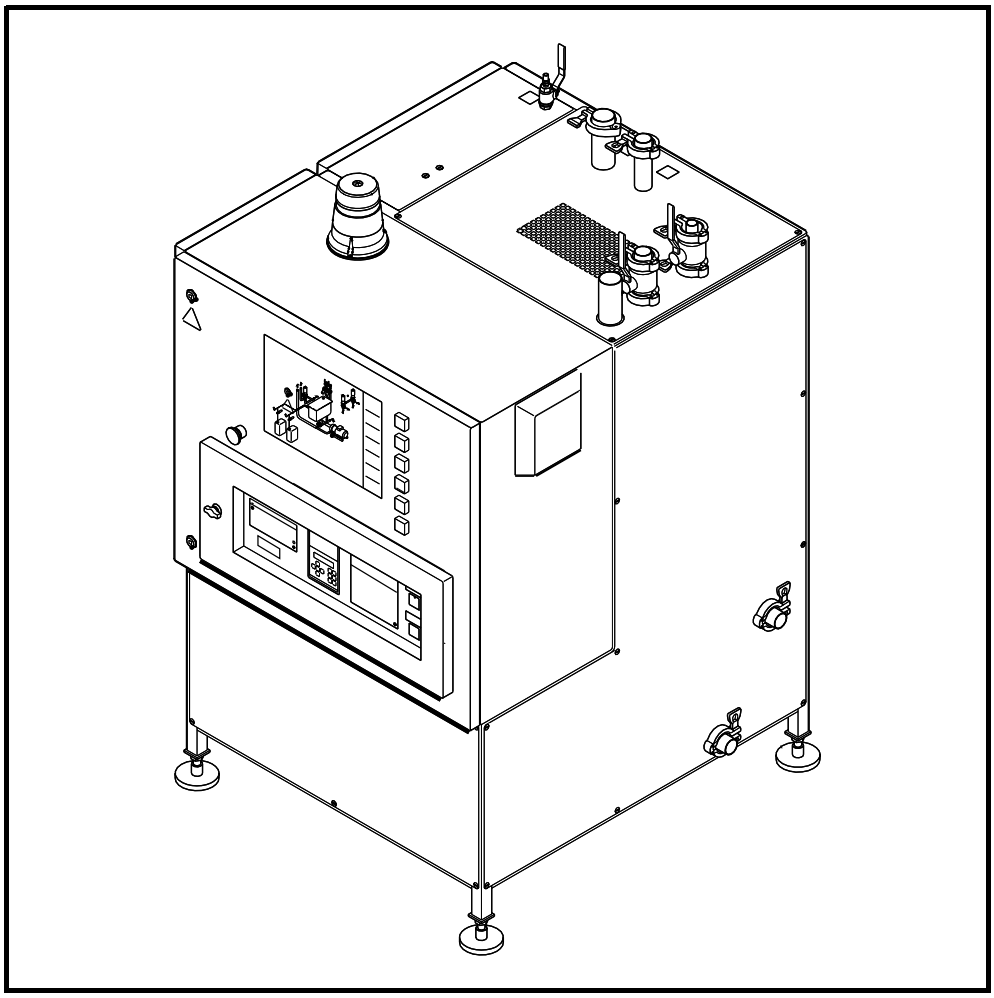
EM

Electrical Manual

SCU/4

616054-0150



WARNING

Read and follow all safety precautions before working on or near this equipment.

Read all safety precautions throughout this manual and on safety signs attached to this equipment. Failure to follow all safety precautions could result in death or serious injury.

Tetra Pak

Doc. No. EM-2890021-0101

The content of this manual is in accordance with the design and construction of the machine or equipment at the time of publishing. Tetra Pak reserves the right to introduce design modifications without prior notice.

This document was produced by:

Tetra Pak Packaging Solutions
Via Delfini, 1
41100 Modena
Italy

Additional copies can be ordered from Tetra Pak Parts or the nearest Tetra Pak office. When ordering additional copies, always provide the document number. This can be found in the machine specification document. It is also printed on the front cover and in the footer on each page of the manual.

Doc. No. EM-2890021-0101

Issue 2007-05

This manual is valid for:

Series No./ Machine No. Sign.

EM
Electrical Manual

SCU/4
616054-0150

A list of all optional equipment, optional kits, and rebuilding kits that this manual is valid for is found on the next page.

Doc. No. EM-2890021-0101

Issue 2007-05

Tetra Pak

Tetra Pak Packaging Solutions

Valid for:

SCU/4
616054-0150

From T-order: 22343/00001

El. ECM No.: 303931

Update Log for Doc. No. EM-2890021-0101

This table shows all changes made to this manual, such as kits installed and pages added or removed.

Date	Installed Kit	Added Pages (Doc. No.)	Removed Pages	Signature

Date	Installed Kit	Added Pages (Doc. No.)	Removed Pages	Signature

i Introduction

About the Introduction Chapter

This chapter contains basic information about this manual and the related Tetra Pak equipment.

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Abbreviations and Terminology

Abbreviation/ Terminology	Meaning	Translation
CE	Communautés Européennes/European Communities	
EM	Electrical Manual	
MM	Maintenance Manual	
OM	Operation Manual	
SDS	Safety Data Sheet	
SPC	Spare Parts Catalogue	
TPMS	Tetra Pak Maintenance System	

Manual Information

Tetra Pak recommends reading all delivered manuals carefully. Make sure that the delivered manuals are available to personnel who operate or maintain the equipment.

It is important to keep this manual for the lifetime of the equipment and to pass the manual on to any subsequent holder or user.

Tetra Pak will not be held responsible for any damage to the equipment caused by not following the instructions given in this manual.

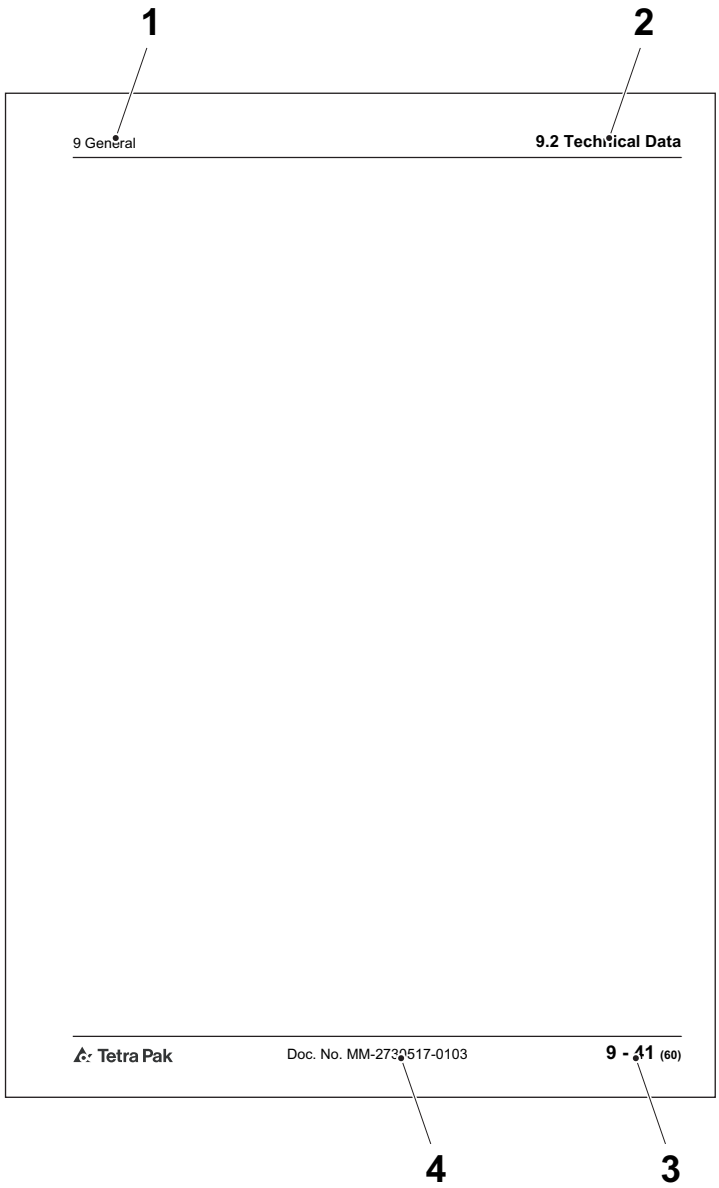
Delivered Manuals

Manuals delivered with this equipment:

- EM
  The Electrical Manual provides technicians with information about the equipment's electrical system.
- MM
  The Maintenance Manual provides technicians with information on maintaining the equipment.
- OM
  The Operation Manual manual provides the operator with information on handling and operating the equipment before, during, and after production.
- SPC
  The Spare Parts Catalogue provides with information necessary to order spare parts from Tetra Pak

Page Layout

Every main page in a manual contains a header and a footer. The page hea
contains the chapter name (1) and the section name (2). The page footer
contains the page number (3), and the document number (4). See also the
Page Numbering section.

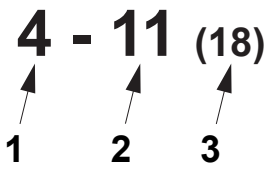


1 Chapter name
2 Section name
3 Page number
4 Document number

Page Numbering

A page number has three parts:

- chapter number (1)
- consecutive page number (2) within the chapter
- total number of pages (3) in the chapter.



1 Chapter number
2 Consecutive page number
3 Total number of pages

Typographical Conventions

Controls on the operator panel, emergency stop devices, and program steps are printed in CAPITAL LETTERS.

Cross-references are underlined

Symbols

Symbols used in illustrations.

	A pointer arrow indicates the position of an object.
	A zoom arrow indicates that an object view is enlarged. The arrow points towards the enlarged view of the object.
	A rotation movement arrow indicates rotational movement of an object. The arrow points in the direction of rotation.
	A straight movement arrow indicates movement of an object. The arrow points in the direction of movement.

Machine Introduction

Intended Use of the Equipment

The intended use of this Tetra Pak equipment is to clean product valves and filling pipes of Tetra Brik Aseptic filling machine.

All other use is prohibited. Tetra Pak will not be held responsible for injury or damage if the equipment is used for any other purpose.

Manufacturer

This Tetra Pak equipment has been manufactured by

Tetra Pak Packaging Solutions
Via Delfini, 1
41100 Modena
Italy

Support and Feedback

If you encounter problems when operating this equipment or have other inquiries, comments, or suggestions for improvement, contact Tetra Pak.

Identification

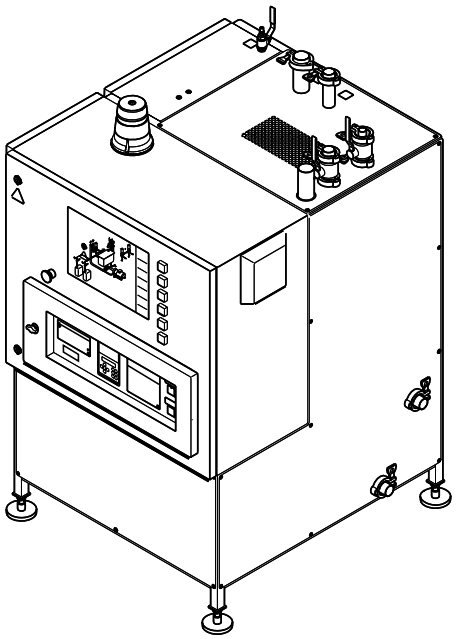
CE Classification

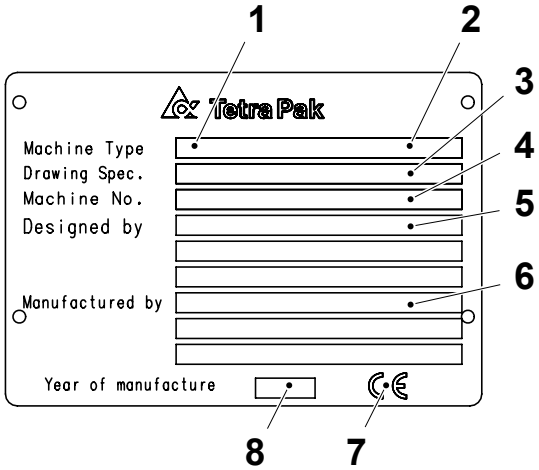
This equipment complies with the basic health and safety regulations of the European Economic Area (EEA).

Machine Plate

The illustration below shows an example of the machine plate and its location on the equipment. The machine plate carries data needed when contacting Tetra Pak concerning this specific equipment.

Make sure that the equipment data in the front pages of this manual corresponds to the machine plate data and the machine specification.

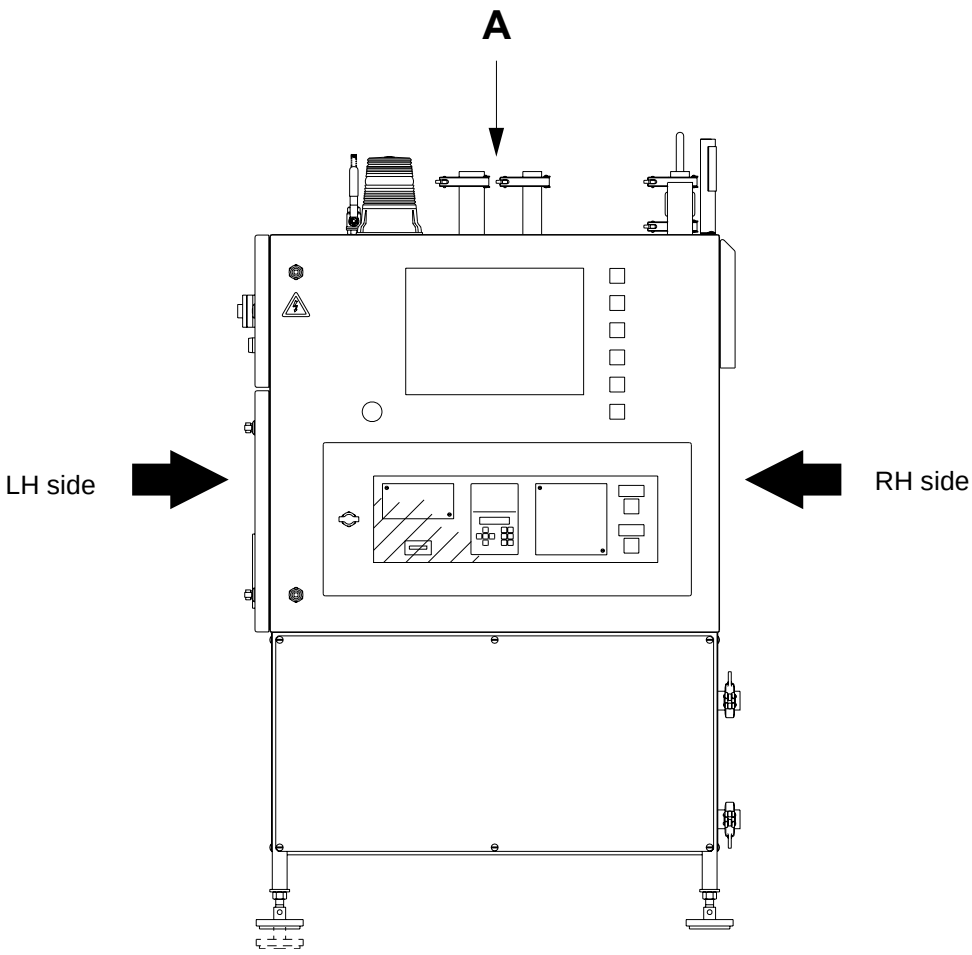




1 Machine type
2 Volume
3 Drawing specifications
4 Machine serial number
5 Designed by
6 Manufacturer
7 CE mark
8 Year of manufacture

Orientation

The illustration below shows the orientation of the equipment. This orientation information will be used throughout this manual. The arrows indicate the flow of material.



How to Use This EM

Chapters in this EM.

Chapter	Name	Drawing No.
i	Introduction	
ii	Safety Precautions	
1	Electrical Systems Description	
2	Document List	2895133-0001
3	Position Summary	2895133-0002
4	Circuit Diagrams	2895133-0003
5	Line Summary	2895133-0004
6	Cabinet Terminal Summary	2895133-0005
7	Terminal Strip Overview	2895133-0006
8	Cable Connection List	2895133-0007
9	Mains Connection	2895133-0008
10	Drawing Remarks	2895133-0098
11	Engineering Change Description	2895133-0099
12	Component Location	
13	Other Information, for exemple -Bills of Material -Fuse Panel Labels	

The Document List chapter is a table of contents for the chapters 3 to 9, listing all drawings included.

In the Circuit Diagrams, the first pages are reserved for distribution terminals and the last pages can be used for pre-connected cables. Pre-connected cables are connected to spare terminals and are reserved for future use.

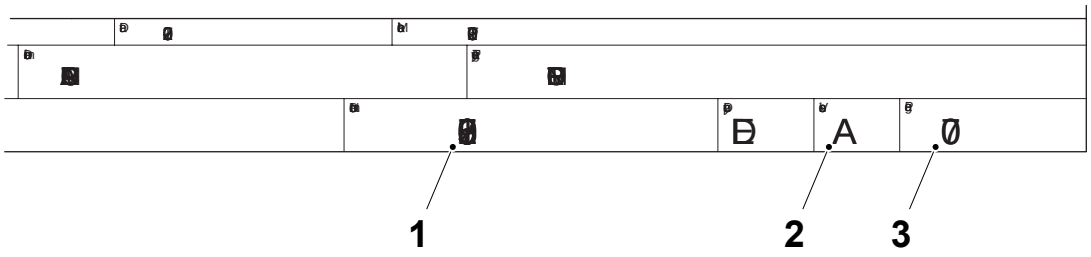
The diagrams in the Mains Connection chapter shows how the machine should be connected to the local supply, the dimensions of the connection cable, and the connection of the matching transformer, when used.

The Drawing Remarks chapter lists the drawing remarks indicated with a number in the drawing.

(Cont'd)

(Cont'd)

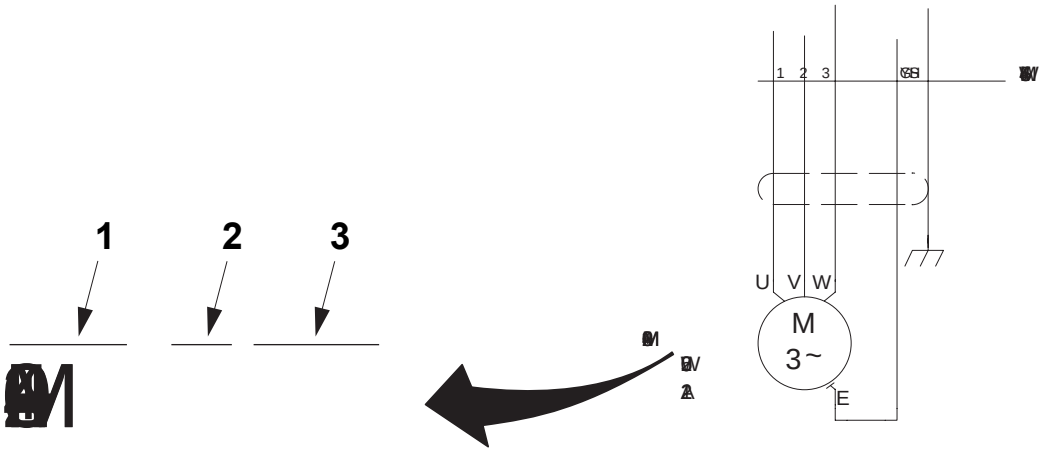
The documents and drawings are identified by drawing number (1), version code (2), and page number (3). The page number is the consecutive numbering of the pages that belong to the main number and is used as a reference in the diagrams.



1 Drawing number
2 Version code
3 Page number

Numbering System for Components

Components are identidfied by the location designation (1), a function designation (2), and a running number (3).



1 Location designation
2 Function designation
3 Running number

Location Designation

The location designation shows the location of the component:

- +M indicates that the component is fitted on the machine, outside the electrical cabinet.
- +C indicates that the component is fitted on the electrical cabinet, on the TPOP, or on the process panel.

Note! The location +C is considered the default and is omitted on all Circuit diagram pages.

Function Designation

The function designation is indicated in accordance with international standards.
Examples: Code P for components that supply information, such as an alarm lamp, a clock, or a volt meter. Code M for components that provide mechanical energy such as an actuator, or an electric motor.

Running Number

The electrical components are numbered in a consecutive non-logical order.

How to Trace an Electrical Component

Start tracing an electrical component by finding the correct list with page and column references to the Circuit Diagram.

Example 1 on pages i-15 to i-16 illustrates how to trace a Line. Use the Line Summary.

Example 2 on page i-17 illustrates how to trace a contactor. Find page references in the Position Summary. The procedure is identical when tracing sensors or other components. For cables, find the page references in the Cable Connection List. The number of spare cores is shown in the cable connection list.

Examples 3 and 4 on pages i-18 to i-19 illustrate how to trace a terminal. Find page references for terminals *in* the electrical cabinet in the Cabinet Terminal Summary, and page references for terminals *outside* the electrical cabinet in the Terminal Strip Overview.

Example 5 on page i-20 illustrates how to locate a component in the Spare Parts Catalogue, SPC.

Example 1: How to Trace a Line

Supply Voltage and Line Connection Order

The supply voltage in the electrical cabinet has power voltage and control voltage designations.

- Power voltage: lines with designations ending with 01 to 09, for example, L03 and L09
- Control voltage: lines with designations ending with 10 to 99, for example, L12 and L12

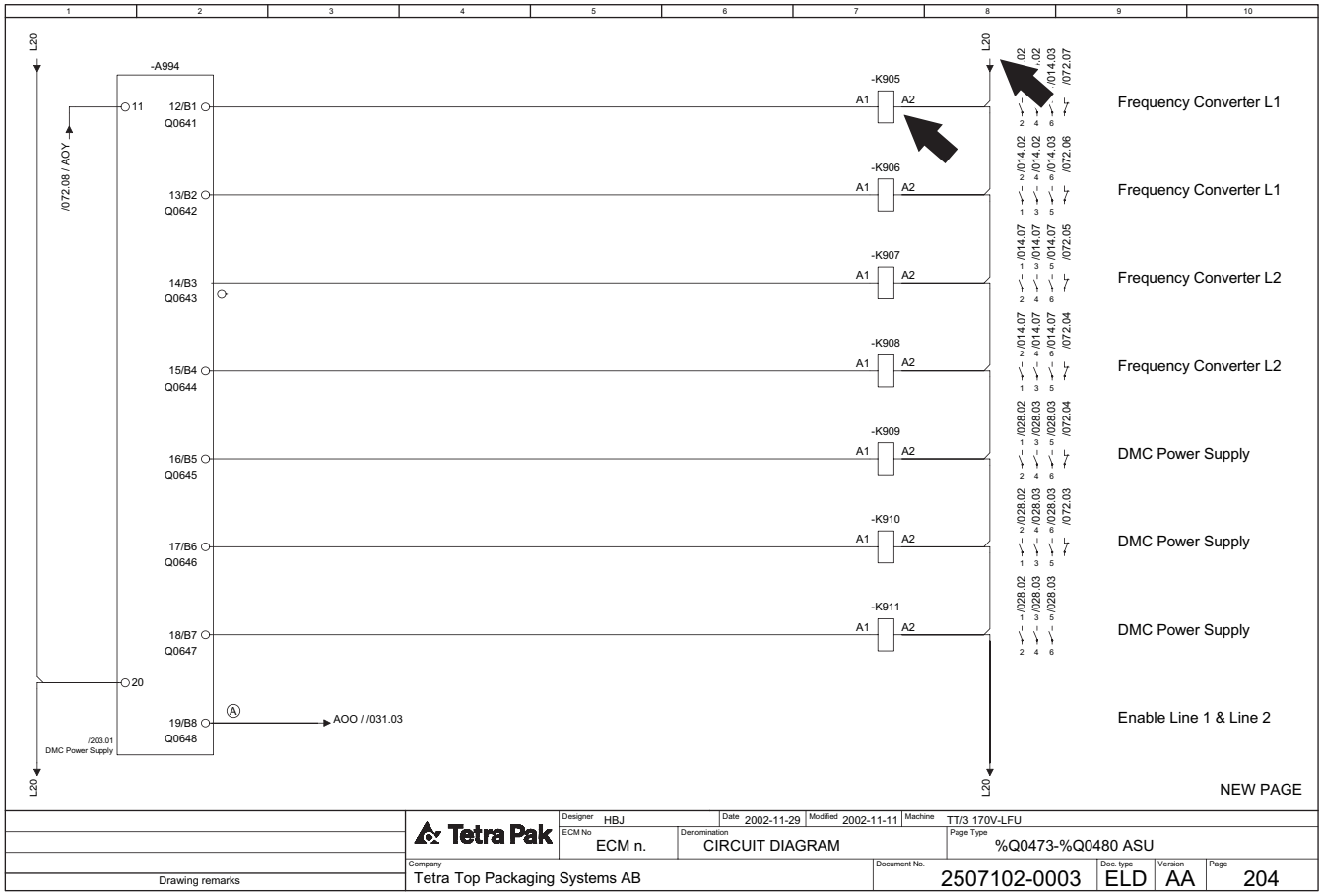
The line connection order is shown in the Line Summary.

(Cont'd)

(Cont'd)

How to Trace a Line

The illustration below shows how to trace line connection L20 from the component terminal -K905:A2 to -K906:A2.



Line summary of 2507102-0003

Line	From	Page.Col.	To	Page.Col.	Area/Color	Opt.	Lin
L13	+C-XL013:25	001 .8	+C-K087:8	068 .6	0,75/ L.BU		
L13	+C-K087:8	068 .6	+C-K088:8	068 .6	0,75/ L.BU		
L13	+C-K088:8	068 .6	+C-K053.1:7	076 .6	0,75/ L.BU		
L20	+C-XL020:1	002 .1	+C-K905:A2	204 .7	0,75/ L.BU		
L20	+C-K905:A2	204 .7	+C-K906:A2	204 .7	0,75/ L.BU		
L20	+C-K906:A2	204 .7	+C-K907:A2	204 .7	0,75/ L.BU		
L20	+C-XL020:2	002 .1	+C-G090:28	014 .2	0,75 / BU		

Example 2: How to Trace a Contactor

The illustration below shows how to trace contactor -K109 to page 188, column 6 in the Circuit diagram.

