	Vite M10x18 UNI 5931		4
58	90.9126.00	Boccola Ø 22x25x30		3
59	90.1625.00	Anello rad. Ø 22x32x5.5	2	3
60	93.1858.00	Rondella di tenuta G 3/8" Ø 15x27x2		1
61	96.7514.00	Rosetta Ø 21.5x27x1.5		1
62	98.2176.00	Tappo G 1/2"x10		1
63	98.2100.00	Tappo G 3/8"x13		1



KIT RICAMBIO – SPARE KIT

		W12070H KE30BH	KE36B	W100100H KE36BH
A	Kit tenute pompanti – Plunger packing kit	KIT 2010	KIT 2133	KIT 2133
B	Kit valvole aspirazione/mandata – In/Out valves kit	KIT 2030		
D	Kit tenute complete – Complete seals kit	KIT 2211	KIT 2134	KIT 2134
E	Kit bronzine bielle – Conrod bushing kit	KIT 2156 (STD) - 2157 (+0,25) - 2158 (+0,50)		

INTERPUMP GROUP

9670

Pratissoli

KE30BH
KE36B
KE36BH

POS	CODE CODICE	DESCRIPTION DESCRIZIONE	KIT	NR. PCS.
1	70.0100.22	CARTER POMPA		1
2	91.8477.00	CUSCINETTO RULLI CON. 33207		2
3	90.3915.00	OR D. 80.60x2.62 NBR 70SH 3318	D	2
4	70.2200.81	SPESSORE DI RASAMENTO 0.1 MM		1
	70.2203.81	SPESSORE DI RASAMENTO 0.25 MM		1
5	90.0756.00	ANELLO SEEGER D.45 (ZJ45)	D	1
6	70.2118.01	SPIA LIVELLO OLIO	D	1
7	90.3877.00	OR D. 39.34x2.62 NBR 70SH	D	1
8	70.1501.22	COPERCHIO CUSCINETTO LATO SPIA		1
9	99.1854.00	VITE M06X16 5931 8.8 ZINC		20
10	90.3833.00	OR D. 13.95x2.62 NBR 70SH	D	1
11	98.2099.00	TAPPO G3/8x13 NICKEL		1
12	98.2115.00	TAPPO CON ASTA D.21.5x70		1
13	70.1600.22	COPERCHIO CARTER		1
14	90.3944.00	OR D.196.52x2.62 NBR 70SH	D	1
15	98.2005.00	TAPPO PER FORO D.15		7
16	99.3123.00	VITE SERRAGGIO BIELLA M8x1x42		6
17	70.0200.35	ALBERO A GOMITI C.23		1
18	91.4900.00	LINGUETTA 8h9x7x70 UNI 6604/A		1
19	70.1500.22	COPERCHIO CUSCINETTO LATO PTO		1
20	90.1668.00	ANELLO RAD. D.35x52x7 VITON	D	1
22	70.0500.15	GUIDA PISTONE		3
23	97.7420.00	SPINOTTO D.18x36		3
24	90.1677.00	ANELLO RAD. D.36x47x6/7.5	D	3
25	96.7099.00	ROSETTA D.10x45x1		3
26	70.0404.09	PISTONE D.30x62		3
	70.0405.09	PISTONE D.36x62		
27	90.3585.00	OR D. 10.82x1.78 NBR 70SH	D	3
28	70.2195.66	VITE FISSAGGIO PISTONE		3
29	70.1244.41	TESTATA PER PISTONE D.30		1
	70.1239.41	TESTATA PER PISTONE D.36		
	70.1241.41	TESTATA PER PIST. D.36 NICKEL		
30	90.3626.00	OR D. 50.52x1.78 NBR 70SH	A-D	
31	70.0804.70	ANELLO DI FONDO D.30 - KEB		3
	70.0812.70	ANELLO DI FONDO D.36 - KEB		
32	90.2760.00	ANELLO TEN.ALT.D.30x38x5,5 L.P.	A-D	3
	90.2800.00	ANELLO TEN.ALT.D.36x44x6 L.P.	A-D	
33	70.2164.70	ANELLO INTERMEDIO D.30		3
	70.2224.70	ANELLO INTERMEDIO D.36		
34	90.2774.00	ANELLO "RESTOP" 30x45x8/4,5	A-D	3
	90.2818.00	ANELLO "RESTOP" 36x48x6/3	A-D	
35	90.2770.00	ANELLO TEN.ALT.30x45x7/4,5 H.P.	A-D	3
	90.2820.00	ANELLO TEN.ALT.36x48x6/3,5 H.P.	A-D	
36	70.1004.51	ANELLO DI TESTA PISTONE D.30		3
	71.1002.51	ANELLO DI TESTA PISTONE D.36		
37	99.3816.00	VITE M10X110 5931 8.8 ZINC		8
38	99.3671.00	VITE M10X25 5931 12.9 G321A+M		14
39	70.2219.41	COPERCHIO VALVOLE		1
	70.2223.41	COPERCHIO VALVOLE NICHELATO		
40	70.2116.70	TAPPO VALVOLE ASP.MANDATA		6
41	90.5180.00	ANELLO ANTIEST.D.32.4x36.5x1.5	D	6
42	90.3865.00	OR D. 29.82x2.62 NBR 70SH	D	12
43	36.2047.51	GUIDA VALVOLA ASP.MANDATA		6
44	94.7450.00	MOLLA Dm 16X27,5 INOX		6
45	36.2010.76	VALVOLA SFERICA		6
46	36.2048.66	SEDE VALVOLA ASP.MANDATA		6
47	90.5178.00	ANELLO ANTIEST.D.31x35.5x1.5	D	6
48	36.7143.01	GRUPPO VALVOLA ASP.MANDATA	B	6
49	98.2100.00	TAPPO G3/8x13 OTTONE		3
	98.2099.00	TAPPO G3/8x13 NICKEL		
50	90.3671.00	OR D. 11.00x2.00 NBR 90SH	D	3
53	70.0305.01	BIELLA COMPLETA		3
54	70.2225.51	TAPPO CARTER		6
55	71.2259.51	CAPPUCCIO TAPPO CARTER		3
56	90.9220.00	SEMIBOCC. TESTA BIELLA - SUP.	E	3
	90.9221.00	SEMIBOCC. TESTA BIELLA S.+0.25	E	
	90.9222.00	SEMIBOCC. TESTA BIELLA S.+0.50	E	
57	90.9223.00	SEMIBOCC. TESTA BIELLA - INF.	E	3
	90.9224.00	SEMIBOCC. TESTA BIELLA I.+0.25	E	
	90.9225.00	SEMIBOCC. TESTA BIELLA I.+0.50	E	
58	90.9100.00	BOCCOLA PIEDE BIELLA		3
		CON FLANGIA "A" – WITH DIRECT DRIVE FLANGE		
59	99.3084.00	VITE M08X30 5931 8.8 ZINC		6
60	10.0673.20	FLANGIA MOT.IDRAULICO TIPO A		1
		MOTORE IDR. SAE-B – SAE-B HYDR. MOTOR DRIVE		
15	98.2005.00	TAPPO PER FORO D.15		2
61	99.3136.00	VITE M08X45 5931 12.9 G321		6
62	10.0755.47	ELEMENTO ELASTICO GIUNTO Di.46		1
63	10.7430.01	GIUNTO ELASTICO D.30x25.4		1
64	10.0752.20	FLANGIA MOT.IDR. SAE-B		1
		PDF AUSILIARIA – AUXILIARY PTO		
9	99.1854.00	VITE M06X16 5931 8.8 ZINC		6
18	91.4900.00	LINGUETTA 8h9x7x70 UNI 6604/A		1
19	70.1500.22	COPERCHIO CUSCINETTO LATO PTO		1
20	90.1668.00	ANELLO RAD. D.35x52x7 VITON		1
65	70.0205.35	ALBERO A GOMITI C.23 D.PTO		1
66	97.6152.00	SPINA D.5x10		1
67	70.2234.54	DISPOSITIVO DOPPIA PTO S.70		1
68	96.7160.00	ROSETTA D.12X18X1 DIN988		1
69	99.4295.00	VITE M12X35 5931 12.9 G321		1

4 Installation and fitting

4.1 Unpacking:

Unpack the machine and make sure that it is complete and not damaged. In case it is not complete or damaged, do not use the machine and consult your dealer. For reasons of packaging or transport some accessory components can be supplied loose. In this case they must be assembled according to the instructions in this manual.
Make sure that the components of the packaging (bag, boxes, components for fastening) are placed out of the reach of children.

Identification Label:
Before using the machine, make sure that it is provided with the identification Label. In case the identification Label is missing, do not use the machine and consult your dealer immediately. The identification Label with the technical specifications is applied on the machine.

4.2 Removal:

Lifting by crane is carried out by attaching at marked lifting Points.
The high-pressure cleaner must be switched off and if possible cooled down during handling.

NEVER LIFT BY WEAK STRUCTURAL PARTS.

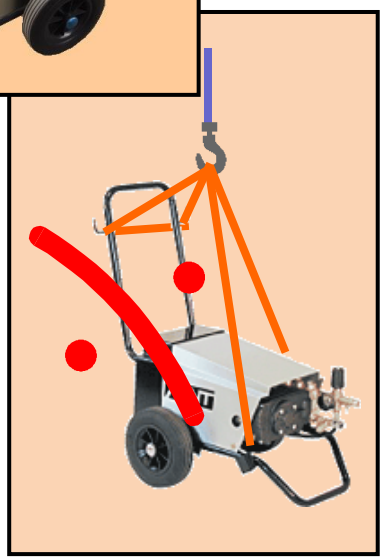
The lift must be carried out with unplugged power plug.

