



OPERATING, INSTALLATION AND MAINTENANCE INSTRUCTIONS

Trailer Refrigeration Unit



arktík

1600N – 2000N – 2500N – 2000P

CONTENTS

TRAILER REFRIGERATION UNIT

arktik

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Prior to installing the unit, it is advised that the contents of these operating instructions which constitute an important part of the supply are read through thoroughly and kept in a safe place.

1 APPLIED STANDARDS AND SYMBOL EXPLANATIONS


1.1 Applied standards

MACHINE CONSTRUCTION	UNI - ISO
ELECTRICAL CONSTRUCTION	IEC - CEI - EN -
REFRIGERATION CONSTRUCTION	ISPESL - ISO

The refrigeration unit conforms with:











- the provisions of the EU directives 89/392 EEC, 91/368 EEC, 89/336 EEC, 73/23 EEC and subsequent amendments;
- the regulations CEI- EN 60204-1 (Testing of Safety on Machines and Electrical Appliances).
- the provisions of ISO R 1662 (Refrigeration Plants - Safety Requirements).

This technical book has been written with the manufacturing cycles for the above stated machine.

	<i>Consult the relevant operating instructions for any ancillary equipment fitted.</i>
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1.2 Symbol explanations

The following symbols are found in the operating instructions and on the respective refrigeration unit.

	Caution		Useful advice		Read the operating and maintenance instructions.
	Procedures for specialist or authorised persons only		See also: page or section		Contact the manufacturer
	Warning of malfunction, non-permitted application		Procedures to be performed by two persons		
	Recommendation: print or photocopy		Environmental compatibility		

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2 – NAMEPLATE -


Reading the technical data from the nameplate. Should discrepancies be determined, contact the manufacturer or supplier immediately.



The data stated on the nameplate is important for the commissioning and maintenance of the refrigeration equipment.

The refrigeration unit data (model, unit number, weight etc.) and the electrical rating can be read from the nameplate. The nameplate is illustrated below.

The nameplate is located on the refrigeration unit side panel.

		Christian-Lassen-Strasse 10b D-53117 Bonn www.govi-gmbh.de	
Modell:	arktik		
<small>Model:</small>			
Seriennummer:	.JMXXXXXXX		
<small>Serial Number:</small>			
Spannung:	230V/50Hz		
<small>Power Supply:</small>			
Stromaufnahme:	5,0A	Startstrom:	27A
<small>FLA:</small>		<small>LRA:</small>	
Kompressorleistung:	800W		
<small>Comp. Power:</small>			
Kältemittel:	R407c	Menge:	700g
<small>Refrigerant:</small>		<small>Quantity:</small>	
Gewicht:	60kg	Baujahr:	2008
<small>Net Weight:</small>		<small>Manufac. Year:</small>	

EXAMPLE

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3 WARNINGS

3.1 General warnings

These operating instructions are intended for the following persons:

Despatch and transportation personnel
Installers
Users
Maintenance personnel



Knowledge and application of the safety regulations constitute the prerequisites for correct and risk-free installation, use and maintenance.

Personnel assigned to the installation of the refrigeration unit must have read and understood the section “**INSTALLATION**” and possess the necessary knowledge and skills for the correct performance of this procedure.

Personnel assigned to the maintenance of the refrigeration unit must have read and understood the section “**MAINTENANCE**” and possess the necessary knowledge and skills for the correct performance of these procedures.

When dealing with the unit, do not undertake any indiscriminate acts the effect of which you are not confident with and in case of doubt contact the nearest technical service centre or the manufacturer.

In the following cases, the manufacturer is released from any liability whatsoever for damage caused to the refrigeration unit:

improper use;
the deployment of unsuitable personnel;
incorrect assembly and installation;
material defect;
unauthorised modifications or tampering;
the use of other than original replacement parts;
non-compliance with the general and, in accordance with these operating instructions, mandatory regulations;
exceptional occurrences.

The operating instructions specify the use intended by the manufacturer.

The operating instructions are to be kept with the greatest of care and must be made available for possible referencing.

The operating instructions are to be retained until the refrigeration unit is scrapped.

The manufacturer reserves the right to carry out any alterations considered appropriate without being liable to give prior notice or to make replacement.

3.2 Warnings concerning transportation



Transportation is to be carried out by authorised personnel.

The operating instructions describe how best to load and transport the refrigeration unit.

Always use suitable equipment intended for this purpose.

3.3 Warnings for setting up and installation



Setting up and installing are to be carried out by specialist personnel.

The installer must previously have examined all system components for faultless functionality. Where doubt exists consult the manufacturer directly.



Depending on operating conditions, individual cautionary measures may be necessary for the application.

3.4 Warning for exceptional maintenance



All exceptional maintenance procedures are to be carried out by authorised personnel.

4 SYSTEM DESCRIPTION

The **arktik 1600N**, **2000N** and **arktik 2500N** refrigeration units are intended for utilisation in refrigerated trailers in which temperatures from 0°C to 10°C are required. The **arktik 2000 P** model is suitable for the temperature range -20°C to +10°C.

The **arktik** refrigeration units are intended for mounting on the bulkheads of refrigerated trailers. Operation is based on the cooling cycle principle in that heat transference is by means of a cooling medium (liquid refrigerant) which absorbs heat in the evaporator and then releases this in the condenser. All this takes place within a closed loop. The refrigerant is pressurised by an electrically driven compressor, fluidised in the condenser, atomised by means of a throttle valve and evaporated in the evaporator. The evaporator is located inside the trailer, the condenser on the outside.

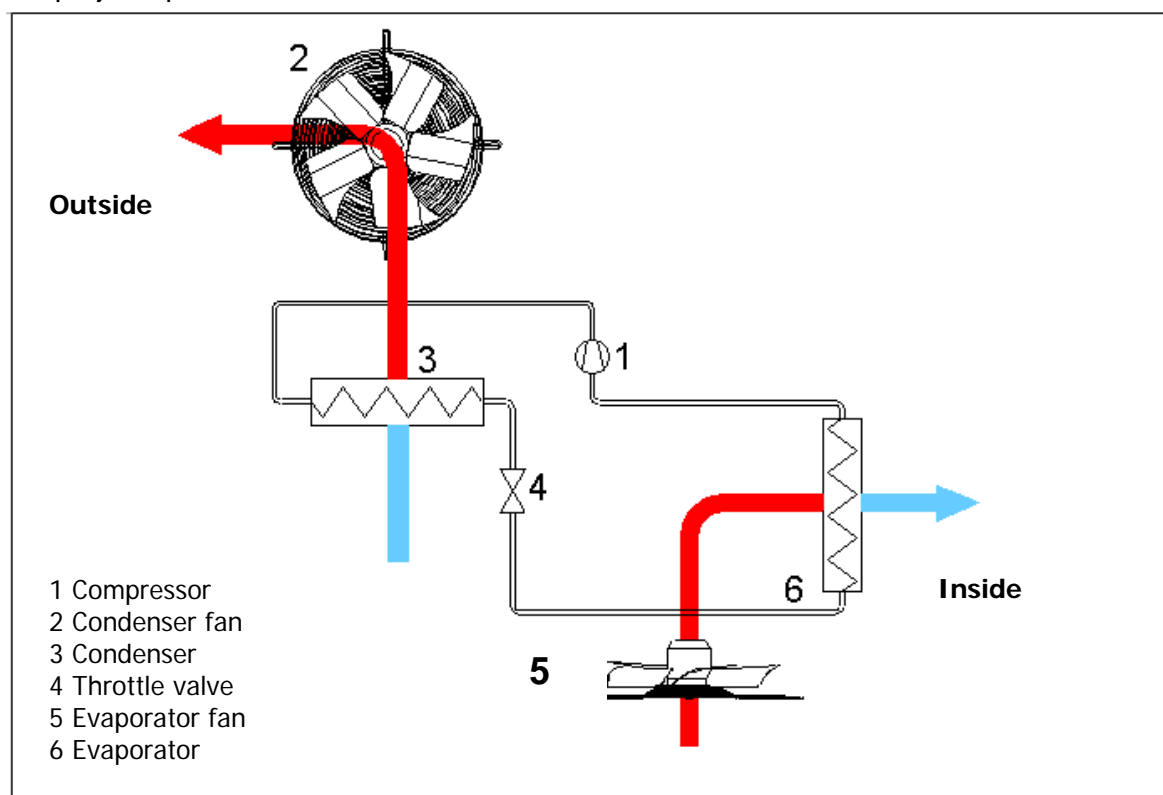
The **arktik** refrigeration unit is equipped with forced-ventilated condenser and evaporator and fitted with axial fans; the unit has electronic temperature control.

