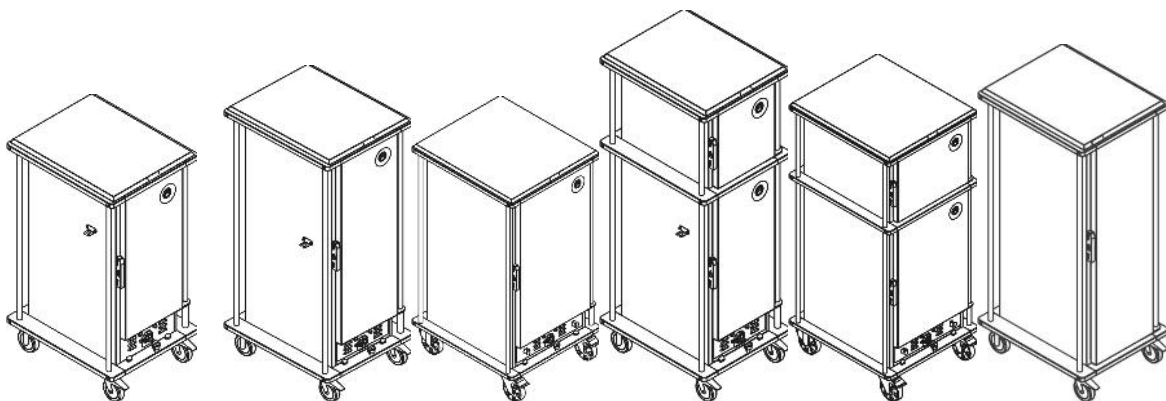


Operating Instructions



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Comcater Pty Ltd
156 Swann Drive
Derrimut VIC 3030
Phone: (03) 8369 4600
Fax: (03) 8369 4696
www.comcater.com.au

HUPFER[®] **Köhler**[®] Banquet trolley heated | neutral
BKW1/14 L-GN | BKW1/20 L-GN | BKW1/36 B-GN | BKW1/14 L-
GN+5PK | BKW1/28 B-GN+10PK | BKW1/23 L-GN

1 Introduction

1.1 Appliance Information

Appliance designation	HUPFER Köhler Banquet trolley heated neutral
Appliance type/ -s	BKW1/14 L-GN BKW1/20 L-GN BKW1/36 B-GN BKW1/14 L-GN+5PK BKW1/28 B-GN+10PK BKW1/23 L-GN
Manufacturer	HUPFER® Metallwerke GmbH & Co. KG Dieselstraße 20 48653 Coesfeld PO 1463 48634 Coesfeld ☎ +49 2541 805-0 📠 +49 2541 805-111 www.hupfer.de info@hupfer.de

Read these operating instructions thoroughly and attentively to ensure safe operation and avoid any damages!

Ensure that sources of danger and possible faulty operations have been pointed out to the operating staff.

Subject to modifications

The products covered by these operating instructions have been developed taking into consideration the requirements of the market and the latest technology. **HUPFER®** reserves the right to modify the products and appertaining technical documentation in so far as the modifications are in the name of technological progress. The data and weights as well as the description of performance and functions assured in the order confirmation as binding are always decisive.

Manual edition

91101983_A1

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1.3 List of Abbreviations

Abbreviation	Definition																																				
BGR	Rule of the Professional Association																																				
BGV	Regulation of the Professional Association																																				
CE	Communauté Européenne European Community																																				
DIN	Deutsches Institut für Normung German Institute for Standardisation, technical regulations and technical specifications																																				
EC	European Community European Union																																				
EN	European Standard Harmonised standard for the EU market																																				
E/V	Spare and wearing part																																				
IP	<p>International Protection. The abbreviation IP and a further two-digit index specify the protection class of a housing.</p> <p>The first digit: Protection against ingress of solid foreign objects The second digit: Protection against ingress of water</p> <table border="1"> <tbody> <tr> <td>0</td> <td>No protection against contact, no protection against ingress of solid foreign objects</td> <td>0</td> <td>No protection against ingress of water</td> </tr> <tr> <td>1</td> <td>Protection against contact with any large surface of the body such as the hand, protection against ingress of foreign objects $\varnothing > 1.97''$ (50 mm)</td> <td>1</td> <td>Protection against vertically falling water drops</td> </tr> <tr> <td>2</td> <td>Protection against contact with the fingers, protection against ingress of foreign objects $\varnothing > 0.47''$ (12 mm)</td> <td>2</td> <td>Protection against dripping water (at any angle up to 15° from the vertical)</td> </tr> <tr> <td>3</td> <td>Protection against contact with tools, thick wires or similar objects of $\varnothing > 0.1''$ (2.5 mm), protection against foreign objects $\varnothing > 0.1''$ (2.5 mm)</td> <td>3</td> <td>Protection against water drips at any angle up to 60° from the vertical</td> </tr> <tr> <td>4</td> <td>Protection against contact with tools, thick wires or similar objects of $\varnothing > 0.04''$ (1 mm), protection against foreign objects $\varnothing > 0.04''$ (1 mm)</td> <td>4</td> <td>Protection against water splashing from any direction</td> </tr> <tr> <td>5</td> <td>Protection against contact, protection against dust deposits inside</td> <td>5</td> <td>Protection against water jets (projected by a nozzle) at any angle</td> </tr> <tr> <td>6</td> <td>Complete protection against contact, protection against ingress of dust</td> <td>6</td> <td>Protection against rough sea or strong water jets (flood protection)</td> </tr> <tr> <td></td> <td></td> <td>7</td> <td>Protection against ingress of water during temporary immersion</td> </tr> <tr> <td></td> <td></td> <td>8</td> <td>Protection against pressurised water during continuous immersion</td> </tr> </tbody> </table>	0	No protection against contact, no protection against ingress of solid foreign objects	0	No protection against ingress of water	1	Protection against contact with any large surface of the body such as the hand, protection against ingress of foreign objects $\varnothing > 1.97''$ (50 mm)	1	Protection against vertically falling water drops	2	Protection against contact with the fingers, protection against ingress of foreign objects $\varnothing > 0.47''$ (12 mm)	2	Protection against dripping water (at any angle up to 15° from the vertical)	3	Protection against contact with tools, thick wires or similar objects of $\varnothing > 0.1''$ (2.5 mm), protection against foreign objects $\varnothing > 0.1''$ (2.5 mm)	3	Protection against water drips at any angle up to 60° from the vertical	4	Protection against contact with tools, thick wires or similar objects of $\varnothing > 0.04''$ (1 mm), protection against foreign objects $\varnothing > 0.04''$ (1 mm)	4	Protection against water splashing from any direction	5	Protection against contact, protection against dust deposits inside	5	Protection against water jets (projected by a nozzle) at any angle	6	Complete protection against contact, protection against ingress of dust	6	Protection against rough sea or strong water jets (flood protection)			7	Protection against ingress of water during temporary immersion			8	Protection against pressurised water during continuous immersion
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LED	Light Emitting Diode Light diode																																				