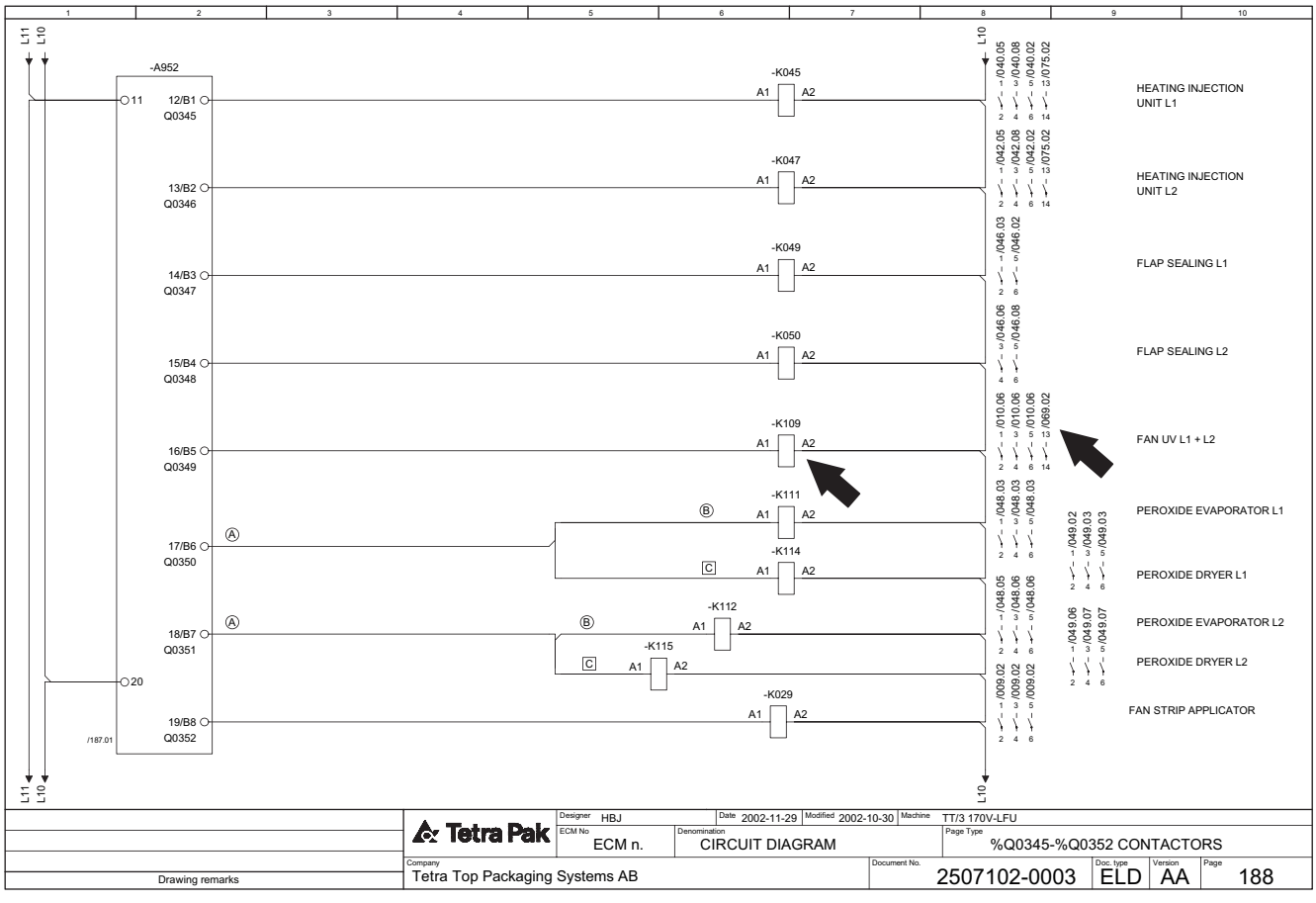
Related contacts are traced with a cross reference to page 010, column 06 and to page 069, column 02.

Note! For master and slave components, such as coils and contacts, only the master is reported in the Position Summary. The slave shows the page and column references of the master.

Position summary of 2507102-0003

Component	Page .Col.	Opt.
+C-G012	012 .5	
+C-G013	012 .8	
+C-G090	014 .2	
+C-G091	014 .6	
+C-G100	016 .2	
+C-G101	016 .7	

Component	Page .Col.	Opt.
+C-K108	074 .7	
+C-K109	188 .6	
+C-K111	188 .6	
+C-K112	188 .6	
+C-K001	149 .7	
+OHP-K002		



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Example 3: How to Trace a Terminal in the Electrical Cabinet

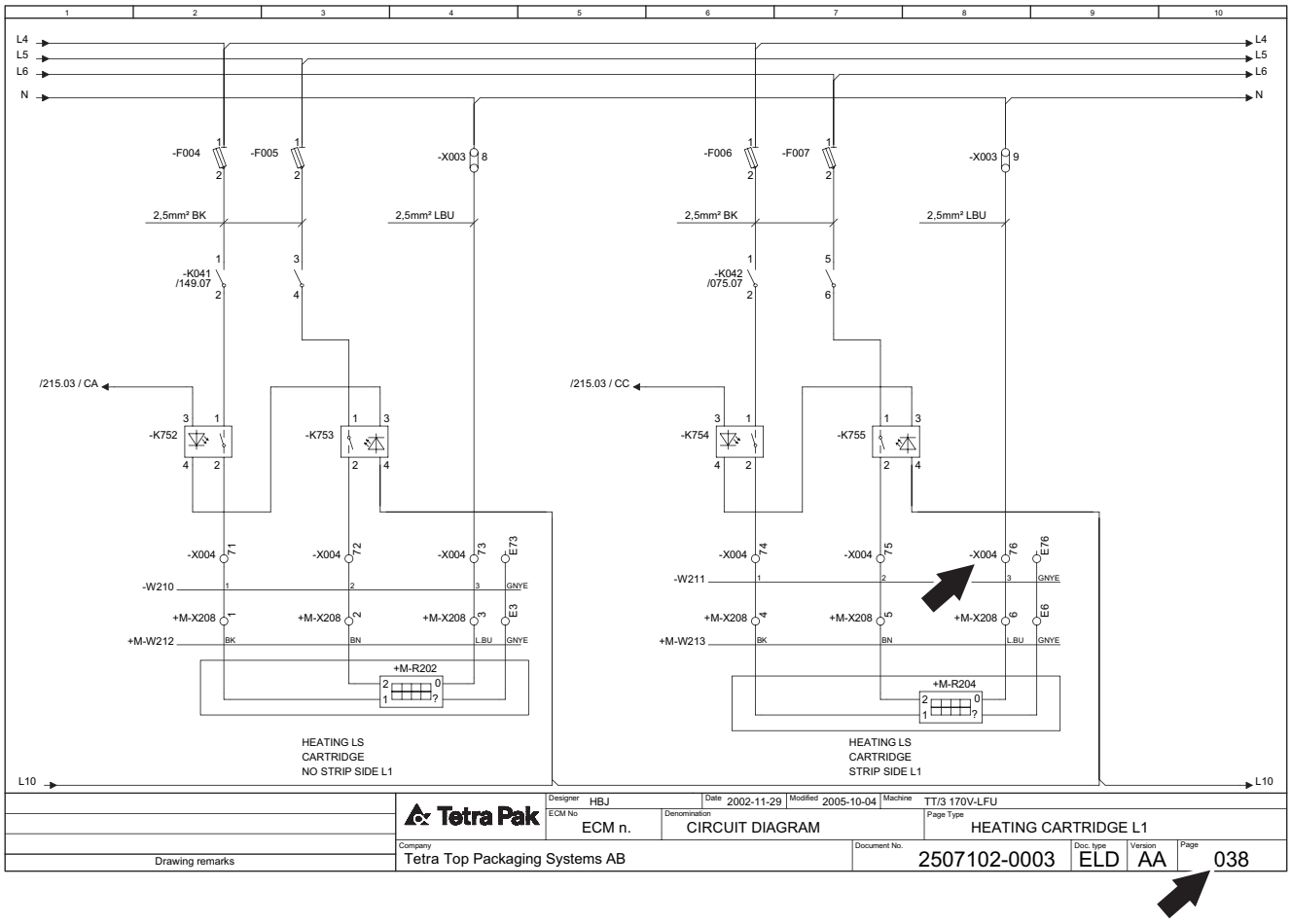
The Cabinet Terminal Summary refers to the page and column where the relevant terminal is to be found.

The illustration below shows how to trace terminal +C-X004:76 to page 38, column 8 in the Circuit diagram.

Cabinet terminal summary of 2507102-0003

Terminal	Page .Col.	Opt.
+C-X004:75	038 .7	
+C-X004:76	038 .8	
+C-X004:77		
+C-X004:78		
+C-X004:79	039 .2	
+C-X004:80	039 .3	
+C-X004:81	039 .4	
+C-X004:82	039 .6	

Terminal	Page .Col.	Opt.
+C-X004:103	042 .8	
+C-X004:104	042 .9	
+C-X004:105	043 .5	
+C-X004:106	043 .6	
+C-X004:107	043 .8	
+C-X004:108	043 .9	
+C-X004:109		
+C-X004:110	046 .2	



Example 4: How to Trace a Terminal Outside the Electrical Cabinet

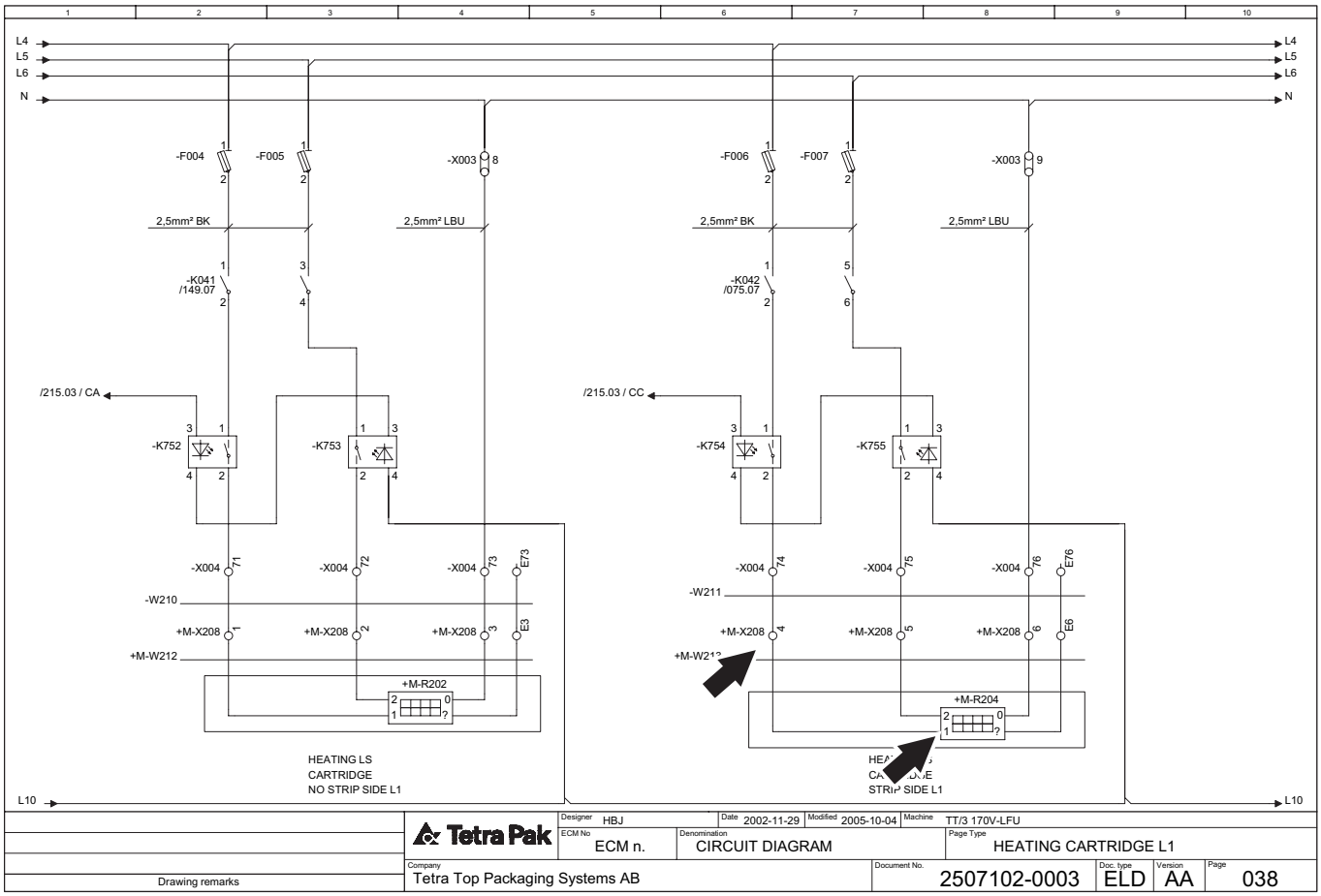
The Terminal Strip Overview refer to the page and column where the relevant terminal is to be found.

The illustration below shows how to trace terminal +M-X208:4 to page 038, column 6 in the Circuit diagram. Note the connected component, +M-R204:1.

Terminal strip of 2507102-0003

+M-X208

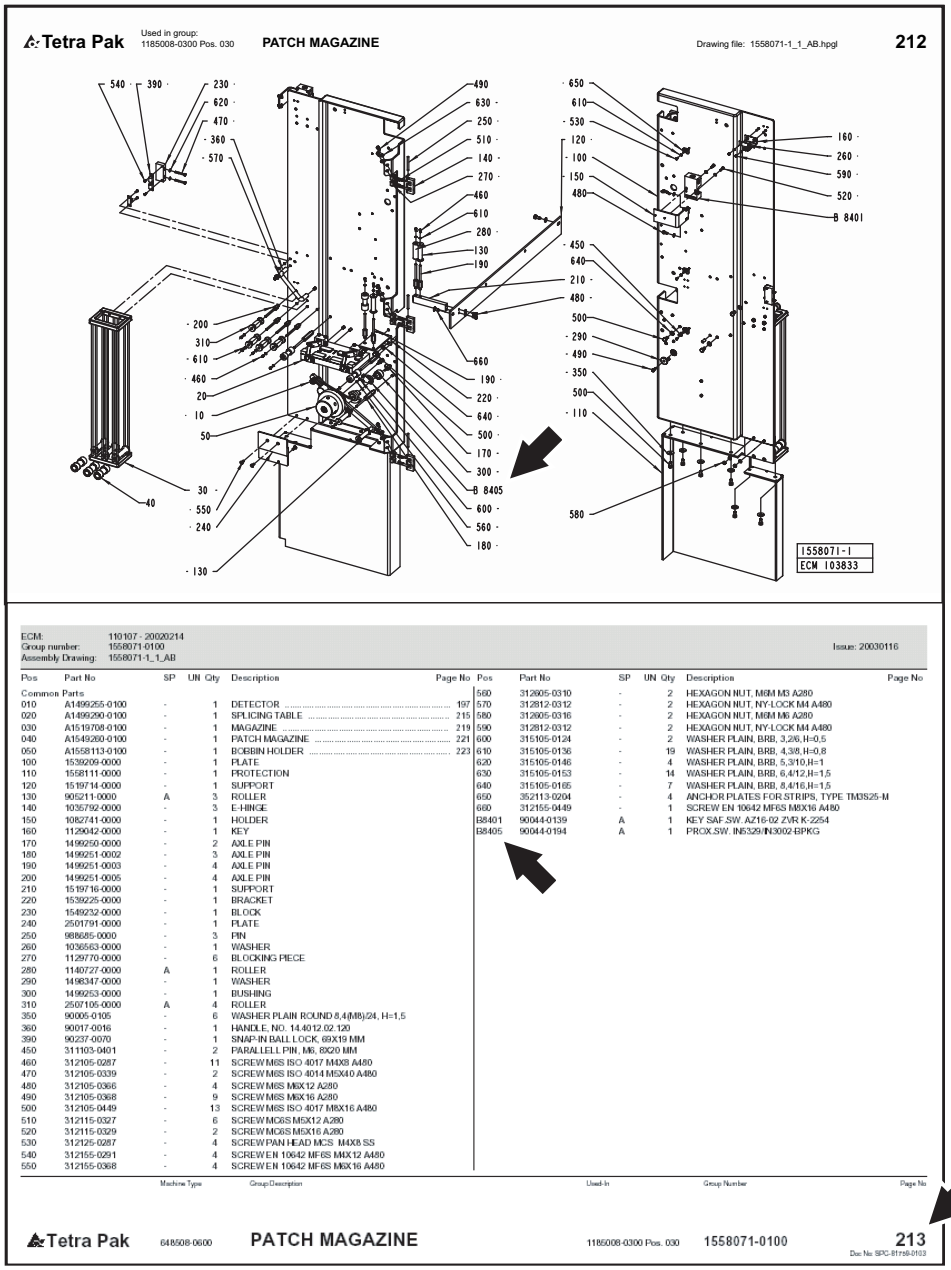
From	Cable	External Jumper	Terminal	External Jumper	Cable	To	Page.Col.	Option	Function text
+C-X004:71	-W210:1		1		-W212:BK	+M-R202:1	038 .2		
+C-X004:72	-W210:2		2		-W212:BN	+M-R202:2	038 .3		
+C-X004:73	-W210:3		3		-W212:L.BU	+M-R202:0	038 .4		
+C-X004:E73	-W210:GNYE		E3		-W212:GNYE	+M-R202:?	038 .4		
+C-X004:74	-W211:1		4		-W213:BK	+M-R204:1	038 .6		
+C-X004:75	-W211:2		5		-W213:BN	+M-R204:2	038 .7		
+C-X004:76	-W211:3		6		-W213:L.BU	+M-R204:0	038 .8		
+C-X004:E76	-W211:GNYE		E6		-W213:GNYE	+M-R204:?	038 .9		



Example 5: How to Find Electrical Components Using the SPC

The Reference Designation Parts Index in the Spare Parts Catalogue, SPC, is used to locate electrical parts. For SPCs without an Electrical Parts Index, see the Component Location chapter in this manual.

The illustration below shows how to find component B8405 in the SPC. The Reference Designation Parts Index refers to page 213. In the drawing on page 212, the position number is the same as the reference designation for the component.



ii Safety Precautions

Safety Precaution Instructions

WARNING

Read all safety precaution instructions throughout this manual and on safety signs attached to this equipment.

Failure to follow all safety precaution instructions could result in death or serious injury.

Definition of Lockout Procedure

A lockout procedure is a procedure to put each necessary energy isolating device in its safe position to prevent the energisation of the equipment, such as when a maintenance procedure should be carried out.

A lockout is the use of a device, for example, a padlock, to make sure that an energy isolating device cannot be operated.

An energy isolating device is a mechanical device that physically prevents transmission or release of energy, such as a power supply disconnector.

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Safety Messages Description

A safety message is always accompanied by a safety alert symbol and a signal word.

The safety alert symbol is used to alert about potential personal injury hazards. To avoid hazards, obey all safe messages that follow this symbol.

The following safety alert symbols and signal words are used in this manual to inform the user of hazards.

DANGER	Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Warning indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.
CAUTION	Caution indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury.** It may also be used to alert against unsafe practices.
CAUTION	Caution without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **may** result in **property damage**.

Personnel Requirements

Note! Personnel includes all persons working on or near this equipment.

Only skilled or instructed persons are allowed to work with this equipment.

Skilled Person

A skilled person must have relevant education and experience to enable him or her to identify hazards, analyse risks, and avoid hazards which electricity, machinery, chemicals, other energies, and supply systems on this equipment can create.

Skilled persons must meet local regulations, such as certifications and qualifications for working with these energies and systems.

Instructed Person

An instructed person must be adequately advised or supervised by a skilled person. The skilled person enables the instructed person to identify hazards, analyse risks, and avoid hazards which electricity, machinery, chemicals, other energies, and supply systems on this equipment can create.

Safety Signs

WARNING

Damaged or missing safety signs increase the risk of death or serious injury.

Replace all missing or damaged safety signs immediately.

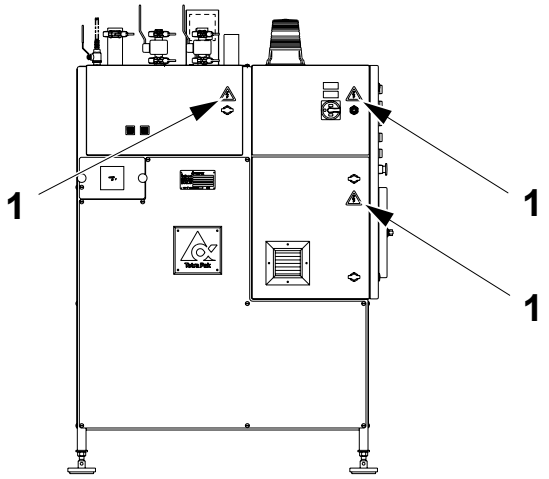
Safety signs are attached to the equipment.

- Make sure that each safety sign is legible and in its correct position afte installation and maintenance.
- Replace all missing or damagedsafety signs immediately.

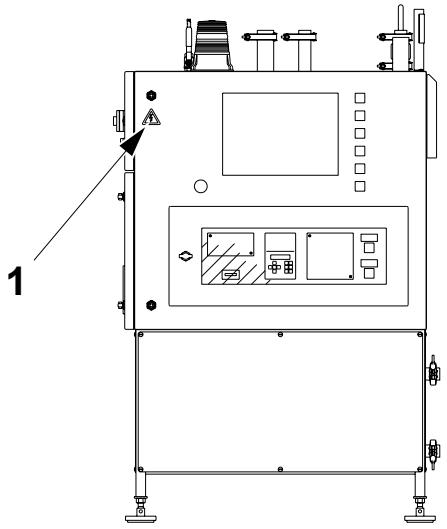
Pos.	ISO sign	ANSI sign
1		
	Hazardous voltage. Will shock, burn, or cause death. Follow lockout procedure before maintenance.	

Locations of Safety Signs

The illustration shows where the safety signs are located. The position numbers refer to the table in the Safety Signs section.



LH side



Front side

Protective Devices

WARNING

Hazardous zones.

Hazardous zones are safeguarded and provided with protective devices. Do not inch or run this equipment if any protective device is inoperative.

Change inoperative components of the safety system immediately.

WARNING

Hazardous voltage.

Hazardous voltage remains on this equipment after activating an EMERGENCY STOP or an interlocking device.

Emergency Stop

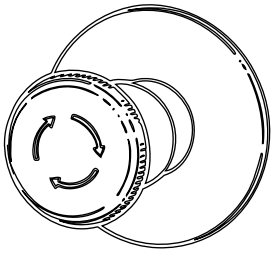
Emergency stop devices are used to stop this equipment immediately in an hazardous situation. Learn the positions of all emergency stop devices and how to use them.

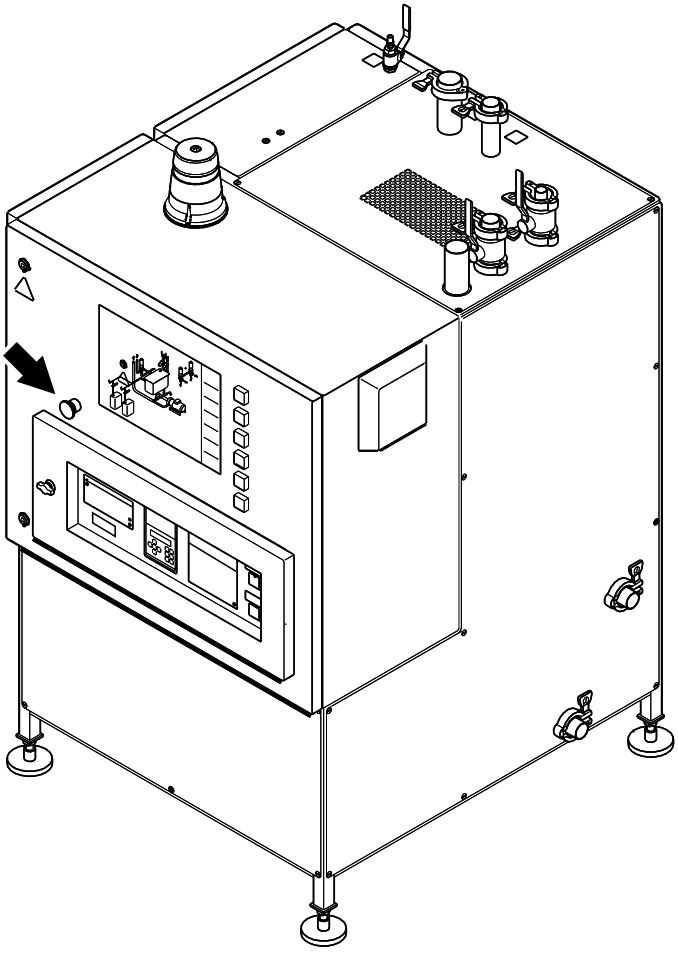
Instructions for a normal production stop are included in the Stop chapter o the Operation Manual.

Emergency Stop Push-Buttons

Push one of the EMERGENCY STOP push-buttons to stop this equipment immediately.

The location of each EMERGENCY STOP push-button is shown by an arrow.





Safeguards

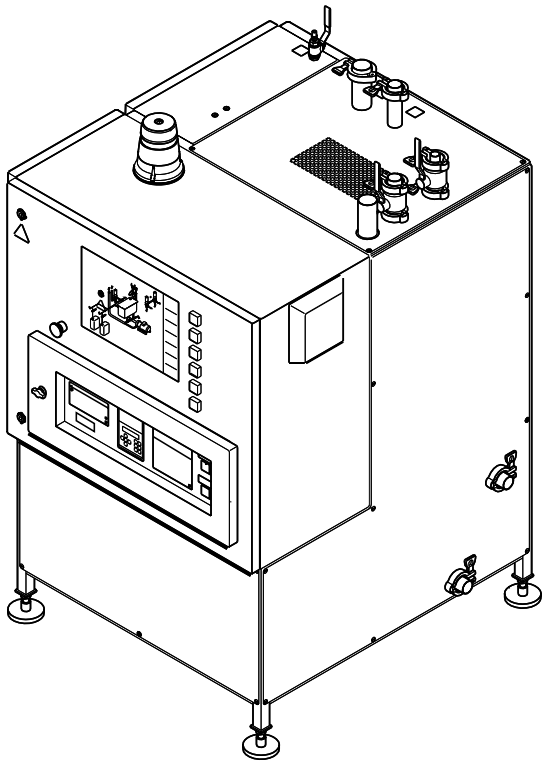
WARNING
Moving machinery.
Never defeat or bypass the interlocking devices.

Movable guards, for example, doors and covers leading to hazardous zones, are fitted with interlocking devices where required. These devices are usually electric safety switches that are parts of the safety system and must never be defeated, bypassed, or otherwise made inoperative.

CAUTION
Burn hazard.
Parts of this equipment may be hot after operation.