The **arktik** refrigeration unit consists of a self-supporting, zinc plated, sheet metal chassis and an ABS front cover painted in RAL 9010 standard colour.

The system is conceived to ensure the greatest levels of safety and reliability.

The refrigeration unit has been designed in accordance with the provisions of ISO 9001 which ensure its constant compliance with high quality standards. The components used comply with the European safety regulations.

Each refrigeration unit is subjected to a series of operating tests to validate conformance with the project specifications.



5 TECHNICAL FEATURES

5.1 Table

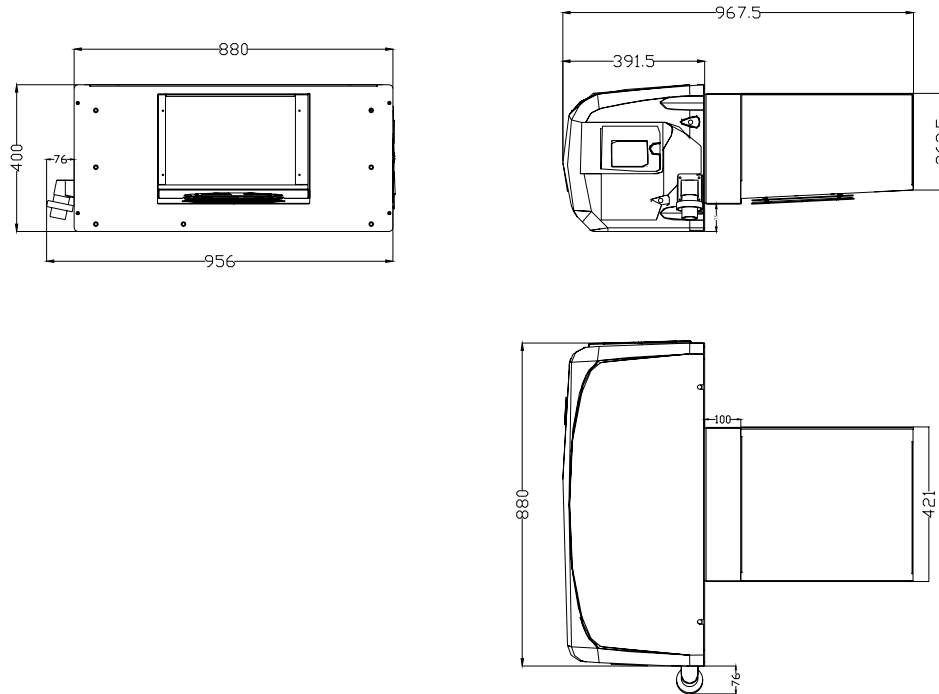
Designation	Unit	arktik1600N		arktik2000N	
Refrigerated trailer internal temperature		T _A =2°C	T _A =10°C	T _A =2°C	T _A =10°C
Supply voltage (standard)	V	230		230	
Frequency	Hz	50		50	
Cooling capacity (1)	W	1600	2000	2050	2800
Power consumption	W	800	850	1200	1250
Current consumption LRA:	A	25		32	
FLA:	A	5.0	5.3	7.0	7.5
Defrost heating	W	500		500	
Evaporator air flow	m ³ /h	750		750	
Condenser air flow	m ³ /h	750		1100	
Protection class, mounting side	IP	54		54	
Refrigerant (standard)	Type	R407C		R407C	
Refrigerant quantity	g	850		900	
Maximum operating temperature	°C	40		40	
Dimensions	mm	See drawing below		See drawing below	
Weight	kg	55		60	
Colour	RAL	9010		9010	

Designation	Unit	arktik2000P			arktik2500N	
Refrigerated trailer internal temperature		T _A =-20°C	T _A =2°C	T _A =10°C	T _A =2°C	T _A =10°C
Supply voltage (standard)	V	230			230	
Frequency	Hz	50			50	
Cooling capacity (1)	W	1500	2050	2800	2500	3300
Power consumption	W	1000	1200	1250	1450	1500
Current consumption LRA:	A	32			38	
FLA:	A	6.5	7.0	7.5	7.5	8.0
Defrost heating	W	1000			500	
Evaporator air flow	m ³ /h	650			750	
Condenser air flow	m ³ /h	1100			1100	
Protection class, mounting side	IP	54			54	
Refrigerant (standard)	Type	R404A			R407C	
Refrigerant quantity	g	850			950	
Maximum operating temperature	°C	40			40	
Dimensions	mm	See drawing below			See drawing below	
Weight	kg	60			63	
Colour	RAL	9010			9010	

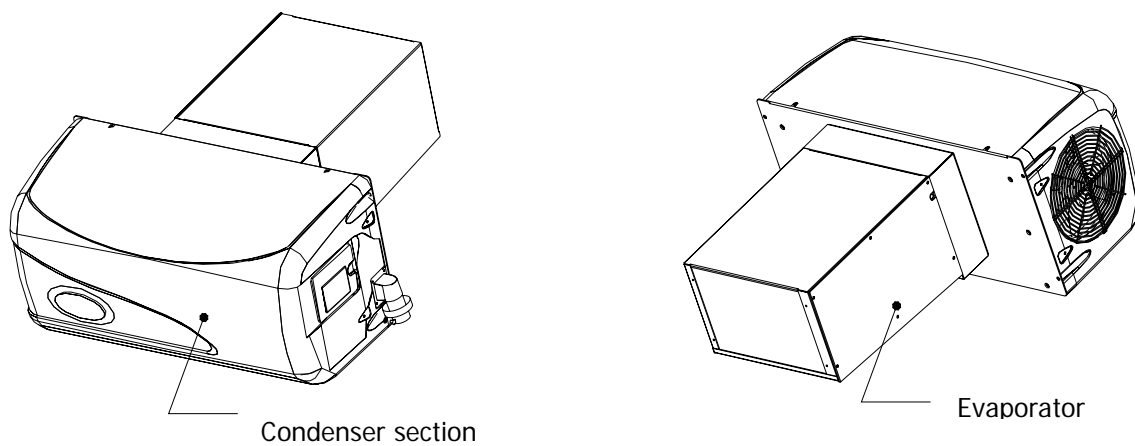
(1) The cooling capacity relates to the following operating conditions.
Outside temperature 30°C; RH = 50%.

