

1. Introduction

Our foremost aim is to produce a quality product. If you should encounter any difficulty which these operating instructions do not help you with, call or write us. We will be glad to be of assistance. If you write, please include the model and serial number of the device.

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2. Safety Regulations

2.1 General Safety Regulations

This device is of leading-edge design and manufacture. If used and maintained in accordance with these operating instructions, it will be safe to operate. Please comply with the following safety instructions to avoid hazards and damage.

The device must be in satisfactory condition whenever operated. Any modifications which detrimentally affect the safety of the device are therefore strictly prohibited. Please contact your service company if you wish to obtain more information about safety.

No safety equipment (such as safety valves, overload protection devices, etc.) is to be removed, modified or put out of commission (risk of injury or death!).

Take care that only authorized persons work on the device and that the operators are trained. Make certain that no unauthorized persons change the settings on the device or tamper with it.

You are obligated to check the device on a daily basis for externally discernible damage and defects.

Immediately report modifications which affect safety and function to the service company nearest you.

Note that only original CORNELIUS replacement parts and accessories which have been checked and approved are to be used. IMI Cornelius Deutschland GmbH assumes no liability whatsoever for damage resulting from the use of non-original parts and accessories or from improper handling.

2.2 Safety Instructions Electricity

An electric shock may be fatal or result in serious injury. For this reason, any unauthorized tampering is strictly prohibited.

Always pull out the mains plug before any cleaning work on or near the device. As delivered, it features a moulded earthing-pin plug and it must be connected to a socket outlet with an earthing contact. This socket outlet must be in reach ever! If no appropriate socket outlet with an earthing contact is available, the connection must be made by authorized persons only, with the regulations applicable at the installation site (EN standards in Europe, for example) being observed. The change of original spare parts must be implemented by authorised Personal according to BGVA3 and VDE0701.

2.3 Safety Instructions CO₂

Place the carbon dioxide cylinder in an upright position next to the workstation and secure it against falling over. Protect it against heat (e.g., against sunshine). Minimum distance from heater 0.5 m. Please only use food approved carbon dioxide. Escaping carbon dioxide is heavier than air and may present danger of suffocation if

large quantities collect in enclosed spaces. Remember that parts of the device are at operating pressure. Do not loosen or dismantle any components at operating pressure. An operating instruction is necessary when changing the gas tank.

3. Intended use

The Linus cooler is designed for cooling beer. Food suitable CO₂ is used for propellant. The cooling of other drinks or liquids is forbidden.

The inlet temperature of the liquids must not exceed 32°C otherwise the pressure in the refrigeration cycle will rise above specification.

The energy exchange from the cooling coil to the drink takes place in a liquid bath with water.

No other liquids are endorsed for use in the liquid bath other than water.

4. Installation Requirements

4.1 Installation Sites

Comply with the valid national regulations for installation sites and electrical connections. Ventilation of the installation sites must be appropriate for device output. Inadequate ventilation of the device will result in its overheating and being destroyed. Always make certain that no intake or discharge vents are covered.

	MiniLinus	Linus 40	Linus 60	Linus 80	Linus 120
Heat output in watt	481	690	1239	1716	1900
Air flow in m ³ /hour (freewheeling)	160	200	400	600	900

4.2 Electrical Connections

A socket outlet with an earthing contact featuring a maximum protection of 16 amperes is required.

The line voltage must always be within following tolerances: 230 VAC +6%/-10% / 50 Hz

	MiniLinus	Linus 40	Linus 60	Linus 80	Linus 120
Power consumption in watts	190	240	495	610	750

If you are operating the Device with a extension cable please note following:

The length of the cable must not excess 50m and must have a conductor cross-section of 1,5mm².

Not mention that may result insufficient power supply and may cause compressor damage.

5. Installation

The device must be installed by a trained service technician.

5.1 CO₂-Connection

5.1.1 Unit without Air Compressor

You will require a single-wire pressure regulator 3 bar for beer. Please ensure that the maximum permissible pressure in the beverage container is not exceeded. Connect the pressure regulator to the tanks, using tubing with an inner diameter of 4 mm.

5.1.2 Unit with Air Compressor

The unit with an compressed-air plant includes an air compressor. Connect the outlet of the compressed air plant to the CO₂-inlet of the tank, using tubing with an inner diameter of 4 mm.

The tube connections are fitted with a G 3/4B thread.

5.2 Connecting of the Beer line

Connect the beverage tube with an inside diameter of 7 mm to the beverage exit of the keg coupling.

Connect the free end of the beverage tube to the beverage entrance of the overcounter cooling (pictorial representation position 2, page 18)

6. Putting into and out of Service

6.1 Putting into Service

Comply with the cleaning regulations defined by law before beginning each operation.

Clean the couplings on the container for beer every time before you attach them. Connect coupling to container for beer.

6.1.1 Unit without Air Compressor

Open the cylinder globe valve on the CO₂-cylinder and the shut off valve on the pressure regulator.

Check the CO₂-pressure at the pressure regulator.

Set the CO₂-pressure by turning the control screw at the regulator valve.

Clockwise to increase the pressure.

Counter-clockwise to reduce the pressure.

Afterwards check the CO₂-lines for leaks by closing the cylinder globe valve on the CO₂-cylinder.

The admission pressure displayed at the pressure regulator should not drop.

If it does, notify the service technician immediately.

Do not forget to re-open the cylinder globe valve after the check.

Check the beer line for leaks. Only a visual inspection is possible. If liquid is leaking, call a service technician.

6.1.2 Unit with Air Compressor

Check the impermeability of the tubes. This only can be made optical.

If liquid is leaks out plea call a service technician.

Important notice:

The pressure set on the compressor amounts 1,8-2 bar. Temperature of barrel must not fall below 18°C.

The barrel has got to be emptied within 24h.

6.2 Turning on the Device

Plug the power supply for the cooler in a grounded socket.

The device is starting automatically and switches off after reaching the working temperature. The device is now ready to use.

6.3 End of Operation

It is imperative that the CO₂-cylinder be turned off each time operation is ended (only units without air compressor) and pull the mains plug!

6.4 Daily Inspection

Check whether carbon dioxide line is open (only units without air compressor).

Check the beverage line for leaks. Only a visual inspection is possible. If liquid escapes, call a service technician.

Only units without air compressor

Check the CO₂-line for leaks by closing the cylinder globe valve on the CO₂-cylinder. The inlet pressure indicated on the pressure regulator should not drop. If it does, call a service technician immediately. Do not forget to re-open the cylinder globe valve afterwards.

6.5 Putting out of Service

Perform the following steps in case of protracted standstill periods:

Close the CO₂-cylinder, the CO₂-stopcocks on pressure regulator (only units without air compressor).

Pull the mains plug out of socket outlet with earthing contact.

Detach the couplings from beverage containers.

Have the device emptied and cleaned. Only trained specialists are to carry out this procedure.

7. Details for installing compressed-gas tanks

Only compressed-gas tanks are allowed to be installed which go conform to the instructions for compressed-gas tanks and filling equipments (Guide for operating safety).