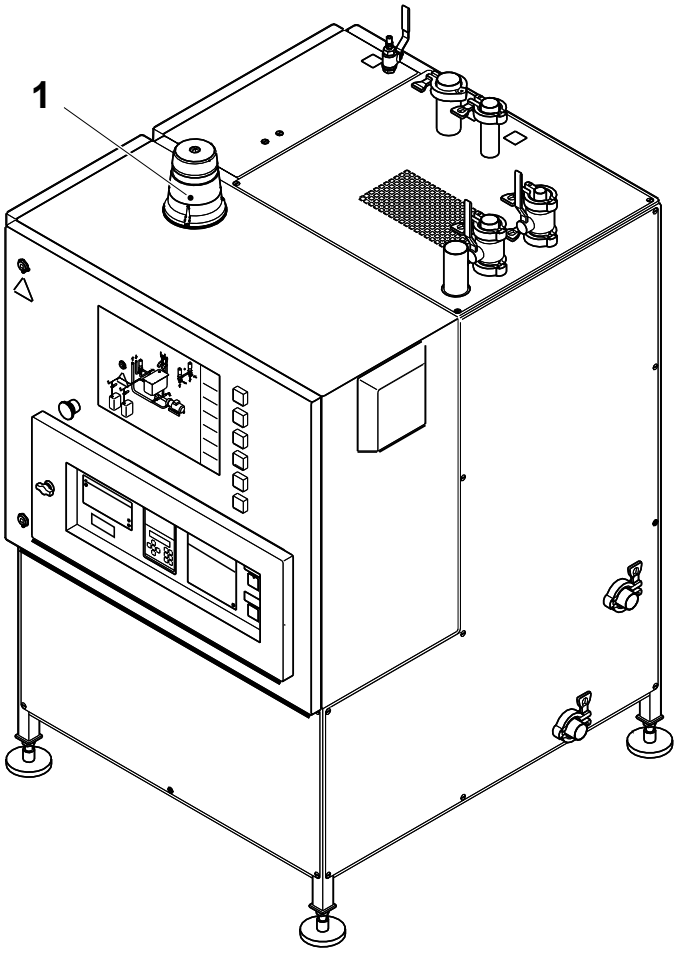
After installation and maintenance, and before this equipment is inched or run, check that all safeguards are in place and that they operate correctly.

CAUTION
Equipment damage.
Never stop this equipment by opening an interlocking guard.



Warning Lamp

A warning light flashes when operator action is required. The light stops flashing and remains lit when the alarm is acknowledged. After the fault is corrected, the operator takes the appropriate action or the machine is reset, the warning light goes off.



1 Warning lamp

Personal Protection

This section applies to all personnel at all times when this equipment is in operation. For special personal protection required when handling hazardou substances, see the Hazardous Substances section.

Noise Hazard

CAUTION

Hazardous noise.

Risk of impaired hearing. Hearing protection is recommended whenever this equipment is in operation.

Entanglement Hazard

WARNING

Risk of entanglement.

Do not wear jewellery or loose clothing when working on or near this equipment. Long hair may not be loose.

Hazardous Substances

WARNING

Contact with chemicals can cause death, serious injury, or illness.
Always read and follow the instructions in the safety data sheet supplied by the manufacturer or local supplier, when handling chemicals.

Make sure that

- the safety data sheet is available
- the showers work
- an eyewash device, movable or wall-mounted, is available and operational
- additional washing facilities are nearby

Note! Learn the locations of all washing facilities in order to act immediately in case of an accident

Disposal of Chemical Substances

Always read and follow the disposal instructions in the safety data sheet supplied by the manufacturer or local supplier.

It is strongly recommended that used chemical containers are

- disposed of according to the instructions immediately after use
- not used as disposal containers for other chemicals in order to avoid uncontrolled chemical reactions within the container

Hydrogen Peroxide (H_2O_2)

WARNING
Corrosive chemical.
Wear personal protective equipment.

In both liquid and gas states, hydrogen peroxide may cause irritation or damage if it comes into contact with skin, mucous membranes, eyes, or clothes. Call for medical attention immediately if there is an accident.

Liquid hydrogen peroxide in concentrations of less than 1% is generally considered harmless to humans.

Consult the instructions on the label of the tank or container.

Emergency Procedures

If there is an accident involving hydrogen peroxide, rinse the affected area as soon as possible with large amounts of water.

If hydrogen peroxide is swallowed

- do not attempt to cause vomiting
- drink large amounts of lukewarm water to dilute the peroxide
- call for medical attention immediately

If splashes or vapour from hydrogen peroxide come in contact with the eyes

- wash the eyes thoroughly with lukewarm water for 15 minutes (keep eyelids wide apart)
- call for medical attention immediately

If hydrogen peroxide comes into contact with skin or clothes

- rinse immediately with plenty of water
- call for medical attention immediately if skin burns appear
- thoroughly wash the clothes before wearing them again

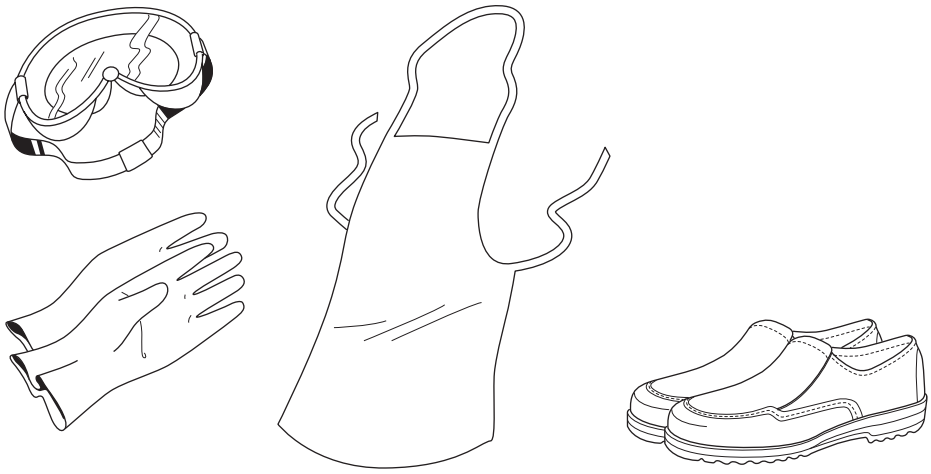
If irritation or pain is experienced due to having **inhaled** hydrogen peroxide vapour

- leave the affected area and get some fresh air
- call for medical attention if the symptoms get worse

Personal Protective Equipment

The personal protective equipment for hydrogen peroxide is

- protective goggles (TP No. 90303-11)
- protective gloves made of neoprene (TP No. 90303-12)
- protective apron (TP No. 90303-13)
- protective shoes made of PVC, PE plastic, or rubber



Handling of Hydrogen Peroxide

WARNING

Sudden and violent chemical reaction.

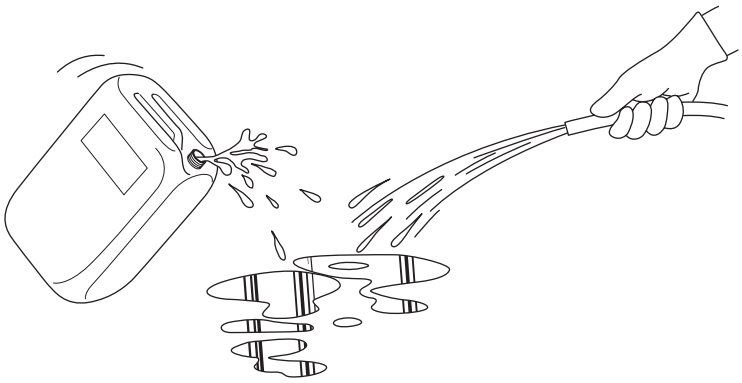
Avoid any contamination of hydrogen peroxide.

Hydrogen peroxide reacts suddenly and violently with many compounds or if it is contaminated. The reaction is a violent decomposition liberating oxygen and heat, with a big increase in volume due to the oxygen produced by the peroxide decomposition.

Never pour surplus hydrogen peroxide back into the original container if it contains fresh hydrogen peroxide. There is a risk of explosion when hydrogen peroxide is in a closed container.

Ensure that equipment used for handling and diluting hydrogen peroxide is clean before it comes in contact with hydrogen peroxide. Pumps or other equipment used for handling hydrogen peroxide must be **used for this purpose only** and must be manufactured from appropriate materials, such as stainless steel 316 L, glass, polyethylene, or teflon. After use, make sure that all peroxide residue is rinsed away.

If hydrogen peroxide is spilled, dilute with large amounts of water. Dispose of the diluted hydrogen peroxide according to local regulations.



WARNING

Self-ignition.

Never wipe up hydrogen peroxide with materials such as rags or paper as these may self-ignite several hours after contact. If there is a fire, spray with large quantities of water.

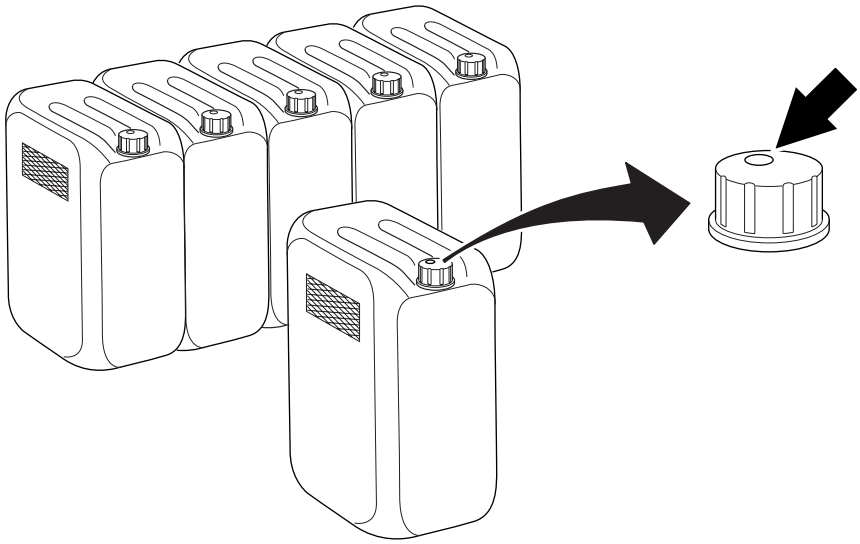
Storage of Hydrogen Peroxide

DANGER

Containers may explode if not properly ventilated.
Keep the container upright and fitted with its proper ventilation cap. If there is a fire, cool all containers by spraying them with large quantities of water.

Hydrogen peroxide decomposes much faster with increasing temperature. There is a risk of explosion at high temperatures, since the ventilation cap cannot release the gases produced quickly enough.

Hydrogen peroxide **must** be stored in the **original container** delivered by the supplier. Keep the container upright and fitted with its proper ventilation cap, which allows oxygen to escape. Otherwise, there can be an explosion decomposition of the peroxide occurs violently.



Make sure that the container is always properly closed.

(Cont'd)

(Cont'd)

Commercial food-grade hydrogen peroxide has been stabilized to inhibit the catalytic decomposition effects of metal and other impurities, but it can decompose into oxygen and water if it is exposed to heat or contaminated.

Make sure that the area used for storage of hydrogen peroxide is

- cool, clean, and well ventilated
- shielded from direct sunlight
- kept free from combustible materials

Disposal of Hydrogen Peroxide

Always read and follow the disposal instructions in the safety data sheet supplied by the manufacturer or local supplier.

Supply Systems

Power Supply

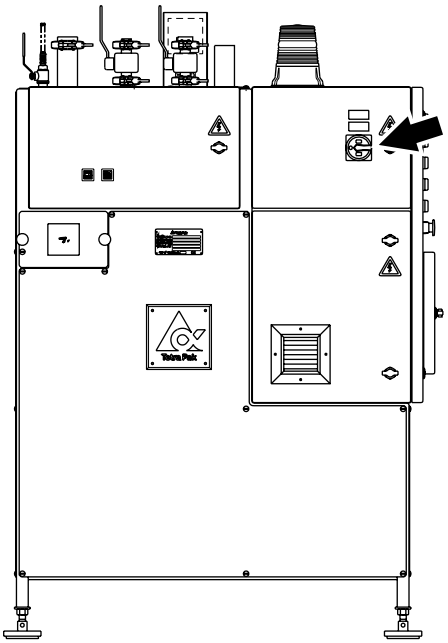
DANGER

Hazardous voltage and moving machinery.
The power supply disconnector must be turned off and secured with a lock before any maintenance.

Note! The key to the lock must be removed by the technician and retained in his/her possession until all work is completed.

Certain maintenance procedures may require power supply systems to be on. These exceptions are clearly stated in the Maintenance Manual.

The illustrations show the power supply disconnector and its location.



Electrical Cabinet

DANGER

Hazardous voltage.
Will shock, burn, or cause death. The power supply disconnector must be turned off and secured with a lock before maintenance inside the electrical cabinet.

Note! The key to the lock must be removed by the technician and retained in his/her possession until all work is completed.

Make sure that the electrical cabinet door is closed after working inside the electrical cabinet. Doors with lock must be locked.

Air Supply

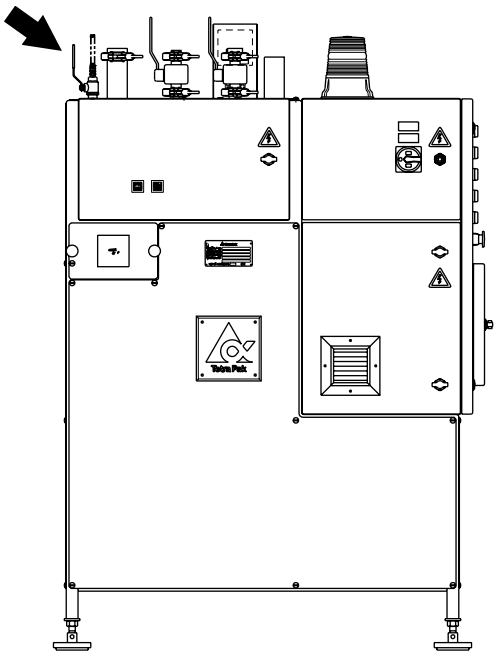
WARNING

Compressed air and moving machinery.
Close the main air valve and lock it before any maintenance.

Note! The key to the lock must be removed by the technician and retained in his/her possession until all work is completed.

Certain maintenance procedures may require air supply systems to be on. These exceptions are clearly stated in the Maintenance Manual.

The illustrations show the air supply valve and its location.



Steam Supply

WARNING

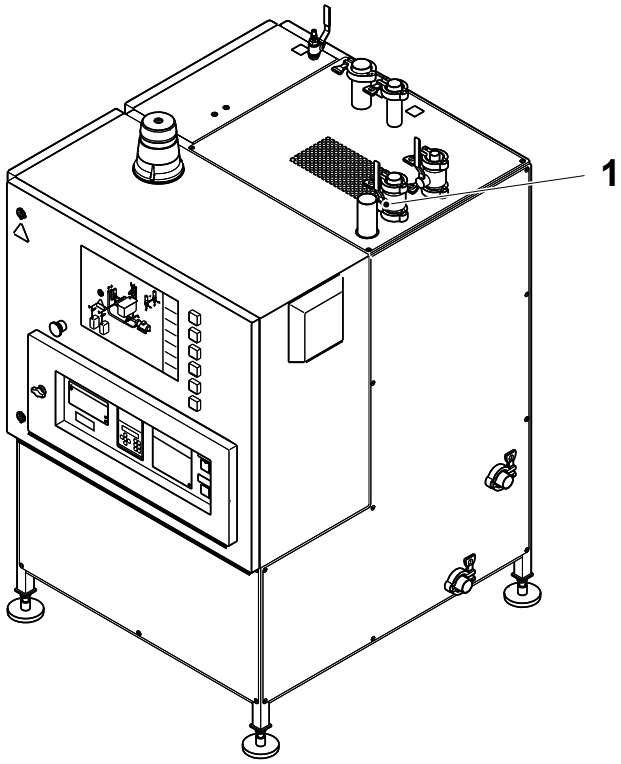
Hot steam can cause scalds.

Pressurized steam can be discharged unexpectedly. Close the steam supply valve and lock it, depressurize and vent all steam safely before any maintenance on parts with steam, such as pipes and valves.

Note! The key to the lock must be removed by the technician and retained in his/her possession until all work is completed.

Certain maintenance procedures may require steam supply systems to be on. These exceptions are clearly stated in the Maintenance Manual.

The illustrations show the steam supply valve (1), and its location.



1 Steam supply valve

Water Supply

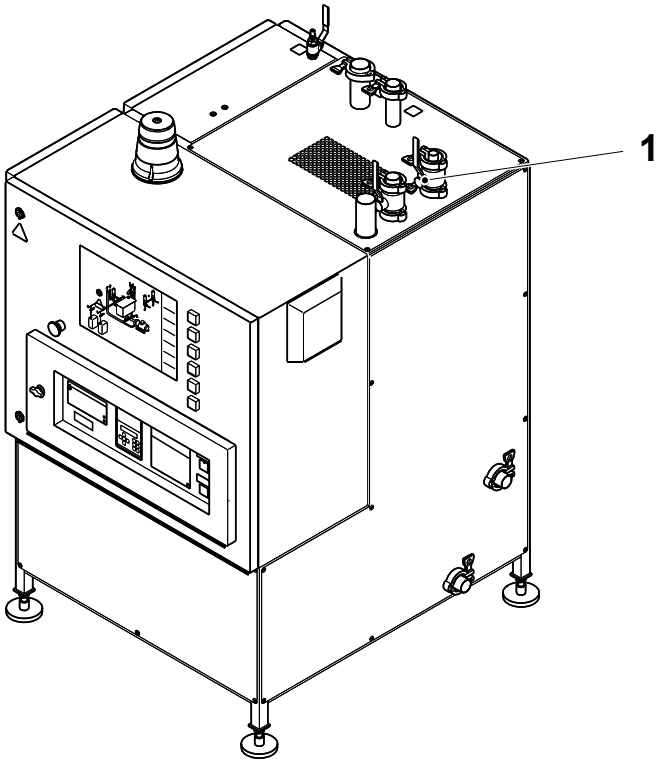
CAUTION

Water under pressure.

Close the water supply valves before any maintenance.

Certain maintenance procedures may require water supply systems to be on. These exceptions are clearly stated in the Maintenance Manual.

The illustrations show the water supply valves (1), and their location.



1 Water supply valve

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1 Electrical Systems Description

Description

This chapter contains a description of the electrical system in the machine or equipment.

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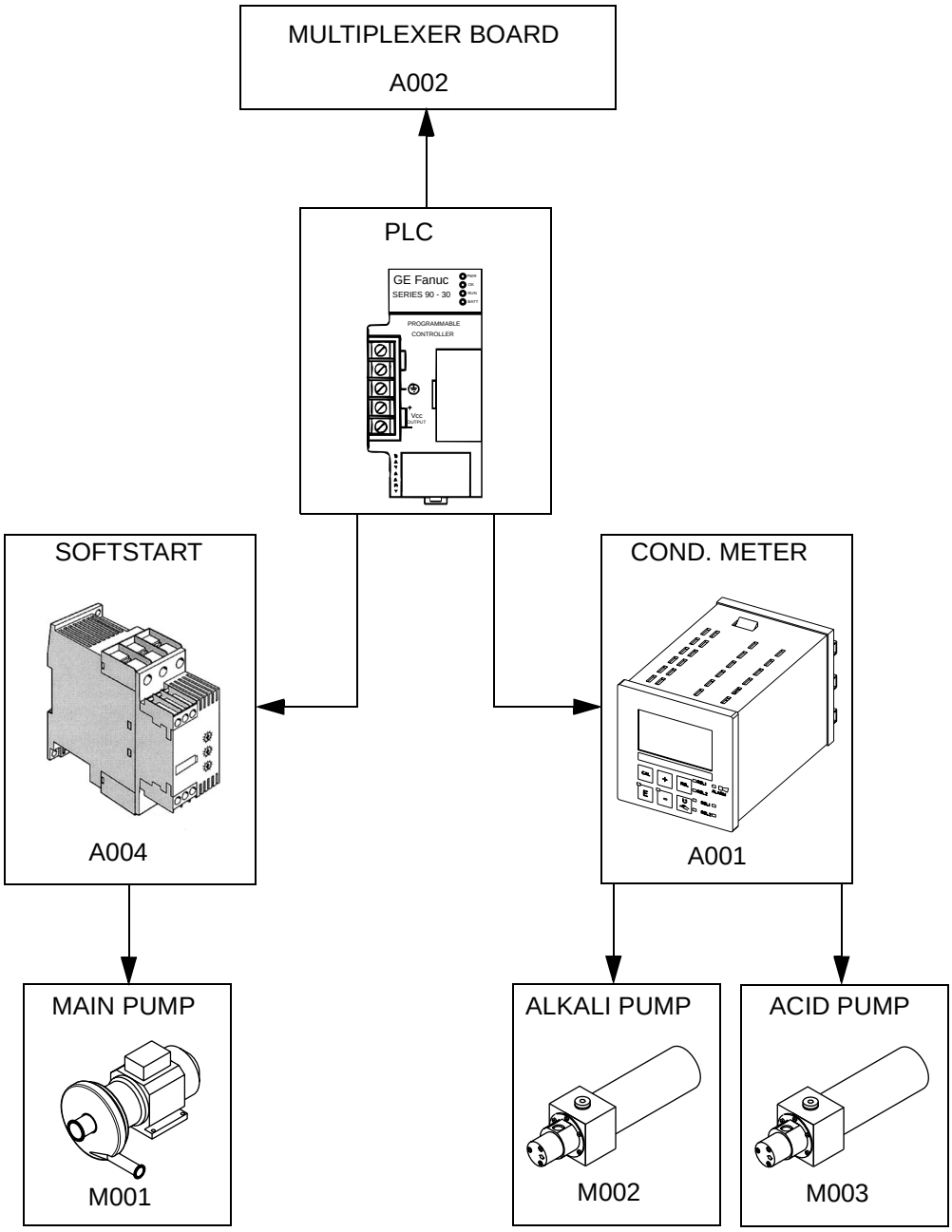
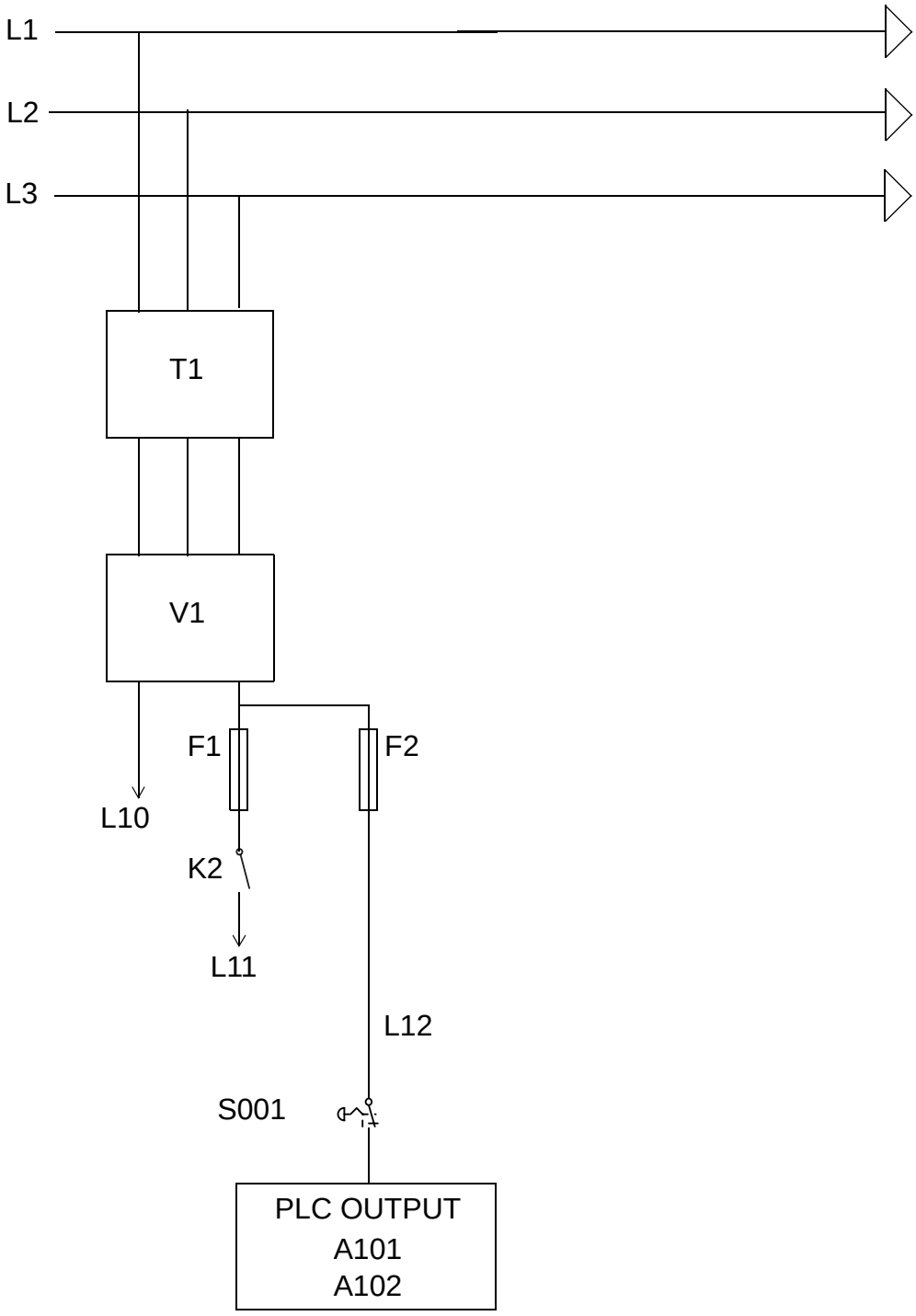
1.1 Electrical System Description



1.2 Safety System

Safety System - Circuit



2 Document List

Description

This chapter is a table of contents that includes the drawing specification for each electrical document valid for the equipment

RELEASED

Documents list

Drawing No	Page type	Denomination	Version
2895133-0001:001	DOCUMENT LIST	DOCUMENT LIST	AA
2895133-0002:001	POSITION SUMMARY	POSITION SUMMARY	AA
2895133-0003:001	CIRCUIT DIAGRAM	DISTRIBUTION TERMINALS	AA
2895133-0003:005	CIRCUIT DIAGRAM	MAINS	AA
2895133-0003:006	CIRCUIT DIAGRAM	MOTOR	AA
2895133-0003:007	CIRCUIT DIAGRAM	CONTROL VOLTAGE, PLC	AA
2895133-0003:008	CIRCUIT DIAGRAM	DC MOTORS	AA
2895133-0003:009	CIRCUIT DIAGRAM	FAN SOCKET	AA
2895133-0003:010	CIRCUIT DIAGRAM	CONDUCTIVITY METER	AA
2895133-0003:011	CIRCUIT DIAGRAM	FLOW METER	AA
2895133-0003:012	CIRCUIT DIAGRAM	RECORDER	AA
2895133-0003:015	CIRCUIT DIAGRAM	CLEANING SIGNALS	AA
2895133-0003:018	CIRCUIT DIAGRAM	MULTIPLEXER BOARD	AA
2895133-0003:019	CIRCUIT DIAGRAM	MULTIPLEXER BOARD - ALARMS	AA
2895133-0003:020	CIRCUIT DIAGRAM	MULTIPLEXER BOARD - ALARMS	AA
2895133-0003:025	CIRCUIT DIAGRAM	PLC-OUT, RELAY	AA
2895133-0003:026	CIRCUIT DIAGRAM	PLC-OUT, VALVES	AA
2895133-0003:027	CIRCUIT DIAGRAM	PLC-OUT, SIGNALS	AA
2895133-0003:028	CIRCUIT DIAGRAM	PLC-OUT, SIGNAL LAMPS	AA
2895133-0003:037	CIRCUIT DIAGRAM	PLC-IN CONTROL SELECTORS	AA
2895133-0003:038	CIRCUIT DIAGRAM	PLC-IN CLEANING PARAMETERS	AA
2895133-0003:039	CIRCUIT DIAGRAM	PLC-IN MONITORS	AA
2895133-0003:040	CIRCUIT DIAGRAM	PLC-IN OPERATION MONITORS	AA
2895133-0003:041	CIRCUIT DIAGRAM	MACHINE SELECTORS	AA
2895133-0003:042	CIRCUIT DIAGRAM	PLC-IN, CLEANINIG MONITORS	AA
2895133-0003:043	CIRCUIT DIAGRAM	PLC ANALOG INPUT	AA
2895133-0003:044	CIRCUIT DIAGRAM	PLC ANALOG OUTPUT	AA
2895133-0003:045	CIRCUIT DIAGRAM	GROUNDING CONNECTIONS	AA
2895133-0004:001	LINE SUMMARY	LINE SUMMARY	AA
2895133-0004:002	LINE SUMMARY	LINE SUMMARY	AA
2895133-0005:001	CABINET TERMINAL SUMMARY	CABINET TERMINAL SUMMARY	AA
2895133-0005:002	CABINET TERMINAL SUMMARY	CABINET TERMINAL SUMMARY	AA
2895133-0006:001	TERMINAL STRIP OVERVIEW	TERMINAL STRIP OVERVIEW	AA
2895133-0006:002	TERMINAL STRIP OVERVIEW	TERMINAL STRIP OVERVIEW	AA
2895133-0006:003	TERMINAL STRIP OVERVIEW	TERMINAL STRIP OVERVIEW	AA
2895133-0006:004	TERMINAL STRIP OVERVIEW	TERMINAL STRIP OVERVIEW	AA
2895133-0007:001	CABLE CONNECTION LIST	CABLE CONNECTION LIST	AA
2895133-0007:002	CABLE CONNECTION LIST	CABLE CONNECTION LIST	AA
2895133-0007:003	CABLE CONNECTION LIST	CABLE CONNECTION LIST	AA
2895133-0008:001	MAINS CONNECTION	MAINS CONNECTION	AA

Tetra Pak

Designer LUP
ECM No 303930
Denomination DOCUMENT LIST
Date 25/05/2007
Machine SCU/4-0150
Page Type DOCUMENT LIST
Document No. 2895133-0001
Doc. type ELD
Version AA
Page 001
Company Tetra Pak (Italy)
Drawing remarks

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3 Position Summary

Description

This chapter is a list of all electrical components that are shown in the electrical drawings, with page references to the drawings where they are located.