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5.2 Dimensions

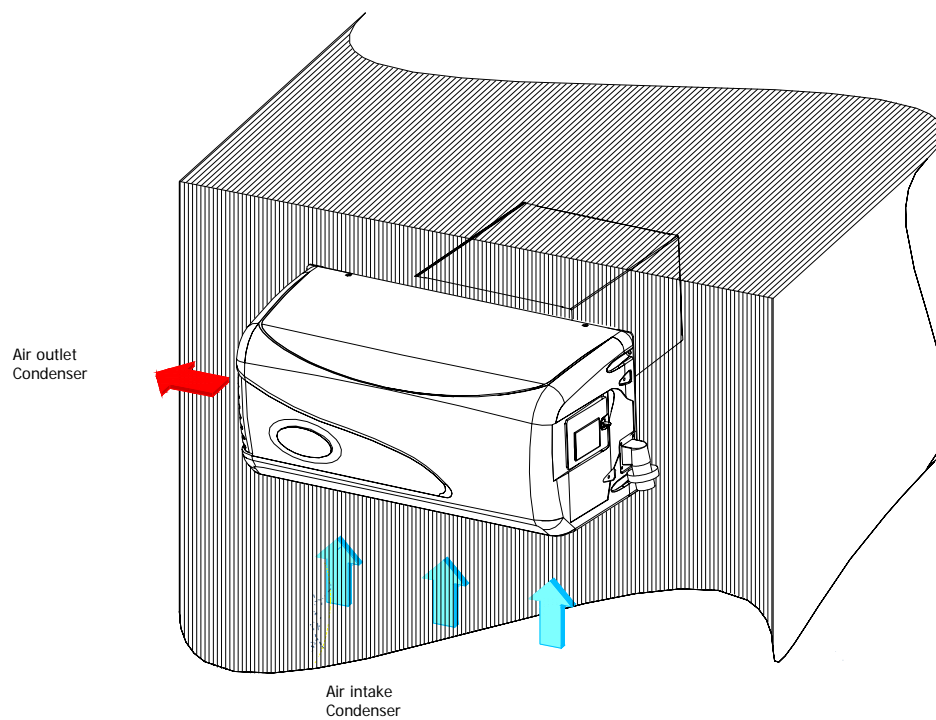


Outside dimensions

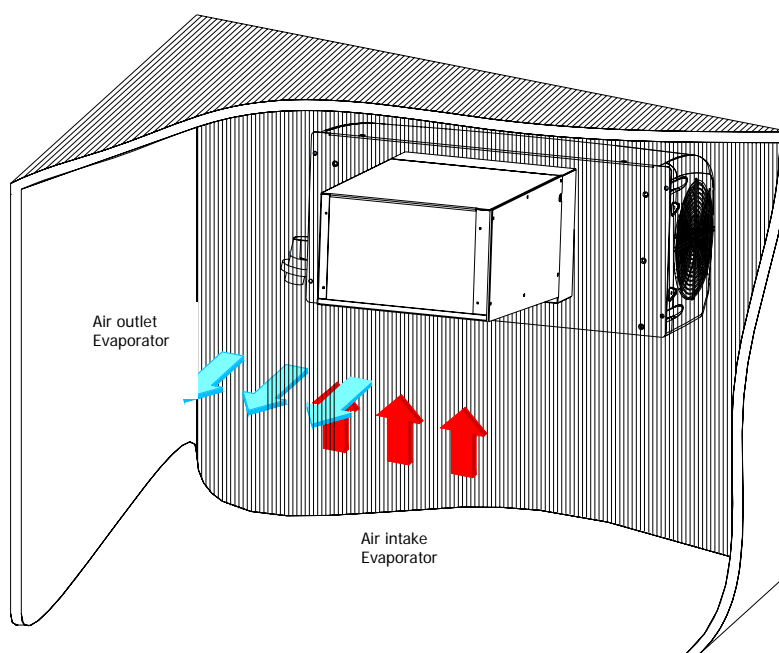


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5.3 Function



External view



Internal view

Function

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6 CARRIAGE AND TRANSPORTATION



Transportation is to be carried out by authorised personnel.

The weight of the **arktik** is given in the section “**TECHNICAL FEATURES**”.

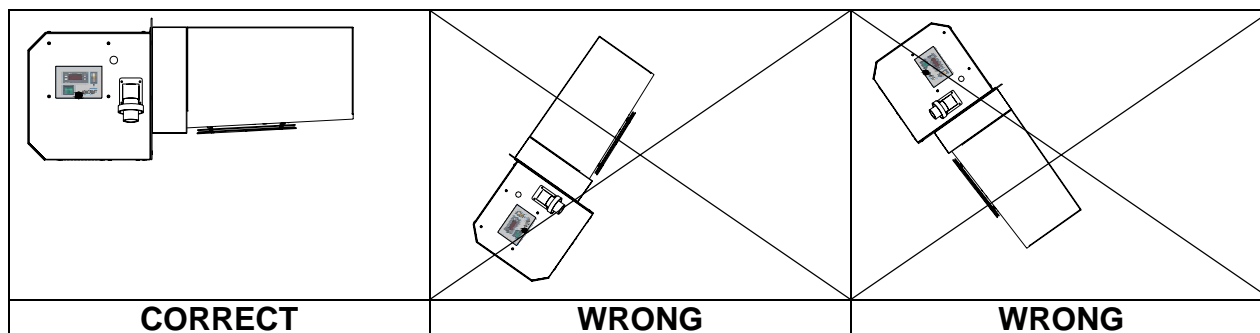
The refrigeration unit is only to be carried horizontally.

Should the unit have been positioned vertically during transport, it must be allowed to stand horizontally for a minimum of six hours before commissioning.

Grasp the refrigeration unit by the holes provided when lifting. The units are packed on pallets for transportation.

The unit is to be positioned horizontally during transportation.

When removing the packaging, bear in mind any loose parts which are an important part of the supply.



7 INSPECTION ON RECEIPT

When receiving the refrigeration unit, immediately carry out a visual check of the condition; any damage discovered must be notified to the transport company. The damaged is to be recorded on the delivery papers!

8 STORAGE

The following points are to be borne in mind when storing the refrigeration unit:

- horizontal positioning
- no temperatures in excess of 60°C
- do not store in aggressive atmospheres
- avoid direct sunlight

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9 INSTALLATION



Do not plug in the power supply before the installation of the refrigeration unit and its ancillary components has been completed.

9.1 Installation of the refrigeration unit



Positioning and installation are to be carried out by qualified specialist personnel.

The refrigeration unit is to be mounted on consistent surfaces with no unevenness which could set off vibrations.



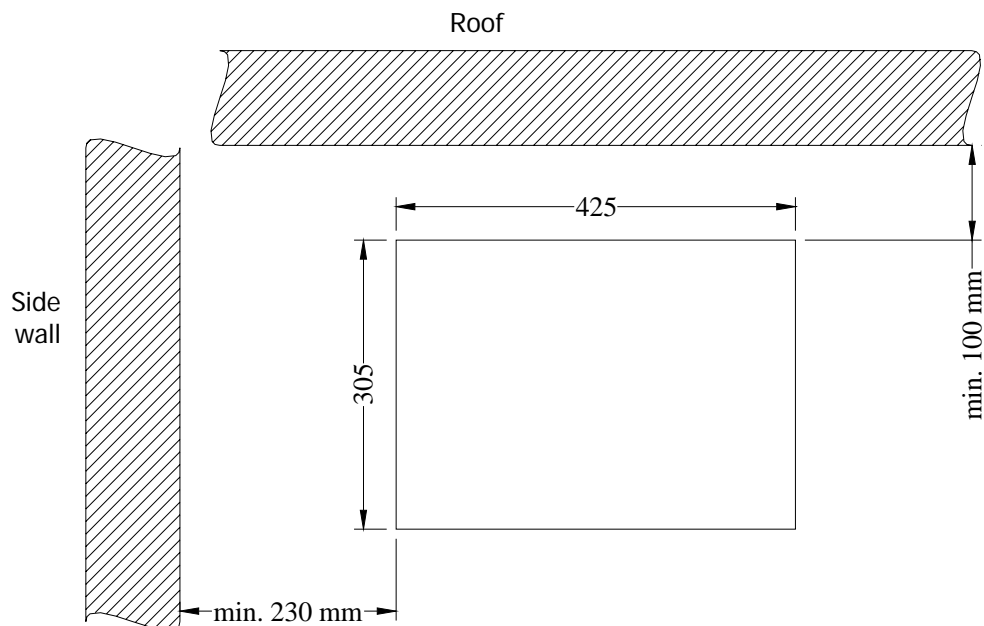
Check that the parts on which the unit is to be mounted are stable enough to carry its weight.

To mount the refrigeration unit, make an opening of the appropriate size in the refrigerated trailer wall and in doing so ensure that the minimum dimensions for the faultless operation of the unit are complied with (see illustration below). Prepare the opening and apply silicone to the horizontal sides.



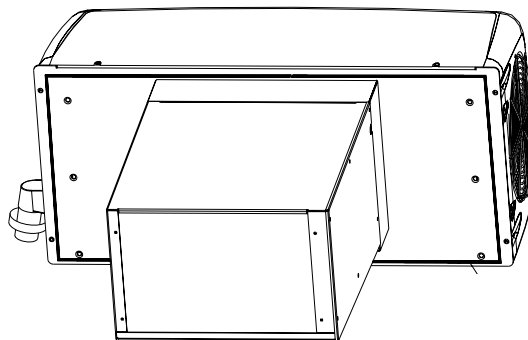
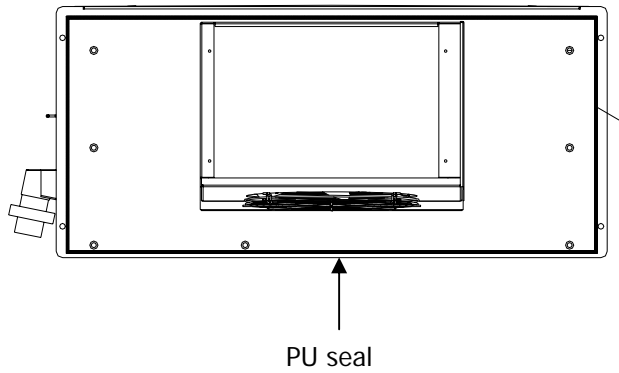
Prevent the walls and/or the interior of the refrigerated trailer becoming damaged by swarf from cutting and drilling the sheet metal.

Leave clearances for carrying out maintenance; see also the section “**TECHNICAL FEATURES**”.