Storing compressed-gas tanks for Dispensing units the following Instructions have to be carefully attended:

On ships: The evacuation of a compressed-gas tank is not allowed in bilges, showrooms and especially not in cabins or narrow corridors.

The place for installing a compressed-gas tank has to be chosen in a way that the compressed-gas tank is not able to heat up; the minimum distance to a radiator have to be 0,5m.

Compressed-gas tanks must not be evacuated in places like –

- stairways, corridors, a narrow court, alleyways and driveways or close to,
- stairs from outdoor installations,
- marked security installations, e.g. emergency exits,
- garages,
- in working areas, except of Dispensing units which evacuate compressed-gas tanks.

Compressed-gas tanks are to protect against topple down or falling off. The tank must be, in case of racking in, protected by e.g. a bottle cabinet (air-conditioned).

To evacuate compressed-gas tanks with a Dispensing unit the tanks must stand vertical.

The shut-off device for filled and evacuated compressed-gas tanks which are not installed there have to be following protection equipment: Valve caps or maybe Valve nuts.

The number of compressed-gas tanks which are installed to evacuate must be the same as provided compressed-gas tanks.

8. Instructions of Cleaning

Comply with the national regulations for cleaning bar equipment which are valid at the particular installation site.

Clean connection parts and tap fittings in advance whenever making connections or changing the type of beverage.

Clean parts coming into contact with air and beverage, the mouth of the tap for example, on a daily basis.

The risk of serious etching exists when handling liquid sanitisation agents. Always wear safety glasses and appropriate clothing during cleaning jobs. Follow the instructions of the sanitisation agents manufacturer.

The liquefier louveres must be cleaned at regular intervals which vary according to the amount of contamination at the site (approximately every three months). This is best done with a brush and a vacuum cleaner.

The device is to be cleaned by trained specialists only on the basis of the following recommendations:

To be cleaned by trained specialists	CO₂-lines	Beverage lines	Dispensing parts	Connecting parts (lines)
Before commissioning		X	X	
Before each connection and removing of the tank				X
Before each change of type of beverage		X	X	
Before and after a pause of more than 1 week		X	X	
Every 2 weeks		X		
Every 12 months	X			

9. Problems and Troubleshooting

Before looking for problems with the dispense equipment, first check:

Is the flow of electricity to the device interrupted?

Are the beverage containers empty?

Is the CO₂-cylinder empty?

Are all valves on the CO₂-cylinder open?

Type of problem	Cause	Remedy
Beverage too warm while while compressor is running	Temperature set to high Condenser dirty	Adjust the temperature Use brush to clean con- denser between louvres
	Too much beverage being removed	Examine / reduce out-put capacity
Beverage too warm and compressor not running	Compressor not turned on	call service technician
	Electric control defective	call service technician
Beverage foams at a tap	Product stored too long and enriched with CO ₂ CO ₂ -pressure too high	Connect container with fresh product Set pressure
	Beverage too warm	Check storage temperature
CO ₂ -volume in the beverage is too low	CO ₂ -pressure too low	Set pressure

10. Waste disposal and environment protection

For many years the Engineers of IMI Cornelius and its customers are working hand in hand to build devices which are containing no dangerous Materials and which can be easily recycled to 95%.

All devices of IMI Cornelius conform the EG-Guideline 2002/95EG,2002/96/EG as well as laws for electronics and electrical devices (germ. ElektroG) from March 2005.

Please do recycle the device at a recycling company nearby.

Attention! Do not dispose in a public collecting point for private devices.

If required please return the device to your distributor or at any service station of IMI Cornelius Langenfeld.

11. Technical Data and Pictorial Representation

	Linus 25	Linus 40	Linus 60	Linus 80	Linus 120
Output capacity continuously - liter per hour	25	38	64	90	120
Refrigerant R 134a in kg	0,140	0,205	0,200	0,300	0,610
Supply voltage	230V/50Hz				
Power consumption in watt	190	240	495	610	750
Compressor output in watt*	280	420	628	925	1269
Cooling in watt	291	450	744	1106	1400
in kcal/h	250	388	640	951	1204
Number of cooling coils Bier	1	1	1 or 2	2	2
Dimensions in mm					
Height	413	385	440	430	430
Width	326	395	426	535	580
Depth	405	310	320	346	380
Shipping weight in kg	24	27	37 /40	45	48

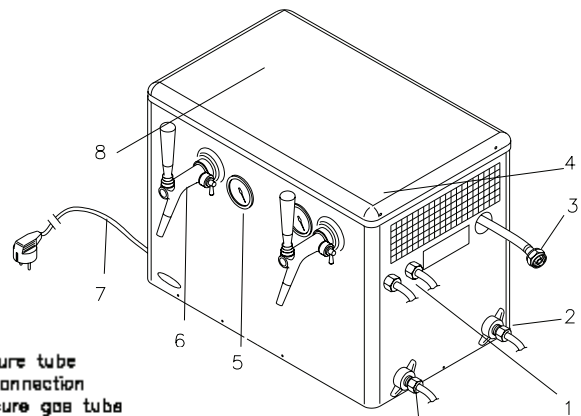
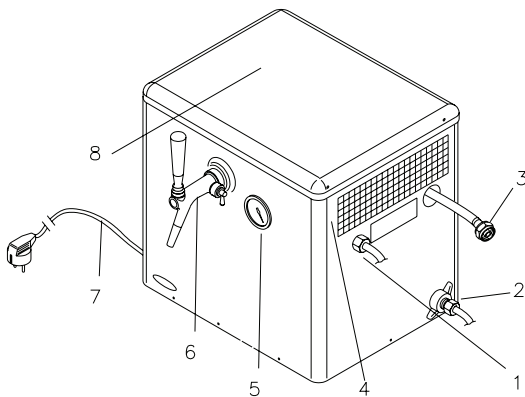
* at 0°C evaporation temperature

Cooling capacities and output capacity at 24°C ambient temperatures and beverage inlet temperatures of 18°C and beverage outlet temperatures of less than 8°C.

We reserve the right to make modifications.