Position summary of 2895133-0003

Component	Page .Col.	Opt.
+C-A001	010 .4	
+C-A002	18 .2	
+C-A003	18 .5	
+C-A004	006 .3	
+C-A005	28 .4	
+C-A015	011 .7	FLOW
+C-A100	007 .6	
+C-A101	25 .1	
+C-A102	27 .1	
+C-A110	37 .7	
+C-A111	39 .7	
+C-A112	41 .7	
+C-A113	43 .8	
+M-B001	010 .4	
+M-B002	39 .4	
+M-B003	39 .4	
+M-B004	39 .4	
+M-B005	39 .4	
+M-B007	40 .5	
+M-B008	40 .5	
+M-B010	40 .5	2_MACH
+M-B011	40 .5	2_MACH
+M-B015	011 .3	FLOW
+C-F001	007 .2	
+C-F002	007 .2	
+C-F003	007 .5	
+C-F004	007 .6	
+C-G100	007 .6	

Component	Page .Col.	Opt.
+C-H001	18 .5	
+M-H001S	27 .4	
+C-H002S	28 .4	
+M-H002S	27 .4	
+C-H003S	28 .4	
+C-H004S	28 .4	
+C-H005S	28 .4	
+C-H010	18 .5	
+C-H011	18 .5	
+C-H012	18 .5	
+C-H013	18 .5	
+C-H014	18 .5	
+C-H015	18 .5	
+C-H016	18 .5	
+C-H017	18 .5	
+C-H018	19 .5	
+C-H019	19 .5	
+C-H020	19 .5	
+C-H021	19 .5	
+C-H022	19 .5	
+C-H023	19 .5	
+C-H024	19 .5	
+C-H025	19 .5	
+C-H026	19 .5	
+C-H027	19 .5	
+C-H028	20 .5	
+C-H029	20 .5	
+C-H030	20 .5	

Component	Page .Col.	Opt.
+C-H031	20 .5	
+C-H032	20 .5	
+C-H033	20 .5	
+C-H034	20 .5	
+C-H035	20 .5	
+C-H036	20 .5	
+C-K001	25 .5	
+C-K002	25 .5	
+C-K003	25 .5	
+C-K004	25 .5	
+C-K005	25 .5	
+C-K006	25 .5	
+C-K008	25 .5	
+C-K009	26 .5	
+C-K010	26 .5	
+C-K014	25 .5	
+C-M001	009 .5	
+M-M001	006 .3	
+M-M002	008 .2	
+M-M003	008 .4	
+C-P001	12 .4	REC.
+C-P002	28 .4	
+C-Q001	005 .2	
+C-Q002	005 .8	
+C-Q003	006 .3	
+C-Q005	007 .2	
+C-R001	12 .3	
+C-R002	12 .3	

Component	Page .Col.	Opt.
+C-R003	12 .3	
+C-S001	37 .4	
+M-S001H	41 .4	
+C-S002H	37 .4	
+M-S002H	41 .4	
+C-S003H	37 .4	
+C-S004H	37 .4	
+C-S005H	37 .4	
+C-S006	37 .4	
+C-S007	37 .4	
+C-S008	38 .4	
+C-S009	38 .4	
+C-T001	007 .1	
+C-V001	007 .2	
+M-Y001	26 .5	
+M-Y002	26 .5	
+M-Y003	26 .5	
+M-Y004	26 .5	
+M-Y005	26 .5	
+M-Y006	26 .5	
+C-Z001	005 .6	
+C-Z002	005 .6	
+C-Z003	010 .4	

Drawing remarks

Tetra Pak

Designer	LUP	Date	25/05/2007	Machine	SCU/4-0150
ECM No	303930	Denomination	POSITION SUMMARY	Page Type	POSITION SUMMARY
Company	Tetra Pak (Italy)	Document No.	2895133-0002	Doc. type	ELD
				Version	AA
				Page	001

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4 Circuit Diagrams

Description

This chapter contains all component drawings, such as programmable logic controller (PLC) modules, terminals, and cables.

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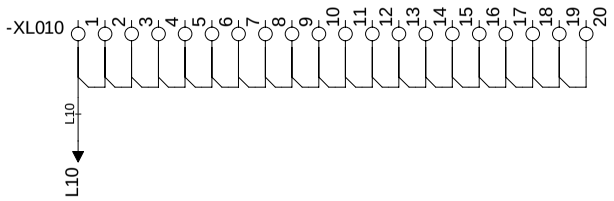
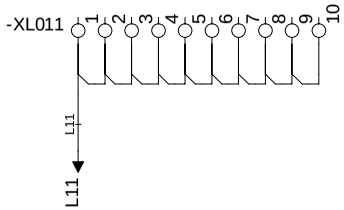
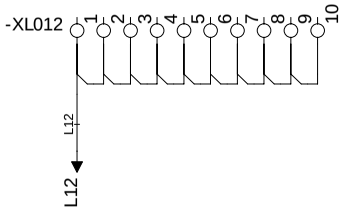
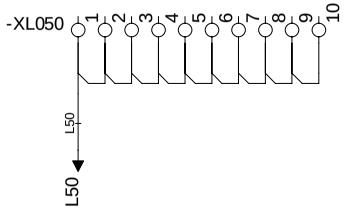
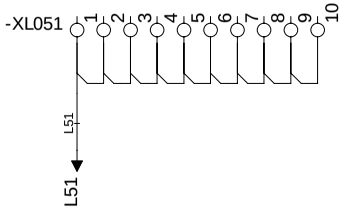
1	2	3	4	5	6	7	8	9	10

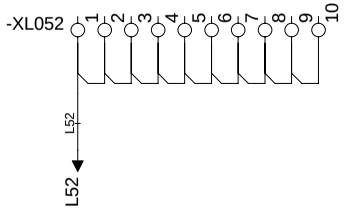






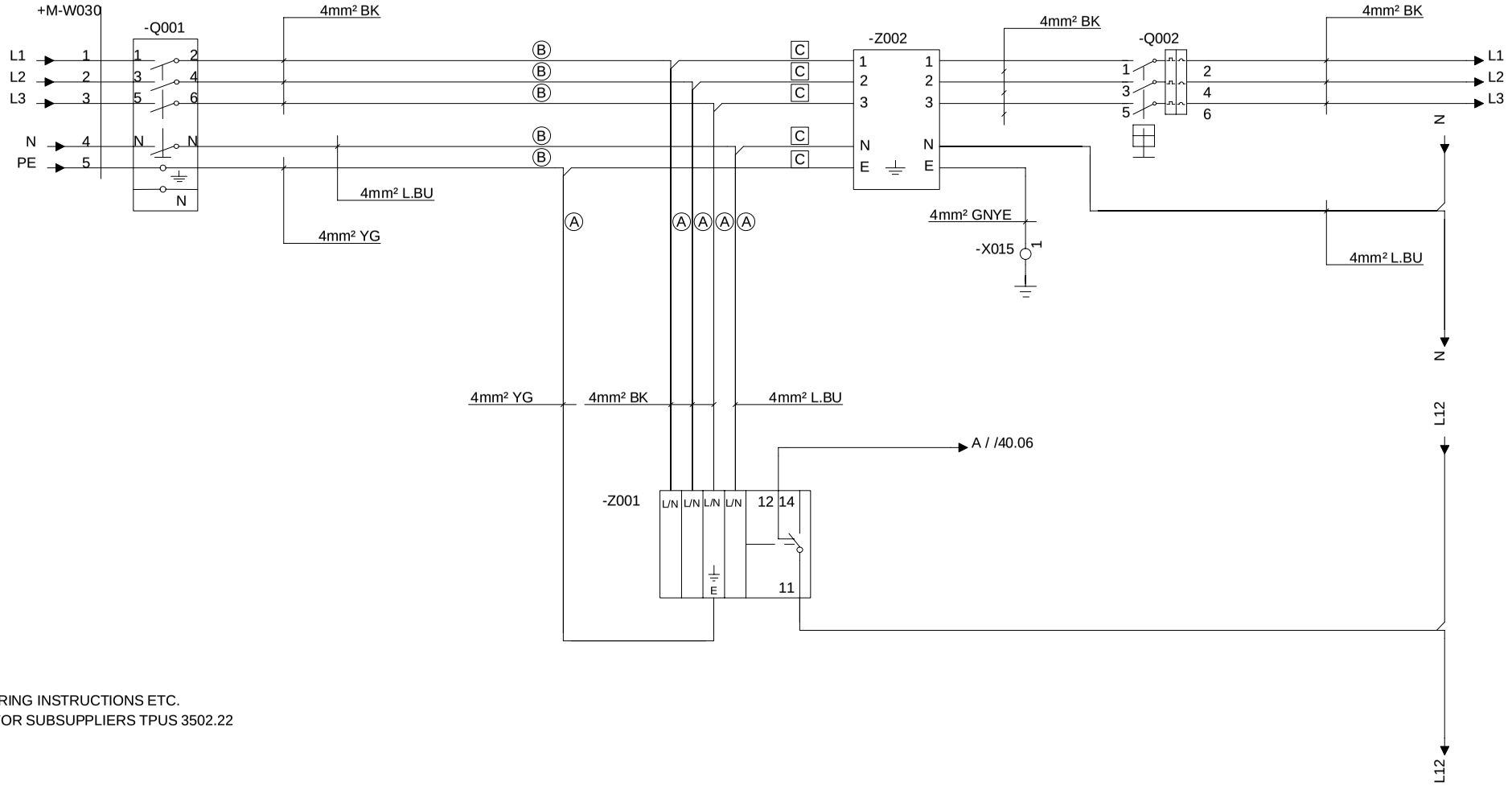






Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150		
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type DISTRIBUTION TERMINALS		
	Company Tetra Pak (Italy)		Document No. 2895133-0003	Doc. type ELD	Version AA	Page 001

RELEASED



FOR TYPE OF WIRE, WIRING INSTRUCTIONS ETC.
SEE SPECIFICATIONS FOR SUBSUPPLIERS TPUS 3502.22

WHERE NOTHING ELSE IS SAID
OR LINE SUMMARY IS VALID: 0.75 mm² BU

Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type MAINS			
		Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 005	

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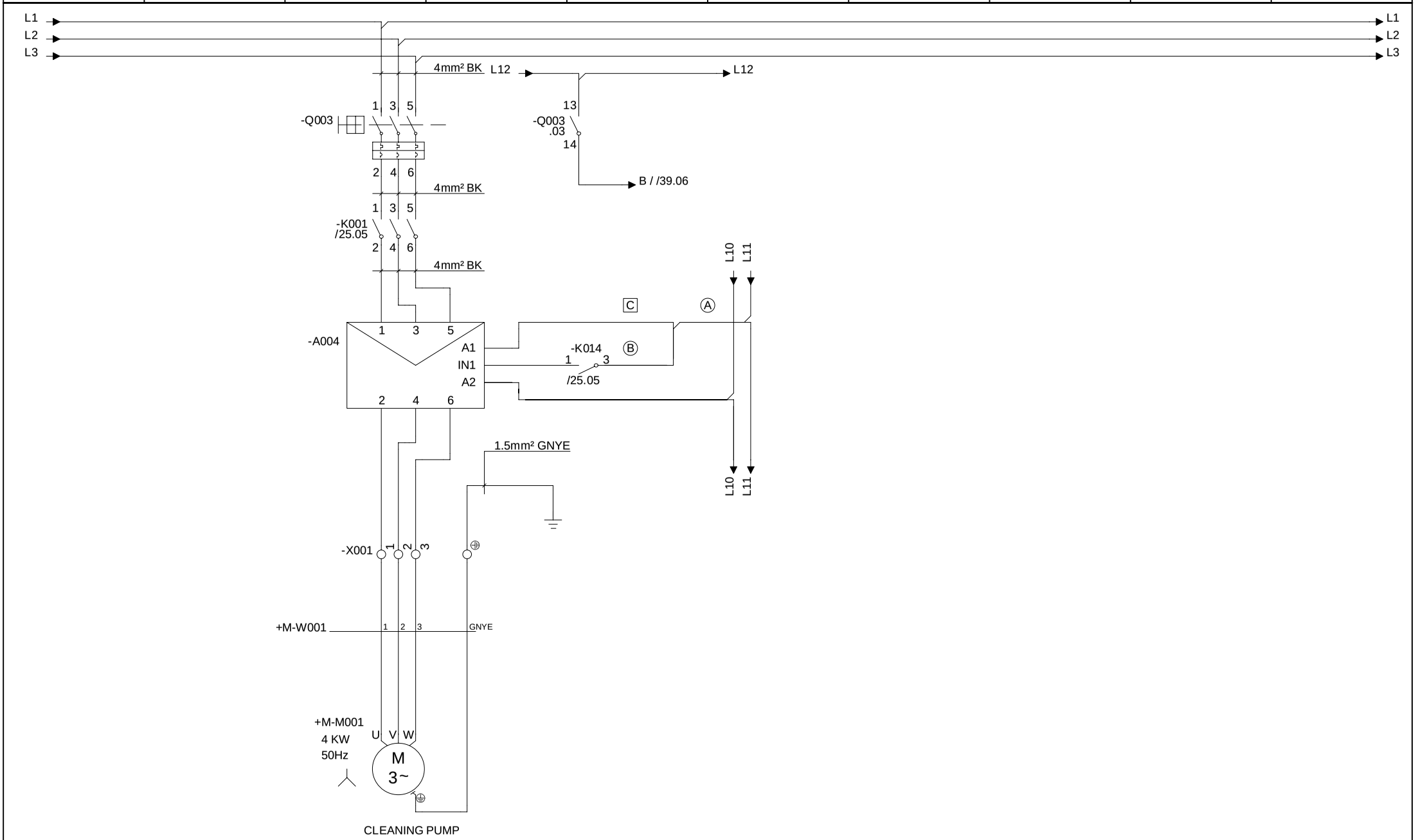

Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type MOTOR	
	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 006

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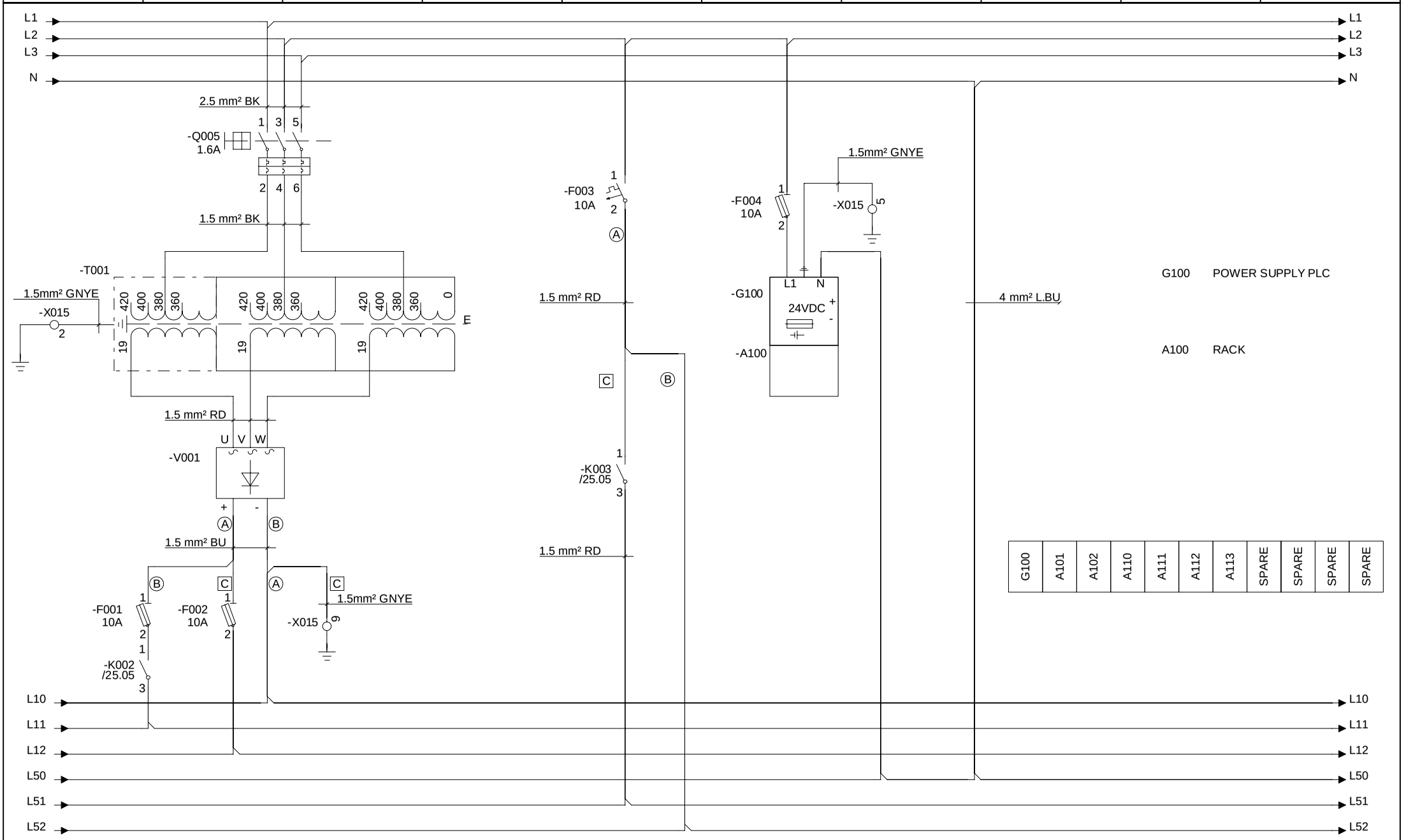
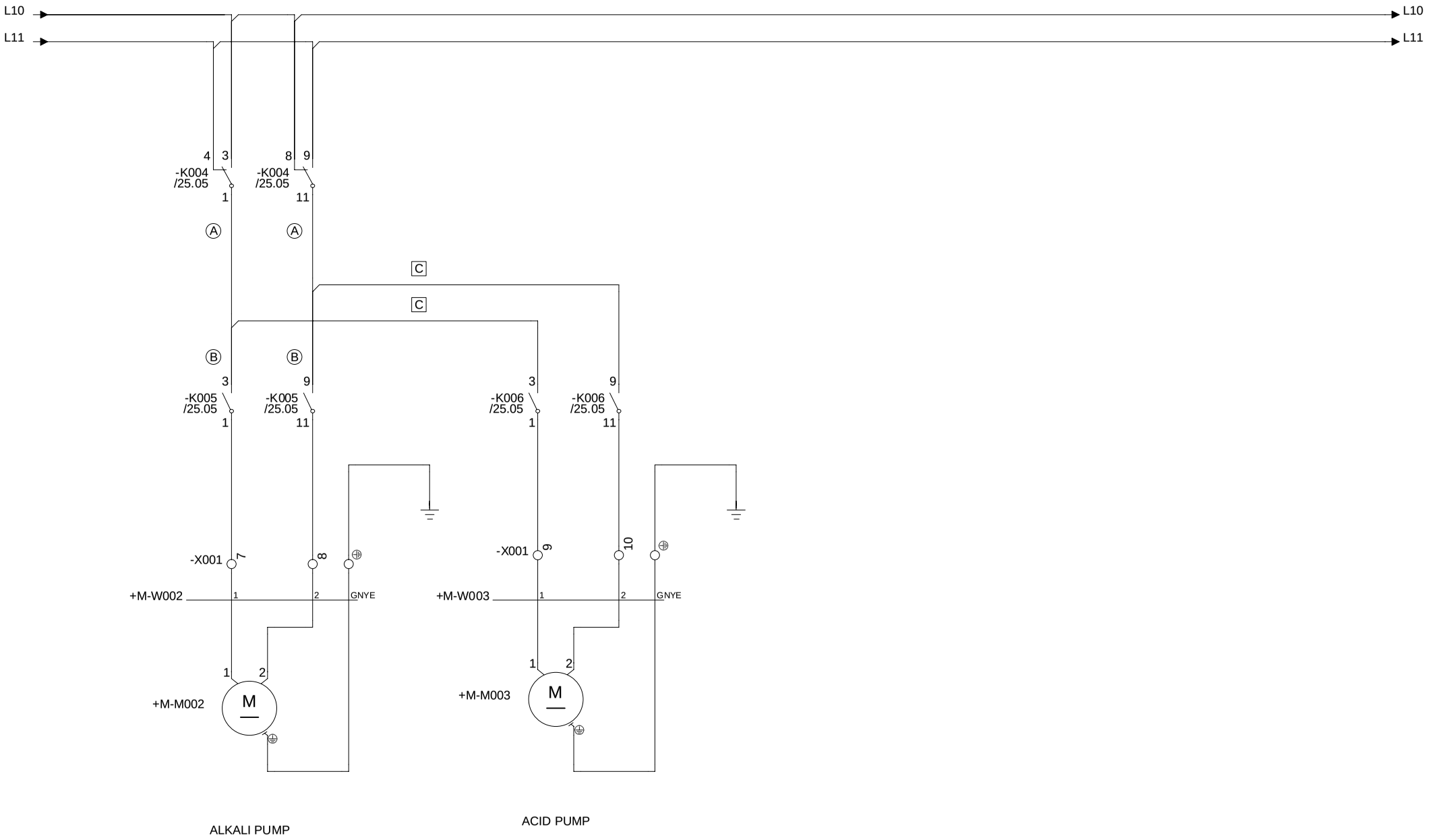


Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150		
	ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type CONTROL VOLTAGE, PLC		
Drawing remarks	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 007

RELEASED



	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type DC MOTORS			
Drawing remarks		Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 008	