Wall opening

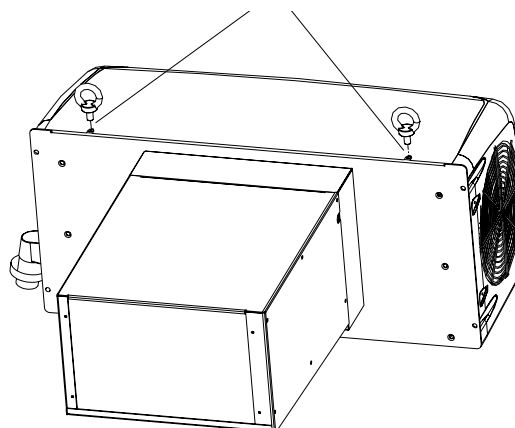
A flexible PU seal is already fitted to the back of the refrigeration unit.



Two-man procedure.

There are two M8 threaded rivets on the unit for fitting two eye-bolts (not supplied).

M8 eye-bolts

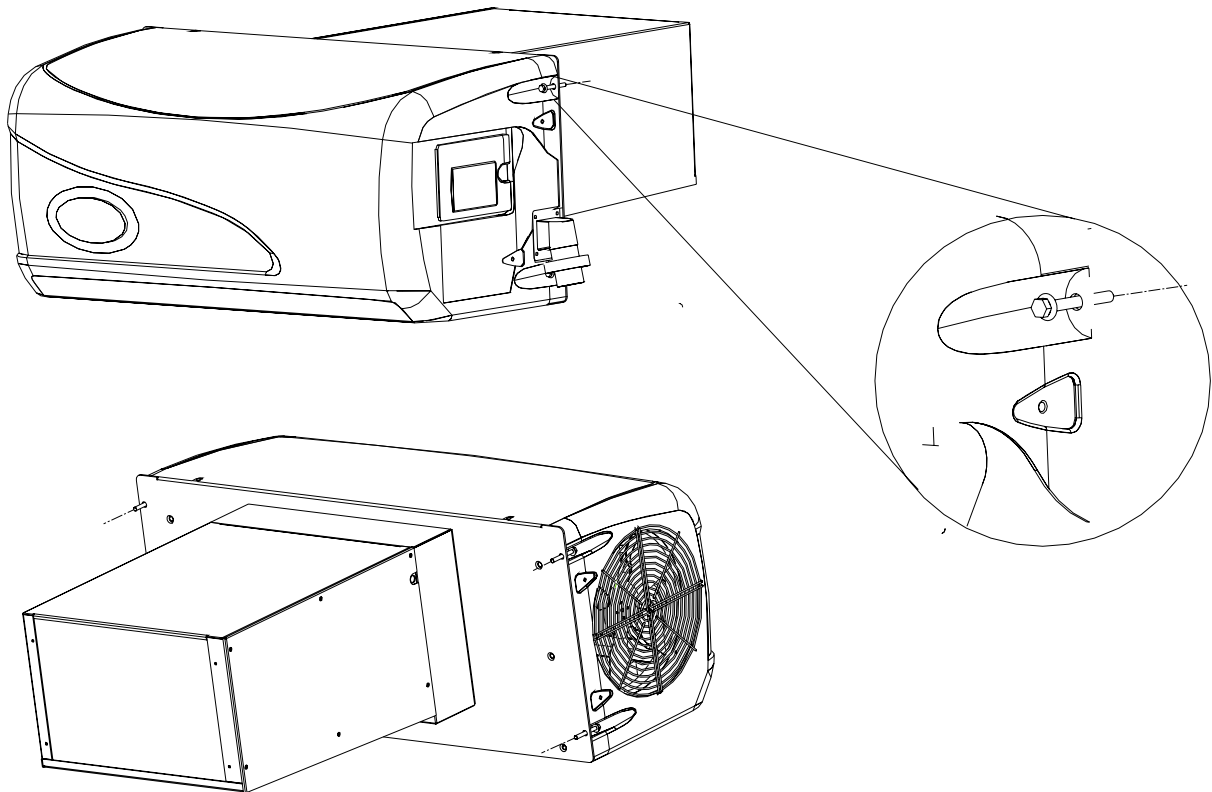




Make sure that the seal and/or the fan grill do not become damaged when inserting the unit.

Mounting holes have already been provided on the refrigeration fixing plate. Use this plate as a drilling template.

Use the mounting screws supplied.

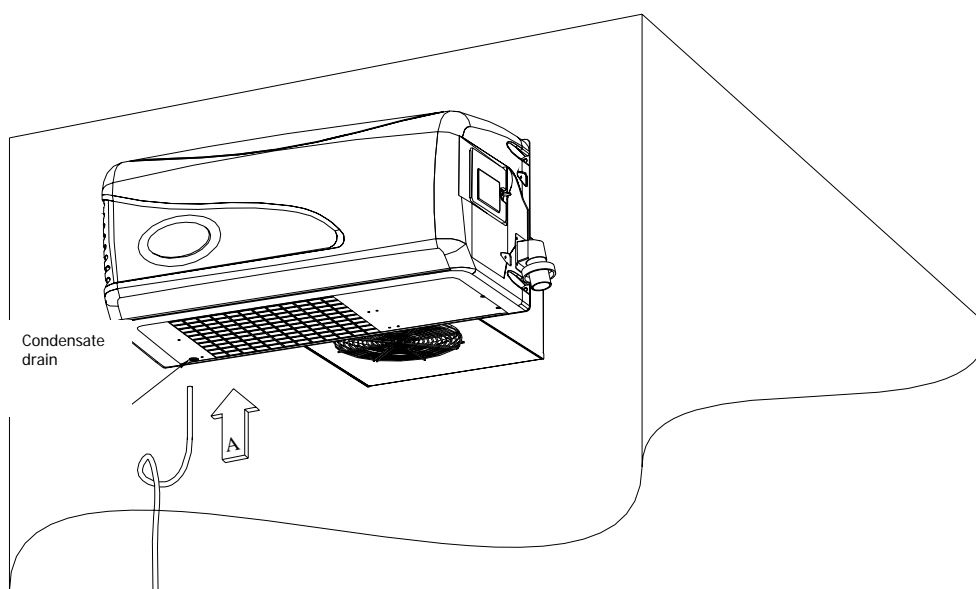
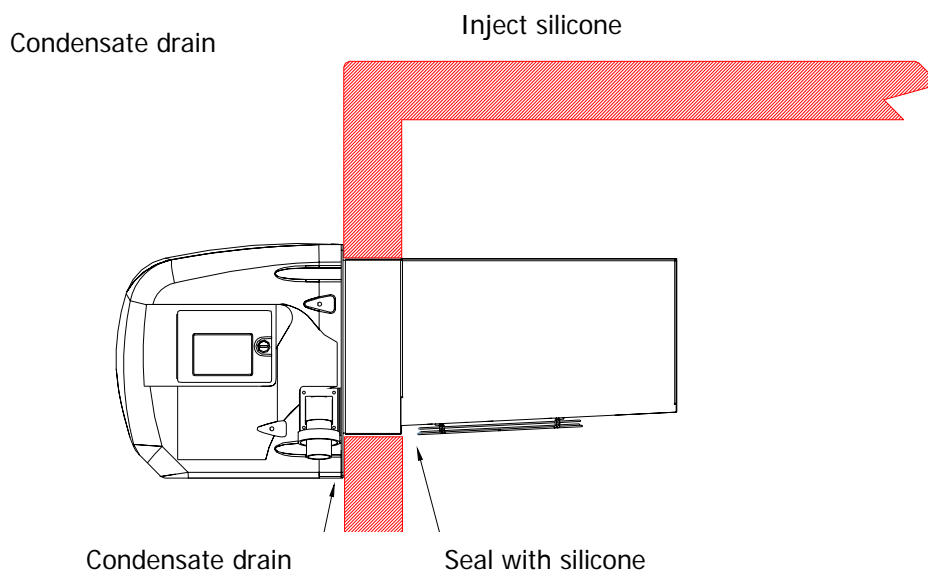


Fixing

When the installation is finished check that the fan blades on the electric fans move correctly and are unimpeded.

Inject silicone to seal along the entire circumferential length of the isolating plate.

Seal with silicone.



A condensate drain is located on the underside of the condenser section. Connect a 10mm i/d water drain-off hose (not supplied) to the drain. Check that the hose is not kinked and that it is routed with a fall.

Ensure a proper flow of air so that the refrigeration unit can function flawlessly.