Linus single valve overcounter

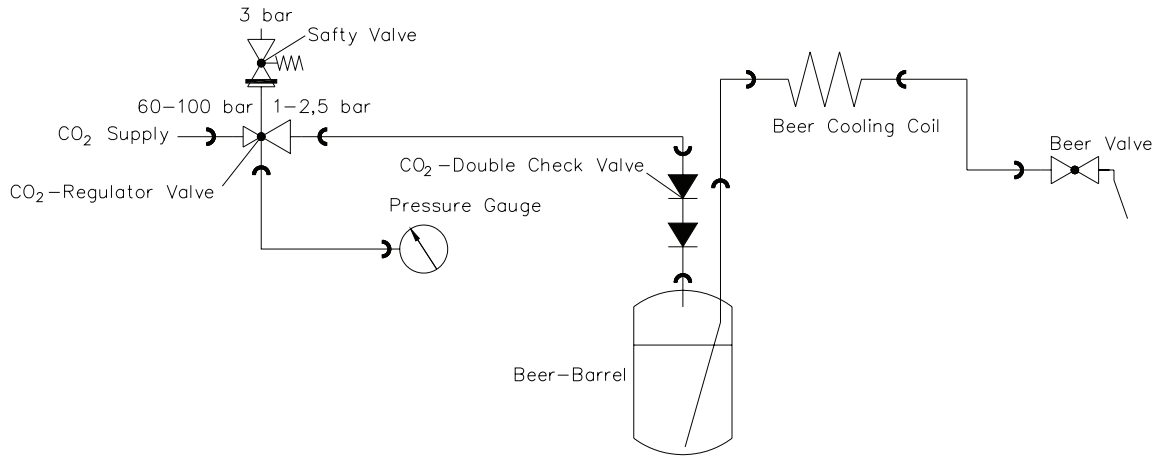
Linus double valve overcounter



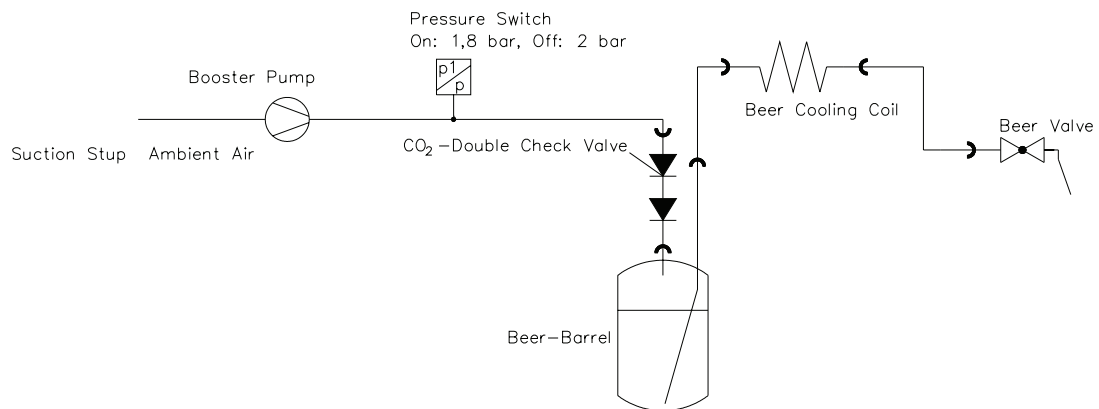
- 1 Back pressure tube
- 2 Beverage Connection
- 3 Front pressure gas tube
- 4 Regulator valve (in the unit)
- 5 Pressure gauge
- 6 Dispensing valve
- 7 Power cord
- 8 Temperature control (in the unit)

12. Flow Chart

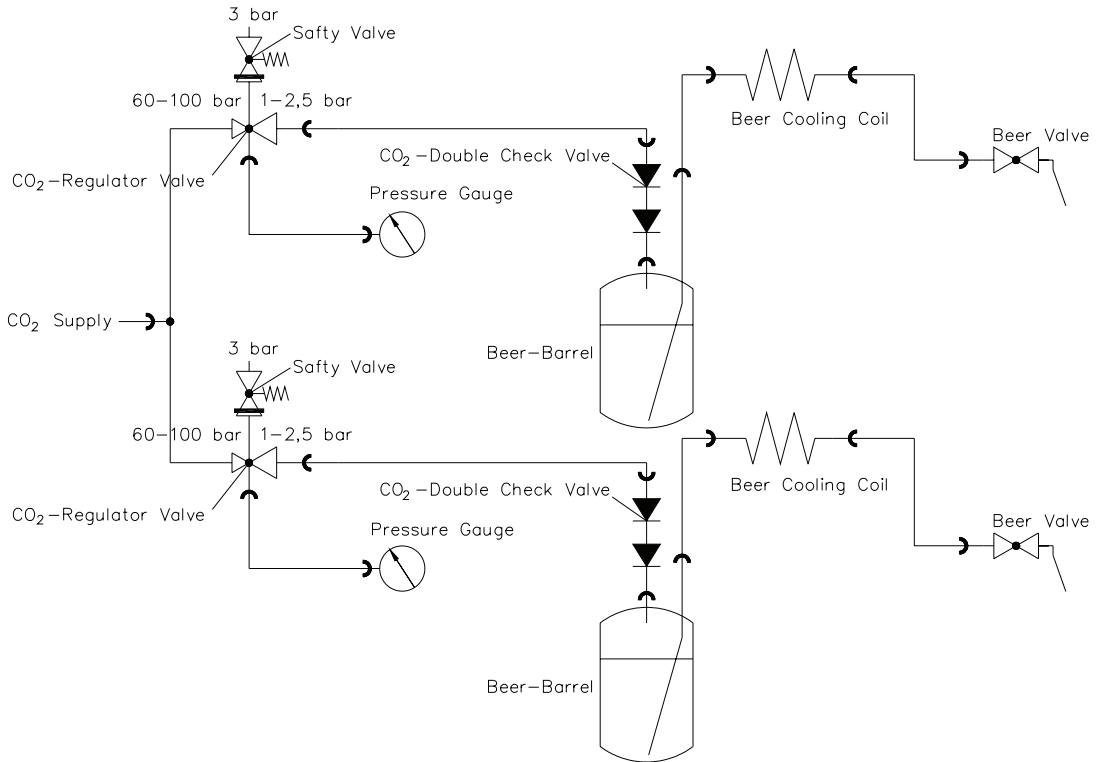
12.1 Flow Cart with Regulator Valve for Units with Single Valve