Lifting by truck must only take place if the high-pressure cleaner is secured on a transportation pallet.

Weight: approx. 150 kg. See next page.

Ensure that there is free access on the transportation route without any persons or obstacles.

The machine must always be lowered with **extreme** caution.



Model may differ from shown

Installation:
The machine must be safely placed on a flat, levelled surface, in horizontal position.

4.3 Technical data:

High-pressure cleaners Serie 94xx Serie 95xx Serie 96xx

Model	Working pressure Bar/psi	Water-consump. l/min.	Plunger pump	Motor-capacity KW/HK	Electr. Current Volt	Length mm	Width mm	Height mm	Weight kg
9415	500/7250	15	3	15/20,1	3x400	1000	700	1100	150
9421	350/5075	21	3	15/20,1	3x400	1000	700	1100	150
9425	300/4350	25	3	15/20,1	3x400	1000	700	1100	150
9430	250/3625	30	3	15/20,1	3x400	1000	700	1100	150
9442	200/2175	42	3	15/20,1	3x400	1000	700	1100	150
9450	150/2175	70	3	15/20,1	3x400	1000	700	1100	150
9515	500/7250	15	3	15/20,1	3x400	800	600	1100	150
9521	350/5075	21	3	15/20,1	3x400	800	600	1100	150
9625	300/4350	25	3	15/20,1	3x400	800	600	1100	150
9530	250/3625	30	3	15/20,1	3x400	800	600	1100	150
9550	150/2175	50	3	15/20,1	3x400	800	600	1100	150
9621	500/7250	21	3	22/29,5	3x400	800	600	1100	150
9670	150/2175	70	3	22/29,5	3x400	800	600	1100	150
MODELS ALSO AVAILABLE AS STATIONARY IN FOLLOWING MEASUREMENTS;						1200	650	700	195

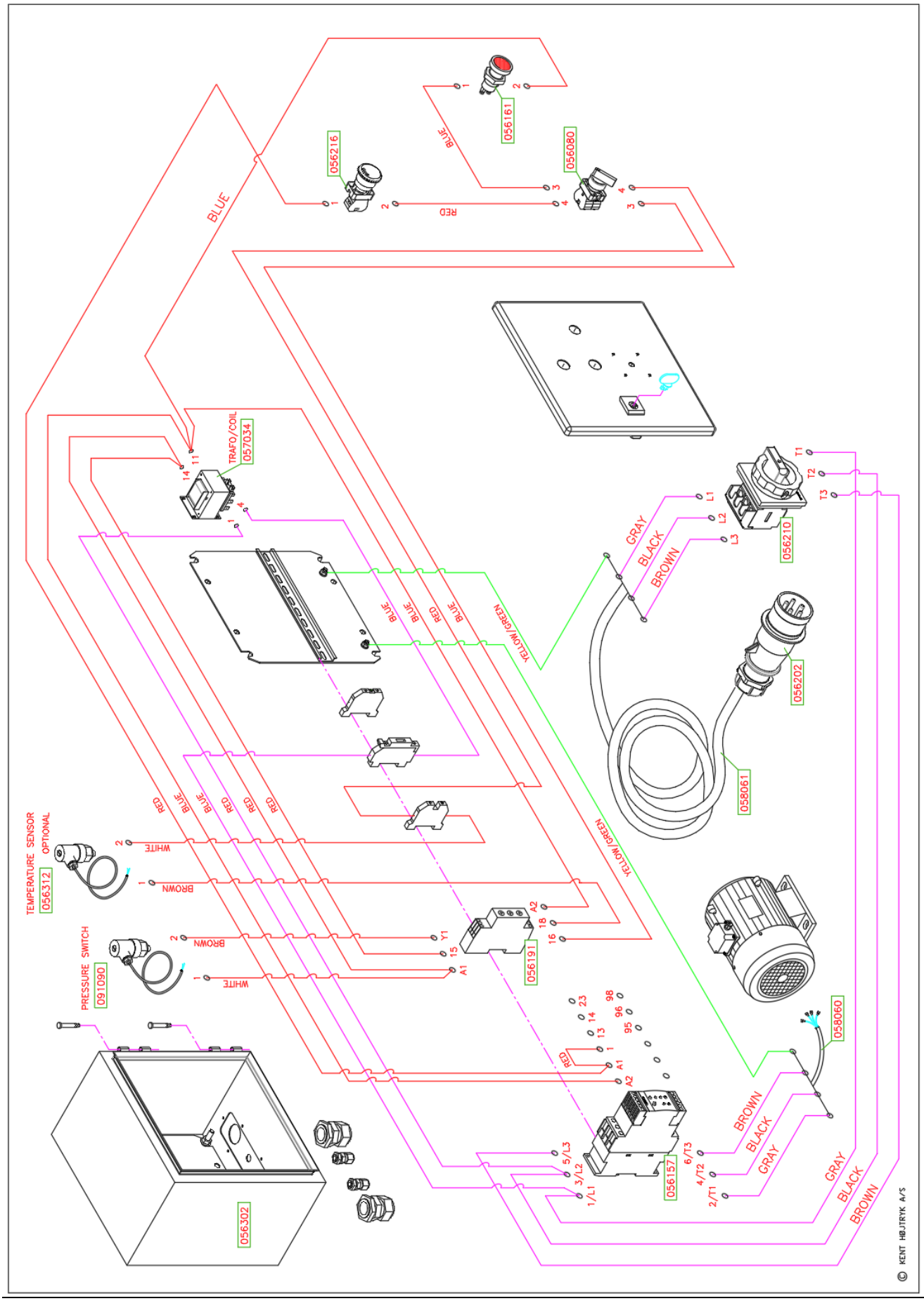
ELECTRICAL DATA		
Model	**94xx / 95xx**	**96xx**
KW / HK	15 / 20,1	22 / 29,5
Pre-fuse 380-415V	32A	44A
Voltage 380-415 V	32A	44A
Adjustment of motor protection 400V	32A	44A

Pressure regulation: Working pressure adjustable from 30 bar to max. pressure on double lances only.

Noise level: Under 70 dB

Warning: Never let the machine bee idle for more than 3 minutes at a time as this will cause serious damage to the pump.

4.4 Electrical diagram.



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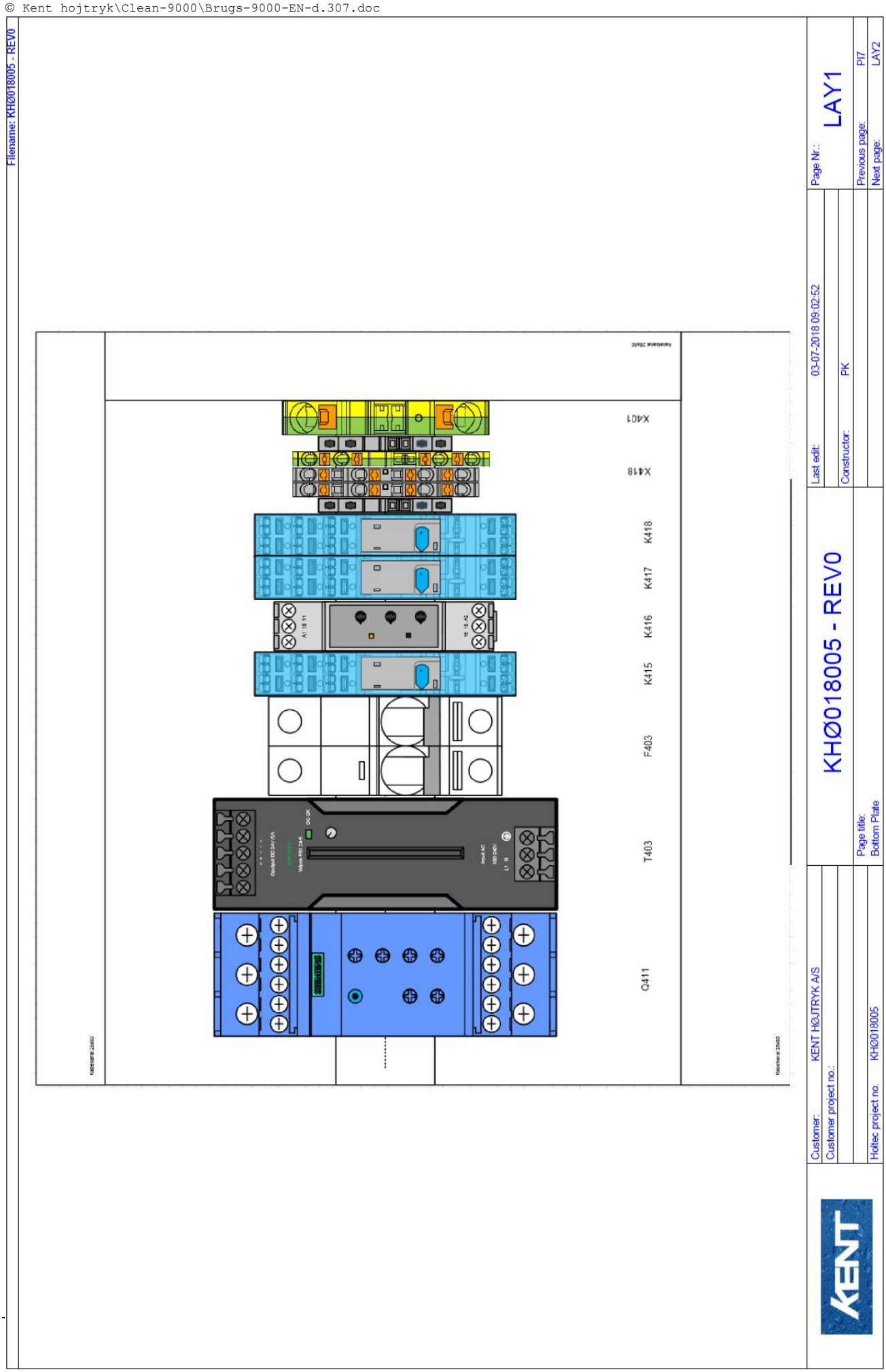