9.2 Installation of ancillary components



Do not plug in the power supply before installation of the ancillary components has been completed.



The installation of ancillary components may only be carried out by qualified specialist personnel.

A system for lighting the interior of the refrigeration cell is supplied with the refrigeration unit which consists of the following parts:

- power supply cable
- lamp
- illuminant (bulb).

It is not necessary to open the unit install the lighting system. The power supply connection has been pre-fitted at the factory.

The connected cable for the interior lighting is located on the evaporator side panel.



Take care not to damage the walls and/or the interior of the refrigeration cell when mounting.

10 INTENDED USE

10.1 Use intended by the manufacturer

The refrigeration unit is designed and built for cooling refrigerated trailers. It is fitted to these by means of a mechanical fixing system (not supplied).

For the correct usage of the refrigeration unit please read the section “**TECHNICAL FEATURES**”.

10.2 Instructions

Take care when parking the trailer that the refrigeration unit is well ventilated. Ensure good air circulation and good access for possible maintenance work.

Do not expose the refrigeration unit to direct sunlight.

Take care when loading the trailer that good air circulation is assured. Do not block the evaporator.

Avoid introducing sources of heat into the coldroom.

10.3 Non-suitable applications

The refrigeration unit is **not** designed for operation in AD.PE EEx zones (explosion hazardous locations).

The refrigeration unit is **not** designed for operation in fire hazardous locations.

It does not have reinforced electrical and mechanical elements for safeguarding against exceptional atmospheric conditions.

It is not designed for any other application than that described above.



Official approval from the manufacturer must be obtained for any use other than that described here!

11 COMMISSIONING



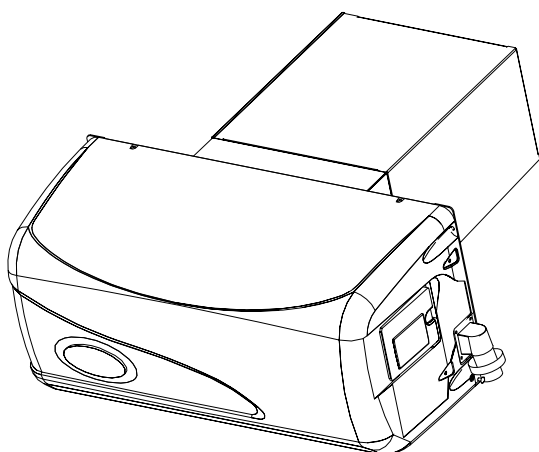
Do not plug in the power supply before installation of the ancillary components has been completed.



Satisfy yourself before connecting to the power supply that the supply voltage and Frequency corresponds to the nominal values specified on the nameplate.

Remove the protective sleeve from the power supply coupler ("camping socket") **(B)**. Connect the refrigeration unit by means of a suitable cable (not supplied) to the power supply network. Open the protective flap using the key provided. Set the refrigeration unit into operation by activating the I/O switch **(C)**; when the green light comes on, this means that the power supply is present.

Check that no unusual noises occur such as the sheet metal vibrating or rubbing of moving parts.



Power supply connection



Operating console - switches

The refrigeration unit is fitted with an electronic digital thermostat **(D)**; to adjust the operating temperature set point value, read the corresponding operating instructions (enclosed). To switch the light On and Off, activate the switch **(E)**.

12 MAINTENANCE



Disconnect the power supply prior to carrying out maintenance work or opening the refrigeration unit.

Should unusual noises occur, call the technical service centre.

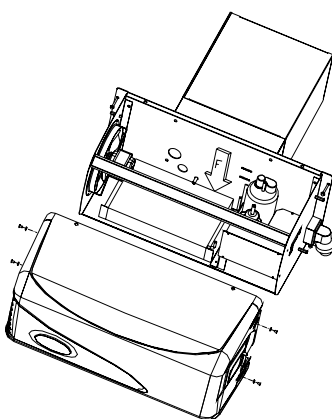
12.1 Inspections and checks to be carried out during maintenance procedures

Fans	Check that the fans can rotate freely with no unusual noises. When necessary, call the technical service centre.
Condenser	Clean the condenser regularly with compressed air.
Condensate basin	Check that the condensate is drained off in accordance with specification and that no dirt is present in the basin and in the drain-off hose.

12.1.1 Condenser

To clean the condenser, proceed as follows:

- Remove the fixing screws.
- Lift off the cover.
- Remove the outer cover.



Removing the outer cover

Clean the condenser (see arrow F) with a compressed air jet directed downwards from above.



Take care not to damage the condenser lamellae during maintenance work. Always fasten the outer cover using stainless steel screws (included).

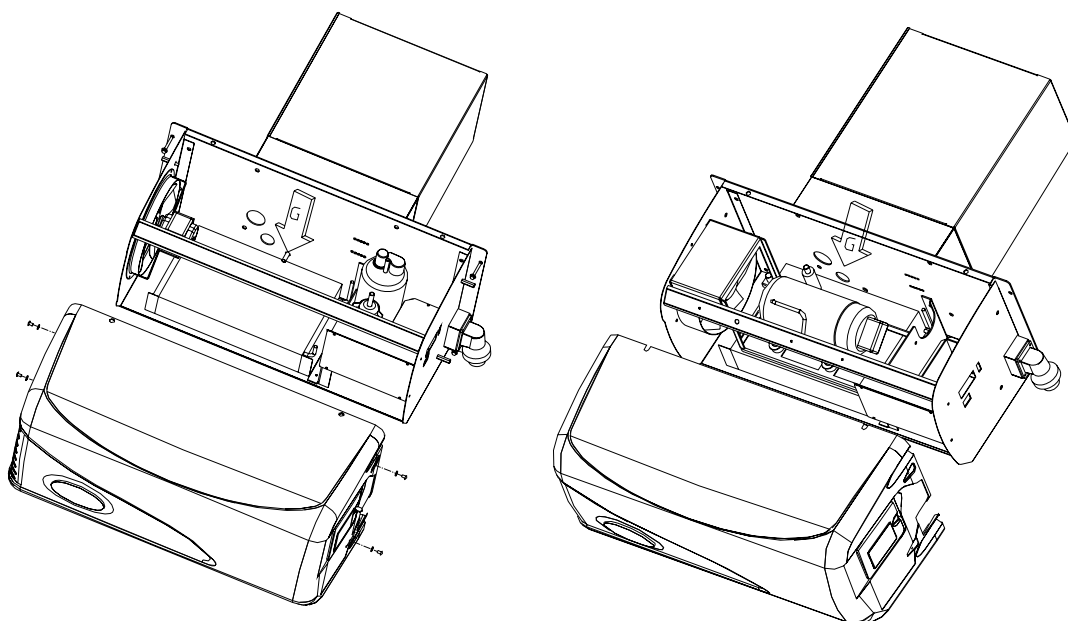
12.1.2 Drain-off hose

To clean the condensate hose, proceed as follows:

- loosen the fixing screws.
- remove the front panel.
- clean the drain as described below.
- replace the front panel.



Take care not to damage the fan during maintenance.



Condensate drain

Pull the drain-off hose G from the condensate basin, clean with a compressed air jet and clear any deposits or blockages. Then reconnect the hose to the basin.

A lack of maintenance could later be the cause of operating faults. Therefore carrying out regular inspections in accordance with the directions of the previous table is to be recommended.



Don't put it off and, if necessary, get in touch with the manufacturing company.

12.2 Bulb changing

Should the refrigerated trailer light bulb have to be replaced, unplug the power cable to isolate the power supply.

13 MALFUNCTIONS: CAUSES AND REMEDIES

MALFUNCTIONS	CAUSES	REMEDIES
The refrigeration unit does not start	Absence of power supply.	Check the power supply network. Check the position of the 0/I switch.
	The line safety fuses have blown.	Call the service centre.
The refrigeration unit does not cool, the inner fan does not function.	Absence of power supply.	Check the connection to the power supply.
	The refrigeration unit is switched off.	Activate the 0/I switch.
The refrigeration unit does not cool, and the interior fan functions.	The thermostat is set at too high a temperature.	Check at what temperature the thermostat has been set.
	The thermostat does not function.	Call the service centre.
	The excess pressure switch has triggered.	Check that the condenser is clean and that the outer fan is functioning. Call the service centre.
The refrigeration unit cools insufficiently.	The room temperature set points have been exceeded.	Check the room temperature and the interior thermal loss.
	Too little refrigerant.	Call the service centre.
	The condenser is contaminated.	Check the condenser for cleanliness.
	The inner fan does not function. The outer fan does not function.	Call the service centre.
	Low air circulation in the condenser section.	Ensure adequate clearance between the refrigeration unit and any adjacent areas. Ensure good circulation of the condenser air.
	Low air circulation in the interior of the refrigerated trailer.	Check the ventilation passages in the interior of the refrigerated trailer. Ensure adequate air circulation in the interior of the refrigerated trailer.
The refrigeration unit functions sporadically.	Wrongly set or malfunctioning thermostat.	Check the temperature set at the thermostat. Call the service centre.
Water leaks from the refrigeration unit.	The inner condensate basin is contaminated.	Clean the condensate basin.
	Blockage in the condensate drain.	Clean the condensate drain.
Ice formation on the evaporator.	The inner fan does not function.	Call the service centre.
	The defrost heating does not function.	Check the (defrost) temperature set at the thermostat. Call the service centre.
The refrigeration cell lighting does not function.	Power supply failure.	Check the connection to the power supply. Check the position of the 0/I switch.
	The lightbulb is defective.	Replace the lightbulb.