1.4 Definitions of Terms

Term	Definition
Authorised specialist	An authorised specialist is a specialist that has been trained by the manufacturer, an authorised service dealer or a company assigned by the manufacturer.
Cook&Chill-Kitchens	"Cook and Chill": Kitchens where warm food after being cooked is chilled as quickly as possible.
Cook&Serve-Kitchens	"Cook and Serve": Kitchens where warm food is served immediately after being cooked or kept warm until it is consumed.
Specialist	A specialist is a person who can evaluate work assigned and can individually recognise any possible dangers due to the professional training, specialist knowledge and experience as well as knowledge of the respective guidelines.
Gastronorm	Gastronorm is a measurement system applied worldwide, for instance, in food processing plants or large-scale kitchens and catering establishments. The use of standardised sizes makes possible to exchange food pans. The basic size of the gastronorm (GN) 1/1 is 12.8x20.9" (325x530mm). Items are available in different depths.
Control	Compare with certain conditions and/or characteristics such as damages, leaks, filling levels, heat.
Machine safety	The term of machine safety means all the measures used to avert injury to persons. The basis for this are national as well as EC-wide valid directives and laws for protecting users of technical devices and systems.
Passive layer	A non-metallic protective layer on a metallic material that prevents or slows down material corrosion.
Check	Compare with certain values such as weight, torque, content, temperature.
Qualified person, qualified staff	Qualified personnel are persons who due to their professional training, experience and instruction as well as their knowledge of the respective standards, guidelines, accident prevention regulations and operating conditions have been authorised by a person responsible for system safety to carry out required activities and can recognise and prevent any possible danger (definition of specialists according to IEC 364).
Schuko®	The abbreviation of the German term "Protective contact" that indicates a system of domestic plugs and sockets equipped with protective earthed contacts used in most of Europe.
Instructed persons	An instructed person is a person who has been instructed on the possible risks resulting from improper behaviour when carrying out the assigned task as well as on the necessary protective equipment and protective measures and trained for this task if necessary.

1.5 Orientation Guide

The front

"The front" means the side where the door and operating elements are arranged and at which the staff loads the appliance.

The rear

The side named "the rear" means the opposite side of the front side (the front).

The right

The side named "the right" means the side at the right hand side of the front side (the front).

The left

The side named "the left" means the side at the left hand side of the front side (the front).




1.6 Notes on Use of Manual

1.6.1 Notes on the manual structure

This manual is structured in functional and task orientated chapters.

1.6.2 Notes and their illustrations used in the chapters

The warnings and notes are separated from the other text and particularly marked by corresponding icons. The icon cannot, however, replace the text of the safety instructions. Therefore, always read thoroughly the full text of the safety instructions. The warnings and notes are separated in these operating instructions as follows and categorised by the following danger levels by means of various symbols.

DANGER	Brief description of danger
	<p>There is an imminent danger to life and limb of the user and / or third parties when the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a symbol and explained in the accompanying text in more detail. In this example the general sign of danger is used.</p>
WARNING	Brief description of danger
	<p>There is an indirect danger to life and limb of the user and / or third parties when the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a symbol and explained in the accompanying text in more detail. In this example the general sign of danger is used.</p>
ATTENTION	Brief description of danger
	<p>There is a potential risk of injury or damage to property when the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a general sign and explained in the accompanying text in more detail. In this example the general sign of danger is used.</p>
NOTE	Brief description of additional information
	Attention is pointed to special conditions or additional important information on the respective subject.
INFO	Short title
	Contains additional information on work assisting features or recommendations on the respective subject.

2 Safety Instructions

2.1 Introduction

The chapter on safety instructions describes the risks associated with the appliance in terms of product liability (according to the EU Low-Voltage Directive 2006/95/EC).

The safety instructions should warn of hazards and help to avoid damages to persons, the environment and property. Please make sure that you have read and understood all the safety instructions given in this chapter.



You must comply with the respectively valid national and international Safety at Work Regulations. The manager is responsible for the valid regulations he/she has to provide. He/she must acquaint himself/herself and the operator with the new regulations.

In addition to these operating instructions, comply with the rules on health and safety at work issued by the Main Association of the industrial Professional Associations, especially with those that concern the handling of hot items and risks involved (BGR 110 "Protection of health and safety at work in restaurants" and BGR 111 "Protection of health and safety at work in large-scale kitchens").

2.2 Warning Symbols Used

Symbols are used in these operating instructions to point out the dangers that can occur while operating or cleaning the appliance. In both cases, the symbol provides information on the type and circumstances of danger.

The following symbols can be used:

	General hazardous area
	Hazardous electrical voltage
	Risk of hand injuries
	Risk of squashing
	Risk of hot surfaces
	Wear hand protection

2.3 Safety Instructions for Appliance Safety

Safe operation of the appliance depends on appropriate and thorough use. Negligent handling of the appliance can lead to danger to life and limb of the user and / or third parties as well as hazards to the appliance itself and the other operator's property.

The following points are to be observed to ensure the appliance safety:

- The appliance may only be operated as intended, when it is in perfect condition with regards to technical standards, with awareness of safety and hazards and in accordance with the operating instructions.
- All the operating and actuating elements must be in a perfect and functionally reliable condition with regards to technical standards.
- The appliance must be checked for external visible damages and defects whenever it is put into operation. In case of damages, inform immediately the competent bodies and switch off the banquet trolley.
- Modifications or retrofits of the equipment are only permitted in consultation with the manufacturer and on receipt of his written agreement.
- The appliance is provided exclusively for manual transport. Mechanical transport is not permitted. Risk of injury and damage.
- Release both total brakes before commencing transporting. Moving the appliance with the total brakes locked can damage the chassis
- Transport should only be undertaken over level floors. Moving the appliance over very uneven floors and stair steps can damage the chassis.
- Do not stop the banquet trolley by applying the total brakes. The total brakes are designed to be able to prevent the appliance from unintended moving. Do not stop the appliance on sloping floors. Secure the appliance against rolling away by applying both total brakes when stopping it.
- When approaching walls and moving round obstacles always pay attention to persons in the way. Risk of injury.
- When transporting the appliance, always hold push bars with both hands. Never let go the appliance while moving it.
- When transporting the appliance, do not move it faster than a walking pace. Heavily laden banquet trolleys are difficult to brake and steer. If necessary, ask for assistance when transporting the appliance.
- If the banquet trolley tips over due to outside influences or inattention, never catch it manually. Risk of injury.
- In the case of off-site transport in a vehicle such as a lorry, the appliances should be secured properly. The total brakes are not sufficient as a transport securing method.