12.2 Flow Cart with Air Compressor for Units with Single Valve

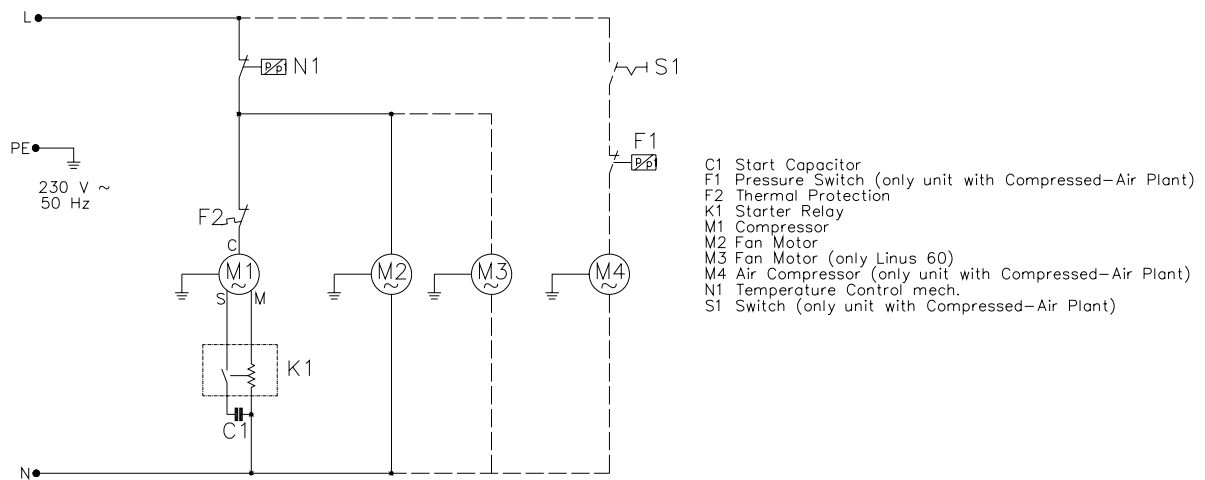


12.3 Flow Cart with Regulator Valve for Units with Double Valve

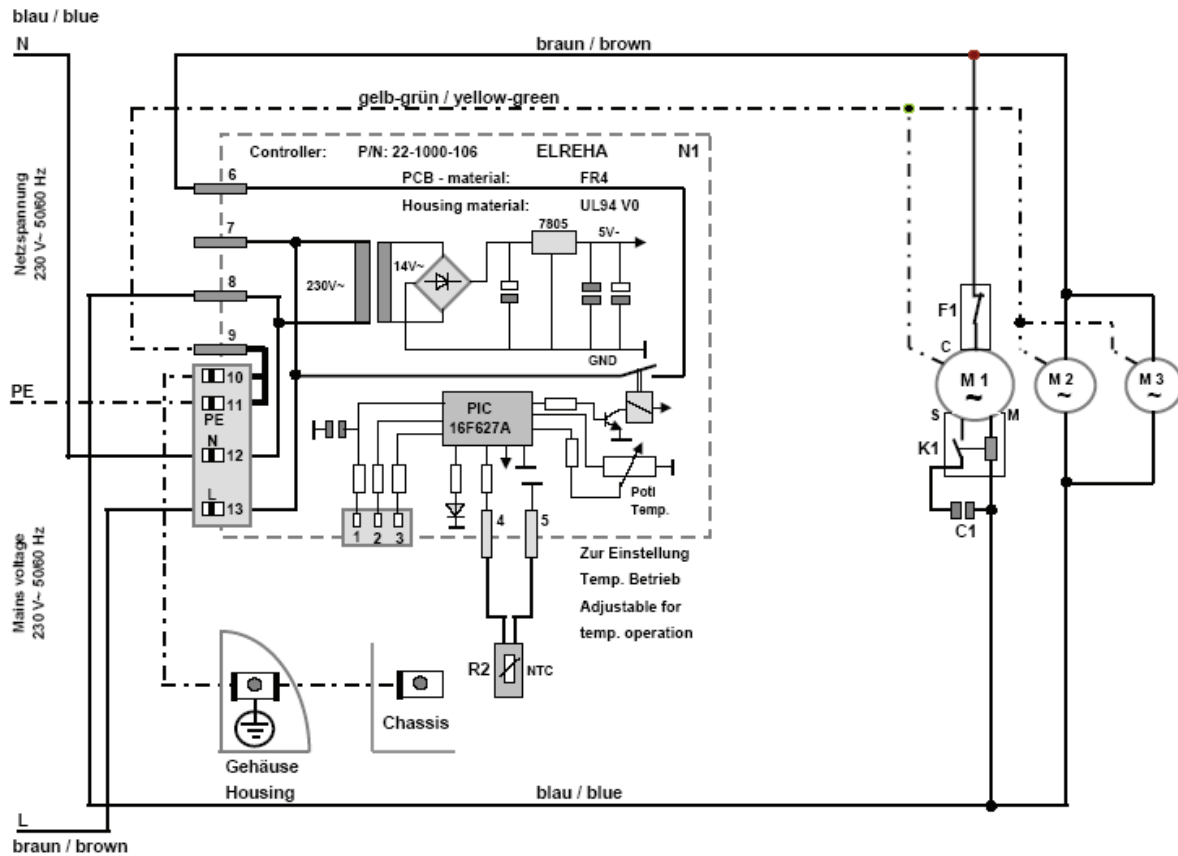


13. Circuit Diagram

13.1 Circuit Diagram for Units with mechanical Controller



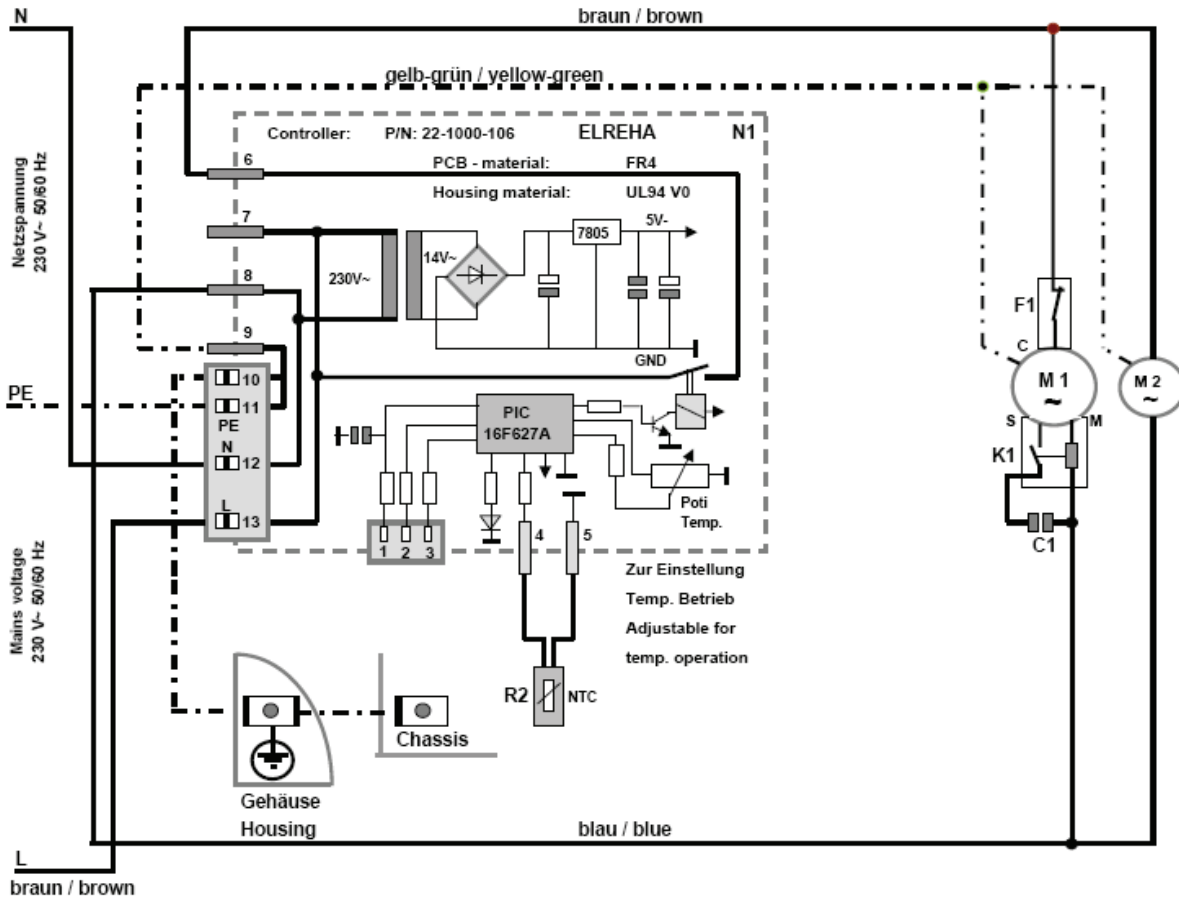
13.2 Circuit Diagram for Linus 60 with electrical Controller