14 SAFETY AND PROTECTIVE DEVICES

14.1 Description

DESIGNATION	DESCRIPTION
Safety pressure switch	This halts the operation of the refrigeration unit if the pressure in the inflow circuit exceeds the set value. It restarts the unit automatically when the pressure drops back down. Should it intervene repeatedly, check whether the condenser fan rotates as per specification or that the condenser is not blocked and/or if the room temperature is above the value stated on the nameplate.

14.2 Checks and inspections

The refrigeration circuit is hermetically sealed, therefore no refrigerant should escape. Have the refrigeration unit inspected every six months by authorised specialists and examine the condition of the fans and the general cleanliness of the heat exchanger. Conduct a visual examination of the safety devices.

15 DISMANTLING PREPARATORY TO SCRAPPING

15.1 Dismantling

All procedures relating to dismantling are to be carried out by qualified specialists.

Instructions for dismantling are in the operating instructions "Installation" section.

15.2 Materials of which the refrigeration unit consists

The machine in its entirety consists of materials which can be treated as secondary raw materials:

Structure:	sheet metal and ferrous materials.
Heat exchanger:	aluminium and copper.
Electrical components:	copper, PVC and other miscellaneous materials.
Compressor:	ferrous materials, copper and other miscellaneous materials.
Paint:	epoxide materials.

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15.3 Materials with environmental constraints:



Dismantling of the refrigeration unit may only be carried out by companies that are authorised to collect equipment and components which have been decommissioned.

- The lubricating oil contained in the compressor must be drained off and handed in to a company authorised to collect used oil.
- The refrigerant contained in the plant may not be released into the environment and must be collected using specially approved equipment, stored in flasks and handed in to an authorised collection centre.
- Electrical components and the dewatering filter (filter-dryer) are to be treated as hazardous waste and handed in to an authorised disposal facility.

16 ATTACHMENTS

- Operating instructions for the electrical thermostat.
- Declaration of conformity
- Warranty /guarantee
- Electrical circuit diagram

Betriebsanleitung User Manual



Ein/Ausschalten des Gerätes

Drücken Sie die Taste I/O.

Einstellen der Raumtemperatur

Drücken Sie kurz die „SET“- Taste.

Im Display erscheint „SET“.

Drücken Sie erneut die „SET“- Taste.

Das Display zeigt den Sollwert.

Zum Ändern des Sollwertes drücken

Sie die „AUF“- oder „AB“- Taste.

Bestätigen Sie den Sollwert mit der

„SET“- Taste.

Einleiten der manuellen Abtauung

Drücken Sie die „UP“ Taste für mehr

als 5 Sekunden.

Beschreibung Description



„AUF“- Taste
„UP“- key



„AB“- Taste
„DOWN“- key



„SET“- Taste
„SET“- key



„Funktion ESC“- Taste
„ESC“- key

To turn the unit On/Off

Push the I/O button.

Setting the room temperature

Briefly press the „SET“ key.

„SET“ appears in the display

Press the „SET“ key again.

The display shows the set point.

To alter the set point, press the

"UP" or "DOWN" key.

Confirm the set point with the

"SET" key.

Initiating manual defrost

Press the "UP" key for more than

5 seconds.

16.1 GUARANTEE

1. Deliveries within Germany

a) Our liability extends in favour of the purchaser for new products until the expiry of a guarantee period of one year after transfer of perils in respect that our products are free from defects that significantly impair their performance.

After the expiry of the year, we guarantee the purchaser for the duration of one further year the right to demand the supply of a replacement part where a defect in terms of paragraph 1 occurs.

In the case of used products the guarantee period is for one year.

Preconditional to the guarantee is that the prescribed maintenance is carried out by the purchaser at the correct intervals, that the indication of defects are documented and that the maintenance work has been performed by a specialist company. The onus of maintenance is in accordance with rule b) of these provisions.

Within the scope of the guarantee we will bear the costs of the necessary replacement parts and their despatch, the purchaser shall bear the costs for the rest. No other claims will be accepted. Where a defect occurs within the guarantee period the purchaser must notify forthwith that the defect has occurred. Should this not happen then the purchaser's claim for the supply of replacement parts shall be nullified. In all other cases the following provisions shall apply where appropriate.

b.) The purchaser is committed to carry out maintenance on the object of the purchase every six months from the date of the handover. The customer is to compile written verification of maintenance having been carried out. Should a defect occur within the guarantee period which can be traced back to non-adherence to the regular six-monthly maintenance work then the claims in accordance with 1a) shall be nullified.

c.) In the case of defects we shall be entitled to repair or replace the product or part thereof with new at our discretion. We shall bear the direct costs arising from the supply of replacement parts or corrections as may be (product or replacement part) including the costs of despatch. The purchaser shall bear the costs for the rest.

Should the defect not be remedied by us subsequent to notification of the defect then an adequate deadline is to be set for remedying the defect; should this not happen then we are released from the defect liability.

d.) No guarantee is given for damage arising from the following:
unsuitable or improper use, faulty installation and commissioning by the purchaser or third party, normal wear and tear, faulty or negligent handling, the use unsuitable equipment and materials, material substitution, faulty construction work, unsuitable construction ground, chemical or electrical influences as well as improperly undertaken alterations or overhaul work by the purchaser or a third party.

e.) The guarantee period for the replacement of a supplied product or part is three months; this runs at least until the expiry of the guarantee period for the original product.

f.) Further claims of the purchaser in particular claims for loss and damages are excluded.

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2. Deliveries outside Germany

Regarding goods delivered outside Germany the rule of paragraph 1 shall apply with the proviso that the provision of replacement parts takes place free border (Germany).

3. In the case of par. 478 BGB (German Civil Code) the following shall apply:

a.) The object is free from material defects when, on transfer of perils, it has the agreed properties and condition. In this respect we shall provide the purchaser with an inspection card whereon the receipt and correctness is confirmed. The purchaser is bound to examine the goods forthwith on receipt and if a defect is apparent to notify us immediately. Should the purchaser fail to make notification the product shall be deemed to have been accepted unless the defect was not recognisable during the inspection.

Should such a defect become apparent notification must be made forthwith after its discovery otherwise the product shall be deemed to have been accepted even considering this defect.

b.) Claims for damages are excluded.

c.) With regard to claims under sections 433 to 435, 437, 439 to 443, 478 paragraphs 1 to 3, 5, g 479 BGB (German Civil Code) the exclusion of these provisions is agreed where the purchaser has been granted a price reduction on the product supplied on a commensurate scale. This shall not apply where the purchaser's buyer seeks supplementary performance; in this case the purchaser's defect claim will be considered by us to have been settled on completion of the supplementary performance.