2.3.1 Additional safety instructions for heated appliances

- Before transporting, switch off the appliance, pull out the mains plug and insert it into the holder provided.
- Never pull the mains plug out of the socket by the connecting lead.
- Never move the appliance by pulling by the connecting lead.
- If the mains plug has come into contact with water it must be dried before inserting it into the socket. Danger to life.
- Damaged mains plugs or connecting leads are to be replaced by authorised personnel before the appliance is reused.
- Do not use any extension leads in wet and damp areas.
- The crockery temperatures can exceed the permitted maximum temperatures of 149°F (65°C) for touchable appliance surfaces. Always wear protective gloves when dispensing. Risk of burning.

- Plastic crockery, top and bottom parts of plastic insulated sets and plastic-coated items for keeping food warm should not be stored or warmed up in heated banquet trolleys. Owing to the high temperatures in the interior of the appliance, the plastics can melt and catch fire.

2.4 Safety Instructions for Transport

The following points are to be observed when transporting the banquet trolley:

- When loading, use only hoists and load lifting devices approved for the weight of the parts to be lifted.
- Use transport vehicles that are approved for the weight of the banquet trolley.
- In no case put a defective appliance into operation and inform the supplier immediately.

2.5 Safety Instructions for Cleaning and Care

The following points shall be observed when carrying out any cleaning and maintenance operations:

- Take the banquet trolley out of operation, switch it off, pull out the mains plug and secure against unauthorised reactivation before performing cleaning and care measures.
- For reasons of hygiene the cleaning instructions shall be strictly observed.
- Heated appliances must be out of operation and sufficiently cooled before cleaning.

2.6 Safety Instructions for Trouble Shooting

The following points shall be observed when carrying out any trouble shooting operations:

- The local applicable Accident Prevention Regulations must be observed.
- Take the banquet trolley out of operation, switch it off, pull out the mains plug and secure against unauthorised reactivation before performing maintaining or trouble shooting operations. When operating on the electrical installation, the appliance is to be switched off at the mains and secured against reactivation. This work must only be carried out by a certified electrician.
- Observe the valid product safety regulations when handling oils, greases and other chemical substances.
- Wear suitable protective clothing when carrying out any maintaining or trouble shooting operations.
- Carry out all the checks and inspections of the appliance on a regular basis. Remedy immediately deficiencies, such as loose screw connections, melted or damaged leads.
- All trouble shooting work should only be carried out by authorised specialists.
- Defective components should only be replaced with original parts.

2.7 Notes on Specific Hazards

Electrical energy

- All work on the electrical installations should only be carried out by a certified electrician or by authorised specialists under supervision and monitoring of a certified electrician according to the certain electro-technical regulations.
- The appliances that inspection, maintenance and trouble shooting work is performed on must be switched voltage free on and secured against reactivation, when the voltage is not required for this kind of work. This must only be carried out by a certified electrician.

3 Description and Technical Data

3.1 Performance Description

Banquet trolleys are intended for hygienic transportation of food in the food service industry and large-scale catering establishments. Their main function is to transport for short distances and to keep food warm. They hold up prepared meals in gastronorm containers or already portioned and covered meals on grids.

The unheated banquet trolley BKW1/23 L-GN is designed for transport of gastronorm containers, gastronorm grids and prepared trays with warm or cold meals for short distances.

Heated banquet trolleys are designed to keep food warm and to transport hot food in gastronorm containers or portioned meals.

The models BKW1/14 L-GN+5PK and BKW1/28 B-GN+10PK include an additional insulated compartment that can be used together with a cold storage plate as a cooling compartment. So you can transport either warm or chilled meals simultaneously.

3.2 Intended Use

Banquet trolleys are only intended to hold up gastronorm containers with prepared food or already portioned meals on grids. They transport prepared food already portioned on crockery items ready for serving in the food service industry and large-scale catering establishments.

The intended use means the predetermined procedures, compliance with the indicated specifications and use of the delivered or additionally available original accessories.

Any other use of the appliance is considered as unintended use.

3.3 Improper Use

Any other use, especially loading of the banquet trolley with the other loads as given, is not permitted.

It is not permitted to cook food.

Transport of living beings, heavy and sharp-edged items, loose crockery items or stacks of crockery items is not permitted.

Banquet trolleys are not intended to be used as a seating surface or as a storing surface for items. In no case may people sit down or stand on or in to the appliance.

The manufacturer and suppliers are not liable for any consequential damages resulting from an unintended use. No liability is assumed and no warranty claims can be submitted for damages caused by improper use.

3.4 Appliance Description

3.4.1 BKW1/14 L-GN | BKW1/20 L-GN | BKW 1/36 B-GN

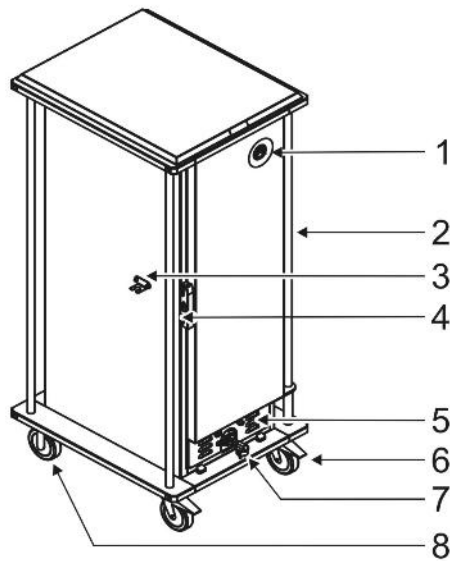


Figure 1 View of the heated banquet trolley

- | | | | |
|---|-----------------------|---|--------------------------------|
| 1 | Temperature display | 5 | Heating panel |
| 2 | Push bar | 6 | Swivel caster with total brake |
| 3 | Holder for mains plug | 7 | Mains plug |
| 4 | Door opener | 8 | Fixed caster |