- | | |
|-----------------------|--------------------------------|
| C1 Starting Capacitor | N1 Temperature Controller |
| F1 Thermal Protection | R2 Temperature Probe |
| K1 Starting Relay | 11; 12; 13 Mains Voltage Input |
| M1 Compressor | 6; 8 Compressor, Fan |
| M2 Fan Motor | 4; 5 Temperature Probe |
| M3 Fan Motor | |

13.3 Circuit Diagram for Linus 80 und 120 with electrical Controller

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C1 Starting Capacitor
 F1 Thermal Protection
 K1 Starting Relay
 M1 Compressor
 M2 Fan Motor

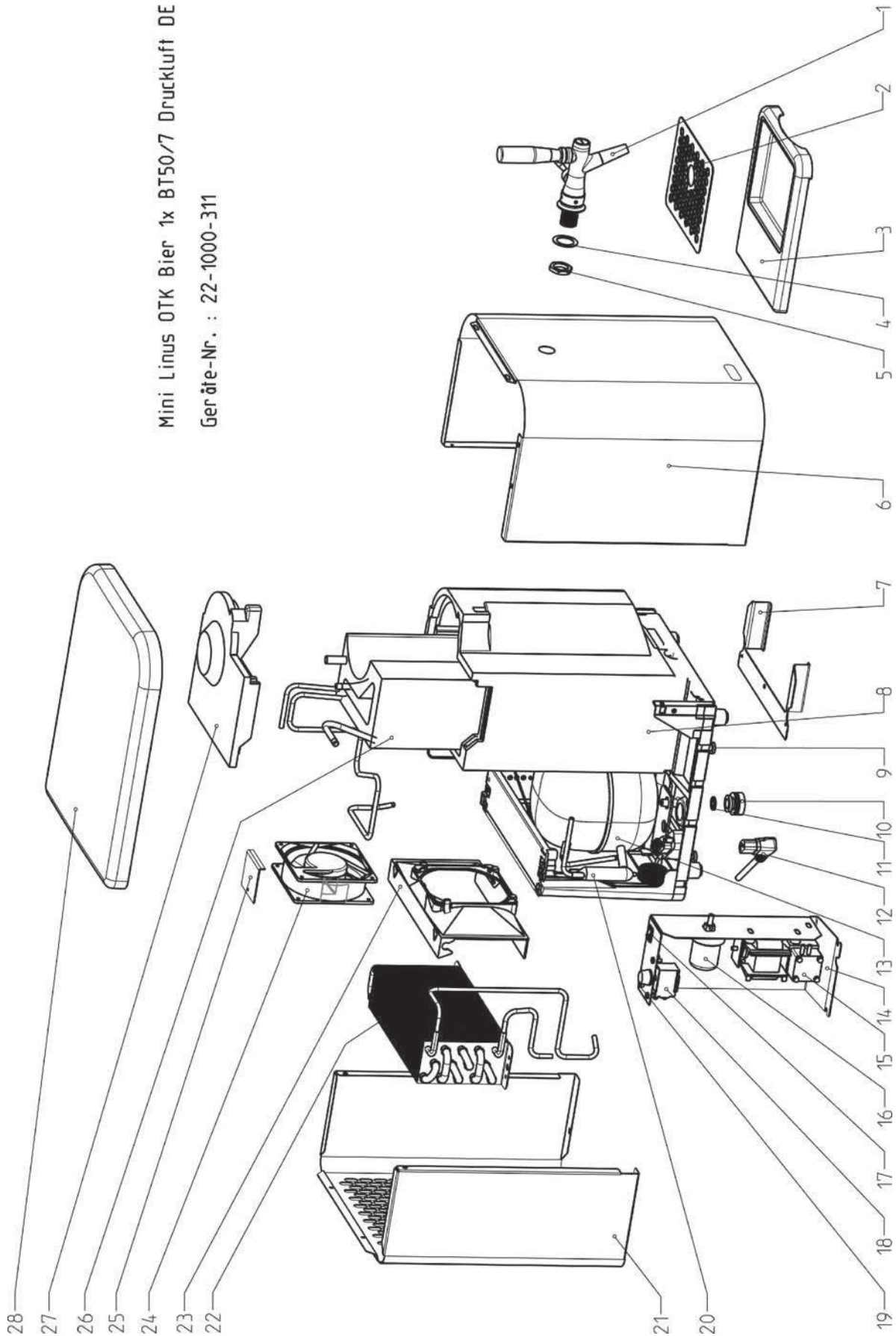
N1 Temperature Controller
 R2 Temperature Probe
 11; 12; 13 Mains Voltage Input
 6; 8 Compressor, Fan
 4; 5 Temperature Probe