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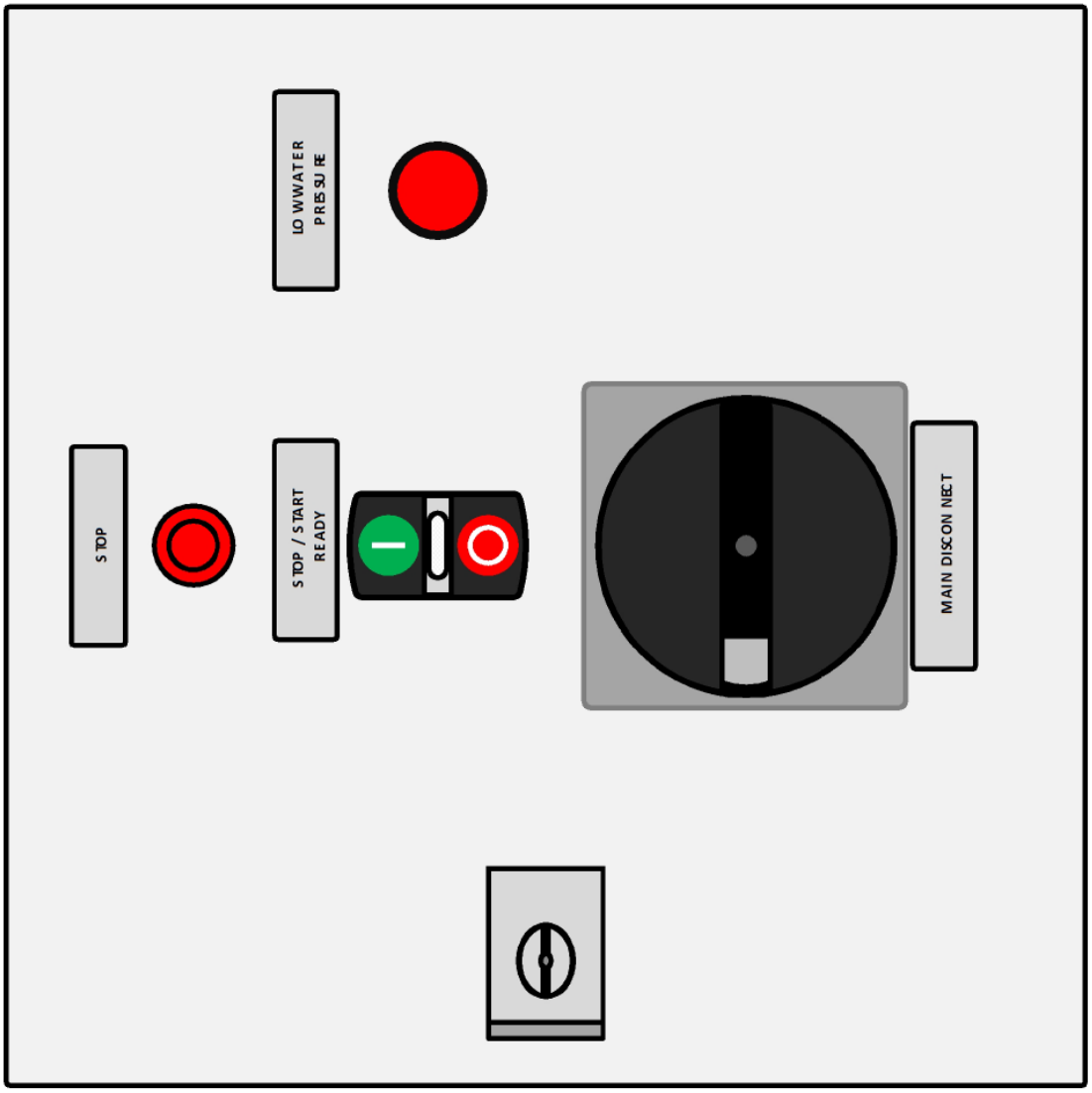

Customer: KENT HØJTRYK A/S
Customer project no.:
Holtec project no. KHØ018005

KHØ018005 - REV0

Page title:
Cabinet Layout

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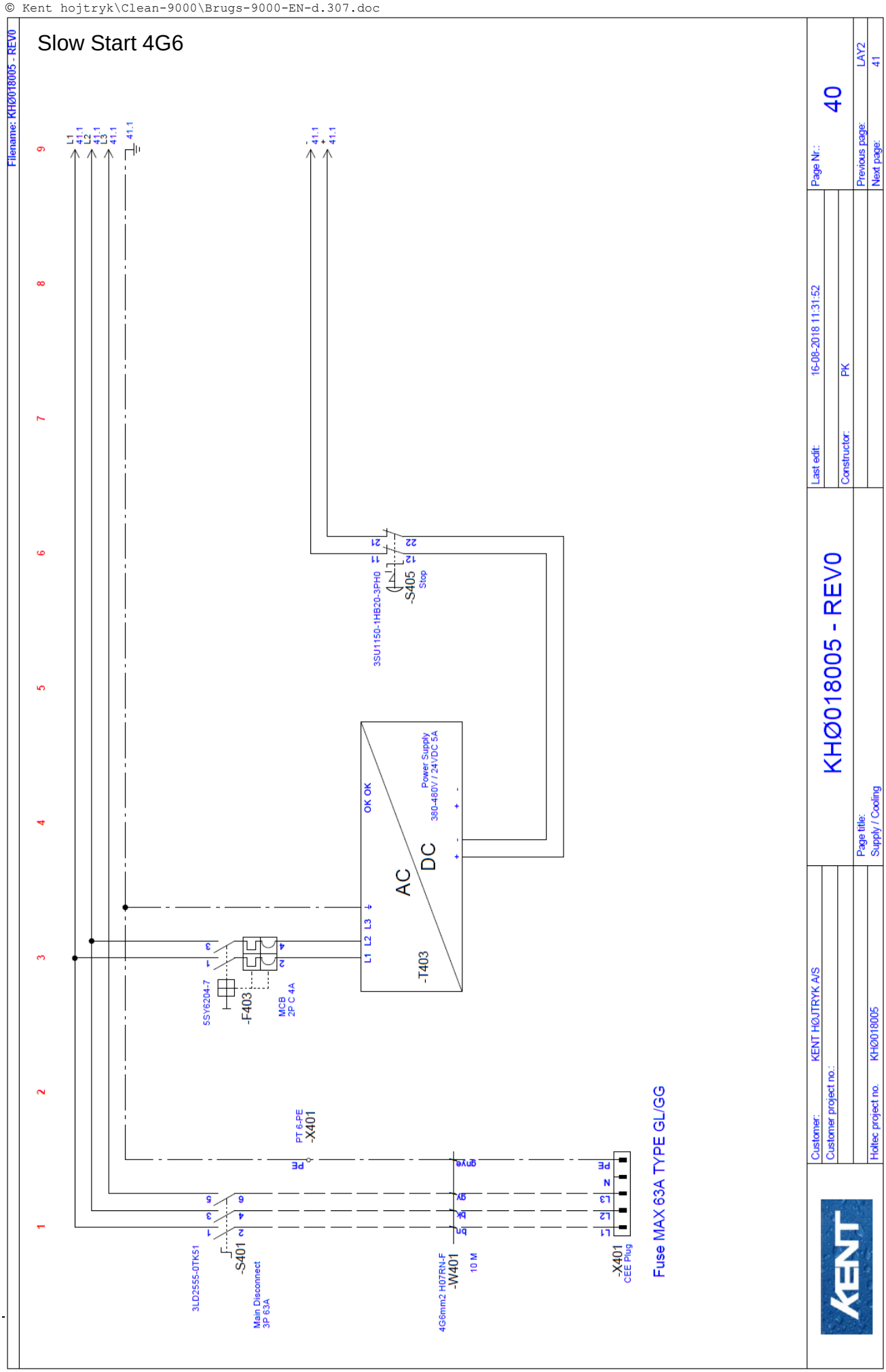
Slow Start 4G6