3.4.2 BKW1/14 L-GN+5P | BKW1/28 B-GN+10PK

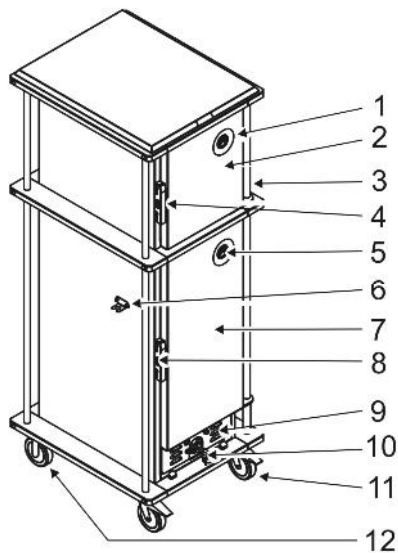


Figure 2 View of the heated banquet trolley with neutral compartment

- | | | | |
|---|-----------------------|----|--------------------------------|
| 1 | Temperature display | 7 | Heated compartment |
| 2 | Insulated compartment | 8 | Door opener |
| 3 | Push bar | 9 | Heating panel |
| 4 | Door opener | 10 | Mains plug |
| 5 | Temperature display | 11 | Swivel caster with total brake |
| 6 | Holder for mains plug | 12 | Fixed caster |

3.4.3 BKW1/23 L-GN

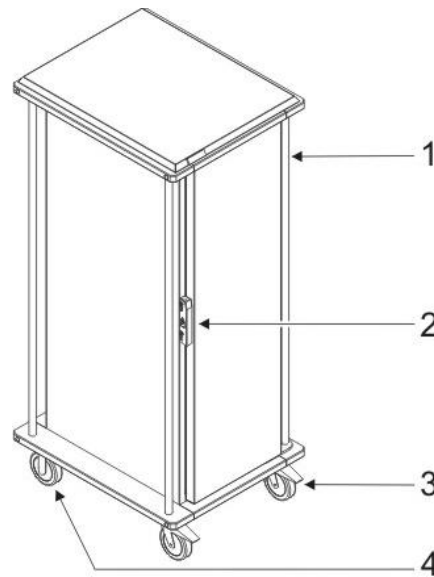


Figure 3 View of the neutral banquet trolley

- | | | | |
|---|-------------|---|--------------------------------|
| 1 | Push bar | 3 | Swivel caster with total brake |
| 2 | Door opener | 4 | Fixed caster |

3.4.4 Appliance description

The banquet trolley is made of stainless steel and its surface is polished.

The appliance is equipped with a door on the front side. The removable support ledge frames are fitted on the sides in the interior of the appliance to put the Gastronorm containers and/or grids.

The banquet trolley is equipped with two fixed and two lockable swivel casters with total brakes. The banquet trolley is suitable for transport over carpets owing to a particular size of casters fitted with special tyres.

The double-walled folding door is a thermal and sound insulation and you can swing it to an angle of 270° and lock.

Two circumferential protective strips protect the appliance against damages when moving and transporting it. The push bars of all the banquet trolleys (except BKW1/36 B-GN and BKW1/28 B-GN+10PK) move backwards with respect to the outer contour. This protects fingers sufficiently when holding the handles between impact protection and push bars in such a way that there is no risk of injury when hitting, for instance, rough walls.

The neutral banquet trolley BKW1/23 L-GN does not have a heating device.

Heated banquet trolleys (BKW1/14 L-GN, BKW1/20 L-GN and BKW1/36 B-GN) are equipped with a heating unit with a circulating air blower and a water tank. This generates a uniform circulating stream of moist hot air in the interior of the trolley that prevents food from drying out. Water in the water tank (700 ml) is sufficient for approx. 3,5 operating hours.

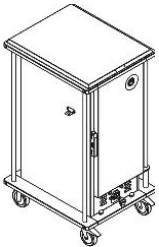

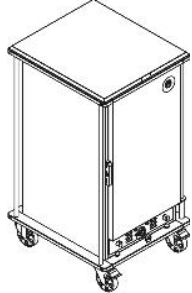
The operating temperature is to be set continuously by means of a rotary thermostat between 30 °C and 95 °C. The temperature will be displayed on the display arranged on the door of the banquet trolley. The circulating air blower runs independently of the heating during the complete operation.

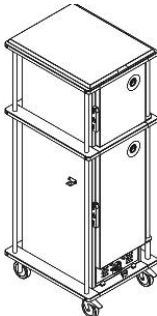
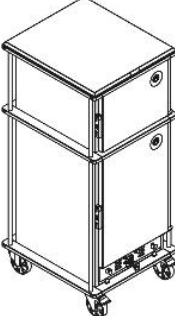
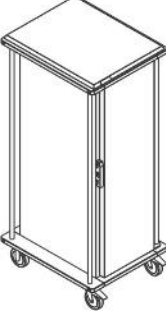
The models BKW1/14 L-GN+5PK and BKW1/28 B-GN+10PK are equipped with an additional insulated compartment above the heat area. This compartment can be equipped additionally with a cold storage plate to be able to keep the temperature constant in the interior of the compartment for approx. 4 hours at approx. 4°C when the ambient temperature is approx. 25°C.

If it is intended to transport the banquet trolley by lorry, a transport securing device available at [HUPFER®](#) can be used. This additional option must be indicated when ordering.

It is possible to fasten the appliance without causing any damages and transport it safely by lorry due to the safety holders and reinforced side walls of the banquet trolley.

3.5 Technical Data

	Dim.	BKW 1/14 L-GN	BKW 1/20 L-GN	BKW 1/36 B-GN
				
Width	in (mm)	25.2" (640)	25.2" (640)	31.3" (795)
Depth	in (mm)	30.5" (775)	30.5" (775)	35.2" (895)
Height	in (mm)	51.5" (1309)	65" (1654)	62" (1573)
Own weight	lbs (kg)	218 (99)	258 (117)	308.5 (140)
Payload	lbs (kg)	154 (70)	220.5 (100)	397 (180)
Capacity (related to grids with the basic size GN1/1 325x530 mm, that of the GN containers is correspondingly smaller)		14 grids	20 grids	36 grids
Ledge spacing of the support ledge frames	in (mm)	2.3" (57.5)	2.3" (57.5)	2.3" (57.5)
Operating and environmental conditions of casters	°F (°C)	- 4 to +122 (-20 to +50)	- 4 to +122 (-20 to +50)	- 4 to +122 (-20 to +50)
Caster diameter	in (mm)	5" (125)	5" (125)	6.3" (160)
Nominal current	A	7	7	7
Nominal voltage	V	230	230	230
Frequency	Hz	50	50	50
Power requirement	W	1600	1600	1600
Protection class		IPX4	IPX4	IPX4
Thermostat setting	°F (°C)	86-203 (30-95)	86-203 (30-95)	86-203 (30-95)
Temperature regulation		continuous	continuous	continuous
Maximum crockery temperature	°F (°C)	176 (80)	176 (80)	176 (80)