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**CONFORMITY DECLARATION
DICHIARAZIONE DI CONFORMITA'
KONFORMITÄTSERKLÄRUNG
DECLARATION DE CONFORMITE
DECLARACION DE CONFORMIDAD**

**PACKAGED REFRIGERATION UNIT -
GRUPPO FRIGORIFERO MONOBLOCCO
UNITE DE REFRIGERATION MONOBLOC
KOMPAKTKÄLTESATZ
GRUPO FRIGORIFICO MONOBLOQUE**

Model – Modello – Modèle – Modell – Modelo

ARKTIK 1600N – ARKTIK 2000N – ARKTIK 2500N – ARKTIK 2000P

We subscribers declare under our own responsibility that this unit is conforming with the EC Directives and norms:	Noi firmatari della presente, dichiariamo sotto la nostra responsabilità che l'unità in oggetto è conforme a quanto prescritto dalle Direttive e norme CE :	Die Unterzeichneten erklären in alleiniger Verantwortung, daß das betreffende Gerät den Bestimmungen aus den EG-Richtlinien und Normen:	Nous, les signataires del présente, déclarons sous notre responsabilité que l'unité en question est conforme aux prescriptions des Directives et normes:	Nosotros, firmantes del presente, declaramos bajo nuestra responsabilidad que esta unidad esta conforme a las directivas y normas de EC
Low voltage	Bassa tensione	Niederspannung	Basse tension	Baja tension
73/23/EEC => 93/68/EEC / EN 60 335-1				
Electromagnetic Compatibility	Compatibilità elettromagnetica	EMV	Compatibilité électromagnétique	Compatibilidad electromagnética
89/336/EEC => 92/31/EEC => 93/68/EEC / EN 55014, EN61000-3-2, EN61000-3-3				

MANUFACTURER/PRODUTTORE/HERSTELLER/FABRICANT/PRODUCTOR



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www.govi-gmbh.de - info@govi-gmbh.de**