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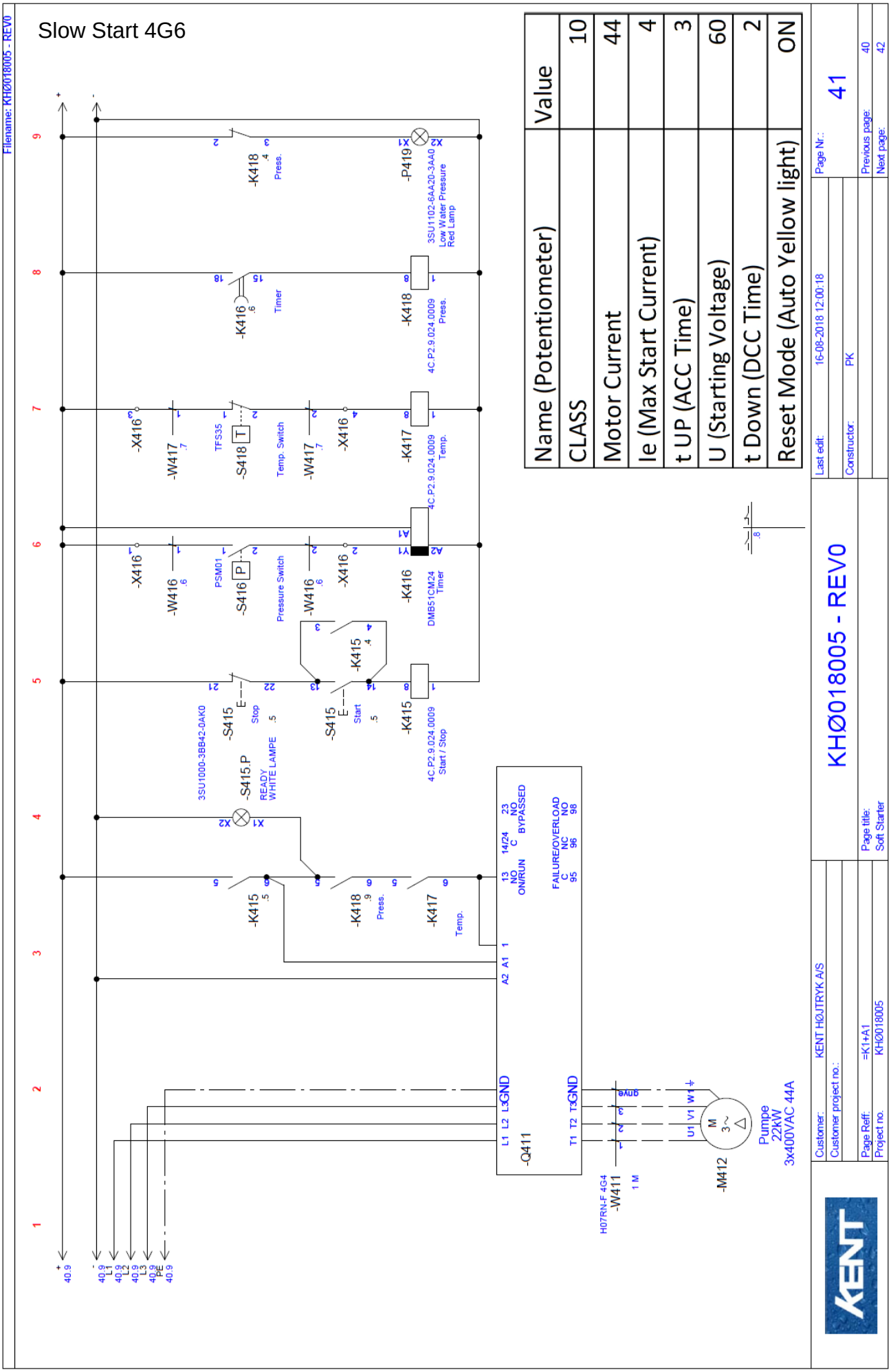
Slow Start 4G6



Name (Potentiometer)	Value
CLASS	10
Motor Current	44
Ie (Max Start Current)	4
t UP (ACC Time)	3
U (Starting Voltage)	60
t Down (DCC Time)	2
Reset Mode (Auto Yellow light)	ON

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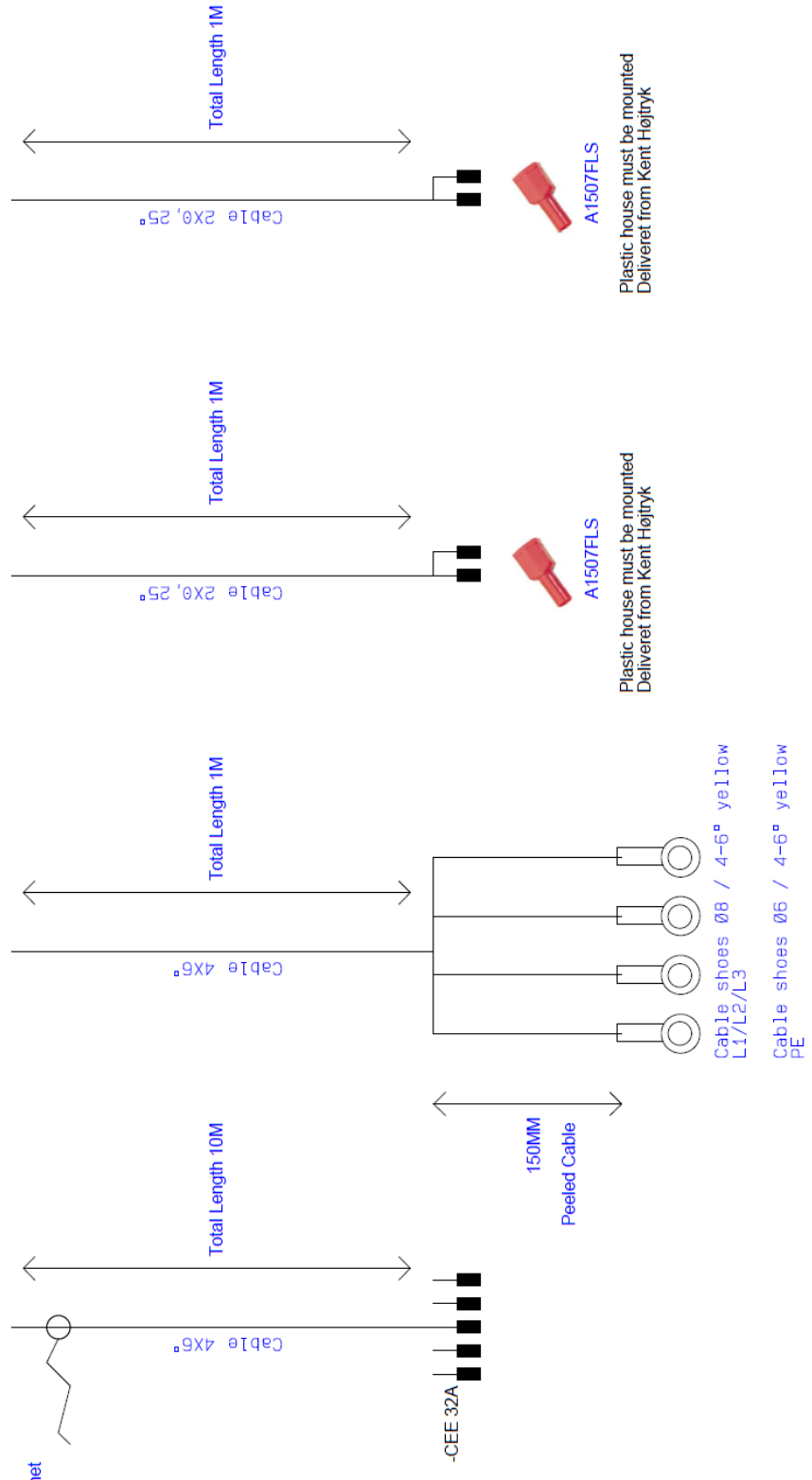
Slow Start 4G6



Customer:	KENT HØJTRYK A/S	Page Nr.:	42
Customer project no.:		Last edit:	16-08-2018 11:59:16
		Constructor:	PK
Page Reff:	=K1+A1	Page title:	Cabels
Project no.	KHØ018005	Previous page:	41
		Next page:	3000