	Dim.	BKW 1/14 L-GN+5PK	BKW1/28 B-GN+10PK	BKW1/23 L-GN
				
Width	in (mm)	25.2" (640)	31.3" (795)	25.2" (640)
Depth	in (mm)	30.5" (775)	35.2" (895)	30.5" (775)
Height	in (mm)	73.1" (1858)	74.5" (1892)	65" (1654)
Own weight	lbs (kg)	328.5 (149)	423 (192)	238 (108)
Payload	lbs (kg)	154 (70) heated, 55 (25) neutral	308.5 (140) heated, 110 (50) neutral	253.5 (115)
Capacity (related to grids with the basic size GN1/1 12.8x20.8" (325x530) mm, that of the GN containers is correspondingly smaller)		heated: 14 grids neutral: 5 grids	heated: 28 grids neutral: 10 grids	neutral: 23 grids
Ledge spacing of the support ledge frames	in (mm)	heated: 2.3" (57,5) neutral: 2.8" (72)	heated: 2.3" (57,5) neutral: 2.8" (72)	neutral: 2.3" (57,5)
Operating and ambient conditions	°F (°C)	- 4 to +122 (-20 to +50)	- 4 to +122 (-20 to +50)	- 4 to +122 (-20 to +50)
Caster diameter	in (mm)	5" (125)	6.3" (160)	5" (125)
Nominal current	A	7	7	-
Nominal voltage	V	230	230	-
Frequency	Hz	50	50	-
Power requirement	W	1600	1600	-
Protection class		IPX4	IPX4	-
Thermostat setting	°F (°C)	86-203 (30-95)	86-203 (30-95)	-
Temperature regulation		continuous	continuous	-
Maximum crockery temperature	°F (°C)	176 (80)	176 (80)	-

The corresponding test marks can be found on our home page at www.hupfer.de.

3.6 Rating Plate

The rating plate is at the bottom right on the rear side of the banquet trolley.

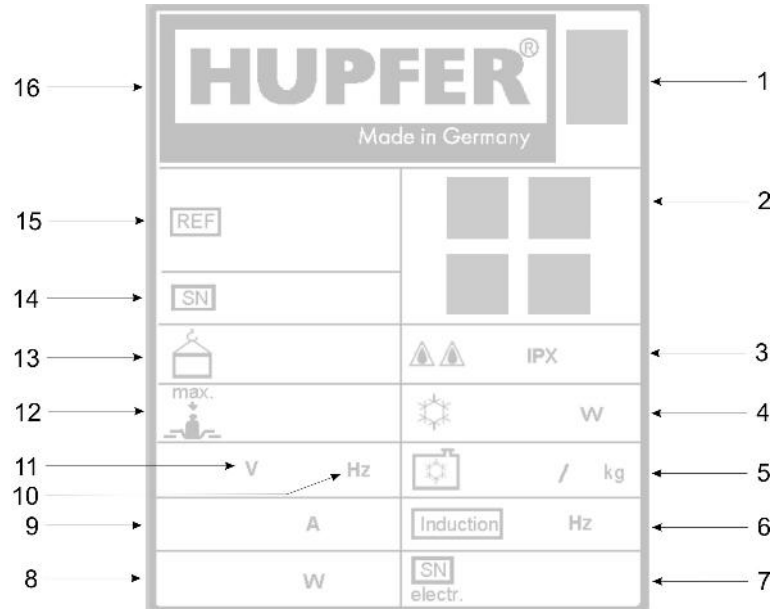


Figure 4 Rating plate

- | | | | |
|---|----------------------------|----|----------------------------|
| 1 | Disposal of old appliances | 9 | Nominal current |
| 2 | Test mark | 10 | Frequency |
| 3 | Protection class | 11 | Nominal voltage |
| 4 | Chilling capacity | 12 | Payload |
| 5 | Coolant | 13 | Own weight |
| 6 | Induction frequency | 14 | Serial number/Order number |
| 7 | Current serial number | 15 | Item and brief description |
| 8 | Electric power | 16 | Manufacturer |

4 Transport, Putting into Operation and Decommissioning

4.1 Transport

ATTENTION

Appliance damages caused by improper transport



In the case of off-site transport in a vehicle such as a lorry, the appliances should be secured properly. The total brakes are not sufficient as a transport securing method.

If the appliances are not secured properly, there is a risk of damage to property and persons caused by squashing.

During transport, secure all the individually standing appliances using corresponding transport securing devices. If it is possible, use the transport securing device available at **HUPFER®** to be able to fasten the banquet trolley in the lorry without causing any damages.

The banquet trolley is delivered as an assembled unit, i.e. it is completely assembled including the heating elements.

When loading, use only hoists and load lifting devices approved for appliances 1,5 times heavier than the banquet trolley to be lifted. Only the transport vehicles may be used that are approved for the weight of the appliance.

According to the valid purchase contract, the scope of delivery is specified in the shipping documents attached to the delivery item.

4.2 Putting into Operation

DANGER

Hazardous electrical voltage



The electrical voltage may be considerably dangerous to limb and life of persons and lead to injuries.

Before putting the appliance into operation check, whether the power supply indicated on the rating plate (230V / 50 Hz) corresponds to the local power supply. Otherwise, do not put the appliance into operation.

Do not use any extension leads in wet areas.

The banquet trolley, especially the safety equipment, must be checked for external visible damages and defects whenever it is put into operation. In case of damages, inform immediately the competent bodies and do not put the banquet trolley into operation.

Remove the original packing and check, whether the appliance is complete and undamaged. In no case put a defective appliance into operation and inform the supplier immediately.

Always place the banquet trolley on firm and level floors when unpacking and operating it. Apply the total brakes on both swivel casters to secure the appliance against rolling away.

INFO

Disposal of packing material

The packing consists of recyclable materials and can be disposed of appropriately. Thereby, the different materials are to be separated and disposed in an environmentally compatible manner. In any case, the local bodies responsible for disposal are to be involved for this purpose.

The interior and exterior of the banquet trolley should be thoroughly cleaned with a soft cloth before putting it into operation for the first time.

Finally, it is necessary to check whether the appliance functions properly.

The following functions are to be checked separately:

- In all the appliances: the function of the total brake.
- In the heated appliances: the function of the operating elements and heating.

Before the appliance is put into operation it must be clean and dry.

4.3 Storage and Recycling

Temporary storage must take place in a dry and frost-free environment. The banquet trolley must be kept covered with a suitable covering material to be protected against dust ingress.