14. Sprengzeichnungen / Exploded drawings

Mini Linus

Mini Linus OTK Bier 1x BT50/7 Druckluft DE

Geräte-Nr. : 22-1000-311

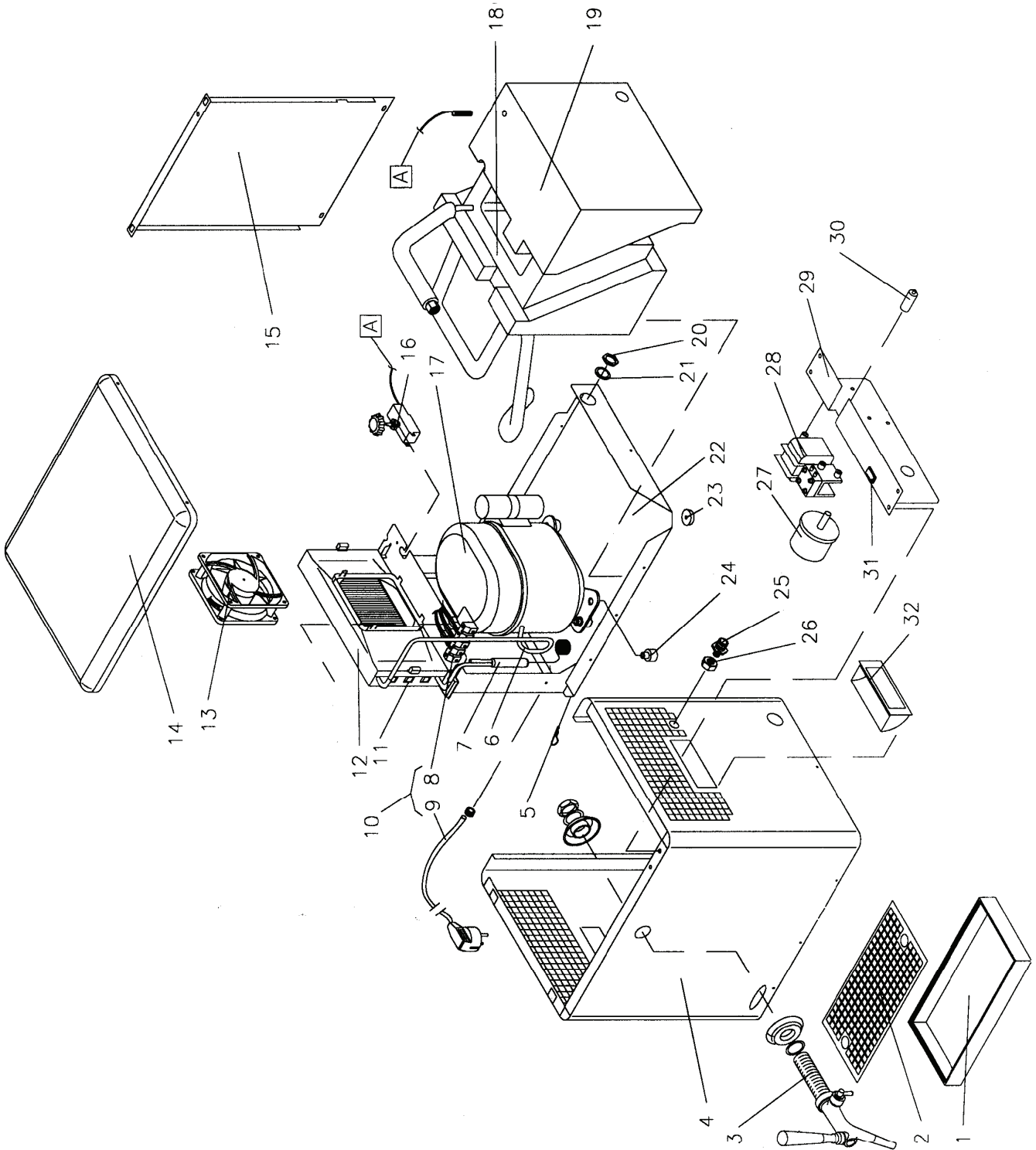


Stückliste Mini Linus / Bill of material Mini Linus

 221000311 Mini Linus OTK Bier 1x BT50/7 Druckluft / Mini Linus OTK Beer 1x BT50/7 Air Pressure
 Sprengzeichnung / Exploded View: 221000311

Pos.	Part-No.	Benennung	Description
1	149701486	Bierhahn BT 50	Valve Body BT 50
2	220110283	Tropfgitter	Grill
3	220110282	Tropfschale	Drip Tray
4	132386000	Scheibe	Washer
5	132385000	Sechskantmutter G5/8"	Hexagon Nut G 5/8"
6	220110279	Mantelblech	Sheet Metal Housing
7	220110284	Halterung für Tropfschale	Bracket Drip Tray
8	220104377	Isolierung Alu-Block	Isolation Alu-Block
9	220107190	Rändelschraube	Knurled-Head Screw
10	220055093	Vibrationspuffer	Buffer
11	220055888	Schnellbefestiger	Quick Catch
12	141647504	Netzkabel	Power Cord
13	440000287	Kompressor	Compressor
14	220110285	Halterung für Drucklufteinheit	Bracket Air Pressure
15	143066000	Membranpumpe	Diaphragm Pump
16	142596000	Druckschalter	Pressure Switch
17	147567000	Kippschalter	Spring
18	220105451	Temperaturregler	Temperature Control
19	141647479	Sicherungshalter	Fuse Holder
20	149541000	Trockner	Dryer
21	220110280	Rückwand	Rear Panel
22	220100941	Verflüssiger	Condenser
23	220100712	Luftleitblech	Fan Adapter
24	220104204	Lüfter	Fan Adapter
25	220108322	Fixierungsblech Lüfter	Bracket Fan Adapter
26	220104280	Alu-Block	Alu-Block
27	220104378	Isolierung Deckel	Isolation Cover
28	220110281	Deckel	Cover