KHØ018005 - REV0

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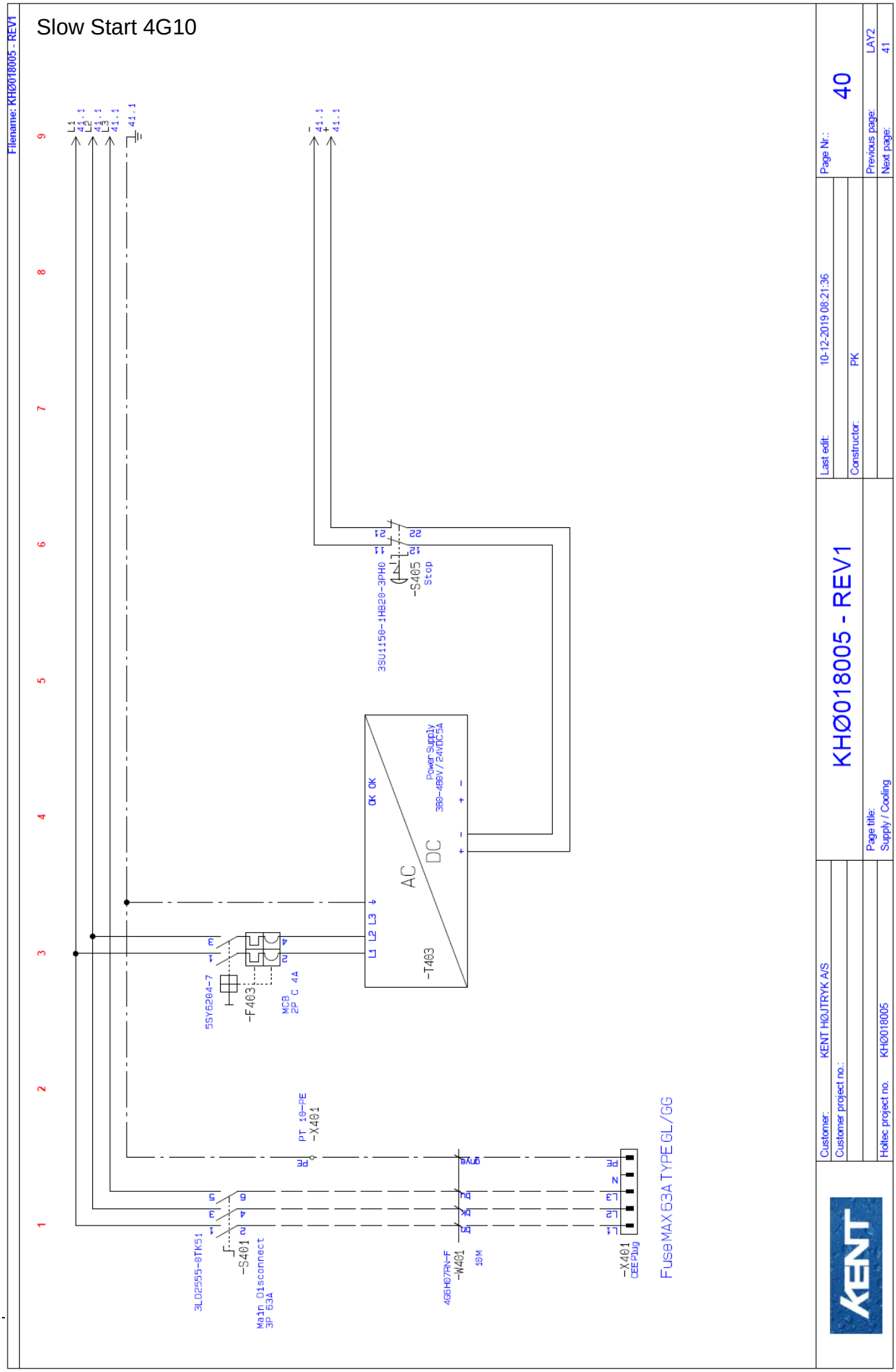
Slow Start 4G10



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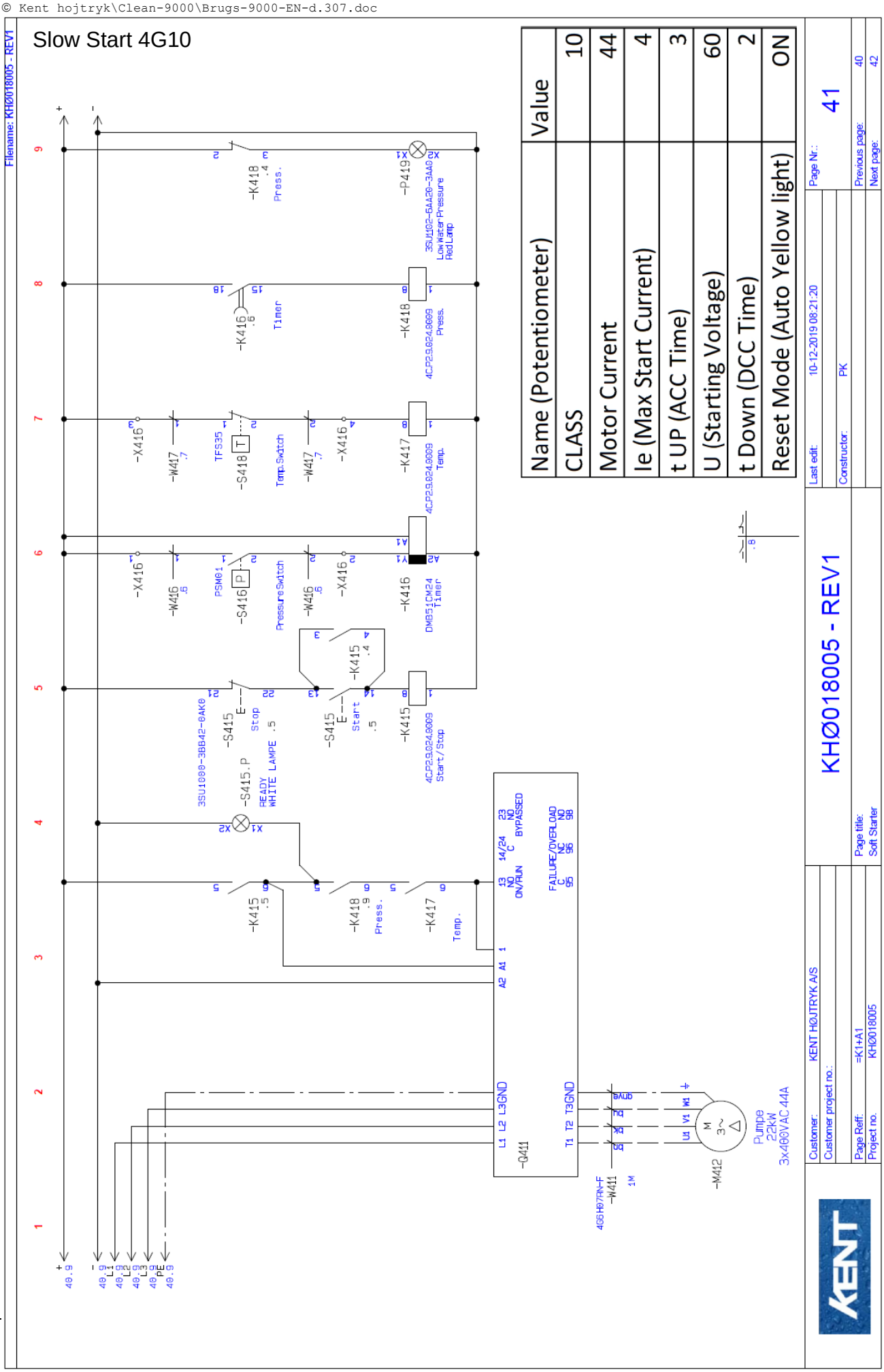
Slow Start 4G10



Name (Potentiometer)	Value
CLASS	10
Motor Current	44
Ie (Max Start Current)	4
t UP (ACC Time)	3
U (Starting Voltage)	60
t Down (DCC Time)	2
Reset Mode (Auto Yellow light)	ON

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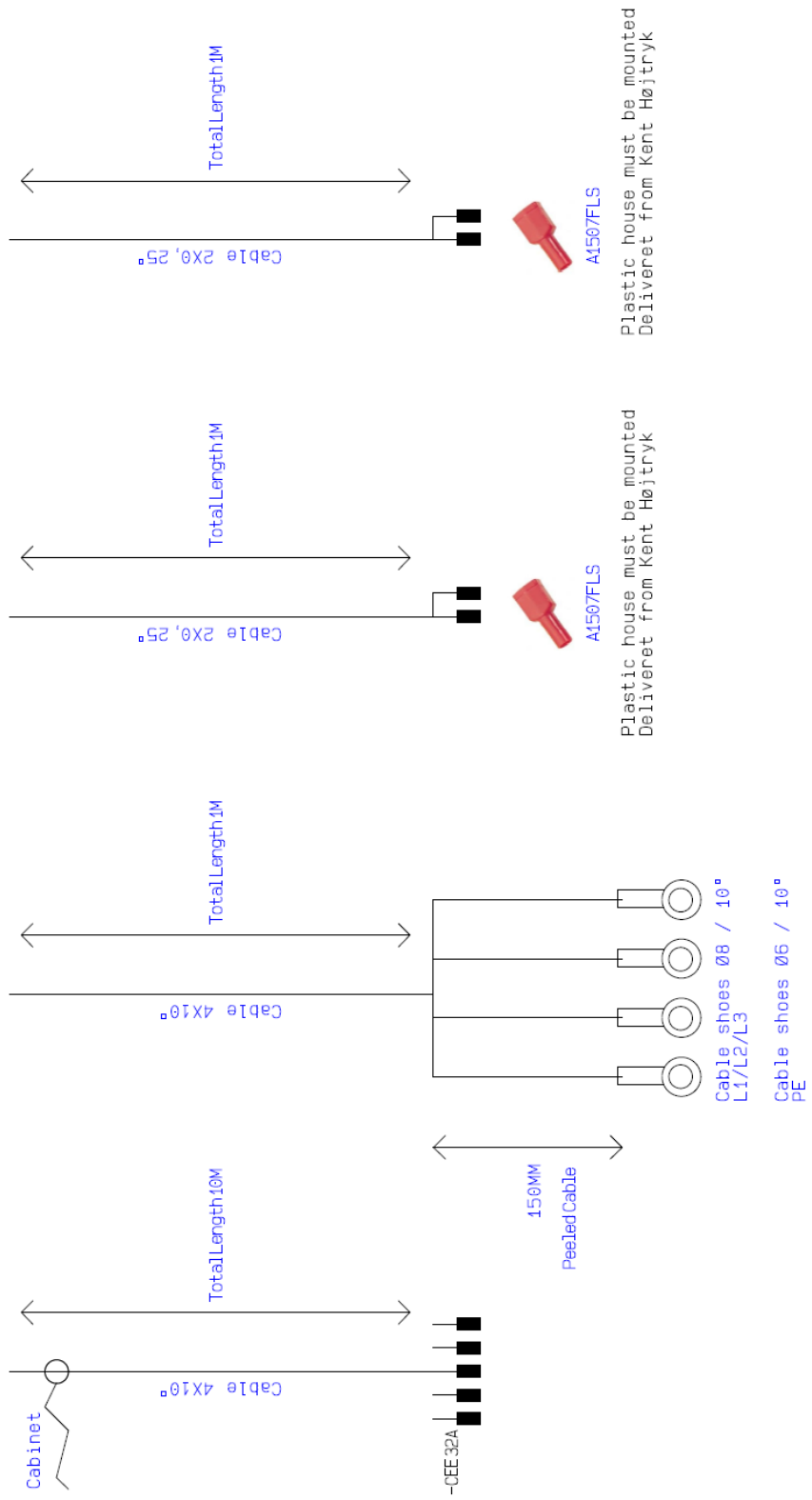
Filename: KHØ018005 - REV1