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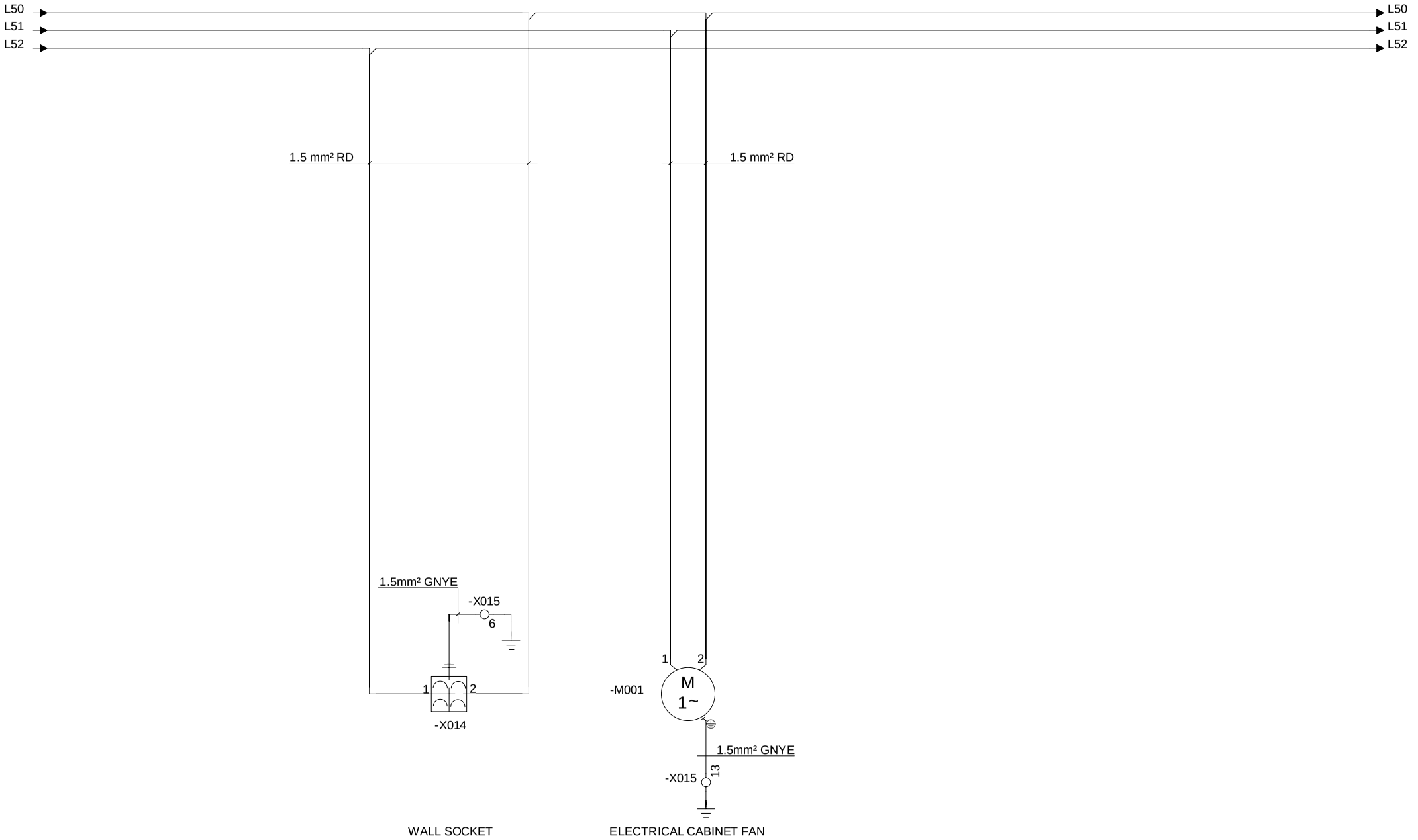
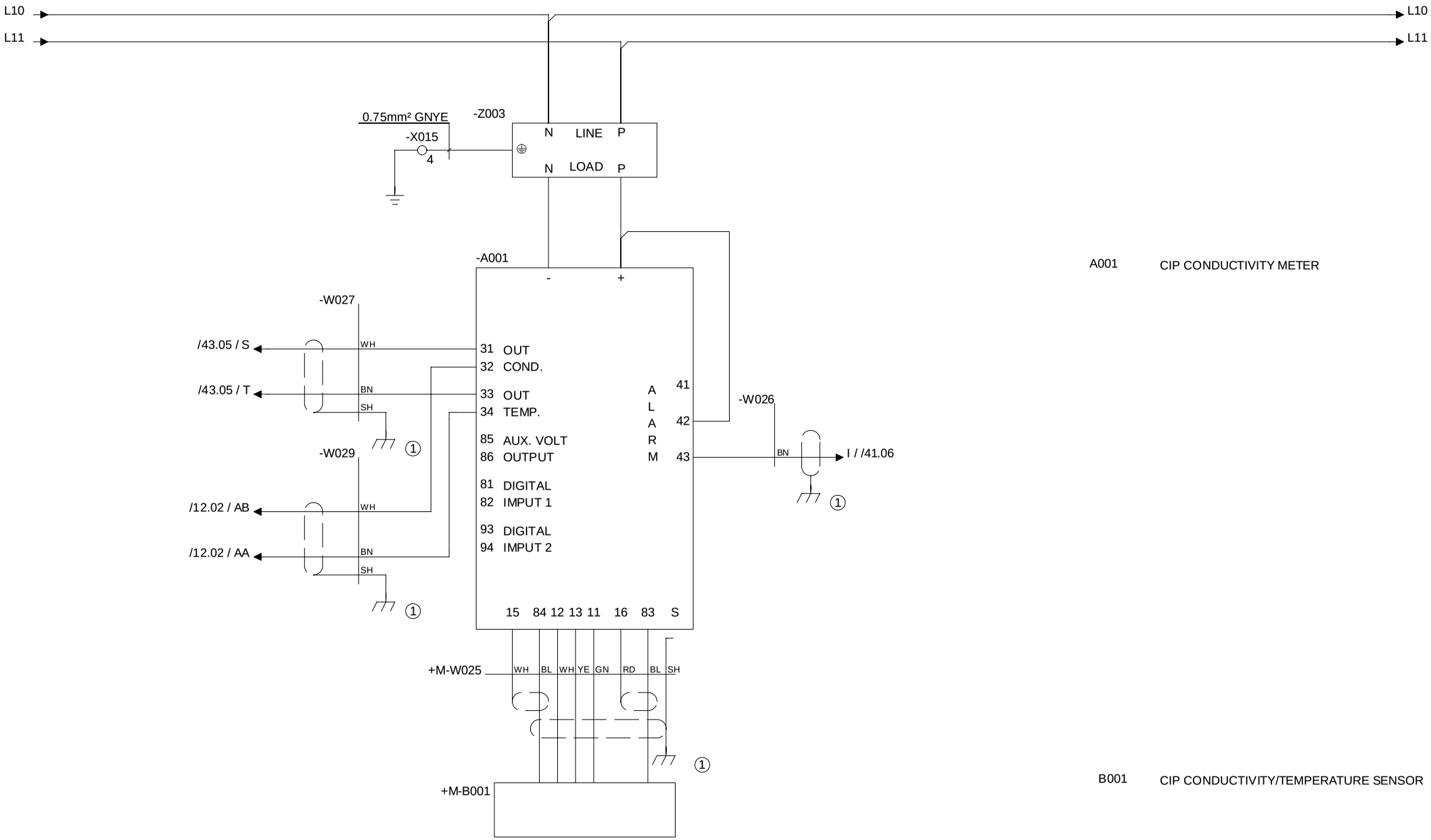


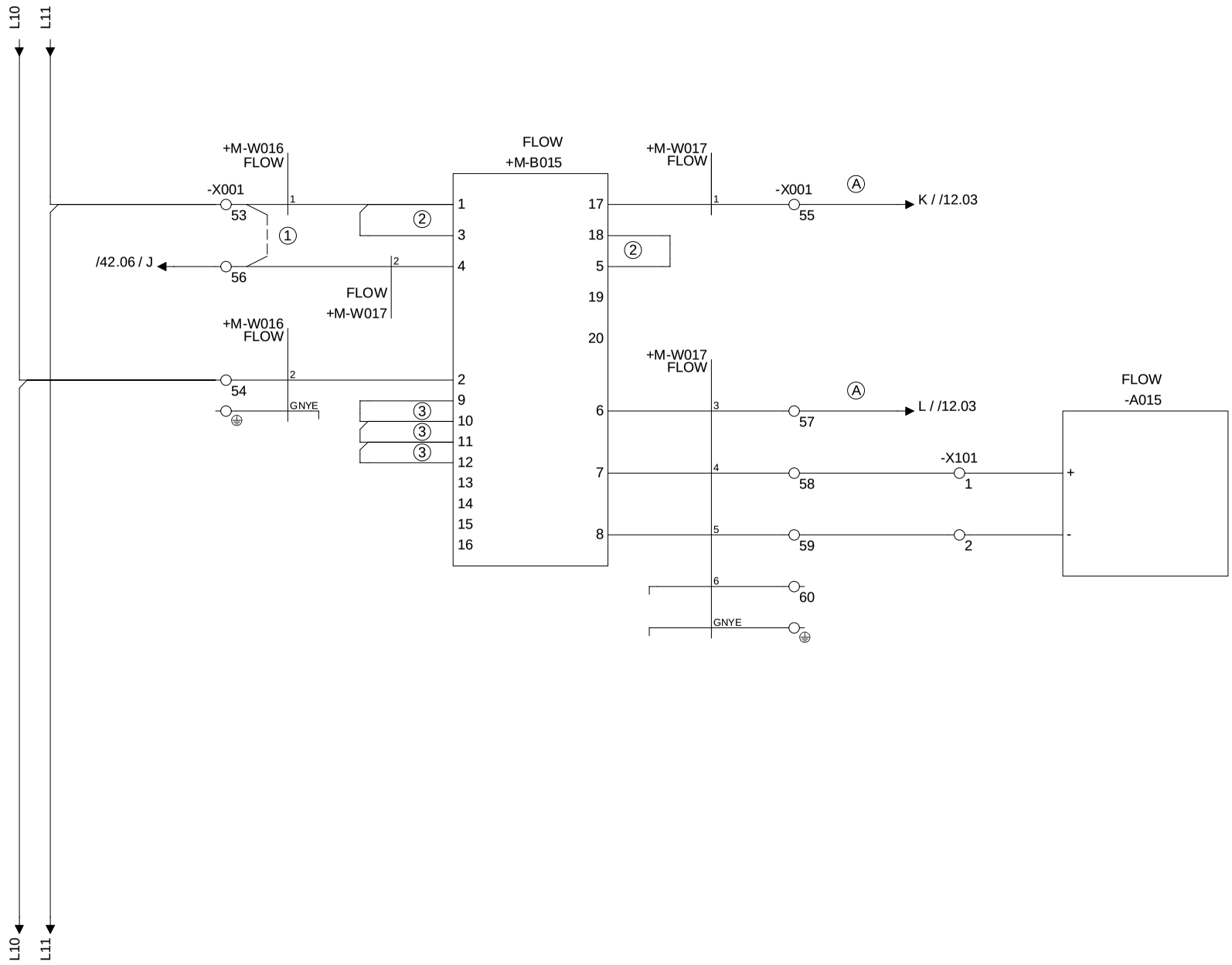
	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
	ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type FAN SOCKET			
Drawing remarks	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 009	

RELEASED



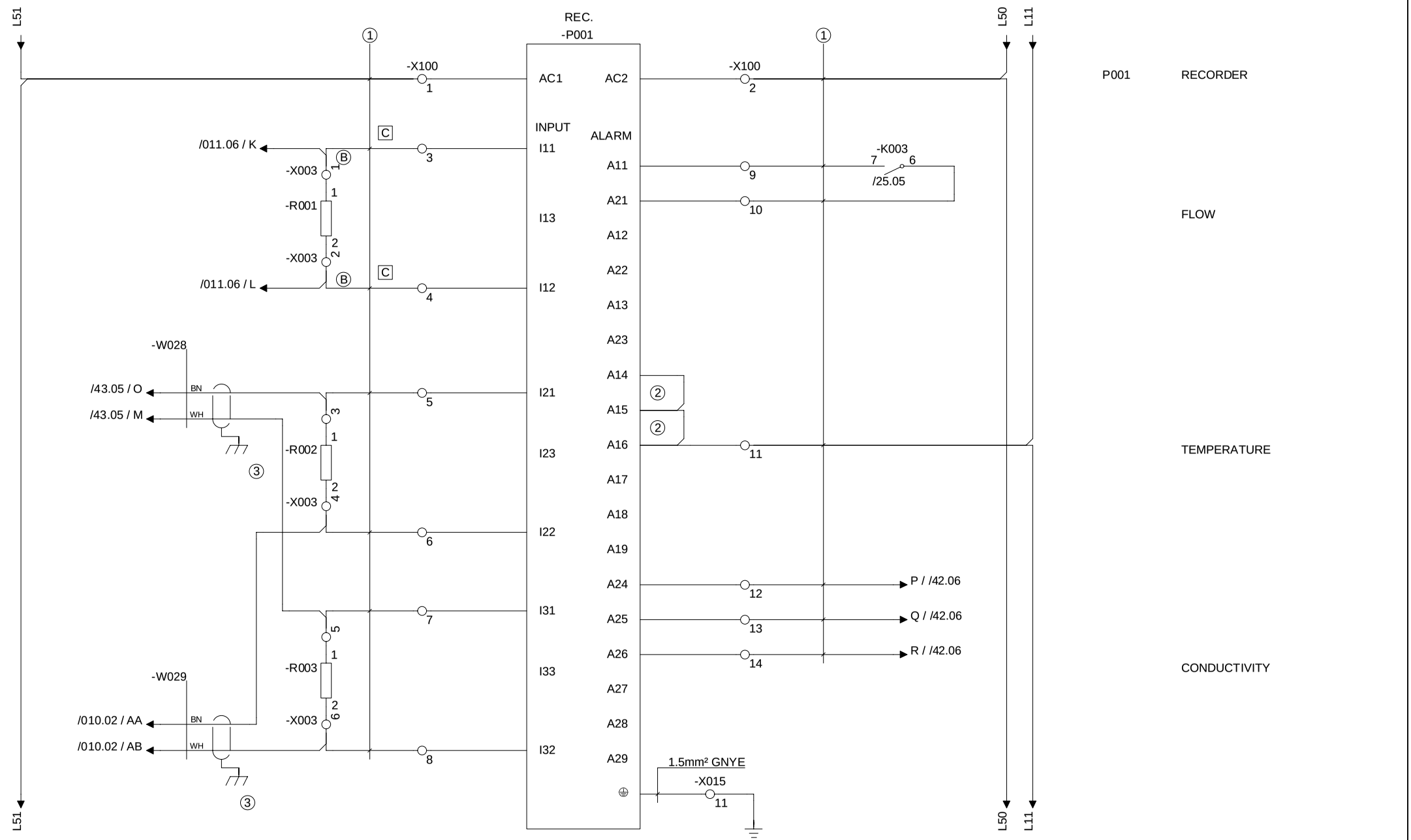
Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type CONDUCTIVITY METER
	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 010

RELEASED

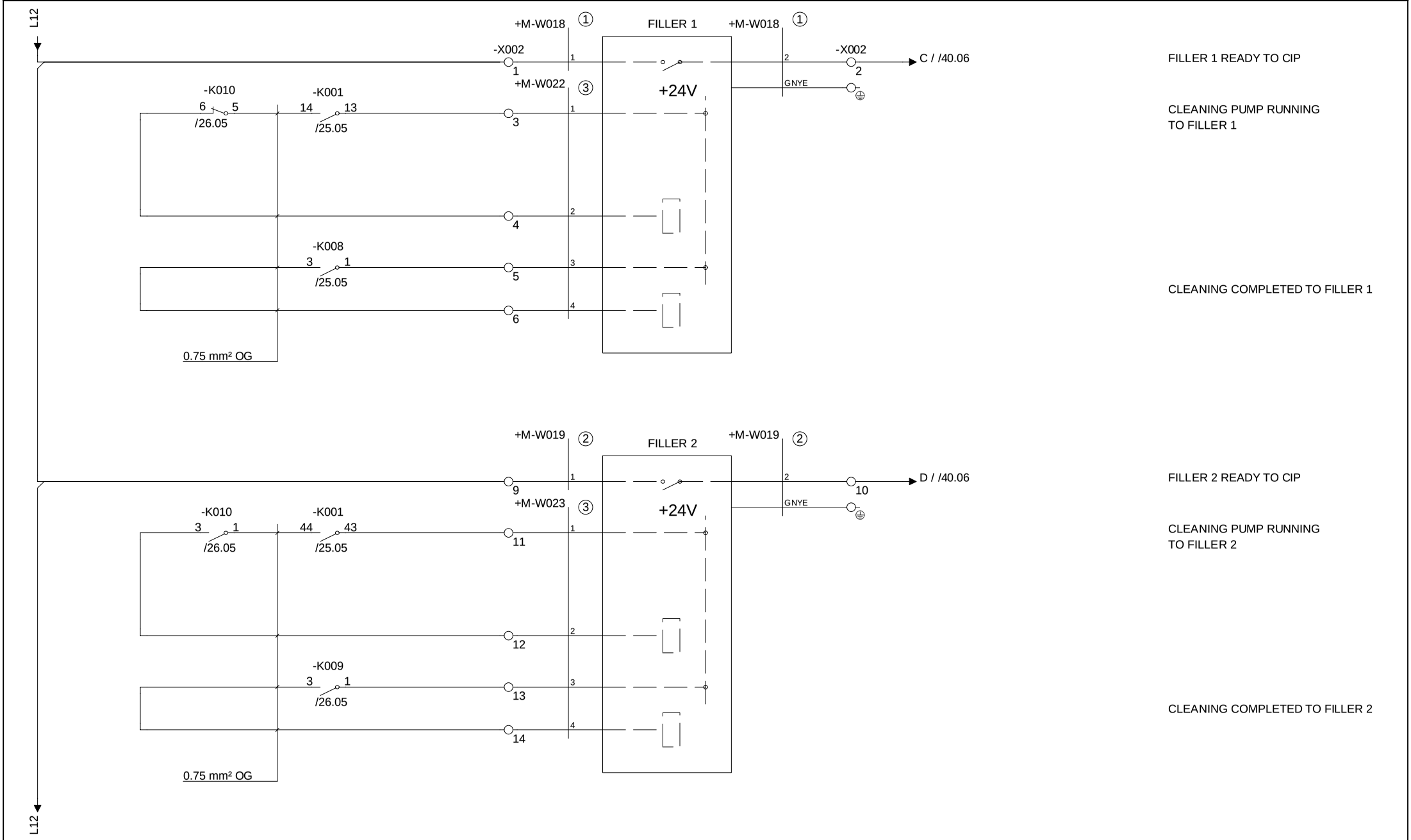


Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type FLOW METER	
	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 011

RELEASED



Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type RECORDER	
	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 12



Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type CLEANING SIGNALS			
	Company Tetra Pak (Italy)		Document No. 2895133-0003	Doc. type ELD	Version AA	Page 15	

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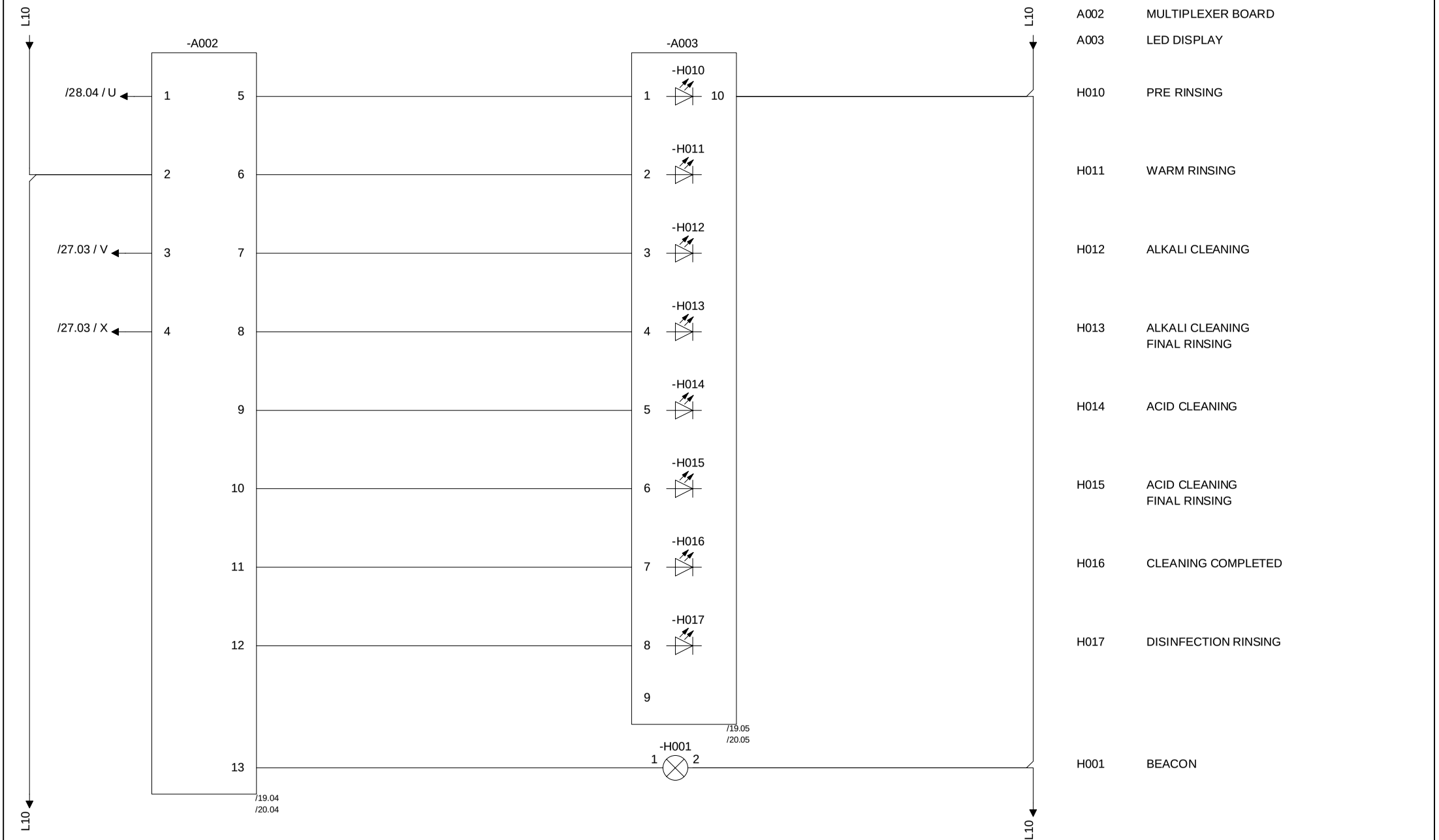


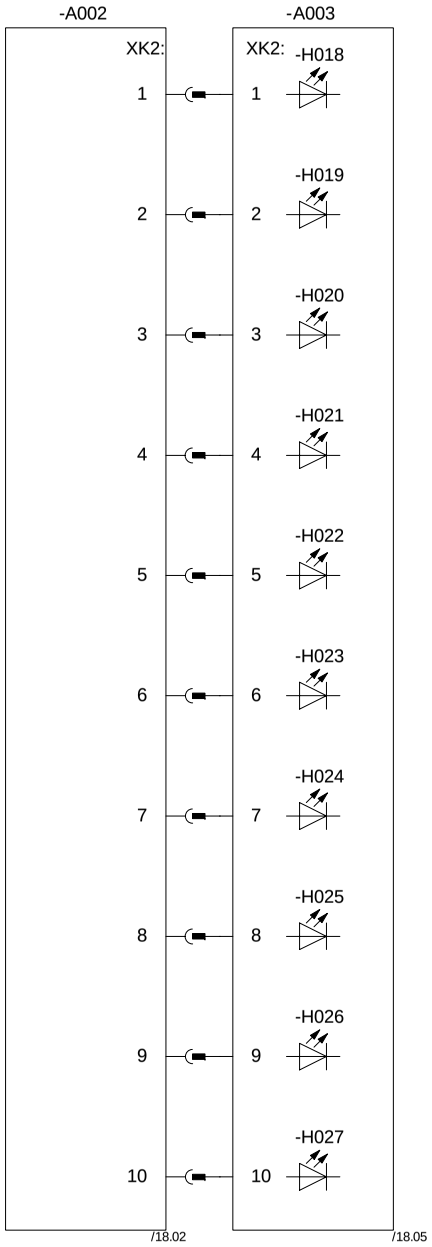
A002	MULTIPLEXER BOARD
A003	LED DISPLAY
H010	PRE RINSING
H011	WARM RINSING
H012	ALKALI CLEANING
H013	ALKALI CLEANING FINAL RINSING
H014	ACID CLEANING
H015	ACID CLEANING FINAL RINSING
H016	CLEANING COMPLETED
H017	DISINFECTION RINSING
H001	BEACON

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type MULTIPLEXER BOARD	
Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 18

1	2	3	4	5	6	7	8	9	10

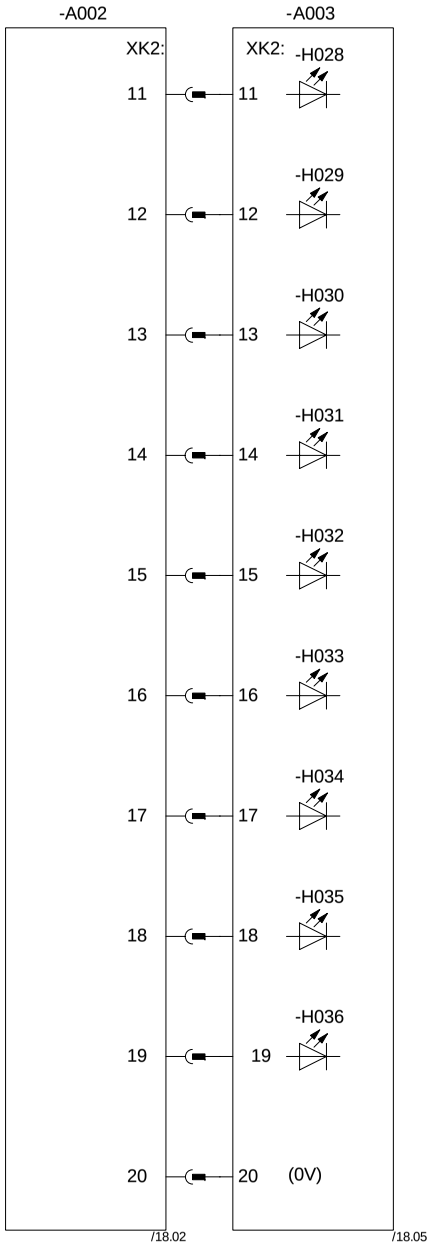


A002	MULTIPLEXER BOARD
A003	LED DISPLAY
H018	CHANGE OVER VALVE IN WRONG POSITION
H019	MAIN TANK MAX LEVEL NOT REACHED
H020	MAIN TANK INTERMEDIATE LEVEL NOT REACHED
H021	MAIN TANK EMPTIYNG TOO SLOW
H022	INCORRECT CONDUCTIVITY VALUE
H023	ALKALI AUTOLOAD QUICK CONNECTOR IN WRONG POSITION
H024	ACID AUTOLOAD QUICK CONNECTOR IN WRONG POSITION
H025	ALKALI AUTOLOAD TIME TOO LONG
H026	ALKALI TANK ALMOST EMPTY
H027	ALKALI AUTOLOAD TIME TOO LONG

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type MULTIPLEXER BOARD - ALARMS	
Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 19



A002	MULTIPLEXER BOARD
A003	LED DISPLAY
H028	ACID TANK ALMOST EMPTY
H029	SURGE FILTER ACTIVATED
H030	LOW CLEANING FLOW
H031	SELECTED FILLERS NOT READY FOR CIP
H032	CLEANING PUMP OVERLOAD
H033	EMERGENCY STOP ACTIVATED
H034	STEAM SUPPLY
H035	WATER SUPPLY
H036	LOW AIR PRESSURE

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type MULTIPLEXER BOARD - ALARMS			
Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 20	