Linus 40



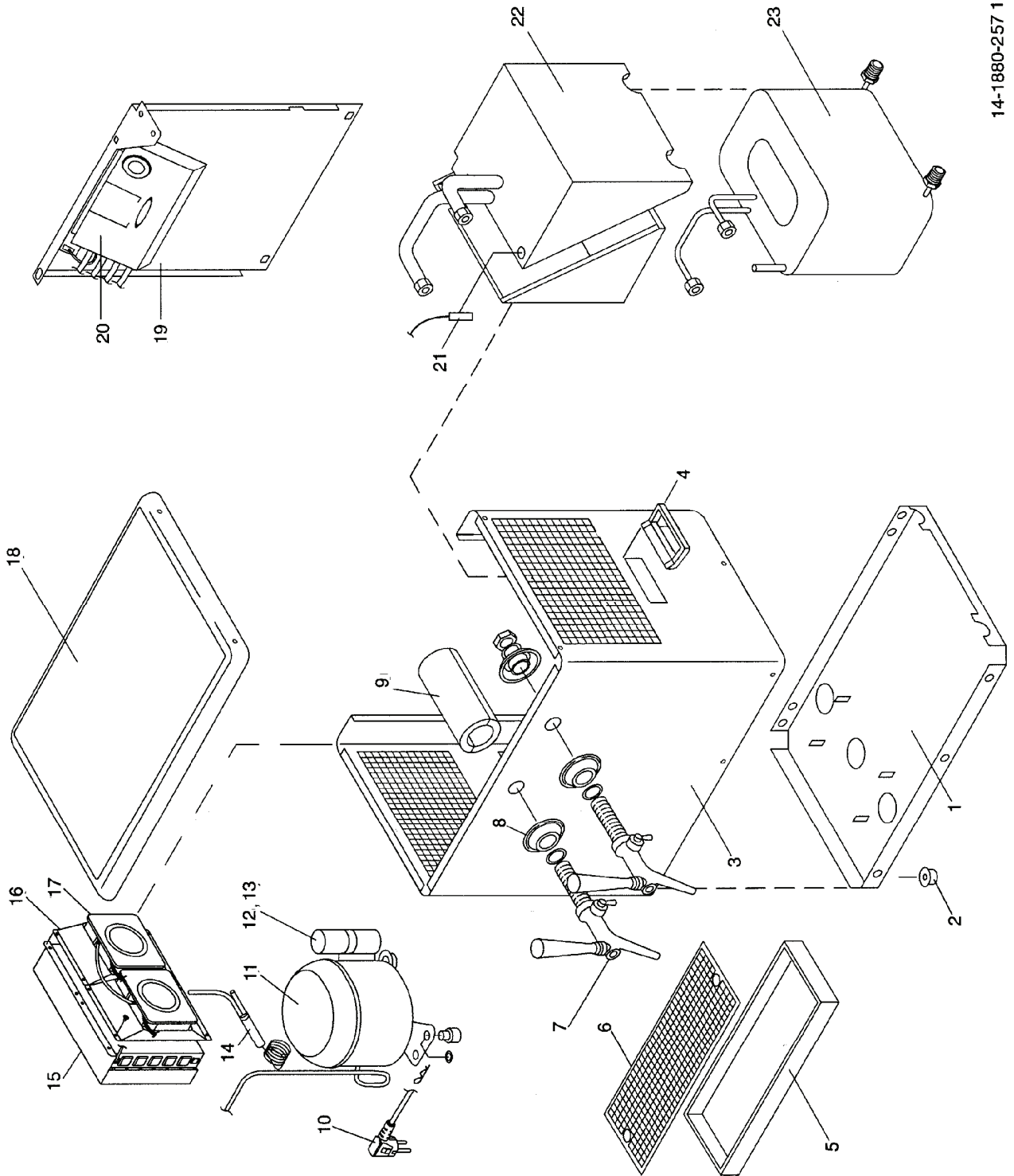
Gerätent: 491571971 Linus 40

Stückliste Linus 40 / Bill of material Linus 40

Geräte-Nr.: 491571971

Pos-Nr	Teilenummer	Benennung	Description
1	143387000	Tropfschale	Drip Tray
2	143388048	Tropfblech	Cup Rest
3	143190670	Bierhahn BT 2000	Beer Valve BT 2000
4	149820960	Mantelblech	Sheet Metal Housing
5	398034400	Halteklammer	Clip
6	142585901	Heißgasrohr	Hot Gas Tube
7	149539000	Trockner	Dryer
8	148283005	Anschlussklemme	Connector
9	143793000	Netzkabel	Power Cord
10	142652140	Kabelbaum kpl.	Wire Harness Ass.
11	220055530	Verflüssiger	Condenser
12	220055174	Luftleitblech	Fan Adapter
13	440000050	Lüfter	Fan Adapter
14	220055107	Deckel	Cover
15	149883201	Rückwand	Rear Panel
16	137351000	Temperaturregler mit Temperaturfühler	Temperature Control with Temperature Probe
17	440000205	Kompressor	Compressor
	440000415	Startrelais	Startrelay
	440000535	Anlaufkondensator	Start Capacitor
18	220092747	Alu-Block	Alu-Block
19	142572900	Isolierung kpl.	Isolation Ass.
20	132385000	Mutter	Nut
21	132386000	Dichtungsscheibe	Gasket
22	149883460	Bodenblech	Base
23	148360001	Gerätefuß	Adjusting Foot
24	131706000	Vibrationspuffer	Buffer
25	143500000	Einschraubtülle	Barb Stem Adapter
26	143502000	Mutter	Nut
27	142596000	Druckschalter	Pressure Switch
28	143066000	Membranpumpe	Diaphragm Pump
29	149883150	Traverse	Bracket
30	142595002	Filter	Filter
31	143504030	Kabelbaum Druckluft	Wire Harness
32	141187100	Griff	Handle

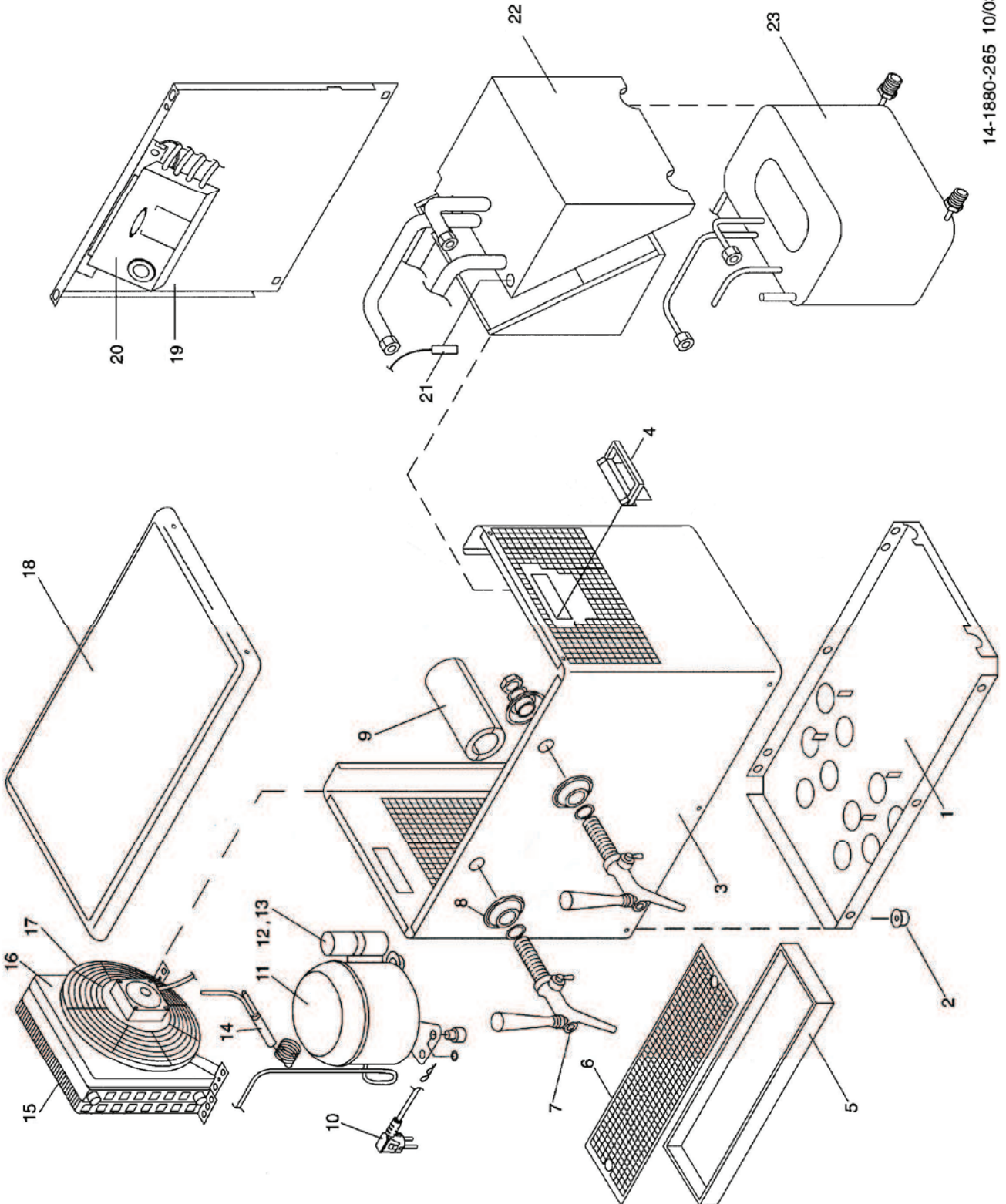
Linus 60



Stückliste Linus 60 / Bill of material Linus 60

Pos.	Part-Nr.	Benennung	Description
1	220093676	Bodenblech	Base Plate
2	143277000	Gerätefuß	Adjusting Foot
3	220093677	Mantelblech	Sheet Metal Housing
4	141187100	Kunststoffgriffe	Handle
5	149854401	Tropfschale	Drip Tray
6	149854401	Tropfblech	Cup Rest
7	143190670	Bierhahn BT2000	Beer Valve BT2000
8	143602000	Rosette	Rosette
9	220093882	Hahnschaftisolierung	Beer Valve Insulation
10	197245250	Netzkabel	Power Cord
11	440000207	Kompressor	Compressor
12	440000419	Startrelais	Start Relay
13	440000535	Anlaufkondensator	Overload Protection
14	149539000	Trockner	Dryer
15	220055230	Verflüssiger	Condenser
16	147721039	Fan Adapter	Fan Adapter
17	440000050	Lüftermotor	Fan Motor
18	149156550	Deckel Linus 60	Cover Linus 60
19	149153903	Rückwand	Rear Panel
20	141647407	Elektronikbox	Electronic Control
21	142499070	Temperaturfühler	Temperature Probe
22	220093556	Alublockisolierung	Alublock Insulation
23	220093680	Alublock	Alublock