The appliance kept in the storage location must be checked for damages and corrosion every 6 months.

NOTE	Condensed water formation
	Ensure that there is sufficient ventilation and no large temperature fluctuations in the storage location to avoid condensed water formation.

Before the appliance is taken back into operation it must be clean and dry.

If the banquet trolley is required to be recycled, all the operating and auxiliary materials must be disposed in an environmentally compatible manner. The recyclable materials must be properly separated and disposed in an environmentally compatible manner according to the local Waste Disposal Regulations. In any case, the local bodies responsible for disposal are to be involved for this purpose. Separate the reusable materials of the appliance (casters and plastic parts) before disposing or send the appliance to a recycling centre. Dispose the electronics at corresponding collection centres.

We offer our customers to dispose their waste appliances. Please contact us or one of our distribution partners.

Packaging and packing material can be sent to the recycling centre by indicating the waste disposal contract number. If you do not have the valid waste disposal contract number, you can ask for it at [HUPFER®](#) - Service.

5 Operation

ATTENTION

Appliance damages



Fully loaded banquet trolleys on very uneven floors and steep slopes can lose their balance and tip over.

Only move the banquet trolley over even floors.

If the banquet trolley tips over due to outside influences or inattention, never catch it manually.

The banquet trolley, especially the safety equipment, must be checked for external visible damages and defects whenever it is put into operation. In case of damages, inform immediately the competent bodies and do not put the banquet trolley into operation.

5.1 Arrangement and Function of the Operating Elements

The operating elements of the heated banquet trolley are arranged under the door on the panel of the heating unit.

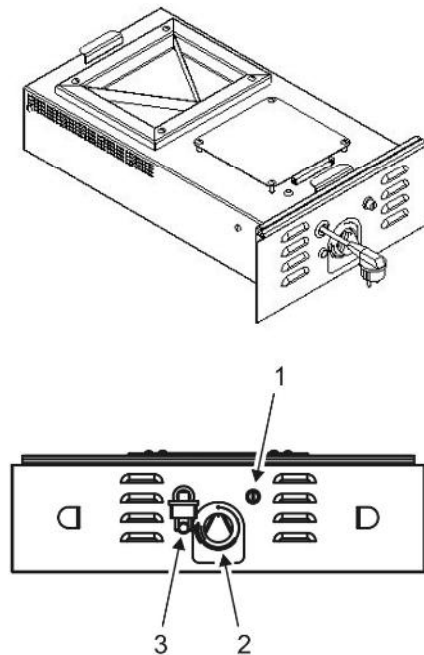


Figure 5 Heating unit with operating elements

- 1 Button of the safety thermostat
- 2 Thermostat knob
- 3 Control lamp

Position digit	Operating element	Function										
1	Button of the safety thermostat	Springs out, if the safety thermostat has been triggered.										
2	Thermostat knob	Controls heating and maintains the selected temperature. The levels of the thermostat knob correspond to the following temperatures: <table border="0"> <tr> <td>0</td> <td>off</td> </tr> <tr> <td>1</td> <td>approx. 77°F (25°C)</td> </tr> <tr> <td>2</td> <td>approx. 122°F (50°C)</td> </tr> <tr> <td>3</td> <td>approx. 167°F (75°C)</td> </tr> <tr> <td>4</td> <td>approx. 203°F (95°C).</td> </tr> </table>	0	off	1	approx. 77°F (25°C)	2	approx. 122°F (50°C)	3	approx. 167°F (75°C)	4	approx. 203°F (95°C).
0	off											
1	approx. 77°F (25°C)											
2	approx. 122°F (50°C)											
3	approx. 167°F (75°C)											
4	approx. 203°F (95°C).											
3	Control lamp	Light is on, if the heating runs and functions properly. If the temperature has been achieved, the control lamp goes off.										

5.2 Operation

5.2.1 Heated banquet trolleys

WARNING

Risk of hot surfaces



If the thermostat is set to the level 3 and higher, the permitted maximum temperature of 149°F (65°C) for touchable appliance surfaces can be exceeded. This can cause burns.

The appliance set to the level 4 may only be operated by an instructed staff. Wear suitable protective clothing.

WARNING

Danger of escaping steam



Hot steam can escape when opening the door. Risk of burning.

Please stay at a safe distance and wait until the steam has volatilised.

Step 1: Filling the thermal module

The thermal module of the heating unit must be filled with water before each operation.

- Pull the mains plug out.
- Lift the panel of the heating unit by handles of the module and pull it out. Alternatively, you can unscrew the water tank.
- Fill the thermal module with 25 oz (700 ml) cold water.
- Insert the panel of the heating unit back or screw tight the thermal module.

INFO


Water supply

The amount of water in the thermal module is sufficient to supply the banquet trolley with moist hot air for approx. 3,5 operating hours.

Step 2: Set temperature


There are the thermostat knob, red button of the safety thermostat, control lamp and the connecting lead arranged on the panel of the removable heating unit.

- Connect the banquet trolley to the mains.
- Set the desired temperature using the thermostat knob.

WARNING	Risk of hot surfaces
	<p>If the thermostat is set to the level 3 and higher, the permitted maximum temperature of 149°F (65°C) for touchable appliance surfaces can be exceeded. This can cause burns.</p> <p>The appliance set to the level 4 may only be operated by an instructed staff. Wear suitable protective clothing.</p>
INFO	Operating temperature
	<p>A temperature of approx. 203°F (95°C) is recommended for a normal operation. If the interior of the banquet trolley is empty, the operating temperature will be reached in approx. 25 minutes.</p>

Step 3: Loading

After the operating temperature has been reached, the banquet trolley can be loaded with hot food in the gastronorm containers or meals already portioned on the grids.

WARNING	Danger of escaping steam
	<p>Hot steam can escape when opening the door. Risk of burning.</p> <p>Please stay at a safe distance and wait until the steam has volatilised.</p>
NOTE	Inserting the gastronorm containers
	<p>Leave a space of at least 45 mm between the bottommost gastronorm container and the upper edge of the thermal module to avoid heat accumulation.</p>

- Load the banquet trolley quickly. Ensure that the door does not remain open unnecessarily to keep heat loss as low as possible during the loading.
- Leave the appliance connected to the mains after it has been loaded until the operating temperature is reached again. The control lamp on the switch panel switches off when the temperature is reached.

Step 4: Moving

- Switch off the banquet trolley using the thermostat knob.
- Pull out the mains plug and insert it into the plug park provided on the banquet trolley.
- Release the total brakes.
- Push or pull the banquet trolley to the destination place.
- Apply both total brakes and make sure they are locked and the banquet trolley cannot be moved.
- Connect the banquet trolley to the mains.