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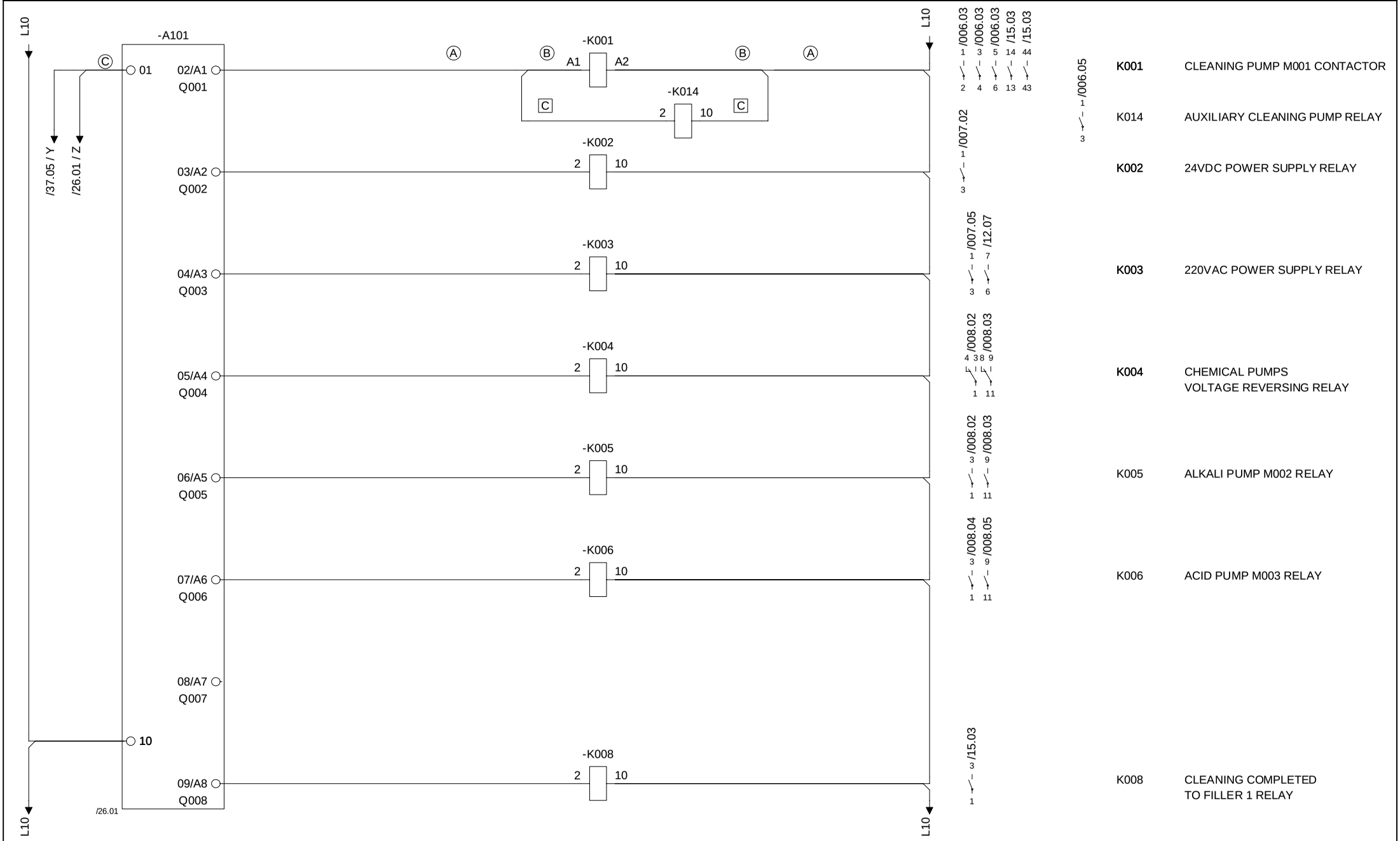


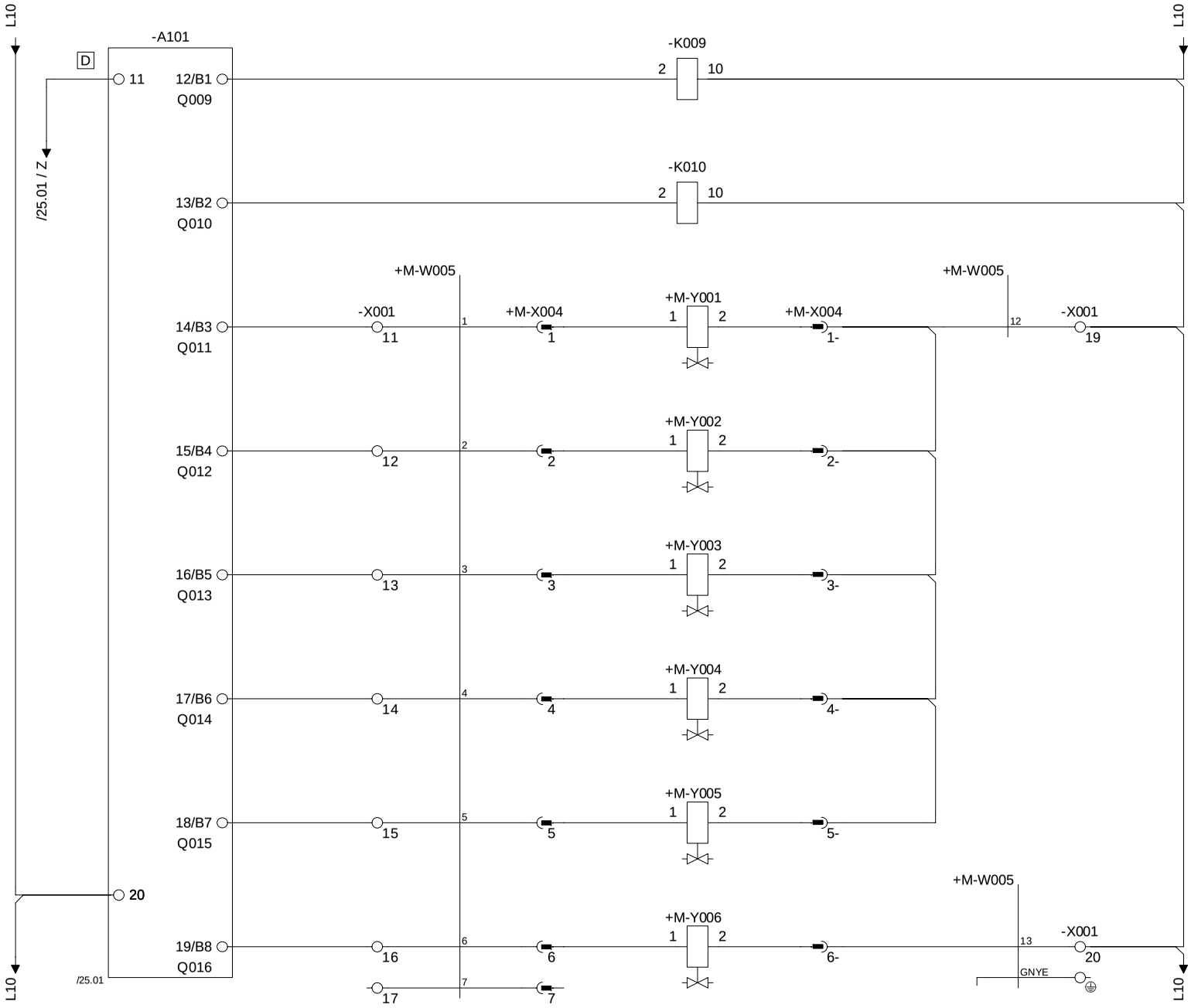
K001	CLEANING PUMP M001 CONTACTOR
K014	AUXILIARY CLEANING PUMP RELAY
K002	24VDC POWER SUPPLY RELAY
K003	220VAC POWER SUPPLY RELAY
K004	CHEMICAL PUMPS VOLTAGE REVERSING RELAY
K005	ALKALI PUMP M002 RELAY
K006	ACID PUMP M003 RELAY
K008	CLEANING COMPLETED TO FILLER 1 RELAY

Drawing remarks

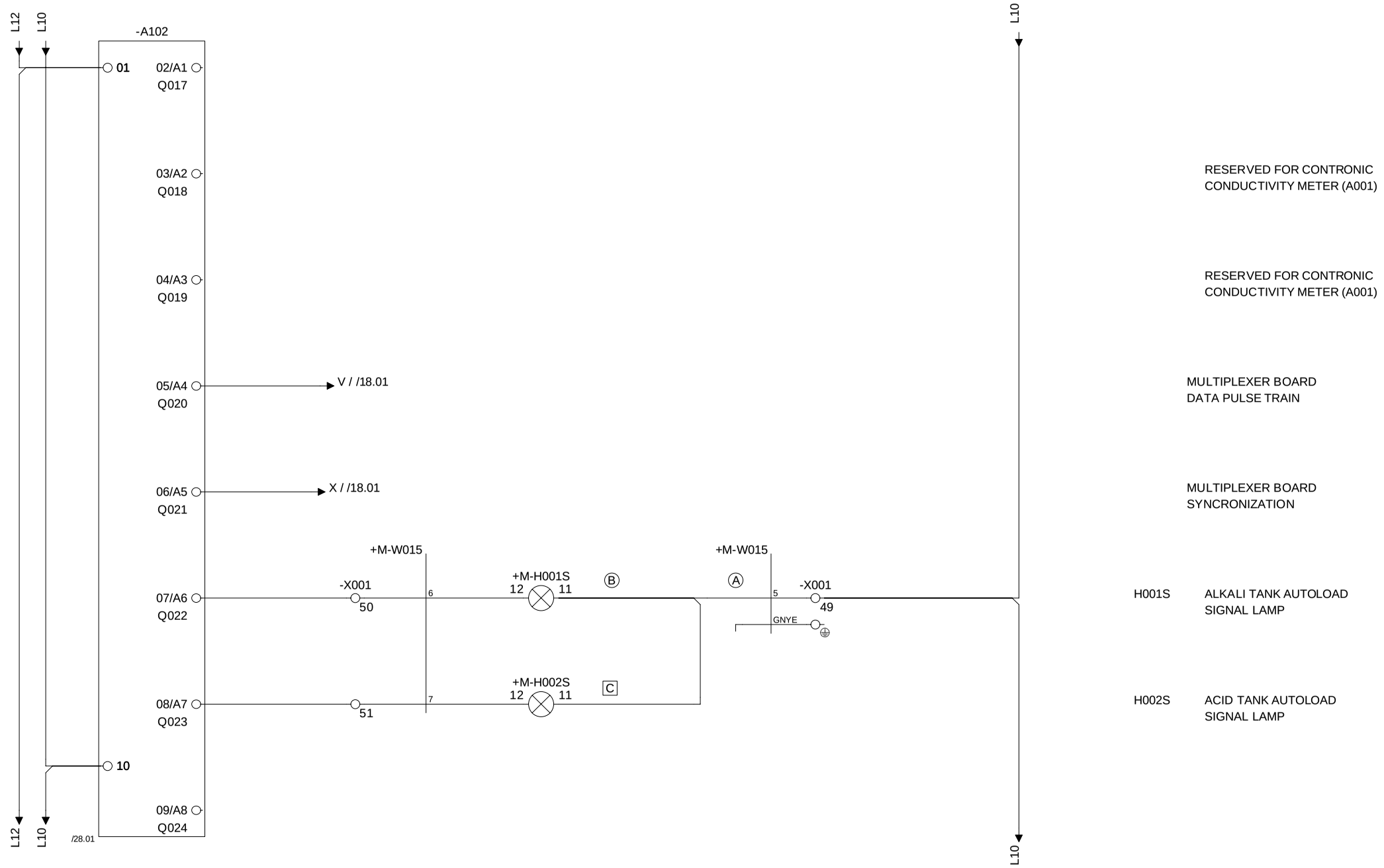
Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-OUT, RELAY	
Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 25

RELEASED

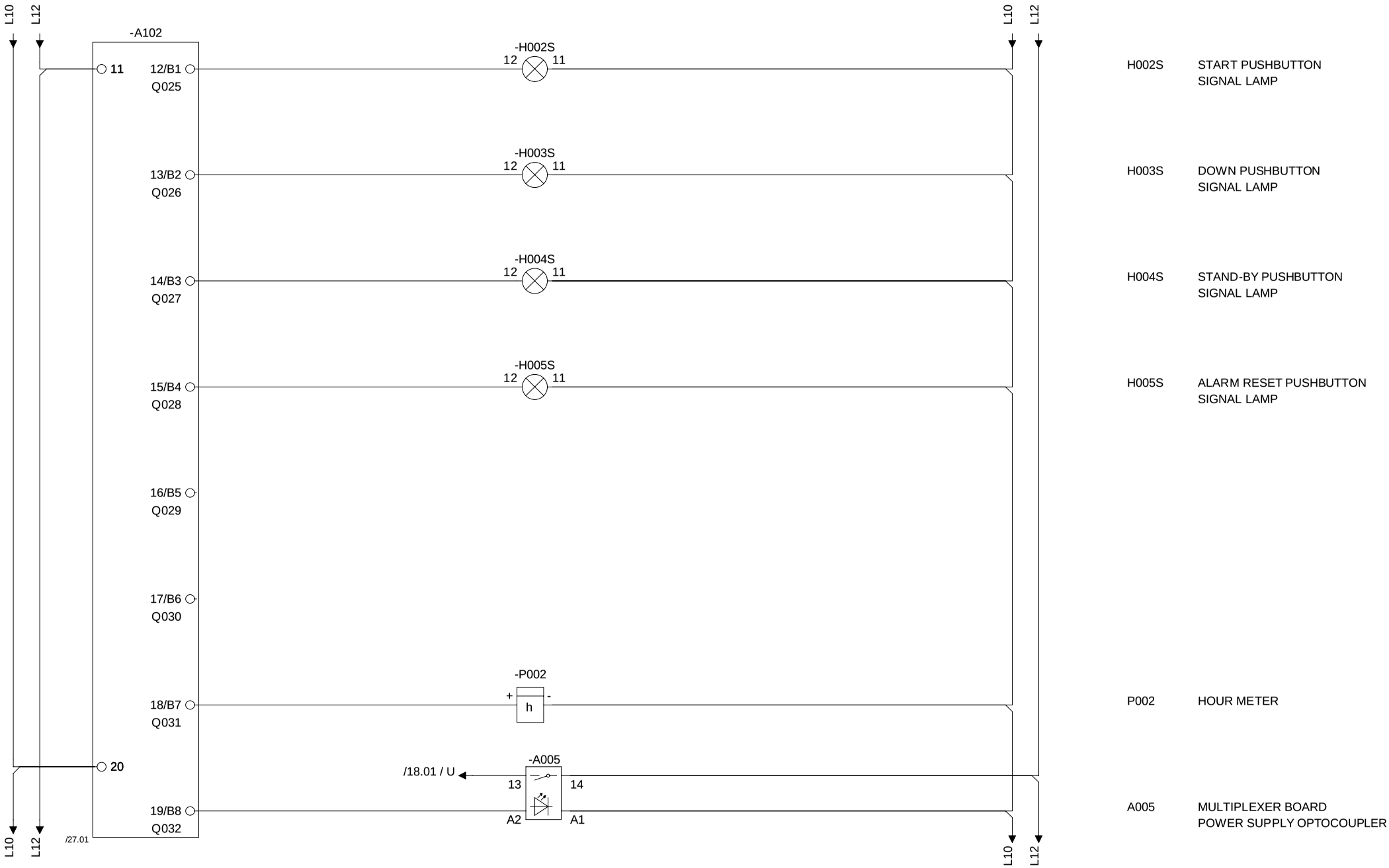


Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-OUT, VALVES			
	Company Tetra Pak (Italy)		Document No. 2895133-0003	Doc. type ELD	Version AA	Page 26	



Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-OUT, SIGNALS
		Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD / Version AA / Page 27

RELEASED



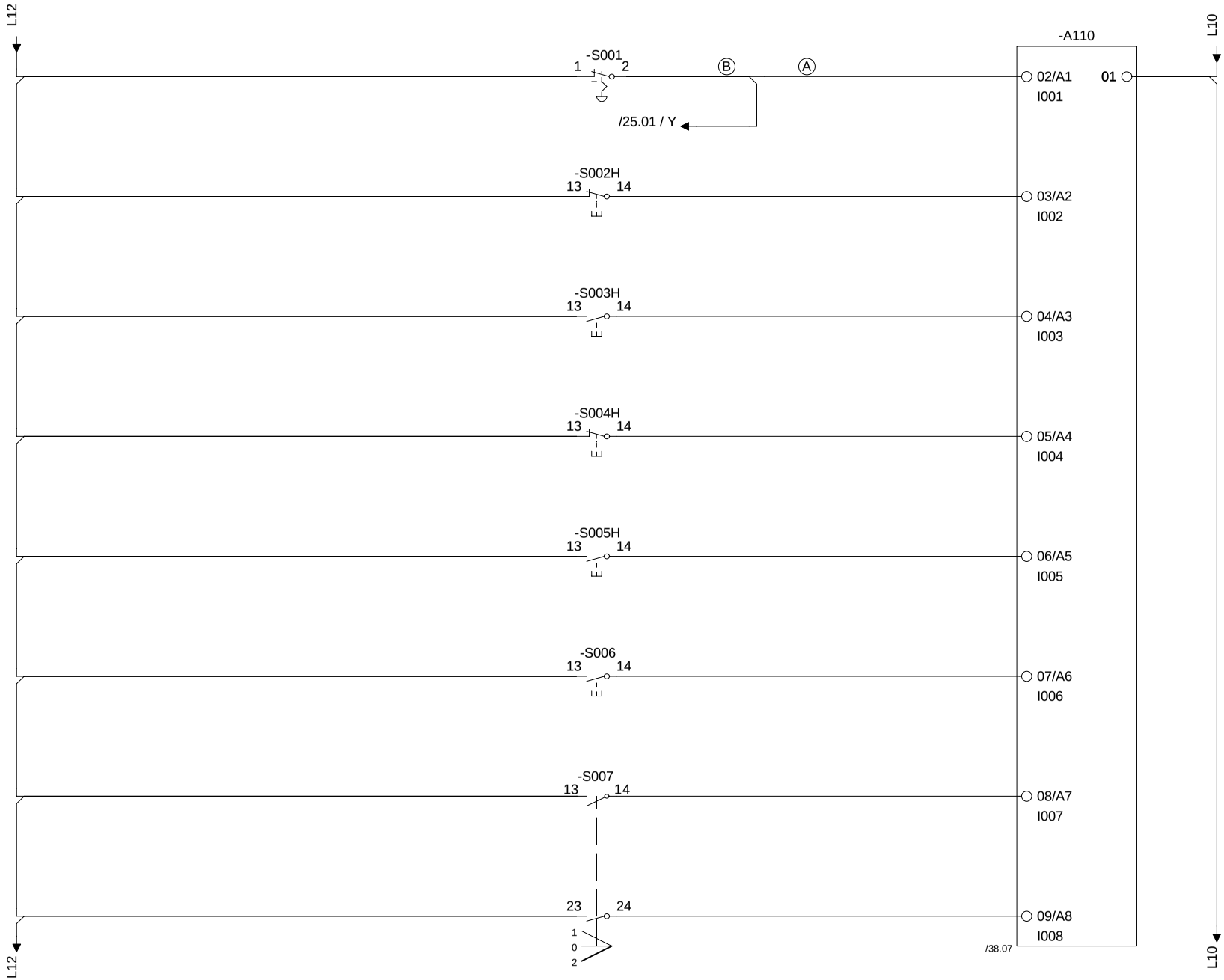
H002S	START PUSHBUTTON SIGNAL LAMP
H003S	DOWN PUSHBUTTON SIGNAL LAMP
H004S	STAND-BY PUSHBUTTON SIGNAL LAMP
H005S	ALARM RESET PUSHBUTTON SIGNAL LAMP
P002	HOUR METER
A005	MULTIPLEXER BOARD POWER SUPPLY OPTOCOUPLER

Drawing remarks

Tetra Pak

Designer	LUP	Date	25/05/2007	Machine	SCU/4-0150		
ECM No	303930	Denomination	CIRCUIT DIAGRAM	Page Type	PLC-OUT, SIGNAL LAMPS		
Company	Tetra Pak (Italy)	Document No.	2895133-0003	Doc. type	ELD	Version	AA
				Page	28		

RELEASED

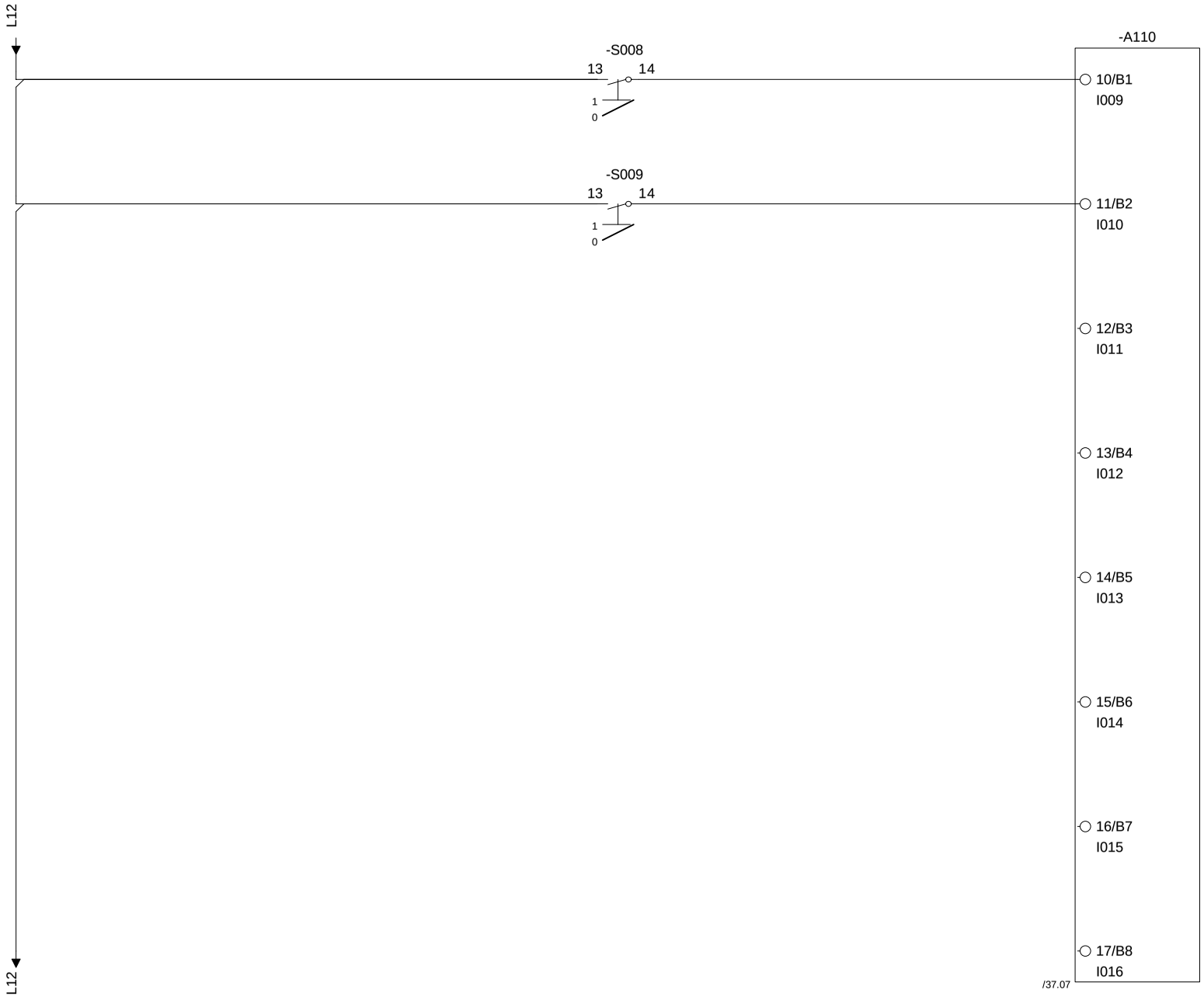


S001	EMERGENCY STOP PUSH BUTTON
S002H	START PUSHBUTTON
S003H	DOWN PUSHBUTTON
S004H	STAND-BY PUSHBUTTON
S005H	ALARM RESET PUSHBUTTON
S006	LAMP TEST PUSHBUTTON
S007	FILLER TO BE CLEAN SELECTOR SWITCH POS.1: FILLER 1 POS.0 FILLER 2 POS.2 FILLER 1+2

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-IN CONTROL SELECTORS	
Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 37



S008 CLEANING SELECTOR SWITCH

POS 0: DAILY CLEANING
POS 1: WEEKLY CLEANING

S009 DISINFECTION SELECTOR SWITCH

POS 0: DISINFECTION OFF
POS 1: DISINFECTION ON

RESERVED FOR CONTRONIC CONDUCTIVITY METER (A001)

RESERVED FOR CONTRONIC CONDUCTIVITY METER (A001)

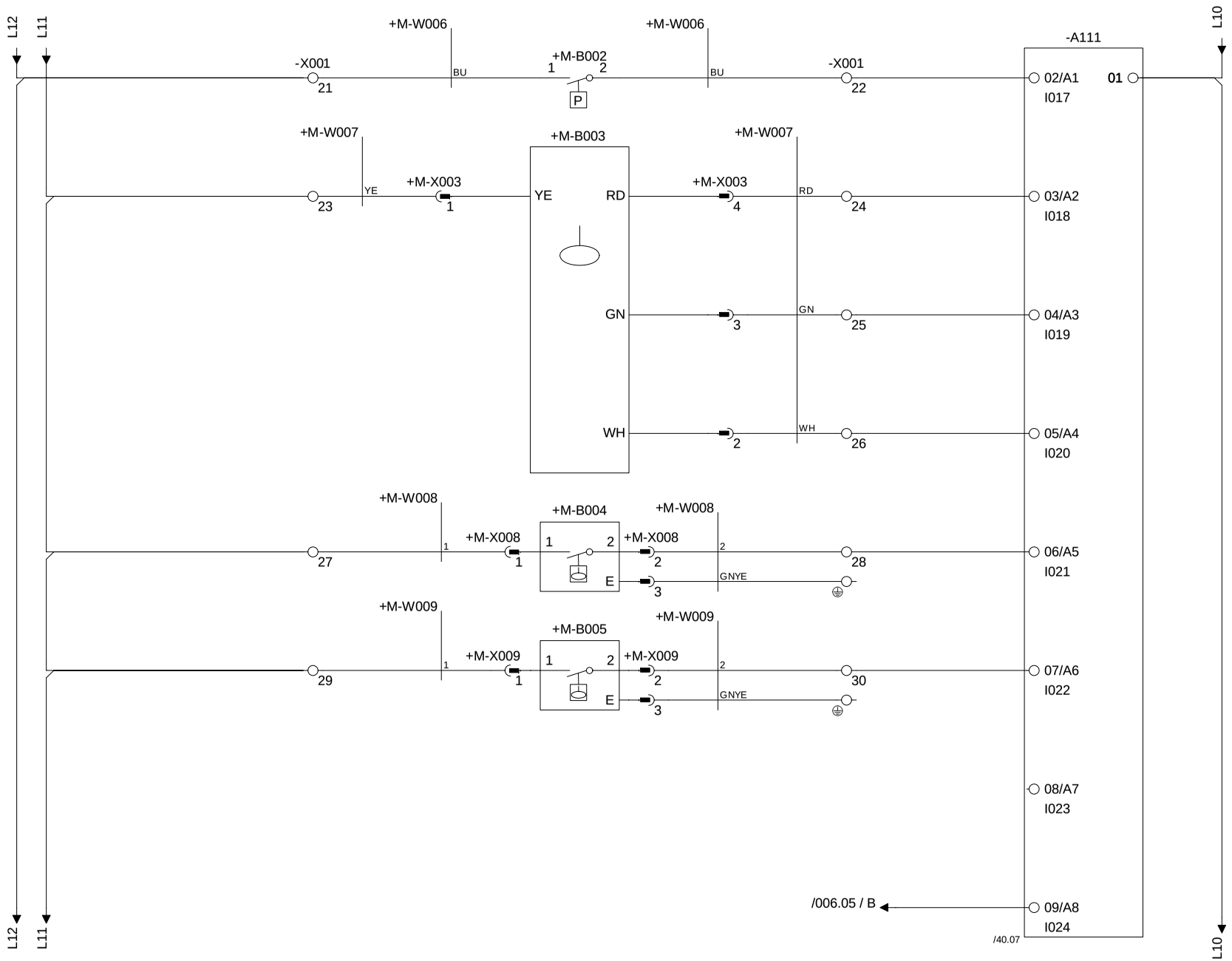
RESERVED FOR CONTRONIC CONDUCTIVITY METER (A001)

RESERVED FOR CONTRONIC CONDUCTIVITY METER (A001)