Linus 80



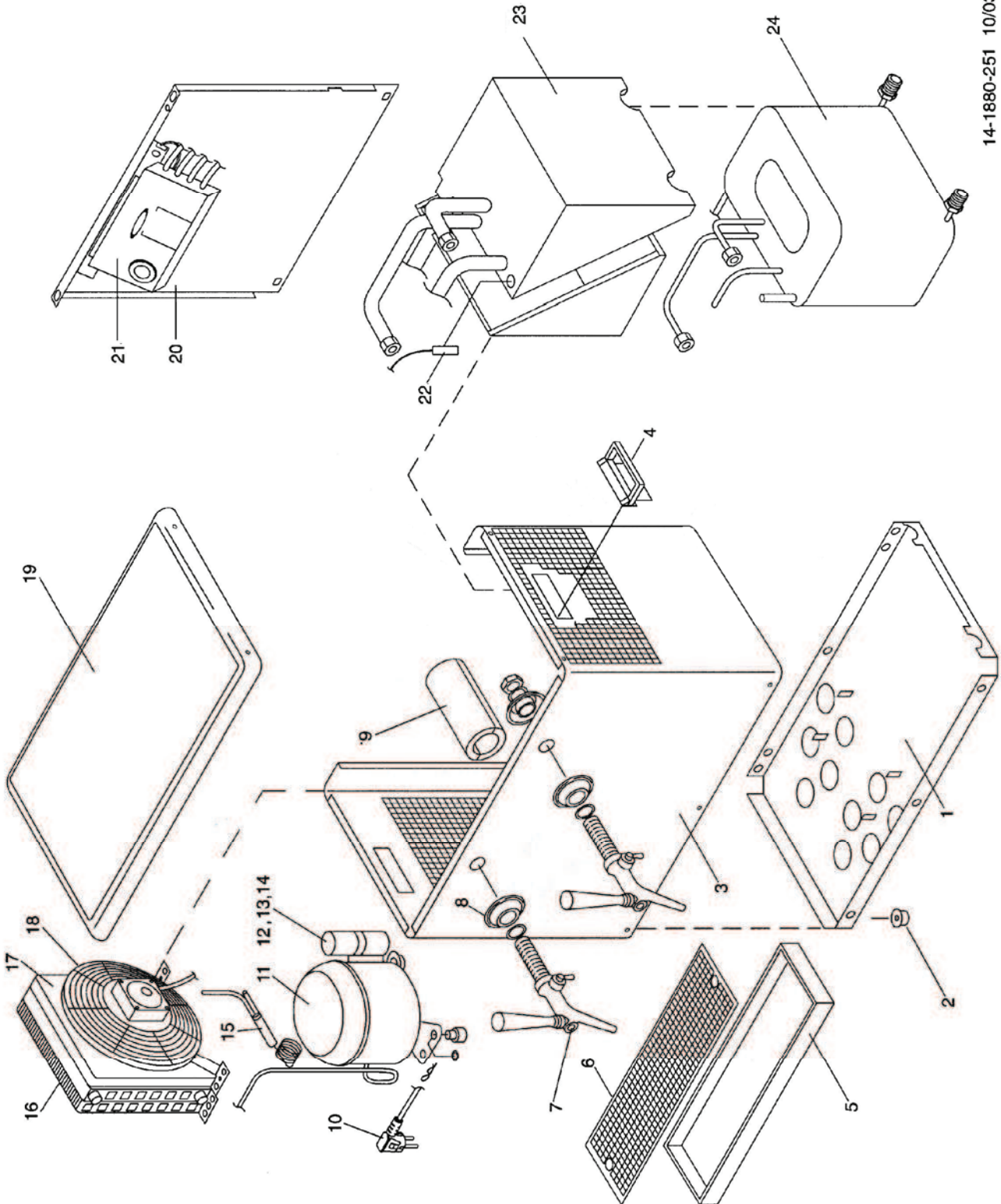
14-1880-265 10/03 Version A Linus 80

Stückliste Linus 80 / Bill of material Linus 80

Pos.	Part-Nr.	Benennung	Description
1	220093550	Bodenblech	Base Plate
2	143277000	Gerätefuß	Adjusting Foot
3	220093557	Mantelblech	Sheet Metal Housing
4	141187100	Kunststoffgriffe	Handle
5	149687500	Tropfschale	Drip Tray
6	149687501	Tropfblech	Cup Rest
7	143190670	Bierhahn BT2000	Beer Valve BT2000
8	143602000	Rosette	Rosette
9	220093882	Hahnschaftisolierung	Beer Valve Insulation
10	197245250	Netzkabel	Power Cord
11	440000208	Kompressor	Compressor
12	440000421	Startrelais	Start Relay
13	440000540	Anlaufkondensator	Overload Protection
14	149539000	Trockner	Dryer
15	440000702	Verflüssiger	Condenser
16	142190001	Fan Adapter	Fan Adapter
17	440000007	Lüftermotor	Fan Motor
18	148796550	Deckel Linus 80	Cover Linus 80
19	148795903	Rückwand	Rear Panel
20	141647407	Elektronikbox	Electronic Control
21	142499070	Temperaturfühler	Temperature Probe
22	220093556	Alublockisolierung	Alublock Insulation
23	220093558	Alublock	Alublock

Linus 120

14-1880-251 10/03 Version A Linus 120



Stückliste Linus 120 / Bill of material Linus 120

Pos.	Part-Nr.	Benennung	Description
1	220093568	Bodenblech	Base Plate
2	143277000	Gerätefuß	Adjusting Foot
3	220093569	Mantelblech	Sheet Metal Housing
4	141187100	Kunststoffgriffe	Handle
5	149687500	Tropfschale	Drip Tray
6	149687501	Tropfblech	Cup Rest
7	143190670	Bierhahn BT2000	Beer Valve BT2000
8	143602000	Rosette	Rosette
9	220093882	Hahnschaftisolierung	Beer Valve Insulation
10	197245250	Netzkabel	Power Cord
11	440000218	Kompressor	Compressor
12	440000409	Startrelais	Start Relay
13	440000469	Überlastschutz	Starting Capacitor
14	440000528	Anlaufkondensator	Overload Protection
15	149540000	Trockner	Dryer
16	440000703	Verflüssiger	Condenser
17	147030001	Fan Adapter	Fan Adapter
18	440000008	Lüftermotor	Fan Motor
19	220055722	Deckel Linus120	Cover Linus120
20	149001020	Rückwand	Rear Panel
21	141647407	Elektronikbox	Electronic Control
22	142499070	Temperaturfühler	Temperature Probe
23	220093556	Alublockisolierung	Alublock Insulation
24	220093777	Alublock	Alublock