Step 5: Unloading

WARNING



Danger of escaping steam

Hot steam can escape when opening the door. Risk of burning.
Please stay at a safe distance and wait until the steam has volatilised.

- Select the temperature range using the thermostat knob and switch again the heating on.
- We recommend a temperature of approx. 203°F (95 °C). Set to the maximum level about 10 minutes prior to serving meal and keep this setting until the end of serving.
- Proceed with serving as quickly as possible.
- If you are supposed to interrupt the serving procedure, close the door immediately!

5.2.2 Neutral banquet trolley

Step 1: Loading

- Put gastronorm containers or portioned meals on grids into the banquet trolley. When doing this, ensure that the door does not remain open unnecessarily to keep heat loss as low as possible during the loading.

Step 2: Moving

- Release the total brakes.
- Push or pull the banquet trolley to the destination place.
- Apply both total brakes and make sure they are locked and the banquet trolley cannot be moved.

Step 3: Unloading

- Proceed with serving.
- If you are supposed to interrupt the serving procedure, close the door.

5.3 Measures at the End of Operation

5.3.1 Heated banquet trolleys

To switch off the heated banquet trolley, proceed as follows:

- Switch off the heating using the thermostat knob.
- Pull out the mains plug and insert it into the plug park provided on the banquet trolley.
- Apply both total brakes in order to secure the appliance against unintended movement.
- Allow the thermal module of the banquet trolley to cool down and drain it.

5.3.2 Heated banquet trolleys

- To bring the neutral banquet trolley to a standstill, apply both total brakes in order to secure the appliance against movement.

6 Fault Detection and Troubleshooting

6.1 Security Measures

DANGER

Hazardous electrical voltage



The electrical voltage may be considerably dangerous to limb and life of persons and lead to injuries.

Before looking for faults, switch off the appliance at the mains. Pull out the mains plug and insert it into the plug park provided on the banquet trolley.

6.2 Notes on Trouble Shooting

Please contact our service partners in case of malfunctions and complaints within the warranty period. Even after the warranty period is expired you can have necessary repair work done by our service partners and certified electricians.

Service work should only be carried out by authorised specialist staff.

Defective components should only be replaced with **HUPFER®** original parts. The modular design simplifies the replacement of individual components.

In the event of after-sales service and when ordering spare parts specify always the data and corresponding part number given in the rating plate.

Regular inspection and maintenance of the appliance prevent disruptions to operation and ensure safety.

6.3 Fault and Action Table

Fault	Possible cause	Action
Running noise of casters	Defective caster bearings	Replace the casters.
	Sticky surface of the casters	Clean the casters with water.
Safety thermostat gets triggered the heating switches off, the control lamp goes off and the small red button of the safety thermostat on the heating panel springs out.	Temperature sensor is damaged or broken	Inform service partners and certified electricians.
	Overheating of the banquet trolley	Allow the appliance to cool down. Press in the red button to switch again the heating on. Observe the temperature display and control by means of the control lamp, whether the heating will switch off when the set temperature is achieved. If this does not happen or the safety thermostat triggers again, there is a fault. Inform service partners and certified electricians.

7 Cleaning and Care

7.1 Security Measures

DANGER

Hazardous electrical voltage



The electrical voltage may be considerably dangerous to limb and life of persons and lead to injuries.

Before cleaning, switch off the appliance at the mains. Pull out the mains plug and insert it into the plug park provided on the banquet trolley.

WARNING

Risk of hot surfaces



The heated appliances can become hot during operation and only cool down slowly in the air.

For cleaning, open the door of the appliance and let it cool down sufficiently.

WARNING

Danger of escaping steam



Hot steam can escape when opening the door. Risk of burning.

Please stay at a safe distance and wait until the steam has volatilised.

7.2 Hygiene Measures

The correct behaviour of the operating staff is decisive for optimal hygiene.

All persons must be informed about the locally valid hygiene regulations, observe them and comply with them.

Stick a waterproof plaster to cover wounds on the hands and arms.

Never sneeze or cough on clean crockery or meals.

7.3 Cleaning and Care

If the banquet trolleys are handled with care, cleaned and maintained on a regular basis are not exposed to excess moisture, they do not require any additional care measures.

The interior of the trolley should be cleaned regularly, at the latest every 25 operating hours, to ensure a hygienically perfect operation.

To clean thoroughly and quickly, wipe the interior of the banquet trolley with a soft cloth. Use for cleaning a soft cleaning cloth or an uncoated sponge. Use degreasing liquid cleansers that are approved for food industry.

To clean the heated banquet trolley, proceed as follows:

- Switch off the appliance. Pull out the mains plug and insert it into the holder located on the banquet trolley.
- Open the door.
- Let the interior to cool down.
- Lift up the support ledge frames and take out from the holders.
- Wipe the interior and exterior panelling, heating unit and grids.

The heating unit shall not be splashed with water in any case. This is applied especially to the area with the electrical components.

Never use high-pressure cleaner, chloride-containing cleaning agents, abrasive cleaning powder or other dry cleaning agents, steel wool, steel sponges and/or sharp-edged items.

The neutral banquet trolley

Table of care measures

Cleaning and care measures	Action	daily	weekly	monthly	interval
Interior of the banquet trolley	clean				x ¹
ball bearing mounted casters pivoted on the axle	lubricate				x ²
Connecting lead: mechanical damages and obsolescence	check				x ³
Mains plug: mechanical damages and obsolescence	check				x ³

x¹ = if necessary, every 25 operating hours at the latest

x² = every 2 months

x³ = every 6 months

7.4 Special Care Instructions

The resistance to corrosion of stainless steels is based on a passive layer which is formed on the surface when oxygen is admitted. The oxygen in the air is sufficient for the formation of the passive layer, so that faults or damage to the passive layer can be remedied again automatically by mechanical action.

The passive layer develops or reforms more quickly when the steel comes into contact with flowing water containing oxygen. The passive layer can be chemically damaged or disrupted by agents having a reducing (oxygen-consuming) action when the steel comes into contact with them in concentrated form or at high temperatures.

Such aggressive substances are for example:

- substances containing salt and sulphur
- chlorides (salts)
- seasoning concentrates (e.g. mustard, vinegar essence, seasoning cubes, saline solution)

Further damages can occur due to:

- extraneous rust (e.g. from other components, tools or rust film)
- iron particles (e.g. grinding dust)
- contact with non-ferrous metals (element formation)
- lack of oxygen (e.g. no admission of air, low-oxygen water).