Bonn, 02.09.2008

**Director / Amministratore / Geschäftsführer
Administrateur / Administrador
Lamberto Govi**

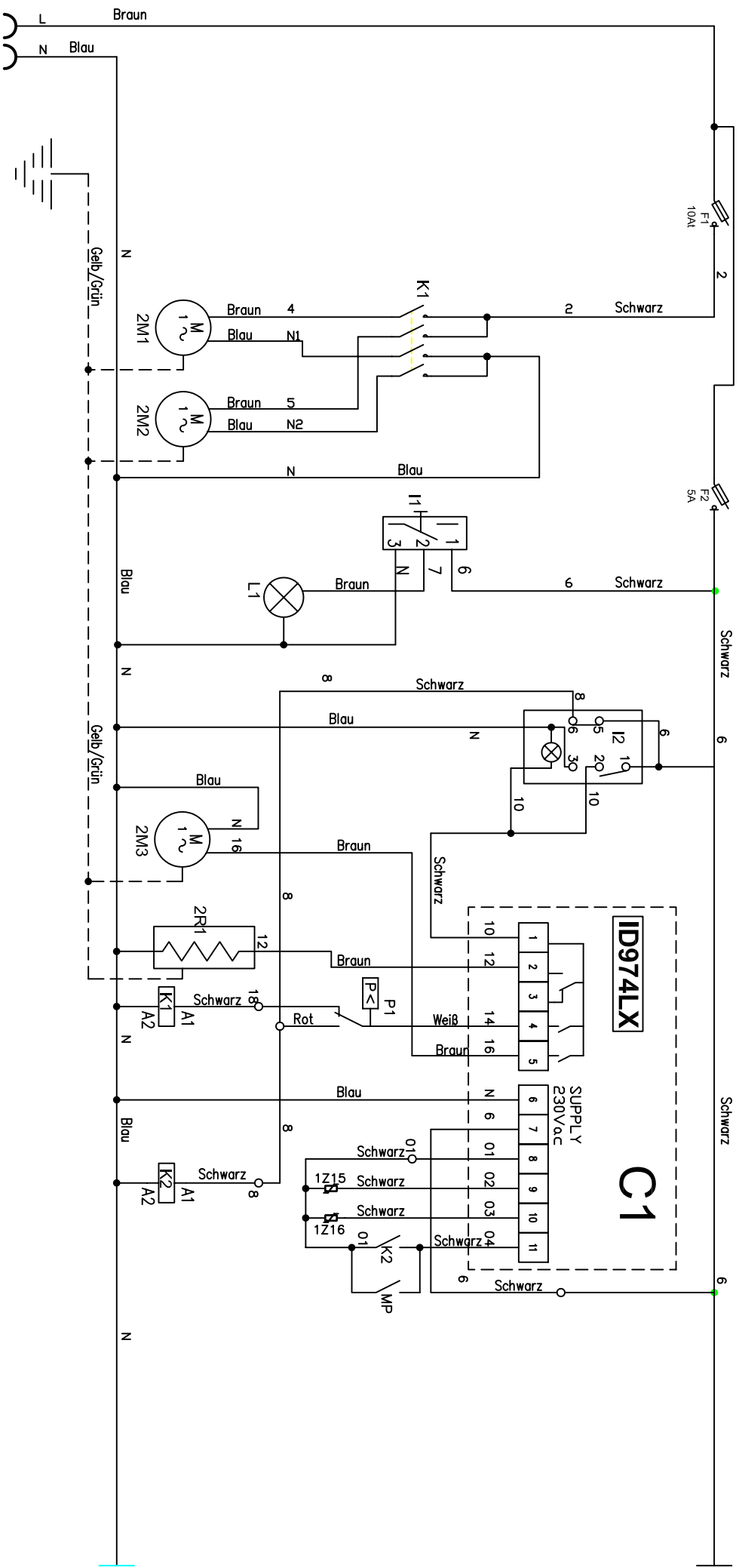
Date: 2nd Sep. 08

Govi GmbH

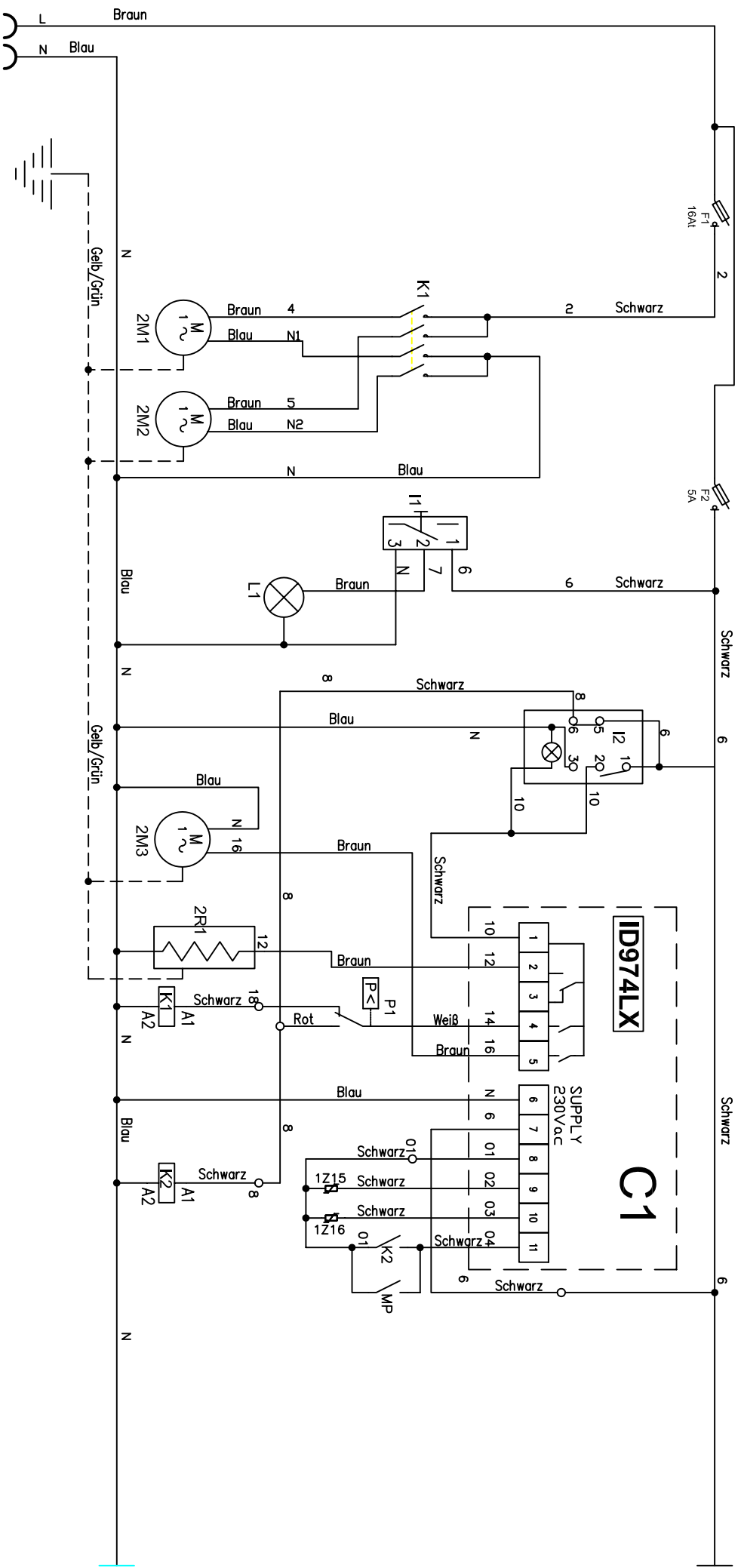
arktik

Circuit diagram legend

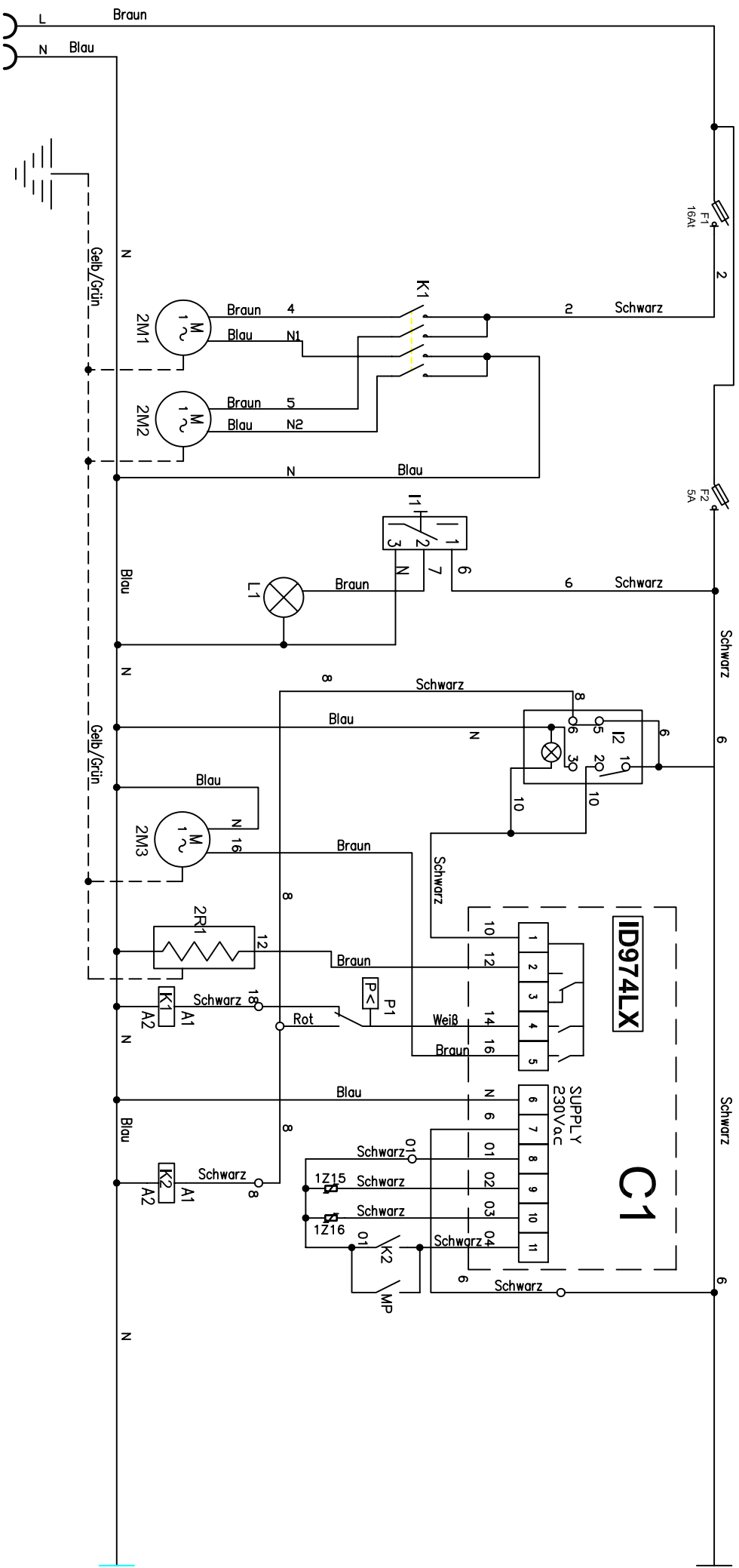
F1	-	Main fuse
F2	-	Control fuse
2M1	-	Compressor motor
2M2	-	Condenser fan motor
2M3	-	Evaporator fan motor
2R1	-	Defrost heating
2R2	-	Basin heating
2R3	-	Drain pipe heating
K1	-	"Refrigerate" relay
K2	-	"AUX" relay
2P1	-	HP pressure control
C1	-	Temperature regulator#
1Z15	-	"Defrost" sensor
1Z16	-	"Room temperature" sensor
I1	-	Room - light switch
I2	-	On/Off switch
L1	-	Interior lighting
MP1	-	Door contact switch



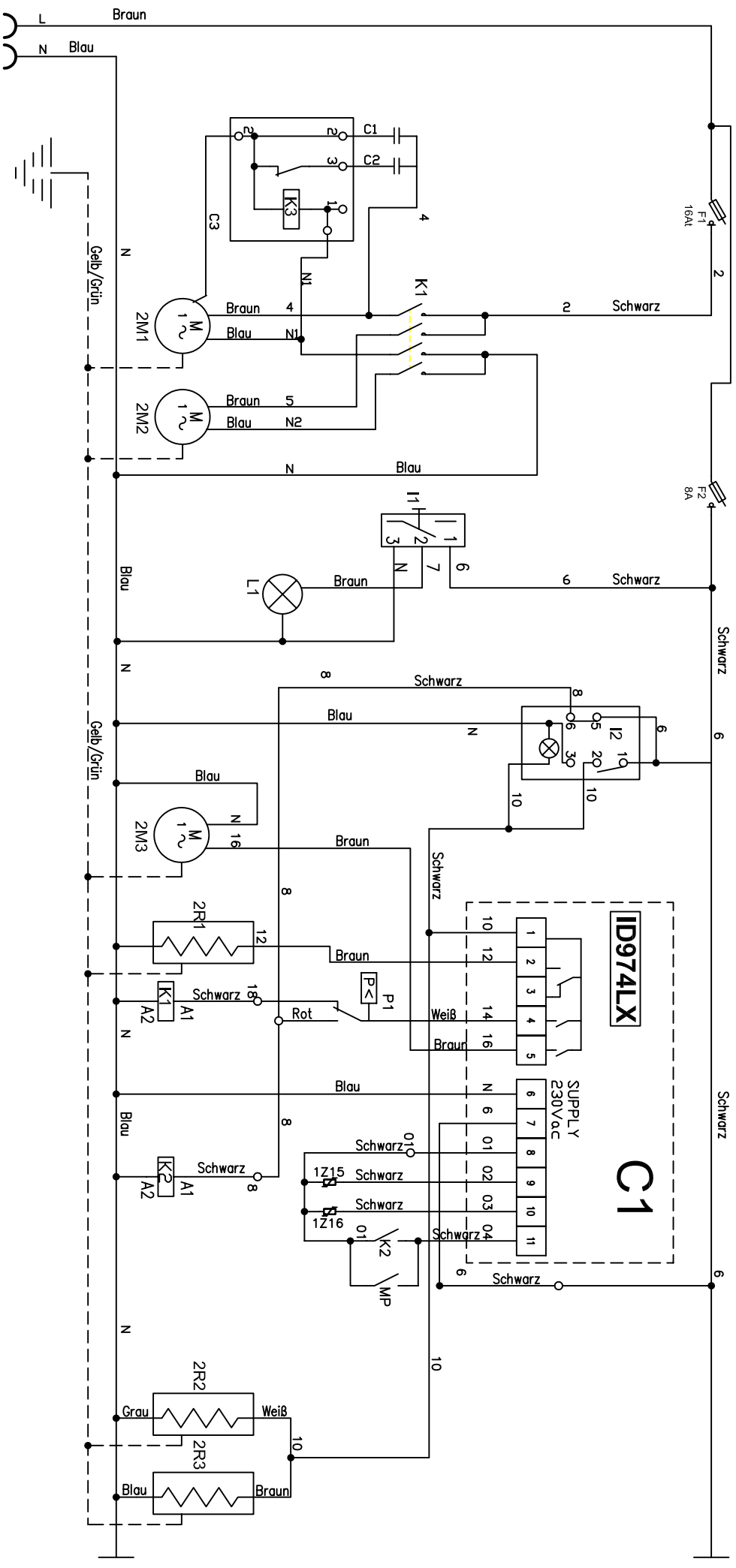
arktik 1600N



arktik 2000N



arktík 2500N



arktík 2000P



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