Slow Start 4G10



KHØ018005 - REV1

Last edit:	28-08-2018 07:36:58	Page Nr.:	42
Constructor:	PK	Previous page:	41
		Next page:	3000
Page title:	Cabels		

Customer:	KENT HØJTRYK A/S		
Customer project no.:			
Page Reff:	=K1+A1		
Project no.	KHØ018005		

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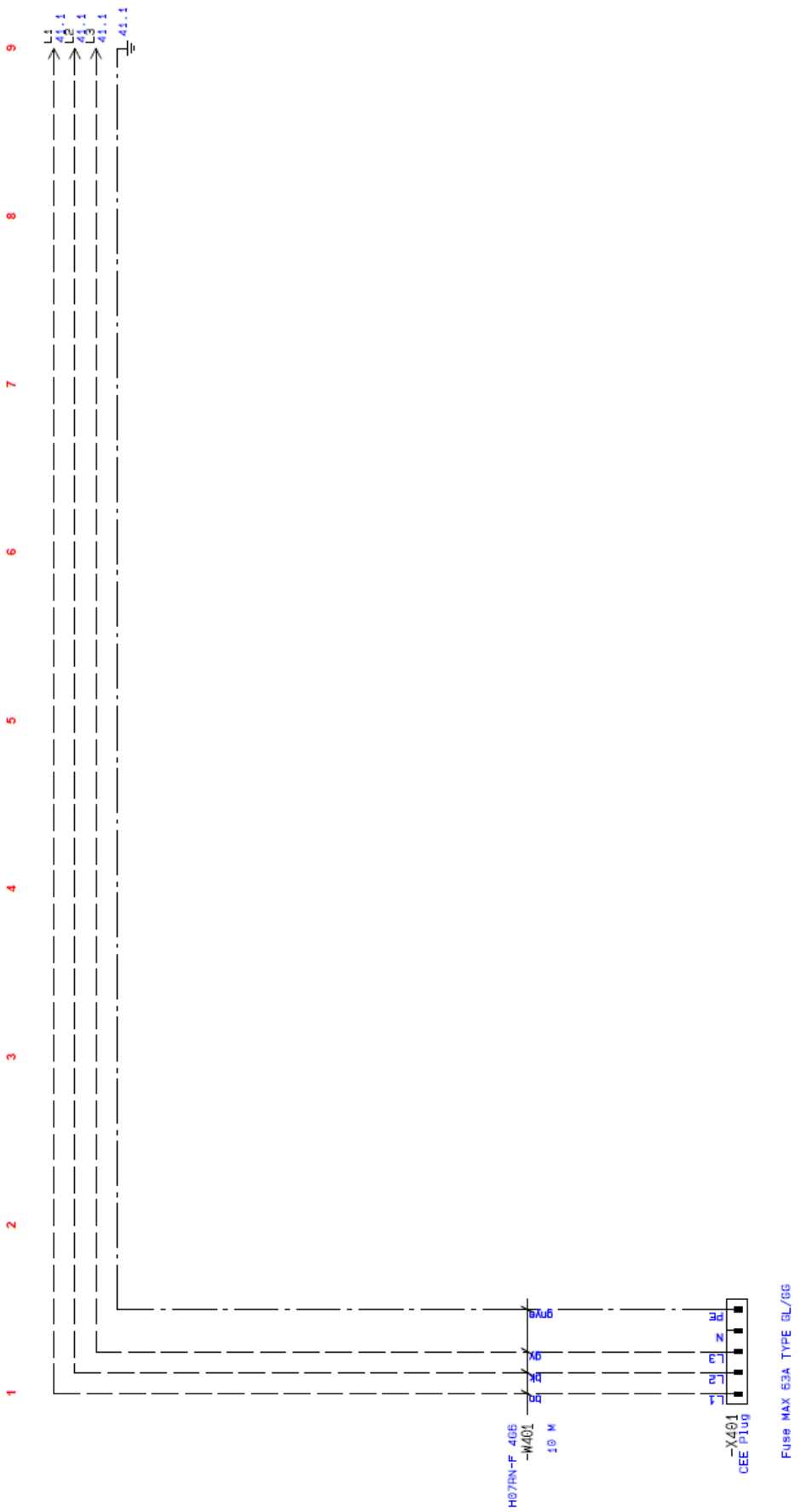
Filename: KHØ018011 22KW REV1

Frequency Inverter 4G6



Customer: KENT HØJTRYK A/S
Customer project no.:
Holtec project no. KHØ018004

KHØ018011 22KW REV1

Page title: Supply / Cooling

Last edit: 10-12-2019 08:28:30
Constructor: PK

Page Nr.: 40
Previous page: LAY2
Next page: 41

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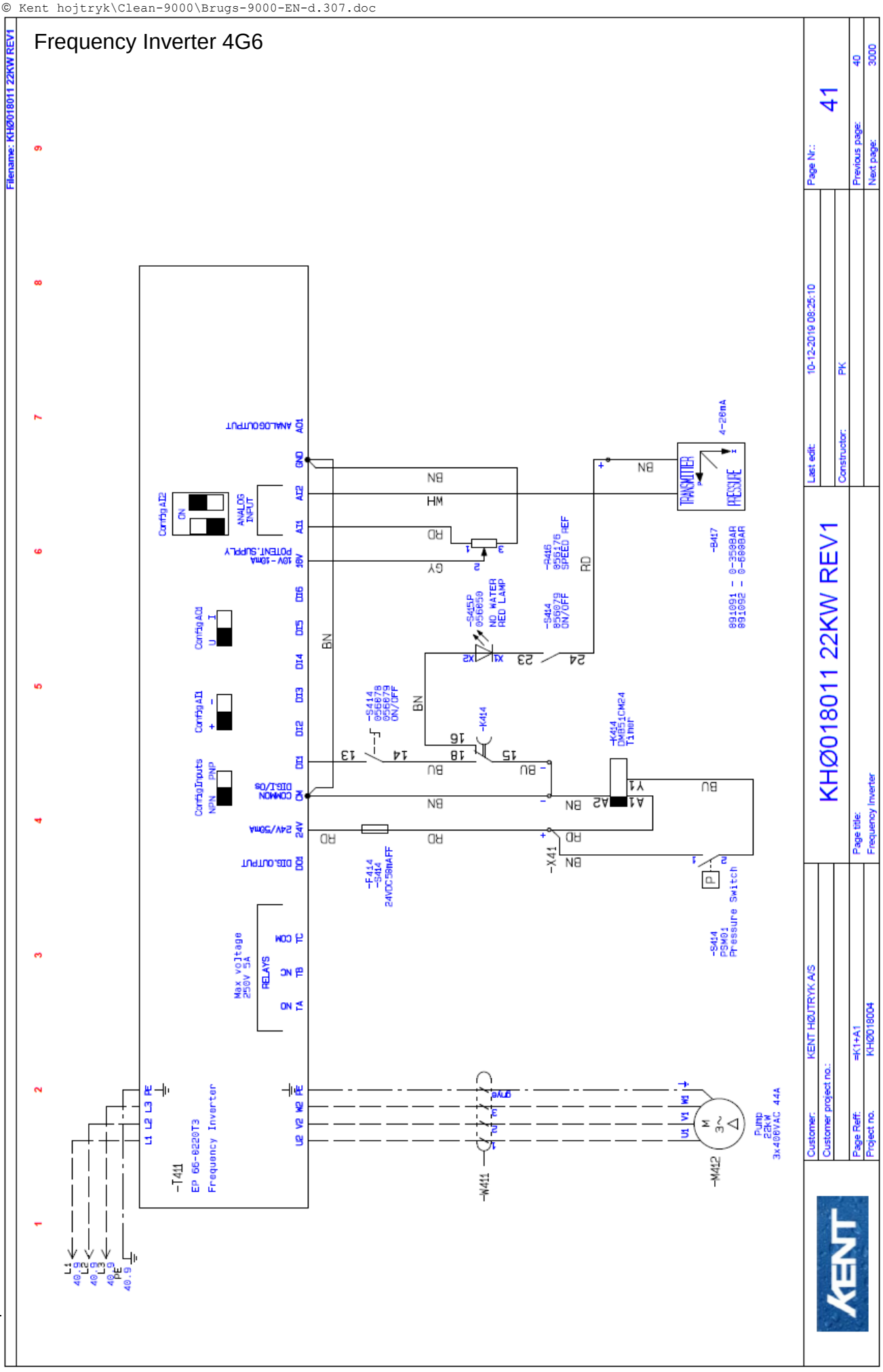
Frequency Inverter 4G6