RESERVED FOR CONTRONIC CONDUCTIVITY METER (A001)

RESERVED FOR CONTRONIC CONDUCTIVITY METER (A001)

Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-IN CLEANING PARAMETERS			
	Company Tetra Pak (Italy)		Document No. 2895133-0003	Doc. type ELD	Version AA	Page 38	



B002 AIR PRESSURE MONITOR

B003 MAIN TANK LEVEL MONITOR
MAX LEVEL
ON: LEVEL REACHED

MAIN TANK LEVEL MONITOR
INTERMEDIATE LEVEL
ON: LEVEL REACHED

MAIN TANK LEVEL MONITOR
MIN LEVEL
ON: LEVEL REACHED

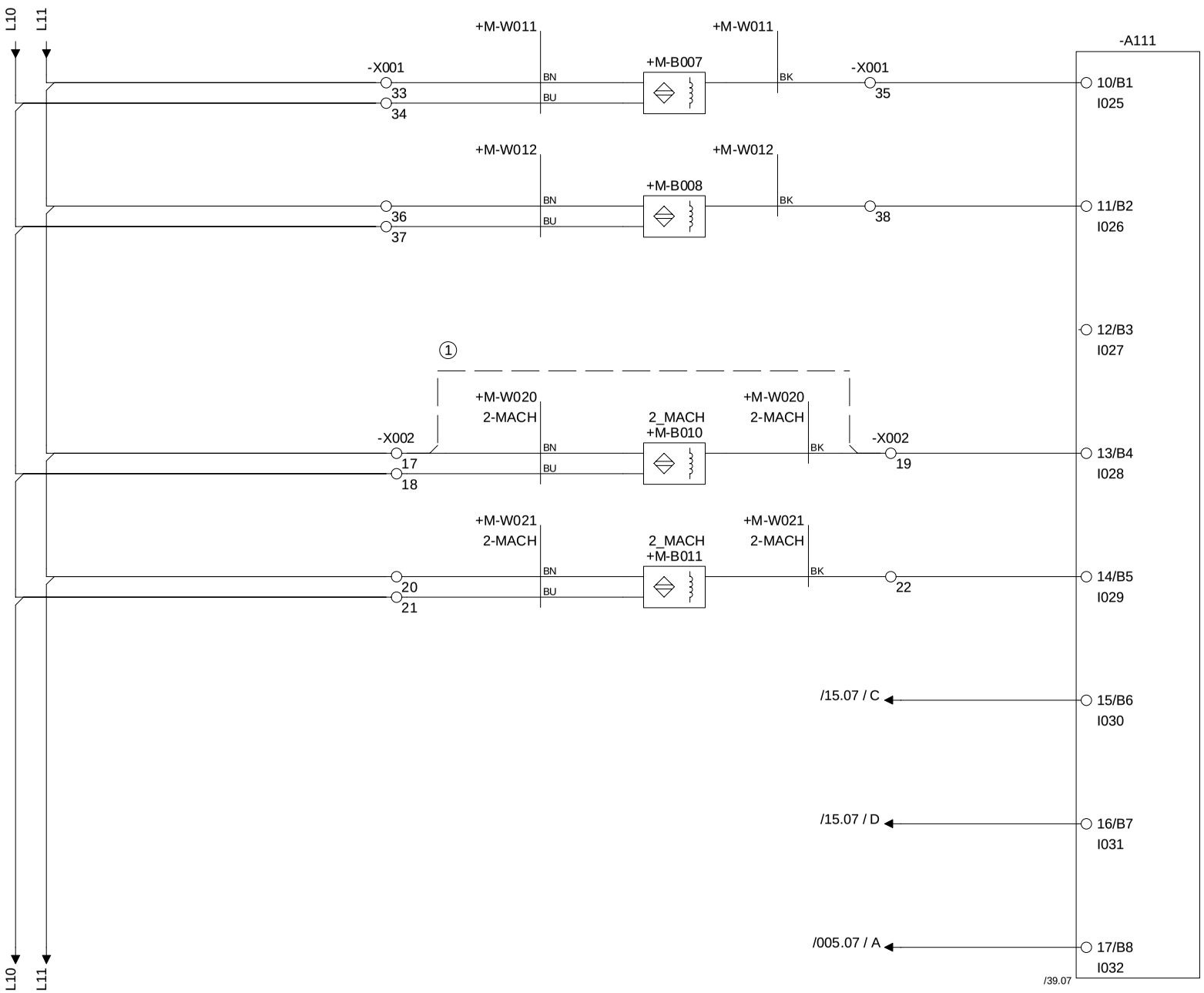
B004 ALKALI TANK
FULL LEVEL MONITOR

B005 ACID TANK
FULL LEVEL MONITOR

CLEANING PUMP OVERLOAD
PROTECTION TRIPPED

Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-IN MONITORS			
	Company Tetra Pak (Italy)		Document No. 2895133-0003	Doc. type ELD	Version AA	Page 39	

RELEASED



Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-IN OPERATION MONITORS	
	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 40

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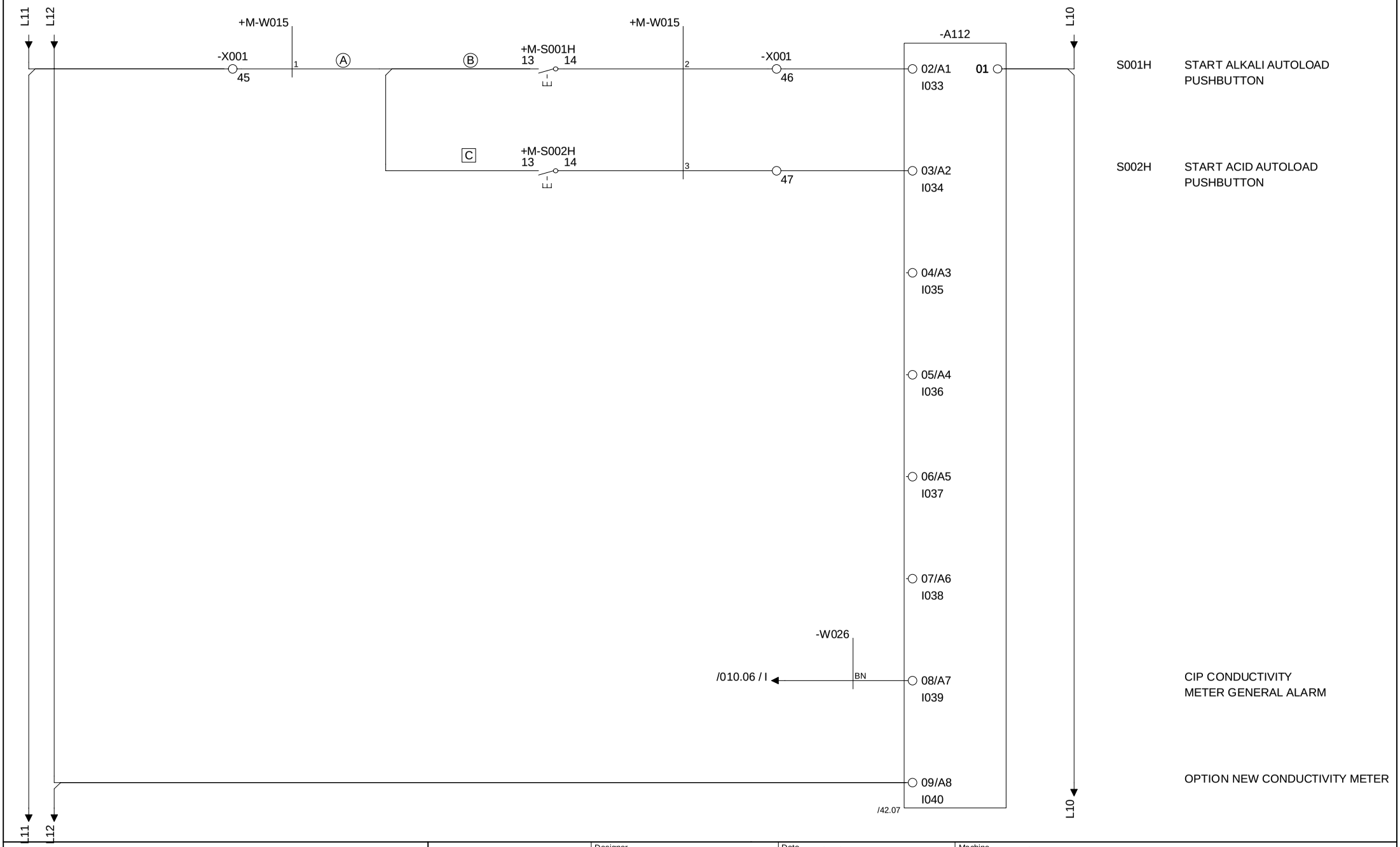
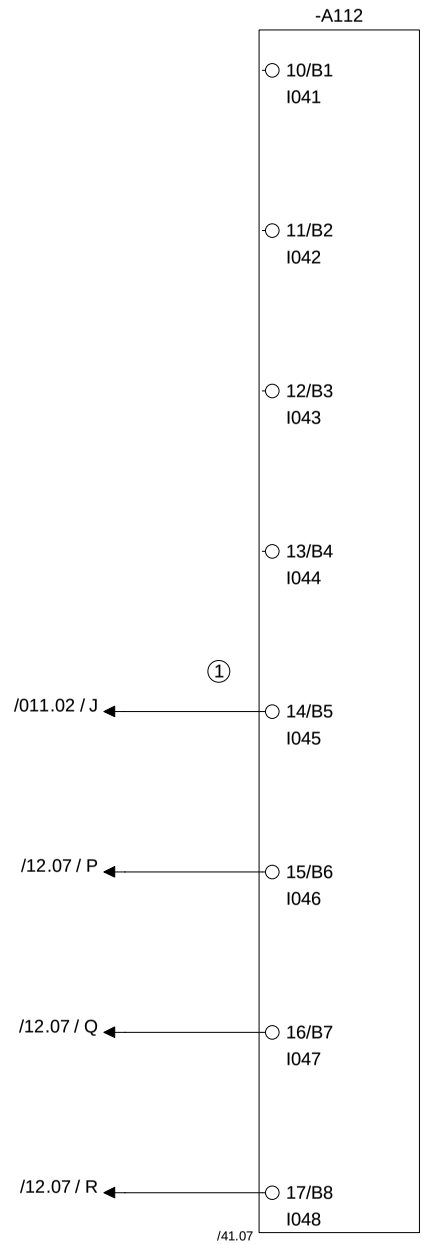


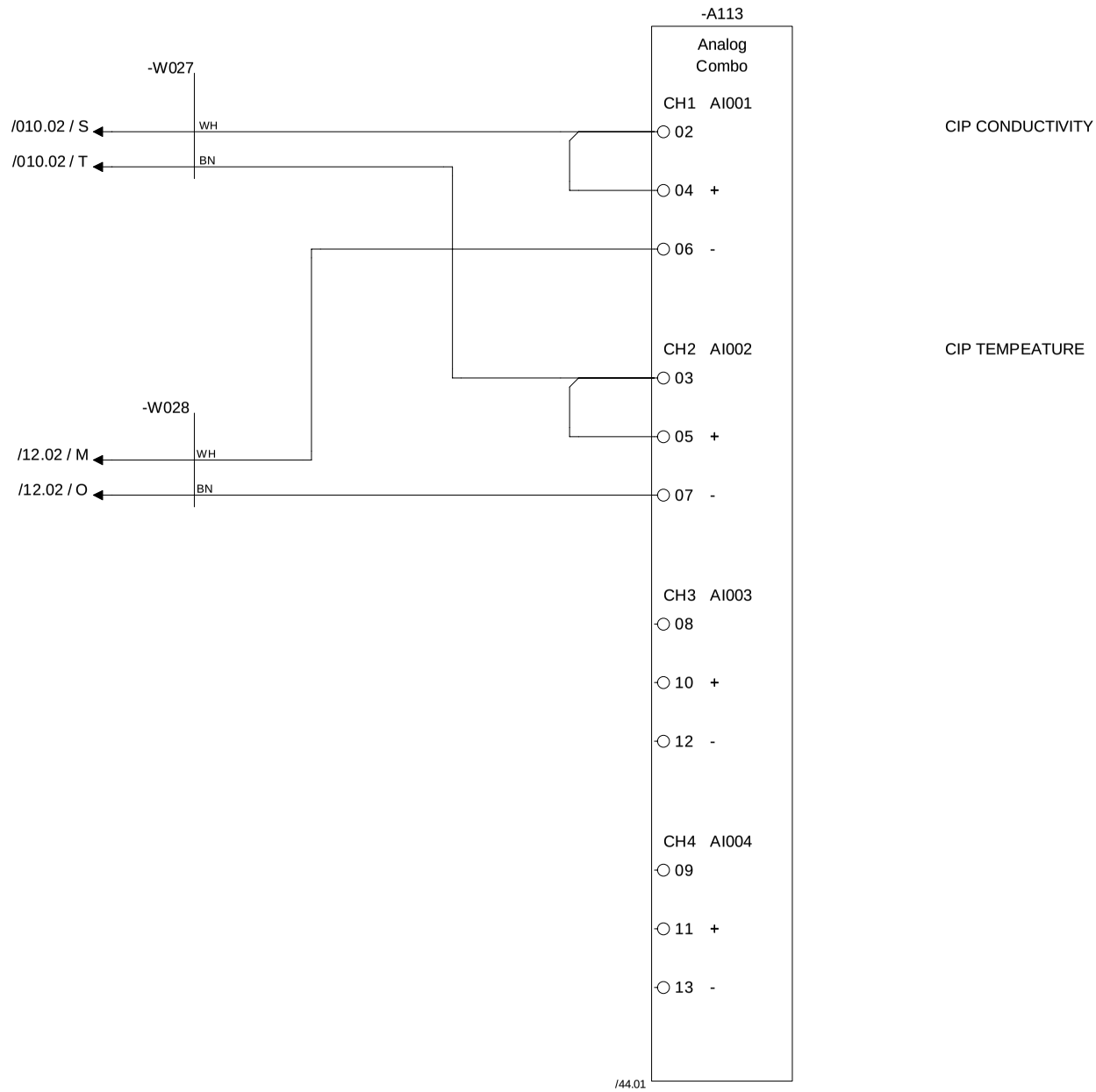
Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type MACHINE SELECTORS			
	Company Tetra Pak (Italy)		Document No. 2895133-0003	Doc. type ELD	Version AA	Page 41	



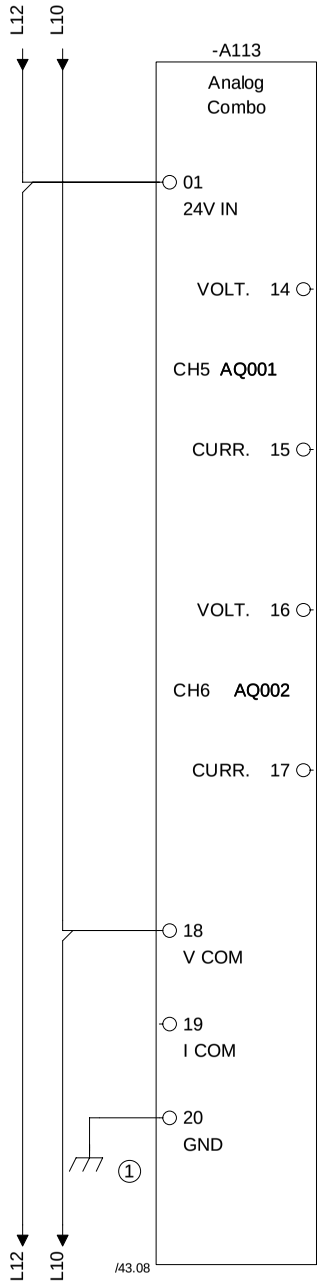
Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC-IN, CLEANINIG MONITORS	
Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 42



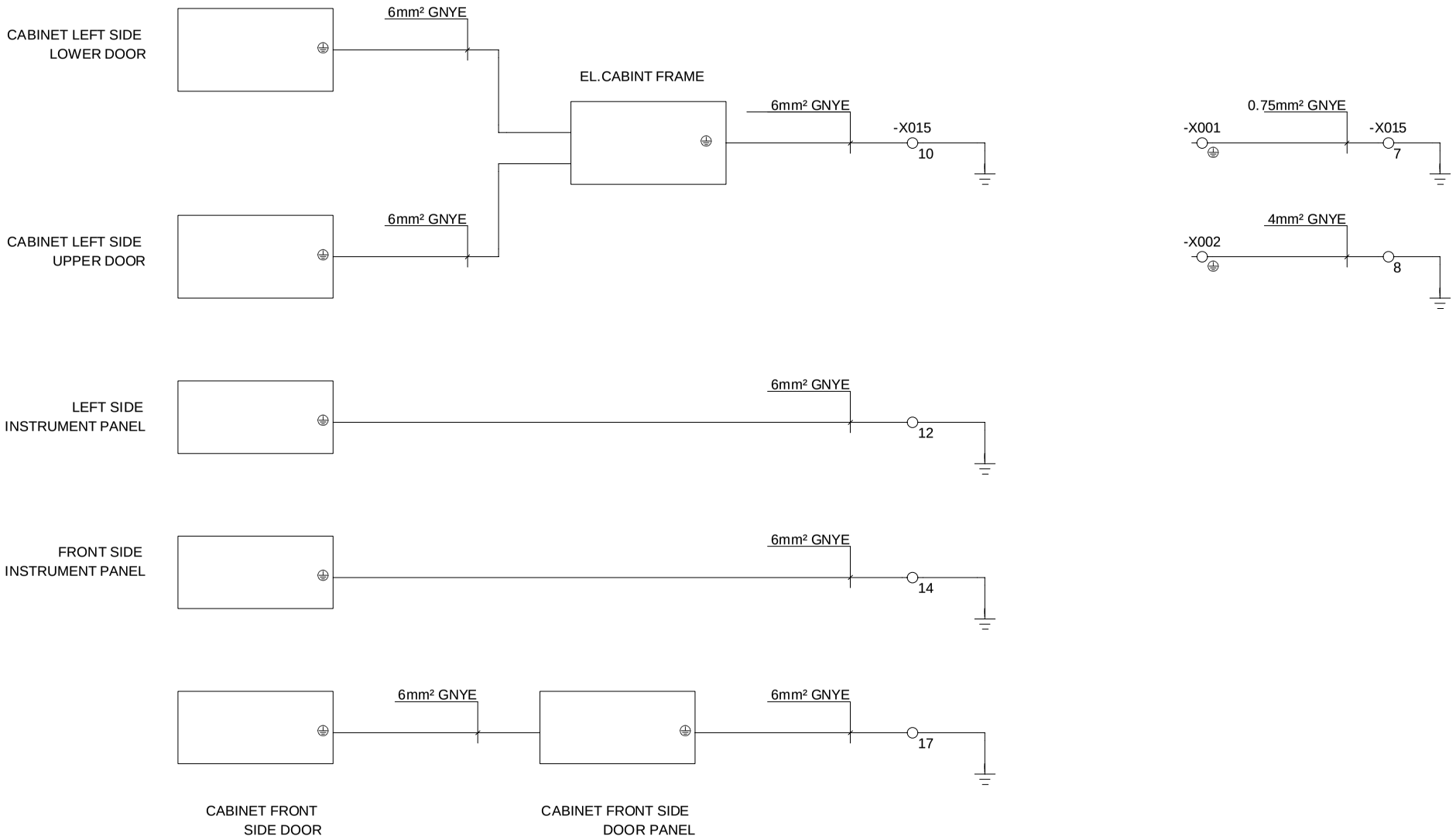
Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC ANALOG INPUT			
	Company Tetra Pak (Italy)		Document No. 2895133-0003	Doc. type ELD	Version AA	Page 43	



Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150			
ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type PLC ANALOG OUTPUT			
Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 44	



Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150
		ECM No 303930	Denomination CIRCUIT DIAGRAM	Page Type GROUNDING CONNECTIONS
	Company Tetra Pak (Italy)	Document No. 2895133-0003	Doc. type ELD	Version AA	Page 45

5 Line Summary

Description

All connections inside the electrical cabinet are listed in this chapter.

1 2 3 4 5 6 7 8 9 10

Line summary of 2895133-0003

Line	From	Page.Col.	To	Page.Col.	Area/Color	Opt.
L10	+C-XL010:1	001 .1	+C-V001:-	007 .2	1.5 mm² BU	
	+C-V001:-	007 .2	+C-X015:9	007 .3		
	+C-XL010:2	001 .1	+C-A101:10	25 .1	0.75 mm² BU	
	+C-A101:10	25 .1	+C-A101:20	26 .1		
	+C-XL010:3	001 .1	+C-A102:10	27 .1	0.75 mm² BU	
	+C-A102:10	27 .1	+C-A102:20	28 .1		
	+C-XL010:4	001 .2	+C-A110:01	37 .8	0.75 mm² BU	
	+C-XL010:5	001 .2	+C-A111:01	39 .8	0.75 mm² BU	
	+C-XL010:6	001 .2	+C-A112:01	41 .8	0.75 mm² BU	
	+C-A112:01	41 .8	+C-A113:18	44 .1		
	+C-XL010:7	001 .2	+C-X001:19	26 .7	0.75 mm² BU	
	+C-X001:19	26 .7	+C-X001:20	26 .7		
	+C-X001:20	26 .7	+C-X001:34	40 .3		
	+C-X001:34	40 .3	+C-X001:34	40 .3		
	+C-X001:34	40 .3	+C-X001:37	40 .3		
	+C-X001:37	40 .3	+C-X001:49	27 .6		
	+C-X001:49	27 .6	+C-X001:54	011 .2		
	+C-XL010:8	001 .2	+C-X002:18	40 .3	0.75 mm² BU	
	+C-X002:18	40 .3	+C-X002:21	40 .3		
	+C-XL010:9	001 .2	+C-K004:3	008 .2	0.75 mm² BU	
	+C-K004:3	008 .2	+C-K004:8	008 .3		
	+C-XL010:10	001 .2	+C-K001:A2	25 .5	0.75 mm² BU	
	+C-K001:A2	25 .5	+C-K002:10	25 .5		
	+C-K002:10	25 .5	+C-K003:10	25 .5		
	+C-K003:10	25 .5	+C-K004:10	25 .5		
	+C-K004:10	25 .5	+C-A004:A2	006 .3		

Line	From	Page.Col.	To	Page.Col.	Area/Color	Opt.
	+C-XL010:11	001 .2	+C-K005:10	25 .5	0.75 mm² BU	
	+C-K005:10	25 .5	+C-K006:10	25 .5		
	+C-K006:10	25 .5	+C-K008:10	25 .5		
	+C-K008:10	25 .5	+C-K014:10	25 .5		
	+C-XL010:12	001 .3	+C-K009:10	26 .5	0.75 mm² BU	
	+C-K009:10	26 .5	+C-K010:10	26 .5		
	+C-XL010:13	001 .3	+C-H002S:11	28 .4	0.75 mm² BU	
	+C-H002S:11	28 .4	+C-H003S:11	28 .4		
	+C-H003S:11	28 .4	+C-H004S:11	28 .4		
	+C-H004S:11	28 .4	+C-H005S:11	28 .4		
	+C-XL010:15	001 .3	+C-A002:2	18 .2	0.75 mm² BU	
	+C-A002:2	18 .2	+C-A003:10	18 .6		
	+C-A003:10	18 .6	+C-P002:-	28 .4		
	+C-XL010:16	001 .3	+C-H001:2	18 .5	0.75 mm² BU	
	+C-XL010:17	001 .3	+C-A005:A1	28 .4	0.75 mm² BU	
	+C-XL010:18	001 .3	+C-Z003:N	010 .4	0.75 mm² BU	
L11	+C-XL011:1	001 .1	+C-K002:3	007 .2	1.5 mm² BU	
	+C-XL011:2	001 .1	+C-K004:4	008 .2	0.75 mm² BU	
	+C-K004:4	008 .2	+C-K004:9	008 .3		
	+C-XL011:3	001 .1	+C-Z003:P	010 .4	0.75 mm² BU	
	+C-XL011:4	001 .2	+C-X100:11	12 .6	0.75 mm² BU	
	+C-XL011:5	001 .2	+C-X001:23	39 .3	0.75 mm² BU	
	+C-X001:23	39 .3	+C-X001:27	39 .3		
	+C-X001:27	39 .3	+C-X001:29	39 .3		
	+C-XL011:6	001 .2	+C-X001:33	40 .3	0.75 mm² BU	
	+C-X001:33	40 .3	+C-X001:36	40 .3		

Drawing remarks

Tetra Pak

Designer	Date	Machine
LUP	25/05/2007	SCU/4-0150

ECM No	Denomination	Page Type
303930	LINE SUMMARY	LINE SUMMARY

Company	Document No.	Doc. type	Version	Page
Tetra Pak (Italy)	2895133-0004	ELD	AA	001

Line summary of 2895133-0003

Line	From	Page.Col.	To	Page.Col.	Area/Color	Opt.
	+C-X001:36	40 .3	+C-X001:45	41 .2		
	+C-X001:45	41 .2	+C-X001:53	011 .2		
	+C-XL011:7	001 .2	+C-X002:17	40 .3	0.75 mm² BU	
	+C-X002:17	40 .3	+C-X002:20	40 .3		
	+C-XL011:8	001 .2	+C-K014:3	006 .5	0.75 mm² BU	
	+C-K014:3	006 .5	+C-A004:A1	006 .3		
L12	+C-XL012:1	001 .4	+C-F002:2	007 .2	1.5 mm² BU	
	+C-XL012:2	001 .4	+C-A005:14	28 .4	0.75 mm² BU	
	+C-XL012:3	001 .4	+C-S001:1	37 .4	0.75 mm² BU	
	+C-S001:1	37 .4	+C-S002H:13	37 .4		
	+C-S002H:13	37 .4	+C-S003H:13	37 .4		
	+C-S003H:13	37 .4	+C-S004H:13	37 .4		
	+C-S004H:13	37 .4	+C-S005H:13	37 .4		
	+C-S005H:13	37 .4	+C-S006:13	37 .4		
	+C-XL012:4	001 .5	+C-S007:13	37 .4	0.75 mm² BU	
	+C-S007:13	37 .4	+C-S007:23	37 .4		
	+C-S007:23	37 .4	+C-S008:13	38 .4		
	+C-S008:13	38 .4	+C-S009:13	38 .4		
	+C-XL012:5	001 .5	+C-X001:21	39 .3	0.75 mm² BU	
	+C-XL012:6	001 .5	+C-Z001:11	005 .6	0.75 mm² BU	
	+C-XL012:7	001 .5	+C-Q003:13	006 .5	0.75 mm² BU	
	+C-XL012:8	001 .5	+C-X002:1	15 .4	0.75 mm² BU	
	+C-X002:1	15 .4	+C-X002:9	15 .4		
	+C-XL012:9	001 .5	+C-A102:01	27 .1	0.75 mm² BU	
	+C-A102:01	27 .1	+C-A102:11	28 .1		
	+C-A102:11	28 .1	+C-A112:09	41 .7		

Line	From	Page.Col.	To	Page.Col.	Area/Color	Opt.
	+C-A112:09	41 .7	+C-A113:01	44 .1		
L50	+C-XL050:1	001 .1	+C-Z002:N	005 .6	1.5 mm² RD	
	+C-XL050:2	001 .1	+C-X014:2	009 .4	1.5 mm² RD	
	+C-XL050:3	001 .1	+C-M001:2	009 .5	0.75 mm² RD	
	+C-XL050:5	001 .2	+C-G100:N	007 .6	0.75 mm² RD	
	+C-XL050:6	001 .2	+C-X100:2	12 .6	0.75 mm² RD	
L51	+C-XL051:1	001 .4	+C-K003:3	007 .5	1.5 mm² RD	
	+C-XL051:3	001 .4	+C-X100:1	12 .4	0.75 mm² RD	
	+C-XL051:4	001 .5	+C-M001:1	009 .5	0.75 mm² RD	
L52	+C-XL052:1	001 .7	+C-F003:2	007 .5	1.5 mm² RD	
	+C-F003:2	007 .5	+C-K003:1	007 .5		
	+C-XL052:2	001 .7	+C-X014:1	009 .4	1.5 mm² RD	

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination LINE SUMMARY	Page Type LINE SUMMARY	
Company Tetra Pak (Italy)	Document No. 2895133-0004	Doc. type ELD	Version AA	Page 002

6 Cabinet Terminal Summary

Description

All terminals inside the electrical cabinet are listed in this chapter. The field *Opt.* specifies if the terminal is reserved for an option.