General working principles for the handling of appliances made of "refined stainless steel":

- Always keep the surface of appliances made from stainless steel clean and accessible to the air.
- Use cleaning agents suitable for stainless steel. No bleaching and chloride-containing cleaning agents should be used.
- Remove layers of lime scale, grease, starch and egg-white daily by cleaning. Corrosion can occur underneath these layers due to lack of air admission.
- After each cleaning operation remove all cleaning agent residues by wiping thoroughly. Afterwards, the surface should be thoroughly dried.
- Do not bring parts made from stainless steel into contact with concentrated acids, seasonings, salts etc. for longer than is absolutely necessary. Acid fumes which generate during cleaning of tiles also promote the corrosion of "refined stainless steel".

- Avoid damaging the surface of the stainless steel, particularly by metals other than stainless steel.
- Residues of extraneous metals produce extremely small amounts of chemical elements which can cause corrosion. In any case, contact with iron and steel should be avoided because that leads to extraneous rust. If stainless steel comes into contact with iron (steel wool, steel particles from pipes, water containing iron), this can be a trigger for corrosion. Therefore, for mechanical cleaning use exclusively refined steel wool or brushes with natural, plastics or refined steel bristles. Steel wool or brushes with unalloyed steel lead to extraneous rust due to abrasion.

8 Spare Parts and Accessories

8.1 Introduction

Service work should only be carried out by authorised specialist staff.

Defective components should only be replaced with **HUPFER®** original parts. That is the only way to guarantee a safe operation and long service life together with a high transport capacity.

In the event of after-sales service and when ordering spare parts specify always the data and corresponding part number given in the rating plate.

Always give the order number and corresponding part number when ordering replacement parts. The order number is given on the rating plate of the banquet trolley.

Always stockpile a full set of replacement parts as a reserve or make a maintenance contract with a specialised dealer to avoid standstill times.

8.2 Spare Parts and Accessories List

BKW1/23 L-GN

Spare part, part number	Item designation	Type	Q-ty
4164026	Closing element	PA6 182/35/28 black	1
014164029	Pin	for closing element	1
91157180	Extension for drain plug	spring-loaded PA6 Ø29/28 sw	1
4002973	Silicone profile	Lip seal, yard goods	1
4000400	Fixed caster	Polymer P3/125	2
4000402	Swivel caster	Polymer P3/125 m.F.	2

BKW1/14 L-GN | BKW1/20 L-GN

Spare part, part number	Item designation	Type	Q-ty
4164026	Closing element	PA6 182/35/28 black	1
014164029	Pin	for closing element	1
91157180	Extension for drain plug	spring-loaded PA6 Ø29/28 sw	1
4002973	Silicone profile	Lip seal, yard goods	1
4000400	Fixed caster	Polymer P3/125	2
4000402	Swivel caster	Polymer P3/125 m.F.	2
91089438	Thermometer	0-120°C (68-230°F)	1
91177229	Safety temperature limiter	180°C 1Ö KI.1500	1
91090164	Indicator lamp	230V AC green	1
4001203	Thermostat	30-115°C 1S / switch 2S UL	1
4001507	Lead	Wend H07BQ-F 3G1,5/2500 WS-DEFH	1
4001401	Fan	Axial 80/80/38 230VAC 50Hz 12,5W	1
91024188	Heating element	4404 Ø6,4/2307 230V 1600W	1
4001400	Fan	Radial 230VAC 50Hz 32W	1
91093679	Switch	with double break	1

BKW1/36 B-GN

Spare part, part number	Item designation	Type	Q-ty
4164026	Closing element	PA6 182/35/28 black	1
014164029	Pin	for closing element	1
91157180	Extension for drain plug	spring-loaded PA6 Ø29/28 sw	1
4002973	Silicone profile	Lip seal	1
4000152	Fixed caster	St galv. T1/160	2
4000151	Swivel caster	St galv. T1/160 m.F.	2
91089438	Thermometer	0-120°C (68-230°F)	1
91177229	Safety temperature limiter	180°C IÖ Kl.1500	1
91090164	Indicator lamp	230V AC green	1
4001203	Thermostat	30-115°C 1S / switch 2S UL	1
4001507	Lead	Wend H07BQ-F 3G1,5/2500 WS-DEFH	1
4001401	Fan	Axial 80/80/38 230VAC 50Hz 12,5W	1
91024188	Heating element	4404 Ø6,4/2307 230V 1600W	1
4001400	Fan	Radial 230VAC 50Hz 32W	1
91093679	Switch	with double break	1

BKW 1/28 B-GN+10PK

Spare part, part number	Item designation	Type	Q-ty
4164026	Closing element	PA6 182/35/28 black	2
014164029	Pin	for closing element	1
91157180	Extension for drain plug	spring-loaded PA6 Ø29/28 sw	2
4002973	Silicone profile	Lip seal	2
4000152	Fixed caster	St galv. T1/160	2
4000151	Swivel caster	St galv. T1/160 m.F.	2
91089438	Thermometer	0-120°C (68-230°F)	2
91177229	Safety temperature limiter	180°C IÖ Kl.1500	1
91090164	Indicator lamp	230V AC green	1
4001203	Thermostat	30-115°C 1S / switch 2S UL	1
4001507	Lead	Wend H07BQ-F 3G1,5/2500 WS-DEFH	1
4001401	Fan	Axial 80/80/38 230VAC 50Hz 12,5W	1
91024188	Heating element	4404 Ø6,4/2307 230V 1600W	1
4001400	Fan	Radial 230VAC 50Hz 32W	1
91093679	Switch	with double break	1

BKW1/14 L-GN+5PK

Spare part, part number	Item designation	Type	Q-ty
4164026	Closing element	PA6 182/35/28 black	2
014164029	Pin	for closing element	1
91157180	Extension for drain plug	spring-loaded PA6 Ø29/28 sw	2
4002973	Silicone profile	Lip seal, yard goods	2
4000400	Fixed caster	Polymer P3/125	2
4000402	Swivel caster	Polymer P3/125 m.F.	2
91089438	Thermometer	0-120°C (68-230°F)	2
91177229	Safety temperature limiter	180°C 1Ö KI.1500	1
91090164	Indicator lamp	230V AC green	1
4001203	Thermostat	30-115°C 1S / switch 2S UL	1
4001507	Lead	Wend H07BQ-F 3G1,5/2500 WS-DEFH	1
4001401	Fan	Axial 80/80/38 230VAC 50Hz 12,5W	1
91024188	Heating element	4404 Ø6,4/2307 230V 1600W	1
4001400	Fan	Radial 230VAC 50Hz 32W	1
91093679	Switch	with double break	1