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Filename: KHØ018011 22KW REV2

Frequency Inverter 21kW

Page Nr.: 40

Last edit: 10-12-2019 08:41:38

Constructor: PK

Previous page: LAY2

Next page: 41

KHØ018011 22KW REV2

Page title: Supply / Cooling

Customer: KENT HØJTRYK A/S

Customer project no.:

Holtec project no. KHØ018004

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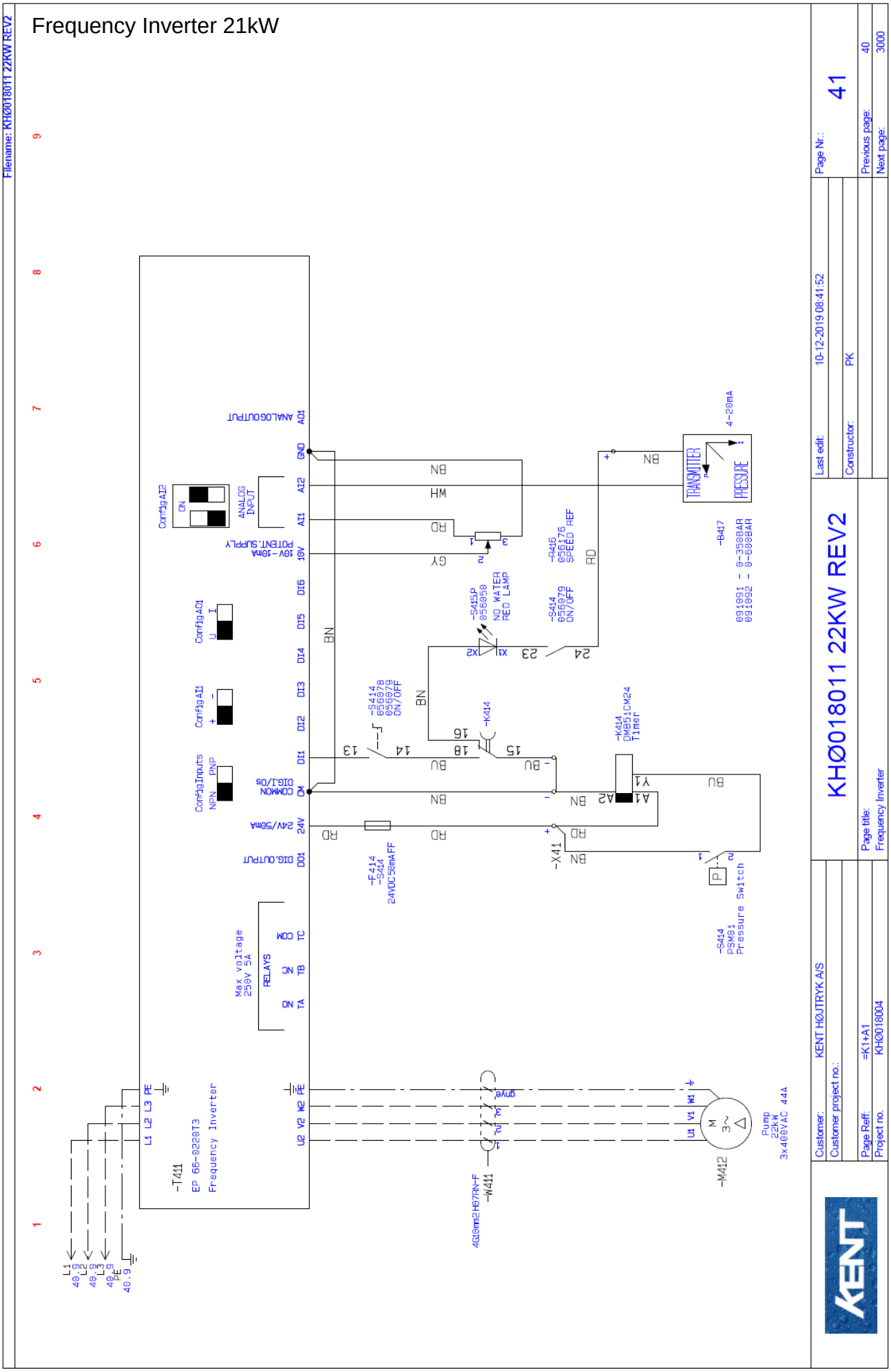
Frequency Inverter 21kW



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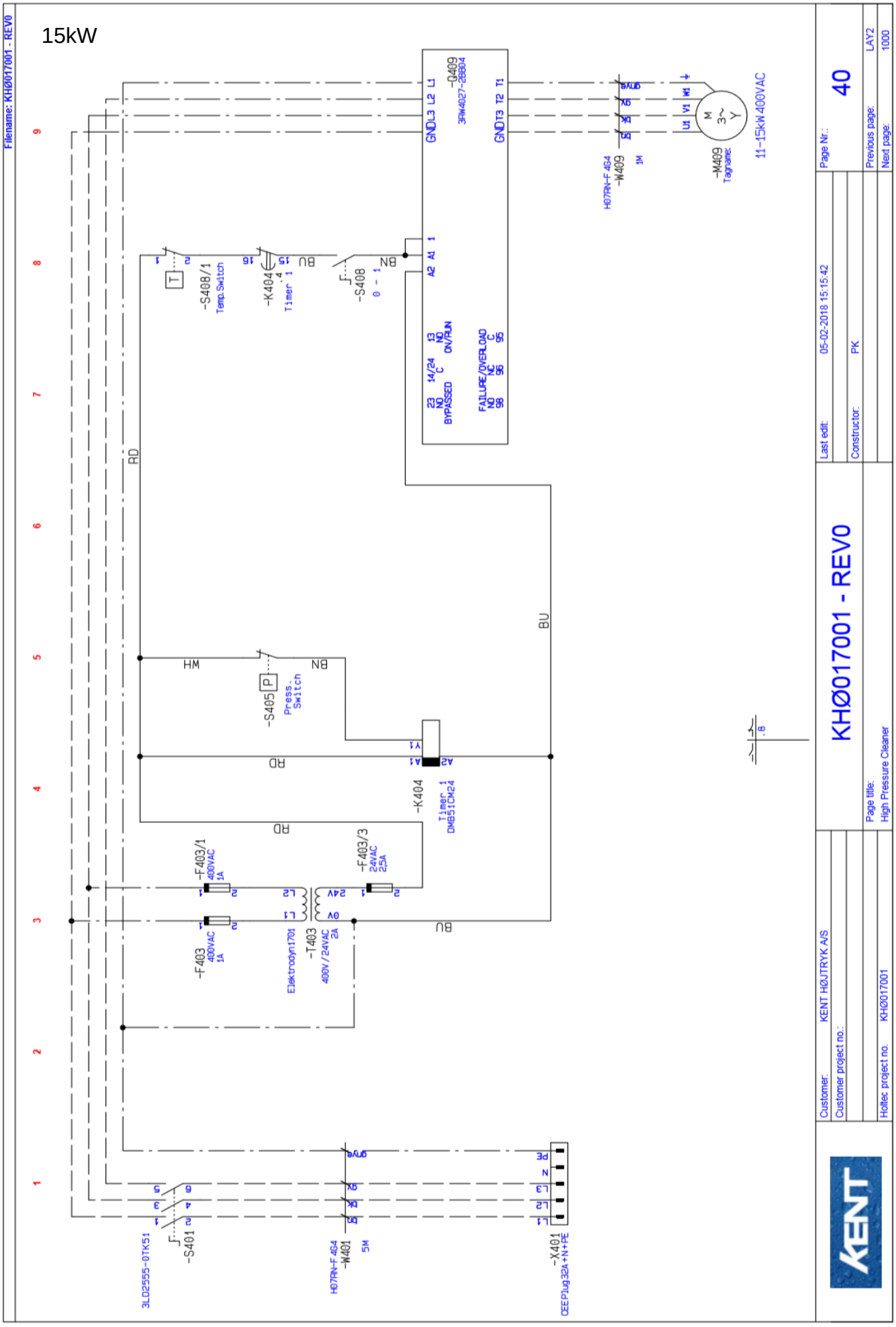