Cabinet terminal summary of 2895133-0003

Terminal	Page .Col.	Opt.
+C-X001:⏚	45 .8	
+C-X001:⏚		
+C-X001:1	006 .3	
+C-X001:2	006 .3	
+C-X001:3	006 .3	
+C-X001:⏚	006 .4	
+C-X001:4		
+C-X001:5		
+C-X001:6		
+C-X001:⏚		
+C-X001:7	008 .2	
+C-X001:8	008 .3	
+C-X001:⏚	008 .3	
+C-X001:9	008 .4	
+C-X001:10	008 .5	
+C-X001:⏚	008 .5	
+C-X001:11	26 .3	
+C-X001:12	26 .3	
+C-X001:13	26 .3	
+C-X001:14	26 .3	
+C-X001:15	26 .3	
+C-X001:16	26 .3	
+C-X001:17	26 .3	
+C-X001:18		
+C-X001:19	26 .7	
+C-X001:20	26 .7	
+C-X001:⏚	26 .7	
+C-X001:21	39 .3	

Terminal	Page .Col.	Opt.
+C-X001:22	39 .6	
+C-X001:23	39 .3	
+C-X001:24	39 .6	
+C-X001:25	39 .6	
+C-X001:26	39 .6	
+C-X001:⏚		
+C-X001:27	39 .3	
+C-X001:28	39 .6	
+C-X001:⏚	39 .6	
+C-X001:29	39 .3	
+C-X001:30	39 .6	
+C-X001:⏚	39 .6	
+C-X001:31		
+C-X001:32		
+C-X001:⏚		
+C-X001:33	40 .3	
+C-X001:34	40 .3	
+C-X001:35	40 .6	
+C-X001:36	40 .3	
+C-X001:37	40 .3	
+C-X001:38	40 .6	
+C-X001:39		
+C-X001:40		
+C-X001:41		
+C-X001:42		
+C-X001:43		
+C-X001:44		
+C-X001:45	41 .2	

Terminal	Page .Col.	Opt.
+C-X001:46	41 .6	
+C-X001:47	41 .6	
+C-X001:48		
+C-X001:49	27 .6	
+C-X001:50	27 .3	
+C-X001:51	27 .3	
+C-X001:52		
+C-X001:⏚	27 .6	
+C-X001:53	011 .2	
+C-X001:54	011 .2	
+C-X001:⏚	011 .2	
+C-X001:55	011 .5	
+C-X001:56	011 .2	
+C-X001:57	011 .5	
+C-X001:58	011 .5	
+C-X001:59	011 .5	
+C-X001:60	011 .5	
+C-X001:⏚	011 .5	
+C-X001:61		
+C-X001:62		
+C-X001:63		
+C-X001:64		
+C-X001:65		
+C-X001:66		
+C-X001:67		
+C-X001:68		
+C-X001:⏚		
+C-X001:69		

Terminal	Page .Col.	Opt.
+C-X001:70		
+C-X001:⏚		
+C-X002:1	15 .4	
+C-X002:2	15 .7	
+C-X002:⏚	15 .7	
+C-X002:3	15 .4	
+C-X002:4	15 .4	
+C-X002:5	15 .4	
+C-X002:6	15 .4	
+C-X002:7		
+C-X002:8		
+C-X002:⏚		
+C-X002:9	15 .4	
+C-X002:10	15 .7	
+C-X002:⏚	15 .7	
+C-X002:11	15 .4	
+C-X002:12	15 .4	
+C-X002:13	15 .4	
+C-X002:14	15 .4	
+C-X002:15		
+C-X002:16		
+C-X002:⏚		
+C-X002:17	40 .3	
+C-X002:18	40 .3	
+C-X002:19	40 .6	
+C-X002:20	40 .3	
+C-X002:21	40 .3	
+C-X002:22	40 .6	

Drawing remarks

Tetra Pak

Designer	LUP	Date	25/05/2007	Machine	SCU/4-0150
ECM No	303930	Denomination	CABINET TERMINAL SUMMARY	Page Type	CABINET TERMINAL SUMMARY
Company	Tetra Pak (Italy)	Document No.	2895133-0005	Doc. type	ELD
				Version	AA
				Page	001

RELEASED

Cabinet terminal summary of 2895133-0003

Terminal	Page .Col.	Opt.
+C-X002:23		
+C-X002:24		
+C-X002:25		
+C-X002:⏚	45 .8	
+C-X003:1	12 .3	
+C-X003:2	12 .3	
+C-X003:3	12 .3	
+C-X003:4	12 .3	
+C-X003:5	12 .3	
+C-X003:6	12 .3	
+C-X003:7		
+C-X003:8		
+C-X015:1	005 .7	
+C-X015:2	007 .1	
+C-X015:3		
+C-X015:4	010 .3	
+C-X015:5	007 .7	
+C-X015:6	009 .4	
+C-X015:7	45 .9	
+C-X015:8	45 .9	
+C-X015:9	007 .3	
+C-X015:10	45 .6	
+C-X015:11	12 .6	
+C-X015:12	45 .6	
+C-X015:13	009 .5	
+C-X015:14	45 .6	
+C-X015:15		
+C-X015:16		

Terminal	Page .Col.	Opt.
+C-X015:17	45 .6	
+C-X015:18		
+C-X015:19		
+C-X015:20		
+C-X100:1	12 .4	
+C-X100:2	12 .6	
+C-X100:3	12 .4	
+C-X100:4	12 .4	
+C-X100:5	12 .4	
+C-X100:6	12 .4	
+C-X100:7	12 .4	
+C-X100:8	12 .4	
+C-X100:9	12 .6	
+C-X100:10	12 .6	
+C-X100:11	12 .6	
+C-X100:12	12 .6	
+C-X100:13	12 .6	
+C-X100:14	12 .6	
+C-X101:1	011 .6	
+C-X101:2	011 .6	

Terminal	Page .Col.	Opt.

Terminal	Page .Col.	Opt.

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CABINET TERMINAL SUMMARY	Page Type CABINET TERMINAL SUMMARY	
Company Tetra Pak (Italy)	Document No. 2895133-0005	Doc. type ELD	Version AA	Page 002

7 Terminal Strip Overview

Description

All terminals used in the equipment except for those in the electrical cabinet are listed in this chapter.

RELEASED

Terminal strip of 2895133-0003

+M-X003

From	Cable	Internal Jumper	Terminal	External Jumper	Cable	To	Page.Col.	Option	Function text
+C-X001:23	-W007:YE		1			+M-B003:YE	39 .3		
+C-X001:26	-W007:WH		2			+M-B003:WH	39 .5		
+C-X001:25	-W007:GN		3			+M-B003:GN	39 .5		
+C-X001:24	-W007:RD		4			+M-B003:RD	39 .5		

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination TERMINAL STRIP OVERVIEW	Page Type TERMINAL STRIP OVERVIEW	
Company Tetra Pak (Italy)	Document No. 2895133-0006	Doc. type ELD	Version AA	Page 001

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

Terminal strip of 2895133-0003

+M-X004

From	Cable	Internal Jumper	Terminal	External Jumper	Cable	To	Page.Col.	Option	Function text
+C-X001:11	-W005:1		1			+M-Y001:1	26 .4		WATER INLET VALVE
+C-X001:19	-W005:12		1-			+M-Y001:2	26 .6		WATER INLET VALVE
			⏚						
+C-X001:12	-W005:2		2			+M-Y002:1	26 .4		STEAM INLET VALVE
			2-			+M-Y002:2	26 .6		STEAM INLET VALVE
			⏚						
+C-X001:13	-W005:3		3			+M-Y003:1	26 .4		CHANGE OVER VALVE
			3-			+M-Y003:2	26 .6		CHANGE OVER VALVE
			⏚						
+C-X001:14	-W005:4		4			+M-Y004:1	26 .4		DRAINING VALVE
			4-			+M-Y004:2	26 .6		DRAINING VALVE
			⏚						
+C-X001:15	-W005:5		5			+M-Y005:1	26 .4		FLUSHING VALVE ALKALI PUMP
			5-			+M-Y005:2	26 .6		FLUSHING VALVE ALKALI PUMP
			⏚						
+C-X001:16	-W005:6		6			+M-Y006:1	26 .4		CHANGE OVER VALVE FILLER 2
+C-X001:20	-W005:13		6-			+M-Y006:2	26 .6		CHANGE OVER VALVE FILLER 2
			⏚						
+C-X001:17	-W005:7		7				26 .4		
			7-						
			⏚						
			8						
			8-						
			⏚						
			9						
			9-						
			⏚						
			10						
			10-						
			⏚						

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination TERMINAL STRIP OVERVIEW	Page Type TERMINAL STRIP OVERVIEW	
Company Tetra Pak (Italy)	Document No. 2895133-0006	Doc. type ELD	Version AA	Page 002

RELEASED

Terminal strip of 2895133-0003

+M-X008

From	Cable	Internal Jumper	Terminal	External Jumper	Cable	To	Page.Col.	Option	Function text
+C-X001:27	-W008:1		1			+M-B004:1	39 .4		ALKALI TANK FULL LEVEL MONITOR
+C-X001:28	-W008:2		2			+M-B004:2	39 .5		ALKALI TANK FULL LEVEL MONITOR
+C-X001:⏚	-W008:GNYE		3			+M-B004:E	39 .5		ALKALI TANK FULL LEVEL MONITOR

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination TERMINAL STRIP OVERVIEW	Page Type TERMINAL STRIP OVERVIEW	
Company Tetra Pak (Italy)	Document No. 2895133-0006	Doc. type ELD	Version AA	Page 003

RELEASED

Terminal strip of 2895133-0003

+M-X009

From	Cable	Internal Jumper	Terminal	External Jumper	Cable	To	Page.Col.	Option	Function text
+C-X001:29	-W009:1		1		:2	+M-B005:1	39 .4		ACID TANK FULL LEVEL MONITOR
+C-X001:30	-W009:2		2			+M-B005:2	39 .5		ACID TANK FULL LEVEL MONITOR
+C-X001:⏚	-W009:GNYE		3			+M-B005:E	39 .5		ACID TANK FULL LEVEL MONITOR

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination TERMINAL STRIP OVERVIEW	Page Type TERMINAL STRIP OVERVIEW	
Company Tetra Pak (Italy)	Document No. 2895133-0006	Doc. type ELD	Version AA	Page 004

8 Cable Connection List

Description

All cable connections used in the equipment are listed in this chapter.

Cable Connection List of 2895133-0003

From	Cable	To	Page.Col.	Option
	+C-W026			
	WH			
+C-A001:43	BN	+C-A112:I039	+C/41.07	
	SH			
	+C-W027			
+C-A113:AI001	WH	+C-A001:31	+C/010.03	
+C-A113:AI002	BN	+C-A001:33	+C/010.03	
	SH	GND:	+C/010.03	
	+C-W028			
+C-X003:5	WH	+C-A113:-	+C/43.05	
+C-X003:3	BN	+C-A113:-	+C/43.05	
	SH			
	+C-W029			
+C-X003:6	WH	+C-A001:32	+C/010.03	
+C-X003:4	BN	+C-A001:34	+C/010.03	
	SH	GND:	+C/010.03	
	+M-W001			
+C-X001:1	1	+M-M001:U	+C/006.03	
+C-X001:2	2	+M-M001:V	+C/006.03	
+C-X001:3	3	+M-M001:W	+C/006.03	
+C-X001:⏚	GNYE	+M-M001:⏚	+C/006.03	
	+M-W002			
+C-X001:7	1	+M-M002:1	+C/008.02	
+C-X001:8	2	+M-M002:2	+C/008.02	
+C-X001:⏚	GNYE	+M-M002:⏚	+C/008.02	
	+M-W003			
+C-X001:9	1	+M-M003:1	+C/008.04	

From	Cable	To	Page.Col.	Option
+C-X001:10	2	+M-M003:2	+C/008.04	
+C-X001:⏚	GNYE	+M-M003:⏚	+C/008.04	
	+M-W005			
+C-X001:11	1	+M-X004:1	+C/26.03	
+C-X001:12	2	+M-X004:2	+C/26.03	
+C-X001:13	3	+M-X004:3	+C/26.03	
+C-X001:14	4	+M-X004:4	+C/26.03	
+C-X001:15	5	+M-X004:5	+C/26.03	
+C-X001:16	6	+M-X004:6	+C/26.03	
+C-X001:17	7	+M-X004:7	+C/26.03	
	8			
	9			
	10			
	11			
+C-X001:19	12	+M-X004:1-	+C/26.07	
+C-X001:20	13	+M-X004:6-	+C/26.07	
	GNYE	+C-X001:⏚	+C/26.07	
	+M-W006			
+C-X001:22	BU	+M-B002:2	+C/39.05	
+C-X001:21	BU	+M-B002:1	+C/39.03	
	+M-W007			
+C-X001:23	YE	+M-X003:1	+C/39.03	
+C-X001:26	WH	+M-X003:2	+C/39.06	
+C-X001:25	GN	+M-X003:3	+C/39.06	
+C-X001:24	RD	+M-X003:4	+C/39.06	
	+M-W008			
+C-X001:27	1	+M-X008:1	+C/39.03	
+C-X001:28	2	+M-X008:2	+C/39.05	
+C-X001:⏚	GNYE	+M-X008:3	+C/39.05	

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CABLE CONNECTION LIST	Page Type CABLE CONNECTION LIST	
Company Tetra Pak (Italy)	Document No. 2895133-0007	Doc. type ELD	Version AA	Page 001

Cable Connection List of 2895133-0003

From	Cable	To	Page.Col.	Option
	+M-W009			
+C-X001:29	1	+M-X009:1	+C/39.03	
+C-X001:30	2	+M-X009:2	+C/39.05	
+C-X001:⏚	GNYE	+M-X009:3	+C/39.05	
	+M-W011			
+C-X001:33	BN	+M-B007:	+C/40.04	
+C-X001:34	BU	+M-B007:	+C/40.04	
+C-X001:35	BK	+M-B007:	+C/40.05	
	+M-W012			
+C-X001:36	BN	+M-B008:	+C/40.04	
+C-X001:37	BU	+M-B008:	+C/40.04	
+C-X001:38	BK	+M-B008:	+C/40.05	
	+M-W015			
+C-X001:45	1	+M-S001H:13	+C/41.03	
+C-X001:46	2	+M-S001H:14	+C/41.05	
+C-X001:47	3	+M-S002H:14	+C/41.05	
	4			
+C-X001:49	5	+M-H001S:11	+C/27.06	
+C-X001:50	6	+M-H001S:12	+C/27.04	
+C-X001:51	7	+M-H002S:12	+C/27.04	
	8			
	9			
	10			
	11			
	GNYE	+C-X001:⏚	+C/27.06	
	+M-W016			
+C-X001:53	1	+M-B015:1	+C/011.02	FLOW
+C-X001:54	2	+M-B015:2	+C/011.02	FLOW
+C-X001:⏚	GNYE		+C/011.02	FLOW

From	Cable	To	Page.Col.	Option
	+M-W017			
+C-X001:55	1	+M-B015:17	+C/011.05	FLOW
+C-X001:57	3	+M-B015:6	+C/011.05	FLOW
+C-X001:58	4	+M-B015:7	+C/011.05	FLOW
+C-X001:59	5	+M-B015:8	+C/011.05	FLOW
+C-X001:60	6		+C/011.05	FLOW
+C-X001:⏚	GNYE		+C/011.05	FLOW
+C-X001:56	2	+M-B015:4	+C/011.03	FLOW
	+M-W018			
+C-X002:1	1	+C-FILLER001:	+C/15.05	
+C-X002:2	2	+C-FILLER001:	+C/15.06	
+C-X002:⏚	GNYE	+C-FILLER001:	+C/15.06	
	+M-W019			
+C-X002:9	1	+C-FILLER002:	+C/15.05	
+C-X002:10	2	+C-FILLER002:	+C/15.06	
+C-X002:⏚	GNYE	+C-FILLER002:	+C/15.06	
	+M-W020			
+C-X002:17	BN	+M-B010:	+C/40.04	2-MACH
+C-X002:18	BU	+M-B010:	+C/40.04	2-MACH
+C-X002:19	BK	+M-B010:	+C/40.05	2-MACH
	+M-W021			
+C-X002:20	BN	+M-B011:	+C/40.04	2-MACH
+C-X002:21	BU	+M-B011:	+C/40.04	2-MACH
+C-X002:22	BK	+M-B011:	+C/40.05	2-MACH
	+M-W022			
+C-X002:6	4	+C-FILLER001:	+C/15.05	
+C-X002:5	3	+C-FILLER001:	+C/15.05	
+C-X002:4	2	+C-FILLER001:	+C/15.05	

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CABLE CONNECTION LIST	Page Type CABLE CONNECTION LIST	
Company Tetra Pak (Italy)	Document No. 2895133-0007	Doc. type ELD	Version AA	Page 002

Cable Connection List of 2895133-0003

From	Cable	To	Page.Col.	Option
+C-X002:3	1	+C-FILLER001:	+C/15.05	
	+M-W023			
+C-X002:14	4	+C-FILLER002:	+C/15.05	
+C-X002:13	3	+C-FILLER002:	+C/15.05	
+C-X002:12	2	+C-FILLER002:	+C/15.05	
+C-X002:11	1	+C-FILLER002:	+C/15.05	
	+M-W025			
+C-A001:15	WH		+C/010.04	
+C-A001:84	BL	+M-B001:	+C/010.04	
+C-A001:12	WH	+M-B001:	+C/010.04	
+C-A001:13	YE	+M-B001:	+C/010.04	
+C-A001:11	GN	+M-B001:	+C/010.04	
+C-A001:16	RD		+C/010.04	
+C-A001:83	BL	+M-B001:	+C/010.04	
	SH	GND:	+C/010.04	

From	Cable	To	Page.Col.	Option

Drawing remarks

Tetra Pak

Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
ECM No 303930	Denomination CABLE CONNECTION LIST	Page Type CABLE CONNECTION LIST	
Company Tetra Pak (Italy)	Document No. 2895133-0007	Doc. type ELD	Version AA	Page 003

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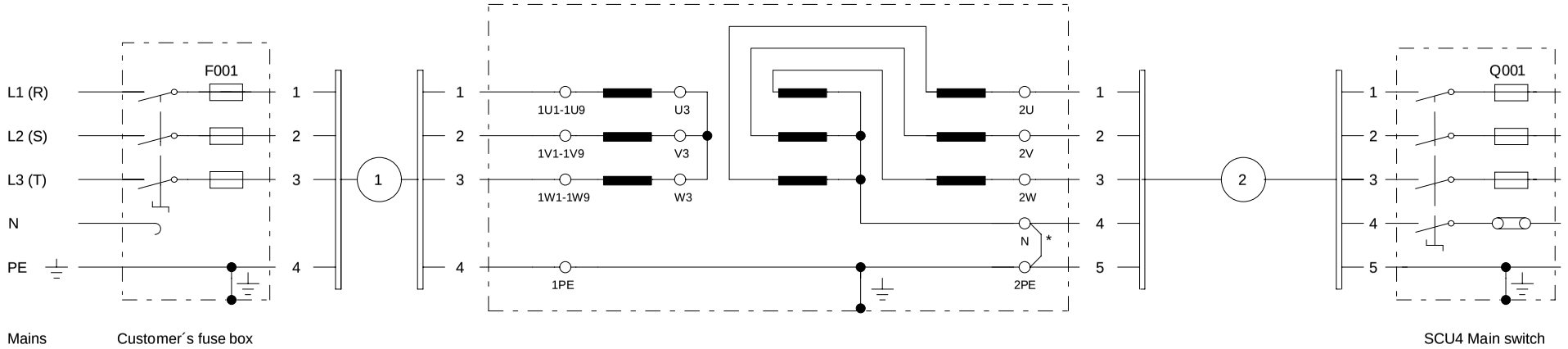
9 Mains Connections

Description

The drawings that show the connection from the mains power to the electrical cabinet are included in this chapter.

1	2	3	4	5	6	7	8	9	10

Main voltage 200-600V except 400/230V



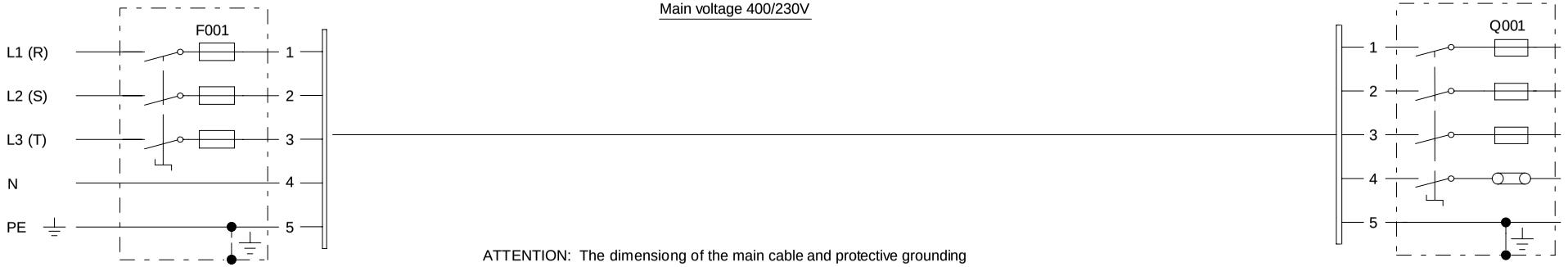
Mains

Customer´s fuse box

SCU4 Main switch

* NOTE: Make sure that the bridge is connected.

Main voltage 400/230V



ATTENTION: The dimensiong of the main cable and protective grounding has to be carried out according to current local regulations.

Mains

Customer's fuse box

SCU4 Main switch

Drawing remarks	Tetra Pak	Designer LUP	Date 25/05/2007	Machine SCU/4-0150	
		ECM No 303930	Denomination MAINS CONNECTION	Page Type MAINS CONNECTION	
		Company Tetra Pak (Italy)	Document No. 2895133-0008	Doc. type ELD	Version AA	Page 001

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10 Drawing Remarks

Description

The following pages contain the drawing remarks referenced in chapter 4 Circuit Diagrams

Drawing No.	Page	Note	Remark
2895133-0003	010	1	GND CONNECTED TO CHASSIS.
	011	1	WIRES MARKED WITH P001 TERMINAL NUMBERS TO BE REMOVED AT FLOW METER INSTALLATION.
		2	TO BE DONE AT FLOW METER INSTALLATION.
		3	SUPPLIED WITH THE COMPONENT.
	012	1	WIRES MARKED WITH P001 TERMINAL NUMBERS.
		2	BRIDGES TO BE DONE AT RECORDER INSTALLATION.
		3	GND CONNECTED TO CHASSIS.
	015	1	TO BE USED IN A SINGLE FILLER INSTALLATION.
		2	TO BE USED IN A MULTI-FILLER INSTALLATION ONLY.
		3	RECOMMENDED CABLE OILFLEX 7x0.75mm² TP.351150-406.
	040	1	TO BE REMOVED IN A MULTI-FILLER INSTALLATION.
	042	1	INPUT ALWAYS ENERGIZED IF FLOW METER IS NOT INSTALLED.
	044	1	CLAMPED IN THE SWING FRAME.

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11 Engineering Change Description

Description

This chapter describes the changes introduced with the ECM.

ECM No.	Drawing No.	Alteration
303930		DOCUMENTATION INTRODUCED.

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12 Component Location

Description

The location of all components can be found in the Spare Parts Catalogue.

13 Other Information

Description

This chapter is used for Bills of Material, Fuse Panel Labels, and so on.

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13.1 Bills of Material

This chapter included the lists of the documents and programs.

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ECM P311100(L303931)
Release date 2007.05.31

Chg	Position	Sp	SH	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ECM
I	0010			ELECTRICAL DOCUMENT	X		2908508-0100				PC	1	311100
I	0020			Software PLC	X		2905415-0100				PC	1	311100

ECM P304453(L303931)
Release date 2007.05.31

Chg	Position	Sp	SH	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ECM
I	0010			Label CD			2895450-0001				PC	1	304453
I	0020			Program Object Code			1591306-1001				PC	1	304453
I	0030			COMPACT DISC RECORDABLE	A4		90458-0118				PC	1	304453

ECM P310413(L303931)
Release date 2007.05.31

Chg	Position	Sp	SH	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ECM
I	0010			PLC CD	Y		1591306-0001				PC	1	310413

ECM P311094(L303931)
Release date 2007.05.31

Chg	Position	Sp	SH	Description	As	Size	Identity	DTp	Prt	Vs	Unit	Column quantity All	ECM
I	0010			DOCUMENTS LIST			2895133-0001	ELD	000	AA		x	311094
I	0020			POSITION SUMMARY			2895133-0002	ELD	000	AA		x	311094
I	0030			CIRCUIT DIAGRAM			2895133-0003	ELD	000	AA		x	311094
I	0040			LINE SUMMARY			2895133-0004	ELD	000	AA		x	311094
I	0050			CABINET TERMINAL SUMMARY			2895133-0005	ELD	000	AA		x	311094
I	0060			TERMINAL STRIP OVERVIEW			2895133-0006	ELD	000	AA		x	311094
I	0070			CABLE CONNECTION LIST			2895133-0007	ELD	000	AA		x	311094
I	0080			MAINS CONNECTION			2895133-0008	ELD	000	AA		x	311094
I	0098			DRAWING REMARKS			2895133-0098	ELD	000	AA		x	311094
I	0099			ENGINEERING CHANGE DESCRIPTION			2895133-0099	ELD	000	AA		x	311094

13.2 Fuse Panel Label

This chapter shown the location and the setting of the fuses.

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ENGINEER - A3

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Tetra Pak

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