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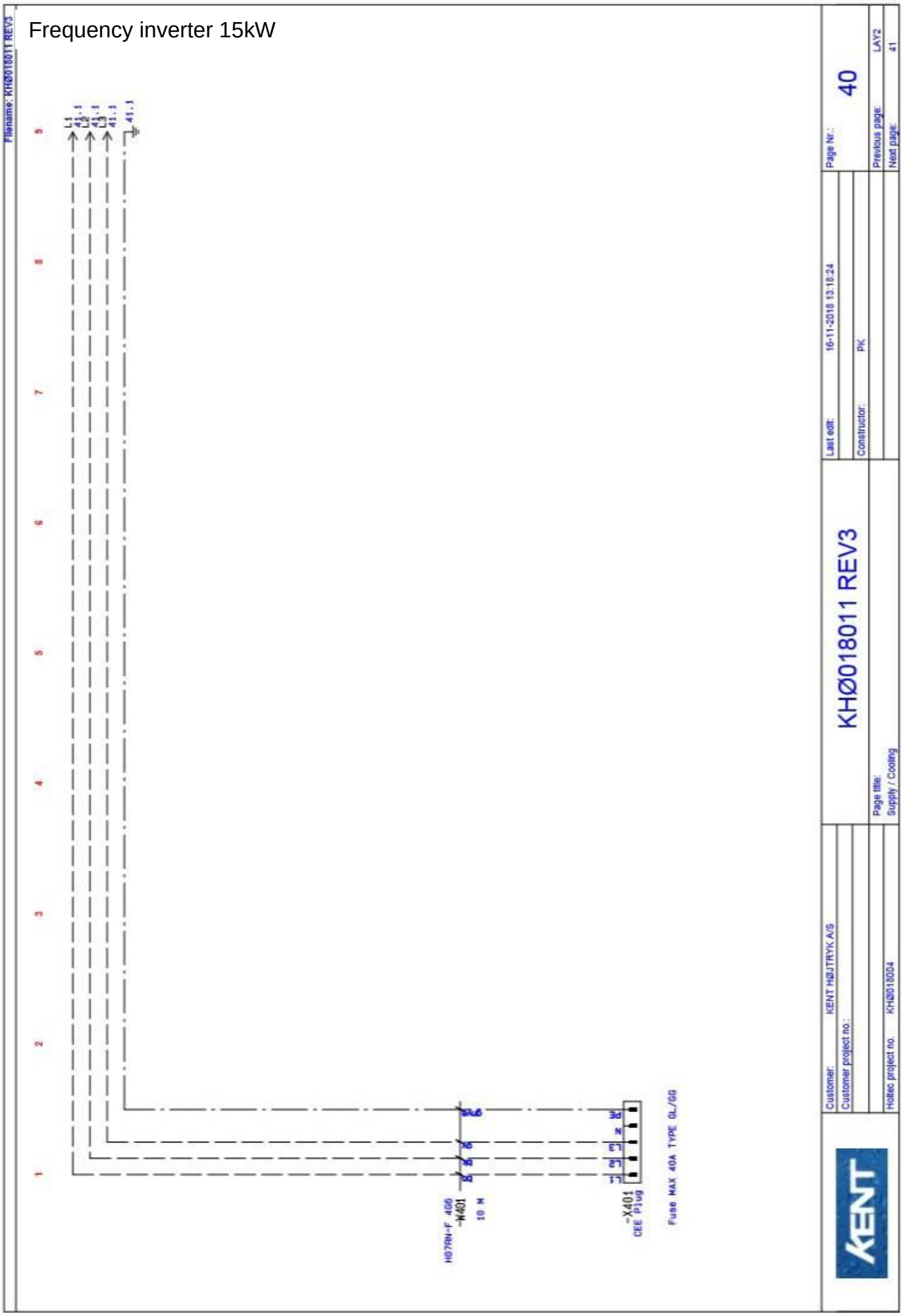
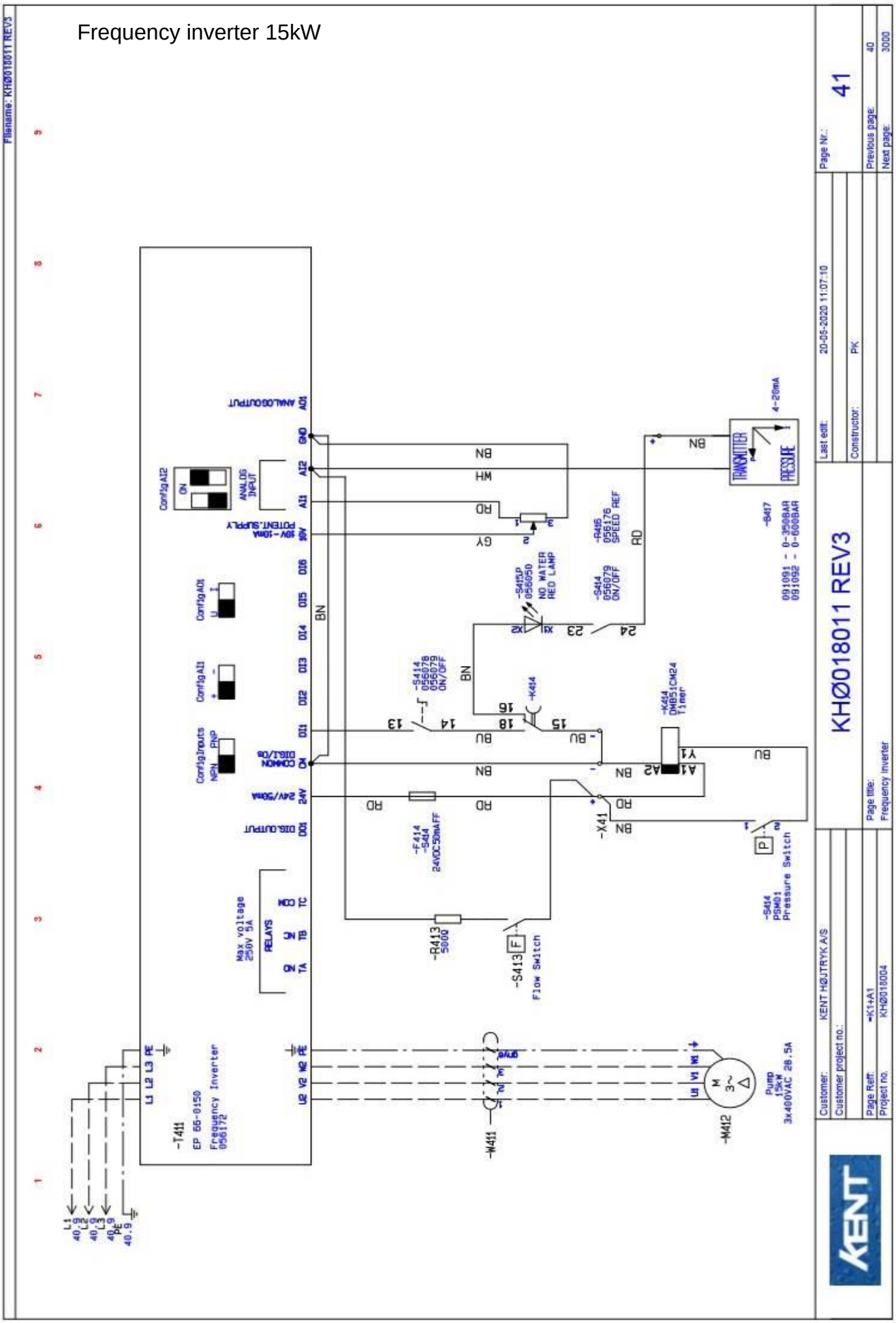
Frequency inverter 15kW



Frequency inverter 15kW



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5 Notes:

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Notes:

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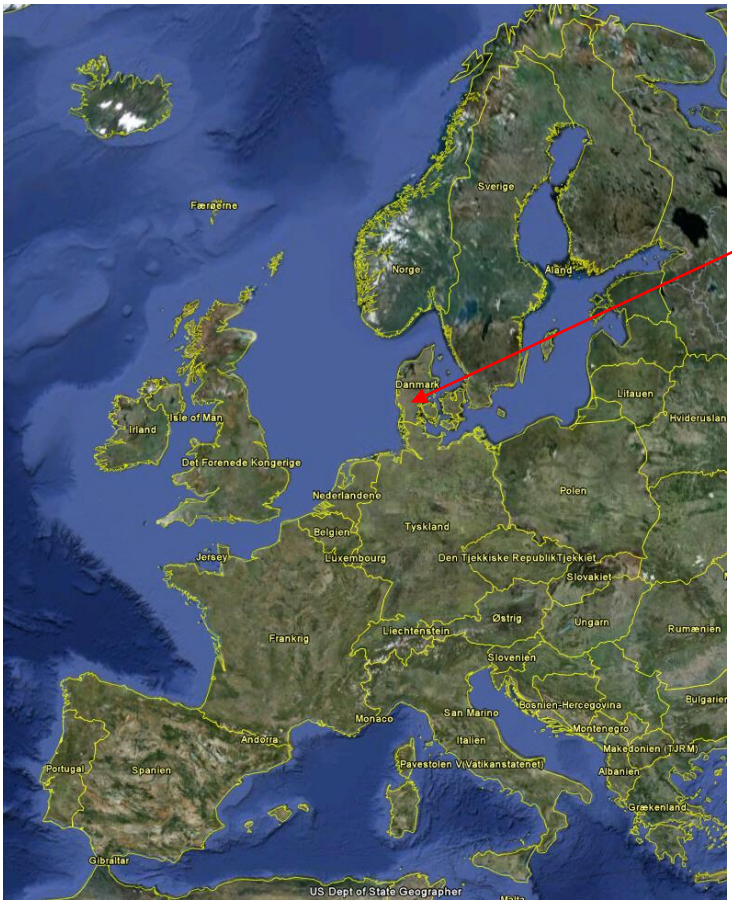
Notes:



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Hotbox with and without pump for 12 V / 24 V DC and 110 V / 220 V AC in DIN2391 (General Steel) and 304L / 316L Spiral.